SPECIAL NOTICE

The abstract sections of the monthly supplements of *Aeronautical Engineering* can be bound separately. Individual abstracts can be located readily by means of the page numbers given at each entry, e.g., p 0559 A82-44940. To assist the user in binding Supplements SP-7037(145) through SP-7037(156), a title page is included in the back of this Cumulative Index.
A CUMULATIVE INDEX
TO
A CONTINUING BIBLIOGRAPHY ON

AERONAUTICAL ENGINEERING

This Cumulative Index supersedes the indexes contained in supplements [SP-7037(145) through SP-7037(156)] published by NASA during 1982.
This index is available as NTISUB/141/093 from the National Technical Information Service (NTIS), Springfield, Virginia 22161 at the price code of $10.00 domestic; $20.00 foreign.
INTRODUCTION

WHAT THIS CUMULATIVE INDEX IS

This publication is a cumulative index to the abstracts contained in NASA SP-7037(145) through NASA SP-7037(156) of Aeronautical Engineering: A Continuing Bibliography, NASA SP-7037, and its supplements have been compiled through the cooperative efforts of the American Institute of Aeronautics and Astronautics (AIAA), and the National Aeronautics and Space Administration (NASA). Entries prepared by the two contributing organizations are identified as follows:

1. NASA entries by their STAR accession numbers (N82-10000 series).
2. AIAA entries by their IAA accession numbers (A82-10000 series)

HOW THIS CUMULATIVE INDEX IS ORGANIZED

This Cumulative Index includes a subject, personal author, and corporate source index.

HOW TO USE THE SUBJECT INDEX

Two types of cross-references appear in the subject index:

1. Use (U) references indicate that the subject term is not "postable," i.e., not a valid term, and that the following term or terms are used instead. For example:
   - AIRCRAFT PROTUBERANCES
   - U PROTUBERANCES
   - FLIGHT PERFORMANCE
   - U FLIGHT CHARACTERISTICS

2. Narrower Term (NT) references refer the user to more specific headings in the same subject area, under which additional material on the subject may be found. For example:
   - FLOW RESISTANCE
     - NT AERO-DYNAMIC DRAG
     - NT FRICTION DRAG
     - NT SUPERSONIC DRAG

In addition, a searcher may use the title or title and title extension in the index to narrow further his quest for particular items, this is because subject terms can readily include more than one class of document. For example:

   AIRLINE OPERATIONS
   All-weather operations, including pilot role, instrument landing systems and guidance aids.
   Airport congestion as constraint on air travel, considering runway capacity and adjusted demand

illustrates a case where two references on different topics are listed under the same subject term

HOW TO USE THE PERSONAL AUTHOR INDEX

All personal authors used in the abstract-section citations in the individual Supplements appear in the index. Differences in translation schemes may require multiple searching of the index for variants of an author's name. For example:

   EMELIANOV, M. D.
   and
   YEMELYANOV, M. D.
HOW TO USE THE CORPORATE SOURCE INDEX

The corporate source index entries are abridged versions of the corporate sources used in the abstract-section citations in the individual Supplements. The corporate source supplementary (organizational component) does not appear in the index. For example:

BOEING CO., SEATTLE, WASH. MILITARY AIRCRAFT SYSTEMS DIV. (Source citation entry)
BOEING CO., SEATTLE, WASH. (Source index entry)

HOW TO USE THE CONTRACT NUMBER INDEX

All contract numbers that are identified in the abstract-section citations in the individual Supplements appear in this index. Changes by agencies in the style in which contract numbers are presented may require multiple searching for variants. For example:

AF 33(615)-71-C-1758
F33615-71-C-1758

HOW TO USE THE REPORT/ACCESSION NUMBER INDEX

All report numbers that have been assigned by the corporate source, monitoring agency or cataloging activity appear in this index. Variations in initial cataloging may result in different report number series. For example:

TP-924
ONERA-TP-924

IDENTIFICATION OF DESIRED SUPPLEMENT

The abstract and descriptive cataloging for any accession number selected from the indexes may be found in the appropriate Supplement. The page-number range of each Supplement appears on the inside front cover of this index. Once the range of page numbers containing the selected accession number is located in the second column, the desired Supplement number will be found in the first column. For example:

Page 559 will be found in Supplement 156.

AVAILABILITY OF DOCUMENTS

Information concerning the availability of documents announced in Aeronautical Engineering supplements is found in the Introduction to the most currently issued supplement.
<table>
<thead>
<tr>
<th>Subject Index</th>
<th>A-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Author Index</td>
<td>B-1</td>
</tr>
<tr>
<td>Corporate Source Index</td>
<td>C-1</td>
</tr>
<tr>
<td>Contract Number Index</td>
<td>D-1</td>
</tr>
<tr>
<td>Report/Accession Number Index</td>
<td>E-1</td>
</tr>
</tbody>
</table>
Aeronautical Engineering: A Continuing Bibliography

A-6 Aircraft
Harpoon missile captive-carry dynamic environments on the A-6 aircraft

A-7 Aircraft
Direct digital design method for reconfigurable multivariable control laws for the A-7 Digital II aircraft

A-10 Aircraft
Performance assessment of the ACES-II ejection seat-A-10 configuration

A-300 Aircraft
Gust load alleviation on Airbus A-300

Subject Index

Typical Subject Index Listing

A-6 Aircraft
Harpoon missile captive-carry dynamic environments on the A-6 aircraft

A-7 Aircraft
Direct digital design method for reconfigurable multivariable control laws for the A-7 Digital II aircraft

A-10 Aircraft
Performance assessment of the ACES-II ejection seat-A-10 configuration

A-300 Aircraft
Gust load alleviation on Airbus A-300

The title is used to provide a description of the subject matter. When the title is insufficiently descriptive of the document content, a title extension is added, separated from the title by three hyphens. The NASA or AIAA accession number is included in each entry to assist the user in locating the abstract. TheNASA or AIAA accession number is insufficiently descriptive of the document content, a title extension is added. The title is used to provide a description of the subject matter.

A-1
SUBJECT INDEX

The effect of barriers on wave propagation phenomena: With application for aircraft noise shielding
[HASA-CH-169128] p0530 H82-29111

ACOUSTIC CORROSION
2 CORROSION STABILITY

ACOUSTIC DUCTS

Impedance modeling of acoustic absorbing materials for aircraft engine applications
p0062 A82-14043

Influence of exit impedance on finite difference solutions of transient acoustic mode propagation in ducts
[ASME PAP 81-WA/ASA-13] p0235 A82-24602

The effect of induced sound on the flow around a rectangular body in a wind tunnel
p0276 A82-26194

Node scatterer design for fan noise suppression in two-dimensional ducts
p0551 A82-63002

The Rolls Royce role in aircraft noise reduction
--- jet engines, acoustic lining
[ASHE PAP 80-90069] p0319 H82-21230

Development of an analytical technique for the optimization of jet engine and duct acoustic liners
[HASA-CH-169002] p0409 H82-25256

Circumferentially segmented duct lines optimized for exasymmetric and standing wave sources ---- reducing noise from turbofan engines gallerine method acoustic attenuation
[HASA-CH-169128] p0618 H82-34190

ACOUSTIC EMISSION

Acoustic emission - An emerging technology for assessing fatigue damage in aircraft structure
p0013 H82-11149

BDE of composite rotor blades during fatigue testing
[ASHE-CH-712] p0235 A82-24713

Acoustic emission in jet engine fan blading
p0419 A82-35257

"Listening" systems to increase aircraft structural safety and reduce costs
p0492 A82-39539

Acoustic emission inspection of aircraft engine turbine blades for intergranular corrosion
p054a A82-41914

In-flight acoustic emission monitoring
p0548 A82-42665

Defense for free jets --- supersonic jets
p0359 H82-22962

ACOUSTIC EXCITATION

Development and validation of preliminary analytical models for aircraft interior noise prediction
p0484 A82-36077

Vibration of structures excited acoustically
p0307 H82-20243

Acoustic noise test as part of the dynamic qualification program in aercoplane
p0346 H82-22162

STOL aircraft structural vibration prediction free acoustic excitation
p0345 H82-22169

ACOUSTIC FATIGUE

Response of nonlinear aircraft structural panels to high intensity noise
p0018 A82-12041

On the sonic fatigue life estimation of skin structures at room and elevated temperatures
p0222 A82-23678

ACOUSTIC GENERATORS
U SOUND GENERATORS

ACOUSTIC IMPEDEANCE

Aircraft absorbers - Promix and practice --- sound attenuation
p0062 A82-14042

Impedance modeling of acoustic absorbing materials for aircraft engine applications
p0062 A82-14043

Influence of exit impedance on finite difference solutions of transient acoustic mode propagation in ducts
[ASME PAP 81-WA/ASA-13] p0235 A82-24602

ACOUSTIC MEASUREMENT

ST NOISE MEASUREMENT

Effects of vane/blade ratio and spacing on fan noise
[ASHE PAP 81-20333] p0008 A82-10057

Large scale model measurements of airborne noise using cross-correlation techniques

ACOUSTIC SCATTERING

Comparison of acoustic data from a 102 mm conic nozzle as measured in the HAS 20-foot wind tunnel and the NASA Ames 80- by 80-foot wind tunnel
[HASA-CH-71343] p0190 H82-16083

Analytical study of twin-jet shielding
[HASA-CH-165102] p0193 H82-16081

Analytical study of twin-jet shielding
[HASA-CH-165102] p0194 H82-16082

Analytical study of twin-jet shielding
[HASA-CH-165102] p0195 H82-16083

Analytical study of twin-jet shielding two-dimensional model
[HASA-CH-165102] p0196 H82-16086

Prediction of sound radiation from different practical jet engine inlets
[HASA-CH-165102] p0195 H82-16080

Chicago monostatic acoustic vortex sensing system.

Influence of exit impedance on finite difference solutions of transient acoustic mode propagation in ducts
[AD-A109827] p0309 H82-21041

Acoustic measurements of F-15 aircraft operating in hanghouse, HSR 4920-02-070-2721
[AD-A109828] p0309 H82-21042

Acoustic measurements of F-16 aircraft operating in hanghouse, HSR 4920-02-070-2722
[AD-A109829] p0310 H82-21043

Acoustic measurements of F-16 aircraft operating in hanghouse, HSR 4920-02-070-2723
[AD-A109829] p0310 H82-21043

Helicopter noise definition report UH-60A, S-76, H-109, 206-L
[AD-A116403] p0579 H82-32003

Effects of filter response on analysis of aircraft noise data
[AD-A116459] p0602 H82-33167

Acoustic similarity laws for centrifugal fans
p0602 H82-33172

ACOUSTIC PROPAGATION

The effect of non-linear propagation in jet noise
[ASHE PAP 82-0416] p0121 A82-17936

Influence of exit impedance on finite difference solutions of transient acoustic mode propagation in ducts
[ASME PAP 81-WA/ASA-13] p0235 A82-24602

Sonic fatigue testing of an advanced composite helicopter rotorblade
[ASHE PAP 81-6093] p0283 A82-26567

SBL and BPBL noise radiation coefficients for the 747 and T-38 aircraft
[HASA-CH-823216] p0042 H82-11860

Analytical study of twin-jet shielding
[HASA-CH-165105] p0194 H82-16084

ACOUSTIC PROPERTIES

MT ACOUSTIC IMPEDANCE
MT ACOUSTIC SCATTERING
MT ACOUSTIC VELOCITY
MT REVIBERATION

In-flight acoustic results from an advanced-design propeller at Mach numbers to 0.8
[ASHE PAP 82-1220] p0416 A82-35017

Evaluation of the acoustic measurement capability of the NASA Langley V/STOL wind tunnel open test section with acoustically absorbent ceiling and floor treatments
[HASA-CH-165796] p0300 A82-10059

Prediction of sound radiation from different practical jet engine inlets
[HASA-CH-165102] p0195 H82-16080

Effect of facility variation on the acoustic characteristics of three single stream nozzles
[HASA-CH-165102] p0270 H82-19944

Acoustic properties of turbofan inlets
[HASA-CH-169016] p0462 A82-27090

Flow and acoustic properties of low Reynolds number underexpanded supersonic jets
[HASA-CH-169257] p0557 H82-30288

Helicopter noise definition report SB-804, S-76, H-109, 206-L
[AD-A116363] p0579 H82-32003

ACOUSTIC SENSATION
U SOUND WAVES

ACOUSTIC SUPERFICIAL
Airport related residential acoustical insulation demonstration project: Report J720
[PB92-100777] p0268 H82-19396

ACOUSTIC SCATTERING
MT REVIBERATION
Scattering of sound by a vortex ring

A method for determination of the aeroelastic behavior of aircraft with active control systems

(ACTTA); design considerations

Aerosol scattering design for fan noise suppression in two-dimensional ducts

(DPLL-81-085)

Maneuver load control for the reduction of design loads and improvement of the maneuverability of modern fighter aircraft

(BMTO-FM01-2)

Design for active and passive flutter suppression and gust alleviation

(NASA-CR-3487)

Interactive aircraft flight control and aeroelastic stabilization --- forward swept wing flight vehicles

(NASA-CR-165036)

Acoustic simulation

Development of a control law for the alleviation of aircraft flutter suppression and gust alleviation based on the calculation of the physical index

(NASA-TM-76580)

Acoustic vibration

U.S. AIRCRAFT STRUCTURES

Effects of elastomer additives on the mechanical properties of epoxy resins and composite systems

(ACTTA); study of advanced aerodynamics and active controls technology to an advanced subsonic transport aircraft

(ACTTA-82-37789)

Initial actuation design study

(NASA-CB-159249)

Aircraft configuration design study

(NASA-CB-165939)

Aircraft configuration development on a derivative of the Airbus A300. Part 1: Explanation of a regular in the time zone of vibration isolation and examination of its effectiveness in stochastic gusts

(NASA-CP-172/S/PUB/39-PT-1)

The application of subsonic theoretical aerodynamics to active controls --- aircraft controls

(NASA-CP-32364)

Investigation of new piloting and flight control technologies. Volume 1: Review; active wings

(NASA-CP-32350)

Investigation of new piloting and flight control technologies. Volume 2: Aircraft with reduced lateral stability

(NASA-CP-32352)

A method for determining the aeroelastic behavior of aircraft with active control systems

(ESA-TT-719)

Guidance and control/AICE

Comparison of analytical and wind-tunnel results for flutter and gust response of a transport wing with active controls

(NASA-TP-2010)

CF6 jet engine performance improvement: High pressure turbine active clearance control

(NASA-CR-165556)

The shock and vibration Digest, volume 14, no. 7

(AD-A117323)

Active control technology in aircraft

(NASA-CR-32301)

Active control technology in aircraft

(NASA-CR-32303)

Selected advanced aerodynamics and active controls technology concepts development on a derivative of the B-747

(NASA-CR-3164)

Integrating application of active controls (IAC) technology to an advanced subsonic transport project. Initial ACT configuration design study

(NASA-CR-3304)

Active flutter suppression using optical output feedback digital controllers

(NASA-CR-165939)

Advanced flutter suppression systems in aeronautical applications (AACS) technology to an advanced subsonic transport project. Initial ACT configuration design study

(NASA-CR-155249)

Integrated application of active controls (IAC) technology to an advanced subsonic transport project. Conventional baseline configuration study

(NASA-CR-155248)

Advanced flutter suppression systems in aeronautical applications (AACS) technology to an advanced subsonic transport project. Conventional baseline configuration study

(NASA-CR-155248)

Active control elements on the transonic wing of the Airbus A-300 (ACTTA-A). Airbus A-300 with reduced longitudinal stability (ACTTA-C) --- advanced control transonic transport aircraft

(NASA-CP-32304)

Active control elements on the transonic wing of the Airbus A-300 (ACTTA-A). Airbus A-300 with reduced longitudinal stability (ACTTA-C) --- advanced control transonic transport aircraft
Considerations of open-loop, closed-loop, and adaptive multicyclic control systems

The use of adaptive control for helicopter trajectories in search operations

A multifrequency adaptive radar for detection and identification of objects - Results on preliminary experiments on aircraft against a sea-clutter background

Outline of a multiple-access communication network based on adaptive arrays

Adaptive control of aircraft nose/store flutter

Production weldbonding on the A-10 aircraft

Adhesive bonding

Light weight adhesive joining of composite structures

Compatibility of 350 deg curing honeycomb adhesives with phosphoric acid anodizing

Characterization of composition variations in a structural adhesive

Transition of aerospace adhesive bonding technology from R&D to operational use

Correlation of surface characterization of phosphoric acid anodize oxide with physical properties of bonded specimens

Automated ultrasonic inspection of adhesive bonded structures

Applications of structural adhesives in production

Practical design and realization of a digital adaptive flight control system

Role of optical computers in aeronautical control applications

Apparatus for damping operator induced oscillations of a controlled system - flight control

Effect on fuel efficiency of parameter variations in the cost function for multivariable control of a turbofan engine

Self-tuning regulator design for adaptive control

Control laws for adaptive wind tunnels

Electromechanical actuation and control system

An investigation of the effects of smoke suppressant fuel additives on engine and test cell exhaust gas optimality

An investigation of the effects of smoke suppressant fuel additives on engine and test cell operating conditions on the effectiveness of smoke suppressant fuel additives

Apparatus for damping operator induced oscillations of a controlled system - flight control

Active flutter suppression on an F-4F aircraft

Eigenspace techniques for active flutter suppression

Overview of Honeywell electromechanical actuation programs

Hydraulic actuator mechanism to control aircraft flight systems

Aircraft digital input controlled hydraulic actuation and control system

The influence of sensor and actuator characteristics on overall helicopter APCS design

Active flutter suppression in a hot gas, control-surface tubing and cable cutting tool

Electric flight systems integration

Electromechanical actuators

Slotted variable camber flap

Self-tuning regulator design for adaptive control

Control lavs for adaptive wind tunnels

Eigenspace techniques for active flutter suppression

Dynamic response of a hot gas, control-surface tubing and cable cutting tool

Hydraulic actuator mechanism to control aircraft flight systems

Electromechanical actuation development program

Electromechanical actuators

Slotted variable camber flap

Direct digital drive actuation

Electromechanical Actuation Development Program

Tubing and cable cutting tool

Aircraft digital input controlled hydraulic actuation and control system

The influence of sensor and actuator characteristics on overall helicopter APCS design

Slotted variable camber flap

Overview of Honeywell electromechanical actuation programs

Electrical flight systems integration

Electromechanical actuators

Electromechanical actuators

Direct digital drive actuation

A dual input actuator for fuselage backup flight control

ADAPTIVE COBTBOL SISTBHS

HI PBOPELLAHT ADDITIVES

AHTIOXIDABTS

ACBILIC BBSIBS

ADDITIOI BESIIS

ADBEBOHBTBBS

ADAPTIVE COBTBOL

ADAPTIVE ADDITIVES

ADHESIVE BOIDIBG
ADHESIVES

Fatigue behavior of adhesively bonded joints p0328 A82-29032
Bonded aluminum honeycomb - Aircraft flight
surface primary structure application (AIAA 82-0676)
p0338 A82-30145
Aeronautical applications of bonding
(SAEIAS-82-551-102) p0339 A82-15010
Laminar flow control SP/06 feasibility
demonstration (NASA-CH-165818) p0322 A82-21532
Develop, demonstrate, and verify large area
composite structural bonding with polyamide
adhesives - adhesively bonding
graphite-polyamide structures (NASA-CH-165839)
A82-26465
Titanium surface treatments for adhesive bonding
(AD-A114170) p0560 A82-30378

ADHESIVES

Addition polyamide adhesives containing various
crosslinkers and groups p0329 A82-29098
ADVANCED TECHNOLOGY LABORATORY

A unique integrated flight testing facility for
advanced control/display research
(AIAA PAPW 01-2490) p0058 A82-13919
AERIAL PHOTOGRAPH

AERIAL PHOTOGRAPHY

Three navigation systems and their costs of
acquiring remote sensing data p0061 A82-10049
Weather impact on low-altitude imaging infrared
sensors in Europe - An availability model
p0072 A82-18779
Current aerial cameras p0081 A82-15655
A VHFR mapping system with VHFR radiotelegraphy for
area-representative strip-survey flights conducted, as part of combined forest
inventory pilot campaigns, with light aircraft carrying 70 and
35 mm cameras p0082 A82-15748
A field guide for scanner and photographic missions
p0551 A82-43668
Loran-C navigation as an aid to aerial photographic operations
p0551 A82-43669
Photointerpretation key for pane regeneration
analysis using high-altitude color infrared, panoramic photography
(P882-164450) p0562 A82-30606
AERIAL RECONNAISSANCE

Offshore uses of the airship p0173 A82-20553
Studies of modern technology airships for maritime
patrol applications p0173 A82-20554
The airship - Its application and developmental
activity p0173 A82-20555
The uses of airships in the Royal Navy
p0173 A82-20556
A surveillance airship for the New Zealand
environment p0173 A82-20556
Analysis of side-looking airborne radar /SLAR/
performance in the detection of search and
rescue targets p0293 A82-27641
The utilization of aircraft in fighting forest
fires - French experience p0331 A82-29581
Cloud top remote sensing by airborne lidar
p0379 A82-32920
Opto-electronic push-broom scanners for navigation,
reconnaissance and generation of
digital data bases p0494 A82-29747
The optical recognition of sea targets as a
function of surrounding and observation
parameters in air to water observations
(BWAC-FMAT-81-10) p0167 A82-15930
Airborne gamma-ray spectrometer and magnetometer
survey. Itzlikpuk River quadrangle, Alaska, volume 2
(A822-000341) p0399 A82-24620
Airborne gamma-ray spectrometer and magnetometer
survey. Jamestown quadrangle, North Dakota,
volume 1 [A822-0004150] p0399 A82-26269
Airborne gamma-ray spectrometer and magnetometer
survey. Jamestown quadrangle, North Dakota,
volume 2 [A822-0004169] p0399 A82-26260
Airborne gamma-ray spectrometer and magnetometer
survey. Barrow quadrangle, Alaska, volume 2
(A822-000342) p0413 A82-25623
Some potential novel approaches to the automatic
airborne detection and identification of ground
targets p0477 A82-27296
Geophysical flight line flying and flight path
recovery utilizing the Litton LTN-76 inertial
navigation system [A822-000355] p0514 A82-29292
AERIAL RADAR

Design, fabrication and qualification of the Z-2
composite rudder p0495 A82-39894
Dynamic response of a hot gas, control-surface
actuator - for an aircraft rudder
[RMB-84-599-01-08] p0320 A82-21219
AEROACOUSTICS

Helicopter rotor trailing edge noise
(AIAA PAPW 01-2001) p0008 A82-10455
Design predictions for noise control in the
cryogenic National Transonic Facility
p0108 A82-12025
Workshop report for the AIAA 6th Aeroacoustics
Conference p0103 A82-16091
Aerospace highlights 1981
p0103 A82-16135
Scattering of sound by a vortex ring
p0104 A82-16148
The German-Dutch wind tunnel as aeroacoustic
experimental installation
p0110 A82-17136
Current investigations regarding noise research in the
Braunschweig Center of the German Institute
for Research and Experimentation in Aeronautics
and Astronautics p0111 A82-17137
High frequency sound emission from moving point
multipole sources embedded in arbitrary
transversely sheared mean flows
p0277 A82-26318
On the generation of side-edge flap noise
p0277 A82-26319
Comments on 'Nature of inlet turbulence and strut
flow disturbances and their effect on
turbomachinery rotor noise'
p0277 A82-26320
Model study based on various configurations of jet
forcing a cavity - Application to the CSBF 19
wind tunnel of CEPR
p0393 A82-33627
The prediction of helicopter rotor discrete
frequency noise
p0503 A82-40553
Helicopter model scale results of blade-vortex
interaction impulsive noise as affected by blade
planform
p0503 A82-40556
Aeroacoustic theory for noncompact wing-gust
interaction
[AIE-81-7] p0338 A82-11071
Acoustic fatigue endurance test of USF hash
structure models at elevated temperature
[AIAA-82-603] p0259 A82-19570
Aeroacoustic performance of an externally blown
flap configuration with several flap noise
suppression devices (NASA-TP-1995)
p0400 A82-24942
On the design and test of a low noise propeller
[NASA-CH-165938] p0462 A82-27089
The effect of barriers on wave propagation
phenomena: With application for aircraft noise
shielding (NASA-CH-169128)
p0530 A82-29111
Some comments on the prediction of forward flight
effects on jet noise
[AFIS-20/1981] p0531 A82-29118
Noise measurement in wind tunnels, workshop summary
[NASA-TM-84219] p0614 A82-34188
AERODYNAMIC AXIS

AERODYNAMIC BALANCE

A-6
AERODYNAMIC BALANCE
Development of new lifting parachute designs with increased trim angle  
[AIAA PAPER 81-2192] p0006 A82-10407
Application of the concept of dynamic truss control and nonlinear system inverses to automatic control of a vertical attitude takeoff and landing aircraft  
[AIAA 81-2238] p0007 A82-13466
Determination of the trimmed drag of an aircraft  
[AIAA 81-1658] p0127 A82-16583
Evaluation and wind tunnel tests of the 9,000 lb (normal-force) pitch/gas and roll dynamic stability balance system for measuring direct, cross, and cross-coupling derivatives  
[AD-A105122] p0085 A82-12007
Evaluation of an experimental technique to investigate the effects of the engine position on engine/pylon/wing interference  
[AIAA PAPER 81-13090
Experimental trim drag values for conventional and supercritical wings  
[NASA CR-168500] p0198 A82-17126
A general purpose program for rotor blade dynamics  
p248 A82-18151
The use of a multi-degree-of-freedom dual balance system to measure cross and cross-coupling derivatives  
[AD-A116811] p0538 A82-29333
AERODYNAMIC BLADES
U PLUNGE
U AERODYNAMIC CENTER
U AERODYNAMIC BALANCE
U AERODYNAMIC CHARACTERISTICS
U AERODYNAMIC BALANCE
U AERODYNAMIC DRAG
U AERODYNAMIC STABILITY
U INTERFERENCE DRAG
U INTERFERENCE LIFT
U JET LIFT
U LIFT
U BURT LIFT
U SUPERSONIC DRAG
U EXPERIMENTAL STUDY OF SUBSONIC AND TRANSONIC FLOWS PAST A WING
A study of subsonic and transonic flows past a wing  
p0005 A82-10363
Aerodynamics and performance of cruciform parachute canopies  
[AIAA PAPER 81-1919] p0006 A82-10405
Development of new lifting parachute designs with increased trim angle  
[AIAA PAPER 81-1921] p0006 A82-10407
Propfan installation aerodynamics of a supercritical swept wing transport configuration  
[AIAA 81-1561] p0099 A82-19466
Calculation of aerodynamic characteristics of jet-flapped airplane  
p0149 A82-11459
Divergence of a sweptforward wing  
p0535 A82-13560
HIAT aerodynamic design and flight test experience  
[AIAA PAPER 81-2423] p0555 A82-13071
The development of cryogenic wind tunnels and their application to maneuvering aircraft technology  
P0611 A82-13971
AD-1 oblique wing aircraft program  
[AIAA PAPER 81-1354] p0609 A82-13890
Symmetric flow characteristics of thin rectangular wings  
p1022 A82-16093
Experience with high performance V/STOL fighter projects at NBB  
[AIAA PAPER 81-2614] p0107 A82-16901
A summary of V/STOL inlet analysis methods  
[AIAA PAPER 81-2628] p0107 A82-16902
Advanced technology airfoil development for the XV-15 tilt-rotor vehicle  
[AIAA PAPER 81-1623] p0108 A82-16906
Trailing edge flap influence on leading edge vortex flap aerodynamics  
[AIAA PAPER 81-0215] p0115 A82-17799
Recent improvements in prediction techniques for supersonic weapon separation  
[AIAA PAPER 80-0170] p0116 A82-17820
An experimental investigation of the influence of vertical wind shear on the aerodynamic characteristics of an airfoil  
[AIAA PAPER 82-0214] p0117 A82-17863
Aerodynamics of tactical weapons to Mach number 8 and angle-of-attack of 180 deg  
[AIAA PAPER 82-0250] p0118 A82-17864
Viscous flow - Numerics of the theorician in pursuit of higher order accuracy  
[AIAA PAPER 82-0389] p0120 A82-17920
Evaluation of supersonic missile aerodynamic prediction techniques  
[AIAA PAPER 82-0360] p0120 A82-17920
Concerning the calculation of the aerodynamic characteristics of mechanized wings  
[AIAA PAPER 82-0360] p0120 A82-17920
Simplified wing procedures in connection with the lifting line theory and the doublet-lattice method  
[AIAA PAPER 82-18195
Use of high conical flow theory for the determination of the pressure distribution on the wave rider and its agreement with experimental results for supersonic flow  
[AIAA PAPER 82-19197
Ground effect hover characteristics of a large-scale twin tail-scowe V/STOL model  
[AIAA PAPER 81-2609] p0155 A82-19201
Thrust-induced effects on low-speed aerodynamics of fighter aircraft  
[AIAA PAPER 81-2612] p0155 A82-19203
Low-speed testing of the inlets designed for a tandem-fan V/STOL nacelle  
[AIAA PAPER 81-2627] p0156 A82-19210
Concept definition and aerodynamic technology studies for single-engine V/STOL fighter/attack aircraft  
[AIAA PAPER 81-2647] p0157 A82-19216
Aerodynamics of a transport aircraft-type wing-fuselage assembly  
[ONERA, TP NO. 1981-122] p0164 A82-19738
Aerodynamic characteristics of waveriders at subsonic flight speeds  
[AIAA PAPER 81-19810
A perspective of computational aerodynamics from the viewpoint of airplane design applications  
[AIAA PAPER 82-0018] p0183 A82-22028
Transonic perturbation analysis of wing-fuselage-nacelle-ponson configurations with powered jet exhausts  
[AIAA PAPER 82-0255] p0184 A82-22077
Aerodynamic characteristics of airscrews with ice accretions  
[AIAA PAPER 82-0262] p0184 A82-22081
Aerodynamic characteristics of maneuvering flaps  
[AIAA PAPER 82-22110
Aerodynamic evaluation of winglets for transport aircraft  
[AIAA PAPER 81-1215] p0186 A82-22445
p236 A82-25651
Numerical design of the contoured wind-tunnel liner for the NASA swept-wing LFC test  
[AIAA PAPER 82-0248] p236 A82-25466
The use of a multi-degree-of-freedom dual balance system to measure cross and cross-coupling derivatives  
[AIAA 82-0595] p237 A82-25469
Status and capabilities of the National Full Scale Facility 90- by 80-foot wind tunnel modification  
[AIAA PAPER 82-0607] p238 A82-24476
Angle of downwash behind a wing in unsteady flow  
[AIAA PAPER 82-0281] p239 A82-24970
Wing/control surface flutter analysis using experimentally corrected aerodynamics  
[AIAA PAPER 82-25659
A-7
Heavy rain penalties for a flight simulator
[AIAA PAPER 82-2013] p0268 A82-27093
A computer-controlled oscillation mechanism for
unsteady aerodynamics experiments
[p0268 A82-29018
Development of a homebuilt powered sailplane
[p0330 A82-29416
Computational aerodynamics - Its coming of age and
its future
[p0332 A82-29773
A wind-tunnel study of the aerodynamic
characteristics of a blunted versus smooth-shape
supercritical wing
[[AIAA PAPER 82-0642] p0337 A82-30139
Supersonic aerodynamic and flutter characteristics of
several wings calculated by the SUGSIA F1.1
panel method
[AIAA PAPER 82-0727] p0341 A82-30193
The equivalent ellipsoid body /ERB/ method for
transonic wing analysis
[ASHP PAPER 82-0936] p0374 A82-31923
Finite volume calculation of three-dimensional
potential flow around a propeller
[AIAA PAPER 82-0957] p0374 A82-31933
Calculation of the flow-field velocities of a
wing-body-stall simulation in transonic flow
[AIAA PAPER 82-0958] p0374 A82-31934
Incompressible symmetric flow characteristics of
sharp-edged rectangular wings
[p0379 A82-32850
Aerodynamics. Part 2 - Methods of aerodynamic
design /3rd revised and enlarged edition/ ---
Russian book
[p0382 A82-33387
The ubiquitous helicopter
[p0385 A82-33913
Low-speed aerodynamic characteristics of wings
with sweep discontinuities
[p0385 A82-33997
Periodic boundary value problem for the equations of the ha-mononic oscillation of a rotor blade
about the axis of a flapping hinge
[p0387 A82-34127
Detached flow past V-shaped aspect-ratio wings
[p0387 A82-34136
Transonic flow past bodies of the type
wing-fuselage with allowance for boundary effects
[p0388 A82-34166
Comparison of aerodynamic characteristics of
aircraft models with forward and aft swept wings
at Mach number 0.5
[OKER, T. F. 1962-9] p0389 A82-34497
Ultra light airplanes
[p0419 A82-35233
The effect of rotor blade thickness and surface
finish on the performance of a small axial flow
turbine
[ASHP PAPER 82-0722] p0428 A82-35409
Heat transfer measurements of a transonic nozzle
guide vane
[ASHP PAPER 82-0727] p0428 A82-35426
Heat transfer optimised turbine rotor blades - An
experimental study using transient techniques
[ASHP PAPER 82-GT-304] p0430 A82-35469
Transonic wind tunnel test of a supersonic nozzle
installation
[AIAA PAPER 82-1045] p0437 A82-37677
Current techniques for jet engine test cell modeling
[p0439 A82-37712
General purpose research rotor
[AMS PREPRINT 81-9] p0441 A82-37777
Aerodynamic characteristics of a large-scale, twin
tail-nacelle V/STOL model
[AIAA PAPER 81-0150] p0482 A82-38443
Symposium on Flows with Separation, Stuttgart,
West Germany, November 23-25, 1981, Reports
[p0483 A82-38701
Supersonic missile aerodynamic and performance
relationships for low observables mission profiles
[AIAA PAPER 82-1298] p0487 A82-39085
An estimation of aerodynamic forces and moments on
an airplane model under steady state spin
conditions
[AIAA PAPER 82-1311] p0487 A82-39092
High angle-of-attack characteristics of a
forward-swept wing fighter configuration
[AIAA PAPER 82-1322] p0487 A82-39099
Optimal three-dimensional turning performance of
supersonic aircraft
[AIAA PAPER 82-1326] p0488 A82-39103
Unique flight characteristics of the AD-1
Aerodynamic characteristics of the AD-1
[AIAA PAPER 82-1329] p0488 A82-39106
Use of rotary balance and forced oscillation test
data in six degrees of freedom simulation
[AIAA PAPER 82-1364] p0489 A82-39129
NASA Dryden's experience in parameter estimation
and its uses in flight test
[AIAA PAPER 82-1373] p0489 A82-39135
Effects of vortex breakdown on longitudinal and
lateral-directional aerodynamics of slender
wings by the suction analogy
[AIAA PAPER 82-1385] p0489 A82-39141
The unsteady motion of a wing traveling at
subsonic speed above a plane
[p0541 A82-39358
The rectangular wing with semicircular span in non-linear theory
[p0541 A82-39359
Optimal control application in supersonic aircraft
performance
[p0541 A82-39374
Aerodynamic aspects of aircraft dynamics at high
angles of attack /AGARD Lecture/
[AIAA PAPER 82-1363] p0495 A82-39836
Advanced aerodynamic design for future combat
aircraft
[p0504 A82-40079
Some aerodynamic/flightmechanic aspects for the
design of future combat aircraft
[p0504 A82-40080
Recent advances in the performance of high bypass
ratio fans
[p0505 A82-40081
Aerodynamic development of laminar flow control on
swept wings using distributed suction through porous surfaces
[p0505 A82-40084
Viscous transonic airfoil flow simulation
[p0506 A82-40087
Determination of airplane aerodynamic parameters
from flight data at high angles of attack
[p0508 A82-40092
Aerodynamic concepts for fuel-efficient transport
aircraft
[p0511 A82-40097
Variable geometry airfoils as applied to the
Boeings 8- and 6- seatliners
[p0512 A82-40096
Aircraft design for fuel efficiency
[p0512 A82-40093
Advanced aerodynamic wing design for commercial
transports - Review of a technology program in
the Netherlands
[p0514 A82-40095
Recent airfoil developments at DPIL
[p0514 A82-40096
Wing-tip jets aerodynamic performance
[p0518 A82-40097
An experimental investigation of leading-edge
spanwise blowing
[p0518 A82-40098
Vortex formation over double-delta wings
[p0518 A82-40099
Wind tunnel test and aerodynamic analysis of three
aeroelastically tailored wings
[p0515 A82-41001
Upper Vortex Flap - A versatile surface for highly
swept wings
[p0515 A82-41002
An initial look at the supersonic aerodynamics of
twin-turbofan aircraft concepts
[p0516 A82-41008
Low-speed characteristics of a fighter-type
configuration at high angles-of-attack and
sidelip
[p0517 A82-41020
Wind-tunnel investigation of a full-scale
canard-configured general aviation aircraft
[p0517 A82-41024
Analysis of flight data in the frequency domain
[p0583 A82-41796
Processes and procedural approaches in the
eaerodynamic design of the Alpha Jet aircraft
[p0585 A82-43320
Aerodynamic computational procedures for subsonic
and transonic aircraft
[p0550 A82-43330
A8-8
AERODYNAMIC CHORDS


NASA TM-83447

p0048 882-26236

Proceedings of the 12th Navy Symposium on Aeroballistics, volume 1

[AD-1117763]

p0063 882-27225

IA-59A ARC technology demonstrator altitude expansion and operational tests

[AD-1111114]

p0069 882-27282

Proceedings of the 12th Navy Symposium on Aeroballistics, volume 2

[AD-1111115]

p0072 882-27312

A summary of V/STOL inlet analysis methods

NASA TM-82865

p0521 882-28249

Bearfield aerodynamics and optical propagation characteristics of a large-scale turret model

[AD-1113160]

p0529 882-28624

Aerodynamics of an airfoil with a jet issuing from its surface

NASA TM-84625

p0531 882-29267

User's manual for the Automated Paneling Technique (APT) and the Wing Body Aerodynamic Technique (WABAT) programs

[AD-1111115]

p0566 882-31297

Materials and design criteria for Kevlar-29 ribbons

[AD-1113160]

p0567 882-31308

Dyamic System Coupling (DYSOC) program. Volume I: User's manual

[AD-1118003]

p0573 882-31974

Long duct nacelle aerodynamic development for DC-10 derivatives

NASA CR-163095

p0586 882-32315

Energy efficient engines: High pressure turbine uncooled rocket technology report

[AD-1113160]

p0593 882-32383

Propeller flow visualization techniques

[AD-1111137]

p0597 882-32672

User's manual for interfacing a leading edge, vortex roller program with two linear panel methods

NASA TM-76504

p0604 882-33340

The aerodynamic performance of rotor blade taper, twist, airfoils and solidity on hover and forward flight performance

[AD-1117397]

p0605 882-33357

A simulation language approach to structural interaction problems

[AD-1110003]

p0614 882-33758

AERODYNAMIC CHORDS

U AIRFOIL PROFILES

The effects of flexibility on the steady-state performance of small ribbon parachute models

[AIAA PAPER 81-1923]

p0006 882-10408

Analysis of escape systems at 678 KIAS

[AD-1117770]

p0079 882-14978

Vortex lift augmentation by suction on a 60 deg swept Gothic wing

[AIAA PAPER 82-0231]

p0117 882-17856

Effect of the leading type on the aerodynamic damping of blade vibrations with allowance for the profile curvature

[AD-1111128]

p0127 882-18684

Sensitivity of helicopter aeromechanical stability to dynamic inflow

[AD-1111128]

p0273 882-25773

Prediction of aerodynamically induced vibrations in turbomachinery blading

[AD-1111128]

p0327 882-26986

Aerodynamic coefficient identification of time-varying aircraft system and its application

[AD-1111128]

p0390 882-36645

Analytical study of vortex flaps on highly swept delta wings

[AD-1111128]

p0515 882-41003

Fuselage effects in leading edge vortex flow aerodynamics

[AD-1111128]

p0516 882-41006

Aerelastic equilibrium of a helicopter rotor in the presence of nonlinear aerodynamic forces

[AD-1111128]

p0547 882-42809

Transonic flutter and response analyses of two 3-degree-of-freedom airfoils

[AD-1111128]

p0555 882-44245

Finite element approach to the calculation of unsteady aerodynamic influence coefficients in dynamic aerelastic analysis

[AD-1111128]

p0581 882-45849

Determination of airplane model structure from flight data by using modified stepwise regression

[AD-1111128]

p0620 882-10064

Wind-tunnel results for a modified 17-percent-thick low-speed airfoil section

[AD-1111128]

p0620 882-11033

ACTA Mechanics Simics (selected articles)

[AD-1111128]

p0731 882-14060

Lifting surface theory for wings at low frequency small amplitude yawing and side slipping oscillating motions at low speeds

[AD-1111128]

p0731 882-14061

Low-speed aerodynamic performance of a high-aspect-ratio supercritical-wing transport model equipped with full-span slat and part-span double-slotted flaps

[AD-1111128]

p0839 882-15015

High lift selected concepts

NASA CR-159693

p0139 882-15017

Aerodynamic considerations in the prediction of stalled supersonic flutter in transonic fans

[AIAA PAPER 81-2611]

p0267 882-19223

A new method of estimating the lateral wall effect on the airfoil incidence due to the suction at side walls

[AIAA PAPER 81-2611]

p0198 882-17123

Experimental verification of an aerodynamic parameter optimization program for wind tunnel testing

[AD-1117770]

p0199 882-17134

Theoretical investigations on the influence of different strake, tail unit, and conventional BLN arrangement as well as of CCV on the aerodynamic characteristics of fighter aircraft configurations

[AD-1117770]

p0255 882-18211

A criterion for the prediction of the recovery of uninstalled supersonic flutter in transonic fans

[AIAA PAPER 81-2611]

p0267 882-19223

Influence of strakes on coefficients of longitudinal stability

[AIAA PAPER 81-2611]

p0319 882-21215

Real time digital filtering test in the S1 continuous wind tunnel at 6000 KIAS

[AD-1117770]

p0343 882-22152

Effect of nacelles on aerodynamic characteristics of an executive-jet model with simulated, partial-chord, laminar-flow-control wing glove

[AIAA PAPER 82-0231]

p0349 882-22217

Approximate method for predicting supersonic normal force coefficient very-low-aspect-ratio lifting surfaces

[AD-1111128]

p0405 882-25223

Leading edge flap system for aircraft control augmentation

[AIAA-CONF-12707-1]

p0407 882-25200

Hurricane-induced wind loads

[PB82-132267]

p0476 882-27548

Prelaunch estimates of near Earth satellite lifetimes using quasi-dynamic atmosphere models - application to a proposed Brazilian satellite

[BASA-PB-84825]

p0530 882-29347

AERODYNAMIC CONFIGURATIONS

ST WING NACELLE CONFIGURATIONS

Analyses of escape systems at 678 KIAS

[AD-1111128]

p0079 882-14978

Direct approach to aerodynamic design problems

[AD-1111128]

p0105 882-16404

Development and validation of the V/STOL aerodynamics and stability control manual

[AIAA PAPER 81-2611]

p0107 882-16903

Optima configuration for a 10 passenger business turbofan jet airplane

[AIAA PAPER 82-0365]

p0119 882-17905

Analysis of an ideal-fluid flow past a finite-thickness wing

[AIAA PAPER 82-0365]

p0165 882-19813

SUBJECT INDEX

Recent advances in applying free vortex sheet theory to the estimation of vortex flow aerodynamics. (AIAA PAPER 82-0095) p0183 AS2-22045

Rotor preliminary design trade-offs for the Advanced Scout Helicopter. p0280 AS2-26395

Aerodynamics at the 1981 Le Bourget show. p0332 AS2-29789

Investigation of the aerodynamic-control method with control functions in the form of smooth constant-sign contours of a model rotor in hover. p0333 AS2-29831

An experimental investigation of a bearingless rotor design. p0334 AS2-11016

The principles and methods for shaping the wing root regions of a wing-body combination at transonic and low supersonic speeds. p0495 AS2-04012

Aeroacoustic theory for noncompact wing-gust interaction. p0498 AS2-21107

Subsonic and supersonic airfoils for given pressure distribution. p0635 AS2-23031

Preliminary design study of a hybrid airship for flight research. (NASA-CR-166266) p0201 AS2-17152

The airfoil heat transfer for an air to air mission. (NASA-ND-317-81-0) p0201 AS2-17150

Parametric criteria and impact on design trends. p0297 AS2-18139

The effect of a well on the aerodynamics of a spoiler --- wind tunnel flow visualization and pressure measurements. (LU-268) p0263 AS2-19194

Aerodynamic characteristics and store loads of a 1/26 scale F-111 aircraft model with three external store loadings. (AD-H010094) p0302 AS2-20158

Effect of heavy rain on aircraft. p0303 AS2-21149

Minutes of physical configuration audit for the F-16 Electronic Warfare Training Device. (AD-H110021) p0320 AS2-21222

Predictions of aerodynamic characteristics of highly maneuverable configurations. p0348 AS2-22199

Tail configurations for highly maneuverable combat aircraft. p0349 AS2-22201


An experimental and theoretical investigation of the interaction between the engine jet and the surrounding flow field with regard to the pressure drag on afterbodies. p0360 AS2-23158

Experimental study of a jet deflector. p0362 AS2-23173

Fine ice accretion and its effect on airfoil performance. (NASA-CR-165599) p0393 AS2-24166

F-15 rotary balance data for an angle-of-attack range of 8 to 10 deg. (NASA-CR-3878) p0393 AS2-24168

Rotary balance data for an F-15 model with conformal fuel tanks for an angle-of-attack range of 8 to 10 deg. (NASA-CR-3516) p0393 AS2-24169

Wind tunnels of the institute of mechanics of Moscow State University. (NASA-TM-76909) p0398 AS2-24213

Flight management computer. (SKAIAS-821-111-110) p0399 AS2-24042

An analytical procedure for computing smooth transitions between two specified cross sections with applications to blended wing body configurations. (NASA-TP-2012) p0400 AS2-25193

F-16 program overview and wind tunnel/flight correlation. (NASA-AD-25913) p0400 AS2-25207

Water tunnel flow visualization and wind tunnel data analysis of the F/A-18 --- leading edge extension vortex effects. (NASA-AD-25912) p0400 AS2-25207

Aircraft excrescence drag. (AIAA-AGARD-AG-266) p025 AS2-10200
**AERODYNAMIC FORCES**

- Wind tunnel test and analysis techniques using powered simulators for civil nacelle installation drag assessment p0095 A82-13088
- Establishment of an experimental technique to provide accurate measurement of the installed drag of close coupled civil nacelles/airframe configurations, using a full span model with turbine powered engine simulators p0096 A82-13089
- Prop-fan integration at cruise speeds p0097 A82-13097
- Optimization and performance calculation of dual-rotation propellers [NASA-TF-1468] p0131 A82-14049
- Comparison of experimental and theoretical turbulence reduction characteristics for screens, honeycomb, and honeycomb-screen combinations [AD-A100926] p0131 A82-14055
- An afterbody drag balance --- transonic wind tunnel gusts [NASA-TW-66506] p0135 A82-14103
- Supersonic balance and pressure investigation of a 60-deg delta wing with leading-edge devices (data reports) [NASA-CL-165606] p0139 A82-15014
- Experimental trim drag values for conventional and supercritical wings [NASA-CL-166500] p0198 A82-17126
- Numerical aircraft design using 3-D transonic analysis with optimization, volume 2: Fighter design [AD-A110036] p0315 A82-21182
- Studies on wind tunnel straighteners [NASA-TR-7-1469] p0356 A82-22284
- Automated design of minimum drag light aircraft fuselages and nacelles [NASA-CL-168913] p0368 A82-23238
- Review of the 1980 Wind-Tunnel/Flight Correlation Panel p0403 A82-25198
- Experimental analysis of the effects of sweep and aspect ratio in incompressible flow about forward swept wings [AD-A111128] p0405 A82-25223
- Supersonic cruise/transonic maneuver wing section development study [AD-A111129] p0448 A82-26256

**AERODYNAMIC FORCES**

- NT AERODYNAMIC DRAG
- NT AERODYNAMIC INTERFERENCE
- NT AERODYNAMIC LOADS
- NT BLAST LOADS
- NT GUST LOADS
- NT INTERFERENCE LIFT
- NT JET LIFT
- NT LIFT
- NT MOTOR LIFT
- NT SUPERSONIC DRAG
- NT WING LOADING

**AERODYNAMIC HEAT TRANSFER**

- NT SUPERSONIC HEAT TRANSFER

**AERODYNAMIC HEATING**

- In-situ calibration of flight heat transfer instrumentation [ASRAE PAPER 98-05-13] p0111 A82-10901
- Radome aerodynamic heating effects on boresight error p0281 A82-26465
- Duplication of radome aerodynamic heating using the Central receiver Test Facility solar furnace p0281 A82-26468
- Approximate method of predicting heating on the windward side of Space Shuttle Orbiter and comparisons with flight data [AIAA PAPER 82-0823] p0373 A82-31853
- An experimental study at high-speed Mach 5 of the aerodynamic heating of the upper surface of plane wings of various planform p0380 A82-31449

**SUBJECT INDEX**

- Hysteresis of the normal force of a wing of complex planform under unsteady motion p0388 A82-34157
- An estimation of aerodynamic forces and moments on an airplane model under steady state spin conditions [AIAA PAPER 82-1311] p0487 A82-39902
- Lateral aerodynamics of delta wings with leading edge separation [AIAA PAPER 82-1386] p0490 A82-39942
- Inlet and airframe compatibility for a T/STOL fighter/attack aircraft with top-mounted inlets p0507 A82-40908
- Aerodynamic interactions between a 1/6-scale helicopter rotor and a body of revolution p0510 A82-40947
- Reduced nonlinear flight dynamic model of elastic structure aircraft p0516 A82-41009
- Aerelastic equilibrium of a helicopter rotor in the presence of nonlinear aerodynamic forces [SHERA, TP NO. 1982-33] p0547 A82-42809
- Reducing aircraft's mechanics - Bombs away -- weapons delivery of fighter aircraft at transonic speed p0556 A82-44467
- An influence coefficient method for the application of the nodal technique to wing flutter suppression of the DAST ARW-1 wing [NASA-CL-165772] p0538 A82-11070
- An investigation of F-16 nozzle-afterbody forces at transonic Mach numbers with emphasis on model scale effects [AD-A106905] p0591 A82-12392
- Calculation of quasi-stationary aerodynamic force acting on a cascade of oscillating airfoils in subsonic flow p0612 A82-15051
- A method for force determination from vibration response measurements --- application to transomachine blades p0613 A82-15055
- Calculation of nonstationary force ratios on bladed of a rotating row in incompressible flow p0614 A82-15061
- The effect of aspect ratio on the unsteady aerodynamic forces induced by vibration of a cascade blade p0644 A82-15063
- Accounting for thickness effects in the calculation of subcritical unsteady aerodynamic forces: Application to wing-fuselage interactions [SHEAS-82-111-106] p0394 A82-21483
- Experimental verification of force determination and ground flying on a full-scale helicopter [SHEAS-82-111-11] p0395 A82-24499
- Aerodynamic interactions between a 1/6 scale helicopter rotor and a body of revolution [NASA-TR-04247] p0521 A82-28252

**AERODYNAMIC HEAT TRANSFER**

- Heat transfer measurements of a transonic nozzle guide vane [ASRAE PAPER 82-GT-247] p0428 A82-35462
- A durable, intermediate temperature, direct reading heat flux transducer for measurements in continuous wind tunnels [AD-A107729] p0213 A82-17483

**AERODYNAMIC LIFT**

- Results of recent measurements on an oscillating aerofoil p0185 A82-22112
- Unsteady response of rectangular wings in openwise uniform shear flow p0276 A82-26223
- Flutter analysis using nonlinear aerodynamic forces [AIAA 82-0728] p0277 A82-26340
- Forward-swept-wing technology p0381 A82-33309
- Finite element calculation of the aerodynamic forces on a vibrating wing in supersonic flow p0387 A82-34128
A crack growth model under stresses loading

Determination of load spectra and their application for keeping the operational life of structural components

The role of the scale parameter in service load assessment and simulation of aircraft flight loads

The external balance system of the German-Dutch wind tunnel DFW and its strain gage load cells

Processes and procedures approaches used in the dimensioning of the supporting structure and the demonstration of the airworthiness

A simplified method for predicting rotor blade airloads

Maneuver load control for the reduction of design loads and improvement of the maneuverability of modern fighter aircraft

Predication of aerodynamic loads on aircrafts with external stores at transonic speeds

Lifting surface theory for wings in low frequency small amplitude yawing and side slipping oscillating motions at low speeds

Effect of mean blade loading on supersonic cascade flutter

NASA Dryden Flight Loads Research Facility

Study of ground handling characteristics of a maritime patrol airship

Flight dynamics technology development: Structures and dynamics, vehicle equipment/subsystems, flight control and aero-mechanics

Landing cycles and material data for the layout of a wind tunnel of special subsonic design

Developments in rotary wing aircraft aerodynamics

Some unsteady aerodynamic effects on helicopter rotors

A method of predicting fuselage loads in hover

Rat mounted visual aids

Aerodynamic characteristics and store loads of a 1/24 scale F-111 aircraft model with three external store loadings

A surface singularity method for rotors in hover or climb

Numerical aircraft design using 3-D transonic analysis with optimization, Volume 2: Part 2: Fighter design

Development of a correlated finite element dynamic model of a complete acre engine

On the aerodynamics of windblast

Statistical review of casting accelerometer data for Navy and marine fleet aircraft from 1 January 1962 to 30 June 1981

An analytical study of turbulence responses, including horizontal tail loads, of a control configured jet transport with relaxed static stability

Performance deterioration due to acceptance testing and flight loads: JT9D jet engine

A generalized Hill's method for the stability analysis of parametrically excited dynamic systems

Aerodynamic moments

Determination of stability derivatives

Aerodynamic noise

Helicopter rotor trailing edge noise

Scattering of sound by a vortex ring

Comments on Nature of inlet turbulence and strut flow disturbances and their effect on turbo-charged engine noise

Node scatterer design for fan noise suppression in two-dimensional ducts

Airbus Industrie and community noise

Aircraft wing trailing-edge noise

Linear and nonlinear analysis of vortex whirls: Another blade buster

Analytical study of twin-jet shielding

Wind tunnel investigation of high speed rotor noise

Prediction of blade vortex interaction noise from measured blade pressure

The role of coherent structures in the generation of noise for subsonic jets

Aircraft engine trailing-edge noise

Aerodynamic noise generated by jet-wing/ flap interactions of the external USB configuration of STOL aircraft. Part 1: Eight percent scale cold-flow model analysis

Aircraft aerodynamic noise during approach

Aerodynamic performance of an externally blown flap configuration with several flap noise suppressing devices

On the design and test of a low noise propeller

Airbus Industrie and community noise

The effect of barriers on wave propagation phenomena: with application for aircraft noise shielding

Noise reduction in centrifugal fans by the use of lambda/4 resonators

Aerodynamic stability

Experimental determination of parasite apparent mass and its significance in predicting dynamic stability

Numerical treatment of helicopter rotor stability problems

Acceptance testing of the Calpan variable stability Larjet

Dynamic stability of a buoyant quad-rotor aircraft

Review of support interference in dynamic tests

Cross and cross-coupling derivative measurements on the standard dynamics model at AEDC

Sensitivity of helicopter aeromechanical stability to dynamic inflow
Aerospace Vehicles

WY FLEXIBLE SPACECRAFT

Development of Integrated Programs for Aerospace-Vehicle Design (IPAD) - IPAD user requirements [NASA CR-28965] p014 A82-15034

AEROSPACEPLANS

A concept for light-powered flight [AIAA PAPER 82-1216] p014 A82-35067

Inflated wings p012 A82-40696

Structures testing analysis real-time network (STARNET) [AD-A111636] p013 A82-25827

AEROSTATICS

Analysis of tapered-land hybrid aerostatic journal bearings p054 A82-47944

AEROSTARs

U AIRSHIPS

AEROTHERMODYNAMICS

Design analysis of high temperature transparent windshields for high performance aircraft [AIAA PAPER 81-ENAA-5] p011 A82-10893

Qualification of the thermal environment for externally carried aircraft stores and ordnance p019 A82-12100

Technical innovations in testing and analysis of heat and pressure models in hypersonic wind tunnels [AIAA 82-0578] p023 A82-24660

Inverse heat-transfer problems - Domains of application in the design and testing of technical systems p027 A82-25971

Radiation enhancement by nonequilibrium during flight through the Titan atmosphere [AIAA PAPER 82-0878] p03 A82-31083

Gas turbine aerothermodynamics with special reference to aircraft propulsion --- Book p036 A82-33650

An experimental study at free-stream Mach 5 of the aerodynamic heating of the upper surface of plane wings of various platforms p038 A82-34149

Small turbine engine augmentor design methodology [AIAA PAPER 82-1179] p017 A82-35044

Test facility and data handling system for the development of axial compressors
<table>
<thead>
<tr>
<th>SUBJECT INDEX</th>
<th>AIR FLOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental verification of force determination and ground flying on a full-scale helicopter</td>
<td>Air-cooling cooling returns to the fore.</td>
</tr>
<tr>
<td>(USAF/RADECOM-TA-87-D-11)</td>
<td>(ASA PAPER 81-058-8)</td>
</tr>
<tr>
<td>AIB HELICOPTER</td>
<td>Throat and flow analyses of a conventional, air-cooled ceramic coated porous metal concept for turbine exhausts</td>
</tr>
<tr>
<td>The TADS/PNVS &quot;eyes&quot; for the AH-64 attack helicopter</td>
<td>(ASA PAPER 81-058-8)</td>
</tr>
<tr>
<td>AIB CABG O</td>
<td>Application of numerical modeling to gas turbine combustor development problems</td>
</tr>
<tr>
<td>The application of strapdown inertial technology to Attitude and Heading Reference System requirements — for TAH-64 advanced attack helicopter</td>
<td>(ASA PAPER 81-058-8)</td>
</tr>
<tr>
<td>Advanced attack helicopter fatigue testing — Overview</td>
<td>The operational characteristics of turbojets, giving particular attention to the cooled high-pressure turbine</td>
</tr>
<tr>
<td>The TAH-64A composite flexbeam tail rotor</td>
<td>Transient two-dimensional temperature distributions in air-cooled turbine blades</td>
</tr>
<tr>
<td>Structural design of a crashworthy landing gear for the AH-64 Attack Helicopter</td>
<td>(ASA PAPER 81-058-8)</td>
</tr>
<tr>
<td>Results of the AH-64 Structural Demonstration</td>
<td>Impingement cooling of concave surfaces of turbine airfoils</td>
</tr>
<tr>
<td>Apache to provide night/bad weather capability</td>
<td>(ASA PAPER 81-058-8)</td>
</tr>
<tr>
<td>Pre-design study for a modern four-bladed rotor for the Rotor System Research Aircraft (RSRA) --- integrating the TAH-64 main rotor</td>
<td>Air cooled engine test facilities</td>
</tr>
<tr>
<td>(NASA-CS-166154)</td>
<td>(ASA PAPER 81-058-8)</td>
</tr>
<tr>
<td>AILERONS</td>
<td>Air cooling of gas turbine blades</td>
</tr>
<tr>
<td>NT Spoiler Slot Ailerons</td>
<td>The effect of coolant flow on the efficiency of a transonic HP turbine profile suitable for a small engine</td>
</tr>
<tr>
<td>Tria tab excitation system for the Bae 146</td>
<td>(ASA PAPER 81-058-8)</td>
</tr>
<tr>
<td>Sonic fatigue testing of an advanced composite aileron</td>
<td>An experimental study of total pressure loss in air-breathing systems</td>
</tr>
<tr>
<td>[AIAA PAPER 81-0634]</td>
<td>(ASA PAPER 81-058-8)</td>
</tr>
<tr>
<td>Structural optimization of a swept wing on the basis of the aileron efficiency condition</td>
<td>Air-breathing engine test facilities register</td>
</tr>
<tr>
<td>(NASA-TN-D-9194)</td>
<td>(ASA PAPER 81-058-8)</td>
</tr>
<tr>
<td>Limited evaluation of an F-14A airplane utilizing an aileron-rudder interconnect control system in the landing configuration</td>
<td>Air-breathing engine test facilities register</td>
</tr>
<tr>
<td>(NASA-CS-166152)</td>
<td>(ASA PAPER 81-058-8)</td>
</tr>
<tr>
<td>Investigation on rotating ailerons</td>
<td>Air-breathing engine test facilities register</td>
</tr>
<tr>
<td>(NASA-CS-166152)</td>
<td>(ASA PAPER 81-058-8)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AIR COCOMSERS</th>
<th>NT VERTICAL AIR CURRENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>NT Compressed Air</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>NT BAG RESTRAINT DEVICES</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>Air bag impact attenuation system for the AQB-34V remote piloted vehicle</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>[AIAA PAPER 81-1917]</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>Development of a supported airbag ejection restraint (SAERS) for windblast protection</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>(AD-A109807)</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>AIR BEARINGS</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>[AGAM-AG-269]</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>Multiple pure tone elimination strut assembly — air breathing engines</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>[NASA-CS-SEC-11062-1]</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>AIR CARGO</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>VLA air cargo service</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>Handling air freight in the 1990s — Meeting the challenge</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>(NASA-AFOSR-80-122)</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>Advanced internal cargo system concept demonstration and evaluation</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>(AD-A111935)</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>Air conditioning equipment</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>Towards ultimate power for environmental control in transport aircraft</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>[ASA PAPER 81-058-8]</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>(AD-A116192)</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>p0602 A82-33159</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AIR COOLING</th>
<th>AVAIL FLOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air-fill cooling returns to the fore.</td>
<td>Air-flow cooling returns to the fore.</td>
</tr>
<tr>
<td>[ASA PAPER 81-058-8]</td>
<td>Air-flow cooling returns to the fore.</td>
</tr>
<tr>
<td>Thermal and flow analyses of a conventional, air-cooled ceramic coated porous metal concept for turbine exhausts</td>
<td>Air-flow cooling returns to the fore.</td>
</tr>
<tr>
<td>(ASA PAPER 81-058-8)</td>
<td>Air-flow cooling returns to the fore.</td>
</tr>
<tr>
<td>Application of numerical modeling to gas turbine combustor development problems</td>
<td>Air-flow cooling returns to the fore.</td>
</tr>
<tr>
<td>(ASA PAPER 81-058-8)</td>
<td>Air-flow cooling returns to the fore.</td>
</tr>
<tr>
<td>The operational characteristics of turbojets, giving particular attention to the cooled high-pressure turbine</td>
<td>Air-flow cooling returns to the fore.</td>
</tr>
<tr>
<td>Transient two-dimensional temperature distributions in air-cooled turbine blades</td>
<td>Air-flow cooling returns to the fore.</td>
</tr>
<tr>
<td>Impingement cooling of concave surfaces of turbine airfoils</td>
<td>Air-flow cooling returns to the fore.</td>
</tr>
<tr>
<td>Air cooled engine test facilities</td>
<td>Air-flow cooling returns to the fore.</td>
</tr>
<tr>
<td>Air cooling of gas turbine blades</td>
<td>Air-flow cooling returns to the fore.</td>
</tr>
<tr>
<td>The effect of coolant flow on the efficiency of a transonic HP turbine profile suitable for a small engine</td>
<td>Air-flow cooling returns to the fore.</td>
</tr>
<tr>
<td>(ASA PAPER 81-058-8)</td>
<td>Air-flow cooling returns to the fore.</td>
</tr>
<tr>
<td>An aerodynamic design and the overall stage performance of an air-cooled axial-flow turbine</td>
<td>Air-flow cooling returns to the fore.</td>
</tr>
<tr>
<td>(NASL-3323)</td>
<td>Air-flow cooling returns to the fore.</td>
</tr>
<tr>
<td>Acoustic measurements of F-16 aircraft operating in bosh house, for 4920-02-070-2721</td>
<td>Air-flow cooling returns to the fore.</td>
</tr>
<tr>
<td>(AD-A109809)</td>
<td>Air-flow cooling returns to the fore.</td>
</tr>
<tr>
<td>AIR CUSHION VEHICLES</td>
<td>GROUND EFFECT VEHICLES</td>
</tr>
<tr>
<td>VERTICAL AIR CURRENTS</td>
<td>GROUND EFFECT VEHICLES</td>
</tr>
<tr>
<td>VERTICAL AIR CURRENTS</td>
<td>GROUND EFFECT VEHICLES</td>
</tr>
<tr>
<td>Kelvin-Helmholtz stability analysis of air cushion landing gear twist flutter</td>
<td>GROUND EFFECT VEHICLES</td>
</tr>
<tr>
<td>(ASA PAPER 81-058-8)</td>
<td>GROUND EFFECT VEHICLES</td>
</tr>
<tr>
<td>Experimental and analytical studies of advanced air cushion landing systems</td>
<td>GROUND EFFECT VEHICLES</td>
</tr>
<tr>
<td>(NASA-CS-3476)</td>
<td>GROUND EFFECT VEHICLES</td>
</tr>
<tr>
<td>Experimental and analytical studies of advanced air cushion landing systems</td>
<td>GROUND EFFECT VEHICLES</td>
</tr>
<tr>
<td>(NASA-CS-3476)</td>
<td>GROUND EFFECT VEHICLES</td>
</tr>
<tr>
<td>Experimental studies of advanced air cushion landing systems</td>
<td>GROUND EFFECT VEHICLES</td>
</tr>
<tr>
<td>(NASA-CS-3476)</td>
<td>GROUND EFFECT VEHICLES</td>
</tr>
<tr>
<td>Experimental and analytical studies of advanced air cushion landing systems</td>
<td>GROUND EFFECT VEHICLES</td>
</tr>
<tr>
<td>(NASA-CS-3476)</td>
<td>GROUND EFFECT VEHICLES</td>
</tr>
<tr>
<td>Experimental and analytical studies of advanced air cushion landing systems</td>
<td>GROUND EFFECT VEHICLES</td>
</tr>
<tr>
<td>(NASA-CS-3476)</td>
<td>GROUND EFFECT VEHICLES</td>
</tr>
<tr>
<td>Experimental and analytical studies of advanced air cushion landing systems</td>
<td>GROUND EFFECT VEHICLES</td>
</tr>
<tr>
<td>(NASA-CS-3476)</td>
<td>GROUND EFFECT VEHICLES</td>
</tr>
<tr>
<td>Experimental and analytical studies of advanced air cushion landing systems</td>
<td>GROUND EFFECT VEHICLES</td>
</tr>
<tr>
<td>(NASA-CS-3476)</td>
<td>GROUND EFFECT VEHICLES</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AIR DEFENSES</th>
<th>VERTICAL AIR CURRENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>NT ANTI-SURFACE DEFENSE</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>SIMAT - An air battle simulation of the USAF Tactical Air Control System /TACS/ with Advanced Tactical Radars</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>(ASA PAPER 81-058-8)</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>The PATRIOT Radar in tactical air defense</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>(ASA PAPER 81-058-8)</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>Logistics research program in the United States Air Force</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>(ASA PAPER 81-058-8)</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>Passive aircraft location</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>(ASA PAPER 81-058-8)</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>Array Lynx: Product development matched to military combat development</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>(ASA PAPER 81-058-8)</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>A light helicopter for night firing</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>(ASA PAPER 81-058-8)</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>Tethered rotorplatforms and their mission potential</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>(ASA PAPER 81-058-8)</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>Multi-mission V/STOL with vectored thrust engines</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>(ASA PAPER 81-058-8)</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>High-speed, high-altitude aircraft</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>(ASA PAPER 81-058-8)</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AIR DROP OPERATIONS</th>
<th>VERTICAL AIR CURRENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simulation of the interaction between airdrop platforms and aircraft rollers</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>(AD-A116170)</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>p0569 A82-31324</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>AIR DUCTS</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>The excitation of compressor/duct systems</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>(ASA PAPER 81-058-8)</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>p0387 A82-25893</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>AIR FILTERS</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>Herringbone filter-absorber — agricultural aircraft</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>(ASA PAPER 81-058-8)</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>p0099 A82-13139</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AIR FLOW</th>
<th>VERTICAL AIR CURRENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>VERTICAL AIR CURRENTS</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>Experimental investigation of total pressure loss and airflow distribution for gas turbine combustors</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>(ASA PAPER 81-058-8)</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
<tr>
<td>p0081 A82-15606</td>
<td>VERTICAL AIR CURRENTS</td>
</tr>
</tbody>
</table>
The effect of ejector augmentation on test-section flow quality in the Calpan 8-ft transonic wind tunnel
[I AIA 82-0571] p0234 882-24658
Pressure measurements on twin vertical tails in buffetting flow
[I AIA 82-0681] p0337 882-30138
Feedback control of a cantilever wing in steady airflow
[I AIA 82-0729] p0340 882-30177
Aerodynamic: the science of air in motion /2nd edition/ --- Book
p0383 882-33671
Experimental study on discharge and loss coefficients of combustor nozzles
p0390 882-34644
Sem - empirical analysis of liquid fuel distribution downstream of a plane orifice injector under cross-stream air flow
[I AIA 82-0766] p0420 882-35285
Gas turbine airflow control for optimum heat recovery
[I A S B P A P 82-02-02] p0423 882-35329
Fluctuating forces and rotor noise due to distorted inflow
p0510 882-40985
Wind tunnel testing of V/STOL configurations at high lift
p0510 882-40989
A miniature electro-optical air flow sensor
p0543 882-41850
Laser Doppler anemometry applied to the study of the airflow in the wake of an helicopter rotor
[ORBIA, TP NO. 1982-61] p0552 882-43755
A vapour cycle cabin cooling system for the Sea King NK-50 helicopter
[AD-105241] p0608 882-12079
System for acquisition and analysis of dynamic tests on air intakes
[NASA-TN-76666] p0131 882-14056
Combustion behavior of solid fuel ramjets. Volume 1: Correlation of reacting and non-reacting flow characteristics
[AD-A106061] p0136 882-14316
Somac wind tunnel of the Institute of Fluid Mechanics of lille
ALF-164 POD/AV/6C environmental evaluation flight test
[AD-A101198] p0314 882-21178
Studies on wind tunnel straighteners
Adaptive-wall wind-tunnel research at NASA-Ames Research Center
Development of a spinning wave heat engine
[NASA-CP-16511] p0570 882-31328
Active Clearance Control system for a turbomachine
[NASA-CASE-LW-12938-1] p0591 882-32366
AIR FREIGHT
PT AIR CARGO
AT INFLUES
ST ENGINE INFLUES
ST INFLU AIRFRAME CONFIGURATIONS
ST SUPERSONIC INFLUES
Three-dimensional calculation of the flow in helicopter air intakes
Low speed testing of the intakes designed for a tandem-fan YSTOL nacelle -- conducted in the Lewis 10 by 10 foot wind tunnel
Transonic flows in an air inlet with large incidence and the effect of a blowing trap
p0094 882-13071
An acquisition and analysis system for dynamic tests of air inlets
p0095 882-13082
Studies of air inlets at Reynolds numbers comparable to flight in ORBIA’s F1 and S18A wind tunnels
p0096 882-13091
Airframe-propulsion system aerodynamic interference predictions at high transonic Mach numbers including off-design engine airflow effects
p0097 882-13098
Wind tunnel tests of engine-equipped models:
Comparison of two jet wash simulation methods
[NASA-T8-76764] p0134 882-14091
Helicopter Propulsion Systems
[AGARD-CP-302] p0206 882-17203
Helicopter air inlets
p0208 882-17217
Aerodynamic analysis of VTOI inlets and definition of a short, blowing-lip inlet
[NASA-CA-165617] p0349 882-22211
AIR JETS
Plain-jet airl blunt atomization of alternative liquid petroleum fuels under high ambient air pressure conditions
[ASB PAPBB 82-07-12] p0420 882-35293
Local heat transfer to staggered arrays of impinging circular air jets
[ASB PAPBB 82-07-211] p0427 882-35401
Digital spectral analysis of the noise from short duration impulsively started jets
p0434 882-36191
AIR LAUNCHING
Wind tunnel studies of store separation with load factor - Freedrops and captive trajectories
p0383 882-33626
AIR LAW
Consequences of American airline deregulation - Legislative theory in a concrete example
p0165 882-19947
Air transportation of handicapped persons
p0220 882-24338
Predicting the application of vicarious liability to fixed base operators - Still guesswork after all these years
p0377 882-32056
Aviation accident investigation - Functional and legal perspectives
p0377 882-32059
Factors influencing settlement of personal injury and death claims in aircraft accident litigation
p0377 882-32062
Aviation negotiations and the U.S. model agreement
p0377 882-32063
The DC-10 Chicago crash and the legality of SPAB 40
p0463 882-37312
The recognition of air worthiness of aircraft - Comments to a remarkable judicial decision
p0464 882-38025
Noise pollution and airport regulation
p0496 882-40051
O’Hare International Airport - Improvisation to proposed state efforts to limit airport noise
p0496 882-40052
Extracts from Problems of Air Law, a collection of works of the Section of air law of the Aviakhim Sociey of the USSR and Aviakhim RSFSB
[NASA-TR-76911] p0565 882-31153
AIR NAVIGATION
NT ALL-WEATHER AIR NAVIGATION
NT AREA NAVIGATION
NT BIP-OFF-THE-EARTH NAVIGATION
Three navigation systems and their costs of acquiring remote sensing data
p0001 882-10049
Navigation task partitioning in distributed-processing avionics systems
p0009 882-10646
Discrete address beacon, navigation and landing system
p010 882-10650
Fast and accurate gyrocompass using strapdown tuned rotor gyro as a solution to combat helicopter navigation problems
p016 882-11927
National Aerospace Meeting, Trefose, PA, April 8-10, 1981, Proceedings
p021 882-12626
Satellite geometry considerations for low cost GPS user equipment
p021 882-12630
A solution to the static geometry problem for JITS relative navigation
p022 882-12634
Memory requirements for future navigation systems
p022 882-12637
A navigation systems planning model
p022 882-12640
The integrated inertial sensor assembly /TISA/ - A redundant strapdown system for advanced aircraft
computerized weather service
Terminal area automatic navigation, guidance, and control research using the Microwave Landing System (MLS) - Part 2: BNAV/MLS transition problems for aircraft
Aeronautical Information Data Subsystem (AIDS): A ground-based component of air navigation services systems
Integration of inertial sensors in helicopters
FAA/FCC coordination procedures for FM broadcast stations
Integrated navigation-TF/TA-system based on stored terrain data processing
The integration of multiple avionic sensors and technologies for future military helicopters
Low cost development of IDS sensors for expendable projectiles
Integrated Flight/Weapon Control design and development
POS Programmable pilot-oriented display air navigation
The PROD Project --- error detection codes
Investigation of air transportation technology at Ohio University, 1981 --- loran
Loran-C plotting program for plotting lines of position on standard charts
A Loran-C prototype navigation receiver for general aviation
A Loran-C prototype navigation receiver for general aviation
Investigation of air transportation technology at Princeton University, 1981
Modification of OB-258/OBN Tactical Air Navigation System in terminal areas
A-24
Performance analysis of enroute air traffic control computers in the National Airspace System
(AIAA 81-2203)  p0003  A82-10740

Discrete address beacon, navigation and landing system
p0005  A82-10396

Fuel efficient flight profiles in an AIC flow management environment
p0010  A82-10650

Technical/operational AIC scenarios for future TMA navigation
p0043  A82-13078

Some Italian research for developing new primary
ATC radars
p0071  A82-14774

Performance evaluation of target report extractor in the monopolistic ATCBEBS — Air Traffic Control
Radar Beacon System
p0071  A82-14775

A multimicroprocessor system for ATCBEBS monopulse
data processing
p0071  A82-14776

A new approach to radar plot extraction for ATC
applications
p0075  A82-14908

Extended-time radar video recording
p0075  A82-14909

Large terminal maneuvering areas: Operational problems — Possible development of solutions
p0081  A82-15625

Computer-animated predictive displays for
microwave landing approaches
p0082  A82-15816

Air traffic management for fuel economy
p0110  A82-17279

The shape of the air traffic control system of the future — A U.S. perspective
p0111  A82-17280

Air traffic control problems and solutions
p0111  A82-17283

Real-time simulation of helicopter IFR approaches
into major terminal areas using NAVAID, MLS, and
CDTI
(AIAA PAPER 82-0260) p0118  A82-17660

Data communications within the Air Navigation
Services system
p0125  A82-18272

Modernizing the Egyptian A.T.C. system
p0125  A82-18273

Airport radar systems — Russian book
p0151  A82-18975

The significance of electronics for air traffic control at the present time and in the future
p0163  A82-19649

Consequences of American airline deregulation —
Legislative theory in a concrete example
p0165  A82-19947

Movement in Category III conditions — all
weather air traffic operations
p0166  A82-20221

The PS2 BAA Bedford civil flight research programme
--- on components and system integration for
optimum AIC
p0170  A82-20519

Helicopters and Navstar/GPS
p0182  A82-21592

Utilization of radio equipment at airports and on
airways — Russian book
p0699  A82-22407

Stereographic projection in the National Airspace System
p0210  A82-23031

Air Traffic Control Association, Annual Fall
Conference, 25th, Arlington, Va., October 19-24,
1980, Proceedings
p0219  A82-23309

The requirements for reduced IFR separations on
final approach
p0219  A82-23310

Analysis of system problems using aviation safety
reporting system data
p0219  A82-23312

Reducing reflections on the front surface of air
traffic control displays
p0219  A82-23314

Utilizing the helicopter's versatility to improve
the AIC system
p0219  A82-23316

International plans for civil and military co-
ordination
p0220  A82-23317

Operational air traffic in the Federal Republic of
Germany
p0220  A82-23318

Distributed data processing modeling for future
AIC systems
p0220  A82-23319

Lightweight AIC systems
p0220  A82-23321

Discrete Address Beacon System /DABS/
A Microwave Landing System simulation
Voice communications — The vital link
Institute of Navigation, Annual Meeting, 37th,
U.S. Naval Academy, Annapolis, MD, June 9-11,
1981, Proceedings
Scanning strategies for air traffic control radars
p0235  A82-24643

Beyond the horizon coverage for air
navigation/traffic control
p0235  A82-24647

Conflicts between random flights in a given area
p0235  A82-25213

On-board computers save fuel and help ATC
p0275  A82-26046

Automating air-traffic control
p0282  A82-26511

Modernizing air traffic control in France
p0285  A82-27048

The investigation of aircraft accidents and
incidents — Some recent national and
international developments
p0329  A82-29275

Air Traffic Flow Management and Air Traffic Flow
Control
p0334  A82-29523

Improvements to secondary radar for air traffic
control
p0341  A82-30311

Justification for, and design of, an economical
programmable multiple flight simulator
Traffic flow control in the Frankfurt/Hannover airport
area
p0434  A82-35669

Future terminal area systems
p0437  A82-37526

Fuel conservation: The airline — AIC
p0483  A82-38464

Analysis of general-aviation accidents using AIC
radar records
(AIAA PAPER 82-1310 ) p0487  A82-3909 1

Analysis of in-trail following dynamics of
CDTI-equipped aircraft — Cockpit Displays of
Traffic Information
(AIAA PAPER 82-1330) p0488  A82-39107

NASA/FAA Helicopter ATC simulation investigation
of RNAV/LNS instrument approaches
p0501  A82-60535

A concept for 4D-guidance of transport aircraft in
the TAA — Terminal Maneuvering Area
p0509  A82-60942

Estimation of the number of in-flight aircraft on
instrument flight rules
p0518  A82-61117

Use of aircraft-derived data to assist in ATC
tracking systems. I - Accuracy and theoretical
considerations
p0546  A82-62504

Automation of flight operational control in the
German Democratic Republic
p0547  A82-62574

Radionavigation for civil aviation
(SEE PAPER 81760) p0554  A82-64231

Air-traffic anticollision systems
(SEE PAPER 81766) p0555  A82-64235

The Center Weather Service Unit program /CWSU/ ---
for civil aviation
p0580  A82-65828
The choice of technology for ATC radars. I - Transmitters

Aeronautical Information Data Subsystem (AIDS): A preliminary functional description of integrated flow management -- for air traffic control systems

A-26
### Subject Index

<table>
<thead>
<tr>
<th>Title</th>
<th>Page Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fighting forest fires - A task for the Swiss air force</td>
<td>p0330 82-29577</td>
</tr>
<tr>
<td>The current state of technology concerning the fighting of forest fires from the air in Austria</td>
<td>p0330 82-29578</td>
</tr>
<tr>
<td>The utilization of agricultural aircraft in economical operations for fighting forest fires in Israel</td>
<td>p0330 82-29579</td>
</tr>
<tr>
<td>The utilization of aircraft in fighting forest fires - French experience</td>
<td>p0331 82-29581</td>
</tr>
<tr>
<td>The use of 'water bombers' and chemical agents against forest fires, taking into account the employment of a first-attack system</td>
<td>p0331 82-29582</td>
</tr>
<tr>
<td>The employment of two-engine and four-engine aircraft for dropping the latent chemical fire extinguishing agents in connection with the fighting of forest fires</td>
<td>p0331 82-29583</td>
</tr>
<tr>
<td>The employment of helicopters in Austria in connection with large-scale fires in buildings</td>
<td>p0331 82-29585</td>
</tr>
<tr>
<td>Performance characteristics and employment profiles of the new helicopter BK117</td>
<td>p0331 82-29586</td>
</tr>
<tr>
<td>A system design for a multispectral sensor using two-dimensional solid-state imaging arrays</td>
<td>p0337 82-31991</td>
</tr>
<tr>
<td>An optical data link for airborne scanning systems</td>
<td>p0391 82-34737</td>
</tr>
<tr>
<td>Airborne warning systems for natural and aircraft-initiated lightning</td>
<td>p0342 82-35729</td>
</tr>
<tr>
<td>Certification of an airborne Loran-C navigation system</td>
<td>p0343 82-35876</td>
</tr>
<tr>
<td>A single-frequency multlttransmitter telemetry technique</td>
<td>p0343 82-35876</td>
</tr>
<tr>
<td>An accurate Doppler navigator with microwave simplicity</td>
<td>p0345 82-37037</td>
</tr>
<tr>
<td>Medium PPR performance analysis --- Pulse-Repetition Frequency</td>
<td>p0346 82-37047</td>
</tr>
<tr>
<td>Application of an optical data link in the airborne scanning system</td>
<td>p0362 82-37390</td>
</tr>
<tr>
<td>Rover jaa - US Army studies EW helicopter</td>
<td>p0378 82-41088</td>
</tr>
<tr>
<td>Use of aircraft-derived data to assist in ATC tracking systems. I - Accuracy and theoretical considerations</td>
<td>p0354 82-42504</td>
</tr>
<tr>
<td>Proposed multipurpose flying radio-physical laboratory using an IL-16 aircraft</td>
<td>p0350 82-43278</td>
</tr>
<tr>
<td>Passive direction finding and signal location</td>
<td>p0358 82-45346</td>
</tr>
<tr>
<td>Measuring flexural loads by means of strain transducers</td>
<td>p0358 82-46619</td>
</tr>
<tr>
<td>A random vibration test for the evaluation of stiff sensitive component parts</td>
<td>p0358 82-47073</td>
</tr>
<tr>
<td>Aquila - Robot eye in the sky</td>
<td>p0358 82-48025</td>
</tr>
<tr>
<td>Integration of complex systems in current and future aircraft projects for the use of avionics</td>
<td>p0256 82-18221</td>
</tr>
<tr>
<td>FM broadcast interference related to airborne ILS, VOR and TACAN communications</td>
<td>p0268 82-19419</td>
</tr>
<tr>
<td>RAPIDIR simulator for aircraft instruments</td>
<td>p0356 82-22286</td>
</tr>
<tr>
<td>The 1981 direct strike lightning data --- utilizing the F-106 aircraft</td>
<td>p0358 82-22588</td>
</tr>
<tr>
<td>Testing of the Kuiper Airborne Observatory 91-C telescope</td>
<td>p0400 82-25040</td>
</tr>
<tr>
<td>Airborne gamma-ray spectrometer and magnetometer survey, Barrow quadrangle, Alaska, volume 2</td>
<td>p0413 82-25623</td>
</tr>
</tbody>
</table>
Read-up displays - The integrity of flight information
EC-135 avionics modernization hot bench - An evaluation of requirements and design for the future
Radar environment simulation for software test
The significance of electronics for air traffic control at the present time and in the future
The impact of increasing energy costs upon the design philosophy of avionics fuel management systems
Thrust management - Current achievements and future developments
ALS flare low elevation angle guidance considerations
Tornado-avionic development testing
The use of dynamic mock-ups in the design of advanced systems - FAA's Digital Avionic Information System and NAVY's Advanced Integrated Display System
High temperature engine control electronics
SARE PAPER 81074
SARE PAPER 82-02076
ASR for precise position location - The TIB-NAV system
Analysis of loran-C system reliability for civil aviation
Flight condition recognition/PCA technique --- microprocessor-based recording for helicopter structural component fatigue damage
On-board computers save fuel and help pilot
The micro revolution comes to civil air transport
An approach to software for high integrity applications -- in aircraft gas turbine engine control
ADSN PAPER 82-GT-251
Estimation of the peak count of actively controlled aircraft
FDCS -- A commercial flight management computer system
[AAIA 82-1515]
A preliminary laboratory evaluation of a reconfigurable integrated flight control concept
[AAIA 82-1597]
An ALS with computer aided landing approach
[AAIA PAPER 82-11352]
Flight management computers
[AAIA PAPER 82-11352]
The fourth dimension --- flight management system for airline operations
The control and guidance unit for MACHAN
[AAIA PAPER 82-11352]
Boeing's new 767 casts crew workload
[AAIA PAPER 82-11352]
Aircraft design for fuel efficiency
Investigations concerned with shifting pilot activities to a higher hierarchical stage of flight control -- German ideas
A floating-point/multiple-precision processor for airborne applications
A floating-point/multiple-precision processor for airborne applications
Integrated sensor system for flight test instrumentation
New trends and concerns in the airliner radio equipment market
[SARE PAPER 811768]
High Order Languages /BOL/ for flight control applications
[IAS 82-020]
The use of flight management computers in air carrier operations in the 1980s
[AD-105621]
[NASA-CR-2206]
Airborne data analysis/monitor system
[AD-10429]
ADAMS executive and operating system
[AD-10431]
On-board computer program in development of a 310 flight testing program
[AD-10433]
BOLN computers in the flight testing of the Fokker F29 aircraft
[AD-10439]
Description of a dual fail operational redundant strapdowns inertial measurement unit for integrated avionics systems research
[AD-10442]
Hierarchical specification of the SIFT fault tolerant flight control system
[AD-10457]
Reconfiguration: A method to improve system reliability
[AD-10471]
Integrated control of mechanical system for future combat aircraft
P/A-19A tactical airborne computational subsystem
[AD-10477]
Development of a simple, self-contained flight test data acquisition system
[AD-10479]
A-TE software module guide
[AD-10480]
Analysis of computing system configurations for highly integrated guidance and control systems
[AD-10493]
Development of a simple, self-contained flight test data acquisition system
[AD-10495]
On line experiments in acquiring and exploiting AINS data for BIC purposes
[AD-10497]
An intermediate solution between basic and expanded aircraft integrated data systems (AIDS)
[AD-10499]
An assessment of the real-time application capabilities of the SIFT computer system
[AD-10501]
PDUD Programmable pilot-oriented display --- air navigation
[AD-10503]
A floating-point/multiple-precision processor for airborne applications
[AD-10505]
ARTOPilot: A distributed processor for air fleet control
[AD-10513]
Fate rover aided integrated strike avionics system
[AD-10517]
Advanced aircraft electrical system control technology demonstrator. Phase 1: Analysis and preliminary design
[AD-11133]
Problems related to the integration of fault tolerant aircraft electronic systems
[AD-10523]
Final engineering report for computer, weapon aiming CP-1946/4
[AD-11125]
Multilevel semantic analysis and problem-solving in the flight domain
[AD-10527]
AERIBS -- EUROPEAN AERIBS
AIRCRAFT
Computer-animated predictive displays for microwave landing approaches
[AD-10541]
F101D/F in Tomcat -- Preliminary test results
[AD-10582]
The impact of new guidance and control systems on military aircraft cockpit design
[AD-10592]
Prediction of aerodynamic loads on aircrafts with external stores at transonic speeds
[AD-10602]
<table>
<thead>
<tr>
<th>SUBJECT INDEX</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRCRAFT ANTENNAS</td>
</tr>
<tr>
<td>Design and performance of airborne radomes - A review</td>
</tr>
<tr>
<td>Broader bandwidth for conical conformal antennas</td>
</tr>
<tr>
<td>Leaky wave antenna using an inverted strip dielectric waveguide - for aircraft applications</td>
</tr>
<tr>
<td>Analysis of the crossed dipole antenna as a model for aircraft in an electromagnetic environment</td>
</tr>
<tr>
<td>Calculation and measurement of electric field strength for airborne antennas in the RF range</td>
</tr>
<tr>
<td>Terrain reflection effects on data reception from airborne vehicles</td>
</tr>
<tr>
<td>Distributed airborne array concepts</td>
</tr>
<tr>
<td>Radiating elements for hemispherically scanned arrays - onboard aircraft for data links to satellites</td>
</tr>
<tr>
<td>Measuring LF and HF antenna radiation patterns by means of a helicopter</td>
</tr>
<tr>
<td>Monopole antenna patterns on finite size composite ground planes -- in aircraft</td>
</tr>
<tr>
<td>Recent results in main beam nulling -- aircraft antenna design</td>
</tr>
<tr>
<td>General aviation aircraft antennas for the global positioning system</td>
</tr>
<tr>
<td>Airborne antennas pattern calculations</td>
</tr>
<tr>
<td>TR/TE polarization ratios in a sample of 30 kHz ferrous received at altitudes from 0 to 70 km</td>
</tr>
<tr>
<td>Volumetric pattern prediction of antennas on aircraft using the geometrical theory of diffraction</td>
</tr>
<tr>
<td>Assessment of aircraft capacitive circuit medium wave antennas according to their efficiency</td>
</tr>
<tr>
<td>Computer-program model for predicting horizontally and vertically polarized VLF atmospheric radio noise at elevated receivers</td>
</tr>
<tr>
<td>Conformal antenna array design handbook</td>
</tr>
<tr>
<td>GTD analysis of airborne antennas radiating in the presence of long dielectric layers</td>
</tr>
<tr>
<td>Elevation plane analysis of on-aircraft antennas</td>
</tr>
<tr>
<td>Spiral slotted phased antenna array</td>
</tr>
<tr>
<td>Advanced microstrip GPS antennas for general aviation aircraft</td>
</tr>
<tr>
<td>Delta electrical load analysis C-141B JACC/CP aircraft</td>
</tr>
<tr>
<td>Conformal antenna array design handbook</td>
</tr>
<tr>
<td>Aircraft approach spacing</td>
</tr>
<tr>
<td>Aircraft separation assurance avionics</td>
</tr>
<tr>
<td>Large terminal maneuvering areas: Operational problems -- Possible development of solutions</td>
</tr>
<tr>
<td>Traffic flow control in the Frankfurt/Main airport area</td>
</tr>
<tr>
<td>Analysis of in-trail following dynamics of CPII-equipped aircraft -- Cockpit Displays of Traffic Information</td>
</tr>
</tbody>
</table>

AIRCRAFT ANTENNAS

<p>| AIRCRAFT ANTENNAS |
| Study of the effects of maneuver compensation on beam pointing accuracy | p0609 A82-33106 |</p>
<table>
<thead>
<tr>
<th>Subj ect INDEX</th>
</tr>
</thead>
</table>

| AIRCRAFT ANTENNAS |
| Study of the effects of maneuver compensation on beam pointing accuracy | p0609 A82-33106 |
SUBJECT INDEX

Requirements for independent and dependent parallel instrument approaches at reduced runway spacing [AD-A105673] p.0132 N82-14080

Dynamic scheduling of runway operations [AD-A110777] p.0495 N82-26200

Airfield and airspace capacity/delay policy analysis [AD-A110775] p.0498 N82-26326

AIRCRAFT BASICS

U AIRLIFT AIR FACILITIES

AIRCRAFT MAKERS

MT LEADING EDGE SLATS

MT SPLIT FLAPS

MT TRAILING-EDGE FLAPS

MT WING FLAPS

Correlation of wear with oxidation of carbon-carbon composites p.0205 N82-27068

Dynamics of aircraft antiskid braking systems conducted at the Langley aircraft landing loads and traction facility (NASA-TN-1824) p.0250 N82-18204

Tire tread temperatures during antiskid braking and cornering on a dry runway (NASA-TP-20019) p.0395 N82-24193

Alert aircraft roll over checks (AD-A107456) p.0527 N82-28307

AIRCRAFT CABINS

U AIRCRAFT COMPARTMENTS

AIRCRAFT CARRIERS

Commentary on facilities used in the development of a Sea Harrier all weather operations capability [AIAA PAPER 81-2407] p.0056 N82-13892

The Navy F/A-18A Hornet electromagnetic compatibility program (AD-A107456) p.0070 N82-14760

Initial F-18 carrier suitability testing p.0176 N82-20752

Naval Air Systems Command /NAVair/ ATE program — Standardized ATE for the carrier environment p.0294 N82-27892

Aircraft carrier — Surface effect ship [AIAA PAPER 82-0808] p.0376 N82-31981

Review of defense-related vertical and short takeoff and landing (V/STOL) aircraft programs (GSO-55-278) p.0254 N82-18205

Investigation of crounedge pendant catapult slot interaction; proposed corrective measures (AD-A108194) p.0258 N82-18232

Descent-rate cuing for carrier landings: Effects of display gain, display noise and aircraft type (AD-A108801) p.0264 N82-19206

Reports by Systems Technology, Inc., in support of carrier-landing research in the visual technology research simulator (AD-A112666) p.0474 N82-27324

AIRCRAFT COMMUNICATION

A mathematical model of an over-sea airborne UHF radio link p.0014 N82-11406

AIRC 429 digital data communications on the Boeing 757 and 767 commercial airliners [AIAA 81-2267] p.0049 N82-13405


On-board communication for active-control transport aircraft [AIAA 81-2321] p.0052 N82-13520

Future directions in CNI integrated avionics p.0067 N82-14720

The agile transversal filter — A flexible building block for IGCA — Integrated Communications, Navigation and Identification Avionics p.0070 N82-14765

An analysis of antijam communication requirements in fading media p.0176 N82-20695

Voice communications — The vital link p.0220 N82-21324

Beyond the horizon coverage for air navigation/traffic control p.0235 N82-24647

Loran-C NAV in mountainous areas p.0236 N82-24649

Radiating elements for hemispherically scanned arrays — onboard aircraft for data links to satellites p.0594 N82-33360

AIRCRAFT COMPARTMENTS

Aviation electronics /4th edition/ — Book p.0379 N82-32992

Implementing aircraft identification schemes by public key cryptosystems p.0436 N82-37381

Digital computer simulation of modern aeronautical digital communication systems p.0509 N82-40940

New trends and concerns in the airliner radio equipment market [SEE PAPER 811760] p.0555 N82-49230

Automation in the skies — automatic air traffic control p.0584 N82-67224

Investigation of the effects of airborne installation factors on receiver interference p.0268 N82-19422

FAA/PCC coordination procedures for FB broadcast stations p.0268 N82-19423

A comparative study of narrowband vocoder algorithms in Air Force operational environments using the Diagnostic Phase Test (AD-112053) p.0660 N82-26566

Attack and en route avionics for in-weather operations p.0671 N82-27300

Propagating problems associated with aircraft communication systems p.0539 N82-29535

Airborne Flight Test System (AFTS) p.0589 N82-32534

Transverse electric waves for VLF/LF communication between aircraft (AD-115534) p.0596 N82-32562

AIRCRAFT COMPARTMENTS

Aircraft cabin air ozone contamination and compliance with regulations p.0242 N82-31057

Flight demonstration of an integrated floor/fuel isolation system [AIAA PREPRINT 81-16] p.0442 N82-37780

Experimental model analysis of the fuselage panels of an Aero Commander aircraft (NASA-CR-165750) p.0206 N82-10028

A vapour cycle cabin cooling system for the Sea King Mk.50 helicopter [AD-A105211] p.0088 N82-12069

Preliminary thoughts on helicopter cabin noise prediction methods p.0248 N82-18148

The measurement of the mobility of structures at acoustic frequencies p.0248 N82-18149

Study of cabin noise control for twin engine general aviation aircraft (NASA-CR-165633) p.0260 N82-18995

Reduction of structural vibration by a dynamic absorber — helicopter cabins p.0316 N82-21190

Analytical prediction of the interior noise for cylindrical models of aircraft fuselages for prescribed exterior noise fields. Phase 2: Models for sidewall trim, stiffened structures and cabin acoustics with floor partitions (NASA-CR-165669) p.0358 N82-22952

A research program to reduce interior noise in a general aviation airplane. Influence of de-mperurization and damping material on the noise radiation characteristics of flat and curved stiffened panels [NASA-CR-165035] p.0462 N82-27088

Cabin safety in large transport aircraft (PDF-129297) p.0664 N82-27294

Cranworthiness studies: Cabin, seat, restraint, and injury findings in selected general aviation accidents (AD-A149787) p.0531 N82-29275

Fireworthiness of transport aircraft interior systems p.0531 N82-29284


Examination of aircraft interior emergency lighting in a postcrash fire environment (AD-A117629) p.0605 N82-33360
AIRCRAFT CONFIGURATIONS

[AD-A117905]

AIRCRAFT CONFIGURATIONS

Analysis of aerodynamic aircraft flying qualities through application of the Heal-Smith criterion
[AI AAPAPER 88-1776]

The Agusta A129
[PA 0045 A82-13237]

The F-16/79 test program
[AI AAPAPER 88-2498]

High performance modeling techniques
[AI AAPAPER 88-2431]

The Canadair Regional Jet
[AI AAPAPER 88-2440]

Experience with high performance V/STOL fighter projects at NASA
[AI AAPAPER 88-2414]

A summary of jet-impingement studies at McDonnell Douglas Research Laboratories
[AI AAPAPER 88-2613]

V/STOL status from the engine technology viewpoint
[AI AAPAPER 88-2640]

Tactical STOL moment balance through innovative configuration technology
[AI AAPAPER 88-2615]

Application of thrust vectoring for STOL
[AI AAPAPER 88-2646]

Sea-based support aircraft alternatives
[AI AAPAPER 88-2649]

Control law development for a close-coupled canard, relaxed static stability fighter
[AI AAPAPER 88-0080]

Analysis of flight test measurements in ground effect
[AI AAPAPER 88-20763]

A study of the suitability of the all-fiberglass XV-11A aircraft for fuel efficient general aviation flight research
[AI AAPAPER 88-20764]

Transonic perturbation analysis of wing-fuselage-nacelle-pylon configurations with powered exhausts
[AI AAPAPER 88-0255]

Transparency development needs for military aircraft in the 1980's
[AI AAPAPER 88-22077]

Large scale model measurements of airframe noise using cross-correlation techniques
[AI AAPAPER 88-24302]

Why twin-fuselage aircraft
[AI AAPAPER 88-26966]

F-15 fighter abilities evaluated
[AI AAPAPER 88-2952]

Aerodynamics at the 1981 Le Bourget show
[AI AAPAPER 88-2952]

An automated technique for improving model test/analysis correlation
[AI AAPAPER 88-0660]

Multi-body transport concept
[AI AAPAPER 88-0910]

Wind-tunnel wall interference corrections for three-dimensional flows
[AI AAPAPER 88-32847]

Generation of three-dimensional boundary-fitted curvilinear coordinate systems for wing/wing-tip geometries using the elliptic solver method
[AI AAPAPER 88-33310]

Status of the national transonic facility
[AI AAPAPER 88-0504]

Vertical takeoff technology - Flight mechanics, aerodynamics, and propulsion system
design/3rd revised and enlarged edition/---German book
[AI AAPAPER 88-33348]

Aerodynamics. Part 2 - Methods of aerodynamic design/---Russian book
[AI AAPAPER 88-33348]

CDS grows new muscles
[AI AAPAPER 88-33348]

Unstructure - a new concept for light weight, integrally stiffened skin structures
[AI AAPAPER 88-33491]

Flow visualisation techniques for the study of high incidence aerodynamics
[AI AAPAPER 88-34446]

Comparison of aerodynamic characteristics of aircraft models with forward and aft swept wings at Mach number 0,5

**SUBJECT INDEX**

<table>
<thead>
<tr>
<th>Title</th>
<th>Page Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conduction in prepregs for lightning strike protection</td>
<td>p0012 a02-19059</td>
</tr>
<tr>
<td>Control law design to meet constraints using SIMPACK-synthesis package for active controls</td>
<td>p0010 a02-13140</td>
</tr>
<tr>
<td>F-16 program overview and wind tunnel/flight correlation</td>
<td>p0014 a02-25207</td>
</tr>
<tr>
<td>X-29a forward-swept-wing demonstrator airplane</td>
<td>p0014 a02-25209</td>
</tr>
<tr>
<td>An analytical study of turbulence responses, including horizontal tail loads, of a control configured jet transport with relaxed static stability</td>
<td>p0015 a02-26313</td>
</tr>
<tr>
<td>Aircraft geometry verification with enhanced computer generated displays</td>
<td>p0015 a02-29268</td>
</tr>
<tr>
<td>Annual review of aircraft accident data: US general aviation calendar year 1979</td>
<td>p0019 a02-29278</td>
</tr>
<tr>
<td>Development of flying qualities criteria for single pilot instrument flight operations</td>
<td>p0020 a02-19532</td>
</tr>
<tr>
<td>Multibody aircraft study, volume 1</td>
<td>p0020 a02-29280</td>
</tr>
<tr>
<td>Multibody aircraft study, volume 2</td>
<td>p0020 a02-29280</td>
</tr>
<tr>
<td>Application of an optimized winglet configuration to an advanced commuter transport</td>
<td>p0020 a02-32244</td>
</tr>
<tr>
<td>Development of a rotorcraft. Propulsion dynamics interface analysis, volume 2</td>
<td>p0020 a02-32248</td>
</tr>
<tr>
<td>Family of airfoil shapes for rotating blades --- for increased power efficiency and blade stability</td>
<td>p0020 a02-32248</td>
</tr>
<tr>
<td>Aircraft composite materials and structures</td>
<td>p0024 a02-10305</td>
</tr>
<tr>
<td>Sophisticated aircraft structure developments - Combat aeroplanes</td>
<td>p0025 a02-10305</td>
</tr>
<tr>
<td>On the use of carbon composites in slat and stabilizer construction</td>
<td>p0025 a02-10309</td>
</tr>
<tr>
<td>Powder metallurgy superalloys - Aeropace materials for the 1980's; Proceedings of the Conference, Zurich, Switzerland, November 18-20, 1980, Volume 1</td>
<td>p0025 a02-11468</td>
</tr>
<tr>
<td>Keelar composites; Proceedings of the Symposium, El Segundo, Ca, December 2, 1980</td>
<td>p0025 a02-12495</td>
</tr>
<tr>
<td>Seven years experience with Keelar-49 in the Lockheed L-1011 tristar</td>
<td>p0025 a02-12466</td>
</tr>
<tr>
<td>Impedance modeling of acoustic absorbing materials for aircraft engine applications</td>
<td>p0026 a02-14043</td>
</tr>
<tr>
<td>Aircraft composite materials and structures</td>
<td>p0026 a02-16143</td>
</tr>
<tr>
<td>Experimental structural testing on a composite aircraft canard and its applications</td>
<td>p0027 a02-17417</td>
</tr>
<tr>
<td>Lear Fan - The plastic aeroplane arrives</td>
<td>p0027 a02-18348</td>
</tr>
<tr>
<td>On the track of practical forward-swept wings</td>
<td>p0028 a02-19071</td>
</tr>
<tr>
<td>Conductive preps for lightning strike protection on aircraft</td>
<td>p0028 a02-20523</td>
</tr>
<tr>
<td>Fatigue behavior of selected non-woven fiber composites for helicopter rotor blades</td>
<td>p0028 a02-20524</td>
</tr>
<tr>
<td>Skyship 500 - The development of a modern production airship</td>
<td>p0028 a02-20524</td>
</tr>
</tbody>
</table>

**AIRCRAFT CONSTRUCTION MATERIALS**

<table>
<thead>
<tr>
<th>Title</th>
<th>Page Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>A study of the suitability of the all fiberglass IV-1A aircraft for fuel efficient general aviation flight research</td>
<td>p0040 a02-20509</td>
</tr>
<tr>
<td>Aircraft transparency design guide</td>
<td>p0040 a02-24301</td>
</tr>
<tr>
<td>B.A.C. One-Eleven flight deck glassing product improvement</td>
<td>p0040 a02-24307</td>
</tr>
<tr>
<td>Concorde glazing - 5 years of back to service</td>
<td>p0040 a02-24326</td>
</tr>
<tr>
<td>Materials aspects of aircraft EMC design</td>
<td>p0040 a02-24358</td>
</tr>
<tr>
<td>Aircraft surface coatings for drag reduction/erosion protection</td>
<td>p0040 a02-24361</td>
</tr>
<tr>
<td>Structural testing of composites with known defects</td>
<td>p0040 a02-26040</td>
</tr>
<tr>
<td>Carbon-fiber composites - A fiber composite material for highly stressed light-construction components</td>
<td>p0040 a02-26050</td>
</tr>
<tr>
<td>Recent developments in materials and processes for aircraft corrosion control</td>
<td>p0040 a02-26052</td>
</tr>
<tr>
<td>Materials and aeronautics</td>
<td>p0040 a02-26052</td>
</tr>
<tr>
<td>Sikorsky tail rotor - 1980: Advanced manufacturing and quality control techniques</td>
<td>p0040 a02-26390</td>
</tr>
<tr>
<td>CR-97 fiberglass rotor blade design and fabrication interface analysis, volume 2</td>
<td>p0040 a02-29397</td>
</tr>
<tr>
<td>Effects of lightning and nuclear electromagnetic pulse on an advanced composites aircraft</td>
<td>p0040 a02-27144</td>
</tr>
<tr>
<td>Application of advanced composite materials to helicopter airframe structures</td>
<td>p0040 a02-27145</td>
</tr>
<tr>
<td>Composite fasteners - A compatible joining technique for fibrous composites in structural design --- aircraft construction materials</td>
<td>p0040 a02-27159</td>
</tr>
<tr>
<td>Flight service evaluation of advanced structures</td>
<td>p0040 a02-27402</td>
</tr>
<tr>
<td>Damage tolerance and durability design of composite structures for commercial aircraft</td>
<td>p0040 a02-27403</td>
</tr>
<tr>
<td>Light weight adhesive joining of composite structures</td>
<td>p0040 a02-27404</td>
</tr>
<tr>
<td>An evaluation of several polymers for high density humidity PC coatings</td>
<td>p0040 a02-27404</td>
</tr>
<tr>
<td>Recent developments in materials and processes for aircraft corrosion control</td>
<td>p0040 a02-27446</td>
</tr>
<tr>
<td>Processing and uses of carbon fibre reinforced plastics --- Book</td>
<td>p0040 a02-27446</td>
</tr>
<tr>
<td>Elevator unit for the Alpha-Jet, made from carbon-fibres reinforced plastic</td>
<td>p0040 a02-28043</td>
</tr>
<tr>
<td>Tool use in cutting operations involving integral structural components in aircraft construction</td>
<td>p0040 a02-28049</td>
</tr>
<tr>
<td>Advanced aluminums and titanium structures; Proceedings of the Winter Annual Meeting, Washington, DC, November 15-20, 1981</td>
<td>p0040 a02-28073</td>
</tr>
<tr>
<td>A review of U.S. Air Force research related to airframe and engine materials</td>
<td>p0040 a02-28994</td>
</tr>
<tr>
<td>Flight qualification of composite structures at ABD-BA</td>
<td>p0040 a02-29260</td>
</tr>
<tr>
<td>A giant step toward composite helicopters</td>
<td>p0040 a02-30116</td>
</tr>
<tr>
<td>New materials fly better and cheaper</td>
<td>p0040 a02-30294</td>
</tr>
<tr>
<td>System study of application of composite materials for future transport aircraft</td>
<td>p0040 a02-31426</td>
</tr>
<tr>
<td>The superalloys - Materials for gas turbine hot section components</td>
<td>p0040 a02-31985</td>
</tr>
<tr>
<td>A study of the suitability of the all fiberglass IV-1A aircraft for fuel efficient general aviation flight research</td>
<td>p0040 a02-20559</td>
</tr>
<tr>
<td>Aircraft transparency design guide</td>
<td>p0040 a02-24301</td>
</tr>
<tr>
<td>B.A.C. One-Eleven flight deck glassing product improvement</td>
<td>p0040 a02-24307</td>
</tr>
<tr>
<td>Concorde glazing - 5 years of back to service</td>
<td>p0040 a02-24326</td>
</tr>
<tr>
<td>Materials aspects of aircraft EMC design</td>
<td>p0040 a02-24358</td>
</tr>
<tr>
<td>Aircraft surface coatings for drag reduction/erosion protection</td>
<td>p0040 a02-24361</td>
</tr>
<tr>
<td>Structural testing of composites with known defects</td>
<td>p0040 a02-26040</td>
</tr>
<tr>
<td>Carbon-fiber composites - A fiber composite material for highly stressed light-construction components</td>
<td>p0040 a02-26050</td>
</tr>
<tr>
<td>Recent developments in materials and processes for aircraft corrosion control</td>
<td>p0040 a02-26052</td>
</tr>
<tr>
<td>Materials and aeronautics</td>
<td>p0040 a02-26052</td>
</tr>
<tr>
<td>Sikorsky tail rotor - 1980: Advanced manufacturing and quality control techniques</td>
<td>p0040 a02-26390</td>
</tr>
<tr>
<td>CR-97 fiberglass rotor blade design and fabrication interface analysis, volume 2</td>
<td>p0040 a02-29397</td>
</tr>
<tr>
<td>Effects of lightning and nuclear electromagnetic pulse on an advanced composites aircraft</td>
<td>p0040 a02-27144</td>
</tr>
<tr>
<td>Application of advanced composite materials to helicopter airframe structures</td>
<td>p0040 a02-27145</td>
</tr>
<tr>
<td>Composite fasteners - A compatible joining technique for fibrous composites in structural design --- aircraft construction materials</td>
<td>p0040 a02-27159</td>
</tr>
<tr>
<td>Flight service evaluation of advanced structures</td>
<td>p0040 a02-27402</td>
</tr>
<tr>
<td>Damage tolerance and durability design of composite structures for commercial aircraft</td>
<td>p0040 a02-27403</td>
</tr>
<tr>
<td>Light weight adhesive joining of composite structures</td>
<td>p0040 a02-27404</td>
</tr>
<tr>
<td>An evaluation of several polymers for high density humidity PC coatings</td>
<td>p0040 a02-27404</td>
</tr>
<tr>
<td>Recent developments in materials and processes for aircraft corrosion control</td>
<td>p0040 a02-27446</td>
</tr>
<tr>
<td>Processing and uses of carbon fibre reinforced plastics --- Book</td>
<td>p0040 a02-27446</td>
</tr>
<tr>
<td>Elevator unit for the Alpha-Jet, made from carbon-fibres reinforced plastic</td>
<td>p0040 a02-28043</td>
</tr>
<tr>
<td>Tool use in cutting operations involving integral structural components in aircraft construction</td>
<td>p0040 a02-28049</td>
</tr>
<tr>
<td>Advanced aluminums and titanium structures; Proceedings of the Winter Annual Meeting, Washington, DC, November 15-20, 1981</td>
<td>p0040 a02-28073</td>
</tr>
<tr>
<td>A review of U.S. Air Force research related to airframe and engine materials</td>
<td>p0040 a02-28994</td>
</tr>
<tr>
<td>Flight qualification of composite structures at ABD-BA</td>
<td>p0040 a02-29260</td>
</tr>
<tr>
<td>A giant step toward composite helicopters</td>
<td>p0040 a02-30116</td>
</tr>
<tr>
<td>New materials fly better and cheaper</td>
<td>p0040 a02-30294</td>
</tr>
<tr>
<td>System study of application of composite materials for future transport aircraft</td>
<td>p0040 a02-31426</td>
</tr>
<tr>
<td>The superalloys - Materials for gas turbine hot section components</td>
<td>p0040 a02-31985</td>
</tr>
</tbody>
</table>
Aircraft Control Contd

A design criterion for highly augmented fly-by-wire aircraft [AIAA 82-1570] p0465 A82-39019
The use of differential pressure feedback in an automatic flight control system [AIAA 82-1596] p0465 A82-38991
The ideal control element for real airplanes is [AIAA 82-1606] p0465 A82-38906
An alternate method of specifying bandwidth for flying qualities [AIAA 82-1609] p0465 A82-38988
Investigation of low order lateral directional transfer function models for augmented aircraft [AIAA 82-1610] p0465 A82-38989
An analysis of a nonlinear instability in the implementation of a 6DOF control system during hover [AIAA 82-1611] p0465 A82-38990
X-29A flight control system design experiences [AIAA 82-1538] p0466 A82-39003
The effects of atmospheric turbulence on a quadrotor heavy lift aircraft [AIAA 82-1542] p0466 A82-39009
Flight control synthesis using robust output observers [AIAA 82-1575] p0466 A82-39016
Handling qualities criteria for flight path control of V/STOL aircraft [AIAA PAPER 82-1292] p0466 A82-39001
Piloted simulator evaluation of a relaxed static stability fighter at high angle-of-attack [AIAA PAPER 82-1295] p0466 A82-39002
In-flight investigation of large airplane flying qualities for approach and landing [AIAA PAPER 82-1296] p0466 A82-39003
Parameter estimation applied to general aviation aircraft: A case study [AIAA PAPER 82-1313] p0467 A82-39004
Flight dynamics of rotorcraft in steep high-g turns [AIAA PAPER 82-1345] p0468 A82-39117
Guidance for the use of equivalent systems with MIL-F-8705C for aircraft flight control systems [AIAA PAPER 82-1355] p0489 A82-39124
A modern approach to pilot/vehicle analysis and the Neal-Smith criteria [AIAA PAPER 82-1357] p0489 A82-39125
Electronic stabilization of an aircraft [AIAA 82-1367] p0491 A82-39222
Optimal control application in supersonic aircraft performance [AIAA 82-39374]
Flying qualities requirements for roll CAS systems [AIAA PAPER 82-1356] p0496 A82-40287
Terrain following/terrain avoidance system concept development [AIAA PAPER 82-1518] p0497 A82-40428
Flight experience with a backup flight-control system for the BB-67 research vehicle [AIAA PAPER 82-1541] p0497 A82-40429
Optimal open-loop aircraft control for go-around maneuvers under wind shear influence [AIAA PAPER 82-1542] p0497 A82-40430
Wind tunnel measurements of longitudinal stability and control characteristics of primary and secondary wing configurations [AIAA 82-40325]
Laser pointing in a turbulent atmosphere [AIAA 82-42807]
The testing of new technologies with the aid of the Alpha Jet aircraft [AIAA 82-4326]
Theoretical and experimental investigation of some nonlinear characteristics of electrohydraulic servovalves — German thesis [AIAA 82-4360] p0552 A82-43660
Use of DFVLB in-flight simulator HFB 320 Hansa for handling qualities investigations [AIAA 82-4372] p0577 A82-45166
Self-tuning regulator design for adaptive control of aircraft wing/store flutter [AIAA 82-45538]
Theoretical investigation of the influence of spoiler dynamics on the handling qualities of an aircraft with direct lift control [ESA-TR-681] p0027 A82-10036
Estimation of airplane stability and control derivatives from large amplitude longitudinal maneuvers [NASA-TM-83185] p0028 A82-10042
Control law design for transport aircraft flight tanks [NASA 82-10042]
Fixed gain controller design for aircraft [AF-AIAA-7707] p0089 A82-12081
A standard control display layout for multi-aircraft application [AIAA 82-13054]
NASA aviation safety reporting system [NASA-TM-81724] p0140 A82-15025
An observer approach to the identification and isolation of sensor failures in flight control systems [AIAA 82-15078]
Role of optical computers in aeronautical control applications [AIAA 82-15097]
Multivariable aircraft control by maneuver commands: An application to air-to-surface gunnery [AIAA 82-19154]
Transport aircraft cockpit standardization (Federal Aviation regulations part 25) [NASA-AIAA-10928] p0264 A82-19207
Optimization of thrust angle calibration for the F-16 [NASA-CR-163112] p0317 A82-21198
Multivariable closed loop control analysis and synthesis for complex flight systems [NASA-CR-110132-9] p0348 A82-21932
Integration of avionics and advanced control technology [NASA-CR-110132-9] p0348 A82-21932
Tail configurations for highly maneuverable combat aircraft [NASA-CR-110132-9] p0348 A82-2201
Effects of cable geometry and aircraft attitude on the accuracy of a magnetic leader cable system for aircraft guidance during rollout and cutover [NASA-CR-110132-9] p0351 A82-22239
Control law design to meet constraints using SIROPAC-synthesis package for active controls [NASA-CR-110132-9] p0356 A82-22280
An analysis of a nonlinear instability in the implementation of a 6DOF control system [NASA-CR-110132-9] p0356 A82-22280

Subject Index
AIRCRAFT DESIGN CONTD

626 manned aircraft demonstrator -- Next generation trainer --- cost effective pilot trainer
[IAIA PAPER 81-2519] p0064 A82-14385
Hover tests of the IV-15 Tilt Rotor Research Aircraft
[IAIA PAPER 81-2501] p0064 A82-14386
The use of frequency methods in rotorcraft system identification
[IAIA PAPER 81-2386] p0064 A82-14392
Development of a comprehensive analysis for rotorcraft. II -- Aircraft model, solution procedure and applications
[IAIA PAPER 81-2407] p0065 A82-14407
Wing design for light transport aircraft with improved fuel economy
[IAIA PAPER 81-2416] p0065 A82-14416
New all-electric-system technology --- electrochemical actuators for aircraft
[IAIA PAPER 81-2410] p0067 A82-14410
The influence of smart computers on the cockpit of the future
[IAIA PAPER 81-2405] p0069 A82-14433
The all composite Lear Fan 2100
[IAIA PAPER 81-2406] p0077 A82-14836
Emergency in-flight egress for general aviation aircraft
[IAIA PAPER 81-2407] p0077 A82-14953
A new safety harness for mobile aircraft
[IAIA PAPER 81-2410] p0078 A82-14963
Crashworthy military passenger seat development
[IAIA PAPER 81-2411] p0079 A82-14976
Aerospace highlights 1981
[IAIA PAPER 81-2412] p0103 A82-16135
Direct approach to aerodynamic design problems
[IAIA PAPER 81-2413] p0105 A82-16404
Special problems associated with aircraft radomes
[IAIA PAPER 81-2414] p0106 A82-16558
Advanced cockpit for tactical aircraft
[IAIA PAPER 81-2415] p0106 A82-16599
German Toccat - In a class of its own
[IAIA PAPER 81-2416] p0107 A82-16600
V/STOL status from the engine technology viewpoint
[IAIA PAPER 81-2417] p0108 A82-16913
Maintenance problems associated with the operation of the P602 /Varmus/ engine in the AT-8A /Harrier/ aircraft
[IAIA PAPER 81-2418] p0109 A82-16915
Type "A" V/STOL - One aircraft for all support missions
[IAIA PAPER 81-2419] p0109 A82-16917
Airbus - Perspectives for the future
[IAIA PAPER 81-2420] p0109 A82-16972
Turboelectric, research - The next step
[IAIA PAPER 81-2421] p0110 A82-17149
Fuel conservation now --- improvements for existing production run transport aircraft
[IAIA PAPER 81-2422] p0111 A82-17281
Productivity and safety --- reducing transport aircraft operating costs and increasing safety
[IAIA PAPER 81-2423] p0111 A82-17284
Development of the Lockheed SR-71 Blackbird
[IAIA PAPER 81-2424] p0112 A82-17417
The all-electric airplane - A new trend
[IAIA PAPER 81-2425] p0113 A82-17420
Optimum configuration for a 10 passenger business turbofan jet airplane
[IAIA PAPER 82-0365] p0119 A82-17905
Highlights of a design concept for a close ground support fighter
[IAIA PAPER 82-0361] p0121 A82-17932
Flight mechanics - Modern aircraft design and control concepts --- German book
[IAIA PAPER 82-0362] p0121 A82-17951
Introduction to V/STOL airplanes --- Book
[IAIA PAPER 82-0363] p0122 A82-18147
Design evolution of the Boeing 757
[IAIA PAPER 82-0364] p0126 A82-18322
Lear Fan - The plastic aeroplane arrives
[IAIA PAPER 82-0365] p0126 A82-18348
Boeing 757 -- Introducing the big-fan narrowbody
[IAIA PAPER 82-0366] p0126 A82-18349
Aircraft electrical equipment -- Design and operation --- Russian book
[IAIA PAPER 82-0367] p0151 A82-18998
On the track of practical forward-swept wing
[IAIA PAPER 82-0368] p0154 A82-19071
Ground effect hover characteristics of a large-scale twin tilt-rotor V/STOL model
[IAIA PAPER 81-2609] p0155 A82-19201

SUBJECT INDEX

Thrust-induced effects on low-speed aerodynamics of lighter aircraft
[IAIA PAPER 81-2612] p0155 A82-19203
Tactical STOL moment balance through innovative configuration technology
[IAIA PAPER 81-2615] p0155 A82-19204
STOL capability impact on advanced tactical aircraft design
[IAIA PAPER 81-2617] p0155 A82-19206
Quiet short-haul research aircraft - The first 3 years of flight research
[IAIA PAPER 81-2625] p0156 A82-19209
Application of thrusting jet engines to tactical aircraft having vertical lift and short-field capability
[IAIA PAPER 81-2629] p0156 A82-19211
Concept definition and aerodynamic technology studies for single-engine V/STOL fighter/attack aircraft
[IAIA PAPER 81-2647] p0157 A82-19216
Sea based support aircraft alternatives
[IAIA PAPER 81-2649] p0157 A82-19217
Design features of a sea-based multipurpose V/STOL, STOL, and STOL aircraft in a support role for the U.S. Navy
[IAIA PAPER 81-2650] p0157 A82-19218
Flexibility is offered by IV-15 tilt-rotor concept
[IAIA PAPER 81-2651] p0157 A82-19230
Design of the composite spar-rangia joint development
[IAIA PAPER 81-2652] p0158 A82-20120
The prospects for liquid hydrogen fueled aircraft
[IAIA PAPER 81-2653] p0166 A82-20137
Graphics in numerical control -- The user's challenge
[IAIA PAPER 81-2654] p0167 A82-20277
The future of integrated CAD/CAM systems -- The Boeing perspective
[IAIA PAPER 81-2655] p0167 A82-20278
[IAIA PAPER 81-2656] p0169 A82-20513
Design possibilities for improved fuel efficiency of civil transport aircraft
[IAIA PAPER 81-2657] p0169 A82-20514
The FS2 RAF Bedford civil flight research programme --- on components and system integration for optimum ATC
[IAIA PAPER 81-2658] p0170 A82-20519
[IAIA PAPER 81-2659] p0173 A82-20551
An introduction to the airship
[IAIA PAPER 81-2660] p0173 A82-20552
Offshore uses of the airship
[IAIA PAPER 81-2661] p0173 A82-20553
Studies of modern technology airships for maritime patrol applications
[IAIA PAPER 81-2662] p0173 A82-20554
The airship - its application and promotional activity
[IAIA PAPER 81-2663] p0173 A82-20555
The uses of airships in the Royal Navy
[IAIA PAPER 81-2664] p0173 A82-20556
Airworthiness of airships
[IAIA PAPER 81-2665] p0173 A82-20557
A surveillance airship for the New Zealand environment
[IAIA PAPER 81-2666] p0173 A82-20558
Skyship 500 - the development of a modern production airship
[IAIA PAPER 81-2667] p0174 A82-20559
[IAIA PAPER 81-2668] p0174 A82-20560
Design for operational capability of military aircraft RAF engineering experience and requirements. I - Thoughts of a squadron engineer
[IAIA PAPER 81-2669] p0174 A82-20561
Aircraft design for operability
[IAIA PAPER 81-2670] p0174 A82-20563
Operability of military aircraft - avionic design aspects
[IAIA PAPER 81-2671] p0174 A82-20564
Operability of military aircraft - Some design and cost trends
[IAIA PAPER 81-2672] p0174 A82-20565
Damage tolerance and durability design of composite structures for commercial aircraft

Why twin-fuselage aircraft

Very large vehicles - Technology looking for a need

US Navy begins slow shuffle towards V/STOL

Development of a homebuilt powered sailplane

NASA research related to sailplane airfoils

The utilization of agricultural aircraft in economical operations for fighting forest fires in Israel

The use of 'water bombers' and chemical agents against forest fires, taking into account the employment of a first-attack system

The employment of two-engine and four-engine aircraft for dropping the latest chemical fire extinguishing agents in connection with the fighting of forest fires

Adaptation and equipment of aircraft for the fighting of forest fires

Computational aerodynamics - Its coming of age and its future

Aerodynamics at the 1981 Le Bourget show

Comparison of light aircraft with strutted and cantilever wings

Design principles of a computer-aided design system

Investigation of the aerodynamic-contour method with control functions in the form of smooth constant-signe contours

Flight simulators

Finite element analysis of through-the-canopy acrylic panel

Flight qualification of composite structures at ARB-H [AIAA 82-0755]

Bosed aluminum honeycomb - Aircraft flight surface primary structure application [AIAA 82-0676]

Analysis of aircraft dynamic behavior in a crash environment [AIAA 82-0696]

New materials for better and cheaper

The potential of large aircraft [AIAA PAPER 82-0008]

Multi-body transport concept [AIAA PAPER 82-0010]

Solar-powered airplane design for long-endurance, high-altitude flight [AIAA PAPER 82-0011]

Very large aircraft with alternate fuels - L82 most promising [AIAA PAPER 82-0113]

The potential for long-range high-payload aircraft with alternate fuels [AIAA PAPER 82-0114]

Finite-element modeling of a fighter aircraft canopy acrylic panel [AIAA PAPER 82-0115]

Forward-swept-wing technology

Vertical takeoff technology - Flight mechanics, aerodynamics, and propulsion systems - Germany

Aerodynamics. Part 2 - Methods of aerodynamic design /3rd revised and enlarged edition/ - Russian book

Understanding aircraft structures - Book

DSG green new allies

CRY - Foretelling things to come

X-wing and the Navy V/STOL initiative

Military aircraft and international policy

Commercial transport developments for the 1980's

Military aircraft - The way ahead

Solutions to the aviation fuel problem

Aerodynamics research and development

Technical trends in the civil aircraft and helicopter industry

Military aircraft

Business jets to agricultural aircraft - An overview of general aviation

Structural optimization of a swept wing on the basis of the alleron efficiency condition

Electro-hydraulic nose wheel steering of the Dornier 228

Model test and full scale checkout of dry-cooled jet respit sound suppressors

Ultra-light airplanes

CFD technology for propulsion installation design - Forecast for the 80's - computational fluid dynamics in aerospace applications

The influence of engine characteristics on patrol aircraft life cycle cost optimization

Cycle considerations for tactical fighters in the early 1980's

Practical aerodynamic problems - Military aircraft

Transonic design using computational aerodynamics

Application of computational methods to transonic wind-tunnel design

A-7 transonic wing designs

A significant role for composites in energy-efficient aircraft

Investigation of subsonic nacelle performance improvement concept

Factors shaping conceptual design of rotary-wing aircraft

Forward-swept wings add supersonic zip

Mirage 2000 - Towards possible high speed production aircraft

JTI: what an opportunity - Joint Services Advanced Vertical Lift Aircraft Program

Aerodynamic characteristics of a large-scale, twin tilt-nacelle V/STOL model

The use of small strokes to reduce interference drag of a low-wing, twin-engine airplane

Use of rotary balance and forced oscillation test data in six degrees of freedom simulation

Remotely piloted vehicles; International Conference, 2nd, Princeton, England, April 6-8, 1981, Conference Papers and Supplementary Papers

Horses for courses in HVF operations - - system components design and development in terms of performance and cost
AIRCRAFT ENGINES CONTd

Optical tip clearance sensor for aircraft engine controls

[LIBRARY F40-1131] p0498 82-37691
A cost modeling approach to engine optimization

[LIBRARY F40-1185] p0499 82-37698
Strategic materials - Technological trends

[LIBRARY F40-1119] p0499 82-37972
The national dynamics of observer mini-BPF for tropical operation

p093 82-39730
NASA research in supersonic propulsion - A decade of progress

[LIBRARY F40-1048] p097 82-40417
Optimized 10 ton class commercial aircraft engine

Preliminary design of an advanced integrated power

and avionics information system

p507 82-40907
Assessment of advanced technologies for high

performance single-engine business airplanes

p556 82-40932
The nonsynchronous whirls of the turbine rotor in

aerodynamic aircraft engines

p510 82-4094
Third generation turbo fans

p511 82-40964
Design integration of CCW/USB for a sea-based aircraft

p512 82-40972
The effect of intake flow disturbances on APU

compressor blade high cycle fatigue in the

airbus A300

p513 82-40983
Engine controls for the 1980s and 1990s

p513 82-4099
The analyses of the thermal-mechanical stress

conditions in asisymmetric rotating hot

components of aircraft gas turbine engines

- German thesis

p543 82-41686
Acoustic emission inspection of aircraft engine

turbofan blades for intergranular corrosion

p544 82-41914
Mathematical models of rotor strength and

optimization in computer-aided design

p545 82-42462
Determination of antioxidant content in aviation

oils using thin-layer chromatography

p548 82-42894
Antioxidants for synthetic oils

p548 82-42895
Piston engines for general aviation - Is the revolution really under way

p551 82-43578
Why GE made a moter d'aviation

p576 82-45499
The technology of the assembly of engines for

flight vehicles ----------- Russian book

p576 82-45765
The automation of processes for producing aircraft engines /2nd revised and enlarged edition/ ----------- Russian book

p576 82-45771
Optimization of dispatching discipline in queuing

systems with limited queues

p582 82-46607
Development of high loading, high efficiency axial

flow turbine

p583 82-47069
Propulsion study for Small Transport Aircraft

Technology (STAS), Appendix B

[LIBRARY F40-165099-APP-B] p0027 82-10038
A new method of cooling turbine vane

p034 82-11027
Lightweight diesel engine designs for coaster type

aircraft

[LIBRARY F40-165479Q] p0037 82-11066
Development of multivariable controllers for

aircraft turbine engines

p040 82-11087
Integrated analysis of engine structure

[LIBRARY F40-28-62713] p0041 82-11491
The use of metal finishing in aircraft fuel systems

p040 82-12077
Aerodynamics of Power Plant Installation

[ASHE-PAPB 82-301] p0053 82-13065
Integration of advanced exhaust noise

p096 82-13075
AIRCRAFT ENGINES CONT'D

Practical applications of fracture mechanics
[AGARD-AG-257] p0269 882-19571
An experimental study of the effects of an inlet flow conditioner on the noise of a low speed axial flow fan --- in an aircraft engine
[TT-8101] p0270 882-19956
FF 102 in-duct combustor noise measurements with a turbine nozzle, volume 1
[SASA-CB-165562-VOL-1] p0309 882-21021
FF 102 in-duct combustor noise measurements with a turbine nozzle, volume 2
[SASA-CB-165562-VOL-2] p0309 882-21022
FF 102 in-duct combustor noise measurements with a turbine nozzle, volume 3
[SASA-CB-165562-VOL-3] p0309 882-21023
Preliminary results on performance testing of a turbocharged rotary combustion engine
[SASA-TM-82772] p0316 882-21194
Analytical investigation of nonrecoverable stall
[SASA-TH-82772] p0317 882-21195
Coatings in the aero gas turbine --- sprayed coatings
[SASA-HD-82809] p0318 882-21204
The testing and approval of aircraft engine mounted accessories --- subject to vibration
[SASA-TH-82772] p0318 882-21206
Engines for air transport --- aircraft fuel consumption
[SASA-TH-82772] p0321 882-21247
Telemetry in aero engine development --- from operating engines
[SASA-TH-82772] p0321 882-21248
Maintenance in Service of High Temperature Parts
[AGARD-CP-317] p0345 882-22172
Engine depot maintenance repair technology
[SASA-TH-82772] p0345 882-22174
Maintenance problems in gas turbine components at the Royal Aircraft Yard, Fleetlands --- helicopter and marine gas turbines
[SASA-TH-82772] p0345 882-22175
Maintenance experience with civil aero engines
[SASA-TH-82772] p0345 882-22176
Engine component retirement for cause
[SASA-TH-82772] p0345 882-22177
The influence of protective treatment on the mechanical properties of superalloys parts
[SASA-TH-82772] p0346 882-22180
The role of modern control theory in the design of controls for aircraft turbine engines
[SASA-TM-82815] p0354 882-22262
Advanced general aviation comparative engine/airframe integration study
[SASA-CB-165562-VOL-3] p0354 882-22263
Advanced Low-Enviroment Catalytic-Combustor Program, phase 1 --- aircraft gas turbine engines
[SASA-CB-165562-VOL-3] p0354 882-22265
Advanced general aviation engine/airframe integration study
[SASA-CB-165562-VOL-3] p0354 882-22268
RB211 powerplant deterioration: Review of current situation and lessons learned
[SASA-TH-82772] p0355 882-22270
Development of a correlated finite element dynamic model of a complete aero engine
[SASA-TH-82772] p0355 882-22271
Encounters with surge: Some experiences of development of axial compressors for aero gas turbines
[SASA-TH-82772] p0355 882-22272
Reliable power --- RB211 aircraft engines
[SASA-TH-82772] p0355 882-22275
Collaborative development of aero-engines
[SASA-TH-82772] p0355 882-22276
Powder metallurgical innovations for improved hot section alloys in aero-engine applications
[SASA-TH-82772] p0357 882-22258
Evaluation of anelastic constitutive models for nonlinear structural analysis --- for aircraft turbine engines
[SASA-TM-82845] p0398 882-24502
Gas path analysis of commercial aircraft engines
[SASA-TH-82772] p0402 882-25184
Analysis of transient data from aircrft gas turbine engines using AIDS
[SASA-TH-82772] p0403 882-25189
Propulsion/ACEE
[SASA-FACTS-93/8-81] p0408 882-25251
Cost/benefit studies of advanced materials technologies for future aircraft turbine
engines; Materials for advanced turbine engines
[BASA-Ch-167869] p0068 A82-25256
Development potential of intermittent combustion
(L-C) aircraft engines for computer transport
applications
[BASA-TN-82866] p0053 A82-26297
NASA research in supersonic propulsion: a decade
of progress
[BASA-TN-82862] p0056 A82-26300
Life and Utilization Criteria Identification In
Design (LUCID), volume 2
[AD-A11946] p0055 A82-26310
Research and development on wear metal analysis
[AD-A112100] p0056 A82-26446
Rocessing aircraft condensation trails
[AD-A111076] p0061 A82-26539
Aircraft engines for trainer subsonic aircraft
[AD-A116712] p0065 A82-27077
Briefs of accidents involving turbine powered
aircraft, US general aviation, 1979
[PB82-138918] p0065 A82-27250
Performance deterioration due to acceptance
testing and flight loads; JT90 jet engine
diagnostic program
[BASA-TN-82708] p0072 A82-27309
Advanced stratified charge rotary aircraft engine
design study
[BASA-Ch-165398] p0076 A82-27743
Mechanical property characterization and modelling
of structural materials for airframes and
aircraft gas turbine engines
[AD-A113041] p0076 A82-27784
Control of air pollution from aviation: The
emission standard setting process
[AD-A107435] p0076 A82-27669
Advances in high-speed rolling-element bearings
[BASA-TN-82959] p0076 A82-28644
QCER over-the-wing engine acoustic data
[BASA-TN-82708] p0076 A82-29324
Estimated airplane noise levels in an averaged
decibel
[AC-36-3B] p0064 A82-30029
A method for designing inlet distortion screens
for aircraft gas turbine engine tests using an
interactive computer program
[AD-A116504] p0056 A82-31325
A description of methodologies used in estimation
of a-weighed sound levels for FAA Advisory
Circular AC-36-3B
[AD-A116504] p0056 A82-32084
Some design considerations for solar-powered
aircraft
[BASA-TN-16757] p0059 A82-32350
Replacement of aboard naval aircraft
[AD-A115782] p0059 A82-32356
High pressure bleed for STOL and STO-VL
performance: A conceptual examination
[AD-A115782] p0059 A82-32357
Integrated airframe propulsion control
[BASA-TN-82369] p0059 A82-32382
Survey and update of P-14A mission profiles for
TP40 engine usage
[AD-A116031] p0061 A82-33373
Advanced turboprop tested systems study
[BASA-Ch-167855] p0067 A82-33375
Structural tailoring of engine blades (STEBEL)
[BASA-Ch-167949] p0060 A82-33391
Exhaust emissions reduction for intermittent
combustion aircraft engines
[BASA-Ch-167914] p0060 A82-33392
Energy efficient engine: Turbine transition duct
model technology report
[BASA-Ch-167996] p0060 A82-33394
Aircraft thrust/power management can save defense
fuel, reduce engine maintenance costs and
improve readiness
[AD-A117925] p0015 A82-34296
AIRCRAFT EQUIPMENT
MT AIRCRAFT HYDRAULIC SYSTEMS
MT AIRCRAFT PUMPS
MT AIRCRAFT FILTERS
MT BOSSING EQUIPMENT
MT EJECTION SEATS
MT ELICTION SEATS
New APUs for medium class aircraft environmental
control systems
[AIEEE PAPER 81-HNAS-1] p010 A82-10889
Air-foam integrated environmental conditioning
system for trainer subsonic aircraft
[AIEEE PAPER 81-HNAS-33] p0112 A82-10920
New separators for battery systems
[AD-A115915] p0115 A82-11715
Sealed lead-acid batteries for aircraft applications
[AD-A115915] p0115 A82-11716
A hidden advantage of permanent magnet electrical
generating systems
[AD-A115915] p0116 A82-11720
60 kVA ADP permanent magnet VSCF starter generator
system - Generator system performance
characteristics
[AD-A115915] p0116 A82-11721
Design and development of a low cost aeroshear rate
gyro for unmanned aircraft
[AD-A115915] p0116 A82-11932
Digital avionics - Promise and practice;
Proceedings of the Joint Symposium, London,
England, March 20, 1980
[AD-A115915] p0117 A82-11934
The all digital military aircraft
[AD-A115915] p0117 A82-11937
The Augusta A129
[AD-A115915] p0045 A82-12327
The development and use of a computer-interactive
data acquisition and display system in a flight
environment
[AD-A115915] p0060 A82-13946
Fighters - Improving the breed
[AD-A115915] p0062 A82-14354
Fove Nober Flight Test Program
[AD-A115915] p0063 A82-14360
The all electric airplane - Its development and
logistic support
[AD-A115915] p0067 A82-14709
New all-electric-system technology
for electromechanical actuators for aircraft
[AD-A115915] p0067 A82-14710
A modular multiplexed digital voice
intercommunications system
[AD-A115915] p0068 A82-14721
Computer modeling of an aircraft HVDC electrical
system
[AD-A115915] p0073 A82-14819
Digital simulation of aircraft electrical
generating system by means of Scpectre program
[AD-A115915] p0073 A82-14820
Computer simulation of an advanced aircraft
electrical system
[AD-A115915] p0073 A82-14821
Aircraft electrical equipment - Design and operation
--- Training book
[AD-A115915] p0151 A82-18998
Helicopters - Night operations
[AD-A115915] p0153 A82-19017
Procurement of the new flight and tactics
simulators - Experience, problems, meaning
[DGLR PAPER 81-095] p0159 A82-19266
Simulation of modern radar installations in
full-mission flight and tactics simulators
[DGLR PAPER 81-101J p0160 A82-19272
Size reduction flight test airborne data systems
[AD-A115915] p0178 A82-20766
Recent improvements in aircraft Ni-Cd cells
[AD-A115915] p0225 A82-24205
The coupling of electromagnetic interference into
aircraft systems
[AD-A115915] p0228 A82-24354
EIL-STD 1553B - Aircraft RS environmental
susceptibility effects
[AD-A115915] p0229 A82-24357
Aircraft electrical power systems; Proceedings of the
Aerospace Congress and Exposition, Anaheim,
CA, October 5-8, 1981
[SAE SP-500] p0229 A82-24376
Design considerations of DC-Link aircraft
generation systems
[AD-A115915] p0229 A82-24377
Advanced generating system technology
[AD-A115915] p0230 A82-24380
The effect of critical design parameters on the
selection of a VSCF system
[AD-A115915] p0230 A82-24381
Evolution and development of high voltage S/70
volt/ dc aircraft electric systems in the United
States
[AD-A115915] p0230 A82-24382
AIRCRAFT GUIDANCE

Characterization of an Experimental Reference Broader Spectral (ERBS) aviation terrain fusion and BBF fuel blends [NASA-TR-520803] p0055 882-32504
Impact of advanced propellant technology on aircraft/gasoline misfiring characteristics of several general aviation aircraft [NASA-CR-167006] p0064 882-33347

AIRCRAFT GUIDANCE

Fuel efficient flight profiles in an ATC flow management environment p0043 882-13078
Digital detection and processing of laser beacon signals for aircraft collision hazard warning [AIAA 81-2328] p0052 882-13525
Commentary on facilities used in the development of a Sea/Carrier all weather operations capability [AIAA Papers 81-2407] p0056 882-13992
Development of an NLS lateral autoland system with automatic path definition [AIAA Papers 81-1751] p0062 882-13993
Helical helicopter approaches with microwave landing system guidance [AIAA Papers 81-2654] p0109 882-16914
Flight measurements of area Navigation System performance using various combinations of ground aids and airborne sensors p0123 882-18147
NLS flare low elevation angle guidance considerations p0175 882-20586
An automatic map reader suitable for use in helicopters p0035 882-37035

PCN - A commercial flight management computer system [AIAA 82-1515] p0044 882-38930
The control and guidance unit for MACH 2.5 p0043 882-39747
A terrain following system, an algorithm and a sensor p0049 882-39760
Flight simulation studies on the feasibility of laterally segmented approaches in an NLS environment p0059 882-09941
A concept for UH-guidance of transport aircraft in the TMA --- Terminal Manoeuvring Area p0059 882-40942
Investigations concerned with shifting pilot activities to a higher hierarchical stage of flight control - Gerhard thesis p0059 882-14153
Image processing in tactical flight guidance p0059 882-44221
Requirements for independent and dependent parallel instrument approaches at reduced runway spacings [AD-A105673] p0132 882-14000
NLS vertical guidance and navigation for a STOL airborne landing on an elevated STOLport [NASA-TR-81383] p0135 882-14101
Automation of on-board flightpath management [NASA-PW-84212] p0191 882-16088
Effects of cable geometry and aircraft attitude on the accuracy of a magnetic leader cable system for aircraft guidance during rollout and taxi [NASA-TP-978] p0251 882-22229
Integrated navigation-TF/TA-system based on stored terrain data processing p0362 882-23183
Optimal inertial navigation using terrain correlation: An attractive solution to the ground attack aircraft navigation problem p0362 882-23184
The integration of multiple avionic sensors and technologies for future military helicopters [NASP-81-23186] p0363 882-23187
Production Verification Testing (PVT) of guidance and control systems for high reliability p0363 882-23187

SUBJECT INDEX

Sas sensing guidance system for high altitude aircraft [NASA-CR-92-11052-1] p0367 882-23231
Guidance and control/AFAE [NASA-PAC-95-0-81] p0409 882-25261
Terrain following/terrain avoidance system concept development p0606 882-33363
AIRCRAFT HAZARDS

Detection and display of wind shear and turbulence p0004 882-10222
Wire strike protection p0046 882-13246
Assessment methodology of the lightning threat to advanced aircraft p0069 882-14759
Operational evaluation of thunderstorm penetration test flights during project Storm Hazards '80 p0076 882-1495a
A criterion for determining the causality of wind shear at Punta Rasa airport, on the basis of statistical data from barograph records p0080 882-15460
Simulation of phugoid excitation due to hazardous wind shear [AIAA Papers 82-0215] p0117 882-17894
The influence of turbulence models on computer-simulated aircraft landing [AIAA Papers 82-0342] p0119 882-17896
Airborne warning systems for natural and aircraft-initiated lightnings p0227 882-24313
The effects of hard orientation on load profile and damage level p0227 882-24316
Lightning detection and ranging p0277 882-26367
Sudden changes in wind velocity - Their effect on aircraft and means of reducing hazard. I p0334 882-29071
Aircraft lightning protection [NASA-TP-1982-51] p0362 882-3354a
Trigged lightning --- resulting from aircraft atmospheric electricity interactions p0393 882-35727
Airborne warning systems for natural and aircraft-initiated lightnings p0432 882-35729
The direct effects of lightning on aircraft p0432 882-35730
The operation of aircraft and helicopters in difficult meteorological and environmental conditions --- Russian book p0491 882-39295
System safety program plan --- electromagnetic pulse testing of the A-7E aircraft [AD-A106557] p0041 882-11354
Investigation of severe lighting strike incidents to two USAF F-106 aircraft [NASA-CR-16579a] p0086 882-12052
Test and evaluation of UV fiber optics for application for aircraft fire detector systems [AD-A106129] p0195 882-16850
Aircraft icing avoidance and protection [NASA-CR-165526] p0260 882-17139
Workshop on Mathematical Fire Modelling [AD-A106876] p0268 882-19343
Safety (aviation material) [AD-A110361] p0303 882-20165
Full-scale flammability test data for validation of aircraft fire mathematical models [NASA-TP-58244] p0313 882-21666
Primary sewage treatment plant as a source of bird hazards at airports p0413 882-26184
Proceedings of the 1st Annual Workshop on Aviation Related Electricity Hazards Associated with A-52
SUBJECT INDEX

Atmospheric Phenomena and Aircraft Generated Inputs
[AD-A107326] p0662 A82-27237
Software functional description of mesoscale weather
dissemination system exploatory engineering model
[AD-A112762] p0477 A82-27573
Field program operations: Turbulence and gust front
[AD-A115047] p0562 A82-30804
Summary of federal aviation administration
correspondence to National Transportation Safety Board
safety recommendations
[AD-A111696] p0568 A82-31316
Examination of aircraft interior emergency
lighting in a postcrash fire environment
[AD-A117629] p0605 A82-33360
Dayton aircraft cabin fire model, version 3.
Volume II: Physical description
[AD-A117905] p0605 A82-33361

AIRCRAFT HYDRAULIC SYSTEMS
Fluid power technology for the '80s --- Book
[AD-A10010] A82-10851
High-efficiency hydraulic power transfer units for
multipurpose aircraft
[AD-A10010] A82-10853
'Quiet please' --- aircraft hydraulic systems
noise reduction
[AD-A10010] A82-10859
Will power-by-wire replace power-by-hydraulics?
[AD-A10010] A82-14707
Efficient use or working fluids in aviation
hydraulic systems
[AD-A10010] A82-15726
Cavitation inception in spool valves
[AD-A10010] A82-16428
Hydraulic actuator mechanisms to control aircraft
spoiler movements through dual input commands
[NASA-Case-Lang-12412-1] p0396 A82-24205
Corroison tests with MIL-E-83282 and MIL-E-6803
aircraft hydraulic fluids
[AD-A112347] p0475 A82-27506
Hydraulic Universal Display Processor System (HUDP5)
[AD-A114426] p0525 A82-28294

AIRCRAFT INDUSTRY
Computer flight planning for fuel efficiency
[AD-A10010] A82-17289
Airbus Industrie - The year of progress
[AD-A10010] A82-21189
Considerations for international joint venture
development of very large aircraft
[ADIA-PAPER 82-0809] p0376 A82-31982
Beyond 2000 - The airlift challenge ahead
[ADIA-PAPER 82-0815] p0377 A82-31980
The beginning of the AIA 62 program and its
importance
[AD-A10010] A82-33543
Military aircraft and international policy
[AD-A10010] A82-34108
Aircraft BfiD in Europe - A perspective view
[AD-A10010] A82-42594
The sporty game --- on wide body commercial
airliner business history
[AD-A10010] A82-42572
Aeronautical research and development in Europe -
Perspectives
[AD-A10010] A82-43588
Why GE made a moteur de\nAviation
[AD-A10010] A82-45499
The airplane manufacturer and meteorology --- in
production of weather effects on aircraft
[AD-A10010] A82-45821
Advantages and limitations of various materials
used in the construction of modules --- aircraft
construction
[SWIA-81-551-103] p0048 A82-12072
Control methodology: Nondestructive testing in
the aeronastics industry
[SWIA-81-551-11u] p0137 A82-14527
Helicopter development in France
[AD-A10010] A82-17216
Corroison prevention measures used in the
construction of an aircraft airframe: The case
of 2014 and 2214 alloys
[AD-A10010] A82-19210
Experience during the development of the
German-Japanese helicopter BK 117
[AD-A10010] A82-19210
Future of general and commuter aviation technology
and trade

A-53
AIRCRAFT MANEUVERS

{AIAA 82-2760} p0336 A82-30119
Next generation trainer /HCT/ engine requirements - An application of lessons learned {AIAA PAPER 82-1188} p0418 A82-35089
Development and application of Barner gas tungsten arc welding for repair of aircraft engines, seal teeth {AIAE PAPER 82-07-55} p0422 A82-35310
U.S. Marine Corps AV-8A maintenance experience {AIAA PAPER 81-2657} p0442 A82-34466
Rationalization of the maintenance process for helicopter KA-26 {AIAA 82-39246}
Civl helicopter propulsion system reliability and engine monitoring technology assessments {AIAA 82-40518
Age exploration in naval aviation - Reliability Centered maintenance program {AIAA 82-40962
Composite structures repair {AIAA 82-41015
Principles of achieving damage tolerance with flexible maintenance programs for new and aging aircraft {AIAA 82-41016
Repair-discard concepts in design {AIAA 82-42178
F-16 Centralized Data System /CDS/ {AIAA 82-42210
Computer Monitored Inspection Program /CMIP/, a key to increased aircraft and personnel productivity {AIAA 82-42217
Mathematical model for the maintenance program of modern jet aircraft - crack detection, inspection intervals [DFVLR-FB-81-14] p0255 A82-10002
Aircraft Corrosion [AGARD-CP-315] p0211 A82-17349
US Naval fleet aircraft corrosion p0211 A82-17350
Detection and prevention of corrosion in Royal Air Force aircraft p0211 A82-17351
An airline view of the corrosion problem p0211 A82-17352
Some observations on the corrosion of aircraft at the air force base in Sandikra, Turkey p0211 A82-17353
The experience of corrosion on French military aerodynes p0211 A82-17354
Design and maintenance against corrosion of aircraft structures p0211 A82-17355
Potential reductions in aircraft operation and maintenance costs by using thrust computing support equipment [AD-108463] p0254 A82-18207
Military maintenance policies and procedures for high-temperature parts. Will they be adequate? p0345 A82-22173
Engine depot maintenance repair technology p0345 A82-22174
Maintenance experience with civil aero engines p0345 A82-22176
Concept studies of an advanced composite helicopter fin [SMAIS-82-21-106] p0353 A82-22257
The Sortie-Generation Model system. Volume 5: Maintenance subsystem [AD-110815] p0487 A82-26225
Application of wear debris analysis to aircraft hydraulic system [AD-111066] p0508 A82-10305
Maintenance support resource forecasting models. Volume 2: Equivalence testing of reliability and maintenance model and expected values model [AD-1117149] p0505 A82-12307
Mathematical model for a maintenance program for modern jet aircraft {ESA-TT-728} p0565 A82-32308
Reliability and maintainability improvement program for the AV-8A/MAY-8A Harrier low-bay display set, development of the signal data converter, CT-3600/AVU-30(V), Volume 3 [AD-111555] p0591 A82-32365
Survey and update of F-14A mission profiles for TF30 engine usage [AD-111683] p0603 A82-33337
Airplane threat/power management can save defense fuel, reduce engine maintenance costs and improve readiness [AD-1117935] p0615 A82-34296
SUBJECT INDEX

Real-time, on-line digital simulation of optimum maneuvers of supersonic aircraft [AIAA 81-21750
Performance estimation from non-steady maneuvers {AIAA PAPER 81-2424} p0022 A82-10127
NAVY aerodynamic design and flight test experience {AIAA PAPER 81-2433} p0054 A82-13863
Application of a microprocessor controlled cockpit display for enhanced pilot control of flight test maneuvers {AIAA PAPER 81-2510} p0057 A82-13908
The development of cryogenic wind tunnels and their application to maneuvering aircraft technology p0061 A82-13971
Technical/operational ATC scenarios for future TMA navigation p0071 A82-14774
Study of the effects of maneuver compensation on beam pointing accuracy p0072 A82-14780
The Maneuvering Flight Path Display - A flight trajectory solution display concept p0074 A82-14824
Navy master evaluation of the A-7 airplane configured with automatic maneuvering flaps p0076 A82-14933
Large terminal maneuvering areas: Operational problems - Possible development of solutions {AIAA 82-15625
An investigation of the use of a propulsive wing/tail concept for improved maneuvering {AIAA PAPER 81-2622} p0107 A82-16905
A binary matrix technique for aircraft collision threat recognition and avoidance {AIAA PAPER 82-0104} p0116 A82-17028
The feasibility of turnback from a low altitude engine failure during the takeoff-climb-out phase {AIAA PAPER 82-0464} p0121 A82-17928
Maneuver Dependent component error models and synchronized reset filters for inertial navigation systems p0122 A82-18139
Analysis of data from a wind tunnel investigation of a large-scale model of a highly maneuverable supersonic F/STOL fighter - STO1 configuration {AIAA PAPER 81-2620} p0155 A82-19207
An analytical technique for the analysis of airplane spin entry and recovery {AIAA PAPER 82-0243} p0164 A82-19786
Simulator data test instrumentation - Flight test challenge of the eighties p0178 A82-20768
Aerodynamic characteristics of maneuvering flap systems p0185 A82-22110
Utilizing the helicopter's versatility to improve the ATC system p0219 A82-23316
Efficient combinations of numerical techniques applied to aircraft turning performance optimization p0261 A82-24814
Aerial combat simulation in the U.S. Air Force p0295 A82-27920
The stability of maneuverable flight vehicles - A flight simulation for training p0333 A82-28027
Development of a control law for the alleviation of maneuver loads on an elastic aircraft p0336 A82-36144
Air-to-air missile avoidance {AIAA 82-1516} p0408 A82-38919
Pilot models for discrete maneuvers {AIAA 82-1519} p0408 A82-38940
Optimal three-dimensional turning performance of supersonic aircraft p0408 A82-38940
AIRCRAFT NOISE

Reduced nonlinear flight dynamic model of elastic structure aircraft p0516 A82-16009
An improved propulsion system simulation technique for scaled wind tunnel model testing of advanced fighters p0517 A82-16019
Wind-tunnel investigation of a full-scale canard-configured general aviation aircraft p0517 A82-16024
A restrained model helicopter, which is able to fly, for investigations regarding human multi-parameter control behavior -- German thesis p0543 A82-16067
Implicit model-following technique -- Application to the design of longitudinal stability augmentation systems p0551 A82-16071
Determination of airplane model structure from flight data by using modified stepwise regression [NASA-TN-10041] p0028 A82-16084
Wind tunnel test and analysis techniques using powered simulators for civil nacelle installation drag assessment p0095 A82-16088
Establishment of an experimental technique to provide accurate measurement of the installed drag of close coupled civil nacelle/airframe configurations, using a full span model with turbocharged engine simulators p0096 A82-16089
Development of an efficient procedure for calculating the aerodynamic effects of planform variation [NASA-CR-3409] p0137 A82-14529
Analytical study of twin-jet shielding [NASA-CR-165102] p0193 A82-16001
Analytical study of twin-jet shielding [NASA-CR-165103] p0194 A82-16002
Analytical study of twin-jet shielding [NASA-CR-165105] p0194 A82-16004
Analytical study of twin-jet shielding development of a 3-dimensional model [NASA-CR-165106] p0194 A82-16005
Analytical study of twin-jet shielding development two-dimensional model [NASA-CR-165107] p0194 A82-16006
Prediction of off-design performance of turbo-shaft engines a simplified method p0264 A82-18132
Measurement techniques used to assess the installed power of a helicopter engine p0264 A82-18133
Parametric criteria and impact on design trends p0264 A82-18133
Interpretation and construction of a dynamic similarity model of the A 310 wings [MBB-PR-17/S/MBR/02] p0255 A82-18122
Design study into a high endurance mini-rotorcraft [BA-265] p0266 A82-19216
Structural system identification technology verification [4B-109181] p0269 A82-19503
Design of dynamically-scaled, asymmetrical wind tunnel models [NASA-TM-7-108] p0356 A82-22285
Alternatives for jet engine control p0359 A82-23247
System identification of nonlinear aerodynamic models p0590 A82-29996

AIRCRAFT NOISE IN JET AIRCRAFT NOISE

'Sound please' -- aircraft hydraulic systems noise reduction p0610 A82-10854
Model helicopter rotor impulsive noise p0113 A82-11300
The FAA's proposed helicopter certification rules p0046 A82-12342
Costs of noise abatement from aircraft p0046 A82-13314
Aircraft absorbers -- Promise and practice --- sound attenuation p0062 A82-12042

S SUBJECT INDEX

An advanced facility for processing aircraft dynamic test data [AIAA PAPER 81-2398] p0063 A82-14377
Workshop report for the AIAA 6th Aeroacoustics Conference p0103 A82-16091
Noise control measures in the new Singapore International Airport p0107 A82-16746
Current investigations regarding noise research in the Braunschweig Center of the German Institute for Research and Experimentation in Aeronautics and Astronautics p0110 A82-17137
Propeller tip vortex -- A possible contributor to aircraft cabin noise p0113 A82-17603
Reduction of the acoustic environment in an F100-PW-100 engine test cell p0128 A82-18727
Acoustical response of fuselage sidewall panels on a twin-engine, light aircraft p0129 A82-18729
Noise monitoring in airport communities p0129 A82-18731
Quantification of airport community noise impact in terms of noise levels, population density, and human subjective response p0129 A82-18732
The city and aviation -- A Russian book p0149 A82-18889
A comparative study on mechanical vibration and noise during patient transportation p0153 A82-19013
Ground reflection effects in aircraft noise measurements p0166 A82-19970
Comparison of aircraft and ground vehicle noise levels in front and backyards of residences p0166 A82-20058
Helicopter transmission philosophy -- The way ahead p0173 A82-20546
We have just begun to create efficient transport aircraft p0180 A82-21373
Direct comparison of community response to road traffic noise and to aircraft noise p0218 A82-22974
Methodology for multisite aircraft minimum noise impact landing trajectories p0218 A82-23037
Model helicopter rotor low frequency broadband noise p0273 A82-25772
On the generation of side-edge flap noise p0277 A82-26319
Large scale model measurements of airplane noise using cross-correlation techniques p0284 A82-26966
The status of airport noise prediction, with special reference to the United Kingdom and Europe p0329 A82-29165
Feel efficient and lack 0.8, too p0332 A82-29774
No-tail-rotor helicopter tests continue p0360 A82-33095
Development and validation of preliminary analytical models for aircraft interior noise prediction p0364 A82-36077
Noise pollution and airport regulation p0494 A82-40051
O'Hare International Airport -- Impervious to proposed state efforts to limit airport noise p0496 A82-40052
Helicopter model scale results of blade-vortex interaction impulsive noise as affected by blade plaform p0503 A82-40556
Fluctuating forces and rotor noise due to distorted inflow p0510 A82-40945
The determination of the duration of an exposure to aircraft noise --- German thesis p0570 A8-45221
Aircraft safety contd

A system safety program for aircraft production and deployment
Effect of fleet size on estimates of safety against airframe fatigue
Determination of the flammability characteristics of aerospace hydraulic fluids
Techniques for overhead-wire detection to prevent helicopter wirestrikes
Why safety — fuel conservation through aircraft safety

Accident prevention — A regulators view
The shape of the air traffic control system of the future — A U.S. perspective
Air traffic control problems and solutions
Productivity and safety — reducing transport aircraft operating costs and increasing safety
Flight crew management and cockpit performance systems
A binary matrix technique for aircraft collision threat recognition and avoidance
Conductive prepregs for lightning strike protection on aircraft
Minimal cost performance monitoring of turboshaft engines
Airworthiness of airships
The case for helicopter bonding
R&D-1 overview — aircraft maintenance programs development
Designing for continued airworthiness — General aviation
Scanning strategies for air traffic control radars
Standardization of helicopter fatigue methodology — A manufacturer's view
Flight test data acquisition and interpretation
The reliability and safety of small passenger aircraft

Design for the operating environment — Ring-fm
Tail rotor program
Automating air-traffic control
No-Tail-Rotor helicopter
Sudden changes in wind velocity — Their effect on aircraft and means of reducing hazard. I
Secondary radar for airborne collision avoidance

Runway end intersection design
Instrumentation for testing aircraft antistatic protection
Airframe fire safety research with antistatic fuels — Status report
Wall hydrogen-fueled aircraft be safe
Airborne warning systems for natural and aircraft-initiated lightning
Electromagnetic interaction of lightning with aircraft
Lightning simulation and testing
Assessment of aircraft susceptibility/ Vulnerability to lightning and development of lightning-protection design criteria

Complete flexibility and realism in radar simulation
The detection of low level wind shear. I
Wind shear — Its effect on an aircraft and ways to reduce the hazard. II
'Listearing' systems to increase aircraft structural safety and reduce costs
Touchdown technology — large aircraft landing gear stress
An evaluation of helicopter autorotation assist concepts
The performance of warning systems in avoiding Controlled-Flight-Into-Terrain/CFIT/ accidents
An analysis of civil aviation propeller-to-person accidents: 1965-1979

Aircraft warning systems standardization study.

Aircraft alerting systems standardization study. Volume 1: Candidate system validation and time-critical display evaluation
AIRCRAFT STRUCTURES

- Simultaneous investigations of various side-stick controller/stability and control augmentation systems for helicopter terrain flight
  [AIAA 82-1504] p0046 A82-32954
- Modal control of relaxed static stability aircraft
  [AIAA 82-1522] p0044 A82-32952
- An X-15A aircraft control system concept
  [AIAA 82-1607] p0045 A82-32954
- Dynamic stability of flexible forward swept wing aircraft
  [AIAA PAPER 82-1295] p0047 A82-39054
- A ground-simulation investigation of helicopter deaccelerating instrument approaches
  p0048 A82-39102
- Maneuver stability of a vehicle with a towed body
  [AIAA PAPER 82-1347] p0048 A82-39119
- Sensor stabilization requirements of a F-18 - a simulation study
  p0049 A82-39741
- Aerodynamic aspects of aircraft dynamics at high angles of attack /AGARD Lecture/
  [AIAA PAPER 82-1363] p0049 A82-39836
- Current perspectives on emergency spin-recovery systems
  p0054 A82-43264
- Explicit model-following technique - application to the design of longitudinal stability augmentation systems
  p0055 A82-43571
- Electronic aircraft stabilization
  [SEE PAPER 81763] p0055 A82-44234
- IX-15 program update
  p0056 A82-44468
- Estimation of airplane stability and control derivatives from large amplitude longitudinal maneuvers
  [NASA-TN-3165] p0028 A82-10042
- Analysis of the stability of underwater vehicles
  [ARL/AERO-REP-154] p0039 A82-21213
- Stability and control of a Gossamer human-powered aircraft: Stability and flight test
  [NASA-CH-163119] p0057 A82-30289
- Description of a simple model to determine landing gear forces during the takeoff of an aerodynamically unstable aircraft
  [ER-228] p0070 A82-31333
- Toward a better understanding of helicopter stability derivatives
  [NASA-TM-82477] p0092 A82-32376
- Detailed flow wind tunnel test of F-18 aircraft
  [NASA-CH-163935] p0064 A82-33339

AIRCRAFT STRUCTURES

- Application of improved aluminum alloys and steels in aircraft structures
  p0004 A82-10305
- Some possibilities for composite light aircraft construction
  p0005 A82-10307
- Sophisticated aircraft structure developments - Combat aeroplanes
  p0005 A82-10309
- Analytical determination of undercarriage retraction kinematics
  p0005 A82-10364
- The balloon and the airship technological heritage
  [AIAA PAPER 81-1912] p0006 A82-10401
- Design analyses of high temperature transparent windshields for high performance aircraft
  [AIAA PAPER 81-1823-5] p0011 A82-10803

Acoustic emission - An emerging technology for assessing fatigue damage in aircraft structure
p0011 A82-11149

Fatigue substantiation of non-linear structures
p0013 A82-11224

Dynamic response of aircraft structure to gust loads
p0013 A82-11314

Emerging technologies in aerospace structures, design, structural dynamics and aerodynamics

Impact-initiated damage thresholds in composites
p0018 A82-12028

Reponse of nonlinear aircraft structural panels to high intensity noise
p0018 A82-12041

Quantification of the thermal environment for externally carried aircraft stores and ordnance
p0019 A82-12100

Pragmatic determination of fatigue crack growth rates in aircraft components
p0023 A82-12697

Fatigue methodology - A technical management system for helicopter safety and durability
p0029 A82-12340

Flight testing the nonmetallic spline coupling technology at the Naval Air Test Center
[AIAA PAPER 81-2405]

Flight vibration optimisation via conformal mapping
p0062 A82-13975

Techniques for modifying airfoils and fairings of an aircraft using foam and fiberglass
[AIAA PAPER 82-2545]

The load-carrying behavior of a trapezoidal aluminum-alloy supporting element, subjected to a compressive stress, in the postbuckling region
p0065 A82-14418

Aircraft composite materials and structures
p0073 A82-16143

Crack edge instability - a criterion for safe crack propagation limit in this sheet
p0109 A82-17243

Subsonic flow over airborne optical turrets
p0114 A82-17605

Icing analysis of an unprotected aircraft cowlage
[AIAA PAPER 82-0281]

Application of the finite element method to the calculation of the modes and frequencies of natural vibrations of aircraft structures
p0128 A82-18612

Calculation of the stability of crosswise-reinforced cylindrical shells
p0128 A82-18621

Development of a transmission loss test facility for light aircraft structures
p0128 A82-18720

A crack-closure model for predicting fatigue crack growth under aircraft spectrum loadings
p0168 A82-20509

Performance flight test evaluation of the Ball-Bartoe JW-1 Jetwing STOL research aircraft
p0178 A82-20762

The load-carrying behavior of a trapezoidal aluminum-alloy supporting element, subjected to a compressive stress, in the postbuckling region
p0065 A82-14418

Calculation of the stability of crosswise-reinforced cylindrical shells
p0128 A82-18621

Development of a transmission loss test facility for light aircraft structures
p0128 A82-18720

A crack-closure model for predicting fatigue crack growth under aircraft spectrum loadings
p0168 A82-20509

Performance flight test evaluation of the Ball-Bartoe JW-1 Jetwing STOL research aircraft
p0178 A82-20762

The load-carrying behavior of a trapezoidal aluminum-alloy supporting element, subjected to a compressive stress, in the postbuckling region
p0065 A82-14418

Calculation of sensitivity derivatives in thermal problems by finite differences
p0161 A82-21391

Low-frequency eddy current inspection of aircraft structure
p0183 A82-21900

On the sonic fatigue life estimation of skin structures at room and elevated temperatures
p0128 A82-23678

Novel approaches to electron beam welding machine utilization
p0222 A82-23753

Diffusion bonding in superplastic forming/diffusion bonding
p0222 A82-23754

Aluminum and its alloys - Weldability
p0222 A82-23755

Material/structure degradation due to fretting and fretting-initiated fatigue
p0222 A82-23771

A new approach to the problem of stress corrosion cracking in 7075-T6 aluminum
p0222 A82-23772
Fatigue behavior of weldbonded joints

Evaluation of heat damage to aluminum aircraft structures

Aerospace applications of composites

Fundamentals of strength and aerelasticity in flight vehicles — Russian book

Integral characteristics in the computer-aided design of geometrical objects of complex configuration

Variational equation of an eccentrically reinforced panel with allowance for nonuniform heating

Parameterization in the design of surfaces by means of Coons' method — for computer aided aircraft design

Prediction of fatigue crack propagation in plane specimens and thin-walled structural elements of aircraft wing skin under programmed loading

Aircraft exceseure drag

A method for determination of the aerelastic behavior of aircraft with active control systems

Finite difference computation of the steady transonic potential flow around airplanes

Flight trial of the aircraft Fatigue data analysis system (AFDAS) Mk 2 prototype

Calculation of wing-body-naeile interference in subsonic and transonic potential flow

Estimation methods for the determination of dynamic responses of elastic aircraft — to random loads

Environmental exposure effects on composite materials for commercial aircraft

Design manual for impact damage tolerant aircraft structure

Description of projectile threats

Analysis methods for predicting structural response to projectile impact

Analysis methods for ballistic damage size and type

Damage from high explosive (HE) projectile

Hydrodynamic ram damage

Effects of cyclic loading on projectile impact damage

Stiffness degradation of impact damaged structure

Analysis of multiple load path panels containing impact damage

Superplastic aluminum evaluation

Corrosion fatigue — conferences

Mechanisms of corrosion fatigue — of high strength aluminum alloys

Flight-by-flight corrosion fatigue tests

Design and maintenance against corrosion of aircraft structures

Corrosion prevention methods developed from direct experience with aerospace structures

Corrosion prevention measures used in the construction of an aircraft airframe: The case of 2014 and 2214 alloys

Recent developments in materials and processes for aircraft corrosion control

New concepts in multifunctional corrosion for aircraft and other systems

Corrosion protection schemes for aircraft: Some examples for the corrosion behavior of Ti alloys

The ultrasonic inspection of C.F.C. — carbon fiber wing spar

The effects of slight non-linearities on modal testing of helicopter-like structures

Theoretical investigations on the influence of different strake, tail unit, and conventional HLW arrangement as well as of CVV on the aerodynamic characteristics of fighter aircraft configurations

Fatigue analysis of composite materials using the finite element method

Practical applications of fracture mechanics

Electroforming of space and aircraft structures

Characterization of the Airbus horizontal stabilizers of CFK construction and structural analysis with the finite element method

A study of the effects of long-term exposure to fuels and fluids on the behavior of advanced composite materials

Aircraft excrescence drag

Fuels and fluids on the behavior of advanced composite materials

Aerelastic tailoring for control and performance: Are requirements compatible?

Revolution in airplane construction? Grob G110: The first modern fiber glass composite airplane shortly before its maiden flight

Forces and moments on aeroelastic aircraft as part of the dynamic stability analysis with the finite element method

Theoretical investigations on the influence of different strake, tail unit, and conventional HLW arrangement as well as of CVV on the aerodynamic characteristics of fighter aircraft configurations

Electroforming of space and aircraft structures

Aerelastic tailoring for control and performance: Are requirements compatible?

Revolution in airplane construction? Grob G110: The first modern fiber glass composite airplane shortly before its maiden flight

Forces and moments on aeroelastic aircraft as part of the dynamic stability analysis with the finite element method

Theoretical investigations on the influence of different strake, tail unit, and conventional HLW arrangement as well as of CVV on the aerodynamic characteristics of fighter aircraft configurations

Electroforming of space and aircraft structures

Aerelastic tailoring for control and performance: Are requirements compatible?

Revolution in airplane construction? Grob G110: The first modern fiber glass composite airplane shortly before its maiden flight

Forces and moments on aeroelastic aircraft as part of the dynamic stability analysis with the finite element method

Theoretical investigations on the influence of different strake, tail unit, and conventional HLW arrangement as well as of CVV on the aerodynamic characteristics of fighter aircraft configurations

Electroforming of space and aircraft structures

Aerelastic tailoring for control and performance: Are requirements compatible?

Revolution in airplane construction? Grob G110: The first modern fiber glass composite airplane shortly before its maiden flight

Forces and moments on aeroelastic aircraft as part of the dynamic stability analysis with the finite element method

Theoretical investigations on the influence of different strake, tail unit, and conventional HLW arrangement as well as of CVV on the aerodynamic characteristics of fighter aircraft configurations

Electroforming of space and aircraft structures

Aerelastic tailoring for control and performance: Are requirements compatible?

Revolution in airplane construction? Grob G110: The first modern fiber glass composite airplane shortly before its maiden flight

Forces and moments on aeroelastic aircraft as part of the dynamic stability analysis with the finite element method

Theoretical investigations on the influence of different strake, tail unit, and conventional HLW arrangement as well as of CVV on the aerodynamic characteristics of fighter aircraft configurations

Electroforming of space and aircraft structures

Aerelastic tailoring for control and performance: Are requirements compatible?

Revolution in airplane construction? Grob G110: The first modern fiber glass composite airplane shortly before its maiden flight

Forces and moments on aeroelastic aircraft as part of the dynamic stability analysis with the finite element method

Theoretical investigations on the influence of different strake, tail unit, and conventional HLW arrangement as well as of CVV on the aerodynamic characteristics of fighter aircraft configurations

Electroforming of space and aircraft structures

Aerelastic tailoring for control and performance: Are requirements compatible?
Experimental studies of the Eppler 61 airfoil at low Reynolds numbers  
[(AIAA PAPER 82-0345) p0014 A82-19796]

Flow field around an oscillating airfoil  
[(AIAA PAPER 82-0345) p0079 A82-20813]

A new facility and technique for two-dimensional aerodynamic testing  
[(AIAA PAPER 82-0600) [NASA-TP-1926] p0236 A82-26677]

Supercritical flow past symmetrical airfoils  
[(AIAA 82-26130) p0275 A82-26677]

An experimental study of steady and quasi-steady jet flows  
[(AIAA 82-26222) p0276 A82-26543]

One year flight testing of the Transonic Wing  
[(AIAA PAPER 82-0126) p0286 A82-27006]

Experimental study of the flowfield of an airfoil with deflected spoiler  
[(NASP 82-2010) p0328 A82-29018]

Transonic time-response analysis of three D.O.F. conventional and supercritical airfoils  
[(AIAA 82-0686) p0319 A82-30155]

Material flow and defect formation in forging an airfoil shape from metal-matrix composites  
[(AIAA 82-33995) p0365 A82-34145]

Structural optimization of a swept wing on the basis of the aileron efficiency condition  
[(AIAA 82-34145) p0388 A82-34145]

The initial lift and drag of an impulsively started airfoil of finite thickness  
[(AIAA 82-34358) p0390 A82-34358]

Optimization of propeller blade shape by an analytical method  
[(AIAA PAPER 82-1125) p0417 A82-35021]

A two-dimensional boundary-layer program for turbine airfoil heat transfer calculations  
[(AIAA PAPER 82-0597) p0424 A82-35336]

The effect of rotor blade thickness and surface finish on the performance of a small axial flow turbine  
[(AIAA 82-0597) p0428 A82-35409]

Heat transfer optimized turbine rotor blades - An experimental study using transient techniques  
[(AIAA 82-0684) p0430 A82-35469]

A series of airfoils designed by transonic drag minimization for Gates Learjet aircraft  
[(AIAA 82-35565) p0438 A82-40507]

A new transonic airfoil design method and its application to helicopter rotor airfoil design  
[(AIAA PAPER 82-1125) p0417 A82-35021]

Viscous transonic airfoil flow simulation  
[(AIAA 82-0566) p0406 A82-40897]

Investigation of the unsteady loadings on a transport aircraft type airfoil with two ratcheting trailing edge flaps, at transonic speed and high Reynolds numbers  
[(AIAA 82-0566) p0407 A82-40909]

Design and tests of airfoils for sailplanes with an application to the ASW-19B  
[(AIAA 82-0566) p0412 A82-40967]

Variable geometry airfoils as applied to the Beatty B-5 and B-6 sailplanes  
[(AIAA 82-0566) p0412 A82-40968]

Advanced aerodynamic wing design for commercial transports - Review of a technology program in the Netherlands  
[(AIAA 82-0566) p0414 A82-40985]

Recent airfoil developments at DVL BR  
[(AIAA 82-0566) p0414 A82-40985]

An examination of helicopter blade profiles and tips  
[(AIAA 82-0566) p0458 A82-42811]

The design of airfoil profiles with trailing edge loading using a transonic flow --- French thesis  
[(AIAA 82-0566) p0554 A82-44224]

Transonic flutter and response analyses of two 3-degree-of-freedom airfoils  
[(AIAA 82-0566) p0555 A82-44245]

Wind-tunnel results for a modified 17-percent-thick low-speed airfoil section  
[(NASA-TP-1919) p0034 A82-11033]

Aerocoustic theory for noncompact wing-root interaction  
[(AIAA 8-11-7) p0038 A82-11071]

Subcritical and supercritical airfoils for given pressure distribution  
[(AIAA 82-12031) p0085 A82-12031]

German-Argentine experiment: Vertical-rotor wind engine  
[(A82-12648) p0091 A82-12648]

Wind-tunnel investigation of the effects of blade tip geometry on the interaction of torsional loads and performance for an articulated helicopter rotor  
[(A82-13107) p0097 A82-13107]

Optimization and performance calculation of dual-rotation propellers  
[(NASA-TP-1946) p0131 A82-14049]

A flight investigation of blade-section aerodynamics for a helicopter main rotor having 10-64C airfoil sections  
[(NASA-TP-83226) p0131 A82-14058]

Low Reynolds number airfoil survey, volume 1  
[(NASA-CR-165803-VOL-1) p0131 A82-14059]

High lift selected concepts  
[(NASA-CR-159093) p0139 A82-15017]

Computer program for aerodynamic and blade design of multistage axial-flow compressors  
[(NASA-TP-1946) p0141 A82-15039]

Investigations of the separation behavior on airfoils at high angles of attack, using linear lift theory  
[(NASA-TP-122/5/PUB/37) p0252 A82-18109]

Laminar airfoils for transport aircraft  
[(NASA-TP-660) p0252 A82-18190]

On the design of some airfoils for sailplane application - additions to existing wings for inflight testing  
[(CPU-LR-326) p0265 A82-19213]

Core compressor exit stage study, volume 6  
[(NASA-CR-165553) p0472 A82-27310]

Family of airfoil shapes for rotating blades - for increased power efficiency and blade stability  
[(NASA-CR-12043-1) p0607 A82-33372]
### Quantification of airport community noise impact
- In terms of noise levels, population density, and human subjective response
- [NASA-CR-168881](#)

**AIRPORT RAZOR SYSTEMS**
- Russian book
- [P0129 N82-18732](#)

**Comparison of aircraft and ground vehicle noise levels in front and backyards of residences**
- [P0151 N82-18975](#)

**Gateway diversity and competition in international air transportation**
- [P0166 N82-20058](#)

**Utilization of radio equipment at airports and on airways**
- Russian book
- [P0659 N82-22407](#)

**Instruments and installations for meteorological measurements at airports**
- Russian book
- [P0326 N82-28826](#)

**A modular automated approach to airfield weather systems**
- [P0380 N82-33274](#)

**Low level wind shear detection system for airport landing approach areas using the Sodar**
- [P0579 N82-45813](#)

**A tower approach to slant visual range observation and prediction**
- [P0579 N82-45816](#)

**Airport and Airway Improvement Act of 1961, part I**
- [P0306 N82-10066](#)

**Design of airport pavements for expansive soils**
- [P0404 N82-11133](#)

**Effects of aircraft noise on the equilibrium of airport residents: Testing and utilization of a new methodology**
- [P0404 N82-11133](#)

**Analyses of two air traffic samples in the terminal area of Frankfurt/Main, August 24, 1978**
- [P0132 N82-14073](#)

**Requirements for instrument approaches to triple parallel runways**
- [P0132 N82-14079](#)

**Effects of aircraft noise on the equilibrium of airport residents: Supplementary analyses to the study carried out around only**
- [P0132 N82-14079](#)

**The Modular Automated Weather System (MAWS) concept --- airfield weather support**
- [P0137 N82-14763](#)

**Automated Pilot Advisory System**
- [P0140 N82-15027](#)

**Analysis of two air traffic samples in the terminal area of Frankfurt/Main, August 24, 1978**
- [P0140 N82-15029](#)

**Air service, airport access and future technology**
- [P0192 N82-16100](#)

**Community sensitivity to changes in aircraft noise exposure**
- [P0194 N82-16807](#)

**Requirements for instrument approaches to converging runways**
- [P0200 N82-17144](#)

**Survey of 101 US airports for new multiple instrument approach concepts --- runways**
- [P0209 N82-17229](#)

**Noise impact on communities from aircraft**
- [P0215 N82-17655](#)

**Development of a clear air radar to detect meteorological hazards at airports**
- [P0260 N82-18835](#)

**FAA statistical handbook of aviation**
- [P0263 N82-19198](#)

**Weather deterioration models applied to alternate airport criteria**
- [P0309 N82-20811](#)

**The Joint Airport Weather Studies Project**
- [P0311 N82-21152](#)

**Traffic infrastructure: Can planning still be carried through?**
- [P0350 N82-22232](#)

### AIRSHIPS
- [P0351 N82-22240](#)

**Airfield visual aids research at the Royal Aircraft Establishment**
- [P0351 N82-22240](#)

**Calculation of the contributions of air traffic and road traffic to air pollution in the region of Schiphol airport in 1974**
- [P0358 N82-22808](#)

**Analysis and Monte Carlo simulation of near-terminal aircraft flight paths**
- [P0367 N82-23233](#)

**Primary sewage treatment plant as a source of bird hazards at airport**
- [P0413 N82-26184](#)

**Final regulatory evaluation: Metropolitan Washington Airports Policy**
- [P0457 N82-26324](#)

**Characterization of future aircraft impacting aircraft and airport compatibility**
- [P0463 N82-27233](#)

**Test and evaluation of the airport radar wind shear detection system**
- [P0478 N82-27924](#)

**Computer outages at air terminal facilities and their correlation to near miss and-air collisions (AFMD-82-43)**
- [P0522 N82-28264](#)

**FHA aviation forecasts-fiscal years 1982-1993**
- [P0531 N82-29261](#)

**A study of general aviation community noise impact and annoyance**
- [P0564 N82-31066](#)

**Airports/Community Noise**
- [P0564 N82-31070](#)

**Summary of airport technology needs**
- [P0565 N82-31073](#)

**Summary of community technology needs**
- [P0565 N82-31074](#)

**Operational and functional requirements for the navigation system in terminal areas**
- [P0568 N82-31318](#)

**Study of the de-icing properties of the ASOE-3 rotorcone**
- [P0570 N82-31335](#)

**The noise impact of proposed runway alternatives at Craig airport**
- [P0574 N82-32080](#)

**Analysis of two air traffic samples in the Frankfurt/Main airport terminal area, August 4, 1978**
- [P0577 N82-32338](#)

**Analysis of two air traffic samples in the Frankfurt/Main airport terminal area, August 3, 1979**
- [P0587 N82-32339](#)

**Aircraft energy conservation during airport ground operations**
- [P0610 N82-32906](#)

**Preliminary analysis of the benefits and costs to implement the National Airspace System Plan**
- [P0660 N82-33369](#)
Elastic-plastic finite-element analyses of He* materials by better and cheaper
Allowing for the nail boundary layer in a stage of movement in Category III conditions all
Helicopter decelerated steep approach and landing
Controls and displays for all-weather operation of Commentary on facilities used in the development
Weapon system of a future attack aircraft
Considerations for optimum mixing of NEARAD to detect convective processes hazardous to
terminal air navigation, part 1 --- meteorological radar
[DOT/FAA/RD-82/36]
Helicopter decelerated steep approach and landing to confined areas under instrument meteorological conditions
Movement in Category III conditions --- all weather air traffic operations
All-weather altitude systems
Allowing for the wall boundary layer in a stage of an axial compressor
Alloying
Alloying in aluminum alloys and carbon steels
Chromium alloys
Cobalt alloys
Electrolytic alloys
Heat resistant alloys
High strength alloys
High strength steels
Iron alloys
Light alloys
Nickel alloys
Zinc 95
Stainless steels
Steels
Titanium alloys
New materials fly better and cheaper
Elastic-plastic finite-element analyses of thermally cycled double-edge wedge specimens

Subject Index

[Aluminum alloys and carbon steels]

[Alloying]

[Aluminum alloys]

[Aluminum coatings]
The load-carrying behavior of a trapezoidal aluminum-alloy supporting element, subjected to a compressive stress, in the postbuckling region

A crack-closure model for predicting fatigue crack growth under aircraft spectrum loading

Multi-parameter yield zone model for predicting spectrum crack growth

Crack growth behavior of center-cracked panels under random spectrum loading

Random spectrum fatigue crack life predictions with or without considering load interactions

Low-frequency eddy current inspection of aircraft structure

Aluminum and its alloys - Weldability

A new approach to the problem of stress corrosion cracking in 7075-T6 aluminum

Materials and aeronautics

A simple crack closure model for prediction of fatigue crack growth rates under variable-amplitude loading

Effect of mechanical surface and heat treatments on erosion resistance

Correlation of surface characterization of phosphoric acid anodize oxide with physical properties of bored specimens


SPP of high-strength aluminum structures - Superplastic forming for complex aircraft structures

Boored aluminum honeycomb - Aircraft flight surface primary structure application

Forbability of IMCOLIT alloy 8A 956 - An oxide dispersion strengthened sheet alloy

Material and process developments on the Boeing 767

Application of a new hybrid material /ABALL/ to aircraft structures

Evaluation of heat damage to aluminum aircraft structures

Systems study of transport aircraft incorporating advanced aluminum alloys

Superplastic aluminum evaluation

Mechanisms of corrosion fatigue of high-strength aluminum alloys

Corrosion fatigue behaviour of some aluminum alloys

Flight-by-flight corrosion fatigue tests

Corrosion prevention measures used in the construction of an aircraft airframe: The case of 2014 and 2124 alloys

Recent developments in materials and processes for aircraft corrosion control

Corrosion protection schemes for aircraft structures: Some examples for the corrosion behaviour of Al alloys

Review of aeronautical fatigue investigations in the Netherlands, March 1979 - February 1981

Engineering property comparisons of 7050-T7351, 7010-70651 and 7010-T73651 aluminum alloy plate - for aircraft construction

Advanced casting: Today and tomorrow -- aerospace industry components casting

Prediction of cyclic growth of cracks and debonds in aluminum sheets reinforced with boron/epoxy

An evaluation study of aluminide and chromaluminide coatings on C--100

Application and testing of metallic coatings on graphite/epoxy composite

The protection of gas turbine blades - A platinum aluminide diffusion coating

Fire extinguishing materials

Ambulance helicopter in the Stockholm archipelago

Aerial ambulance service in Australia

Flying doctor service in East Africa

Air ambulance systems in the Republic of South Africa

Aero medical evacuation in New Zealand

Aircraft for secondary long range emergency ambulance flight

GOV E of the P-16 20ma assumption loading system's ability to upload/download A-7D aircraft

 Lift system and fan performance of air cushion supported vehicles

Characteristic and principal gains and phases and their use as multivariable control design tools --- generalizing Nyquist and root-locus diagram techniques

Combining amplitude-phase modulation for a VHF communication link

The use of analog computers in solutions of inverse problems of heat conduction for the identification of boundary conditions on the surfaces of gas-turbine-engine parts on the basis of temperature-measurement results

Official recognition and the significance of simulators for safe flight operations

Design, fabrication and testing of an electrical analogue for heat transfer to coated turbine blade

Advances in real-time engine simulation technology --- of digital electronic aircraft engine control systems

An analogy method for crack initiation life prediction

ANALOG TO DIGITAL CONVERTERS

[ NASA-CR-166282 ] p0150 862-15030

Subject Index

A-77
Current pressure measuring system in the transonic wind tunnel 
(AD-106621) | p0192 A82-16096
Heads up display 
[NASA-LSM-92-29319] | p0536 A82-29319

ANALOGIES
Calculation of wing-body-nacelle interference in
subsonic and transonic potential flow | A82-13095

ANALYSIS (MATHEMATICS)
| AT APPROXIMATION
| AT CALCULATIONS OF VARIATIONS
| AT COMPUTATIONAL FLUID DYNAMICS
| AT CONFORMAL MAPPINGS
| AT CONTINUITY (MATHEMATICS)
| AT DIRECTIONAL EQUATIONS
| AT ELIPTIC DIFFERENTIAL EQUATIONS
| AT ERROR ANALYSIS
| AT EXTREMUM VALUES
| AT FAKE AND ESTIMATIONS
| AT FINITE DIFFERENCE THEORY
| AT FINITE ELEMENT METHODS
| AT FOURIER SERIES
| AT FOURIER TRANSFORMATION
| AT GAUSS EQUATION
| AT HARMONIC ANALYSIS
| AT INTEGRAL EQUATIONS
| AT INTEGRATION
| AT ITERATION
| AT KERNEL FUNCTIONS
| AT LEAST SQUARES METHODS
| AT LINEAR EQUATIONS
| AT MATRIX FUNCTION
| AT MEASUREMENT AND INTEGRATION
| AT MONTE CARLO METHOD
| AT NUMERICAL METHODS
| AT NUMERICAL EQUATIONS
| AT NUMERICAL INTEGRATION
| AT PARITY APPROXIMATION
| AT PARTIAL DIFFERENTIAL EQUATIONS
| AT QUADRATIC EQUATIONS
| AT RELIABILITY (MATHEMATICS)
| AT REAL VARIABLES
| AT RELATION METHODS (MATHEMATICS)
| AT SERIES METHODS
| AT SIMPLIFIED METHODS
| AT TANGENTS
| AT TAYLOR SERIES
| AT VECTOR ANALYSIS
| AT VORTICITY
| AT VIBRATING FUNCTIONS
Multi-variable analysis and design techniques | (AGARD-LS-117) | p0029 A82-10046
Prediction of aerodynamic loads on aircrafts with external stores at transonic speeds | p101 A82-13813

ANALYSIS OF VARIANCE
A descriptive study of the application of analysis
of variance and regression techniques in an
error analysis program for test data obtained in
a 16 foot transonic tunnel | A82-20997

ANALYTIC GEOMETRY
AT TANGENTS
AT VORUSES

ANALYZERS
AT SIGNAL ANALYZERS

ANATOMY
AT LATE (ANATOMY)

ANECHOIC CHAMBERS
Calibration of the ANS Anechoic Facility - Phase | p0191 A82-16091
1: Short range plan | [NASA-TM-84068]

AERODYNAMICS
AT HOT-FLAME AERODYNAMICS
AT LASER AERODYNAMICS
The dynamic behaviour of propeller aerofoils | p0276 A82-26184

AERODYNAMICS:
| AT VELOCITY MEASUREMENT
| AT ANGLE OF ATTACK
Non-linear prediction of subsonic aerodynamic loads
on wings and bodies at high angles of attack | A82-11359
A large-scale investigation of engine influence on
inlet performance at angle-of-attack | A82-12008

SUBJECT INDEX
[AIAPA PAPER 81-2481] | p0059 A82-13939
The USAP Test Pilot School high angle of attack
and spin training program | A82-14932
F/A-18A high angle of attack/spin testing | A82-14934
Direct free-flight analysis of aircraft dynamics
at high angles of attack | A82-15596
Wind tunnel investigations for the flat spin of
multiple bodies at high angles of attack | A82-17755
Sensitivity analysis of nonlinear stability of aircrafts
at high angles of attack | A82-17862
Aerodynamics of tactical weapons to Mach number 8
and angle-of-attack of 160 deg | A82-20250
Large-scale wind tunnel tests of a sting-supported
V/STOL fighter model at high angles of attack | A82-21208
Thrust modulation methods for a subsonic V/STOL
aircraft | A82-21213
High angle-of-attack characteristics of
three-surface fighter aircraft -
camber-wing-horizontal tail configuration for
greater stability and control | A82-21204
Measurements of a three-dimensional tail configuration
on a sharp cone at Mach 3 | A82-21209
Steady and unsteady nonlinear boundary layer
for lifting surfaces at large angles of attack | A82-21204
Oscillating supersonic/hypersonic wings at high
incidence | A82-21204
Review of support interference in dynamic tests | A82-21205
[AIAPA PAPER 82-0245] | p0184 A82-22074
[AIAPA PAPER 82-0289] | p0185 A82-22083
[AIAPA PAPER 82-0351] | p0185 A82-22094
Wind-tunnel wall interference corrections for
two-dimensional flows | p0379 A82-32847
Piloted simulator evaluation of a relaxed static
stability fighter at high angle-of-attack | A82-39081
An estimate of aerodynamic forces and moments on
an airplane model under steady state spin
conditions | A82-39082
[AIAPA PAPER 82-1311] | p0087 A82-39092
Analysis and wind tunnel tests of a probe used to
sense altitude through measurement of static
pressure | A82-39108
Effects of vortex breakdown on longitudinal and
lateral-directional aerodynamics of slender
wings by the suction analogy | A82-39141
Lateral aerodynamics of delta wings with leading
edge separation | A82-39142
[AIAPA PAPER 82-1869] | p0490 A82-39142
Aerodynamic aspects of aircraft dynamics at high
angles of attack /AGARD Lecture/ | A82-39085
[AIAPA PAPER 82-1316] | p0489 A82-39108
Flight-determined correction terms for angle of
attack and sideslip | A82-40290
[AIAPA PAPER 82-1374] | p0497 A82-40290
Determination of airplane aerodynamic parameters
from flight data at high angles of attack | A82-40555
[AIAPA PAPER 82-2098] | p0508 A82-40528
Low-speed characteristics of a fighter-type
craft under spin and heading conditions | A82-40553
Estimation of airplane stability and control
derivatives from large amplitude longitudinal
maneuvers | A82-40426
A1G0LAB VBLOCIII
UGDUB »CCBLBBATION
AI6LBS (GEOBBIBI)
8T SIEEPBACK
8T ELEVATIOS ABGLE .
0 &BGDLAB VELOCIII
8T AHGLE OF ATTACK
F/A-18 roll rate improvement program
the ideal controlled element for real airplanes is
Turbulent boundary layer on a porous surface with
OOF gyro analysis from measured and derived rates
Velocity and flow angle measurements in the
Bough analysis of installation effects on
Some STF laser velocimeter installation and
Measured and calculated effects of angle of attack
Air data measurement using distributed processing
Tunnel-to-tunnel correlation
Water tunnel flow visualization and wind tunnel
data analysis of the F/A-18 --- leading edge
extension vortex effects
[NASA-CH-16580]
[NASA-CH-16581]
Air data measurement using distributed processing
and fiber optics data transmission
Effects of wing-leading-edge modifications on a
Full-scale, low-wing general aviation airplane;
Wind-tunnel investigation of
high-angle-of-attack aerodynamic characteristics
--- conducted in Langley 30- by 60-foot tunnel
[NASA-TP-2011]
Rough analysis of installation effects on
turboprop noise
[NASA-TP-82926]
Measured and calculated effects of angle of attack
on the transonic flutter of a supercritical wing
[NASA-TP-82376]

ANGLES (METERET)
MT ANGLE OF ATTACK
MT ELEVATION ANGLE
MT SLEEPRACK
Turbulent boundary layer on a porous surface with
injection at various angles to the wall
Velocity and flow angle measurements in the
Langley 0.3-meter transonic cryogenic tunnel
using a laser transit anemometer
Some MT laser velocimeter installation and
operation considerations

ANGULAR ACCELERATION
The ideal controlled element for real airplanes is
not E/0
[ALLA 82-1606]
ANGULAR ACCELERATION
ANGULAR VELOCITY
F/A-18 roll rate improvement program
3 DOP gyro analysis from measured and derived rates
--- hypersonic reentry simulation test
[ALLA PAPER 82-0189]
**Subject Index**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTENNA DESIGN</td>
<td>p020 A82-12323</td>
</tr>
<tr>
<td>Octave bandwidth dual polarized antenna</td>
<td>p0150 A82-18934</td>
</tr>
<tr>
<td>Broader bandwidth for thor conformal antennas</td>
<td>p0154 A82-19069</td>
</tr>
<tr>
<td>Selection of optimum antennas for tracking telemetry instrumented airborne vehicles</td>
<td>p0290 A82-27226</td>
</tr>
<tr>
<td>Recent results in main beam nulling antennas design</td>
<td>p0553 A82-43792</td>
</tr>
<tr>
<td>General aviation aircraft antennas for the global positioning system</td>
<td>p0041 H82-11339</td>
</tr>
<tr>
<td>Antenna (selected articles)</td>
<td>p0269 H82-19948</td>
</tr>
<tr>
<td>Conformal antenna array design handbook</td>
<td>p0322 H82-21403</td>
</tr>
<tr>
<td>Spiral slot antenna array</td>
<td>p0876 H82-27558</td>
</tr>
<tr>
<td>Advanced microstrip antenna developments. Volume 1: Microstrip GPS antennas for general aviation aircraft</td>
<td>p0477 H82-27588</td>
</tr>
<tr>
<td>Improved 243 MHz homing antenna system for use on helicopters</td>
<td>p0523 H82-28276</td>
</tr>
<tr>
<td>Antenna Fields</td>
<td>p0020 A82-12323</td>
</tr>
<tr>
<td>Antenna radiation patterns</td>
<td>p0020 A82-12323</td>
</tr>
<tr>
<td>Antenna theory and design</td>
<td>p0020 A82-12323</td>
</tr>
<tr>
<td>Leaky wave antenna using an inverted strip dielectric waveguide</td>
<td>p0363 A82-19552</td>
</tr>
<tr>
<td>Selection of optimum antennas for tracking telemetry instrumented airborne vehicles</td>
<td>p0290 A82-27226</td>
</tr>
<tr>
<td>Measuring LF and HF antenna radiation patterns by means of a helicopter</td>
<td>p0391 H82-24772</td>
</tr>
<tr>
<td>Monopole antenna patterns on finite size composite ground planes --- in aircraft</td>
<td>p0518 H82-40155</td>
</tr>
<tr>
<td>Recent results in main beam nulling antennas design</td>
<td>p0553 A82-43792</td>
</tr>
</tbody>
</table>

**Antennas**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>VHF aircraft antennas</td>
<td>p020 A82-12323</td>
</tr>
<tr>
<td>VHF cylindrical antennas</td>
<td>p020 A82-12323</td>
</tr>
<tr>
<td>VHF dipole antennas</td>
<td>p020 A82-12323</td>
</tr>
<tr>
<td>VHF directional antennas</td>
<td>p020 A82-12323</td>
</tr>
<tr>
<td>VHF horn antennas</td>
<td>p020 A82-12323</td>
</tr>
<tr>
<td>VHF loop antennas</td>
<td>p020 A82-12323</td>
</tr>
<tr>
<td>VHF monopole antennas</td>
<td>p020 A82-12323</td>
</tr>
<tr>
<td>VHF parabolic antennas</td>
<td>p020 A82-12323</td>
</tr>
<tr>
<td>VHF radome antennas</td>
<td>p020 A82-12323</td>
</tr>
<tr>
<td>VHF radio antennas</td>
<td>p020 A82-12323</td>
</tr>
<tr>
<td>VHF slot antennas</td>
<td>p020 A82-12323</td>
</tr>
<tr>
<td>VHF space craft antennas</td>
<td>p020 A82-12323</td>
</tr>
<tr>
<td>VHF spiral antennas</td>
<td>p020 A82-12323</td>
</tr>
</tbody>
</table>

**VHF Antennas**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>VHF aircraft antennas</td>
<td>p020 A82-12323</td>
</tr>
<tr>
<td>VHF cylindrical antennas</td>
<td>p020 A82-12323</td>
</tr>
<tr>
<td>VHF dipole antennas</td>
<td>p020 A82-12323</td>
</tr>
<tr>
<td>VHF directional antennas</td>
<td>p020 A82-12323</td>
</tr>
<tr>
<td>VHF horn antennas</td>
<td>p020 A82-12323</td>
</tr>
<tr>
<td>VHF loop antennas</td>
<td>p020 A82-12323</td>
</tr>
<tr>
<td>VHF monopole antennas</td>
<td>p020 A82-12323</td>
</tr>
<tr>
<td>VHF parabolic antennas</td>
<td>p020 A82-12323</td>
</tr>
<tr>
<td>VHF radome antennas</td>
<td>p020 A82-12323</td>
</tr>
<tr>
<td>VHF radio antennas</td>
<td>p020 A82-12323</td>
</tr>
<tr>
<td>VHF slot antennas</td>
<td>p020 A82-12323</td>
</tr>
<tr>
<td>VHF space craft antennas</td>
<td>p020 A82-12323</td>
</tr>
<tr>
<td>VHF spiral antennas</td>
<td>p020 A82-12323</td>
</tr>
</tbody>
</table>
ARC WELDING

[AIAA PAPER 82-1240] p0418 A82-35080

ARC WELDING
MT GAS TURBOSTER ARC WELDING
MT FLASHER ARC WELDING

ARCHAEOLOGY
Radar mapping, archaeology, and ancient land use

Archaeology [NASA-CR-169531] p0041 A82-11514

ARCHITECTURE
Airport related residential acoustical insulation
demonstration project: Report 1720

[PB82-100777] p0268 A82-19396

ARCHITECTURE [COMPUTERS]
HiMAT onboard flight computer system architecture
and qualification

(AIAA 81-2107) p0081 A82-10062

Airborne associative processor /ASPRO/ --- for
early warning radar surveillance, command, and
control applications

(AIAA 01-2145) p0062 A82-10104

An advanced programmable/reconfigurable color
graphics display system for crew station

technology research

(AIAA 81-234) p0051 A82-13516

Advanced weapon systems - Integration technology
--- Digital Avionic Information System

(AIAA 81-2313) p0053 A82-13533

Advanced integrated CII architectures: ---
Communications, Navigation and Identification
avionics for tactical aircraft and attack

helicopter

p0070 A82-14763

APC automation - A look forward:

Technology architecture

p0220 A82-23320

Discrete Address Beacon System /DABS/

p0220 A82-23322

A tutorial on distributed processing in
aircraft/avionics applications

p0196 A82-17069

Economic considerations for real-time naval
aircraft/avionics distributed computer control
systems

p0196 A82-17057

Stage-state reliability analysis technique

p0196 A82-17104

Analysis of computing system configurations for
highly integrated guidance and control systems

p0363 A82-23169

Electronic Warfare Avionic Integration Support
Facility master processor

[AD-A111641] p0400 A82-25249

At assessment of the real-time application
capabilities of the SIST computer system

[NASA-TM-84482] p0413 A82-25611

Computer architecture study for VITaS simulators

[AD-A115604 A82-39095]

Design of a microprocessor-controlled linkage for
simulator applications

[AD-A115621] p0564 A82-30954

ARTIFICIAL ENVIRONMENTS

U ICS ENVIRONMENTS

ARTIFICIAL ENVIRONMENTS

VTOL as it applies to resource development in the
Canadian north

[AIAA PAPER 81-2640] p0156 A82-19215

AREA NAVIGATION
Use of Space Shuttle technology in conventional
aircraft

[AIAA 81-2176] p0002 A82-10125

Discrete address beacon, navigation and landing
system

p0100 A82-10650

Flight measurements of Area Navigation System
performance using various combinations of ground
aids and airborne sensors

p0123 A82-18147

Evaluation of Loran-C enroute navigation and
non-procurement approaches within the State of
Vermont

p0124 A82-18160

Flight evaluation of Loran-C for general aviation
area navigation

p0380 A82-33049

Applications of a multiplexed GRS user/SET

p0380 A82-33050

Waystar - Global Positioning System: A
revolutionary capability

p0435 A82-37040

SUBJECT INDEX

NASA/PAA Helicopter ARC simulation investigation
of HAY/IBS instrument approaches

p0501 A82-40535

Northeast corridor helicopter area navigation
accuracy evaluation

[AD-A117445] p0606 A82-33367

ARGUMENTA
German-Argentine experiment: Vertical-rotor wind
engine

p0091 A82-12648

ARIIP (IMPACT PREDICTION)

U COMPUTERIZED SIMULATION

U IMPACT PREDICTION

ARGONITH

ST FLOATING POINT ARITHMETIC

ARMED FORCES

AT ARMED FORCES (FOREIGN)

AT ARMED FORCES (UNITED STATES)

AT HATT

ARMED FORCES (FOREIGN)

A proposed flight safety program for the Korean
Air Force

[AD-A102373] p0025 A82-10023

ARMED FORCES (UNITED STATES)

U.S. Marine Corps AT-6A maintenance experience

[AIAA PAPER 81-2657] p0482 A82-38466

ARROW

Transparent polyolefin film armor

p0213 A82-17377

AROMATIC COMPOUNDS

The sooting tendency of fuels containing
polyisocyanates in a research combustor

[AIAA PAPER 82-0299] p0164 A82-19791

ARHATS

AT ANTENNA ARRAYS

AT EMBARR ARRAYS

AT LIBRARY ARRAYS

AT PHASED ARRAYS

AT SOLAR ARRAYS

AT STIMULABLE ANTENNAS

Local heat transfer to staggered arrays of
impinging circular air jets

[ASBE PAPEB 82-02-211] p0427 A82-35401

ARRESTING GEAR

Test and evaluation of improved aircrew restraint
systems

[AD-A107576] p0188 A82-16056

Investigation of crossdeck pendant catapult slot
interaction; proposed corrective measures

[AD-A106149] p0258 A82-18232

ARROW WINGS

Effects of vortex flaps on the low-speed
aerodynamic characteristics of an arrow wing

[ASME PAPEB 82-GI-46] p0422 A82-35304

[AD-A115791] p0033 A82-11013

ARTIFICIAL CLOUDS

Helicopter Icing Spray System (HISS) nozzle
improvement evaluation

[AD-A109405] p0264 A82-19208

ARTIFICIAL SATELLITES

AT COMMUNICATION SATELLITES

AT GEODETIC SATELLITES

AT NAVIGATION SATELLITES

AT NAVSTAR SATELLITES

AT IRAQIAN SATELLITES

AT REPAT

AT SASAT

AT SEAGATE SATELLITES

ARTS

AT ABILITIES

ATYL COMPOUNDS

AT AROMATIC COMPOUNDS

ASBESTOS

Replacement of aboard naval aircraft

[AD-A117602] p0550 A82-32356

ASCENT

AT CLIMBING FLIGHT

ASPECT RATIO

AT HIGH ASPECT RATIO

AT LOW ASPECT RATIO

Infrared emissions from turboshaft with h. ph aspect
ratio nozzles

p0103 A82-16092

Secondary flow effects and mixing of the wake
behind a turbine stator

[ASME PAPER 82-GT-46] p0422 A82-35304

Development and application of a performance
prediction method for straight rectangular
diffuser

[ASME PAPER 82-GT-122] p0425 A82-35352
Low-speed aerodynamic performance of a high-aspect-ratio supersonic-wedge transport model equipped with full-span mist and part-span double-slotted flaps [NASA-TP-1504].

The effect of aspect ratio on the unsteady aerodynamic forces induced by vibration of a cascade blade [NASA-TP-1505].

Performance of single-stage axial-flow transonic compressor with rotator and stator aspect ratios of 1.63 and 1.78, respectively, and with design pressure ratio of 1.82 [NASA-TP-1574].


Low-speed measurements of the static pressure distribution and overall forces on a cascade and a symmetric mild gabled wing of aspect ratio 1.4 --- in a wind tunnel [NASA-TR-80106].

ASSEMBLY

Tail assemblies

Advanced concepts for composite structure joints and attachment fittings. Volume 2: Design guide [AD-1111726].

Assembly of aircraft instruments --- Russian book [APA-862-36950].

The technology of the assembly of engines for flight vehicles --- Russian book [APA-862-45765].

ASSESSMENTS

ST Garage Assessment

ST Technology Assessment

Reduced performance and increased cost warrant reexamination of the multiple atomic ejector rack [AD-1121776].

Astronomical Society requirements for future navigation systems [APA-862-12637].

ASTROBATS

Studies in the history and theory of development of aviation and rocketry and space science and technology --- Russian book [APA-862-27285].

Romanian professor Elena Carafoli --- 55 years devotion on modern aeronautics and astronautics [JAF-PAPER-862-280].

Astronomical spectroscopy

The motion to forty micro spectroscopy from the NASA Lear Jet [NASA-CR-168666].

Astrology

ST X Ray Astronomy

Journal of Aeronautics and astronomy [AD-1109611].

Astronomical methods

A stable decentralized filtering implementation for JPL's Bellwag --- stable community relative navigation [APA-862-20140].

Torsional vibrations of a wing carrying a concentrated load/asympotic behavior/ [APA-862-18156].

The stability of maneuverable flight vehicles [APA-862-23527].

Evaluation of an asymptotic method for helicopter rotor analysis [APA-862-20059].

As asymptotic theory of separated flow past low-aspect-ratio wings [APA-862-46135].

Helicopter rotor loads using a matched asymptotic expansion technique [NASA-CR-165742].

Asymptomatic motors

Cascade converter of dc voltage to ac voltage of higher frequency with voltage and frequency stabilization devices --- aircraft electric equipment [APA-862-22875].

A-B-83

ATMOSPHERIC ELECTRICITY

tracks - Some interim results of the study [APA-862-43550].

Atmospheric absorption

U PRINT ATRIBUTION

Atmospheric absorption: 1-band vs 2-band aircraft radar - The relative effects of beamwidth and attenuation in severe store situations [APA-862-19858].

Atmospheric chemistry

Radiation enhancement by nonequilibrium during flight through the Titan atmosphere [APA-PAPER-862-06780].


Atmospheric circulation

Multiple Doppler radar observations of PBL structure [APA-862-10292].

Aircraft measurements and analysis of severe storms: 1976 field experiment [NASA-CR-168619].

Atmospheric composition

Two-dimensional model studies of the impact of aircraft exhaust emissions on tropospheric ozone [APA-862-40124].

In situ ozone observations for comparison with laser absorption remote sensor: 1980 PEPE/HEROS program [APA-862-25661].

Beta experiment flight report [NASA-CR-170622].

Atmospheric conditions

U METEOROLOGY

Atmospheric electricity

Preflight estimates of near Earth satellite lifetimes using quasi-dynamic atmosphere models - application to a proposed Brazilian satellite [APA-862-29347].

Astronomy

Updated station selection procedures to support automatic Omega receiver operations [APA-862-14712].

Constant L/O glide trajectories [APA-PAPER-862-0362].

Aerocommission problems of the TAF-P-5 aircraft [APA-862-17354].

New concepts in multifunctional corrosion for aircraft and other systems [APA-862-17362].

Corrosion in naval aircraft electronic systems [APA-862-17363].


Meteorological impact on aviation fuel efficiency [APA-862-21139].

Meteorology impact on ATC system design [APA-862-21140].

Effect of heavy rain on aircraft [APA-862-21144].

Prototype Regional Observation and Forecast System [FIPFS].

Atmospheric electricity

Electrical ground testing of aircraft antistatic protection [APA-862-10022].

Direct strike lightning measurement system --- for aircraft [APA-PAPER-862-2513].

Calculations of lightning return stroke electric and magnetic fields above ground [APA-862-17114].

Instrumentation for testing aircraft antistatic protection [OERPA, TP No. 1982-7].

Triggered lightning --- resulting from aircraft atmospheric electricity interactions [APA-862-35727].

Nasa research programs responding to workshop recommendations [APA-862-21146].

Influence of meteorological processes on the verticality of electric fields [APA-862-21150].
Computer-program model for predicting horizontally and vertically polarized VLF atmospheric radio noise at elevated receivers

The interaction of radio frequency electromagnetic fields with atmospheric water droplets and applications to aircraft ice protection

A criterion for determining the causes of wind shear at Punta Raisi airport, on the basis of statistical data from barograph records

The influence of turbulence models on computer-simulated aircraft landing

The effects of atmospheric turbulence on a quadrotor heavy lift airship

The role of the scale parameter in service load assessment and simulation — of aircraft flight

Laser pointing in a turbulent atmosphere

Turbulence and wind shear experiments related to aircraft operation in the terminal area

Categorization of atmospheric turbulence in terms of aircraft response for use in turbulence reports and forecasts

The determination of gust loads on nonlinear aircraft using a power spectral density approach

Analysis of vibration induced error in turbulence velocity measurements from an aircraft wing tip boom

Evaluation of a meteorological airborne pulse Doppler radar

Aircraft parameter identification in the presence of atmospheric turbulence

The role of the scale parameter in service load assessment and simulation — of aircraft flight

The influence of turbulence models on computer-simulated aircraft landing

The effects of atmospheric turbulence on a quadrotor heavy lift airship

The role of the scale parameter in service load assessment and simulation — of aircraft flight

Laser pointing in a turbulent atmosphere

Turbulence and wind shear experiments related to aircraft operation in the terminal area

Categorization of atmospheric turbulence in terms of aircraft response for use in turbulence reports and forecasts

The determination of gust loads on nonlinear aircraft using a power spectral density approach

Analysis of vibration induced error in turbulence velocity measurements from an aircraft wing tip boom

Evaluation of a meteorological airborne pulse Doppler radar
Comparison between the surveillance performances of the Air Traffic Control Radar Beac System made in the German Democratic Republic

Technical/operational 4TC scenarios for future TMA

Problems relating to the classical rate-gyro

The effects on simulators of advances in aircraft technology

Automation of flight operational control in the terminal area

The automation of processes for producing aircraft engines /2nd revised and enlarged edition/ --- Russian book

Application of nonlinear systems inverses to automatic flight control systems

The digital civil aircraft

Digital control for flexible aircraft using reduced order models

F/A-18A weapon system - 1976 state of the art

Application of the concept of dynamic trim control and nonlinear system inverses to automatic control of a vertical attitude takeoff and landing aircraft

Integrated Flight/Weapon control design and evaluation

Parallel processing applied to digital flight control systems - Some perspectives

Microprocessor flight control application study

A synthesis technique for highly uncertain and interacting multivariable flight control systems

Flight crew management and cockpit performance systems

Automatic controlled terrain following flights

Digital avionics - Advances in maintenance designs

Operational and performance aspects of fuel management in naval aircraft

The F52 BAE Bedford naval flight research programme --- on components and system integration for optimum AOC

Thrust management - Current achievements and future developments

The effects of simulators of advances in air combat technology

A-86
AUTOMATIC PILOTS

The design of exact nonlinear model followers ---
with application to trajectory autopilot for
helicopter
A gust damper --- for light passenger aircraft
Electronic stabilization of an aircraft
The control and guidance unit for BACBAC
Designs and flight testing of a digital optimal
control general aviation autopilot
Simulation of ILS using a laser tracker
Electronic stabilization
Optimization of autopilot equations for rapid
estimation of helicopter control settings
Gust response of commercial jet aircraft including
Electronic aircraft stabilization
Analysis of several glidepath and speed control
autopilot concepts for a powered lift STOL
aircraft

AUTOMATIC ROCKET IMPACT PREDICTORS
U COMPUTORIZED SIMULATION
U IMPACT PREDICTION

AUTOMATIC TEST EQUIPMENT
Air supply system kite for Boeing 767 airplane ---
Built-In-Test-Equipment
Commercial RMS considerations for small gas
engines --- automated engine monitoring systems
Information technology and its impact on test and
evaluation at the Naval Air Test Center
Automated radar performance evaluation in the
Radio Frequency Simulation System /RFSS/
facility at Micron
Automatic Low Speed Test System /ASLTS/
International Automatic Testing
Proceedings
Airline maintenance strategy
Airline ATE requirements
The role of software in commercial ATE
The modular ATE --- for cost effective maintenance
of new generation avionics
AWATS - Realistic not futuristic --- an Advanced
Electronic Warfare Test Set
ATE logistics in the United States Air Force
BACBAC Test data provision for the Tornado BACBAC
- A challenging task
Naval Air Systems Command /NAFAIR/ ATE program -
Standardized ATE for the carrier environment
Configuration maintenance techniques for automatic
testing
Poker Comet II jet engine test system
Automated ultrasonic inspection of adhesive bonded
structures
A laboratory mock-up ultrasonic inspection system
for composites
A simple, low cost application of a flight test
parameter identification system
Analysis of Built-in-test accuracy
Computer Monitor Inspection Program /CMIP/, a key
to increased aircraft and personnel
productivity

Vibration test procedures for accessory angle
drive gearboxes on Atar 09C engines --- turbojet
engines
BOLI computers in the flight testing of the Fokker
P29 aircraft
Aircraft interrogation and display system: A
ground support equipment for digital flight
systems
Estimation of the number of in-flight aircraft on
instrument flight rules
A modular automated approach to airfield weather
systems
The Modular Automated Weather System (MAWS) concept
----- airfield weather support
Automation
Automated Paint and Process Line /APPL/ --- for
aircraft production
Automation in flight simulation of data handling and
validation testing
Automation of flight operational control in the
German Democratic Republic

AUTOMOBILES ENGINE
Future auto engines - Competition heats up
Ceramic components for automotive and heavy duty
turbocharged engines - CAST and ADT 100
Cold-air performance of a 15.41-tip-diameter
axial-flow power turbine with variable-area
stator designed for a 75-kW aviation gas
turbine engine
Preliminary results on performance testing of a
turbocharged rotary combustion engine

AUTOMOBILES FUELS
BY LIQUID FUELS
Technological innovation for success - Liquid
hydrogen propulsion

AUTOMOBILES
BY ELECTRIC AUTOMOBILES
Aerodynamic effects of shape, canard, push, and
ground proximity on idealized ground-vehicle
bodies
Slotted wall test section for automotive
aerodynamic test facilities

AUTOPILOTS
O AUTOMATIC PILOTS
AUTOMATION
An evaluation of helicopter automation assist
concepts

AUXILIARY EQUIPMENT (COMPUTERS)
BY FLIOTTERS
BY PRINTERS (DATA PROCESSING)

AUXILIARY POWER SOURCES
BY SNAP
A new APU for medium size aircraft environmental
control systems

Electronic Flight Systems

Electrical Flight systems, overview

A-88
AVIONICS

Aircraft separation assurance avionics
[AIAA 81-2229]
Aircraft alerting systems standardization study
[AIAA 81-2229]
LRU - an advanced avionics system design
[AIAA 81-2229]
F/A-18 'HorNET' - One man operability
[AIAA 81-2229]
ABNC 429 digital data communications on the Boeing 757 and 767 commercial aircraft
[AIAA 81-2229]
A polled contention multiple system using all-SEP-1553 protocol
[AIAA 81-2229]
Avionics systems simulation for the Northrop F-18L aircraft
[AIAA 81-2229]
The electronic terrain map - a new avionics integrator
[AIAA 81-2299]
The interface of multifunction controls and displays to tomorrow's avionics
[AIAA 81-2299]
Development and laboratory test of an integrated memory system /ISS/ for advanced aircraft
[AIAA 81-2297]
An integrated control panel utilizing a programmable variance-multiplexed dicrosic liquid crystal display
[AIAA 81-2303]
Digital avionics display processor
[AIAA 81-2311]
An advanced programmable/configurable color graphics display system for crew station technology research
[AIAA 81-2314]
Advanced fiber optic system for avionics applications
[AIAA 81-2319]
Light-guided information distribution systems
[AIAA 81-2320]
On-board communication for active-control transport aircraft
[AIAA 81-2321]
Real-time flight management avionics software system
[AIAA 81-2340]
Time-referencing of data in an asynchronous environment --- for fighter aircraft avionics
[AIAA 81-2341]
A Loran-C prototype navigation receiver for general aviation
[AIAA 81-2329]
Advanced weapon systems - Integration technology --- Digital Avionics Information System
[AIAA 81-2323]
Estimation of the efficiency of radioelectronic flight navigation systems
[AIAA 81-2315]
Georgia Tech coherent jammer flight test
[AIAA PAPER 81-2365]
F-15 Advanced Avionics Flight Test
[AIAA PAPER 81-2364]
The Advanced Range Instrumentation Aircraft Improvement and Modernization Program
[AIAA PAPER 81-2368]

Communications, Navigation and Identification

Navigation for helicopters by multiple use of inertial sensors
[AIAA 81-2366]
Future directions in CHI integrated avionics
[AIAA 81-2372]
A modular multiplexed digital voice intercommunications system
[AIAA 81-2372]
The influence of smart computers on the cockpit of the future
[AIAA 81-2372]
Assessment methodology of the lightning threat to advanced aircraft
[AIAA 81-2379]
New advances in signal processing technology for integrated CHI avionics --- Communication, Navigation, and Identification
[AIAA 81-2376]
Advances integrated CHI architectures --- Communications, Navigation and Identification
SUBJECT INDEX

The impact of new guidance and control systems on military aircraft cockpit design [AGARD-CP-112]
How the helicopter cockpit designer uses digital avionics p0091 H82-13049
Electronic flight deck displays for military transport aircraft p0092 H82-13049
Integration of controls and displays in US Navy helicopter cockpits p0092 H82-13053
A standard control display unit for multi-aircraft application p0092 H82-13054
Tanker avionics and aircrew complement evaluation [AD-A105317]
The use of flight management computers in air carrier operations in the 1980s [AD-A105621]
Advanced crash survivable flight data recorder and Accident Information Retrieval System (AIRS) [AD-A105510]
Investigation of functional commonality of avionics systems in naval aircraft [AD-A105503]
Description of a dual fail operational redundant strapdown inertial measurement unit for integrated avionics systems research p0138 H82-14482
Digital Avionics Information System (DAIS): Development and demonstration [AD-A107906]
Software considerations in airborne systems and equipment certification [STCA/DO-178] p0190 H82-16079
Tactical Airborne Distributed Computing and Networks [AGARD-CP-203] p0195 H82-17086
The effect of increasingly more complex aircraft and avionics on the method of system design p0196 H82-17088
A tutorial on distributed processing in aircraft/avionics applications p0196 H82-17089
Functional versus communication structures in modern avionics systems p0196 H82-17092
Economic considerations for real-time naval aircraft/avionics distributed computer control systems p0196 H82-17097
Methodology for measurement of fault latency in a digital avionic microprocessor p0196 H82-17105
Next generation military aircraft will require hierarchical/multilevel information transfer systems --- packet switching p0197 H82-17114
SIFT: An ultra-reliable avionic computing system p0197 H82-17119
Integrated control of mechanical system for future combat aircraft p0197 H82-17117
P/A-18A tactical airborne computational subsystem p0197 H82-17119
F/A-18 weapons system support facilities p0198 H82-17120
Technology overview for advanced aircraft armament systems program [AD-A107680]
Corrosion control test method for avionic components [AD-A108061]
Digital Avionics Information System (DAIS) documentation [AD-A108000]
Function specifications for the A-7E Function Driver module [AD-A107922]
US Navy fleet aircraft corrosion p0211 H82-17350

The role of simulation in the design process p0249 H82-18154
Integration of inertial sensors in helicopters p0251 H82-18173
Impact of technology on avionics cost trends [AD-A108494]
Integration of complex systems in current and future aircraft projects for the example of avionics [ABB-DE-18-80-0] p0256 H82-18221
A-7E software module guide [AD-A108609]
Assessment of Avionics Equipment Field Reliability and Maintainability as Functions of Unit Cost [AD-A109733]
Aircraft interconnection and display systems: A ground support equipment for digital flight systems [NASA-TM-01370] p0314 H82-21175
Generic Test Bed (GTB) aircraft [AD-A101335]
SAPRA: Controlled requirements expression --- avionics specification through computer techniques [SAPRA-TR-81-04] p0300 H82-21192
The structural dynamic interface required for developing helicopter target acquisition systems [AD-A109263] p0314 H82-22165
Integration of avionics and advanced control technology p0347 H82-22194
The integration of multiple avionic sensors and technologies for future military helicopters p0363 H82-23186
Analysis of computing system configurations for highly integrated guidance and control systems p0366 H82-23189
Helicopter Handling Qualities [NASA-CR-2219]
p0368 H82-23208
Civil (French/US) certification of the Coast Guard's HH-65A Dauphin p0364 H82-23210
Integrated cockpit for A-129 p0366 H82-23225
Electronic Warfare Avionics Integration Support Facility support processor [AD-A116411] p0408 H82-25249
Life-cycle-cost analysis of the microwave landing system ground and airborne systems [AD-A110909] p0449 H82-26266
Integrated flight trajectory control [AD-A109990] p0456 H82-26319
Impact of advanced avionics andmunitions technology on ground attack weapons systems in night and adverse weather conditions p0870 H82-27294
Air-ground attack: Area of research for airborne systems p0870 H82-27295
A planning system for F-16 air-to-surface missions p0871 H82-27297
Pave Tolerant Integrated Advanced Strike avionics system p0871 H82-27298
Adaptable multifunction sensor concept for air-ground missions p0871 H82-27299
Attack and en route avionics for in-weather operations p0871 H82-27300
AVOIDANCE

Protection of electrical systems from EM hazards:
Design guide
AD-A-111779

Assessment of lightning simulation test techniques, part 1
AD-A-112624

Electronic/electric technology benefits study --- avionics
NASA-CR-165890

General aviation activity and avionics survey
AD-A-112924

Advanced aircraft electrical system control technology demonstrator. Phase 1: Analysis and preliminary design
AD-A-113631

Problems related to the integration of fault tolerant aircraft electronic systems
NASA-CR-166526

System data communication structures for active-control transport aircraft, volume 2
NASA-CR-165778-VOL-2

Design and implementation of USAF avionics integration support facilities
NASA-CR-115527

Climatic laboratory evaluation TCF-470 helicopter
AD-A-118561

Avionic system development for the Tornado F-352
[AD-A117996]

A-7 flight software analysis
AD-A-116179

The AIDS/74-180 effective HUD
AD-A-116062

Voice Interactive Systems Technology Avionics (VISTA) Program
AD-A-117726

Development of avionics installation interface standards
NASA-CR-116853

Enhancements and algorithms for avionic information processing system design methodology
NASA-CR-117946

AVOIDANCE

BT BEACON COLLISION AVOIDANCE SYSTEM
BT COLLISION AVOIDANCE
BT TORPEDO AVOIDANCE

ARMED AIRCRAFT

Airborne associative processor /ASPBO/ --- for early warning radar surveillance, command, and control applications
[ALAA 81-1-145]

AXIS (REFERENCE AXES)

AXES OF ROTATION

German-Arentine experiment: Vertical-rotor wind tunnel engine
NASA-CR-12646

AXIAL COMPRESSORS & TURBOCOMPRESSORS

AXIAL FLOW

Optimization of compressor vane and bleed settings
[AlAA 81-1004]

Survey on the effect of blade surface roughness on compressor performance
[AlAA 81-1415]

Results of calculations
NASA-CR-112979

The through flow calculations
NASA-CR-112979

Evaluation of profile loss predictions based on diffusion factors
NASA-CR-112979

Axial-flow turbineengine through flow calculation methods
NASA-CR-112979

Performance of single-stage axial-flow transonic compressor with rotor and stator aspect ratios of 1.63 and 1.77, respectively, and with design pressure ratio of 2.05
[ASTP-T-2001]

Tunnel-to-tunnel correlation
[ASTP-T-2026]

STGSK: A computer code for predicting multi-stage axial flow compressor performance by a nonlinear stage matching method
NASA-CR-169004

Investigation of the tip clearance flow inside and at the exit of a compressor rotor passage
NASA-CR-169004

Numerical stability analysis of a compressor model
[ASTP-76]

AXIAL FLOW COMPRESSORS & TURBOCOMPRESSORS

AXIAL FLOW TURBINES

Dynamic response of blades and vanes to wakes in axial turboachinery
[ASME PAPER 81-DTP-33]

Endwall boundary layer flows and losses in an axial turbine stage
NASA-PAPER 82-19307

A comprehensive method for preliminary design optimization of axial gas turbine stages
NASA-PAPER 82-1264

Secondary flows and losses in axial flow turbomachines
[ASME PAPER 82-GT-19]

On the influence of the number of stages on the efficiency of axial-flow turbines
NASA-PAPER 82-GT-43

The use of optimization techniques to design controlled diffusion compressor blading
[ASME PAPER 82-GT-49]

Numerical calculation of the flow in compressor and turbine cascades --- German thesis
NASA-CR-165890

Development of high loading, high efficiency axial flow turbine
NASA-CR-165890

An aerodynamic design and the overall stage performance of an air-cooled axial-flow turbine
[NAV-TR-3127]

The use of optimization techniques to design controlled diffusion compressor blading
[NASA-TN-82763]

Through flow calculations in axial turbomachines
[ACARD-AB-175]

Influence of correlations and computational methods on the prediction of overall efficiency
[ACARD-AB-175]

The two stage aero engine turbine
NASA-CR-165890

Part span damper loss prediction for transonic axial fan rotors
NASA-CR-165890

Axial compressor stall and surge
NASA-CR-165890

Summary of answers to the questionnaire
NASA-CR-165890

Single stage transonic compressor and equivalent plane cascade
NASA-CR-165890

Blade-to-blade computations and boundary layer corrections in axial compressors and turbines
NASA-CR-165890

An experimental study of the effects of an inlet flow conditioner on the noise of a low speed axial flow fan --- in an aircraft engine
[AF-T-8101]

Research on turbine rotor-stator aerodynamic interaction and rotor negative incidence stall
[ASAE PAPEB 82-175]

Aerodynamics of advanced axial-flow turbomachinery
[AD-A-119491]

Secondary flows and losses in axial flow turbomachines
NASA-CR-165890

A comprehensive method for preliminary design optimization of axial gas turbine stages
NASA-CR-165890

The use of optimization techniques to design controlled diffusion compressor blading
[ASME PAPER 82-GT-49]

Numerical calculation of the flow in compressor and turbine cascades --- German thesis
NASA-CR-165890

Development of high loading, high efficiency axial flow turbine
NASA-CR-165890

An aerodynamic design and the overall stage performance of an air-cooled axial-flow turbine
[NAV-TR-3127]

The use of optimization techniques to design controlled diffusion compressor blading
[NASA-TN-82763]

Through flow calculations in axial turbomachines
[ACARD-AB-175]

Influence of correlations and computational methods on the prediction of overall efficiency
[ACARD-AB-175]

The two stage aero engine turbine
NASA-CR-165890

Part span damper loss prediction for transonic axial fan rotors
NASA-CR-165890

Axial compressor stall and surge
NASA-CR-165890

Summary of answers to the questionnaire
NASA-CR-165890

Single stage transonic compressor and equivalent plane cascade
NASA-CR-165890

Blade-to-blade computations and boundary layer corrections in axial compressors and turbines
NASA-CR-165890

An experimental study of the effects of an inlet flow conditioner on the noise of a low speed axial flow fan --- in an aircraft engine
[AF-T-8101]

Research on turbine rotor-stator aerodynamic interaction and rotor negative incidence stall
[ASAE PAPEB 82-175]

Aerodynamics of advanced axial-flow turbomachinery
[AD-A-119491]

Secondary flows and losses in axial flow turbomachines
NASA-CR-165890

A comprehensive method for preliminary design optimization of axial gas turbine stages
NASA-CR-165890

The use of optimization techniques to design controlled diffusion compressor blading
[ASME PAPER 82-GT-49]

Numerical calculation of the flow in compressor and turbine cascades --- German thesis
NASA-CR-165890

Development of high loading, high efficiency axial flow turbine
NASA-CR-165890

An aerodynamic design and the overall stage performance of an air-cooled axial-flow turbine
[NAV-TR-3127]

The use of optimization techniques to design controlled diffusion compressor blading
[NASA-TN-82763]

Through flow calculations in axial turbomachines
[ACARD-AB-175]

Influence of correlations and computational methods on the prediction of overall efficiency
[ACARD-AB-175]

The two stage aero engine turbine
NASA-CR-165890

Part span damper loss prediction for transonic axial fan rotors
NASA-CR-165890

Axial compressor stall and surge
NASA-CR-165890

Summary of answers to the questionnaire
NASA-CR-165890

Single stage transonic compressor and equivalent plane cascade
NASA-CR-165890

Blade-to-blade computations and boundary layer corrections in axial compressors and turbines
NASA-CR-165890
Static internal performance characteristics of two threat counter concepts for axisymmetric projectiles [NASA-TP-2025] p0084 A82-28225
Aeropropulsion characteristics of each numbers up to 2.2 of axisymmetric and nonaxisymmetric foiles limited to an F-10 model [NASA-TP-2044] p0557 N82-30291
Backscattering of a baffle-cooled gas-turbine-engine blade under conjugated boundary conditions [NASA-TP-2044] p0557 N82-30291
Backups Reliability and maintainability analysis of fluidic back-up flight control system and components [NASA-TP-17062] p0470 N82-27320
Backward waves Measurement of aerodynamic work during fan flutter [NASA-TP-17062] p0470 N82-27320

Balance An application of the principle of reciprocity to flexible rotor balancing [AIRSPACE 81-DET-49] p0161 A82-19311
Application of combined balancing methods to flexible rotors of avition gas-turbine engines [AD-A102937] p0295 A82-26201

Ballistic Effects of ultra-clean and centrifugal filtration on rolling-element bearing life [AIRSPACE 81-LOB-35] p0127 A82-18436
Exclusions and service induced cracks in a mature population of gas turbine engine bearings [AD-A102937] p0295 A82-26201
Development of high-speed rolling-element bearings. A historical and technical perspective [NASA-TP-02834] p0399 A82-24846

Balloon Development of an exitement seat ballast block for the S-3A aircraft [AD-A109802] p0303 A82-20616
Balloon flight A new thermal and trajectory model for high altitude balloons [AD-A109802] p0303 A82-20616
Balloon-borne instruments Loading payload deceleration during ground impact [AD-A109802] p0303 A82-20616
Construction and testing of an Omega navigation system for the balloon-borne X-ray experiment --- German thesis [AIAA-76-481] p0549 A82-43111
Control electronics for air-borne quadrupole ion mass spectrometer [NASA-TP-2073] p0619 A82-34190

B-1 AIRCRAFT Comparison of wind tunnel and theoretical aeroelastic predictions with measured airloads for the B-1 aircraft [AIAA PAPER 81-2250] p0063 A82-14393
B-52 AIRCRAFT Applications of covariance analysis simulation to avionics flight testing [AD-A110397] p0070 A82-14767
Optimal placement model for the B-52C weapons system trainer [AD-A110397] p0070 A82-14767
Opportunities to reduce the cost of some B-52 modifications [AD-A113563] p0462 N82-27219
B-70 AIRCRAFT Wind-tunnel/test correlation program on XB-70-I [NASA-PDD-25201] p0406 N82-25201
Background noise Relay-augmented data links in an interference environment [NASA-PDD-25201] p0406 N82-25201
Optimal target designation techniques [NASA-PDD-25201] p0406 N82-25201
Backups Reliability and maintainability analysis of fluidic back-up flight control system and components [NASA-PDD-25201] p0406 N82-25201
Backward waves Measurement of aerodynamic work during fan flutter [NASA-PDD-25201] p0406 N82-25201

Backwashing Surveys of flow-field around encompass of the BAL STOL-research-aircraft model [NASA-TP-2044] p0989 A82-17124
Baffle effects on jet noise data [NASA-TP-2044] p0989 A82-17124

Baldring flight U TURNING FLIGHT [AIAA-76-481] p0549 A82-43111
Balloon-borne instruments Loading payload deceleration during ground impact [AIAA-76-481] p0549 A82-43111
Construction and testing of an Omega navigation system for the balloon-borne X-ray experiment --- German thesis [AIAA-76-481] p0549 A82-43111
Control electronics for air-borne quadrupole ion mass spectrometer [NASA-TP-2073] p0619 A82-34190

Barometric pressure U ATMOSPHERIC PRESSURE [NASA-PDD-25201] p0406 N82-25201
Barographs U CENTER OF GRAVITY [NASA-PDD-25201] p0406 N82-25201
Base flow Numerical investigation of supersonic base flow with parallel injection --- in scramjet combustors [NASA-PDD-25201] p0406 N82-25201

Backwash Survey of flow-field around encompass of the BAL STOL-research-aircraft model [NASA-PDD-25201] p0989 A82-17124

BASE PRESSURE

[ALAA PAPER 82-1001] p0375 A82-31960
BASE PRESSURE A method of predicting fuselage loads in hover p0250 N82-18164 BASSES (FOUNDATIONS) U FOUNDATIONS BETTENHOUTH The Hydrographic Airborne Laser Sounder (BALLS) [AD-A111027] p0460 W82-26660 BETTYNTRY U BETTYNTRIES BETTY SEPARATORS U SEPARATORS BCAS U BEACON COLLISION AVOIDANCE SYSTEM BEACON COLLISION AVOIDANCE SYSTEM Air-air collision avoidance systems p0941 A82-35323 Analysis of a nonlinear altitude tracking method [AD-A006078] p0263 N82-19197 Active Beacon Collision Avoidance System (BCAS) logic performance during operational flight tests [AD-A006093] p0244 W82-19203 Analysis of active BCAS alert rates and protection based on actual aircraft tracks [AD-A116402] p0568 N82-31139 BEACONS MT DISCRETE ADDRESS BEACON SYSTEM MT RADAR BEACONS MT RADIO BEACONS MT RADIO DIRECTION FINDERS Digital detection and processing of laser beacon signals for aircraft collision hazard warning [AIAA 81-2328] p0052 A82-13525 Wide field of view laser beacon system for three dimensional aircraft range measurements p0446 N82-26216 BEAM WAVEMIDES Leaky wave antenna using an inverted strip dielectric waveguide — for aircraft application p0163 A82-19552 BEAMS (RADIATION) MT LIGHT BEAMS MT RADAR BEAMS Recent results in main beam nulling — aircraft antenna design p0553 A82-43792 BEAMS (SUPPORTS) MT BOX BEAMS MT CANTILEVER BEAMS MT RECTANGULAR BEAMS Linear decentralized systems with special structure --- for twin lift helicopters p0388 A82-34359 Matrix analysis of wings p0032 N82-10998 BEARSAHAPING U COLLIMATION BEARING (DIRECTION) System for providing an integrated display of instantaneous information relative to aircraft attitude, heading, altitude, and horizontal situation [NASA-CASE-FEC-11005-1] p0189 W82-16075 BEARINGLESS ROTORS Dynamic stability of low effective flap hinge BHE concepts p0277 A82-26377 The V-68A composite flexbeam tail rotor p0278 A82-26386 Evaluation of the effect of elastomer damping material on the stability of a bearingless main rotor system p0280 A82-26394 An experimental investigation of a bearingless model rotor in hover p0498 A82-60512 Finite element analysis for bearingless rotor blade aeroelasticity p0499 A82-40517 Correlating measured and predicted 3-DOF stability characteristics for an advanced bearingless rotor [NASA-CM-166280] p0201 N82-17154 BEARINGS MT ANTIPRISION BEARINGS MT BALL BEARINGS MT FOIL BEARINGS MT GAS BEARINGS SUBJECT INDEX

Aircraft transparency bird impact analysis using the NASA computer program
[AD-A116357] p0070 B82-27291

Cockpit display of traffic information and the measurement of pilot workload: An annotated bibliography
[AD-A113637] p0070 B82-27291

Laminar flow control, 1976 - 1982: A selected annotated bibliography
[NASA-TM-81188] p0052 B82-31645

Cryogenic wind tunnels: A selected, annotated bibliography
[NASA-TM-84674] p0061 B82-33405

AFS Summer Faculty Research Program. Volume 1: 1981 research reports
[AD-A113708] p0065 B82-34340

AFS Summer Faculty Research Program. Volume 2: 1981 research reports
[AD-A113709] p0065 B82-34341

REPLICATION (MATHEMATICS)
U REPLICATION (MATHEMATICS)

BILLET
Lucas stretched acrylic
p0227 B82-24318

BIHABIBS
A binary matrix technique for aircraft collision threat recognition and avoidance
[IAIA PAPER 82-0164] p0016 B82-17828

BIHABIBS MIXTURES
MT HABIBIBS ALLOYS

BIHABIBS SYSTEMS (DIGITAL)
U DIGITAL SYSTEMS

BIHABIBS SYSTEMS (MATERIALS)
MT HABIBIBS ALLOYS

BIHABIBS
Primary sewage treatment plant as a source of bird hazards at airport
[ASBL-TB-194-4] p0098 B82-17127

BILGES
MT PIGEONS
Primary sewage treatment plant as a source of bird hazards at airport
p0413 B82-26184

BIT SYNCHRONIZATION
Synchronous fault-tolerant flight control systems
[IAIA 81-2109] p0001 B82-10003

BLACKOUT (PROPAGATION)
MT ATMOSPHERES
MT ELECTROMAGNETIC NOISE
MT WHISTLEBS

BLADE SLAP NOISE
Model helicopter rotor impulsive noise
p0013 B82-11300

The prediction of helicopter rotor impulsive frequency noise
p0503 B82-40555

A semiempirical high-speed rotor noise prediction technique
p0503 B82-40554

Dynamic surface measurements on a model helicopter rotor during blade slap at high angles of attack
p0503 B82-40555

Helicopter model scale results of blade-vortex interaction impulsive noise as affected by blade platforms
p0503 B82-40556

BLADE TIPS
Propeller tip vortex - A possible contributor to aircraft cabin noise
p0113 B82-17603

Helicopter rotor performance improvement by utilization of swept back parabolic blade tip controls
p0276 B82-26298

Performance improvements with the free-tip rotor
p0279 B82-26387

Fan performances of compressor blade tip seals
p0285 B82-27078

Turbine blade nonlinear structural and life analysis
p0415 B82-34991

Casing wall boundary-layer development through an isolated compressor rotor
p0420 B82-35287

Effect of impeller extended shrouds on centrifugal compressor performance as a function of specific speed
[ASBE PAPER 82-GT-228] p0428 B82-35941

Optical tip clearance sensor for aircraft engine
p0438 B82-37691

Effect of tip vane on the performance and flow field of a rotor in hover
p0498 B82-62811

An examination of helicopter blade profiles and tips [OBEMA, TP NO. 1982-35]
p0506 B82-62811

Experimental and analytical studies of a model helicopter rotor in hover
[NASA-TM-811232] p0065 B82-12062

Wind-tunnel investigation of the effects of blade tip geometry on the interaction of torsional loads and performance for an articulated helicopter rotor
[IAIA PAPER 82-1131] p0438 B82-11317

Effect of blade vane interaction noise from measured blade pressure
p0248 B82-18147

A-95
The problem of calculation of the flow around helicopter rotor blade tips

As analytical investigation of the free-tipped rotor for helicopters
[NASA-TR-81345] p0250 #82-18160

On the calculation of transonic blade tip flow for helicopter rotors
[BBP-DR-320-81-0] p0252 #82-18179

CF6 Jet Engine Diagnostics Program: High pressure compressor clearance investigation.
[NASA-CR-165580] p0317 #82-21197

Helicopter rotor performance improvement by utilization of swept-back parabolic blade tip
--- wind tunnel tests
p0343 #82-22151

The problem of calculation of the flow around helicopter rotor blade tips --- and adapting computer programs
p0406 #82-25233

Program presentation of the working group separated flows: Problems with rotary wings
[BBP-DR-336-81-0] p0406 #82-25234

Blade tip gap effects in transonic airfoils: A review
[AD-A116952] p0455 #82-26308

Cone compressor exit stage study, volume 6
[NASA-CR-165553] p0472 #82-27310

Investigation of a rotor system incorporating a constant lift tip
[NASA-CR-166261] p0531 #82-29271

Multistage axial compressor program on tip clearance effects
[AD-A1074055] p0536 #82-29325

Rotor tip clearance effects on overall and blade-element performance of axial-flow transonic fan stage
[NASA-FR-2049] p0609 #82-33389

BLAST LOADS
Damage from High explosive (HE) projectiles
[BBP-DR-330-81-0] p0202 #82-17164

Gunfire blast pressure predictions
p0345 #82-22170

BLEED-OFF
U PRESSURE REDUCTION
BLEEDS
U SIZES
BLOCKING
Blockage and flow studies of a generalized test apparatus including various wing configurations in the Langley 7-inch Mach 7 Pilot Tunnel
[NASA-TR-63031] p0370 #82-23471

BLOWDOWN WIND TUNNELS
Adaptation and first cryogenic operation of T2 OREHA/CEMT wind tunnel
p0546 #82-28531

Application of laser velocimetry to large industrial wind tunnels
[OREHA, TP No. 1982-63] p0553 #82-43757

Research on an induction driven cryogenic wind tunnel
p0136 #82-14394

Induction driven transonic wind tunnel T2:
Operation at room temperature and cryogenic adaptation
p0262 #82-19158

BLOWERS
Study of the de-icing properties of the ASDE-3 rotodose
[AD-A115645] p0570 #82-31335

BLOWING
Effect of cross-flows on the discharge coefficient of full cooling boles
[ASME PAPER 82-GT-147] p0426 #82-35371

Development of an advanced no-moving-parts high-altitude aircraft
p0512 #82-40971

Wing-tip jets aerodynamic performance
p0514 #82-40987

Aerodynamic analysis of VTO inlet and definition of a short, blowing-tip inlet
[NASA-TR-165167] p0349 #82-22211

Experimental and analytical results of tangential blowing applied to a subsonic V/STOL inlet
[NASA-TR-62897] p0393 #82-24165

BLOW PLANS
U EXTERNALLY BLOW PLANS
BLUFF BODIES
Aerodynamic effects of shape, camber, pitch, and ground proximity on idealized ground-vehicle bodies
p0105 #82-16432

BLOW BODIES
Investigation of the aerodynamics of axisymmetric bodies in supersonic flow in the presence of localized injection
p0583 #82-46692

BO-105 HELICOPTER
The effect of induced sound on the flow around a rectangular body in a wind tunnel
p0276 #82-26194

Rational production methods for the manufacture of helicopter rotor blades --- BO-105 helicopter
[BBP-DR-330-80-0] p0315 #82-21188

Flight tests for the assessment of test performance and control activity
p0365 #82-23213

BODIES OF REVOLUTION
U CIRCULAR BODIES
U CYLINDRICAL BODIES
U PARABOLIC BODIES
U SLENDER CONES
U TUBES

Aerodynamic interactions between a 1/6-scale helicopter rotor and a body of revolution
p0510 #82-40947

Aerodynamics between a 1/6 scale helicopter rotor and a body of revolution
[NASA-TR-84247] p0521 #82-28252

BODY SIZES (BIOLOGY)
Little people's problem /MA-2 torso harness/
p0370 #82-14958

BODIES AND FAIL configurations
Experimental study of spanwise snap-through vibrations
p015 #82-11471
Numerical computation of unsteady subsonic aerodynamic forces on wing-body-tail exposed to travelling gust
p0185 #82-22112

Experimental trim drag values for conventional and supercritical wings
[NASA-CR-168500] p0190 #82-17126

BODY-WING CONFIGURATIONS
Computational treatment of transonic canard-wing interactions
[AIASS PAPER 82-0161] p0115 #82-17814

A more-accurate transonic computational method for wing-body configurations
[AIASS PAPER 82-0162] p0116 #82-17815

Transonic three-dimension viscous-inviscid interaction for wing-body configuration analysis
[AIASS PAPER 82-0163] p0116 #82-17816

Aerodynamics of a transport aircraft-type wing-fuselage assembly
[OREHA, TP No. 1981-123] p0164 #82-19738

Design of the composite spar-winging-keel joint
p0166 #82-20128

Flutter of forward swept wings, analysis and tests
[AIASS-0646] p0337 #82-30142

Nacelle-body-structural mode coupling on a forward swept wing aircraft
[AIASS-0646] p0338 #82-30150

A system for the numerical simulation of sub- and transonic viscous attached flows around wing-body configurations
[AIASS PAPER 82-0935] p0373 #82-31922

The equivalent mapie body /55/ method for transonic wing analysis
[AIASS PAPER 82-0936] p0376 #82-31923

Calculation of the flow-field velocity of a wing-body-stores combination in transonic flow
[AIASS PAPER 82-0955] p0376 #82-31934

Closed-form solutions of supersonic wing-body interference
p0380 #82-33120

Transonic flow past bodies of the type wing-fuselage with allowance for boundary effects
p0386 #82-34166

A nonlinear response analysis for coupled rotor-fuselage systems
[ABS PAPERS 81-1] p0442 #82-37794
An estimation of aerodynamic forces and moments on an airplane model under steady state spin conditions
[AIASS PAPER 82-1311] p0487 #82-39092

Numerical solution of a problem concerning transonic flow past a wing-fuselage configuration
p0365 #82-23213
The influence of closed-coupled, rear fuselage generation of boundary-conforming grids around wing-body configurations using transfinite interpolation. 

A calculation method for slender wing-body configurations in supersonic flow at high angles of attack — skin friction force and pitching moment characteristics. 

The principles and methods for shaping the wing root region of a wing-body combination at transonic and lower supersonic speeds. 

A numerical method for predicting supersonic normal force coefficient very-low-aspect-ratio lifting surfaces. 

Accounting for thickness effects in the calculation of supersonic unsteady aerodynamic forces: Application to wing-fuselage interactions. 

An analytical procedure for computing smooth transitions between two specified cross sections with applications to blended wing body configuration. 

Application of Computational Fluid Dynamics (CFD) in transonic wind-tunnel/flight-test correlation. 

Experimental determination of flow-interference effects of wing-mounted, full-capture propulsion nacelles in close proximity to a vehicle body at a Mach number of 6. 

The FPA wing body 81 computer program. A panel method for determination of aerodynamic characteristics at subsonic and supersonic speeds. 

Means for controlling aerodynamically induced flutter. 

A research model wing/tail fabrication — transonic wind tunnel 1/5-scale model. 

Aerodynamic on a transport aircraft type wing-body model. 

Fuel conservation improvements for existing production run transport aircraft. 

Restoration of performance, Models 727, 737, and 747. 

Integrated energy management study. 

Efficient transport program. 

Full-scale flutter test data for validation of aircraft fire mathematical models. 

The future of integrated CAD/CAM systems - The Boeing perspective. 

Advanced simulation — in commercial aviation. 

Restoration of performance, Models 727, 737, and 747. 

Selected advanced aerodynamic and active control concepts development. 

B747/T990 flight loads and their effect on engine running clearances and performance deterioration; B747 N2/L2/F4 and A310/N2 engine diagnostics programs. 

Selected advanced aerodynamics and active controls technology concepts development on a derivative B-747. 

The D-747 flight control system maintenance and reliability data base for cost effectiveness tradeoff studies.
BOUNDARY LAYERS

- INCOMPRESSIBLE BOUNDARY LAYER
- LAMINAR BOUNDARY LAYER
- PLANAR BOUNDARY LAYER
- THREE DIMENSIONAL BOUNDARY LAYER
- TURBULENT BOUNDARY LAYER
- TWO DIMENSIONAL BOUNDARY LAYER

Aircraft excrescence drag
[AGARD-AD-10-45] p0025 B82-10020

Aircraft wing trailing-edge noise
[NASA-CR-164952] p0030 B82-11039

Allowing for the wall boundary layer in a stage of an axial compressor
[PR-50067] p0319 B82-21209

BOUNDARY LAYER PROBLEMS

Analysis of small-aspect-ratio lifting surfaces in ground effect
p0378 A82-32223

Approximate boundary condition procedure for the two-dimensional numerical solution of vortex wakes
[AILA PAPER 82-0051] p0437 A82-37467

Numerical methods for solving boundary value problems for noncavitating and cavitating flow past wing profiles
p0483 A82-38722

The use of analog computers in solutions of inverse problems of heat conduction for the identification of boundary conditions on the surfaces of gas-turbine-engine parts on the basis of temperature-measurement results
p0492 B82-39467

The analysis of the thermal-mechanical stress conditions in axisymmetric rotating hot components of /aircraft/ gas turbines --- German thesis
p0543 A82-41686

Nonlinear two-dimensional sail theory
[AD-A110450] p0405 B82-25220

Hybrid state vector methods for structural dynamic and aeroelastic boundary value problems
[NASA-CR-3591] p0567 B82-31304

Numerical stability analysis of a compressor model
[AD-A116678] p0610 B82-33396

BOB SHOCK WAVES

U SHOCK WAVES

BOX BRAKES

Durability evaluation of highly stressed wing box structure
p0290 A82-27163

BRAKES (FOR ARRESTING MOTION)

- AEROHYDRAULIC BRAKES
- AEROPNEUMATIC BRAKES
- LEADING EDGE SLAPS
- SPLIT FLAPS
- TRAILING-EDGE FLAPS
- WHEEL BRAKES

Semi-empirical characteristics of nosoboy parachute decelerators limited to a length of three feet
[AILA PAPER 81-1950] p0007 B82-10425

Escape system decelerator technology
[AILA PAPER 81-1951] p0061 B82-13966

BREAKING

Dynamics of aircraft antiskid braking systems --- conducted at the Langley aircraft landing loads and traction facility
[NASA-TP-1959] p0254 B82-18204

Tire tread temperatures during antiskid braking and cornering on a dry runway
[NASA-TP-2009] p0395 B82-24193

BRANCHING (MATHEMATICS)

The application of bifurcation theory to the study of loss of control over combat aircraft
[GERRA, TP NO. 1981-100] p0129 B82-18837

BREAKING

Chem-Braze ablative seal practical
p0361 A82-31048

Selected ferrous brazed components for the aerospace industry
p0582 B82-46529

BREAKAWAY

BOUNDARY LAYER SEPARATION

BREAKERS (STRUCTURES)

The stability of portable bridges carried on slings beneath helicopters
[AILA/ASEO-EEP-156] p0319 B82-21213

SUBJECT INDEX

BROOKLIN-ERDELEY 85 53 ENGINE

Maintenance problem associated with the operation of the F402 /Pegasus/ engine in the AT-8A
[AILA PAPER 82-2656] p0109 A82-16915

A real time Pegasus propulsion system model for VSTOL piloted simulation evaluation
[AILA PAPER 82-2662] p0157 A82-19221

BRIGHT MATERIALS

Brittle materials design, high temperature gas turbine
[AD-A106670] p0191 B82-16085

BROADBAND

Broader bandwidth for thin conformal antennas
p0154 A82-19069

BROADCASTING

FM broadcast interference related to airborne ILS, VOR and VHF communications
[ENCA-GO-176] p0268 B82-19419

Investigation of technical requirements
p0268 B82-19420

BUBBLE TECHNIQUE

Visualization of flow separation and separated flows with the aid of hydrogen bubbles
p0179 A82-20863

BUCHEK AIRCRAFT

U T-2 AIRCRAFT

BUCKLING

ELASTIC BUCKLING

The behavior of composite thin-walled structures in dynamic buckling under impact
p0513 A82-90976

BUFFETING

Pressure measurements on twin vertical tails in buffeting flow
[AILA 82-0641] p0337 B82-30138

Some remarks on buffeting --- of wings, wind tunnel models
[BAE-IN-STBDCT-980] p0219 B82-21216

Undisturbed pressure measurements at stall and buffeting
[DFVLR-INSTITUT-79-09] p0364 B82-23198

BUILDING MATERIALS

U CONSTRUCTION MATERIALS

BUILDING STRUCTURES

U BUILDINGS

BUILDINGS

The employment of helicopters in Austria in connection with large-scale fires in buildings
p0331 A82-29585

STOL aircraft response to turbulence generated by a tall upward building
p0433 A82-35621

Repair and maintenance of buildings in civil aviation --- Russian book
p0544 A82-82059

BOOTS

A global atlas of GEO-3 significant waveheight data and comparison of the data with national buoy data
[NASA-CR-156882] p0146 B82-15498

BUREAUS

The effect of swirl burner aerodynamics on NOx formation
p0326 A82-28658

BURLING

U CORROSION

BURRING PROCESS

U CORROSION

BURSTING EFFECTS

Effects of elastomeric additives on the mechanical properties of epoxy resin and composite systems
p0113 A82-17538

The preparation and characterization of mixtures of polycycloaldehydeas as solid rocket fuels
[AD-A115075] p0560 B82-30414

BUTTERFLY VALVES

U DAMPERS (VALVES)

BYPASS RATIO

Analysis of the characteristics of a bypass engine, with allowance for variable pressure losses in the channels
p0282 A82-26496

Individual bypass throttling in fighter engines
[AILA PAPER 82-1285] p0419 A82-35010

Experimental performance evaluation of 'ventilated mixers' -- A new mixer concept for high bypass turbofan engines
[AILA PAPER 82-1136] p0439 A82-37695

1-100
Subject Index

Recent advances in the performance of high bypass ratio fans ........................................ p0505 A82-40891
The role and implementation of different nacelle/engine simulation concepts for wind-tunnel testing in research and development work on transport aircraft ........................................ p0995 A82-13086
Aerodynamic aspects of a high bypass ratio engine installation on a fuselage afterbody ........................................ p0996 A82-13093

Bypasses
Turbreverser for a long duct fan engine — for turbofan engines ........................................ [NASA-CASR-LEW-13199-1] p0453 A82-26293

C-band
X-band vs. C-band aircraft radar - The relative effects of beamwidth and attenuation in severe weather situations ........................................ p0165 A82-19858
C-band spectral tracking for FB/CW altimetry ......... p0435 A82-37035

C-14A aircraft
Development of the advanced composite ground spoiler for C-1 medium transport aircraft ........................................ p0495 A82-38985

C-5 aircraft
C-5A unsurfaced taxi and off-load demonstrations [AIAA PAPER 81-2439] p0056 A82-13875
A computerized system for the application of fracture tracking data to aircraft management for the C-5A military airlift transport [AIAA 1982-2762] p0336 A82-30119
C-5A operational utility evaluation, soil tests and analysis (AD-A105555) ........................................ p0133 A82-14083

C-9 aircraft

C-130 aircraft
Results of T56 engine performance monitoring trial in Hercules aircraft, February - July 1977 [ARL-TECH-TR-78-29322] ........................................ p0536 A82-29322
KC-135 aircraft
KC-135 Avionics Modernization Hot Bench [AIAA 81-2105] p0001 A82-10081
KC-135 avionics modernization hot bench - an evaluation of requirements and design for the future ........................................ p0157 A82-19244

Tanker aircraft/Aircrew Complement Evaluation (TACE), Phase I: Simulation Evaluation Results Volume 1: Results [AD-A110956] ........................................ p0452 A82-26290
Tanker aircraft/Aircrew Complement Evaluation (TACE), Phase II: Simulation Evaluation Results Volume 2: Crew system design [AD-A110956] ........................................ p0453 A82-26291

C-140 aircraft
External aerodynamic design for a laminar flow control glove on a Lockheed Jetstar wing ........................................ p0505 A82-40895

C-141 aircraft
Improvement program for the C-141 navigation system - Selector Panel [AD-A114669] ........................................ p0408 A82-25248
Delta electrical load analysis C-141B/A/C/G aircraft [AD-A111761] ........................................ p0520 A82-28283
Human-factors evaluation of C-141 fuel savings advisory system [AD-A116931] ........................................ p0568 A82-30304
Simulation of the interaction between airdropping platforms and aircraft rollers [AD-A116370] ........................................ p0569 A82-31324

C-160 aircraft
Importance of a tactical cargo aircraft in emergency relief ........................................ p0243 A82-25499

Cabin atmosphere
Aircraft cabin air ozone contamination and compliance with regulations ........................................ p0243 A82-25499

Cabin wings
Environmental control systems ........................................ p0342 A82-31057
Ozone and aircraft operations ........................................ p0261 A82-19141

CAD (Design)
U Computers aided design (CAD), Nickel/Cadmium batteries ........................................ p0311 A82-21145
Calculations
The application of programmable pocket calculators for computations during survey flights ........................................ p0104 A82-16164

Calculators

Calibration

Calibrating

In-situ calibration of flight heat transfer instrumentation [AIAA PAPER 81-ENAS-13] ........................................ p0011 A82-10901
Radar system research aircraft /NASA/ rotor force and moment measurement system [AIAA PAPER 81-2516] ........................................ p0057 A82-13913
Improved techniques for the calibration and measurement of in-flight loads [AIAA PAPER 81-2502] ........................................ p0058 A82-13924

Spectral tracking data to aircraft operation ........................................ p0133 A82-14083

Calibration

Calibration

Environmental control systems ........................................ p0342 A82-31057
Ozone and aircraft operations ........................................ p0261 A82-19141

CAD (Design)

U Computers aided design (CAD), Nickel/Cadmium batteries ........................................ p0311 A82-21145
Calculations

The application of programmable pocket calculators for computations during survey flights ........................................ p0104 A82-16164

Calculators

Calibration

In-situ calibration of flight heat transfer instrumentation [AIAA PAPER 81-ENAS-13] ........................................ p0011 A82-10901
Radar system research aircraft /NASA/ rotor force and moment measurement system [AIAA PAPER 81-2516] ........................................ p0057 A82-13913
Improved techniques for the calibration and measurement of in-flight loads [AIAA PAPER 81-2502] ........................................ p0058 A82-13924

Spectral tracking data to aircraft operation ........................................ p0133 A82-14083

Calibration

Calibration

Environmental control systems ........................................ p0342 A82-31057
Ozone and aircraft operations ........................................ p0261 A82-19141

CAD (Design)

U Computers aided design (CAD), Nickel/Cadmium batteries ........................................ p0311 A82-21145
Calculations

The application of programmable pocket calculators for computations during survey flights ........................................ p0104 A82-16164

Calculators

Calibration

In-situ calibration of flight heat transfer instrumentation [AIAA PAPER 81-ENAS-13] ........................................ p0011 A82-10901
Radar system research aircraft /NASA/ rotor force and moment measurement system [AIAA PAPER 81-2516] ........................................ p0057 A82-13913
Improved techniques for the calibration and measurement of in-flight loads [AIAA PAPER 81-2502] ........................................ p0058 A82-13924

Spectral tracking data to aircraft operation ........................................ p0133 A82-14083

Calibration

Calibration
Aerodynamic performance of slender wings with separated flows [AIAA-81-160768] p0369 a82-22209

CABERAS

BY TELEVISION CAMERAS
Current aerial cameras
p0081 a82-15655

CANADA

Transportation noise, its impact, planning and
regulation [8-258] p0478 a82-27864

CANADIAN AIRCRAFT

Canadair rotary wing technology development
p0493 a82-39731

CANADIAN CF-100 AIRCRAFT

U CANADIAN AIRCRAFT

CANADIAN CONCEPTUAL AIRCRAFT

An investigation of the use of a propulsive
wing/canard concept for improved maneuvering
[AIAA PAPER 81-2622] p0367 a82-16905

Computational treatment of transonic canard-wing
interactions [AIAA PAPER 82-0161] p0115 a82-17819

Experimental structural testing on a composite
aircraft canard and its applications
[AIAA PAPER 82-0405] p0121 a82-17930

Control law development for a close-coupled
canard, relaxed static stability fighter
[AIAA PAPER 82-0180] p0166 a82-19780

Flow visualization using a computerized data
acquisition system
p0179 a82-20792

Wing-canard aerodynamics at transonic speeds -
Fundamental considerations on minimum drag
spoilload
[AIAA PAPER 82-0097] p0183 a82-22046

High angle-of-attack characteristics of
three-surface fighter aircraft ---
canard-wing-horizontal tail configuration for
greater stability and control
[AIAA PAPER 82-0245] p0184 a82-22074

Effect of downwash on the induced drag of
canard-wing combinations
p0298 a82-28518

Close-coupled canard-wing vortex interaction and
downwash effects for a canard airplane
p0604 a82-40882

Calculations of transonic static stability aerodynamic
effects for a canard airplane
p0604 a82-39132

Tail versus canard configuration - An aerodynamic
comparison with regard to the suitability for
future tactical combat aircraft
p0506 a82-40091

Test results of chordwise and spanwise blowing for
low-speed lift augmentation
p0515 a82-40099

Optimization of canard configurations - An
integrated approach and practical drag
reduction method
p0517 a82-40123

Wind-tunnel investigation of a full-scale
canard-configured general aviation aircraft
p0517 a82-40124

Wind tunnel measurements of longitudinal stability
and control characteristics of primary and
secondary wing configurations
p0518 a82-40125

Minimum induced drag of canard configurations
p0518 a82-41116

Numerical aircraft design using 3-D transonic
analyses with optimization, volume 2. Part 2:
Fighter design [AD-A110036] p0315 a82-21102

Numerical aircraft design using 3-D transonic
analyses with optimization, volume 3. Part 1:
User's guide to transport design computer programs
[AD-A110312] p0315 a82-21183

Numerical aircraft design using 3-D transonic
analyses with optimization, volume 3. Part 2:
User's guide to fighter design computer program
[AD-A110377] p0315 a82-21184

Lockheed test highlights, 1981
[AIAA-80-04519] p0603 a82-33330

CARSTERS

U CARSTERS

CANNORS

U GUNS (ORDNANCE)

A-102
Development of materials and manufacturing technology over the next 20 years: Composite materials

[ADD-04-34-01-0] p0357 H82-22324

CARBON FIBERS

Lear Fan – The plastic aeroplane arrives

p0126 A82-18348

Carbon-fiber composites – A fiber composite material for highly stressed light-structure components

p0240 A82-28505

Technical and economic comparison of carbon fiber tape and woven fabric applications

p0514 A82-40993

Carbon fiber reinforced composite structures protected with metal surfaces against lightning strike damage

[ADD-04-34-02-08] p0527 H82-28364

CARBON COLLAR

RC and CO emission abatement via selective fuel injection

[ADD PAPER 82-GT-178] p0425 H82-35390

Exhaust emissions reduction for intermittent combustion aircraft engines

[ADD-CBA-16724-0] p0610 H82-33392

CARBON STEELS

Carburized high temperature steels

p0505 H82-32467

CARBON TETRAFLUOURED

Relations for the thermodynamic and transport properties in the testing environment of the Langley hypersonic CF4 tunnel

[ADD-TR-0326] p0146 H82-15359

CARBON-CARBON COMPOSITES

Correlation of wear with oxidation of carbon-carbon composites

p0285 A82-27068

CARBONACEOUS ROCKS

CT LIGNITE

CARBONATR

CT POLYCARBONATES

CARBY WINGS

Aerodynamic characteristics of waveiders at subsonic flight speeds

p0165 A82-19810

CARGO

CT AIR CARGO

CARGO AIRCRAFT

CT C-1A AIRCRAFT

CT C-5 AIRCRAFT

CT C-9 AIRCRAFT

CT C-130 AIRCRAFT

CT C-140 AIRCRAFT

CT C-141 AIRCRAFT

CT C-160 AIRCRAFT

CT F-27 AIRCRAFT

ACMA – Fact or fantasy – Advanced Civilian/Military Aircraft

p0019 A82-12048

KC-10 flight test program

p0076 A82-16935

The cargo helicopter – A logistical vehicle

p0260 A82-24717

Toward VLA air-cargo service

p0296 A82-28277

The potential of large aircraft

[ADD PAPER 82-0814] p0376 A82-0813

Very large aircraft with alternate fuels – LB2

[ADD PAPER 82-0814] p0376 A82-31986

The potential for long-range high-load aircraft with alternate fuels

[ADD PAPER 82-0814] p0376 A82-31986

Turbojet cargo aircraft systems study

[ADD-CBA-165813] p0189 H82-16070

CAHRRER FREQUENCIES

B.P. calibrators for Doppler radars

p0150 A82-18917

CAHRRER ROSETTES

0 LAUNCH VEHICLES

0 CARBON FIBERS

0 CARBONITE COORDINATES

A new method for constructing two-dimensional orthogonal and non-orthogonal meshes

p0383 A82-33630

CAHRROGRAPH

0 RAPPING

- A-103
The impact and future direction of aircraft noise certification
737 graphite-epoxy horizontal stabilizer certification
(AIAA 82-0745)
Certification of an airborne Loran-C navigation system
Boeing's new transports in a flight-test marathon
Simulator certification methods and the vertical motion simulator
Software considerations in airborne systems and equipment certification
Collection and evaluation of propeller aircraft noise certification data
The impact and future direction of aircraft noise certification
Standards in aircraft noise certification
Evaluation of noise control technology and alternative noise certification procedures for propeller-driven small airplanes

Celsera Aircraft

N770CBA1 AIRCRAFT
N770CBA1 AIRCRAFT
N770CBA1 AIRCRAFT
U MILITARY AIRCRAFT
Cessna 402A Aircraft
NASA studies business aircraft avionics

CFA-104 AIRCRAFT
U CANADIAN AIRCRAFT
CERP
U CARBON FIBER REINFORCED PLASTICS
CH-113 HELICOPTER
U CH-46 HELICOPTER
CH-46 HELICOPTER
Application of fatigue, crack propagation and strain survey testing to the CH-46 aft rotor drive shaft
CH-46 and CH-47 composite rotor blade lightning protection testing
CH-46 fiberglass rotor blade repair program
CH-47 HELICOPTER
Progress report - CH-47 modernization program
Design of a crashworthy crew seat for the Boeing Vertol Chinook helicopter
Design of and CH-46 and CH-47 composite rotor blade lightning protection testing
CH-47 fiberglass rotor blade design and fabrication
Flight demonstration of an integrated floor/fuel isolation system
The stability of portable bridges carried on slings beneath helicopters
Advanced internal cargo system concept demonstration and evaluation
Non-coaxial lms development specification for a feasibility model of an electronic master
Chairs and seats
Subject Index

Chemical Properties

Chemical Analysis
- Gas Analysis
- Organic

Chemical Attack
- Intergalactic Corrosion

Chemical Cleaning

Chemical Decomposition

Chemical Elements
- Alkali Metals
- Lanthane

Chemical Fuels
- Aircraft Fuels
- Automobile Fuels
- Diesel Fuels

Chemical Kinetics

Chemical Machining
- Electromechanical Machining

Chemical Properties
- Heat of Combustion
- Heat of Fusion

Chemical Transformations

Characterization
- Characterization of an Experimental Beferee

Characteristics
- Techniques for Interfacing Multiplex Systems

Characteristics Method

Channel Flow

Channel Noise

Channels (Data Transmission)
- A Polled Contention Multiplex System Using MIL-STD-1553 Protocol
- A Modular Multiplexed Digital Voice Intercommunications System

Channels Coupled Devices
- Fixed Pattern Noise Correction for Staring Arrays

Channels Transfer Devices
- Laser Coupled Devices

Charged Particles

Charts
- Flow Charts

Checkoff
- Model Test and Full Scale Checkout of Dry-Cooled Jet Turbine Engine Compressors
- Built-in-Test Equipment Requirements Workshop
- Workshop Checkout

Checkout Equipment
- Safety (Aviation Material)

Chemical Analysis
- Gas Analysis

Chemical Attack
- Intergalactic Corrosion

Chemical Cleaning

Chemical Decomposition

Chemical Elements
- Alkali Metals

Chemical Fuels
- Aircraft Fuels

Chemical Kinetics

Chemical Machining
- Electromechanical Machining

Chemical Properties
- Heat of Combustion
- Heat of Fusion

Chemical Transformations
This page contains a subject index, listing various topics and references related to civil aviation and related fields. The index includes entries for technical trends, safety measures, aviation management, and various technical topics such as flight accidents, air traffic control, and aircraft design. The entries are organized alphabetically and include references to specific reports, studies, and books. The list is followed by a section titled "Civil Aviation Contd" which appears to be a continuation of the main index.
CLADDS

An operational evaluation of head up displays for civil aircraft operations. NASA/TPA phase 3 report

[AD-A117044] p0618 882-33956

CLADING

Hurricane-induced wind loads

[PB82-132267] p0476 882-27546

CLAIRE A AIRFOIL

G AIRFOIL PROFILES

CLASSIFICATIONS

HT INDEXES (DOCUMENTATION)

Inverse SAR and its application to aircraft classification

[AD-A101359] p0458 882-26400

CLEAR FUELS

HT FUEL GELS

CLEARWATERS

HT FUEL FILTERS

CLEAR AIR TURBULANCE

Instrumented aircraft verification of clear-air radar detection of low-level wind shear

[AD-A111395] p0858 882-18035

CLEARANCES

Optical tip clearance sensor for aircraft engine controls

[AIAA PAPER 82-1131] p0438 882-37691

Correlation for secondary flows and clearance effects

[C053] p0205 882-17189

CF6 Jet Engine Diagnosis Program: High pressure compressor clearance investigation

[PB82-165580] p0317 882-21197

Investigation of the tip clearance flow in aero engine and the exit of a compressor rotor passage

[PB82-166904] p0408 882-25253

Blade tip gap effects in turbo machines: A review

[AD-A108236] p0260 882-18035

CF6 jet engine performance improvements: High pressure turbine active clearance control

[AD-C88-165556] p0526 882-25308

Multistage axial compressor program on tip clearance effects

[AD-A107945] p0536 882-29325

Active clearance control system for a turbo machine

[AD-C88-16538-1] p0593 882-32366

Rotol tip clearance effects on overall and blade-element performance of axial-flow transonic fan stage

[PB82-165580] p0690 882-33389

CLIMATOLOGY

Climatic laboratory evaluation TCP-470 helicopter

[AD-A115861] p0590 882-23355

CLIMBING FLIGHT

Energy savings with today\'s technology --- aircraft fuel management through in-flight monitoring

[AD-A105967] p0304 882-20178

Determination of an optimal control program for an aircraft power plant during climb

[p111 882-17282

A surface singularity method for rotors in hover or climb

[AD-A105967] p0304 882-20178

CLOAKS

Electronic master monitor and advisory display system test and demonstration report

[AD-A105317] p0099 882-13141

Global positioning system taxing receivers in the DSH

[p0271 882-20126

CLOSING LOOP SYSTEMS

G FEEDBACK CONTROL

CLOTH

G FABRICS

SUBJECT INDEX

CLOTHING

HT FLIGHT CLOTHING
HT GARMENTS
HT GOGGLES
HT PROTECTIVE CLOTHING

CLOUD COVER

Cloud top remote sensing by airborne lidar

p0379 882-32920

CLOUD GLACIATION

Aircraft measurements of icing in supercooled cloud droplets/lace crystal clouds

p0433 882-36054

Progress on low altitude cloud icing research

p0311 882-21147

CLOUD PHYSICS

Response of cloud microphysical instruments to aircraft icing conditions

[AD-A112317] p0649 882-27284

An evaluation of the Rosemount ice detector for cloud water content measurements

[PB82-158833] p0536 882-29321

CLOUDES

ARTIFICIAL CLOUDS

CLOUDES (METEOROLOGY)

HT ARTIFICIAL CLOUDES

CLOTH

Sanitary radar --- with digital processor for Doppler filtering and pulse compression

p1509 882-18906

Optimal target designation techniques

[AD-A102937] p0317 882-21197

A multifrequency adaptive radar for detection and identification of objects - Results on preliminary experiments on aircraft against a sea-clutter background

[p0379 882-32979

Doppler processing, waveform design and performance measures for some pulsed Doppler and STD-radiars. II

[p1390 882-10371

The PATRIOT Radar in tactical air defense

[p0335 882-37031

Demonstration of radar reflector detector and ground clutter suppression using airborne weather and mapping radar

[p0500 882-40532

Maximum-entropy spectral analysis of radar clutter

[p0384 882-47407

CMI

Compressed automatic gain control system

[p0446 882-26209

COAL

HT LIGHTS

HT SOLTHER REFINED COAL

COAL DERIVED LIQUIDS

Deposit formation in liquid fuels. I - Effect of coal-derived fuels on storage stability of Jet A turbine fuel

[p1016 882-22241

Refining and upgrading of synfuels from coal and oil shales by advanced catalytic processes

[DB82-001127] p0213 882-17401

Low NOx heavy fuel combustor concept program

[PB82-165637] p0412 882-25635

COAL GASSIFICATION

Laboratory-scale simulation of underground coal gasification: Experiment and theory

[DB82-000102] p0528 882-28470

COAL LIQUEFACTION

Jet fuel from carbon

[p0010 882-12021

Refining and upgrading of synfuels from coal and oil shales by advanced catalytic processes

[DB82-001127] p0213 882-17401

Performance of SBC II fuels in gas-turbine combustors. Alternative-fuels-utilization program

[p0995 882-32510

COAL UTILIZATION

Jet fuel from carbon

[p0010 882-12021

COAM EFFECT

Aerodynamic characteristics of the external DSA powered lift system using side fences for enhancement of Coanda flow attachment

[p0349 882-22212

COASTAL WATER

A surveillance airship for the New Zealand environment

[p0173 882-20558
Application of image processing techniques to fluid flow data analysis
[NSF-TR-82-62760] p0197 882-16049
New techniques in data retrieval and display
[CSU, TR No. 901-103] color graphics p0161 882-25174
A color video display technique for fluid field surveys p0596 882-32669
COLOR INFRARED PHOTOGRAPHY
Photointerpretation key for pine regeneration analysis using high-altitude color infrared panoramic photography [882-164450] p0562 882-30606
COLOR PERCEPTION
U COLOR VISION
COLOR VISIOH
Airborne color CRT displays p0073 882-14823
COLORATION
U COLOR
COLOURATION
U EMBRISON
COLORS (SUPPORTS)
On the dynamic collapse of a column impacting a rigid surface [AIAA 82-0735] p0340 882-30162
The behavior of composite thin-walled structures in dynamic buckling under impact p0513 882-40976
COMBAT
Air-to-air combat analysis - Review of differential-gaming approaches p0984 882-13115
The application of bifurcation theory to the study of loss of control over combat aircraft [CBDA, TR No. 1907-102] p0129 882-18037
Evolution of the aerocost p0239 882-24706
The cargo helicopter - A logistical vehicle p0240 882-24717
Aerial combat simulation on the G.S. Air Force p0205 882-27920
Combat training imagery p0424 882-31179
Military aircraft p0387 882-34121
Combat survivability in the Advanced Technology Engine Study [AIAA] p0419 882-35101
Navistar - Global Positioning System: A revolutionary capability p0435 882-37040
The correlation of flight test and analytic 8-in-w air combat exchange ratios - day-on-day [AIAA PAPER 82-1328] p0408 882-39105
Energy methods used in air combat performance comparisons p0501 882-45050
Use of a helmet-mounted matrix display for presenting energy-meanaverability information during simulated close combat p0092 882-13061
Combat Aircraft Maneuverability
[AGARD-CP-319] p0346 882-22187
Review of practical experience on combat aircraft maneuverability p0346 882-22189
The assessment of aircraft combat effectiveness using a new computational method p0346 882-22194
Evaluation of direct force node fighters by combat simulation p0346 882-22200
The study of combat aircraft maneuverability by air to air combat simulation p0346 882-22204
Influence of maneuverability on helicopter combat effectiveness p0346 882-22205
Validation of zero-order feedback strategies for medium range air-to-air interception in a horizontal plane [AGARD-TR-82-62371] p0365 882-22312
Simulator for air-to-air combat versus real world: Visual computer analysis for simulated air-to-air combat training [AD-A110576] p0410 882-25270
Aviation Materiel Combat Ready In-Country (AMCRIC) (AD-A107451) p0469 882-27263
Force Rower added advanced strike avionics system p0471 882-27298
Adaptive multifunction sensor concept for air-ground mission [AD-A1115676] p0594 882-32389
Survey and update of F-14A mission profiles for TF30 engine usage [AD-A1116831] p0603 882-33337
COMBUSTIBILITY
U FLAMMABILITY
COMBUSTION
U PARTICULAR BURNING
U FUEL COMBUSTION
U SOLID PROPULSANT COMBUSTION
U SUPERSONSIC COMBUSTION
Laboratory-scale simulation of underground coal gasification: Experiment and theory [AD-A22-001063] p0528 882-28470
COMBUSTION CHAMBERS
One reason for the onset of high-frequency self-excited oscillations in combustion chambers of aircraft engines p0014 882-11448
The CIVIC - A concept in vortex induced combustion, II [AIAA PAPER 81-017-12] p0017 882-11957
Application of numerical modeling to gas turbine combustor development problems p0019 882-12118
On the prediction of swirling flowfields found in axisymmetric combustor geometries p0019 882-12120
Validation studies of turbulence and combustion models for aircraft gas turbine combustors p0020 882-12267
Experimental investigation of total pressure losses and airflow distribution for gas turbine combustors p0031 882-15606
Widely-spaced co-axial jet, diffusion-flame combustion - Isothermal flow calculations using the two-equation turbulence model [AIAA PAPER 82-0191] p0115 882-17791
Development and operating characteristics of an advanced two-stage combustor [AIAA PAPER 82-0191] p0116 882-17833
Fuel property effects on radiation intensities in a gas turbine combustor p0166 882-19566
Diffusion jet behavior in the turn section of a reverse flow combustor [AIAA PAPER 82-0192] p0167 882-20291
Quantitative interpretation of recirculated flow visualization by the analysis of video pictures p0286 882-27109
Advanced engine technology and its influence on aircraft performance p0298 882-26515
Experimental study on discharge and loss coefficients of combustor swirlers p0390 882-36444
Energy efficient engine /ET/ technology status [AIAA PAPER 82-1052] p0415 882-34580
Experimental study of the effects of secondary air on the emissions and stability of a lean premixed combustor [AIAA PAPER 82-1072] p0415 882-34952
Numerical and experimental examination of a propaporized/premixed combustor [AIAA PAPER 82-1074] p0416 882-34994
AIAA Good Specification Floe Combustion Technology program - Pratt and Whitney Aircraft Phase II results and status [AIAA PAPER 82-1086] p0416 882-34999
Evaluation of fuel injection configurations to control carbon and soot formation in small GT combustors p0416 882-34999

A-113
COBUSTION CONTROL

SUBJECT INDEX

[AIAA PAPER 82-11795] p0041 A02-35041
Characteristics of a side dump gas generator ramjet
[AIAA PAPER 82-1258] p0049 A02-35089
Acoustic control of dilution-air mixing in a gas
[ASME PAPER 82-GT-35] p0021 A02-35296
The potential impact of fuel gases on small gas
Turbine combustor
[ASME PAPER 82-GT-133] p0025 A02-35362
A procedure for evaluating fuel composition
reasons on combustor life
[ASME PAPER 82-GT-296] p0030 A02-35465
A spark ignition system for liquid fuel sprays
Models for a turbulent premixed dump combustor
[ASME PAPER 82-1261] p0036 A02-37220
Turbulence measurements in a confined jet using a
[ASME PAPER 82-1262] p0039 A02-37709
Effect of fuel injector type on performance and
inlet/combusotor interfaces
Report of the JANAF Workshop on High Frequency
Instrumentation and Data Analysis Techniques
[AD-A108116] p0058 A02-18349
Dilution jet behavior in the side section of a
reverse flow combustor
[NASA-TP-7874] p0066 A02-19220
FP 102 in-ductor combustor noise measurements with a
turbine nozzle, volume 1
[NASA-TP-15656-VOL-1] p0039 A02-21031
FP 102 in-ductor combustor noise measurements with a
turbine nozzle, volume 2
[NASA-TP-15656-VOL-2] p0039 A02-21032
FP 102 in-ductor combustor noise measurements with a
turbine nozzle, volume 3
[NASA-TP-15656-VOL-3] p0039 A02-21033
Factors influencing velocity distributions at
inlet/combusotor interfaces
Factors influencing velocity distributions at
[NASA-TP-21405] p0031 A02-21406
Report of the JANAF Workshop on High Frequency
Instrumentation and Data Analysis Techniques
[AD-A1108213] p0034 A02-22265
Investigation of soot and carbon formation in
small gas turbine combustors
[NASA-TP-167853] p0035 A02-22267
Nonlinear structural and flow analyses of a
[ASME PAPER 82-0846] p0038 A02-25001
Fracture mechanics criteria for turbine engine hot
section components
[NASA-CR-16896] p0049 A02-25257
Coastal dump Ramjet combustor combustion
NOS NOx heavy fuel combustor concept program
[NASA-CR-163567] p0043 A02-25635
Proceedings of the 12th Navy Symposium on
Aeroballistics, volume 2
[ASME-P-111763] p0047 A02-27312
Nonlinear constitutive theory for turbine engine
structural analysis
[NASA-TP-33744] p0063 A02-33744
AIAA PAPER 82-11008] p0046 A02-34999
Preliminary results on performance testing of a
turbogressed ramjet combustion engine
[NASA-TP-82772] p0036 A02-21194
Effect on fuel efficiency of parameter variations in
the cost function for multivariable control
[AD-A110614] p0045 A02-26301
Combustion behavior of solid fuel Ramjets. Volume
[AD-A110796] p0045 A02-26303
The Schicksal fuel injector: An initial
performance evaluation without burning
[AD-A1113612] p0047 A02-27315
Radiation/catalytic augmented combuston
[AD-A112376] p0047 A02-27434
COBUSTION HEAT
UHEAT OF COMBUSTION
COBUSTION STABILITY
UHEAT OF COMBUSTION
COBUSTION STABILITY
COBUSTION PHYSICS
The combustion of a fuel jet in a stream of lean
gasol ine fuel-air mixtures
[AD-A107441] p0048 A02-28692
An investigation of the combustion process in
[AD-A114603] p0040 A02-11232
Thermodynamics of organic compounds
[AD-A110430] p0038 A02-21202
Thermodynamic and transport combustion properties
of hydrocarbons with air. Part 1: Properties
in SI units
[NASA-TP-1906] p0057 A02-32166
Thermodynamic and transport combustion properties
of hydrocarbons with air. Part 2: Compositions
corresponding to Kelvin temperature schedules
in part 1
[NASA-TP-1907] p0057 A02-32187
Thermodynamic and transport combustion properties
of hydrocarbons with air. Part 3: Properties
in US customary units
[NASA-TP-1908] p0057 A02-32188
Thermodynamic and transport combustion properties
of hydrocarbons with air. Part 4: Compositions
corresponding to Rankine temperature schedules
in part 3
[NASA-TP-1909] p0057 A02-32189
COBUSTION PRODUCTS
Damage of turbine blades due to interaction with fuel
renormalization products
[AD-A105401] p0012 A02-18479
The sooting tendency of fuels containing
polymeric aromatics in a research combustor
[AIAA PAPER 82-0299] p0014 A02-18971
Fuel property effects on radiation intensities in
a gas turbine combustor
[AD-A111355] p0049 A02-25259
The formation of benzpyrene during the combustion of
aviation fuels
[AD-A110796] p0047 A02-26303
Modeling solid-fuel Ramjet combustion including
radiation heat transfer to the fuel surface
[AD-A107441] p0047 A02-27436
Assessment of burning characteristics of aircraft
inertial materials
[NASA-CR-166390] p0059 A02-32899
COBUSTION STABILITY
UFLAME STABILITY
One reason for the onset of high-frequency
self-excited oscillations in combustion chambers of aircraft engines
A-114
Research and development program for non-linear structural modeling with advanced relationships. 

Variability design study for a fault-tolerant aircraft. 

Fatigue analysis of composite materials using the fail-safe concept. 

Reliability model for planetary gear. 

Commercial aircraft airframe fuel systems survey and analysis. 

Efficient part removal processes. 

Composite materials: 
- Alumina boron composites 
- Boros reinforced materials 
- Carbon fiber reinforced plastics 
- Carbon-carbon composites 
- Ceramics 
- Epoxy matrix composites 
- Epoxy-based composites 
- Fiber composites 
- Fiber reinforced composites 
- Glass fiber reinforced plastics 
- Graphite-epoxy composites 
- Graphite-polyimide composites 
- Laminates 
- Metal matrix composites 
- Polyester matrix composites 
- Reinforced plastics 
- Resin matrix composites 
- Weibull composites 

Some possibilities for composite light aircraft. 

Light aircraft structural design in non-metals. 

Energy technologies in aerospace structures. 

Design, structural dynamics and materials. 


Impact-initiated damage thresholds in composites. 

Aircraft composite materials and structures. 


Protection testing. 

Preliminary design development for a fuselage composite structure. 

Application of advanced composite materials to helicopter airframe structures. 

Statistical analysis methods for characterizing composite materials. 

Effects of defects on tension composites undergoing an accelerated environmental spectrum. 


Characterization of composite variations in a structural adhesive. 

Utility of a probability-density-function curve and F-maps in composite-material inspection.
**SUBJECT INDEX**

- A significant role for composites in energy-efficient aircraft
  - Performance of PTFE lined composite journal bearings [ASLE PAPER 82-AP-1A-1]
  - Carbon fiber reinforced composite structures
- Calculations of the cross section properties and shear strains of composite rotor blades

**STRENGTHS**

- **COMPOSITION (PROPERTY)**
  - HT ATOMIC COMPOSITION
  - HT ATOMIC MOISTURE
  - HT CHEMICAL COMPOSITION
  - HT MOISTURE CONTENT

- **COMPRESSED AIR**
  - Influence of airblast atomizer design features on mean drop size [AIAA PAPER 82-1073]
  - Finite difference modeling of rotor flows including wake effects [NASA-TR-82019]

- **COMPRESSIBILITY EFFECTS**
  - Theoretical investigations and experimental researches for higher subsonic two-dimensional compressor cascade

- **COMPRESSIBLE BOUNDARY LAYER**
  - Calculations of viscous transonic flow over aerofoils [AIAA PAPER 82-0997]
  - Accurate numerical solution of compressible, linear stability equations
  - The effect of heat transfer on three-dimensional spatial stability and transition of flat plate boundary layer at Mach 3

- **COMPRESSIBLE FLOW**
  - Calibration of seven-hole probes suitable for high angles in subsonic compressible flows [AIAA PAPER 82-0940]
  - A contribution to the hodograph method for shock-free transonic airfoil sections
  - A vortex sheet method for calculating separated two-dimensional flows at high Reynolds number
  - Modern compressible flow with historical perspective

- **COMPRESSIBLE FLUIDS**
  - Study on pressure distribution on rotor blades with three-dimensional nonsteady theory of compressible fluid

- **COMPRESSING**
  - Ethanol production by vapor compression distillation [ASEB-004922]

- **COMPRESSOR LOADS**
  - HT IMPACT LOADS
  - The load-carrying behavior of a trapezoidal aluminium-alloy supporting element, subjected to a compressive stress, in the postbuckling region

- **COMPRESSOR WAVES**
  - Experimental investigation of a transonic potential flow around a symmetric airfoil

- **COMPRESSIVE STRENGTHS**
  - Seven years experience with Kevlar-69 in the
COHPBESSOB SLIDES

COHPBESSOB BLADES

Optimal shape design of turbine blades

On unsteady aerodynamic forces and moments of the circular cascading blades /Experiments of the outward-flow case/

Design procedures for compressor blades

Optimal shape design of turbine blades

[ASSE PAPER 06-CT-128] p0162 A82-19342

Rotating stall in blade rows operating in shear flow to the tuning of the natural frequencies

[ASSE PAPER 06-CT-125] p0141 A82-15039

 Aeroelasticity of compressor blades - Subsonic stall flutter

p0285 A82-26993

Sub energetic of compressor blade tip seals

p0285 A82-27078

Casing wall boundary-layer development through an isolated compressor rotor

[ASSE PAPER 06-CT-16] p0420 A82-35267

The use of performance-monitoring to prevent compressor and turbine blade failures

[ASSE PAPER 02-CT-66] p0422 A82-35316

Optimization of compressor vane and bleed settings

[ASSE PAPER 02-CT-81] p0423 A82-35327

Liquid particle dynamics and rate of evaporation in the rotating field of centrifugal compressors

[ASSE PAPER 02-CT-66] p0423 A82-35332

An inviscid-viscous interaction treatment to predict the blade-to-blade performance of axial compressors with leading edge normal shock waves

[ASSE PAPER 02-CT-125] p0425 A82-35363

The use of optimization techniques to design controlled diffusion compressor blade

[ASSE PAPER 02-CT-109] p0426 A82-35373

The effect of rotor blade thickness and surface finish on the performance of a small axial flow turbine

[ASSE PAPER 02-CT-222] p0428 A82-35409

Application of the sequential optimization method to design gas-turbine engine compressor blades

[ASSE PAPER 02-CT-160] p0429 A82-35444

Sliced disc design - A composite concept for a turbo engine axial compressor

[OSA PAPER 81-160] p0515 A82-60995

An experimental examination of compressor blade flutter

[OSA PAPER 81-31] p0547 A82-12068

An aerodynamic design method for transonic axial flow compressor stage

[IRIS CASC-1970] p0332 A82-10964

Subsonic cascade wind tunnel tests using an aerodynamic compressor configuration of DCA blades

[AF-A 1005/97] p0330 A82-11069

The use of optimization techniques to design controlled diffusion compressor blade

[OSA PAPER 79-18] p0334 A82-14094

Computer program for aerodynamic and design of multistage axial-flow compressors

[OSA PAPER 79-1466] p0141 A82-15039

Survey on diffusion factors and profile losses

[IS (81) 160] p0204 A82-17166

Survey on the effect of blade surface roughness on compressor performance

[OSA PAPER 82-CT-17191]

Deviation/turning angle correlations

p0205 A82-17191

BBC/Sulzer. 4 stage transonic compressor

[OSA PAPER 82-CT-17197]

Evaluation of profile loss predictions based on diffusion factors

p0206 A82-17200

Performance of single-stage axial-flow transonic compressor with rotor and stator aspect ratios of 1.63 and 1.78, respectively, and with design pressure ratio of 1.82

[OSA PAPER 79-18] p0334 A82-14094

Aeroelasticity of compressor blades - Subsonic stall flutter

p0414 A82-26189

Blade tip gap effects in turbomachines: A review

[AD-1111092] p0455 A82-26308

Compressor vane exit stage study, volume 6

[IRIS CASC-1970] p0872 A82-27310

Foreign object impact design criteria, volume 2

[AD-1111092] p0873 A82-27313

Foreign object impact design criteria, volume 3

[AD-1111092]
COMPUTATIONAL FLUID DYNAMICS

BY TURBOMACHINES

Large scale aerospace compressor test facility
(AIAA PAPER 82-2695)

A stage-by-stage dual-speed compressor system
(AIAA PAPER 82-2721)

Study of air compressor hazards at underground and
surface mines
(PRE-105164)

Open-cycle water compression heat pump
(PRE-110503)

Foundations for computer simulation of a low
pressure oil flooded single screw air compressor
(AD-A108230)

Evaluation of cast titanium alloy compressor
components
(AD-A111431)

Investigation of the tip clearance flow inside and
at the exit of a compressor rotor passage
[NASA-CR-169004]

Blade tip gap effects in turbomachines: A review
(AD-A111092)

High pressure bleed for STOL and STO-VL
performance. A conceptual examination
(AD-A115762)

USAP Bioenvironmental noise data handbook. Volume
1: CPC-20 compressor
(AD-A116199)

Numerical stability analysis of a compressor model
(AD-A116078)

COMPUTATION

The through flow calculations
(AD-A111092)

Blade-to-blade computations and boundary layer
corrections in axial compressors and turbines
(AD-A111092)

A complete method for computation of blade mode
characteristics and responses in forward flight
(AD-A111092)

Computational aerodynamics and design
(AD-A111092)

COMPUTATIONAL FLUID DYNAMICS

The use of the Weber method for microcomputer-assisted numerical analysis of
airfoils
(AD-A111092)

Theoretical analysis of parachute inflation
including fluid kinetics
(AD-A111092)

Strong matching method for computing transonic,
viscous flows including wakes and separations -
Lifting airfoils
(AD-A111092)

Multiple-scale turbulence modeling of free
turbulent flows
(AD-A111092)

Control laws for adaptive wind tunnels
(AD-A111092)

Calculation of aerodynamic characteristics of jet
flapped airplane
(AD-A111092)

Validation studies of turbulence and combustion
models for aircraft gas turbine combusters
(AD-A111092)

Overview of flight and ground testing with
emphasis on the wind tunnel
(AD-A111092)

The operational characteristics of turbojets,
giving particular attention to the cooled
high-pressure turbine
(AD-A111092)

Rapid elliptic solvers
(AD-A111092)

Remarks on the calculation of transonic potential
flow by a finite volume method
(AD-A111092)

Supersonic nozzle without shocks
(AD-A111092)

Direct approach to aerodynamic design problems
(AD-A111092)

A summary of jet-impingement studies at McDonnell
Douglas Research Laboratories
(AD-A111092)

Computation of the steady viscous flow over a
tri-element 'cambered wing' airfoil
(AD-A111092)

A simple finite difference procedure for the
vortex controlled diffuser
(AD-A111092)

Computational treatment of transonic canard-wing
interactions
(AD-A111092)

A more-accurate transonic computational method for
wing-body configurations
(AD-A111092)

Transonic three-dimensional viscous-inviscid
interaction for wing-body configuration analysis
(AD-A111092)

Computations of transonic flow over an oscillating
airfoil with shock-induced separation
(AD-A111092)

Viscous flow - Necessity of the theoritician in
pursuit of higher order accuracy
(AD-A111092)

Responses of oscillating wings in weak shear flow
(AD-A111092)

A contribution to the holograph method for
shock-free transonic airflow sections
(AD-A111092)

Technical evaluation report of the AGARD Fluid
Dynamics Panel Symposium on computation of
viscous-inviscid interactions
(AD-A111092)

Aerodynamics of a transport aircraft-type
wing-fuselage assembly
(AD-A111092)

Three-dimensional calculation of the flow in
a helicopter air intake
(AD-A111092)

Numerical solution of three-dimensional unsteady
viscous-inviscid flow over wings including
inviscid/viscous interactions
(AD-A111092)

Real gas flows over complex geometries at moderate
angles of attack
(AD-A111092)

Nose approximation applied to flow past thin
airfoils
(AD-A111092)

A perspective of computational aerodynamics from
the viewpoint of airplane design applications
(AD-A111092)

Recent advances in applying Free Vortex Sheet
theory to the estimation of vortex flow
aerodynamics
(AD-A111092)

Isolated nacelle performance - Measurement and
simulation
(AD-A111092)

A split coefficient/locally monotonic scheme for
antisymmetric flows
(AD-A111092)

Steady and unsteady nonlinear hybrid vortex method
for lifting surfaces at large angles of attack
(AD-A111092)

Design of supersonic swept wings
(AD-A111092)

Annual review of fluid mechanics. Volume 16 --- Book
(AD-A111092)

International Conference on Numerical Methods in
Fluid Dynamics, 7th, Stanford University,
Stanford and Moffett Field, Ca, June 23-27,
1980, Proceedings
(AD-A111092)

Transonic flow past thin wings
(AD-A111092)

Aerodynamics - Retrospect and prospect /The 21st
Lancaster Memorial Lecture/
(AD-A111092)

Supercritical flow past asymmetrical airfoils
(AD-A111092)

Effect of wakes of upstream stator blades on the
rotor of an axial flow compressor
(AD-A111092)

Unsteady response of rectangular wings in separation
uniform shear flow
(AD-A111092)

Computational fluid dynamics - The coming revolution
(AD-A111092)

Numerical solution of Space Shuttle Orbiter flow
field
(AD-A111092)

More than meets the eye - The oil dot technique
(AD-A111092)
A computational design method for transonic semi-empirical analysis of liquid fuel analysis of two-dimensional internal flows using a potentiality assessment of a parallel structure accurate numerical solution of compressible, aerodynamic interactions with turbulent jet closed-form solutions of supersonic wing-body interaction.

Subject Index:

- A mixed-flow cascade passage design procedure based on a power series expansion of potentiality assessment of sub- and transonic viscous attached flows around wing-body configurations.
- The equivalent simple body /SDS/ method for transonic wing analysis.
- A high-frequency transonic small disturbance code for unsteady flows in a cascade.
- Finite volume calculation of three-dimensional potential flow around a propeller.
- Calculations of the flow-field velocities of a wing-body-stores combination in transonic flow.
- Hypersonic interactions with surface mass transfer. 1 - Steady flow over a slender wedge wing.
- Subsonic 3-D surface panel method for rapid analysis of multiple geometry perturbations.
- Calculations of viscous transonic flow over aerofoil.
- A numerical study of the turbulent flow past an isolated airfoil with trailing edge separation.
- Vortex sheet method for calculating separated two-dimensional flows at high Reynolds number.
- Design of finite element grids for the computation of the three-dimensional transonic flow around a wing.
- Prediction of separated asymmetric trailing-edge flows at transonic Mach numbers.
- A vortex sheet method for calculating separated two-dimensional flows at high Reynolds number.
- Wind-tunnel wall interference corrections for three-dimensional flows.
- Closed-form solutions of supersonic wing-body interference.
- Generation of three-dimensional boundary-fitted curvilinear coordinate systems for wing/wing-tip geometries using the elliptic solver method.
- Aerodynamic interactions with turbulent jet exhaust plumes.
- Accurate numerical solution of compressible, linear stability equations.
- Potentiality assessment of a parallel structure for the solution of partial differential equations.
- A new method for constructing two-dimensional orthogonal and non-orthogonal meshes.
- The initial lift and drag of an impulsively started airfoil of finite thickness.
- Analysis of two-dimensional internal flows using a primitive-variable relaxation Navier-Stokes procedure.
- Semi-empirical analysis of liquid fuel distribution downstream of a plain orifice injector under cross-stream air flow.
- CFD technology for propulsion installation design - Forecast for the 80's --- computational fluid dynamics in aerospace applications.
- A computational design method for transonic turbomachinery cascades.
- The calculation of deviation angle in axial-flow compressor cascades.
- Transonic design using computational aerodynamics.
- Application of computational methods to transonic wing-design.
- A-7 transonic wing designs.
- Transonic computational experience for advanced tactical aircraft.
- Extension of PLG codes to transonic flow prediction for fighter configurations.
- A series of airfoils designed by transonic drag minimization for Gates Learjet aircraft.
- Applied computational transsones - Capabilities and limitations.
- Evaluation of full potential flow methods for the design and analysis of transport wings.
- On the vortex flow over delta and double delta wings.
- Approximate boundary condition procedure for the two-dimensional numerical solution of vortex wakes.
- A grid interfacing rosal algorithms for three-dimensional transonic flows about aircraft configurations.
- Design and analysis of transport wings.
- Application of computational methods to transonic wing-design for multiple configuration perturbations.
- Transonic small disturbance code for body-wing configuration coupled with full potential code for wing alone.
- A summary of V/STOL inlet analysis methods.
- Computational and experimental studies of light twin aerodynamic interference.
- An experimental and numerical study of 3-D rotor wakes in hovering flight.
- Estimation of simulation errors in the European Transonic Wind Tunnel (ETW).
- Analytical study of vortex flaps on highly swept delta wings.
- Analysis of jet transport wings with deflected control surfaces by using a combination of 2- and 3-D methods.
- Modern compressible flow with historical perspective --- Book.
- Corrections for wall effects in OREAA industrial wind tunnels.
A computer program for variable-geometry single-stage axial compressor test data analysis (AD-A106676)

A system for parallel computation for developing nonlinear control procedures (AD-A107914)

A method for designing inlet distortion screens for aircraft gas turbine engine tests using an interactive computer program (AD-A116584)


The application of small propellers to EPV propulsion (NASA TM-84757, NASA TM-84509)

A computer program for variable-geometry single-stage axial compressor test data analysis (AD-A106676)

Parallel computation for developing nonlinear control procedures (AD-A107914)

Integrated control design techniques (AD-A108223)

A short takeoff performance computer program (AD-A109665)

Numerical aircraft design using 3-D transonic analysis with optimization, volume 3: Part 2: User's guide to fighter design computer program (AD-A110037)


A computer program for variable-geometry single-stage axial compressor test data analysis (AD-A106676)

A system for parallel computation for developing nonlinear control procedures (AD-A107914)

A method for designing inlet distortion screens for aircraft gas turbine engine tests using an interactive computer program (AD-A116584)


The application of small propellers to EPV propulsion (NASA TM-84757, NASA TM-84509)

A computer program for variable-geometry single-stage axial compressor test data analysis (AD-A106676)

Parallel computation for developing nonlinear control procedures (AD-A107914)

Integrated control design techniques (AD-A108223)

A short takeoff performance computer program (AD-A109665)

Numerical aircraft design using 3-D transonic analysis with optimization, volume 3: Part 2: User's guide to fighter design computer program (AD-A110037)

technology research
[AI/AA 81-221] p0001 A82-13516

Software considerations in the design of computer
generated flight displays
[AI/AA 81-20-20] p0002 A82-13517

Airborne Electronic Map Systems. I - Design
[AI/AA 81-18-27] p0003 A82-14770

Computer image generation for flight simulation
[AI/AA 81-17-59] p0004 A82-15599

Experimental evaluation of a perspective tunnel
display for threedimensional helicopter
approaches
[AI/AA 81-19-00] p0005 A82-15047

Simulation of advanced cockpits
[AI/AA 81-19-25] p0015 A82-19259

Requirements regarding digital external view
systems for full mission flight and tactics
simulators
[AI/AA 81-10-11] p0015 A82-19267

Data base generation for digital external view
systems
[AI/AA 81-10-11] p0015 A82-19267

A CAD/CAI graphics system with relative datas and
 tolerances
[AI/AA 81-DEP-100] p0016 A82-19333

Computer graphics for quality assurance
[AI/AA 81-20-76] p0017 A82-20276

Graphics in numerical control - The user's challenge
[AI/AA 81-20-76] p0017 A82-20277

The future of integrated CAD/CAI systems - The
future perspective
[AI/AA 81-20-78] p0017 A82-20278

Color graphics based real-time telemetry
processing system
[AI/AA 81-20-79] p0017 A82-20279

Flow visualization using a computerized data
acquisition system
[AI/AA 81-20-79] p0017 A82-20279

Computer-generated images for simulation - The
cost of technology
[AI/AA 81-20-80] p0019 A82-22801

Managing computer aided design; Proceedings of the
[AI/AA 81-20-81] p0029 A82-24371

Application of computer generated computer
geometric techniques to the processing and display of
three dimensional fluid dynamic data - for
turbofan mixer nozzle mixing process analyses
[AI/AA 81-20-82] p0029 A82-29008

Combat training imagery
[AI/AA 81-20-82] p0032 A82-31179

Simulation reaches towards reality
[AI/AA 81-20-82] p0032 A82-33547

Justification for, and design of, an economical
programmable multiple flight simulator
[AI/AA 81-20-83] p0033 A82-36969

Design and construction of a flexible automatic
electronic display device - for flight control
applications
[AI/AA 81-20-83] p0033 A82-40569

CATIA - a computer aided design and manufacturing
timensional system
[AI/AA 81-20-84] p0059 A82-40990

Aircraft geometry verification with enhanced
computer-generated displays
[AI/AA 81-20-85] p0059 A82-40992

Interactive graphics design with CODEM
[AI/AA 81-20-86] p0059 A82-40992

A prototype interface unit for microprocessor
based Loran-C receiver
[AI/AA 81-16-6687] p0032 A82-16079

Interactive-graphic flowpath plotting for turbine
engines
[AI/AA 81-20-75] p0042 A82-15041

Configuration Development System/NALL Report
[AI/AA 81-10672] p0042 A82-15041

Development of a computer based presentation of
non-steady helicopter rotor flows
[AI/AA 81-10817] p0042 A82-16072

Terrain model assistance
[AI/AA 81-10817] p0042 A82-17131

Terrain visualization
[AI/AA 81-10817] p0042 A82-17131

Integrated control design techniques
[AI/AA 81-10822] p0057 A82-18222

Simulator study of a pictorial display for general
aviation instrument flight
[AI/AA 81-10823] p0057 A82-18222

The 1981 Image 2 Conference Proceedings
[AI/AA 81-10226] p0070 A82-20180

New techniques in data retrieval and display - color
graphics
[AI/AA 81-10226] p0070 A82-21223
Computer Programs Covered

NT COMPUTER SYSTEMS PROGRAMS
NT INPUT/OUTPUT ROUTINES
NT BASFAN
NT OPERATING SYSTEMS (COMPUTERS)
NT SUBROUTINES

The Space Shuttle vehicle checkout involving flight avionics software
[AIAS 81-214] p0003 A82-10100
Controlling the software/hardware interface for the validation of avionics systems --- air
control systems
[AIAS 81-2159] p0002 A82-10116
The certification of digital systems
[AIAS PAPER 82-11940] p0017 A82-11940
Digital avionics systems -- The RAP experience
[AIAS 82-11941] p0017 A82-11941
The SIFT computer and its development --- Software
Implemented Fault Tolerance for aircraft control
[AIAS 81-2578] p0049 A82-13890
Navy performance modeling techniques
[AIAS PAPER 81-2481] p0058 A82-13669
The need for, and development of, a simulation facility at the Naval Air Test Center
[AIAS PAPER 81-2488] p0058 A82-13217
The design and implementation of a canned scenario function for the F-16 dynamic system simulator
[AIAS PAPER 81-24670] p0047 A82-14670
Weather impact on low-altitude imaging infrared sensors in Europe -- An availability model
[AIAS PAPER 80-16144] p0072 A82-14779
Digital simulation of electrical generating system by means of Spectro programs
[AIAS PAPER 80-16192] p0073 A82-14820
The application of programmable pocket calculators for computations during survey flights
[AIAS PAPER 82-16164] p0081 A82-16164
Transonic three-dimension viscous-inviscid interaction for wing-body configuration analysis
[AIAS PAPER 82-15161] p0082 A82-17416
Numerical computation of optimal atmospheric trajectories involving staged vehicles
[AIAS PAPER 82-13136] p0099 A82-17902
"I-Hole" : An automatic calculation model for the prediction and control of fixed-wing aircraft noise. I -- General cosiderations, theoretical bases and model analysis
[AIAS PAPER 82-16189] p0125 A82-18274
Utilization of hybrid computational equipment for the simulation of parachute system flight
[AIAS PAPER 82-16156] p0220 A82-19234
KC-135 avionics modernization hot bench -- An evaluation of requirements and design for the future
[AIAS PAPER 82-16156] p0157 A82-19224
CAD/CAM approach to improving industry productivity gahstens moments
[AIAS PAPER 82-21175] p0161 A82-21175
A Microwave Landing System simulation
[AIAS PAPER 82-21323] p0220 A82-23233
Aircraft transparency bird impact analysis using the NASA computer program
[AIAS PAPER 82-26315] p0227 A82-26315
The role of software in commercial ATS
[AIAS PAPER 82-27885] p0294 A82-27885
The micro revolution comes to civil air transport
[AIAS PAPER 82-29259] p0329 A82-29259
A computerized system for the application of fracture tracking data to aircraft management for the C-5A military airlift transport
[AIAS PAPER 82-0760] p0336 A82-30119
Comparison between computational and experimental data in unsteady three-dimensional transonic aerodynamics, including aeroelastic applications
[AIAS PAPER 82-0690] p0339 A82-30157
Bird impact analysis package for turbine engine fan blades
[AIAS PAPER 82-0696] p0339 A82-30162
Subsonic aerodynamic and flutter characteristics of several wings calculated by the SOUSSA B.1 panel method
[AIAS PAPER 82-07277] p0341 A82-30193
Fatigue life prediction of helicopter clutch link using Larson life calculation methods
[AIAS PAPER 82-31251] p0387 A82-31251
Optimization of compressor vanes and bleed settings
[AIAS PAPER 82-07-01] p0403 A82-35327
An approach to software for high intensity applications --- in aircraft gas turbine engine control

Subject Index

[AIAS PAPER 82-25-251] p0429 A82-35630
Formal specification and mechanical verification of SIFT -- A fault-tolerant flight control system
[AIAS PAPER 82-37466] p0509 A82-40848
HAZIP-II -- A program system for the dynamic analysis of aeronautical structures
[AIAS PAPER 82-40848] p0545 A82-42217
Construction and testing of an omega navigation system for the balloon-borne X-ray experiment
[AIAS PAPER 82-42217] p0549 A82-43111
Interactive graphics design with CODEF
[AIAS PAPER 82-44223] p0554 A82-45608
Flight test results of the model simulation controller for the MD 320 for in-flight simulation of the A310 Airbus
[AIAS PAPER 82-45608] p0030 A82-10107
Computation of high Reynolds number internal/external flows
[AIAS PAPER 82-11046] p0035 A82-11046
Integrated analysis of engine structures
[AIAS PAPER 82-11046] p0041 A82-11194
Structural analysis computer programs for rigid multicomponent pavement structures with discontinuities, WBBLICO and WBSIZER. Report 1: Program development and numerical presentations
[AIAS PAPER 82-11194] p0104 A82-11194
Investigation of the structural degradation and personnel hazards resulting from helicopter composite structures exposed to fires and/or explosions
[AIAS PAPER 82-12057] p0086 A82-12057
Subsonic military aircraft engine intake: An integrated technological design
[AIAS PAPER 82-13073] p0187 A82-16055
Research and development program for non-linear structural modeling with advanced time-temperature dependent constitutive relationships
[AIAS PAPER 82-165531] p0190 A82-16000
Software considerations in airborne systems and equipment certification
[AIAS PAPER 82-16759] p0193 A82-16759
Prediction of sound radiation from different practical jet engine inlets
[AIAS PAPER 82-16150] p0195 A82-16150
Function specifications for the A-7E Function Driver module
[AIAS PAPER 82-17173] p0203 A82-17173
Results of calculations
[AIAS PAPER 82-17198] p0206 A82-17198
Investigation and evaluation of a computer program to simulate three-dimensional flight time tracks
[AIAS PAPER 82-17679] p0215 A82-17679
Modal characteristics of rotor blades: Finite element approach and measurement by ground vibration test
[AIAS PAPER 82-17879] p0245 A82-18127
A-7E software module guide
[AIAS PAPER 82-18127] p0260 A82-18920
Transport aircraft cockpit standardization
[AIAS PAPER 82-18920] p0260 A82-18920
A descriptive study of the application of analysis of variance and regression techniques in an error analysis program for test data obtained in an 16 foot transonic tunnel
[AIAS PAPER 82-19297] p0309 A82-20997
Program for narrow-band analysis of aircraft flyover noise using ensemble averaging techniques
[AIAS PAPER 82-19297] p0359 A82-22109
Lot-126
Analysis of computing system configurations for highly integrated guidance and control systems

Recent applications of the transonic wind analysis computer code, TWING

Enhancements and algorithms for aviation information processing system design methodology

Predictive model for jet engine test cell opacity

Hurricane-induced wind loads

Dynamic System Coupling (DISCO) program. Volume 1

Design of advanced digital flight control systems

Automated procedure for developing hybrid computer samplings of turbfan engines. Part 1

AutoCAD system - materials means and logic functions

Future terminal area systems
Life and Utilization Criteria Identification In Design (LUCID), volume 2
(ITA A 111946)

Control optimization, stabilization and computer algorithms for aircraft applications
[NASA CR-169015]

The Flight Service Automation System (FSAS) system benchmark. Volume 1: Summary, introduction and concepts
[P082-193538]

Panel Optimization with Integrated Software
(P029), Volume 2. User instructions: ECHO and ECHP
(ITA A 1112224

Problems related to the integration of fault tolerant digital avionic miniprocessor computer control systems
[NASA CR-165926]

Examination of the Federal Aviation Administration’s plan for the National Airspace System
(AFM-82-6-66)

COMPUTER SYSTEMS PERFORMANCE

NAS system load - Utilization of the DANS system
P0219 882-23315

Distributed data processing modeling for future ATC systems
P0220 882-23319

Distributed data processing: What is it?
P0196 882-17087

Production of Reliable Flight Crucial Software: Validation Methods Research for Fault Tolerant Avionics and Control Systems Sub-Working Group Meeting
[NASA CR-2222] P0400 882-24845

An analysis of selected enhancements to the en route control system conceptual navigation model
(ITA-413575) P0479 882-28044

Advanced reliability modeling of fault-tolerant computer-based systems
[WASH-TR-40501] P0554 882-30962

COMPUTER SYSTEMS PROGRAMS

RT OPERATING SYSTEMS (COMPUTERS)

An advanced programmable/reconfigurable color graphics display system for crew station technology research
(ITA A 81-2314) P0051 882-13516

Real-time flight management avionics software system
(ITA A 81-2240) P0052 882-13530

Software considerations in the design of computer generated flight displays
P0069 882-14782

Implementing the DANS executive --- Digital Avionics Information System software feasibility for aircraft systems
P0073 882-16814

General purpose real-time interaction panel for digital simulation --- of flight control systems
P0074 882-16831

Real time simulation of computer-animated sequencing of terminal area operations
[NASA CN-166195] P0137 882-14617

Airborne data analysis/sensor system
[NASA CR-2985] P0141 882-15036

Methodology for measurement of fault latency in a digital avionics minicomputer
P0196 882-17105

Hierarchical specification of the SIFT fault tolerant flight control system
P0197 882-17106

COMPUTER SYSTEMS SIMULATION

Performance analysis of enroute air traffic control computers in the National Airspace System
(ITA A 81-2202) P0003 882-10160

Methodology for measurement of fault latency in a digital avionics minicomputer
P0196 882-17105

Advanced reliability modeling of fault-tolerant computer-based systems
[NASA TR-840501] P0564 882-30962

COMPUTER TECHNIQUES

RT [IPAD]

The Maneuvering Flight Path Display - A flight trajectory solution display concept

SUBJECT INDEX

Computer-automated predictive displays for microcode loading approaches

Waveshape synthesis and calibration

Air traffic control problems and solutions

Flight crew management and cockpit performance

Computer flight planning for fuel efficiency

The NAS MEDIT program - Developing new concepts for accurate flight planning

Computational fluid dynamics - The coming revolution

Automating air-traffic control

Outline of a multiple-access communication network based on adaptive arrays

Practical application of a computerized flight by flight fatigue test system

Computer-aided derivation of equations of motion for rotor-wing aerelastic problems

F-16 Centralized Data System /CDS/

Loran-C navigation as an aid to aerial photographic operations

The Aviation Route Forecast /ARF/ program - An interactive system for Pilot Self-Briefing --- computerized weather service

Compilation of abstracts of dissertations, theses, and research papers submitted by candidates for degrees, 1 October 1979 – 30 September 1980

APRA: Controlled requirements expression --- avionics specification through computer techniques
[BAX-TRA5-84] P0007 882-21917

Combining analysis with optimization at Langley Research Center. An evolutionary process
[NASA-TR-84472] P0400 882-24848

Flight data recovery under adverse conditions
P0402 882-25183

AUTOPILOT: A distributed planner for air fleet control
[AD-A107139] P0467 882-27270

A planning system for F-16 air-to-surface missions
P0471 882-27297

Computer program for analysis of spherical scalar distortion
[AD-A113136] P0527 882-28309

COMPUTERIZED CONTROL

U NUMERICAL CONTROL

COMPUTERIZED DESIGN

U COMPUTER-AIDED DESIGN

COMPUTERIZED SIMULATION

RT ANALOG SIMULATION

RT DIGITAL SIMULATION

A new thermal and trajectory model for high altitude balloons
(ITA A 81-1926) P0007 882-10411

Ideal and simulated performance of an aircraft in the terrain following mission
P0013 882-11302

Application of numerical modeling to gas turbine combustor development problems
P0019 882-12118

Low cost programmable multizelector facility
(ITA A 81-2225) P0053 882-13534

Navy performance modeling techniques
(ITA A 81-2431) P0054 882-13869

The need for, and development of, a simulation facility at the Naval Air Test Center
[ITA A 81-2488] P0038 882-13917

Stripdown inertial reference systems performance analysis
P0066 882-14682

A methodology for missile launch envelope display evaluation
P0069 882-14744
<table>
<thead>
<tr>
<th>Subject Index</th>
<th>Computer Simulation cont.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer simulation of an aircraft HVAC electrical system</td>
<td>p0073 482-14819</td>
</tr>
<tr>
<td>Computer simulation of an advanced aircraft electrical system</td>
<td>p0073 482-14821</td>
</tr>
<tr>
<td>A technique for highly uncertain and interacting multivariable flight control systems</td>
<td>p0074 482-14827</td>
</tr>
<tr>
<td>Performance assessment of the iCSC-ROM ejection seat configuration</td>
<td>p0080 482-14890</td>
</tr>
<tr>
<td>Computation of the steady viscous flow over a tri-element canard-wing airfoil</td>
<td>(IAIA PAPER 82-0021) 482-17335</td>
</tr>
<tr>
<td>A simple finite difference procedure for the vortex control of difference</td>
<td>(IAIA PAPER 82-0019) 482-17788</td>
</tr>
<tr>
<td>Computational treatment of transonic canard-wing interactions</td>
<td>(IAIA PAPER 82-0161) 482-17814</td>
</tr>
<tr>
<td>Simulation of shock wave excitation due to hazardous winds</td>
<td>(IAIA PAPER 82-0215) 482-17844</td>
</tr>
<tr>
<td>Digital test pilot concept</td>
<td>p0117 482-17867</td>
</tr>
<tr>
<td>The influence of turbulence models on computer-simulated aircraft landing</td>
<td>(IAIA PAPER 82-0262) 482-17896</td>
</tr>
<tr>
<td>JPDESベルネイ network off-line simulation</td>
<td>p0123 482-18153</td>
</tr>
<tr>
<td>The electromagnetic theta gun and tubular projectiles</td>
<td>p0125 482-18182</td>
</tr>
<tr>
<td>'Integral Noise': An automatic calculation model for the prediction and control of fixed-wing aircraft noise.</td>
<td>p0157 482-19221</td>
</tr>
<tr>
<td>A real time Pegasus propulsion system model for TSTOL piloted simulation evaluation</td>
<td>(IAIA PAPER 81-2663) 482-19234</td>
</tr>
<tr>
<td>Utilization of a hybrid computational equipment for the simulation of parachute system flight</td>
<td>(IAIA PAPER 82-1927) 482-19234</td>
</tr>
<tr>
<td>KC-135 avionics modernization hot bench - An evaluation of requirements and design for the future</td>
<td>(IAIA PAPER 82-1928) 482-19244</td>
</tr>
<tr>
<td>Radar environment simulation for software testing</td>
<td>(IAIA PAPER 82-1929) 482-19245</td>
</tr>
<tr>
<td>SIMAR - An air battle simulation of the USAF Tactical Air Control System (TACS) with Advanced Tactical Raddar</td>
<td>(IAIA PAPER 82-19256) 482-19256</td>
</tr>
<tr>
<td>Simulation of advanced cockpits</td>
<td>(IAIA PAPER 82-19259) 482-19259</td>
</tr>
<tr>
<td>Development of a digital integrated automatic landing system /DIALS/ for steep approach and landing</td>
<td>p0168 482-20297</td>
</tr>
<tr>
<td>A perspective of computational aerodynamics from the viewpoint of airplane design applications</td>
<td>(IAIA PAPER 82-0016) 482-22028</td>
</tr>
<tr>
<td>Isolated nacelle performance - Measurement and simulation</td>
<td>p0163 482-22028</td>
</tr>
<tr>
<td>(IAIA PAPER 82-0134) 482-22054</td>
<td>p0104 482-22054</td>
</tr>
<tr>
<td>GTO terrain reflection model applied to ILS glide scope - Geometrical Theory of Diffraction</td>
<td>(IAIA PAPER 82-0204) 482-22056</td>
</tr>
<tr>
<td>Aircraft parameter identification in the presence of atmospheric turbulence</td>
<td>p0218 482-23027</td>
</tr>
<tr>
<td>A microwave landing system simulation</td>
<td>p0218 482-23227</td>
</tr>
<tr>
<td>Calculation and measurement of electric field strength for airborne antennas in the LF/RF range</td>
<td>p0220 482-23323</td>
</tr>
<tr>
<td>Radome rain damage - An environmental analysis technique</td>
<td>p0202 482-25011</td>
</tr>
<tr>
<td>Mathematical modeling of ice accretion on airfoils</td>
<td>(IAIA PAPER 82-27098) 482-26646</td>
</tr>
<tr>
<td>Effect of contrast on space perception in TV displays of the external scene observed by the pilot - German book</td>
<td>(IAIA PAPER 82-27098) 482-26646</td>
</tr>
<tr>
<td>A Schwarz-Christoffel method for generating internal flow grids</td>
<td>p0297 482-28395</td>
</tr>
</tbody>
</table>

A-129
A-131
Control law design to meet constraints using STDPAC-synthesis package for active controls [NASA-TM-83264] p0356 A82-22280

As an analytical study of turbulence response characteristics, including horizontal tail loads, of a control configured jet transport with relaxed static stability

Design, simulation and evaluation of advanced display concepts for the F-16 control configured vehicle

Integrative application of active controls (IAAC) technology to an advanced subsonic transport project. Initial act configuration design study [NASA-CR-159269] p0593 A82-32380

CONTROL DEVICES

U CONTROL EQUIPMENT

WT CONTROL STICKS
WT CONTROL SURFACES
WT SPEED REGULATORS

Considerations and applications for the use of flulides in aerospace controls p0019 A82-12087

The interface of multifunction controls and displays to tomorrow's avionics [AIAA 81-2290] p0049 A82-13499

The use of separated multifunction inertial sensors for flight control [AIAA 81-2295] p0050 A82-13502

The integration of control and display concepts for improved pilot situational awareness p0061 A82-13972

Fixed gain controller design for aircraft p0221 A82-23641

F/A-18 weapon system development p0223 A82-23774

Fatigue test of the typical main rotor control component p0260 A82-24715

AFFAL turbine engine controls research and development - Present and future [AIAA PAPER 82-0321] p0262 A82-25050

TURBOMATS - A programing language for the performance simulation of arbitrary gas turbine engines with arbitrary control systems [ASME PAPER 82-GT-200] p0247 A82-35396

Simplified digital design tools p0335 A82-37034

Generic faults and design solutions for flight-critical systems [AIAA 82-1595] p0465 A82-39090

Primary-data devices --- Russian book [ASABD-CP-312] p0092 H82-13053

DESIGN STRATEGIES

Flight experience with a backup flight-control component p0491 A82-39279

Flight experience with a backup flight-control system for the NASA research vehicle [AIAA PAPER 82-1041] p0497 A82-34029

Theoretical and experimental investigations of some nonlinear characteristics of electrohydraulic servovalves --- German thesis p0552 A82-93660

Management of redundancy in flight control systems using optimal decision theory p0639 A82-11084

The impact of new guidance and control systems on military aircraft cockpit design p0691 A82-13058

Integration of controls and displays in US Army helicopter cockpits p0691 A82-13048

A standard control display unit for multi-aircraft application p0692 A82-13053

Sensor failure detection system --- for the F100 turborum engine [NASA-CR-165515] p0100 A82-13145

Current pressure measuring system on the transonic wind tunnel. [AD-106272] p0192 A82-16096

Three-engine control system for the prototype [NASA-CR-AR-12177-1] p0246 A82-18135


The B-747 flight control system maintenance and reliability data base for cost effectiveness tradeoff studies [NASA-CR-159275] p0593 A82-32378

CONTROL PANELS

U CONTROL BOARDS

CONTROL HOISTS

Current perspectives on emergency spin-recovery systems p0549 A82-41264

CONTROL SIMULATION

An approach to robust nonlinear control design --- with illustration of J-85 turbojet engine simulation p0045 A82-13128

Avionics systems simulation for the Northrop T-38A aircraft [AIAA 81-2274] p0049 A82-13488

Modeling procedures for handling qualities evaluation of flexible aircraft p0061 A82-13968

Real-time simulation of helicopter ZP2 approaches into major terminal areas using BHA, MLS, and CDTI [AIAA PAPER 82-0260] p0118 A82-17068

The use of adaptive control for helicopter trajectories in search operations p0154 A82-19065

Modelling of target radar scattering with application to guidance simulation p0175 A82-20570

Propulsion system controls design and simulation [AIAA PAPER 82-0322] p0185 A82-22091

The simulation study on a redundant flight control system p0185 A82-22120

Evaluation of a multivariable control design on a variable cycle engine simulation p0338 A82-13762

Piloted simulator evaluation of a relaxed static stability fighter at high angle-of-attack [AIAA PAPER 82-1295] p0406 A82-39082

Sensor stabilization requirements of HFPA's - a simulation study p0494 A82-39741

The design of a HFPA ground station simulator p0495 A82-39750

Statistical analysis of piloted simulation of real-time trajectory optimization algorithms p0549 A82-43261

Use of DYNL in-flight simulator HPB 320 NASA for handling qualities investigations p0577 A82-45146

A general aviation simulator evaluation of a rate-enhanced instrument landing system display [NASA-TP-1960] p0133 A82-14005

Ergonomic techniques for active flutter suppression [NASA-CR-16931] p0396 A82-24206

CONTROL STABILITY

The use of observers on relaxed static stability aircraft p0368 A82-14740

Flutter mode suppression using hyperstable feedback [AIAA PAPER 82-0368] p0120 A82-17908

Model control of relaxed static stability aircraft [AIAA 82-1524] p0684 A82-38949

Characteristic and principal gains and phases and their use as multivariable control design tools --- generalizing Nyquist and root-locus diagram techniques p0629 A82-10050

Design of high integrity multivariable control systems p0630 A82-10055

In-flight investigation of the effects of pilot location and control system design on airplane flying qualities for approach and landing [NASA-CR-163115] p0145 A82-15074

A control model for maneuvering flight for application to a computer-flight testing program p0249 A82-18153

Apparatus for damping operator induced oscillations of a controlled system --- flight control [NASA-CASE-PFIC-1104-1-1] p0259 A82-18493

Effect of素质 and vertical-tail rudder on the performance of a 3-surface F-15 model at transonic Mach numbers --- Langley 16 foot transonic tunnel [NASA-TP-2043] p0586 A82-32320

CONTROL STICKS

Stimulator investigations of various side-stick controller/stability and control augmentation
systems for helicopter terrain flight
[AIAA 82-1522] p0084 A82-38942
Ground calibration of a strain-gauged CT-4A
aircraft [1979] [AD-A107847] p0189 H82-16073

CONTROL SURFACES
CT SPECIAL RUDDERS
CT AILERONS
CT ELEVATORS (CONTROL SURFACES)
CT ELEVONS
CT EXTREMELY BLOWN FLAPS
CT FLAPS (CONTROL SURFACES)
CT GUID VANS
CT HORIzONTAL TAIL SURFACES
CT JET FLAPS
CT JET FADES
CT LEADING EDGE FLAPS
CT LEADING EDGE SPLATS
CT RUdDERS
CT SPiLT FLAPS
CT SPOLIER SLOt AILERONS
CT SPOLIERS
CT TABS (CONTROL SURFACES)
CT TRAILING-EDGE FLAPS
CT UPPER SURFACE BLOWN FLAPS
CT WING FLAPS
Direct digital design method for reconfigurable
saturizable control laws for the A-7D Digitac
II aircraft p0074 A82-14828
Stress intensity factor measurements in composite
sandwich structures p0113 A82-17535
Concerning the calculation of the aerodynamic
characteristics of mechanismed wings p0127 A82-18589
Wing/control surface flutter analysis using
experimentally corrected aerodynamics
p0263 A82-26569
Analysis of a multifingered espenasse with allowance
for shear strain p0333 A82-29384
Method for the measurement of elastic deformations
of aircraft models in a wind tunnel
p0386 A82-34162
The use of differential pressure feedback in an
automatic flight control system
[AIAA 82-1596] p0405 A82-18981
Analysis of jet transport wings with deflected
control surfaces by using a combination of 2-
and 3-D methods p0517 A82-41022
On the kernel function collocation method in
steady subsonic flow for wing with control
surfaces p0642 H82-12023
Force and moment, flow-visualization, and
boundary-layer tests on a shuttle orbiter model
at Mach 6 [NASA-TP-1952] p0997 H82-13110
Pressure distributions on three different
crusieflor aft-tail control surfaces of a
wingless airplane at Mach 1.60, 2.36, and 3.70.
Volume I: Trapezoidal tail
[NASA-TR-80097] p0998 H82-13110
A program to evaluate a control system based on
feedback of aerodynamic pressure differentials
[NASA-CR-163466] p0191 H82-16089
Influence of stroke on coefficients of
longitudinal stability
[BB-PE-122/SPUB/22] p3319 H82-21215
Eigenspace techniques for active flutter suppression
[NASA-CR-168321] p3396 A82-29206
Use of the Pseudo-inverse for design of a
reconfigurable flight control system
[AD-A111712] p0409 H82-25264
ElectroMechanical Actuation Development Program
(EADP). Power control development
[AD-A111724] p0572 H82-31694

CONTROL SYSTEMS
CONTROL THEOREY
Design considerations for the direct digital
control of dry-tuned gyroscope
p0017 A82-11933
Control of electromechanical actuator elements for
flight vehicles -- Russian book p0020 A82-12170
Robust flight control -- A design example
p0082 A82-15845
An application of total synthesis to robust
coupled design -- turbojet engine control
p0154 A82-19601
Analysis and optimization of control systems in
unmanned flight vehicles -- Russian book
p0001 A82-22398
The role of modern control theory in the design of
controls for aircraft turbine engines
[AIAA PAPER 82-0320] p0262 A82-26526
Development of a control law for the alleviation of
maneuver loads on an elastic aircraft
p0388 A82-34184
A practical approach to the design of
saturable variable control strategies for gas turbines
[AIAA PAPER 82-01-150] p0426 A82-35374
Application of saturable model following
method to flight controller
[AIAA PAPER 82-1349] p0488 A82-39120
A modern approach to pilot/vehicle analysis and
the Heav-Smith criteria p0489 A82-39125
Control of the operations of a 'flight complex'
--- Russian on ground installations to aid air
and space navigation p0577 A82-45213
Theory and applications of optimal control in
aerospace systems
[AD-A116-251] p0338 H82-11073
An introduction to stochastic optimal control theory
p0338 H82-11076
Computational methods of robust control design
for aerodynamic flutter suppression
[NASA-CR-164983] p0889 H82-12080
Fixed gain controller design for aircraft
[AD-A104877] p0889 H82-12081
Parallel computation for developing nonlinear
control procedures
[AD-A107516] p0209 H82-17227
The influence of sensor and actuator
characteristics on overall helicopter AFCS design
p0251 H82-18171
Digital command augmentation for
lateral-directional aircraft dynamics
[AD-A110274] p0319 H82-21214
The role of modern control theory in the design of
controls for aircraft turbine engines
[NASA-TR-62015] p0354 A82-22262
Application of modal control to wing-flutter
suppression
[NASA-TP-1983] p0396 H82-24209
Tactical systems approach to interdiction of 2nd
echelon moving targets using real time sensors
p0472 H82-27306
Digital command augmentation for lateral
directional aircraft dynamics
[AD-A107246] p0474 H82-27321
Applications to aeronautics of the theory of
transformations of nonlinear systems
[NASA-TR-84239] p0580 H82-30013
Design of advanced digital flight control systems
via Command Generator Tracker (CGT) synthesis
methods, volume I
[AD-A115510] p0570 H82-31313
Design of analytical failure detection using
secondary observers
[NASA-TR-84284] p0590 H82-32362
System optimization by periodic control
[AD-A117815] p0611 H82-33402

CONTROL VALVES
Cavitation inception in spool valves
p0105 A82-16428
An ejector suggested choking valve for the
metering and control of inlet and bleed duct flows
p0336 A82-29469
Flight tests of a GE and DCI direct drive fly by
wire flight control system
[AD-A117246] p0611 H82-33401

CONTROLLIBILITY
Flight test experience with high-alpha control
system techniques on the F-14 airplane
[AIAA PAPER 81-2505] p0507 A82-13906
Comparison of low-speed handling qualities in
ground-based and in-flight simulator tests
[AIAA PAPER 81-2478] p0509 A82-13936
Modeling procedures for handling qualities
evaluation of flexible aircraft
p0601 A82-13968

A-135
COBTBOLLED ATBOSBBBS

Requirements and possible design choices for
Flying qualities requirements for roll CAS systems
Guidance for the use of equivalent systems with
Prediction of aircraft handling qualities using
Theoretical investigation of the influence of
Simulator investigations of various side-stick
Pilot models for discrete maneuvers
Analytical control law for desirable aircraft
Enhanced aircraft handling qualities by
lateral handling qualities
Handling qualities criteria for flight path
In-flight investigation of large airplane flying
Guidance for the use of equivalent systems with

In-flight deflection measurement of the HiHAT
aeroelastically tailored wing
Enhanced aircraft handling qualities by
longitudinal dynamics mode decoupling
Analytical control law for desirable aircraft
lateral handling qualities
Pilot models for discrete maneuvers
Simulator investigations of various side-stick
controller/stability and control augmentation
systems for helicopter terrain flight
Pilot models for discrete maneuvers
Handling qualities criteria for flight path
controller of V/STOL aircraft
In-flight investigation of large airplane flying
qualities for approach and landing
Guidance for the use of equivalent systems with
HIL-F-7095C --- for airplane flight control systems
Flying qualities requirements for roll CAS systems
Requirements and possible design choices for
improving the operation of aircraft in the
terrestrial control area
Theoretical investigation of the influence of
spoiler dynamics on the handling qualities of
an aircraft with direct lift control
Limited evaluation of an F-14a airplane utilizing
an aileron-rudder interconnect control system in the
landing configuration
In-flight investigation of the effects of pilot
location and control system design on airplane
flying qualities for approach and landing
Stiffness degradation of impact damaged structure
A translational velocity command system for V/STOL
low speed flight
A review of recent NASA Supersonics on the angle of
attack capability of Combat aircraft
Helicopter Handling Qualities
V/STOL and V/STOL handling qualities specifications,
as an overview of the current status
A helicopter handling-qualities study of the
effects of engine response characteristics,
height-control dynamics, and excess power on
nap-of-the-Earth operations
Unified results of several analytical and
experimental studies of helicopter handling
qualities in visual terrain flight
An assessment of various side-stack
controller/stability and control augmentation
systems for night nap-of-Earth flight using
piloted simulation
Prediction of aircraft handling qualities using
analytical models of the human pilot
Evaluations of helicopter instrument-flight
handling qualities
Analytical and simulator study of advanced transport
systems
A discussion of the flying quality requirements of
a basic training aircraft
Effects of higher order control systems on
aircraft approach and landing longitudinal
handling qualities

In-flight investigation of large airplane flying
qualities for approach and landing

Theoretical investigation of the influence of
spoiler dynamics on the handling qualities of
an aircraft with direct lift control

Feedback and minimal sensitivity

Development of multivariable controllers for
cruise turbine engines
Computational methods of robust controller design
for aerodynamic flutter suppression
An investigation of multi-axis isometric side-arm
controllers in a variable stability helicopter
Self-tuning regulators for multicyclic control of
helicopter vibration
An assessment of various side-stack
controller/stability and control augmentation
systems for night nap-of-Earth flight using
piloted simulation
Some piloting experiences with multifunction
isometric side-arm controllers in a helicopter
Active flap suppression using optical output
feedback digital controllers
Universal turret system model determination and
controller performance testing

CONVAIR MILITARY AIRCRAFT

Gas turbine ceramic-coated-vane concept with
convection-cooled porous metal core
Gas turbine ceramic-coated-vane concept with
convection-cooled porous metal core

CONVEX CORBETS

Considerations for optimum siting of NEXRAD to
detect convective phenomena hazardous to
terminal air navigation, part I ---
meteorological radar

CONVEX FLOR

Reconfigurable cockpit systems and avionics
operations

CONVEXV HAY TURF TRANSFER

Finite element thermal analysis of
convection-cooled aircraft structures

Measurements of heat transfer coefficients on gas
turbine components. I -- Description, analysis
and experimental verification of a technique for
use in hostile environments
Measurements of heat transfer coefficients on gas
turbine components. II -- Applications of the
technique described in part I and comparisons
with results from a conventional measuring
technique and predictions
The use of analog computers in solutions of
inverse problems of heat conduction for the
temperature at the surface of gas-turbine-engine parts on the
basis of temperature-measurement results

A-136
Corrosion and prevention of corrosion in aircraft.

- Corrosion prevention methods developed from direct observations and experience with aerospace structures.
- Corrosion control measures for military aircraft: Present UK requirements and future developments.
- Corrosion prevention methods developed from direct experience with aerospace structures.
- Corrosion prevention measures used in the construction of an aircraft airframe: The case of 2014 and 2214 alloys.

Recent developments in materials and processes for aircraft corrosion control.

- Simulation of correlation-extremal receivers of signals from sampling-phase radio-navigation systems.
- Design and maintenance against corrosion of aircraft structures.

Corrosion Resistance:

- A new approach to the problem of stress corrosion cracking in 7075-T6 aluminum.
- Materials aspects of aircraft ECS design.
- Aircraft surface coatings for drag reduction/erosion protection.
- Where is cobalt irreplaceable?

Recent developments in materials and processes for aircraft corrosion control.

- Attack on superalloys by chemical and electrolytic processes.
- Corrosion inhibiting engine oils.
- Corrosion test methods for avionic components.

Corrosion tests:

- Engine experience of turbine rotor blade materials and coatings.
- Corrosion control test method for avionic components.

Corrugated plates:

- Non-honeycomb F-16 horizontal stabilizer structural design.

Cost analysis:

- Costs of noise nuisance from aircraft.
- The Federal Aviation Administration Plan.

Cost benefit studies of advanced materials technologies for future aircraft turbine engines: Materials for advanced turbine engines.
COUPLING

Dynamic analysis of a rotor blade with flap and lag freedom and flap-lag-pitch coupling
[ISO-271] p0214 A82-17661

COUPLING Scatter Analysis

A finite element analysis of coupled rotor fuselage vibration
[AIAA PAPER 81-21] p0442 A82-37792

Aircraft Applications of Dynamic System Coupling (DISCO) program Volume 1: Users manual
[AD-A115003] p0573 A82-31974

Aircraft Applications of Dynamic System Coupling (DISCO) program Volume 2: Theoretical manual
[AD-A115004] p0573 A82-31975

COUPLING COUPLERS

Aeroelastic characteristics of a stabilized bladed-disc assembly
[p0301 A82-20142

COUPLING COUPLERS

Flight testing the nonmetallic spline coupling technology at the Naval Air Test Center
[AIAA PAPER 81-2005] p0056 A82-13891

COTANGENTS

Applications of covariance analysis simulation to avionics flight testing
[p070 A82-14676

COVARIANCE

Co-pol order time sharing filters for IHS
in-flight alignment
[p0482 A82-38439

COWELL METHOD

U MECHANICAL INTEGRATION

COUPLINGS

Low speed testing of the inlets designed for a tandem-fan Y/SVL nacelle --- conducted in the Lewis 10 by 10 foot wind tunnel
[NASA-TR-82-2728] p0004 A82-11042

Thrust reverser for a long duct fan engine --- for turbofan engines
[NASA-CASE-LV-13199-1] p0453 A82-26293

CRACK CLOSURE

A crack-closure model for predicting fatigue crack growth under aircraft spectra loading
[p0168 A82-20509

A simple crack closure model for prediction of fatigue crack growth rates under variable-amplitude loading
[p0284 A82-26630

CRACK FORMATION

U CRACK INITIATION

Introduction to the principles of fracture mechanics
[p0273 A82-25550

COVARIANCE

Covariance analysis of surface-flawed aircraft attachment logs - A new, inexpensive, 3-D alternating method
[AIAA 82-0742] p0013 A82-12119

Covariance analysis of turbine blade nonlinear structural and life analysis
[AIAA PAPER 82-1056] p0415 A82-34981

COVARIANCE

An analogy method for crack initiation life prediction
[p0577 A82-45192

COVARIANCE

Effects of cyclic loading on projectile impact damage
[p0202 A82-17167

CORROSION

Corrosion fatigue behaviour of some aluminum alloys
[p0210 A82-17345

CRACK PROPAGATION

Acoustic emission - An emerging technology for assessing fatigue damage in aircraft structure
[2: Theoretical manual]

Crack growth evaluation of a method to convert real-time loads history to a simplified engineering spectra --- for aircraft structural analysis
[p0018 A82-12043

Study of the load-carrying capacity of aviation gas-turbine engine impellers under low-cycle loading at normal and high temperatures
[p0038 A82-15482

Crack edge instability - A criterion for safe crack propagation limit in thin sheets
[p0012 A82-15482

Inclusions and service induced cracks in a mature population of gas turbine engine bearings
[AIAA PAPER 81-1284-98] p027 A82-1844

Methods and models for predicting fatigue crack growth under random loading --- Book
[p0168 A82-20506

A crack-closure model for predicting fatigue crack growth under aircraft spectra loading
[p0168 A82-20509

COUPLING COUPLERS

Multi-parameter yield zone model for predicting spectrum crack growth
[p0168 A82-20510

Crack growth behavior of center-cracked panels under random spectrum loading
[p0169 A82-20511

Random spectrum fatigue crack life predictions with or without considering load interactions
[p0169 A82-20512

Low-frequency eddy current inspection of aircraft structure
[p0103 A82-21900

Application of fatigue, crack propagation and strain survey testing to the CH-46 aft rotor drive shaft
[p0238 A82-24705

Introduction to the principles of fracture mechanics
[p0273 A82-25550

A simple crack closure model for prediction of fatigue crack growth rates under variable-amplitude loading
[p0284 A82-26630

Fracture mechanics technology applied to individual aircraft tracking --- durability and structural life estimates
[p0284 A82-26637

Evaluation of crack growth rates for service life tracking
[p0284 A82-26652

Prediction of cyclic growth of cracks and debonds in aluminum sheets reinforced with boron/epoxy
[p0288 A82-27151

A multidimensional-crack-growth prediction methodology for flaws originating at fastener holes
[p0327 A82-28932

Material flow and defect formation in forging an airfoil shape from metal-matrix composites
[p0328 A82-33995

A review and assessment of fatigue crack growth rate relationships for metallic airframe materials
[p0391 A82-36879

A procedure for evaluating fuel composition effects on combustor life
[p0430 A82-35465

Cracks interacting with contact forces - A finite element study on loaded holes
[p0511 A82-40959

In-flight acoustic emission monitoring
[p0548 A82-42865

A fatigue crack growth theory based on strain energy density factor
[p0552 A82-43782

Prediction of fatigue crack propagation in plane specimen and thin-walled structural elements of aircraft wing skin under programmed loading
[p0584 A82-44729

Corrosion fatigue behaviour of some aluminum alloys
[p0210 A82-17345

Fracture and fatigue characterization of aircraft structural materials under biaxial loading
[AD-A100950] p0269 A82-19587

Acera Aeronautica et Astronautica Sistemas
[AD-A100282] p0312 A82-21153

Review of aeronautical fatigue investigations in the Netherlands, March 1979 - February 1981
[MLK-NP-81006-0] p0343 A82-22153

Engineering property comparisons of 7050-T73651, 7070-T72631 and 7070-T73651 aluminum alloy plate --- for aircraft construction

Subject Index

Crew Procedure (Inflight)

Crew Procedure (Inflight)
Characterization of a Paris-New York flight on board the Concorde

Crew Stations
An advanced programmable/reconfigurable color graphics display system for crew station technology research

Tanker Avionics/Aircr 0 Complement Evaluation (TACE), Phase 1: System evaluation

Volume 2: Crew system design

Crews


t Flight crews

Criteria

#2 structural Design criteria

Critical Flow
Aerodynamic calculations and design of subcritical aerofoils

Critical Loading
Impact-initiated damage thresholds in composites

The stability of monocoque panels under bending

Variational equation of an eccentrically reinforced panel with allowance for nonuniform heating

Critical Mach Number

U Mach number

Critical Reynolds Number

u Re yolds number

Critical Stress

U Critical loading

Critical Temperature

Development of the automated AFAPL engine simulator test for lubricant evaluation

Crop Dosing
Agricultural airplane mission time structure

Characteristics

[NASA-TH-84070] p0537 N82-29329

Crop Coupling

The coupling of electromagnetic interference into aircraft systems

The use of a multi-degree-of-freedom dual balance system to measure cross and cross-coupling derivatives

[ASA-82-0559] p0237 N82-24659

Cross and cross-coupling derivative measurements on the standard dynamics model at NADC

[ASA-82-0559] p0237 N82-24670

Evaluation and wind tunnel tests of the 6,000 lb. (normal-force) pitch/yaw and roll dynamic stability balance systems for measuring direct, cross, and cross-coupling derivatives

[AD-1105122] p0205 N82-12047

The use of a multi-degree-of-freedom dual balance system to measure cross and cross-coupling derivatives

[AD-1114811] p0538 N82-29333

Cross Flow

Experimental investigation of a jet inclined to a subsonic crossflow

[ASA PAPER 81-2610] p0155 N82-19202

Crossflow shock on the suction side of a flat delta wing with supersonic leading edges

[ASA-82-29659] p0332 N82-29659

Seal-empirical analysis of liquid fuel distribution downstream of a plain orifice injector under cross-stream air flow

[ASME PAPER 82-GT-16] p0420 N82-35265

Effect of crossflows on the discharge coefficient of film cooling holes

[ASME PAPER 82-GT-16] p0426 N82-35371

Two-dimensional apparent senses for cross-flow sections of wing/store configurations

[AD-1114811] p0538 N82-296801

A numerical three-dimensional turbulent simulation of a subsonic F50L jet in a cross-flow using a finite element algorithm

[AD-1105122] p0366 N82-11055

Amplified crossflow disturbances in the laminar boundary layer on swept wings with suction

[ASA-TP-1902] p0041 N82-11391

Aircraft Fire Protection

Cryogenic wind tunnel for high Reynolds number testing

Abstracts

Cryogenic equipment

Cryogenic technology, parts 1 and 2 conference proceedings; cryogenic wind tunnel design and instrumentation

[ASABE PAPEB 82-GT-147] p0426 N82-35371

Cryogenic technology, parts 2 conference proceedings; cryogenic wind tunnel design and instrumentation

[ASA-TH-84070] p0537 N82-29329

Cryogenic cooling

The cryogenic wind tunnel for high Reynolds number testing

A numerical approach to co-axial rotor aerodynamics

A computer program for the prediction of near field noise of aircraft in crossing flight

[NASA-CP-308] p0360 N82-22175

Cruise Airplane

Aerodynamic design for cruise performance efficiency

Wind tunnel investigation of high speed rotor noise

A numerical approach to co-axial rotor aerodynamics

A computer program for the prediction of near field noise of aircraft in crossing flight

[NASA-CP-308] p0360 N82-22175

Cruise Flight

Energy savings with today's technology --- aircraft fuel management through in-flight monitoring

Minimal cost atmospheric cruise control - most efficient airspeed for a given wind component

Checking and calibrating variometers in place in the missile instrument panel

Commercial transports - aerodynamic design for cruise performance efficiency

Wind tunnel investigation of high speed rotor noise

A numerical approach to co-axial rotor aerodynamics

A computer program for the prediction of near field noise of aircraft in crossing flight

[NASA-CP-308] p0360 N82-22175

Cruise Missiles

Performance considerations in the design of subsonic cruise missiles

Prediction of cruise missile inlet peak instantaneous distortion patterns from steady state and turbulence data using a statistical technique

The cruise missile era dawns

Optimal terrain-following feedback control for advanced cruise missiles

Cryogenic Wind Tunnel Design

Design predictions for noise control in the cryogenic National Transonic Facility

Cryogenic Cooling

The cryogenic wind tunnel for high Reynolds number testing

Cryogenic Equipment

Cryogenic technology, part 1 conference proceedings; cryogenic wind tunnel design and instrumentation

[ASABE PAPEB 82-GT-147] p0426 N82-35371

Cryogenic technology, part 2 conference proceedings; cryogenic wind tunnel design and instrumentation

[ASABE PAPEB 82-GT-147] p0426 N82-35371

Cryogenic Fluids

Liquid hydrogen

Cryogenic Rocket Propellants

Liquid hydrogen propulsion

Cryogenic Wind Tunnel Design

Design predictions for noise control in the cryogenic National Transonic Facility

A-142
The development of cryogenic wind tunnels and their application to maneuvering aircraft technology

Recent sidewall boundary-layer investigations with suction in the Langley 0.3-m Transonic Cryogenic Tunnel
[AIAA Paper 82-0234]
p0117 AB2-17656

Investigation of a cryogenic blending process to produce antistatic diesel fuels
[AD-A1110917]
p0425 AB2-35346

Cryogenic wind tunnels: A selected, annotated bibliography
[NASA-PF-46747]
p0611 AB2-33405

Cryogenics

Cryogenic turbine testing
[ADPE Paper 82-GT-113]
p0425 AB2-35346

Performance of the ABDC Mark 1 aerospace Environmental Chamber without oil diffusion
[AD-A1114066]
p0457 AB2-26322

Cryopumping

Implementing aircraft identification schemes by

Cryotubing

Cryogenic turbine testing

Cryogenic tunnel utilization

Cryophysics

Cryopumping

Cryograph

Implementing aircraft identification schemes by

Cryptography
DATA ACQUISITION

New estimation method for flutter or divergence boundary from random responses at subcritical speeds [NRL-TR-5671]

Experiments and analytical studies of advanced air cushion landing systems [NASA-CR-3476]

Development and trial of a runway balance for the three low-speed wind tunnels in the Federal Republic of Germany [DREP-P-9-61-022]

Conditions of generation and methods of damping the inlet vortex of a turbojet engine [NASA-TD-7678]

Comparison of analytical and wind-tunnel results for flutter and gust response of a transport with active controls [NASA-TP-2010]

A research program to reduce interior noise in general aviation airplanes. Influence of depressurization and damping material on the noise reduction characteristics of flat and curved stiffened panels [NASA-CR-169035]

Damping blade node damping identification from random components using a recursive maximum likelihood algorithm [NASA-CR-3600]

DAMPING FACTOR

U DAMPING

DAMPING IN PITCH

U DAMPING

U PITCH (INCLINATION)

DAMPING IN ROLL

U DAMPING

U ROLL

DAMPING IN TAW

DAMPING

U TAW

DAMPING TESTS

Dry friction damping mechanisms in engine blades [NASA PAPER 82-GT-162]

Study of noise reduction characteristics of composite fiber-reinforced panels, interior panel configurations, and the application of the tuned dumper concept [NASA-CR-168943]

Development of experimentally compatible subsystem methods for the analysis of aircraft structures [AD-A111262]

The vibratory behavior of a rotating propeller shaft. Part 4: Fatigue tests of a rotating propeller shaft in a rubber stern tube bearing — ship propellers [JWSS-5072208-81-PT-2]

DARPNESS

U BIOLITE CONTENT

DRAG

U HAZARDS

DARK TURBOPROP ENGINES

U TURBOPROP ENGINES

DASSAULT AIRCRAFT

AT KIRAGE AIRCRAFT

DATA ACQUISITION

A microprocessor-based data acquisition system for steel/spin research [AIAA 81-2177]

FAD developing new collision avoidance, data acquisition and transmission systems [AIAA 81-2177]

The development and use of a computer-interactive data acquisition and display system in a flight environment [AIAA PAPER 81-2371]

Development of a simple, self-contained flight test data acquisition system [AIAA PAPER 81-2371]

Data systems organization — a change for the better — flight test data acquisition

Color graphics based real-time telemetry processing system

Flow visualization using a computerized data acquisition system

Flight test data acquisition and interpretation

Advanced medium scale real-time system --- for Army helicopter tests

ATLAS/test data provision for the Tornado ATC - a challenging task

Test facility and data handling system for the development of axial compressors [ASME PAPER AG-6777-73]

Acquisition of F-100/J high pressure compressor entrance profiles [ASME PAPER AS-962-215]

A single-frequency multitransmitter telemetry technique

The detection of low level wind shear. II

Economic analysis for data base management

APFIC standard airspeed calibration procedures [AD-A108830]

An acquisition and analysis system for dynamic tests of airfoils [NASA 82-13082]

NASA Dryden Flight Loads Research Facility

Programs for the transonic wind tunnel data processing installation. Part 9: Pressure measurements updated [AD-A106271]

A versatile data acquisition system for a low speed wind tunnel [AD-A106269]

Development of a simple, self-contained flight test data acquisition system [NASA-CR-168438]

Test site instrumentation study. Volume 2: Crash 1 and crash 2 raw data [PB-82-11132]

Review of rotorcraft accidents 1977-1979 [NBB-115601]

Development of a simple, self-contained flight test data acquisition system [NASA-CR-168943]

V/STOL tilt rotor research aircraft. Volume 1: General information, revision C [NASA-CR-166347]


V/STOL tilt rotor research aircraft. Volume 4: CER technical data [NASA-CR-166350]

On-line experiments in acquiring and exploiting ADES data for ATC purposes [PB-82-25175]

Hardware and software integration for concurrent data acquisition and reduction of photon correlated laser Doppler velocimetry [AD-A111166]

Source assessment system [AD-A111223]

Design of a data acquisition and reduction system for fatigue testing [AD-A110612]

Advanced trending analysis/EDS data processing [AD-A113511]

Reduction and analysis of mode C attitude data collected at high altitudes over the continental United States [NASA-TH-84510]

Data acquisition system for NASA Langley research facility [NASA-TR-84510]

Reliability, availability, maintainability data Tracking Plan improved GBDRAIL 5 [AD-A117933]

DATA ADAPTIVE EVALUATORS/MONITOR

U DATA PROCESSING

U DATA REDUCTION

U DATA TRANSFORMATION

DATA ANALYSIS

U DATA PROCESSING

U DATA REDUCTION

DATA BASE MANAGEMENT SYSTEMS

Opto-electronic push-broom scanners for
DATA BASES

- Navigation, reconnaissance and generation of digital data bases
- Economic analysis for data base management
- Electronic Warfare Avionics Integration Support Facility support processor
- Source assessment system

DATA BASICS

- Aircraft alerting systems standardization study
- Data base generation for digital external view systems
- Analysis of system problems using aviation safety reporting system data
- Airborne data analysis/monitor system
- ADS/B executive and operating system
- Aeronautical Information Data Subsystem (AIDS): A digital executive and operating system
- Aircraft alerting systems standardization study
- Experimental investigation of turbine endwall heat transfer. Volume 1: Description of experimental hardware and test conditions
- Experimental investigation of turbine endwall heat transfer. Volume 2: Experimental data
- A recursive terrain height correlation system in the ultra high frequency air traffic control air/ground communication band

DATA BOUNDARIES

- Data compression
- Data correlation
- Signal analysis

DATA CHANNELS (DATA TRANSMISSION)

- Data compression
- Data correlation
- Signal analysis

DATA PROCESSING

- Electronic Warfare Avionics Integration Support Facility support processor
- Source assessment system

DATA BASES

- Aircraft alerting systems standardization study
- Data base generation for digital external view systems
- Analysis of system problems using aviation safety reporting system data
- Airborne data analysis/monitor system
- ADS/B executive and operating system
- Aeronautical Information Data Subsystem (AIDS): A digital executive and operating system
- Aircraft alerting systems standardization study
- Experimental investigation of turbine endwall heat transfer. Volume 1: Description of experimental hardware and test conditions
- Experimental investigation of turbine endwall heat transfer. Volume 2: Experimental data
- A recursive terrain height correlation system in the ultra high frequency air traffic control air/ground communication band
DEICING

Transparencies - What an aircraft designer should know
[ NASA-CS-169266 ]

DEVICES

DEPLOYS

DELIVERY

DEPOT

DEPOT WEAPONS DELIVERY

DELTA DAVT AIRCRAFT

U 7-106 AIRCRAFT

DELTA WINGS

Formation of triangular-element stiffness matrix
using sliding interpolation

Increasing the lift:drag ratio of a flat delta wing

Use of high conical flow theory for the
determination of the pressure distribution on
the wave rider and its agreement with
experimental results for supersonic flow

Aerodynamic characteristics of wave riders at
subsonic flight speeds

Clarification of the subsonic pitch-up of
delta wings with supersonic leading edges

Static and unsteady pressure measurements on a 50
degree delta wing at B = 0.9

On the vortex flow over delta and double-delta wings

Chordwise and compressibility corrections for
arbitrary planform slender wings

Leading edge separation at delta wings with curved
leading edges in supersonic flow

Measurements and visualisation of skin friction on
the leeside of delta wings in supersonic flow

Measurements of velocity distributions in the
leading edge vortex of a delta wing by the
laser-Doppler procedure

Dynamic load measurements with delta wings
undergoing self-induced roll-oscillations

Lateral aerodynamic of delta wings with leading
edge separation

Flow formation over double-delta wings

Upper Vortex Flap - A versatile surface for highly
swept wings

Analytical study of vortex flaps on highly swept
delta wings

Spanwise distribution of vortex drag and
leading-edge suction in supersonic flow

Fuselage effects on leading edge vortex flap

Subsonic balance and pressure investigation of a
60-deg delta wing with leading-edge devices
(data report)

Experimental study of delta wing leading-edge
devices for drag reduction at high lift ---
conducted in Langley 7 by 10-foot high-speed tunnel

Finite difference computation of delta wing

Pressure distributions on some delta wings at M = 4

SUBJECT INDEX

Static and unsteady pressure measurements on a 50
degree clipped delta wing at B = 0.9 ---
conducted in the Langley Transonic Dynamics Tunnel

DRAPE (ECONOMICS)

Selection of telecommunication equipment - A new
approach to the equivalent cost concept

Energy environment study

DENSITY (MATTER/QUANTITY)

MT ATMOSPHERIC DENSITY

DENSITY DISTRIBUTION

Flow field studies using holographic interferometry at Langley

DENSITY MEASUREMENT

Formation and characterization of polystyrene
resilient foams of various densities for
aircraft seating applications

DEPOT

Thermal decomposition of aviation fuel

Deposit formation in hydrocarbon fuels

Thermal decomposition of aviation fuel

Deposition of aircraft seating components

DEPICTED

U PRESSURE REDUCTION

DEPRESSED

U SPACE PERCEPTION

DESCENT

MT PARACHUTE DESCENT

Descent-rate cues for carrier landings: Effects
of display gain, display noise and aircraft type

DESCENT TRAJECTORIES

MT BECKET TRAJECTORIES

Flight investigations of integrated descent rate
control systems

DESIGN

DESIGN DESCRIPTION

Orientation description of air traffic control in
the Netherlands

DESIGN ANALYSIS

Development of new lifting parachute designs with
increased triaxiality

Design analysis of high temperature transparent
windshields for high performance aircraft

Parachute technology under pressure

Air-to-ground MTI radar using a displaced phase
center, phased array

The history of the development of the Gy
aeroclonal parachute - 1971-1989

A look at the Hoffman Triangular parachute - The
first successful glidable parachute

Mathematical modelling in engineering design
problems

Direct approach to aerodynamic design problems

Design and performance of airborne radomes - A
review

Flight mechanics - Modern aircraft design and
control concepts --- 'German book
Avoiding the pitfalls in automatic landing control
Helicopter design synthesis
A design criterion for highly augmented general purpose research rotor
Design principles of a computer-aided design system
Performance analysis of the test results on a computational design method for transonic design and investigations of a three dimensionally improved vane-island diffusers at high swirl
Small turbine engine augmentor design methodology
A comprehensive method for preliminary design optimization of axial gas turbine stages
On the influence of the number of stages on the efficiency of axial-flow turbines
Improved vane-island diffusers at high swirl
Small turbine engine augmentor design methodology
A comprehensive method for preliminary design optimization of axial gas turbine stages
On the influence of the number of stages on the efficiency of axial-flow turbines
Improved vane-island diffusers at high swirl
Design and investigations of a three dimensionally twisted diffuser for centrifugal compressors
A computational design method for transonic turbomachinery cascades
Performance analysis of the test results on a two-stage transonic fan
Helicopter design synthesis
General purpose research rotor
A design criterion for highly augmented fly-by-wire aircraft
Avoiding the pitfalls in automatic landing control system design
Development of the advanced composite ground spoiler for C-1 medium transport aircraft
Analytical design and validation of digital flight control system structure
Analysis and validation of digital flight control system structure
Configuration Development System for aircraft
Configuration Development System for aircraft
Damage tolerant design using collapse techniques
Design considerations and experiences in the use of composite material for an aeroelastic aileron
Study of controlled diffusion stator blading. I. Aerodynamic and mechanical design report
Brittle materials design, high temperature gas turbine
Deviation/turning angle correlations
Single stage transonic compressor and equivalent plane cascade
Results of calculations
Design philosophy of the Hughes model 600 helicopter
A design study of the Marshall light twin-engined aircraft
Configuration Development System for aircraft
Maintenance training simulator design and acquisition: SSD-derived training equipment design
On the design and test of a low noise propeller
The determination of gust loads on nonlinear aircraft using a power spectral density approach
Design basis for a new transonic wind tunnel model
Advanced casting: Today and tomorrow - aerospace industry components casting
Problems related to the integration of fault tolerant aircraft electronic systems
Design and implementation of SBP advanced integration support facilities
Functional design to support C.TI/DBS flight experiments
DESIGN OF EXPERIMENTS

Design of advanced digital flight control systems via Command Generator Tracker (CGT) synthesis
methods, volume 1
(AD-A115510) p0570 882-11331

DESIGN OF EXPERIMENTS

O EXPERIMENTAL DESIGN

DESIGN TO COST

Productivity and safety -- reducing transport aircraft operating costs and increasing safety
p0111 882-17284

Advanced composite integral structures meet the challenge of future aircraft systems
p0200 882-27133

Combat survivability in the Advanced Technology Engine Study Program
[AIAA PAPER 82-1287] p0419 882-35101

The promise of laminated metals in aircraft design
p0506 882-40903

Design and experience with a low-cost digital fly-by-wire system in the SAAB JAS39 Vagen A/C
p0507 882-40905

Optimizing aerospace structures for manufacturing cost
p0516 882-41014

Design to life cycle cost capability of the PEICE models
p0556 882-44695

Task analytic techniques: Application to the design of a flight simulator instructor/operator console
[AD-A106724] p0257 882-18227

DESIGNING U SPIN REDUCTION

DESTRUCTIVE TESTS

Experimental structural testing on a composite aircraft Canard and its applications
[AIAA PAPER 82-0409] p0121 882-17930

DETECTION

N AIRCRAFT DETECTION

N CORELATION DETECTION

N RADAR DETECTION

N REMOTE SENSING

N SIGNAL DETECTION

N TARGET RECOGNITION

N ULTRASONIC FLAT DETECTION

Sensor failure detection system --- for the F100 turbofan engine
[NASA-CR-165515] p0100 882-13145

Find and evaluation of fiber optic fiber for application for aircraft fire detector systems
[AD-A106129] p0195 882-16850

NASA research programs responding to workshop recommendations
p0311 882-21146

The effect of isosceles variability on the accuracy of high frequency position location
[AD-A107425] p0650 882-26274

A result in the theory of spiral search
[AD-A112481] p0666 882-27262

Response of cloud microphysical instruments to aircraft icing conditions
[AD-A112317] p0669 882-27284

Utilization of AC/APS-94 side-looking airborne radar systems in search and rescue
[AD-A114484] p0561 882-30437

DETERMINATION

RO-3 structures --- inspection program for aircraft maintenance
p0228 882-24011

SB 211 powerplant deterioration -- Review of current situation and lessons learned
[SAB PAPER 811053] p0231 882-24393

DETERMINATION

U MEASUREMENT

DEBRIS SYSTEMS

U CYROGENIC EQUIPMENT

DIAGRAMS

N EIGHT DIAGRAMS

N S-W DIAGRAMS

DIAMOND WINGS

U LOW ASPECT RATIO WINGS

U SWEEP WINGS

DICE X-RAY"S

A study of potentially low cost millimeter-wave radiometric sensors
Radio metric measurements at 80 GHz
p0151 882-18542

p0151 882-18543

DICKE TYPE RADIONET

U DICKE PHOTONET

DIELECTRIC MATERILAS

U DLECTRICS

DIELECTRICKS

U RADAR MATERIALS

Leaky wave antenna using an inverted strip
dielectric waveguide --- for aircraft application
p0163 882-19552

UDT analysis of airborne antennas radiating in the presence of non-dielectric layers

Silicon liquid crystal light valve for flight simulation applications
[AD-A110928] p0413 882-26005

DIERS

U DETAILERS

DIESEL ENGINE

Lightweight diesel engine designs for commercial aircraft
[NASA-CR-165470] p0037 882-11068

Advanced general aviation comparative engine/airframe integration study

[AD-A116147] p0601 882-33154

DIESEL FUELS

U LIQUID FUELS

Development of catalytic systems for the conversion of syngas to jet fuel and diesel fuel and higher alcohols
[DB82-000667] p0030 882-12255

Investigation of the application of a cryogenic blending process to produce antistatic diesel fuels
[AD-A110917] p0411 882-25399

Mobility fuels for the Navy
[AD-A112511] p0459 882-26485

Development of Army high-energy fuel diesel/turbine-powered surface equipment, phase 2
p0459 882-26487

DIFFERENTIAL ALGEBRA

U MATRICES (RAHTHEONIC)

DIFFERENTIAL ANALYZERS

U ANALOG COMPUTERS

DIFFERENTIAL EQUATIONS

U ELLIPTIC DIFFERENTIAL EQUATIONS

U FLARKEN-SCH EQUATION

U GAUSS EQUATION

U PARTIAL DIFFERENTIAL EQUATIONS

U HARTLY EQUATION

A generalization of Hill's method for the stability analysis of parametrically excited dynamic systems
p0274 882-25923

Implementable differential equations for nonlinear filtering --- radar tracking
[NLR-8P-81037] p0600 882-33120

DIFFERENTIAL GEOMETRY

U TENSOR ANALYZES

DIFFERENTIAL OPERATORS

U DIFFERENTIAL EQUATIONS

DIFFERENTIAL PRESSURE

The use of differential pressure feedback in an automatic flight control system
[AD-A182-1596] p0405 882-38981

A program to evaluate a control system based on feedback of aerodynamic pressure differentials

DIFFRACTION

U WAVE DIFFRACTION

Elevation plane analysis of on-aircraft antennas
[AD-A112372] p0460 882-26554

The AES/P-1B diffractive HUD
[AD-A116026] p0608 882-33382

DIFFRACTION PATHS

Geodesic paths of an ellipsoid-mounted antenna
[AD-A116453] p0596 882-32573

DIFFRACTION PATTERNS

Diffraction by a finite strip
glideslope model with application to the glide slope
p0303 882-20166

DIFFUSION

Optical subsonic diffuser wall design for arbitrary entry conditions
[AIAA PAPER 82-0132] p0115 882-17800

A-152
Determination of losses in a channel with a sudden expansion behind a diffuser
Experimenal investigation of turbulent wall-jets in the presence of adverse pressure gradients in a rectangular diffuser
Analysis of two-dimensional internal flows using a primitive-variable relaxation Navier-Stokes procedure
Improved vane-island diffusers at high swirl
Efects of shape components for small gas turbine engines
Design and investigations of a three-dimensionally twisted diffuser for centrifugal compressors
Development and application of a performance prediction method for straight rectangular diffuser
Studied of controlled diffusion stator blading. I.
Design and investigations of a three dimensionally shaped components for small gas turbine engines
Chemistry of combustion of fuel-air mixtures
HOx formation in flat, laminar, opposed jet
Evaluation of profile loss predictions based on primitive-variable relaxation Navier-Stokes procedure
Operational day delays forecasts for the 20 air traffic control centers for the year 1982 through 2011
Environmental fog/rain visual display system for aircraft simulators
Digital command augmentation for lateral directional aircraft dynamics
Digital data
Digital data digital gain ranging --- for flight test telemetry data
Airborne Electronic Terrain Map System
Digital spectral analysis of the noise from short duration impulsively started jets
Flight data recovery under adverse conditions
Real time digital filtering test in the SI continuous wind tunnel at Norden
Manipal order time sharing filters for INS in-flight alignment
Altitude estimation using asynchronous alpha-beta tracking filters
La Recherche Aerospatiale, bi-monthly Bulletin
The agile transversal filter - A flexible building block for ICAO --- Integrated Communications, Navigation and Identification Avionics
Real time digital filtering test in the SI continuous wind tunnel at Norden
Digital integrators
Techniques for interfacing multiplex systems
Digital navigation
Digital redesign of existing milliloop continuous control systems --- with application to YF-16 aircraft flight controller
Digital control for flexible carucraft using reduced order models
F-4 Advanced Avionics Flight Test
Future directions in CHI integrated avionics
FACs - a commercial flight management computer system
The Shiryayev sequential probability ratio test
Digital communication --- Problems in the simulation of correlation-extremal navigation systems
Simulation of correlation-extremal receivers of signals from sampling-phase radio-navigation systems
The control and guidance unit for MACBAS
Integration of controls and displays in U.S. Army helicopter cockpits
Digital radar systems
The evolution of airborne weather avoidance radar toward a calibrated remote rain gauge using REACT --- Rain Echo Attenuation Compensation Hardware
Radion hostile fire location
DIRECT POWER GENERATORS

Development and evaluation of automatic landing control laws for light wing loading STOL aircraft [NASA CR-166160] p0028 N82-10043

DIRECT POWER GENERATORS

BY FUEL CELLS
Phoenix airport solar photovoltaic concentrator project p0577 A82-4940

DIRECTION FINDERS (RADIO)
U RADIO DIRECTION FINDERS

DIRECTIONAL ANTENNAS
MT DIPOLE ANTENNAS
MT BORN ANTENNAS
MT LOOP ANTENNAS
MT PARABOLIC ANTENNAS
MT RADAR ANTENNAS
MT SLOT ANTENNAS
MT STEERABLE ANTENNAS

Study of the effects of maneuver compensation on beam pointing accuracy p0072 A82-14780

DIRECTIONAL CONTROL
MT THROTTLE VECTOR CONTROL

Design and flight test of a lateral-directional command augmentation system [AIAA 81-2331] p0052 A82-13527

Results of NASA/FAA ground and flight simulation experiments concerning helicopter LPA airworthiness criteria p0366 N82-23219

Pilot opinions of sampling effects in lateral directional control p0563 N82-30849

DIRECTIONAL SOLIDIFICATION (CRYSTALS)

In situ' composites for jet propulsion and stationary gas turbine applications p0082 A82-15824

Directional solidification: Project B2 --- of gas turbine rotor blade alloys [PB-80-009] p0356 N82-22279

DIRECTIONAL STABILITY
MT GYROSCOPIC STABILITY

Interpretation and construction of a dynamic similarity model of the A 310 wings [W-PE-47-7/AF/92] p0255 N82-18212

DIRECTIVES
U AIRSHIPS

Importance of a tactical cargo aircraft in an emergency relief p0243 A82-25499

DISCHARGE COEFFICIENT

Experimental study on discharge and loss coefficients of combustor swirlers p0390 A82-34644

Effect of crosswinds on the discharge coefficient of fins cooling holes [ASRE PAPER 82-07-197] p0926 A82-35371

An experimental study of flow rate and thrust characteristics of a four-nozzle ejector with flow twist p0581 A82-46140

DISCRETE ADDRESS BEACON SYSTEM

Discrete address beacon, navigation and landing systems p0010 A82-10650

Performance evaluation of target report extractor in the monopulse ATCRBS --- Air Traffic Control Radar Beacon System p0071 A82-14776

A multimicroprocessor system for ATCRBS monopulse data processing p0071 A82-14777

Discrete Address Beacon System /DABS/

Joint US/SSR mode S compatibility test program, volume 1 [PB82-126616] p0314 N82-21173

Joint US/SSR mode S compatibility test program, volume 2 [PB82-126624] p0314 N82-21174


Surveillance simulation testing of terminal and en route mode S sensors [AD-A112250] p0946 N82-27265

Body S system accuracy [AD-A112269] p0967 N82-27266

Cost analysis of the discrete Address Beacon System for the low-performance general aviation aircraft community [AD-A112957] p0523 N82-28274

DISCRIMINATION

U TACTILE DISCRIMINATION

DISEASES

U PARABOLIC REFLECTORS

DISES (SHAPES)

MT ACTUATOR DISSES

MT ROTATING DISSES

Hot isostatically pressed manufacture of high strength REEL 76 disk and seal shapes p0858 N82-26439

DISLOCATIONS (MATERIALS)

MT EDGE DISLOCATIONS

DISPERSION PRECIPITATION HARDENING

U PRECIPITATION HARDENING

DISPERSIONS

MT AERDOS

MT Emissions

MT FOG

MT SMOKE

The dispersion of drop sizes in gas turbine fuel nozzle sprays p019 N82-12107

DISPLACEMENT

Large displacements and stability analysis of non-linear propeller structures [NASA-TR-82850] p0572 N82-31707

DISPLACEMENT MEASUREMENT

Optical sensors for displacement measurement [AD-A112936] p0063 A82-14381

DISPLAY DEVICES

MT AEROMETERS

MT APPROACH INDICATORS

MT FLOW DIRECTION INDICATORS

MT HEAD-UP DISPLAYS

MT HELMET MOUNTED DISPLAYS

MT HOI-FLD AEROMETERS

MT PLASMA DISPLAY DEVICES

MT POSITION INDICATORS

MT RADSCEOPES

MT RADIO DIRECTION FINDERS

MT SPEED INDICATORS

MT WIND VAINES

Improving the MLS through enhanced cockpit displays p0909 A82-10649

Digital aviation - What a pilot expects to see [AIAA 81-2217] p0047 A82-13455

Aircraft separation assurance avionics [AIAA 81-2239] p0047 A82-13467

Aircraft alerting systems standardization study [AIAA 81-2242] p0048 A82-13468

The application of large screen CRT's, touch panels, and voice to the flight stations of the 1990's [AIAA 81-2263] p0049 A82-13482

Electronic flight deck displays for transport aircraft [AIAA 81-2266] p0048 A82-13483

The electronic terrain map - A new aviation integrator [AIAA 81-2289] p0049 A82-13498

The interface of multifunction controls and displays to tomorrow's avionics [AIAA 81-2290] p0049 A82-13499

Pilot panel developments for future military aircraft [AIAA 81-2302] p0050 A82-13507

An integrated control panel utilizing a programmable varistor-multiplexed diodecronic liquid crystal display [AIAA 81-2303] p0050 A82-13508

Digital avionics display processor [AIAA 81-2311] p0051 A82-13513

Advanced display systems for crew stations of tactical aircraft [AIAA 81-2312] p0051 A82-13514

A-156
Computer graphics for aircraft control
[IAIA 81-2313] p0051 A8Z-13515
An advanced programmable/configurable color
graphic display system for crew station
technology research
[IAIA 81-2316] p0051 A8Z-13516
Application of a microprocessor controlled cockpit
display for enhanced pilot control of flight
test scenarios
[IAIA PAPER 81-2510] p0057 A8Z-13908
A unique integrated flight testing facility for
advanced control/display research
[IAIA PAPER 81-2490] p0058 A8Z-13919
The development and use of a computer-interactive
data acquisition and display system in a flight
environment
[IAIA PAPER 81-2371] p0060 A8Z-13946
The integration of control and display concepts
for improved pilot situational awareness
p0061 A8Z-13972
Software considerations in the design of computer
generated flight displays
p0069 A8Z-14742
A methodology for missile launch envelope display
evaluation
p0069 A8Z-14744
Airborne color CRT displays
p0073 A8Z-14823
The maneuvering flight path display - A flight
trajectory solution display concept
p0074 A8Z-14824
Computer image generation for flight simulation
p0081 A8Z-15599
Computer-aniimated predictive displays for
microwave landing approaches
p0082 A8Z-15816
Experimental evaluation of a perspectiveunless
display for three-dimensional helicopter
approaches
p0003 A8Z-15047
Data base generation for digital external view
systems
[SGL PAPER 81-101] p0015 A8Z-19270
The use of dynamic mock-ups in the design of
advanced systems -- USAF's Digital Avionic
Information System and NAFY's Advanced
Integrated Display System
p0699 A8Z-22902
Combined multisensor displays - Image
preprocessing for shape coding to reduce pilot
workload
p0218 A8Z-22905
Loran for precise position location - The VSS/NAV
system
p0235 A8Z-24688
Advanced electronic displays and their potential
in future transport aircraft
p0242 A8Z-25216
Electronic flight instrument systems EFIS, the
instrumentation of the 1980s
p0242 A8Z-25324
Advanced display-control concepts for power plant
operation
p0275 A8Z-25612
Effect of contrast on space perception in TV
displays of the external scene observed by the
pilot --- German book
p0297 A8Z-20395
The detection of low level wind shear ---
p0463 A8Z-38063
Analysis of in-trail following dynamics of
CBI-equipped aircraft --- Cockpit Displays of
Traffic Information
[IAIA PAPER 82-1330] p0488 A8Z-39107
Conceptual design of the LNX integrated cockpit
p0530 A8Z-40527
Future helicopter cockpit design
p0500 A8Z-40529
Evaluation of an automatic subsystem parameter
monitor --- for aircraft
p0502 A8Z-40552
Design and construction of a flexible autonomic
electronic display device --- for flight control
p0503 A8Z-40569
The evolution of display formats for advanced
fighters using multi-mode color CRT displays
p0505 A8Z-40888
Visual scene simulation concerning the landing of
sporting aircraft in connection with
in investigations regarding the control and
learning behavior of the pilot --- German thesis
p0519 A8Z-41047
New image generators for the next generation of
civil aircraft
[IEEE PAPER 1711767] p0555 A8Z-44236
Electronic master monitor and advisory display
system, data transmission study
[AD-1040243] p037 A8Z-11064
Electronic master monitor and advisory display
system, human engineering summary report
[AD-1040244] p037 A8Z-11065
Electronic Master Monitor and Advisory Display
System (EMADS)
[AD-1050502] p0088 A8Z-12607
The impact of new guidance and control systems on
military aircraft cockpit design
[AGARD-CP-312] p0091 A8Z-13048
Electronic flight deck displays for military
transport aircraft
p0092 A8Z-13050
Color CRT displays for the cockpit
p0092 A8Z-13051
Integration of controls and displays in US Army
helicopter cockpits
p0092 A8Z-13053
A standard control display unit for multi-aircraft
application
p0092 A8Z-13054
Tanker avionics and aircrew complement evaluation
p0093 A8Z-13063
F/A 18 Hornet crew station
p0093 A8Z-13064
Electronic master monitor and advisory display
system test and demonstration report
[AD-105317] p0099 A8Z-13411
A prototype interface unit for microprocessor
based Loran-C receiver
[MAMA-CH-164887] p0132 A8Z-14078
A general aviation simulator evaluation of a
crate-enhanced instrument landing system
[MAMA-TP-1960] p0133 A8Z-14085
Bargoded minicomputer hardware and software
topics, 1981: Proceedings of the 4th BOLM
HEL-SPEC Computer User's Group Conference
[MAMA-CP-2206] p0138 A8Z-14629
System for providing an integrated display of
instantaneous information relative to aircraft
displacement, heading, altitude, and horizontal
situation
[MAMA-CASE-PROC-11005-1] p0169 A8Z-16075
Threat perception while viewing single intruder
conflicts on a cockpit display of traffic
information
[MAMA-TP-0131] p0190 A8Z-16076
Aircraft alerting systems standardization study.
Volume 2: Aircraft alerting system design
guidelines
[AD-1016732] p0190 A8Z-16077
The multi mode matrix flat panel display:
Technology and applications
p0251 A8Z-18169
Analytical study of cockpit information requirements
[AD-1018524] p0256 A8Z-18218
Descent-rate cauing for carrier landings: Effects
of display gain, display noise and aircraft type
[AD-1018001] p0264 A8Z-19206
Transport aircraft cockpit standardization
[Federal aviation regulations part 25]
[AD-1018924] p0264 A8Z-19207
Simulator study of a pictorial display for general
aviation instrument flight
[MAMA-TP-1963] p0304 A8Z-20180
Integration of controls and displays in U.S. Army
helicopter cockpits
[AD-1019590] p0306 A8Z-20191
Aircraft interrogation and display system: A
ground support equipment for digital flight
systems
[MAMA-TP-01770] p0314 A8Z-21175
The 1981 image 2 Conference Proceedings
[AD-1010226] p0320 A8Z-21223
Controls and displays for all-weather operation of
helicopters
[BBN-D-319-810] p0354 A8Z-22260
State-of-the-art cockpit design for the HH-65A
helicopters
p0356 A8Z-22220
Performance evaluation of a kinesthetic-tactile display p036 | 882-23221
Cockpit integration from a pilot's point of view p036 | 882-23224
Integrated cockpit for A-129 p036 | 882-23225
Environmental fogg/rain visual display system for aircraft simulators [NASA-CSP-AHC-11159-1] p037 | 882-24212
New technique in database retrieval and display --- color graphics p040 | 882-25174
The DPVLB Digital Flight Data Readout and Processing Station and its utility p042 | 882-25180
Gathering and analyzing data on the British Airways Boeing 757 aircraft p042 | 882-25186
Conceptual design study for an advanced cab and visual system, volume 1 [NASA-CH-166235] p041 | 882-25266
Conceptual design study for an advanced cab and visual system, volume 2 [NASA-CH-166236] p041 | 882-25267
Source assessment system [AD-A111223] p041 | 882-25613
A prototype interface unit for a microprocessor-based Lanot-C receiver p046 | 882-26210
Visual technology research simulator, visual and motion system dynamics [AD-A111801] p045 | 882-26325
Aircraft alerting systems standardization study, Volume 1: Candidate system validation and time-critical display evaluation [AD-A107225] p046 | 882-27236
Scenarios for evolution of air traffic control [AD-A112566] p046 | 882-27270
Cockpit display of traffic information and the measurement of pilot workload: An annotated bibliography [AD-A113637] p047 | 882-27291
Advanced technology and fighter cockpit design: Which drives which? p047 | 882-27302
Influence of contrast on spatial perception in TV display of moving images [FB-50] p047 | 882-27609
Electronic/electric technology benefits study --- avionics [NASA-CH-165690] p052 | 882-28243
Hydraulic Universal Display Processor System (HUDPS) p052 | 882-28294
Computer program for analysis of spherical screen distortion [AD-A111316] p052 | 882-28309
Terminal information display system benefits and costs [AD-A111937] p053 | 882-29291
Displays p053 | 882-29300
Analysis and preparation of a digital terrain data base for flight simulator use [AD-A115545] p055 | 882-30315
Evaluation of the FAA/AMTI weather data display [AD-A114646] p056 | 882-30800
Pilot/vehicle model analysis of visual and motion cue requirements in flight simulation p056 | 882-30838
Application of a pilot control strategy identification technique to a joint FAA/HASA ground based simulation of head up displays for CTV aircraft p056 | 882-30857
Designs, analysis and evaluation of advanced display concepts for the F-16 control configured vehicle p056 | 882-30859
Separation monitoring with four types of predictors on a cockpit display of traffic information p056 | 882-30860
Functional design to support CPD/F/DABS flight experiments p056 | 882-30860
[NASA-CH-165690] p0569 | 882-31326
Wide-angle, multiviewer, infinity display system [AD-A116308] p0571 | 882-31336
The B-52/F-18 diffusive HUD [AD-A116026] p0600 | 882-32382
Non-complex item development specification for a feasibility model of an electronic aircraft monitor and advisory display system (EMADS) [AD-A117919] p0609 | 882-33386
Speech Command Auditory Display System (SCADS) [AD-A117986] p0609 | 882-33387
DISPLAv SYSTEMS | $ DISPLAY DEVICES
# DISPOSAL
# WASTE DISPOSAL
# DISINUPTION
# ENERGY DISSIPATION
# DISOLVED GASES
Investigation of spray characteristics for flashing injection of fuels containing dissolved air and superheated fuels p0453 | 882-26295
# DISTANCE
# MISS DISTANCE
# RADAR RANGE
# RADIO RANGE
Gaseous footprints and boiling range of terminal guidance munition [BMV-F111-81-5] p0146 | 882-15111
DISTANCE MEASURING EQUIPMENT
# ALTIMETERS
# LASER RANGE FINDERS
# NAVIGATION RANGES
Navigation system integrity and reliability for civil aviation p0124 | 882-18159
MRS flare low elevation angle guidance considerations p0175 | 882-20566
Locan-C RVV in mountainous areas p0225 | 882-24066
Ground speed measurement from DME/VHF omnirange navigation (FOR) data p0402 | 882-25185
L-band DME multipath environment in the Microwave Landing System (MLS) approach and landing region [FAA-AD-82-19] p0568 | 882-32330
DISTANCE PERCEPTION
U SPACE PERCEPTION
Distillation Ethanol production by vapor compression distillation [DBR-82-00492] p0538 | 882-29393
Analysis and environmental fate of Air Force distilled and high density fuels [AD-A115949] p0595 | 882-32512
DISTORTION # FLOW DISTORTION
Computer modeling of fan-exit-splitter spacing effects on F100 response to distortion [NASA-CH-167879] p0369 | 882-23246
DISTORTED PARABOLIC SYSTEMS
Tactical airborne distributed computing and networks [AAGD-CP-301] p0195 | 882-17086
Distributed data processing: What in it? p0196 | 882-17087
The effect of increasingly more complex aircraft and avionics on the method of system design p0196 | 882-17088
A tutorial on distributed processing in aircraft/avionics applications p0196 | 882-17089
Functional versus communication structures in modern avionic systems p0196 | 882-17092
Economic considerations for real-time naval aircraft/avionics distributed computer control p0196 | 882-1909
DISTRIBUTED PROCESSING
Enhancements and algorithms for avionic information processing system design methodology
[AD-A117928]

DISTRIBUTION (PROPOSITION)
NT ATOMENT RADIATION PATTERNS
NT CURRENT DISTRIBUTION
NT DIFFRACTION PATTERNS
NT FLOW DISTRIBUTION
NT FORCE DISTRIBUTION
NT ROLE DISTRIBUTION (MECHANICS)
NT INTERFERENCE LIFT
NT LOAD DISTRIBUTION (FORCES)
NT MASS DISTRIBUTION
NT PRESSURE DISTRIBUTION
NT RADIATION DISTRIBUTION
NT STRESS CONCENTRATION
NT TEMPERATURE DISTRIBUTION
NT VELOCITY DISTRIBUTION
NT VERTICAL DISTRIBUTION

DISTRIBUTION MODE
NT ADHESIVE

DISTRICT OF COLUMBIA
Final regulatory evaluation: Metropolitan Washington Airports Policy
[AD-A110583]

DISTURBANCE THEORY
U PERTURBATION THEORY

DITCHING (LANDING)
Improving air carrier water survival
[AD-A117297]

DIVERGENCE
Divergence of a sweptforward wing
[AD-A110560]

DOPPLER EFFECT
Doppler test results of experimental GPS receiver
[AD-A113507]

DOPPLER NAVIGATION
Position extrapolation quality calculation for inertial and Doppler-INS navigation systems
[AD-A112615]

DOORS (STRUCTURAL FORMS)
NT RADOMES
Bearfield aerodynamics and optical propagation characteristics of a large-scale turret model
[AD-A113910]

DOORS
Developments on graphite/epoxy T-2 nose landing gear door
[AD-A110861]

DOUBLET EFFECT
Distributed intelligence for air fleet control
[AD-A111507]

DRAFTING
U ADDITIVES

DOUGLAS AIRCRAFT
C-9 AIRCRAFT
DC 8 AIRCRAFT
DC 10 AIRCRAFT

DOUGLAS DC-8 AIRCRAFT
DC-8 AIRCRAFT

DOUGLAS DC-9 AIRCRAFT
DC-9 AIRCRAFT

DOUGLAS MILITARY AIRCRAFT

DOVAP
U DOPPLER EFFECT

DOWNSWASH
Angle of downsun behind a wing in unsteady flow
[AD-A112633]

DOWNSWASH
Effect of downsun on the induced drag of canard-wing combinations
[AD-A112697]

DOWNSWASH
Downsun behind a wing with spanwise blowing
[AD-A112611]

DOWNSWASH
Surveys of flow-field around empennage of the F-111 STOL-research-aircraft model
[AD-112677]

DOWNSUN
Helicopter rotor downwash: Results of experimental research at the DPML rotor test
[AD-A112674]
stand and their comparison with theoretical results

An accurate method for evaluating the kernel of the integral equation relating lift to downwash in unsteady potential flow

[NASA-TM-812681] p0363 B82-23194

Drag

MT AERODYNAMIC DRAG
MT FRICTION DRAG
MT INTERFERENCE DRAG
MT MINIMUM DRAG
MT PRESSURE DRAG
MT SUPERSONIC DRAG
MT VISCOUS DRAG

Preliminary investigation of effects of heavy rain on the performance of aircraft

[NASA-TP-81272] p0301 B82-20145

Effects of canopy geometry and cloth permeability on the drag coefficient of a cross parachute in the fully open and reefed conditions for a W/A ratio of 0.3

[AD-A115046] p0557 B82-30293

Kevlar/PFR-15 reduced drag DC-9 reverser sting fairing

[NASA-CH-165448] p0571 B82-31448

Drag Balance

U AERODYNAMIC BALANCE
U LIFT DRAG BALANCE

Drag Devices

MT AERODYNAMIC BRAKES
MT LEADING EDGE SLATS
MT SPLIT FLAPS
MT SPOILERS
MT TRAILING-EDGE FLAPS
MT WING FLAPS

Drag Effect

U DRAG

Drag Measurement

Determination of the trimmed drag of an aircraft

Model testing techniques for measuring inlet drag

Wind tunnel investigations of sailplane fuselages with different lacing and wing settings -- aerodynamic drag measurement

Resea vertical drag test report --- rotor systems research aircraft

[NASA-CH-64390] p0587 B82-32241

Drag Reduction

Reductions in parachute drag due to forebody wake effects

[AIAA PAPER 81-1939] p0007 B82-10417

Analysis of escape systems at 687 KEAS

[NASA-CH-14978] p0079 B82-19798

Three-dimensional calculation of the flow in an Inlet on an air turbine

[ONERA, TP No. 1981-124] p0164 B82-19790

Wing-canard aerodynamics at transonic speeds -- Fundamental considerations on minimum drag spanloads

[AIAA PAPER 82-0097] p0183 B82-22046

Aerodynamic characteristics of maneuvering flaps

[NASA-CH-64390] p0587 B82-32241

Fuel-efficient windshields for transport, commuter and business aircraft

[NASA-CH-7251] p0226 B82-24304

Aircraft surface coatings for drag reduction/sensor protection

[SIR PAPER 611070] p0232 B82-24001

Selected results of the F-15 propulsion interactions program

[AIAA PAPER 82-1041] p0415 B82-34976

A series of airfoils designed by transonic drag minimization for Gates Learjet aircraft

[NASA-TP-81272] p0432 B82-35565

Kevlar/PFR-15 polyimide matrix composite for a complex shaped DC-9 drag reduction fairing

[AIAA PAPER 82-1047] p0437 B82-37670

Development and flight test evaluation of a pitch stability augmentation system for a relaxed stability L-1011

[AIAA PAPER 82-1292] p0437 B82-39004

The use of small strikes to reduce interference drag of a low wing, twin engine airplane

[AIAA PAPER 82-1292] p0437 B82-39004

NASA research on viscous drag reduction

[p0505 B82-40896

Optimization of canard configurations -- an integrated approach and practical drag estimation method

Minimum induced drag of canard configurations

Taking the drag out of hoists

The principles and methods for shaping the wing root region of a wing-body combination at transonic and lower supersonic speeds

Comparison of experimental and theoretical turbulence reduction characteristics for screens, honeycomb, and honeycomb-screen combinations

[NASA-TP-1958] p0131 B82-14055

Accelerated development and flight evaluation of active controls concepts for subsonic transport aircraft. Volume 1: Load alleviation/extended span development and flight tests

[NASA-CE-159097] p0145 B82-15076

Experimental study of delta wing leading-edge devices for drag reduction at high lift --- conducted in Langley 7- by 10-foot high speed tunnel

[NASA-CH-165448] p0571 B82-31448

Developments in rotary wing aircraft aerodynamics

[NASA-TP-81272] p0245 B82-19120

Laminar airfoils for transport aircraft

[NASA-TP-81272] p0252 B82-19190

On the design of some airfoils for sailplane application --- additions to existing wings for inflight testing

[VT-LR-8-326] p0265 B82-19213

Investigation of passive shock wave-boundary layer control for transonic airfoil drag reduction

[NASA-CE-164049] p0369 B82-22209

Drag reduction using pneumatic turbulators --- laminar airfoils

[NASA-TP-81272] p0350 B82-22223

Automated design of minimum drag light aircraft fuselages and nacelles

[NASA-CE-164049] p0368 B82-23238

Aerodynamics/CACES: Aircraft energy efficiency

[NASA-FACTS-90/6-81] p0407 B82-25241

Reduction in parasite drag due to forebody wake effects

[DE61-030124] p0567 B82-31309

Investigation of the interference effects of mixed flow long duct nacelles on a DC-10 wing

[NASA-CE-159202] p0586 B82-32319

NASA research on viscous drag reductions

[NASA-CH-84518] p0604 B82-33344

Dragelantes

U BRAKES (FOR ARRESTING MOUTH)

Drawings

MT ENGINEERING DRAWINGS
Y/TOL tilt rotor research aircraft. Volume 4: CPF technical data

[NASA-CH-165350] p0395 B82-24197

Drawings

U TONED ROBES

DRONE AIRCRAFT

Development of a nylon-Kevlar recovery system for the CL-289 AW/USD 50/2/surveillance drone

[AIAA PAPER 81-1952] p0008 B82-10427

Aquila - Robot eye in the sky

[p0584 B82-40025

A design for a 32-channel multiplexer -- for unmanned aircraft navigation sensors

[BAA-IAN-BAD-VAY-145] p0259 B82-18503

DRONE HELICOPTERS

U DRONE AIRCRAFT
U HELICOPTERS
DRONE FLIGHTERS
MT DRONE AIRCRAFT

Drop sizes

The dispersion of drop sizes in gas turbine fuel nozzle sprays

[p0519 B82-12107

Water ingestion into jet engine axial compressors

[AIAA PAPER 82-0196] p0117 B82-17836

Helicopter icing spray system

[p0177 B82-20754

Influence of airblast atomizer design features on fog droplet size

[AIAA PAPER 82-1073] p0516 B82-34993

SUBJECT INDEX
An introduction to stochastic optimal control theory

Dynamic Loads

Aerodynamic Loads

Cyclic Loads

Cust Loads

Impact Loads

Landing Loads

Shock Loads

Vibration Loads

Wind Loading

Quasi-static and dynamic crushing of energy absorbing materials and structural components with the aim of improving helicopter crashworthiness

Measured pavement response to transient aircraft loadings

Aircraft fuel tank slosh and vibration test

Comparison of different fighter aircraft load spectra

Experimental investigation of active loads control for aircraft landing gear

Aerodynamic forces acting on the blades of stall regulated propeller type windmills

Performance estimation from non-steady manoeuvres

Development of a correlated finite element dynamic model of a complete aero engine

Application of structural optimization technique to reduce the external vibrations of a gas-turbine engine

Analysis of aircraft dynamic behavior as a crash environment

The maximum flying range problem for an aircraft

Determination of in-flight helicopter loads and vibration

Determination of airplane aerodynamic parameters from flight data at high angles of attack

Reduced nonlinear flight dynamic model of elastic structure aircraft

Pneumatic tire model for aircraft simulation

New holding method of three-dimensional hollow photoelastic model and centrifugal stress analysis of an cooled turbine blade model

Wind tunnel tests of ejection seat for high dynamic pressure escape

Gunfire blast pressure predictions

Static and unsteady pressure measurements on a 50 degree clamped delta wing at M = 0.9 --- conducted in the Langley Transonic Dynamics Tunnel

Dynamic Proprieties

U Dynamic Characteristics

Dynamic Response

Transient Response

Dynamic response of aircraft structure to gun shock loads

Dynamic response of blades and vanes to wakes in axial turbo machinery

Optimum journal bearing parameters for maximum color imbalance response is synchronously whirl

An investigation of dual mode phenomena in a sustained bladed-disk

A parametric study of dynamic response of a discrete model of turbo machinery bladed disk

Dynamic Environmental Qualification Techniques

Dynamic Environmental Qualification Techniques

Analysis methods for predicting structural response to projectile impact

Problems of engine response during transient maneuvers

Rotor model for the verification of computational methods

Dynamics of aircraft antiskid braking systems --- conducted at the Langley aircraft landing loads and traction facility

A criterion for the prediction of the recovery characteristics of spinning aircraft

Acoustic fatigue endurance test of 018 lb structure models at elevated temperature

Vibration of structures excited acoustically

Dynamic response of a hot gas, control-surface actuator --- for an aircraft rudder

Dynamic Environmental Qualification Techniques --- conference

Development and use of dynamic qualification standards for Air Force stores

Qualification of equipment for gunfire induced vibration

Qualification of equipment for gunfire induced vibration

Application of modal synthesis techniques to the dynamic qualification of wings with stores
A complete method for computation of blade node characteristics and responses in forward flight [SEISIA 92-210-101]

A method for determining the aerelastic behavior of aircraft with active control systems [ESA-TT-719]

Roll response criteria for transport aircraft with advanced flight control systems in the landing approach and touchdown [ERA-LS-702-A]

An analytical study of turbulence responses, including horizontal tail loads, of a control-configured jet transport with relaxed static stability [NASA-CS-163310]

Comparison of analytical and wind-tunnel results for flutter and gust response of a transport wing with active controls [NASA-TF-2010]

Limiting performance of nonlinear systems with applications to helicopter vibration control problems [AA-11-12239]

The dynamic cleralular response of proprotor blades [NASA-CS-166380]

Development of a rotorcraft. Propulsion dynamics interface analysis, volume 1 [NASA-CS-166380]

DYNAMIC STABILITY

Aerodynamic Stability
- Aircraft Stability
- Attitude Stability
- Boundary Layer Stability
- Contraction Stability
- Control Stability
- Directional Stability
- Flame Stability
- Flow Stability
- Frequency Stability
- Gyroscopic Stability
- Hovering Stability
- Lateral Stability
- Longitudinal Stability
- Low Speed Stability
- Motion Stability
- Rotary Stability

Direct free-flight analysis of aircraft dynamics at high angles of attack

Robust flight control - a design example

Mechanism for the elimination of instability as a sticky problem

Self-oscillations of the front center wheel strut for a given track width under the assumption of the wheel draft hypothesis

The residue-measure criterion for model reduction in the analysis of the NASA Space Shuttle's digital flight control system

Stability of a three-stage dynamic system

Dinamic stability of low effective flap hinge BM concepts

Analyzing stable pad disturbances and design of a sensor vault to monitor pad stability

Dynamic stability of flexible forward swept wing aircraft

Maneuver stability of a vehicle with a towed body

A contribution to the stabilization of flight vehicle parachute systems - mathematical models

Effects of aerodynamic coupling on the dynamics of roll aircraft

Design of dynamically-scaled, asymmetrical wind tunnel models [81AST-78-18]

DYNAMIC STRUCTURAL ANALYSIS

Fatigue substantiation of non-linear structures

Fatigue substantiation of non-linear structures


A set of finite elements developed for the dynamic computation of composite helicopter blades

Application of the NASA dynamic stability model to a helicopter blade in forward flight

Modal analysis using helicopter dynamic test data

Development of a correlated finite element dynamic model of a complete aero engine

Natural frequencies of rotating bladed discs using clamped-free blades

On the formulation of coupled/un-coupled dynamic analyses of blade-disc assemblies

Investigation of vibration of shrouded turbine blades

Aircraft transparanent fluid impact analysis using the MAGNA computer program

High speed VSCF generator design consideration --- computer aided design for Variable Speed Constant Frequency generator

A generalized Hull's method for the stability analysis of parametrically excited linear systems


Experimental stress analysis of a thin-walled pressure vessel loaded by contact with a plane

Rigid body-structural mode coupling on a forward swept wing aircraft

Active control of aerelastic divergence

Application of a transonic potential flow code to the static aerelastic analysis of three-dimensional wings

Analysis of aircraft dynamic behavior in a crash environment

Flutter analysis using nonlinear aeroelastic forces

Component coupling with time-invariant mass matrix for nonsymmetric rotating and nonrotating systems

On the dynamic collapse of a column impacting a rigid surface

Trends in structural analysis at NASA

Blade load transient dynamic analysis of turbomachinery

Structural dynamics of shrouded, hollow, fan blades with composite airfoils

Engine dynamic analysis with general nonlinear finite element codes, II - Bearing element implementation, overall numerical characteristics and benchmarking

Analysis of rotating structures using image derotation with multiple pulsed lasers and moire techniques

Assessment of the dynamic response of a structure when modified by the addition of mass, stiffness or dynamic absorbers
A unified approach to helicopter NASTRAN modeling (AIAA PAPER 83-2398) p0494 A82-37793
Which mode stability of the main rotor of the TAH-64 Advanced Attack Helicopter p0498 A82-40513
BAJIF-II – A program system for the dynamic analysis of aeroelastic structures p0504 A82-40984
Experimental and theoretical investigation of joint-structural damping interaction for airplane construction p0516 A82-41013
An examination of the dynamics of rotary machines --- French thesis p0552 A82-43724
Analysis of tapered-land hybrid aerostatic journal bearings p0584 A82-47944
The Shock and Vibration Digest, volume 13, no. 9 (AD-A105062) p0603 A82-10421
Structural dynamics: Modified calculations --- natural and harmonically excited vibrations of modified structures; increased computation efficiency [NASA-DB-81-1] p0101 A82-13457
Study of ground handling characteristics of a maritime patrol aircraft (NASA-Ch-166253) p0191 A82-16690
Design Manual for impact damage tolerant aircraft structure (AGARD-AC-238) p0202 A82-17160
Dynamical analysis of a rotor blade with flap and lag freedom and flap-pitch coupling (ISS-271) p0214 A82-17641
Static and dynamic investigations for the model of a wind rotor (ISS-272) p0214 A82-17642
Vibration qualification of external aircraft stores and equipment (ISS-PE-173/9/904/46) p0320 A82-21218
Application of a transonic potential flow code to the static aeroelastic analysis of three-dimensional wings (NASA-TM-83296) p0363 A82-23193
Historical perspectives on thermostructural research at the NASA Langley Aeronautical Laboratory from 1948 to 1956 p0371 A82-23944
Development of experimentally compatible subsystem methods for the analysis of aircraft structures (AD-A111242) p0395 A82-26198
Hybrid state vector methods for structural dynamic and aeroelastic boundary value problems (NASA-Ch-36591) p0567 A82-31304
Development of a rotorcraft. Propulsion dynamics interface analysis, volume 1 (NASA-Ch-166300) p0591 A82-32368
A simulation language approach to structural interaction problems p0614 A82-33758

DYNAMIC TESTS

An advanced facility for processing aircraft dynamic test data (AIAA PAPER 81-2398) p0494 A82-37793
Review of support interference in dynamic tests (AIAA 2-0594) p0237 A82-24768
Dynamic load measurements with delta wings undergoing self-induced roll-oscillations (AIAA Paper 82-1220) p0487 A82-39098
Analytic extrapolation to full scale aircraft dynamics (AIAA Paper 82-1307) p0490 A82-39143
An acquisition and analysis system for dynamic tests of air inlets p0605 A82-13082
System for acquisition and analysis of dynamic tests on air intakes (NASA-TM-76646) p0131 A82-14056
Dynamic qualification testing of F-16 equipment p0346 A82-22159
The dynamic qualification of equipment and external stores for use with rotary winged aircraft p0344 A82-22167

DYNAMETERS

The use of dynamometer readings for damping of the natural vibrations of twin-rotor gyrocompasses p0298 A82-28475

DYNAMICS

U ROTATING GENERATORS

EARLY WARNING SYSTEMS

Airborne associative processor /ARSPO/ — for early warning radar surveillance, command, and control applications (AIAA 81-2145) p0002 A82-10104
NEAR Miradol — The Mission System Avionics p0105 A82-16556
Management of a large avionics project p0105 A82-16557
Sea-based remotely piloted vehicles. I - Issues and concepts p0332 A82-29714

EARTH ATMOSPHERE

NT IONOSPHERE
NT STRATOSPHERE
NT THIPOSPHERE

EARTH OBSERVATIONS (FROM SPACE)

NT SATELLITE OBSERVATION

EARTH RESOURCES

NT CRUDE OIL
NT FORESTS
NT FOSSIL FUELS
NT LIGNITE
NT SOLVENT REFINED COAL

EARTH SATELLITES

NT COMMUNICATION SATELLITES
NT GEOSTATIONARY SATELLITES
NT NAVIGATION SATELLITES
NT NAVSTAR SATELLITES
NT RCA SATELLITES

EARTH THERMAL SATELLITES

U.S. Army remotely piloted vehicle supporting technology program p0494 A82-39739

EBF

U EXTERNALLY BLOWN FLAPS

ECBOMB

NT CLUTTER
NT RADAR ECHOB
NT SIGNAL REFLECTION

ECOENOMICS

Selection of telecommunication equipment — A new approach to the equivalent cost concept p0293 A82-25510
ECONOMICAL ANALYSIS

Greenlandair VTOL transportation study (AIAA PAPER 81-2642) p0100 A82-16912
VTOLs — We can build them, but can we sell them? p0296 A82-28281
Economical analysis for data base management p0545 A82-42208
Why GE made a moteur d'aviation p0578 A82-45499
Aviation meteorology in the 1980’s - A trend forecast p0580 A82-45827
Transportation systems evaluation methodology development and applications, phase 3 (NASA-CS-160999) p0805 A82-12051
Economical considerations for real-time naval aircraft/avionics distributed computer control systems p0196 A82-17097
Historical research and development inflation indices for Army fixed and rotor winged aircraft (AD-A114368) p0525 A82-28290

ECONOMIC DEVELOPMENT

Scenarios of economic development within the European community up to the year 2000 p0603 A82-33286
ECONOMIC FACTORS

Adaptation and equipment for aircraft for the fighting of forest fires p0331 A82-29584
Air Traffic Flow Management and Air Traffic Flow Control
EJECTORS

Physiological acceptability tests of the 530-5/4 ejection seat: Second physiological acceptability demonstration (AD-A105056) p0253 862-18194
Development of an ejection seat ballast kit for the 5-3A aircraft (AD-A105056) p0303 862-20161
Development of a supported airbag ejection restraint (SABER) for blast protection (AD-A105057) p0303 862-20162
Development of a backpack survival kit for ejection seat (AD-A110357) p0464 862-27242
Comparative vertical impact testing of the F/1B-111 crew restraint system and a proposed modification (AD-A111357) p0522 862-28247
Investigation of aircrew protection during emergency escape at dynamic pressures up to 1600 psi (AD-A117556) p0605 862-33359

EJECTORS

A high strength ejector release unit for the Tornado (AD-A01602) p100 862-16025
Application of thrusting ejectors to tactical aircraft having vertical lift and short-field capability (AD-A01602) p0156 862-19211
The effect of ejector augmentation on test-section flow quality in the CalSPAN 8-ft transonic wind tunnel (AD-A02-0571) p0236 862-26658
Ejector powered propulsion and high lift subsonic wing (AD-A01602) p0512 862-40970
Investigation of acoustic interactions in jet thrust augmenting ejectors (AD-A01602) p0101 862-13635
Technology overview for advanced aircraft armament system program (AD-A01602) p0201 862-17155
Fluid dynamics of jets with applications to V/STOL technology (AD-A01602) p0360 862-23150
Thrust augmenting ejectors: A review of the application of jet mechanics to V/STOL aircraft propulsion (AD-A01602) p0361 862-23169
Theoretical optimization and experimental verification of an ejector (AD-A01602) p0361 862-23170
Unsteady ejectors (AD-A01602) p0362 862-23171
Improvement of ejector thrust augmentation by pulsating or flapping jets (AD-A01602) p0362 862-23172
Turbojet and turbojet ejector optimization (AD-A01602) p0362 862-23174
An experimental investigation of the flow field of an ejector jet design employing a photon correlation laser velocimeter (AD-A01602) p0394 862-24182
An experimental study of rectangular and circular thrust augmenting ejectors (AD-A01602) p0454 862-26304
Diffuser/ejector system for a very high vacuum environment ([NASA-CASE-SPS-15791-1]) p0613 862-33712

ELASTIC DAMPING

The stability of sandwich panels under bending (AD-A06083) p0334 862-29836
ELASTIC BODIES

An algorithm for calculating the compliance matrices of aircraft structures by the substructure method as applied to aeroelasticity (AD-A06083) p0388 862-34161
Calculation of the lift distribution and aerodynamic derivatives of quasi-static elastic aircraft (AD-A06083) p0390 862-34639
Reduced nonlinear flight dynamic model of elastic structure aircraft (AD-A06083) p0516 862-41009

ELASTIC BUCKLING

Calculation of the stability and post-buckling behavior of thin shell structures using the finite element method — German thesis (AD-A06083) p0577 862-45219

ELASTIC CONSTANTS

U ELASTIC PROPERTIES

SUBJECT INDEX
Airborne warning systems for natural and magnetic fields above ground
Calculations of lightning return stroke electric strength for airborne antennas in the LF/BF range
Triggered lightning — resulting from aircraft atmospheric electricity interactions
A look into the future: The potential of the all-electric secondary power system for the all-electric aircraft
Power systems engineering and technology—A program overview — Variable Speed Constant Frequency
Cost of ownership advantages with a shared oil system
The effect of critical design parameters on the selection of a VSCF system
Packaging the VSCF system for an aircraft engine environment
Aircraft electric system development and test facilities
Electric Flight Systems
A propulsion view of the all-electric airplane
Potential propulsion considerations and study areas for all-electric aircraft
A look into the future: The potential of the all-electric secondary power system for the energy efficient transport
The 400-Hertz constant-speed electrical generation systems
USAF aerospace environmental noise data handbook. Volume 162: MD-80 generator set
A look into the future: The potential of the all-electric secondary power system for the electric motors

Overview of Honeywell electromechanical actuation

High speed PUG containment study for VSCF system

Electric flight systems integration

Digital flight controls

Engine technology

Power systems

Electromechanical actuators

Digital flight controls

Electric flight systems integration

USAF base environmental noise data handbook. Volume 162: AD-480 generator set

Vehicle (BPY)

ELECTRIC POTENTIAL

A study of the effect of the flight vehicle body potential on the characteristics of ion attitude transmitters

Aircraft potential variations in flight

ELECTRIC POWER

Will power-by-wire replace power-by-hydraulics

The all electric airplane - Its development and logistic support

ELECTRIC POWER CONVERSION

U ELECTRIC GENERATORS

ELECTRIC POWER PLANTS

ET NUCLEAR POWER PLANTS

ELECTRIC POWER SUPPLIES

Applications of finite element method in aerospace power system design

Advanced aircraft electric power system

Variable speed constant frequency /VSCF/

electrical system costs cost of ownership

High voltage surge and partial discharge test to evaluate aerospace equipment parts

Conceptual design of an integrated power and avionics information system

60 KVA ADP permanent magnet VSCF starter generator system - A program overview --- Variable Speed Constant Frequency

High speed PUG containment study for VSCF system

Computer simulation of an advanced aircraft electrical system

The all-electric airplane - A new trend

Helical rail glider launcher

Air aircraft equipment - Design and operation

--- Russian book

Power system design optimization using Lagrange multiplier techniques

Recent improvements in aircraft Na-Cd cells

Aircraft electrical power systems; Proceedings of the Aerospace Congress and exposition, Anaheim, CA, October 5-8, 1981

Design considerations of DC-Link aircraft generation systems

The effect of critical design parameters on the selection of a VSCF system

Evolution and development of high voltage p/c70 volt/ dc aircraft electric systems in the United States

Aircraft electric system development and test facilities

Preliminary design of an advanced integrated power and avionics information system

Models for the motor state of VSCF aircraft electrical power system --- Variable Speed Constant Frequency

Development of accelerated fuel-engines qualification procedures methodology, Volume 1

Development of accelerated fuel-engines qualification procedures methodology, Volume 1: Appendices

Delta electrical load analysis C-141B JACC/CF

ELECTRIC POWER TRANSMISSION

Feasibility study of a 270V dc flat cable aircraft electrical power distributed system

System data communication structures for active-control transport aircraft, Volume 1

ELECTRIC PROPELLION

ST LASER PROPELLION

ST SOLAR ELECTRIC PROPELLION

Electric propulsion for a man B747 system

ELECTRIC PULSES

Transient measurements under electric pulse excitation in 27 Viggen aircraft

ELECTRIC SWITCHES

Improvement program for the C-141 Navigation Selector Panel

ELECTRIC WELDING

ST ELECTRODE WELDING

ST GAS TUNGSTEN ARC WELDING

ST PLASMA ARC WELDING

ELECTRIC WIRE

The use of 'Kapton' polyamide film in aerospace applications

ELECTRICAL Baking

U ELECTRIC WIRE

U WIRING

U ELECTRICAL CONNECTIVITY

U ELECTRICAL RESISTIVITY

ELECTRICAL M wound

ELECTRICAL POWER

ELECTRICAL ENGINEERING

Compilation of abstracts of dissertations theses, and research papers submitted by candidates for degrees, 1 October 1979 - 30 September 1980

Bibliography of Lewis Research Center technical publications announced in 1981

USAF Summer Faculty Research Program. Volume 1: 1981 research reports

USAF Summer Faculty Research Program. Volume 2: 1981 research reports

ELECTRICAL INSULATION

The use of 'Kapton' polyamide film in aerospace applications

ELECTRICAL MEASUREMENT

Electric field detection and ranging of aircraft
ELECTROMAGNETIC NOISE MEASUREMENT

NT WHISTLERS
Tongential sensitivity of EN receivers p0012 A82-11020
Efforts of high voltage transmission lines on non-directional beacon performance
[AD-A112311] p0466 A82-27261
ELECTROMAGNETIC NOISE MEASUREMENT
Aircraft electronics for electromagnetic compatibility facilities p0234 A82-24304

ELECTROMAGNETIC PROPAGATION
U ELECTROMAGNETIC WAVE TRANSMISSION
ELECTROMAGNETIC PROPERTIES
NT CAPACITANCE
NT COLOR
NT ELECTRICAL PROPERTIES
NT OPTICAL PROPERTIES
NT OPTICAL REFLECTION
NT PHOTOELASTICITY
NT RADIANTI
NT REFLECTANCE
NT SKY BRIGHTNESS
NT TRANSPARENCY
Astronomical electricity hazards - analytical model development and application. Volume I: Lightning environment modeling
[AD-A114615] p0539 A82-29800
Notebook on electromagnetic properties of composite materials below 1 GHz
[AD-A1110132] p0559 A82-30340

ELECTROMAGNETIC PULSES
Fiber-optic immunity to EN/EMP for military aircraft
[AD-A11-2339] p0552 A82-13529
A recursive time domain analysis of distributed line grid network with application to the LTH/EMP problem --- Lightning Threat Analysis
p0707 A82-14761
Effects of lightning and nuclear electromagnetic pulse on an advanced composite aircraft
p288 A82-27144
System safety program plan --- electromagnetic pulse testing of the A-7E aircraft
[AD-A104557] p0061 A82-1154
Notebook on electromagnetic properties of composite materials below 1 GHz
[AD-A1110132] p0559 A82-30340
Geodesic paths of an all-ellipsoid-mounted antenna
p0596 A82-32573

ELECTROMAGNETIC RADIATION
NT CONCENTRATED SIGNAL
NT ELECTROMAGNETIC PULSES
NT ELECTROMAGNETIC SURFACE WAVES
NT FAR ULTRAVIOLET RADIATION
NT INFRARED RADIATION
NT LIGHT (VISIBLE RADIATION)
NT LIGHT BEAMS
NT MILLIMETER WAVES
NT NONEQUILIBRIUM RADIATION
NT troposphere reflection model with application to ILS glide slope
p0303 A82-20166

ELECTROMAGNETIC SCATTERING
NT IONOSPHERIC F-SCATTER PROPAGATION
NT MICROWAVE SCATTERING
NT RADIO FREQUENCY SHIELDING
The Navy F/A-18A Hornet electromagnetic compatibility program p0070 A82-19746
CR-95 and CR-47 composite rotor blade lightning protection testing p0278 A82-26381
Effects of lightning and nuclear electromagnetic pulse on an advanced composite aircraft
p288 A82-27144
Aircraft lightning protection
[ONERA, TP NO. 1982-51] p0382 A82-33544
Protection of electrical systems from EN hazards: Design guide
[AD-A1112707] p0477 A82-27509

ELECTROMAGNETIC SPECTRA
NT VISUAL SPECTRUM
NT ELECTROMAGNETIC SURFACE WAVES
Relating elements for hemispherically scanned arrays --- onboard aircraft for data links to satellites p0379 A82-32992

ELECTROMAGNETIC NOISE MEASUREMENT
SUBJECT INDEX

ELECTROMAGNETIC WAVE FILTERS
NT DIGITAL FILTERS
NT ELECTRIC FILTERS
NT RADAR FILTERS
NT TRACKING FILTERS
ELECTROMAGNETIC WAVE TRANSMISSION
NT IONOSPHERIC F-SCATTER PROPAGATION
NT IONOSPHERIC PROPAGATION
NT LIGHT PROPAGATION
NT MICROWAVE TRANSMISSION
NT MILLIWAVER PROPAGATION
NT RADAR TRANSMISSION
NT RADIO TRANSMISSION
NT SPREAD SPECTRUM TRANSMISSION
NT TRANSFORMATION RADIO PROPAGATION
Analysis of the crossed dipole antenna as a model for aircraft in an electromagnetic environment
p0242 A82-25002
A possible way of specifically correcting location and navigational errors caused by reflection and other propagation anomalies
[ESA-T7-667] p0253 A82-18198
Electromagnetic Propagation Problems in the Tactical Environment
[AGD-LS-120] p0539 A82-29572
Propagation problems associated with aircraft communications systems
p0539 A82-29535

ELECTROMAGNETIC WAVES
U ELECTROMAGNETIC RADIATION
ELECTROMAGNETICS
ELECTROMAGNETISM

ELECTROMAGNETIC WAVE FILTERS
NT DIGITAL FILTERS
NT ELECTRIC FILTERS
NT RADAR FILTERS
NT TRACKING FILTERS
ELECTROMAGNETIC WAVE TRANSMISSION
NT IONOSPHERIC F-SCATTER PROPAGATION
NT IONOSPHERIC PROPAGATION
NT LIGHT PROPAGATION
NT MICROWAVE TRANSMISSION
NT MILLIWAVER PROPAGATION
NT RADAR TRANSMISSION
NT RADIO TRANSMISSION
NT SPREAD SPECTRUM TRANSMISSION
NT TRANSFORMATION RADIO PROPAGATION
Analysis of the crossed dipole antenna as a model for aircraft in an electromagnetic environment
p0242 A82-25002
A possible way of specifically correcting location and navigational errors caused by reflection and other propagation anomalies
[ESA-T7-667] p0253 A82-18198
Electromagnetic Propagation Problems in the Tactical Environment
[AGD-LS-120] p0539 A82-29572
Propagation problems associated with aircraft communications systems
p0539 A82-29535

ELECTROMAGNETIC WAVES
U ELECTROMAGNETIC RADIATION
ELECTROMAGNETICS
ELECTROMAGNETISM
ELECTRONIC MODULES

Built-in-test Equipment Requirements Workshop
Workshop presentation
[AD-A107862] p0195 882-17065
A/W-196-135 tail warning system follow-on
operational test and evaluation
[AD-A1085386] p0259 882-18471
Investigation of airborne VHF communication and
navigation equipment
[AD-A110361] p0268 882-19421
Safety (aviation material)
[AD-A110361] p0303 882-20165
ELECTRONIC PHOTOGRAPHY
0 ELECTRO-OPTICAL PHOTOGRAPHY
ELECTRONIC RECORDING SYSTEMS
Development of a taped random vibration technique
for acceptance testing
[0345 882-22171
ELECTRONIC SIGNAL MEASUREMENT
0 SIGNAL MEASUREMENT
ELECTRONIC SWITCHES
0 SWITCHING CIRCUITS
ELECTRONIC TRANSUCERS
Measuring flexural loads by means of strain
transducers
[AD-A107862] p0562 882-66619
Outsider's look at flight instrumentation
[ABII-0125609] p0037 882-11066
ELECTRONIC WARRIORS
Digital avionics systems - The RAF experience
[AD-A107271] p0017 882-11941
The TADS/PNVS 'eyes' for the AH-64 attack helicopter
[AD-A103230] p0150 882-19265
Advanced fiber optic systems for avionics
applications
[AMIA 81-2319] p0051 882-13516
Study of the effects of maneuver compensation on
beam pointing accuracy
[AD-A107862] p0702 882-14780
Properties of the new flight and tactics simulators
[DGLA PAPER 81-106] p0150 882-19265
The bomber that radar cannot see
[AD-A107862] p0274 882-25874
AWWS - Realistic not futuristic --- Advanced
Electronic Warfare Test Set
[AD-A110361] p0196 882-27867
Sea-based remotely piloted vehicles: I - issues
and concepts
[AD-A107862] p0332 882-29714
Hoover jas - US Army studies EH helicopter
[AD-A107862] p0544 882-61688
Electronic warfare system measure of effectiveness
[AD-A107862] p0553 882-63860
Minutes of physical configuration audit for the
P-16 Electronic Warfare Training Device
[AD-A110321] p0320 882-21122
Electronic Warfare Avionics Integration Support
Facility support processor
[AD-A1116411] p0408 882-22520
ELECTROPTICS
0 ELECTRO-OPTICS
ELECTRO-OPTIC EFFECT
0 ELECTRIC CURRENT
ELECTROSTATIC CHARGE
Aircraft potential variations in flight
Generation of electrostatic charge in fuel
handling systems: A literature survey
[AD-A106506] p0397 882-19459
Electrical ground testing of aircraft antistatic
protection
[AD-A107862] p0262 882-19156
ELECTROSTATIC FIELDS
0 ELECTRIC FIELDS
ELECTROSTATIC PROGRAM
Helicopter model studies for on-board
electrostatic sensors
[AD-A10555] p0133 882-14089
ELECTROMAGNETICS
Application of numerical methods to the
calculation of electrostatic fields in aircraft
fuel tanks
[AD-A101270] p0027 882-10033
ELEMENTARY PARTICLES
0 ALPHA PARTICLES
0 LIGHT BEAMS

SUBJECT INDEX

RT PHOTONS
ELEVATION ANGLE
MLS flare low elevation angle guidance
considerations
[0175 882-20586
Experimental measurement of the low angle terrain
scattering interference environment
[AD-A110056] p0175 882-20588
Comparison of various elevation angle estimation
techniques
[AD-A110056] p0175 882-20589
ELEVATIONS (DRAWINGS)
0 DRAWINGS
ELEVATORS (CONTROL SURFACES)
trim tab excitation system for the Sae-116
[0062 882-14386
Elevator unit for the Alpha-Jet, made from
carbon-fibre reinforced plastic
[AD-A110056] p0255 882-25874
Investigation on rotating ailerons
[AD-A110056] p0413 882-26162
ELEVATIONS
Methodology for determining Elevon deflections to
trim and maneuver the DAS vehicle with negative
static margin
[HALS-TR-84499] p0526 882-28299
ELLIPSOIDS
Near field analysis of airborne antennas
[AD-A110574] p0561 882-30462
Geodesic paths of an ellipsoid-mounted antenna
[AD-A116543] p0596 882-32573
ELECTRIC DIFFERENTIAL EQUATIONS
Rapid elliptic solvers
[AD-A110056] p0680 882-15827
Generation of three-dimensional boundary-fitted
curvilinear coordinate systems for wing/wing-tip
garments using the elliptic solver method
[AD-A110056] p0381 882-33318
ELLIPSOIDAL ORBITS
0 TRANSFER ORBITS
EROSION
0 EMISSION
EMBEDDING
On embedded flow characteristics of sharp edged
rectangular wings
[LOG-C4712] p0531 882-29263
Singularity embedding method in potential flow
calculations
[HALS-CH-166371] p0566 882-31300
ENRICHMENT
Mechanics of corrosion fatigue --- of high
strength aluminium alloys
[AD-A110056] p0120 882-17343
EMERGENCIES
Flying test flight the suspended maneuvering system
--- helicopter firefighting and rescue techniques
[AD-A103230] p0150 882-13922
Aeromedical evacuation: Results, analysis,
developments; International Aeromedical
Evacuation Congress, 1st, Munich, West Germany,
September 16-19, 1980, Reports
[AD-A110056] p0515 882-19001
The marketing, organisation and financing of
aeromedical evacuation by a motoring organisation
[AD-A110056] p0515 882-19002
Survey of aeromedical evacuation in Italy
[AD-A110056] p0152 882-19003
The network of civilian air rescue in Germany
[AD-A110056] p0152 882-19004
Aerial ambulance service in Australia
[AD-A110056] p0152 882-19007
Flying doctor service in East Africa
[AD-A110056] p0152 882-19008
Air ambulance systems in the Republic of South
Africa
[AD-A110056] p0152 882-19009
The situation of air rescue in Argentina
[AD-A110056] p0152 882-19010
Aeromedical evacuation in New Zealand
[AD-A110056] p0153 882-19011
Helicopter secondary applications for
neurotraumatic emergencies
[AD-A110056] p0153 882-19015
Helicopters - Night operations
[AD-A110056] p0153 882-19017
The helicopter in rescue operations in
high-mountain areas
[AD-A110056] p0153 882-19019
Application of the ABC helicopter to the emergency medical service role
[AIAA PAPER 81-2653] p0157 AB2-19219
Importance of a tactical cargo aircraft in emergency relief
[AD-A116073] p0605 AB2-33358
An evaluation of helicopter autorotation assist concepts
[ASSE PAPEB 82-61-33] p0420 A82-35294
Reflections on an F-43 in flight emergency
[HASA-EP-188J P0400 S82-250I7
Emergency locator transmitters
Status of the COSPAS-SARSAT project and its possible operation in conjunction with IFR/SAT system
[AD-A116073] p0605 AB2-33358
Special investigation report. Search and rescue procedures and alerting of emergency locator transmitter: Aircraft accident near Michigan City, Indiana, 7 December, 1980
[PB81-249247] p0188 AB2-16058
Emission
MT acoustic emission
MT exhaust emission
MT fluorescent emission
MT thermal emission
Emission spectra
Evaluation of plasma source spectrometers for the Air Force Oil Analysis Program
[AD-A113809] p0755 AB2-27512
Emission Absorption
U recording instruments
Writers
Antenna (selected articles)
[AD-A108174] p0269 AB2-19448
Emission factors
Airframe fire safety
[AGARD-LS-123] p0532 AB2-29279
Employment
Aircraft engineer: We're tomorrow's industry
[NASA-SP-180] p0400 AB2-25017
Emissions
Fuel macromolecules for jet engine smoke reduction
[ASAE PAPER 82-GT-33] p0420 AB2-35294
Encoding
U coding
Empire arrays
A new end-fire ILS glide slope
[AO-A116130] p0182 AB2-18143
Energy Absorption
Results from tests of three prototype general aviation seats
[NASA-TM-84553] p0613 AB2-33733
Crashworthy airframe design concepts: Fabrication and testing
[NASA-CR-3603] p0613 AB2-33735
Energy Conservation
Fuel conservation - DC-9 series 20/30/40
[PB81-249247] p021 AB2-12563
Aircraft performance sensitivities to lateral and vertical profiles
[PB81-249247] p0083 AB2-15846
Safe and efficient management of energy: Proceedings of the Thirty-third Annual International Air Safety Seminar, Christchurch, New Zealand, September 15-18, 1980
[PB81-249247] p0110 AB2-17276
Why safety — fuel conservation through aircraft safety
[AD-A116073] p0605 AB2-33358
Fuel conservation now — improvements for existing production run transport aircraft
[AD-A116073] p0605 AB2-33358
Energy savings with today's technology — aircraft-fuel management through in-flight monitoring
[AD-A116073] p0605 AB2-33358
Energy conservation through airport design and management
[AD-A116073] p0605 AB2-33358
[PB81-249247] p0169 AB2-20513

General aviation fuel conservation in the 1980's
[PB81-249247] p0177 AB2-20757
Improvement of fuel economy by flying with maximum rearward center-of-gravity positioning
[p6221 AB2-23470
Wind and temperature database for flight planning
[JAE PAPER 811066] p0231 AB2-29385
Integration of energy management concepts into the flight deck
[JAE PAPER 811066] p0231 AB2-29385
Management of powerplant maintenance and restoration programs for fuel conservation
[JAE PAPER 811066] p0231 AB2-29385
Airline fuel savings through 790 engine refurbishment
[JAE PAPER 811051] p0232 AB2-29385
Principles of efficient energy use at Interflag
[PB81-249247] p0380 AB2-33250
A significant role for composites in energy-efficient aircraft
[PB81-249247] p0435 AB2-37065
Fuel conservation: The airline — ATC
[PB81-249247] p0483 AB2-38644
Third generation turbo fans
[PB81-249247] p0511 AB2-40964
Minimum fuel horizontal flight paths in the terminal area
[p0556 AB2-44480
Cost reduction in air transportation --- energy conservation
[SAE-81-150-101] p0026 AB2-10025
Analysis of integrated fuel-efficient, low-noise procedures in terminal-area operations
[PB81-209833] p0091 AB2-13014
The use of flight management computers in air carrier operations in the 1980's
[AD-A105623] p0132 AB2-14071
Selected advanced aerodynamic and active control concepts development
[NASA-CR-3220] p0141 AB2-15033
Symposium on commercial-aviation energy-conservation strategies
[PB81-209806] p0188 AB2-16057
Sideline indication system as a fuel saving aid in jet transport aircraft operation — a-300 and a-310 aircraft
[AD-A116130] p0589 AB2-32352
Development of a low risk augmentation system for an energy efficient transport having reduced static stability
[NASA-CR-159166] p0592 AB2-32377
Integated energy management study. Energy efficient transport program
[NASA-CR-158900] p0599 AB2-32858
The CF6 jet engine performance improvement: Low pressure turbine active clearance control
[NASA-CR-165557] p0610 AB2-33393
Aircraft thrust/power management can save defense fuel, reduce engine maintenance costs and improve readiness
[AD-A117935] p0615 AB2-34296
Energy consumption
Characteristics and trends of energy consumption in transport missions with aircraft and surface vehicles
[PB81-249247] p009 AB2-10995
Towards maximum power for environmental control in transport aircraft
[ASAE PAPER 81-BNHS-4] p0011 AB2-10992
Air transport in the 21st century
[p8221 AB2-24025
[p8221 AB2-24025
Effects of dynamic stall on SWECs — Small Wind Energy Conversion System
[p8221 AB2-33707
Open-cycle vapor compression heat pump
[PB82-30SD2] p0259 AB2-10553
Energy Conversion Efficiency
A hidden advantage of permanent magnet electrical...
ENERGY CONVERTERS

Generating systems [AIAA PAPEB 82-11720]

Interim review of the Energy Efficient Engine /E3/ Program [ASME PAPER 82-02-271] [AIAA PAPEB 82-35447]

Energy efficient engine exhaust water model technology [NASA-CR-165459] [AIAA PAPEB 82-22264]

ENERGY COVERS

1 DIRECT POWER GENERATORS

ENERGY DISSIPATION

A critical appraisal of some current incidence loss models for the stator and rotor of a mixed flow gas turbine [ASME PAPER 82-GT-120] [AIAA PAPEB 82-35350]

Dissipation performance of high turning core turbine vane in a two-dimensional cascade [ASME PAPER 82-1200] [AIAA PAPEB 82-37716]

Assessment of burning characteristics of aircraft interior materials [NASA-CR-166350] [AIAA PAPEB 82-32899]

ENERGY EFFICIENT TRANSPORT PROGRAM

U ACE/ PROGRAM

ENERGY EXCHANGE

ENR ENERGY TRANSFER

ENERGY LOSSES

ENERGY DISSIPATION

STRAIN ENERGY METHODS

Energy methods used in air combat performance comparisons [AIAA PAPEB 82-65850]

The determination of critical flutter conditions of nonlinear systems [AIAA PAPEB 8-STRUCT-986] [AIAA PAPEB 82-24210]

ENERGY POLICY

Fuel efficiency engines for large transport aircraft [PHR-90082] [AIAA PAPEB 82-22276]

ENERGY REQUIREMENTS

Requirements and trends in fuel consumption in transport mission with aircraft and surface vehicles [AIAA PAPEB 82-60956]

ENERGY STORAGE

ENERGY TECHNOLOGY

Hydrogen economy assessment for long-term energy systems in Japan [AIAA PAPEB 82-32159]

ENERGY TRANSFER

Prediction of aircraft interior noise using the statistical energy analysis method [ASME PAPER 81-DGT-102] [AIAA PAPEB 82-19332]

Convection of centrifugal compressor performance curves considering non-similar flow conditions [ASME PAPER 82-GT-42] [AIAA PAPEB 82-35300]

Dynamic energy transfer between the band and wind tunnel [AIAA PAPEB 82-40939]

Aerodynamic response of a blade in pitching oscillation with partial and full separation — measurement of the instantaneous pressure distribution around a vibrating blade surface in a wind tunnel [AIAA PAPEB 82-15047]

ENGINE AIRFRAME INTEGRATION

The design of a wind tunnel VSTOL fighter model incorporating turbine powered engine simulators [AIAA PAPEB 82-2635] [AIAA PAPEB 82-25154]

Method for engine-airframe integration using a high-level computer-aided engine design system of the aircraft engine [AIAA PAPEB 82-26487]

Instability effects on pyro and engine loading in an aircraft with high-aspect-ratio wings [AIAA PAPEB 82-34163]

Development of a helicopter rotor/propulsion system dynamics analysis [ASME PAPER 82-1076] [AIAA PAPEB 82-34997]

SAGE — an interactive engine/airframe life cycle cost model [ASME PAPER 82-GT-56] [AIAA PAPEB 82-35311]

Transonic wind tunnel test of a super sonic nozzle installation [AIAA PAPEB 82-1045] [AIAA PAPEB 82-37677]

Helicopter Propulsion Systems [AIAA PAPEB 82-302] [AIAA PAPEB 82-17203]

Advanced general aviation engine/airframe integration studies [NASA-CR-165556] [AIAA PAPEB 82-22268]

Evaluation of an experimental technique to investigate the effects of the engine position on engine/pylon/wing interference — wind tunnel tests [AIAA PAPEB 82-10304]

The digital civil aircraft [AIAA PAPEB 82-11938]

The role of avionics in the all electric airplane [AIAA PAPEB 82-2219] [AIAA PAPEB 82-34997]

Recent propulsion system flight tests at the NASA Dryden Flight Research Center [AIAA PAPEB 82-2436] [AIAA PAPEB 82-35395]

The development and flight test evaluation of an integrated propulsion control system for the HiMAT research airplane [AIAA PAPEB 82-2676] [AIAA PAPEB 82-13931]

Failure analysis of variable reluctance stepper motor — in electronic fuel control system on jet engine [AIAA PAPEB 82-14792]

NASA/V/STOL Propulsion Control Analysis — Phase I and II program status [AIAA PAPEB 82-2632] [AIAA PAPEB 82-16908]

V/STOL propulsion control technology [AIAA PAPEB 82-35396] [AIAA PAPEB 82-16909]

Fluidics in aircraft engine controls [AIAA PAPEB 82-11691]

An application of total system synthesis to robust coupled design — turbojet engine control [AIAA PAPEB 82-19061]

Energy management in military combat aircraft [AIAA PAPEB 82-20515]

The control of aircraft gas turbines for fuel economy [AIAA PAPEB 82-20516]

Propulsion system controls design and simulation [AIAA PAPEB 82-35385]

High temperature engine control electronics [AIAA PAPEB 81-O1074] [AIAA PAPEB 82-24407]

Reliability analysis of a dual-redundant engine controller [AIAA PAPEB 81-01077] [AIAA PAPEB 82-24410]

APHEL. Turbine engine controls research and development — Present and future [AIAA PAPEB 82-0221] [AIAA PAPEB 82-25050]

The role of modern control theory in the design of controls for aircraft turbome engines [AIAA PAPEB 82-03220] [AIAA PAPEB 82-16526]

Determination of an optimal control program for an all-electric airplane [AIAA PAPEB 82-20516]

A practical approach to the design of multivariable control strategies for gas turbine engines [AIAA PAPEB 82-20516]

Integrated aircraft avionics and powerplant control and management systems [AIAA PAPEB 82-20516]

TOBBOTB4HS — A programming language for the performance simulation of arbitrary gas turbine engines with arbitrary control systems [AIAA PAPEB 82-20516]

An advanced helicopter engine control system [AIAA PAPEB 82-20516]

An approach to software for high integrity applications — in aircraft gas turbine engine control [AIAA PAPEB 82-20516]

Evaluation of a multivariable control design on a variable cycle engine simulation [AIAA PAPEB 82-1077] [AIAA PAPEB 82-37682]

Flight evaluation of a digital electronic engine control system in an F-15 airplane [AIAA PAPEB 82-1086] [AIAA PAPEB 82-37683]

Electronic control for small engines [AIAA PAPEB 82-1126] [AIAA PAPEB 82-37684]

Reliability design study for a fault-tolerant electronic engine control [AIAA PAPEB 82-1129] [AIAA PAPEB 82-37690]

Optical tap clearance sensor for aircraft engine controls [AIAA PAPEB 82-1131] [AIAA PAPEB 82-37691]
<table>
<thead>
<tr>
<th>SUBJECT INDEX</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ENGINE COOLANTS</strong></td>
</tr>
<tr>
<td>Air-cooling returns to ramjets</td>
</tr>
<tr>
<td>Engine loss in turbine cascades with porous cooling</td>
</tr>
<tr>
<td>The enhancement of heat exchange in channels</td>
</tr>
<tr>
<td>Flight test method for the determination of reciprocating engine cooling</td>
</tr>
<tr>
<td>The operational characteristics of turbomachines, giving particular attention to the cooled</td>
</tr>
<tr>
<td>The effect of coolant flow on the efficiency of a transonic RP turbine profile suitable for a small engine</td>
</tr>
<tr>
<td>The effect of temperature ratios on the film cooling process</td>
</tr>
<tr>
<td><strong>ENGINE DESIGN</strong></td>
</tr>
<tr>
<td><strong>NT-BOYCE ENGINE DESIGN</strong></td>
</tr>
<tr>
<td>Helicopter engine technology — With particular reference to the Rolls-Boyege Gas engine</td>
</tr>
<tr>
<td>Design considerations for duty cycle, life and reliability of small limited life engines</td>
</tr>
<tr>
<td>Basic problem of aircraft gasturbine engine analytic design. II</td>
</tr>
<tr>
<td>Thermal expansion accommodation in a jet engine</td>
</tr>
<tr>
<td>Creep and aero gas turbine design</td>
</tr>
<tr>
<td>An approach to robust scalene control design — with illustration of J-95 Turbojet engine</td>
</tr>
<tr>
<td>CT7 — GE attacks cosmeter turboprop market</td>
</tr>
<tr>
<td>The well tempered transport aircraft engine/The Sir Henry Boyle Memorial Lecture</td>
</tr>
<tr>
<td>J58/JP-71 propulsion integration or the great adventure into the technical unknown</td>
</tr>
<tr>
<td>Development and operating characteristics of an advanced two-stage combustor</td>
</tr>
<tr>
<td>2037 — Pratt &amp; Whitney tests new turbofan engine</td>
</tr>
<tr>
<td><strong>A FUEL CONTROL SYSTEM DESIGNS APPROACH TO GAS TURBINE ENGINE CONTROLLER MODEL VALIDATION</strong></td>
</tr>
<tr>
<td>Development of a correlated finite element dynamic</td>
</tr>
<tr>
<td>model of a complete aero engine</td>
</tr>
<tr>
<td>A CAD/CAM graphics system with relative data and tolerances</td>
</tr>
<tr>
<td>The impact of increasing energy costs upon the design philosophy of avionic fuel management systems</td>
</tr>
<tr>
<td>Advanced subsonic transport propulsion</td>
</tr>
<tr>
<td>ALFS02 — Fluing the turbofan gap</td>
</tr>
<tr>
<td>Lineup of the IM-series aircraft-derivative gas turbines</td>
</tr>
<tr>
<td>Reliable power — Rolls-Boyege aircraft engine designs</td>
</tr>
<tr>
<td>BB 211 powerplant deterioration — Review of current situation and lessons learned</td>
</tr>
<tr>
<td>[AIAA PAPER 81-1051]</td>
</tr>
<tr>
<td>Management of powerplant maintenance and restoration programs for fuel conservation</td>
</tr>
<tr>
<td>Airline fuel savings in the 1980s and 1990s</td>
</tr>
<tr>
<td>Advanced engine technology and its influence on aircraft performance</td>
</tr>
<tr>
<td>Sheet materials — Fabrication and joining — for gas turbine engine components</td>
</tr>
<tr>
<td>Future auto engines — Competition heats up</td>
</tr>
<tr>
<td>Gas turbine engines used in aviation: Design and construction of components</td>
</tr>
<tr>
<td><strong>DYNAMICS OF CONTROL SYSTEMS</strong></td>
</tr>
<tr>
<td>Thermal expansion of advanced aircraft turbine engine cooling systems</td>
</tr>
<tr>
<td>[AIAA PAPER 82-0320]</td>
</tr>
<tr>
<td>Engine industry cost considerations for emerging technologies</td>
</tr>
<tr>
<td>Advanced engine technology and its influence on aircraft performance</td>
</tr>
<tr>
<td>Gas turbine engine</td>
</tr>
<tr>
<td>Sheet materials — Fabrication and joining — for gas turbine engine components</td>
</tr>
<tr>
<td>Future auto engines — Competition heats up</td>
</tr>
<tr>
<td>Gas turbine engines used in aviation: Design and construction of components</td>
</tr>
<tr>
<td>The Th 333, a trump card for Turboege</td>
</tr>
<tr>
<td>Development of an aircraft engine</td>
</tr>
<tr>
<td>Air cooling of gas turbine blades</td>
</tr>
<tr>
<td>Selection of a starting system for a low cost single engine fighter aircraft</td>
</tr>
<tr>
<td>Ceramic component developments — for limited-life propulsion engines</td>
</tr>
<tr>
<td><strong>DYNAMICS OF CONTROL SYSTEMS</strong></td>
</tr>
<tr>
<td>Faster efficient engine “Y” technology status</td>
</tr>
<tr>
<td>Transport engine control design</td>
</tr>
<tr>
<td>Analysis of two-dimensional internal flows using a primitive-variable relaxation Navier-Stokes procedure</td>
</tr>
<tr>
<td>NASA Broad Specification Fuels Combustion Technology program — Pratt and Whitney Aircraft Phase I results and status</td>
</tr>
<tr>
<td>An experimental investigation of S-duct diffusers for high-speed propfan</td>
</tr>
</tbody>
</table>
Three-dimensional calculation of the flow in a rocket turbine

[NASA-CE-168894]

Advanced turbine study -- airfoil cooling in rocket turbines

[NASA-CE-162003]

Study of advanced propulsion systems for large Transport Aircraft Technology (START) program

[NASA-CE-165610]

Propulsion methods

[NASA-FACTS-93/B-81]

Coaxial ram jet combustor combustion

[NASA-CE-8750]

Low noise diesel fuel combuster concept program

[NASA-CE-165367]

Propulsion opportunities for future commercial aircraft

[NASA-TR-02915]

Advanced stratified charge rotary aircraft engine design study

[NASA-CE-165398]

QCEE over-the-wing engine acoustic data

[NASA-CE-87269]

Development of a spinning wake heat engine

[NASA-CE-165611]

Advanced turboprop testbed systems study. Volume 1: Testbed program objectives and priorities, drive system and aircraft design studies, evaluations and recommendations and wind tunnel test plans

[NASA-CE-167928-VOL-1]

Automated procedure for developing hybrid computer simulations of turbofan engines. Part 1: General description

[NASA-TP-1851]

Engine dynamic analysis with general nonlinear finite element codes. Part 2: Bearing element implementation, overall numerical characteristics and benchmarking

[NASA-CE-167944]

Structural tailoring of engine blades (STEBL)

[NASA-CE-167949]

ENGINE FAULTS

The feasibility of turnaround from a low altitude engine failure during the takeoff climb-out phase

[NASA-TP-1851]

Process monitor helps make jet engines reliable

[NASA-182-23255]

Monitoring engine wear by oil analysis

[NASA-182-24012]

Effect of the rear stage casing treatment on the overall performance of a multistage axial-flow compressor

[NASA-PAPER 82-07-110]

Electronic stabilization of an aircraft

[NASA-PAPER 82-35344]

Damage from engine debris projectiles

[NASA-PAPER 82-35322]

A digital simulation program describing the motion of an aircraft undergoing engine failure during its takeoff ground roll

[NASA-TP-02920]

Analytical investigation of nonrecoverable stall

[NASA-TR-02920]

Computer modeling of fan-exit-splitter spacing effects on F100 response to distortion

[NASA-PAPER 82-22266]

Rotor fragmen protection program: Statistics on aircraft gas turbine engine rotor failures that occurred in U.S. commercial aviation during 1978

[NASA-CE-165388]

Results of jet engine performance monitoring trial in Hercules aircraft, February - July 1977

[ABL-RECF-ENG-TECH-8520-409]

ENGINE INLETS

A large-scale investigation of engine influence on inlet performance at angle-of-attack

[PRH-90082]

An iterative finite element-integral technique for predicting sound radiation from turbofan inlets in steady flight

[AIAA-PAPER 82-0124]

Three-dimensional calculation of the flow in a helicopter air intake

[DOHA, TP 80, 1981-124]

An experimental investigation of 5-duct diffusers for high-speed propfans

[DOHA-PAPER 82-1123]

F-14 inlet development experience

[ASME-PAPER 82-GT-5]

Small engine inlet air particle separator technology

[ASME-PAPER 82-GT-40]

Prediction of cruise missile inlet peak instantaneous distortion patterns from steady state and turbulence data using a statistical technique

[AIAA PAPER 82-1065]

A summary of VSTOL inlet analysis methods

[AIAA-PAPER 82-02725]

Effect of a part span variable inlet guide vane on TF34 fan performance

[NASA-CE-165456]

Aerodynamics of Power Plant Installation

[AGARD-CP-361]

Performance of highly integrated inlets for supersonic aircraft

[NASA-182-23255]

Some NASA research on shielded and unshielded funnelling mounted air intakes at subsonic and supersonic speeds

[NASA-182-23255]

Prediction and measurement of time-variant, three-dimensional flows in military aircraft intakes

[NASA-182-23255]

Effects of intake geometry on circular pitot probe pressure measurements of supersonic aircraft

[NASA-182-23255]

Performance of highly integrated inlets for supersonic aircraft
**ENGINE NOISE**

Monitoring engine wear by oil analysis

Propulsion multiplexer /FMUX system - The missing link

[AE AER PAPER 81-1078] p0233 A82-24611

FMUX - The interface for engine data to AIDS --- propulsion multiplexer in Aircraft Integrated Data System

[IAIA PAPER 82-1127] p0417 A82-35022

Acquisition of F-100/J. high pressure compressor entrance profiles

[ASME PAPER 82-GT-215] p0427 A82-35402

Design concepts of an advanced propulsion monitoring system

[IAIA PAPER 82-1130] p0638 A82-37690

Caval helicopter propulsion system reliability and engine monitoring technology assessments

[IAIA PAPER 82-204] p0649 A82-40518

Research on the behavior of a turboshaft engine during normal and external disturbances with respect to early recognition of damage --- German thesis

[IAIA PAPER 82-1140] p0503 A82-40561

High temperature electronic requirements in aeropropulsion systems

[AE AER 80-12] p0146 A82-15313

An alternative approach to engineering structures using monitoring systems

[IAIA PAPER 82-2049] p0209 A82-17223

Gas path analysis of commercial aircraft engines

[IAIA PAPER 82-121] p0402 A82-25184

**ENGINE NOISE**

Rotor wake characteristics relevant to rotor-stator interaction noise generation

[IAIA PAPER 81-2031] p0068 A82-10456

Workshop report for the IAIA 6th Aeroacoustics Conference

[IAIA PAPER 82-1121] p0103 A82-16091

An iterative finite element-integral technique for predicting sound radiation from turbomachinery in steady flight

[IAIA PAPER 82-0124] p0115 A82-17796

Shock associated noise of supersonic jets from convergent-divergent nozzles

[IAIA PAPER 82-2049] p0270 A82-32022

Interior noise considerations for advanced high-speed turboprop aircraft

[IAIA PAPER 82-1121] p0416 A82-35018

Multiple pure tone elimination strut assembly --- air breathing engines

[IAIA-CASE-PRC-10026-1] p0193 A82-16800

Analytical study of twin-jet shielding

[IAIA-CASE-165102] p0193 A82-16801

[IAIA-CASE-165103] p0194 A82-16802

Analytical study of twin-jet shielding

[IAIA-CASE-165104] p0194 A82-16803

Analytical study of twin-jet shielding development of a 3-dimensional model

[IAIA-CASE-165105] p0194 A82-16804

Analytical study of twin-jet shielding two-dimensional model

[IAIA-CASE-165106] p0194 A82-16805

Preliminary thoughts on helicopter cabin noise prediction methods

[IAIA PAPER 82-1121] p0283 A82-18148

Aerodynamic noise generated by jet wing/flap interactions of the external USB configuration of STOL aircraft. Part 2: Full scale model experiment using FJ710 turbofan engine

[IAIA-TR-6807-FT-2] p0270 A82-19945

YF 102 in-duct combustor noise measurements with a turbine nozzle, volume 1

[IAIA-CASE-165562-1-VOL-1] p0309 A82-21031

YF 102 in-duct combustor noise measurements with a turbine nozzle, volume 2

[IAIA-CASE-165562-2-VOL-2] p0309 A82-21032

YF 102 in-duct combustor noise measurements with a turbine nozzle, volume 3

[IAIA-CASE-165562-3-VOL-3] p0309 A82-21033

Fluctuating pressures on fan blades of a turbofan engine: Static and wind-tunnel investigations

[IAIA-TP-1976] p0309 A82-21037

QFSE under-the-wing engine acoustic data

[IAIA-TM-82691] p0682 A82-27311

Static noise tests on modified augmentor wing jet STOL research aircraft

[IAIA-TM-81231] p002 A82-28295

QFSE over-the-wing engine acoustic data

[IAIA-TM-82701] p0036 A82-29234

Estimated airplane noise levels in A-weighted decibels

[AC-36-3B] p0540 A82-30029

Forward velocity effects on fan noise and the suppression characteristics of advanced technologies as measured in the NASA Area 40 by 80 foot wind tunnel

[IAIA-CASE-152528] p0540 A82-30030

Far-field acoustic data for the Texas AEE, Inc. high house

[AB-1416564] p0540 A82-30032

Airport/Community Noise

[IAIA-CASE-2241] p0564 A82-31070

Airport noise

[IAIA-PAPER 82-1130] p0564 A82-31071

Baffle analysis of installation effects on turboprop noise

[IAIA-TM-82914] p0574 A82-32002

Noise measurement in wind tunnels, workshop summary

[IAIA-PAPER 82-162] p0576 A82-32410

ENGINE PARTS

Power powder engine components; controls employed to assure high quality hardware

[IAIA PAPER 82-149] p0921 A82-12456

Strength of the turbine components of a gas-turbine engine under complex loading and associated problems

[IAIA PAPER 82-1050] p0293 A82-27526

Precision casting for gas turbine engines

[IAIA PAPER 82-2049] p0297 A82-28313

The gas turbine engine

[IAIA PAPER 82-1045] p0325 A82-28537

Gas turbine engines used in aviation: Design and construction of components /5th revised and enlarged edition/ --- Russian book

[IAIA PAPER 82-1045] p0341 A82-30697

Ches-Braze adaptable seal practical

[IAIA PAPER 82-1045] p0341 A82-31048

Effect of operating life on the mechanical properties of the materials and load-bearing capacity of the rotor elements of gas-turbine engines

[IAIA PAPER 82-1045] p0342 A82-31643

The superalloys - Materials for gas turbine hot section components

[IAIA PAPER 82-1045] p0364 A82-33503

Large scale aerogas turbine compressor test facility

[IAIA PAPER 82-1045] p0391 A82-34953

Ceramic component development for limited-life propulsion engines

[IAIA PAPER 82-1045] p0415 A82-34979

Development and application of Dabber gas tungsten arc welding for repair of aircraft engine, seal teeth

[ASME PAPER 82-GT-55] p0422 A82-35310

Net shape components for small gas turbine engines

[ASME PAPER 82-GT-96] p0422 A82-35318

The effect of NaCl on high temperature oxidation

[ASME PAPER 82-GT-106] p0424 A82-35362

Demonstration of ceramic hot-section static components in a radial flow turbine

[ASME PAPER 82-GT-104] p0427 A82-35392

Next generation turboshaft engines

[ASME PAPER 82-GT-236] p0428 A82-35418

Ceramic components for automotive and heavy duty turbine engines - CATE and MGT 100

[ASME PAPER 82-GT-253] p0429 A82-35432

Interim review of the Energy Efficient Engine /E3/ Program

[ASME PAPER 82-GT-271] p0429 A82-35467

NASA-SCI programs - Benefits to Pratt and Whitney engines

[ASME PAPER 82-GT-272] p0429 A82-35468

Progress in the development of energy efficient engine components

[ASME PAPER 82-GT-275] p0429 A82-35450

Engine dynamic analysis with general nonlinear finite element codes. II - Bearing element implementation, overall numerical characteristics and benchmarking

[ASME PAPER 82-GT-292] p0430 A82-35462

Ceramic turbine housings

[ASME PAPER 82-GT-293] p0430 A82-35463

Development of counter-rotating intershaft support bearing technology for aircraft gas turbine engines

A-178
A-179

[5555 PAPEB 82-1054] p0437 AS2-37679
A cost modeling approach to engine optimization
[5555 PAPEB 82-1055] p0439 AS2-37698
Propulsion opportunities for future commuter aircraft
[5555 PAPEB 82-1049] p0497 AS2-40018
Third generation turbo fans

Maintanance posture for quick start

60 kVA ADP permanent magnet VSCF starter generator

USAF bioenvironmental noise data handbook. Volume 162: #8-60 generator set

ENGINE TESTING LABORATORIES

Increased capabilities of the Langley Mach 7 SonSane Jet Test Facility
[5555 PAPEB 82-1240] p0418 AS2-35080

ENGINE TESTS

Nit Cold Flow Tests

History of flight testing the L-1011 Tristar jet transport. II - Testing highlights since Initial certification of the L-1011-1
p019 AS2-12069

Recent propulsion system flight tests at the NASA Dryden Flight Research Center
[5555 PAPEB 81-2438] p0555 A82-13874
Performance assessment of an advanced reheaterd turbofan
[5555 PAPEB 81-2497] p0555 A82-13879

J58/JSF-71 propulsion integration or the great adventure into the technical unknown
p0112 A82-17418

Development and operating characteristics of an Advanced two-stage compressor
[5555 PAPEB 82-0191] p0116 A82-17833
Performance calibration results for a Compact Multimission Aircraft Propulsion Simulator

[5555 PAPEB 82-0254] p0118 A82-17666
F101DFE in Tocat - Preliminary test results
p0116 A82-18346

2037 - Pratt & Whitney tests new turbofan
p0125 A82-18347
Reduction of the acoustic environment in an F100-PW-100 engine test cell
p0128 A82-18727

Air cooled engine test facilities
p0223 A82-24004

Pacer Jet II jet engine test system
p0295 A82-27903

New processes and methods of technical diagnostics and prognostics in the case of the engine

[5555 PAPEB 82-0944] p0335 A82-29225

Large scale aeropneumatic compressor test facility
p0391 A82-29453

Evaluation of a simplified gross thrust calculation method for a J85-21 afterburning turbojet engine in an altitude facility
[5555 PAPEB 82-1044] p0415 A82-29478

Ceramic comporession development for limited-life propulsion engines
[5555 PAPEB 82-1050] p0415 A82-29479

T700 - Modern development test techniques, lessons learned and results
[5555 PAPEB 82-1183] p0418 A82-35048

Icing conditions on sea level gas turbine engine test stands
[5555 PAPEB 82-1027] p0418 A82-35078

Conversion of centrifugal compressor performance curves considering non-similar flow conditions
[5555 PAPEB 82-0254] p0421 A82-35300

Application of high bypass turbofan computer simulation to flight and test data processing
p0426 A82-35366
Status report of the USAF's Engine Model Derivative Program
[5555 PAPEB 82-CF-143] p0427 A82-35391

Demonstration of ceramic hot-section static components in a radial flow turbine
[5555 PAPEB 82-CF-148] p0427 A82-35392

Engine experience of turbine rotor blade materials and coatings
[5555 PAPEB 82-GT-275] p0429 A82-35450

Progress in the development of energy efficient engine components
[5555 PAPEB 82-GT-275] p0429 A82-35450

Current techniques for jet engine test cell modeling
[5555 PAPEB 82-1272] p0439 A82-37712

800 Shaft Horsepower Advanced Technology Demonstrator Engine /ATDE/ status update
p0299 A82-40520

Research on the behavior of a turbojet engine during internal and external disturbances with respect to early recognition of damage
p0503 A82-40561

Aerodynamic approach and landing thrust reverser impacts on usage and LCC - life cycle cost
p0505 A82-40892
The nonsynchronous whirls of the turbine rotor in aerjet engines

Intake swirl - a major disturbance parameter in engine/intake compatibility

Acoustic emission inspection of aircraft engine turbine blades for intergrular corrosion

Propulsion study for Small Transport Aircraft Technology (STAT), Appendix B

Adaptation of a turbine test facility to high-temperature research

Aircraft engine technologies program small jet aircraft engines, phase 3

Development of the automated APPL engine simulator test for lubricant evaluation

Development test programs adapted to helicopter engines

Measurement techniques used to assess the installed power of a helicopter engine

Preliminary results on performance testing of a turbocharged rotary combustion engine

CF6 Jet Engine Diagnostics Program: High pressure compressor clearance investigation

The mechanical testing of compressors and turbines for aircraft gas turbine engines -- Rolls Royce engines

Coaxial dump Ramjet combustor combustion instabilities. Part I: Parametric test data

Performance deterioration due to acceptance testing and flight loads: J390 jet engine diagnostic program

Ramjet combustor combustion instabilities. Part II: Experimental results and discussion

Energy efficient engine: High pressure turbine uncooled rig technology report

Maintenance training simulator design and acquisition: JSF-derived training equipment design

Organizing and training for innovative flight test management

Aircraft engines

Air extracting engines

Boeing 757-200 engine

Control rockets

V-2700 engines

Controlled combustion engines

J-58 engines

J-79 engines

J-85 engines

Jet engines

Piston engines

Pulsejet engines

Ramjet engines

Rocket engines

Supercharged combustion Ramjet engines

T-28 engines

TF-34 engines

Turbine engines

Turbofan engines

Turbojet engines

Turboprop engines

Turboshaft engines

Turboelectric engines

Variable cycle engines

Nuke engines

Expansion engines

Environmental effects

Atmospheric damage: An environmental analysis technique

Transportation system evaluation methodology development and applications, phase 3

Pollution of the soil by aviation gasoline

The optical recognition of sea targets as a function of surrounding and observation parameters in air to water observations

Radar frequency radiation

Transportation noise, its impact, planning and regulation

The noise impact of proposed runway alternatives at Craig Airport

Environmental pollution

Oil pollution

Environmental simulation

Acoustic simulation

Space environment simulation

THERMAL SIMULATION

Helicopter icing

Radar environment simulation for software test

Helicopter icing spray systems

Mechanical rain erosion test apparatus

Electroemagnetic interaction of lightning with aircraft

Lighting simulation and testing

Assessment of aircraft susceptibility/vulnerability to lightning and development of lightning-protection design criteria

NASA/FAA Helicopter ATC simulation investigation of EH/LS instrument approaches

Helicopter Icing Spray System (HISS) nozzle improvement evaluation

Meteorological inputs to advanced simulators

Atmospheric electricity hazards analytical models

Environmental simulators

Space simulators

JTIDS distributed TDMA/DTDMA/terrestrial development results with emphasis on relative navigation performance

The design of an RPV ground station simulator

Environmental chambers

Test chambers

Environmental chemistry

Atmospheric chemistry

Environmental control

A new ARP for medium place aircraft environmental control systems

Closed loop environmental control systems for fighter aircraft

Towards minimum power for environmental control in transport aircraft

Environmental chambers

A-180
Air-to-air integrated environmental conditioning system for trainer subsonic aircraft  
(ADMR-PAPER-81-BDIA-13)  
p0012 A82-10920  
Electric Flight Systems  
[NASA-CP-2209]  
p0260 A82-19134  
Electric ECS  
Environmental Control Systems  
Electric flight systems integration  
p0261 A82-19144  
p0261 A82-19114  
p0261 A82-19150  
Environmental Monitoring  
Aeronautics and Space report of the President:  
1981 activities  
[NASA-TM-845715]  
p0603 A82-33332  
Environmental Quality  
Environmental Tests  
ST COLD WEATHER TESTS  
ST CORROSION TESTS  
ST HIGH TEMPERATURE TESTS  
ST LOW TEMPERATURE TESTS  
EEVQ impossible  
Quantification of the thermal environment for  
externally carried aircraft stores and ordnance  
p0019 A82-12100  
The Global Positioning System Evaluator  
--- facility for testing in simulated wide range  
environments  
p0181 A82-21588  
The coupling of electromagnetic interference into  
aircraft systems  
p0228 A82-24354  
The variation of induced currents in aircraft wiring  
p0228 A82-24355  
HBC clearance of modern military aircraft  
p0229 A82-24359  
Sensitivity of bonded and bolted joints in  
composites to load/environmental spectrum  
variations  
Analyzing stable transitions and disturbance of a  
sensor vault to monitor pad stability  
AIAA-82-1585  
p0868 A82-39011  
Moisture gradient considerations in environmental  
fatigue of CFRP  
p0578 A82-95479  
The Shock and Vibration Digest, volume 13, no. 9  
[AD-105062]  
p0031 A82-10421  
Environmental exposure effects on composite  
materials for commercial aircraft  
[AIAA-CR-3502]  
p0193 A82-16178  
Forecasting corrosion damage and maintenance costs  
for large aircraft  
p0212 A82-17357  
AEQ-164 POD/AV-BV environmental evaluation flight  
test  
[AD-110198]  
p0314 A82-21178  
Analysis and environmental fate of Air Force  
distillate and high density fuels  
[AD-111549]  
p0595 A82-32512  
Environments  
HT AEROSPACE ENVIRONMENTS  
HT HIGH ALTITUDE ENVIRONMENTS  
HT HIGH ALTITUDE ENVIRONMENTS  
HT ICE ENVIRONMENTS  
HT IONOSPHERE  
HT LOW TEMPERATURE ENVIRONMENTS  
HT MARINE ENVIRONMENTS  
HT SATELLITE ATMOSPHERES  
HT THERMAL ENVIRONMENTS  
The work environment  
p0534 A82-29299  
EPNL  
V EFFECTIVE PERCEIVED NOISE LEVELS  
EPOXY COMPOUNDS  
ST NON-EPOXY COMPOUNDS  
EPOXY BAKELITE COMPOSITES  
Kevlar composites; Proceedings of the Symposium,  
El Segundo, CA, December 2, 1980  
p023 A82-12666  
The TAN-644 composite flexible tail rotor  
p078 A82-26386  
Design of a composite main rotor blade spar for  
fabrication by tubular braiding  
p0279 A82-26389  
Light weight adhesive joining of composite  
structures  
p0291 A82-27040  
Effects of moisture on the mechanical properties  
of glass/epoxy composites  
p0329 A82-20936  
A significant role for composites in  
energy-efficient aircraft  
p0435 A82-37065  
A one-shot autoclave manufacturing process for  
carbon epoxy components  
p0509 A82-40935  
Development of manufacturing technology for  
fabrication of a composite helicopter main rotor  
spar by tubular braiding  
[AD-105377]  
p0265 A82-19209  
Materials and structures/CACE  
[NASA-PACT-115/5-81]  
p0407 A82-25282  
EPOXY RESINS  
Effects of elastomeric additives on the mechanical  
properties of epoxy resin and composite systems  
p0113 A82-17538  
A new resin for field repair  
p0291 A82-27412  
EQUATIONS OF MOTION  
ST HILBER EQUATIONS OF MOTION  
ST NAVIER-STOKES EQUATION  
Optimal flight paths for winged, supersonic flight  
vehicles - Extension to the case where thrust  
can be vectored  
p0005 A82-10310  
On the question of trailing aircraft motion  
p0015 A82-11470  
Numerical computation of optimal atmospheric  
trajectories involving shaped vehicles  
[AIAA PAPER 82-0360]  
p0119 A82-17902  
An analytical technique for the analysis of  
airplane spin entry and recovery  
[AIAA PAPER 82-0243]  
p0164 A82-19786  
The dynamic behaviour of propeller anemometers  
p0276 A82-26184  
Computational aerodynamics - Its coming of age and  
its future  
p0332 A82-29773  
Transformation relations for singularity avoidance  
in three-dimensional trajectory optimization  
p0178 A82-32137  
Computer-aided derivation of equations of motion  
for rotary-wing aerelastic problems  
p0504 A82-40883  
The nonasynchronous whirls of the turbine rotor in  
aeroplane engines  
p0510 A82-40944  
Reduced nonlinear flight dynamic model of elastic  
structure aircraft  
p0516 A82-41009  
ACTA Mechanica Sinica (selected articles)  
[AD-107322]  
p0131 A82-10406  
Flag-lag-torsional dynamics or extensional and  
inextensional rotor blades in hover and in  
forward flight  
[AIAA-CR-165078]  
p0139 A82-15013  
Planar equations of motion for an aircraft  
with free or steerable landing gears  
p0168 A82-23244  
An aircraft sensor fault tolerant system  
[AIAA-CR-165076]  
p0407 A82-25236  
User's manual for the AEREX flight path-trajectory  
simulation code  
[0282-007004]  
p0538 A82-29343  
EQUATIONS OF STATE  
On computing Floguet transition matrices of  
rotocraft  
p0013 A82-11225  
Equipment  
The impact of new guidance and control systems  
on military aircraft cockpit design  
[AGARD-CP-312]  
p0091 A82-13048  
Equipment Specifications  
A natural parameter-controller specification  
procedure for an integrated radio/dead recconer  
navigation system  
p0128 A82-18155  
Practical aspects of instrumentation system  
installation, volume 13  
[4452-TM-800617]  
p0099 A82-13140  
Advanced recorder design and development  
[2881-241057]  
p0193 A82-16385
EROSION

V/STOL tilt rotor research aircraft. Volume 4:
CFE technical data
A new all-purpose digital flight data recorder
p0401 682-25177

EROSION

U CONSTRUCTION

EROGONICS

U HUMAN FACTORS ENGINEERING

EROSION

MT HAIR EROSION

MT WATER EROSION

ERROR ANALYSIS

Evaluating sources of error in RAR/GEAR
navigation using a Kalman postprocessor
Electronically scanned Radar/Gimballed Electrically
suspended gyro Airborne Navigation System
p0006 682-14739

Coordinate transformation in PLRS --- algorithm
and error analysis of Position Location and
Reporting System
p0124 682-18518

Analysis of system problems using aviation safety
reporting system data
p0219 682-23312

The reliability of height and identity data ---
secondary surveillance radar error analysis
p0301 682-30312

Accuracy expectations for gas turbine and
centrifugal compressor performance testing
[AAS PAPER 82-07-126] p0425 682-35558

Compressor stall inducing installation effects of
an engine control parameter for the CF-5 aircraft
p0905 682-13685

Methodology for measurement of fault latency in a
digital avionic microprocessor
p0196 682-17105

A descriptive study of the application of analysis
of variance and regression techniques in an
error analysis program for test data obtained in a
16 foot transonic tunnel
p0309 682-20997

Technical approaches for measurement of human errors
[NASA-CR-166316] p0352 682-22249

Gravity induced position errors in airborne
inertial navigation
[AD-111328] p0467 682-27272

Reduction and analysis of node altitude data
collected at high altitudes over the continental
United States
[AD-1114655] p0532 682-29276

Establishment of a rotor model basis
[NASA-TF-2026] p0535 682-29311

ERROR BAND

U ACCURACY

ERROR CORRECTING DEVICES

Observability of the parameters of an inertial
navigation system for a 360-deg coordinated turn
p0803 682-67093

Flight data recovery under adverse conditions
p0802 682-25183

ERROR DETECTION CODES

Methodology for measurement of fault latency in a
digital avionic microprocessor
p0196 682-17105

The P-POD Project --- error detection codes
p0445 682-26292

Control optimisation, stabilization and computer
algorithm for aircraft applications
[NASA-CR-169015] p0461 682-27009

Design of analytical failure detection using
secondary observers
[NASA-TF-64264] p0590 682-32362

ERRORS

U BORESIGHT ERROR

U INSTRUMENT ERRORS

U PHASE ERROR

U PILOT ERRORS

U POSITION ERRORS

U RANGE ERRORS

U VELOCITY ERRORS

ESCAPE CAPSULES

Current ADM restraint system status, trade-off
constraints and long range objectives for the
Marines Performance Ejection System (MPES)
[AD-1112645] p0464 682-27238

ESCAPE SYSTEMS

Escape system decelerator technology
[AIAA PAPER 81-1913] p0061 682-13966

SUBJECT INDEX

Emergency in-flight egresses for general aviation
aircraft
p0777 682-14953

Wind tunnel tests of ejection seat for high
dynamic pressure escape
p0779 682-14979

A ballistic design model for initiators for
aircraft personnel escape systems
p0800 682-14984

Analytical and experimental characterization of the
J-4/A cartridge actuated initiator for use in an
aircrew escape system performance evaluation
p0800 682-14985

Finite element analysis of through the canopy
emergency crew escape from the T-38 aircraft
[AIAA 82-0705] p0335 682-30096

Leaf fan 2100 egress system
p0499 682-37970

Problems with the use of percentages in the
analysis of AAES data --- Aircrew Automated
Escape Systems
p0556 682-44293

Investigation of aircrew protection during
emergency escape at dynamic pressures up to 1600 Q
[AD-111552] p0605 682-33359

ESTERS

MT POLYCARBONATES

MT SUBERANES

ESTIMATES

MT COST ESTIMATE

Real time estimation and prediction of shape
motions using Kalman filtering techniques
[NASA-CR-165264] p0572 682-31637

A description of methodologies used in estimation
of a k-weighted sound levels for FAA Advisory
Circular AC-36-3B
[AD-111554] p0574 682-32045

ESTIMATING

MT PARAMETER IDENTIFICATION

MT SYSTEM IDENTIFICATION

Comparison of various elevation angle estimation
techniques
p0175 682-20589

New estimation method for flutter or divergence
boundary from random responses at subcritical
speeds
[WTM-3-677] p0030 682-11034

Statistical analysis and time series modeling of
air traffic operations data from flight service
stations and terminal radar approach control
facilities: Two case studies
[AD-110973] p0304 682-20172

Application of adaptive estimation to target
tracking
[AD-1112036] p0450 682-26272

ETHERS

Studies of new perfluoroether elastomeric sealants
--- for aircraft fuel tanks
[NASA-CR-166377] p0560 682-30400

ETHANOL ALCOHOL

Ethanol production by vapor compression distillation
[822-004092] p0538 682-29333

EUCLIDEAN GEOMETRY

MT ANGLE OF ATTACK

MT ANGLES (GEOMETRY)

MT CARTESIAN COORDINATES

MT ELEVATION ANGLE

MT GEODESIC LINES

MT RECTANGLES

MT SWEEPBACK

MT TANGENTS

MT TORSUSES

EUCLIDEAN EQUATIONS OF MOTION

An implicit finite-volume method for solving the
Euler equations
[OMEGA, TP NO. 1982-59] p0552 682-43753

Damped Euler-equation method to compute transonic
flow around wing-body combinations
[OMEGA, TP NO. 1982-59] p0553 682-44092

Simulation of the fluctuating field of a forced jet
[NASA-TR-04506] p0615 682-34191

EUROPE

The status of airport noise prediction, with
special reference to the United Kingdom and Europe
p0296 682-28149

EUROPEAN AERONAUT

MT A-300 AIRCRAFT

A-182
<table>
<thead>
<tr>
<th>SUBJECT INDEX</th>
<th>A-186</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-5 AIRCRAFT</td>
<td>Evaluation of crack growth rates for service life tracking</td>
</tr>
<tr>
<td></td>
<td>Active flutter suppression on an F-4F aircraft</td>
</tr>
<tr>
<td></td>
<td>Implicit model-following technique - Application to the design of longitudinal stability augmentation systems</td>
</tr>
<tr>
<td></td>
<td>An electronic control for an electrohydraulic active control landing gear for the F-4 aircraft</td>
</tr>
<tr>
<td></td>
<td>Aerodynamics on a transport aircraft type wing-body model</td>
</tr>
<tr>
<td></td>
<td>Reflections on an F-43 in flight emergency</td>
</tr>
<tr>
<td>F-5 JAGUAR</td>
<td>From claws to jaws - Tiger into Jaguuar</td>
</tr>
<tr>
<td></td>
<td>Some observations on the corrosion of aircraft at the air force base in Bandirma, Turkey</td>
</tr>
<tr>
<td></td>
<td>On the corrosion problems of the TF-5 aircraft</td>
</tr>
<tr>
<td>F-8 AIRCRAFT</td>
<td>Piloted simulation of an on-board trajectory optimization algorithms</td>
</tr>
<tr>
<td>F-10 AIRCRAFT</td>
<td>Flight Loads Survey monitoring and analysis techniques</td>
</tr>
<tr>
<td></td>
<td>Flight test experience with high-alpha control system techniques on the F-14 airplane</td>
</tr>
<tr>
<td></td>
<td>Griffin Towcat - In a class of its own</td>
</tr>
<tr>
<td></td>
<td>F101 DPEs to Towcat - Preliminary test results</td>
</tr>
<tr>
<td></td>
<td>Welding for low-cost advanced titanium airframe structures</td>
</tr>
<tr>
<td>F-14 AIRCRAFT</td>
<td>F-14 aileron development experience</td>
</tr>
<tr>
<td></td>
<td>NASA Dryden's experience in parameter estimation and its use in flight test</td>
</tr>
<tr>
<td></td>
<td>Limited evaluation of an F-14A airplane utilizing an afterburner-interconnected control system in the landing configuration</td>
</tr>
<tr>
<td></td>
<td>Investigation of crossdeck pendent catapult slot interaction; proposed corrective measures</td>
</tr>
<tr>
<td></td>
<td>Effects of installation of F101 DPEs exhaust nozzles on the afterbody-nozzle characteristics of the F-14 airplane</td>
</tr>
<tr>
<td></td>
<td>Cannibalization of the F-14 and S-3A aircraft: A viable logistic</td>
</tr>
<tr>
<td></td>
<td>Survey and update of F-14A mission profiles for TF310 engine usage</td>
</tr>
<tr>
<td>F-15 AIRCRAFT</td>
<td>The use of separated multifunction inertial sensors for flight control</td>
</tr>
<tr>
<td></td>
<td>Redundancy management of skewed and dispersed inertial sensors</td>
</tr>
<tr>
<td></td>
<td>Enhanced F-15 air-to-ground flight demonstrations</td>
</tr>
<tr>
<td></td>
<td>Fighters - Improving the breed</td>
</tr>
<tr>
<td></td>
<td>Status and tracking system for flight test data products</td>
</tr>
<tr>
<td></td>
<td>Analysis of rotary balance data for the F-15 airplane including the effect of conformal fuel tanks</td>
</tr>
<tr>
<td></td>
<td>Integrated flight and fire control demonstration on an F-15A aircraft: System development and ground test results</td>
</tr>
<tr>
<td></td>
<td>F-15/79 test program</td>
</tr>
<tr>
<td></td>
<td>F-16/79 test program</td>
</tr>
<tr>
<td></td>
<td>Fighter - Improving the breed</td>
</tr>
<tr>
<td></td>
<td>Advanced fighter technology integration AFIT/FS program overview</td>
</tr>
<tr>
<td></td>
<td>The design and implementation of a caucaded scenario function for the F-16 dynamic system simulator</td>
</tr>
<tr>
<td></td>
<td>Design of direct digital flight-mode control systems for high-performance aircraft</td>
</tr>
<tr>
<td></td>
<td>F-16 ground and airflight icing testing</td>
</tr>
<tr>
<td></td>
<td>YR-16 design concept and philosophy</td>
</tr>
<tr>
<td></td>
<td>A new angular deviation measurement device for aircraft transparencies</td>
</tr>
<tr>
<td></td>
<td>F-16 active flutter suppression program</td>
</tr>
<tr>
<td></td>
<td>Terrain following/terrain avoidance system concept development</td>
</tr>
<tr>
<td></td>
<td>Non-honeycomb F-16 horizontal stabilizer structural design</td>
</tr>
<tr>
<td></td>
<td>F-16 Centralized Data System /CDS/</td>
</tr>
<tr>
<td></td>
<td>New nozzle design aimed at F-15, F-16 aircraft</td>
</tr>
<tr>
<td></td>
<td>New nozzle design aimed at F-15, F-16 aircraft</td>
</tr>
<tr>
<td></td>
<td>Dynamic qualification testing of F-16 equipment</td>
</tr>
<tr>
<td></td>
<td>Integration of avionics and advanced control technology</td>
</tr>
</tbody>
</table>
A roadmap toward a fatigue qualification process for modern technology helicopters

Design and experimental verification of the USB-flap structure for HAL STOL aircraft

Upper Surface Blowing

A crack growth model under spectrum loading

Fatigue crack growth theory based on strain energy density factor

An analogy method for crack initiation life prediction

Moisture gradient considerations in environmental fatigue of CFPR

Effect of fighter attack spectrum on composite fatigue life

[AD-A105038] p0089 A82-12143

Acoustic fatigue endurance test of USB flag structure models at elevated temperature

[NALL-78-682] p0269 A82-19570

Fatigue analysis of composite materials using the fail-safe concept

[NASA-TP-76671] p0304 A82-20175

Engine component retirement for cause

Defects and their effect on the behavior of gas turbine discs

p0286 A82-22178

Engineering property comparisons of 7050-173651, 7010-27651 and 7010-773651 aluminum alloy plate

--- for aircraft construction

[NLL-MP-80047-01] p0357 A82-22360

Comparison of different fighter aircraft load spectra

[PPA-HW-1902-02] p0470 A82-27288

Development of a Structural Integrity Recording System (SIRS) for US Army AH-15 helicopters

[AD-A116027] p0591 A82-32364

Fatigue tests

Superalloy superalloy powders by the rotating electrode process

Tensile fatigue assessment of candidate reams for use in fibre reinforced composite repair schemes

p0113 A82-17531

Effects of ultra-clean and centrifugal filtration on rolling-element bearing life

[AIAA PAPER 81-1093-35] p0127 A82-18436

Fatigue behavior of selected non-woven fiber composites for helicopter rotor blades

p0170 A82-20524

Process monitor helps make jet engines reliable

p0183 A82-21897

The challenge of standardizing fatigue methodology

[NASA CR-228] A82-24703

NDE of composite rotor blades during fatigue testing

p0238 A82-24713

Fundamentals of helicopter fatigue life determination

p0239 A82-24714

Fatigue test of the typical main rotor control component

p0240 A82-24715

Advanced attack helicopter fatigue testing - Overview

p0240 A82-24720

Sonic fatigue testing of an advanced composite airframe

[AIAA PAPER 81-0063] p0283 A82-26567

Sensitivity of bonded and bolted joints in composites to load/environmental spectra variations --- in fighter aircraft structures

p0289 A82-27158

Production welding on the A-10 aircraft

p0299 A82-28995

Fatigue behavior of adhesively bonded joints

p0328 A82-29032

A comparison of properties of single overlap tension joints prepared by ultrasonic welding and other means

[AIAA PAPER 82-1061] p0335 A82-30091

T700 - Modern development test techniques, lessons learned and results

[AIAA PAPER 82-1183] p0418 A82-35048

A-190

SUBJECT INDEX

Practical application of a computerized flight by flight fatigue test system

p0440 A82-37768

Fasteners for composite structures

p046 A82-39929

A roadmap toward a fatigue qualification process for modern technology helicopters

p0501 A82-40542

Application of a new hybrid material [AIAA in aircraft structures

p0513 A82-40975

Structural strength of materials and parts of gas turbine engines --- Russian book

p0548 A82-42063

Modeling of thermal effects when integrating the thermal fatigue life of the blades of a gas-turbine engine

p0583 A82-44682

Matrix analysis of wings

p0032 A82-10996

Design of a data acquisition and reduction system for fatigue testing

[AD-A110612] p0461 A82-26720

FAULT ACIDS

A protective additive for jet fuels

p0618 A82-12022

Antioxidant properties of additives based on higher fatty acids --- for jet fuels

p0548 A82-42893

FAULT MECHANICS

FAULT TOUGHNESS

Synchronous fault-tolerant flight control systems

[AIAA 81-2109] p0001 A82-10083

Fault detection for two physically separated, communicating inertial measurement units

p0045 A82-13142

Fault isolation methodology for the L-1011 digital avionic flight control system

[AIAA 81-2223] p0047 A82-13450

Computer-in-control selection logic for a triple digital flight control system

[AIAA 81-2236] p0047 A82-13455

The SIFT computer and its development -- Software Implemented Fault Tolerance for aircraft control

[AIAA 81-2278] p0049 A82-13490

A failure detection and isolation system for tactical aircraft with separated IU's

p0066 A82-14684

Formal specification and mechanical verification of SIFT -- A fault-tolerant flight control system

p0436 A82-37484

Reliability design study for a fault-to-tolerant electronic engine control

p0438 A82-37689

Generic faults and design solutions for flight-critical systems

[AIAA PAPER 82-1125] p0436 A82-13490

The Shiryayev sequential probability ratio test

[AIAA PAPER 82-1223] p0485 A82-38900

An analytical design and validation of digital flight control system structure

[AIAA PAPER 82-1626] p0486 A82-38998

Hierarchical specification of the SIFT fault tolerant flight control system

p0497 A82-40434

SIPT: An ultra-reliable avionic computing system

p0197 A82-17106

Analysis of computing system configurations for highly integrated guidance and control systems

p0197 A82-17115

Production of reliable Flight Control Software: Validation Methods Research for Fault Tolerant Avionics and Control Systems Sub-Working Group Meeting

[NASA-CP-2222] p0490 A82-24845

An aircraft sensor fault tolerant system

[NASA-CR-15876] p0497 A82-25236

Control optimization, stabilization and computer algorithms for aircraft applications


Problems related to the integration of fault tolerant aircraft electronic systems

[NASA-CR-165926] p0530 A82-29022

Advanced reliability modeling of fault-tolerant computer-based systems

[NASA-TM-84501] p0564 A82-30962
Cost and benefits design optimization model for fault tolerant flight control systems  
[AIAA-CR-159281]  p0593 882-32379
Fault trees  
Fault isolation bits for increased productivity  
AIAA-CR-159281  p0545 882-42210
FEASIBILITY ANALYSIS
Implementing the DAS executive --- Digital Avionics Information System software feasibility for aircraft systems  
AEIS - Realistic not futuristic --- Advanced Electronic Warfare Test Set  
Adaptive fuel control feasibility investigation  
Transportation systems evaluation methodology development and applications, phase 3  
FEATURE EXTRACTION
U PATTERN RECOGNITION
FEDERAL BUDGETS
Airport and Airway Improvement Act of 1981, part 1  
FEDERAL REPUBLIC OF GERMANY
U WEST GERMANY
FED SYSTEMS
Helicopter air inlets  
[IES-PB-EPBT 81-10]  p0542 882-43776
FEEDBACK CONTROL
Cost and evaluation of a state-feedback vibration controller  
[IES-PB-EPBT 81-10]  p0542 882-37783
Rotors state estimation for rotocraft  
A simple system for helicopter individual-blade-control and its application to stall-induced vibration alleviation  
[IES-PB-EPBT 81-12]  p0542 882-37785
Considerations of open-loop, closed-loop, and adaptive multivariable control systems  
[IES-PB-EPBT 81-13]  p0542 882-37786
Modal control of relaxed static stability aircraft  
The use of differential pressure feedback in an automatic flight control system  
[IES-PB-EPBT 81-16]  p0485 882-39061
Flight control systems using robust output observers  
[IES-PB-EPBT 81-17]  p0486 882-39016
Application of multivariable model following method to flight controller  
[IES-PB-EPBT 81-18]  p0488 882-39120
Design and analysis of a multivariable control system for a CCV-type fighter aircraft  
[IES-PB-EPBT 81-19]  p0488 882-39121
Design of a longitudinal ride-control system by Zakai's method of inequalities  
[IES-PB-EPBT 81-20]  p0510 882-41114
Optimization in multivariable design  
[IES-PB-EPBT 81-21]  p0546 882-42565
Comparative study of flare control laws  
[IES-PB-EPBT 81-22]  p0527 882-10032
Multivariable analysis and design techniques  
[IES-PB-EPBT 81-23]  p0529 882-10048
The need for multivariable design and analysis techniques  
Characteristics and principal gains and phases and their use as multivariable control design tools --- generalizing Nyquist and root-locus diagram techniques  
[IES-PB-EPBT 81-25]  p0529 882-10050
Multivariable design techniques based on singular value generalizations of classical control  
[IES-PB-EPBT 81-26]  p0529 882-10051
Limitations on achievable performance of multivariable feedback systems  
[IES-PB-EPBT 81-27]  p0529 882-10052
LQG-based multivariable design: Frequency domain interpretation  
[IES-PB-EPBT 81-28]  p0529 882-10053
LQG multivariable design tools  
[IES-PB-EPBT 81-29]  p0530 882-10054
Design of high integrity multivariable control systems  
[IES-PB-EPBT 81-30]  p0530 882-10055
A geometric approach to multivariable control system synthesis  
[IES-PB-EPBT 81-31]  p0530 882-10056
Multivariable design: The optimization of approximate inverses  
[IES-PB-EPBT 81-32]  p0530 882-10057
Feedback and matrix sensitivity  
[IES-PB-EPBT 81-33]  p0530 882-10058
Design techniques for multivariable flight control systems  
[IES-PB-EPBT 81-34]  p0539 882-11078
Practical design and realization of a digital adaptive flight control system  
[IES-PB-EPBT 81-35]  p0539 882-11079
Experimental and analytical studies of advanced air cushion landing systems  
[IES-PB-EPBT 81-36]  p0587 882-12065
Computational methods of robust controller design for aerodynamic flutter suppression  
[IES-PB-EPBT 81-37]  p0589 882-12080
A program to evaluate a control system based on feedback of aerodynamic pressure differentials  
[IES-PB-EPBT 81-38]  p0591 882-16089
Identification of multivariable high performance turbofan engine dynamics from closed loop data  
Optimal terrain-following feedback control for advanced cruise missiles  
[IES-PB-EPBT 81-40]  p0514 882-21179
Dynamic response of a hot gas, control-surface actuator --- for an aircraft rudder  
[IES-PB-EPBT 81-41]  p0520 882-21219
Multivariable closed loop control analysis and
synthesis for complex flight systems.
[AD-A102-2193]

Optimization of auto-pilot equations for rapid
estimation of helicopter control settings
[AD-A10739]

Use of entire eigensystem assignment with high-gain error-actuated flight control systems
[AD-A111098]

Marine Air Traffic Control and Landing System
(MASCALS) investigation
[AD-A10738]

Active flutter suppression using optical output
feedback digital controllers
[NASA-CR-16539]

Integrated energy management study. Energy
efficient transport program
[NASA-CR-156900]

FIBEROPTICS

G0 and 8 of the F-16 20ns ammunition loading system's ability to upload/download 10-70 aircraft
[AD-A108007]

FELLOWSHIP AIBCEAFT

U F-20 TRANSPORT AIRCRAFT

FERROALLOYS

F-40 ALLOYS

FERROGRAPHY

Monitoring engine wear by oil analysis
[AD-A102-24012]

Mechanical wear assessment of helicopter engines by ferrography
[AD-A10772]

Application of wear debris analysis to aircraft hydraulic systems
[AD-A115060]

FIBER COMPOSITES

FT CARBON FIBER REINFORCED PLASTICS

FT GLASS FIBER REINFORCED PLASTICS

Carbon-fiber composites - A fiber composite
material for highly stressed light-construction components
[AD-A102-24005]

Processing and uses of carbon fibre reinforced
plastics --- Book
[AD-A102-24630]

Technical and economic comparison of carbon fiber tape and woven fabric applications
[NASA-CR-165207]

Fabrication of boron/aluminum fan blades for SCR engines
[NASA-CR-165208]

Tallor-made structures; today, and tomorrow: New materials, an exploratory investigation into their potential use --- in aircraft
[BAK-SID-054/106/005]

Design considerations and experiences in the use of composite material for an aeroelastic research wing
[NASA-TM-83291]

FIBER OPTICS

Optical sensors for displacement measurement
[AD-A102-11407]

Advanced fiber optic systems for avionics applications
[AD-A102-13518]

Fiber-optic immunity to BAE/ERP for military aircraft
[AD-A102-13529]

A preliminary investigation of Individual Blade-control Independent of a Swashplate
[AD-A102-23682]

Electronic master monitor and advisory display system, data transmission study
[AD-A104243]

Portable air driven variable speed fiber optic
cable termination polishers
[AD-A104797]

Study of fiber optics to enhance an environmental lighting laboratory
[AD-A106177]

Role of optical computers in aeronautical control applications
[AD-A10738]

Test and evaluation of UV fiber optics for application for aircraft fire detector systems
[AD-A106177]

Air data measurement using distributed processing and fiber optics data transmission
[AD-A10738]

FIBER OPTICS

Optical sensors for displacement measurement
[AD-A102-11407]

Advanced fiber optic systems for avionics applications
[AD-A102-13518]

Fiber-optic immunity to BAE/ERP for military aircraft
[AD-A102-13529]

A preliminary investigation of Individual Blade-control Independent of a Swashplate
[AD-A102-23682]

Electronic master monitor and advisory display system, data transmission study
[AD-A104243]

Portable air driven variable speed fiber optic
cable termination polishers
[AD-A104797]

Study of fiber optics to enhance an environmental lighting laboratory
[AD-A106177]

Role of optical computers in aeronautical control applications
[AD-A10738]

Test and evaluation of UV fiber optics for application for aircraft fire detector systems
[AD-A106177]

Air data measurement using distributed processing and fiber optics data transmission
[AD-A10738]
SUBJECT INDEX

FIGHTER AIRCRAFT

control of a vertical attitude takeoff and
landing aircraft

Joint Tactical Microwave Landing System /JTMLS/
airborne signal processing

An update of an integrated CHI system - YES ---
Communication, Navigation, and Identification
provided by Tactical Information Exchange Systems

The development of cryogenic wind tunnels and
their application to maneuvering aircraft technology

Application of the concept of dynamic trim control
and nonlinear system inverses to automatic

FIGHTER AIRCRAFT

High temperature composites. Status and future
directions

Aerostucture nondestructive evaluation by thermal
field detection, phase 1: Fundamental
information and basic technique development

FIBER STRENGTH

Report from the Working Party on New Fiber Materials
--- standardization and strength

FIBERGLASS

U GLASS FIBERS

U CARBON FIBERS

U GLASS FIBERS

U REINFORCING FIBERS

Report from the Working Party on New Fiber Materials
--- standardization and strength

FIBER MATERIALS

U FIBER

FIDELITY

U ACCURACY

FIELD OF VIEW

The LANTIRN wide field-of-view raster Head-Up
Display --- Low Altitude Navigation and
Targeting in the future

Wide field of view laser beacon system for three
dimensional aircraft range measurements

Wide angle raster head up display design and
application to future single seat fighters

FIELD STRENGTH

U ELECTRIC FIELD STRENGTH

FIELD THEORY (ALGEBRA)

U QUADRATIC EQUATIONS

FIELD THEORY (PHYSICS)

Antenna theory and design _ Book

Simulation of the fluctuating field of a forced jet

FIGHTER AIRCRAFT

HT ALPHA JET AIRCRAFT

HT F-4 AIRCRAFT

HT F-5 AIRCRAFT

HT F-6 AIRCRAFT

HT F-15 AIRCRAFT

HT F-16 AIRCRAFT

HT F-18 AIRCRAFT

HT F-27 AIRCRAFT

HT F-100 AIRCRAFT

HT F-106 AIRCRAFT

HT F-111 AIRCRAFT

HT HARRIER AIRCRAFT

HT JAGUAR AIRCRAFT

HT MEBAE AIRCRAFT

HT SAAJ 37 AIRCRAFT

Analysis of augmented aircraft flying qualities
through application of the Neal-Smith criterion

Closed loop environmental control system for
fighter aircraft

Dynamic response of aircraft structure to gun
shock loads

The case for a defensive air-to-air fighter

Air-to-air combat analysis - Review of

Wing/store flutter - An active adaptive control
application

Fault detection for two physically separated,
communicating inertial measurement units

Avionics applications from weapon system
operational utility studies on manned Air Combat
Simulators

Application of the concept of dynamic trim control
and nonlinear system inverses to automatic

A-193
FILM COOLING

Air-film cooling returns to ramjets

ASME PAPER 81-EMAS-8

p0011 AB3-10896

Effect of crossflows on the discharge coefficient of film cooling holes

(ASTM PAPER 82-GT-147)

p0426 AB3-35371

The effect of temperature ratios on the film cooling process

(ASTM PAPER 82-GT-305)

p0430 AB3-35470

Advanced turbine study -- airfoil cooling in rocket turbines

[AIAA-CP-162003]

p0369 AB3-22349

Heat transfer in turbines (AD-A111586)

p0455 AB3-26307

FILTERING

S FILTRATION

FILTERATION

NT FILTERING

Filter design problems associated with jet aircraft fuels

p0112 AB3-17268

Effects of ultra-clean and centrifugal filtration on rolling-element bearing life

[ASM PAPER 81-1DIF-35]

p0127 AB3-16436

FINANCE

The marketing, organization and financing of aeroelastic evacuation by a rotating organization

p0151 AB3-10002

FINANCIAL MANAGEMENT

The sporty game on wide body commercial airliner business history

p0547 AB3-42572

FINISHES

NT GLAZES

FINITE DIFFERENCE THEORY

A simple finite difference procedure for the vortex controlled diffuser

[AIAA PAPER 82-0409]

p0115 AB3-17788

Calculation of sensitivity derivatives in thermal problems by finite differences

p0181 AB3-21391

A split coefficient/locally monotonic scheme for unstructured supersonic flow

[AIAA PAPER 82-0287]

p0180 AB3-22062

Influence of exit impedance on finite difference solutions of transient acoustic mode propagation in ducts

[AIAA PAPER 81-MC-WA/CA-13]

p0235 AB3-26602

Finite difference computation of the steady transonic flow around airplanes

p0331 AB3-10981

Calculation of wing-body-nacelle interference in subsonic and transonic potential flow

p0097 AB3-13095

Numerical analysis of the scramjet-inlet flow field by using two-dimensional Navier-Stokes equations

[NAVF-TP-1940]

p0099 AB3-13142

Finite difference computation of the conical flow field over a delta wing

[AFIT-TK-140]

p0199 AB3-17155

Azim-thrust turbine machine through flow calculation methods

p0206 AB3-17201

A harmonic analysis method for unsteady transonic flow and its application to the flutter of airfoils

[AIAA-CP-3537]

p0403 AB3-25194

A finite difference method for the calculation of transonic flow about a wing, based on small perturbation theory

[SAE-TE-81031-D]

p0522 AB3-28263

Finite difference modeling of rotor flows including wake effects

[NAVF-TP-94200]

p0604 AB3-33345

FINITE ELEMENT METHOD

Applications of finite element method in aerospace power systems design

p0115 AB3-11717

An iterative finite element-integral technique for predicting sound radiation from turbomfan inlets in steady flight

[AIAA PAPER 82-02124]

p0115 AB3-17796

Application of the finite element method to the calculation of the modes and frequencies of natural vibrations of aircraft structures

p0128 AB3-18612

Transient two-dimensional temperature distributions in air-cooled turbine blades

Development of a correlated finite element dynamic model of a complete aero engine

[ASM PAPER 81-DEFT-74]

Investigation of vibration of shrouded turbine blades

[AIAA PAPER 81-DEFT-129]

Numerical computation of unsteady subsonic aerodynamic forces on wing-body-tail exposed to travelling gusts

p0185 AB3-22112

The role of finite element analysis in the design of birdstrike resistant transparencies

p0272 AB3-24314

High speed VSCF generator design consideration -- computer aided design for Variable Speed Constant Frequency generator

p0320 AB3-24379

Torsional vibrations of non-uniform rotating blades with attachment flexibility

p0276 AB3-26313

Finite element thermal analysis of convectively-cooled aircraft structures

p0325 AB3-28565

Finite element analysis of through the canopy emergency crew escape from the T-38 aircraft

[AIAA-82-0705]

p0335 AB3-30096

Integrity analyses of surface-flamed aircraft attachment lugs -- A new, inexpensive, 3-D alternating method

[AIAA-82-0742]

p0336 AB3-30107

Experimental stress analysis of a thin-walled pressurized torus loaded by contact with a plate -- dynamic response of aircraft structures

[AIAA-82-0753]

p0336 AB3-30114

Design of finite element grids for the computation of the three-dimensional transonic flow around a wing

[AIAA PAPER 82-1019]

p0375 AB3-31972

Finite-element modeling of a fighter aircraft canopy acrylic panel

p0383 AB3-32484

Finite element analysis of some aeroelastic shell structures

p0384 AB3-33515

Finite element calculation of the aerodynamic forces on a vibrating wing in supersonic flow

p0390 AB3-34128

Solution of creep problems by a finite element method

p0399 AB3-36172

Engine dynamic analysis with general nonlinear finite element codes. II -- Bearing element implementation, overall numerical characteristics and benchmarking

[AIAA PAPER 82-GT-292]

p0430 AB3-35462

A finite element analysis of coupled rotor fuselage vibration

[AES-PREPRINT 81-21]

p0442 AB3-37792

Static and aeroelastic optimization of aircraft structures

p0445 AB3-37945

Development of the advanced composite ground spoiler for C-1 media transport aircraft

p0455 AB3-38986

Finite element analysis for bearingless rotor blade aerelasticity

p0495 AB3-39895

Finite element analysis for bearingless rotor blade aerelasticity

p0511 AB3-40595

An examination of the dynamics of rotary machines -- French thesis

p0552 AB3-43724

Calculation of the stability and post-buckling behavior of thin shell underframes using the finite element method -- German thesis

p0557 AB3-45219

Finite element approach to the calculation of unsteady aerodynamic influence coefficients in dynamic aeroelastic analysis

p0581 AB3-45849

Application of numerical methods to the calculation of electrostatic fields in aircraft fuel tanks

[AF-103270]

p0207 AB3-10033

Calculation of natural modes of vibration for rotor blades by the finite element method

[EPFL-PB-81-07]

p031 AB3-10452
Subject Index

Structural analysis of fuselages with cutouts by finite element method

Structural analysis computer program for rigid multicomponent pavement structures with discontinuities, WEselco and WGetLaT. Report 1: Program development and numerical presentations

Research and development program for non-linear structural modeling with advanced time-temperature dependent constitutive relationships

Finite volume calculation of three-dimensional Remarks on the calculation of transonic potential flow by a finite volume method

Modal characteristics of rotor blades: Finite element approach and measurement by ground vibration test

A study of the techniques of dynamic analysis of helicopter type structures

Interpretation and construction of a dynamic similarity model of the A-310 wings

Characterization of the Airbus horizontal stabilizers of CFRP construction and structural analysis with the finite element method

Vibration of structures excited acoustically

Application of the finite element method to rotary wing aerelasticity

Elastic-plastic finite-element analyses of thermally cycled double-edge wedge specimens

Nonlinear structural and life analyses of a combustor liner

Large displacements and stability analysis of nonlinear structures

Stress intensity factors for radial cracks at outer surface of a partially autofrettaged cylinder subjected to internal pressure

Aeroelastic stability of rotor blades using finite element analysis

Finite Volume Method

Remarks on the calculation of transonic potential flow by a finite volume method

Finite volume calculation of three-dimensional potential flow around a propeller

A numerical study of the turbulent flow past an isolated airfoil with trailing edge separation

An implicit finite-volume method for solving the Euler equations

Damped Euler-equation method to compute transonic flow around wing-body combinations

Finned Bodies

Subsonic and transonic roll damping measurements on Basic Finner -- finned missile calibration model

PIBS

Ground calibration of a strain-gauged C2-44 aircraft (1979)

Concept studies of an advanced composite helicopter fan

FIRE CONTROL

Design and analysis of a digitally controlled integrated flight/fire control system

Evaluation of advanced air-to-air gunnery fire control systems

Radar environment simulation for software test

The anatomy of a technology test bed - Integrated Flight/Fire Control-1 /IFPC-1/

U.S. Army remotely piloted vehicle program

Technology overview for advanced aircraft armament system program

Standardization study for advanced aircraft armament system program

Multivariable aircraft control by maneuver commands: An application to air to surface gunnery

Integrated flight and fire control demonstration on an F-15B aircraft: System development and ground test results

A case study of reliability and maintainability of the F-16 APG-66 fire control radar

Impact of Advanced Avionics Technology and Ground Attack Weapon Systems

A flying system for F-16 air-to-surface missions

Fire Safety

Evaluation of heat damage to aluminum aircraft structures

Workshop on Mathematical Fire Modelling

Aircraft fire safety

Aircraft fire mishap experience/crash fire scenario quantitation

Aviation fuel--future outlook and impact on aircraft fire threat

Fireworthiness of transport aircraft interior systems

The development and applications of a full-scale wide bo-dy test article to study the behavior of interior materials during a postcrash fuel fire

Aircraft post crash fire reduction/survivability enhancement from a manufacturer's viewpoint

FIRE EXTINGUISHERS

Fighting fire and other disasters from the air, International Scientific-Technical Symposium, Hanover, West Germany, June 11-12, 1980, Reports

Fighting forest fires with the aid of aircraft in the United States of America

Fighting forest fires -- a task for the Swiss air force

The current state of technology concerning the fighting of forest fires from the air in Austria

The utilization of agricultural aircraft in economical operations for fighting forest fires in Israel

The utilization of aircraft in fighting forest fires - French experience

The use of 'water bombers' and chemical agents against forest fires, taking into account the employment of a first-attack system

The employment of two-engine and four-engine aircraft for dropping the latest chemical fire extinguishing agents in connection with the fighting of forest fires

Adaptation and equipment of aircraft for the fighting of forest fires

Fire extinguishment materials

Finned Bodies
FIBER FIGHTING

[SUBJECT INDEX]

FIBER FIGHTING

Evaluation of three percent aqueous foam forming foams (APFF) concentrates as fire fighting agents - D-I-A jet fuel fires [AD-A110821] p0411 H82-25602
Aircraft post-crash fire fighting/rescue p0533 H82-29287

FIBER FIGHTING

Flight testing the suspended maneuvering system - helicopter firefighting and rescue techniques [AIAA PAPER 81-2498] p0058 H82-13922
Fighting fire and other disasters from the air; International Scientific-Technical Symposium, Hanover, West Germany, June 11, 12, 1980, Reports p0330 A82-29576
Fighting forest fires with the aid of aircraft in the United States of America p0330 A82-29577
Fighting forest fires - A task for the Swiss air force p0330 A82-29578
The current state of technology concerning the fighting of forest fires from the air in Austria p0330 A82-29579
The utilization of agricultural aircraft in economical operations for fighting forest fires in Israel p0331 A82-29580
The utilization of aircraft in fighting forest fires - French experience p0331 A82-29581
The use of 'water bombers' and chemical agents against forest fires, taking into account the employment of a first-attack system p0331 A82-29582
The employment of two-engine and four-engine aircraft for dropping the latest chemical fire extinguishing agents in connection with the fighting of forest fires p0331 A82-29583
Adaptation and equipment of aircraft for the fighting of forest fires on a large scale p0331 A82-29584
The employment of helicopters in Austria in connection with large-scale fires in buildings p0331 A82-29585
Performance characteristics and employment profiles of the new helicopter BK117 p0331 A82-29586
Evaluation of the North Island A/C crash/escape training facility [AD-A100740] p0257 H82-18226
Briefs of accidents involving aerial application operations, U.S. general aviation, 1979 [PB82-138983] p0465 H82-27256
Smoke abatement system for crash rescue/fire training facilities [AD-A114380] p0522 H82-28268
Aircraft fire safety [AGARD-LS-123] p0532 H82-29279
Aircraft fire mishap experience/crash fire scenario quantification p0532 H82-29280
Aircraft post crash fire reduction/survivability enhancement from a manufacturer's viewpoint p0533 H82-29286
Aircraft post-crash fire fighting/rescue p0533 H82-29287

FIRE PREVENTION

Theoretical behavior of progressively shear-thickening solutions - aircraft fuel polymer additives for fire protection in survivable crashes p0013 H82-11177
Aircraft fire safety research with antistabming fuels - Status report [AIAA PAPER 82-1235] p0418 H82-35076
Workshop on Mathematical Fire Modeling [AD-A100876] p0266 H82-19343
Fuel system protection methods p0533 H82-29283
Fireworthiness of transport aircraft interior systems p0533 H82-29284
The development and applications of a full-scale wide body test article to study the behavior of interior materials during a postcrash fuel fire p0533 H82-29285

FIRE RETARDANTS

0 FLAME RETARDANTS

FIREPROOFING

Test methodology for evaluation of fireworthy aircraft seat cushions p0332 A82-29556
Fireproof brake hydraulic system [AD-A104757] p0407 H82-25295
The development and applications of a full-scale wide body test article to study the behavior of interior materials during a postcrash fuel fire p0533 H82-29285

FIREWATER

0 HYDRAULICS

FIRST AID

Importance of a tactical cargo aircraft in an emergency relief p0243 A82-25499

FISHING

0 TAN FISH

FITNESS

0 NT PHYSICAL FITNESS

FITTENES

Advanced concepts for composite structure joints and attachment fittings. Volume 1: Design and evaluation [AD-A110242] p0421 H82-21261

FIXED WINGS

Wing design for light transport aircraft with improved fuel economy p0065 A82-14416
Crasworthy military passenger seat development p0079 A82-14979
Analysis and flight evaluation of a small, fixed-wing aircraft equipped with hinged plate spoilers [NASA-CR-166247] p0352 H82-22243
V/STOL aircraft and fluid dynamic [AD-A117629] p0195 H82-16850
Examination of aircraft interior emergency lighting in a postcrash fire environment p0605 H82-33360

FIXED-WING AIRCRAFT

0 AIRCRAFT CONFIGURATIONS

0 FIXED WINGS

FLAME CALORIMETERS

Best release rate calorimetry of engineering plastics p0518 A82-81075

FLARE FRONTS

0 FLARE PROPAGATION

FLAME HOLDERS

Experimental study of the effects of secondary air on the emissions and stability of a lean premixed combuster [AIAA PAPER 82-1072] p0415 A82-34992

FLAME INHIBITION

0 FLAME PROPAGATION

FLAME PROPAGATION

Determination of the flammability characteristics of aerospace hydraulic fluids p0104 A82-16187
The relaxation oscillation in ramjet combustion p0326 A82-28736
Models for a turbulent premixed dual combustor [AIAA PAPER 82-1261] p0439 A82-37790

FLAME RETARDANTS

Formulation and characterization of polyamide resilient foams of various densities for aircraft seating applications [NASA-CR-167421] p0090 H82-12230

A-198
Investigation of the application of a cryogenic blending process to produce antistalling diesel fuels
(AD-A110917) p0411 N82-25399

FLAP STABILITY
The effect of the shape of a body on the efficiency of its utilization as a flap stabilizer
p0261 A82-26483

FLAPSTABILITY
Determination of the flammability characteristics of aerospace hydraulic fluids
p0104 A82-16187
West release rate calorimetry of engineering plastics
p0510 A82-41075
Full-scale flammability test data for validation of aircraft fire mathematical models
[NASA-TR-58246] p0313 N82-21166

FLASHABLE CASES
NT GASOUS FUELS
FLAP CONTROL
U AIRCRAFT CONTROL
U FLAPS (CONTROL SURFACES)
PLAPPING
Selection of some rotor parameters to reduce pitch-roll coupling of helicopter flight dynamics
p0278 A82-26383
A simplified method for predicting rotor blade airloads
p0295 A82-25124
A further study of helicopter rotor pitch-flap-phase coupling
([AD-A259]) p0265 A82-19214
Improvement of ejector thrust augmentation by pulsating or flapping jets
p0362 N82-23172

PLAPPING HINGES
Dynamic stability of low effective flap hinge BMR concepts
p0277 A82-26377
Turbulence-excited flapping motion of a rotor blade in hovering flight
p0329 A82-25042
Periodic boundary value problem for the equations of the harmonic oscillation of a rotor blade about the axis of a flapping hinge
p0387 A82-25127
Stability and response to gravity of the flap lag motion for a rigid rotor blade with flap-pitch coupling
(ISO-270) p0214 N82-17640
Dynamic analysis of a rotor blade with flap and lag freedom and flap-pitch coupling
(ISO-271) p0214 N82-17641

FLAPS (CONTROL SURFACES)
NT EXTERNALLY BLOWN FLAPS
NT JET FLAPS
NT LEADING EDGE FLAPS
NT LEADING EDGE SLATS
NT SPLIT FLAPS
NT SPLITTING-EDGE FLAPS
NT UPPER SURFACE BLOW FLAPS
NT VORTEX FLAPS
NT WING FLAPS

FLAPS (COUPLING SURFACES)

Wing flap evaluation of the A-7 airplane configured with automatic maneuvering flaps
p0076 A82-14933
Aerodynamic characteristics of maneuvering flaps
p0185 A82-22110
Spoilers or auxiliary flaps
p0241 A82-20973
Design and experimental verification of the USE-flap structure for NAL STOL aircraft
p0550 A82-49077
Flap-lag-torsional dynamics of extensional and inextensional rotor blades in hover and in forward flight
([NASA-CH-165159]) p0535 A82-29312

FLASH LAMPS
A laboratory evaluation of the suitability of a xenon flash tube signal as an aid-to-navigation
([AD-A110729]) p0409 N82-26265

FLASH TUBES
U FLASH LAMPS

FLASHING (VAPORIZING)
Experimental study of external fuel vaporization
([AIAA-PAPER 82-07-39]) p0422 A82-35312
External fuel vaporization study
([NASA-CH-165513]) p0316 N82-14371
Investigation of spray characteristics for flashing injection of fuels containing dissolved air and superheated fuels
([NASA-CH-165363]) p0453 N82-26295

FLAT COAXIAL TRANSMISSION LINES
U MICROWAVE TRANSMISSION LINES
FLAT PLATES
The effect of the shape of a body on the efficiency of its utilization as a flap stabilizer
p0281 A82-26483
Local heat transfer to staggered arrays of impinging circular air jets
([AIAA-PAPER 82-211]) p0247 A82-35401
The effect of heat transfer on three-dimensional spatial stability and transition of flat plate boundary layer at Mach 3
p0581 A82-45077
Turbulent wake development behind streamlined bodies
p0597 N82-13104
Stability of boundary layers with porous suction strips: Experiment and theory
p0301 A82-20152
Effect of modification of the trailing edge of a separating wall on the downstream mixing of parallel flowing streams
(AD-A111144) p0394 A82-24181
A research program to reduce interior noise in general aviation airplanes. Influence of depressurization and damping material on the noise reduction characteristics of flat and curved stiffened panels
([NASA-CH-169035]) p0462 N82-27088

PLAN DETECTION
U NONDESTRUCTIVE TESTS
FLAPS
U DEFECTS
FLEXIBILITY
The effects of flexibility on the steady-state performance of small ribbon parachute models
([AIAA-PAPER 81-1923]) p0006 A82-10048

FLEXIBLE BODIES
NT FLEXIBLE SPACECRAFT
Digital control for flexible aircraft using reduced order models
p0084 A82-13094
Modeling procedures for handling qualities evaluation of flexible aircraft
p0061 A82-12968
Balancing of flexible rotors by the complex modal method
([AIAA-PAPER 81-DT-46]) p0161 A82-19310
Application of the principle of reciprocity to flexible rotor balancing
([AIAA-PAPER 81-DT-49]) p0161 A82-19311
Application of combined balancing methods to flexible rotors of aviation gas-turbine engines
p0282 A82-26491
Transient vibration of high speed lightweight rotor due to sudden imbalance
([AIAA-PAPER 82-DT-231]) p0428 A82-35413
Experimental evaluation of squeeze film supported flexible rotors
([AIAA-PAPER 82-DT-233]) p0428 A82-35415

FLEXIBLE SPACECRAFT
Control design of flexible spacecraft
p0039 N82-11081

FLEXIBLE WINGS
NT PARAWINGS
Development of a self-optimizing flexible technology /50/7/ transonic wing wind tunnel model
([AIAA-PAPER 82-0601]) p0237 A82-26673
Application of a transonic potential flow code to the static aerelastic analysis of three-dimensional wings
([AIAA-PAPER 82-0689]) p0339 A82-30156
Inflated wings
p0512 A82-40966
Variable geometry aerofoils as applied to the Beaty B-5 and B-6 sailplanes
p0512 A82-40968
Choice of weight coefficients in the problem of the optimal dampin of the elastic oscillations of a wing

FLIGHT CHAOS

Optimal dolphin hang glider flight
A method for applying linear optimal control theory to the design of a regulator for a flexible aircraft --- improving riding quality in fighter aircraft
The dynamic flexural response of propeller blades
Flexure in FLEXING
Flexure in FLEXING
FLIGHT ALTIMETER
On-line optimization of aircraft altitude and flight path angle dynamics
Checking and calibrating variometers in place in the sailplane instrument panel
System for providing an integrated display of instantaneous information relative to aircraft attitude, heading, altitude, and horizontal situation
Optimization of thrust algorithms for Computing System (ICS) for Thrust the NASA Highly Manoeuvrable Aircraft Technology (HMAT) vehicle's propulsion system
FLIGHT CHARACTERISTICS
Analysis of augmented aircraft flying qualities through application of the Neill-Smith criterion
Selected stability and control derivatives from the first Space Shuttle entry
Highly Manoeuvrable Aircraft Technology (HMAT) shipboard operations - A comparison of simulation, land-based and sea-trial results for the QSH --- Quiet Short-haul Research Aircraft
AD-I oblique wing aircraft program
Selected stability and control characteristics from flight data
Determination of LearJet Longhorn airplane horizontal tail load and hinge moment characteristics from flight data
Digital test pilot concept
Quiet Short-haul Research Aircraft - The first 3 years of flight research
AV-8B Harrier II
Airframe parameter identification in the presence of atmospheric turbulence
Performance improvements with the free-tail rotor
Flying qualities --- A costly lapse in flight-control design
Advancing blade flight data gathered
The characteristics and detection of low level wind shear in the critical phases of flight
Performance characteristics and employment profiles of the new helicopter BK117
Forward-swept-wing technology
OGI --- a gust alleviation for general aviation aircraft
An alternate method of specifying bandwidth for flying qualities
SUBJECT INDEX
Investigation of low order lateral directional transfer function models for augmented aircraft
Handling qualities criteria for flight path control of V/STOL aircraft
In-flight investigation of large airplane flying qualities for approach and landing
Unique flying characteristics of the AD-1 oblique-wing research airplane
A ground-simulation investigation of helicopter decelerating instrument approaches
Perspectives of the flying qualities specification
Ringfins augmentation effects
Prediction of high alpha flight characteristics utilizing rotary balance data
Characteristics of a Paris-New York flight aboard the Concorde
A complete method for computation of blade mode characteristics and responses in forward flight
Flight characteristics design and development of the BBK/EMI BK117 helicopter
An analytical investigation of the free-tail rotor for helicopters
Helicopter rotor performance improvement by utilization of swept-back parabolic blade tips --- wind tunnel tests
Combat aircraft manoeuvrability
The military flying qualities specification, a help or a hindrance to good fighter design --- Flight control design
Development of a tentative flying qualities criterion for aircraft with independent control of six degrees of freedom: Analysis and flight test
Experimental flight test programs for improving combat aircraft maneuverability by maneuver flaps and pylon split flaps
Multivariable closed loop control synthesis and synthesis for complex flight systems
The development of cryogenic wind tunnel systems and their application to maneuvering aircraft technology
Socata: TB20 Trinidad given German debut
Applications of system identification methods to the prediction of helicopter stability, control and handling characteristics
Airworthiness and flight characteristics test of an OH-58C configured to a Light Combat Helicopter (LCH)
A ground-simulator investigation of helicopter longitudinal flying qualities for instrument approach
FLIGHT CLOTHING
Evaluation of a selected group of anti-exposure garment configurations for their effects on the operational performance and survival of naval aircrews
FLIGHT COMPUTERS
Airsborne/Glaresemitors Computers
FLIGHT CONDITIONS
Helicopters - Night operations
Properties of the new flight and tactical simulators
FLIGHT CONDITION RECOGNITION /FCR/ Technique --- microprocessor-based recording for helicopter

A-201
A design criterion for highly augmented fly-by-wire aircraft
[AD-A 104244] p0037 N82-11078
Generics faults and design solutions for flight-critical systems
[AD-A 104239] p0045 A82-38908
A preliminary laboratory evaluation of a reconfigurable integrated flight control concept
[AD-A 104235] p0045 A82-38902
As an alternate method of specifying bandwidth for flying qualities
[AD-A 104231] p0045 A82-38908
The Sharyyev sequential probability ratio test for redundancy management
[AD-A 104227] p0046 A82-38998
Advanced aircraft control system design experiences
[AD-A 104223] p0046 A82-39003
Flight control synthesis using robust output observers
[AD-A 104221] p0046 A82-39016
Handling qualities criteria for flight path control of V/STOL aircraft
[AD-A 104219] p0046 A82-39081
Application of multivariable model following method to flight controller
[AD-A 104215] p0047 A82-39120
Design and analysis of a multivariable control system for a CCV-type fighter aircraft
[AD-A 104211] p0047 A82-39150
Perspectives of the flying qualities specification
[AD-A 104207] p0048 A82-39121
Guidance for the use of equivalent systems with MIL-F-8705C -- for aircraft flight control systems
[AD-A 104203] p0049 A82-39124
NASA Bryden's experience in parameter estimation and its uses in flight test
[AD-A 104200] p0049 A82-39135
The "system of objective control"
[AD-A 104197] p0049 A82-39245
Flying quality requirements for V/STOL transition
[AD-A 104193] p0049 A82-40276
Flight-determined correction terms for angle of attack and sideslip
[AD-A 104189] p0049 A82-40290
Analytical design and validation of digital flight control system structure
[AD-A 104185] p0049 A82-40434
Design and construction of a flexible automatic electronic display device --- for flight control
[AD-A 104181] p0050 A82-40569
Advanced fighter technology integration program
AFIT/PF-16
Optimal open-loop aircraft control for go-around maneuvers under wind shear influence
[AD-A 104177] p0050 A82-40599
Design integration of CCM/DSS for a sea-based aircraft
[AD-A 104173] p0051 A82-40593
Statistical analysis of piloted simulation of real time trajectory optimization algorithms
[AD-A 104169] p0051 A82-40772
Current perspective on emergency spin-recovery systems
[AD-A 104165] p0054 A82-41261
757 systems key to route flexibility
[AD-A 104161] p0054 A82-41275
Image processing in tactical flight guidance
[AD-A 104157] p0054 A82-42211
Maximum likelihood failure detection of aircraft flight control sensors
[AD-A 104153] p0056 A82-44481
High Order Languages/HDL/ for flight control applications
[AD-A 104149] p0057 A82-45569
Development and evaluation of automatic landing control laws for light weight landing STOL aircraft
[AD-A 104145] p0058 A82-46063
Flight trajectory control investigation
[AD-A 104141] p0058 A82-46063
Electronic master monitor and advisory display system, human engineering summary report
[AD-A 104137] p0059 A82-48117
Design considerations for optimal flight control systems
[AD-A 104133] p0059 A82-48165
Design techniques for multivariable flight control systems
[AD-A 104129] p0070 A82-11077

Subject Index

p0039 882-11078
Practical design and realization of a digital adaptive flight control system

p0039 882-11079
Control law design for transport aircraft flight tasks

p0039 882-11080
Management of redundancy in flight control systems using optimal decision theory

p0039 882-11084
Fired gain controller design for aircraft
[AD-A104877] p0069 A82-12081
Limited evaluation of an F-194 airframe utilizing an aileron-rudder interconnect control system in the landing configuration
[NASA-TR-R-1972]
p100 882-13146
Interactive aircraft flight control and aerosetnic stabilization --- forward swept wing flight vehicles
[NASA-CR-165036] p100 882-13150
Selected advanced aerodynamic and active control concepts development
In-flight investigation of the effects of pilot location and control system design on airplane flying qualities for approach and landing
Flight dynamics technology development: Structures and dynamics, vehicle equipment/subsystems, flight control and aeromechanics
[AD-A096636] p101 882-17062
Stage-state reliability analysis techniques
[AD-A109766] p102 882-17104
Hierarchical specification of the SIFT fault tolerant flight control system
[AD-A109716] p102 882-17126
Reconfiguration: A method to improve systems reliability
[AD-A109717] p102 882-17153
An investigation of multi-axis isometric side-axes control variability in a variable stability YF-16)
[AAD-A109759] p102 882-17216
Parallel computation / development nonlinear control procedure
[AD-A109784] p102 882-17257
A redundancy concept for a digital CAS
[AD-A109783] p102 882-18107
The z-plane of sensor and actuator characteristics on overall helicopter RCS design
[AD-A109782] p102 882-18113
Integration of inertial sensors in helicopters
[AD-A109781] p102 882-18113
Integrated control design techniques
[AD-A109780] p102 882-18147
Apparatus for dampening operator induced oscillations of a controlled system --- flight control
[NASA-CASE-FBC-1104-1] p102 882-18425
Electric Flight Systems
[NASA-CF-2209]
p102 882-19104
Overview of honeywell electronic actuation programs
[AD-A109779] p102 882-19402
Digital flight controls
[AD-A109778] p102 882-19413
Digital flight controllers
[AD-A109777] p102 882-19419
Electric Flight System integration
[AD-A109776] p102 882-19502
Multivariable aircraft control by maneuver commands: An application to air to surface gunnery
[AD-A109775] p102 882-19514
A study of flight control requirements for advanced, winged, earth-to-orbit vehicles with far-aft center-of-gravity locations
[CDR-3491]
p102 882-19226
Development of longitudinal equivalent system models for selected US Navy tactical aircraft
[AD-A109488] p102 882-20169
Categorization of atmospheric turbulence in terms of aircraft response for use in turbulence reports and forecasts
[AD-A109585] p102 882-20190
Integration of controls and displays in S. Army helicopter cockpits
[AD-A109594] p102 882-20151
Optimization of auto-pilot equations for rapid
An assessment of the real-time application
BarneFs~Trad—dispersal surfaces in iinimum-time
Integration of avionics and advanced control
The military flying qualities specification, a
Combat Aircraft Nanoeuvrabiiity
Use of the Pseudo-inverse for design of a
Comparison of analytical predictions of
Flight tests for the assessment of task
Integrated flight and fire control demonstration
Optimal inertial navigation using terrain
Strapdovm inertial navigation systems: An
The development of cryogenic wind tunnels and
ACTTA: Investigation of nev piloting and flight
The role of voice technology in advanced
State-of-the-art cockpit design for the HH-65A
Results of NASA/FAA ground and flight simulation
An assessment of various side-stick
Production Verification Testing (PVT) of guidance
Analysis of computing system configurations for
Evaluation of a trajectory command concept for
Digital command augmentation for lateral
design of lateral-directional aircraft dynamics
Notes on lateral-directional pilot induced
electronic/electric technology benefits study ---
avionics
Low cost development of HSR sensors for expendable
Manual rudder control system for A-10
Geophysical flight line flying and flight path
Estimation of helicopter control settings
Design of advanced digital flight control systems
Singular perturbation techniques for real time
Electrohydraulic technology benefits study ---
avionics
Lateral-directional pilot induced
Design of advanced digital flight control systems
Singur perturbation techniques for real time
Design of advanced digital flight control systems
Cost and benefits design optimization model for
Climatic laboratory evaluation VCA-470 helicopter
design of analytical failure detection using
Secondary observers
Development of a low risk augmentation system for
Cost and benefits design optimization model for
Voice Interactive Systems Technology Avionics
The all digital military aircraft
High-accuracy ranging over voice radios for downd
Aircrew rescue
Rescue at sea
'Little people' problem /B-2 torso harness/
A new safety harness for mobile aircrev
Evaluation of a selected group of anti-exposure
corset configurations for their effects on the
operational performance and survival of Naval
aircrev
Test and evaluation of improved aircrew restraint
HASP - Survival from crashed Navy-helicopters
Analytical and experimental characterization of
the JD-16/A cartridge actuated initiator for
FLIGHT FAXIGOB

The characteristics and detection of low level convective weather systems and aviation. Communicating critical weather information to pilots.
The requirements for reduced IFB separations on the simulator and the airline pilot.
Direct strike lightning measurement system for Tankec avionics and aircrew complement evaluation.
Digital full authority controls for helicopter engines.
The case for helicopter hoisting.
Accidents of surface effect ships and hydrofoil craft.
Thunderstorm hazards flight research - Program overview.
A documented example of strong wind shear.
Primary sewage treatment plant as a source of bird hazards at airport.
STOL aircraft response to turbulence generated by a tall upwind building.
Wind shear - Its effect on an aircraft and ways to reduce the hazard.
The operation of aircraft and helicopters in difficult meteorological and environmental conditions. Russian book.
Post analysis of aircraft accident environments.
Maximum-entropy spectral analysis of radar clutter.
Detection of obstacles by low flying aircraft --- using CO2 laser; mathematical model.
Atmospheric electricity hazards analytical model, development and application. Volume 1: Lightning environment modeling.
Atmospheric electricity hazards analytical model development and application. Volume 2: Simulation of the lightning/aircraft interaction event.
Atmospheric electricity hazards analytical model development and application. Volume 3: Electromagnetic coupling modeling of the lightning/aircraft interaction event.
Flight crew management and cockpit performance.
Improvement program for the C-141 Navigation Electronic flight instrument systems /EFIS/, the post analysis of aircraft accident environments.
Software considerations in the design of computer generated flight displays.
Development of a simple, self-contained flight test data acquisition system.
Electro-optical flight instrument systems /EFIS/, the insrumentation of the 1980s.
A documented example of strong wind shear.
A concept for 6D-guidance of transport aircraft in the FAA-TIA --- Terminal Area System

Estimation of the number of en-route aircraft on instrument flight rules

Investigations concerned with shifting pilot activities to a higher hierarchical stage of flight control --- German thesis

Meteorological aspects of North Atlantic flight tracks - The development of programs for minimum-time tracks

Meteorological aspects of North Atlantic flight tracks - Some interim results of the study

Loran-C navigation as an aid to aerial photographic operations

Automated flight data processing

Minimum fuel horizontal flightpaths in the terminal area

Application of singular perturbation theory

Analysis of two air traffic samples in the terminal area of Frankfurt am Main, 3 August 1979

Automation of on-board flightpath management

Radar and near radar collissions on two- and three-dimensional curvilinear flight paths

Optimal aircraft landing patterns for minimal noise impact

A concept for a fuel efficient flight planning aid for general aviation

Design criteria for flightpath and airspeed control for the approach and landing of STOL aircraft

Analysis and Monte Carlo simulation of near-terminal aircraft flight paths

Simulation report: Advanced display for complex flight trajectories

A result in the theory of spiral search

AUTOPilot: A distributed planner for air fleet control

Reduction and analysis of mode C altitude data collected at high altitudes over the continental United States

Development of flying qualities criteria for single pilot instrument flight operations

User's manual for the BHEEN flight path-trajectory simulation code

An analytical study of landing flare

A new all-purpose digital flight data recorder

Modern aircraft accident investigation equipment and techniques

Analysis of general-aircraft accidents using ADC radar records

Advanced crash survivable flight data recorder and Accident Information Retrieval System (AIRS)

HOLM computers in the flight testing of the Fokker F29 aircraft

Integration of a digital data computer into the test aircraft BPH-320

A portable, low-cost flight-data measurement and recording system

Proceedings of the 11th symposium on aircraft integrated data systems --- conferences

Solid-state flight recorder for mishap investigation

New techniques in data retrieval and display --- color graphics

The DFVLR Digital Flight Data Readout and Processing Station and its Utility

An intermediate solution between basic and expanded aircraft integrated data systems (AIDS)

Mishap investigation and evaluation of a computer program for mishap investigation

The DFVLR Digital Flight Data Readout and Processing Station and its Utility

Value of survivability and recyclability of flight data recorders --- benefit cost methodology

Modernizing air traffic control in France

FLIGHT PERFORMANCE

FLIGHT CHARACTERISTICS

FLIGHT PLANS

Computer flight planning for fuel efficiency

The NASA REET program -- Developing new concepts for accurate flight planning

Weather and temperature database for flight planning

Airline flight planning - The weather connection

FLIGHT PERFORMANCE

0 FLIGHT CHARACTERISTICS

FLIGHT PLANS

Computer flight planning for fuel efficiency

The NASA REET program -- Developing new concepts for accurate flight planning

Weather and temperature database for flight planning

Airline flight planning - The weather connection

FLIGHT PERFORMANCE

FLIGHT CHARACTERISTICS

FLIGHT PLANS
FLIGHT STABILITY TESTS

Wide-angle, multiviewer, infinity display system
[AD-A116300] p057 A02-31336
User's guide for the rotarycraft flight simulation computer program CH-1, AAFPS0 version, CDC conversion
[AD-A115801] p059 A02-32388
A ground simulator investigation of helicopter longitudinal flying qualities for region approach
[NASA-TM-84225] p061 A02-33398
Math model description for the visual technology research simulator (VTRS) conventional takeoff and landing (CTOL) weapon delivery visual system
[AD-A117116] p061 A02-33307

FLIGHT STABILITY TESTS

The stability of maneuverable flight vehicles
PO33 A02-29827
Piloted simulator evaluation of a relaxed static stability fighter at high angle-of-attack
[AIAA PAPER 82-1295] p0486 A02-39002
NASA Dryden's experience in parameter estimation and its use in flight test
[AIAA PAPER 82-1373] p0899 A02-39135

FLIGHT TECHNICAL ERROR

FLIGHT TEST INSTRUMENTS

A unique flight test facility - Description and results
P0508 A02-40925
Integrated sensor system for flight test instrumentation
PO54 A02-41869
Outside's look at flight instrumentation
[DE81-02549] A02-11066
Practical aspects of instrumentation installation, volume 13
[NASA-TP-84057] p0099 A02-13140
Development of a sample, self-contained flight test data acquisition system
[NASA-CE-168438] p213 A02-17478

FLIGHT TEST VEHICLES

A unique flight test facility - Description and results
P0508 A02-40925
Generic Test Bed (GTB) aircraft
[AD-A103035] p034 A02-21176

FLIGHT TESTS

AT FLIGHT STABILITY TESTS

AT SPACE TRANSPORTATION SYSTEM FLIGHTS

BIMT onboard flight computer system architecture and qualification
[AAIA 81-2107] p0001 A02-10082
A microprocessor-based data acquisition system for stall/alpha research
[AAIA 81-2117] p0002 A02-10126
The constructed rugged line trails technique for assessing the opening characteristics of parachutes
[AAIA PAPER 81-1932] p0007 A02-10413
Inflatable system for fast deployment of parachutes at low altitudes from slow moving aircraft or stationary supports
[AAIA PAPER 81-1953] p0008 A02-10426
Dynamic response of aircraft structure to gas shock loads
P0013 A02-11314
History of flight testing the L-1011 TriStar jet transport. II - Testing highlights since initial certification of the L-1011-1
P0019 A02-12049
FAR acceptance tests on the NAVSTAR GPS 5-set receiver
P0022 A02-12639
King Laser Gyro Navigator /HIGH/ flight test results
P0023 A02-12644
On matching the systems identification technique to the particular application -- an evaluating flight test data
P0046 A02-13119
Determining hinge moments and empennage airload parameters from flight data for Learjet airplanes
P0046 A02-13120
Aircraft separation assurance avionics
[AAIA 81-2239] p0047 A02-13467
The use of caperated multifunction inertial sensors for flight control
[AAIA 81-2295] p0050 A02-13502
Design and flight test of a lateral-directional command augmentation system

SUBJECT INDEX

[AIAA 81-2331] p0052 A02-13527
Power-lift takeoff performance characteristics determined from flight test of the Quiet Short-Haul Research Aircraft /QSHA/
[AIAA PAPER 81-2091] p053 A02-13052
Enhanced F-15 air-to-ground flight demonstrations
[AIAA PAPER 81-2413] p054 A02-13054
The F-16/J79 test program
[AIAA PAPER 81-2416] p054 A02-13055
Organizing and training for innovative flight test management
[AIAA PAPER 81-2416] p054 A02-13056
Flight experience with a remotely augmented vehicle flight test technique
[AIAA PAPER 81-2417] p054 A02-13057
A technique to detect lift and drag polars in flight and their application
[AIAA PAPER 81-2420] p054 A02-13059
Navy performance modeling techniques
[AIAA PAPER 81-2431] p054 A02-13069
USMAT aerodynamic design and flight test experience
[AIAA PAPER 81-2433] p055 A02-13077
Advancing blade concept /ABC/ development test program
[AIAA PAPER 81-2437] p055 A02-13073
Recent propulsion system flight tests at the NASA Dryden Flight Research Center
[AIAA PAPER 81-2438] p055 A02-13074
The Cessna T303 Crusader
[AIAA PAPER 81-2440] p055 A02-13076
Government testing
[AIAA PAPER 81-2443] p055 A02-13077
Flight test method for the determination of recouping engine cooling requirements
[AIAA PAPER 81-2446] p055 A02-13078
Planning a fighter flight test program
[AIAA PAPER 81-2501] p056 A02-13081
Recent improvements at the Naval Air Test Center for increased test system flexibility
[AIAA PAPER 81-2392] p056 A02-13088
Flight testing the nonmetallic spline coupling technology at the naval air test center
[AIAA PAPER 81-2455] p056 A02-13091
Information technology and its impact on test and evaluation
[AIAA PAPER 81-2456] p056 A02-13093
Georgia Tech coherent jammer flight tests
[AIAA PAPER 81-2457] p056 A02-13095
Fleet flight loads survey monitoring and analysis techniques
[AIAA PAPER 81-2461] p057 A02-13093
Flight test experience with high-alpha control system techniques on the F-14 airplane
[AIAA PAPER 81-2505] p057 A02-13094
Flight testing the DASH-8 utilizing onboard data analysis by microprocessor
[AIAA PAPER 81-2507] p057 A02-13097
Application of a microprocessor controlled cockpit display for enhanced pilot control of flight test maneuvers
[AIAA PAPER 81-2510] p057 A02-13098
Instrumentation to determine the suitability of BIMT systems for helicopter navigation in the national airspace system /NAS/
[AIAA PAPER 81-2514] p057 A02-13099
The Air Force Flight Test Center - Utah Test and Training Range in the 1980's
[AIAA PAPER 81-2487] p057 A02-13116
The need for, and development of, a simulation facility at the Naval Air Test Center
[AIAA PAPER 81-2488] p058 A02-13117
A unique integrated flight testing facility for advanced control/display research
[AIAA PAPER 81-2490] p058 A02-13119
Flight testing the suspension maneuvering system -- helicopter fire fighting and rescue techniques
[AIAA PAPER 81-2498] p058 A02-13224
Improved techniques for the calibration and measurement of in-flight loads
[AIAA PAPER 81-2502] p058 A02-13226
Overview of flight and ground testing with emphasis on the wind tunnel
[AIAA PAPER 81-2474] p058 A02-13228
For advanced avionics flight test
[AIAA PAPER 81-2464] p058 A02-13229
A-10 high authority/high gain digital flight control system development and flight testing
[AIAA PAPER 81-2665] p058 A02-13300
SUBJECT INDEX

Development test programs adapted to helicopter engines...p0207  M82-17205
An investigation of multi-axis isometric side-arm controllers in a variable stability helicopter...AD-A106759 p0209  M82-17226
Measurement techniques used to assess the installed power of a helicopter engine...p0246  M82-18133
SH-60B test program...p0247  M82-18141
Evaluation of the helicopter low airspeed system...LASSI...p0251  M82-18172
A design for a 32-channel multiplexer -- for unmanned aircraft navigation sensors...RAE-TP-222-HAV-145...p0259  M82-18503
Active Beacon Collision Avoidance System (BCCS) logic performance during operational flight tests...AD-A108893...p0264  M82-19203
Preliminary airworthiness evaluation of the OH-1H with hot metal pour plate infrared suppressor and infrared jammers...AD-A1102123...p0346  M82-21177
A preliminary comparison between the SH-3C propeller nose on flight and in a wind tunnel...NASA-TR-828005...p0322  M82-21998
Development of a tentative flying qualities criterion for aircraft with independent control of six degrees of freedom: Analysis and flight test...p0347  M82-22191
Experimental flight test programs for improving combat aircraft maneuverability by maneuver flaps and pylon split flaps...p0347  M82-22192
Civil (French/US) certification of the Coast Guard's HH-65A Dauphin...p0366  M82-23210
Flight tests for the assessment of task performance and control activity...p0365  M82-23213
Wind-Tunnel/Flight Correlation, 1981...NASA-CP-22225...p0403  M82-25196
Wind-tunnel/flight-drag correlation...p0403  M82-25199
Wind-tunnel/flight correlation program on XB-70A...p0404  M82-25201
Problems in correlation caused by propulsion systems...p0404  M82-25202
Opportunities for wind-tunnel/flight correlation with new Boeing airplanes...p0404  M82-25206
A-16B program overview and wind tunnel/flight correlation...p0404  M82-25207
Application of Computational Fluid Dynamics (CFD) in transonic wind-tunnel/flight-test correlation...p0404  M82-25211
Flying qualities criteria for GA single pilot IFR operations...p0446  M82-26213
Flight-test verification of a pictorial display for general aviation instrument approach...NASA-TR-83305...p0452  M82-26280
Mode S system accuracy...AD-A112249...p0457  M82-27263
B-747 vortex alleviation flight tests...Ground-based sensor measurements...AD-A113621...p0469  M82-27287
Digital image processing for acquisition, tracking, hand off and ranging...p0471  M82-27303
Advanced trending analysis/EDS data program...AD-A113551...p0524  M82-28286
Methodology for determining elevator deflections to trim and maneuver the DAST vehicle with negative static margin...NASA-TR-84899...p0526  M82-28299
Geophysical flight line flying and flight path recovery utilizing the Litos ICM-76 inertial navigation system...DLIS-00555...p0534  M82-29292
Grob aircraft construction: The G 111...p0558  M82-30303
Data reduction procedures for Sea King helicopter flight trials...AD-A117044...p0590  M82-32359

FLIGHT VEHICLES

Flight tests of a Gk and DCI direct drive fly by wire flight control system...AD-A117244...p0611  M82-33401

FLIGHT TESTS

Optima three-dimensional flight of a supersonic aircraft...p0274  M82-26039
Solar-powered airplane design for long-endurance, high-altitude flight...IAAA PAPER 82-1011...p0376  M82-31904
Meteorological aspects of North Atlantic flight tracks - The development of programs for minimum-time tracks...p0549  M82-43229
Electronic master monitor and advisory display system test and demonstration report...AD-A1053177...p0599  M82-13114
Investigation and evaluation of a computer program to minimize three-dimensional flight time tracks...NASA-CR-168019...p0215  M82-17079
Statistical review of counting accelerometer data for Navy and Marine fleet aircraft from 1 January 1962 to 30 June 1981...AD-A110660...p0407  M82-25243

Agricultural airplane mission time structure characteristics...NASA-TM-84707...p0537  M82-29329

FLIGHT TRAINING

RiiiSPACE FLIGHT TRAINING

Problems pertaining to aeronautical technology in the case of rescue operations with helicopters in mountainous areas...p0153  M82-19018
Properties of the new flight and tactics simulators...p0158  M82-19265
Procurement of the new flight and tactics simulators - Experience, problems, meaning...DGLR PAPER 81-093...p0159  M82-19266
Official recognition and the significance of simulators for safe flight operations...p0159  M82-19271
Training in the flight and tactics simulator of the Navy Flight Squadron 3 'Graf Zeppelin'...DGLR PAPER 81-094...p0160  M82-19273
Report covering experience obtained at the German Luftwaffe with respect to training involving the use of flight simulators...p0160  M82-19274
The use of flight simulators in l'Aeromaritime...p0171  M82-20520
The aircraft manufacturer's needs as a simulator user...p0171  M82-20530
A European airline's future simulator requirements...p0171  M82-20536
Computer-generated images for simulators -The cost of technology...p0699  M82-22081
Low cost aircrew training devices...p0329  M82-29258
Spin recovery training --- Licensing requirements...GPO-66-020...p0625  M82-10022
Group 1: Scenario design and development issues...p0698  M82-13131
Task analytic techniques: Application to the design of a flight simulator instructor/operator console...AD-A108724...p0257  M82-18227
A tactical display aid for primary flight training...NASA-CR-166202...p0351  M82-22230
A pilot in the loop analysis of helicopter acceleration/deceleration maneuver...p0367  M82-23229
Operational test and evaluation handbook for aircrew training devices. Volume 3: Operational suitability evaluation...AD-A115269...p0526  M82-28306
Flight IFR procedures simulator...NASA-CASE-KSC-11210...p0537  M82-29331
Operational test and evaluation handbook for aircraft training devices. Volume 1: Planning and management...AD-A112469...p0537  M82-29332
Chief of Naval Air Training automated management information system (CMIS) users guide...AD-A115052...p0603  M82-33250

FLIGHT VEHICLES

Analysis and optimization of control systems in piloted flight vehicles --- Russian book...A-213
FLIR DETECTORS

Problems in the automation of the thermal-stress analysis of flight vehicles
The stability of maneuverable flight vehicles
Primary-data devices --- Russian book

FLIR DETECTORS

A simulator assessment of a wide field of view head-up display for presenting a FLIR sensor image during low altitude navigation and ground attack missions

FLOOCH & B1CTEBISTICS

The 1981 Image 2 Conference Proceedings

FLOOR VELOCITY

NT FLOOR STABILITY

The role of coherent structures in the generation of noise for subsonic jets

FLOOR STABILITY

Developments in flow tunnel constraint effects by interactive-graphic flowpath plotting for turbine engines

FLOOR VELOCITY

The influence of closed-coupled, rear fuselage mounted nacelles on the design of an advanced high speed wing

FLO! CH&B3CTEBISTICS

Relations for the thermodynamic and transport properties in the testing environment of the Langley hypersonic CF4 tunnel

FLIB DBIECTOBS

Development of a computer based presentation of non-steady helicopter rotor flows

FLIB DBIBCTOBS

Rotor flow research in low speed helicopter flight

FLIB DBIBCTOBS

Survey on diffusion factors and profile losses

FLIB DBIBCTOBS

The role of coherent structures in the generation of noise for subsonic jets

FLIB DBIBCTOBS

The 1981 Image 2 Conference Proceedings

FLO! CH&B3CTEBISTICS

Determination of wind tunnel constraint effects by a unified pressure signature method. Part I: Applications to winged configurations

FLO! CH&B3CTEBISTICS

Blockage and flow studies of a generalized test apparatus including various wing configurations in the Langley 7-inch Mach 7 Pilot Tunnel

FLO! CH&B3CTEBISTICS

On embedded flow characteristics of sharp edged rectangular wings

FLOOCH & B1CTEBISTICS

Range Recovery (SBB) Forward Looking Infrared (FLIR) system small target detection performance

FLOOCH & B1CTEBISTICS

Piloted Vehicle (BPV) FLIR/TV mission payload
distortion screens for jet engines

FLOOCH & B1CTEBISTICS

C10-1110226
c0184 182-22398

Problems in the automation of the thermal-stress analysis of flight vehicles

0293 182-27509

The stability of maneuverable flight vehicles

0333 182-29827

Primary-data devices --- Russian book

0491 182-39279

A simulator assessment of a wide field of view head-up display for presenting a FLIR sensor image during low altitude navigation and ground attack missions

0184 182-22079

The 1981 Image 2 Conference Proceedings

0320 182-21223

Definition of display/control requirements for assault transport night/ adverse weather capability

0365 182-23217

Helicopter flight vision system simulation evaluation

0453 182-26292

Alternative employment concepts for remotely Piloted Vehicle (RPV) FLIR/TV mission payload

0608 182-33379

Preliminary assessment of US Coast Guard Short Range Recovery (SBB) Forward Looking Infrared (FLIR) system small target detection performance

0615 182-34230

A floating-point/multiple-precision processor for airborne applications

0654 182-20668

A floating-point/multiple-precision processor for airborne applications

0452 182-22669

Evaluation of the acoustic measurement capability of the NASA Langley 7/201 wind tunnel open test section with acoustically absorbent ceiling and floor treatments

0030 182-10059

Cranberry airframe design concepts: Fabrication and testing

0013 182-33735

On computer Floquet transition matrices of rotorcraft

0013 182-11225

Numerical treatment of helicopter rotor stability problems

0019 182-12045

Application of the ONERA dynamic stall model to a helicopter blade in forward flight

0062 182-13992

Application of the ONERA dynamic stall model to a helicopter blade in forward flight

0062 182-13992

NT BOUNDARY LAYER STABILITY

NT FLAME STABILITY

NT FLOW DISTRIBUTION

NT FLOW STABILITY

NT FLOW VELOCITY

Symmetric flow characteristics of thin rectangular wings

0103 182-16093

Analysis of an ideal-fluid flow past a finite-thickness wing

0165 182-19813

The effect of induced sound on the flow around a rectangular body in a wind tunnel

0276 182-26198

Incompressible symmetric flow characteristics of sharp-edged rectangular wings

0379 182-32850

Effects of dynamic stall on SWECS --- Small Wind Energy Conversion System

0380 182-33707

CFD technology for propulsion installation design -- Forecast for the 80's --- computational fluid dynamics in aerospace applications

0420 182-35289

Conversion of centrifugal compressor performance curves considering non-similar flow conditions

0421 182-35000

Design and investigations of a three-dimensionally twisted diffuser for centrifugal compressors

0424 182-35339

Current techniques for jet engine test cell modeling

0490 182-37712

Symposium on Flows with Separation, Stuttgart, West Germany, November 23-25, 1981, Reports

0483 182-38781

The influence of closed-coupled, rear fuselage mounted nacelles on the design of an advanced high speed wing

0496 182-13092

Relations for the thermodynamic and transport properties in the testing environment of the Langley hypersonic CF4 tunnel

0486 182-15359

Development of a computer based presentation of non-steady helicopter rotor flows

0199 182-17131

Rotor flow research in low speed helicopter flight

0199 182-17132

Survey on diffusion factors and profile losses

0284 182-17186

The role of coherent structures in the generation of noise for subsonic jets

0358 182-22947

Determination of wind tunnel constraint effects by a unified pressure signature method. Part I: Applications to winged configurations

0267 182-23234

Blockage and flow studies of a generalized test apparatus including various wing configurations in the Langley 7-inch Mach 7 Pilot Tunnel

0370 182-23471

On embedded flow characteristics of sharp edged rectangular wings

0531 182-29263

Flow and acoustic properties of low Reynolds number unexpanded supersonic jets

0557 182-30288

FLOW CHARTS

Interactive-graphic flowpath plotting for turbine engines

0142 182-15041

FLOW COEFFICIENTS

NT DISCHARGE COEFFICIENT

Experimental study on discharge and loss coefficients of combustor swirlers

0390 182-34644

FLOW DIRECTION INDICATORS

NT WIND VANS

The design of a jet catcher --- for wind tunnels

0135 182-14102

A color video display technique for flow field surveys

0596 182-32669

FLOW DISTORTION

On evaluating the influence of local distortions of flow over trailing edge and leading edge flaps from the data of wind tunnel tests of a rectangular wing segment

0115 182-11465

Measurement of the influence of flow distortions on the blade vibration amplitude in an air turbine engine

0162 182-19348

Comments on 'Nature of inlet turbulence and strut flow disturbances and their effect on turboaeronautical rotor noise'

0277 182-26320

The effect of inlet distortion on the performance characteristics of a centrifugal compressor

0424 182-35335

Prediction of cruise missile inlet peak instantaneous distortion patterns from steady state and turbulence data using a statistical technique

0438 182-37685

Research on the behavior of a turbojet engine during internal and external disturbances with respect to early recognition of damage --- German thesis

0503 182-40561

Fluctuating forces and rotor noise due to distorted inflow

0510 182-40945

Intake swirl - A major disturbance parameter in engine/intake compatibility

0517 182-40108

An asymptotic theory of separated flow past low-aspect-ratio wings

0581 182-46135

Amplified crossflow disturbances in the annular boundary layer on swept wings with suction

0611 182-11391

A method for designing inlet distortion screens for aircraft gas turbine engines using an
The pressure signature method for blockage corrections, and its applications to the industrial wind tunnel [NB-263] p0267 NB-219231
Experimental methods for the prediction of the effect of viscosity on propeller performance [Ad-A199846] p0398 NB-204072
The modeling and prediction of multiple jet VTOL aircraft flow fields in ground effect [Ad-A166187] p0367 NB-23213
Automated design of minimum drag light aircraft fuselages and nacelles [NASA-CR-166911] p0368 NB-23238
An experimental investigation of the flow field of an ejection wing design employing a photon correlation laser velocimeter [Ad-A111134] p0394 NB-24182
Study of VTOL in ground-effect flow field including temperature effect [NASA-CR-166258] p0400 NB-25170
Investigation of the tip clearance flow inside and at the exit of a compressor rotor passage [NASA-CR-169006] p0408 NB-25253
Aero- and thermodynamically induced vibration [Ad-A110493] p0455 NB-26306
Comparison of numerical results and measured data for smooth and indentated nosetips [Ad-A117794] p0460 NB-26619
Proceedings of the 12th Heavy Symposium on Aerodynamics, volume 2 [Ad-A117623] p0472 NB-27312
Flow and pressure field of a model propeller [NASA-TM-76690] p0557 NB-29309
A prescribed wake rotor inflow and flow field prediction analysis, user's manual and technical approach [NASA-CR-165896] p0566 NB-31296
Surface generation for aerodynamic applications [Ad-A116263] p0572 NB-31305
Computer prediction of three-dimensional potential flow fields in which aircraft propellers operate [NASA-CR-169317] p0585 NB-32312
A color video display technique for flow field surveys [NASA-CR-167469] p0596 NB-32665
In-flight propeller flow visualization using fluorescent materials [NASA-CR-84506] p0597 NB-32672
LV measurements with an advanced turboprop [NASA-CR-84064] p0598 NB-32690
The analysis of the fluctuating field of a forced jet [NASA-TP-34197] p0615 NB-34197

FLOW EQUATIONS
BY WORTHY EQUATIONS
Computation of high Reynolds number internal/external flows [NASA-TM-84069] p0035 NB-11046
Prediction and measurement of time-variant, three-dimensional flows in military aircraft intakes [NASA-TP-34069] p0035 NB-11046
A complete method for computation of blade mode characteristics and responses in forward flight [NASA-TP-34069] p0035 NB-11046
Fluid dynamics of jets with applications to V/STOL [AGARD-CP-308] p0360 NB-23150
An experimental and theoretical investigation of the interaction between the engine jet and the surrounding flow field with regard to the pressure drag on afterbodies [NASA-CR-23158] p0360 NB-23158
The numerical solution of the Navier-Stokes equations for incompressible turbulent flow over airfoils [Ad-A111279] p0460 NB-26612
FLOW FIELD DISTRIBUTION

FLY GEOMETRY
Thermal and flow analysis of a convection, air-cooled ceramic coated porous metal concept for turbine engines [ASME PAPER 81-HT-48] p0012 NB-10592
Determination of the trimmed drag of an aircraft [AGARD-CP-308] p0127 NB-16583
Real gas flows over complex geometries at moderate angles of attack [ASME PAPER 82-0392] p0165 NB-19801
Self-similarizing wind tunnels without computers [ASME PAPER 82-2618] p0275 NB-26181
Determination of losses in a channel with a sudden expansion behind a diffuser [ASME PAPER 82-2619] p0282 NB-26192
A Schwarz-Christoffel method for generating internal flow grids [ASME PAPER 82-29005] p0328 NB-29005
Subsonic 3-d surface panel method for rapid analysis of multiple geometry perturbations [AIAA PAPER 82-0993] p0374 NB-31954
Similarity parameters for the geometric structure of a supersonic jet propagating in a channel and in a submerged space [AIAA PAPER 82-1264] p0419 NB-35091
The use of optimization techniques to design controlled diffusion compressor blading [ASME PAPER 82-GT-149] p0426 NB-35373
The calculation of deviation angle in axial-flow compressor cascades [ASME PAPER 82-GT-149] p0428 NB-35373
Optimal stream surfaces in supersonic three-dimensional flows [ASME PAPER 82-GT-149] p0457 NB-42722
Turbulent flows in the near-field of a round jet [ASME PAPER 82-1289] p0504 NB-42722
A comprehensive method for preliminary design optimization of axial gas turbine stages [ASME PAPER 82-GT-149] p0513 NB-42722
Steady-state analyses of high-speed flight application [ASME PAPER 82-GT-149] p0519 NB-42722
High-order angle corrections for three-dimensional wind tunnel wall interference [ASME PAPER 82-GT-149] p0555 NB-44246
An experimental study of flow rate and thrust characteristics of a four-nozzle ejector with flow twist [AIAA PAPER 82-0410] p0581 NB-46140
The use of optimization techniques to design controlled diffusion compressor blading [AIAA PAPER 82-0410] p0581 NB-46140
A computer program for variable-geometry single-stage axial compressor test data analysis [AIAA PAPER 82-0410] p0581 NB-46140
Ambient flow measurements as a function of freestream conditions [AIAA PAPER 82-0410] p0581 NB-46140
Liquid dynamic of jets with applications to V/STOL [AIAA PAPER 82-0410] p0581 NB-46140
Flowfield and noise sources of jet impingement on flat and ground surface [ASME PAPER 81-23150] p0596 NB-33339
The modeling and prediction of multiple jet VTOL aircraft flow fields in ground effect [ASME PAPER 82-2166] p0616 NB-2166
Jet effects on forces and moments of a V/STOL fighter type aircraft [NASA-CR-169345] p0631 NB-2166
Curved flow wind tunnel tests of F-18 aircraft [ASME PAPER 82-0410] p0631 NB-2166
Jet effects on forces and moments of a V/STOL fighter type aircraft [AIAA PAPER 82-0410] p0631 NB-2166
Secondary flow mixing losses in a centrifugal impeller [ASME PAPER 82-GT-149] p0631 NB-2166
Turbulence measurements in a confined jet using a six-rotation hot-wire probe technique [ASME PAPER 82-GT-149] p0631 NB-2166
Boundary layer transducers (DCL) developed for the study of the flow over helicopter rotor blades [NASA, TP NO. 198-93] p0648 NB-26817

A-216
Laser Doppler anemometry applied to the study of the airflow in the wake of an helicopter rotor [AIAA, TP No. 1982-61] p0552 A82-43755
Preliminary experiments on a centrifugal research compressor using a laser -2- focus velocimeter [ASME, TP No. 1982-62] p0553 A82-43756
Application of laser velocimetry to large industrial wind-tunnels [ASME, TP No. 1982-63] p0553 A82-43757
Prediction and measurement of time-variant, three-dimensional flows in military aircraft intakes p0093 A82-13069
Prop-fan integration at cruise speeds p0097 A82-13097
System for acquisition and analysis of dynamic forces on air intakes [NASA-TM-76646] p0131 A82-14056
Single stage transonic compressor and equivalent plane cascade p0206 A82-17196
Axial-flow turbomachine through flow calculation methods p0206 A82-17201
Evaluation of the helicopter low speed system [NASA] p0251 A82-18172
Experimental investigation of turbine endwall heat transfer. Volume I: linear and annular cascade summary data sets [AD-A110233] p0317 A82-21200
Correcting for turbulence effects on average velocity measurements made using five hole spherical pitot tube probes [AD-A1112573] p0470 A82-27290
Measuring the flow properties of slotted test-section walls [FFA-135] p0529 A82-28571
Status of laser anemometry in turbomachinery research at the Lewis Research Center p0598 A82-32606
FLOW PATTERNS
U FLOW DISTRIBUTION
U FLOW VELOCITY
U FLOW REGULATORS
An ejector augmented by a valve for metering and control of inlet and bleed duct flows [AIAA 82-0575] p0236 A82-24659
Gas turbine airflow control for optimal heat recovery [ASME PAPER 82-GT-63] p0423 A82-35329
FLOW RESISTANCE
NT AXIAL FLOW RESISTANCE
HT FRICTION DRAG
HT SUPERSONIC DRAG
HT VISCOUS DRAG
FLOW SEPARATION
U BOUNDARY LAYER SEPARATION
U SEPARATED FLOW
FLOW STABILITY
U BOUNDARY LAYER STABILITY
NT FLAME STABILITY
The excitation of compressor/duct systems p0327 A82-28893
Casing treatments on a supersonic diffuser for high pressure ratio centrifugal compressors [ASME PAPER 82-GT-05] p0423 A82-35331
Supersonic jet noise generated by large scale instabilities [NASA-TP-2072] p0614 A82-38419
FLOW THEORY
NT MIXING LENGTH FLOW THEORY
Direct approach to aerodynamic design problems p0105 A82-16404
Secondary flows and losses in axial flow turbines [ASME PAPER 82-GT-19] p0420 A82-35288
Chordwise and compressibility corrections for arbitrary planform slender wings p0443 A82-37901
Calculation of level flow among radial grating p0446 A82-38922
The rectangular wing with semiinfinite span in nonlinear theory p0451 A82-39359
Modern compressible flow with historical perspective --- Book p0546 A82-42552
Prop-fan integration at cruise speeds p0097 A82-13097
The problem of calculation of the flow around helicopter rotor blade tips --- and adapting computer programs [ASME-TP-330-0-0] p0406 A82-25233
FLOW VELOCITY
The velocity potential for the harmonically oscillating, rectangular wing with semiinfinite span in nonlinear theory p0154 A82-19198
Endwall boundary layer flows and losses in an axial turbine stage p0168 A82-20298
Complete velocity profile and 'optimum' skin friction formulas for the plane wall-jet [ASME PAPER 81-WA/PE-3] p0234 A82-26566
An experimental study of steady and quasi-steady jet flows p0276 A82-26222
The relative motion of a particle in the exponential changes of the velocity of the medium p0281 A82-26479
Calculation of the flow-field velocities of a wing-body-stores combination in transonic flow [ASME PAPER 82-0950] p0374 A82-31934
The influence of flow rate on the work in a centrifugal impeller [ASME PAPER 82-GT-45] p0421 A82-35303
Effect of impeller extended shrouds on centrifugal compressor performance as a function of specific speed [ASME PAPER 82-GT-228] p0428 A82-35411
Measurements of velocity distributions in the leading edge vortex of a delta wing by the laser-Doppler procedure p0483 A82-38706
Preliminary experiments on a centrifugal research compressor using a laser -2- focus velocimeter [OVARA, TP No. 1982-62] p0553 A82-43756
An experimental study of flow rate and thrust characteristics of a four-nozzle ejector with flow twist p0581 A82-46160
Heat transfer from nozzles under the conditions of flow laminarization p0583 A82-46821
Combustion behavior of solid fuel ramjets. Volume I: Correlation of reacting and non-reacting flow characteristics [AD-A100601] p0136 A82-14316
The two stage aero engine turbine--tests on air intakes [NASA-CR-166187] p0168 A82-17183
End-wall boundary layer calculation methods p0204 A82-17188
Experimental methods for the prediction of the effect of viscosity on propeller performance [AD-A105086] p0204 A82-20047
Three dimensional mean velocity and turbulence characteristics in the annulus wall region of an axial flow compressor rotor passage [NASA-CR-165001] p0408 A82-25252
Wind tunnel measurements of three-dimensional wakes of buildings --- for aircraft safety applications [NASA-CR-3565] p0461 A82-26921
Acoustic properties of turbofan intakes [NASA-CR-165016] p0462 A82-27090
Laser Doppler velocimetry application in the Langley 0.3-meter Transonic Cynromatic Tunnel p0599 A82-32696
Velocity and flow angle measurements in the Langley 0.3-meter Transonic Cynromatic Tunnel using a laser transit anemometer p0599 A82-32697
China's newly designed and built aircraft engine p0612 A82-33010
FLOW VISUALIZATION

Experimental study of subsonic and transonic flows past a wing
Experimental studies of the Eppler 61 airfoil at low Reynolds number
[NT LTR 82-0345] p0164 A02-19796
Endwall boundary layer flows and losses in an axial turbine stage
[NT AERODYNAMICS] p0168 A02-20298
Boundary layer transition and separation on a compressor rotor airfoil
[NT AERODYNAMICS] p0168 A02-20299
Flow visualization using a computerized data acquisition system
Flow visualization of flow separation and separated flows with the aid of hydrogen bubbles
[NT GAS-SOLID INTERFACES] p0179 A02-20792
Visualization of laminar separation by oil film method
Quantitative interpretation of recirculated flow visualization by the analysis of video pictures
More than meets the eye - The oil dot technique
Flow visualization techniques for the study of high incidence aerodynamics
[NT FLUID DYNAMICS] p0189 A02-34493
An experimental investigation of leading-edge spanwise blowing
Effects of vortex flaps on the low-speed aerodynamic characteristics of an arrow wing
Application of image processing techniques to fluid flow data analysis
[NT VISUALIZATION] p0187 A02-16049
Vortex flow correlation -- water tunnel tests on thin slender wings
[AD-4108725] p0187 A02-20468
Surface flow visualization requirements for testing in NTF
Operational flow visualization techniques in the Langley Unitary Plan Wind Tunnel
Propeller flow visualization techniques
In-flight propeller flow visualization using fluorescent minibubbles
Shadowgraph techniques in transonic tests with powered nozzles
Transonic applications of the Wake Imaging System
Flow visualization in the Langley 0.5-meter Transonic Cryogenic Tunnel and preliminary plans for the National Transonic Facility
Holographic interferometry and tomography at Ames Research Center
Flow field studies using holographic interferometry at Langley

FLOWMETERS

A miniature electro-optical air flow sensor
Advanced fuel flowmeter for future naval aircraft

FLUID BOUNDARIES

[NT GAS-SOLID INTERFACES] p0593 A02-41854
[NT JET BOUNDARIES] p0593 A02-41854
[NT LIQUID-SOLID INTERFACES] p0597 A02-32664
[NT AERODYNAMICS] p0597 A02-32664
[NT AEROTHERMODYNAMICS] p0597 A02-32664
[NT COMPUTATIONAL FLUID DYNAMICS] p0597 A02-32664
[NT GAS DYNAMICS] p0597 A02-32664
[NT HYPERSONICS] p0597 A02-32664
[NT MAGNETOHYDRODYNAMICS] p0597 A02-32664
[NT MOTOR AERODYNAMICS] p0597 A02-32664
[NT VORTEX SHEDDING] p0597 A02-32664
FLUTTER ANALYSIS

Experimental study of escapement snap-through vibrations
[NASA-PB-82-23275] p0052 882-32375

Landing test highlights, 1981
[NASA-PB-84-08219] p0063 882-33330

FLUTTER ANALYSIS

Wing/store flutter - an active adaptive control application
[p0004 882-13122]

Flight vibration optimization via conformal mapping
[882-13975]

Flutter mode suppression using hyperstable feedback
[p0015 882-11471]

Application of the finite element method to the calculation of the modes and frequencies of natural vibrations of aircraft structures
[p0128 882-18612]

Minimum mass sizing of a large low-aspect ratio airframe for flutter-free performance
[882-0046] p0025 882-20422

Recent developments in wing with stores flutter suppression
[p0225 882-20422]

Wing/control surface flutter analysis using experimentally corrected aerodynamics
[p0263 882-26569]

A wind-tunnel study of the aerodynamic characteristics of a slotted smooth-wing supercritical wing
[p0337 882-30139]

Evaluation of four subcritical response methods for on-line prediction of flutter onset in wind-tunnel tests
[p0337 882-30140]

Flutter of forward swept wings, analyses and tests
[p0337 882-30142]

Flare flutter analysis
[p0353 882-30143]

Design considerations and experiences in the use of composite material for an aeroelastic research wing
[882-00678] p0338 882-30146

Rigid body-structural mode coupling on a forward swept wing aircraft
[p0338 882-30150]

Transonic flutter study of a wind-tunnel model of a supercritical wing with/without winglet
[882-00645] p0340 882-30171

Flutter analysis using nonlinear aerodynamic forces
[882-00728] p0340 882-30176

Subsonic aerodynamic and flutter characteristics of several wings calculated by the SOOSA P.I.
[p0341 882-30193]

Panel method analysis for structures with neighboring natural frequencies especially for the case of flight resonance tests
[p0377 882-32136]

Aerodynamic lag functions, divergence, and the British flutter method
[p0433 882-35620]

P-16 active flutter suppression program
[p0444 882-37947]

Dynamic stability of flexible forward swept wing aircraft
[882-1325] p0488 882-39102

Finite element analysis for bearingless rotor blade aeroelasticity
[p0499 882-40517]

An experimental examination of compressor blade flutter
[p0547 882-42808]

Sensitivity analysis and optimization of aeroelastic stability
[p0551 882-43394]

Methodology in flight tests
[882-43400]

Transonic flutter and response analyses of two 3-degree-of-freedom airfoils
[p0555 882-44245]

Self-tuning regulator design for adaptive control of aircraft wing/store flutter
[p0578 882-45538]

The effect of a screen on the aerodynamic characteristics of an oscillating profile
[p0583 882-46693]

Nonlinear transonic flutter analysis
[p0583 882-46847]

An influence coefficient method for the application of the modal technique to wing flutter suppression of the DAST AW-1 wing
[p0036 882-11070]

Aerelastic stability: Some reflections on two decades of testing in the NASA Langley transonic dynamics tunnel program
[p0065 882-12041]

Computational modes of robust controller design for aerodynamic flutter suppression
[p0069 882-12080]

Interactive aircraft flight control and aerelastic stabilization: forward swept wing flight vehicles
[p100 882-13150]

Stability and flutter analysis of turbine blades at low speed
[p1042 882-15050]

On the numerical analysis of stall flutter in turbine cascades
[p1143 882-15054]

Stability analysis of the twin mode model of coupled flexion/torsion vibrations in turbomachinery
[p1143 882-15057]

Modeling and analysis of cascade flutter in parallel shear flow
[p1144 882-15062]

Longitudinal and lateral static stability and control characteristics of a 1/6-scale model of a remotely piloted research vehicle with a supercritical wing
[882-1360] p0165 882-15075

Theory and experiment in unsteady aerodynamics
[p1199 882-17126]

A two-degree-of-freedom flutter mount system with low damping for testing rigid wings at different angles of attack
[882-20410]

Eigenspace techniques for active flutter suppression
[p0371 882-23549]

Application of modal control to wing-flutter suppression
[882-16931] p0396 882-24206

The determination of critical flutter conditions of nonlinear systems
[p0397 882-24210]

A harmonic analysis method for unsteady transonic flow and its application to the flutter of airfoils
[882-2357] p0403 882-25194

Subsonic aerodynamic and flutter characteristics of several wings calculated by the SOOSA P.I.
[p0430 882-30176]

Investigation of an improved structural model for damaged 9-18 horizontal stabilizer flutter analysis using NASTDAN
[p0456 882-25216]

Aerelastic stability of rotor blades using finite element analysis
[882-23242]

Measured and calculated effects of angle of attack on the transonic flutter of a supercritical wing
[p0613 882-33736]

FLUX (BARYON)

NT HEAVY FLUX

FLUX DENSITY

- HEAVY FLUX DENSITY

+ LOW DENSITY

LOW DENSITY

LOW RADIANCE

LOW FLUX DENSITY

FLUX MAPPING

U MAPPING

U MAPPING

U MAPPING

U MEASURING INSTRUMENTS

FLUX BY WIRE CONTROL

A dual input actuator for fluidic backup flight control
[p0043 882-13088]

Direct digital drive actuation
[882-2226] p0050 882-13505

The all-electric airplane - a new trend
[p1113 882-17420]
The future of helicopter flight control technology
A design criterion for highly augmented fly-by-wire aircraft (AIAA 82-1570)
Analytical design and validation of digital flight control system structure (AIAA PAPER 82-1626)
Design and experience with a low-cost digital fly-by-wire system on the SAB SB 377 Pagara A/C (AIAA)
Flight test results of the model simulation controller for the HBS-320 for in-flight simulation of the A-301 aircraft (NASA-TM-860)
Reliability analysis of the F-8 digital fly-by-wire system (NASA-CR-163110)
Configuraiton and control development specifications (NASA-CR-166263)
Some piloting experiences with multifunction isometric side-ara controllers in a helicopter flight test of a GE and DCI direct drive fly by wire flight control system (AD-A117244)
FLYING BODIES
U FLYING PLATFORMS
FLYING MECHANICS
Current ADB restraint system status, trade-off constraints and long range objectives for the Harrier Performance Ejection System (AD-A112645)
FLYING PERSONNEL
HT AIRCRAFT PILOTS
HT FLIGHT CREWS
HT PILOTS (PERSONNEL)
HT TEST PILOTS
FLYING PLATFORM STABILITY
U AERODYNAMIC STABILITY
U FLYING PLATFORMS
FLYING PLATFORMS
Never Jan - 05 Army studies EW helicopter
Perspectives for the use of remotely piloted vehicles in military technology
Parasitic study of microwave-powered high-altitude airplane platforms designed for linear flight (NASA-TF-1918)
FLYING QUALITIES
U FLIGHT CHARACTERISTICS
FLYING WEAPONS
U TAILLESS AIRCRAFT
FLYWHEELS
Low maintenance hydraulics accumulator (NAS-AI03947)
POEMS
Techniques for modifying airfoils and fairings on aircraft using foam and fiberglass (AIAA PAPER 81-2445)
Characterization of polylite resilient foams of various densities for aircraft seating applications (NASA-CR-167621)
Evaluation of three percent Aqueous Film Forming Foam (APFF) concentrates as fire fighting agents --- JAC-3 jet fuel fires (AD-A110821)
Aircraft post-crash fire fighting/rescue (AD-A112287)
POG
Ground movement control and guidance -- Cat. 3 operations experience in Air Inter
Environmental fog/steam visual display systems for aircraft simulators (NASA-CASE-ARC-11158-1)
POIL BEARINGS
Gas foil bearing development program (AD-A116652)
POILS (MATERIALS)
U METAL FOILS
POKIERE AIRCRAFT
U P-27 AIRCRAFT
U P-28 TRANSPORT AIRCRAFT
FOREIGN BODIES
FOEKB EMB TESTERS
U ABDRESS TESTS
FORENB F 27 AIRCRAFT
P-27 AIRCRAFT
FORENB F 28 AIRCRAFT
U P-28 TRANSPORT AIRCRAFT
FORENB FRIENDSHIP AIRCRAFT
U P-27 AIRCRAFT
FOLDING STRUCTURES
U SAILING
SH-60B Seahawk automatic blade fold system (AD-A12203)
Design optimization of rotor systems for tilt-rotor aircraft that fold for shipboard compatibility (AD-A112791)
FORCE DISTRIBUTION
Experimental verification of force determination and ground flying on a full-scale helicopter (USAAVFA707-F-8-1-D-11)
Statistical review of counting accelerometer data for Navy and Marine fleet aircraft from January 1962 to June 1981 (AD-A110660)
FORCE FIELDS
U FIELD THEORY (PHYSICS)
FORCED OSCILLATION
U FORCED VIBRATION
FORCED VIBRATION
Cross and cross-coupling derivative measurements on the standard dynamics model at HED (AIAA 82-0596)
Prediction of aerodynamically induced vibrations in turbomachinery blading (AIAA 82-2899)
The influence of Coriolis forces on gyroscopic notion of spanning blades (ASBE PAPER 82-02-163)
Use of rotary balance and forced oscillation test data in six degrees of freedom simulation (AIAA PAPER 82-1364)
Limiting performance of nonlinear systems with applications to helicopter vibration control problems (AD-A113239)
FORCE VIEWPOINT EQUATION
U FORCED VIBRATION
FORBODIES
U NOSES (FOREBODIES)
Reductions in parachute drag due to forebody wake effects (AIAA PAPER 81-1939)
Relaxation solution for viscous transonic flow about fighter-type forebodies and afterbodies (AIAA PAPER 82-02-152)
Evaluation of two analytical methods for the prediction of inlet flow fields in the vicinity of generalized forebodies (AIAA PAPER 82-0959)
Reduction in parachute drag due to forebody wake effects (00801-030124)
FORCE CASTING
U LONG RANGE FORECASTING
U PERFORMANCE PREDICTION
U PREDICTION ANALYSIS TECHNIQUES
U TECHNOLOGICAL FORECASTING
FORECASTING
Energy environment study (NASA-CR-164958)
Operational delay day forecasts for the 20 air route traffic control centers for the year 1982 through 2011 (AD-A106884)
Ozone and aircraft operations (AD-A110660)
FORECASTS
U FORECASTING
FOREIGN BODIES
Coupled fluid/structure response predictions for soft body impact of airfoil configurations --- ice and bird impact on aircraft engines (AD-A120239)
Forexen object impact design criteria, volume 2 (AD-A112701)

A-221
FOREIGN POLICY

FOREIGN TRADE
Future of general and computer aviation technology and trade

FOREIGN TECHNOLOGY AND CO-OPERATION

FOREST FIRES
Fighting fire and other disasters from the air; International Scientific-Technical Symposium, Hanover, West Germany, June 11, 12, 1980, Reports

FOREST FIRES
Fighting forest fires with the aid of aircraft in the United States of America

FOREST FIRES
Fighting forest fires - A task for the Swiss air force

FOREST FIRES
The current state of technology concerning the fighting of forest fires from the air in Austria

FOREST FIRES
The utilization of agricultural aircraft in economical operations for fighting forest fires in Israel

FOREST FIRES
The utilization of aircraft in fighting forest fires - French experience

FOREST FIRES
The use of 'water bombers' and chemical agents against forest fires, taking into account the employment of a first-attack system

FOREST FIRES
The employment of two-engine and four-engine aircraft for dropping the latest chemical fire extinguishing agents in connection with the fighting of forest fires

FOREST FIRES
Adaptation and equipment of aircraft for the fighting of forest fires

FORESTS
Mapping in tropical forests - A new approach using the laser AFR --- Airborne Profile Recorder

FORESING
Material flow and defect formation in forming an airfoil shape from metal-matrix composites

FOREST SCIENCE
U.S. LAW (JURISPRUDENCE)

FOSSIL FUELS
Natural gas

FOSSIL FUELS
SOLVENT REFINED COAL
Baseline data on utilization of low-grade fuels in gas turbine applications. Volume 3: Emissions calculation

FOSSIL FUELS
LIGNITE
Solution coal

FOSSIL FUELS
BITUMINOUS COAL
Nitrogen content of low-grade coal

FOSSIL FUELS
LIGNITE
Biomass energy

FOSSIL FUELS
HAY
测算 hung at the air

FOSSIL FUELS
CURRENT TECHNOLOGY
The application of subsonic theoretical aerodynamics to active controls --- aircraft controls

FOSSIL FUELS
HYDROCARBON FORMATION
The effect of aspect ratio on the unsteady aerodynamic forces induced by vibration of a cascade blade

FRACTIONATION
HYDROCRACKING
FRACTOGRAPHY
Practographic determination of fatigue crack growth rates in aircraft components

FRACTURE MECHANICS
Stress intensity factor measurements in composite sandwich structures

FRACTURE MECHANICS
Introduction to the principles of fracture mechanics

FRACTURE MECHANICS
Fracture mechanics technology applied to individual aircraft structure --- durability and structural life estimates

FRACTURE MECHANICS
A multidimensional-crack-growth prediction methodology for flaws originating at fastener holes

FRACTURE MECHANICS
A fatigue crack growth theory based on strain energy density factor

FRACTURE MECHANICS
Fracture mechanics based modelling of the corrosion fatigue process

FRACTURE MECHANICS
Practical applications of fracture mechanics

FRACTURE MECHANICS
Fracture and fatigue characterization of aircraft structural materials under biaxial loading

FRACTURE MECHANICS
Engine component retirement for cause

FRACTURE MECHANICS
SF6-10A nose gear fork damage analysis

FRACTURE MECHANICS
The multi-dimensionally-crack-growth prediction methodology for flaws originating at fastener holes

FRACTURE MECHANICS
A fatigue crack growth theory based on strain energy density factor

FRACTURE MECHANICS
Fracture mechanics based modelling of the corrosion fatigue process

FRACTURE RESISTANCE
U-FLIGHT STRENGTH
The application of improved aluminum alloys and steels in aircraft structures

FRACTURE STRENGTH
The application of improved aluminum alloys and steels in aircraft structures

SUBJECT INDEX

FOREIGN POLICY

FOREIGN TRADE
Future of general and computer aviation technology and trade

FOREST FIRES
Fighting fire and other disasters from the air; International Scientific-Technical Symposium, Hanover, West Germany, June 11, 12, 1980, Reports

FOREST FIRES
Fighting forest fires with the aid of aircraft in the United States of America

FOREST FIRES
Fighting forest fires - A task for the Swiss air force

FOREST FIRES
The current state of technology concerning the fighting of forest fires from the air in Austria

FOREST FIRES
The utilization of agricultural aircraft in economical operations for fighting forest fires in Israel

FOREST FIRES
The utilization of aircraft in fighting forest fires - French experience

FOREST FIRES
The use of 'water bombers' and chemical agents against forest fires, taking into account the employment of a first-attack system

FOREST FIRES
The employment of two-engine and four-engine aircraft for dropping the latest chemical fire extinguishing agents in connection with the fighting of forest fires

FOREST FIRES
Adaptation and equipment of aircraft for the fighting of forest fires

FORESTS
Mapping in tropical forests - A new approach using the laser AFR --- Airborne Profile Recorder

FOREST SCIENCE
U.S. LAW (JURISPRUDENCE)

FOSSIL FUELS
Natural gas

FOSSIL FUELS
SOLVENT REFINED COAL
Baseline data on utilization of low-grade fuels in gas turbine applications. Volume 3: Emissions calculation

FOSSIL FUELS
LIGNITE
Solution coal

FOSSIL FUELS
BITUMINOUS COAL
Nitrogen content of low-grade coal

FOSSIL FUELS
LIGNITE
Biomass energy

FOSSIL FUELS
HAY
测算 hung at the air

FOSSIL FUELS
CURRENT TECHNOLOGY
The application of subsonic theoretical aerodynamics to active controls --- aircraft controls

FOSSIL FUELS
HYDROCARBON FORMATION
The effect of aspect ratio on the unsteady aerodynamic forces induced by vibration of a cascade blade

FRACTIONATION
HYDROCRACKING
FRACTOGRAPHY
Practographic determination of fatigue crack growth rates in aircraft components

FRACTURE MECHANICS
Stress intensity factor measurements in composite sandwich structures

FRACTURE MECHANICS
Introduction to the principles of fracture mechanics

FRACTURE MECHANICS
Fracture mechanics technology applied to individual aircraft structure --- durability and structural life estimates

FRACTURE MECHANICS
A multidimensional-crack-growth prediction methodology for flaws originating at fastener holes

FRACTURE MECHANICS
A fatigue crack growth theory based on strain energy density factor

FRACTURE MECHANICS
Fracture mechanics based modelling of the corrosion fatigue process

FRACTURE MECHANICS
Practical applications of fracture mechanics

FRACTURE MECHANICS
Fracture and fatigue characterization of aircraft structural materials under biaxial loading

FRACTURE MECHANICS
Engine component retirement for cause

FRACTURE MECHANICS
SF6-10A nose gear fork damage analysis

FRACTURE MECHANICS
The multi-dimensionally-crack-growth prediction methodology for flaws originating at fastener holes

FRACTURE MECHANICS
A fatigue crack growth theory based on strain energy density factor

FRACTURE MECHANICS
Fracture mechanics based modelling of the corrosion fatigue process

FRACTURE RESISTANCE
U-FLIGHT STRENGTH
The application of improved aluminum alloys and steels in aircraft structures

FRACTURE STRENGTH
The application of improved aluminum alloys and steels in aircraft structures
Subject Index

Improvement of the first-ply-failure strength in laminates by using softening strips
Effects of elastomeric additives on the mechanical properties of epoxy resins and composite systems
The effects of absorbed moisture upon the physical properties of stretched acrylic materials
Application of damage tolerance technology to type certification
Fracture control in ballistic-damaged graphite/epoxy wing structure
Engineering property comparisons of 7050-T7451, 7010-T7651, and 7010-T73651 aluminum alloy plate - for aircraft construction
Carburized high temperature steels

Fracture Toughness
U Fatigue Strength
Fractures (Materials)
A computerized system for the application of fracture tracking data to aircraft management for the C-5A military airlift transport
Fracture initiation
Damage from engine debris projectiles
Fracture Damage from engine debris projectiles
Rotor fragment protection program: Statistics on aircraft gas turbine engine rotor failures that occurred in U.S. commercial aviation during 1978
Flowfield and noise sources of jet impingement on aibiages
Aeroelastic characteristics of a mistuned bladed-disc assembly
Freedom Fighter Aircraft
U F-5 Aircraft
Freezing
The low temperature properties of aviation fuels
Freezing
Air-freon integrated environmental conditioning system for trainer subsonic aircraft
Free Vibrations
Aerelastic characteristics of a mistuned bladed-disc assembly
Fretting
Occurrence of fretting fatigue failures in practice

Free Oscillations
U Free Vibration
Free System Effects
U Free Flow
Free Systems
U Free Flow
Free Vibrations
Aerelastic characteristics of a mistuned bladed-disc assembly
Frequencies
NT Broadband
NT C Band
NT Carrier Frequencies
NT Extremely High Frequencies
NT High Frequencies
NT Low Frequency Bands
NT Resonant Frequencies
NT Superhigh Frequencies
NT Ultrahigh Frequencies
NT Very High Frequencies
NT Very Low Frequencies
Effects of filter response on analysis of aircraft noise data

Frequencies Bands
U Frequencies
Frequency Converters
NT Frequency Synthesizers
Frequency Modulation
NT Frequency Shift Eising
B-F. Calibrators for Doppler radars
Frequency Ranges
NT Radio Range
Frequency Response
The use of frequency methods in rotorcraft system identification
Optimization in multivariable design

Frequency Shift Eising
A single-frequency multitransmitter telemetry technique
Frequency Stability
60 KVA ADP permanent magnet VSCF starter generator system - Generator system performance characteristics
Advanced generating system technology
The effect of critical design parameters on the selection of a VSCF system
Packaging the VSCF system for an aircraft engine environment
Cascade converter of dc voltage to ac voltage of higher frequency with voltage and frequency stabilization devices - aircraft electric equipment

Frequency Standards
Global positioning system timing receivers in the DSN

Frequency Stability
B. F. calibrators for Doppler radars

Frequencies
NT Broadband
NT C Band
NT Carrier Frequencies
NT Extremely High Frequencies
NT High Frequencies
NT Low Frequency Bands
NT Resonant Frequencies
NT Superhigh Frequencies
NT Ultrahigh Frequencies
NT Very High Frequencies
NT Very Low Frequencies
Effects of filter response on analysis of aircraft noise data

Frequency Stability
60 KVA ADP permanent magnet VSCF starter generator system - Generator system performance characteristics
Advanced generating system technology
The effect of critical design parameters on the selection of a VSCF system
Packaging the VSCF system for an aircraft engine environment
Cascade converter of dc voltage to ac voltage of higher frequency with voltage and frequency stabilization devices - aircraft electric equipment

Frequency Standards
Global positioning system timing receivers in the DSN

Free upsetting
FUEL CONSUMPTION

FOEL INJECTION
FUEL GAGES
FUEL ROIL
FUEL COOLANTS
FOEL COHENTATION
FOEL COHTOBOL
FUEL CONTAHIIATION
FOEl COgTIHIHATIOH

Investigation of air transportation technology at Princeton University, 1961
p0446 H82-26212
Input/output models for general aviation
p0446 H82-26215

Effect on fuel efficiency of parameter variations
in the cost function for multivariable control of
turbine engines
ADD-1110614
p0254 H82-26301

C76 jet engine performance improvements: High
pressure turbine active clearance control
[NASA-CR-165556]
p0526 H82-28297

Human-factors evaluation of C-141 fuel savings
[AD-1118931]
p0558 H82-30304

Impact of advanced aerodynamics and active controls
technology concepts development on a derivative
B747
[NASA-CR-3164]
p0588 H82-32346

Aircraft energy conservation during airport ground
operations
[AD-816138]
p0589 H82-32352

Impact of advanced propeller technology on
aircraft/piston characteristics of several
general aviation aircraft
[NASA-CR-167986]
p0604 H82-33347

Impact of advanced propeller technology on
aircraft/piston characteristics of several
general aviation aircraft
[NASA-CR-167986]
p0604 H82-33347

Exhaust emissions reduction for intermittent
combustion aircraft engines
[NASA-CR-167914]
p0610 H82-33392

Aircraft thrust/power management can reduce defense
fuel, reduce engine maintenance costs and
improve readiness
[AD-1117513]
p0615 H82-34296

FUEL CONSUMPTION

Fueling problems associated with jet aircraft fuels
p0172 H82-17288

The use of Doppler spectroscopy to study the
characteristics of the polydispersed
microparticles in aviation fuels
p0186 H82-22198

Determination of selected distillate blending
solvents in simple and complex aircraft fuel
matrices via glass capillary gas chromatography
[AD-8105168]
p0125 H82-16432

FUEL CONTROL

A fuel control system designer's approach to gas
engine computer control system modeling
p0158 H82-19253

Adaptive fuel control feasibility investigation
for helicopter applications
[ASME PAPER 82-DT-205]
p0247 H82-35460

Electronic control for small engines
[AILA PAPER 82-1126]
p0438 H82-37668

Adaptive fuel control feasibility investigation
[AILA PAPER 82-1126]
p0438 H82-37668

Dualchannel fuel control program, phase 2
[AD-109715]
p0105 H82-20165

FUEL CONVERSION

A protective additive for jet fuels
p0018 H82-12022

Improving the accuracy of the estimates of
surfactant content in jet fuels
p0218 H82-23250

Commercial aircraft airframe fuel systems surveys
[AD-112201]
p0476 H82-27524

FUEL FLOW

Statistical cost performance monitoring of turboshaft
engines
p0172 H82-20544

Determination of fuel efficiency of twin fluid atomizers for
gas turbines
[ASME PAPER 82-DT-61]
p0422 H82-35314

The Schladitz fuel injector: An initial
performance evaluation without burning
[AD-113612]
p0473 H82-27315

FUEL NOX

Advanced fuel flowmeter for future naval aircraft
[AD-10964]
p0037 H82-11063

FUEL INJECTION

Influence of airplane atomizer design features on
mean drop size
[AILA PAPER 82-1073]
p0416 H82-34953

Evaluation of fuel injection configurations to
control carbon and soot formation in small jet
combustors
[AILA PAPER 82-1175]
p0417 H82-35041

Semi-empirical analysis of liquid fuel
distribution downstream of a plain-orifice
injector under cross-stream air flow
[ASME PAPER 82-DT-16]
p0420 A82-35285

Thermal decomposition of aviation fuels
[ASME PAPER 82-DT-27]
p0420 A82-35292

Atomization quality of twin fluid atomizers for
gas turbines
[ASME PAPER 82-DT-61]
p0422 A82-35314

NOx and CO emission abatement via selective fuel
injection
[ASME PAPER 82-DT-178]
p0426 A82-35390

Pollution reduction technology program small jet
aircraft engines, phase 3
[NASA-CR-165386]
p0134 H82-14095

External fuel vaporization study
[NASA-CR-16513]
p0136 H82-14171

Effect of fuel injector type on performance and
emissions of reverse-flow combustor
[AD-1118932]
p0411 H82-15100

Investigation of spray characteristics for
flashing injection of fuels containing dissolved
air and superheated fuels
[NASA-CR-3561]
p0453 H82-26295

The Schladitz fuel injector: An initial
performance evaluation without burning
[AD-1118931]
p0473 H82-27315

FUEL OILS

LIQUID FUELS

Fuel for future transport aircraft
[ASME PAPER 81-DT-60]
p0012 H82-10965

Refining and upgrading of synfuels from coal and
oil mazes by advanced catalytic processes
[DOE-001127]
p0213 H82-17401

Fuel quality processing study, volume 1
[NASA-CR-165127-VOL-1]
p0399 H82-24649

Fuel quality processing study. Volume 2:
Appendix. Tables and charts
[NASA-CR-165127-VOL-2]
p0399 H82-24650

An exploratory research and development program
leading to specifications for aviation turbine
fuel from whole crude shale oil. Part 1:
Preliminary process analyses
[AD-1112661]
p0527 H82-28462

An exploratory research and development program
leading to specifications for aviation turbine
fuel from whole crude shale oil. Part 2:
Process variable analyses and laboratory scale
production
[AD-1112662]
p0528 H82-28463

An exploratory research and development program
leading to specifications for aviation turbine
fuel from whole crude shale oil. Part 3:
Production of specification of JP-4 fuel from
gasololnics shale oil
[AD-1112663]
p0528 H82-28464

Ethanol production by vapor compression distillation
[DOE-000892]
p0538 H82-29393

United States Air Force shale oil to fuel, phase 2
[AD-1114531]
p0530 H82-29476

FUEL SPRAYS

The dispersion of drop sizes in gas turbine fuel
nozzle sprays
p0019 H82-12107

An experimental study of the combustion of liquid
hydrocarbons fuel sprayed into a diffusion
hydrogen-air jet
p0104 H82-16267

A spark ignition model for liquid fuel sprays
applied to gas turbine engines
p0436 H82-37220

FUEL SYSTEMS

LIQUID FUELS

Maintenance problems associated with the operation of
the F402/Pegasus engine in the AV-8A
[AILA PAPER 81-216]
p0109 H82-16195

Flight demonstration of an integrated floor/fuel
isolation system
[AMS PREPRINT 81-16]
p0442 H82-37788
Fusion Welding

LTA/EWP problem --- Lightning Threat Analysis

Acceleration response of fuselage sidewall panels
on a twin-engine, light aircraft

Boeing's bigger narrowbody

Preliminary design development AV-88 forward
fuselage composite structure

Design concepts for composite fuselage structure
A crashworthiness test for composite fuselage structure
The design, construction, and performance of composite fuselage components for the Boeing 234 helicopter

Why twin-fuselage aircraft
Structural integrity of an adhesively bonded aircraft fuselage
Transonic flow past bodies of the type wing-fuselage with allowance for boundary effects
A finite element analysis of coupled rotor fuselage vibration
& nonlinear response analysis for coupled rotor-fuselage systems
Use of optimization in helicopter vibration control by structural modification
Development and validation of preliminary analytical models for aircraft interior noise prediction
Toward all-composite helicopter fuselage
Numerical solution of a problem concerning transonic flow past a wing-fuselage configuration
Design and fabrication of a composite rear fuselage for the OH-60/Black Hawk

Fuselage effects in leading edge vortex flap aerodynamics
An initial look at the supercruising aerodynamics of twin-fuselage aircraft concepts
An optimum design of fuselage structure
Generation of boundary-conforming grids around wing-body configurations using transfinite interpolation
Exterior noise on the fuselage of light propeller driven aircraft in flight
Experimental modal analysis of the fuselage panels of an Aéro Commandeur aircraft

Structural analysis of fuselages with cutouts by finite element method
Some RAE research on shielded and unshielded fuselage mounted air intakes at subsonic and supersonic speeds
The influence of closed-coupled, rear fuselage mounted nacelles on the design of an advanced high-speed wing
Aerodynamic aspects of a high bypass ratio engine installation on a fuselage afterbody
Flight characteristics design and development of the AH-64/RAH-66 helicopter
Separated flow around helicopter bodies
A method of predicting fuselage loads in hover
On the calculation of separated flow on helicopter fuselages

FUSION WELDING

SUBJECT INDEX

[880-UD-321-0-0] p0252 882-18188
Structural system identification technology verification [AD-A103981]
Full-scale flammability test data for validation of aircraft fire mathematical models
[HASA-TH-58244] p0313 882-21166
Analytical prediction of the interior noise for cylindrical models of aircraft fuselages for prescribed exterior noise fields. Phase 2: Models for sidewall trim, stiffened structures and cabin acoustic with floor partition
[HASA-CH-166869] p0358 882-22952
Wind tunnel investigations of multiplane fuselages with different layups and wing settings --- aerodynamic drag measurement
[880-CB-165750] p0026 H82-10028
Automated design of minimum drag light aircraft fuselages and nacelles
[880-CB-166913] p0368 882-23238
Experimental verification of force determination and ground flying on a full-scale helicopter
Adapter for mounting microphone flush with the external surface of the skin of a pressurized aircraft
[HASA-CASP-FEC-11072-1] p0398 882-24474
Fuselage structure using advanced technology fiber reinforced composites
[HASA-CASP-LAB-11680-11] p0458 882-26384
Elevation plane analysis of on-aircraft antennas
[AD-A112373] p0460 882-26554
Crasworthy airframe design concepts: Fabrication and testing [NASA-CB-3603] p0613 882-33735

FLSU ATURE

MT BRAZING
MT ELECTRON BEAR WELDING
MT GAS TUNGSTEN ARC WELDING
MT PLASMA ARC WELDING

Primary sewage treatment plant as a source of bird hazards at airport

G

Accelereation (Physics)

GAGES
G MEASURING INSTRUMENTS
G APLIFICATION
G AMPLIFICATION

Aircraft
U C-5 AIRCRAFT

GALILEI METHOD

Torques and translational forces on composite blade with attachment flexibility

GAMES

MT SADDLE POINTS (GAMES THEORY)

Air-to-air combat analysis - Review of differential-gaming approaches
Game-theoretical method for the synthesis of aircraft control during landing approach

GANGU RAY SPECTROMETERS

Airborne gamma- ray spectrometer and magnetometer survey. I'ikpikpuk River quadrangle, Alaska, volume 2
[DBB-000314] p0399 882-24620
Airborne gammaray spectrometer and magnetometer survey. Jamestown quadrangle, North Dakota, volume 1
[DBB-000416] p0399 882-24629
Airborne gamma-ray spectrometer and magnetometer survey. Jamestown quadrangle, North Dakota, volume 2
[DBB-000416] p0399 882-24630
Airborne gamma-ray spectrometer and magnetometer survey. Barrow quadrangle, Alaska, volume 2
[DBB-000342] p0413 882-25623

GARBAGE
GAS CHBOHiTOGB&PBT
GAS ABALISIS
GAS GBHEBAIOBS
CAS 6E8EBATOB EH6IBES
GAS 6ABHEHTS
GAS COOHIG
GAS FLO!
GAS DTHAHICS
HI IIR FLO?
HI HYPEBSONICS
HT AEBODIHAHICS
-- loss models for the stator and rotor of a mixed
NT VEB1ICAL AIB COBBENTS
HI IBANSITIOM FLOH
NT B010B AEBODYHAHICS
Characteristics of a side dump gas generator ramjet
[AILA PAPER 82-1250]
p0419 A82-35089
Comparison of HP turbine 'deep blade design'
effects in turbofan engine gas generators with
different bearing structure configurations
[AILA PAPER 82-1250]
p0419 A82-35089
GAS INJECTION
Hypersonic interactions with surface mass
transfer. I - Steady flow over a slender wedge
wing
[AILA PAPER 82-0979]
p0014 A82-26479
Investigation of the aerodynamics of axisymmetric
bodies in supersonic flow in the presence of
localized injection
p0515 A82-40996
GAS LASERS
ST CARBON DIOXIDE LASERS
ST EXCIMER LASERS
ST HELIUM-NEON LASERS
Starting transients in supersonic nozzles and
diffuser-assemblies
[AD-A111193]
p0406 A82-25226
GAS LIQUBICATION
U CONDENSING
GAS LIQUIDATED BEABIHGS
GAS NODERUED BEABIHGS
GAS BLEVE
GAS DENSITIES
- K COMPRESSED AIR
catch reflection of a shock wave from an inclined
wall
p0391 A82-34748
GAS PRESSURE
Determination of losses in a channel with a sudden
expansion behind a diffuser
p0282 A82-26492
GAS REFVIS
Gas turbine airflow control for optimum heat
recovery
p0423 A82-35329
GAS STOEARS
The combustion of a fuel jet in a stream of lean
gaseous fuel-air mixtures
p0326 A82-26892
Dilution jet behavior in the turn section of a
reverse flow combustor
[AILA-TR-02776]
p0266 A82-19220
GAS TEMPERATURE
Study of reingestion of exhaust gases with
different initial temperature in a reversed
nozzle-diffuser assemblies
p0304 A82-11644
Control of gas turbine power transients for
improved turbine airfoil durability
[AILA PAPER 82-1162]
p0418 A82-35047
GAS TURBINE ENGINE GENERATORS
U GAS GENERATORS
GAS GENERATORS
Characteristics of a side dump gas generator ramjet
[AILA PAPER 82-1250]
p0419 A82-35089
Comparison of HP turbine 'deep blade design'
effects in turbofan engine gas generators with
different bearing structure configurations
[AILA PAPER 82-1250]
p0419 A82-35089
A-229
Coatings in the aero gas turbine --- sprayed coatings
(PN9-90049) p0318 882-21204

Processes development and evaluation of gas turbine engine components in RE 826 --- titanium alloy
(PN9-90050) p0318 882-21205

The mechanical testing of compressors and turbines for aircraft gas turbine engines --- Rolls Royce engines
(PN9-90070) p0319 882-21211

Teleometry in aero engine development --- from operating engines
(PN9-90055) p0321 882-21217

Maintenance in Service of High Temperature Parts
[ADAB-CR-337] p0345 882-22172

Military maintenance policies and procedures for high-temperature parts. Will they be adequate?
(PN9-90073) p0345 882-22173

Engine depot maintenance repair technology
(PN9-90074) p0345 882-22174

Maintenance problems in gas turbine components at the Royal Naval Aircraft Yard, Fleetlands --- helicopter and marine gas turbines
PN9-90075 p0345 882-22215

Maintenance experience with civil aero engines
PN9-90076 p0345 882-22216

Engine component retirement for cause
PN9-90077 p0345 882-22217

Defects and their effect on the behavior of gas turbine discs
PN9-90078 p0346 882-22218

The influence of protective treatment on the mechanical properties of superalloy parts
PN9-90079 p0346 882-22219

Repair and regeneration of turbine blades, vanes and discs
PN9-90080 p0346 882-22220

Investigation of soot and carbon formation in small gas turbine combustors
[NASA CR-167853] p0346 882-22267

BB211 powerplant deterioration: review of current situation and lessons learned
(PN9-90073) p0355 882-22270

The contribution of thermal barriers coatings to the life and performance of gas turbine components
(PN9-90076) p0355 882-22271

Reliable power --- BB211 aircraft engine
(PN9-90078) p0355 882-22275

Directional solidification: Project B2 --- of gas turbine rotor blade alloys
(PN9-90080) p0356 882-22279

A helicopter handling qualities study of the effects of engine resonance characteristics, height-control dynamics, and excess power on nap-of-the-earth operations
PN9-90081 p0365 882-23214

Analysis of high load dampers
[NASA CR-166503] p0369 882-23248

A report study of synthetic and alternative fuel usage in Army aircraft propulsion systems
[AD-A111046] p0398 882-24355

Evaluation of inelastic constitutive models for nonlinear structural analysis --- for aircraft turbine engines
PN9-90082 p0398 882-24502

Analysis of transient data from aircraft gas turbine engines using AIDS
PN9-90083 p0403 882-25189

Cost/benefit studies of advanced materials technologies for future aircraft turbine engines: Materials for advanced turbine engines
[NASA CR-167849] p0408 882-25254

Low NOx heavy fuel combustor concept program
[NASA CR-165367] p0413 882-25365

Transient simulation of gas turbines including the effects of heat capacity of the solid parts

Life and Utilization Criteria Identification In Design (LUCID), Volume 1
[AD-A111046] p0455 882-26309

Life and Utilization Criteria Identification In Design (LUCID), Volume 2
[AD-A111046] p0455 882-26310

Depot support of gas turbine engines
[AD-A107161] p0462 882-27217

Rotor fragment protection program: Statistics on aircraft gas turbine engine rotor failures that occurred in U.S. commercial aviation during 1978
[AD-A107161] p0462 882-27217

Mechanical property characterization and modeling of structural materials --- for airplanes and aircraft gas turbine engines
[AD-A111881] p0478 882-27744

Ceramic applications in turbine engines
[NASA CR-165197] p0565 882-31158

A method for designing inlet distortion screens for aircraft gas turbine engine tests using an interactive computer program
[AD-A116594] p0569 882-31325

Active clearance control system for a turbomachine
[NASA-CARD-198-129234] p0569 882-32366

Performance of SBC fuels in gas-turbine combustors. Alternative-fuels-utilization program
[AD-A92-03471] p0595 882-32518

Engine dynamic analysis with general nonlinear finite element codes. Part 2: Bearing element implementation. Overall numerical characteristics and benchmarking
[NASA CR-167946] p0609 882-33390

Energy-efficient engine: Turbine transition duct model technology report
[NASA CR-167936] p0610 882-33394

Fuel property effects on radiation intensities in a gas turbine combustor
[AD-A159566] p0616 882-29188

Investigation of heat transfer in the vicinity of the leading and trailing edges of a cooled nozzle blade of a low-consuming gas turbine
PN9-90084 p0625 882-30120

Air cooling of gas turbine blades
[NASA CR-166503] p0369 882-23248

A comprehensive method for preliminary design optimization of axial gas turbine stages
[AD-A110831] p0419 882-35091

Atomization quality of twin fluid atomizers for gas turbines
[AD-PAPER 82-GT-61] p0422 882-35134

The use of performance-monitoring to prevent compressor and turbine blade failures
[AD-PAPER 82-GT-66] p0422 882-35316

Gas turbine airflow control for optimum heat recovery
[AD-PAPER 82-GT-83] p0423 882-35329

Development of hybrid gas turbine hacket technology
[AD-PAPER 82-GT-94] p0424 882-35337

A critical appraisal of some current incidence loss models for the stator and rotor of a mixed flow gas turbine
[AD-PAPER 82-GT-120] p0425 882-35350

Accuracy expectations for gas turbine and centrifugal compressor performance testing
[AD-PAPER 82-GT-128] p0425 882-35358

Oxidation-resistant materials for hot-gas turbine and jet engines
[AD-A1011584] p0433 882-41725

Gas turbine ceramic-coated-vane concept with connection-coated porous metal core
[AD-TF-52-142] p0314 882-15067

Linear and nonlinear analysis of vortex whirls: Another blade buster
[AD-A115084] p0333 882-33371

Bristle materials design, high temperature gas turbine
[AD:1109670] p0191 882-16005

Duct channel fuel control program, phase 2
[AD-A109715] p0305 882-20165

Basic technology of squeeze-film dampers for rotor dynamics control
[AD-A110842] p0369 882-23250

Evaluation of cast titanium alloy compressor components, volume I
[AD-A111431] p0396 882-24204

Performance of multiple, angled nozzles with short mixing stack eductor systems
[AD-A101817] p0454 882-26302

Heat transfer in turbines
[AD-A111508] p0455 882-26307

Sears and update of F-14A mission profiles for TF30 engine usage
[AD-A116831] p0603 882-33337

Numerical stability analysis of a compressor model
[AD-A116878] p0610 882-33394

GAS TURBINES

SUBJECT INDEX
GLASS FIBERS

Fatigue behavior of selected non-woven fiber composites for helicopter rotor blades p0170 A82-20523
A study of the suitability of the all fiberglass X-15A aircraft for fuel efficient general aviation flight research p0170 A82-20524
CB-47 fiberglass rotor blade design and fabrication p0200 A82-26397
Design and production of fiberglass helicopter rotor blades p0289 A82-27153
Composite fasteners - A compatible joining technique for fibrous composites in structural design - aircraft construction materials p0289 A82-27159
Composite materials - with emphasis for aircraft gas turbine parts p0325 A82-28590
Effects of moisture on the mechanical properties of glass/epoxy composites p0329 A82-29036
Mechanical properties of a fiberglass prepreg system at cryogenic and other temperatures [AIAA-82-0708] p0335 A82-30099
Use of CGPBF in transport --- Carbon and Glass Hybrid Reinforced Plastics p0435 A82-37061
A significant role for composites in energy-efficient aircraft p0435 A82-37065
A 6 D on composite rotor blades at Augga p0439 A82-37764
CPC drive shaft and CPC coupling for the tail rotor of the Boeing 105 p0439 A82-37766
Aeaging of composite rotor blades p0440 A82-37771
Adaptation of pultrusion to the manufacture of helicopter components p0501 A82-40537
Determination of load spectra and their proof for keeping the operational life understanding of sporting airplanes p0516 A82-41010
Evolution in airplane construction? Grob G110: The first modern fiber glass composite airplane shortly before its maiden flight [NASA-TH-76705] p0532 A82-22246
Development of materials and manufacturing technology over the past 20 years: Composite materials [EB-UD-341-82-0] p0527 A82-26365
GLASS FIBERS
CB-46 fiberglass rotor blade repair program p0278 A82-26384
Operational experience with the fiberglass rotor blade p0279 A82-26386
GLASSFIBER COEFFICIENT
U AEROSPACE FORCES U RACH NUMBER
GLASSES
B.A.C. One-Eleven flight deck glazing product improvement p0220 A82-24225
Concorde glazings - 5 years of Each 2 service p0220 A82-24226
Transparent polyolefin film error [AD-A107562] p0213 A82-17377
GLIDE ANGLES U GLIDE PATHS
GLIDE LANDINGS
GLIDE PATHS
Constant L/D glide trajectories [AIAA PAPER 82-0362] p0119 A82-17904
A new end-fire ILS glide slope p0122 A82-18143
Development of a digital integrated automatic landing system/DIALS/ for steep approach and landing p0168 A82-20297
GLIDE PATHS
Gtd terrain reflection model applied to ILS glide scope --- Geometrical Theory of Diffraction p0119 A82-30137
Determination of the glide path of an aircraft with power off p0388 A82-24154
Flight simulation studies on the feasibility of laterally segmented approaches in an ILS environment p0509 A82-40961
In-service testing of the Precision Approach Path Indicator (PAPI) at Newark International Airport, New Jersey p0132 A82-14076
Optimal dolphin hang glider flight p0201 A82-17157
GTD terrain reflection model with application to ILS glide slope p0303 A82-20166
Flight experiments using the front-side control technique during piloted approach and landing in a powered lift STOL aircraft [NASA-TH-83137] p0456 A82-26314
Terminal area automatic navigation, guidance, and control research using the Microwave Landing System (MLS). Part 4: Transition path reconstruction along a straight line path containing a glideslope change waypoint [NASA-DB-43576-PP-4] p0222 A82-26269
Analysis of several glideslope and speed control autopilot concepts for a powered lift STOL aircraft [NASA-TH-1-0282] p0611 A82-33400
A-236
GRAPHITE-POLYIMIDE COMPOSITES

Fracture control in ballistic-damaged graphite/epoxy wing structure

Composite wing substructure technology on the F-16 advanced aircraft

Design concepts for composite fuselage structure

Advanced composites integral structures meet the challenge of future aircraft systems

Continuous filament advanced composite winggrid - A promising structural concept

A crashworthiness test for composite fuselage structure

Impact resistance of graphite and hybrid configurations

Effects of lightning and nuclear electromagnetic pulse on an advanced composites aircraft

Preliminary design of an advanced composite rotor hub for the CH-60 Black hawk

Evaluation of graphite/epoxy shims as a high capacity laminate helicopter bearing

Durability evaluation of highly stressed wing box structure

Growth of four flaw types in graphite/epoxy composites due to fully reversed fatigue

Flight service evaluation of advanced structures

A new resin for field repair

Characterization of composition variations in structural adhesive

Composite bonds improve thermal integrity

Effects of 50,000 hours of thermal aging on graphite/epoxy and graphite/polyimide composites

On the characterization of damages in graphite-epoxy composites

Aeroelastic flutter and divergence of stiffness coupled, graphite/epoxy, cantilevered plates

A giant step toward composite helicopters

System study of application of composite materials for future transport aircraft

Fabrication and test of integrally stiffened graphite/epoxy components

Application and testing of metallic coatings on graphite/epoxy composites

Evaluation of sensitivity of ultrasonic detection of disbonds in graphite/epoxy to metal joints

Developmental on graphite/epoxy T-2 nose landing gear door

Development of the advanced composite ground spoiler for C-1 airbus transport aircraft

Development status of a composite vertical stabilizer for a jet trainer

Non-honeycomb F-16 horizontal stabilizer structural design

Design and fabrication of co-cured composite hat-stiffened panels

Application of composite materials and new design concepts for future transport aircraft

In-service inspection methods for graphite-epoxy structures on commercial transport aircraft

A study of the effects of long-term exposure to fuels and fluids on the behavior of advanced composite materials

Study of noise reduction characteristics of composite fiber-reinforced panels, interior panel configurations, and the application of the tuned damper concept

Concept studies of an advanced composite helicopter fuselage

AIAA-82-210-106

The 737 graphite composite flight spoiler flight service evaluation

NASA-CR-165826

Standard tests for toughened resin composites --- for aircraft structures

NASA-3P-1092

Environmental exposure effects on composite materials for commercial aircraft

NASA-CR-165981

GRAPHITE-POLYIMIDE COMPOSITES

Effects of 50,000 hours of thermal aging on graphite/epoxy and graphite/polyimide composites

NASA-2-0657

High temperature, short time tensile strength of C6000/PMR-15 graphite/polyimide

AIAA-0-0711

Geometrical aspects of the tribological properties of graphite fiber reinforced polyimide composites

AIAA-82-30125

Development and demonstration of manufacturing processes for fabricating graphite/LAM 160 polyimide structural elements

NASA-CR-165809

Develop. demonstrate, and verify large area composite structural bonding with polyimide adhesives - adhesively bonding graphite-polyimide structures

NASA-CR-165839

GRAPHS (CHARTS)

Airborne gamma-ray spectrometer and magnetometer survey. Ishlipak River quadrangle, Alaska, volume 2

AIAA-82-00316

Airborne gamma-ray spectrometer and magnetometer survey. Jamestown quadrangle, North Dakota, volume 1

DE82-004150

Airborne gamma-ray spectrometer and magnetometer survey. Jamestown quadrangle, North Dakota, volume 2

DE82-004169

GRAVITATION

MT GRAVITY ANOMALIES

MT REDUCED GRAVITY

GRAVITATIONAL EFFECTS

Stability and response to gravity of the flap lag motion for a rigid rotor blade with flap-pitch coupling

NASA-CB-16589

Study and design of high G acceleration devices for flight simulators

NASA-CB-165826

GRAVITATIONAL FIELDS

Gravity induced position errors in airborne inertial navigation

AD-A119283

The Earth's gravity field to degree and order 180 using SASSAT altimeter data, terrestrial gravity data and other data

AD-A113098

AD-A113823

AD-A113923

GRAVITY ANOMALIES

Gravity induced position errors in airborne inertial navigation

AD-A113823

The Earth's gravity field to degree and order 180 using SASSAT altimeter data, terrestrial gravity data and other data

AD-A113923

AD-A113923

AD-A113923

GRIMAY WINDS

U UNITED KINGDOM

GRIDS

A Schwaert-Christoffel method for generating

A-238
Halogen Compounds

NT ALKALI HALIDES
NT CARBON TETRACHLORIDE
NT CHLORINE COMPOUNDS
NT POLYTETRAFLUOROETHYLENE
NT SODIUM CHLORIDE

Harmsdene Aircraft

NT C-160 AIRCRAFT
NT HBP-120 AIRCRAFT

Harmsdene HBP-320 AIRCRAFT

SUBJECT INDEX

Halogen Compounds

Optimization of blade pitch angle for higher harmonic rotor control

Harmonics

A method of characteristics solution for a finite oscillating supersonic cascade with thickness effects

Harmonics

A new safety harness for mobile aircraft

Harasses

Disengagement of safety harness buckles - CT

Harasses

Evaluation of a proposed modified PPB-111 crew seat and restraint system

Harasses

Comparative vertical impact testing of the PPB-111 crew restraint system and a proposed modification

Harasses

Feasibility study of a 270V dc flat cable aircraft electrical power distributed system

Harpoon Missiles

Harpoon missile capture-carry-dynamic environments on the A-6X aircraft

Harrier Aircraft

Commentary on facilities used in the development of a Sea Harrier all weather operations capability

Harrier Aircraft

AV-8B technical update - Leading edge control extension development

Harrier Aircraft

Advanced cockpit for tactical aircraft

Harrier Aircraft

Maintenance problems associated with the operation of the F402/Pegasus engine in the AV-8A /Harrier/ aircraft

Harrier Aircraft

AV-8B Harrier II

Harrier Aircraft

A real time Pegasus propulsion system model for VSTOL piloted simulation evaluation

Harrier Aircraft

An oxygen enriched air system for the AV-8A Harrier

Harrier Aircraft

Reliability and maintainability improvement program for the AV-8A/TAV-8A Harrier head-up display set, development of the signal data converter, CT-3600/AQ-30(V), Volume 3

Hawk Side-Elevator Aircraft

Hawk Side-Elevator Aircraft

NT HARRIER AIRCRAFT

G-S. Marine Corps AV-8A maintenance experience

Hazards

NT AIRCRAFT HAZARDS

NT FLIGHT HAZARDS

NT IONIZING RADIATION HAZARDS

Investigation of the structural degradation and personnel hazards resulting from helicopter composite structures exposed to fire and/or explosions

Hazards

Study of air compressor hazards in underground and surface mines

Helicopter EC-14

Helicopter EC-747

C-242

HC-1 BEARBEIT

HAZARDS

NT ARMS HAZARDS

NT AVIATION HAZARDS

NT MSD HAZARDS

NT PLANT HAZARDS

NT Really HAZARDS

NT SPACE HAZARDS

NT TOXIC HAZARDS

NT TRANSPORTATION HAZARDS

Mark 19, The Handbook of Marine Corps AV-8A Maintenance

A-202
HEAD-UP DISPLAYS

Applications of head-up displays in commercial transport aircraft

The LANTIBN vide field-of-view raster Head-Up Display - Low Altitude Navigation and Targeting IE for Flight

Head-up displays - The integrity of flight information

A simulator assessment of a wide field of view head-up display for presenting a FLIR sensor image during low level navigation and ground attack missions

A new angular deviation measurement device for aircraft transparencies

Micro-heads-up display

Study and development of an integrated head-up display

Design study for a low-distortion holographic HUD

Heads up display

Final engineering report for computer, weapon aiming CP-1994/A

Easibility and maintainability improvement program for the AV-8A/YAV-8B Harrier head-up display set, development of the signal data converter, CY-3600/AVU-J30 (F), volume 3

An operational evaluation of head-up displays for civil transport operations. NASA/FAA phase 3

BEAT RESISTANT ALLOYS

Heat resistant alloys - Aerospace materials for the 1980's; Proceedings of the Conference, Zurich, Switzerland, November 18-20, 1980. Volume 1

Supercooled superalloy powders by the rotating electrode process

Superalloy turbine components - Which is the superior manufacturing process, as-HIP, HIP plus Ioseforge, or 'gatorizing' of extrusion consolidated billet

Superalloy powder engine components; controls employed to assure high quality hardware

Supercooled superalloy powders by the rotating electrode process

'Tin situ' composites for jet propulsion and stationary gas turbine applications

Damage of turbine blades due to interaction with fuel remanification products

Where is coalit irreplaceable

The gas turbine engine

Sheet materials - Fabrication and joining for aircraft transparencies

An evaluation study of aluminate and chromoaluminate coatings on IN-100

Effect of operating life on the mechanical properties of the materials and load-bearing capacity of the rotor elements of gas-turbine engines

The superalloys - Materials for gas turbine hot section components

A two-dimensional boundary-layer process for turbine airfoil heat transfer calculation

Engine experience of turbine rotor blade materials and coatings

Oxidation-resistant materials for hot-gas turbines

A two-dimensional boundary-layer process for turbine airfoil heat transfer calculation

Engine experience of turbine rotor blade materials and coatings

Thermodynamics of organic compounds

Micro wave ice prevention

Micro wave ice prevention

Heat pipes

Powder metallurgy superalloys - Aerospace materials for the 1980's; Proceedings of the Conference, Zurich, Switzerland, November 18-20, 1980. Volume 1

Supercooled superalloy powders by the rotating electrode process
**SUBJECT INDEX**

<table>
<thead>
<tr>
<th>[NASA-TM-80764]</th>
<th>p0394 A82-24176</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary study of ground handling characteristics of Boeing Quad Rotor (BQR) vehicles</td>
<td></td>
</tr>
<tr>
<td>[NASA-CP-166130]</td>
<td>p0447 A82-26220</td>
</tr>
<tr>
<td>HEAVY LIFT HELICOPTERS</td>
<td></td>
</tr>
<tr>
<td>Heavy lift helicopters - A national technology opportunity</td>
<td></td>
</tr>
<tr>
<td>Linear decentralized systems with special structure -- for twin lift helicopters</td>
<td>p0388 A82-38359</td>
</tr>
<tr>
<td>HEIGH</td>
<td></td>
</tr>
<tr>
<td>A recursive terrain height correlation system using multiple model estimation techniques</td>
<td>[AIAA 82-1513] p0484 A82-38937</td>
</tr>
<tr>
<td>HELICOPTER ATTITUDE INDICATORS</td>
<td></td>
</tr>
<tr>
<td>HELICOPTER ATTITUDE INDICATORS</td>
<td></td>
</tr>
<tr>
<td>HELICOPTER CONTROL</td>
<td></td>
</tr>
<tr>
<td>The design of exact nonlinear model followers -- with application to trajectory autopilot for helicopter</td>
<td>p0044 A82-13125</td>
</tr>
<tr>
<td>Helicopter IFB - Past, present and future and future navigation for helicopters by multiple use of inertial sensors</td>
<td>p0067 A82-18713</td>
</tr>
<tr>
<td>Application of multiple model estimation techniques to a recursive terrain height correlation system</td>
<td>p0070 A82-18768</td>
</tr>
<tr>
<td>Experimental evaluation of a perspective tunnel display for three-dimensional helicopter approaches</td>
<td>p0083 A82-15847</td>
</tr>
<tr>
<td>Helical helicopter approaches with microwave landing system guidance</td>
<td>[AIAA PAPER 81-2654] p0109 A82-16914</td>
</tr>
<tr>
<td>Real-time simulation of helicopter IFB approaches into major terminal areas using BNAV, ALS, and CDI</td>
<td>p0466 A82-13245</td>
</tr>
<tr>
<td>[NASA PAPER 80-0260]</td>
<td>p0118 A82-17866</td>
</tr>
<tr>
<td>Helicopter decelerating steep approach and landing to confined areas using instrument meteorological conditions</td>
<td>p0125 A82-18161</td>
</tr>
<tr>
<td>The use of adaptive control for helicopter trajectories in search operations</td>
<td>p0154 A82-19065</td>
</tr>
<tr>
<td>The application of stand-alone inertial technology to attitude and Heading Reference System requirements -- for YAH-64 advanced attack helicopter</td>
<td>p0182 A82-21590</td>
</tr>
<tr>
<td>Helicopters and Navstar/GPS</td>
<td>p0182 A82-21592</td>
</tr>
<tr>
<td>Sensitivity of helicopter aeromechanical stability to dynamic inflow</td>
<td>p0273 A82-25773</td>
</tr>
<tr>
<td>Design of higher harmonic control for the ABC</td>
<td>p0278 A82-26380</td>
</tr>
<tr>
<td>A preliminary investigation of Individual Blade-control Independent of a Swashplate</td>
<td></td>
</tr>
<tr>
<td>Selection of some rotor parameters to reduce pitch-roll coupling of helicopter flight dynamics</td>
<td>p0278 A82-26382</td>
</tr>
<tr>
<td>The Circulation Control Rotor /CCR/ control system</td>
<td>p0280 A82-26400</td>
</tr>
<tr>
<td>The future of helicopter flight control technology</td>
<td>p0284 A82-26821</td>
</tr>
<tr>
<td>Composite control tubes</td>
<td>p0292 A82-27423</td>
</tr>
<tr>
<td>The helicopter Navstar GPS test program</td>
<td>p0362 A82-31250</td>
</tr>
<tr>
<td>No-tail-rotor helicopter test continue</td>
<td>p0380 A82-33095</td>
</tr>
<tr>
<td>The ubiquitous helicopter</td>
<td>p0385 A82-33913</td>
</tr>
<tr>
<td>Linear decentralized systems with special structure -- for twin lift helicopters</td>
<td>p0388 A82-38359</td>
</tr>
<tr>
<td>An advanced helicopter engine control system</td>
<td>[NASA PAPER 82-07-259] p0420 A82-35429</td>
</tr>
<tr>
<td>Optimization of blade pitch angle for higher harmonic rotor control</td>
<td>p0441 A82-37776</td>
</tr>
<tr>
<td>HELICOPTER DESIGN</td>
<td></td>
</tr>
<tr>
<td>A simple system for helicopter individual-blade-control and its application to stall-induced vibration alleviation</td>
<td>[AAS PREPRINT 81-12] p0442 A82-37785</td>
</tr>
<tr>
<td>Simulator investigations of various side-stick controllers/stability and control augmentation systems for helicopter terrain flight</td>
<td>[AIAA 82-1522] p0484 A82-38942</td>
</tr>
<tr>
<td>A ground-simulation investigation of helicopter decentering instrument approaches</td>
<td>[AIAA PAPER 82-1386] p0488 A82-39118</td>
</tr>
<tr>
<td>Adaptive fuel control feasibility investigation</td>
<td>p0499 A82-40519</td>
</tr>
<tr>
<td>Concept demonstration of automatic subsystem parameter monitoring -- all helicopter cockpit instrumentation</td>
<td>p0500 A82-40530</td>
</tr>
<tr>
<td>Avionics systems for helicopter integration</td>
<td>p0501 A82-40534</td>
</tr>
<tr>
<td>NASA/FAA Helicopter ATC simulation investigation of BNAV/ALS instrument approaches</td>
<td>p0501 A82-40535</td>
</tr>
<tr>
<td>A restrained model helicopter, which is able to fly, for investigations regarding human multiparameter control behavior -- German thesis</td>
<td>p0543 A82-14167</td>
</tr>
<tr>
<td>Electronic master monitor and advisory display system, data transmission study</td>
<td>[AD-1046243] p0037 A82-11064</td>
</tr>
<tr>
<td>Electronic master monitor and advisory display system, human engineering summary report</td>
<td>[AD-1046244] p0037 A82-11065</td>
</tr>
<tr>
<td>Electronic master monitor and advisory display system, operational functions report</td>
<td>[AD-105516] p0133 A82-14087</td>
</tr>
<tr>
<td>An investigation of multi-axis isometric side-arms controllers in a variable stability helicopter</td>
<td>[AD-1067559] p0209 A82-17226</td>
</tr>
<tr>
<td>A control model for maneuvering flight for application to a computer-flight testing program</td>
<td>p0249 A82-18153</td>
</tr>
<tr>
<td>A redundancy concept for a digital CSAS</td>
<td>p0251 A82-18170</td>
</tr>
<tr>
<td>The influence of sensor and actuator characteristics on overall helicopter AFCS design</td>
<td>p0251 A82-18171</td>
</tr>
<tr>
<td>Helicopter Handling Qualities</td>
<td>[NASA-CP-2219] p0366 A82-23208</td>
</tr>
<tr>
<td>VTOL and STOL handling qualities specifications, an overview of the current status</td>
<td>p0366 A82-23209</td>
</tr>
<tr>
<td>Boeing 234 flight control development</td>
<td>p0365 A82-23211</td>
</tr>
<tr>
<td>Flight tests for the assessment of task performance and control activity</td>
<td>p0365 A82-23212</td>
</tr>
<tr>
<td>A helicopter handling-qualities study of the effects of engine response characteristics, height-control dynamics, and excess power on map-of-the-Earth operations</td>
<td>p0365 A82-23214</td>
</tr>
<tr>
<td>An assessment of various side-stick controller/stability and control augmentation systems for night map-of-Earth flight using piloted simulation</td>
<td>p0365 A82-23216</td>
</tr>
<tr>
<td>Helicopter simulation technology: An overview</td>
<td>p0366 A82-23227</td>
</tr>
<tr>
<td>Applications of system identification methods to the prediction of helicopter stability, control and handling characteristics</td>
<td>p0366 A82-23227</td>
</tr>
<tr>
<td>Optimization of auto-pilot equations for rapid estimation of helicopter control settings</td>
<td>[AD-110739] p0409 A82-25263</td>
</tr>
<tr>
<td>Real-time simulation of an airborne radar for overwater approaches</td>
<td>[NASA-CP-166293] p0409 A82-26262</td>
</tr>
<tr>
<td>Toward a better understanding of helicopter stability derivatives</td>
<td>[NASA-TM-80277] p0592 A82-32376</td>
</tr>
</tbody>
</table>

**HELIICOPTER DESIGN**

| The Rota A129 | p0045 A82-12327 |
| Public service helicopters - Is the grass greener on the other side of the fence | p0045 A82-12328 |
Fatigue methodology - A technical management system for helicopter safety and durability
p0045 482-13240

Heavy lift helicopters - A national technology opportunity
p0045 482-13241

The FAA’s proposed helicopter certification rules
p0046 482-13242

Wire strike protection
p0046 482-13246

Design of a crashworthy crew seat for the Boeing Vertol Chinook helicopter
p0079 482-14975

Advanced technology airfoil development for the LV-15 tail-rotor vehicle
[AIAA PAPER 81-2623] p0108 482-16906

Soviet helicopter construction /2nd revised and enlarged edition/ --- Russian book
p0149 482-18874

Design requirements for modern rescue helicopters
p0153 482-19120

Application of the ABC helicopter to the emergency medical service role
[AIAA PAPER 81-2653] p0157 482-19219

Fatigue behavior of selected non-woven fiber composites for helicopter rotor blades
p0170 482-20524

Helicopter transmission philosophy - The way ahead
p0173 482-20546

The emerging need for improved helicopter navigation
p0182 482-21591

LAMPS III recovery assist, securing and traversing /BASist/ system --- Light Airborne Multi-Purpose System
[SAN PAPER 811060] p0234 482-24642

Standardization of helicopter fatigue methodology - A manufacturer's view
p0238 482-24704

Evolution of the Aerocost
p0239 482-24706

Flight condition recognition /FCB/ technique --- microprocessor-based recording for helicopter structural component fatigue damage
p0239 482-24712

Fatigue test of the typical main rotor controls component
p0240 482-24715

Helicopter rotor load prediction
p0240 482-24719

Some thoughts on design optimization of transport helicopters
p0273 482-25771

The model 412 multi-bladed rotor system
p0277 482-26376

Design for the operating environment - Hing-fan tail rotor program
p0277 482-26378

SH-60B Seahawk automatic blade fold system
p0279 482-26391

The impact of missions on the preliminary design of an ABC rotor
p0279 482-26392

Doror preliminary design trade-offs for the advanced Scout rotor blades
p0280 482-26395

Performance and aerelastic tradeoffs on recent rotor blade designs
p0280 482-26396

CS-47 fiberglass rotor blade design and fabrication
p0280 482-26397

Advanced helicopter concepts compete
p0283 482-26537

Helicopter vibration suppression using simple pendulum absorbers on the rotor blade
p0284 482-26620

Future helicopter technology
p0284 482-26820

The future of helicopter flight control technology
p0284 482-26821

No-Tail-Rotor helicopter
p0284 482-26822

Application of advanced composite materials to helicopter airframe structures
p0289 482-27152

Design and production of fiberglass helicopter rotor blades
p0289 482-27153

Preliminary design of an advanced composite rotor hub for the UH-60A Black Hawk

A-246

SUBJECT INDEX

Composite control tubes
p0289 482-27154

The design, construction, and performance of composite fuselage components for the Boeing 234 helicopter
p0292 482-27423

To the root of the problem - Some helicopter research topics
p0292 482-27424

Advancing blade flight data gathered
p0297 482-28312

Performance characteristics and employment profiles of the new helicopter AH-105
p0331 482-29586

A giant step toward composite helicopters
p0341 482-30294

Structural modification to achieve aerodynamic stability in helicopters
p0379 482-32949

The ubiquitous helicopter
p0385 482-33913

Wall ABC technology produce the next-generation helicopter
p0385 482-33916

CPC drive shaft and CPC coupling for the tail rotor of the BO-105
p0389 482-37766

Quasi-static and dynamic crushing of energy absorbing materials and structural components with the aim of improving helicopter crashworthiness
p0390 482-37769

Helicopter design synthesis
p0400 482-37772

Factors shaping conceptual design of rotary-wing aircraft
p0400 482-37773

Low vibration design of AAM for mission proficiency requirements --- Advanced Attack Helicopter
[ARS PREPRINT 81-2] p0441 482-37778

The Helicopter Ride Revolution
[ARS PREPRINT 81-6] p0441 482-37780

Considerations of open-loop, closed-loop, and adaptive multiyclic control systems
[ARS PREPRINT 81-11] p0442 482-37786

Assessment of the dynamic response of a structure when modified by the addition of mass, stiffness or dynamic absorbers
[ARS PREPRINT 81-18] p0442 482-37790

A unified approach to helicopter NASREM modeling
[ARS PREPRINT 81-22] p0443 482-37793

Substructure program for analysis of helicopter vibrations
[ARS PREPRINT 81-24] p0443 482-37795

Composite use on helicopters
p0461 482-38222

Toward all-composite helicopter fuselage
p0681 482-38223

The need for a dedicated public service helicopter design
p0682 482-38224

The effect of hybrid composite materials on the dynamic characteristics of helicopter rotor blades
p0491 482-39263

Short range tactical RPH system
p0492 482-39730

p0498 482-40505

A new Transonic Airfoil Design Method and its application to helicopter rotor airfoil design
p0498 482-40507

Recent advances in rotor technology at Boeing Vertol
P0498 482-40509

Helicopter vibration reduction by rotor blade modal shaping
p0498 482-40514

Correlation of predicted vibrations and test data for a wind tunnel helicopter model
p0499 482-40515

Sikorsky ACF Preliminary Design --- Advanced Composite Airframe Program
p0500 482-40526

Conceptual design of the LHX Integrated cockpit
p0500 482-40527

The YAH-66 empennage and tail rotor - A technical history
p0500 482-40527

HELIÇOPTER ENGINES

SIVECTIX IIOBX

Subject Index

Mechanical properties of hot isostatic pressed P/M-titanium for helicopter components [NEB-D-329-B-11-0] p0410 N82-25383
User's manual for the coupled rotor/airframe vibration analysis graphic package [NASA-Cr-165997] p0566 N82-31299
Design of helicopter rotor blades for optimum dynamic characteristics [NASA-Cr-163952] p0607 N82-33374

HELICOPTER ENGINES

Helicopter engine technology - With particular reference to the Rolls-Royce Gem engine [N82-242-10394]
The protection of gas turbine blades - A platinum alumina diffusion coating p0063 N82-19464
A fuel control system designer's approach to gas turbine engine computer model validation p0158 N82-19253
Three-dimensional calculation of the flow in helicopter air intakes (ORBIA, TP No. 1981-124) p0164 N82-19740
Maximum cost performance monitoring of turboshaft engines p0172 N82-20546
Future helicopter technology p0208 N82-26680
Analysis of changes in the gas-dynamic parameters of a gas-turbine helicopter engine during acceleration p0304 N82-29872
New processes and methods of technical diagnostics and prognostics in the case of the engine NE-6-4, II p0335 N82-29925
The TM 333, a trump card for Turboshaft engines p0380 N82-37750
Development of a helicopter rotor/propulsion system - Analysis [AIAA PAPER 82-1076] p0416 N82-34997
Small engine inlet air particle separator technology [ASAE PAPER 82-0740] p0421 N82-35299
Adaptive fuel control feasibility investigation for helicopter applications [ASAE PAPER 82-07205] p0427 N82-35400
An advanced helicopter engine control system [ASAE PAPER 82-07250] p0428 N82-35429
Electronic control for small engines [AIAA PAPER 82-1126] p0438 N82-37688
Civil helicopter propulsion system reliability and engine monitoring technology assessments p0499 N82-40516
Adaptive fuel control feasibility investigation [AIAA PAPER 82-07205] p0499 N82-40519
800 Shaft Horsepower Advanced Technology Demonstrator Engine /TF/34 status update p0499 N82-40520
TP34 Convertible Engine System Technology Program p0499 N82-40521
Digital full authority controls for helicopter engines p0499 N82-40522
Support of the HH-65A - The impact of advanced technology of VSTOL systems upon existing product support p0501 N82-40561
The Power Pair Locus - A preliminary design aid to select power ratings for multi-engined helicopters p0566 N82-42474
Helicopter Propulsion Systems [AIAA-CP-302] p0206 N82-17203
Helicopter propulsion systems: Past, present and future p0206 N82-17204
Development test program adapted to helicopter engines p0206 N82-17205
Aircraft turbine engine developments: Current practices and new priorities p0207 N82-17206
Future technology and requirements for helicopter engines p0207 N82-17207
Mechanical advances in the design of small turboshaft engines p0207 N82-17208
Advanced component development design basis for next generation medium power helicopter engines p0207 N82-17209
The influence of new turbine technologies on their components p0207 N82-17210
Aerodynamic concepts for small turboshaft engines p0207 N82-17211
Regenerative helicopter engines: Advances in performance and expected development path lines p0207 N82-17212
Helicopter air intakes p0208 N82-17217
Intake design with particular reference to ice protection and particle separators p0208 N82-17219
The distress regime on the boomed rotor helicopter p0208 N82-17219
Engine/drive/airframe compatibility: A way of life p0208 N82-17220
Problems of engine response during transient maneuvers p0208 N82-17221
An alternative approach to engineering structures using monitoring systems p0209 N82-17223
Component research for future propulsion systems p0209 N82-17224
Future requirements for helicopter propulsion systems p0209 N82-17225
Parametric study of the influence of the engine upon the operating cost of a civil helicopter p0246 N82-19131
Measurement techniques used to assess the installed power of a helicopter engine p0246 N82-19133
Component design and development for future helicopter engines p0246 N82-19134
Three-engine control system for the prototype EH-60C helicopter [ASG-9/70-1586] p0246 N82-19135
NADA/HAA Advanced Rotorcraft Technology and Tilt Rotor Workshops. Volume 1: Executive Summary [NADA-TR-84-149] p0262 N82-19170
NADA/HAA Advanced Rotorcraft Technology and Tilt Rotor Workshops. Volume 5: Propulsion Session [NADA-TR-84-207] p0368 N82-23291
Mathematical models for the synthesis and optimization of spiral bevel gear tooth surfaces --- for helicopter transmissions [NASA-Cr-3553] p0412 N82-25516
Mechanical wear assessment of helicopter engines by ferrography [AD-A110772] p0454 N82-26305
Helicopter noise detection report EH-60A, S-76, -A-109, 206-1 p0574 N82-32208

HELICOPPER PERFORMANCE

Helicopter rotor trailing edge noise [AIAA PAPER 81-2091] p0008 N82-19055
Numerical treatment of helicopter rotor stability problems p0019 N82-12045
Helicopter icing spray system - Improvements and flight experience p0023 N82-12696
The Agusta A129 p0045 N82-13237
Heavy lift helicopters - A national technology opportunity p0045 N82-13241
HELICOPTER PROPELLER DRIVE

Airworthiness and flight characteristics test of an OH-58C configured to a Light Combat Helicopter (LCM) [AIAA-11-2581] p0342 882-26286
The aerodynamic influences of rotor blade taper, twist, airfoils and solidity on hover and forward flight performance [AIAA-11-7397] p0605 882-33357
A ground-simulator investigation of helicopter longitudinal flying qualities for instrument approach [NASA-TR-04225] p0611 882-33398

HELICOPTER PROPELLER DRIVE

In-flight computation of helicopter transmission fatigue life expenditure [AIAA PAPER 81-2434] p0055 882-13872
Application of the principle of reciprocity to flexible rotor balancing [ASME PAPER 81-DPT-69] p0161 882-19311
Airworthiness of helicopter transmissions [882-20541]
Helicopter transmission philosophy - The way ahead [882-20546]
Application of fatigue, crack propagation and strain survey testing to the CH-46 aft rotor drive shaft [882-24705]
Main rotor hub electromagnetic signature reduction [882-26393]
Evaluation of graphite/epoxy shims in a high capacity laminate helicopter bearing [882-27155]
Development of a helicopter rotor/propulsion system dynamics analysis [AIAA PAPER 82-1078] p0416 882-38997
Helicopter Propulsion Systems [AGARD-CP-303] p0206 882-17203
Lubrication breakdown between gear teeth [882-17213]
Advanced transmission component development [882-17214]
Design Criteria of the A 129 helicopter drive system [882-17216]
Engine/drive/airframe compatibility: A way of life [882-17220]
Future requirements for helicopter propulsion systems [882-17225]

HELICOPTER ROTOORS

U ROTARY WINGS

HELICOPTER TAIL ROTORS

Design for the operating environment - Ring-finned tail rotor program [882-26378]
A survey of U.S. Army helicopter main and tail rotor blade obstacle strikes [882-26385]
The Saharan composite flex-beam tail rotor [882-26393]
Saunders-Roe tail rotor - 1980; Advanced manufacturing and quality control techniques [882-26390]
Nose-tail rotor helicopter [882-26622]
The Yan-64 empennage and tail rotor - A technical history [882-18146]
Ringfin augmentation effects [882-60528]
Wind tunnel investigation of high speed rotor noise [882-12053] p0248 882-18146

A hingeless tail rotor of fiber composite construction and vibration isolator systems (AH-6, AH-1S) for helicopters -- antiresonance isolator system (aris); active vibration isolator system (AVIS) [882-21187]
A complete methodology for computation of blade node characteristics and responses in forward flight [882-210-101]
Concept studies of an advanced composite helicopter fan [882-210-106]
Tail rotor studies for satisfactory performance: Strength and dynamic behavior [882-210-108]

HELICOPTER WAKES

The vortex flow field generated by a hovering helicopter [882-26227]
Determination of rotor wake induced empenage airloads [AIAA PREPRINT 81-26] p0493 882-37906
A simplified approach to the free wake analysis of a hovering rotor [882-38947]
An experimental and numerical study of 3-D rotor wakes in hovering flight [882-40946]
Laser Doppler anemometry applied to the study of the airflow in the wake of an helicopter rotor [ONERA, TP No. 1962-61] p0552 882-43755
Experimental and analytical studies of a model helicopter rotor in hover [NASA-TM-84225] p0611 882-33398
Development of a computer based presentation of non-steady helicopter rotor flows [AD-A100107] p0199 882-17131
Rotor flow research in low speed helicopter flight [AD-A107373] p0199 882-17132
Non-steady velocity measurement of the wake of a helicopter rotor at low advance ratios [AD-A107722] p0199 882-17133
Seventh European Rotorcraft and Powered Lift Aircraft Forum [882-12042]
A simplified approach to the free wake analysis of a hovering rotor [882-10119]
An experimental analysis of the shape of a rotor wake [882-18121]
Optimum performance and wake geometry of co-axial rotor in hover [882-18156]
A numerical approach to co-axial rotor aerodynamics [882-18157]
A prescribed wake rotor inflow and flow field prediction analysis, user's manual and technical approach [NASA-CR-165894] p0566 882-31296

HELICOPTERS

AT AH-1G HELICOPTER
AT AH-64 HELICOPTER
AT BO-105 HELICOPTER
AT CH-46 HELICOPTER
AT CH-47 HELICOPTER
AT HEAVY LIFT HELICOPTERS
AT MILITARY HELICOPTERS
AT OH-13 HELICOPTER
AT OH-50 HELICOPTER
AT P-531 HELICOPTER
AT RIGID ROTOR HELICOPTERS
AT SA-330 HELICOPTER
AT SH-3 HELICOPTER
AT TANDEM ROTOR HELICOPTERS
AT UH-1 HELICOPTER
AT UH-60A HELICOPTER
Model helicopter rotor imbalacing noise [AD-A13-11300]
Instrumentation to determine the suitability of RMAV systems for helicopter navigation in the national airspace system /NAS/ [AIAA PAPER 81-2514] p0196 882-13911
Flight testing the suspended maneuvering system --- helicopter firefighting and rescue techniques [AIAA PAPER 81-2496] p0558 882-13922

A-250
Book probe position error corrections for Sea King helicopter     
[AD-A166810]
Self-tuning regulators for multicyclic control of helicopter vibrat.     
[NASA-TP-1996]
Integration of controls and displays in U.S. Army helicopter cockpits     
[AD-A108594]
Rotocraft flight simulation computer program C81 with DATAMIP interface. Volume 1: User's manual     
[AD-A108286]
Application of the finite element method to rotary wing aerelasticity     
[NASA-CH-165586]
Progress on low altitude cloud icing research     
[NASA-CH-165586]
Helicopter rotor loads using a matched asymptotic expansion technique     
[NASA-CH-165742]
Aerelastic analysis of the elastic gimballed rotor     
[NASA-CH-165727]
Preliminary airworthiness evaluation of the UH-1H with hot metal plus     
infrared suppressor and infrared jammer     
[AD-A110211]
Advanced concepts for composite structure joints and attachment fixtures. Volume 1: Design and evaluation     
[AD-A110112]
Dynamic Environmental Qualification Techniques conference     
[AGAB-CH-2318]
Maintenance problems in gas turbine components at the Royal Naval Aircraft Yard, Fleetlands     
[AD-A108215]
Conceptual design study of a visual system for a rotocraft simulator and     some advances in platform motion utilization     
[NASA-CH-166322]
BDIE simulation for aircraft instruments     
[PHI-C-40136-A3]
Lubricant effects on efficiency of a helicopter transmission     
[NASA-TR-62857]
Opportunities exist to achieve greater standardization of aircraft and     helicopter seats     
[AD-A111178]
Helicopter night vision system simulation evaluation     
[AD-A110505]
The annoyance of impulsive helicopter noise     
[NAV-CH-169123]
Improved 243 MHz homing antenna system for use on helicopters     
[AL-F-81002-2-U]
Evaluations of helicopter instrument-flight handling qualities     
[AD-A114004]
Kinematic investigation Hughes Helicopter 7.62mm chain gun     
[AD-A113114]
HS55 calibration, ice phobias and FAA 8/0 evaluations     
[AD-A114435]
Limiting performance of nonlinear systems with applications to helicopter vibration control     
[AD-A111321]
Reliability model for planetary gear     
[NASA-TE-628591]
Flight trials of the Litton LNS-211 Omega Navigation System in a Wexler     helicopter     
[KA-TR-RM-184-167]
Pilot/vehicle model analysis of visual and motion cue requirements in flight simulation     
[50562-82-30838]
Dynamic Systems Coupling (DISCO) program. Volume 2: Theoretical manual     
[AD-A115004]
Helicopter noise definition report 80-668, 8-76, A-105, 206-U     
[AD-A101636]
Foreign (turbine powered) helicopter production: A threat to the United States production base     
[AD-A116755]
An experimental study of dynamic stall on advanced airfoil sections. Volume 1: Summary of the experiment     
[50573-82-31975]
HOVERING STABILITY

Performance testing of a main rotor system for a utility helicopter at 1/4 scale [NASA-TH-82376]
p0352 A82-22251
Some aspects of jet dynamics and their implications for VTOL research p0360 A82-23151
Jet effects on forces and moments of a VSTOL fighter type aircraft p0361 A82-23168
Flap-lag-torsional dynamics of extensional and inextensional rotor blades in hover and an forward flight [NASA-CR-165078] p0359 A82-29312
The aerodynamic influences of rotor blade taper, twist, airfoils and solidity on hover and forward flight performance [AD-A117397] p0605 A82-33357
HOVERING STABILITY
Dynamic stability of a buoyant quad-rotor aircraft --- for airlifting payloads externally on a sling [AIAA PAPER 82-0242] p0117 A82-17861
Performance and aerelastic tradeoffs on recent rotor blade designs
Turbulence-excited flapping motion of a rotor blade in hovering flight p0280 A82-26396
An analysis of a nonlinear instability in the implementation of a VTOL control system during hover [AIAA 82-1611] p0485 A82-38990
An experimental investigation of a bearingless model rotor in hover p0490 A82-40512
Finite element analysis for bearingless rotor blade aerelasticity p0499 A82-40517
Flag-lag-torsional dynamics of extensional and inextensional rotor blades in hover and an forward flight [NASA-CR-165078] p0139 A82-15013
Hover tests of a model A-force rotor [NASA-CR-166359] p0250 A82-18159
A nonlinear instability in the implementation of a VTOL control system [NASA-TH-84220] p0356 A82-22281
HBD-1 HELICOPTER
U CH-46 HELICOPTER
HBD-2 HELICOPTER
U SH-3 HELICOPTER
U OH-1 HELICOPTER
HBD-3 HELICOPTER
Development of the Triflex rotor head p0013 A82-11222
Main rotor hub electromagnetic signature reduction p0270 A82-26393
Preliminary design of an advanced composite rotor hub for the UH-60A Black Hawk p0289 A82-27154
Mosofilair - a dual frequency rotorhead absorber [AIAA PREPRINT 81-20] p0442 A82-37791
Aerelastic analysis of the elastic global rotor [NASA-CR-166287] p0312 A82-21157
Investigation of a rotor system incorporating a constant lift tip [NASA-CR-166261] p0531 A82-29271
HUGHES AIRCRAFT
MT AH-6 HELICOPTER
Pave Dover Flight Test Program [AIAA PAPER 82-2465] p0061 A82-14380
Hughes helicopters - fatigue life methodology p0239 A82-24710
HUGHES MILITARY AIRCRAFT
U HUGHES AIRCRAFT
U MILITARY AIRCRAFT
HUMAN BEHAVIOR
HUMAN ENGINEERING
U HUMAN FACTORS ENGINEERING
U HUMAN FACTORS ENGINEERING
Digital avionics - what a pilot expects to see [AIAA 81-2217] p0047 A82-13455
Electronic flight deck displays for transport aircraft
HOVERING STABILITY

Subject Index

[AIAA 81-2264] p0048 A82-13483
F/A-18 'Hornet' - One man operability [AIAA 81-2266] p0048 A82-13484
'Little people' problem /As-2 torso harness/ p0788 A82-19458
Computer image generation for flight simulation p0681 A82-15599
Combined multisensor displays --- image preprocessing for shape coding to reduce pilot workload p0218 A82-22905
Justification for, and design of, an economical programmable multiple flight simulator p0940 A82-36969
The effects of the delays on systems subject to annual control p0484 A82-38943
The system of 'objective control'
Evaluation of an automatic subsystem parameter monitor --- for aircraft p0502 A82-40552
The evolution of display formats for advanced fighters using multiside color CRT displays p0505 A82-40888
Electronic master monitor and advisory display system, human engineering summary report [AD-A100244] p0337 A82-11065
Computer Air Carrier Symposium [AD-A100459] p0086 A82-12054
Color CRT displays for the cockpit p0992 A82-13051
Use of voice control onboard combat aircraft p0992 A82-13056
Experimental investigation of a helmet mounted sight/display for helicopter p0992 A82-13060
Tanker avionics and aircrew complement evaluation p0993 A82-13063
F/A 18 Hornet crew station p0993 A82-13064
Raven aircraft filter-absorber --- agricultural aircraft [AD-1098962] p0099 A82-11319
Taking into account nighttime annoyance in the calculation of the propulsive index [NASA-TH-76580] p0137 A82-14674
Spectrally balanced chromatic landing approach lighting system [NASA-GSE-ARC-10990-1] p0188 A82-16059
Aircraft alerting systems standardization study. Volume 2: aircraft alerting system design guidelines [AD-8106732] p0190 A82-16077
Point of view of a helicopter manufacturer on airworthiness regulations p0247 A82-19137
Multiple ejection effects analysis [AD-A106277] p0252 A82-18192
Design of a catadioptric VCASS helmet-mounted display [AD-A109431] p0305 A82-20811
Technical approaches for measurement of human errors [NASA-CR-166314] p0352 A82-22249
Controls and displays for all-weather operation of helicopters [NDD-DF-319-81-0] p0354 A82-22260
Current AAM restraint system status, trade-off constraints and long range objectives for the Maximum Performance Ejection System (MFES) [AD-111265] p0464 A82-27238
Proposed research tasks for the reduction of human error in naval aviation mishaps [AD-1112397] p0464 A82-27261
Development of a backpack survival kit for ejection seats [AD-1113653] p0464 A82-27262
Advanced technology and fighter cockpit design: Which drives which? p0471 A82-27302
Human factors in air traffic control [AGAE-A-275] p0534 A82-29293
The air traffic control system p0534 A82-29294
Human factors contributions to air traffic control systems p0534 A82-29295
HYDRAULIC SYSTEMS

HYDRAULIC SYSTEMS O HYDRAULIC EQUIPMENT

HYDRAULIC TEST TUNNELS

Flow visualization techniques for the study of high incidence aerodynamics
[OMEGA, TP No. 1982-5] p0309 882-34493

Use of the cavitation tunnel at the Dutch Naval Experimental station (NSP), Wageningen for the determination of the acoustic source strength of propeller cavitation
[TP-908-720] p0530 882-29116

HYDRAULIC VALVES O HYDRAULIC EQUIPMENT

HYDRAULIC

Australasian Conference on Hydraulics and Fluid Mechanics, 7th, Brisbane, Australia, August 10-12, 1980, Preprints of Papers
p0275 882-26176

HYDRODYNAMICS U AERODYNAMICS

HYDROCARBON COMBUSTION

An experimental study of the combustion of liquid hydrocarbon fuel sprayed into a diffusion hydrogen-air jet
p0104 882-16267

The sooting tendency of fuels containing polycyclic aromatics in a research combustor
[AI AA PAPER 82-0299] p0164 882-19791

Fuel property effects on radiation intensities in a gas turbine combustor
p0166 882-19966

Fire formation in flat, laminar, opposed jet methanol diffusion flames
p0326 882-28660

Numerical and experimental examination of a propaerfized/pressurized combustor
[AI AA PAPER 82-GT-178] p0416 882-34994

HC and CO emission abatement via selective fuel injection
[ASRE PAPER 82-GT-178] p0426 882-35390

Thermodynamic and transport properties of hydrocarbons with air. Part 1: Properties in SI units
[NASA TP-1906] p0574 882-32166

Thermodynamic and transport combustion properties of hydrocarbons with air. Part 2: Compositions corresponding to Kelvin temperature schedules in part 1
[NASA TP-1907] p0575 882-32107

Thermodynamic and transport combustion properties of hydrocarbons with air. Part 3: Properties in US customary units
[NASA TP-1908] p0575 882-32188

Thermodynamic and transport combustion properties of hydrocarbons with air. Part 4: Compositions corresponding to Rankine temperature schedules in part 3
[NASA TP-1909] p0575 882-32189

HYDROCARBON FUEL PRODUCTION

Jet fuel from carbon
p0018 882-12021

Jet fuel locks to shale oil: The 1980 technology review
[AD-A104414] p0040 882-12218

Development of catalytic systems for the conversion of syngas to jet fuel and diesel fuel and higher alcohols
[NSRS-000067] p0090 882-12255

HYDROCARBON FUELS

NT DIESEL FUELS

NT FOSSIL FUELS

NT GASOLINE

NT JET ENGINE FUELS

NT JP-4 JET FUEL

NT JP-5 JET FUEL

NT JP-6 JET FUEL

NT LIQUID FUELS

NT RP-1 MONO PROPELLANTS

Deposition formation in hydrocarbon fuels
[ASME PAPER 82-GT-49] p022 882-35307

Carbon formation by the pyrolisis of gas turbine fuels in preflame regions of gas turbine combustors
[ASME PAPER 82-GT-84] p0423 882-35330

Development and testing of dry chemicals in advanced extinguishing systems for jet engine nacelle fires
[NASA CR-165011] p0101 882-13106

Atmospheric chemistry of hydrocarbon fuels. Volume 2: Outdoor chamber data tabulations
[AD-A113665] p0530 882-28842

Additional experiments on flowability improvements of aviation fuels at low temperatures. Volume 2
[NASA CR-167912] p0571 882-31546

HYDROCARBONS

NT ALKANES

NT BUTADIENE

NT ETHANE

NT NATURAL GAS

NT PROPANE

NT PROPENES

The effect of fuel composition on groundfall from aircraft fuel jetting
[AD-A116305] p0321 882-21424

Exhaust emissions reduction for intermittent combustion aircraft engines
[NASA CR-167914] p0610 882-33392

Hydrocarbon fuel chemistry: Sediment water interaction
[AD-A117280] p0612 882-33552

HYDROCRACKING

Refining and upgrading of synfuels from coal and oil shales by advanced catalytic processes
[ASRE-001127] p0213 882-17401

Evaluation of hydrocracking catalysts for conversion of whole shale oil into high yields of jet fuels
[AD-A11820] p0476 882-27523

HYDROCARBON COEFFICIENTS

Experimental methods for the prediction of the effect of viscosity on propeller performance
[AD-A105846] p0308 882-20472

HYDROCARBON EMB EFFECT

Hydrodynamic ram damage
[AD-A114883] p0149 882-16999

HYDROCARBON STABILITY U FLOW STABILITY

HYDROCARBON TUNNELS O PLASMA JET WIND TUNNELS

HYDRODYNAMICS

NT MAGNETIC HYDRODYNAMICS

HYDROFOILS

Accidents of surface effect ships and hydrofoil craft
--- Russian book
p0189 882-18899

HYDROGEN

NT LIQUID HYDROGEN

NT TRITIUM

HYDROGEN FUELS

NT LIQUID FUELS

Fuel for future transport aircraft
[ASME PAPER 82-GT-80] p0112 882-19065

An experimental study of the combustion of liquid hydrogen fuel sprayed into a diffusion hydrogen-air jet
p0104 882-16267

Technological innovation for success - Liquid hydrogen propulsion
p0114 882-16734

Liquid hydrogen - an outstanding alternate fuel for transport aircraft
p0112 882-17290

The prospects for liquid hydrogen fueled aircraft
p0166 882-20137

The potential for long-range high-payload aircraft with alternate fuels
[AI AA PAPER 82-0814] p0376 882-31987

Will hydrogen-fueled aircraft be safe
[AI AA PAPER 82-1236] p0418 882-35077

HYDROGEN ISOTOPEs NT TRITIUM

HYDROGEN 3 O TRITIUM

HYDROGEOBASED ENERGY

HYDROGEN ECONOMY ASSESSMENT FOR LONG-TERM ENERGY SYSTEMS IN JAPAN
p0378 882-32159

HYDROGEOHABRICATION

Jet fuel from carbon
p0118 882-12021

Refining and upgrading of synfuels from coal and oil shales by advanced catalytic processes
[ASRE-001127] p0213 882-17401

HYDROGEOGRAPHY

The Hypothesis Airborne Laser Sounder (HALS)
[AD-A111027] p0860 882-26660
ICE FORMATION

HYPERSONICS

U HYPERSOUND PROJECTILES
U PROJECTILE CATEORIATION
U HYPERSONIC IMPACT
Description of projectile threats
Hydrodynamic ram damage
HYPERSONIC PROJECTILES
The electromagnetic theta gun and tabular
p0125 A82-10162
HYPERSONIC WIND TUNNELS
U CASCADE WIND TUNNELS
HYPERSONIC JET WIND TUNNELS

HYPERSONIC SHOCK TUNNELS

HYPERSONIC FLIGHT

Use of high conical flow theory for the
determination of the pressure distribution on
the wave rider and its agreement with
experimental results for supersonic flow
p0154 A82-19197

HYPERSONIC FLOW

Real gas flows over complex geometries at moderate
angles of attack
[AI\A PAPER 82-0392] p0165 A82-19901
Oscillating supersonic/hypersonic wings at high
incidence
p0223 A82-23020
Hyersonic interactions with surface mass
transfer. I - Steady flow over a slender wedge
wing
[AI\A PAPER 82-0979] p0374 A82-31944
Comparison of numerical results and measured data
for smooth and indented nozzles
[AD-111794] p0460 A82-26619

HYPERSONIC SPEED

3 DOF gyro analysis from measured and derived rates
--- hypersonic reentry simulation test
[AI\A PAPER 82-0189] p0116 A82-17831

HYPERSONIC VEHICLES

HYPERSONIC AIRCRAFT
HYPERSONIC WIND TUNNELS
HYPERSONIC JET WIND TUNNELS
HYPERSONIC SHOCK TUNNELS

HYPERSONIC STRATUM

U HYPERSOUND PROJECTILES
U PROJECTILE CATEORIATION
U HYPERSONIC IMPACT
Description of projectile threats
Hydrodynamic ram damage
HYPERSONIC PROJECTILES
The electromagnetic theta gun and tabular
p0125 A82-10162
HYPERSONIC WIND TUNNELS
U CASCADE WIND TUNNELS
HYPERSONIC JET WIND TUNNELS

HYPERSONICS

What has hyperonics research led to - Some
examples of progress and spin off /17th Handley
Page Memorial Lecture/
p0552 A82-43583

HYPERSONIC MATERIALS

ICE FORMATION

HYPERSONIC SCATTERING

A complete method for computation of blade mode
characteristics and responses in forward flight
p0205 B82-18126

HYPERSONICS

Hysteresis of the normal force of a wing of
complex planform under unsteady motion
p0309 A82-34157
Aerodynamic aspects of aircraft dynamics at high
angles of attack /AGARD Lecture/
p0495 A82-39036

ICE COMPUTERS

In analysis of selected enhancements to the en
route central computing complex
[AD-1113575] p0279 B82-28044

ICE PROBABILITY

Probability of laminar flow loss because of ice
crystal encounters
p0302 B82-20153

ICE ENVIRONMENTS

NASA/Lewis Research Center Icing Research Program
p0311 B82-21148

ICE FORMATION

NT CLOUD GLACIATION

Helicopter icing spray system - Improvements and
flight experience
p0203 B82-12696
Helicopter icing
p0496 A82-13243
Icing analysis of an unsupported aircraft radome
[AI\A PAPER 82-0281] p0118 A82-17874
A Microwave Ice Accretion Measurement Instrument
-MIAI-
[AI\A PAPER 82-0285] p0118 A82-17875
F-16 ground and inflight icing testing
p0177 A82-20753
Helicopter icing spray system
p0177 A82-20754
Aerodynamic characteristics of airfoils with ice
accretions
[AI\A PAPER 82-0282] p0184 A82-22081
Mathematical modeling of ice accretion on airfoils
[AI\A PAPER 82-0284] p0286 A82-27098
Performance degradation of propeller/rotor systems
due to rime ice accretion
[AI\A PAPER 82-0286] p0297 A82-28322
Thermodynamic performance of an airplane wing
leading edge anti-icing system
[AI\A PAPER 82-0851] p0373 A82-31871
Icing conditions on sea level gas turbine engine
test stands
[AI\A PAPER 82-1237] p0442 A82-35078
Yokos rotor helicopter characteristics in a
continuous icing environment
p0299 A82-40523
Selected bibliography of NASA/NASA aircraft icing
publications
[NASA-TR-86-1651] p0305 B82-11053
Motorcraft icing: Status and prospects
[AGARD-AR-166] p0306 B82-11056
Operational environment, meteorological conditions
and weather forecasting
p0306 B82-11057
Technology base for icing instrumentation and
mathematical modelling
p0306 B82-11058
Facilities for development and clearance
p0306 B82-11059
Ice protection systems technology
p0306 B82-11060
Proposed standard requirements and procedures for
icing clearance
p0306 B82-11061
Aircraft icing avoidance and protection
[PB82-100135] p0200 B82-17139
Intake design with particular reference to ice
protection and particle separators
p0208 B82-17218
Helicopter Icing Spray System (HSS) nozzle
improvement evaluation
[AD-4109005] p0269 B82-19208
NASA/Lewis Research Center Icing Research Program
p0311 B82-21148
Fine ice accretion and its effect on airfoil
performance

ICE OBSERVATION

ICE OBSERVATION

Icing conditions on sea level gas turbine engine test stands
[AIAA PAPER 82-1237] p0418 A82-315078

Analysis of an airplane windshiedl anti-icing system
[AIAA PAPER 82-1372] p0409 A82-39134

Icing tunnel tests of a composite porous leading edge for use with a liquid-ice system --- Lewis icing research tunnel
[AIAA CR-164966] p0355 A82-11052

Selected bibliography of NACA-NASA aircraft icing publications
[AIAA-TM-81991] p0355 A82-11053

Ice phobics blade tracking and comparison of vibration analysis techniques
[AD-A108121] p0189 A82-16074

AirCraft icing avoidance and protection
[FB2-108135] p0200 A82-17139

Progress on low altitude cloud icing research
[AIAA 82-3111] p0211 A82-21147

Microwave ice prevention
[AD-A104521] p0445 A82-26203

Limited artificial and natural icing tests production UM-60A helicopter (re-evaluation)
[AD-A112562] p0452 A82-36287

Aircraft icing research at NASA
[AIAA CR-829193] p0558 A82-30297

A survey of melting layer research
[AIAA 82-5224] p0562 A82-30806

ICE REPORTING

Response of cloud microphysical instruments to aircraft icing conditions
[AD-A112317] p0469 A82-27204

ICING

ICING FLUIDS

Analysis of an ideal-fluid flow past a finite-thickness wing
[AD-A105816] p0165 A82-19813

Calculation of level flow using radial grating
[AD-A112308] p0484 A82-38922

The effect of a weak shock wave on a wing of complex planform at supersonic velocities
[AD-A112531] p0568 A82-46132

IDENTIFYING

IDENTIFYING

SYSTEM IDENTIFICATION

An update of an integrated CMI system - TIES --- Communication, Navigation, and Identification provided by Tactical Information Exchange System
[AIAA 81-2292] p0049 A82-13500

Implementing aircraft identification schemes by public key cryptosystems
[AD-A1115440] p0570 A82-31335

IMAGE PROCESSING

IMAGE PROCESSING

BY GEOMETRIC SPECIFICATION (IMAGERY)

Computational considerations for fusion in target identification systems --- multisensor correlation
[AD-A104489] p0609 A82-47135

Algorithm for an adaptive dynamic window in electronic map systems
[AD-A104714] p0701 A82-14769

Inverse SAR and its application to aircraft classification
[AD-A104714] p0705 A82-4871

Combined multisensor displays --- image preprocessing for shape coding to reduce pilot workload
[AD-A104714] p0218 A82-22905

Effect of contrast on space perception in TV displays of the external scene observed by the pilot --- German book
[AD-A104714] p0297 A82-28395

Effect of contrast on space perception in TV displays of the external scene observed by the pilot --- German book
[AD-A104714] p0297 A82-28395

Combat training imagery
[AD-A104714] p0342 A82-31170

Image processing in tactical flight guidance
[AD-A104714] p0554 A82-44221

Application of image processing techniques to fluid flow data analysis
[AIAA CR-827670] p0187 A82-16049

Visual technology research simulator, visual and motion system dynamics
[AD-A111801] p0457 A82-26325

Some potential novel approaches to the automatic airborne detection and identification of ground targets
[AD-A104714] p0471 A82-27296

Digital image processing for acquisition, tracking, hand off and ranging
[AD-A104714] p0471 A82-27303

Scanner imaging systems, aircraft
[AD-A104714] p0529 A82-28715

Wide-angle, multiviewer, infinity display system
[AD-A116368] p0571 A82-31336

IMAGE RESOLUTION

Airborne measurements with a sensitive high resolution 90 GHz radiometer
[AD-A104714] p0151 A82-18940

IMAGERY

IMAGERY

BY AERIAL PHOTOGRAPHY

BY COLOR INFRARED PHOTOGRAPHY

BY ELECTRO-OPTICAL PHOTOGRAPHY

BY HOLOGRAPHY

BY INFRARED PHOTOGRAPHY

BY SATELLITE-Borne PHOTOGRAPHY

BY SCHLIEREN PHOTOGRAPHY

BY SHADOWGRAPH PHOTOGRAPHY

BY STEREOPHOTOGRAPHY

BY STEREOSCOPY

BY THERMOMETER

Analysis and preparation of a digital terrain data base for flight simulator use
[AD-A115557] p0559 A82-30315

IMAGES

The 1981 Image 2 Conference Proceedings
[AD-A115226] p0320 A82-33222

Operational flow visualization techniques in the Langley Unitary Plan Wind Tunnel
[AD-A115547] p0597 A82-32671

IMAGING RADAR

IMAGING RADAR

BY SYSTOMATIC APERTURE RADAR

IMAGING TECHNIQUES

BY IMAGE ENHANCEMENT

BY RADAR IMAGERY
WEATHER IMPACT ON LOW-ALTITUDE IMAGING INFRARED SENSORS IN EUROPE — AN AVAILABILITY MODEL. p0072 AB2-14797

Computer-generated imagery for simulators - The cost of technology. p069 AB2-22081

Laser application in weapon guidance and active imaging. p0432 AB2-35767

Head up displays p0092 AB2-13052

Application of image-processing techniques to fluid flow data analysis. [NASA-TR-82760] p0187 AB2-16049

Advanced training techniques using computer generated imagery. [AD-8111579] p0479 AB2-28007

Computer image generation: Advanced visual/sensor simulation. [AD-8107098] p0479 AB2-28016

Computer program for analysis of spherical screen distortion. [AD-1113136] p0527 AB2-28309

High-altitude imagery user guide. [PB82-158533] p0562 AB2-30608

Transonic applications of the Wake Imaging System. p0597 AB2-32676

IMPACT ECOnOmIC IMPACT

MT HYPER VELOCITY IMPACT

IMPACT ACCELERATION

Limiting payload deceleration during ground impact. [AIAA PAPER 81-918] p0006 AB2-10404

IMPACT DAMAGE

MT MAIN IMPACT DAMAGE

Impact-initiated damage thresholds in composites. p0918 AB2-12028

Wire strike protection p0046 AB2-13246

The effects of bird orientation on load profile and damage level. p0227 AB2-24316

Fracture control in ballistic-damaged graphite/epoxy wing structure. p0284 AB2-26639

Impact resistance of graphite and hybrid configurations. p0280 AB2-27141

Bird impact analysis package for turbine engine fan blades. [AIAA 82-9656] p0339 AB2-30162

Design Manual for impact damage tolerant aircraft structure. [AGARD-AD-238] p0202 AB2-17160

Description of projective threats. p0202 AB2-17161

Analysis methods for predicting structural response to projectile impact. p0202 AB2-17162

Analysis methods for ballistic damage size and type. p0202 AB2-17163

Damage from high explosive (HE) projectiles. p0202 AB2-17164

Damage from engine debris projectiles. p0202 AB2-17165

Hydrodynamic ram damage. p0202 AB2-17166

Effects of cyclic loading on projectile impact damage. p0202 AB2-17167

Stiffness degradation of impact damaged structure. p0202 AB2-17168

Strength degradation of impact damaged structure. p0203 AB2-17169

Analysis of multiple load path panels containing impact damage. p0203 AB2-17170

IMPACT DECeleration

U DECeleration

IMPACT LOADs

Impact loads. p203 AB2-17171

Coupied fluid/structure response predictions for soft body impact of airfoil configurations — ice and bird impact on aircraft engines. p0010 AB2-12039

On the dynamic collapse of a column impacting a rigid surface. [AIAA 82-0735] p0340 AB2-30162

Transient vibration of high speed lightweight rotor due to sudden imbalance. [ASME PAPER 82-GE-231] p0289 AB2-35613

The behavior of composite thin-walled structures in dynamic buckling under impact. p0513 AB2-40976

IMPACT PREDICTION

An analytical methodology to predict potential aircraft losses due to canopy birdstrikes. p0227 AB2-24313

IMPACT PRESSURES

U IMPACT LOADs

IMPACT RESISTENCE

Seven years experience with kevlar-49 in the Lockheed L-1011 TriStar. p0023 AB2-12647

The load-carrying behavior of a trapezoidal aluminum-alloy supporting element, subjected to a compressive stress, in the postbuckling region. p0065 AB2-18418

The role of finite element analysis in the design of birdstrike resistant transparencies. p0227 AB2-24314

Impact resistance of graphite and hybrid configurations. p0289 AB2-27141

Commercial jet transport crashworthiness. p0364 AB2-23207

Solid state flight incident recorder. p0001 AB2-25172

Environmental and High-Strain Rate effects on composites for engine applications. [NASA-TM-62882] p0571 AB2-31449

IMPACT SENSITIVITY

U IMPACT RESISTANCE

IMPACT STRENGTH

Strength degradation of impact damaged structure. p0203 AB2-17169

Analysis of multiple load path panels containing impact damage. p0203 AB2-17170

IMPACT TESTs

Airbag impact attenuation system for the AEG-304 remote piloted vehicle. [AIAA PAPER 81-1917] p0006 AB2-10403

Test and evaluation of improved aircrew restraint systems. [NASA-CC-165849] p0364 AB2-23207

Evaluation of a proposed modified F/8-111 crew seat and restraint system. [AD-A111808] p0313 AB2-21167

Comparative vertical impact testing of the F/8-111 crew restraint system and a proposed modification. [AD-A113957] p0522 AB2-28267

IMPACT TOlerANCes

Design manual for impact damage tolerant aircraft structure. [AGARD-AD-238] p0202 AB2-17160

Analysis methods for predicting structural response to projectile impact. p0202 AB2-17162

IMPEDANCE

MT ACOUSTIC IMPEDANCE

IMPEDANCE MEASUREMENT

Antenna (selected articles). [AD-1088174] p0269 AB2-19448

IMPPELLER BLADES

U ROTOR BLADES (TURBORAMPS)

IMPPELLERS

Army's int FPI progress begins - blade impeller followups - integral blade-disk. p0377 AB2-31999

Investigation of blade vibration of radial impellers by means of telemetry and holographic interferometry. [ASME PAPER 82-GE-31] p0421 AB2-35295

Experimental investigations on the flow in the impeller of a centrifugal fan. [ASME PAPER 82-GE-37] p0421 AB2-35298

Secondary flow mixing losses in a centrifugal impeller. [ASME PAPER 82-GE-44] p0421 AB2-35302
The influence of flow rate on the wake in a centrifugal impeller
[ASME PAPER 82-GT-45]  p0421 AB2-35303

On the performance prediction of a centrifugal compressor scaled up
[ASME PAPER 82-GT-112]  p0424 AB2-35345

Effect of impeller extended shrouds on centrifugal compressor performance as a function of specific speed
[ASME PAPER 82-GT-228]  p0428 AB2-35411
<table>
<thead>
<tr>
<th>SUBJECT INDEX</th>
<th>INFLATABLE STRUCTURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDICATING INSTRUMENTS</td>
<td></td>
</tr>
<tr>
<td>NT ANEMOMETERS</td>
<td>p0067 A82-14713</td>
</tr>
<tr>
<td>NT APPROACH INDICATORS</td>
<td>Evaluating sources of error in RAB/GEANS</td>
</tr>
<tr>
<td>NT ATTITUDE INDICATORS</td>
<td>navigation using a Kalman postprocessor</td>
</tr>
<tr>
<td>NT FLOW DIRECTION INDICATORS</td>
<td>Electronically Agile Radar/Inertial Electrically</td>
</tr>
<tr>
<td>NT GYROCOMPASSES</td>
<td>suspended gyro airborne Navigation System</td>
</tr>
<tr>
<td>NT HOT-FILM ANEMOMETERS</td>
<td>p0068 A82-14739</td>
</tr>
<tr>
<td>NT LASER ANEMOMETERS</td>
<td>Maneuver dependent component error models and</td>
</tr>
<tr>
<td>NT MICROMETERS</td>
<td>synchronized reset filters for inertial</td>
</tr>
<tr>
<td>NT POSITION INDICATORS</td>
<td>navigation systems</td>
</tr>
<tr>
<td>NT RADIO DIRECTION FINDERS</td>
<td>p0122 A82-18139</td>
</tr>
<tr>
<td>NT SPEED INDICATORS</td>
<td>Laboratory and flight test of a new HLG strapdown</td>
</tr>
<tr>
<td>NT STRAIN GAGE BALANCES</td>
<td>INS</td>
</tr>
<tr>
<td>NT WEIGHT INDICATORS</td>
<td>p0123 A82-18150</td>
</tr>
<tr>
<td>NT VISC FAMES</td>
<td>Position extrapolation quality calculation for</td>
</tr>
<tr>
<td></td>
<td>inertial and Doppler-ABSS navigation systems</td>
</tr>
<tr>
<td>System for providing an integrated display of</td>
<td>p0123 A82-18139</td>
</tr>
<tr>
<td>instantaneous information relative to aircraft</td>
<td>Post-Flight assessment of the JTIDS BéI Nav</td>
</tr>
<tr>
<td>attitude, heading, altitude, and horizontal</td>
<td>p0124 A82-18154</td>
</tr>
<tr>
<td>situation</td>
<td>Institute of Navigation, Annual Meeting, 36th,</td>
</tr>
<tr>
<td></td>
<td>U.S. Naval Postgraduate School, Monterey, Ca,</td>
</tr>
<tr>
<td></td>
<td>June 23-26, 1980, Proceedings</td>
</tr>
<tr>
<td>INDUCED FLOW FLOW</td>
<td>p0181 A82-21566</td>
</tr>
<tr>
<td>INDUCTION SYSTEMS</td>
<td>Calibrated and uncalibrated inertial navigation</td>
</tr>
<tr>
<td>U INDUCTION SYSTEMS</td>
<td>system performance in valid and jammed global</td>
</tr>
<tr>
<td>INDUSTRIAL ENERGY</td>
<td>positioning system environments</td>
</tr>
<tr>
<td>Gas turbine airflow control for optimum heat</td>
<td>p0181 A82-21566</td>
</tr>
<tr>
<td>recovery</td>
<td>Integration of multi-sensor navigation data using</td>
</tr>
<tr>
<td></td>
<td>optimal estimation techniques</td>
</tr>
<tr>
<td></td>
<td>p0273 A82-25577</td>
</tr>
<tr>
<td></td>
<td>Operational testing of the LP-J3 inertial</td>
</tr>
<tr>
<td></td>
<td>navigation system</td>
</tr>
<tr>
<td></td>
<td>p036 A82-33854</td>
</tr>
<tr>
<td></td>
<td>Minimum order time sharing filters for INS</td>
</tr>
<tr>
<td></td>
<td>in-flight alignment</td>
</tr>
<tr>
<td>INDUSTRIAL SAFETY</td>
<td>p0402 A82-38639</td>
</tr>
<tr>
<td>Study of air compressor hazards in underground and</td>
<td>Observeability of the parameters of an inertial</td>
</tr>
<tr>
<td>surface and equipment</td>
<td>navigation system for a 360-deg coordinated turn</td>
</tr>
<tr>
<td></td>
<td>p0502 A82-4703</td>
</tr>
<tr>
<td></td>
<td>Strapdown inertial navigation systems: An</td>
</tr>
<tr>
<td></td>
<td>algorithm for attitude and navigation computations</td>
</tr>
<tr>
<td></td>
<td>p051 A82-22241</td>
</tr>
<tr>
<td></td>
<td>Optimal inertial navigation using terrain</td>
</tr>
<tr>
<td></td>
<td>correlation: An attractive solution to the</td>
</tr>
<tr>
<td></td>
<td>ground attack aircraft navigation problem</td>
</tr>
<tr>
<td></td>
<td>p0562 A82-23184</td>
</tr>
<tr>
<td></td>
<td>Gravity induced position errors in airborne</td>
</tr>
<tr>
<td></td>
<td>inertial navigation</td>
</tr>
<tr>
<td></td>
<td>p05667 A82-27272</td>
</tr>
<tr>
<td></td>
<td>Geophysical flight lane flying and flight path</td>
</tr>
<tr>
<td></td>
<td>recovery utilizing the Lutton LW-76 inertial</td>
</tr>
<tr>
<td></td>
<td>navigation system</td>
</tr>
<tr>
<td></td>
<td>p056 A82-29292</td>
</tr>
<tr>
<td></td>
<td>(D682-005555)</td>
</tr>
<tr>
<td></td>
<td>INERTIAL PLATFORMS</td>
</tr>
<tr>
<td></td>
<td>A failure detection and isolation system for</td>
</tr>
<tr>
<td></td>
<td>tactical aircraft with separated IMUs</td>
</tr>
<tr>
<td></td>
<td>p05066 A82-14684</td>
</tr>
<tr>
<td></td>
<td>Integration of inertial sensors in helicopters</td>
</tr>
<tr>
<td></td>
<td>p0251 A82-18173</td>
</tr>
<tr>
<td></td>
<td>Software features applicable to inertial</td>
</tr>
<tr>
<td></td>
<td>measurement unit self alignment</td>
</tr>
<tr>
<td></td>
<td>p0651 A82-18196</td>
</tr>
<tr>
<td></td>
<td>Ground speed measurement from DME/VHF</td>
</tr>
<tr>
<td></td>
<td>omnirange navigation (FOD) data</td>
</tr>
<tr>
<td></td>
<td>p0402 A82-25185</td>
</tr>
<tr>
<td></td>
<td>INERTIAL REFERENCE SYSTEMS</td>
</tr>
<tr>
<td></td>
<td>Integrated satellite navigation and strapdown</td>
</tr>
<tr>
<td></td>
<td>attitude and heading reference systems for civil</td>
</tr>
<tr>
<td></td>
<td>air carriers</td>
</tr>
<tr>
<td></td>
<td>p0032 A82-12643</td>
</tr>
<tr>
<td></td>
<td>The use of separated multifunction inertial</td>
</tr>
<tr>
<td></td>
<td>sensors for flight control</td>
</tr>
<tr>
<td></td>
<td>p0050 A82-13502</td>
</tr>
<tr>
<td></td>
<td>Strapdown inertial reference systems</td>
</tr>
<tr>
<td></td>
<td>performance analysis</td>
</tr>
<tr>
<td></td>
<td>p0066 A82-14682</td>
</tr>
<tr>
<td></td>
<td>The application of strapdown inertial technology</td>
</tr>
<tr>
<td></td>
<td>to attitude and Heading Reference System</td>
</tr>
<tr>
<td></td>
<td>requirements --- for FAB-64 advanced attack</td>
</tr>
<tr>
<td></td>
<td>helicopter</td>
</tr>
<tr>
<td></td>
<td>p0162 A82-21590</td>
</tr>
<tr>
<td></td>
<td>INERTIAL SPAN KIEMS</td>
</tr>
<tr>
<td></td>
<td>The velocity potential for the harmonically</td>
</tr>
<tr>
<td></td>
<td>oscillating, rectangular wing with semi-infinite</td>
</tr>
<tr>
<td></td>
<td>span in nonlinear theory</td>
</tr>
<tr>
<td></td>
<td>p0156 A82-19198</td>
</tr>
<tr>
<td></td>
<td>INERTIAL DEVICES</td>
</tr>
<tr>
<td></td>
<td>INFLATABLE STRUCTURES</td>
</tr>
<tr>
<td></td>
<td>INFLATABLE STRUCTURES</td>
</tr>
<tr>
<td></td>
<td>NT AIR BAG RESTRAINT DEVICES</td>
</tr>
</tbody>
</table>
INFLATING

ST BALLONS
ST HIGH ALTITUDE BALLOONS
Inflatable system for fast deployment of parachutes at low altitudes from slow moving aircraft or stationary supports [AIAA PAPER 81-1925] 0006 A82-10410
The constructed rigging line trials technique for assessing the opening characteristics of parachutes [AIAA PAPER 81-1932] 0007 A82-10413
Stress measurements in a ribbon parachute canopy during inflation and at steady state [AIAA PAPER 81-1944] 0007 A82-10420
Further test results of parachutes with automatic inflation modulation /A.I.R./ 0078 A82-14965

INFLUENCE COEFFICIENT
ST STRUCTURAL INFLUENCE COEFFICIENTS
An experimental investigation of the influence of vertical, wind shear on the aerodynamic characteristics of an airfoil [AIAA PAPER 82-0241] 0117 A82-17843
Finite element approach to the calculation of unsteady aerodynamic influence coefficients in dynamic aeroelastic analysis [AIAA PAPER 81-1964] 0051 A82-13517

INFORMATION DISSEMINATION
The Aviation Route Forecast /ABF/ program - An interactive system for Pilot Self-Briefing --- computerized weather service 0050 A82-14530
Index to NASA News Releases and Speeches, 1980 0017 A82-15985
Experience during the development of the German-Japanese helicopter NK 117 [AIAA PAPER 82-1910] 0265 A82-19120
Software functional description of mann weather dissemination system explanatory engineering model [AIAA PAPER 82-1920] 0477 A82-27573

INFORMATION FLOW
Higher order Information Transfer Systems are coming [AIAA PAPER 82-1941] 0051 A82-13517
Integration of complex systems in current and future aircraft projects for the example of aircaruis [AIAA PAPER 82-1964] 0256 A82-16221
The Benefits of data exchange --- between airline and engine manufacturer [PHR-90046] 0323 A82-22095
Communications 0534 A82-29302

INFORMATION MANAGEMENT
Integration of complex systems in current and future aircraft projects for the example of aircaruis [AIAA PAPER 82-1964] 0256 A82-16221
Terminal Information Processing System (TIPS) Consolidated CAB Display (CCD) comparative analysis [FAX-CT-81-4] 0507 A82-32331

INFORMATION RETRIEVAL
The WSI real-time aviation weather information system - an alternative to standard general aviation weather briefing procedures 0050 A82-14534
Advanced crash survivable flight data recorder and Accident Information Retrieval System (AIRS) [AIAA PAPER 82-1944] 0032 A82-14072

INFORMATION SYSTEMS
ST MANAGEMENT INFORMATION SYSTEMS
An update of an integrated CFI system - IXIS --- Communication, Navigation, and Identification provided by Tactical Information Exchange System [AIAA PAPER 82-1944] 0049 A82-13500
Advanced weapon systems - Integration technology --- Digital Avionic Information System [AIAA PAPER 82-1944] 0053 A82-13533
Information technology and its impact on test and evaluation at the Naval Air Test Center [AIAA PAPER 82-1944] 0056 A82-13894

SUBJECT INDEX
Implementing the DAIS executive --- Digital Avionic Information System software feasibility for aircraft systems 0073 A82-14814
Head-up displays - the integrity of flight information 0073 A82-14814
Systems approach to the design of wind shear avionics 0106 A82-15562
The use of dynamic mock-ups in the design of advanced systems --- USAF's Digital Avionics Information System and NAVY's advanced Integrated Display System 0069 A82-22902
Preliminary design of an advanced integrated power and avionics information system 0057 A82-40907
The aviation route forecast /ABF/ program - an interactive system for pilot self-briefing --- of meteorological information 0063 A82-21821
The WSI real-time aviation weather information system - an alternative to standard general aviation weather briefing procedures 0058 A8-05834
Digital Avionics Information System (DAIS): Development and demonstration [AIAA PAPER 82-1944] 0008 A82-13921
Digital Avionics Information System (DAIS): A ground-based component of air navigation services systems 0021 A82-17150
Digital Avionics Information System (DAIS) documentation [AD-1400000] 0263 A82-17172
Analytical study of cockpit information requirements [AD-1408524] 0256 A82-18218
Aeronautical information data subsystems --- air navigation 0041 A82-25178

INFORMATION TRANSFER
U COMMUNICATING
U INFORMATION TRANSMISSION
U DATA TRANSMISSION
U DIGITAL AVIONICS INFORMATION SYSTEM
U INFRARED DETECTORS
U INFRARED PHOTOGRAPHY
U INFRARED SYSTEMS
U INFRARED DETECTORS
U INFRARED PHOTOGRAPHY
U INFRARED SYSTEMS
U INFRARED DETECTORS
U INFRARED PHOTOGRAPHY
<table>
<thead>
<tr>
<th>SUBJECT INDEX</th>
<th>INLET FLOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>information and basic technique development</td>
<td>Final report on the Paero-4 major themes: Interference drag with airframe/engine integration on fighter aircraft p0098 [882-13116]</td>
</tr>
<tr>
<td>INFRARED RADIOMETERS</td>
<td>Wind tunnel tests of engine-equipped models: Comparison of two jet wash simulation methods [NASA-27765] p0134 [882-14091]</td>
</tr>
<tr>
<td>Application of an optical data link in the</td>
<td>P-15 wind-tunnel/flight correlations p0404 [882-25203]</td>
</tr>
<tr>
<td>airborne scanning system</td>
<td></td>
</tr>
<tr>
<td>INFRARED SPECTROMETERS</td>
<td></td>
</tr>
<tr>
<td>The sixteen to forty microns spectroscopy</td>
<td></td>
</tr>
<tr>
<td>from the NASA Lear jet [NASA-CF-168689]</td>
<td></td>
</tr>
<tr>
<td>INFRARED SUPPRESSION</td>
<td>A large-scale investigation of engine influence on inlet performance at angle of attack [NASA PAPER 81-2461] p0059 [882-13939]</td>
</tr>
<tr>
<td>the 01-18 with hot metal plus plate infrared suppressor and infrared jammer</td>
<td></td>
</tr>
<tr>
<td>Algorithm development for infra-red air-to-air guidance systems</td>
<td>An ejector augmanted choking valve for the metering and control of inlet and bleed duct flows [NASA 82-0575] p0236 [882-24659]</td>
</tr>
<tr>
<td></td>
<td>Comments on 'Nature of inlet turbulence and strat flow disturbances and their effect on turboaxial rotor noise' p0277 [882-26320]</td>
</tr>
<tr>
<td></td>
<td>The excitation of compressor/duct systems p0297 [882-20993]</td>
</tr>
<tr>
<td>INJECTION (ENGINES)</td>
<td>Evaluation of two analytical methods for the prediction of inlet flow fields in the vicinity of generalized forebodies [NASA PAPER 82-0959] p0374 [882-13958]</td>
</tr>
<tr>
<td>Foreign object damage in naval aircraft engines [AD-105787]</td>
<td>Prediction of cruise missile inlet peak instantaneous distortion patterns from steady state and turbulence data using a statistical technique [NASA PAPER 82-1085] p0438 [882-37685]</td>
</tr>
<tr>
<td>INJECTORS (EXPLOSIVES)</td>
<td>A summary of V/STOL inlet analysis methods [NASA PAPER 82-01783] p0406 [882-40921]</td>
</tr>
<tr>
<td>A ballistic design model for initiators for aircraft personnel escape systems</td>
<td></td>
</tr>
<tr>
<td>Analytical and experimental characterization of the JATO-4/A cartridge actuated initiator for use in aircrew escape system performance</td>
<td></td>
</tr>
<tr>
<td>Evaluation p0080 [882-14905]</td>
<td></td>
</tr>
<tr>
<td>INJECTION (SOURCES)</td>
<td></td>
</tr>
<tr>
<td>ST FUEL INJECTION</td>
<td></td>
</tr>
<tr>
<td>ST LIQUID INJECTION</td>
<td></td>
</tr>
<tr>
<td>ST FUEL INJECTION</td>
<td></td>
</tr>
<tr>
<td>INJECTION CARBURETORS</td>
<td></td>
</tr>
<tr>
<td>U FUEL INJECTION</td>
<td></td>
</tr>
<tr>
<td>INJECTORS</td>
<td></td>
</tr>
<tr>
<td>One reason for the onset of high-frequency self-excited oscillations —— in combustion chambers of aircraft engines</td>
<td>Experiments in cold flow disturbances and their effect on turbomachinery rotor noise p0277 [882-26320]</td>
</tr>
<tr>
<td>INJURIES</td>
<td></td>
</tr>
<tr>
<td>NT CRASH INJURIES</td>
<td></td>
</tr>
<tr>
<td>NT EJECTION INJURIES</td>
<td></td>
</tr>
<tr>
<td>Factors influencing settlement of personal injury and death claims in aircraft accident litigation</td>
<td></td>
</tr>
<tr>
<td>Annual review of aircraft accident data: US general aviation calendar year 1979 [P882-136250]</td>
<td></td>
</tr>
<tr>
<td>[P882-136250]</td>
<td></td>
</tr>
<tr>
<td>[P882-136250]</td>
<td></td>
</tr>
<tr>
<td>INLET AIRPLANE CONFIGURATIONS</td>
<td></td>
</tr>
<tr>
<td>Aerodynamics of Power Plant Installation [NASA-CP-301]</td>
<td></td>
</tr>
<tr>
<td>Performance of highly integrated inlets for supercritical aircraft [NASA PAPER 82-13065]</td>
<td></td>
</tr>
<tr>
<td>Some BAR research on shielded and unshielded fuselage mounted air intakes at subsonic and supercritical speeds</td>
<td></td>
</tr>
<tr>
<td>p0093 [882-13066]</td>
<td></td>
</tr>
<tr>
<td>Prediction and measurement of time-variant, three-dimensional flows in military aircraft intakes</td>
<td></td>
</tr>
<tr>
<td>Effects of intake geometry on circular pitot intake performance at zero and low forward speeds p0093 [882-13069]</td>
<td></td>
</tr>
<tr>
<td>The design and development of the Tornado engine air intake p0094 [882-13074]</td>
<td></td>
</tr>
</tbody>
</table>

A-265
Requirements for instrument approaches to converging runways (AD-A100075) p0200 882-17144
Survey of 101 US airports for new multiple instrument approach concepts -- runways (AD-A107612) p0209 882-17229
Weather determination models applied to alternate airport criteria (AD-A108677) p0309 882-20811
A ground-based investigation of helicopter longitudinal flying qualities for instrument approach (NASA-TM-84225) p0611 882-33198
INSTRUMENT COMPENSATION
NITTC standard airspeed calibration procedures (AD-A104830) p0088 882-12074
INSTRUMENT ERRORS
A concept for a high-accuracy, low-cost accelerometer p0068 882-14685
Analysis of flight test measurements in ground effect p0178 882-20763
The reliability of height and identity data -- secondary surveillance radar error analyses p0341 882-30312
Empirical normal as a reference for ground-speed and map-matching navigation p0341 882-30314
INSTRUMENT FLIGHT RULES
Helicopter icing p0048 882-13243
Helicopter IFR -- past, present and future p0046 882-13245
Real-time simulation of helicopter IFR approaches into major terminal areas using NAV, SLS, and CDTI [AIAA PAPER 82-0260] p0118 882-17868
Helicopter decelerated steep approach and landing to confined areas under instrument meteorological conditions p0125 882-18161
The requirements for reduced IFR separations on final approach p0219 882-23311
Utilizing the helicopter's versatility to improve the ITC system p0219 882-23316
A ground-simulation investigation of helicopter decelerated instrument approaches [AIAA PAPER 82-1346] p0488 882-39110
Tandem rotor helicopter characteristics in a continuous icing environment p0499 882-40523
Estimation of the number of in-flight aircraft on instrument flight rules p0518 882-41117
Requirements for instrument approaches to converging runways (AD-A106004) p0524 882-28265
In-flight IFR procedures simulator (NASA-CASE-ESC-1126-1) p0537 882-29331
FAA air traffic activity, FY 1981 (P882-200361) p0607 882-33371
INSTRUMENT LANDING SYSTEMS
HT ALL-WEATHER LANDING SYSTEMS
HT AUTOMATIC LANDING CONTROL
HT ILS automatic landing control (NASA TP-1960) p0133 882-14085
Requirements for instrument approaches to converging runways (AD-A105622) p0132 882-14079
Requirements for independent and dependent parallel instrument approaches at reduced runway spacing (AD-A105673) p0132 882-14080
A general aviation simulator evaluation of a rate-enhanced instrument landing system display (NASA-TP-1960) p0133 882-14085
INSTRUMENT PACKAGES
Planning a helicopter flight test program (AIAA PAPER 81-2361) p0056 882-13881
INSTRUMENTAL ANALYSIS
U AUTOMATION
INSULATION
HT ELECTRICAL INSULATION
HT THERMAL INSULATION
INTERFERENCE SYSTEMS
HT AIR ENTRANCES
HT ENGINE INLETS
HT INLET AIRFLOW CONFIGURATIONS
HT NOSE INLETS
HT SUPersonic INLETS
Airframe effects on top-mounted inlet systems for VSTOL fighter aircraft [AIAA PAPER 81-2631] p0156 882-19212
The effect of intake flow disturbances on APU compressor blade high cycle fatigue in the Airbus A300 [NASA TP-1520] p0513 882-40983
Initial experimental research into the response of aerojet engine compressors to distortion of intake pressure p0032 882-11006
Helicopter propulsion systems (AEC-CP-C-302) p0206 882-17203
Intake design with particular reference to ice protection and particle separators p0208 882-17218
Performance of single-stage axial-flow, transonic compressor with rotor and stator aspect ratios of 1.63 and 1.78, respectively, and with design pressure ratio of 1.82 [NASA-TP-1974] p0266 882-19222
Current status of inlet flow prediction methods (NASA-AI11784) p0655 882-26311
A method for designing inlet distortion screens for aircraft gas turbine engine test units using an interactive computer program (NASA-TP-116584) p0569 882-31325
INTEGRAL EQUATION PROGRAM FOR AEROSPACE VHS DESIGN
U IPAD
INTEGRAL EQUATIONS
A study on numerical method for evaluating approximate integral in subsonic lifting-surface theory
Development potential of Intermittent Combustion (I.C.) aircraft engines for urban transport applications
[ NASA-TP-52869 ] p0453 882-26297

USAF bioenvironmental noise data handbook. Volume 3: 0-2000 compressor
[ AD-A116198 ] p0601 882-33156

EXTERNAL STRESS

IHEBIAZIOIAL COOPBBATIOH

IHEESiL STBESS

IBTEBPBOCBSSOB COBHDHICATIOB

IBTEBPBETA1IOB

IBTEBPBBSABX PBOPOLSIOB

IBTEBHATIOHAL IBADE

IBTEBiAIIOSAL BELATIOHS

IBlEBHAflORAL LAB

IBTBBPOLAT10I

-U SOCKET EHGIBES _ _ _

0 BESIDUAL STRESS

HI IHTEB4TIOBAL COOPEBAIIOB

U. AIB LAV

Industrial experience in the Anglo-French Development potential of Intermittent Combustion
[ AIAA PAPER 82-0809 ] p0376 882-31982

Functional versus communication structures in
the recognition of air worthiness of aircraft -
Aviation negotiations and the O.S. model agreement
[ AIAA PAPER 82-236 ] p0556 882-44699

The investigation of aircraft accidents and
incidents - Some recent national and
international developments
[ AIAA PAPER 82-29275 ] p0329 882-29275

Considerations for international joint venture
development of very large aircraft
[ AIAA PAPER 82-0809 ] p0376 882-31982

Engineering aspects of international collaboration
on Tocardo
[ TAP PAPER 82-236 ] p0556 882-44699

The realization of new space environmental weather
information system - An alternative to standard general
aviation weather briefing procedures
[ 882-45834 ] p0580 882-45834

Experience during the development of the
German-Japanese helicopter BR 117
[ 882-0316-01-0 ] p0265 882-19210

Industrial experience in the Anglo-French
helicopter collaboration

Collaborative development of aero-engines
[ 882-90083 ] p0355 882-22277

INTERNATIONAL LAW

U. AIE LAW

Offshore uses of the airship
[ AIAA PAPER 82-20553 ] p0173 882-20553

The investigation of aircraft accidents and
incidents - Some recent national and
international developments
[ AIAA PAPER 82-29275 ] p0329 882-29275

Aviation negotiations and the U.S. model agreement
[ AIAA PAPER 82-32263 ] p0377 882-32263

The recognition of air worthiness of aircraft -
New trends to a remarkable judicial decision
[ 882-38025 ] p0444 882-38025

INTERCONNECTIONS

IHEBIAZIOIAL COOPBBATIOH

INTERNATIONAL TRADE

Military aircraft and international policy
[ NASA-TP-52792 ] p0386 882-34108

Why GE made a move of acquisition

Energy environment study

INTERPLANETARY FLIGHT

Radiation enhancement by sonequilibrium during
flight through the Titan atmosphere
[ AIAA PAPER 82-08788 ] p0373 882-31883

INTERPLANETARY PROPULSION -

ROCKET ENGINES

- INTERPOLATION

Generation of boundary-conforming grids around
wing-body configurations using transfinite
interpolation
[ AIAA PAPER 82-08788 ] p0373 882-31883

Feedback and minimax sensitivity
[ AIAA PAPER 82-08788 ] p0030 882-10058

INTERPRETATION

Flight test data acquisition and interpretation
[ AIAA PAPER 82-08788 ] p0373 882-31883

INTERPROCESSOR COMMUNICATION

Functional versus communication structures in
modern avionic systems
[ AIAA PAPER 82-17092 ] p0196 882-17092

A reconfigurable change network for distributed
aerospace controller
[ AIAA PAPER 82-17092 ] p0196 882-17092

Next generation military aircraft will require
hierarchical/multilevel information transfer
systems -- packet switching
[ AIAA PAPER 82-17092 ] p0196 882-17092

SUBJECT INDEX

SIFT: An ultra-reliable avionic computing system
[ 882-17110 ] p0197 882-17110

Distributed intelligence for air fleet control
[ AIAA PAPER 82-17110 ] p0197 882-17110

An on board supervisory system for applications in
space missions
[ AIAA PAPER 82-17110 ] p0197 882-17110

Joint University Program air for Transportation
Research, 1981
[ NASA-CP-2228 ] p0404 882-26199

The P-POD Project --- error detection codes
[ 882-26202 ] p0404 882-26202

INTERSECTIONS

Survey and intersection design
[ 882-33904 ] p0184 882-33904

INTOXICATION

Briefs of accidents involving alcohol as a
cause/factor, U.S. general aviation, 1979
[ FB82-138942 ] p0465 882-27247

INFLIGHT AEROSURE

U A-6 AIRCRAFT

INVIANCE

An application of invariance principle to pilot
model for ST-33 aircraft with variable
coefficients and delays
[ AIAA PAPER 82-0367 ] p0120 882-17907

INVENTORIES

IT TIMBER INVENTARY

INVENTORY CONTROLS

A preliminary analysis of TP84-100/400 jet engine
rework data in support of the HBP system
implementation at HRB Aerospace
[ AIAA PAPER 82-0452 ] p0558 882-30308

INVENTORY MANAGEMENT

IT INVENTORY CONTROLS

The Sortie-Generation Model system. Volume 6:
Space sub-system
[ AIAA PAPER 82-09000 ] p0347 882-26226

Palm's theories for nonstationary processes
[ AIAA PAPER 82-31883 ] p014 882-31835

INVERSIONS

The net-skirt to a parachute canopy as a device to
prevent inversion
[ AIAA PAPER 81-1927 ] p0007 882-10412

INVERTED CONVERTERS (DC TO AC)

Cascade converter of dc voltage to ac voltage of
higher frequency with voltage and frequency
stabilization devices --- aircraft electric
equipment
[ AIAA PAPER 82-20875 ] p0216 882-20875

INVESTIGATION

IT ACCIDENT INVESTIGATION

IT ACCIDENT IDENTIFICATION

Analytical investigation of recoverable stall
[ AIAA PAPER 82-21195 ] p0317 882-21195

INVESTMENTS

The payoff from U.S. investment in aeronautical
research and development
[ AIAA PAPER 82-21195 ] p0317 882-21195

A new approach to modeling the cost of ownership
for aircraft systems
[ AIAA PAPER 82-21195 ] p0317 882-21195

INVESTMENT FLOW

IT STAGNATION FLOW

Theoretical analysis of parachute inflation
including fluid kinetics
[ AIAA PAPER 81-1925 ] p0006 882-10410

Subsonic flow over airborne optical turrets
[ AIAA PAPER 82-17605 ] p0114 882-17605

Transonic three-dimension viscous-inviscid
interaction for wing-body configuration analysis
[ AIAA PAPER 82-0163 ] p0116 882-37816

Technical evaluation report of the AGAED Fluid
Dynamics Panel Symposium on computation of
viscous-inviscid interactions

Transonic flow past thin wings
[ AIAA PAPER 82-25995 ] p0274 882-25995

An inviscid-viscous interaction treatment to
predict the blade-to-blade performance of axial
compressors with leading edge normal shock waves
[ ASME PAPER 82-GT-135 ] p0425 882-35363

Numerical solution of a problem concerning
transonic flow past a wing-fuselage configuration
[ AIAA PAPER 82-29996 ] p0496 882-39996

Damped Ruler-equation method to compute transonic
flow around wing-body combinations
[ AIAA PAPER 82-40092 ] p0553 882-40092
INVISIBILITY

The arbitrary quasi-orthogonal surface method for computing three-dimensional flow in turbine machinery. 2. Calculation of the three-dimensional flow with the S sub 1-surfaces treated

Aerodynamic aspects of a high bypass ratio engine installation on a fuselage afterbody

A numerical method for studying nacelle-jet-airfoil interaction in inviscid three-dimensional flow

Prediction of wing side-edge suction forces and maxima inviscid lift

Modified version of LTBAH2: A calculation method for inviscid transonic flow about thin airfoils in moderately slow unsteady motion

Computation of three-dimensional unsteady nonuniform flow in the blade-free annular channel of a turbine --- military aircraft, turbocompresors

INVIZIBILITY

ION GASES

IONIZATION GASES

IONIZATION GASES

A study of the effect of the flight vehicle body potential on the characteristics of ion attitude transmitters

IONIZED GASES

A study of the effect of the flight vehicle body potential on the characteristics of ion attitude transmitters

IONIZING RADIATION

BY ALPHA PARTICLES

BY ULTRAVIOLET RADIATION

IONOSPHERIC

The effect of ionospheric variability on the accuracy of high frequency position location

IONOSPHERIC ABSORPTION

IONOSPHERIC PROPAGATION

IONOSPHERIC DISTURBANCES

The effect of ionospheric variability on the accuracy of high frequency position location

IONOSPHERIC P-SCATTER PROPAGATION

Electromagnetic Propagation Problems in the Tactical Environment

IONOSPHERIC NOISE

BY WHISTLES

IONOSPHERIC PROPAGATION

BY INFRASOUND P-SCATTER PROPAGATION

The effect of ionospheric variability on the accuracy of high frequency position location

Transverse electric waves for VLP/LP communication between aircraft

IONOSPHERIC REFLECTION

by ionospheric propagation

IF (IMPACT PREDICTION)

by computerized simulation

IPAD

Development of Integrated Programs for Aerospace-Vehicle Design (IPAD) - IPAD user requirements

IRON ALLOYS

BY CARBON STEELS

BY HIGH STRENGTH STEELS

BY STAINLESS STEELS

BY STEELS

Fornability of INCONEL alloy MA 956 - An oxide dispersion strengthened ebeht alloy

IROQUOIS HELICOPTER

BY-1 HELICOPTER

IRETATIONAL FLOW

BY POTENTIAL FLOW

IXING MODEL

BY MATHEMATICAL MODELS

ISOLATORS

BY VIBRATION ISOLATORS

ISOPARAMETRIC FINITE ELEMENTS

A set of finite elements developed for the dynamic computation of composite helicopter blades

ISOPHORPHICS

BY HOMOGRAPHS

ISOTROPIC PRESSURE

Hot isostatically pressed manufacture of high strength REEL 76 disk and seal shapes

ISOTHERMAL FLOW

Widely-spaced co-axial jet, diffusion-flame combustor - Isothermal flow calculations using the two-equation turbulence model

The relative motion of a particle in the case of exponential changes of the velocity of the medium

ISOTROPY

BY TRITON

ITERATION

IT ITERATIVE SOLUTION

Recent applications of the transonic wing analysis computer code, Twing

ITERATIVE SOLUTION

An iterative finite element-integral technique for predicting sound radiation from tuberous ducts in steady flight

Computational methods of robust controller design for aerodynamic flutter suppression

ISRAEL ELECTRODES

BY ELLIPSOIDS

J

J-58 ENGINE

J58/59-71 propulsion integration or the great adventure into the technical unknown

J-79 ENGINE

The F-16/79 test program

J-85 ENGINE

Evaluation of a simplified gross thrust calculation method for a J85-21 afterburning turbojet engine in an altitude facility

JACKS (ELECTRICAL)

BY ELECTRIC CONNECTORS

JAGUAR AIRCRAFT

Digital avionics systems - The BAF experience

JARS

Georgia Tech coherent jammer flight test

Jarrings

Relay-augmented data links in an interference environment

JAWBONE

An analysis of airborne communication requirements in fading media

JAYHAWK

Calibrated and uncalibrated inertial navigation system performance in valid and jammed global positioning system environments

JEOPARDY

Honor jam - US Army studies on helicopter bombing

JERSEY

Northrop ECM - From B-18 to F-5E

JET PROPULSION

Preliminary airworthiness evaluation of the 86-18 with hot metal plus plume infrared suppressor and infrared jammer

JETRANK

BY MECHANICAL SHOCK

JC-130 AIRCRAFT

BY C-130 AIRCRAFT

JEPPS

BY AUTOMOBILES

JET AIRCRAFT

BY A-5 AIRCRAFT

BY A-7 AIRCRAFT

BY A-300 AIRCRAFT
<table>
<thead>
<tr>
<th>Subject Index</th>
<th>Jet Aircraft Noise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alpha Jet Aircraft</td>
<td>Calculation of aerodynamic characteristics of jet-flapped airplane</td>
</tr>
<tr>
<td>B-52 Aircraft</td>
<td>History of flight testing the L-1011 Tristar jet transport. II - Testing highlights since initial certification of the L-1011-1 aircraft</td>
</tr>
<tr>
<td>Boeing 727 Aircraft</td>
<td>Collection and simulation of spatial infrared emissions of military jet aircraft</td>
</tr>
<tr>
<td>Boeing 737 Aircraft</td>
<td>Operational evaluation of the new generation of jet transport aircraft</td>
</tr>
<tr>
<td>Boeing 747 Aircraft</td>
<td>Jet V/STOL wind-tunnel simulation and groundplane effects</td>
</tr>
<tr>
<td>F-4 Aircraft</td>
<td>Flight management systems for modern jet aircraft</td>
</tr>
<tr>
<td>F-5 Aircraft</td>
<td>The influence of wind shear and vertical winds on takeoffs and go-arounds</td>
</tr>
<tr>
<td>F-8 Aircraft</td>
<td>Handling problems associated with jet aircraft fuel systems</td>
</tr>
<tr>
<td>T-33 Aircraft</td>
<td>Experience with flight simulators - Training effectiveness-future developments</td>
</tr>
<tr>
<td>T-37 Aircraft</td>
<td>JF-8 fuel conversion evaluation</td>
</tr>
<tr>
<td>T-30 Aircraft</td>
<td>Design, development and flight testing of a jet-powered sailplane</td>
</tr>
<tr>
<td>T-144 Aircraft</td>
<td>Transparencies - what an aircraft designer should know</td>
</tr>
<tr>
<td>T-20 Aircraft</td>
<td>Fuel optimal trajectory computation</td>
</tr>
<tr>
<td>T-2 Aircraft</td>
<td>The next generation trainer</td>
</tr>
<tr>
<td>Saab 37 Aircraft</td>
<td>Commercial jet transport crashworthiness</td>
</tr>
<tr>
<td>Saab 39 Aircraft</td>
<td>Vortex alleviation flight tests: ground-based sensor measurements</td>
</tr>
<tr>
<td>Saab 210 Aircraft</td>
<td>Giant response of commercial jet aircraft including effects of autopilot operation</td>
</tr>
<tr>
<td>Eurofighter Aircraft</td>
<td>Computer enhanced analysis of a jet in a transverse stream</td>
</tr>
<tr>
<td>Eurofighter Aircraft</td>
<td>Screech suppression in supersonic jets</td>
</tr>
<tr>
<td>Greek Aircraft</td>
<td>The effect of non-linear propagation in jet noise</td>
</tr>
<tr>
<td>L-108 Aircraft</td>
<td>Can low-speed jet noise be predicted</td>
</tr>
<tr>
<td>Kfir Aircraft</td>
<td>High frequency sound emission from moving point multipole sources embedded in arbitrary transversely sheared mean flows</td>
</tr>
<tr>
<td>Tornado Aircraft</td>
<td>The impact and future direction of aircraft noise certification</td>
</tr>
<tr>
<td>Tornado Aircraft</td>
<td>Model based study of various configurations of jet crowning a cavity - Application to the CEPA 19 wind tunnel of CBP</td>
</tr>
<tr>
<td>Transall Aircraft</td>
<td>Model test and full scale checkout of dry-cooled jet runup sound suppressors</td>
</tr>
<tr>
<td>C-140 Aircraft</td>
<td>Digital spectral analysis of the noise from short duration impulsively started jets</td>
</tr>
<tr>
<td>C-5 Aircraft</td>
<td>Aircraft noise reduction - for Boeing 700 series</td>
</tr>
<tr>
<td>C-14 Aircraft</td>
<td>SEL and EPA noise duration coefficients for the 707 and 7-38 aircraft</td>
</tr>
</tbody>
</table>

Calculation of the total costs incurred in the employment of passenger jet aircraft | p0050 A82-39247 |

Development status of a composite vertical stabilizer for a jet trainer | p0056 A82-39897 |

Two-dimensional model studies of the impact of aircraft exhaust emissions on tropospheric ozone | p0056 A82-40124 |

Operation T10F - Development of a composite material wing | p0059 A82-40934 |

Analysis of jet transport wings with deflected control surfaces by using a combination of 2- and 3-D methods | p0517 A82-41022 |

In-flight acoustic emission monitoring | p0548 A82-42865 |

The influence of closed-coupled, rear fuselage mounted nozzles on the design of an advanced high speed wing | p0056 A82-13092 |

Symposium on commercial-aviation energy-conservation strategies | p0180 A82-16057 |

Multiple pure tone elimination strut assembly --- ... air breathing engines | p0193 A82-16800 |

Forecasting corrosion damage and maintenance costs for large aircraft | p0212 A82-17357 |

Corrosion control measures for military aircraft: Present F1K requirements and future developments | p0212 A82-17358 |

Corrosion prevention methods developed from direct experience with aerospace structures | p0212 A82-17359 |

Further development of the test concept of the ALPHA JET engine LABZAC 04 | p0257 A82-18223 |

Category of atmospheric turbulence in terms of aircraft response for use in turbulence reports and forecasts | (AD-A109589) | p0306 A82-20190 |

Acoustic measurements of F-16 aircraft operating in hush house, NASA 4206-02-070-2721 | (AD-A109829) | p0310 A82-21043 |

Commercial jet transport crashworthiness | p0364 A82-23207 |

Cost and fuel consumption per nautical mile for two engine jet transports using OPITM and TRAGM | (NASA-CR-168973) | p0407 A82-25339 |

B-747 vortex alleviation flight tests: ground-based sensor measurements | (AD-A113621) | p0464 A82-27287 |

Giant response of commercial jet aircraft including effects of autopilot operation | (NASA-CR-165919) | p0522 A82-28266 |

Computer enhanced analysis of a jet in a cross-stream | p0539 A82-29555 |
JET ENGINES

An exploratory research and development program leading to specifications for aviation turbine fuel from whole crude shale oil. Part 1: Process variable analyses and laboratory sample production [AD-A116262] p0508 H82-26400  
An exploratory research and development program leading to specifications for aviation turbine fuel from whole crude shale oil. Part 2: Process variable analyses and laboratory sample production [AD-A116263] p0509 H82-26401 
An investigation of the effects of smoke suppressant fuel additives on engine and test cell exhaust gas operations [AD-A116171] p0571 H82-31554  
Analysis and environmental fate of Air Force distillate and high density fuels [AD-A115949] p0595 H82-32512  
An exploratory research and development program leading to specifications for aviation turbine fuel from whole crude shale oil. Part 5 [AD-A117238] p0592 H82-33551  
Hydrocarbon fuel chemistry: Sediment water interaction [AD-A117528] p0612 H82-33552

SUBJECT INDEX

[NASA-CR-165526] p0263 H82-19196  
Thermodynamics of organic compounds [AD-A116840] p0318 H82-21202  
The effect of fuel composition on groundfall from aircraft fuel jetisoning [AD-A116301] p0321 H82-21424  
Impact study of synthetic and alternative fuel usage in army aircraft propulsion systems [AD-A111046] p0390 H82-24355  
Kovats indices as a tool in characterizing hydrocarbon fuels in temperature programmed gas capacity chromatography. Part 1: Qualitative identification [AD-A111307] p0456 H82-26400  
Experiments on fuel heating for commercial aircraft [NASA-TH-82878] p0459 H82-26483  
Jet fuel from shale oil: The 1981 technology review [AD-A111217] p0459 H82-26484  
Solvency fuels for the Navy [AD-A112511] p0459 H82-26485  
The biological degradation of spilled jet fuels: A literature review [AD-A110758] p0461 H82-26873  
Effect of some nitrogen compounds thermal stability of jet A [AD-A111660] p0476 H82-27519  
Evaluation of hydrocracking catalysts for conversion of whole shale oil into high yields of jet fuels [AD-A112280] p0476 H82-27523  
An exploratory research and development program leading to specifications for aviation turbine fuel from whole crude shale oil. Part 1: Preliminary process analyses [AD-A112281] p0527 H82-20462  
An exploratory research and development program leading to specifications for aviation turbine fuel from whole crude shale oil. Part 2: Process variable analyses and laboratory sample production [AD-A112262] p0528 H82-20463  
United States Air Force shale oil to fuels, phase 2 [NASA-TH-82505] p0528 H82-29476  
An investigation of the effects of smoke suppressant fuel additives on engine and test cell exhaust gas operations [AD-A116171] p0571 H82-31548  
Analysis and environmental fate of Air Force distillate and high density fuels [AD-A115949] p0595 H82-32512  
An exploratory research and development program leading to specifications for aviation turbine fuel from whole crude shale oil. Part 5 [AD-A117238] p0592 H82-33551  
Hydrocarbon fuel chemistry: Sediment water interaction [AD-A117528] p0612 H82-33552

JET ENGINES

[NASA-TN-82768] p0508 H82-26400  
Water ingestion into jet engine axial compressors [AIAA PAPER 82-0196] p0517 H82-17036  
P1010PE in Tomcat - Preliminary test results [AIAA PAPER 82-0681] p0517 H82-17036  
Process monitors help make jet engines more reliable [AIAA PAPER 82-12197] p0513 H82-21897  
Low grade fuels for turbo and jet engines [AIAA PAPER 82-12197] p0513 H82-21897  
Air cooled engine test facilities [AIAA PAPER 82-23439] p0523 H82-24395  
F-15Eiet and F-15ET jet engine test systems [AIAA PAPER 82-27903] p0529 H82-27904  
Development of an aircraft engine [AIAA PAPER 82-34912] p0536 H82-28167  
Propulsion system requirements for advanced fighter aircraft [AIAA PAPER 82-1141] p0547 H82-24581  
Control of gas turbine power transients for improved turbine airfoil durability [AIAA PAPER 82-1182] p0548 H82-35047  
Acoustic emission in jet engine fan blades [AIAA PAPER 82-1495] p0549 H82-35303  
Status report of the USAF's Engine Model Derivative Program [NASA-CB-165555] p0543 H82-37062  
Cycle considerations for tactical fighters in the early 1990's [NASA PAPER 82-07-259] p0549 H82-35303  
Composite containment systems for jet engines [NASA-CB-165526] p0543 H82-37062  
Current techniques for jet engine test cell modeling [NASA-PAPER 82-12172] p0549 H82-37712  
Redundant control unit for an advanced multi-spool engine [NASA-PAPER 82-17272] p0554 H82-41725  
Subsonic military aircraft engine intake: An integrated theoretical experiment design [NASA-PAPER 82-13073] p0554 H82-13074  
The design and development of the Tornado engine air intake [NASA-PAPER 82-13073] p0554 H82-13074  
Integration of advanced exhaust nozzle technology [NASA-PAPER 82-12966] p0554 H82-13075  
Development and testing of dry chemicals in advanced anti-shock systems for jet engine nacelle fires [NASA-CR-165011] p0510 H82-13186  
System for acquisition and analysis of dynamic tests on air intakes [NASA-TH-76464] p0510 H82-13186  
Pollution reduction technology program small jet aircraft engines, phase 3 [NASA-CR-165386] p0510 H82-14095  
Efficient fuel additives: Pollution reduction technology program small jet aircraft engines, phase 3 [NASA-CR-165387] p0510 H82-14095  
Application of integration algorithms in a parallel processing environment for the simulation of jet engines [NASA-TH-82746] p0518 H82-14849  
Prediction of sound radiation from different practical jet engine intakes [NASA-CR-165120] p0518 H82-14849  
CFD jet engine performance improvement: High pressure turbine roundness [NASA-CR-165555] p0520 H82-17174  
Acoustic measurements of P100-PE-100 100-0000 operating in a house house [NASA 4920-02-070-2721] [AD-A106012] p0520 H82-17174  
Acoustic measurements of F-15 aircraft operating in a house house [NASA 4920-02-070-2721] [AD-A105028] p0530 H82-21002  
Acoustic measurements of F-16 aircraft operating in a house house [NASA 4920-02-070-2721] [AD-A105929] p0530 H82-21003

A-273
JET EXHAUST

CF6 Jet Engine Diagnostics Program: High pressure compressor clearance investigation
[NASA-CD-165580] p0317 N82-21197

Encounters with surge: Some experiences of development of axial compressors for aero gas turbines
[PHRI-30071] p0355 N82-22274

Alternatives for jet engine control
[NASA-CD-166894] p0369 N82-23247

Development of an analytical technique for the optimization of jet engine and duct acoustic liners
[NASA-CD-169002] p0409 N82-25256

Field test of an in-stack diffusion classifier on an aircraft engine test cell
[AD-A113081] p0475 N82-27326

DF77/JT9D flight loads and their effect on engine running clearances and performance deterioration: SSCAM Half/P and JT9D engine diagnostics program
[NASA-CD-165573] p0525 N82-28296

CF6 jet engine performance improvement: High pressure turbine active clearance control
[NASA-CD-165556] p0526 N82-28297

Water injection into axial flow compressors. Part 3: Experimental results and discussion
[AD-A114830] p0537 N82-29326

Effect of water on axial flow compressors. Part 3: Computational program
[AD-A114831] p0537 N82-29327

A description of methodologies used in an estimation of a weighted sound levels for FAA Advisory circular AC-36-3B
[USAP-AC-36-3B] p0574 N82-32084

Jet engines

CF6 jet engine performance improvement: High pressure turbine active clearance control
[NASA-CD-165577] p0610 N82-33933

Predictive model for jet engine test cell opacity
[AD-A117585] p0610 N82-33937

China's new designed and built aircraft engine test stand
[AD-A117569] p0612 N82-33410

Diffuser/extractor systems for a very high vacuum environment
[NASA-165557] p0613 N82-33712

JET EXHAUST

Transonic perturbation analysis of ring-turbofan-nacelle/pylon configurations with powered jet exhausts
[AAIA PAPER 82-0255] p104 N82-22077

Aerodynamic interactions with turbulent jet exhaust planes
[AAIA PAPER 82-1255] p104 N82-33235

Prediction of subsonic aircraft flows with jet exhaust interactions
p0097 N82-13096

An experimental and theoretical investigation of the interaction between the engine jet and the surrounding flow field with regard to the pressure drag on afterbodies
p0360 N82-23158

Axisymmetric and non-axisymmetric exhaust jet induced effects on a V/STOL vehicle design. Part 3: Experimental technique
[NASA-CD-166147] p0566 N82-31302

JET FLOW

Jet Flaps

Calculation of aerodynamic characteristics of jet flapped airplane
p0014 N82-11459

An experimental study of steady and quasi-steady jet flaps
p0276 N82-26222

Aerodynamic noise generated by jet-wake/flare interactions of the external USB configuration of STOL aircraft. Part 1: Eight percent scale cold-flow model analysis
[NC-165685] p0359 N82-22953

JET FLIGHT

U Jet Aircraft

Jet Flow

NT Air Jets

NT Supersonic Jet Flow

Pressure dependence of jet noise and silencing of flow-offs

JET FLUIDS

U Jet Engine Fluids

JET IMPELLER

Study of reingestion of exhaust gases with different initial temperature in a reversed turbojet engine
p0014 N82-11444

A summary of jet-impeller studies at McDonnell Douglas Research Laboratories
[AAIA PAPER 82-119] p017 N82-16504

Impeller cooling of concave surfaces of turbine airfoils

A-278

JET EXHAUST

Dilation jet behavior in the turn section of a reverse flow combustor
[AAIA PAPER 82-0192] p0167 N82-20266

Complete velocity profile and 'optimum' skin friction formulas for the plane wall-jet
[AAIA PAPER 81-1891-3] p0234 N82-24566

Secondary flow mixing losses in a centrifugal impeller
[AAIA PAPER 82-004-4] p0421 N82-35302

The influence of flow rate on the wake in a centrifugal impeller
[AAIA PAPER 82-004-5] p0421 N82-35303

Ring-tip jets aerodynamic performance
p0514 N82-00987

Perforated jets. I --- surface blowing
p0512 N82-43589

Wind tunnel tests of engine-equipped models: Comparison of two jet wash simulation methods
[AD-A116543] p0360 N82-16801

Analytical study of twin-jet shielding
[NASA-CD-165102] p0193 N82-16801

Analytical study of twin-jet shielding
[NASA-CD-165103] p0194 N82-16802

Analytical study of twin-jet shielding
[NASA-CD-165104] p0194 N82-16803

Analytical study of twin-jet shielding development of a 3-dimensional model
[AAIA PAPER 82-16805] p0194 N82-16804

Analytical study of twin-jet shielding development of a twodimensional model
[AAIA PAPER 82-16806] p0194 N82-16806

Dilation jet behavior in the turn section of a reverse flow combustor
[NASA-TH-84523] p0266 N82-19220

The role of coherent structures in the generation of noise for subsonic jets
[AAIA PAPER 82-16807] p0358 N82-22947

Aerodynamic noise generated by jet-wake/flare interactions of the external USB configuration of STOL aircraft. Part 1: Eight percent scale cold-flow model analysis
[NC-165685] p0359 N82-22953

Fluid dynamics of jets with application to V/STOL
[AGAD-CP-308] p0360 N82-23150

Some aspects of jet dynamics and their implications for V/STOL research
p0360 N82-23151

An experimental and theoretical investigation of the interaction between the engine jet and the surrounding flow field with regard to the pressure drag on afterbodies
p0360 N82-23158

Flowfield and noise sources of jet impingement of flaps and ground surface
p0361 N82-23163

Jet effects on forces and moments of a V/STOL fighter type aircraft
p0361 N82-23168

Theoretical optimisation and experimental verification of an injector
p0361 N82-23170

Determination of wind tunnel constraint effects by a unified pressure signature method. Part 2: Application to jet-in-crossflow
[NASA-CD-166183] p0367 N82-23235

Aerodynamics of an airfoil with a jet issuing from its surface
[NASA-TH-84625] p0531 N82-29267

Operational evaluation of a propeller test stand in the quiet flow facility at Langley Research Center
[NASA-TH-84523] p0600 N82-33149

Simulation of the fluctuating field of a forced jet
[NASA-TH-84506] p0615 N82-34191

JET FLUIDS

U Jet Engine Fluids

JET IMPELLER

Study of reingestion of exhaust gases with different initial temperature in a reversed turbojet engine
p0014 N82-11444

A summary of jet-impeller studies at McDonnell Douglas Research Laboratories
[AAIA PAPER 82-119] p017 N82-16504

Impeller cooling of concave surfaces of turbine airfoils

A-278
Correlation system
Target acceleration modeling for tactical missile
guidance
(IAA Paper 82-0370)
Maneuver dependent constant error models and
synchronized reset filters for inertial
navigation systems
Post-flight assessment of the JTIDS Belflyx
A stable decentralized filtering implementation
for JTIDS Belflyx -- stable community relative
navigation
Fixed gain controller design for aircraft
Optimal control and estimation for strapdown
seeker guidance of tactical missiles
Rotor state estimation for rotorcraft
(IAE PREPRINT 81-11)
Adaptive filtering for an aircraft flying in
turbulent atmosphere
Robust Kalman filter design for active flap
suppression systems
Research on an adaptive Kalman filter for solving
the radar tracking problem --- German thesis
Application of Kalman filtering technique to
aerodynamic derivatives for a helicopter
Extension of proportional navigation by the use of
optimal filtering and control methods
(K-15-TT-663)
Application of Kalman filtering to the kinematic
reconstruction of free flight of catapulted
aircraft models in the laboratory
(IAE TR-00-18)
Real time estimation and prediction of ship
motions using Kalman filtering techniques
(NASA CR-169284)
Designs of analytical failure detection using
secondary observers
(K-15-TR-029a)
Kalman-Schmidt Filtering
Digital command augmentation for
lateral-directional aircraft dynamics
(AD-A110274)
Kapton (trade name)
The use of "kapton" polyimide film in aerospace
applications
(SAE Paper 811091)
KC-130 AIRCRAFT
U C-130 AIRCRAFT
KC-135 AIRCRAFT
U C-135 AIRCRAFT
Kevlar/Phenolic stability analysis of air cushion
landing gear trunk flapper
Performance evaluation of Kevlar-49 epoxy
composite panels in wide-bodied commercial
transport aircraft
(K-A-CE-165841)
Materials and Structures/ACE
(K-A-FECTS-1178-6/81)
Materials and design criteria for Kevlar-29 ribbon
parachutes
(AD-A116357)
Keval/Phen-15 reduced drag DC-9 reverser stang
fairing
(NASA CR-169484)
KETING
HT FREQUENCY SHIFT KEYING
KINEMATICS
Analytical determination of undercarriage
retraction kinematics
(K-15-TR-921)
Kinematic investigation Hughes Helicopter 7.62mm
chain gun
(AD-A113114)
Kinematic precision of gear trains
(NASA TR-82847)
KINETICS
U PROPOGATION
KINETIC FRICITION
KT SLIDING FRICITION
KINETIC HEATING
KT AERODYNAMIC HEATING
KINETIC THEORY
KT MIXING LENGTH FLOW THEORY
KINETICS
KT ELECTROKINETICS
KT ELECTRIFICATION
KT CHAPPOFF-SUGERSON PRINCIPLE
KT DIFFRACITION
KT WAVE PROPAGATION
KITS
Development of a backpack survival kit for
ejection seats
(AD-A113653)
KRONIENUS PRODUCT
U ORTHOGONALITY
KU BAND
U SUPERHIG FREQUENCY
KUPPER AIRCRAFT ORDINATARY
U C-141 AIRCRAFT
KUTTA-JOOGOWSKI CONDITION
A summary of V/STOL inlet analysis methods
(IAE Paper 81-2628)
A summary of V/STOL inlet analysis methods
(NASA TR-82805)
L
L BAND
U ULTRAREH FREQUENCIES
L-1011 AIRCRAFT
History of flight testing the L-1011 Tristar jet
transport. II - Testing highlights since initial
certification of the L-1011-1
Seven years experience with Kevlar-49 in the
Lockheed L-1011 Tristar
Seven years experience with Kevlar-49 as the
Lockheed L-1011 Tristar
Skyship 500 - The development of a modern
production airship
Design of an advanced composite main rotor blade spar for
fabrication by tubular braiding
Kevlar/Phen-15 polyimide matrix composite for a
complex shaped DC-9 drag reduction fairing
(IAE Paper 82-1047)
Development of manufacturing technology for
fabrication of a composite helicopter main rotor
spar by tubular braiding
(AD-A953777)
Study of noise reduction characteristics of
composite fiber-reinforced panels, interior
panel configurations, and the application of the
tuned damper concept
(K-A-CE-167845)
Concept studies of an advanced composite
helicopter fan
(M-K-CE-82-1106)
Flight service evaluation of Kevlar-49 epoxy
composite panels in wide-bodied commercial
transport aircraft
(K-A-CE-165841)
Materials and Structures/ACE
(K-A-FECTS-1178-6/81)
Materials and design criteria for Kevlar-29 ribbon
parachutes
(AD-A116357)
Kevlar/Phen-15 reduced drag DC-9 reverser stang
fairing
(NASA CR-169484)
Fault isolation methodology for the L-1011 digital avionic flight control system  
[AIAA 81-2223] p0047 A82-13458

Digital active control system for load alleviation for the Lockheed L-1011  
[AIAA 81-0636] p0283 A82-26567

Sonar fatigue testing of an advanced composite  
[AIAA PAPER 81-0636] p0283 A82-26567

Advanced technology PFC control panel for the L-1011  
[AIAA PAPER 82-1257] p0487 A82-39084

Development and flight test evaluation of a pitch stability augmentation system for a relaxed stability L-1011  
[AIAA PAPER 82-1257] p0487 A82-39084

Accelerated development and flight evaluation of active control concepts for subsonic transport aircraft. Volume 1: Load alleviation/extended span development and flight tests  
[AIAA-CR-159097] p0165 A82-15076

Flight service evaluations of Kevlar-49 epoxy composite panels in wide-bodied commercial transport aircraft  
[AIAA-CR-165041] p0357 A82-22316

LABORATORIES

NT ADVANCED TECHNOLOGY LABORATORY  
NT ENGINEERING TESTING LABORATORIES

LABORATORY EQUIPMENT

Proposed multipurpose flying radio-physical laboratory using an IL-18 aircraft  
LABIBFLOI4

LABRINTH SEALS

Design and testing of a new double labyrinth seal  
[AIAA PAPER 81-LDF-50] p0127 A82-10452

Sealing effects on leakage losses in labyrinth seals  
[AIAA PAPER 82-GT-157] p0426 A82-35380

Labyrinth seal effects on rotor bearing system stability  
[AIAA-T-116774] p0599 A82-32742

LAMAR ING COORDINATES

Nodeal characteristics of rotor blades: Finite element approach and measurement by ground vibration test  
LABIBFLOI4

LAMAR ING MULTIPLIERS

Mathematical programming in engineering design problems  
AIAA PAPEB 82-LDF-18 A82-15864

Power system design optimization using Lagrange multiplier techniques  
AIAA PAPEB 82-LDF-18 A82-20743

LAMAR IN A

U LAYERS

LAMAR IN BOUNDARY LAYER

The effect of the cooling of the wing surface on laminar-to-turbulent boundary layer transition at supersonic flow velocities  
LABIBFLOI4

Visualization of laminar separation by oil film method  
LABIBFLOI4

Numerical design of the contoured wind-tunnel liner for the NASA swept-wing LFC test  
LABIBFLOI4

Aerodynamic development of laminar flow control on swept wings using distributed suction through porous surfaces  
LABIBFLOI4

External aerodynamic design for a laminar flow control glove on a Lockheed JetStar wing  
LABIBFLOI4

Heat transfer from nozzles under the conditions of flow laminarization  
LABIBFLOI4

Amplified crossflow disturbances in the laminar boundary layer on swept wings with suction  
[AIAA-TT-1902] p0091 A82-11391

Probability of laminar flow loss because of ice crystal encounters  
LABIBFLOI4

LAMAR IN BOUNDARY LAYER SEPARATION

U LAMAR IN BOUNDARY LATEX

LAMAR IN FLAMES

U LAMAR IN FLAME

LAMAR IN FLOW

On low-speed wind tunnels with deformable boundaries  
LABIBFLOI4 A82-13458

A simple finite difference procedure for the vortex controlled diffuser  
[AIAA PAPER 82-20109] p0115 A82-17788

Box formation in flat, laminar, opposed jet methane diffusion flames  
LABIBFLOI4

Calculation of level flow using radial grating  
LABIBFLOI4

Observations and implications of natural laminar flow on practical airplane surfaces  
LABIBFLOI4

Natural laminar flow airfoil analysis and trade studies  
LABIBFLOI4

Laminar flow control SFF/GC feasibility demonstration  
LABIBFLOI4

Effect of modification of the trailing edge of a separating wall on the downstream mixing of parallel flowing streams  
[AIAA-T-111124] p0394 A82-24181

Laminar flow control; 1976 - 1982: A selected annotated bibliography  
LABIBFLOI4

Surface flow visualization requirements for testing in NF  
LABIBFLOI4

NASA research on viscous drag reduction  
LABIBFLOI4

LAMAR IN FLOW AIRFOILS

The NASA Langley laminar flow control airfoil experiment  
LABIBFLOI4

Aerodynamic development of laminar flow control on swept wings using distributed suction through porous surfaces  
LABIBFLOI4

External aerodynamic design for a laminar flow control glove on a Lockheed JetStar wing  
LABIBFLOI4

Program at Douglas on laminar flow control applied to commercial transport aircraft  
LABIBFLOI4

Laminar airfoils for transport aircraft  
[AIAA-DF-550] p0252 A82-18190

Laminar Flow Control. The Research and Technology Studies 1981  
[AIAA-CF-2218] p0301 A82-20149

NASA Langley laminar flow control airfoil experiment  
LABIBFLOI4

Status of NASA advanced LFC airfoil high-lift study  
LABIBFLOI4

Stability of boundary layers with porous suction strips: Experiment and theory  
LABIBFLOI4

Probability of laminar flow loss because of ice crystal encounters  
LABIBFLOI4

SPF/GC titanium concepts for structural efficiency for HC  
LABIBFLOI4

SPF/GC titanium LPC porous panel concept  
LABIBFLOI4

Drag reduction using pneumatic turbulators --- laminar airfoils  
LABIBFLOI4

LAMAR IN FLOW CONTROL

U BOUNDARY LAYER CONTROL

U LAMAR IN BOUNDARY LATEX

LAMAR IN HEAT TRANSFER

Approximate method of predicting heating on the windward side of Space Shuttle Orbiter and comparisons with flight data  
[AIAA PAPER 82-0823] p0373 A82-36853

LAMAR IN JETS

U JET FLOW

U LAMAR IN JET FLOW

LAMAR IN MATERIALS

LAMAR IN LAMINATES

LAMAR IN LAMINATES

Impact-initiated damage thresholds in composites  
LABIBFLOI4

Improvement of the first-ply-failure strength in laminates by using softening strips  
LABIBFLOI4

On the track of practical forward-swept wings  
LABIBFLOI4

A-277
Design of the composite spar-wingskin joint
Boiled field repair of graphite/epoxy wing skin laminates
Improving composite bolted joint efficiency by laminate tailoring
Evaluation of graphite/epoxy shims in a high capacity laminate helicopter bearing
On the bearing strengths of CFRP laminates
The promise of laminated metal in aircraft design
Material identification for the design of composite rotary wings
Application of a new hybrid material in aircraft structures
Fabrication of boron/aluminum fan blades for SCS engines
Fuselage structure using advanced technology fiber reinforced composites
Standard tests for toughened resin composites
Fabrication of boron/aluminum fan blades for SCS engines
The promise of laminated metal in aircraft design
On the bearing strengths of CFBP laminates
Evaluation of graphite/epoxy shims in a high capacity laminate helicopter bearing
Improving composite bolted joint efficiency by laminate tailoring
Landing gear
The possibility of using deformable rubber components in landing gear
Mechanisms for the elimination of instability in a shimmy problem
Self-oscillations of the front caster wheel strut for a given track width under the assumption of the wheel drift hypothesis
Kelvin-Helmholtz stability analysis of air cushion landing gear
development
Ground movement control and guidance - Cat. 3 operations experience in Air Inter
The birth of precision NEE
A tower approach to slant visual range observation and prediction
Comparative study of flight control laws
In-service testing of the Precision Approach Path Indicator (PAPI) at Newark International Airport, New Jersey
[DOT/FRA/58-81/95]
Real time simulation of computer-assisted sequencing of terminal area operations
Development of a clear air radar to detect meteorological hazards at airports
Airfield visual aids research at the Royal Aircraft Establishment
Marine Air Traffic Control and Landing System
Marine Air Traffic Control and Landing System
Marine Air Traffic Control and Landing System
Marine Air Traffic Control and Landing System
Landing Gear
SUBJECT INDEX

Faceproof brake hydraulic system
[AD-A111319] p0407 N82-25245
Experimental investigation of active loads control for aircraft landing gear
[NASA-TP-2042] p0556 N82-31321
Description of a simple model to determine landing gear forces during the takeoff of aerodynamically unstable aircraft
[18-228] p0570 N82-31333
ASBA vertical drag test report — rotor systems research aircraft
[NASA-CS-145599] p0587 N82-32341
LANDING LOADS
 NT APPROACH INDICATORS
Airfield visual aids research at the Royal Aircraft Establishment
[EAP-TH-P-431] p0351 N82-22242
LANDING SIMULATION
An electronic control for an electrohydraulic active control landing gear for the F-4 aircraft
[NASA-CS-3552] p0553 N82-22252
Automated optical design of wing structures. Deterministic and probabilistic approaches
[NASA-TH-80441] p0535 N82-29317
LASER APPLICATIONS
 NT LASER PROPULSION
Digital detection and processing of laser beacon signals for aircraft collision hazard warning
[ADA 1-2328] p0502 A82-15225
Mapping in tropical forests — A new approach using the laser APS — Airborne Profile Recorder
[ADD-A1020] p0560 N82-24047
Laser communications via an atmospheric link
[AD-A111027] p0575 N82-26660
Laser application in weapon guidance and active imaging
[AD-A111028] p0575 N82-26615
Laser pointing in a turbulent atmosphere
[AD-A111029] p0575 N82-26617
The Hydrographic Airborne Laser Sounder (HALS)
[AD-A111030] p0575 N82-26620
Development and utilization of a laser Doppler system for a large transonic wind tunnel
[NASA-CS-82886] p0572 N82-31663
LASER COMMUNICATION
 NT OPTICAL COMMUNICATION
LASER DOPPLER VELOCIMETERS
Measurements of velocity distributions in the leading edge vortex of a delta wing by the laser-Doppler procedure
[AD-A111301] p0563 N82-37896
Laser Doppler anemometry applied to the study of the airflow in the wake of an helicopter rotor
[OBBA, TP No. 1982-61] p0555 A82-63755
Preliminary experiments on a centrifugal research compressor using a laser -2- focus velocimeter
[AD-A111441] p0553 A82-63756
Application of laser velocimetry to large industrial wind-tunnels
[OBBA, TP No. 1982-62] p0553 A82-63757
An experimental investigation of the flow field of an ejector wing design employing a photon correlation laser velocimeter
[AD-A11113] p0594 N82-31812
Hardware and software integration for the concurrent data acquisition and reduction of photon correlated laser Doppler velocimetry
[AD-A11146] p0594 N82-35506
A color video display technique for flow field surveys
[AD-A11147] p0594 N82-35507
Development of a laser velocimeter for a large transonic wind tunnel
[AD-A11148] p0598 N82-32669
Seeding considerations for an LV system in a large transonic wind tunnel
[AD-A11149] p0598 N82-32688
LV measurements with an advanced turboprop
[AD-A11150] p0598 N82-32690
Application of a laser velocimeter in the Langley 4- by 7-meter tunnel
[AD-A11151] p0598 N82-32693
Laser Doppler velocimetry application in the Langley 0.3-meter Transonic Cryogenic Tunnel
[AD-A11152] p0598 N82-32695
Some NFF laser velocimeter installation and operation considerations
[AD-A11153] p0599 N82-32698
Beta experiment flight report
[NASA-CS-170622] p0613 N82-36988
LASER GUIDANCE
Laser application in weapon guidance and active imaging
[AD-A11155] p0633 A82-35767
U.S. Army remotely piloted vehicle program
[AD-A11156] p0633 A82-39732
LASER GYROSCOPES
Early Laser Gyro Navigator /LGNS/ flight test results
[AD-A102033] p0603 N82-12664
Laboratory and flight test of a new ELG strapdown INS
[AD-A11159] p0603 N82-12665
A-279
Becent developments in aviation cases
Investigation of heat transfer in the vicinity of a leading edge vortex flap
A survey of melting layer research
On evaluating the influence of local disruptions to aerodynamics to active controls — aircraft horizontal tail leading edge slat rail
The application of subscale theoretical aerodynamics to active controls — aircraft horizontal tail leading edge slit rails
Fabrication of CFRP prototype structure for aircraft horizontal tail leading edge slit rail
The sixteen to forty micron spectroscopy from the Lear Jet [NASA-CB-166864]
User's manual for interfacing a leading edge, vortex rolling program with two linear panel methods [NASA-TB-78054]
Experimental study of delta wing leading-edge devices for drag reduction at high lift — conducted in Langley 7- by 10-foot high speed tunnel [NASA-CB-165585]
Lateral aerodynamics of delta wings with leading edge separation [AIAA PAPER 82-3876]
Inflated wings [AIAA PAPER 82-39142]
An experimental investigation of leading-edge spanwise blowing [AIAA PAPER 82-40988]
Spanwise distribution of vortex drag and leading-edge suction in subsonic flow [NASA-CB-164966] [NASA-CB-4369]
Development of an efficient procedure for calculating the aerodynamic effects of planform variation [AIAA PAPER 82-16529]
Measurement of velocity distributions in the leading edge vortex of a delta wing at the laser-Doppler procedure
Vehicle test report: Battronic pickup truck [NASA-CH-166657]
Recent advances in applying Free Vortex Sheet theory to the estimation of vortex flow aerodynamics [AIAA PAPER 82-0905]
Recent developments in aviation cases
Leaves icing research tunnel [NASA-CB-169876]
Effects of wing-leading-edge modifications on a 60-deg delta wing with leading-edge devices (data report) [NASA-CB-16906]
Status of NASA advanced LTC airfoil high-lift study [NASA-CB-20151]
Leading edge flap influence on leading edge vortex flow aerodynamics [AIAA PAPER 82-22045]
Leading edge root for use with a liquid anti-ice system [NASA-CB-16787-1] [NASA-CB-LA-12787-1]
Leading edge slats
Fabrication of CFRP prototype structure for aircraft horizontal tail leading edge slit rail [NASA-TB-81060]
Leading edge slats
Effect on surface pressures of trapezoidal holes in a 7- by 18 etabliser [NASA-CP-22180]
History of the sweptback wing [NASA-PAPER 81-070]
Investigation of heat transfer in the vicinity of the leading and trailing edges of a cooled nozzle blade of a low-compression gas turbine [NASA-CB-20151]
Crosflow shock on the suction side of a flat delta wing with supercsonic leading edges [NASA-CB-22052]
History of the sweptback wing [NASA-PAPER 81-070]
Investigation of heat transfer in the vicinity of the leading and trailing edges of a cooled nozzle blade of a low-compression gas turbine [NASA-CB-20151]
Effect on surface pressures of trapezoidal holes in a 7- by 18 etabliser [NASA-CP-22180]
Effect on surface pressures of trapezoidal holes in a 7- by 18 etabliser [NASA-CP-22180]
Effect on surface pressures of trapezoidal holes in a 7- by 18 etabliser [NASA-CP-22180]
Effect on surface pressures of trapezoidal holes in a 7- by 18 etabliser [NASA-CP-22180]
Effect on surface pressures of trapezoidal holes in a 7- by 18 etabliser [NASA-CP-22180]
Complete guide to Rutan homebuilt aircraft --- Book
The reliability and safety of small passenger aircraft
Comparison of light aircraft with strutted and cantilever wings
Ultralight airplanes
The computerized cockpit for the one-man crew
Sport aircraft --- Russian book
Computational and experimental studies of light twin aerodynamic interference
Assessment of advanced technologies for high performance single-engine business airplanes
The design integration of wingtip devices for light general aviation aircraft
Exterior noise on the fuselage of light propeller driven aircraft in flight
Experimental modal analysis of the fuselage panels of an Aero Commander aircraft [NASA-CR-165750]
Socata: TB 20 Trinidad given German debut [NASA-TM-76706]
Evaluation of noise control technology and alternative noise certification procedures for propeller-driven small airplanes [AD-A1169495]

LIGHT ALLOYS
NT ALUMINIUM ALLOYS
Advantages and limitations in the use of diverse materials for aircraft construction --- composite versus metallic materials [S81AS-811-551-104]
LIGHT BEAMS
Laser gyrocs - The guiding light
LIGHT BULBS
O LUMINAIRES
LIGHT COMMUNICATION
O OPTICAL COMMUNICATION
LIGHT EMISSION
NT FLUORESCENCE
LIGHT BRIGHTING DIODES
The multi mode matrix flat panel display: Technology and applications
Heads up display [NASA-CR-1612530-1]
LIGHT MODULATION
Silicon liquid crystal light valve for flight simulation applications [AD-A110928]
LIGHT PHONES
O LIGHT BEAMS
LIGHT TRANSMISSION
Nearfield aerodynamics and optical propagation characteristics of a large-scale turret model [AD-A113910]
LIGHTING EQUIPMENT
NT AIRPORT LIGHTS
NT FLASH LAMPS
NT LUMINAIRES
NT HUBAY LIGHTS
Study of fiber optics to enhance an environmental lighting laboratory [AD-A1061177]
Effects of approach lighting and variation an variable runway length on perception of approach angle in simulated night landings [AD-A117472]
Examination of aircraft interior emergency lighting in a postcrash fire environment [AD-A117629]

LIGHT ALLOYS

LIGHTING
Thunderstorm hazards flight research - Program overview [IAIA PAPER 81-2412]
Direct strike lightning measurement system --- for aircraft [IAIA PAPER 81-2513]
A recursive time domain analysis of distributed line grid networks with application to the ETA/EPF problem --- Lightning Threat Analysis [AD-A114761]
Calculations of lightning return stroke electric and magnetic fields above ground [AD-A114771p]
Conductive properties for lightning strike protection on aircraft [AD-A114782]
Lightning detection and ranging [AD-A114792]
Effects of lightning and nuclear electromagnetic pulse on an advanced composites aircraft [AD-A114802]
Triggered lightning --- resulting from aircraft atmospheric electricity interactions [AD-A114812]
Airborne warning systems for natural and aircraft-initiated lightning [AD-A114822]
The direct effects of lightning on aircraft [AD-A114832]
Electromagnetic interaction of lightning with aircraft [AD-A114842]
Lightning simulation and testing [AD-A114852]
Assessment of aircraft susceptibility/vulnerability to lightning and development of lightning-protection design criteria [AD-A114862]
Lighting effects on aircraft and composites. Literature study on lightning strike and protection --- advanced composite materials [FOA-C-20388-P9]
Investigation of severe lightning strike accidents to two USAF F-106A aircraft [NASA-CR-165794]
NASA research programs responding to workshop recommendations [AD-A107326]
The 1981 direct strike lightning data --- utilizing the F-106 aircraft [NASA-TM-82721]
Proceedings of the 1st Annual Workshop on Aviation Related Electricity Hazards Associated with Atmospheric Phenomena and Aircraft Generated Inputs [AD-A110722]
Protection of advanced electrical power systems from atmospheric electromagnetic hazards [AD-A112622]
Assessment of lightning simulation test techniques, part 1 [AD-A112622]
A comparison of lightning effects on future aircraft electronic systems [AD-A114117]
Carbon fiber reinforced composite structures protected with metal surfaces against lightning strike damage [AD-A1141178]
Atmospheric electricity hazards analytical model development and application. Volume 1: Lightning environment modeling [AD-A114015]
Atmospheric electricity hazards analytical model development and application. Volume 2: Simulation of the lightning/aircraft interaction event [AD-A114016]
Atmospheric electricity hazards analytical model development and application. Volume 3: Electromagnetic coupling modeling of the lightning/aircraft interaction event [AD-A114017]

Deposit formation in liquid fuels. 1 - Effect of coal-derived liquid bases on storage stability of jet fuel turbine fuel

Seam-emperical analyses of liquid fuel distribution downstream of a plain orifice injector under cross-stress air flow

LIQUID HYDROGEN
Fuel for future transport aircraft

LIQUID HYDROGEN - An outstanding alternate fuel for transport aircraft

LIQUID INJECTION
Liquid particle dynamics and rate of evaporation in the rotating field of centrifugal compressors

LIQUID ROCKET PROPELLANTS
MT CHROMIC ROCKET PROPELLANTS
MT LIQUID FUELS
MT RP-1 ROCKET PROPELLANTS

Determination and analysis of jet and missile fuel deposits

LIQUID SLOSHING
Airframe fuel tank slosh and vibration test

LIQUID-SOLID INTERFACES
Factors influencing velocity distributions at inlet/combustor interfaces

LIQUIDS
MT CHROMIC ENAMELS
MT HYDRAULIC FLUIDS
MT LIQUID FUELS
MT LIQUID HYDROGEN
MT LIQUID ROCKET PROPELLANTS
MT ORGANIC LIQUIDS
MT RP-1 ROCKET PROPELLANTS

A study of the effects of long-term exposure to fuels and fluids on the behavior of advanced composite materials

LISTS
Coupled rotor/airframe vibration analysis program manual. Volume 2: Sample input and output listings

LITERATURE
MT BIOGRAPHY
MT DOCUMENTATION
MT PROCEEDINGS

LOAD DISTRIBUTION (FORCES)
Fictitious vibrations of a wing carrying a concentrated load /asymptotic behavior/

A practical approach to systems mode analysis - for disc-blade-shroud assemblies

Zone loading of flight-vehicle structures

A method of accounting for the effect of aircraft deformations on its loading

Calculation of wing-body-nacelle interference in subsonic and transonic potential flow

Prediction of subsonic aircraft flows with jet exhaust interactions

Analysis methods for predicting structural response to projectile impact

Stiffness degradation of impact damaged structures

Analysis of multiple load path panels containing impact damage

Program presentation of the working group separated flow: Problems with rotary wings

LOAD FACTORS
0 LOADS (FORCES)

LOAD TESTS
Fatigue life of lugs under service loading - Test results and predictions

The load-carrying behavior of a trapezoidal aluminum-alloy supporting element, subjected to a compressive stress, in the postbuckling region

Experimental structural testing on a composite aircraft canard and its applications

The effects of bird orientation on load profile and damage level

Operating flight loads and their effect on engine performance

Fundamentals of helicopter fatigue life
determination

Sensitivity of bonded and bolted joints in composites to load/environmental spectrum variations --- in fighter aircraft structures

On the bearing strengths of CF/P substrate laminates

In-plane shear test of thin panels

Vibration test procedures for accessory angle drive gearboxes on star 90C engines --- turbojet engines

LOADING FORCES
0 LOADS (FORCES)

LOADING ROBOTS
Some notable aerodynamic effects on helicopter rotors

LOADING OPERATIONS
QOT and Z of the F-16 20mm ammunition loading system's ability to upload/download A-70 aircraft

Advanced internal cargo system concept demonstration and evaluation

LOADING WAVES
Zone loading of flight-vehicle structures

LOADING WAVES
0 LOADS (FORCES)

LOADS (FORCES)
MT AERODYNAMIC LOADS
MT AXIAL LOADS
MT BLAST LOADS
MT CONFESSION LOADS
MT CRITICAL LOADING
MT CYCLIC LOADS
MT DYNAMIC LOADS
MT ENGINE LOADS
MT GUST LOADS
MT IMPACT LOADS
MT LANDING LOADS
MT BADLAND LOADS
MT SHOCK LOADS
MT STATIC LOADS
MT VIBRATORY LOADS
MT WING LOADING

A method for observing the deterioration of airframe life in operational conditions

Pneumatic tire model for aircraft simulation

SUBJECT INDEX
Flight-by-flight corrosion fatigue tests
Preliminary study of ground handling characteristics of Buoyant Quad Rotor (BQR)
Hurricane-induced wind loads [PO9B-132267] p0476 A82-27548
Wind tunnel studies of store separation with load factor. Freeports and captive trajectories
The lateral response of an aircraft to turbulence [AD-411597] p0559 A82-30312
Simulation of the interaction between aeropod platforms and aircraft rollers [AD-9116370] p0569 A82-31324

LOGICAL DESIGNS

LOGICAL DESIGN

Computer-in-control selection logic for a triplex digital flight control system
[AAIA Paper 81-2368] p0047 A82-13465
The DBAPO system - Materials means and logic functions
[PO437 A82-37521
Stage-state reliability analysis techniques
[PO043 A82-20276
Active beacon collision avoidance logic evaluation. Volume 2: Collision avoidance
[AAIA Paper 81-2370] p0060 A82-13947
The influence of sensor and actuator characteristics on overall aircraft AFS design
[PO251 A82-18171
[AAIA Paper 82-0960] p0386 A82-34008
Design of advanced digital flight control systems via Command Generator Tracker (CGT) synthesis methods, volume 2
[AD-4115511] p0570 A82-31332

LOGICAL NETWORKS

U LOGIC CIRCUITS

The all electric airplane - Its development and logistic support
[PO067 A82-14709
Strategic materials - Technological trends
[PO44 A82-37972
Design and implementation of USAF avionics integration support facilities
[PO44 A82-37972
Pap's theorem for nonstationary processes
[AD-4115537] p0558 A82-30307
[AD-4117095] p0614 A82-34135

LOGISTICS MANAGEMENT

LT INVENTORY MANAGEMENT

AT2 Logistics in the United States Air Force
[AAIA Paper 82-27890
Logistics research program in the United States Air Force
[PO294 A82-40963
Cannibalization of the F-14 and S-3A aircraft: A viable logistic
[PO511 A82-40963
[PO511 A82-40963

LONGITUDINAL STABILITY

Opportunities exist to achieve greater standardization of aircraft and helicopter seats
[AD-4117110] p0448 A82-26259
Navy's P-3A-18 expected to be an effective performer but problems still face the program
[AD-4111977] p0451 A82-26281
Aion effectiveness of the AF-88 V,oster 2 could be improved if actions are taken now
[AD-4111978] p0452 A82-26284
Aviation Material Combat Ready in-Country (ARMC)
[AD-4107451] p0469 A82-27283
Maintenance support resource forecasting model. Volume 2: Equivalent testing of reliability and maintenance model and expected values model
[AD-4117145] p0585 A82-32307
LONG RANGE NAVIGATION

U LOGAN

LONG RANGE WEATHER FORECASTING

Prototype Regional Observation and Forecast System (PROFS)
[PO311 A82-12150
LONG TERM EFFECTS

Design technology for improved performance retention in turbofan engines
[AAIA Paper 80-01055] p0231 A82-24392
Environmental exposure effects on composite materials for commercial aircraft
[NASA-CR-3502] p0193 A82-16178
Environmental exposure effects on composite materials for commercial aircraft
[AAIA Paper 82-1350] p0488 A82-39121
Design of a longitudinal ride-control system by Zakian's method of inequalities
[PO518 A82-41114
System identification of the longitudinal motion of the DVLRA BFS 320 research aircraft with particular consideration of control surface effectiveness
[PO300 A82-10045
Preliminary investigation into the addition of auxiliary longitudinal thrust on helicopter agility
[PO249 A82-18155
Development of longitudinal equivalent system models for selected US Navy tactical aircraft
[AD-4109488] p0366 A82-20189
Prediction of aircraft handling qualities using analytical models of the human pilot
[AAIA Paper 82-0960] p0366 A82-24208
F-15 wind-tunnel/flight correlations
[PO400 A82-25202
Analytical and simulator study of advanced transport
[PO506 A82-28298
LONGITUDINAL STABILITY

A unified and generalized definition of static longitudinal stability in aircraft
[PO377 A82-32135
Wind tunnel measurements of longitudinal stability and control characteristics of primary and secondary wing configurations
[PO510 A82-10025
Implicit model-following technique - Application to the design of longitudinal stability augmentation systems
[PO551 A82-43571
Active control elements on the transonic wing of the Airbus A-300 (ACTA A), Airbus A-300 with reduced longitudinal stability (ACTA-C) --- advanced control transonic transport aircraft (ACTA); design considerations
[PO520 A82-43571
Analysis of a longitudinal pilot-induced oscillation experienced on the approach and landing test of the space shuttle
[BAA-AM-81366] p0100 A82-13149
**SUBJECT INDEX**

Flight evaluation of LORAN-C as a helicopter navigation aid in the Baltimore Canyon oil exploration area

Design study report for General Aviation LORAN-C receiver

A prototype interface unit for microprocessor based LORAN-C receiver

Joint University Program Air for Transportation Research, 1981

Investigation of air transportation technology at Ohio University, 1981 -- loran

LORAN-C plotting program for plotting lines of position on standard charts

A Loran-C prototype navigation receiver for general aviation

A prototype interface unit for microprocessor-based LORAN-C receiver

Flight evaluation of LORAN-C in the State of Vermont

**LOW ALLOY STEELS**

C HIGH STRENGTH STEELS

LOW ALTITUDE

Inflatable system for fast deployment of parachutes at low altitudes from slow moving aircraft or stationary supports

Application of multiple model estimation techniques to a recursive terrain height correlation system

The LASTAN wide field-of-view raster head-up display --- Low Altitude Navigation and Targeting IR for Night

Tracking of low-altitude targets by a combined I/R-head radar system

A simulator assessment of a wide field of view head-up display for presenting a FLIR sensor image during low level navigation and ground attack missions

Detection of obstacles by low flying aircraft --- using CO2 laser; mathematical model

Progress on low altitude cloud scanning research

Pave Hawk aided integrated strike avionics system

Adaptive multifunction sensor concept for air-ground missions

Sat model for helicopter simulation of low speed, low altitude and steeply descending flight

**LOW ASPECT RATIO**

Einspann mass sizing of a large low-aspect ratio airframe for flutter-free performance

**LOW ASPECT RATIO WINGS**

DELTAS WINGS

TRAPEZOIDAL WINGS

An experimental study of separated flow on a finite wing

Analysis of small-aspect-ratio lifting surfaces in ground effect
Detached flow past V-shaped low-aspect-ratio wings
An asymptotic theory of separated flow past low-aspect-ratio wings
Aerodynamic performance of slender wings with separated flow [NASA-CR-165768]
Approximate method for predicting supersonic normal force coefficient very-low-aspect-ratio lifting surfaces [AD-A1117770]
Prediction of wing side-edge suction forces and maximum induced lift
Recent applications of the transonic wing analysis computer code, THING [NASA-TM-842683]
LOW COST
Low cost programmable multifunctional facility [AIAA 82-2229]
A concept for a high-accuracy, low-cost accelerometer
Riassa cost performance monitoring of turboshaft engines
Welding for low-cost advanced titanium aircraft structures
Low cost aircrew training devices
LOW DENSITY MATERIALS
Evaluation of three percent aqueous Pill Fire Extinguishing Foam (AFFF) concentrates as fire fighting agents
Low-aspect-ratio wings
LOW FREQUENCIES
ST very low frequencies
LOW FREQUENCY RANGES
Model helicopter rotor low frequency broadband noise
LOW GRAVITY
E REDUCED GRAVITY
LOW LATITUDES
U TROPICAL REGIONS
U LEVEL TURBULENCE
The detection of low level wind shear. II
LOW MASS
U MASS
LOW NOISE
On the design and test of a low noise propeller [NASA-CR-165938]
LOW PASS FILTERS
Real-time digital filtering test in the S3 continuous wind tunnel at Nodana
Application of Kalman filtering techniques to aerodynamic derivatives for a helicopter
Real-time digital filtering test in the S3 continuous wind tunnel at Nodana
LOW PRESSURE
The CF6 jet engine performance improvement: Low pressure turbine active clearance control
NASA-CR-165575
Energy efficient engine: Turbine transition duct model technology report [NASA-CR-167996]
LOW PRESSURE CHAMBERS
U VACUUM CHAMBERS
LOW SPEED
A cost effective method for the control of roll due to side slip on a low speed aircraft [NASA-Paper 82-2422]
Can low-speed jet noise be predicted
Low-speed aerodynamic characteristics of wings with sweep discontinuities
Effects of intake geometry on circular pitot intake performance at zero and low forward speeds
Low-speed aerodynamic performance of a high-aspect-ratio supercritical-wing transport model equipped with full-span slat and part-span double-slotted flaps [NASA-TP-1590]
A versatile data acquisition system for a low speed wind tunnel [AD-A1062659]
A transnational velocity command system for VTOL low speed flight [NASA-TM-84215]
Thrust-induced effects on low-speed aerodynamics of fighter aircraft — Langley 4- by 7-meter tunnel [NASA-TM-832277]
Math modeling for helicopter simulation of low speed, low altitude and steeply descending flight [NASA-CR-166385]
LOW SPEED STABILITY
Low-speed characteristics of a fighter-type configuration at high angles-of-attack and sideslip
Effects of vortex flaps on the low-speed aerodynamic characteristics of an arrow wing
Wind-tunnel results for a modified 17-percent-thick low-speed airfoil section [NASA-FP-1919]
Stability and flutter analysis of turbine blades at low speed
LOW SPEED WIND TUNNELS
AT SUBSONIC WIND TUNNELS
On low-speed wind tunnels with deformable boundaries
On evaluating the influence of local disturbances of flow over trailing edge and leading edge flaps from the data of wind tunnel tests of a rectangular wing segment
A large-scale investigation of engine influence on inlet performance at angle-of-attack [AIAA PAPER 82-2481]
The German-Dutch wind tunnel as aerodynamic experimental installation
Wind tunnel investigations for the flat spin of a low-aspect-ratio wings
Experimental studies of the Eppler 61 airfoil at low Reynolds numbers
Experimental study of oscillating-wing propulsion [NASA-Paper 82-0345]
Development and trial of a rotary balance for the 3 m low-speed wind tunnels in the Federal Republic of Germany
Wind tunnel investigations for the flat spin of slender bodies at high angles of attack [AIAA PAPER 82-0054]
Experimental studies of the Eppler 61 airfoil at low Reynolds numbers [AIAA PAPER 82-19796]
Experiment study of oscillating-wing propulsion [NASA-Paper 82-26514]
LOW TEMPERATURE
Additional experiments on flowability improvements of aviation fuels at low temperatures, volume 2 [NASA-CR-167912]
LOW TEMPERATURE ENVIROMENTS
Experimental study of fuel heating at low temperature [NASA-CR-165391]
LOW TEMPERATURE TECHNICAL
The low temperature properties of aviation fuels [AIAA PAPER 82-67-48]
LOW THRUST
Comment on 'Optimal control via mathematical programming' [NASA-Paper 82-31125]
LOW THRUST PROPULSION

LOW THRUST PROPULSION
MT SOLAR ELECTRIC AD-PROPULSION
MT SOLAR PROPULSION
LOW VELOCITY
LOW SPEED
LOW VISIBILITY
A tower approach to slant visual range observation and prediction

LOWER ATMOSPHERE
MT TROPOSPHERE

LUBRICANT TESTS
Determination of the flammability characteristics of aerospace hydraulic fluids
Development of the automated AFAPL engine simulator test for lubricant evaluation

LUBRICANTS
MT LUBRICATING OILS
Trends in aviation fuels and lubricants;
Proceedings of the West Coast International
Meeting, Seattle, WA, August 3-6, 1981
The history of aviation turbine lubricants
Lubricant effects on efficiency of a helicopter transmission
Turbine engine lubricant reclamation

LUBRICATING OILS
Optimization of requirements on the putting-prevention properties of turbojet-engine oils
Effects of ultra-clean and centrifugal filtration on rolling-element bearing life
A history of aircraft piston engine lubricants
Monitoring engine wear by oil analysis
Cost of ownership advantages with a shared oil system
The effect of journal misalignment on the oil-film forces generated in a squeeze-film damper
Determination of antioxidant content in aviation oils using thin-layer chromatography
Antioxidants for synthetic oils
Corrosion inhibiting engine oils

LUBRICATION
An alternate test procedure to qualify future fuels for Navy aircraft
Lubrication breakdown between gear teeth

LUGER BAES
U PLASTIC DEFORMATION
U FIELD POINT

LUGS
Fatigue life of lugs under service loading - Test results and predictions
Integration analyses of surface-flawed aircraft attachment lugs - A new, inexpensive, 3-D alternating method

LIGHTING AREAS
U FORESTS
LUMINAIRES
MT AIRPORT LIGHTS
MT FLASH LAMPS
MT HIGHWAY LIGHTS

LUMINENCES
Optical properties of airfield lighting fixtures of the Royal Netherlands Airforce. Part 2: Intensity measurements

LOW INTENSITY
MT LUMINANCES

M WINGS
U VARIABLE SWEEP WINGS
MACH
U CRATES
MACH NUMBER
Symmetric flow characteristics of thin rectangular wings

MAKES

MEASUREMENTS
Measurements of a three-dimensional boundary layer on a sharp cone at Mach 3
History of the sweepback wing
In-flight acoustic results from an advanced-design propulsion at Mach numbers to 0.8
Increased capabilities of the Langley Mach 7 Scramjet Test Facility
On the performance prediction of a centrifugal compressor scaled up
Development and application of a performance prediction method for straight rectangular diffuser
Flight-determined correction terms for angle of attack and sideslip
The effect of heat transfer on three-dimensional spatial stability and transition of flat plate boundary layer at Mach 3
Studies of air inlets at Reynolds numbers comparable to flight in OHRA's F1 and SINA wind tunnels
Airframe-propulsion system aerodynamic interference predictions at high transonic Mach numbers including off-design engine airflow effects
Experimental determination of flow-interference effects of wing-mounted, two-dimensional, full-capture propulsion nozzles at close proximity to a vehicle body at a Mach number of 6
On the aerodynamics of windblast
Aeropropulsive characteristics of Mach numbers up to 2.2 of axisymmetric and nonaxisymmetric nozzles installed on an F-16 model
On a sharp cone at Mach 3
Wings

METEOROLOGY

MEASUREMENTS

MICROWAVE MEASUREMENTS

MACH NUMBER

MACH REJECTION
Rack reflection of a shock wave from an inclined wall

MACHINE
U SERVICE LIFE
MACHINE STORAGE
U COMPUTER STORAGE DEVICES
MACHINE TOOLS
Tool use in cutting operations involving integral structural components in aircraft construction

MACHINING
MT CHEMICAL MACHINING
MT ELECTROCHEMICAL MACHINING
MACELAIS VISION
U VISION
MAGNETIC ANOMALIES
Magnetic anomalies as a reference for ground-speed
<table>
<thead>
<tr>
<th>SUBJECT INDEX</th>
<th>MAPPING</th>
</tr>
</thead>
<tbody>
<tr>
<td>A preliminary analysis of TP-400/600 jet engine rework data in support of the NPR system implementation at NAB Alameda</td>
<td>MAHMO SPACECRAFT</td>
</tr>
<tr>
<td>Aircraft thrust/power management can pare defense fuel, reduce engine maintenance costs and improve readiness</td>
<td>NT AEROSPACEPLANES</td>
</tr>
<tr>
<td>MANAGEMENT SYSTEMS</td>
<td>NT SPACE SHUTTLES</td>
</tr>
<tr>
<td>NT MANAGEMENT INFORMATION SYSTEMS</td>
<td>MANUAL CONTROL</td>
</tr>
<tr>
<td>Fuel efficient flight profiles in an ATC flow management environment</td>
<td>NT VISUAL CONTROL</td>
</tr>
<tr>
<td>Air Traffic Flow Management and Air Traffic Flow Control</td>
<td>Improving the MLS through enhanced cockpit displays</td>
</tr>
<tr>
<td>Future terminal area systems</td>
<td>The effects of the delays on systems subject to manual control</td>
</tr>
<tr>
<td>MANEUVERABILITY</td>
<td>Control law design for transport aircraft flight tasks</td>
</tr>
<tr>
<td>C-Sr unsurfaced taxi and off-load demonstrations</td>
<td>An investigation of multi-arms isometric side-arm controllers in a variable stability helicopter</td>
</tr>
<tr>
<td>Use of a helmet-mounted matrix display for presenting energy maneuverability information during simulated close combat</td>
<td>Ground-based flight control system for A-10 aircraft: Pilot performance and simulator cue effects</td>
</tr>
<tr>
<td>Maneuver load control for the reduction of design loads and improvement of the maneuverability of modern fighter aircraft</td>
<td>Manual reversion flight control system for A-10 aircraft: Pilot performance and simulator cue effects</td>
</tr>
<tr>
<td>The armed helicopter in air to air missions</td>
<td>A control model for maneuvering flight for application to a computer-flight testing program</td>
</tr>
<tr>
<td>A control model for maneuvering flight for application to a computer-flight testing program</td>
<td>Preliminary investigations into the addition of auxiliary longitudinal thrust on helicopter stability</td>
</tr>
<tr>
<td>Preliminary investigations into the addition of auxiliary longitudinal thrust on helicopter stability</td>
<td>Optimization of thrust algorithm calibration for a computing system (TCS) for thrust the NASA Highly Maneuverable Aircraft Technology (HMAT) vehicle’s propulsion system</td>
</tr>
<tr>
<td>The development of cryogenic wind tunnels and their application to maneuvering aircraft technology</td>
<td>NT AEROSPACEPLANES</td>
</tr>
<tr>
<td>State of the art and recent perspectives on the study of the loss of control and spin</td>
<td>NT SPACE SHUTTLES</td>
</tr>
<tr>
<td>Aerelastic tailoring for control and performance: Are requirements compatible?</td>
<td>MANUAL CONTROL</td>
</tr>
<tr>
<td>Tail configurations for highly maneuverable combat aircraft</td>
<td>NT VISUAL CONTROL</td>
</tr>
<tr>
<td>The study of combat aircraft maneuverability by air to air combat simulation</td>
<td>Improving the MLS through enhanced cockpit displays</td>
</tr>
<tr>
<td>Helicopter Handling Qualities</td>
<td>The effects of the delays on systems subject to manual control</td>
</tr>
<tr>
<td>Influence of maneuverability on helicopter combat effectiveness</td>
<td>Control law design for transport aircraft flight tasks</td>
</tr>
<tr>
<td>Supercritical maneuvering fighter configuration</td>
<td>An investigation of multi-arms isometric side-arm controllers in a variable stability helicopter</td>
</tr>
<tr>
<td>Wind-tunnel investigation at Mach numbers of 0.60 to 0.95</td>
<td>Ground-based flight control system for A-10 aircraft: Pilot performance and simulator cue effects</td>
</tr>
<tr>
<td>MAHMO SPACECRAFT</td>
<td>Manual reversion flight control system for A-10 aircraft: Pilot performance and simulator cue effects</td>
</tr>
<tr>
<td>BALLISTIC MISSILES</td>
<td>A control model for maneuvering flight for application to a computer-flight testing program</td>
</tr>
<tr>
<td>VTOL AIRCRAFT</td>
<td>Preliminary investigations into the addition of auxiliary longitudinal thrust on helicopter stability</td>
</tr>
<tr>
<td>VT FPSHIFTING</td>
<td>Optimization of thrust algorithm calibration for a computing system (TCS) for thrust the NASA Highly Maneuverable Aircraft Technology (HMAT) vehicle’s propulsion system</td>
</tr>
<tr>
<td>VT MODELING</td>
<td>NT AEROSPACEPLANES</td>
</tr>
<tr>
<td>VT STRATEGIC ACTIONS</td>
<td>NT SPACE SHUTTLES</td>
</tr>
<tr>
<td>VT SIDE-SLIP</td>
<td>MANUAL CONTROL</td>
</tr>
<tr>
<td>VT RIFFLE</td>
<td>NT VISUAL CONTROL</td>
</tr>
<tr>
<td>Active clearance control system for a turbomachine</td>
<td>Improving the MLS through enhanced cockpit displays</td>
</tr>
<tr>
<td>JAN-5247-02-11238-1</td>
<td>The effects of the delays on systems subject to manual control</td>
</tr>
<tr>
<td>JAN-5247-02-11238-1</td>
<td>Control law design for transport aircraft flight tasks</td>
</tr>
<tr>
<td>JAN-5247-02-11238-1</td>
<td>An investigation of multi-arms isometric side-arm controllers in a variable stability helicopter</td>
</tr>
<tr>
<td>JAN-5247-02-11238-1</td>
<td>Ground-based flight control system for A-10 aircraft: Pilot performance and simulator cue effects</td>
</tr>
</tbody>
</table>

A-293
Modal characteristics of rotor blades: Finite element approach and measurement by ground vibration test

MILL DISTRIBUTION
Experimental determination of parachute apparent mass and its significance in predicting dynamic stability

MILL FLOW
An automated technique for improving modal test-analysis correlation

MILL FLOW RATE
Two-dimensional apparent masses for cross-flow sections of wing-store configurations

MILL FLOW RATE
Design and testing of a new double labyrinth seal

MILL PRODUCTION
Good electro-optical and mass spectrometer

MILL PRODUCTION
Control electronics for air-borne quadrupole ion mass spectrometer

MILL PRODUCTION
Analysis and environmental fate of Air Force centrifugal compressor performance testing

MILL PRODUCTION
American and European air-borne quadrupole ion mass spectrometers

MILL PRODUCTION
U.S. aerospace begins update effort

MILL PRODUCTION
Two-dimensional apparent masses for cross-flow sections of wing-store configurations

MILL PRODUCTION
Two-dimensional apparent masses for cross-flow sections of wing-store configurations

MILL PRODUCTION
American and European air-borne quadrupole ion mass spectrometers

MILL PRODUCTION
Control electronics for air-borne quadrupole ion mass spectrometer

MILL PRODUCTION
Analysis and environmental fate of Air Force centrifugal compressor performance testing

MILL PRODUCTION
American and European air-borne quadrupole ion mass spectrometers
Mathematical models of rotor strength and optimization in computer-aided design
Mathematical model for the maintenance program of modern jet aircraft — crack detection; inspection intervals
A mathematical approach to the stabilization of flight vehicle parachute systems — mathematical models
Investigation of the structural degradation and personnel hazards resulting from helicopter composite structures exposed to fires and/or explosions
A real-time Pegasus propulsion system model for VSTOL piloted simulation evaluation
A new approach to modeling the cost of ownership for aircraft systems
Finite difference computation of the conical flow field over a delta wing
Parametric criteria and impact on design trends
Volumetric pattern prediction of antennas on aircraft using the geometrical theory of diffraction
Transonic perturbation analysis of wing-fuselage-nacelle-pylon configurations with powered jet exhausts
Aircraft noise prediction program theoretical manual, part 2
A theoretical study of the impact of aircraft wake vortexes on runways in the final approach area of Dusseldorf airport
Prediction of aircraft handling qualities using analytical models of the human pilot
An algorithm for calculating the compliance matrices of aircraft structures by the substructure method as applied to aeroelasticity problems

Linear decentralized systems with strict spacial structure --- for twin lift helicopters

The automatic matrix force method and techniques for handling more complex computations with given computer capacity

MATRIX STRESS CALCULATION

U MATH 

MAXIMUM LIKELIHOOD ESTIMATES

On matching the systems identification technique to the particular application --- in evaluating flight test data

Maximum likelihood failure detection of aircraft flight control sensors

System identification of nonlinear aerodynamic models

Modeling of a tracking radar in terms of a nonlinear second order phase lock loop

MATHIEU EQUATION

antenna theory and design --- Book

MCDONELLS AIRCRAFT

CTOL 9 AIRCRAFT

DC 10 AIRCRAFT

F-4 AIRCRAFT

DOUGLAS AIRCRAFT

DC 9 AIRCRAFT

DC 8 AIRCRAFT

DC 10 AIRCRAFT

F-4 AIRCRAFT

F-16 AIRCRAFT

NEAR TIRE BETWEEN FAILURES

U EPSF

MEASURE AND INTEGRATION

U NUMERICAL INTEGRATION

U RUNGE-KUTTA METHOD

WEIGHTING FUNCTIONS

Optimization of measurements in the state estimation of systems using the least squares method

MEASURE THEORY

U MEASUREMENT

MEASUREMENT

Application of a pilot control strategy identification technique to a joint FAA/NASA ground based simulation of head up displays for CTOL aircraft

MEASURING

U MEASUREMENT

MEASUREMENT INSTRUMENTS

U ACCELEROMETERS

U ALTIMETERS

U ANEMOMETERS

U APPROACH INDICATORS

U ATTITUDE INDICATORS

U BALLOON-BORNE INSTRUMENTS

U BATHYMETERS

U CLOCKS

U DICE RADIODIODES

U DISTANCE MEASURING EQUIPMENT

U DYNAMETERS

U ELECTROSTATIC PROBES

U ENGINE MONITORING INSTRUMENTS

U FLARE CALIBRATORS

U FLIGHT LOAD RECORDERS

U FLIGHT RECORDER

U FLUID DETECTORS

U FLOW DIRECTION INDICATORS

U FLOWMETERS

U FUEL GAUGES

U GAMMA RAY SPECTROMETERS

U GEOPHYSICISTS

U HOT-FILM ANEMOMETERS

U HOT-WIRE FLUIDMETERS

U INDICATING INSTRUMENTS

U INFRARED DETECTORS
SUBJECT INDEX

Programs in protective coatings for aircraft gas turbines : A review of NASA sponsored research  
[NASA-TP-82740] p0090 $82-12216

Electroforming of space and aircraft structures  
[ASBE PAPEB 82-GT-96] D0424 A82-35338

MATERIALS

CUTTING

Tool use in cutting operations involving integral structural components in aircraft construction  
p0324 $82-28873

MATERIAL FATIGUE

Fatigue substantiation of non-linear structures  
p0013 $82-11226

A note on fatal aircraft accidents involving metal fatigue  
p0014 $82-11900

Crack edge instability - A criterion for safe crack propagation limit in thin sheets  
p0110 $82-17243

Authors and models for predicting fatigue crack growth under random loading  
--- Book

A crash-closure model for predicting fatigue crack growth under spectrum loading  
p0166 $82-20506

Low-frequency eddy current inspection of aircraft structure  
p0163 $82-21900

The effect of temperature-time factors on the fatigue damage and endurance characteristics of gas-turbine-engine rotor blades  
p0295 $82-28019

Crack edge instability - A criterion for safe crack propagation limit in thin sheets  
p0325 $82-28543

A review and assessment of fatigue crack growth rate relationships for metallic airframe materials  
p0391 $82-34879

Fatigue behavior of welded joints  
p0518 $82-41115

A fatigue crack growth theory based on strain energy density factor  
p0552 $82-43742

Some case studies and the significance of fatigue thresholds  
--- aircraft components

Evaluation of cast titanium alloy compressor components, volume 1  
[AD-A111431] p0371 $82-23561

Comparisons between probability of detection, sensitivity, and accuracy of five nondestructive inspection methods  
--- high strength steel aircraft undercarriage retraction cylinders

Evaluation of realistic constitutive models for nonlinear structural analysis  
--- for aircraft turbine engines

[NASA-TP-82845] p0399 $82-24502

METAL FIBERS

High-frequency monitoring of surface layers of metals  
p0221 $82-23603

METAL FINISHING

The use of metal finishing in aircraft fuel systems  
p0088 $82-12077

METAL FOILS

Metal honeycomb to porous wireform substrate diffusion bond evaluation  
[NASA-TE-82793] p0259 $82-16612

METAL FORGING

MATERIALS

FORGING

FORGING TECHNIQUES

METAL WORKING

METAL HALIDES

SPECIAL HALIDES

SPECIAL ALKALI HALIDES

SPECIAL CHLORIDES

SPECIAL CHLORIDES

SPECIAL LINEAR JOINTS

SPECIAL SPOT WELDS

SPECIAL WELDED JOINTS

Sheet materials - Fabrication and joining  
--- for gas turbine engine components

Evaluation of sensitivity of ultrasonic detection of disbonds in graphite/epoxy to metal joints  
p0346 $82-37080

Selected furnace brazed components for the aerospace industry  
p0582 $82-46529

ARMETAL FOILS

Metal matrix composites

ARMETAL BOXED COMPOSITES

Formability of metallic materials  
--- 2000 A.D.; Proceedings of the Symposium, Chicago, IL, June 24, 25, 1980

Material flow and defect formation in forging an airfoil shape from metal-matrix composites  
p0385 $82-33998

Application of a new hybrid material  
--- SMALL/ in aircraft structures

Fuse design structure using advanced technology fiber reinforced composites  
p0513 $82-40975

High temperature composites. Status and future directions  
[NASA-TR-82929] p0559 $82-30336

METAL OXIDE SUPERCONDUCTORS

$ CHARGE COUPLING DEVICES

$ CHaos

METAL PARTICLES

$ METAL POWDER

Monitoring engine wear by oil analysis  
p0224 $82-24012

METAL PLATES

$ CTD analysis of airborne antennas radiating in the presence of lossy dielectric layers  
[NASA-CX-168770] p0357 $82-22398

METAL POWDER

Superclean superalloy powders by the rotating electrode process  
p0201 $82-12696

METAL SHEETS

The technology of sheet-metal stamping in the production of aircraft  
--- 2nd revised and enlarged edition/  
--- Russian book

Crack edge instability - A criterion for safe crack propagation limit in thin sheets  
p0380 $82-14998

Prediction of cyclic growth of cracks and debonds in aluminum sheets reinforced with boron/epoxy  
p0286 $82-27151

Sheet materials - Fabrication and joining  
--- for gas turbine engine components

Formability of metallic materials  
--- 2000 A.D.; Proceedings of the Symposium, Chicago, IL, June 24, 25, 1980

Formability of INCONEL alloy MA 956 - An oxide dispersion strengthened sheet alloy  
p0305 $82-33999

The promise of laminated metals in aircraft design  
p0506 $82-40903

METAL SURFACES

Impingement cooling of concave surfaces of turbine airfoils  
p0194 $82-18894

Gas turbine ceramic-coated-vane concept with convection-cooled porous metal core  
[NASA-TP-1942] p0134 $82-14090

Carbon fiber reinforced composite structures protected with metal surfaces against lightning strike damage  
[ASBE PAPEB 82-GT-96] D0424 A82-35338

METAL WELDING

WELDING

WELDING EQUIPMENT

WELDING REINFORCEMENT

WELDING COMPOSITES

WELDING WORKING

WELDING TECHNIQUES

WELDING

WELDING COMPOSITES

WELDING REINFORCEMENT

WELDING WORKING

The technology of sheet-metal stamping in the production of aircraft  
--- 2nd revised and enlarged edition/  
--- Russian book

SFP of high strength aluminum structures  
--- superplastic forming for complex aircraft structures

Formability of metallic materials  
--- 2000 A.D.; Proceedings of the Symposium, Chicago, IL, June 24, 25, 1980

Formability of INCONEL alloy MA 956 - An oxide dispersion strengthened sheet alloy  
p0385 $82-33999

Net shape components for small gas turbine engines  
p0524 $82-35338

A-299
METAL-METAL BONDING

Structural integrity of an adhesively bonded aircraft fuselage

METAL-NITRIDE-OXIDE-SILICON

Solid-state flight accident recorder

Solid state crash survivable flight data recorders for mishap investigation

METALLIZING

Electrical ground testing of aircraft antistatic protection

METALLIDS

MT SILICON

MT ALUMINUM

MT ALUMINUM COATTINGS

MT CHROMIUM

MT COBALT

MT DEOLF COATTINGS

MT PALLADIUM

MT SABREX

MT TANTALUM

MT ZIRCONIUM

MT TITANIUM

MT舉RANIUM

Strategic materials - Technological trends

Critical metals conservation, recycling and substitution
[AGABD-4-493]
[AD-A112100]
[AD-A113809]

METAL CRATERS

U CRATES

HETEROGENEITY CONCENTRATION TESTS

U CONCENTRATION TESTS

U MECHANICAL PROPERTIES

RHEOLOGICAL FLIGHT

Aircraft measurements of icing in supercooled and water droplet/ice crystal clouds

RHEOLOGICAL INSTRUMENTS

MT RAIN GAGES

MT WEATHER DATA RECORDERS

MT WIND VAMES

Instruments and installations for meteorological measurements at airports — Russian book

Automated Low-cost Weather Observation System

[AD-A117047]

[AD-A112303]

RHEOLOGICAL PARAMETERS

Rapid extraction of layer relative humidity, geopotential thickness, and atmospheric stability from satellite soundings radiometer data

Triggered lightning — resulting from aircraft atmospheric electricity interactions

Aviation meteorology — Russian book

Metereological aspects of North Atlantic flight tracks - Some interim results of the study

Aspects of clear air turbulence severity forecasting and detection

Bnotocraft icing: Status and prospects

METEOROLOGY

Operational environment, meteorological conditions and weather forecasting

Weather deterioration models applied to alternate airport criteria

Meteorological impact on aviation fuel efficiency

Meteorological inputs to advanced simulators

Meteorology impact on future aircraft design

Meteorology impact on ITC system design

Prototype Regional Observation and Forecast System

METEOROLOGICAL RADIATION

Applications of conventional and Doppler radars for aviation safety

Description of the meteorological research radar system aboard NOAA/Research Facilities Center

Air Force regional weather radar vs. - 3D aircraft

Commercial airborne weather radar technology

X-band vs. C-band aircraft radar - The relative effects of beamwidth and attenuation in severe storm situations

Scanning strategies for air traffic control radars

Demonstration of radar reflector detection and ground clutter suppression using airborne weather and mapping radar

Development of a clear-air radar to detect meteorological hazards at airports

The Joint Airport Weather Studies Project

Evaluation of the F/A-18 radar weather data device

Evaluation of a meteorological airborne pulse Doppler radar

The Joint Airport Weather Radar System (JAWRS)

Remote vision and aircraft collision avoidance

Meteorological impact on ATC system design

Meteorological impact on future aircraft design

Meteorological impact on ITC system design

Prototype Regional Observation and Forecast System

Briefs of fatal accidents involving weather as a cause/factor, U.S. general aviation, 1979

Response of cloud microphysical instruments to aircraft icing conditions

A survey of melting layer research

Evaluation of a meteorological airborne pulse Doppler radar

The Maneuverable Atmospheric Probe (MAP), a remotely piloted vehicle

APPLICATIONS OF METEOROLOGICAL RADIATION

Applications of conventional and Doppler radars for aviation safety

Description of the meteorological research radar system aboard NOAA/Research Facilities Center

Air Force regional weather radar vs. - 3D aircraft

Commercial airborne weather radar technology

X-band vs. C-band aircraft radar - The relative effects of beamwidth and attenuation in severe storm situations

Scanning strategies for air traffic control radars

Demonstration of radar reflector detection and ground clutter suppression using airborne weather and mapping radar

Development of a clear-air radar to detect meteorological hazards at airports

The Joint Airport Weather Studies Project

Evaluation of the F/A-18 radar weather data device

Evaluation of a meteorological airborne pulse Doppler radar

The Joint Airport Weather Radar System (JAWRS)

Remote vision and aircraft collision avoidance

Meteorological impact on ATC system design

Meteorological impact on future aircraft design

Meteorological impact on ITC system design

Prototype Regional Observation and Forecast System

Briefs of fatal accidents involving weather as a cause/factor, U.S. general aviation, 1979

Response of cloud microphysical instruments to aircraft icing conditions

A survey of melting layer research

Evaluation of a meteorological airborne pulse Doppler radar

The Maneuverable Atmospheric Probe (MAP), a remotely piloted vehicle

APPLICATIONS OF METEOROLOGICAL RADIATION

Applications of conventional and Doppler radars for aviation safety

Description of the meteorological research radar system aboard NOAA/Research Facilities Center

Air Force regional weather radar vs. - 3D aircraft

Commercial airborne weather radar technology

X-band vs. C-band aircraft radar - The relative effects of beamwidth and attenuation in severe storm situations

Scanning strategies for air traffic control radars

Demonstration of radar reflector detection and ground clutter suppression using airborne weather and mapping radar

Development of a clear-air radar to detect meteorological hazards at airports

The Joint Airport Weather Studies Project

Evaluation of the F/A-18 radar weather data device

Evaluation of a meteorological airborne pulse Doppler radar

The Joint Airport Weather Radar System (JAWRS)

Remote vision and aircraft collision avoidance

Meteorological impact on ATC system design

Meteorological impact on future aircraft design

Meteorological impact on ITC system design

Prototype Regional Observation and Forecast System

Briefs of fatal accidents involving weather as a cause/factor, U.S. general aviation, 1979

Response of cloud microphysical instruments to aircraft icing conditions

A survey of melting layer research

Evaluation of a meteorological airborne pulse Doppler radar

The Maneuverable Atmospheric Probe (MAP), a remotely piloted vehicle

APPLICATIONS OF METEOROLOGICAL RADIATION

Applications of conventional and Doppler radars for aviation safety

Description of the meteorological research radar system aboard NOAA/Research Facilities Center

Air Force regional weather radar vs. - 3D aircraft

Commercial airborne weather radar technology

X-band vs. C-band aircraft radar - The relative effects of beamwidth and attenuation in severe storm situations

Scanning strategies for air traffic control radars

Demonstration of radar reflector detection and ground clutter suppression using airborne weather and mapping radar

Development of a clear-air radar to detect meteorological hazards at airports

The Joint Airport Weather Studies Project

Evaluation of the F/A-18 radar weather data device

Evaluation of a meteorological airborne pulse Doppler radar

The Joint Airport Weather Radar System (JAWRS)

Remote vision and aircraft collision avoidance

Meteorological impact on ATC system design

Meteorological impact on future aircraft design

Meteorological impact on ITC system design

Prototype Regional Observation and Forecast System

Briefs of fatal accidents involving weather as a cause/factor, U.S. general aviation, 1979

Response of cloud microphysical instruments to aircraft icing conditions

A survey of melting layer research

Evaluation of a meteorological airborne pulse Doppler radar

The Maneuverable Atmospheric Probe (MAP), a remotely piloted vehicle

APPLICATIONS OF METEOROLOGICAL RADIATION

Applications of conventional and Doppler radars for aviation safety

Description of the meteorological research radar system aboard NOAA/Research Facilities Center

Air Force regional weather radar vs. - 3D aircraft

Commercial airborne weather radar technology

X-band vs. C-band aircraft radar - The relative effects of beamwidth and attenuation in severe storm situations

Scanning strategies for air traffic control radars

Demonstration of radar reflector detection and ground clutter suppression using airborne weather and mapping radar

Development of a clear-air radar to detect meteorological hazards at airports

The Joint Airport Weather Studies Project

Evaluation of the F/A-18 radar weather data device

Evaluation of a meteorological airborne pulse Doppler radar

The Joint Airport Weather Radar System (JAWRS)

Remote vision and aircraft collision avoidance

Meteorological impact on ATC system design

Meteorological impact on future aircraft design

Meteorological impact on ITC system design

Prototype Regional Observation and Forecast System

Briefs of fatal accidents involving weather as a cause/factor, U.S. general aviation, 1979

Response of cloud microphysical instruments to aircraft icing conditions

A survey of melting layer research

Evaluation of a meteorological airborne pulse Doppler radar

The Maneuverable Atmospheric Probe (MAP), a remotely piloted vehicle

APPLICATIONS OF METEOROLOGICAL RADIATION

Applications of conventional and Doppler radars for aviation safety

Description of the meteorological research radar system aboard NOAA/Research Facilities Center

Air Force regional weather radar vs. - 3D aircraft

Commercial airborne weather radar technology

X-band vs. C-band aircraft radar - The relative effects of beamwidth and attenuation in severe storm situations

Scanning strategies for air traffic control radars

Demonstration of radar reflector detection and ground clutter suppression using airborne weather and mapping radar

Development of a clear-air radar to detect meteorological hazards at airports

The Joint Airport Weather Studies Project

Evaluation of the F/A-18 radar weather data device

Evaluation of a meteorological airborne pulse Doppler radar

The Joint Airport Weather Radar System (JAWRS)

Remote vision and aircraft collision avoidance

Meteorological impact on ATC system design

Meteorological impact on future aircraft design

Meteorological impact on ITC system design

Prototype Regional Observation and Forecast System

Briefs of fatal accidents involving weather as a cause/factor, U.S. general aviation, 1979

Response of cloud microphysical instruments to aircraft icing conditions

A survey of melting layer research

Evaluation of a meteorological airborne pulse Doppler radar

The Maneuverable Atmospheric Probe (MAP), a remotely piloted vehicle

APPLICATIONS OF METEOROLOGICAL RADIATION

Applications of conventional and Doppler radars for aviation safety

Description of the meteorological research radar system aboard NOAA/Research Facilities Center

Air Force regional weather radar vs. - 3D aircraft

Commercial airborne weather radar technology

X-band vs. C-band aircraft radar - The relative effects of beamwidth and attenuation in severe storm situations

Scanning strategies for air traffic control radars

Demonstration of radar reflector detection and ground clutter suppression using airborne weather and mapping radar

Development of a clear-air radar to detect meteorological hazards at airports

The Joint Airport Weather Studies Project

Evaluation of the F/A-18 radar weather data device

Evaluation of a meteorological airborne pulse Doppler radar

The Joint Airport Weather Radar System (JAWRS)

Remote vision and aircraft collision avoidance

Meteorological impact on ATC system design

Meteorological impact on future aircraft design

Meteorological impact on ITC system design

Prototype Regional Observation and Forecast System

Briefs of fatal accidents involving weather as a cause/factor, U.S. general aviation, 1979

Response of cloud microphysical instruments to aircraft icing conditions

A survey of melting layer research

Evaluation of a meteorological airborne pulse Doppler radar

The Maneuverable Atmospheric Probe (MAP), a remotely piloted vehicle
Communicating critical weather information to pilots — (STEL) — [AIAA PAPER 82-0016] — p0265 A82-27082
Aviation meteorology — Russian book — [p0428 A82-36972]
The aviation route forecast /ARP/ program — An interactive system for pilot self-briefing — (of meteorological information) — p0553 A82-43821
Development and test of a tactical visibility sensor — [p0579 A82-45820]
The airplane manufacturer and meteorology — in prediction of weather effects on aircraft performance — p0579 A82-45821
Aircraft meteorological data relay /AMDAR/ — p0579 A82-45822
Aviation meteorology in the 1980’s — A trend forecast — [p0580 A82-45827]
The Center Weather Service Unit program /CWSU/ — for civil aviation — [p0580 A82-45828]
Weather support for helicopter operations in the Gulf of Mexico — p0580 A82-45829
The Aviation Route Forecast /ARP/ program — An interactive system for Pilot Self-Briefing — p0580 A82-45830
The U.S. real-time aviation weather information system — An alternative to standard general aviation weather briefing procedures — [p0580 A82-45834]
Columbus, Ohio, Voice response system demonstration and evaluation — [AD-1004760] — p0091 A82-12304
Automated Pilot Advisory System — [NASA-TN-73296] — p0140 A82-15027
Efficient transfer of weather information to the pilot in flight — [NASA-CP-1922] — p0591 A82-32363
METEOROLOGICAL STATIONS
U WEATHER STATIONS
METEOROLOGY
U LONG RANGE WEATHER FORECASTING
U NAVIGATIONAL METEOROLOGY
U MICROMETEOROLOGY
U STROPTIC METEOROLOGY
U WEATHER FORECASTING
METERS
U MEASURING INSTRUMENTS
U NITRIC ACETATE RESINS
U NITRATES
NITRATES
Nor formation in flat, laminar, opposed jet — methane diffusion flames — — p0326 A82-28660
METHOD OF CHARACTERISTICS
Three dimensional flow investigation with a method of characteristics in the inlet region and the blade-to-blade channels of supersonic axial compressors — [NASA-TT-637] — p0068 A82-12078
A method of characteristics solution for a finite oscillating supersonic cascade with thickness effects — p0194 A82-15090
METEOROLOGY
Combining analysis with optimization at Langley Research Center. An evolutionary process — [NASA-TN-80472] — p0400 A82-24846
METHODS
U METEOROLOGY
U PROCEDURES
METEOROLOGY
Automatic checking of measuring units in the Madden wind tunnels — 
The micro revolution comes to civil air transport

PROX - The interface for engine data to AIDS --- propulsion multiplexer in aircraft integrated flight systems

[IAIA PAPER 82-1172] p0417 AB-35022

An approach to software for high integrity applications --- in aircraft gas turbine engine control

[ASME PAPER 82-GT-251] p0429 AB-35430

A modular automated approach to airfield weather systems

p0579 AB-45813

Buggyzed minicomputer hardware and software topics, 1981: Proceedings of the 9th BLRNL-SPEC


On-board computer progress in development of a 310 flight testing program

p0138 AB-14833

Integration of a digital air data computer into the test aircraft HFB-320

[DFVL-BITT-81-09] p0141 AB-15038

Advanced recorder design and development

FBB-81-244105) p0193 AB-16385

Integration of controls and displays in U.S. Army helicopter cockpits

[AD-A105594] p0306 AB-20191

Joint University Program Air for Transportation Research, 1981

[NASA-CR-23229] p0405 AB-26199

PPOD Programmable pilot-oriented display --- air navigation

p0405 AB-26201

Hydraulic Universal Display Processor System (HUDPS)

[AD-A114428] p0525 AB-28294

Pilot opinions of sampling effects in lateral directional control

p0563 AB-30849

Design of a microprocessor-controlled linkage for simulators applications

[AD-A115421] p0568 AB-30956

MICROPROGRAMMING

Implementation of the recommendations made on the technical report titled analysis of advanced simulator, and pilot training

[AD-A106779] p0192 AB-16094

MICROSCALES

U Micro fabrics

MICROSTRIP TRANSMISSION LINES

Advanced microstrip antenna developments. Volume 2: Microstrip GPS antennas for general aviation aircraft

[AD-A112620] p0477 AB-27588

MICROSTRUCTURE

Mechanical and metallurgical considerations in extending the life of turbine blades

p0384 AB-33855

MICROWAVE ANTENNAS

N Microstrip antennas

MICROWAVE CIRCUITS

An accurate Doppler navigator with microwave simplicity

p0435 AB-37037

MICROWAVE COUPLING

M Coupling Circuits

MICROWAVE EQUIPMENT

Microwave equipment

MICROWAVE RAMIOTERS

M Slot antennas

MICROWAVE RADIOSECTORS

M Digital microwave phase-locked loops

p0066 AB-14696

A Microwave Ice Accretion Measurement Instrument - AIRMAIL

[IAIA PAPER 82-02865] p0118 AB-17875

Microwave systems for radar guided missiles

p0150 AB-18936

Microwave ice prevention

p0445 AB-26203

MICROWAVE FREQUENCIES

M C band

MICROWAVE LANDING SYSTEMS

Improving the MLS through enhanced cockpit displays

p009 AB-10649

Joint Tactical Microwave Landing System /UTLSS/ airborne signal processing

p0048 AB-13471

Development of an MLS lateral autoland system with automatic path definition

[IAIA PAPER 81-1751] p0062 AB-13933

Computer-animated predictive displays for microwave landing approaches

p0082 AB-15016

Helical helicopter approaches with microwave landing system guidance

[IAIA PAPER 81-2654] p0109 AB-16914

MLS - A new generation landing guidance system in here

p0123 AB-18145

The DME-based Azimuth System /DAS/

p0123 AB-18146

Helicopter decelerated steep approach and landing to confined areas under instrument meteorological conditions

p0125 AB-18161

Development of a digital integrated automated landing system /DIALS/ for steep approach and landing

p0368 AB-20297

MLS flare low elevation angle guidance considerations

p0175 AB-20586

A Microwave Landing System simulation

p0220 AB-23332

An MLS with computer aided landing approach

[IAIA PAPER 82-1352] p0409 AB-39122

NASA/TFAHelicopter ATC simulation investigation of RHAV/MLS instrument approaches

p0501 AB-40535

Flight simulation studies on the feasibility of laterally segmented approaches in an MLS environment

p0509 AB-40941

R & M characteristics of a Microwave Landing System

p0545 AB-42216

Automation in the skies --- automatic air traffic control

p0584 AB-47224

MLS performance assessment, task 4. Volume 1: Evaluation procedures and equipment design

[AD-A105393] p0587 AB-12061

An MLS lateral approach and landing for a STOL airplane landing on an elevated STOLport

[NASA-CR-81330] p0135 AB-14101

Terminal area automatic navigation, guidance, and control research using the Microwave Landing System (MLS). Part 3: A comparison of waypoint guidance algorithms for RHAV/MLS transition

[NASA-CR-3512] p0180 AB-16600

Terminal area automatic navigation, guidance, and control research using the Microwave Landing System (MLS). Part 2: RHAV/MLS transition problems for aircraft

[NASA-CR-3511] p0200 AB-17142

An aircraft sensor fault tolerant system

[NASA-CR-168576] p0407 AB-25236

Life-cycle-cost analysis of the microwave landing system ground and airborne systems

p049 AB-26266

Flight-test verification of a pictorial display for general aviation instrument approach


Microwave Landing System flare sub-system test

[AD-A107327] p0466 AB-27263

Terminal area automatic navigation, guidance, and control research using the Microwave Landing System (MLS). Part 4: Transition path reconstruction along a straight line path containing a glideslope change waypoint


Operational and functional requirements for the navigation system in terminal areas

[AD-A116127] p0568 AB-31318

L-band DME multipath environment in the Microwave Landing System (MLS) approach and landing region

[FAA-D-02-19] p0586 AB-32330

Federal radionavigation plan. Volume 3: Operations

p0123 AB-32334

Microwave radiometers

Airborne measurements with a sensitive high resolution 90 GHz radiometer

p0151 AB-18940

A study of potentially low cost millimetre-wave radiometric sensors

p0040 AB-13471

Development of an MLS lateral autoland system with automatic path definition

[IAIA PAPER 81-1751] p0062 AB-13933

Computer-animated predictive displays for microwave landing approaches

p0082 AB-15016

A Microwave Landing System simulation

p0220 AB-23332

A MLS with computer aided landing approach

[IAIA PAPER 82-1352] p0409 AB-39122

An MLS lateral approach and landing for a STOL airplane landing on an elevated STOLport

[NASA-CR-81330] p0135 AB-14101

Terminal area automatic navigation, guidance, and control research using the Microwave Landing System (MLS). Part 3: A comparison of waypoint guidance algorithms for RHAV/MLS transition

[NASA-CR-3512] p0180 AB-16600

Terminal area automatic navigation, guidance, and control research using the Microwave Landing System (MLS). Part 2: RHAV/MLS transition problems for aircraft

[NASA-CR-3511] p0200 AB-17142

An aircraft sensor fault tolerant system

[NASA-CR-168576] p0407 AB-25236

Life-cycle-cost analysis of the microwave landing system ground and airborne systems

p049 AB-26266

Flight-test verification of a pictorial display for general aviation instrument approach


Microwave Landing System flare sub-system test

[AD-A107327] p0466 AB-27263

Terminal area automatic navigation, guidance, and control research using the Microwave Landing System (MLS). Part 4: Transition path reconstruction along a straight line path containing a glideslope change waypoint


Operational and functional requirements for the navigation system in terminal areas

[AD-A116127] p0568 AB-31318

L-band DME multipath environment in the Microwave Landing System (MLS) approach and landing region

[FAA-D-02-19] p0586 AB-32330

Federal radionavigation plan. Volume 3: Operations
Future helicopter technology
An evaluation of several polymers for high density humidity PC coatings
ATE logistics in the United States Air Force
The United States Air Force Automated Vibration Diagnostics System /AVID/ for improved jet engine maintenance
VSTOLs - We can build them, but can we sell them?
A computerized system for the application of fracture tracking data to aircraft management for the C-5A military airlift transport
Implementing aircraft identification schemes by Advanced turboprop engines for long endurance combat survivability in the Advanced Technology Military aircraft and international policy
Durability and damage tolerance control plans for VSTOLE - He can build them, but can we sell them?
The United States Air Force intonated Vibration
Future helicopter technology
Investigation of functional commonality of JVX, what an opportunity Joint Services Practical aerodynamic problems - Military aircraft - The way ahead
U.S. Army remotely piloted vehicle program
A survey of U.S. Army helicopter main and tail rotor blade obstacle strikes
Quantification of helicopter vibration ride
High performance guidance - U.S. Army high performance guidance System (HPGS)
Survey of United States Navy long range anti-ship missile (LRASM)
Onboard IFF systems and the associated navigation problems
The impact of VCS on recent development in naval aviation
Advanced VCS systems - A contribution to the fight against clutter
Development of guidance, navigation, and control systems for VSTOL aircraft
Future helicopter technology
Investigation of functional commonality of JVX, what an opportunity Joint Services Practical aerodynamic problems - Military aircraft - The way ahead
U.S. Army remotely piloted vehicle program
A survey of U.S. Army helicopter main and tail rotor blade obstacle strikes
Quantification of helicopter vibration ride
High performance guidance - U.S. Army high performance guidance System (HPGS)
Survey of United States Navy long range anti-ship missile (LRASM)
Onboard IFF systems and the associated navigation problems
The impact of VCS on recent development in naval aviation
Advanced VCS systems - A contribution to the fight against clutter
Development of guidance, navigation, and control systems for VSTOL aircraft
MULTILAYER STRUCTURES
U LATTICES
MULTILAYER SYSTEMS
U CASCADE CONTROL
MULTI-MODE TRANSMISSION
Comparison of various elevation angle estimation techniques
An analysis of anti-jam communication requirements
in fading media
MULTI-PHASE FLOW
U TWO PHASE FLOW
irradiated emissions from turbofans with high aspect ratio nozzles
A mixed-flow cascade passage design procedure based on a power series expansion (ASME PAPER 80-GT-211)
Investigation of the interference effects of mixed flow long duct nacelles on a DC-10 wing (NASA-CR-159202)
MULTIPLE ACCESS
NT TIME DIVISION MULTIPLE ACCESS
Outline of a multiple-access communication network based on adaptive arrays
MULTIPLE TRANSMISSION
U MULTIPLE ACCESS
MULTIPLE ACCESS
NT TIME DIVISION MULTIPLE ACCESS
A polled contention multiplex system using MIL-STD-1553 protocol
Advanced fiber optics systems for avionics applications
Propulsion multiplexer /PMUX/ system - The missing link
Applications of a multiplexed GPS user set
Techniques for interfacing multiplex systems
F-A-18 tactical airborne computational subsystem
Data acquisition system for NASA LaRC impact dynamics research facility
MULTI-PURPOSE (COMPUTERS)
Airborne associative processor /ASPROP/ - for early warning radar surveillance, command, and control applications
Navigation task partitioning in distributed-processing avionics systems
Lockheed Airborne Data System - Distributed microcomputers provide on-board real-time analysis
A multiprocessor system for ATECS nosecone data processing
The design of a RPV ground station simulator
Tactical Airborne Distributed Computing and Networks
Electronic Warfare Avionics Integration Support Facility support processor
SUBJECT INDEX
[AD-111641] p0408 A82-25249
MULTISPECTRAL HARD SCANNERS
A system design for a multispectral sensor using two-dimensional solid-state imaging arrays
A field guide for scanner and photographic missions
MULTISPECTRAL PHOTOGRAPHY
NT COLOR INFRARED PHOTOGRAPHY
NT INFRARED PHOTOGRAPHY
MULTI-TURN TURBOMACHINERY
MULTI-VARIATE STATISTICAL ANALYSIS
NT COUPLING NT DISCRETE FUNCTIONS
NT ORTHOGONALITY
NT REGRESSION ANALYSIS
Identification of suitable high performance turbofan engine dynamics from closed loop data
MULTI-ENGINE AIRCRAFT
F-5 AIRCRAFT
VA-160 AIRCRAFT
VA-10 AIRCRAFT
NACELLES
JSF/SA-71 propulsion integration or the great adventure into the technical unknown
Low speed testing of the inlet designed for a tandem-fan V/STOL nozzle
Isolated nacelle performance - Measurement and simulation
SB 211 powerplant deterioration - Rover of current situation and lessons learned
Investigation of subsonic nacelle performance improvement concept
AIAA PAPER 82-1042
Aerodynamic characteristics of a larger-scale, twin tail-nacelle V/STOL model
AIAA PAPER 81-0150
Low speed testing of the inlet designed for a tandem-fan V/STOL nacelle --- Conducted in the Lewis 10 by 10 foot wind tunnel
Lewis 10 by 10 foot wind tunnel
Data on Transport Aircraft
AIAA PAPER 82-11042
Model testing techniques for measuring inlet drag
The role and implementation of different nacelle/engine simulation concepts for wind-tunnel testing in research and development work on transport aircraft
Wind tunnel tests of powered models: A comparison of two methods of simulating the jets of jet engines
Wind tunnel test and analysis techniques using powered simulators for civil nacelle installation drag assessment
Establishment of an experimental technique to provide accurate measurement of the installed drag of close coupled civil nacelle/airframe configurations, using a full span model with turbine powered engine simulators
Evaluation of an experimental technique to investigate the effects of the engine position on engine/pylon/wing interference
The influence of closed-coupled, rear fuselage mounted nacelles on the design of an advanced high speed wing
Aerodynamic aspects of a high bypass ratio engine installation on a fuselage afterbody
A-310
HiVIBB-STOKBS EQUATION NAVIGATION

NAVIER-STOKES EQUATION
A simple finite difference procedure for the
vortex controlled diffuser
[IEEE PAPER 82-0109] p0115 A82-17786
Relaxation solution for viscous transonic flow
about fighter-type forebodies and afterbodies
[IEEE PAPER 82-0252] p0118 A82-17665
Aerodynamics - Retrospect and prospect /The 21st
Lancaster Memorial Lecture/
p0275 A82-26098
Numerical solution of Space Shuttle Orbiter flow
field
[IEEE PAPER 82-0028] p0286 A82-27063
Analysis of two-dimensional internal flows using a
primitive-variable relaxation Navier-Stokes
procedure
[IEEE PAPER 82-1083] p0416 A82-34998
Computational aerodynamics
p0581 A82-65851
Computation of high Reynolds number
internal/external flows
p0635 H82-11046
Prediction of subsonic aircraft flows with jet
exhaust interactions
p0997 H82-13096
Numerical analysis of the scramjet-inlet flow
field by using two-dimensional Navier-Stokes
equations
[H8AC-TP-1940] p0099 H82-13142
ACTA Mechanics Sarnica (selected articles)
[AD-A107322] p0131 H82-14060
Blade-to-blade computations and boundary layer
corrections in axial compressors and turbines
p0206 H82-17202
The numerical solution of the Navier-Stokes
equations for incompressible turbulent flow over
airfoils
[AD-A111279] p0460 H82-26112
NAVIGATION
WT AIR NAVIGATION
WT ALL-WEATHER AIR NAVIGATION
WT ARNA NAVIGATION
WT DEAD RECKONING
WT DIGITAL NAVIGATION
WT DOPPLER NAVIGATION
WT INERTIAL NAVIGATION
WT IORAH
WT LOCAR
WT NAV-OF-THE-EARTH NAVIGATION
WT ORBCOMM NAVIGATION SYSTEM
WT RADAR NAVIGATION
WT SPACE NAVIGATION
WT SURFACE NAVIGATION
WT TACAN
WT THE OMNI RANGE NAVIGATION
Flight trajectory control investigation
[AD-A105442] p0035 H82-11048
An overview of optimal control in aerospace systems
p0038 H82-11074
Integrated control design techniques
[AD-A100223] p0257 H82-18224
Analysis of computing system configurations for
highly integrated guidance and control systems
p0363 H82-23189
Improvement program for the C-141 Navigation
Selector Panel
[AD-A111165] p0088 H82-25498
Visual technology research simulator, visual and
motion system dynamics
[AD-A111801] p0457 H82-26325
Quasilinearization solution of the proportional
navigation problem
[AD-A113668] p0568 H82-27273
Assessment of stereographics for fire control and
navigation in fighter aircraft
[AD-A11564] p0559 H82-30306
Avionic system development for the Tornado F MK
[ADPS-96] p0590 H82-32386
A-7 flight software analysis
[AD-A116179] p0594 H82-32386
NAVIGATION AIDS
WT BEACONS
WT DISCRETE ADDRESS BEACON SYSTEM
WT GYROCOMPASS
WT LIGHT AIRBORNE MULTISCOPE SYSTEM
WT MAGNETIC COMPASSES
WT NAVIGATION INSTRUMENTS
WT RADAR BEACONS
SUBJECT INDEX
WT RADIO BEACONS
WT RADIO DIRECTION FINDERS
Three navigation systems and their costs of
acquiring remote sensing data
p0001 A82-10049
Time-referencing of data in an asynchronous
environment for fighter aircraft avionics
[IEEE 81-2341] p0502 A82-13531
Estimation of the efficiency of radioelectronic
flight navigation systems
p0653 A82-13701
The application of programmable pocket calculators
for computations during survey flights
p0104 A82-16164
FLABS '80 - Position Location and Navigation
Symposium, Atlantic City, NJ, December 8-11, 1980,
Record
p0122 A82-18126
Selecting the post 1990 civil aviation
radio-navigation system
p0122 A82-18141
Solid-state VORTAC with remote maintenance and
monitoring
p0122 A82-18144
Flight measurements of Area Navigation System
performance using various combinations of ground
aids and airborne sensors
p0123 A82-18147
Evaluation of Loran-C enroute navigation and
non-precision approaches within the State of
Vermont
p0124 A82-18160
Navigational aids on-board the Concord
p0225 A82-24065
Radio-navigation equipment of aircraft - Devices
and operation --- Russian book
p0282 A82-26500
RAMP - A fault tolerant distributed microcomputer
structure for aircraft navigation and control
p0293 A82-27714
Corona and antenna effects on the KH-53D
missile-weeping helicopter and Bayliss navigation set
p0295 A82-27946
Problems in the simulation of correlation-extremal
navigation systems
p0492 A82-39403
Simulation of correlation-extremal receivers of
signals from mapping-phase radio-navigation
systems
p0492 A82-39404
The Center Weather Service Unit program/NSW/ for
civil aviation
p0580 A82-85828
Weather support for helicopter operations in the
Gulf of Mexico
p0580 A82-85829
The Aviation Route Forecast /ARP/ program - an
interactive system for Pilot Self-Briefing ---
computerized weather service
p0580 A82-85830
Flight evaluation of LOHAR-C as a helicopter
navigation aid in the Baltimore Canyon oil
exploration area
[AD-A105260] p0086 H82-12059
System for providing an integrated display of
instantaneous information relative to aircraft
altitude, heading, altitude, and horizontal
situation
[H8AC-CASE-FRC-11005-1] p0189 H82-16075
Terminal area automatic navigation, guidance, and
control research using the Microwave Landing
System (MLS). Part 2: MLS/MLO transition
problems for aircraft
[NASA-CB-3511] p0200 H82-17142
Aeronautical Information Data Subsystem (AIDS): A
ground-based component of air navigation
services systems
p0201 H82-17150
United States Coast Pilot 9. Pacific and Arctic
Coasts Alaska: Cape Spencer to Beaufort Sea
[PB82-109562] p0254 H82-18201
Design of a catadioptric VCASS helmet-mounted
display
[AD-A109431] p0305 H82-20816
Round table discussion on the transfer of results
from the project "Aids to navigation and control
of air traffic"
[FUB-20-ATC-1981] p0395 H82-24192
DEFINITION OF DISPLAY/CONTROL REQUIREMENTS FOR ASSAULT TRANSPORT NIGHT/ADVERSE WEATHER CAPABILITY

HELICOPTER NIGHT VISION SYSTEM SIMULATION EVALUATION

A STAT'S REVIEW OF NASA'S COSAM (CONSERVATION OF STRATEGIC AEROSPACE MATERIALS) PROGRAM

DEPOSIT FORMATION IN HIGH-TEMPERATURE COMPOUNDS

EFFECT OF FUEL-AIR-RATIO NONUNIFORMITY ON EMISSIONS OF NITROGEN OXIDES

EFFECT OF FUEL-REACTOR INTERACTION NOISE GENERATION ON AERODYNAMICS

NIGHT FIGHTING

NIGHT FIGHTING OPERATIONS

AIRCRAFT ELECTRICAL EQUIPMENT - DESIGN AND OPERATION

POWER SYSTEM DESIGN OPTIMIZATION USING LAUGRANGE MULTIPLIER TECHNIQUES

A MARINE NAVSTAR GPS RECEIVER

FLIGHT CONTROL SYNTHESIS USING ROBOTIC OUTPUT OBSERVERS

HELICOPTER SECONDARY APPLICATIONS FOR NEUROTHERAPEUTIC EMERGENCIES

HELICOPTER SECONDARY APPLICATIONS FOR NEUROTHERAPEUTIC EMERGENCIES

HELICOPTER SECONDARY APPLICATIONS FOR NEUROTHERAPEUTIC EMERGENCIES
null
NOISE PREDICTION

Summary of airport technology needs
p0065 882-31073
Summary of community technology needs
p0065 882-31074
The noise impact of proposed runway alternatives
at Craig Airport
[NASA-TP-86503] p0074 882-32080
USAF Bioenvironmental Noise Data Handbook. Volume
169: C-9A air-flight crew/passenger noise
(AD-A116145) p0601 882-33153
USAF bioenvironmental noise data handbook. Volume
161: A-316A-06 generator set, diesel engine
(AD-A116147) p0601 882-33154
USAF bioenvironmental noise data handbook. Volume
162: MD-80 generator set
(AD-A116148) p0601 882-33155
USAF bioenvironmental noise data handbook. Volume
163: GPC-28 compressor
(AD-A116149) p0601 882-33156
USAF bioenvironmental noise data handbook. Volume
164: MD-1 heater, duct type, portable
(AD-A116150) p0601 882-33157
USAF Bioenvironmental Noise Data Handbook. Volume
165: KC-1 heater, duct type, portable
(AD-A116151) p0601 882-33158
USAF Bioenvironmental Noise Data Handbook. Volume
167: HA-JA air conditioner
(AD-A116152) p0602 882-33159
USAF bioenvironmental noise data handbook. Volume
168: HS-3 tester, pressurized cabin leakage, aircraft
(AD-A116153) p0602 882-33163
USAF bioenvironmental noise data handbook. Volume
169: P-106A aircraft, near and far-field noise
(AD-A116930) p0602 882-33168
NOISE PREDICTION

An iterative finite element-integral technique for predicting
sound radiation from turbofan inlets in steady flight
[AIAA PAPER 82-012a] p0115 882-17796
Pressure dependence of jet noise and silencing of blow-offs
p0167 882-20266

NOISE PREDICTION (AIRCRAFT)

Helicopter rotor trailing edge noise
[AIAA PAPER 81-2001] p0068 882-10455
Rotor wake characteristics relevant to rotor-stator interaction
noise generation
[AIAA PAPER 81-2031] p0068 882-10456
Effects of vane/blade ratio and spacing on fan noise
[AIAA PAPER 81-2033] p0068 882-10457
The FAA's proposed helicopter certification rules
p0066 882-12342

Integral Noise: An automatic calculation model
for the prediction and control of fixed-wing
aircraft noise. I - General considerations,
theoretical bases and model analysis
p0125 882-18274
Analytical prediction of aerospace vehicle
vibration environments
[AIAA PAPER 81-DEP-29] p0160 882-19305
Prediction of aircraft interior noise using the
statistical energy analysis method
[AIAA PAPER 81-DEP-102] p0161 882-19332
A comprehensive flight test flyover noise program
p0170 882-20765
Can low-speed jet noise be predicted
p0186 882-22222
Methodology for multi-aircraft noise impact
landing trajectories
p0218 882-23037
The status of airport noise prediction, with special reference to the
United Kingdom and Europe
p0262 882-28149
The impact and future direction of aircraft noise
certification
p0262 882-28150
Interior noise considerations for advanced
high-speed turboprop aircraft
[AIAA PAPER 82-1121] p0416 882-35018
Development and validation of preliminary
analytical models for aircraft interior noise
prediction
p0444 882-35077
The prediction of helicopter rotor discrete
frequency noise
p0503 882-40553
A semi-empirical high-speed rotor noise prediction
technique
p0503 882-40554
Dynamic surface measurements on a model helicopter
rotor during blade sleep at high angles of attack
p0503 882-40555
Helicopter rotor trailing edge noise - - noise
prediction
p0042 882-11859
Turbo prop cargo aircraft systems study
[NASA-CS-165813] p018 882-16700
A shock wave approach to the noise of supersonic
propellers
[NASA-TH-82752] p019 882-16809
Study of cabin noise control for twin engine
general aviation aircraft
[NASA-CS-165833] p0260 882-18995
Annoyance caused by propeller airplane flyover
noise: Preliminary results
[NASA-CS-83199] p0270 882-19946
Aircraft noise prediction program theoretical
manual, part 1
[NASA-CS-83199-PP-1] p0270 882-19947
Aircraft noise prediction program theoretical
manual, part 2
STOL aircraft structural vibration prediction from acoustic
excitation
p0354 882-22169
Analytical prediction of the interior noise for
cylindrical models of aircraft fuselages for
prescribed exterior noise fields. Phase 2: Models for
division striae, stieae seams and cabin acoustics with floor partition
p0350 882-22952
Prediction of flyover jet noise spectra from static tests
p0359 882-22963
Some comments on the prediction of forward flight
effects on jet noise
[8ASA-CB-165813] p0186 882-22222
Noise and economic characteristics of an advanced
blended supersonic transport concept
[NASA-TP-2073] p0056 882-31294
A description of methodologies used in estimation
of a-leaved sound levels for FAA Advisory
Circular AC-36-3P
[AD-A116563] p0574 882-32084
A computer program for the prediction of near
field noise of aircraft in cruise flight:
User's guide
[NASA-CS-15974a] p0660 882-33148
Sound transmission through ducts and aircraft
takeoff noise prediction, volume 1
[ADA115783] p0662 882-33164

NOISE PROPAGATION

The effect of non-linear propagation in jet noise
[AIAA PAPER 81-2033] p0161 882-19332
Prediction of aircraft interior noise using the
statistical energy analysis method
[AIAA PAPER 81-DEP-102] p0161 882-19332
Helicopter propulsion systems. I: Vibration
prevention systems on helicopters 2: Problems
of noise in the cabin
p0209 882-17222
Study of cabin noise control for twin engine
general aviation aircraft
[NASA-CS-165833] p0260 882-18995
Experiments on propeller noise
p0359 882-22978
Propeller flow visualization techniques
p0359 882-32672
Measurements of mean static pressure and far field
acoustics of shock containing supersonic jets
[NASA-CS-84521] p0600 882-33150

NOISE REDUCTION

'Quiet please' - - aircraft hydraulic systems
design reduction
p0100 882-10854
Design predictions for noise control in the
cryogenic National Transonic Facility
p0134 882-12025
Aircraft absorbers - Promise and practice
sound attenuation
p0162 882-16746
Noise control measures in the new Singapore
International Airport
p0176 882-16746
A-318

NOISE SPECTRA

Aircraft (NASA-CA-1373603) p0535 N82-29316
Airport/Community Noise RO [NASA-CA-2247] p0564 N82-31070
Airport noise Community noise p0564 N82-31071
Summary of airport technology needs p0565 N82-31072
Summary of community technology needs p0565 N82-31073

ROUGH ANALYSIS OF INSTALLATION EFFECTS ON TURBOPROP NOISE (NASA-TN-82924) p0574 N82-32082
EVALUATION OF NOISE CONTROL TECHNOLOGY AND ALTERNATIVE NOISE CONTROL PROCEDURES FOR PROPELLER-DRIVEN SMALL AIRCRAFT (AD-A116495) p0600 N82-33151
Executive summary of systems analysis to develop future civil aircraft noise reduction alternatives (AD-A116467) p0602 N82-33162
Noise reduction in centrifugal fans by the use of laminar/developing flows (NASA-TF-723) p0603 N82-33173
Circumferentially segmented duct lines optimized for axisymmetric and standing wave sources — reducing noise from turbofan engines galaxia method acoustic attenuation (NASA-TF-2075) p0614 N82-36190

NOISE SPECTRA

Digital spectral analysis of the noise from short duration impulsively started jets p0434 N82-36191
SEL and EPNL noise duration coefficients for the 747 and T-38 aircraft (NASA-TF-83124) p0042 N82-11860
Prediction of flyover jet noise spectra from static tests (NASA-TF-83129) p0139 N82-16800
Comparison of acoustic data from a 102 as comon nozzle as measured in the SAE 24-foot wind tunnel and the NASA Ames 40- by 80-foot wind tunnel (NASA-TF-83134) p0190 N82-16083
Analytical study of twin-jet shielding (NASA-CS-165102) p0193 N82-16081
The measurement of the mobility of structures at acoustic frequencies p0248 N82-16149
The role of coherent structures in the generation of noise for subsonic jets (NASA-CS-165764) p0358 N82-22947
Program for narrow-band analysis of aircraft flyover noise using ensemble averaging techniques (NASA-CS-165567) p0358 N82-22949
Prediction of flyover jet noise spectra from static tests p0359 N82-22963

NOISE SUPPRESSORS

U NOISE REJECTION

NOISE TOLERANCE

Comparing the relationships between noise level and annoyance in different surveys - A railway noise vs. aircraft and road traffic comparison p0329 N82-29165
Effects of repetition rate and impulsiveness of simulated helicopter rotor noise on annoyance (NASA-TF-1969) p0269 N82-19707

NORMAL VALUES

U APPROXIMATION

MONOGRAMS

U MONOGRAMS

MONOGRAMS

Computer enhanced analysis of a jet in a cross-stream p0539 N82-29555
NONADIABATIC PROCESSES

U HEAT TRANSFER

NONERODUCTS

U ELECTRICAL INSULATION

NONDESTRUCTIVE TESTS

Inclusions and service induced cracks in a mature population of gas turbine engine bearings (ASME PAPER 81-GT-448) p0127 N82-16044
Low-frequency eddy current inspection of aircraft structure p0183 N82-21900

A review of the history of nondestructive testing in Japan p0540 N82-42857
In-service inspection methods for graphite-epoxy structures on commercial transport aircraft (NASA-CS-165746) p0009 N82-12142
Control methodology: Nondestructive testing in the aerospace industry (RAY-A-612-551-110) p0137 N82-14527
US Naval Fleet aircraft corrosion p0211 N82-17350
Detection and prevention of corrosion in Royal Air Force aircraft p0211 N82-17351
Positron annihilation — aircraft industry applications: fault detection (BAE-607-P-AEM-00996) p0322 N82-21600
Non-destructive inspection and the implementation of a damage tolerant design philosophy — fighter aircraft (BAR-TN-STRUCT-982) p0322 N82-21601
Comparison of reliability, sensitivity and accuracy of some NDI-Techniques (BLK-TP-80039-0) p0371 N82-23562
Comparison between probability of detection, sensitivity, and accuracy of five nondestructive inspection methods — high strength steel aircraft undercarriage retraction cylinders (BLK-TP-81036-0) p0398 N82-24500
Develop, demonstrate, and verify large area composite structural bonding with polyimide adhesives — adhesively bonding graphite-polyimide structures (NASA-CS-165839) p0459 N82-26465
Aerostucturing nondestructive evaluation by thermal field detection, phase i: Fundamental information and basic technique development (AD-A115724) p0595 N82-3425

NONEQUILIBRIUM FLOWS

U FRICTION WAVES

NONEQUILIBRIUM RADIATION

Radiation enhancement by nonequilibrium during flight through the Titan atmosphere (AIAA PAPER 82-0676) p0373 N82-31803
NONISOTROPY

U ANISOTROPY

NONLINEAR EQUATIONS

U QUADRATIC EQUATIONS

The rectangular wing with semianellate span in nonlinear theory p0491 N82-39359

NONLINEAR FILTERS

Apparatus for damping operator induced oscillations of a coupled system — flight control (NASA-CSP-PAC-11061-1) p0599 N82-18593
Implementable differential equations for nonlinear filtering — radar tracking (BLK-TP-81037-0) p0600 N82-33120

High-frequency monitoring of surface layers of metals p0221 N82-23603
NDI of composite rotor blades during fatigue testing p0239 N82-26713
Utility of a probability-density-function curve and P-naps in composite-material inspection p0327 N82-28924
On the characterization of damages in graphite-epoxy composites (AIAA 82-0757) p0336 N82-30117
Nondestructive detection of exfoliation corrosion around fastener holes in aluminum wing skins p0378 N82-32725
Acoustic emission in jet engine fan blades p0419 N82-35257
Nondestructive testing in aircraft construction using holographic methods p0513 N82-40977
Recommended practice for a demonstration of Nondestructive Evaluation/NDE/ reliability on aircraft production parts — Introduction to the guidelines p0518 N82-41140
Acoustic emission inspection of aircraft engine turbine blades for intergranular corrosion p0544 N82-41914
In-flight acoustic emission monitoring p0548 N82-42865

A review of the history of nondestructive testing in Japan p0540 N82-42857
In-service inspection methods for graphite-epoxy structures on commercial transport aircraft (NASA-CS-165746) p0009 N82-12142
Control methodology: Nondestructive testing in the aerospace industry (RAY-A-612-551-110) p0137 N82-14527
US Naval Fleet aircraft corrosion p0211 N82-17350
Detection and prevention of corrosion in Royal Air Force aircraft p0211 N82-17351
Positron annihilation — aircraft industry applications: fault detection (BAE-607-P-AEM-00996) p0322 N82-21600
Non-destructive inspection and the implementation of a damage tolerant design philosophy — fighter aircraft (BAR-TN-STRUCT-982) p0322 N82-21601
Comparison of reliability, sensitivity and accuracy of some NDI-Techniques (BLK-TP-80039-0) p0371 N82-23562
Comparison between probability of detection, sensitivity, and accuracy of five nondestructive inspection methods — high strength steel aircraft undercarriage retraction cylinders (BLK-TP-81036-0) p0398 N82-24500
Develop, demonstrate, and verify large area composite structural bonding with polyimide adhesives — adhesively bonding graphite-polyimide structures (NASA-CS-165839) p0459 N82-26465
Aerostucturing nondestructive evaluation by thermal field detection, phase i: Fundamental information and basic technique development (AD-A115724) p0595 N82-3425

NONEQUILIBRIUM FLOWS

U FRICTION WAVES

NONEQUILIBRIUM RADIATION

Radiation enhancement by nonequilibrium during flight through the Titan atmosphere (AIAA PAPER 82-0676) p0373 N82-31803
NONISOTROPY

U ANISOTROPY

NONLINEAR EQUATIONS

U QUADRATIC EQUATIONS

The rectangular wing with semianellate span in nonlinear theory p0491 N82-39359

NONLINEAR FILTERS

Apparatus for damping operator induced oscillations of a coupled system — flight control (NASA-CSP-PAC-11061-1) p0599 N82-18593
Implementable differential equations for nonlinear filtering — radar tracking (BLK-TP-81037-0) p0600 N82-33120
Experimental investigation of a jet inclined to a
Application of computer generated color graphic
Problems of numerical simulation of unsteady
Advanced exhaust nozzle technology
Comparison of different nozzle concepts for a
Experimental study of a jet deflector
An experimental study of rectangular and circular
Thrust modulation methods for a subsonic V/STOL

A summary of V/STOL inlet analysis methods

Failure analysis of silica phenolic nozzle liners

Thrust modulation methods for a subsonic V/STOL
Tests of a D vented thrust deflecting nozzle

Systems of jet dynamics and their

Aerodynamic interactions with turbulent jet

An improved propulsion system simulation technique

Nozzle flow

The design of compact asymmetric maximum-thrust

Failure analysis of silica phenolic nozzle liners

A summary of V/STOL inlet analysis methods

Tests of a D vented thrust deflecting nozzle

The design of compact asymmetric maximum-thrust

An experimental study of rectangular and circular

The design of compact asymmetric maximum-thrust

A summary of V/STOL inlet analysis methods

Tests of a D vented thrust deflecting nozzle

The design of compact asymmetric maximum-thrust

An experimental study of rectangular and circular

The design of compact asymmetric maximum-thrust

A summary of V/STOL inlet analysis methods

Tests of a D vented thrust deflecting nozzle

The design of compact asymmetric maximum-thrust

An experimental study of rectangular and circular

The design of compact asymmetric maximum-thrust

A summary of V/STOL inlet analysis methods

Tests of a D vented thrust deflecting nozzle

The design of compact asymmetric maximum-thrust

An experimental study of rectangular and circular

The design of compact asymmetric maximum-thrust

An experimental study of the performance of a 3-surface F-15 model at
transonic Mach numbers for a reheated turbofan underside
transonic tunnel

A summary of V/STOL inlet analysis methods

Tests of a D vented thrust deflecting nozzle

The design of compact asymmetric maximum-thrust

An improved propulsion system simulation technique

Heat transfer from nozzles under the conditions of

Effects of installation of F101 DFE exhaust

Static internal performance of single

Wind-tunnel investigation of the powered low-speed

NOZZLE COEFFICIENTS

NOZZLE FLOW

NOZZLE DESIGN

Developments in boundary layer Thrust Vector Control

Failure analysis of silica phenolic nozzle liners

A summary of V/STOL inlet analysis methods

Tests of a D vented thrust deflecting nozzle

The design of compact asymmetric maximum-thrust

An experimental study of the performance of a 3-surface F-15 model at
transonic Mach numbers for a reheated turbofan underside
transonic tunnel

A summary of V/STOL inlet analysis methods

Tests of a D vented thrust deflecting nozzle

The design of compact asymmetric maximum-thrust

An improved propulsion system simulation technique

Heat transfer from nozzles under the conditions of

Effects of installation of F101 DFE exhaust

Static internal performance of single

Wind-tunnel investigation of the powered low-speed

NOZZLE COEFFICIENTS

NOZZLE FLOW

NOZZLE DESIGN

Developments in boundary layer Thrust Vector Control

Failure analysis of silica phenolic nozzle liners

A summary of V/STOL inlet analysis methods

Tests of a D vented thrust deflecting nozzle

The design of compact asymmetric maximum-thrust

An experimental study of the performance of a 3-surface F-15 model at
transonic Mach numbers for a reheated turbofan underside
transonic tunnel

A summary of V/STOL inlet analysis methods

Tests of a D vented thrust deflecting nozzle

The design of compact asymmetric maximum-thrust

An improved propulsion system simulation technique

Heat transfer from nozzles under the conditions of

Effects of installation of F101 DFE exhaust

Static internal performance of single

Wind-tunnel investigation of the powered low-speed

NOZZLE COEFFICIENTS

NOZZLE FLOW

NOZZLE DESIGN

Developments in boundary layer Thrust Vector Control

Failure analysis of silica phenolic nozzle liners

A summary of V/STOL inlet analysis methods

Tests of a D vented thrust deflecting nozzle

The design of compact asymmetric maximum-thrust

An experimental study of the performance of a 3-surface F-15 model at
transonic Mach numbers for a reheated turbofan underside
transonic tunnel

A summary of V/STOL inlet analysis methods

Tests of a D vented thrust deflecting nozzle

The design of compact asymmetric maximum-thrust

An improved propulsion system simulation technique

Heat transfer from nozzles under the conditions of

Effects of installation of F101 DFE exhaust

Static internal performance of single

Wind-tunnel investigation of the powered low-speed

NOZZLE COEFFICIENTS

NOZZLE FLOW

NOZZLE DESIGN

Developments in boundary layer Thrust Vector Control

Failure analysis of silica phenolic nozzle liners

A summary of V/STOL inlet analysis methods

Tests of a D vented thrust deflecting nozzle

The design of compact asymmetric maximum-thrust

An experimental study of the performance of a 3-surface F-15 model at
transonic Mach numbers for a reheated turbofan underside
transonic tunnel

A summary of V/STOL inlet analysis methods

Tests of a D vented thrust deflecting nozzle

The design of compact asymmetric maximum-thrust

An improved propulsion system simulation technique

Heat transfer from nozzles under the conditions of

Effects of installation of F101 DFE exhaust

Static internal performance of single

Wind-tunnel investigation of the powered low-speed

NOZZLE COEFFICIENTS

NOZZLE FLOW

NOZZLE DESIGN

Developments in boundary layer Thrust Vector Control

Failure analysis of silica phenolic nozzle liners

A summary of V/STOL inlet analysis methods

Tests of a D vented thrust deflecting nozzle

The design of compact asymmetric maximum-thrust

An experimental study of the performance of a 3-surface F-15 model at
transonic Mach numbers for a reheated turbofan underside
transonic tunnel

A summary of V/STOL inlet analysis methods

Tests of a D vented thrust deflecting nozzle

The design of compact asymmetric maximum-thrust

An improved propulsion system simulation technique

Heat transfer from nozzles under the conditions of

Effects of installation of F101 DFE exhaust

Static internal performance of single

Wind-tunnel investigation of the powered low-speed

NOZZLE COEFFICIENTS

NOZZLE FLOW

NOZZLE DESIGN

Developments in boundary layer Thrust Vector Control

Failure analysis of silica phenolic nozzle liners

A summary of V/STOL inlet analysis methods

Tests of a D vented thrust deflecting nozzle

The design of compact asymmetric maximum-thrust

An experimental study of the performance of a 3-surface F-15 model at
transonic Mach numbers for a reheated turbofan underside
transonic tunnel

A summary of V/STOL inlet analysis methods

Tests of a D vented thrust deflecting nozzle

The design of compact asymmetric maximum-thrust

An improved propulsion system simulation technique

Heat transfer from nozzles under the conditions of

Effects of installation of F101 DFE exhaust

Static internal performance of single

Wind-tunnel investigation of the powered low-speed
<table>
<thead>
<tr>
<th>SUBJECT INDEX</th>
<th>NUMERICAL CONTROL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development of improved high temperature coatings for IH-792 + BT</td>
<td>Tests and analysis of a vented D thrust deflecting nozzle on a turbofan engine — conducted at the outdoor aerodynamic research facility of the Ames Research Center</td>
</tr>
<tr>
<td>NOZZLES</td>
<td>NOZZLE PROPULSION</td>
</tr>
<tr>
<td>Tests and analysis of a vented D thrust deflecting nozzle on a turbofan engine — conducted at the outdoor aerodynamic research facility of the Ames Research Center</td>
<td>The feasibility of a high-altitude aircraft platform with consideration of technological and societal constraints</td>
</tr>
<tr>
<td>A complete method for computation of blade node characteristics and responses in forward flight</td>
<td>The use of the tfeber method for computation of blade node characteristics and responses in forward flight</td>
</tr>
<tr>
<td>Alpha particles and photons</td>
<td>A computer-controlled oscillation mechanism for unsteady aerodynamics experiments</td>
</tr>
<tr>
<td>The shaped cockpit for the one-man crew</td>
<td>Test demonstration of digital control of wing/store flutter</td>
</tr>
<tr>
<td>Very large aircraft with alternate fuels - LH2</td>
<td>Automatic checking of measuring units in the Modane wind tunnels</td>
</tr>
<tr>
<td>Nuclear powered aircraft</td>
<td>Integrated aircraft avionics and powerplant control and management systems</td>
</tr>
<tr>
<td>The design and flight testing of digital direct side-force control laws for helicopter applications</td>
<td>The computerized cockpit for the one-man crew</td>
</tr>
<tr>
<td>The通过流 calculations</td>
<td>The computerized cockpit for the one-man crew</td>
</tr>
<tr>
<td>The flight management computer</td>
<td>The 通过 flow calculations</td>
</tr>
<tr>
<td>Design and flight testing of a digital optimal control general aviation autopilot</td>
<td>The cryogenic Automated Launcher System (BARS) concept</td>
</tr>
<tr>
<td>Digital full authority controls for helicopter engines</td>
<td>Design and flight testing of a digital optimal control general aviation autopilot</td>
</tr>
<tr>
<td>Automatic map reader suitable for use in helicopters</td>
<td>Programmable controller system for wind tunnel diversion vanes</td>
</tr>
<tr>
<td>Traffic flow control in the Frankfurt/Main airport area</td>
<td>Automated flight data processing</td>
</tr>
<tr>
<td>An automatic map reader suitable for use in helicopters</td>
<td>The flight management computer</td>
</tr>
<tr>
<td>Design and flight testing of digital direct side-force control laws</td>
<td>The flight management computer</td>
</tr>
<tr>
<td>Monitoring of fighter aircraft emergencies</td>
<td>Automation in the skies --- automatic air traffic control</td>
</tr>
<tr>
<td>The flared Automated Launcher System (BARS) concept</td>
<td>The Modular Automated Weather System (MAWS) concept --- airfield weather support</td>
</tr>
<tr>
<td>Distributed intelligence for air fleet control (AD-A108611)</td>
<td>Software features applicable to inertial measurement unit self alignment (AD-A108511)</td>
</tr>
<tr>
<td>Air traffic control on route computer modernization (GPO-06-773)</td>
<td>FAA air traffic control computer modernization (GPO-06-375)</td>
</tr>
<tr>
<td>Advanced aircraft electrical systems control technology demonstrator. Phase I: Analysis and design</td>
<td>Advanced aircraft electrical systems control technology demonstrator. Phase I: Analysis and design</td>
</tr>
</tbody>
</table>

The need for multivariable design and analysis techniques | Numerical methods for solving boundary value problems for noncavitating and cavitating flow past wing profiles | AIAA PAPER 02-0322 | p0426 A82-35400 |

Lifting surface theory for wings in low frequency small amplitudes and side slipping oscillating motions at low speeds | Numerical treatment of helicopter rotor stability problems | AIAA PAPER 02-0322 | p0426 A82-35400 |

Results of calculations | Procedures and analysis techniques for determining static air masses and control surfaces | AIAA PAPER 02-0322 | p0426 A82-35400 |

The effect of lightning and nuclear electromagnetic pulses on an advanced composite aircraft | Advanced aircraft electrical systems control technology demonstrator. Phase I: Analysis and design | AIAA PAPER 02-0322 | p0426 A82-35400 |

Very large aircraft with alternate fuels - LH2 | Digital full authority controls for helicopter engines | AIAA PAPER 02-0322 | p0426 A82-35400 |

Numerical methods for solving boundary value problems for noncavitating and cavitating flow past wing profiles | Advanced aircraft electrical systems control technology demonstrator. Phase I: Analysis and design | AIAA PAPER 02-0322 | p0426 A82-35400 |

The use of the tfeber method for computation of blade node characteristics and responses in forward flight | The computerized cockpit for the one-man crew | AIAA PAPER 02-0322 | p0426 A82-35400 |

The through flow calculations | The flight management computer | AIAA PAPER 02-0322 | p0426 A82-35400 |

A computer-controlled oscillation mechanism for unsteady aerodynamics experiments | The computerized cockpit for the one-man crew | AIAA PAPER 02-0322 | p0426 A82-35400 |

Test demonstration of digital control of wing/store flutter | The flight management computer | AIAA PAPER 02-0322 | p0426 A82-35400 |
Preliminary design
[AD-A113635]
Numerical Flow Visualization
Problems of numerical simulation of unsteady threedimensional viscous-gas flows in nozzles
[12252 A2-25347]
Numerical solution of Space Shuttle Orbiter flow field
[IJAA Paper 82-0028]
Application of computer generated color graphic techniques to the processing and display of three dimensional fluid dynamic data --- for turbofan mixer nozzle mixing process analysis
[0238 A2-29000]
The system for the numerical simulation of sub-and transonic viscous attached flows around wing-body configurations
[IJAA Paper A2-0935]
Mathematical modeling of unsteady separated flow past solid airfoil cascades
[0378 A2-31922]
Turbulence modeling - Report of a Working Party
[0546 A2-42547]
Numerical calculation of the flow in compressor and turbine cascades --- German thesis
[0578 A2-45222]
A numerical three-dimensional turbulent simulation of a subsonic VSTOL jet in a cross-flow using a finite element algorithm
[AD-A104541]
The numerical solution of incompressible turbulent flow over airfoils
[0036 A2-11055]
The problem of calculation of the flow around helicopter rotor blade tips
[0250 A2-18160]
Separated flow around helicopter bodies
[0250 A2-18163]
Current status of inlet flow prediction methods
[AD-A117094]
Simulation of the fluctuating field of a forced jet
[NASA-TM-80506]
Numerical Flow Visualization
A Schwarz-Christoffel method for generating internal flow grids
[0328 A2-29005]
Application of integration algorithms in a parallel processing environment for the simulation of jet engines
[NASA-TN-802746]
Numerical applications of the physical optics approach for the calculation of radar cross sections of convex perfect scatterers
[BAD-88-261]
Numerical Integration
U VORTICES BESSES
Hyquist Diagram
Characteristics and principal gains and phases and their use as multivariable control design tools --- generalizing Nyquist and root-locus diagram techniques
[0029 A2-10050]
Oblique Wings
AD-1 oblique wing aircraft program
[IJAA Paper B1-2359]
Unique flight characteristics of the AD-1 oblique-wing research airplane
[IJAA Paper 82-1329]
Spine-tunnel investigation of a 1/13-scale model of the NASA AD-1 oblique-wing research aircraft
[NASA-TM-803236]
Observeability (Systems)
The use of observers on relaxed static stability aircraft
[0068 A2-14740]
Instrument fault detection in partially observable systems
[0436 A2-37580]
Flight control synthesis using robust output observers
[IJAA 82-1575]
Observability of the parameters of an inertial navigation system for a 360-deg coordinated turn
[0583 A2-47093]
Observation
MT Earth Observations (from Space)
MT Satellite Observations
Observation Aircraft
MT F-5 Aircraft
MT Mirage Aircraft
MT OV-10 Aircraft
Obstacle Avoidance
Techniques for overhead-wire detection --- to prevent helicopter wire strikes
[0106 A2-16560]
A survey of U.S. Army helicopter main and tail rotor blade obstacle strikes
[0278 A2-26385]
Integrated navigation-TF/TA-system based on stored terrain data processing
[0362 A2-23183]
Terrain following/terrain avoidance system concept development
[0606 A2-33163]
Obstructing
OB-1 BLOCKING
Ocean Data Acquisitions Systems
Two-frequency/beta k/ microwave scatterometer measurements of ocean wave spectra from an aircraft
[0508 A2-67493]
A comparison of Seasat-derived wave height with surface data
[0508 A2-67496]
Ocean Data Platforms
U Ocean Data Acquisitions Systems
U Ocean Data Stations
U Ocean Data Acquisitions Systems
Ocean Surface
Two-frequency/beta k/ microwave scatterometer measurements of ocean wave spectra from an aircraft
[0508 A2-67493]
Oceanographic Parameters
Structure and variability of the Alboran Sea frontal system
[0168 A2-20487]
A comparison of Seasat-derived wave height with surface data
[0508 A2-67496]
United States Coast Pilot 9. Pacific and Arctic Coasts Alaska: Cape Spencer to Beaufort Sea
[PB82-109562]
Oceanography
A survey of the Naval Postgraduate School Research Program
[AD-A104112]
Oceans
NT Atlantic Ocean
OAAS
U Ocean Data Acquisitions Systems
Offshore Energy Sources
Flight evaluation of LOWAC as a helicopter navigation aid in the Baltimore Canyon oil exploration area
[AD-A105260]
Offshore Platforms
The case for helicopter hoisting
[0182 A2-21597]
Real-time simulation of an airborne radar for overwater approaches
[NASA-CE-166293]
Opt
U Space Transportation System Flights
OGED Wings
U Variable Sweep Wings
OH-13 Helicopter
Evolution of the Aeroscout
[0239 A2-24706]
OH-58 Helicopter
Composite main rotor tubular braced
Design of a composite main rotor blade spar for fabrication by tubular braiding
[0279 A2-26389]
Airworthiness and flight characteristics test of an OH-58C configured to a Light Cobalt Helicopter [ECB]
[AD-A112581]
Oil Additives
Optimization of requirements on the pitting-prevention properties of turbojet-engine oils
A-322
Restoration of performance, models 727, 737, and 747
[SAB PAPER 81-1072] p0233 882-2406

Aircraft/airport compatibility - A constant challenge for aircraft designers
p0262 882-25119

Some thoughts on design optimization of transport helicopters
p0273 882-25771

Simulation of the total costs incurred in the employment of passenger jet aircraft
p0490 882-39247

Advanced technologies applied to reduce the operating costs of small commuter transport aircraft
p0508 882-40915

Aircraft R&D in Europe - A perspective view
p0596 882-82544

A new approach to modeling the cost of ownership for aircraft systems
[AD-A109436] p0102 882-13979

Use of optimization to predict the effect of selected parameters on commuter aircraft performance

An airline view of the corrosion problem
p0211 882-17352

Parametric study of the influence of the engine upon the operating cost of a civil aircraft
title p0246 882-18131

Parametric criteria and impact on design trends
p0267 882-18139

Potential reductions in aircraft operation and maintenance costs by using thrust computing support equipment
[AD-A108467] p0254 882-18207

Use of optimization to predict the effect of selected parameters on commuter aircraft performance

OPERATING SYSTEMS (COMPUTERS)
Research through simulation --- simulators and research applications at Langley
[NASA-POST-125] p0192 882-16092

Air traffic control on route computer system
[GPO-99-009] p0264 882-19202

An assessment of the real-time application capabilities of the SIFT computer system

The Flight Service Automation System (FSAS) system benchmark. Volume 1: Summary, introduction and concepts
[PB2-143546] p0468 882-27277

The Flight Service Automation System (FSAS) system benchmark. Volume 2: The model of the application
[PB2-143546] p0468 882-27278

The Flight Service Automation System (FSAS) system benchmark. Volume 3: The vendor interface package
[PB2-14355] p0468 882-27279

OPERATING TEMPERATURE
The operational characteristics of turbojets, giving particular attention to the cooled high-pressure turbine
p005 882-19414

OPERATIONS RESEARCH
[MT LINEAR PROGRAMMING]
MT MATHEMATICAL PROGRAMMING
MT NONLINEAR PROGRAMMING
MT QUADRATIC PROGRAMMING

OPERATOR PERFORMANCE
Flight simulation consoles, aid or obstruction - Objective evaluation of control consoles of modern flight and tactics simulators
[DATA PAPER 81-097] p0159 882-19269

Reducing reflections on the front surface of air traffic control displays
p0219 882-23316

OPERATORS (PERSONNEL)
MT AIRCRAFT PILOTS
MT PILOTS (PERSONNEL)
MT TEST PILOTS

Accident prevention - a regulators view
p0110 882-17278

Predicting the application of vicarious liability to fixed base operators - Still guesswork after all these years
p0377 882-32056

Task analytic techniques: Application to the design of a flight simulator instructor/operator console
[AD-A108724] p0257 882-18227

A theory of mass error

OPTICAL ABSORPTION
MT LIGHT TRANSMISSION

OPTICAL COMMUNICATIONS
Light-guided information distribution systems
[ATAA 81-2220] p0051 882-13519

Laser communications via an atmospheric link
p0075 882-20615

Airborne Flight Test System (AFTS)
[AD-A115106] p0589 882-33254

OPTICAL DATA PROCESSING
MT SCENE ANALYSIS
FILE-2B aircraft flight test program --- Feature Identification and Location Experiment
[AAS 81-041] p0105 882-16335

Optical Information Processing for Aerospace Applications

Role of optical computers in aeronautical control applications
p0147 882-15897

OPTICAL DATA STORAGE MATERIALS
FILE-2B aircraft flight test program --- Feature Identification and Location Experiment
[AAS 81-041] p0105 882-16335

OPTICAL EQUIPMENT
MT CAMERAS
MT COLLIMATORS
MT INFRARED SPECTROMETERS
MT LASER DOPPLER VELOCIMETERS
MT MULTISPECTRAL BAND SCANNERS
MT OPTICAL GYROSCOPES
MT OPTICAL MEASURING INSTRUMENTS
MT OPTICAL RADAR
MT OPTICAL SCAVENERS
MT POLARIMETERS
MT TELEVISION CAMERAS

WIDE ANGLE RASTER HEAD UP DISPLAY DESIGN AND APPLICATION TO FUTURE SINGLE SEAT FIGHTERS
p0472 882-27304

Design study for a low-distortion holographic SIF
[p0525 882-28292

OPTICAL GYROSCOPES
Laser gyro - The guiding light
p0333 882-29792

OPTICAL IMAGES
MT IMAGES
OPTICAL BASES MODULATION
MT LIGHT MODULATION

OPTICAL BASES
MT LASERS

OPTICAL ALIGNMENT
A new angular deviation measurement device for aircraft transparencies
p0226 882-34308

Method for the measurement of elastic deformations of aircraft models in a wind tunnel
p0388 882-34162

OPTICAL MEASURING INSTRUMENTS
MT INFRARED SPECTROMETERS
MT MULTISPECTRAL BAND SCANNERS
MT OPTICAL SCAVENERS
MT POLARIMETERS

Optical sensors for displacement measurement
p0114 882-11407

Optical tip clearance sensor for aircraft engine controls
[ATAA PAPER 82-1131] p0438 882-37691

Some potential novel approaches to the automatic airborne detection and identification of ground targets
p0471 882-27296

OPTICAL MODULATION
MT LIGHT MODULATION

OPTICAL PATHS
GRIN lens reflection model applied to ILS glide scope --- Geometrical Theory of Diffraction
p0210 882-23027

OPTICAL PROPERTIES
MT COLOR
MT OPTICAL REFLECTION
MT RADIANICE
MT REFLECTANCE
MT SHINE BRIGHTNESS
OPTICAL CONTROL

An introduction to stochastic optimal control theory
[AGABD-AG-281] p0038 B82-11073

Sensitivity reduction by double perfect model
following with application to aircraft control
[AD-A104542] p0035 B82-11048

Integration of multi-sensor navigation data using
optimal estimation techniques
[AD-A102937] p0038 B82-11074

Optimal three-dimensional flight of a supersonic
aircraft
[AD-A102937] p0038 B82-11075

Optimal target designation techniques
[AD-A102937] p0038 B82-11076

Optimal target designation techniques to
aircraft flight path angle dynamics
[AD-A102937] p0038 B82-11077

Application of optimal control techniques to
aircraft flutter suppression and load alleviation
[AD-A102937] p0038 B82-11078

Optimal control and estimation for standup
seeker guidance of tactical missiles
[AD-A102937] p0038 B82-11079

Automation of the synthesis of control in a
stationary linear system for aircraft flight
control
[AD-A102937] p0038 B82-11080

Optimization of blade pitch angle for higher
harmonic rotor control
[AD-A102937] p0038 B82-11081

Considerations of open-loop, closed-loop, and
adaptive multivariable control systems
[AD-A102937] p0038 B82-11082

Robust Kalman filter design for active flutter
suppression systems
[AD-A102937] p0038 B82-11083

Parameter estimation applied to general aviation
aircraft - A case study
[AD-A102937] p0038 B82-11084

Optimal three-dimensional turning performance of
supersonic aircraft
[AD-A102937] p0038 B82-11085

A modern approach to pilot/vehicle analysis and
the Bell-Saith criteria
[AD-A102937] p0038 B82-11086

Optimal control application in supersonic aircraft
performance
[AD-A102937] p0038 B82-11087

Design and flight testing of a digital optimal
control general aviation autopilot
[AD-A102937] p0038 B82-11088

Optimal open-loop aircraft control for go-around
maneuvers under wind shear influence
[AD-A102937] p0038 B82-11089

Models for controlling reliability in aviation ---
Russian book
[AD-A102937] p0038 B82-11090

Optimization of dispatching discipline in queuing
systems with limited queues
[AD-A102937] p0038 B82-11091

Choice of weight coefficients in the problem of the
optimal damping of the elastic oscillations of a wing
[AD-A102937] p0038 B82-11092

Design of high integrity multivariable control
systems
[AD-A102937] p0038 B82-11093

Multivariable designs: The optimization of
approximate inverses
[AD-A102937] p0038 B82-11094

Flight trajectory control investigation
[AGABD-AG-281] p0038 B82-11095

Theory and applications of optimal control in
aerospace systems
[AGABD-AG-281] p0038 B82-11096

An overview of optimal control in aerospace systems
[AGABD-AG-281] p0038 B82-11097

Theory of stochastic optimal control some basic
notions
[AGABD-AG-281] p0038 B82-11098

An introduction to stochastic optimal control theory
[AGABD-AG-281] p0038 B82-11099

Design considerations for optimal flight control
systems
[AGABD-AG-281] p0038 B82-11100

Design techniques for multivariable flight control
systems
[AGABD-AG-281] p0038 B82-11101

Control law design for transport aircraft flight
tasks
[AGABD-AG-281] p0038 B82-11102

A-325
OPTIMIZATION

Control design of flexible spacecraft p039 M82-11081
Optimal closed loop descent trajectories for airspace p039 M82-11082
Management of redundancy in flight control systems using optimal decision theory p039 M82-11084
Application of singular perturbation theory p0085 M82-12050
Computational methods of robust controller design for aerogelastic flutter suppression [NASA-CH-169803] p0089 M82-12080
Extension of proportional navigation by the use of optimal filtering and control methods [ESA-TM-663] p0253 M82-18199
Multivariable aircraft control by maneuver commands: an application to air to surface gurnsey p0262 M82-19154
A method for applying linear optimal control theory to the design of a regulator for a flexible aircraft --- improving riding quality in fighter aircraft [HLF-TA-80032-U] p0265 M82-19212
Optimally terrain-following feedback control for advanced cruise missiles [AD-A110286] p0319 M82-21179
Multivariable closed loop control analysis and synthesis for complex flight systems p0347 M82-22193
Prediction of aircraft handling qualities using analytical models of the human pilot [NASA-TM-84323] p0396 M82-24208
Optimization of auto-pilot equations for rapid estimation of helicopter control settings [AD-A110739] p0409 M82-25263
Analytical and experimental study of advanced transport [NASA-CH-3572] p0526 M82-26298
Active flutter suppression using optical output feedback digital controllers [NASA-CH-165939] p0592 M82-32375
Integrated aircraft propulsion control [NASA-CH-1896] p0593 M82-32382
System optimization by periodic control [AD-A117815] p0611 M82-33002

OPTIMIZATION

ST FLIGHT OPTIMIZATION
ST OPTIMAL CONTROL
ST TIME OPTIMAL CONTROL
ST TRAJECTORY OPTIMIZATION

Optimization of the principal design parameters of a passenger aircraft p0610 A82-10086
Flight vibration optimization via conformal mapping p0662 A82-13975
Multiple optimal design structures with fiber-composite stiffened-panel composite [AIAA PAPER 82-0723] p0113 A82-17596
Optimum journal bearing parameters for minimum rotor vibration response in synchronous whirl [ASME PAPER 81-DST-55] p0161 A82-19344
Optimal shape design of turbine blades [ASME PAPER 81-DST-126] p0162 A82-19342
Application of structural optimization technique to reduce the external vibrations of a gas-turbine engine [ASME PAPER 81-DST-143] p0162 A82-19351
Power system design optimization using Lagrange multiplier techniques p0176 A82-20743
Some thoughts on design optimization of transport helicopters p0273 A82-25771
Optimum three-dimensional flight of a supercruise aircraft p0274 A82-26039
Optimization of rotor systems for tilt-rotor aircraft that fold for shipboard compatibility p0280 A82-26399
Optimization of measurements in the state estimation of systems using the least squares method p0333 A82-29926
Design principles of a computer-aided design system [AIAA 82-0719] p0339 A82-30169
Optimization of propeller blade shape by an analytical method [AIAA PAPER 82-1125] p0417 A82-35021
The use of optimization techniques to design controlled diffusion compressor blading [ASME PAPER 82-D-149] p0426 A82-35373
A cost modeling approach to engine optimization [ASME PAPER 82-1165] p0439 A82-37698
Static and aerelastic optimization of aircraft p0446 A82-37945
Efficient optimum design of structures - Program DODO p0481 A82-38146
Application of the sequential optimization method to the tuning of the natural frequencies of gas-turbine engine compressor blades p0492 A82-39399
Optimum structural design --- for better performance p0502 A82-40543
Optimizing aerospace structures for manufacturing cost p0516 A82-41014
Optimization of canard configurations - An integrated approach and practical design estimation method p0517 A82-41023
Mathematical models of rotor strength and optimization in computer-aided design p0546 A82-42462
An optimum design of fuselage structure p0546 A82-42533
The application of geometric programming to the structural design of aircraft wings p0546 A82-42564
Optimization in multivariable design p0546 A82-42565
Sensitivity analysis and optimization of aerelastic stability p0551 A82-43394
Optimization of dispatching discipline in queueing systems with limited queues p0562 A82-46607
The use of optimization techniques to design controlled diffusion compressor blading [NASA-CH-82763] p0134 A82-14094
Optimization of compressor vane and bleed settings [AD-A106055] p0134 A82-14097
Experimental verification of an aerodynamic parameter optimization program for wind tunnel testing [AD-A107727] p0199 A82-17134
Use of optimization to predict the effect of selected parameters on computer aircraft performance [NASA-CR-168439] p0201 A82-17151
Parallel computation for developing nonlinear control procedures [AD-A107914] p0209 A82-17227
Parametric criteria and impact on design trends p0247 A82-18139
A concept for a fuel efficient flight planning aid for general aviation [NASA-CH-3533] p0266 A82-19117
Numerical aircraft design using 3-D transonic analysis with optimization, volume 2. Part 1: Transport design [AD-A101231] p0315 A82-21181
Combining analysis with optimization at Langley Research Center. An evolutionary process [NASA-TM-88474] p0400 A82-24846
Opportunities for wind-tunnel/flight correlation with new Boeing airplanes [NASA-TM-88474] p0400 A82-25206
Mathematical models for the synthesis and optimization of spiral bevel gear tooth surfaces for heliospheric transmissions [ASME PAPER 82-3553] p0412 A82-25516
OSCILLATING FLUID
Bifurcation analysis of nonlinear stability of aircraft at high angles of attack
[AIAA PAPER 82-0244] p0117 A82-17862
Computations of transonic flow over an oscillating airfoil with shock-induced separation
[AIAA PAPER 82-0350] p0119 A82-17900

Oxidation Resistance

Instantaneous turbulence profiles in the wake of an oscillating airfoil
[AIAA PAPER 82-0352] p0119 A82-17901
Responses of oscillating wings in weak shear flow
A82-18021
The velocity potential for the harmonically oscillating, rectangular wing with minimum span in nonlinear theory
A82-19198
Flow field around an oscillating airfoil
A82-20813
Suppression of self-oscillations in open wind tunnels
A82-25794
Conditions of pulsed starting of supersonic wind tunnel blowers
A82-25795
The relaxation oscillation in ramjet combustion
A82-28738
Development of rotary wing aircraft aerodynamics
A82-38120
Interpretation and construction of a dynamic similarity model of the 310 wing
A82-48122

Oscillation Dampers

Theoretical and experimental investigation of joint-structural damping interaction for airplane construction
A82-41013
Apparatus for damping operator induced oscillations of a controlled system -- flight control
[AIAA-CASE-ARC-1104-1-1] A82-18493

Oscillations

Theoretical and experimental investigation of jet A stability of jet A
A82-17844
Analysis of a longitudinal pilot-induced oscillation experienced on the approach and landing test of the space shuttle
[AIAA-TM-81366] A82-13149
Comparison of analytical predictions of longitudinal short period pilot-induced oscillations with results from a simulation study of the space shuttle orbiter
[AIAA-TM-81367] A82-23236
Reflections on an F-43 in flight emergency
[AIAA-116873] A82-33358

Oscillators

St Cathode Ray Tubes
St Penodems
St-Outlets
St-Turns

Output

Coupled rotor/airframe vibration analysis program manual. Volume 2: Sample input and output listings
[AIAA-CH-165092] A82-31966
OT-10 Aircraft
OT-10 Nose gear fork damage analysis
[AD-A111492] A82-25244

Overcast

St Cloud Cover
St Openings
St-Harmomics

Oxidation

Correlation of wear with oxidation of carbon-carbon composites
A82-27068
Effect of some nitrogen compounds thermal stability of jet A
[AIAA-TM-82068] A82-27519
Improved plasma sprayed NiCrAlY coatings for aircraft gas turbine applications
A82-20762
The effect of NaCl in high temperature oxidation
[AIAA PAPER 82-0706] A82-35342
Oxidation-resistant materials for high-temperature turbine and jet engines
A82-41725
Development of improved high temperature coatings for IH-792 + BF
[AIAA-CH-165395] A82-14333

Supplementary studies on the sensitivity of optimized structures
[AD-A110994] A82-25545
Use of optimization to predict the effect of selected parameters on computer aircraft performance
[AIAA-CH-169027] A82-26279
Minima time turns constrained to the vertical plane
[AD-A111096] A82-26317
Panel Optimization with Integrated Software (POIS), Volume 2. User Instructions: ECHO and BERTS
[AD-A12224] A82-27411
Cost and benefits design optimization model for fault tolerant flight control system
[AIAA-CH-159281] A82-23279
Circumferentially segmented duct lines optimized for axisymmetric and standing wave sources -- reducing noise from turbofan engines galerkin method acoustic attenuation
[AIAA-TP-2075] A82-34490

Optimum Control

St Optimal Control
St Transfer Function Programming
St Transfer Function

Ozone Decay

Predilution estimates of near earth satellite lifetimes using quasianalytical atmosphere models -- application to a proposed Brazilian satellite
[INPE-2325-PHR-000] A82-29347

Ozone Stratosphere

Frequency sharing between passive sensors and aeroclassical radionavigation systems employing ground transponders in the band 4.2 - 4.4 GHz
[AIAA-CH-169041] A82-26261

Ozone Transport

Orbital flight Tests (Shuttle)
St Space Transportation System Flights
St Orbital Simulations
St Transfer Orbits

Orbits

St Transfer Orbits
St Orbit

Oxygenate

Oxygenate the Mach's machines -- beats away --- weapons delivery of fighter aircraft at transonic speed
A82-40467

Oxides

U Oxides
St Oxides

Organic Compounds

Ut Carbon Tetrafluoride
St Castor Oil
St Cyclic Compounds
St Fatty Acids
St Organic Liquids

Organic Liquids

Ehrlich behavior of progressively shear-thickening solutions --- aircraft fuel polymer additives for fire protection in curvatable canisters
A82-11177

Oxides

Experimental investigation of total pressure loss and airflow distribution for gas turbine combustors
A82-15606
Semiaempirical analysis of liquid fuel distribution downstream of a plain surface injector under cross-stream air flow
[ASME PAPER 82-CT-16] A82-35285

Other Aircraft

U P-3 Aircraft
Other Aircraft
U Vehicle Aircraft

Orientation

The arbitrary quasi-orthogonal surface method for computing three-dimensional flow in turbine machinery. 2. Calculation of the three-dimensional flow with the S sub 1 surface twisted
A82-11015

Oscillating Flow

Bifurcation analysis of nonlinear stability of aircraft at high angles of attack
[AIAA PAPER 82-0244] A82-17862
Computations of transonic flow over an oscillating airfoil with shock-induced separation
[AIAA PAPER 82-0350] A82-17900

Subject Index
OXIDES
Correlation of surface characterization of phosphoric acid anodize oxide with physical properties of bonded specimens

OXIDES
N2 Carbon Monoxide
N2 Nitrogen Oxides
N2 Silicon Dioxide
Oxygen
N2 Oxygen
OXIDE BREATHING
An oxygen enriched air system for the AV-8A Harrier

OXIDE SUPPLEMENTARY EQUIPMENT
An oxygen enriched air system for the AV-8A Harrier

OXIGEN SYSTEMS
O OxyGEN SUPPLY EQUIPMENT

OXIDATION
Two-dimensional model studies of the impact of aircraft exhaust emissions on tropospheric ozone
Ozone and aircraft operations
In situ ozone data for comparison with laser absorption remote sensors: 1980 PRP/HEROS program

OXONITE
Acrylic cabin air ozone contamination and compliance with regulations
Ozone and aircraft operations

P-3 AIRCRAFT
Configuration management techniques for automatic testing

P-31 HELICOPTER
Rotor preliminary design trade-offs for the Advanced Scout Helicopter

PACKAGES
P-3 INSTRUMENT PACKAGES
PACKET SWITCHING
Next generation military aircraft will require a hierarchical/multilevel information transfer system—packet switching

PACKET TRANSMISSION
P-3 PACKET SWITCHING
Tactical airborne Distributed Computing and Networks

PADE APPROXIMATION
Pade approximation applied to flow past thin airfoils

PAINTS
Automated Paint and Process Line /*APPL*/—for aircraft production
The experience of corrosion on French military aerodynamcs

PANEL FLUTTER
Kelvin-Helmholtz stability analysis of air cushion landing gear trunk flap

PANEL METHOD (FLUID DYNAMICS)
Recent improvements in prediction techniques for supersonic weapon separation
Subsonic aerodynamic and flutter characteristics of several wings calculated by the SUGSIA/F11 panel method
Subsonic 3-D surface panel method for rapid analysis of multiple geometric perturbations
Lateral aerodynamics of delta wings with leading edge separation

Computational aerodynamics
A numerical method for studying nacelle-jet-airfoil interaction in incompressible three-dimensional flow

three-dimensional flow
Development of an efficient procedure for calculating the aerodynamic effects of planform variation

The PFA wing body 81 computer program. A panel method for determination of aerodynamic characteristics at subsonic and supersonic speeds
User's manual for the Automated Paneling Technique (APT) and the Wing Body Aerodynamic Technique (WABAT) programs

PAKES
P-3 CURVED PANELS
P-3 WING PANELS

PAKES
Response of nonlinear aircraft structural panels to high-intensity noise

PAKES
Acceleration response of fuselage sidewall panels on a twin-engine, light aircraft

PBKES
Design, fabrication and test of liquid metal heat-pipe sandwich panels

PBKES
Temperature fields in three-layer panels with a honeycomb filler during unsteady heating

PBKES
Design and fabrication of cocured composite hat-stiffened panels

PBKES
Analysis of multiple load path panels containing impact damage

PBKES
Study of noise reduction characteristics of composite fiber-reinforced panels, interior panel configurations, and the application of the tuned damper concept

PBKES
Flight service evaluation of Kevlar-49 epoxy composite panels in wide-bodied commercial transport aircraft

PBKES
Panel Optimization with Integrated Software (POIS). Volume 1: POIS/Integrated Software for preliminary minimum weight design

PBKES

PBKES
Hurricane-induced wind loads
House transmission loss of aircraft panels using acoustic intensity methods

PBKES
Review and performance of radome-covered reflector antennas

PBKES
Helicopter rotor performance improvement by utilization of swept-back parabolic blade tip—wind tunnel tests

PBKES
Prediction and performance of radome-covered reflector antennas

PBKES
Helicopter rotor performance improvement by utilization of swept-back parabolic blade tip—wind tunnel tests

PBKES
Prediction and performance of radome-covered reflector antennas

PBKES
Aerodynamics and performance of cruciform parachute canopies

PBKES
Experimental determination of parachute apparent mass and its significance in predicting dynamic stability

PBKES
Comparison of simulation and experimental data for a gliding parachute in dynamic flight

PBKES
Theoretical analysis of parachute inflation including fluid kinematics

PBKES
The constructed rigging line trials technique for assessing the opening characteristics of parachutes
Extraction of text is not possible from this image.
Advanced composite integral structures meet the challenge of future aircraft systems p0288 A82-27133
Performance degradation of propeller/rotor systems due to ice accretion [AIAA PAPER 82-0266] p0297 A82-28322
Prediction of aerodynamically induced vibrations in turbomachinery blades p0327 A82-28986
Estimation of the performance of post-stationary discontinuous control systems for flight vehicles p0333 A82-29832
Approximate method of predicting heating on the windward side of Space Shuttle Orbiter and paragliders with flight data [AIAA PAPER 82-0821] p0373 A82-31853
Solar-powered airplane design for long-endurance, high-altitude flight [AIAA PAPER 82-0811] p0376 A82-31984
Fatigue life prediction of helicopter pitch link using Kaman life calculation methods p0387 A82-34125
Development of a helicopter rotor/propulsion system design analysis [AIAA PAPER 82-1076] p0416 A82-36997
Small turbine engine augmentor design methodology [AIAA PAPER 82-1179] p0417 A82-35044
On the influence of the number of stages on the efficiency of axial-flow turbines [AIAA PAPER 82-GT-42] p0421 A82-35301
On the performance prediction of a centrifugal compressor scaled up [AIAA PAPER 82-GT-112] p0424 A82-35345
A critical appraisal of some current incidence loss models for the stator and rotor of a mixed flow gas turbine [AIAA PAPER 82-GT-120] p0425 A82-35350
Development and application of a performance prediction method for straight rectangular diffusers [AIAA PAPER 82-GT-122] p0425 A82-35352
An inviscid-viscous interaction treatment to predict the blade-to-blade performance of axial compressors with leading edge normal shock waves [AIAA PAPER 82-GT-128] p0425 A82-35363
A stage-by-stage dual-spool compression system modeling technique [AIAA PAPER 82-GT-189] p0427 A82-35394
TURBOTHREADS - A programming language for the performance simulation of arbitrary gas turbine engines with arbitrary control systems [AIAA PAPER 82-GT-200] p0427 A82-35396
Evaluation criteria for aero engine materials [AIAA PAPER 82-GT-208] p0434 A82-36605
General purpose research rotor (APHRD-1) p0481 A82-37777
An alternate method of specifying bandwidth for flying qualities [AIAA PAPER 82-1209] p0485 A82-38988
Supersonic missile aerodynamic and performance relationships for low observable missile profiles [AIAA PAPER 82-1286] p0487 A82-39085
The correlation of flight test and analytic on-on, air combat exchange ratios - Many-on-One [AIAA PAPER 82-1328] p0488 A82-39105
Analysis of an airplane windshield anti-icing system [AIAA PAPER 82-1327] p0489 A82-39134
Analytic extrapolation to full scale aircraft dynamics [AIAA PAPER 82-1387] p0490 A82-39143
An experimental investigation of a birefringent model rotor in hover p0498 A82-40512
Correlation of predicted vibrations and test data for a wind tunnel helicopter model p0499 A82-40515
Digital computer simulation of modern aeronautical digital communication systems p0509 A82-40540
The prediction of propeller/aircraft interaction effects p0510 A82-40548
Development of the Circulation Control Wing-Spacer Surface Blowing powered-lift system for STOL aircraft p0512 A82-40969
A survey regarding the German-French development program Alpha Jet p0550 A82-43332

Electronic warfare system measure of effectiveness [AIAA PAPER 82-40840]
Pneumatic tire model for aircraft simulation p0555 A82-42994
A simplified method for predicting rotor blade airdraulocities p0577 A82-45187
The airplane manufacturer and meteorology --- in prediction of weather effects on aircraft performance p0579 A82-45821
Energy methods used in air combat performance comparisons p0581 A82-45850
Computational aerodynamics p0581 A82-45851
Parametric study of microwave-powered high-altitude airplane platforms designed for low earth flight [NASA TP-1918] p0535 A82-11050
Experimental and analytical studies of advanced air cushion landing systems [NASA CR-3476] p0587 A82-12065
Simulator certification methods and the vertical motion simulator [NASA CR-166252] p0599 A82-12082
Through flow calculations in axial turbines [AIAA 82-1575] p0599 A82-17178
Influence of correlations and computational methods on the prediction of overall efficiency [AIAA 82-17180]
Part span damper loss prediction for transonic axial fan rotors p0205 A82-17192
Axial compressor stall and surge p0205 A82-17194
Summary of answers to the questionnaire p0205 A82-17195
Single stage transonic compressor and equivalent plane cascade p0206 A82-17196
The through flow calculations p0206 A82-17199
Evaluation of profile loss predictions based on diffusion factors p0206 A82-17200
Blade-to-blade computations and boundary layer corrections in axial compressors and turbines p0206 A82-17202
Foundations for computer simulation of a low pressure oil flooded single screw air compressor (AD-A108230) p0268 A82-19391
The benefits of data exchange --- between airline and engine manufacturer [PHR-90049] p0323 A82-22095
Use of optimization to predict the effect of selected parameters on computer aircraft performance [NASA CR-165027] p0565 A82-26279
User's manual for the vertical axis wind turbine code VAWT2 p0632 A82-26828
Nonlinear constitutive theory for turbine engine structural analysis p0613 A82-33744

Performance tests
Interoperability testing of decentralized command, control, communications and intelligence / C3I/ systems [AIAA 81-2205] p003 A82-10143
Air bag impact attenuation system for the AGM-69 remote piloted vehicle [AIAA PAPER 81-1917] p0006 A82-10403
Aerodynamics and performance of cruciform parachute canopies [AIAA PAPER 81-1919] p0006 A82-10405
The constructed rigging line trials technique for assessing the opening characteristics of parachutes [AIAA PAPER 81-1932] p0007 A82-10413
High-efficiency hydraulic power transfer units for multisection aircraft p0010 A82-10853
The certification of digital systems p0017 A82-11940
FIA acceptance tests on the NAVSTAR GPS 2-Set receiver p0022 A82-12639
SUBJECT INDEX

PLASTIC AIRCRAFT STRUCTURES

PITCH ANGLES
U PITCH (inclination)
PITCH ATTITUDE CONTROL
U LONGITUDINAL CONTROL
PITCHING ROBOTS
Aerodynamic effects of shape, camber, pitch, and
ground proximity on idealized ground-vehicle
bodies
p105 A82-16432
Tactical STOL moment balance through innovative
configuration technology
[AIAA PAPER 82-2615]
p155 A82-19204
Alteration of the subsonic pitch-up of delta wings
[AIAA PAPER 82-0129]
p183 A82-22052
Performance and aerelastic tradeoffs on recent
rotor blade designs
Experimental study of oscillating-wing propulsion
p0280 A82-26396
Wing flap-type control effectiveness and effects
of control hinge gap sizes for a supercritical
wing
[AIAA PAPER 82-0960]
p366 A82-34008
Development and flight test evaluation of a pitch
stability augmentation system for a relaxed
stability L-1011
[AIAA PAPER 82-1297]
p0487 A82-39084
Wind tunnel measurements of longitudinal stability
and control characteristics of primary and
secondary wing configurations
p0518 A82-41025
A calculation method for slender wing-body
configurations in supersonic flow at high angles
of attack — nonlinear force and pitching
moment characteristics
[pHYG-FHW-79-15]
p0098 H82-13115
A further study of helicopter rotor
pitch-flap-phase coupling
[b9-259]
p265 H82-19214
A two-degree-of-freedom flutter mount system with
low damping for testing rigid wings at different
angles of attack
[NASA-TM-83302]
p371 H82-23589
An experimental study of dynamic stall on advanced
airfoil sections. Volume I: Summary of the
experiment
[NASA-TM-84245-VOL-1]
p0566 H82-22319
PITOT TUBES
Effects of intake geometry on circular pitot
intake performance at zero and low forward speeds
p0053 H82-13070
Sea King flight tests pitot-static probe and
directional vane instrumentation
[AD-109427]
p0304 H82-20176
Boom probe position error corrections for Sea King
95 50 flight tests
[AD-109428]
p0304 H82-20177
Correcting for turbulence effects on average
velocity measurements made using five hole
spherical pitot tube probes
[AD-112571]
p0470 H82-27290
Correlation of Preston-tube data with laminar skin
friction (Log No. J12984)
[NASA-TM-860827]
p0539 H82-29556
FITTING
Optimization of requirements on the
putting-prevention properties of turbojet-engine
oils
p-0082 A82-15723
Fracture mechanics based modelling of the
corrosion fatigue process
p0210 H82-17344
PILOTED WING AIRCRAFT
U TILT WING AIRCRAFT
PLANE STRAIN
In-plane shear test of thin panels
p0502 A82-40545
PLANETARY BOUNDARY LAYER
Multiple Doppler radar observations of PBL structure
p0004 A82-10292
PLANETARY ENTRY
U ATMOSPHERIC ENTRY
PLANETARY EXPLORATION
U SPACE EXPLORATION
PLANETARY SPACE FLIGHT
U INTERPLANETARY FLIGHT
PLOTTERS
UT ARROW WINGS
UT CARRY WINGS
MY DELTA WINGS
MY INFINITY SPAN WINGS
MY RECTANGULAR PLATES
MY SWEEP FORWARD WINGS
MY SWEEPBACK WINGS
MY TRAPEZOIDAL TAIL SURFACES
MY TRAPEZOIDAL WINGS
MY VARIABLE SWEEP WINGS
MY WING PLANS
Pressure distributions on three different
cruciform aft-tail control surfaces of a
windless missile at Mach 1.60, 2.36, and 3.70.
Volume I: Trapezoidal tail
p0098 H82-13110
Production version of the extended NASA-Langley
Vortex Lattice FORTRAN computer program. Volume
1: User's guide
[NASA-TM-83303]
p0405 H82-25219
The aerodynamic influences of rotor blade taper,
twist, airfoils and solidity on hover and
forward flight performance
[AD-A117397]
p0605 H82-33357
FLAMINGO
U TOPOGRAPHY
FLARING
A navigation systems planning model
p0022 A82-12640
FLAPPLANNING
MF AIRPORT PLANNING
MF MANAGEMENT PLANNING
MF MISSION PLANNING
MF PRODUCTION PLANNING
MF PROJECT PLANNING
MF REGIONAL PLANNING
MF URBAN PLANNING
Human factors contributions to air traffic control
systems
p0530 H82-29295
PLANTS (BOTANY)
MF COMPARIS
PLANTS (INDUSTRIES)
U INDUSTRIAL PLANTS
PLASMA DISPLAY DEVICES
Lightweight ATC systems
p0220 A82-23321
PLASMA JET WIND TUNNELS
Quantitative interpretation of recirculated flow
visualization by the analysis of video pictures
p0286 A82-27109
PLASMA PHONES
MF ELECTROSTATIC PHONES
PLASMA SPRAYING
Improved plasma sprayed ECrAlY coatings for
gas turbine applications
p0176 A82-20742
Thermal-barrier-coated turbine blade study
[NASA-CR-16551]
p0288 H82-10040
Properties of protective coatings for aircraft gas
turbines: A review of NASA sponsored research
[NASA-TR-82740]
p0050 H82-12216
PLASTIC AIRCRAFT STRUCTURES
On the use of carbon composites in slat and
stabilizer construction
p015 A82-11468
Seven years experience with Kevlar-49 in the --
Lockheed L-1011 Tristar
p023 A82-12647
Lear Fan - The plastic aeroplane arrives
p0126 A82-18348
Conference on Aerospace Transparencies, London,
England, September 8-10, 1980, Proceedings
p0225 A82-24310
Abrasion resistant coated plastic products for
aircraft
p0226 A82-24310
Proposed method for abrasion testing transparent
plastics and coatings
p0227 A82-24311
Acrylic - A timely review
p0227 A82-24317
Problems associated with the quality assurance of
stretched acrylic sheet
p0228 A82-24319
The effects of absorbed moisture upon the physical
properties of stretched acrylic materials
a-337
Drag reduction using pneumatic turbulators ---
Dawson airfoils.

PHYSICALLY BASED
U PNEUMATIC CONTROL

FIRE (EXTERNAL STORES)
The design, construction, and performance of
composite fuselage components for the Boeing 234
helicopter.

POINT BATCHING METHOD (MATHEMATICS)
U BOUNDARY VALUE PROBLEMS

POINT SOURCES
High frequency sound emission from moving point
multipole sources embedded in arbitrary
transversely sheared mean flows.

POINT TO POINT COMMUNICATION
Updating the egyptian A.T.C. system.

POINTING CONTROL SYSTEMS
Laser pointing in a turbulent atmosphere.

POLYBUTENE FLOW
U LAMINAE FLOW

POISONS
U URETHANES

POLYSULFIDE

U STOCHASTIC PROCESSES

POLAR REGIONS
U NZ ARCTIC REGIONS

POLAR WANDERING (GEOLGY)
A comparison of pole positions derived from GPS
satellite and Navy navigation satellite
observations.

POLARIMETERS
TM/TE polarization ratios in a sample of 30 km
depth received at altitudes from 0 to 70 km.

POLARIZATION CHARTS
U GEAPHS (CHARTS)

POLY (SUPPORTS)

Computational methods of robust controller design
for aeroelastic flutter suppression

POLICIES
U ENERGY POLICY

POLICY PROCUREMENT POLICY
The Federal Radaravigation Plan.

A perspective on civil use of GPS
Developmental possibilities and restrictions in
air transport.

POLITICS

Present challenges of research and technology
today.

POLYFILLANTS
U URETHANES

POLLEN

# AIR POLLUTION
# NOISE POLLUTION
# OIL POLLUTION

POLLUTION CONTROL
Smoke reduction in F-15B-710 turbofan engines by an
airblast combustor.

Aerospace testing.

FUEl MICROBLENDING FOR JET ENGINE SMOKE REDUCTION
(AESM PAPER 82-03-24)

Baseline data on utilization of low-grade fuels in
gas turbine applications. Volume 3: Rainstorms
evaluation.

POLYMER REDUCTION TECHNOLOGY PROGRAM SMALL JET
aircraft engines, phase 3.

POLYMER REDUCTION TECHNOLOGY PROGRAM SMALL JET
aircraft engines, phase 3.

Noise impact on communities from aircraft

Evaluation of the north island A/C crash/Rescue
training facility.

Vapor condensation control of JP-4 emissions from
underground storage tanks at march air force
base, california.

POLUTION MONITORING
Noise monitoring in airport communities.

POLY REACTORS
NT KAPTON (TRADEMARK)
Materials and design criteria for Kevlar-29 ribbon
paragraphs.

POLYCARBONATE
Mechanical property characterization and modeling
of structural materials --- for airfranes and
aircraft gas turbine engines.

POLYCHLORIDE
Polyurethane foams for aircraft shock mount.

POLYETHYLENE
Addition polyimide adhesives containing various
end groups.

Kevlar/PHR-15 polyimide matrix composite for a
complex shaped DC-9 drag reduction fairing.

FORMATION AND CHARACTERIZATION OF POLYIMIDE
reinforced foams of various densities for
aircraft seating applications.

Develop, demonstrate, and verify large area
composite structural bonding with polyimide
adhesives --- adhesively bonding
carapace-polyimide structures.

KAPTON (TRADEMARK)
Invention of the application of a cryogenic
blending process to produce antiicing diesel
fuels.

KAPTON (TRADEMARK)
Damage tolerance and durability design of
composite structures for commercial aircraft.

A perspective on civil use of GPS
Developmental possibilities and restrictions in
air transport.

The preparation and characterization of polyimide
reinforced foams of various densities for
aircraft seating applications.

Aeroelastic boundary value problems.

The use of Kevlar in aerospace applications
for aerodynamic flutter suppression.

Kevlar/PHR-15 polyimide matrix composite for a
complex shaped DC-9 drag reduction fairing.

Design and analysis of large area
composite structural bonding with polyimide
adhesives --- adhesively bonding
carapace-polyimide structures.

KAPTON (TRADEMARK)
Problems associated with the quality assurance of
stretched acrylic sheet.

The use of Kevlar polyimide film in aerospace
applications.

An evaluation of several polymers for high density
boundary layer control coatings.

Transparent polyolefin film armor.

POLYMERIZATION
Water-compatible polyurethane materials for
use in rapid repair systems for airport runways
(AD-56310).

The preparation and characterization of mixtures of
polycyclopentadienes as solid rocket fuels
(AD-115075).

An algorithm, invariant relative to the initial
data, for implementing the polynomial contouring
method --- for computer aided design and
manufacturing.

Hybrid state vector methods for structural dynamic
and aeroelastic boundary value problems.

Service sensitivity of polysulfide sealants.
POLYURETHANE FOAMS
Performance of PTFE-lined composite journal bearings
[ASLE PREPRINT 82-AM-11]  p0043  A82-37854

POLYURETHANE FOAM
Polyurethane foams for aircraft shock mounts. 3: Vibration damping by polyether foams
[AD-1104966]  p0040  A82-11212

POROUS BOUNDARY LAYER CONTROL
Recent sidewall boundary-layer investigations with suction in the Langley 0.5-cm Transonic Cryogenic Tunnel
[AIAA PAPER 82-0234]  p0117  A82-17856

Aerodynamic development of laminar flow control on swept wings using distributed suction through porous surfaces
p0505  A82-40894

POROUS MATERIALS
Development of low modulus material for use in
ceramic gas path seal applications
[NASA-CS-165469]  p0027  H82-10039

Icing tunnel tests of a composite porous leading edge for use with a liquid anti-ice system ---
Lewis icing research tunnel
[NASA-CS-164966]  p0035  H82-11052

Gas turbine ceramic-coated-vane concept with
convection-cooled porous metal core
[NASA-TP-1942]  p1134  H82-14090

POROUS PLATES
Turbulent boundary layer on a porous surface with
injection at various angles to the wall
p0492  A82-29842

POROUS WALLS
Thermal and flow analysis of a convection,
air-cooled ceramic coated porous metal concept
for turbine vanes
[ASME PAPER 81-HT-64]  p0014  A82-11434
End losses in turbine cascades with porous cooling
p0014  A82-11434

Results of experimental study of heat transfer to
turbine blades with porous cooling
p0014  A82-11446

Corrections for wall effects in NASA industrial
wind tunnels
[ONERA, TP 80. 1962-3a]  p0548  A82-82301

PORTABLE EQUIPMENT
Portable transparency optical test system -/P-T01S/
p0226  A82-24309

The stability of portable bridges carried on
sling beneath helicopters
[ADF/LEDO-EXT-15A]  p0219  H82-21213

Techniques suitable for a portable near metal
analyser
[AD-111352]  p0011  H82-25468

POSITION (LOCATION)
A solution to the static geometry problem for
JTIDS relative navigation
p0022  A82-12634

PLRS engineering development testing - Early results
--- Position Location Reporting System with data
communication network for community users in
municipal environment
[AD-11408]  p0124  A82-18157

Coordinate transformation in PLRS --- algorithm
and error analysis of Position Location and
Reporting System
[AD-11408]  p0124  A82-18158

Loran for precise position location - The Y2N-NAV
system
p0235  A82-24668

Lightweight detection and ranging
p0277  A82-26367

Construction and testing of an Omega navigation
system for the balloon-borne X-ray experiment
--- German thesis
p0569  A82-83111

Passive direction finding and signal location
p0570  A82-85346

The statistical theory of radio direction finding
[AD-1104516]  p0026  H82-10227

A possible way of specifically correcting location
and navigational errors caused by reflection and
other propagation anomalies
[ESA-TP-667]  p0253  H82-18198

Doppler radar-research and application to aviation
flight safety, 1977 - 1979
[AD-1109085]  p0303  H82-20163

Marine Air Traffic Control and Landing System
(MAPCALS Investigation), volume 1
[AD-110862]  p0394  H82-24188

Marine Air Traffic Control and Landing System
(MAPCALS Investigation), volume 2
[AD-110863]  p0394  H82-24189

A comparison of pole positions derived from GPS
satellite and navy navigation satellite
observations
[AD-110765]  p0499  H82-26260

The effect of ionospheric variability on the
accuracy of high frequency position location
[AD-1107425]  p0450  H82-26274

Mode S system accuracy
[AD-1112499]  p0467  H82-27266

Geodetic paths of an ellipsoid-sounding antenna
[AD-1106523]  p0596  H82-32573

POSITION ERRORS
RT WORKSHOFT ERROR
Updated station selection procedures to support
automatic Omega receiver operation
[AD-110862]  p0394  H82-24188

AM/TPM-25 and AM/GPN-22 precision approach radars
[AD-1109085]  p0449  H82-26260

Maneuver dependent component error models and
synchronized reset filters for inertial
navigation systems
p0122  A82-18139

Laboratory and flight test of a new BIG strapdown
INS
p0123  A82-18150

Position extrapolation quality calculation for
inertial and Doppler/AIRS navigation systems
[AD-1106523]  p0596  H82-32573

JTIDS distributed TDBA/TDBA/ terminal
development results with emphasis on relative
navigation performance
[AD-1106523]  p0596  H82-32573

A natural parameter-controller specification
procedure for an integrated radio/dead reckoner
navigation system
[AD-1106523]  p0596  H82-32573

Coordinate transformation in PLRS --- algorithm
and error analysis of Position Location and
Reporting System
[AD-1106523]  p0596  H82-32573

Enhanced source immunity and error control in a
fully integrated JTIDS/GPS receiver --- Joint
Tactical Information Distribution System
[AD-1106523]  p0596  H82-32573

The application of NAVSTAR differential GPS in the
civilian community
p0235  H82-24845

Loran-C NAV in mountainous areas
p0236  H82-24649

The reliability of height and identity data ---
surveillance radar error analysis
p0341  A82-30312

Altitude estimation using asynchronous alpha-beta
tracking filters
p0562  A82-46307

A possible way of specifically correcting location
and navigational errors caused by reflection and
other propagation anomalies
[ESA-TP-667]  p0253  H82-18198

Boom probe position error corrections for Sea King
4A 50 flight tests
[AD-1104516]  p0304  H82-20177

Gravity induced position errors in airborne
inertial navigation
[AD-110862]  p0394  H82-24188

POSITION INDICATORS
RT RADIO DIRECTION FINDERS
Wide field of view laser beacons system for
three-dimensional aircraft position measurement
[ASME PAPER 81-HT-64]  p0578  A82-24563

Passive direction finding and signal location
[ASA-TP-156882]  p0146  H82-15498

Aircraft position measurement using laser beacon
optics
[AD-1107973]  p0189  H82-16067

POSITIONING
Unbiased analysis of the Doppler coordinate
systems
[AD-1105160]  p0450  H82-26269

POSITIONING DEVICES (EQUIPMENT)
RT RADAR (EQUIPMENT)

A-340
POSTFLIGHT ANALYSIS

Evaluating sources of error in AAS/GEANS

Positron annihilation --- aircraft industry
applications; fault detection
[AIAA-607-6-CF-00996] p0322 A82-21600

POSITRON ANNihilation

Positron annihilation --- aircraft industry
applications; fault detection
[AIAA-607-6-CF-00996] p0322 A82-21600

POSTFLIGHT ANALYSIS

Evaluating sources of error in AAS/GEANS

Electronically Agile Radar/Gimbaled Electrically
suspended gyro Airborne Navigation System
[AIAA-607-6-CF-00996] p0322 A82-14739

Post-flight assessment of the J1IDS Bel Har
[AIAA-607-6-CF-00996] p0322 A82-18154

Post analysis of aircraft accident environments
[AIAA-607-6-CF-00996] p0322 A82-55835

BLOCK computers in the flight testing of the Fokker
[AIAA-607-6-CF-00996] p0322 A82-14839

POTENTIAL

Airborne gamma-ray spectrometer and magnetometer
survey, Uulit quadrangle, Alaska, volume 2
[AIAA-607-6-CF-00996] p0322 A82-24632

POTENTIAL ENERGY

ST ELECTRIC POTENTIAL

ST GEOPOTENTIAL HEIGHT

POTENTIAL FLOW

Remarks on the calculation of transonic potential
flow by a finite volume method
[AIAA-607-6-CF-00996] p0322 A82-15035

A more-accurate transonic computational method for
wake-body configurations
[AIAA-607-6-CF-00996] p0322 A82-22054

Analysis of an ideal-fluid flow past a
finite-thickness wing
[AIAA-607-6-CF-00996] p0322 A82-19813

Boundary layer transition and separation on a
compressor rotor airfoil
[AIAA-607-6-CF-00996] p0322 A82-20299

Pade approximation applied to flow past thin
airfoils
[AIAA-607-6-CF-00996] p0322 A82-20728

Isolated nacelle performance - Measurement and
simulation
[AIAA-607-6-CF-00996] p0322 A82-22054

Application of a transonic potential flow code to
the static aeroelastic analysis of
three-dimensional wings
[AIAA-607-6-CF-00996] p0322 A82-30156

Subsonic aerodynamic and flutter characteristics
of several wings calculated by the SOOSA F1.4
panel method
[AIAA-607-6-CF-00996] p0322 A82-30156

Finite volume calculation of three-dimensional
potential flow around a propeller
[AIAA-607-6-CF-00996] p0322 A82-30156

Contact problems involving the flow past an
unlifted aeroflot
[AIAA-607-6-CF-00996] p0322 A82-30455

Applied computational transsonics - Capabilities
and limitations
[AIAA-607-6-CF-00996] p0322 A82-35566

Evaluation of full potential flow methods for the
design and analysis of transport wings
[AIAA-607-6-CF-00996] p0322 A82-35566

Evaluation of an asymptotic method for helicopter
rotor airloads
[AIAA-607-6-CF-00996] p0322 A82-40590

Transonic small disturbance code for body-wing
configuration coupled with full potential code
for wing alone
[AIAA-607-6-CF-00996] p0322 A82-40590

The prediction of propeller/wing interaction effects
[AIAA-607-6-CF-00996] p0322 A82-40590

Finite difference computation of the steady
transonic potential flow around airplanes
[AIAA-607-6-CF-00996] p0322 A82-10981

Second order approximation theory of an arbitrary
aeroflot in compressible potential flow
[AIAA-607-6-CF-00996] p0322 A82-10982

Aerodynamic calculations and design of subcritical
aeroflots
[AIAA-607-6-CF-00996] p0322 A82-10983

Experimental investigation of a transonic
potential flow around a symmetric airfoil
[AIAA-607-6-CF-00996] p0322 A82-14057

The problem of calculation of the flow around
helicopter rotor blade tips
[AIAA-607-6-CF-00996] p0322 A82-18160

Helicopter rotor loads using a matched asymptotic
expansion technique
[AIAA-607-6-CF-00996] p0322 A82-18160
POWER GAIN

Will power-by-wire replace power-by-hydraulics? p0087 &82-14770

Recent improvements in aircraft Hi-Cd cells p0225 &82-29245

Analysis of changes in the gas-dynamic parameters of a gas-turbine helicopter engine during acceleration p0334 &82-29862

On the influence of the number of stages on the efficiency of axial-flow turbines [ASME PAPER 82-GT-43] p0462 &82-35301

Performance analysis of the test results on a two-stage transonic fan [ASME PAPER 82-GT-123] p0425 &82-35353

Accuracy expectations for gas turbine and centrifugal compressor performance testing [ASME PAPER 82-GT-128] p0425 &82-35358

Interim review of the Energy Efficient Engine /ES/ Program (ASBE PAPER 82-GT-271) p0429 &82-35407

The Power Pair Locus - A preliminary design aid to select power ratings for multi-engined helicopters p0546 &82-92747

Development of high loading, high efficiency axial flow turbine stages p0583 &82-47069

Evaluation of the design, construction and operation of a gas turbine engine driven heat pump [RB-034] p0213 &82-17459

Family of airfoil shapes for rotating blades --- for increased power efficiency and blade stability [NASA-CASE-LAE-12843-1] p0607 &82-33372

POWER GAIN: Selection of optimum antennas for tracking telemetry instrumented airborne vehicles p0290 &82-27228

Scanning LP and MF antenna radiation patterns by means of a helicopter p0391 &82-34772

POWER GENERATORS

U ELECTRIC GENERATORS

POWER PROCESSING SYSTEMS

U POWER CONDITIONING

POWER SERIES

AT TAILOR SERIES

POWER SUPPLY CIRCUITS

High voltage/high power for airborne applications p0063 &82-15918

L-band power generation in the General Electric solid-state radar p0150 &82-18914

Power system design optimization using Lagrange multiplier techniques p0176 &82-20743

POWERED LIFT AIRCRAFT

Powered-lift takeoff performance characteristics determined from flight test of the Quiet Short-haul Research Aircraft /QSR/A [AIAA PAPER 81-26009] p0053 &82-13852

Development of the Circulation Control Wing-Upper Surface Blowing powered-lift system for STOL aircraft p0512 &82-90969

Ejector powered propulsion and high lift subsonic wing p0512 &82-90970

Flight experiments using the front-side control technique during piloted approach and landing in a powered lift STOL aircraft [NASA-TM-81337] p0056 &82-26314

QCECE over-the-wing engine acoustic data [NASA-TM-62708] p0536 &82-29324

Analysis of several glidepath and speed control autopilot concepts for a powered lift STOL aircraft [NASA-TM-62828] p0611 &82-33400

POWERED MODELS

Wind tunnel tests of engine-equipped models: Comparison of two jet wash simulation methods --- [NASA-TM-76764] p0134 &82-14091

Development of a convoluted intake seal for model 266 --- vortex wind tunnel [NASE-ABG-163] p0370 &82-23255

PRACTICES

U PROCEDURES

PREAMPLIFIERS

A balanced active antenna and impulse noise blanket system for the Hayden T radio navigation receiver p0487 &82-27275

PRECAUTIONS

U ACCIDENT PREVENTION

PRESCRIPTION (ANTHROPOLOGY)

U MEDICAL

The evolution of airborne weather avoidance radar toward a calibrated remote rain gauge using BBeiX --- Bain Echo Attenuation Compensation Hardware p004a &82-10225


Preliminary investigation of effects of heavy rain on the performance of aircraft [NASA-TR-0372] p0301 &82-20145

Evaluation of a meteorological airborne pulse doppler radar [PB82-156660] p0562 &82-30620

PRESCRIPTION HARDWARE

Forbiddability of INCLOY alloy Ni 956 - An oxide dispersion strengthened sheet alloy p0365 &82-33994

PREDICTION ANALYSIS TECHNIQUES

A new thermal and trajectory model for high altitude balloons [AIAA PAPER 81-1926] p0067 &82-10411

A method for predicting the lifetime of gas turbine blades p0106 &82-16692

Methods and models for predicting fatigue crack growth under random loading --- Book p0168 &82-20506

New processes and methods of technical diagnostics and prognostics in the case of the engine NK-8-4, II p0315 &82-29925

Evaluation of two analytical methods for the prediction of nuint flow fields in the vicinity of generalized forebodies [AIAA PAPER 82-0959] p0374 &82-31935

Prediction of aerodynamic flow at transonic Mach numbers [AIAA PAPER 82-1021] p0375 &82-19794

Turbine blade nonlinear structural and life analysis [AIAA PAPER 82-1056] p0115 &82-34981

Blade loss transient dynamic analysis of turbomachinery [AIAA PAPER 82-1057] p0415 &82-34982

Turbine stage heat flux measurements [AIAA PAPER 82-1289] p0519 &82-35102

Design to life cycle cost capability of the PRICE models [JAF PAPER 82-221] p0556 &82-44495

Prediction of aerodynamic loads on aircrafts with external stores at transonic speeds p0101 &82-13813

Prediction of flyover jet noise spectra from static tests [NASA-TM-03219] p0139 &82-14080

Aerodynamic considerations in the prediction of stalled supersonic flutter in transonic fans [NASA-TM-82-15058] p0116 &82-16610

Prediction of sound radiation from different practical jet engine inlets [NASA-CR-653120] p0195 &82-17193

Gunfire blast pressure predictions p0205 &82-17193

Predictions of aerodynamic characteristics of highly maneuverable configurations p0345 &82-22170

Review of the 1980 Wind-Tunnel/Flight Correlation Panel p0348 &82-22199

Current status of inlet flow prediction methods [AD-111794] p0463 &82-25198

Prediction of fatigue crack growth rates under variable loading using a simple crack closure model [MLB-81-0030-0] p0529 &82-28685

Effect of water on axial flow compressors. Part 2: Computational program [AD-114631] p0537 &82-29327

Effects of higher order control systems on aircraft approach and landing longitudinal handling qualities p0563 &82-30488
### SUBJECT INDEX

- PREDICTORS
  - NT IMPACT PREDICTION
  - NT LIFER PREDICTION
  - NT NOISE PREDICTION (AIRCRAFT)
  - NT PERFORMANCE PREDICTION

### PRESSURE DISTRIBUTION

- NT STAGNATION PRESSURE
- NT STATIC PRESSURE
- NT WALL PRESSURE
- NT WIND PRESSURE

### PRESSURE CABINs
- U PRESSURE CABINs
- PRESSURE CHAMBERS
- NT VACUUM CHAMBERS

### PRESSURE DEPENDENCIES
- Pressure dependence of jet noise and silencing of blow-offs  p0167  AB2-20266

### PRESSURE DISTRIBUTION
- The use of the Weber method for micrometer-assisted numerical analysis of airfoils  p0005  AB2-10362
- Subsonic flow over airborne optical targets  p0114  AB2-17605
- Optimal subsonic diffuser wall design for arbitrary entry conditions  [AIAA PAPER 82-0112]  p0115  AB2-17600
- Pressure distribution on an ogue wing in supersonic flow  [AIAA PAPER 82-0141]  p0121  AB2-17934
- Calculation of the unsteady loads on the surface of a moving wedge with an incident shock wave  p0126  AB2-18550
- Use of high conical flow theory for the determination of the pressure distribution on the wave rider and its agreement with experimental results for supersonic flow  p0156  AB2-19197
- Experimental investigation of a jet inclined to a subsonic crossflow  [AIAA PAPER 81-2110]  p0155  AB2-19202
- Recent advances in applying free vortex sheet theory to the estimation of vortex flow aerodynamics  [AIAA PAPER 82-0095]  p0183  AB2-22045
- Subsonic aerodynamic and flutter characteristics of several wings calculated by the SOUSSA II panel method  p0341  AB2-30193
- Experimental investigation of turbulent wall-jets in the presence of adverse pressure gradients in a rectangular diffuser  p0378  AB2-32330
- Design and investigations of a three dimensionally twisted diffuser for centrifugal compressors  [ASME PAPER 82-09-102]  p0427  AB2-35337
- Joint Anglo-American experience of the analysis of helicopter rotor blade pressure distribution  p0490  AB2-37770
- Experimental and theoretical studies of three-dimensional turbulent boundary layers on an aeroengine of a typical transport airplane  p0551  AB2-40955
- Study on pressure distribution on rotor blades with three-dimensional unsteady theory of compressible fluid  p0577  AB2-45188
- Aerodynamic calculations and design of subcritical airfoils  p0302  AB2-10983
- Initial experimental research into the response of turbomachinery compressor to distortion of intake pressure  p0316  AB2-11006
- A preliminary experimental investigation of the response of a turbojet engine to inlet pressure distortion  p0316  AB2-11007
- Subcritical and supersonic airfoils for given pressure distributions  p0305  AB2-12031
- Pressure distributions on three different cruciform aft-tail control surfaces of a wingless missile at Mach 1.60, 2.36, and 3.70.  Volume 4: Trapezoidal tail  [NASA-TM-80097]  p0398  AB2-13110
- Separated flow around helicopter bodies  p0250  AB2-18163
- Transonic perturbation analysis of wing-fuselage-nacelle-pylon configurations with

---

**Note:** The table entries are reformatted for better readability, with emphasis on key terms and additional context provided where necessary. The content has been simplified to focus on the primary subjects discussed in the document.
powered jet exhausts

[ NASA-CH-165852 ] p0262 &82-19167
The effect of a wall on the aerodynamics of a
spoiler -- wind tunnel flow visualization and
pressure measurement

[ BS-260 ] p0263 &82-19194
Tests and analysis of a vented D thrust deflecting
nozzle on a turbfan engine -- conducted at the
outdoor aerodynamic research facility of the
Hines Research Center

[ NASA-CH-166279 ] p0301 &82-20143
Low-speed measurements of the static pressure
distribution and overall forces on a cambered
and a symmetric mild gothic wing of aspect ratio
1.4 --- in a wind tunnel

[ IE-TE-80666 ] p0312 &82-21161
Pressure distributions on some delta wings at \( \alpha = 4 \)
-- wind tunnel tests

[ IE-TE-80686 ] p0313 &82-21164
Theoretical and experimental investigations of
wind tunnel interference due to angle of attack
[ BS-P2-124/4/PUB/14 ] p0320 &82-21226
A flight investigation of blade-section aerodynamics for a helicopter main rotor having
RC-SC2 airfoil sections

[ NASA-TE-83938 ] p0363 &82-23192
Subsonic aerodynamic and flutter characteristics
of several wings calculated by the SOWSSA P1.1
panel method

[ NASA-TE-84945 ] p0405 &82-25216
Aerodynamically induced vibration

[ AD-A110493 ] p0455 &82-26306
Flow and pressure field of a model propeller
[ NASA-TE-76650 ] p0557 &82-32909
An experimental study of dynamic stall on advanced
airfoil sections. Volume 1: Summary of the
experiment

[ NASA-TE-84920-VOL-1 ] p0566 &82-32314

**PRESSURE DRAG**

**HT INTERFERENCE DRAG**

**HT SUPERSONIC DRAG**

Part span dumper loss prediction for transonic
axial fan rotors

[ AD-1106271 ] p0205 &82-17192
An experimental and theoretical investigation of
the interaction between the engine jet and the
surrounding flow field with regard to the
pressure drag on afterbodies

[ IE-TE-62286 ] p0360 &82-23158
Experimental investigation of total pressure loss and
airflow distribution for gas turbine
combustors

[ AD-A22-15606 ] p0081 &82-15606
Pressure effects

Influence of airblast atomizer design features on
mean drop size

[ AIAA PAPER 82-1073 ] p0416 &82-34993
Effect of vacuum exhaust pressure on the
performance of MHD ducts at high \( B \)-field

[ NASA-TE-84191 ] p0191 &82-13908
A new method of estimating the lateral wall effect
on the airflow incidence due to the section at
camber walls

[ NASL-TE-680 ] p0198 &82-17123

**PRESSURE FIELDS**

**U PRESSURE DISTRIBUTION**

**PRESSURE GRADIENTS**

**HT IGNITION GASES**

**EXPERIMENTAL INVESTIGATION OF TURBULENT WALL-JETS IN THE PRESENCE OF ADVERSE PRESSURE GRADIENTS IN A RECTANGULAR DIFFUSER**

Comparison of experimental and analytic
performance for contoured endwall stators

[ AIAA PAPER 82-82777 ] p0454 &82-26299
Experimental study of turbulence in blade end wall
corner regions

[ NASA-CH-169283 ] p0572 &82-31639

**PRESSURE MEASUREMENT**

Calibration of seven-hole probes suitable for high
angles in transonic compressible flows

[ AIAA PAPER 82-0410 ] p0121 &82-17931
An investigation of the swirl in an S-duct

[ BS-P2-23816 ] p0297 &82-20216
Pressure measurements on trans vertical tails in
buffeting flow

[ AIAA-08641 ] p0337 &82-30138
Static and unsteady pressure measurements on a 50
degree clipped delta wing at \( \alpha = 0.9 \)

[ AIAA-08665 ] p0338 &82-30153
Analysis and wind tunnel tests of a probe used to
determine attitude through measurement of static
pressure

[ AIAA PAPER 82-13661 ] p0469 &82-39128
An experimental investigation of leading-edge
spanwise blowing

Programs for the transonic wind tunnel data
collection and processing. Part 9: Pressure
measurements updated

[ BS-P2-16095 ] p0192 &82-16095
Current pressure measuring system in the transonic
wind tunnel

[ AD-A106272 ] p0192 &82-16096
Sea King flight tests pitot-static probe and
directional vane instrumentation

[ AD-A106427 ] p0304 &82-20176
Pressure measurements on a wing oscillating in
supercritical flow

[ BS-P2-70046 ] p0313 &82-21163
Study of TOL in ground-effect flow field

including temperature effect

[ NASA-CH-166258 ] p0400 &82-25170

**PRESSURE OSCILLATIONS**

One reason for the onset of high-frequency
self-excited oscillations in combustion
chambers of aircraft engines

[ AD-A1106271 ] p0194 &82-11048
Experimental investigations on the flow in the
impeller of a centrifugal fan

[ AIAA PAPER 82-GT-37 ] p0421 &82-35268
Analysis of very low frequency oscillations in a
razjet combustor by use of a sensitive time lag
model

[ AIAA PAPER 82-21404 ] p0321 &82-21406
Report of the JANNAF Workshop on High Frequency
Instrumentation and Data Analysis Techniques

[ AIAA PAPER 82-21406 ] p0321 &82-21406

**PRESSURE SENSORS**

**PRESSURE PROBES**

**PRESSURE SENSORS**

**PRESSURE PULSES**

Effect of repetition rate and impulsiveness of
simulated helicopter rotor noise on annoyance

[ NASA-TP-1969 ] p0327 &82-28993
Effects of repetition rate and impulsiveness of
simulated helicopter rotor noise on annoyance

[ AIAA PAPER 82-GT-37 ] p0421 &82-19707
Pressure ratio

Effects on an aircraft engine controls

[ ASME PAPER 82-25170 ] p0128 &82-18691
Casing treatments on a supersonic diffuser for
high pressure ratio centrifugal compressors

[ AIAA PAPER 82-07-85 ] p0423 &82-35353
Performance analysis of the test results on a
two-stage transonic fan

[ ASME PAPER 82-07-123 ] p0425 &82-35353
Performance of a two-stage axial-flow transonic
compressor with rotor and stator aspect ratios of
1.63 and 1.78, respectively, and with design
pressure ratio of 1.82

[ NASA-TP-1970 ] p0266 &82-19222
Performance of a single-stage axial-flow transonic
compressor with rotor and stator aspect ratios of
1.63 and 1.77, respectively, and with design
pressure ratio of 2.05

[ NASA-TP-2001 ] p0355 &82-22269

**PRESSURE RECOVERY**

An experimental investigation of S-duct diffusers
for high-speed propfans

[ AIAA PAPER 82-1123 ] p0417 &82-35019
The performance of centrifugal compressor channel
diffusers

[ ASME PAPER 82-07-10 ] p0420 &82-35279

---

A-334
Fuel quality processing study. Volume 1
Fuel quality/process study. Volume 2: Appen- dix

PROCESS Heat

Open-cycle vapor compression heat pump
[PB82-110503] p0259 882-18553

PROCESSORS (COMPUTERS)

Central Processing Units

PROCUREMENT

ST GOVERNMENT PROCUREMENT

Procurement of the new flight and tactics simulators - Experience, problems, meaning
[DGTR PAPER 81-095] p0159 882-19266

PROCUREMENT POLICY

The procurement of flight simulators at the German Luftwaffe
[DGTR PAPER 81-093] p0159 882-19268

PRODUCT DEVELOPMENT

ST WEAPONS DEVELOPMENT

Advanced fighter technology integration AFTI/F-16
test program overview
[46AA PAPER 81-22043] p0065 882-14398
Electromechanical actuation development program
[AD-A104437] p0067 882-14705
Airframe composite materials and structures
[AD-A104783] p0103 882-16143
The well tempered transport aircraft engine /The Sir Henry Boyce Memorial Lecture/
[AD-A104457] p0103 882-16145
Development of the Lockheed SE-71 Blackbird
evolution of the Boeing 757
[AD-A104437] p0126 882-18322
NAYSTAR global positioning system
[AD-A104457] p0175 882-20601
Evolution of the Aeroscout
[PB82-10590] p0239 882-24706
Very large aircraft - A common response to a rapidly changing global environment
[AD-A104457] p0375 882-31979
Development of an aircraft engine
[AD-A104457] p0386 882-34112
A survey regarding the German-French development program Alpha Jet
[AD-A104457] p0550 882-43332
High Order Languages /HOL/ for flight control applications
[AAS 82-026] p0578 882-45608
Study and development of an integrated head-up display
[AD-A104437] p0037 882-11062
Integrated analysis of engine structures
[46AT-72871] p0001 882-11941
Advanced technology lightweight gondola system
[AD-A104457] p0133 882-14082
Development of Integrated Programs for Aerospace-Vehicle Design (IPAD) - IPAD user requirements
[46AA-CR-2985] p0141 882-15034
Advanced compressor components, Phase 1: 1978 to 1979 --- for aircraft engines
[BMP-PB-W-81-025] p0144 882-15073
SH-60 test program
[AD-A104457] p0297 882-18141
Array Lynn: Product development matched to military combat development
[AD-A104457] p0297 882-18143
A design study of the Marshall --- lightweight twin-engine aircraft
[46AA-262] p0265 882-19215
Cooled variable-area radial turbine technology program
[46AA-CR-16508] p0266 882-19221
Energy efficient engine shroudless, hollow fan blade technology report
[46AA-CR-16508] p0317 882-21196

SOFTWARE

Collaborative development of aero-engines
[PB82-90003] p0355 882-22277
The Airbus family of aircraft at the dawn of the 1980's
[WB82-011-101] p0393 882-21646
Preplanned product improvement and other modifications strategies: Lessons from past aircraft modification programs
[AD-A113559] p0463 882-22720
The development of terrain following displays for the Tornado aircraft
[PB82-200G] p0577 882-32337
Aerospace system development for the Tornado /AFTI/
[AD-DP-705] p0597 882-32361
Operational flow visualization techniques in the Langley Unitary Plan Wind Tunnel

PRODUCTION COSTS

Skyskrap 500 - The development of a modern production airship
[AD-A104457] p0174 882-20559
Unmanned aircraft in future combat
[AD-A104457] p0492 882-39728

PRODUCTION ENGINEERING

ST PRODUCTION PLANNING

Automated Paint and Process Line /APPL/ --- for aircraft production
[AD-A104457] p0002 882-10120
Development of aircraft production engineering discipline at IIT, Bombay
[AD-A104457] p0103 882-11317
Quality optimization and unification of aviation technology
[AD-A104457] p0081 882-15721
[AD-A104457] p0229 882-24371
Design and production of fiberglass helicopter rotor blades
[AD-A104457] p0289 882-27153
Transition of aerospace adhesive bonding technology from R&D to operational use
[AD-A104457] p0293 882-27435
Applications of structural adhesives in production
[AD-A104457] p0326 882-28808
British aerospace begins update effort
[AD-A104457] p0378 882-32624
The technology of the assembly of engines for flight vehicles --- Russian book
[AD-A104457] p0578 882-45765
The automation of processes for producing aircraft engines /2nd revised and enlarged edition/ --- Russian book
[AD-A104457] p0578 882-45771
A CFPP tallaron for the Tornado: Construction and production --- horizontal stabilizer
[BBB-90088] p0027 882-10035
Rational production methods for the manufacture of helicopter rotor blades --- BO-105 helicopter
[BBB-90088] p0316 882-21180
Directional solidification: Project B2 --- of gas turbine rotor blade alloys
[PB82-90088] p0356 882-22279
Specification and estimation of dynamic cost functions for airframe production airframes
[AD-A113417] p0463 882-27221

PRODUCTION METHODS

U PRODUCTION ENGINEERING

Production Planning

Mission effectiveness of the AV-8B Harrier 2 could be improved if actions are taken now
[AD-A113417] p0452 882-26284

PRODUCIVITY

CIS/CAM approach to improving industry productivity gathers momentum
[AD-A104457] p0181 882-21375

PROPERIETY

U ABILITIES PRODUCO

Developmental possibilities in civil aviation in the Federal Republic of Germany
[AD-A113417] p0350 882-22230

PROGRAM MANAGEMENT

ST PROJECT MANAGEMENT

Program Verification (Computers)

The Space Shuttle vehicle checkout involving operations
Combining analysis with optimization at Langley

F/A-18 Weapons system support facilities

Forecasting and mechanical verification of SIFT — a fault-tolerant flight control system

P/B - 16 weapons system support facilities

A program testing assistant

Production of Reliable Flight Control Software: Validation Methods Research for Fault Tolerant Avionics and Control Systems Sub-Working Group Meeting

Combining analysis with optimization at Langley Research Center. An evolutionary process

DAA-AD-238

Description of projectile threats

Analytic methods for predicting structural response to projectile impact

Noise and acoustic emissions from propulsion engines

Analytic methods for ballistic damage size and type

Damage from high explosive (HE) projectiles

Damage from engine debris projectiles

Effects of cyclic loading on projectile impact

Stiffness degradation of impact damaged structure

Strength degradation of impact damaged structure

PROP-FAIR TECHNOLOGY

Propellers come full circle --- prop-fan technology for aircraft fuel savings

Propulsion/ACEE

[ASA-PCTS-91/2-81] p0408 N82-25251

Advanced turboprop testbed systems study. Volume 1: Testbed program objectives and priorities, drive system and aircraft design tradeoff, evaluation and recommendations and wind tunnel test plans

[NASA-CR-167928-VOL-1] p0591 N82-32370

Advanced turboprop testbed systems study

[NASA-CR-167895] p0607 N82-33375

PROPAGATION (EXTENSION)

No CRACK PROPAGATION

PLANES PROPAGATION

Influence of exit impedance on finite difference solutions of transient acoustic mode propagation in ducts

[ASA-PAPER 81-WA/ACA-13] p0235 A82-24602

PROPANE

Deposit formation in hydrocarbon fuels

[ASA-PAPER 82-GT-49] p0422 A82-35307

PROPPELLANT ADDITIVES

Antiwear properties of additives based on higher fatty acids --- for jet fuels

[ASA-PAPER 82-GT-49] p0548 A82-42893

PROPPELLANT CORROSION

No SOLID PROPPELLANT CORROSION

PROPPELLANT DECOMPOSITION

Deposit formation in hydrocarbon fuels

[ASA-PAPER 82-GT-49] p0422 A82-35307

PROPPELLANT EXPLOSIONS

Gunfire blast pressure predictions

[ASA-PAPER 82-GT-49] p0548 A82-42893

PROPPELLANT PROPERTIES

Aviation turbine fuel properties and their trends

[ASA-PAPER 82-1291] p0379 A82-33025

Propellant characteristics and performance

[ASA-PAPER 82-1291] p0416 A82-35000

Characterization of an Experimental Referee - Stabilized Specification (ERSS) aviation turbine fuel and ERSS fuel blends

[NASA-TB-72883] p0595 N82-32304

PROPPELLANTS

Chlorinated rocket propellants

Liquid rocket propellants

BP-I rocket propellants

Solid propellants

PROPPELLER BLADES

Resonant whirls of aircraft propeller-engine systems

Optimization of propeller blade shape by an analytical method

[ASA-PAPER 82-1125] p0417 A82-35021

The application of small propellers to RPV propulsion

[ASA-PAPER 82-39737] p0607 N82-22170

An analysis of civil aviation propulsion-to-person accidents: 1965-1979

[ASA-PAPER 82-14857] p0075 A82-14857
Experimental methods for the prediction of the propeller/wing interaction effects

The prediction of propeller/wing interaction effects provides critical insights into the performance and aerodynamic characteristics of modern aircraft configurations, especially those with advanced propulsion systems. This is crucial for the design and optimization of future aircraft, ensuring they meet the stringent requirements for efficiency, noise reduction, and safety.

In-flight acoustic results from an advanced-design turboprop propulsion system

In-flight acoustic results from advanced-design turboprop propulsion systems are essential for understanding and mitigating noise emissions, particularly in transport aircraft, where noise reduction is a key requirement. These results help in refining the design of future propulsion systems to meet noise certification standards.

Propulsion opportunities for future commuter aircraft

As aircraft manufacturers explore new technologies, propulsion opportunities for future commuter aircraft are a critical area of research. This includes considerations for sustainable fuels, electric propulsion, and innovative engine configurations that can enhance performance and reduce environmental impact.

Ground reflection effects in measuring propeller performance

Ground reflection effects can significantly impact the accuracy of measurements taken in the field, especially in complex environments. Understanding and mitigating these effects is crucial for obtaining reliable data that can be used to improve propeller design and performance.

Ground reflection effects: Preliminary results from the NASA advanced ground reflection effects program

Preliminary results from the NASA advanced ground reflection effects program provide foundational data on the impact of ground reflection on propeller performance. This research aims to refine measurement techniques and improve the accuracy of performance assessments.

Optimization of propeller/wing interaction effects

Efforts to optimize propeller/wing interaction effects aim to enhance overall aircraft performance by minimizing drag, improving efficiency, and reducing noise. This involves advanced computational fluid dynamics (CFD) simulations and experimental validation to ensure that the propeller design meets the performance targets.

Propeller Slipstreams

Propeller Slipstreams play a critical role in aircraft performance. The study of Slipstreams helps in understanding the aerodynamic interactions and power requirements of propellers. This knowledge is essential for the design of efficient propulsion systems for various aircraft configurations.

Low-speed propeller noise: Preliminary results

Understanding low-speed propeller noise is crucial for reducing disturbance to residents and minimizing environmental impact. Preliminary results in this area contribute to the ongoing efforts to design quieter aircraft engines.

Ground reflection effects in measuring propeller performance: Summary and recent results from the NASA advanced ground reflection effects program

Summary and recent results from the NASA advanced ground reflection effects program offer insights into the evolving approaches to mitigate ground reflection effects in propeller performance measurements. This is a critical area of research for improving the reliability of future aircraft performance data.

Impact of advanced propeller technology on aircraft/mission characteristics of several general aviation aircraft

The impact of advanced propeller technology on aircraft/mission characteristics is a vital consideration for general aviation aircraft. This research helps in assessing how new technology can improve performance, efficiency, and safety without compromising on cost or feasibility.

Impact of advanced propeller technology on aircraft/mission characteristics of several general aviation aircraft: Summary and recent results from the NASA advanced ground reflection effects program

Summary and recent results from the NASA advanced ground reflection effects program in the context of advanced propeller technology provide a comprehensive view of the developments in this area, specifically focusing on general aviation aircraft.
Evaluation of PROPELLER PROBES: a new technique for measuring propeller performance

Future technology and requirements for helicopter propulsion

Aircraft propulsion systems: Past, present and future

Naval propulsion systems

Propulsion system performance on engine/pylon/wing interference --- wind tunnel tests

Development of a rotocraft. Propulsion dynamics interface management --- Volume 1

Development of a rotocraft. Propulsion dynamics interface management --- Volume 2

PROPELLER PROPULSION SYSTEM PERFORMANCE

Advancing blade concept /ABC/ development test program

Evaluating an experimental technique to investigate the effects of the engine position

Experimental determination of flow-interference effects of wing-mounted, two-dimensional, full-capture propeller nacelles at close proximity to a vehicle body at a Mach number of 0.8

Optimal filtering and control methods

A propulsion view of the all-electric airplane

A look inside the Langley 16-foot transonic tunnel: User's guide

Survey on the effect of blade surface roughness on compressor performance

Helicopter propulsion systems: Past, present and future

A-345
Aircraft turbine engine development: Current practices and new priorities

Future technology and requirements for helicopter engines

Mechanical advances in the design of small turboshaft engines

Advanced component development design basis for next generation media power helicopter engines

Aerodynamic components for small turboshaft engines

Regenerative helicopter engines: Advances in performance and expected development problems

Advanced transmission component development

Helicopter propulsion systems: 1: Vibration prevention systems on helicopters 2: Problem of noise in the cabin

Prediction of off-design performance of turbo-shaft engines a simplified method

Three-engine control system for the prototype EH-101 helicopter

HASA Advanced Helicopter Technology and Tilt Rotor Workshop. Volume 5: Propulsion system simulation

A piecewise linear state variable technique for real time propulsion system simulation

Summary and recent results from the NASA advanced High Speed Propeller Research Program

Propulsion opportunities for future combat aircraft

Integrated airframe propulsion control

PROPELLER EFFICIENCY

NT ENGINEERING EFFICIENCY

An investigation of the use of a propulsive wing/canard concept for improved maneuvering

The design of compact asymmetric maximum-thrust nozzles for a given lift force

Design possibilities for improved fuel efficiency of civil transport aircraft

Airbus - the year of progress

System study of application of composite materials for future transport aircraft

Optimization of propeller blade shape by an analytical method

The application of small propellers to BPF propulsion

Aircraft design for fuel efficiency

Quiet short-haul research aircraft familiarization document, revision 1

Propulsion study for Small Transport Aircraft Technology (STAT), Appendix B

Mechanical advances in the design of small turboshaft engines

The distress regime on the bio-torpedoed helicopter

PROTECTION

NT ACCELERATION PROTECTION

NT CIRCUIT PROTECTION

NT CORROSION PREVENTION

NT THERMAL PROTECTION

Electrical ground testing of aircraft anti-icing protection

PROTECTIVE EFFICIENCY

Protection of advanced electrical power systems from atmospheric electromagnetic hazards

Carbon fiber reinforced composite structures protected with metal surfaces against lightning strike damage

HASA-U-U-290-82-02-02

PROTECTIVE CLOTHING

Human response to fire

PROTECTIVE COATINGS

NT CHEMICAL COATINGS

The protection of gas turbine blades - A platinum aluminode diffusion coating

Abrasion resistant coated plastic products for aircraft

An evaluation of several polymers for high density humidity PC coatings

Recent developments in materials and processes for aircraft corrosion control

An evaluation study of aluminode and chromiumalnminide coatings on X-100

Engine experience of turbine rotor blade materials and coatings

Application and testing of metallic coatings on graphite/epoxy composites

Thermal-barrier coated turbine blade study

Progress in protective coatings for aircraft gas turbines: A Review of NASA sponsored research

Corrosion prevention measures used in the construction of an aircraft airframe: The case of 2014 and 2214 alloys

Recent developments in materials and processes for aircraft corrosion control

New concepts in multifunctional corrosion for aircraft and other systems

Corrosion in naval aircraft electronic systems

Corrosion protection schemes for aircraft structures: Some examples for the corrosion behaviour of Al alloys

Coatings in the aero gas turbine sprayed coatings

The influence of protective treatment on the mechanical properties of superalloy parts

Protection of advanced electrical power systems from atmospheric electromagnetic hazards

PROTECTORS

A method for designing inlet distortion screens for aircraft gas turbine engine tests using an interactive computer program

PROTOTYPES

A program report on the European Transonic Wind Tunnel Project

Design and production of fiberglass helicopter rotor blades

Statute report of the USAF's Engine Model Derivative Program

Evaluation of CPFP prototype structures for aircraft horizontal tail leading edge slat rakes

Fabrication of CPFP prototype structure for aircraft horizontal tail leading edge slat rakes

Three-engine control system for the prototype EH-101 helicopter

A Lorac prototype navigation receiver for general aviation
SUBJECT INDEX

Discrete Address Beacon System /DABS/
p0220 AB2-23322

Wide field of view laser beacon system for three-dimensional aircraft position measurement
[AD-A102937] p0229 AB2-24563

Secondary radar for airborne collision avoidance
p0361 AB2-30313

ATCRBS link environment measurement near Jacksonville, Florida
[AD-A1106053] p0188 N02-16063

Active beacon collision avoidance logic evaluation. Volume 2: Collision avoidance
(FCAS) threat phase
[AD-A1108678] p0263 AB2-19197

Surveillance simulation testing of terminal and en route mode S sensors
[AD-A112250] p0066 N02-27265

Fiber optics remoting of terminal radar and beacon signals
[AD-A1146403] p0574 N02-32140

Impact of an omnidirectional traffic alert and collision avoidance system on the air traffic control radar beacon system and the discrete address beacon system
[AD-A1116170] p0587 N02-32336

RADAR BEAMS

Analysis and tolerance study of an array antenna for a new generation of secondary radars
p0163 AB2-19521

RADAR CLUTTER MAPS

Maximum-entropy spectral analysis of radar clutter
p0594 AB2-07407

RADAR CROSS SECTIONS

Performance considerations in the design of submarine cruise missiles
[AD-A1119771] p0200 AB2-17911

An aerodynamic and signature shaping technique for developing advanced supersonic missile concepts
[AD-A1120437] p0200 AB2-17912

The bomber that radar cannot see
p0274 AB2-25674

Numerical applications of the physical optics approach for the calculation of radar cross sections of convex perfect scatterers
[AD-A1156916] p0259 AB2-12860

RADAR DATA

Description of the meteorological research radar system aboard NOAA/Research Facilities Center WP-3D aircraft
p0003 AB2-10217

Using phased array radar for data communications
p0068 AB2-14725

Extended time radar raw video recording
p0075 AB2-14909

RADAR DETECTION

Instrumented aircraft verification of clear-air radar detection of low-level wind shear
p0004 AB2-10221

Detection range analysis of an airborne medium PBF radar
p0068 AB2-14723

Radar hostile fire location
p0075 AB2-14857

Techniques for overheard wire detection to prevent helicopter wire strikes
p0106 AB2-16560

The bomber that radar cannot see
p0274 AB2-25674

Analysis of side-looking airborne radar /SLAR/ performance in the detection of search and rescue targets
p0293 AB2-27841

Optimal target designations techniques
[AD-A102937] p0293 AB2-27709

Distributed airborne array concepts
p0342 AB2-31669

A multifrequency adaptive radar for detection and identification of objects - Results on preliminary experiments on aircraft against a sea-clutter background
p0379 AB2-32979

Doppler processing, waveform design and performance measures for some pulsed doppler and STO radars. II
p0390 AB2-24671

Complete flexibility and realism in radar simulation
p0482 AB2-30461

Demonstration of radar reflector detection and ground clutter suppression using airborne weather and mapping radar
p0500 AB2-20632

Moving target detector/airport surveillance radar (ASAR-7) field evaluation
[AD-A105196] p0590 N02-12303

Test and evaluation of the airport radar wind shear detection system
[AD-A112663] p0478 N02-27924

RADAR DETECTION FINDERS

U RADIO DIRECTION FINDERS

RADAR DISPLAYS

Secondary radar problems - The presence of false echoes
p0242 AB2-25323

RADAR EQUIPMENT

NT DISCRETE ADDRESS BEACON SYSTEM

NT RADAR ANTENNAS

NT RADAR RECEIVERS

NT RADAR REFLECTORS

NT RADAR TRANSMITTERS

NT RADARSCOPES

Some Italian research for developing new primary ATC radars
p0071 AB2-14775

Management of a large aeronautical project
p0105 AB2-16557

Airport radar systems --- Russian book
p0158 AB2-18975

Radar environment simulation for software test
demonstrations to field controllers
[AD-A1126262] p0467 AB2-27268

Simulation of modern radar installations in full-mission flight and tactics simulators
[AD-A1126262] p0160 AB2-19272

An accurate Doppler navigator with microwave simplicity
p0435 AB2-37037

Radars for UAVs
p0494 AB2-39742

The choice of technology for ATC radars. 1 - Transmitters
p0581 AB2-45981

Terminal air traffic control and surveillance data from the node 5 systems: Results of system demonstrations to field controllers
[AD-A1126262] p0467 AB2-27268

RADAR FILTERS

Some Italian research for developing new primary ATC radars
p0071 AB2-14775

RADAR WORKING KNEELELS

Microwave systems for radar guided missiles
p0150 AB2-18936

RADAR IMAGERY

Inverse SAR and its application to aircraft classification
p0075 AB2-14871

RADAR MAPS

NT RADAR IMAGERY

Simulation of modern radar installations in full-mission flight and tactics simulators
[AD-A1126262] p0160 AB2-19272

Demonstration of radar reflector detection and ground clutter suppression using airborne weather and mapping radar
p0500 AB2-40532

Radar mapping, archaeology, and ancient land use in the Mayan lowlands
[AD-A14-169031] p0041 N02-11514

RADAR MEASUREMENT

Multiple Doppler radar observations of PBL structure
p0004 AB2-10229

Airborne lidar measurements of smoke plume distribution, vertical transmission, and particle size
p0181 AB2-21386

Airborne lidar measurements of the Soufriere eruption of 17 April 1979
p0383 AB2-33657

Two-frequency /bella k/ microwave scatterometer measurements of ocean wave spectra from an aircraft
p0584 AB2-47493
Baseline monitoring using aircraft laser ranging
--- spaceborne laser simulation and aircraft laser tracking
[NASA-TM-73298] p0529 B82-276490
Remote sensing of turbine engine gases
[AD-A115843] p0559 B82-303110
RADAR NAVIGATION
Evaluating sources of error in EIR/GEAMS
navigation using a Kalman postprocessor ---
Electronically Agile Radar/Gimballed Electronically
suspended gyro Airborne Navigation System
p0068 B82-147399
Short-term behavior of a Doppler navigation system
and comparison with position indication by means
of scanning radar
p0390 B82-24672
Marine Air Traffic Control and Landing System
(MATCALS Investigation), volume 1
[AD-A110862] p0394 B82-24188
Marine Air Traffic Control and Landing System
(MATCALS Investigation), volume 2
[AD-A110863] p0394 B82-24189
RADAR OBSERVATION
U RADAR TRACKING
RADAR RANGE
Detection range analysis of an airborne medium PBF
radar p0068 B82-14772
RADAR RECEIVERS
Performance evaluation of target report extractor
in the monopulse ECRS --- Traffic Control
Radar Beacon System p0071 B82-14776
RADAR REFLECTIONS
U RADAR SCHOOLS
Demonstration of radar reflector detection and
ground clutter suppression using airborne
weather and mapping radar p0500 L82-40532
RADAR RESOLUTION
F-15 EAB p0577 B82-14938
Flight test evaluation of a video tracker for
enhanced offboard airborne radar approach
capability p0500 B82-40531
RADAR SCANNING
Scanning strategies for air traffic control radars
p0235 B82-29646
Comparison between the surveillance performances
of the Air Traffic Control Radar Beacon System
node of the Node S and the Automated Radar
Terminal System [AD-A111733] p0450 B82-26273
Design and implementation of efficient algorithms
for automatic determination of corrected slant
range [AD-A112268] p0457 B82-27267
RADAR SIGHTING
Commercial airborne weather radar technology
p0075 B82-14868
Modelling of target radar scattering with
application to guidance simulation p0175 B82-20570
Comparison of various elevation angle estimation
techniques p0175 B82-20589
RADAR SIGNATURES
Main rotor hub electromagnetic signature reduction
p0279 B82-26393
RADAR TARGETS
Detection range analysis of an airborne medium PBF
radar p0068 B82-14723
Evaluation of advanced air-to-air gunnery fire
control systems p0069 B82-14750
A new approach to radar plot extraction for ATC
applications p0075 B82-14908
Tactical Radar Threat Generator system
p0149 B82-18903
Design criteria for a miss distance radar
p0149 B82-18904
Modelling of target radar scattering with
application to guidance simulation p0175 B82-20570
Synthetic aperture radar target simulator
[NASA-CR-150-15024-1] p0031 B82-10286
Moving target detector (Mod 2)
[AD-A110709] p0539 B82-29520
RADAR TRACKING
Hard limited approaches to correlation velocity
sensing p0224 B82-12636
Radar hostile fire location
p0075 B82-14857
Air-to-ground STI radar using a displaced phase
center, phased array p0075 B82-14801
A new approach to radar plot extraction for ATC
applications p0075 B82-14908
Post-flight assessment of the JTIDS Real-time
system p0124 B82-18145
Tactical Radar Threat Generator system
p0149 B82-18903
Microwave communications to remotely piloted
vehicles p0150 B82-18911
Experimental measurement of the low angle terrain
scattering interference environment
p0175 B82-20588
Comparison of various elevation angle estimation
techniques p0175 B82-20589
Tracking of low-altitude targets by a combined
X/Ka-band radar system p0175 B82-20590
Stereoigrafic projection in the National Airspace
System p0218 B82-23031
Optimal target designation techniques
[AD-A102937] p0293 B82-27709
The PATHFINDER X-band tactical air defense
capability p0435 B82-37035
C band spectral tracking for PM/CW altitude
Analysis of general-aviation accidents using ATC
capability p0435 B82-37035
rader records [AILA PAPER 82-1310] p0487 B82-39091
Target tracking using area correlation
Flight test evaluation of a video tracker for
enhanced offboard airborne radar approach
capability p0500 B82-40531
Research on an adaptive Kalman filter for solving
the radar tracking problem --- German thesis
p0503 B82-40562
Use of aircraft-derived data to assist in ATC
tracking systems I - Accuracy and theoretical
considerations p0506 B82-82504
Airtraffic tracking using asynchronous alpha-beta
tracking filters p0582 B82-46387
Detection and tracking algorithm refinement
[AD-A105517] p0303 B82-20164
Modelling of a tracking radar in terms of a
nonlinear second order phase lock loop
[AD-A115628] p0596 B82-32580
Implementable differential equations for nonlinear
filtering --- radar tracking
[WB-TR-81037 0] p0600 B82-33120
Improving conflict alert information using moving
target detector data [AD-A117691] p0607 B82-33970
Memory and computational requirements for tracking
in the advanced computer system
[AD-A117666] p0612 B82-33619
RADAR TRANSMISSION
Hover Jam - US Army studies HV helicopter
p0548 B82-81888
A new class of routing protocols for a proposed
computer network linking tactical radar sites
p0553 B82-03893
RADAR TRANSMITERS
L-band power generation in the General Electric
solid-state radar p0150 B82-18914
RADARESCOPES
A new approach to radar plot extraction for ATC
applications p0075 B82-14908
The development of terrain following displays for the Tornado aircraft

RADIAL FLOW
A critical appraisal of some current incidence loss models for the stator and rotor of a mixed flow gas turbine

ASM Paper 82-GT-120

Calculation of level flow using radial grating

p0425 A82-35530

Cooled variable nozzle radial turbine for rotor

p084 A82-38922

Craft applications

NASA-CR-165397

RADIANCE
Airborne measurements of European sky and terrain

(AD-A114637)

p0562 A82-30782

RADIANT FLUX DENSITY

RADIATION ABSORPTION

ATMOSPHERIC ATTENUATION

RADIATION CHEMISTRY

Radiation/catalytic augmented combustion

(AD-A112376)

p0475 A82-27434

RADIATION COURSTERS

SCINTILLATION COURSTERS

RADIATION DETECTORS

RADAR SNLATOR FOR AIRCRAFT INSTRUMENTS

(POA-C-40136-13)

p0356 A82-22286

RADIATION DISTRIBUTION

ANTENNA RADIATION PATTERNS

DIFFRACTION PATTERNS

Collection and simulation of spatial infrared radiance of military jet aircraft

(AIAA Paper 81-2494)

p0058 A82-13921

RADIATION FIELDS

RADIATION DISTRIBUTION

RADIATION HAZARDS

Radar frequency radiation

(AD-A114522)

p061 A82-25424

RADIATION INTENSITY

RADIANT FLOW DENSITY

RADIATION MEASURING INSTRUMENTS

DIELECTRIC RADIOMETERS

ELECTROSTATIC MEGOhMETERS

PLR DETECTORS

IMPAIRED DETECTORS

IMPARED RADOMETERS

MICROWAVE RADIOMETERS

RADIATION DETECTORS

SCINTILLATION COURSTERS

RADIATION NOISE

ELECTROMAGNETIC NOISE

RADIATION PRESSURE

LUMINANCE

SOUND PRESSURE

RADIATION SOURCES

NONICHROMATOS

POINT SOURCES

RADIATION SPECTRA

ABSORPTION SPECTRA

EMISSION SPECTRA

VIBRATIONAL SPECTRA

VITAL SPECTRA

RADIATIVE HEAT TRANSFER

Modeling solid-fuel rocket combustion including radiation heat transfer to the fuel surface

(AD-A107461)

p0675 A82-27436

RADIATIVE TRANSFER

ST RADIATIVE HEAT TRANSFER

RADAR ALTIMETERS

Terrain actuated deployment system -- radar altimeter for man-ejector seat separation

p080 A82-14982

C band spectral tracking for FY/CF altimetry

p0435 A82-37035

The use of groundspeed, in a wind shear and the flight evaluation of a radar-altimeter-based system for the measurement of groundspeed

(A-D-A104758)

Frequency sharing between passive sensors and aeronautical radionavigation systems employing ground transponders in the band 4.2 - 4.4 Gz

(HASA-CR-165044)

Radio Antennas
Calculation and measurement of electric field strength for airborne antennas in the LF/BF range

p0242 A82-25011

Terrain reflection effects on data reception from airborne vehicles

Measuring LF and MF antenna radiation patterns by means of a helicopter

Radio Attenuation
The coupling of electromagnetic interferences into aircraft systems

Electromagnetic Propagation Problems in the Tactical Environment

p0228 A82-24354

p0539 A82-29527

Radio Beacons
Investigation of Wave complement 5658 very high frequency omnidirectional radio range (VOR) system, part 3

Modification of OK-256/UBN Tactical Air Navigation (TACAN) antenna group

p049 A82-26264

Effects of high voltage transmission lines on non-directional beacon performance

Minimum operational performance standards for automatic direction finding (ADF) equipment

p066 A82-27264

Federal radionavigation plan. Volume 3: radionavigation system characteristics

(AD-A116470)

p0587 A82-32334

Radio Broadcasting

Radio Communication

Radio Relay Systems

Radio Telemetry

Time Division Multiple Access

High-accuracy ranging over voice radios for disabled aircraft rescue

Distributed Time Division Multiple Access /DTDMA/

- A distributed signaling technique for advanced tactical communications

Voice communications - The vital link

High-speed radio communications equipment: Design and use --- Russian book

The Worldwide Navigational Warning Service

Propagation problems associated with aircraft communications systems

Radio Control

Standard engineering installation package. Air traffic radio channel control equipment: Change 1

Radio Direction Finding

Passive direction finding and signal location

The statistical theory of radio direction finding

Minimum operational performance standards for automatic direction finding (ADF) equipment

Radio Equipment

Radio Antennas

Radio Beacons

Radio Receivers

Radio Transmitters

Radio Telesensors

Remote Sounding

Spacecraft Antennas

Transmitter Receivers

Transponders

Very High Frequency Radio Equipment

A-355
Design and implementation of a telecommunication interface for the TAT-87/TVK real-time experiment [NASA-TR-88231] p0132 882-14075

BOLs computers in the flight testing of the Fokker P29 aircraft [NASA-FACTS-125] p0138 882-14839

Research through simulation --- simulators and research applications at Langley [NASA-FACTS-125] p0192 882-14902

Real time digital filtering test in the SI continuous wind tunnel at Rome [NASA-FACTS-125] p0263 882-22152

A piecewise linear state variable technique for real time propulsion system simulation [NASA-TR-86951] p0295 882-24201

Structures testing analysis real-time network (STARNET) [AD-A111636] p0413 882-25827

Real time pressure signal system for a rotary engine [NASA-CASE-16322-1] p0453 882-26294

Advanced target acquisition and tracking concepts for real time applications [NASA-CASE-169286] p0472 882-27305

Tactical systems approach to interaction of 2nd echelon moving targets using real time sensors [NASA-CASE-162986] p0572 882-31637

REAL VARIABLES

MT CALCULUS OF VARIATIONS
MT DIFFERENTIAL EQUATIONS
MT ELLIPTIC DIFFERENTIAL EQUATIONS
MT EXTREME VALUES
MT FALKNER-SKIN EQUATION
MT FOURIER SERIES
MT GAMMS EQUATION
MT KERBEL FUNCTIONS
MT LINEAR EQUATIONS
MT MEASURE AND INTEGRATION
MT NONLINEAR EQUATIONS
MT NUMERICAL INTEGRATION
MT PDE APPROXIMATION
MT PARTIAL DIFFERENTIAL EQUATIONS
MT QUADRATIC EQUATIONS
MT BURG-SUTRA METRO
MT STURM-LIOVILLE THEORY
MT VARIETIES
MT TAYLOR SERIES
MT VECTOR ANALYSIS
MT VOLUMETRIC
MT WEIGHTING FUNCTIONS
The application of subsonic theoretical aerodynamics to active controls --- aircraft [NASA-TR-81060] p0320 882-21217

REATTACHED FLOW
Experimental study of a jet deflector [NASA-TR-84847] p0362 882-23173

Application of a transonic similarity rule to correct the effects of overhead boundary layers in two-dimensional transonic wind tunnels [NASA-TR-84847] p0594 882-32384

RECEIVERS
MT RADAR RECEIVERS
MT RADIO RECEIVERS
MT RADIOELECTRONICS
MT TELEVISION RECEIVERS
Design study report for General Aviation Loran-C receiver [AD-A140942] p0807 882-12062

Global positioning system timing receivers in the DDS [NASA-TR-84229] p0271 882-20126

FAA acceptance tests on the navigation system using real time positioning system 2 set receivers [DOT/FAA/AD-82/9] p0568 882-31315

RECEIVING SISTERS
U RECEIVERS
RECEPTORS (CONTAINERS)
U CONTAINERS
RECIPIROCAL THEOREMS
Application of the principle of reciprocity to

A-360


**SUBJECT INDEX**

**RECTANGULAR WINGS**
- Response of nonlinear aircraft structural panels to high intensity noise
  p0018 A82-12041
- The effect of induced sound on the flow around a rectangular body in a wind tunnel
  p0276 A82-26194

**RECTANGULAR PLATES**
- On evaluating the influence of local disruptions of flow over trailing edge and leading edge flaps from the data of wind tunnel tests of a rectangular wing segment
  p0015 A82-11465
- Symmetric flow characteristics of thin rectangular wings
  p0103 A82-16093
- Investigation of the stream-strain state of a rectangular wing section of variable thickness under concentrated loads and heating
  p0127 A82-18588
- The effect of the cooling of the wing surface on laminar-to-turbulent boundary layer transition at supersonic flow velocities
  p0128 A82-18591
- The velocity potential for the harmonically oscillating, rectangular wing with semi-infinite span in nonlinear theory
  p0154 A82-19198

An experimental study of separated flow on a finite wing
[AIAA PAPER 81-1892]
- Unsteady response of rectangular wings in supersonic uniform shear flow
  p0277 A82-26340
- Analysis of shells of straight-wing type
  p0334 A82-29841
- Incompressible symmetric flow characteristics of sharp-edged rectangular wings
  p0379 A82-32850
- Chordwise and compressibility corrections for arbitrary planform slender wings
  p0443 A82-37931

The rectangular wing with semi-infinite span in nonlinear theory
p0491 A82-39359

Experimental investigations of the separated flow around a rectangular wing --- as a wind tunnel
[DFVR-FL-81-12]
- Subsonic aerodynamic and flutter characteristics of several wings calculated by the S003A P.1.1 panel method
  [NASA-TE-00465]
- On embedded flow characteristics of sharp-edged rectangular wings (NG-2714)
  p0531 H82-29263

**RECTIFICATION**
- NT GEOMETRIC RECTIFICATION (IMAGE)

**RECONCILATION FUNDAMENTALS**
- U RECURSIVE FUNCTIONS

**RECURSIVE FUNCTIONS**
- A recursive time domain analysis of distributed line grid networks with application to the LTE/ERF problems --- Lightning Threat analysis
  p0070 A82-14761
- A recursive terrain height correlation system using multiple model estimation techniques
  (AIAA 82-1511)
  p0084 A82-38937

**RECYCLING**
- Critical metals conservation, recycling and substitution
  [AGARD-R-693]
  p0357 H82-22348

**REDUCED GRAVITY**
- The Marshall Space Flight Center KC-135 zero gravity test program for FY 1981
  [NASA-CE-627478]
  p0058 H82-26350

**REDUCTION**
- NT CHEMISTRY
- REDUCTION (MATHEMATICS)
- U OPTIMIZATION

**REDUCTION**
- Redundancy management of skewed and dispersed inertial sensors
  (AIAA 81-2256)
  p0050 A82-13503
- Management of redundancy in flight control systems using optimal decision theory
  p0093 H82-11004
- Stage-state reliability analysis technique
  p0196 H82-17104

**RECONFIGURATION**
- A method to improve systems realiability
  p0197 H82-17107
- A redundancy concept for a digital CSAS
  p0251 H82-18170
- Air data measurement using distributed processing and fiber optics data transmission
  p0046 H82-26214

**REDUNDANCY ENCODING**
- Design of analytical failure detection using secondary observers
  [NASA-TM-84240]
  p0059 H82-32362

**REDUNDANCY STRUCTURES**
- NT REDUNDANT COMPONENTS

**REDUNDANT STRUCTURES**
- NT REDUNDANT COMPONENTS

**REFERENCES**
- NT AEROSPACEPLANES

**REFERENCES (STANDARDS)**
- NT STANDARDS

**REFLECTANCE**
- NT EMERGENCY/REFLECTANCE

**REFLECTANCE**
- Prediction and performance of radome-covered reflector antennas
  p0080 A82-15311

**REFLECTED RADIATION**
- NT REFLECTED WAYS

**REFLECTED WAVES**
- NT REFLICKED WAVES

**REFLECTED WAVES**
- Ground reflection effects in measuring propeller aircraft flyover noise
  [DFVRL-FL-81-28]
  p0359 H82-22990

**REFLECTION**
- NT BACH REFLECTION
- NT OPTICAL REFLECTION
- NT SIGNAL REFLECTION
- NT WAVE REFLECTION

**REFLECTION COEFFICIENTS**
- NT REFLECTANCE

**REFLECTIVITY**
- NT REFLECTANCE

**REFLECTORS**
- NT PARABOLIC REFLECTORS
- NT RADAR REFLECTORS

**REFRACTED RADIATION**
- NT REFRACTED WAVES

**REFERENCES**
- A-361
<table>
<thead>
<tr>
<th>SUBJECT INDEX</th>
<th>p0590 H82-32356</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replacement of aboard naval aircraft</td>
<td></td>
</tr>
<tr>
<td>[AD-A1157682]</td>
<td></td>
</tr>
<tr>
<td>REPORTS</td>
<td></td>
</tr>
<tr>
<td>NT CONGRESSIONAL REPORTS</td>
<td></td>
</tr>
<tr>
<td>NT PRESIDENTIAL REPORTS</td>
<td></td>
</tr>
<tr>
<td>Technical evaluation report on the Aerelasticity in Turbochilnes Syponents</td>
<td>p0144 H82-15070</td>
</tr>
<tr>
<td>REPUBLIC AIRCRAFT</td>
<td></td>
</tr>
<tr>
<td>NT A-10 AIRCRAFT</td>
<td></td>
</tr>
<tr>
<td>REPUBLIC MILITARY AIRCRAFT</td>
<td></td>
</tr>
<tr>
<td>U MILITARY AIRCRAFT</td>
<td></td>
</tr>
<tr>
<td>REPUBLIC OF KOREA</td>
<td></td>
</tr>
<tr>
<td>U SOUTH KOREA</td>
<td></td>
</tr>
<tr>
<td>REQUIREMENTS</td>
<td></td>
</tr>
<tr>
<td>Analytical study of cockpit information requirements</td>
<td>p0256 H82-18216</td>
</tr>
<tr>
<td>[AD-A108524]</td>
<td></td>
</tr>
<tr>
<td>RESCUE OPERATIONS</td>
<td></td>
</tr>
<tr>
<td>SAR/AT applications</td>
<td></td>
</tr>
<tr>
<td>Flight testing the suspended maneuvering system</td>
<td>p0024 A82-12698</td>
</tr>
<tr>
<td>--- helicopter firefighting and rescue techniques</td>
<td></td>
</tr>
<tr>
<td>[AIAA PAPER B1-2498]</td>
<td></td>
</tr>
<tr>
<td>High-accuracy ranging over voice radio for downed aircraft rescue</td>
<td>p0058 A82-13922</td>
</tr>
<tr>
<td>Rescue at sea</td>
<td></td>
</tr>
<tr>
<td>Status of the COSPAS-SAR/AT project and its possible operation in conjunction</td>
<td></td>
</tr>
<tr>
<td>with IHR/AT system</td>
<td>p0066 A82-14694</td>
</tr>
<tr>
<td>Survey of aeromedical evacuation in Italy</td>
<td>p0078 A82-14956</td>
</tr>
<tr>
<td>The network of civilian air rescue in Germany</td>
<td></td>
</tr>
<tr>
<td>Ambulance helicopter in the Stockholm archipelago</td>
<td></td>
</tr>
<tr>
<td>[AIAA PAPER B1-2005]</td>
<td></td>
</tr>
<tr>
<td>Military assistance to safety and traffic /BASA/</td>
<td></td>
</tr>
<tr>
<td>The situation of air rescue in Argentina</td>
<td></td>
</tr>
<tr>
<td>Amedical evacuation in New Zealand</td>
<td></td>
</tr>
<tr>
<td>Helicopter secondary applications for neurotraumatic emergencies</td>
<td></td>
</tr>
<tr>
<td>Problems pertaining to aeronational technology</td>
<td></td>
</tr>
<tr>
<td>in the case of rescue operations with helicopters in mountainous areas</td>
<td></td>
</tr>
<tr>
<td>The helicopter in rescue operations in high-mountain areas</td>
<td></td>
</tr>
<tr>
<td>Design requirements for modern rescue helicopters</td>
<td></td>
</tr>
<tr>
<td>The case for helicopter hoisting</td>
<td></td>
</tr>
<tr>
<td>LAMPS III recovery assist, securing and traversing /BASA/ system</td>
<td></td>
</tr>
<tr>
<td>--- Light Airborne Multi-Purpose System</td>
<td>p0102 A82-21597</td>
</tr>
<tr>
<td>Analyis of side-looking airborne radar /SLAR/ in the detection of search</td>
<td></td>
</tr>
<tr>
<td>and rescue targets</td>
<td></td>
</tr>
<tr>
<td>The employment of helicopters in Austria in connection with large-scale fires</td>
<td></td>
</tr>
<tr>
<td>in buildings</td>
<td></td>
</tr>
<tr>
<td>Performance characteristics and employment profiles of the new helicopter</td>
<td></td>
</tr>
<tr>
<td>HEL/AT</td>
<td></td>
</tr>
<tr>
<td>Improving aircarrier water survival</td>
<td></td>
</tr>
<tr>
<td>Consideration of an international private sector satellite search and rescue</td>
<td></td>
</tr>
<tr>
<td>locating system</td>
<td></td>
</tr>
<tr>
<td>[IAF PAPER B2-236]</td>
<td></td>
</tr>
<tr>
<td>Special investigation report. Search and rescue procedural and aiming of</td>
<td></td>
</tr>
<tr>
<td>emergency locator transmitter: Aircraft accident near Michigan</td>
<td></td>
</tr>
<tr>
<td>City, Indiana, 7 December, 1980</td>
<td></td>
</tr>
<tr>
<td>P0188 H82-16058</td>
<td></td>
</tr>
<tr>
<td>Project Sea Hunt: A report on prototype development and tests</td>
<td></td>
</tr>
<tr>
<td>[AD-A105010]</td>
<td></td>
</tr>
<tr>
<td>Normal version of the Dauphin and the AS 15 TT</td>
<td></td>
</tr>
<tr>
<td>weapon system helicopters</td>
<td></td>
</tr>
<tr>
<td>[S1165-82T-210-104]</td>
<td></td>
</tr>
<tr>
<td>p0353 H82-22255</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RESEARCH AND DEVELOPMENT</th>
<th>p0532 H82-29279</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aircraft fire safety</td>
<td></td>
</tr>
<tr>
<td>(AGARD-L5-123)</td>
<td></td>
</tr>
<tr>
<td>Aircraft fire mishap experience/crash fire scenario quantitation</td>
<td></td>
</tr>
<tr>
<td>Human response to fire</td>
<td></td>
</tr>
<tr>
<td>Aircraft post-crash fire fighting/rescue</td>
<td></td>
</tr>
<tr>
<td>Preliminary assessment of US Coast Guard Short Range Recovery (SBR) Forward</td>
<td></td>
</tr>
<tr>
<td>Looking Infrared (FIR) system small target detection performance</td>
<td>p0615 H82-34136</td>
</tr>
<tr>
<td>[AD-A117916]</td>
<td></td>
</tr>
<tr>
<td>RESEARCH</td>
<td></td>
</tr>
<tr>
<td>NT GEAR THEORY</td>
<td></td>
</tr>
<tr>
<td>NT HIGH TEMPERATURE RESEARCH</td>
<td></td>
</tr>
<tr>
<td>NT LINEAR PROGRAMMING</td>
<td></td>
</tr>
<tr>
<td>NT MARKET RESEARCH</td>
<td></td>
</tr>
<tr>
<td>NT MATHEMATICAL PROGRAMMING</td>
<td></td>
</tr>
<tr>
<td>NT NONLINEAR PROGRAMMING</td>
<td></td>
</tr>
<tr>
<td>NT QUADRATIC PROGRAMMING</td>
<td></td>
</tr>
<tr>
<td>NT CADDLE POINTS (GAME THEOR)</td>
<td></td>
</tr>
<tr>
<td>A summary of the Naval Postgraduate School Research Program</td>
<td>p0102 H82-13975</td>
</tr>
<tr>
<td>Research and technology annual report, 1981</td>
<td></td>
</tr>
<tr>
<td>[NASA-1R-0133]</td>
<td></td>
</tr>
<tr>
<td>La Recherche Aeronautique, 6-monthly bulletin, number 801-6, November-December</td>
<td></td>
</tr>
<tr>
<td>Aircraft icing research at NASA</td>
<td></td>
</tr>
<tr>
<td>[NASA-1R-02919]</td>
<td></td>
</tr>
<tr>
<td>Activation of the Institute of Sound and Vibration Research</td>
<td></td>
</tr>
<tr>
<td>An exploratory research and development program</td>
<td></td>
</tr>
<tr>
<td>Leading to the specifications for mountain fire fuel from whole crude</td>
<td></td>
</tr>
<tr>
<td>shale oil, part 5 [AD-A117436]</td>
<td>p0612 H82-33551</td>
</tr>
<tr>
<td>RESEARCH AIRCRAFT</td>
<td></td>
</tr>
<tr>
<td>NT A-10 AIRCRAFT</td>
<td></td>
</tr>
<tr>
<td>NT MOTOR SYSTEMS RESEARCH AIRCRAFT</td>
<td></td>
</tr>
<tr>
<td>NT 2-14 AIRCRAFT</td>
<td></td>
</tr>
<tr>
<td>NT 7-11A AIRCRAFT</td>
<td></td>
</tr>
<tr>
<td>Powered-lift takeoff performance characteristics determined from flight</td>
<td></td>
</tr>
<tr>
<td>test of the Quiet Short-Haul Research Aircraft /QSBA/</td>
<td></td>
</tr>
<tr>
<td>[AIAA PAPER B1-2409]</td>
<td></td>
</tr>
<tr>
<td>Recent propulsion system flight tests at the NASA Dryden Flight Research</td>
<td></td>
</tr>
<tr>
<td>Center [AIAA PAPER B1-2438]</td>
<td></td>
</tr>
<tr>
<td>The development and flight test evaluation of an integrated propulsion</td>
<td></td>
</tr>
<tr>
<td>control system for the HIRAM research airplane</td>
<td></td>
</tr>
<tr>
<td>[AIAA PAPER B1-2467]</td>
<td></td>
</tr>
<tr>
<td>Powered-lift QSBA aircraft onboard operations</td>
<td></td>
</tr>
<tr>
<td>A comparison of simulation, land-based and sea trials results for the</td>
<td></td>
</tr>
<tr>
<td>QSBA --- Quiet Short-Haul Research Aircraft</td>
<td></td>
</tr>
<tr>
<td>[AIAA PAPER B1-2463]</td>
<td></td>
</tr>
<tr>
<td>New all-electric-system technology --- electromechanical actuators for</td>
<td></td>
</tr>
<tr>
<td>aircraft [AIAA PAPER B1-2463]</td>
<td></td>
</tr>
<tr>
<td>Ball-Bartoe Jetwing flight tests</td>
<td></td>
</tr>
<tr>
<td>[AIAA PAPER B1-2463]</td>
<td></td>
</tr>
<tr>
<td>Quiet Short-Haul Research Aircraft - The first 3 years of flight research</td>
<td></td>
</tr>
<tr>
<td>[AIAA PAPER B1-2625]</td>
<td></td>
</tr>
<tr>
<td>Real-Time Simulation Computation System --- for digital flight simulation of</td>
<td></td>
</tr>
<tr>
<td>research aircraft</td>
<td></td>
</tr>
<tr>
<td>Performance flight test evaluation of the M-Ball-Bartoe Jetwing QSBA</td>
<td></td>
</tr>
<tr>
<td>research aircraft</td>
<td></td>
</tr>
<tr>
<td>[AIAA PAPER B1-2467]</td>
<td></td>
</tr>
<tr>
<td>MBB - AR unmanned aircraft flight research facility</td>
<td></td>
</tr>
<tr>
<td>[AIAA PAPER B1-2467]</td>
<td></td>
</tr>
<tr>
<td>Performance characteristics of a buoyant quad-rotor research aircraft</td>
<td></td>
</tr>
<tr>
<td>[AIAA PAPER B1-2467]</td>
<td></td>
</tr>
<tr>
<td>Preliminary design study of a hybrid airship for flight research</td>
<td></td>
</tr>
<tr>
<td>[NASA-CR-166246]</td>
<td></td>
</tr>
<tr>
<td>RESEARCH AND DEVELOPMENT</td>
<td></td>
</tr>
<tr>
<td>Aeronautics in China - An AIAA report --- Book</td>
<td></td>
</tr>
<tr>
<td>[AD-A115782]</td>
<td></td>
</tr>
</tbody>
</table>
RETRACTABLE EQUIPMENT

irisk
[AD-A105724]
p0305 N82-20184
Engine component retirement for cause
p0345 N82-22177

RETRACTABLE EQUIPMENT

Analytical determination of undercarriage retraction kinematics
p0005 A82-10364

RETRACTABLE LANDING GEAR

U LANDING GEAR
U RETRACTABLE EQUIPMENT

RETRIEVAL

NT DATA REtrieval
NT INFORMATION RETRIEVAL

RETIREF TING

NT ACOUSTIC RETITIIZING
JP-8 fuel conversion evaluation
p0177 A82-20755
Preplanned product improvement and other modification strategies: lessons from past aircraft modification programs
[AD-A113599]
p0463 N82-27220

REUSABLE SPACECRAFT

NT AEROSPACEPLANES
NT SPACE SHUTTLES

REYNOLDS NUMBERS

Acoustic noise test as part of the dynamic qualification program in aerospace
p0344 N82-22162

REVERSE FLOW

Comparison of two parallel/series flow turbofan propulsion concepts for supersonic V/STOL
[IAEA PAPER 81-2637]
p0156 A82-19214
Dilution jet behavior in the turn section of a reverse flow combustor
[IAEA PAPER 82-0192]
p0167 A82-20291
Dilution jet behavior in the turn section of a reverse flow combustor
[NASA-TM-82776]
p0266 N82-19220

REVIEWING

Transition of aero space adhesive bonding technology from R&D to operational use
p0293 A82-27435

REVISED

Naval versions of the Dauphin and the AS 15 TT weapon system
p0247 N82-10142
Opportunity to reduce the cost of some B-52 modifications
[AD-A113563]
p0462 N82-27219
Cost analysis of the discrete Address Beacon system for the low-performance general aviation aircraft community
[AD-A112957]
p0523 N82-26274

REYNOLDS NUMBER

Experimental studies of the Eppler 61 airfoil at low Reynolds numbers
[IAEA PAPER 82-0369]
p0164 A82-19796
A new facility and technique for two-dimensional aerodynamic testing
p0238 A82-24677
A vortex sheet method for calculating separated two-dimensional flows at high Reynolds number
[IAEA PAPER 82-1030]
p0375 A82-31978
A review of Reynolds number studies conducted in the Langley 0.3-m Transonic Cryogenic Tunnel
[IAEA PAPER 82-0941]
p0366 A82-34007
Turbulent boundary-layer development on a two-dimensional aerfoil with supercritical flow at low Reynolds number
p0369 A82-34398
On the performance prediction of a centrifugal compressor scaled up
[IAEA PAPER 82-07-132]
p0424 A82-35345
Computation of high Reynolds number internal/external flows
[NASA-TF-64049]
p0035 A82-11046
Studies of air deflectors at Reynolds numbers comparable to flight in OREAA's F1 and S1A wind tunnels
p0056 A82-13091
Force and moment, flow-visualization, and boundary-layer tests on a shuttle orbiter model at Mach 6
[NASA-TP-1952]
p0097 N82-13106
Low Reynolds number airfoil survey, volume 1
[IAEA-CB-165003-VOL-1]
p0131 N82-18059
Effects of Reynolds number and turbulence level on axial cascade performance

A-368

SUBJECT INDEX

survey on the effect of blade surface roughness on compressor performance
p0205 N82-17190
Flow and acoustic properties of low Reynolds number underexpanded supersonic jets
[NASA-CB-169257]
p0557 N82-30288
Surface flow visualization requirements for testing at NPR
p0596 N82-32667
Supersonic jet noise generated by large scale installations
[NASA-TP-2072]
p0614 N82-34189
REYNOLDS STRESSES
The structure of a separating turbulent boundary layer. I - Mean flow and Reynolds stresses. II - Higher-order turbulence results
p0126 A82-18776
Close-coupled canard-wing vortex interaction and Reynolds stress acquisition
[IAEA PAPER 82-1360]
p0489 A82-39132
RP-8 AIRCRAFT
U P-8 AIRCRAFT
EH-2 HELICOPTER
U OH-1 HELICOPTER

RENOLOGY

Rheological behavior of progressively shear-thickening solutions - aircraft fuel polymer additives for fire protection in survivable crashes
p0013 A82-11177
RIBBON PARACHUTES
The effects of flexibility on the steady-state performance of small ribbon parachute models
[IAEA PAPER 81-1922]
p0006 A82-10408
Stress measurements in a ribbon parachute canopy during inflation and at steady state
[IAEA PAPER 81-1946]
p0007 A82-10420
Materials and design criteria for Kevlar-29 ribbon parachutes
[AD-A116957]
p0567 N82-31308
Reduction in parachute drag due to forebody wake effects
[DE88-030124]
p0567 N82-31309
RIBBONS
Technical and economic comparison of carbon fiber tape and woven fabric applications
p0514 A82-40993
RIBS (SUPPORTS)
Some observations on the corrosion of aircraft at the air force base in Bandiraa, Turkey
p0211 N82-17353
RICKERT EQUATION
Computational methods of robust controller design for aerodynamic flutter suppression
[IAEA-CB-169083]
p0059 N82-12080
RICHARDSON-DUSHMAN EQUATION
U TEMPERATURE EFFECTS
RIDING QUALITY
Quantification of helicopter vibration ride
time
p0440 A82-37767
Army helicopter crew seat vibration - Past performance, future requirements
[AFSC PEP PRT 81-3]
p0441 A82-37779
The Helicopter Ride Revolution
[AFSC PEP PRT 81-4]
p0441 A82-37780
Design of a longitudinal ride-control system by Zakian’s method of inequalities
p0518 A82-41118
A method for applying linear optimal control theory to the design of a regulator for a flexible aircraft --- improving riding quality in fighter aircraft
[HEL-TR-80032-1]
p0265 N82-19212
RIMEHOLZ INTEGRAL
U MEASURES AND INTEGRATION
RIGID BODIES
U RIGID STRUCTURES
RIGID ROBOT HELICOPTERS
Design of higher harmonic control for the ABC
p0278 A82-26380
RIGID ROBOTS
Development of the Trifiler rotor head
[IAEA-TP-1952]
p0013 A82-11222
The TAN-64A composite flexbeam tail rotor
p0278 A82-26386
Influence of unsteady aerodynamics on hingeless rotor ground resonance
The effect of hybrid composite materials on the dynamic characteristics of helicopter rotor blades

System identification helicopter parameters. Determination from flight tests, phase 2

Stability and response to gravity of the flap lag motion for a rigid rotor blade with flap-pitch coupling

Dynamic analysis of a rotor blade with flap and lag freedom and flap-pitch coupling

Flight characteristics design and development of the HHB/KHI BKII7 helicopter

A general purpose program for rotor blade dynamics

Helicopter rotor downwash: Results of experimental research at the DFTU-rotor test stand and their comparison with theoretical results

RIGID STRUCTURES

RIGID WINGS

Low level optimum design structures with fiber-composite stiffened-panel components

An automated technique for improving model test/analysis correlation

Rigid body-structural node coupling on a forward swept wing aircraft

On the dynamic collapse of a column impacting a rigid surface

Eigenmodes and eigenspace techniques for active flutter suppression

A two-degree-of-freedom flutter mount system with low damping for testing rigid wings at different angles of attack

RIGIDITY

Interpretation and construction of a dynamic similarity model of the A-10 wing

RING LASERS

Ring Laser Gyro Navigator /RLGN/ flight test results

Laboratory and flight test of a new EGLN strapdown INS

An investigation of ring laser gyroscope random walk experiments

RING STRUCTURES

Ringfree augmentation effects

FLYED JOINTS

Mechanically-fastened joints for advanced composites - Phenomenological considerations and simple analyses

ROADS

NT HIGHWAYS

ROADS (MATHEMATICS)

An approach to robust nonlinear control design -- with illustration of J-85 turbojet engine simulation

An application of total synthesis to robust coupled design -- turbojet engine control

Robust Kalman filter design for active flutter suppression systems

Flight control synthesis using robust output observers

Limitations on achievable performance of multivariable feedback systems

ROCKET ENGINE DESIGN

Prediction of cruise missile inlet peak instantaneous distortions patterns from steady state and turbulence data using a statistical technique

New developments in the field of ramjet missile propulsion

The enhancement of heat exchange in channels /2d revolved and enlarged edition/ -- Russian book

The technology of the assembly of engines for flight vehicles -- Russian book

Diffuser/ejector system for a very high vacuum environment

Laboratory and flight test of a new BLG strapdown Laser Gyro navigator /BLGN/ flight test results

An investigation of ring laser gyroscope random walk experiments

Shape optimization of fiber reinforced composites

Measuring flexural loads by means of strain transducers

MOGALLO WINGS

Flexible flying wings

ROLING STRUCTURES

7/4-18 roll rate improvement program

Selection of some rotor parameters for pitch-coupled helicopter flight dynamics

Experimental and analytical studies of advanced air cushion landing systems -- Russian book

Development and trial of a rotary balance for the 5 m-low speed wind tunnels in the Federal Republic of Germany

Planar equations of rollmotion for an aircraft with free or steerable landing gear

Roll response criteria for transport aircraft with advanced flight control systems in the landing approach and touchdown

Real time estimation and prediction of ship motions using Kalman filtering techniques

Development of counter-rotating intershaft support bearing technology for aircraft gas turbine engines

Development of high-speed rolling-element bearings. A historical and technical perspective
SUBJECT INDEX

ROUTERS


ROUTERS

Simulation of the interaction between airdrop platformed and aircraft rollers [AD-A116370] p0569 882-31324

ROLLING WHEELS

Subsonic and transonic rolling damped measurements on Basic Planer -- fanned missile calibration model p0165 882-19958

Effects of aerodynamic coupling on the dynamics of roll aircraft p0088 882-12079

Leading edge flap system for aircraft control augmentation [NASA-CR-12787-1] p0407 882-25240

Rolling flow wind tunnel tests of P-18 aircraft [NASA-CR-169344] p0604 882-33328

ROLLING SOLAR ARRAYS

U SOLAR ARRAYS

ROOFS

A theoretical study of the impact of aircraft wake vortices on roofs in the final approach area of Dusseldorf airport [DFVLR-BUS-82-01] p0371 882-23560

ROTOR DRIVES

U MECHANICAL DRIVES

ROTOR GEOSCOPE

Fast and accurate gyrocompass using strapdown tuned rotor gyro as a solution to combat helicopters navigation problems p0016 882-11927

Design considerations for the direct digital control of dry-tuned gyroscopes p0017 882-11933

3 ODF gyro analysis from measured and derived rates --- hypersonic reentry simulation test [AIAA PAPER 82-0189] p0116 882-17831

The use of gyroscope readings for damping of the natural vibrations of twin-rotor gyrocompasses p0298 882-28575

ROTOR STABILITY

AT GEOSCOPIC STABILITY

Dynamic stability of low effective flap hinge BHE concepts p0277 882-26377

Stability and self-oscillations of coaxial rotors p0342 882-31603

Use of rotor balance and forced oscillation test data in six degrees of freedom simulation [AIAA PAPER 82-1364] p0469 882-39129

Wing mode stability of the main rotor of the YH-64 advanced Attack Helicopter p0498 882-40513

Correlating measured and predicted implant stability characteristics for an advanced bearingless rotor [NASA-CR-166269] p0201 882-17154

A further study of helicopter rotor pitch-flap-phase coupling [BD-259] p0265 882-19218

Test plan for SSB --- surveillance radar for air traffic control [AD-A109503] p0307 882-20392

Family of airfoil shapes for rotating blades --- for increased power efficiency and blade stability [NASA-CR-12894-1] p0607 882-33327

ROTARY WING AIRCRAFT

MT AH-64 HELICOPTER
MT BD-105 HELICOPTER
MT CH-46 HELICOPTER
MT CH-47 HELICOPTER
MT HEAVY LIFT HELICOPTERS
MT HELICOPTERS
MT MILITARY HELICOPTERS
MT OH-13 HELICOPTER
MT OH-58 HELICOPTER
MT P-531 HELICOPTER
MT RIGID ROTOR HELICOPTERS
MT ROTOR SYSTEMS RESEARCH AIRCRAFT
MT SA-330 HELICOPTER
MT SH-3 HELICOPTER
MT TANDEM ROTOR HELICOPTERS
MT TILT ROTOR AIRCRAFT
MT UH-1 HELICOPTER
MT UH-60A HELICOPTER
MT XV-15 AIRCRAFT

On computing Floquet transition matrices of rotorcraft p0113 882-11225

Development of a comprehensive analysis for rotorcraft. II - Aircraft model, solution procedure and applications p0658 882-14963

A new safety harness for mobile aircrew p0708 882-14963

Factors shaping conceptual design of rotary-wing aircraft p0440 882-37773

Performance characteristics of a buoyant quad-rotor research aircraft p0513 882-40974


Design study into a high endurance mini-rotorcraft [BD-265] p0266 882-19216

Review of rotorcraft accidents 1977-1979 p0351 882-22237

New development in flying qualities with application to rotary wing aircraft p0366 882-23226

Past applications and future potential of variable stability research helicopters p0367 882-23220

Applications of system identification methods to the prediction of helicopter stability, control and handling characteristics p0367 882-23220


Conceptual design study for an advanced cab and visual system, volume 1 [NASA-CR-166235] p0410 882-25266

Conceptual design study for an advanced cab and visual system, volume 2 [NASA-CR-166236] p0410 882-25267


NASA aeronautics [NASA-SP-65] p0557 882-30283


ROTARY HOOPS

MT BEARINGLESS ROTORS
MT CIRCULATION CONTROL ROTORS
MT LIFTING ROTORS
MT RIGID ROTORS
MT TILTING ROTORS
MT WING ROTORS

Helicopter rotor trailing edge noise [AIAA PAPER 81-2001] p0000 882-10455

Composite rotor rotor tubular braided [AD-A108294] p0009 882-10457

Model helicopter rotor impulse noise p0013 882-11300

Numerical treatment of helicopter rotor stability problem p0013 882-12045

Advancing blade concept /ABC/ development test program [AIAA PAPER 81-2437] p0055 882-13873

A set of finite elements developed for the dynamic computation of composite helicopter blades [ONEBA, TP No. 81-87] p0062 882-13390

Application of the ONEBA dynamic stall model to a helicopter blade in forward flight [ONEBA, TP No. 81-89] p0062 882-13392

Design requirements for modern rescue helicopters p0153 882-19020

Fatigue behavior in selected non-woven fiber composites for helicopter rotor blades p0170 882-20524

Structural testing of composites with known defects p0239 882-24708

Fatigue test of the typical main rotor control component p0240 882-24715

Helicopter rotor load prediction p0240 882-24719

A-370
A double lattice method for the determination of rotor induced enemage vibration airloads. 

Analysis description and program documentation [NASA-Cr-165893] p0056 882-31295


**ROTOR BLADES (TURBOMACHINERY)**

A generalized Hill's method for the stability analysis of parametrically excited dynamic systems p0274 882-25923

CH-46 fiberglass blade repair program p0278 882-26384

S & D on composite rotor blades at Augusta p0439 882-37764

Optimization of blade pitch angle for higher harmonic control p0441 882-37776

A simple system for helicopter individual-blade-control and its application to stall-induced vibration alleviation [NASA-PREPRINT 81-12] p0482 882-37785

The effect of hybrid composite materials on the dynamic characteristics of helicopter rotor blades p0490 882-37777

Effect of tip vane on the performance and flow field of a rotor in hover p0498 882-40511

Helicopter vibration reduction by rotor blade nodal shaping p0498 882-40514

Finite element analysis for bearingless rotor blade aeroelasticity p0499 882-40517

A simplified method for predicting rotor blade airloads p0577 882-45187

Study on pressure distribution on rotor blades with three-dimensional nonsteady theory of compressible fluid p0577 882-45188

**TH-54A ABC technology demonstrator altitude expansion and operational tests [AD-111114]** p0469 882-27282

Helicopter vibration suppression using simple pendulum absorbers on the rotor blade [NASA-Cr-169131] p0523 882-26282


Aeroelastic stability of rotor blades using finite element analysis [NASA-Cr-166389] p0588 882-32342

Finite difference modeling of rotor flows including wake effects [NASA-TM-84280] p0604 882-33365

Design of helicopter rotor blades for optimum dynamic characteristics [NASA-Cr-169352] p0607 882-33374

Rotor tip clearance effects on overall and blade-element performance of axial-flow transonic fan stage [NASA-TP-2049] p0609 882-33389

Helicopter vibration suppression using simple pendulum absorbers on the rotor blade p0613 882-33374

**ROTOR BLADES (TURBOMACHINERY)**

Effects of yaw/blade ratio and spacing on fan noise [NASA-PAPER 81-DRE-124] p0161 882-19338

NOE of composite rotor blades during fatigue testing p0239 882-20713

Comments on "Nature of inlet turbulence and strut flow disturbances and their effect on turboshaft/rotor noise" p0277 882-26320

**Energy Conversion System** p0304 882-31707

Periodic boundary value problem for the equations of the harmonic oscillation of a rotor blade about the axis of a flapping hinge p0387 882-34127

Investigation of blade vibration of radial impellers by means of telemetry and holographic interferometry [NASA-PAPER 82-GT-34] p0421 882-35295

A critical appraisal of some current incidence load models for the stator and rotor of a mixed flow gas turbine [NASA-PAPER 82-GT-120] p0425 882-35350

Turbulent vibration of high speed lightweight rotor due to sudden imbalance [NASA-PAPER 82-GT-231] p0428 882-35413

Engine experience of turbine rotor blade materials and coatings [NASA-PAPER 82-GT-294] p0428 882-35425


A simplified approach to the free wake analysis of a hovering rotor p0483 882-39474

Fluctuating forces and rotor noise due to distorted inflow p0510 882-40965


Study of controlled diffusion stator blading. 1. Aerodynamic and mechanical design report [NASA-Cr-165500] p1090 882-16081

Part span damper loss prediction for transonic axial fan rotors p0205 882-17192

Deviations/turning angle correlations p0205 882-17193

Static investigations of rotor blades under deadweight and during stationary operation [ISD-269] p0214 882-17639

Loading cycles and material data for the layout of a wind turbine of special hub concept [NASA-Cr-273] p0215 882-17643

Seventh European Rotorcraft and Powered Lift Aircraft Forum p0245 882-18119

Developments in rotary wing aircraft aerodynamics [NASA-PAPER 82-GT-1820] p0245 882-18120

A simplified approach to the free wake analysis of a hovering rotor p0235 882-18121

An experimental analysis of the shape of a rotor wake p0235 882-18122

A simplified method for predicting rotor blade airloads p0245 882-18124

A three-dimensional approach to lift and moment coefficients of rotating blades p0245 882-18125

A complete method for computation of blade mode characteristics and responses in forward flight [NASA-TP-2041] p0245 882-18126

Modal characteristics of rotor blades: Finite element approach and measurement by ground vibration test p0245 882-18127

Performance of single-stage axial-flow transonic compressor with rotor and stator aspect ratio of 1.63 and 1.77, respectively, and with design pressure ratio of 2.05 p0355 882-22269

Rotor fragment protection program: Statistics on aircraft gas turbine engine impellers that occurred in 0.2 commercial aviation accidents in 1978 [NASA-Cr-165388] p0473 882-27316

Establishment of a rotor model basis [NASA-TP-2026] p0535 882-29311
A prescribed wake rotor inflow and flow field prediction analysis; user's manual and technical approach

[NASA-CR-165804] p0566 N82-31296

ROTOR BODY INTERACTIONS

Development of a rotorcraft. Propulsion dynamics interface analysis, volume I

[NASA-CR-166380] p0591 N82-32368

ROTOR DISKS
U TURBINE WHEELS
U HUBS
U MOTORS

ROTOR LIFT

A three-dimensional approach to lift and moment coefficients of rotating blades

p0245 N82-18125

Investigation of a rotor system incorporating a constant lift cap

[NASA-CR-166261] p0531 N82-29271

ROTOR SPEED

60 kVA ADF permanent magnet VSCF starter generator system - Generator system performance characteristics

p0016 A82-11721

Transient vibration of high speed lightweight rotor due to sudden imbalance

[ASRB PAPER 82-02-23] p0428 A82-35413

Problems of engine response during transient maneuvers

p0208 N82-17221

An extension of the local momentus theory to the rotors operating in twisted flow field

p0245 N82-18123

A simplifed method for predicting rotor blade airloads

p0245 N82-18124

Wind tunnel investigation of high speed rotor noise

p0240 N82-18146

ROTOR SYSTEMS RESEARCH AIRCRAFT

Rotor systems research aircraft /BSBA/ rotor force and moment measurement system

[AIAS PAPER 81-2516] p0207 A82-13913

Performance of the Rotor Systems Research Aircraft calibrated rotor loads measurement system

p0502 A82-00459

Pre-design study for a modern four-bladed rotor for the rotor System Research Aircraft (BSBA) --- integrating the YAH-64 main rotor

[NASA-CR-166154] p0107 N82-16043

BA/NASA advanced rotorcraft technology and Tiltrotor Workshops. Volume 3: Aerodynamics and Structures Session

[NASA-CR-166047] p0262 N82-19172

BSBA vertical drag test report --- rotor systems research aircraft

[NASA-CR-166399] p0587 N82-32341

ROTORCRAFT
U ROTARY WING AIRCRAFT

The use of frequency methods in rotorcraft system identification

[AIAS PAPER 81-2386] p0064 A82-14392

Dynamic stability of a buoyant quad-rotor aircraft --- for allaying payloads externally on a silo

[AIAS PAPER 82-0242] p0117 A82-17061

The emerging need for improved helicopter navigation

p0182 A82-21591

Preliminary design study of a hybrid airship for flight research

[NASA-CR-166246] p0201 N82-17152

Tethered rotors platforms and their mission potential

p0248 N82-18145

NASA Lewis Research Center Icing Research Program

p0311 N82-21148

Cooled variable nozzle radial turbine for rotorcraft applications

[NASA-CR-165397] p0536 N82-29532

ROUTERS
U BATTERYLESS ROTORS
U CIRCULATION CONTROL ROTORS
U COMPRESSOR ROTORS
U FLYWHEELS
U HELICOPTER TAIL ROTORS
U IMPULSES
U LIFTING ROTORS
U RIGID ROTORS
U ROTARY WINGS
U TAIL ROTORS
SATELLITE NETWORKS

Satellite geometry considerations for low cost GPS user equipment...

Prospects for Navstar -- a future worldwide civil navigation-satellite system

Consideration of an international private sector satellite search and rescue locating system

Study of the global positioning system for maritime concepts/applications: Study of the feasibility of replacing maritime shipborne navigation systems with NAVSTAR

SATELLITE OBSERVATION

A comparison of pole positions derived from GPS satellite and Navy navigation satellite observations (AD-A110765)

Scanner imaging systems, aircraft

SATELLITE SOUNDING

Rapid extraction of layer relative humidity, geopotential thickness, and atmospheric stability from satellite sounding radiometer data

SATELLITE TRANSMISSION

Data communications within the Air Navigation Services system

Radiating elements for hemispherically scanned array --- onboard aircraft for data links to satellites

SATELLITE-BORNE PHOTOGRAPHY

Mesoscale convective weather systems and aviation operations (AIAA PAPER 82-0015)

SATELLITES

NT COMMUNICATION SATELLITES

NT G00DENIC SATELLITES

NT NAVIGATION SATELLITES

NT NAVSTAR SATELLITES

NT RCA SATCOM SATELLITES

NT REPSAT

NT SARRI SATSATELLITES

NT SEASTAR SATELLITES

NT TITAN

SATURN SATELLITES

NT TITAN

SCALE EFFECT

Scaling effects on leakage losses in labyrinth seals (AIAA PAPER 82-CT-157)

An investigation of F-16 nozzle-afterbody forces at transonic Mach numbers with emphasis on model scale effects (AD-A104959)

SCALE MODELS

Analysis of data from a wind tunnel investigation of a large-scale model of a highly maneuverable supersonic V/STOL fighter - 2X2 configuration (AIAA PAPER 81-2620)

Experimental performance evaluation of "ventilated mixers" - a new mixer concept for high bypass turbofan engines (AIAA PAPER 82-1136)

An experimental investigation of a bearingless model rotor in hover

An investigation of scale model testing of VTOL aircraft in hover

An improved propulsion system simulation technique for scaled wind tunnel model testing of advanced fighters

Standard tests of a research model rotor in a wind tunnel, including model similarity --- calculations compared with measurements (BGW-FAST-75-16)

Scale-model studies for the improvement of flow patterns of a low-speed tunnel (NASA-CR-169413)

Rotor model for the verification of computational methods (ISO-275)

Spin-tunnel investigation of a 1/13-scale model of the NASA AB-1 oblique-wing research aircraft (NASA-TR-83236)

Aeroplastic survey of wind tunnel testing of small and large scale rotors (SAIAS-821-210-107)

Design of dynamically-scaled, asymmetrical wind tunnel models (NASA-78/18)

Research model wing/empennage fabrication --- transonic wind tunnel 1/7.5-scale model (AD-A114101)

Investigation of correlation between full-scale and fifth-scale wind tunnel tests of a Bell helicopter Textron Model 222 (SAIA-S-166262)

Acoustic similarity laws for centrifugal fans (ESA-IV-712)

SCALE MATH

Model helicopter rotor low frequency broadband noise

Prediction of flyover jet noise spectra from static tests

SCANNERS

NT MULTISPECTRAL SATELLITE SCANNERS

NT OPTICAL SCANNERS

Current pressure measuring system in the transonic wind tunnel (AD-A106272)

SCANNING

NT RADAR SCANNING

SCANNING DEVICES

NT SCANNERS

SCAR PROGRAM

NT SUPERSONIC CRUISE AIRCRAFT RESEARCH

SCATTER PROPAGATION

NT IONOSPHERIC F-SCATTER PROPAGATION

SCATTERING

NT ACOUSTIC SCATTERING

NT ATMOSPHERIC SCATTERING

NT BACKSCATTERING

NT CONFIGURATION INTERACTIONS

NT IONOSPHERIC F-SCATTER PROPAGATION

NT RICHERED SCATTERING

NT RADAR SCATTERING

NT REFLECTION

NT WAVE SCATTERING

SCATTERING COEFFICIENTS

Commercial airborne weather radar technology

SCATTERSTORMS

Development and test of a tactical visibility sensor

SCENE ANALYSIS

Terrain model animation (AD-A107911)

SCHEDULING

NT PREDICTION ANALYSIS TECHNIQUES

Dynamic scheduling of runway operations

SCHEMATIC PHOTOGRAPHY

Operational flow visualization techniques in the Langley Unitary Plan Wind Tunnel

Shadowgraph techniques in transonic tests with powered nacelles

SCHEIMPFLUG-CRISTOFFEL TRANSFORMATION

A Schwarz-Cristoffel method for generating internal flow grids

SCINTILLATION COUNTERS

Linear alpha-ray altimeter

SCINTILLATIONS

NT SCINTILLATION COUNTERS

SCINTILLATIONSTORMS

NT SCINTILLATION COUNTERS

SCORING

Electro-optical vector scoring system -- for missile aims distance in flight training exercises (AIAA PAPER 81-2373)

SCOUT HELICOPTER

NT P-531 HELICOPTER

SCRAMJET ENGINES

NT SUPERSonic combustion engine engines

A-379
Development of a convoluted intake seal for model analysis of side-looking airborne radar /SLARG/

Chen-Braze abradable seal practical Service sensitivity of polysulfide sealants Investigation into the utility of some quick setting cements for runway repair

Structure and variability of the Alboran Sea frontal system Real time estimation and prediction of ship motions using Kalman filtering technique

Sea States: A comparison of Seasat-derived wave height with surface data

Sea Water: Rescue at sea Structure and variability of the Alboran Sea frontal system US Naval fleet aircraft corrosion

Some observations on the corrosion of aircraft at the air force base in Sandans, Turkey

Seals: Novel metal-ceramics-composite sealing coatings in aircraft engines Studies of new polyimide elastomeric sealants -- for aircraft fuel tanks

Sealing: Aeronautical applications of bonding -- The experience of corrosion on French military aerodynamic research Investigation into the utility of some quick setting cements for runway repair -- [F-80-157/60,7.0157]

Seals: (STOPPERS) NT LANTYTH SEALS Rob energetics of compressor blade tip seals Service sensitivity of polysulfide sealants -- Chew-Braze abrasible seal practical -- An experimental investigation of interfacial temperatures in blade-seal natural rubbing of aircraft compressors -- [AIAA PAPER 82-0890]

Development and application of Dubbe gas tungsten arc welding for repair of aircraft engine, seal teeth -- [AIAA PAPER 82-07-55]

Bonding procedure for Teflon seals Development of low modulus material for use in ceramic gas path seal applications -- [NASA-CH-165469]

Development of a convoluted intake seal for model R66 -- vs/wind tunnel [AB-KEG-163]


Crashworthiness studies: Cabin, seat, restraint, and injury findings in selected general aviation accidents -- [AD-A110470]

Crashworthiness studies: Cabin, seat, restraint, and injury findings in selected general aviation accidents -- [AD-A110470]

Sea Bus: Evaluation of a proposed modified F/1B-111 crew seat and restraint system -- Crashworthiness studies: Cabin, seat, restraint, and injury findings in selected general aviation accidents -- [AD-A110470]

Secondary flow mixing losses in a centrifugal impeller -- [ASHE PAPER 82-07-48]

Secondary flow effects and mixing of the wake behind a turbine stator -- [ASHE PAPER 82-07-46]

End-wall boundary layer calculation methods -- [AD-11-44984]

A-380
SBPABATOBS
SERVICE LIFE
SERIES (NASHEHAXICS)
SEQUENTIAL ANALYSIS
HI PADE APPIBXIHATIOH
NT FODBIEB SEBIES
Hughes helicopters - Fatigue life methodology

A method of determining safe service life for helicopter components

On the calculation of separated flow on helicopter fuselages

Some remarks on buffeting --- of wings, wind tunnel models

Water tunnel flow visualization and wind tunnel data analysis of the F/A-18 --- leading edge extension vortex effects

The Sharypin sequential probability ratio test

User's manual for interfacing a leading edge, vortex rollup program with two linear panel methods

A method for determining the lifetime of gas turbine blades

Introduction to the principles of fracture mechanics

Evaluation of crack growth rates for service life tracking

Problems and options in advanced composite repair

Mechanical and metallurgical considerations in extending the life of turbine blades

A procedure for evaluating fuel composition:

The role of the scale parameter in service load assessment and simulation --- of aircraft flight

The contribution of thermal barrier coatings to improvements in the life and performance of gas turbine components

Fracture mechanics criteria for turbine engine hot section components

Life and Utilization Criteria Identification In Design (LUCID), volume 1

An analysis of a nonlinear instability in the behavior of aircraft with active control systems

A method for determination of the aeroelastic behavior of aircraft with active control systems

Implementation of a VTOL control system during hover

Hydraulic actuator mechanism to control aircraft spoiler movements through dual input commands

A method of predicting fuselage loads in hover

Design considerations for duty cycle, life and reliability of small limited life engines

An electronic control for an electrohydraulic servovalves German thesis

A mixed-flow cascade passage design procedure based on a power series expansion

A-382
Bail-Bartoe Jetwing flight tests
An investigation of the use of a propulsive wing/flap concept for improved maneuvering
Tactical STOL moment balance through innovative configuration technology
Application of thrust vectoring for STOL
STOL capability impact on advanced tactical aircraft design
Quiet Short-Haul Research Aircraft - The first 3 years of flight research
Sea based support aircraft alternatives
Design features of a sea-based multi-purpose V/STOL, STOL, and STOL aircraft in a support role for the U.S. Navy
Performance flight test evaluation of the Bail-Bartoe JW-1 Jetwing STOL research aircraft
Analytical control law for desirable aircraft lateral handling qualities
US Navy begins slow shuffle towards V/STOL
STOL aircraft response to turbulence generated by a tall upward building
Advanced exhaust nozzle concepts utilizing spanwise blowing for aerodynamic lift enhancement
Thrust reverser induced flow interference on tactical aircraft stability and control
Application of advanced exhaust nozzles for tactical aircraft
Design and experimental verification of the USB-flap structure for STOL aircraft ---
Development of the Circulation Control Wing-Upper Surface Blowing powered-loft aircraft
Test results of chordwise and spanwise blowing for low-speed lift augmentation
Design of a longitudinal ride-control system by Zahn's method of inequalities
Quiet short-haul research aircraft familiarization document, revision 1
Development and evaluation of automatic landing controls for lightweight wing loading STOL aircraft
Integration of advanced exhaust nozzles
Airlane landing on an elevated STOLport
Surveys of flow-field around and along experimental STOL-research aircraft models
Review of defense-related vertical and short takeoff and landing (V/STOL) aircraft programs
Aeroacoustic noise generated by jet wing/flap interactions of the external USB configuration of STOL aircraft. Part 2: Full scale model experiment using F21 turbofan engine
A short takeoff performance computer program
Design criteria for flightpath and airdomed control for the approach and landing of STOL aircraft
STOL aircraft structural vibration prediction from acoustic excitation
Flight experiments using the front-side control technique during piloted approach and landing in a powered lift STOL aircraft
Analysis of several glidepath and speed control autopilot concepts for a powered lift STOL aircraft
Short Wave Radiation by Millimeter Waves
SHREDDED BODIES
SHREDDED BODIES
The subsonic performance of practical military variable area convergent nozzles
SHREDDING TURBINES
Investigation of vibration of shredded turbine blades
SHEDDING TURBINES
A practical approach to systems mode analysis --- for Air/blade-shroud assemblies
SHREDDING
Effect of impeller extended shrouds on centrifugal compressor performance as a function of specific speed
Active clearance control system for a turbocharger
SHREDDING
BY BYPASSES
SHUTTLE ORBITERS
SPACE SHUTTLE ORBITERS
GIC (CORRECTIFER)
STRUCTURAL INFLUENCE COEFFICIENTS
SIDE-LOOKING RADAR
RADAR IMAGERY
Analysis of side-looking airborne radar /SLAR/ performance in the detection of search and rescue targets
Utilization of AN/APS-94 side-looking airborne radar systems in search and rescue
SIDELOOK REDUCTION
Secondary radar problems - The presence of false echoes
SIDELINE
A cost effective method for the control of roll due to side slip on a low speed aircraft
Effects of vortex breakdown on longitudinal and lateral-directional aerodynamics of slender wings by the suction analogy
Lateral aerodynamics of delta wings with leading edge separation
SUBJECT INDEX

Distributed airborne array concepts
p0342 882-31669

Median PTO performance analysis —
Pulse-Repetition Frequency
p0436 882-37378

Recent results in main beam nulling —
aircraft antenna design
p0553 882-43792

Investigation of air transportation technology at
Ohio University, 1981 — loran
p0445 882-26208

SIGNAL TRANSMISSION

MT DATA TRANSMISSION
MT IONOSPHERIC F-SCATTER PROPAGATION
MT IONOSPHERIC PROPAGATION
MT MICROWAVE TRANSMISSION
MT MULTIPLEX TRANSMISSION
MT MULTIPLE ACCESS
MT PDR TELEMETRY
MT RADAR TRANSMISSION
MT RADIO TELEMETRY
MT RADIO TRANSMISSION
MT SATELLITE TRANSMISSION
MT TELEMETRY
MT TRANSHORIZONT RADIO PROPAGATION

Microwave communications to remotely piloted
Vehicles
p0150 882-18911

Lead navigation with a low cost GPS receiver
p0175 882-20656

Fiber optics remoting of terminal radar and beacons
signals
p0574 882-32140

SYNTHETIC AERIAL
ADS phase flow properties for infrared analysis
— Augmented Deflecting Exhaust Nozzle
p0114 882-17606

On-set vibration measurement, dynamic tracking
and balancing
p0172 882-20545

The pressure signature method for blockage
corrections, and its applications to the
industrial wind tunnel
p0267 882-19231

SIGNATURES

MT AERIAL SIGNATURES
MT RADAR SIGNATURES
MT SPECTRAL SIGNATURES

SIKORSKY AIRCRAFT

MT SH-3 HELICOPTER
MT SH-4A HELICOPTER

Light Airborne Multi-Purpose System
p0046 882-13224

Sikorsky RCP preliminary design —
Advanced Composite Airframe Program
p0500 882-40526

SIKORSKY SHS-2 HELICOPTER

O SH-3 HELICOPTER

SILICA

O SILICON DIOXIDE

SILICON

Silicon liquid crystal light valve for flight
Simulation applications
p0413 882-26005

[S6-A110528]

SILICON CARBIDES

Brittle materials design, high temperature gas
turbine
p0191 882-16085

[S6-A106670]

SILICON COMPOUNDS

MT SILICON CARBIDES
MT SILICON DIOXIDE
MT SILICON NITRIDES
MT SILICON OXIDES

SILICON DIOXIDE

Failure analysis of silica phenolic nozzle liners
p0391 882-36882

SILICON NITRIDES

Brittle materials design, high temperature gas
turbine
p0191 882-16085

[S6-A106670]

SILICON OXIDES

MT SILICON DIOXIDE
MT SILICON POLYTHIRES
MT SILICONES

SILICONE

US Naval fleet aircraft corrosion
p0211 882-17350

SILTS

O SEDIMENTS

A-387
SOLID STATE LASERS

NT CRONG
NT LIGHT EMITTING DIODES
NT PHOTOVOLTAIC CELLS
NT SEMICONDUCTOR DEVICES
NT THERMISTORS
NT TAG LASERS

Solid-state VORTAC with remote maintenance and monitoring
L-band power generation in the General Electric solid-state radar
A system design for a multispectral sensor using two-dimensional solid-state imagers

SOLID STUB LASERS
SOLVBIS BEJ?I«ED COIL
SOLIDIFICATION
SOLID ABSORPTION
SOOT
SODIC H02ZIBS
SOHIC FLOI

SOLVEHIS ,
SOLOIIOIS
SOLID-SOLID INTERFACES
Displacement bonding in superplastic forming/diffusion bonding
An experimental investigation of interfacial temperatures in blade-seal material rubbing of aircraft compressors
Solidification
Development of in-can melting process and equipment, 1979 and 1980

SOIIC HO2ZIBS
HI SEHICOHDOCT DEVICES
HI PHOIOVOLIAIC CELLS
HI CHOS
HI O ACOOSIIC VELOCITY
HI GAS HIXTOBES
HI AQOBOOS SOLOIIOHS

0 ACOUSTIC VELOCITY
0 SOOT TDANNISHIOH
0 ACOUSTIC VELOCITI
0 SOUiJD TBANSHIION
a ACOUSTICS

0 SOLVENTS
Determination of selected distillate blending solvents in simple and complex aircraft fuel matrices via glass capillary gas chromatography

0 SOLVENTS
0 ACOUSIIC VELOCITI
0 SOOT TDANNISHIOH
0 ACOUSTIC VELOCITI
0 SOUiJD TBANSHIION
a ACOUSTICS

0 SOLVENTS
Determination of selected distillate blending solvents in simple and complex aircraft fuel matrices via glass capillary gas chromatography

0 SOLVENTS
Determination of selected distillate blending solvents in simple and complex aircraft fuel matrices via glass capillary gas chromatography

0 SOLVENTS
Determination of selected distillate blending solvents in simple and complex aircraft fuel matrices via glass capillary gas chromatography

0 SOLVENTS
Determination of selected distillate blending solvents in simple and complex aircraft fuel matrices via glass capillary gas chromatography

SOUND
U ACOUSTICS
SOUND ABSORPTION
U SOUND TRANSMISSION
SOUND BARRIER
U ACOUSTIC VELOCITY
SOUND FIELDS
An iterative finite element-integral technique for predicting sound radiation from turbines using

in steady flight
[AIAA PAPER 82-0124]

Fluctuating forces and rotor noise due to distorted inflow
[DE82-010471] p0595 H82-32518

SOUND GENERATORS
Experiments on propeller noise
[DE82-001050] p0195 H82-16634

SOUND LOCALIZATION
Study of the source function by the causality methods defined by Ribaer and Siddon

[DB82-205170] p0615 H82-34196

SOUND MEASUREMENT
U ACOUSTIC MEASUREMENT
SOUND PRESSURE
Propeller tip vortex – a possible contributor to aircraft cabin noise
Pressure dependence of jet noise and mileusing of blow-offs
Model helicopter rotor low frequency broadband noise
Evaluation of the acoustic measurement capability of the NASA Langley F/STOL wind tunnel test section with acoustically absorbent ceiling and floor treatments
Acoustic measurements of F-15 aircraft operating in hush house, 858 4920-02-070-2721
[AD-A109928] p0310 H82-21040
Acoustic measurements of F-16 aircraft operating in hush house, 858 4920-02-070-2721
[AD-A109928] p0310 H82-21040

USAP bioenvironmental noise data handbook. Volume 158: F-106A aircraft, near and far-field noise
[AD-A110010] p0113 H82-17796

USAP bioenvironmental noise data handbook. Volume 158: F-106A aircraft, near and far-field noise
[AD-A110010] p0113 H82-17796

SOUND PROPAGATION
Impedance modeling of acoustic absorbing materials for aircraft engine applications
Scattering of sound by a vortex ring
[U-14156] p0104 H82-16148

U comprehensive flight test flyover noise program
[DE82-001050] p0195 H82-16634

High frequency sound emission from moving point multipole sources embedded in arbitrary transversely sheared mean flow
[DE82-001050] p0195 H82-16634

SOUND TRANSDUCERS
- NT MICROPHONES
SOUND TRANSMISSION
Noise control measures in the new Singapore International Airport
Development of a transmission loss test facility for light aircraft structures
Experimantal nodal analysis of the fuselage panels of an Aero Commander aircraft
[PAS-TP-2046] p0277 A82-26318

Preliminary thoughts on helicopter cabin noise prediction methods
Acoustic measurements of F-15 aircraft operating in hush house, 858 4920-02-070-2721
[AD-A109928] p0310 H82-21040
Analitical prediction of the interior noise for light aircraft structures
Models for sidewall trim, stiffened structures
[NASA-CR-165750] p0266 H82-10028
Preliminary thoughts on helicopter cabin noise prediction methods

Acoustic measurements of F-15 aircraft operating in hush house, 858 4920-02-070-2721
[AD-A109928] p0310 H82-21040
Acoustic measurements of F-16 aircraft operating in hush house, 858 4920-02-070-2721
[AD-A109928] p0310 H82-21040

Experiments on propeller noise
[DE82-001050] p0195 H82-16634

High frequency sound emission from moving point multipole sources embedded in arbitrary transversely sheared mean flow
[DE82-001050] p0195 H82-16634

SOUND TRANSDUCERS
- NT MICROPHONES
SOUND TRANSMISSION
Noise control measures in the new Singapore International Airport
Development of a transmission loss test facility for light aircraft structures
Experimantal nodal analysis of the fuselage panels of an Aero Commander aircraft
[NASA-CR-165750] p0266 H82-10028
Preliminary thoughts on helicopter cabin noise prediction methods

Acoustic measurements of F-15 aircraft operating in hush house, 858 4920-02-070-2721
[AD-A109928] p0310 H82-21040
Analitical prediction of the interior noise for light aircraft structures
Models for sidewall trim, stiffened structures
[NASA-CR-165750] p0266 H82-10028
Preliminary thoughts on helicopter cabin noise prediction methods

Acoustic measurements of F-15 aircraft operating in hush house, 858 4920-02-070-2721
[AD-A109928] p0310 H82-21040
Acoustic measurements of F-16 aircraft operating in hush house, 858 4920-02-070-2721
[AD-A109928] p0310 H82-21040
SPACECRAFT INDEX

SPACECRAFT PROPULSION
- KT SOLAR ELECTRIC PROPULSION
- KT SOLAR PROPULSION
  The technology of the assembly of engines for
  flight vehicles --- Russian book
  p0578 A82-19075

Electric Flight Systems
- [NASA-CR-2209]
p0260 H82-19134

Electric flight systems, overview
p0260 H82-19135

SPACECRAFT REENTRY
Selected stability and control derivatives from the
first Space Shuttle entry
p0567 A82-13800

SPACECRAFT STRUCTURES
Calculation of sensitivity derivatives in thermal
problems by finite differences
p101 A82-21391

Finite element analysis of some aerospace shell
structures
p1002 A82-33515

Electroforming of space and aircraft structures
[8BB-49-91-0]
p0258 H82-18419

Development and demonstration of manufacturing
processes for fabricating graphite/LAC 160
polyamide structural elements
[88BA-165809]
p357 H82-22215

SPACECRAFT PATTERNS
- NY POINTING CONTROL SYSTEMS

SPACER
- NT AIRCRAFT APPROACH SPACING

SPACE BLOWING
- UNSTABLE RESPONSE OF RECTANGULAR WINGS IN SPANWISE
  UNIFORM SHEAR FLOW
p0277 A82-26340

Downwash behind a wing with spanwise blowing
p1002 A82-33514

Advanced exhaust nozzle concepts using spanwise
blowing for aerodynamic lift enhancement
[88BA-PAPER 82-11312]
p0438 A82-37692

Close-coupled canard-wing vortex interaction and
Reynolds number effects
[88BA-PAPER 82-13681]
p0489 A82-39132

An experimental investigation of leading-edge
spanwise blowing
p1016 A82-60988

Test results of chordwise and spanwise blowing for
low-speed lift augmentation
p1015 A82-60989

A study on numerical method for evaluating
spanwise integral in subsonic lifting-surface
theory
[81-TE-6617]
p0334 A82-11035

Thrust-induced effects on low-speed aerodynamics of
flying aircraft --- Langley 4- by 7-meter
tunnel
[88BA-83277]
p0405 H82-25218

SPACE PARTS
- CANNIBALIZATION OF THE F-14 AND S-3A AIRCRAFT: A
  VIABLE LOGISTIC
  (AD-111207)
p0393 H82-24163

The Source-Generation Model System, Volume 6:
Spares submodel
(AD-110500)
p0447 H82-26226

A preliminary analysis of TF34-106/400 jet engine
rework data in support of the HSF system
implementation at NAF Alameda
(AD-A10452)
p0558 H82-30308

Faul's theorem for nonstationary processes
(AD-117089)
p0614 H82-34135

SPACE IGNITION
- A SPARK IGNITION MODEL FOR LIQUID FUEL SPRAYS
  APPLIED TO GAS TURBINE ENGINES

SPACE SHADOWGRAPH PHOTOGRAPHY
- U SHADOWGRAPH PHOTOGRAPHY

SPACE FILTERING
- SOME POTENTIAL NOVEL APPROACHES TO THE AUTOMATIC
  AIRCONE DETECTION AND IDENTIFICATION OF GROUND
  TARGETS

SPACE ORIENTATION
- G ATTITUDE (INCLINATION)

SPECIFICATIONS
- NT AIRCRAFT SPECIFICATIONS

EQUIPMENT SPECIFICATIONS
- HIERARCHICAL SPECIFICATION OF THE SIFT FAULT
  TOLERANT FLIGHT CONTROL SYSTEM

A-392
An exploratory research and development program leading to specifications for aviation turbine fuel from whole crude shale oil. Part 1: Preliminary process analyses [AD-A112681] p0197 N82-17106

A true air speed sensor for miniature unmanned aircraft [AD-A105458] p0092 N82-12126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0061 N82-26973

A microprocessor-based data acquisition system for stall/spin research [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A microprocessor-based data acquisition system for stall/spin research [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126

A criterion for the prediction of the recovery of spinning airplanes [AD-A110758] p0002 N82-10126
SPLIT(IONS)

The USAF Test Pilot School high angle of attack and spin training program
p0076 A82-14932

Knee span evaluation of the A-7 airplane configured with automatic maneuvering flaps
p0076 A82-14933

P/A-109A high angle of attack/spin testing
p0076 A82-14934

Wind tunnel investigations of the flat span of slender bodies at high angles of attack
[IAAA PAPER 82-0054] p0115 A82-17755

Prediction of high alpha flight characteristics utilizing rotary balance data
p0510 A82-40953

Spin behaviour of the Pilatus PC-7 Turbo Trainer
p0513 A82-40979

Spin tests of a single-engine, high-wing light airplane
[ASA-TP-1927] p0189 A82-16068

A retirement-for-cause study of an engine turbine disk
[AD-A109724] p0305 A82-20184

SPECIAL ANTENNAS

Spiral slotted phased antenna array
[NASA-CAB-855C-19532-1] p0476 A82-27558

SPECIAL WRAPPING

Mathematical models for the synthesis and optimization of spiral bevel gear tooth surfaces
[ASA-TRAES-3553] p0412 A82-25516

SPLINE FUNCTIONS

Development of an efficient procedure for calculating the aerodynamic effects of planform variation
[ASAA-CR-34689] p0137 A82-14559

SPLOMINGS

Flight testing the nonmetallic spline coupling technology at the Naval Air Test Center
[IAAA PAPER 84-2405] p0056 A82-13891

SPLIT FLAPS

Experimental flight test programs for improving combat aircraft maneuverability by maneuver flaps and pylon split flaps
p0347 A82-22192

SPOILER SLOTS ALIBHONS

Spoilers or auxiliary flaps
p0241 A82-24973

SPOILERS

Flight investigations of integrated descent rate control systems
p0076 A82-14929

Unsteady flow patterns associated with spoiler control devices
[IAAA PAPER 82-0127] p0115 A82-17798

Basic studies of the flow fields of airfoil-spoiler systems
[IAAA PAPER 82-0173] p0184 A82-22060

Experimental study of the flowfield of an airfoil with deflected spoiler
[IAAA PAPER 82-0126] p0286 A82-27086

Development of the advanced composite ground spoiler for C-1 medium transport aircraft
p0495 A82-35895

Theoretical investigation of the influence of spoiler dynamics on the handling qualities of an aircraft with direct lift control
[ESA-TR-681] p0027 A82-10036

Development and evaluation of automatic landing control laws for light wing loading 30K aircraft
[ASA-6C-166160] p0200 A82-10043

System identification of the longitudinal motion of the DFWB HFB 320 research aircraft with particular consideration of control surface effectiveness
[ESA-TR-666] p0028 A82-10045

Summary of theoretical considerations and wind tunnel tests of an aerodynamic spoiler for stall proofing a general aviation airplane
[ASA-CR-165100] p0187 A82-16046

The effect of a well on the aerodynamics of a spoiler --- wind tunnel flow visualization and pressure measurement
[B-266] p0263 A82-19198

Analysis and flight evaluation of a small, fixed-wing aircraft equipped with hinged plate spoilers
[ASA-CR-166247] p0352 A82-22243

The 737 graphite composite flight spoiler flight service evaluation
[ASA-CR-165267] p0356 A82-22314
STABILITY AUGMENTATION

Guidance for the use of equivalent systems with MIL-F-8785C -- for aircraft flight control systems

[AIAA PAPER 82-1355]
p0489 AB2-39124

Implicit model-following technique -- application to the design of longitudinal stability augmentation systems

p0551 AB2-43571

STABILITY AUGMENTATION

Accelerated development and flight evaluation of active controls concepts for subsonic transport aircraft. Volume 2: AFT C.G. simulation and analysis

[NASA-CR-559098]
p0165 AB2-15077

A redundancy concept for a digital CSAS

p0251 AB2-18170

Control law design to meet constraints using SWIFAC-synthesis package for active controls

[NASA-TN-83064]
p0356 AB2-22280

Unified results of several analytical and experimental studies of helicopter handling qualities in visual terrain flight

p0365 AB2-32215

An assessment of various side-stick controller/stability and control augmentation systems for a cross-descent approach flight using piloted simulation

p0365 AB2-32216

Development of a low rank augmentation system for an energy efficient transport having relaxed static stability

[NASA-CR-159166]
p0592 AB2-32377

STABILITY DERIVATIVES

STABILITY DERIVATIVES

Numerical calculation of lift, moment coefficients and dynamic stability derivatives on wingslipping wings in unsteady supersonic flows

p0103 AB2-21941

Analytical control law for desirable aircraft lateral handling qualities

[NASA-TN-83064]
p0556 AB2-13880

Cross and cross-coupling derivative measurements on the standard dynamics model at NASA

[ABE 82-1596]
p0237 AB2-26470

Calculation of the lift distribution and aerodynamic derivatives of quasi-static elastic aircraft

p0390 AB2-36529

Application of Kalman filtering techniques to aerodynamic derivatives for a helicopter

p0577 AB2-45189

Two-dimensional apparent masses for cross-flow sections of wing-body configuration

p0583 AB2-46601
STABLE OSCILLATIONS

Non-isocoupled F-16 horizontal stabilizer structural design [p8509 A82-40936]

Some observations on the corrosion of aircraft at the air force base in Bandirma, Turkey [p821l A82-17353]

Investigation of an improved structural model for damaged F-38 horizontal stabilizer flutter analysis using FASTBEAM [AD-A111095] [p8566 A82-26316]

STABLE OSCILLATIONS

Stability and self-oscillations of coaxial rotors [p8342 A82-31603]

STAGGERING

Local heat transfer to staggered arrays of impinging circular air jets [ASAE PAPER 82-GT-211] [p8427 A82-35401]

STAGGERED FLOW

Effects of intake geometry on circular air jet intake performance at zero and low forward speeds [p8093 A82-13070]

STAGGERED FLOW

The excitation of compressor/duct systems [p8327 A82-28993]

The influence of flow rate on the wake in a centrifugal impeller [ASAE PAPER 82-GT-45] [p8241 A82-35303]

Pressure distributions on three different circumferentially segmented duct lines optimized for axisymmetric and standing wave sources for axisymmetric and standing wave sources [NASA-TM-80097] [p8098 A82-13110]

STAGGERED TEMPERATURE

Ideal gas jet - optimum m sub infinity for fuel limit and material limit [p8380 A82-33143]

STAINLESS STEELS

Geometrical aspects of the tribological properties of graphite fiber reinforced polyamide composites [ASME PAPER 82-AM-5A-2] [p8443 A82-37655]

STAMPING

The technology of sheet-metal stamping in the production of aircraft/2nd revised and enlarged edition/ Russian book [p8080 A82-14958]

STANDARDIZATION

MT COMBUSTIBILITY (EQUIPMENT)

Aircraft alerting systems standardization study [p8048 A82-13468]

Airworthiness regulation: What is our strategy - what are the issues [p8224 A82-24006]

The challenge of standardizing fatigue methodology [p8238 A82-24703]

Naval air systems command/NAVAIR/ AT program - standardized AT for the carrier environment [p8294 A82-27602]

A standard control display unit for multi-aircraft application [p8092 A82-13054]

Standardization study for advanced aircraft armament system program [AD-A107681] [p8201 A82-17156]

Development and use of dynamic qualification standards for Air Force stores [p8343 A82-22155]

Report from the working party on new fiber materials --- standardization and strength [p8398 A82-26412]

Opportunities exist to achieve greater standardization of aircraft and helicopter seats [AD-A111778] [p8048 A82-26259]

Photointerpretation key for pane regeneration analysis using high-altitude color infrared panoramic photography [NASA TDR-166450] [p8562 A82-30606]

STANDARDS

MT FREQUENCY STANDARDS

Standardization of helicopter fatigue methodology - a manufacturer's view [p8238 A82-24704]

Perspectives of the flying qualities specifications [AIAA PAPER 82-J156] [p8089 A82-39123]

Motorcraft icing: Status and prospects [AGARD-AR-"66] [p8036 A82-11056]

Proposed standard requirements and procedures for icing clearance [p8036 A82-11061]

Joint JS/GUSMS mode S compatibility test program, volume 1 [PB92-126616] [p831a A82-21173]

Joint JS/GUSMS mode S compatibility test program, volume 2 [PB92-126626] [p831a A82-21174]

Standards in aircraft noise certification [PB92-90052] [p8322 A82-22005]

Minimum operational performance standards for automatic direction finding (ADF) equipment [RTCA/DO-179] [p8523 A82-26270]

Helicopter noise definition report 8R-408, S-76, A-109, 206-L [AD-A116363] [p857a A82-32083]

Development of avionics installation interface standards [AD-A116553] [p8608 A82-33384]

STANDING WAVES

Circularly differential nacelle ducts optimized for axisymmetric and standing wave sources -- reducing noise from turbomachines galley method acoustic attenuation [NASA-TP-2075] [p8614 A82-34190]

STANDS

SUPPORTS

STABILITY AIRCRAFT

U C-141 AIRCRAFT

STABILITY ENGINE STARTERS

STARTING

Conditions of pulsed starting of supersonic wind tunnel diffusers [p8274 A82-25795]

Starting transients in supersonic wind tunnel diffusers and nozzle-diffuser assemblies [AD-A111163] [p8406 A82-25226]

STATE EQUATIONS

U EQUATIONS OF STATE

STATE VECTORS

Synthesis of systems for evaluating gyrostabilizer state with random disturbances [p8015 A82-11669]

Optimization of measurements in the state estimation of systems using the least squares method [p8433 A82-29826]

Design of analytical failure detection using secondary observers [AIAA-78-0626] [p8590 A82-32362]

STATIC AERODYNAMIC CHARACTERISTICS

The effect of a wing on the aerodynamics of a spoiler --- wind tunnel flow visualization and pressure measurement [p8263 A82-19194]

Static internal performance of simple expansion-ramp nozzles with thrust vectoring and reversing [NASA-TP-1962] [p8302 A82-20156]

Methodology for determining elevon deflections to trim and maneuver the B-17B with negative static margin [NASA-TM-84089] [p8526 A82-28299]

Static investigation of the circulation control wing/upper surface blowing concept applied to the quiet short haul research aircraft [NASA-TM-84232] [p8588 A82-32343]

STATIC ELECTRICITY

Instrumentation for testing aircraft antistatic protection [NASA TP NO. 1982-7] [p8389 A82-34045]

Static charging and its effects on avionic systems [p8432 A82-35732]

STATIC FRICTION

Static charging and its effects on avionic systems [p8432 A82-35732]

STATIC LOADS

Static and aerodynamic optimization of aircraft [p8444 A82-37945]

Static investigations of rotor blades under deadweight and during stationary operation [ISD-269] [p8225 A82-24023]

STATIC PRESSURE

Static pressure in the slipstream of a propeller [p8297 A82-26318]

An investigation of the swirl in an S-duct [p8225 A82-24023]

Static and unsteady pressure measurements on a 50 degree clipped delta wing at M = 0.9 [AIAA 82-0668] [p8330 A82-30153]
STATOBS

of 1.63 and 1.78, respectively, and with design
design pressure rates of 1.62
{NASA-TP-1976} p0266 W58-19222
Laser anemometer measurements in an annular
cascade of core turbine vane and comparison
with theory
{NASA-TP-29018} p0447 A58-26234
Square dynamic analysis with general nonlinear
finite element codes. Part 2: Bearing element
implementation overall numerical characteristics
and benchmarking
{NASA-CS-167944} p0609 W58-33390

STATOBS

Secondary flow effects and mixing of the wake
behind a turbine stator
{ASME PAPER 82-GT-46} p0422 A58-35304
Comparison of experimental and analytical
performance for contoured endwall stators
{AIAA PAPER 82-1286} p0105 A58-22094
Cold-air performance of a 15.41-ca-tip-diameter
axial-flow power turbine with variable-area
stator designed for a 75-kw automotive gas
turbine engine
{NASA-TA-52644} p0316 W58-21193
Research on turbine rotor-stator aerodynamic
interactions and rotor negative incidence stall
{AD-A110341} p0318 W58-21203
Comparison of experimental and analytical
performance for contoured endwall stators
{NASA-TA-82877} p0454 A58-26299
Status of laser anemometry in turbomachinery
research at the Lewis Research Center
p0598 W58-32666

STEADY FLOW

Steady and unsteady nonlinear hybrid vortex method
for lifting surfaces at large angles of attack
{AIAA PAPER 82-0351} p0105 A58-22094
Transonic flow past wings
p0274 A58-25965
Supercritical flow past symmetrical airfoils
p0275 A58-26130
Feedback control of a cantilever wing in steady
flow
{AIAA 82-0729} p0300 A58-30177
Hypercronic interactions with surface mass
transfers F - transonic flow over a minor wedge
wing
{AIAA PAPER 82-0793} p0378 A58-21944
Finite difference computation of the steady
transonic potential flow around airplanes
p0531 W58-10981

STEADY STATE

The effects of flexibility on the steady-state
performance of small ribbon parachute models
{AIAA PAPER 81-1922} p0006 A58-10406

STEAM TURBINES

Influence of correlations and computational
methods on the prediction of overall efficiency
p0204 W58-17180
STEEL

WT CARBON STEELS
WT HIGH STRENGTH STEELS
WT STAINLESS STEELS
Effect of mechanical surface and heat treatments
on erosion resistance
p0285 A58-27071
Advantages and limitations in the use of diverse
materials for aircraft construction ---
composites versus metallic materials
{SIAS-811-551-104} p0139 W58-15011
STEEL GRADIENT AIRCRAFT

U T/STOL AIRCRAFT
STEERING

U SLOPES
STEERABLE ANTENNAS

Radiating elements for hemispherically scanned
arrays --- onboard aircraft for data links to
satellites
p0379 A58-32992
STEERING

Describing function analysis of nonlinear nose
gear shimmy
{ASAE PAPER 81-MA/DOC-28} p0234 A58-26565
Electro-hydraulic nose wheel steering of the
Dornier 228
p0389 A58-34373
STEERING ROCKETS

U CONTROL ROCKETS

STELLAR DOPPLER SHIFT

U DOPPLER EFFECT
STEPPING MOTORS

Failure analysis of variable reluctance stepper
motor --- in electronic fuel control system on
engine
p0072 A58-14792
STEREOGRAPHY

U STEREOGRAPHY
STEREOGRAPHY

The design of a viewing system for near real time
stereo images from a USA horse linescan sensor
--- Unmanned Aircraft
p0404 A58-32704
Assessment of stereographies for fire control and
navigation in fighter aircraft
{AD-A110418} p0558 W58-30306
STEREOSCOPIC PHOTOGRAPHY

U STEREOGRAPHY
STEREOSCOPIC

BY STEREOGRAPHY

Stereographic projection in the National Aerospace
States
p0218 A58-23031
STERILIZATION EFFECTS

U THERMAL DEGRADATION
STIFFNESS

U AERODYNAMICS
STIFF STRUCTURES

U RIGID STRUCTURES
STIFFENING

Uniaxialure -- a new concept for light weight
integrated stiffened skin structure
p0389 A58-34466
STIFFNESS

Damping and stiffness of aligned discontinuous
fiber reinforced polymer composites
{AIAA 82-0712} p0335 A58-30102
Aerelastic flutter and divergence of stiffness
coupled, graphite/epoxy, cantilevered plates
{AIAA 82-0722} p0360 A58-30172
Structural optimization of a swept wing on the
basis of the aileron efficiency condition
p0388 A58-34145
Assessment of the dynamic response of a structure
when modified by the addition of mass, stiffness
or dynamic absorbers
{AHS PREPRINT 81-18} p0482 A58-37790
Stiffness degradation of impact damaged structure
p0203 W58-17168
Fusional stiffness element based on
cobalt-samarium magnets --- for a turn and bank
indicator
{BBFT-FB-H-81-044} p0470 A58-27292
STIFFNESS MATRIX

Formation of triangular-element stiffness matrix
using sliding interpolation
p0014 A58-11464
An algorithm for calculating the compliance
matrices of aircraft structures by the
substructure method as applied to aerelasticity
problems
p0388 A58-34161
Calculation of the cross section properties and
the shear stresses of composite rotor blades
p0483 A58-38475
An influence coefficient method for the
application of the modal technique to wing
flutter suppression of the DAST AB-1 wing
{NASA-CS-165772} p0038 W58-11070
Modal characteristics of rotor blades: Finite
element approach and measurement by ground
vibration test
p0245 W58-18127
Calculation of the cross section properties and
the shear stresses of composite rotor blades
{AB-80-034-91-0} p0410 A58-25334
STIMULATED EMISSION DEVICES

WT CARBON DIOXIDE LASERS
WT EXCIMER LASERS
WT GAS LASERS
WT GASDYNAMIC LASERS
WT HELIUM-WHOD LASERS
WT HIGH POWER LASERS
WT LASERS
WT XENON LASERS
WT PULSED LASERS
WT KOD LASERS
WT DOD LASERS

A-398
STRAFORESTERS AIRCRAFT
U S-52 AIRCRAFT
STRAFOSSAER
Airborne lidar measurements of the Soufriere eruption of 17 April 1979 p0363 A82-33657
STRAFOPANE AIRCRAFT
U C-135 AIRCRAFT
STRAFFUNCTIONS (FLUIDS)
Direct approach to aerodynamic design problems p0105 A82-16404
STRAFPRO ANALYSIS
Aeroelastic design method for transonic axial flow compressor stage p0032 A82-10984
STREAMLINE FLOW
U LAMINAR FLOW
STREAMLINED BODIES
ST PANS
Turbulent wake development behind streamlined bodies p0097 N82-13104
STREAMLINING
Self-streamlining wind tunnels without computers p0275 A82-26181
Control software for two dimensional airflow tests using a self-streamlining flexible walled transonic test section [NASA-CR-165947] p0559 N82-30314
STREAMS
ST GAS STREAMS
STRENGTH OF MATERIALS
U MECHANICAL PROPERTIES
STRESS (PHYSIOLOGY)
Dynamic development research: Air traffic control system [PB82-136276] p0523 N82-28277
STRESS (PSYCHOLOGY)
The determination of the duration of an exposure to aircraft noise --- German thesis p0578 A82-45221
STRESS ANALYSIS
ST BOUNDARY ELEMENT METHOD
Lineup of the IR-series aircraft-derivative gas turbines p0021 A82-12560
Automated calculation of the stressed state of shell systems under asymmetrical mechanical and thermal loading p0165 A82-19928
Multi-parameter yield zoe model for predicting spectrum crack growth p0168 A82-20510
Crack growth behavior of center-cracked panels under random spectrum loading p0169 A82-20511
Random spectrum fatigue crack life predictions with or without considering load interactions p0169 A82-27512
Application of fatigue, crack propagation and strain survey testing to the CH-46 aft rotor drive shaft p021 A82-24705
Torsoal vibrations of non-uniform rotating blades with attachment flexibility p0276 A82-26313
Prediction of cyclic growth of cracks and dehoks in aluminum sheets reinforced with boron/epoxy p0280 A82-27151
Problems in the automation of the thermal-stress analysis of flight vehicles p0293 A82-27509
The stressed state of a parachute canopy during opening p0333 A82-29820
Analysis of shells of straight-wing type p0334 A82-29841
A comparison of properties of single overlap tension joints prepared by ultrasonic welding and other means [AIAA 82-0661] p0335 A82-30091
Experimental stress analysis of a thinned walled pressurized torus loaded by contact with a plane --- dynamic response of aircraft tires [AIAA 82-0753] p0336 A82-30114
Finite-element modeling of a fighter aircraft canopy acrylic panel p0379 A82-38848
Linear decentralized systems with special structure --- for twin lift helicopters p0388 A82-34359
Turbine blade nonlinear structural and life analysis [AIAA PAPER 82-1056] p0415 A82-34981
Evaluation criteria for aero engine materials p0434 A82-36065
Determination of load spectra and their application for keeping the operational life proof of sporting airplanes p0516 A82-41010
The analysis of the thermal-mechanical stress conditions in asymmetric rotating hot components of /aircraft/ gas turbines --- German thesis p0541 A82-41686
An optimum design of fuselage structure p0546 A82-42533
Design and analysis of advanced composite structures p0547 A82-42670
A compilation of stress intensity factor solutions for flawed compressor holes [AD-A108753] p0259 N82-18628
Approach to the fatigue analysis of vertical-axis wind-turbine blades [DE82-003193] p0308 N82-20573
Environmental and High-Strain Rate effects on composites for engine applications [NASA-TM-823882] p0571 N82-31449
STRESS CALCULATIONS
U STRESS ANALYSIS
STRESS CONCENTRATION
Improvement of the first-ply-failure strength in laminates by using softening struts p104 A82-16174
Investigation of the stress-strain state of a rectangular wing section of variable thickness under concentrated loads and heating p127 A82-18588
Material/structure degradation due to fretting and fretting-initiated fatigue p0222 A82-23771
More than meets the eye - The oil dot technique p0286 A82-27114
Occurrence of fretting fatigue failure in practice p0325 A82-28543
A procedure for evaluating fuel composition effects on combustor life [ASPE PAPER 82-GT-296] p0430 A82-35465
Calculation of the cross section properties and the shear stresses of composite rotor blades p0683 A82-38475
Ground calibration of a strain-gauged C24 Aircraft (1979) [AD-A107847] p0189 A82-16073
Calculation of the cross section properties and the shear stresses of composite rotor blades p0410 A82-25334
STRESS CORROSION
U STRESS CORROSION CRACKING
STRESS CORROSION CRACKING
The application of improved aluminium alloys and steels in aircraft structures p0004 A82-10305
A new approach to the problem of stress corrosion cracking in 7075-26 aluminium p0222 A82-23772
Corrosion Fatigue --- conferences [AGARD-CP-316] p0210 A82-17342
Mechanisms of corrosion fatigue --- of high strength aluminium alloys p0210 A82-17343
Fracture mechanics based modelling of the corrosion fatigue process p0210 A82-17344
Corrosion prevention methods developed from direct experience with aerospace structures p0212 A82-17359
Recent developments in materials and processes for aircraft corrosion control p0212 A82-17361
New concepts in multifunctional corrosion for aircraft and other systems p0212 A82-17362
Design and analysis of advanced composite structures  
Optimal subsonic diffuser wall design for arbitrary entry conditions

Calculation of the stability and post-buckling behavior of thin shell structures using  
Airframe 82-30124
finite element method --- German thesis

Mathematical model for the maintenance program of modern jet aircraft --- crack detection;  
Airframe 82-17908
inspection intervals

Structural analysis of fuselages with cutouts by  
Airframe 82-10002
finite element method

Matrix analysis of wings

Investigations of helicopter structural dynamics and a comparison with ground vibration tests --- 
La Recherche Aérospatiale, Bi-monthly Bulletin No.
using hysteresis

A linear decomposition method for large optimization problems. Blueprint for development  
Airframe 82-21186
computer programs for rigid multicomponent pavement structures with discontinuities, WESILID and WESLATER. Report

La Recherche Aérospatiale, Bi-monthly Bulletin No.
Program development and numerical presentations

Evaluation of inelastic constitutive models for structural analysis --- for aircraft turbine engines

Supplementary studies on the sensitivity of optimized structures

Bird impact analysis package for turbine engine fan blades

Cooled variable nozzle radial turbine for rotor craft applications

Structures and Dynamics Division research and technology plans, FY 1982

Environmental and High-Stream Rate effects on composites for engine applications

Development of a Structural Integrity Recording System (SIRS) for US Army AH-1S helicopters

Nonlinear constitutive theory for turbine engine structural analysis

Structural Design

Strength degradation of impact damaged structure

Investigations of helicopter structural dynamics and a comparison with ground vibration tests --- 
La Recherche Aérospatiale, Bi-monthly Bulletin No.
using hysteresis

A linear decomposition method for large optimization problems. Blueprint for development  
Airframe 82-21186
computer programs for rigid multicomponent pavement structures with discontinuities, WESILID and WESLATER. Report

La Recherche Aérospatiale, Bi-monthly Bulletin No.
Program development and numerical presentations

Evaluation of inelastic constitutive models for structural analysis --- for aircraft turbine engines

Supplementary studies on the sensitivity of optimized structures

Bird impact analysis package for turbine engine fan blades

Cooled variable nozzle radial turbine for rotor craft applications

Structures and Dynamics Division research and technology plans, FY 1982

Environmental and High-Stream Rate effects on composites for engine applications

Development of a Structural Integrity Recording System (SIRS) for US Army AH-1S helicopters

Nonlinear constitutive theory for turbine engine structural analysis
### Subject Index

<table>
<thead>
<tr>
<th>Structural Design Criteria</th>
<th>Structural Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multilevel optimum design of structures with fiber-composite stiffened-panel components</td>
<td>Monitoring</td>
</tr>
<tr>
<td>Application of structural optimization technique to reduce the external vibrations of a gas-turbine engine</td>
<td>[SAE Paper 81-DET-143]</td>
</tr>
<tr>
<td>Composite aircraft structures</td>
<td>[SAE Paper 82-1935]</td>
</tr>
<tr>
<td>Preliminary design development AV-8A forward fuselage composite structure</td>
<td>[AIAA Paper 82-27127]</td>
</tr>
<tr>
<td>Wing/fuselage critical component development program</td>
<td>[AIAA Paper 82-27129]</td>
</tr>
<tr>
<td>Design concepts for composite fuselage structure</td>
<td>[AIAA Paper 82-27130]</td>
</tr>
<tr>
<td>Continuous filament advanced composite isogrid - A promising structural concept</td>
<td>[AIAA Paper 82-27132]</td>
</tr>
<tr>
<td>Statistical analysis methods for characterizing composite materials</td>
<td>[AIAA Paper 82-27138]</td>
</tr>
<tr>
<td>Tool use in cutting operations involving integral structures in aircraft construction</td>
<td>[AIAA Paper 82-28873]</td>
</tr>
<tr>
<td>Durability and damage tolerance control plans for USAF aircraft</td>
<td>[AIAA Paper 82-0679]</td>
</tr>
<tr>
<td>Factors shaping conceptual design of rotary-wing aircraft</td>
<td>[AIAA Paper 82-30147]</td>
</tr>
<tr>
<td>A unified approach to helicopter FASTEN modeling</td>
<td>[AIAA Paper 82-37773]</td>
</tr>
<tr>
<td>Use of optimization in helicopter vibration control by structural modification</td>
<td>[AIAA Paper 82-37793]</td>
</tr>
<tr>
<td>Static and aeroelastic optimization of aircraft</td>
<td>[AIAA Paper 82-37797]</td>
</tr>
<tr>
<td>Helicopter vibration reduction by rotor blade modal shaping</td>
<td>[AIAA Paper 82-37945]</td>
</tr>
<tr>
<td>Results of the AH-66 Structural Demonstration</td>
<td>[AIAA Paper 82-40514]</td>
</tr>
<tr>
<td>Structural strength of materials and parts of gas turbine engines -- Russian book</td>
<td>[AIAA Paper 82-40551]</td>
</tr>
<tr>
<td>The application of geometric programming to the structural design of aircraft wings</td>
<td>[AIAA Paper 82-42063]</td>
</tr>
<tr>
<td>Honeycomb cored structures -- Russian book on aircraft construction materials</td>
<td>[AIAA Paper 82-42546]</td>
</tr>
<tr>
<td>Predesign study for a modern 4-bladed rotor for the NASA rotor systems research aircraft</td>
<td>[AIAA Paper 82-45775]</td>
</tr>
<tr>
<td>Design philosophy of the Hughes model 600 helicopter</td>
<td>[AIAA Paper 82-16140]</td>
</tr>
<tr>
<td>SF-608 test program</td>
<td>[AIAA Paper 82-16141]</td>
</tr>
<tr>
<td>Some case studies and the significance of fatigue thresholds -- aircraft components</td>
<td>[AIAA Paper 82-23561]</td>
</tr>
<tr>
<td>[AS RA-5P-81015-0]</td>
<td>[AIAA Paper 82-23561]</td>
</tr>
<tr>
<td>Transport aircraft fuselage dynamics</td>
<td>[AIAA Paper 82-24186]</td>
</tr>
<tr>
<td>[NASA-CR-165851]</td>
<td>[AIAA Paper 82-24186]</td>
</tr>
<tr>
<td>Foreign object impact design criteria, volume 2</td>
<td>[AIAA Paper 82-27313]</td>
</tr>
<tr>
<td>[AD-A112701]</td>
<td>[AIAA Paper 82-27313]</td>
</tr>
<tr>
<td>Foreign object impact design criteria, volume 3</td>
<td>[AIAA Paper 82-27314]</td>
</tr>
<tr>
<td>[AD-A112447]</td>
<td>[AIAA Paper 82-27314]</td>
</tr>
</tbody>
</table>

### Structural Dynamics

<table>
<thead>
<tr>
<th>Structural Engineering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occurrence of fretting fatigue failures in practice</td>
</tr>
<tr>
<td>Pre-design study for a modern four-bladed rotor for the Rotor System Research Aircraft (BS3A) -- integrating the YAH-64 main rotor</td>
</tr>
<tr>
<td>[NASA-CR-166154]</td>
</tr>
<tr>
<td>Aeronautical Research Laboratories Structures Division</td>
</tr>
<tr>
<td>[AD-A109349]</td>
</tr>
<tr>
<td>A note on fatal aircraft accidents involving metal fatigue</td>
</tr>
<tr>
<td>[AIAA Paper 82-11760]</td>
</tr>
<tr>
<td>Airworthiness of helicopter transmissions</td>
</tr>
<tr>
<td>Quick learning diagnostics -- helicopter vibration analysis and component condition</td>
</tr>
</tbody>
</table>

### Structural Reliability

<table>
<thead>
<tr>
<th>Structural Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lineup of the H-series aircraft-derivative gas turbines</td>
</tr>
<tr>
<td>Design of a crushworthy crew seat for the Boeing Vertol Chaukook helicopter</td>
</tr>
<tr>
<td>Crushworthy all-passenger seat development</td>
</tr>
<tr>
<td>Special problems associated with aircraft radomes</td>
</tr>
<tr>
<td>Modern aircraft accident investigation equipment and techniques</td>
</tr>
<tr>
<td>Windshield system structural enhancements</td>
</tr>
<tr>
<td>Fracture mechanics technology applied to individual aircraft cooling -- durability and structural life estimates</td>
</tr>
<tr>
<td>Statistical analysis methods for characterizing composite materials</td>
</tr>
<tr>
<td>Durability evaluation of highly stressed wing box structure</td>
</tr>
<tr>
<td>Structural integrity of an adhesively bonded aircraft fuselage</td>
</tr>
</tbody>
</table>
Investigation of vibration of shrouded turbine blades
[ASME PAPER 81-DET-129] p0162 A82-19343
An investigation of modal mode phenomena in a mistuned blade-disk
[ASME PAPER 81-DET-133] p0162 A82-19347
Measurement of influence of flow distortions on the blade vibration amplitude in an air turbine
[ASME PAPER 81-DET-135] p0162 A82-19348
Application of structural optimization technique to reduce the external vibrations of a gas-turbine engine
[ASME PAPER 81-DET-143] p0162 A82-19351
Quick learning diagnostics --- helicopter vibration analysis and component condition monitoring
p0172 A82-20543
On-site vibration measurement, dynamic tracking and balancing
p0172 A82-20545
An automated technique for improving modal test/analysis correlation
[ASME 82-0640] p0337 A82-30137
Pressure measurements on twin vertical tails in buffet flow
[ASME 82-0641] p0337 A82-30138
Transonic time-response analysis of three B.O.P. conventional and supercritical airfoils
[ASME 82-0680] p0339 A82-30155
Identification of the form of motion of a aircraft
[ASME 82-30128] p0373 A82-31284
Parameter identification for structures with neighboring natural frequencies especially for the case of flight resonance tests
p0377 A82-32136
Structural modification to achieve antiresonance in helicopters
p0379 A82-32049
A study of the vibration loading of the turbine blades of an aircraft gas-turbine engine with dry-friction dampers
p0391 A82-34814
The use of performance-monitoring to prevent compressor and turbine blade failures
[ASME 82-GT-46] p0422 A82-35316
Solution to a bistable vibration problem using a plain, uncentralized squeeze film damper bearing
[ASME 82-GT-281] p0430 A82-35455
Low vibration design of AN for mission proficiency requirements --- advanced attack helicopter
[ASME PAPER 81-10] p0441 A82-37776
The helicopter side revolution
[ASME PAPER 81-4] p0441 A82-37780
Determination of in-flight helicopter loads and vibration
[ASME PAPER 81-7] p0441 A82-37782
Design and evaluation of a state-feedback vibration controller
[ASME PAPER 81-10] p0442 A82-37783
Considerations of open-loop, closed-loop, and adaptive multicylinder control systems
[ASME PAPER 81-13] p0442 A82-37786
Flight demonstration of an integrated floor/feet isolation system
[ASME PAPER 81-16] p0442 A82-37788
A finite element analysis of coupled rotor fuselage vibration
[ASME PAPER 81-21] p0442 A82-37792
A nonlinear response analysis for coupled rotor-fuselage systems
[ASME PAPER 81-23] p0443 A82-37794
Substructure program for analysis of helicopter vibrations
[ASME PAPER 81-24] p0443 A82-37795
Use of optimization in control of helicopter vibrations
[ASME PAPER 81-27] p0443 A82-37797
Correlation of predicted vibrations and test data for a wind tunnel model
[ASME PAPER 81-28] p0499 A82-40515
The nonasynchronous whirls of the turbine rotor in aerogas engines
[ASME PAPER 81-494] p0510 A82-40944
Laser pointing in a turbulent atmosphere
[ASME PAPER 81-498] p0548 A82-42887
An examination of the dynamics of rotary machines
--- French thesis
p0552 A82-43724
SUBJECT INDEX

New estimation method for flutter or divergence
boundary from random responses at subcritical
speeds [NRL-TR-6677] p0308 B82-11034
Analysis of a longitudinal pilot-induced
oscillation experienced on the approach and
landing test of the space shuttle (NASA-TS-81366)
p0109 B82-13149
Structural dynamics: Modified calculations ---
natural and harmonically excited vibrations of
modified structures; increased computation
efficiency [ERCOFTAC-TR-81-1] p0101 B82-13547
Ice-phobic biomimicry and comparison of
vibration analysis techniques
[AD-A1108115] p0189 B82-16074
Vibration of structures excited acoustically
[AD-A1109000] p0307 B82-20343
Reduction of structural vibration by a dynamic
absorber -— helicopter cabin
[DAE-PD-1080-1081] p0016 B82-21190
Development of vibration qualification test
spectra for the F-15 aircraft
[AFRL-TD-8001] p0349 B82-22160
Approach in dynamic qualification of light
helicopter stores and aircraft
[AFOSR-TR-80-01] p0349 B82-22166
The dynamic qualification of equipment and
external stores for use with rotary winged
aircraft
[AFOSR-TR-80-01] p0349 B82-22166
STOL aircraft structural vibration prediction from
acoustic excitation
[AFOSR-TR-80-01] p0345 B82-22169
Limiting performance of nonlinear systems with
applications to helicopter vibration control
problems
[AD-A113239] p0526 B82-28301
User's manual for the coupled rotor/airframe
vibration analysis graphic package
(NASA-CR-165897) p0566 B82-31299
Helicopter vibration suppression using simple
acoustic absorbers on the rotor blades
(NASA-CR-3615) p0613 B82-33734

SUBJECT INDEX

Multilevel optimum design of structures with
fiber-composite stiffened-panel components
[AIAA PAPER 81-0723] p0113 A82-17594
Optimal shape design of turbine blades
[ASME PAPER 81-DETC-126] p0162 A82-19342
Minimum-size solution of a large low-aspect ratio
airframe for flutter-free performance
[AIAA PAPER 80-0723] p0225 A82-24022
Some thoughts on design optimization of transport
helicopters
[AFOSR-TR-80-01] p0273 A82-25771
Comparison of light aircraft with strutted and
cantilever wings
[AFOSR-TR-80-01] p0333 A82-29628
Integration of a code for aerelastic design of
conventional and composite wings into ACSIM, an
classical synthesis program --- wing aerelastic
design (WADS) (NASA-CR-137805) p0189 B82-16069
Performance deterioration due to acceptance
testing and flight loads; ASTRO jet engine
diagnostic program
(NASA-CR-165572) p0472 B82-27309

STUDY

Self-oscillations of the front caster wheel strut
for a given track width under the assumption of
the wheel drift hypothesis
[AFOSR-TR-80-01] p0105 A82-16290
Multiple pure tone elimination strut assembly ---
air breathing engines
(NASA-CASE-ARC-1104-11) p0193 B82-16600
Energy efficient engine: Turbine transition duct
model technology report
(NASA-CR-167996) p0610 B82-33396

SYS

U SPACE TRANSPORTATION SYSTEM
STUDIES
U INVESTIGATION
STORM-LOUVILLE OPERATOR
U STORM-LOUVILLE THEORY
STORM-LOUVILLE THEORY

An algorithm, invariant relative to the initial
data, for implementing the polynomial contouring
method --- for computer aided design and
manufacturing

SUBJECT INDEX

SUBCIRCUITS
U CIRCUITS
U GRAVITY
U REDUCED GRAVITY

SUBLATTICES
U LATTICES (MATHEMATICS)

SUBSYSTEMS
U SET THEORY
SUBSONIC AIRCRAFT

Air-breathing integrated environmental conditioning
system for trainer subsonic aircraft
[ASME PAPER 81-DETC-33] p0102 A82-10520
A mathematical model of a subsonic transport
aircraft
[ASME PAPER 81-DETC-33] p0127 A82-18575
Thrust modulation methods for a subsonic V/STOL
aircraft
[AIAA PAPER 81-2633] p0156 A82-19213
Advanced subsonic transport propulsion
[AIAA PAPER 81-0811] p0180 A82-26974
Numerical computation of unsteady subsonic
aerodynamic forces on wing-body-tail exposed to
traveling gust
[AD-A42-22112] p0185 B82-22112
Effects of filler materials upon fans, tail, and
erosion performance at subsonic conditions
[ASME PAPER 81-0242] p0281 B82-24662
Investigation of subsonic nacelle performance
[AIAA PAPER 82-1042] p0437 B82-37676
Aerodynamic computational procedures for subsonic
and transonic aircraft
[AD-A35-43330] p0550 A82-43330
Tendencies in the development of subsonic
transport aircraft with special consideration of
coverage dynamics
[ASME-FT-705] p0255 B82-18214

SUBSONIC FLOW

The use of the Weber method for
manicoputer-assisted numerical analysis of
airfoils
[ASME PAPER 81-0725] p0005 A82-10362
Experimental study of subsonic and transonic flows
past a wing
[ASME PAPER 81-0725] p0005 A82-10363
Nonlinear prediction of subsonic aerodynamic loads
on wings and bodies at high angles of attack
[AD-A42-11359] p0046 A82-11359
Subsonic flow over airborne optical turrets
[ASME PAPER 81-0725] p0144 B82-17605
Optimal subsonic diverter wall design for
arbitrary entry conditions
[AIAA PAPER 82-0132] p0115 A82-17606
Calibration of seven-hole probes suitable for high
angles in subsonic compressible flows
[AIAA PAPER 82-0410] p0121 A82-17931
Aerodynamic characteristics of a cascade of
mishaned blades in subsonic and supersonic flows
[AIAA PAPER 81-DETC-122] p0161 A82-19337
Aerodynamic characteristics of vortices at
subsonic flight speeds
[AD-A42-19810] p0165 B82-19810
An investigation of the swirl in an S-duct
[AIAA PAPER 82-0727] p0341 A82-30193
Subsonic aerodynamic and flutter characteristics
of several wings calculated by the SODA code;
panel method
[AIAA PAPER 82-0727] p0341 A82-30193
A system for the numerical simulation of sub- and
transonic viscous flows around wind-body-tail
configuration
[AIAA PAPER 82-0935] p0373 A82-31922
Subsonic 3-D surface panel method for rapid
analysis of multiple geometry perturbations
[AIAA PAPER 82-0935] p0374 A82-31954
Incompressible symmetric flow characteristics of
sharp-edged rectangular wing.
SUBSONIC FLUTTER

Hysteresis of the normal force of a wing of complex planform under unsteady motion [p0179 A82-32850]

The unsteady motion of a wing traveling at subsonic speed above a plane [p0188 A82-34157]

Ejector powered propulsion and high lift subsonic wing [p0512 A82-40970]

Spanswise distribution of vortex drag and leading-edge suction in subsonic flow [p0956 A82-41005]

Theoretical investigations and experimental researches for higher subsonic two-dimensional compressor cascade [p0133 H82-11024]

Aeroacoustic theory for noncompact wing-gust interaction [p0126 H82-11071]

On the kernel function collocation method in steady subsonic flow for wing with control surfaces [p0042 H82-12023]

Calculation of wing-body-nacelle interference in subsonic and transonic potential flow [p0097 H82-13095]

Prediction of subsonic aircraft flows with jet exhaust interactions [p0097 H82-13096]

Calculation of quasi-stationary aerodynamic force acting on a cascade of oscillating airfoils in subsonic flow [p0142 H82-15051]

Numerical experiments on unsteady flows through vibrating cascades [p0142 H82-15052]

Acta Aeronautica et Astronautica Sinica [p0312 A82-21153]

The application of subsonic theoretical aerodynamics to active controls of aircraft [p0130 H82-21217]

The role of coherent structures in the generation of noise for subsonic jets [p0038 H82-22947]

The FFA wing body 81 computer program. A panel method for determination of aerodynamic characteristics at subsonic and transonic speeds [p0046 H82-25230]

Investigation on rotating ailerons [p0941 H82-26162]

Wind tunnel investigations on subsonic airfoils in highsubsonic flow [p0057 H82-30296]

SUBSONIC FLUTTER

Aerelasticity of compressor blades - Subsonic stall flutter [p0925 A82-26993]

Investigation of the unsteady loads on a transport aircraft type airfoil with two interchangeable oscillating trailing edge flaps, at transonic speed and high Reynolds numbers [p0507 A82-40909]

Damping for turbomachine blade vibrations in subsonic flow [p0142 H82-15048]

Experiment on active flutter suppression of a cantilever wing [p0036 H82-22282]

Subsonic aerodynamic and flutter characteristics of several wings calculated by the S09SA P1.1 panel method [p0405 H82-25216]

Aerelasticity of compressor blades: Subsonic stall flutter [p0914 H82-26189]

SUBSONIC SPEED

Performance considerations in the design of subsonic cruise missiles [p0120 A82-17911]

Subsonic and transonic roll damping measurements on basic finner --- flapped, hingeless, small calibration model [p0065 A82-19958]

Fuel efficient and nuch 0.6, too [p0332 A82-29774]

The use of linearized-aerodynamics and vortex-flow methods in aircraft design /invited paper/ [p0479 A82-20949]

Thrust modulation methods for a subsonic V/STOL aircraft [p0098 H82-13112]

SUBSONIC WIND TUNNELS

Unsteady flow patterns associated with spoiler control devices [p0115 A82-17798]

Status and capabilities of the National Full Scale Facility 80- by 80-foot wind tunnel modification [p0238 A82-24676]

A new facility and technique for two-dimensional aerodynamic testing [p0238 A82-24677]

Self streamlining wind tunnels without computers [p0286 A82-27086]

Experimental study of the flowfield of an airfoil with deflected spoiler [p0286 A82-27086]

Model based study of various configurations of jet crossing a cavity - Application to the CFPS 19 wind tunnel of CEPr [p0396 A82-13091]

Programmable controller system for wind tunnel divergence vanes [p0043 A82-41846]

Subsonic cascade wind tunnel tests using a compressor configuration of DCA blades [p0038 H82-11059]

Studies of air inlets at Reynolds numbers comparable to flight in ONERA's F1 and F24 wind tunnels [p0096 H82-13091]

Subsonic balance and pressure investigation of a 60-deg delta wing with leading-edge devices (data report) [p0139 H82-15014]

Sonic wind tunnel of the Institute of Fluid Mechanics of Lille [p0306 H82-20192]

A numerical investigation of two-dimensional, subsonic, linear, wind tunnel interference theory [p0364 H82-23197]

Wind tunnels of the Institute of mechanics of Moscow State University [p0297 A82-24213]

SUBSTANCES

7 MATERIALS

SUBSTITUTES

Replacement of aboard naval aircraft [p0590 A82-32356]

SUBSTITUTION

8 SUBSTITUTES

SUBSTRUCTURES

Substructure program for analysis of helicopter vibrations [p0473 A82-37795]

AIAA PASSENGER 81-24]

TROPICAL REGIONS

A TROPICAL REGIONS

SUCTION

Vortex lift augmentation by suction on a 60 deg swept gothic wing [p0117 A82-17856]

Recent sidewall boundary-layer investigations with suction in the Langley 0.3-m Transonic Cryogenic Tunnel [p0117 A82-17858]

Crossflow shock on the suction side of a flat delta wing with supersonic leading edges [p0332 A82-29659]

Effects of vortex breakdown on longitudinal and lateral-directional aerodynamics of slender wings by the suction analogy [p0489 A82-39141]

Aerodynamic development of laminar flow control on swept wings using distributed suction through porous surfaces [p0489 A82-39141]

Spanwise distribution of vortex drag and leading-edge suction in subsonic flow [p0505 A82-40894]

AIAA PASSENGER 82-40050]

AIAA PASSENGER 81-0231]

AIAA PASSENGER 82-1385]

AIAA PASSENGER 81-0231]

AIAA PASSENGER 82-1385]

AIAA PASSENGER 82-1385]
SUPERSONIC AIRCRAFT

SUPERPLASTIC FORMING EXPLORATION

[AD-1107760] p0210 B82-17338

Evaluation of superplastic forming and co-
diffusion bonding of Ti-6Al-4V titanium alloy expanded sandwich structures

[AIAA-CP-165637] p0268 B82-19358

SFF/DB titanium concepts for structural efficiency for IC

P0302 B82-20154

SFF/DB titanium LFC porous panel concept

P0302 B82-20155

AERODYNAMIC PERFORMANCE

Optimal trajectories in supersonic flight

P0328 B82-19897

NASC research in supersonic propulsion: A decade of progress

[AIAA-TR-82-2682] p0454 B82-26300

Noise and economic characteristics of an advanced blended supersonic transport concept

[AIAA-TR-82-2356] p0565 B82-31294

SUPERSONIC AIRFOILS

Research model wing/ailor modified --- transonic wind tunnel model 7/5-scale model

[AD-1116101] p0524 B82-28288

SUPERSONIC CORROSION

Numerical investigation of supersonic base flow with parallel injection --- in scramjet combustors

[AIAA PAPER 82-1001] p0375 B82-31950

Effect of vacuum exhaust pressure on nozzle performance of BBD ducts at high D-field

[AIAA-TR-82-2750] p0101 B82-13968

SUPERSONIC PROPULSION RAPID TEST ENGINES

Multiple-scale turbulence modeling of free turbulent flows

P012 B82-10934

Increased capabilities of the Langley Bach 7

Scramjet Test Facility

[AIAA PAPER 82-1249] p0148 B82-35000

Numerical analysis of the scramjet-inlet flow field by use of two-dimensional Navier-Stokes equations

[AIAA-TR-1940] p0099 B82-13142

New developments in the field of ramjet missile propulsion

[AIAA-TR-81-2088] p0504 B82-25260

SUPERSONIC COMMERCIAL AIR TRANSPORT

HT-TW-70 AIRCRAFT

VTOL propulsion control technology

[AIAA PAPER 81-2634] p0108 B82-16909

Optimal trajectories in supersonic flight

[AIAA PAPER 82-0366] p0119 B82-17906

STOL capability impact on advanced tactical aircraft design

[AIAA PAPER 81-2617] p0155 B82-19206

Comparison of two parallel/series flow turbofan propulsion concepts for supersonic VTOL

[AIAA PAPER 81-2587] p0156 B82-19214

A new look at the Tupolev Tu-26 'Backfire'

[AIAA PAPER 82-0129] p0163 B82-22052

Alleviation of the subsonic pitch-up of delta wings

[AIAA PAPER 80-0724] p0225 B82-24022

Optimum three-dimensional flight of a supersonic aircraft

[AIAA PAPER 82-0724] p0225 B82-24022

NACA 2.0 rotating arc ram erosion test apparatus

[AIAA PAPER 82-0724] p0225 B82-24022

Forward-swept wings add supersonic zip

P0201 B82-38216

Optimal three-dimensional turning performance of supersonic aircraft

[AIAA PAPER 82-1326] p0498 B82-39163

Optimal control applications in supersonic aircraft performance

[AIAA PAPER 82-1326] p0498 B82-39163

NASA research in supersonic propulsion - A decade of progress

[AIAA PAPER 82-1088] p0497 B82-00417

Calculations of transonic steady state aerelastic effects for a canard airplane

[AIAA PAPER 82-0724] p0225 B82-24022

A new look at the supersonic aerodynamics of twin-fuselage aircraft concepts

[AIAA PAPER 82-0724] p0225 B82-24022

A supersonic V/STOL fighter design project

P0546 B82-62585

Aerodynamic computational procedures for subsonic and supersonic aircraft

P0550 B82-63330

Minimum-time three-dimensional turn to a point of supersonic aircraft

P0550 B82-63330

Aerodynamics of Power Plant Installation

[AIAA-CP-301] p0093 B82-13065

Performance of highly integrated inlets for supersonic aircraft

P0093 B82-13066

NASA Dryden Flight Research Facility

[AIAA-TR-82-01366] p0145 B82-15079

NASA research in supersonic propulsion - A decade of progress

[AIAA-TR-82-2682] p0454 B82-26300

Noise and economic characteristics of an advanced blended supersonic transport concept

[AIAA-TR-82-2356] p0565 B82-31294

SUPERSONIC AIRFOILS

Research model wing/ailor modified --- transonic wind tunnel model 7/5-scale model

[AD-1116101] p0524 B82-28288

SUPERSONIC CORROSION

Numerical investigation of supersonic base flow with parallel injection --- in scramjet combustors

[AIAA PAPER 82-1001] p0375 B82-31950

Effect of vacuum exhaust pressure on nozzle performance of BBD ducts at high D-field

[AIAA-TR-82-2750] p0101 B82-13968

SUPERSONIC PROPULSION RAPID TEST ENGINES

Multiple-scale turbulence modeling of free turbulent flows

P012 B82-10934

Increased capabilities of the Langley Bach 7

Scramjet Test Facility

[AIAA PAPER 82-1249] p0148 B82-35000

Numerical analysis of the scramjet-inlet flow field by use of two-dimensional Navier-Stokes equations

[AIAA-TR-1940] p0099 B82-13142

New developments in the field of ramjet missile propulsion

[AIAA-TR-81-2088] p0504 B82-25260

SUPERSONIC COMMERCIAL AIR TRANSPORT

HT-TW-70 AIRCRAFT

VTOL propulsion control technology

[AIAA PAPER 81-2634] p0108 B82-16909

Optimal trajectories in supersonic flight

[AIAA PAPER 82-0366] p0119 B82-17906

STOL capability impact on advanced tactical aircraft design

[AIAA PAPER 81-2617] p0156 B82-19214

Comparison of two parallel/series flow turbofan propulsion concepts for supersonic VTOL

[AIAA PAPER 81-2587] p0156 B82-19214
supersonic flow

Aerodynamic considerations in the prediction of uninstalled supersonic flutter in transonic fans

Effect of mean blade loading on supersonic cascade flutter
SURFACE TO AIR MISSILES
- PATRIOT MISSILE
- Duplication of radar spin aerodynamic heating using the Central Receiver Test Facility polar furnace

SURFACE TO SURFACE MISSILES
- ARTILLERY MISSILES
- CRUISE MISSILES
- BLAST MISSILES
- SUBSONIC LOW ALTITUDE MISSILE

SURFACE TREATMENT
- Surface Finishing

SURFACE VEHICLES
- AIRCRAFT CARRIERS
- AUTOMOBILES
- ELECTRIC AUTOMOBILES
- MOTOR VEHICLES
- BUSES
- Surface Effect Ships

SURFACE EFFECT SHIPS
- TANKS (COMBAT VEHICLES)
- TRACKED VEHICLES
- TRUCKS

Characteristics and trends of energy consumption in transport missions with aircraft and surface vehicles

SURFACE WAVES
- Electromagnetic Surface Waves
- A global atlas of GEOS-3 significant waveheight data and comparison of the data with national buoy data

SURFACES
- A study on heat transfer in supersonic nozzles and nozzle-diffuser assemblies
- Improving the accuracy of the estimates of surfactant content in jet fuels

SUSPENSION SYSTEMS (VEHICLES)
- Preliminary study of ground handling characteristics of Boeing Quad Rotor (BQR) vehicles

SWEAT COOLING
- Results of experimental study of heat transfer to turbine blades with porous cooling

SWEEP ANGLE
- MT SWEEPBACK

Sweepforward wings
- Description of a sweptforward wing

Sweepback wings
- A summary of experimental data on wing characteristics at transonic speeds

Sweepback angles
- U SWEEPBACK

Subject Index

Propulsion
- Fuel quality/processing study. Volume 2:

Survival
- HASEP - Survival from crashed Navy aircraft
- Commercial jet transport crashworthiness
- Value of survivability and recoverability of flight data recorders — benefit cost methodology
- Aircraft fire safety
- Aircraft fire mishap experiences/crash fire scenario quantification
- Human response to fire
- Aircraft fire protection methods

Survival equipment
- Evaluation of a selected group of anti-exposure garments configurations for their effects on the operational performance and survival of naval aircrews
- Lear Fan 2100 egress system
- Improving air carrier water survival
- Development of a backpack survival kit for ejection seats
- Elastic suspension of a wind tunnel test section

Suspension (Hanging)

Swirl
- MT SWERPBACK

Sweepforward wings
- Description of a sweptforward wing

Sweepback wings
- A summary of experimental data on wing characteristics at transonic speeds

Sweepback angles
- U SWEEPBACK
SWEEP WINGS

[Introduction to sweep wings]

SWEEPBACK WINGS

[SWEEPBACK WINGS]

SWEEP WINGS

[SWEEP WINGS]

REFERENCES

Aeroelastic properties of wings in transonic flow

[Reference]

Aeroelastic behavior of a swept-back wing in transonic flow

[Reference]

Aeroelastic properties of wings in transonic flow

[Reference]

Helicopter rotor performance improvement by utilization of sweep-back parabolic blade tips

[Reference]

Helicopter rotor performance improvement by utilization of swept-back parabolic blade tip --- wind tunnel tests

[Reference]

Aeroelastic performance of slender wings with separated flows

[Reference]

Improved engine/intake compatibility

[Reference]
A new facility and technique for two-dimensional 
aerodynamic testing [AIAA 82-0608] p0238 A82-29477
Lightning detection and ranging [AIAA 82-26367]
Design of higher harmonic control for the ABC p0277 A82-26380
The role of modern control theory in the design of controls for aircraft turbine engines [AIAA PAPER 82-0320] p0278 A82-26380
No-Tail-Rotor helicopter [AIAA PAPER 82-26526]
A system design for a multispectral sensor using two-dimensional solid-state imaging arrays [AIAA 82-31991]
A practical approach to the design of multivariable control strategies for gas turbines [AIAA PAPER 82-07-150] p0279 A82-26622
Assembly of aircraft instruments -- Russian book [AIAA 82-36590]
Simplified digital design tools [AIAA 82-37034]
Design and evaluation of a state-feedback vibration controller [AHS PEPBT 81-10] p0442 A82-37783
A design criterion for highly augmented fly-by-wire aircraft [AIAA 82-1570] p0485 A82-38969
The use of differential pressure feedback in an automatic flight control system [AIAA 82-1596] p0485 A82-38981
Avoiding the pitfalls in automatic landing control system design [AIAA 82-1599] p0486 A82-39013
Application of multivariable model following method to flight controller [AIAA PAPER 82-1349] p0488 A82-39120
A practical approach to the incorporation of technical advances in avionics [AIAA 82-40086]
Design and experience with a low-cost digital fly-by-wire system in the SAA J37 Viggen A/C [AIAA 82-40905]
Design of a longitudinal ride-control system by Zakian's method of inequalities [AIAA 82-41114]
Multi-variable analysis and design techniques [AGARD-LS-117] p0029 A82-10048
The need for multivariable design and analysis techniques [AIAA 82-10049] p0029 A82-10049
Design of high integrity multivariable control systems [AIAA 82-10055] p0030 A82-10055
A geometric approach to multivariable control system synthesis [AIAA 82-10056] p0030 A82-10056
Multivariable design: The optimization of approximate inverses [AIAA 82-10057] p0030 A82-10057
Design considerations for optimal flight control systems [AIAA 82-11077] p0039 A82-11077
Design techniques for multivariable flight control systems [AIAA 82-11078] p0039 A82-11078
Application of nonlinear systems inverses to automatic flight control design: System concepts and flight evaluations [AIAA 82-11083] p0039 A82-11083
Design for active and passive flutter suppression and gust alleviation [NASA-CR-2862] p0100 A82-13147
Advanced crash survivable flight data recorder and Accident Information Retrieval System [AIAA 82-14631] p0112 A82-14672
ADAMS executive and operating system [NASA-TP-01333] p0130 A82-14631
The influence of sensor and actuator characteristics on overall helicopter AFCS design [AIAA 82-18171] p0251 A82-18171
Transport aircraft cockpit standardization (Federal Aviation regulations part 25) [AIAA PAPER 82-07-150] p0264 A82-19207
Applications of system identification methods to the prediction of helicopter stability, control and handling characteristics [AIAA 82-19207] p0216 A82-24392
Design technology for improved performance retention in turbofan engines [SAGE PAPER 811055] p0231 A82-24392
The integration of multiple avionic sensors and technologies for future military helicopters
[AD-111116] p0012 N82-22506

Hardware and software integration for concurrent data acquisition and reduction of photon correlated laser Doppler velocimetry
[AD-111116] p0012 N82-22506

Air-ground attack: axes of research for airborne systems
[AD-111116] p0070 N82-22795

Pave Rover aided integrated strike avionics system
[AD-111116] p0071 N82-22790

Tactical systems approach to introduction of 2nd echelon moving targets using real time sensors
[AD-111116] p0072 N82-22790

Multifunction multiband airborne radio architecture study
[AD-111427] p0052 N82-28523

Problems related to the integration of fault tolerant aircraft electronic systems
[NASA-CR-165926] p0530 N82-29022

Wind tunnel capability related to test sections, cryogenics, and computer-wind tunnel integration
[AGARD-AR-174] p0538 N82-29334

SYSTEMS SIMULATION
Redundancy management of skewed and dispersed inertial sensors
[AIAA 81-2296] p0050 A82-13503

Preliminary functional description of integrated flow management --- for air traffic control systems
[AD-110909] p0013 N82-21717

Special investigation report: Air traffic control systems
[FB-82-136276] p0523 N82-28277

SYSTEMS SIMULATION
Interoperability testing of decentralized command, control, communications and intelligence /C3I/ systems
[AIAA 81-2205] p0003 A82-10143

Simulation study of a hybrid intradrop altitude and heading reference system
[p022] A82-12641

Avionics implications from weapon system operational utility studies on manned air combat simulators
[AIAA 81-2230] p0074 A82-13463

The design and implementation of a canned scenario function for the F-16 dynamic system simulator
[FB-82-136276] p0523 A82-14678

Strapdown inertial reference systems performance analysis
[p066] A82-14682

A failure detection and isolation system for tactical aircraft with separated IBDs
[FB-82-136276] p0523 A82-14684

The use of observers on relaxed static stability aircraft
[p066] A82-14684

Computer modeling of an aircraft HVDC electrical system
[p068] A82-14740

Digital simulation of aircraft electrical generating systems by means of Sceptre program
[p073] A82-14819

Real-time simulation of helicopter IFP approaches into major terminal areas using BNAV, MLS, and CDTI
[AIAA PAPER 82-0260] p0118 A82-17866

JSTIS RELNAV network off-line simulation
[p123] A82-18153

FIES engineering development test results - early results --- Position Location Reporting System with data communication network for community users in tactical environment
[p124] A82-18157

Radar environment simulation for software test
[p0158] A82-19245

Real-Time Simulation Computation System --- for digital flight simulation of research aircraft
[AD-111116] p0158 N82-19245

The simulation study on a redundant flight control system
[AD-111116] p0185 A82-22120

Automated radar performance evaluation in the Radio Frequency Simulation System /RFTS/ facility at NICON
[p0281] A82-26471

TURBOPRAN - A programming language for the performance simulation of arbitrary gas turbine engines with arbitrary control systems
[AIAA PAPER 82-07-200] p0427 A82-35396

Problems in the simulation of correlation-extremal navigation systems
[AD-111116] p0492 A82-39403

Sensor stabilization requirements of RFIV's - A simulation study
[AD-111116] p0494 A82-39741

FA-18 weapons system support facilities
[AD-111116] p0198 N82-17120

SYSTEMS STABILITY
A stable decentralized filtering implementation for JTDIS RELNAV --- stable community relative navigation
[AD-111116] p0124 A82-18156

Evaluation of the effect of elastomeric damping material on the stability of a bearingless main rotor system
[p0280] A82-26394

T-2 AIRCRAFT

development on graphite/epoxy T-2 nose landing gear door
[AD-111116] p0495 A82-39393

Design, fabrication and qualification of the T-2 composite rudder
[AD-111116] p0495 A82-39394

T-33 AIRCRAFT
An application of invariance principle to pilot model for T-33 aircraft with variable coefficients and delays
[AD-111116] p0120 A82-17907

T-37 AIRCRAFT
[AD-1110943] p0540 A82-30031

T-38 AIRCRAFT
A ballistic design model for initiators for aircraft personnel escape systems
[p080] A82-14984

Effect on surface pressures of transpolar holes in a T-36 stabilator
[p0113] A82-17602

Finite element analysis of through the canopy emergency crew escape from the T-38 aircraft
[AIAA 82-0705] p0335 A82-30096

SEL and SNHL noise duration coefficients for the T-37 and T-38 aircraft
[AIAA-TR-63214] p0042 A82-11860

T-56 ENGINE
Next generation turboprop gearboxes
[AIAA PAPER 82-07-216] p0428 A82-35418

Results of 256 engine performance monitoring trial on Hercules aircraft, February - July 1977
[ARL-RECH-RECH-REyy-UGO-099] p0536 A82-29322

TABLES (DATA)

BIC/Snlzer. 4 stage transonic compressor
[p206] A82-17197

Experimental investigation of turbine endwall heat transfer. Volume 2: Linear and annular cascade summary data sets
[AD-110632] p0317 N82-21200

Update of the summary report of 1977-1978 task force on aircrew workload
[AD-112547] p0498 A82-26258

Flight attendant injuries: 1971-1976
[AD-111909] p0531 N82-29274

TABLES (CONTROL SURFACES)

Trim tab excitation system for the Bae 146
[p062] A82-14363

TACAN
Interoperability testing of decentralized command, control, communications and intelligence /C3I/ systems
[AIAA 81-2205] p0003 A82-10143

Terminal area autonomous navigation, guidance, and control research using the microwave landing system (MILS). Part 3: A comparison of way point guidance algorithms for BNAV/MILS transition
[NASA-CR-3512] p0198 N82-16060

TACTIC PROGRAM
Experience with flight test trajectory guidance
[AIAA PAPER 81-2504] p0463 A82-14379

TACTICAL AIR NAVIGATION U TACAN
Advanced composites integral structures meet the challenge of future aircraft systems.

Studies in the history and theory of development of aviation and rocketry and space science and technology — Russian book

Engine industry cost considerations for emerging technologies

Precision casting for gas turbine engines

Simple vs. sophisticated Tactic avances. II — Soviet Tactic avionics technology

Advanced engine technology and its influence on aircraft performance

Fuel efficiency and Aircraft 0.8, too

Hydrogen economy assessment for long-term energy systems in Japan

Forward-swept-wing technology

The ubiquitous helicopter

Technical trends in the civil aircraft and helicopter industry

Energy efficient engine /3/ technology status — AIAA PAPER 82-1052

Development of hybrid gas turbine bucket technology — AIAA PAPER 82-07-94

Technology advancements for energy efficient aircraft engines — AIAA PAPER 82-35479

Canadian rotary wing technology development — AIAA PAPER 82-35471

On the state of technology and trends in composite materials in the United States — AIAA PAPER 82-39982

Torchdown technology — large aircraft landing gear stress

Civl helicopter propulsion system reliability and engine monitoring technology assessments — AIAA PAPER 82-40518

Support of the B-65A — The impact of advanced technology of VTOL systems upon existing product support

Recent advances in the performance of high bypass ratio fans

Advanced technologies applied to reduce the operating costs of small commuter transport aircraft

Assessment of advanced technologies for high performance single-engine business airplanes

Turboprop design — Now and the future

New technology for the next generation of commercial transports — Beal or imaginary

A history of aerostatics and aviation in Russia — In the period up to 1914 /2nd revised and enlarged edition/ — Russian book

The testing of new technologies with the aid of the Alpha Jet aircraft

The technology of the assembly of engines for flight vehicles — Russian book

The choice of technology for ATC radars. I

Transmitters

Jet fuel locks to shale oil: The 1980 technology review

Aeronautical applications of bonding

Community rotorcraft air transportation benefits and opportunities — NASA-CH-16520

Systems study of transport aircraft incorporating advanced aluminum alloys — NASA-CH-16520

Technology overview for advanced aircraft armament system program — AD-A107680

A perspective on civil use of GPS — AIAA PAPER 82-10101


Optimizing aerospace structures for manufacturing cost

Impact of systems technology and integration on helicopter design

Present challenges of research and technology politics

Use of Space Shuttle technology in conventional aircraft — AIAA PAPER 81-2342

The balloon and the airship technological heritage — AIAA PAPER 81-1012

SARsat applications

Airborne Electronic Terrain Map Systems — Applications

Aeronautical applications of hydrogen propulsion

VTOL as it applies to resource development in the Canadian north
{AIAA PAPER 81-2640} p0156 A82-19215
Application of the ABC helicopter to the emergency medical service role
{AIAA PAPER 81-2651} p0157 A82-19219
Computer graphics for quality assurance
The application of strapdown inertial technology to attitude and Heading Reference System requirements --- for T-44 advanced attack helicopter
Lightweight ATC systems
Novel approaches to electron beam welding machine utilization:
Transition of aerospace adhesive bonding technology from R&D to operational use
British aerospace begins update effort
Propellers come full circle --- prop-fan technology for aircraft fuel savings
Use of C{\textregistered}GH technology --- Carbon and glass
Hybrids Reinforced Plastics
The need for a dedicated public service helicopter design
The technological aspects of titanium application in the T-144 aircraft structure
On the state of technology and trends in composite materials in the United States
800 Shaft Horsepower Advanced Technology Demonstrator Engine /ATOS/ status update
Advanced technologies applied to reduce the operating costs of small computer transport aircraft
Nondestructive testing in aircraft construction using holographic techniques
Perspectives for the use of remotely piloted vehicles in military technology
Round table discussion on the transfer of results from the project "Aids to navigation and control of air traffic"
[PNB-90051] p0073 A82-31181
Present challenges of research and technology politics
{NASA-TR-746720} p0565 A82-31147
TELEPHONES (TELEPHONIC)
Bonding procedure for Teflon seals
TELECOMMUNICATION
{NASA-TR-81-26231} p0132 A82-19075
Communications
[TA-113047] p0468 A82-27276
{TELEPHONE} U TELEPHONE
TELEVISION CAMERAS
The design of a viewing system for near real time stereo images from a NASA borne linescan sensor
--- Unmanned Aircraft
Equipment for testing and measuring a "helmet mounted sight and display" system with a coupled movable TV camera in the flight simulator for research of the DFVLR
[ESA-TT-675] p0266 A82-19219
TELEVISION EQUIPMENT
{NASA-TR-66341} p0400 A82-25040
TELEVISION STRUCTURES
{NASA-TR-66341} p0400 A82-25040
TELEVISION CAMERAS
TELEVISION RECEIVERS
Influence of contrast on spatial perception in TV display of moving images
[PN-50] p0477 A82-27609
TELEVISION SYSTEMS
{NASA-TR-84719} p0603 A82-33332
Aeronautics and space report of the President: 1981 activities
TELEMETRY
U TELEMETRY
TELEMETRY
{NASA-TR-84719} p0603 A82-33332
Recent improvements at the Naval Air Test Center for increased test system flexibility
{NASA-TR-81-2392} p0056 A82-13888
Automatic digital gain ranging --- for flight test telemetry data
{NASA-TR-81-2370} p0060 A82-13947
The Advanced Range Instrumentation Aircraft improvement and modernization program
{NASA-TR-81-2366} p0060 A82-13948
Advanced medium scale real-time system --- for Army helicopter tests
Telemetry Computer System at Wallops Flight Center
{NASA-TR-84719} p0603 A82-33332
Invention of blade vibration of radial impellers by means of telemetry and holographic interferometry
{NASA-TR-81-2392} p0056 A82-13888
Evaluation procedures and equipment design
{NASA-TR-84719} p0603 A82-33332
Telemetry in aero engine development --- from operating engines
{NASA-TR-84719} p0603 A82-33332
Aeronautics and space report of the President: 1981 activities
TELEMETRY
Control of gas turbine power transients for improved turbine airfoil durability [AIAA PAPER 82-1192] p0418 A82-35047
Gas turbine airflow control for optimum heat recovery [ASME PAPER 82-09-02] p0423 A82-35329

TEMPERATURE DEPENDENCE

Investigation of the stress-strain state of a rectangular wing section of variable thickness under concentrated loads and heating p0127 A82-18508
Transient two-dimensional temperature distributions in air-cooled turbine blades p0149 A82-18893
An experimental and analytical study of mixing flow of turbofan engine exhaust through circular and 2-dimensional mixer/mixing zone [AIAA PAPER 82-0313] p0266 A82-27087
Analysis of the temperature field of a baffle-cooled gas turbine-engine blade under conjugated boundary conditions p0295 A82-28015
Thermal stability analysis for conical shells with variable parameters p0334 A82-29844
Temperature fields in three-layer panels with a honeycomb filler during unsteady heating p0387 A82-34135
Engine superficial temperature and infrared signature p0247 N82-18136
Tests and analysis of a vented D thrust deflecting nozzle on a turbofan engine -- conducted at the outdoor aerodynamic research facility of the Ames Research Center [NASA-CR-166279] p0301 N82-20413

TEMPERATURE EFFECTS

Radiate aerodynamic heating effects on boresight error p0281 A82-26465
Service sensitivity of polysulfide sealants p0291 A82-27407
The effect of temperature-time factors on the metal damage and endurance characteristics of gas-turbine-engine rotor blades p0295 A82-28019
A procedure for evaluating fuel composition effects on combustor life [ASME PAPER 82-07-296] p0630 A82-35465
The effect of temperature ratios on the film cooling process [ASME PAPER 82-07-305] p0630 A82-35470
Evaluation of heat damage to aluminum aircraft structures p0518 A82-41481
Study of VDF in ground-effect flow field including temperature effect [NASA-CR-166258] p0400 N82-25170

TEMPERATURE FIELDS

U TEMPERATURE DISTRIBUTION

TEMPERATURE INDICATORS

O INDICATING INSTRUMENTS

TEMPERATURE MEASUREMENT

In-situ calibration of flight heat transfer instrumentation [ASME PAPER 81-EMAS-13] p0011 A82-10901
A study of potentially low cost millimeter-wave radiometric sensors p0151 A82-10942

Dilution jet behavior in the turning section of a reverse flow combustor [AIAA PAPER 82-0192] p0167 A82-20291
The use of analog computers in solutions of inverse problems of heat conduction for the identification of boundary conditions on the surfaces of gas-turbine-engine parts on the basis of temperature-measurement results p0492 A82-39467
Adaptation of a turbine test facility to high-temperature research p0492 A82-39467

SUBJECT INDEX

[AIAA-LIB-TRANS-2064] p0040 N82-11089

TEMPERATURE SENSORS

AT THERMISTORS

TENSILE PROPERTIES

Materials and design criteria for Kevlar-29 ribbons parachutes [AB-A1163] p0557 N82-11308

TENSILE STRENGTH

Tensile fatigue assessment of candidate resins for use in fabric reinforced composite repair schemes [p0113 A82-17513]
Effects of defects on tension coupons undergoing an accelerated environmental spectrum p0290 A82-27416
Effects of 50,000 hours of thermal aging on graphite/epoxy and graphite/polyimide composites [AIAA 82-0657] p0335 A82-30687
High temperature, short term tensile strength of C6000/PMC-15 graphite polyimide [AIAA 82-0711] p0337 A82-30125

TENSILE STRESSES

Dispersion and temperature-force dependence of the high-temperature strength characteristics of a gas-turbine-engine disk alloy p0182 A82-21636

TENSILE TESTS

Effects of moisture on the mechanical properties of glass/epoxy composites p0329 A82-29305
Porosity of INCONEL alloy type 956 -- An oxide dispersion strengthened steel alloy p0385 A82-33399
Development of hybrid gas turbine bucket technology [ASME PAPER 82-07-94] p0426 A82-35357

TENSOR ANALYSIS

Algorithms for jet engine control [NASA-CR-166889] p0369 A82-23247

TERMINAL BALLISTICS

Description of projectile threats p0202 N82-17162
Analysis methods for predicting structural response to projectile impact p0202 N82-17162
Analysis methods for ballistic damage size and type p0202 N82-17163
Damage from high explosive (HE) projectiles p0275 A82-26046

TERMINAL CONFIGURED VEHICLE PROGRAM

Have we overlooked the pilot's role in an automated flight deck [NASA-CR-166894] p0369 A82-22474
The integration of control and display concepts for improved pilot situational awareness p0366 A82-13972
On-board computers save fuel and help ATC p0275 A82-26046
Requirements and possible design choices for improving the operation of aircraft in the terminal control area p0540 A82-41481

TERMINAL FACILITIES

BY SHIP TERMINALS

Technical/operational ATC scenarios for future TMA navigation p0071 A82-14774
New life for an 'old' body - Vienna's master plan for revitalization p0166 A82-20172
IATA's Unit Terminal Concept p0285 A82-27049
Instruments and installations for meteorological measurements at airports -- Russian book p0326 A82-28826
Future terminal area systems p0483 A82-38462
Repair and maintenance of buildings in civil aviation -- Russian book p054a A82-42059
Survey and design of airfields -- Russian book p0553 A82-43860
Analysis of integrated fuel-efficient, low-noise procedures in terminal-area operations [AGI-029833] p0291 A82-13014
Terminal Information Processing System (TIPS) [NASA-CR-01-18] p0587 N82-33231
Study of the frequency assignment congestion in the ultra high frequency air traffic control
Integrated navigation-IF/TA-system based on stored terrain data processing

Automatic controlled terrain following flights

Simulator investigations of various side-stick controller/stability and control augmentation systems for helicopter terrain flight

A terrain following system, an algorithm and a sensor

TerraHeight avoidance system concept development

Integrated navigation-IF/TA-system based on stored terrain data processing

Optimal inertial navigation using terrain correlation: An attractive solution to the ground attack aircraft navigation problem

The development of terrain following displays for the Tornado aircraft

TerraHigh terrain following/terrain avoidance system concept development

Passive terrain following using stored map and global positioning system

Automatic controlled terrain following flights

Simulator investigations of various side-stick controller/stability and control augmentation systems for helicopter terrain flight

A terrain following system, an algorithm and a sensor

TerraHeight avoidance system concept development

Passive terrain following using stored map and global positioning system
Subject Index

Thermal Control Coatings
Development of improved high temperature coatings for In-792 + Ni [NASA-CR-165395] 03136 B82-14333
The contribution of thermal barrier coatings to improvements in the life and performance of gas turbine components [PHR-50076] 03358 B82-22271
Thermal Corrosion
U Convective Flow
U Convective Flow
Thermal Cycling Tests
T700 - Modern development test techniques, lessons learned and evaluation [AIAA PAPER 82-1183] 04018 B82-35088
Thermal Decomposition
NT Pyrolysis
Thermal decomposition of aviation fuel [ASME PAPER 82-07-27] 04020 A82-35292
Deposition formation in hydrocarbon fuels [ASME PAPER 82-07-049] 04022 A82-35307
Thermal Degradation
Effects of 50,000 hours of thermal aging on graphite/epoxy and graphite/polyimide composites [ASME 02-0657] 03358 A82-30087
On the characterization of damages in graphite/epoxy composites [ASME 02-0657] 03536 A82-30117
Thermal Effects
U Temperature Effects
Thermal Efficiency
Thermal Degradation
Thermal Emission
A light helicopter for night firing [SIBAS-201-201-105] 01353 B82-22256
Thermal Environments
Closed loop environmental control systems for fighter aircraft [ASME PAPER 83-JEMAS-2] 01011 A82-10890
Quantification of the thermal environment for externally carried aircraft stores and ordinance [AIAA 02-12100] 0119 B82-12100
Thermal Expansion
Thermal expansion accommodation in a jet engine frame
Operating flight loads and their effect on engine performance [SIBAS-11071] 02338 A82-32405
Helicopter rotor loads using a matched asymptotic expansion technique [NASA-CR-165742] 0312 A82-21156
Thermal Fatigue
Thermal expansion accommodation in a jet engine frame
Study of the load-carrying capacity of a gas-turbine engine impeller under low-cycle loading at normal and high temperatures [NASA-CR-165395] 03086 A82-15682
A method for predicting the lifetime of gas turbine blades
- Dispersation and temperature-force dependence of the high-temperature strength characteristics of a gas-turbine-engine disk alloy [NASA-CR-165395] 01802 A82-21636
The effect of temperature-time factors on the metal damage and endurance characteristics of a gas-turbine-engine rotor blades 0295 A82-28019
Structural strength of materials and parts of gas turbine engines - Russian book 01404 A82-12063
Modeling of thermal effects when investigating the thermal fatigue life of the blades of a gas-turbine engine 0583 A82-46832
Development of improved high temperature coatings for In-792 + Ni [NASA-CR-165395] 01368 B82-14333
Thermal Insulation
The use of 'Kapton' polyimide film in aerospace applications
The effect of heat transfer on three-dimensional spatial stability and transition of flat plate boundary layer at Mach 3

Investigations of the separation behavior on airfoils at high angles of attack, using linear lift theory

Numerical aircraft design using 3-D transonic analysis with optimization, volume 3. Part 2: User's guide to fighter design computer program

Three-dimensional separation and reattachment

Three-dimensional flow studies on a slotted transonic wind tunnel wall

Experimental and theoretical studies of induced flow characteristics of sharp edged reentrant wings including inviscid/viscous interactions

Flow visualization using a computerized data acquisition system

A split coefficient/locally aonotonic scheme for multiblocked supersonic flow

Determination of the efficiency of a trailing edge device

Comparison of experimental and analytic data in unsteady three-dimensional transonic aerodynamics, including aerelastic applications

Design of finite element grids for the computation of three-dimensional transsonic flow around a wing

Skin friction lines

Skin friction lines

Experimental investigations on the flow in the impeller of a centrifugal fan

Comparison of experimental and analytic performance for contoured endwall stators

Computation of supersonic flow around three-dimensional wings

Determination of the efficiency of a trailing edge flap in unsteady three-dimensional flow

Optimal stress surfaces in supersonic/three-dimensional flows

Higher-order flow angle corrections for three-dimensional wind tunnel wall interference
Three dimensional motion

Study on pressure distribution on rotor blades with three-dimensional nonsteady theory of compressible fluid
[AD-A105184] p0577 82-45188

Acta mechanica viva
[AD-A105184] p0033 82-11014

The arbitrary quasi-orthogonal surface method for computing three-dimensional flow in turbine machinery. 2. Calculation of the three-dimensional flow with the sub I-surface twisted
[AD-A104514] p0033 82-11015

A theoretical analysis of the stream surface of revolution with supersonic inlet flow in a transonic axial compressor
[AD-A104514] p0033 82-11025

A numerical three-dimensional turbulent simulation of a subsonic V/STOL jet in a cross-flow using a finite element algorithm
[AD-A104514] p0036 82-11055

Aeroacoustic theory for noncompact wdg-vust interaction
[AD-A104514] p0038 82-11071

Three dimensional flow investigation with a method of characteristic in the inlet region and the blade-to-blade channels of supersonic axial compressors
[AD-A104514] p0088 82-12078

Prediction and measurement of time-variant, three-dimensional flows in military aircraft intakes
[AD-A104514] p0093 82-13069

A numerical method for studying nacelle-jet-airfoil interaction in inviscid three-dimensional flow
[AD-A104514] p0096 82-13094

Analytical study of twin-jet shielding development of a 3-dimensional model
[AD-A104514] p0194 82-16005

A three-dimensional approach to lift and moment coefficients of rotating blades
[AD-A104514] p0245 82-18125

On the calculation of transonic blade tip flow for helicopter rotors
[AD-A104514] p0252 82-18187

Computation of wdg-vortex interaction in transonic flow using implicit finite difference algorithms
[AD-A104514] p0252 82-18187

Three-dimensional separation and reattachment
[AD-A104514] p0312 82-21159

Application of Computational Fluid Dynamics (CFD) in transonic wind-tunnel/flight-test correlation of temperature and pressure measurements
[AD-A104514] p0393 82-20167

Comparison of boundary layer calculations for the root section of a wing. The September 1979 Amsterdam Workshop test case
[AD-A104514] p0404 82-25221

The problem of calculation of the flow around helicopter rotor blade tips --- and adapting computer programs
[AD-A104514] p0406 82-25232

Three dimensional mean velocity and turbulence characteristics in the annulus wall region of an axial flow compressor rotor passage
[AD-A104514] p0408 82-25252

Comparison of experimental and analytical performance for contoured endwall stators
[AD-A104514] p0408 82-25252

Wind tunnel measurements of three-dimensional wakes of buildings --- for aircraft safety applications
[AD-A104514] p0450 82-26299

Computer prediction of three-dimensional potential flow fields in which aircraft propellers operate
[AD-A104514] p0585 82-32312

Computation of three dimensional unsteady nonsimilir flow in the blade-free annular channel of a turboshaft engine --- military aircraft, turbocompressors
[AD-A104514] p0592 82-32372

Experimental evaluation of a perspective tunnel display for three-dimensional helicopter approaches
[AD-A104514] p0015 82-11470

Subject index

Wide field of view laser sash system for three-dimensional aircraft position measurement
[AD-A108463] p0033 82-15847

Optimization of three-dimensional flight of a supersonic aircraft
[AD-A108463] p0074 82-26039

Three-dimensional analysis of cascade flutter in parallel shear flow
[AD-A108463] p0144 82-15662

Throttling

Individual bypass throttling in fighter engines
[AD-A108463] p0106 82-13000

External fuel vaporization study
[AD-A108463] p0136 82-14371

Thrust

Variable thrust

An experimental study of flow rate and thrust characteristics of a four-nozzle ejection with flow twist
[AD-A108463] p0581 82-46140

Integration of advanced exhaust nozzle
[AD-A108463] p0094 82-13075

Establishment of an experimental technique to provide accurate measurement of the installed drag of close coupled civil nozzle/airframe configurations, using a full span model with turbine powered engine simulators
[AD-A108463] p0096 82-13089

Tests and analysis of a vented D thrust deflection nozzle on a turbofan engine --- conducted at the outdoor aerodynamic research facility of the Ames Research Center
[AD-A108463] p0301 82-20143

Thrust-induced effects on low-speed aerodynamics of fighter aircraft --- Langley 4- by 7-meter tunnel
[AD-A108463] p0405 82-25218

Thrust augmentation

Application of thrusting ejectors to tactical aircraft having vertical lift and short-field capability
[AD-A108463] p0156 82-19211

Performance flight test evaluation of the Bell-Barrow J-41 Jetwing STOL research aircraft
[AD-A108463] p0178 82-20762

Rapid augmentation effects
[AD-A108463] p0502 82-40548

XPF-12A diagnostic and development programs
[AD-A108463] p0254 82-18166

Thrust augmenting ejectors: A review of the application of jet mechanics to V/STOL aircraft propulsion
[AD-A108463] p0361 82-23169

Improvement of ejector thrust augmentation by pulsating or flapping jets
[AD-A108463] p0362 82-23172

An experimental study of rectangular and circular exhaust nozzles augmenting ejectors
[AD-A108463] p0454 82-26304

ESRA vertical lift test report --- rotor systems research aircraft
[AD-A108463] p0587 82-32341

Thrust control

Variable vector control

V/STOL propulsion control technology
[AD-A108463] p0108 82-16909

Optimal trajectories in supersonic flight
[AD-A108463] p0119 82-17906

Thrust modulation methods for a subsonic V/STOL aircraft
[AD-A108463] p0156 82-19213

Thrust management - Current achievements and future developments
[AD-A108463] p0170 82-20520

No-tail rotor helicopter tests contains for V/STOL aircraft and fluid dynamics
[AD-A108463] p0026 82-10029

Thrust modulation methods for a subsonic V/STOL aircraft
[AD-A108463] p0098 82-13112

Potential reductions in aircraft operation and maintenance costs by using thrust computing support equipment
[AD-A108463] p0254 82-18207
SUBJECT INDEX

THrust DISTRIBUTION
Tests of a D-vented thrust deflecting nozzle behind a simulated turbofan engine
[AIAA PAPER 81-3508] p0198 882-17122

THrust MEASUREMENT
Evaluation of a simplified gross thrust calculation method for a J85-21 afterburning turbojet engine in an altitude facility
[AIAA PAPER 82-1046] p0415 882-34978
Potential reductions in aircraft operation and maintenance costs by using thrust vectoring support equipment
[AD-A100062] p0258 882-10207
Optimization of thrust algorithm calibration for Computing System (TCS) for Thrust the NASA Highly Maneuverable Aircraft Technology (HiMAT) vehicle's propulsion system
[NASA-Cr-163121] p0317 882-21198

THrust Power
U THRUST

THrust PROGRAMMING
Flight management computer
[NASA-82-111-110] p0399 882-24842

THrust REVERSAL
Study of ingestion of exhaust gases with different initial temperatures in a reversed turbojet engine
p0194 882-11444
Thrust reversing effects on twin-engine aircraft having coaxial asymmetric nozzles
[AIAA PAPER 81-2639] p0108 882-16911
Thrust-induced effects on low-speed aerodynamics of fighter aircraft
[AIAA PAPER 81-2612] p0155 882-19203
STOL capability impact on advanced tactical aircraft design
[AIAA PAPER 81-2617] p0155 882-19206
Thrust reverser induced flow interference on tactical aircraft stability and control
[AIAA PAPER 81-1133] p0436 882-37693
Asymmetric approach and landing thrust reverser impacts on usage and LCC — life cycle cost
p0505 882-40892

Advanced exhaust nozzle technology
p0095 882-13078
Static internal performance of single expansion-ramp nozzles with thrust vectoring and reversing
[NASA-TP-1962] p0302 882-20156
Static internal performance characteristics of two thrust reverser concepts for asymmetric nozzles
[NASA-TP-2025] p0448 882-26235
Thrust reverser for a long duct fan engine --- for turbofan engines
[NASA-CASE-LW-13199-1] p0453 882-26293
Minimum time turn constrained to the vertical plane
[AD-A110064] p0456 882-26317
Effect of nozzle and vertical-tail variables on the performance of a 3-surface F-15 model at transonic Mach numbers --- Langley 16 foot transonic tunnel
p0586 882-32320

THrust VECTOr Control
Optimal flight paths for winched, supersonic flight vehicles - Extension to the case where thrust can be vectored
p0005 882-10310
Developments in boundary layer Thrust Vector Control
p0106 882-10855
Ground test of a large scale D-vent thrust deflecting nozzle
[AIAA PAPER 81-2630] p0108 882-16907
NASA V/STOL Propulsion Control Analysis - Phase I and II program status
[AIAA PAPER 81-2632] p0108 882-16908
Thrust-induced effects on low-speed aerodynamics of fighter aircraft
[AIAA PAPER 81-2612] p0155 882-19203
Tactical STOL moment balance through innovative configuration technology
[AIAA PAPER 81-2615] p0155 882-19204
Application of thrust vectoring for STOL
[AIAA PAPER 81-2616] p0155 882-19205
STOL capability impact on advanced tactical aircraft design
[AIAA PAPER 81-2617] p0155 882-19206
Design features of a sea-based multipurpose STOL, STOL, and STOL aircraft in a support role for the U.S. Navy

TILT ROTOR AIRCRAFT

[AIAA PAPER 81-2650] p0157 882-19218
Fighters - Tomorrow's terminology
p0221 882-23368
Performance of a 20-CD nonaxisymmetric exhaust nozzle on a turbojet engine at altitude
[AIAA PAPER 82-1137] p0497 882-40420
New nozzle design aimed at F-15, F-16 aircraft
p0599 882-43902
Effect of a part span variable inlet guide vane on TF34 fan performance
p0088 882-12075
Advanced exhaust nozzle technology
p095 882-13078
A real time Pegasus propulsion system model for VSTOL piloted simulation evaluation
[NASA-TP-82770] p0100 882-13134
Static internal performance of single expansion-ramp nozzles with thrust vectoring and reversing
[NASA-TP-1962] p0302 882-20156
Wind-tunnel investigation of the powered low-speed longitudinal aerodynamics of the Vectored-Engine-Over (VEO) wing fighter configuration
[NASA-TB-83263] p0349 882-22207
High pressure bleed for STOL and STOVL performance: A conceptual examination
[AD-A111762] p0590 882-32357

THrust-Weight Ratio
Enhanced F-15 air-to-ground flight demonstrations
[AIAA PAPER 81-2413] p0084 882-13954

THrustors
U ROCKET ENGINES

THUNDERSTORMS
Thunderstorms hazards flight research - Program overview
[AIAA PAPER 81-2412] p0053 882-13853
Operational evaluation of thunderstorms penetration test flights during project Storm Hazards '80
p0078 882-19450
Simulation of phugoid excitation due to hazardous wind shear
[AIAA PAPER 82-0215] p0117 882-17844
Mesoscale convective complexes and general aviation
p0283 882-26537
 Doppler-radar research and application to aviation flight safety, 1977 - 1979
p0303 882-20163
 NASA research programs responding to workshop recommendations
p0311 882-21146

The 1981 direct strike lightning data --- utilizing the F-106 aircraft
[NASA-TP-83273] p0358 882-22848
A study of wind shear effects on aircraft operations and safety in Australia
[ABL-SIS-BEPT-24] p0522 882-28265

TIG WELDING
U GAS TUNGSTEN ARC WELDING TILT

U ATTITUDE (INCCLINATION)

TILT ROTOR AIRCRAFT

N2 X-15 AIRCRAFT
Hover tests of the X-15 Tilt Rotor Research Aircraft
[AIAA PAPER 81-2501] p0064 882-16386
Ground effect hover characteristics of a large-scale twin tilt-nacelle V/STOL model
[AIAA PAPER 81-2609] p0155 882-19201
Analysis of selected VTL concepts for a cantilevered transport mission
[AIAA PAPER 81-2655] p0157 882-19220
Flexibility is offered by X-15 tilt-rotor concept
p0160 882-15300
Design optimization of rotor systems for tilt-rotor aircraft that fold for shipboard compatibility
p0280 882-26399
Advanced helicopter concepts compete
p0283 882-26537
XV-15 - Foretelling things to come
p0385 882-33914
JXV, what an opportunity Joint Services Advanced Vertical Lift Aircraft Program
p0482 882-38423
Aerodynamic characteristics of a large-scale twin tilt-nacelle V/STOL model
[AIAA PAPER 81-0150] p0482 882-38443

A-829
TILT ROTOR RESEARCH AIRCRAFT PROGRAM

Flight dynamics of rotorcraft in steep high-g turns
[IAIA PAPER 82-1345] p0488 A82-39117

IV-15 progress update
p0556 A82-44468

NASA/MAA Advanced Rotorcraft Technology and Tilt Rotor Workshop. Volume 3: Aerodynamics and Structures Session
[NASA-TE-84147] p0262 A82-19172

The effects of noise reduction for departures and arrival operations of commercial tilt rotor aircraft
[NASA-CH-137860] p0535 A82-29316

TILT ROTOR RESEARCH AIRCRAFT PROGRAM

IV-15 Tilt rotor fly-by-wire collective control demonstration development specifications
[NASA-CS-166262] p1040 A82-15030

NASA/MAA Advanced Rotorcraft Technology and Tilt Rotor Workshop. Volume 7: Tilt Rotor Session
[NASA-TE-84705] p0368 A82-2324J

V/STOL tilt rotor research aircraft. Volume 1: General information, expansion C
[NASA-CS-166347] p0395 A82-24194

V/STOL tilt rotor research aircraft. Volume 2: Ship 1 instrumentation
[NASA-CS-166348] p0395 A82-24195

V/STOL tilt rotor research aircraft. Volume 3: Ship 2 instrumentation
[NASA-CS-166349] p0395 A82-24196

V/STOL tilt rotor research aircraft. Volume 4: CPE technical data
[NASA-CS-166350] p0395 A82-24197

TILT RING AIRCRAFT

Development of a preloaded hybrid advanced composite wing pivot fairing
p0267 A82-27131

Optimization of flight with tilt wings
p0507 A82-40912

TILTING

U ATTITUDE (INCLINATION)

TILTING RODERS

Advanced technology airfoil development for the IV-15 tilt-rotor vehicle
[IAIA PAPER 81-2623] p1018 A82-16906

Aeropausal survey of wind tunnel testing of small and large scale rotors
[SKR-92-210-107] p0350 A82-22225

TILTING INVESTIGATIONS

A VHF homing system with VHF radiotelephony for area-representative strip-survey flights conducted, as part of combined forest inventories, with light aircraft carrying 70 am and 35 am cameras
p0082 A82-15748

TIBER

MT FLIGHT TIME

MT MRF

MT RESPONSE TIME (COMPUTERS)

SRK and EPR. noise duration coefficients for the 747 and T-38 aircraft
[NASA-TE-83214] p0042 A82-11860

TIBER DELAY

U TIBER LAG

U TIBER DEPENDENCIES

The effect of temperature-time factors on the metal damage and endurance characteristics of gas-turbine-engine rotor blades
p0295 A82-28019 C

System optimization by periodic control
[IAIA PAPER 81-17815] p0611 A82-33402

TIBER DISCRIMINATION

Passive aircraft location
p0547 A82-42791

TIBER DIVISION MULTIPLE ACCESS

Distributed Time Division Multiple Access /DTDMA/
- A distributed signaling technique for advanced tactical communications
p0067 A82-14719

JIDS distributed TDMA /DTDMA/ terminal development results with emphasis on relative navigation performance
p0123 A82-18152

TIBER DIVISION MULTIPLEPLING

A modular multiplexed digital voice intercommunications system
p0068 A82-14721

A design for a 32-channel multiplexer --- for unmanned aircraft navigation sensors
[RAD-TE-83-NAV-145] p0259 A82-18503

TIBER FUNCTIONS

A recursive time domain analysis of distributed line grid networks with application to the LTA/ERF problem --- Lightning Threat Analysis
p0070 A82-14761

TIBER LAG

Hard limited approaches to correlation velocity sensing
p0022 A82-12636

The effects of the delays on systems subject to manual control
p0468 A82-38943

Analysis of very low frequency oscillations in a radar system by use of one of a sensitive time lag model
p0321 A82-21004

TIBER SEARCHING

Time-marching transonic flutter solutions including angle-of-attack effects
p0363 A82-23196

TIBER SCHEDULING INSTRUMENTS

ST CLOCKS

ST TIME DIVIDING

ST DEPARTMENTS

ST CONTROL

Comparison between the exact and an approximate feedback solution for medium range interception problems
p0044 A82-13106

Comment on 'Optimal control via mathematical programming'
p0342 A82-31125

Minimum-time three-dimensional turn to a point of super sonic aircraft
p0556 A82-44842

LQG-based multivariable design: Frequency domain interpretation
p0092 A82-10053

Minimum time turns constrained to the vertical plane
p0456 A82-26137

Optimal periodic Dohling flight
p0559 A82-30313

TIBER RESPONSE

Transonic time-response analysis of three D.O.F. conventional and supercritical airfoils
[IAIA 82-0688] p0339 A82-30155

TIBER SERIES ANALYSIS

Statistical analysis and time series modeling of air traffic operations data from flight service stations and terminal radar approach control facilities: Two case studies
p0304 A82-20172

Identification of multivariable high performance turbofan engine dynamics from closed loop data
[NASA-TE-82785] p0307 A82-20339

TIBER SHARING

A polled contention multiplexer system using BIL-BTD-1553 protocol
[IAIA 81-2271] p0049 A82-13407

The role of software in commercial ATS
p0294 A82-27885

Manual order time sharing filters for IRS
p0482 A82-38439

TIBERS

U TIMING DEVICES

TIBER DEVICES

Global positioninig system timing receivers in the DSN
p0271 A82-20126

TIP SPEED

Forward velocity effects on fan noise and the suppression characteristics of advanced inlets as measured in the NASA-Ames 40 by 80 foot wind tunnel
[NASA-CS-152328] p0540 A82-30030

TIP BLADE TIPS

TIP NOSE TIPS

TIP WING TIPS

TIP AIRCRAFT TIRES

TITAN

Radiation enhancement by nonequilibrium during flight through the Titan atmosphere
[IAIA PAPER 82-0076] p0373 A82-31883

TITANII

Structural dynamics of chordless, hollow, fan blades with composite in-lays
[ASME PAPER 82-GT-284] p0340 A82-35456
<table>
<thead>
<tr>
<th>SUBJECT INDEX</th>
<th>TOWED TARGETS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPF/D8 titanium concepts for structural efficiency for AC</td>
<td>p0308 N82-20545</td>
</tr>
<tr>
<td>SPF/D8 titanium LFC porous panel concept</td>
<td>p0202 N82-20154</td>
</tr>
<tr>
<td>Energy efficient engine shroudless, hollow fan blade technology report [NASA-CS-165506]</td>
<td>p0217 N82-21196</td>
</tr>
<tr>
<td>TITANIIUS ALLOYS</td>
<td></td>
</tr>
<tr>
<td>Sophisticated aircraft structure developments - Combat aeroplanes</td>
<td>p0005 N82-10309</td>
</tr>
<tr>
<td>Welding for low-cost advanced titanium airframe structures</td>
<td>p0222 N82-23757</td>
</tr>
<tr>
<td>Advanced aluminum and titanium structures; Proceedings of the Winter Annual Meeting, Washington, DC, November 15-20, 1981</td>
<td>p0127 N82-20994</td>
</tr>
<tr>
<td>Development of low-cost titanium structures using blended elemental powder metallurgy</td>
<td>p0238 N82-28996</td>
</tr>
<tr>
<td>The technological aspects of titanium application in the TP-144 aircraft structure</td>
<td>p0492 N82-39718</td>
</tr>
<tr>
<td>In-motion radiography of titanium spar tube welds</td>
<td>p0501 N82-40538</td>
</tr>
<tr>
<td>Advantages and limitations in the use of diverse materials for aircraft construction: composite versus metallic materials [S81AS-011-551-10W]</td>
<td>p0139 N82-15011</td>
</tr>
<tr>
<td>Evaluation of superplastic forming and co-diffusion bonding of Ti-6Al-4V titanium alloy expanded sandwich structures [NASA-CS-165927]</td>
<td>p0268 N82-19358</td>
</tr>
<tr>
<td>Process development and evaluation of gas turbine engine components in INI 029 --- titanium alloy [PSR-90050]</td>
<td>p0236 N82-21205</td>
</tr>
<tr>
<td>Powder metallurgical innovations for improved hot section alloys in aero-engine applications [PFR-90072]</td>
<td>p0231 N82-23356</td>
</tr>
<tr>
<td>Evaluation of cast titanium alloy compressor component; volume 1 [AD-411431]</td>
<td>p0396 N82-24204</td>
</tr>
<tr>
<td>Mechanical properties of hot isostatic pressed P/T-Titanium for helicopter components [NASA-02-324-81-0]</td>
<td>p0410 N82-25383</td>
</tr>
<tr>
<td>International aviation (selected articles) [AD-1144422]</td>
<td>p0521 N82-28245</td>
</tr>
<tr>
<td>Titanium surface treatments for adhesive bonding</td>
<td>p0560 N82-30378</td>
</tr>
<tr>
<td>TOLEBANCES (MECHANICS)</td>
<td></td>
</tr>
<tr>
<td>NT IMPACT TOLEBANCES</td>
<td></td>
</tr>
<tr>
<td>Analysis and tolerance study of an array antenna for a new generation ofsecondary radars</td>
<td>p0163 N82-19521</td>
</tr>
<tr>
<td>Computer aided coordinate measuring systems --- in engineering design of helicopter components</td>
<td>p0501 N82-40540</td>
</tr>
<tr>
<td>Damage tolerant design for cold-section turbine engine disks [AD-410708]</td>
<td>p0204 N82-17176</td>
</tr>
<tr>
<td>Multistage axial compressor program on tap clearance effects</td>
<td>p0536 N82-29325</td>
</tr>
<tr>
<td>TOLEBANCES (PHYSIOLOGY)</td>
<td></td>
</tr>
<tr>
<td>NT HUMAN TOLEBANCES</td>
<td></td>
</tr>
<tr>
<td>TOPOGRAPHY</td>
<td></td>
</tr>
<tr>
<td>Determination of material properties by limited scan X-ray tomography [AD-1416670]</td>
<td>p0594 N82-32822</td>
</tr>
<tr>
<td>Holographic interferometry and tomography at Ames Research Center</td>
<td>p0597 N82-32681</td>
</tr>
<tr>
<td>TUBEYERT</td>
<td>U PRESSURE MEASUREMENT</td>
</tr>
<tr>
<td>TOOGING</td>
<td></td>
</tr>
<tr>
<td>Aircraft composite materials and structures</td>
<td>p0103 N82-16143</td>
</tr>
<tr>
<td>Tailor-made structures; today, and tomorrow: New materials, an exploratory investigation into their potential use --- in aircraft [BAR-55-85/1/104/005]</td>
<td>p0353 N82-22253</td>
</tr>
<tr>
<td>TOOLS</td>
<td></td>
</tr>
<tr>
<td>NT MACHINING TOOLS</td>
<td></td>
</tr>
<tr>
<td>NT SPACE TOOLS</td>
<td></td>
</tr>
<tr>
<td>Tubing and cable cutting tool</td>
<td>p0308 N82-20545</td>
</tr>
<tr>
<td>TURBOPROPELLER</td>
<td></td>
</tr>
<tr>
<td>Development of low-cost titanium structures using blended elemental powder metallurgy</td>
<td>p0238 N82-28996</td>
</tr>
<tr>
<td>The technological aspects of titanium application in the TP-144 aircraft structure</td>
<td>p0492 N82-39718</td>
</tr>
<tr>
<td>In-motion radiography of titanium spar tube welds</td>
<td>p0501 N82-40538</td>
</tr>
<tr>
<td>Advantages and limitations in the use of diverse materials for aircraft construction: composite versus metallic materials [S81AS-011-551-10W]</td>
<td>p0139 N82-15011</td>
</tr>
<tr>
<td>Evaluation of superplastic forming and co-diffusion bonding of Ti-6Al-4V titanium alloy expanded sandwich structures [NASA-CS-165927]</td>
<td>p0268 N82-19358</td>
</tr>
<tr>
<td>Process development and evaluation of gas turbine engine components in INI 029 --- titanium alloy [PSR-90050]</td>
<td>p0236 N82-21205</td>
</tr>
<tr>
<td>Powder metallurgical innovations for improved hot section alloys in aero-engine applications [PFR-90072]</td>
<td>p0231 N82-23356</td>
</tr>
<tr>
<td>Evaluation of cast titanium alloy compressor component; volume 1 [AD-411431]</td>
<td>p0396 N82-24204</td>
</tr>
<tr>
<td>Mechanical properties of hot isostatic pressed P/T-Titanium for helicopter components [NASA-02-324-81-0]</td>
<td>p0410 N82-25383</td>
</tr>
<tr>
<td>International aviation (selected articles) [AD-1144422]</td>
<td>p0521 N82-28245</td>
</tr>
<tr>
<td>Titanium surface treatments for adhesive bonding</td>
<td>p0560 N82-30378</td>
</tr>
<tr>
<td>TOLEBANCES (MECHANICS)</td>
<td></td>
</tr>
<tr>
<td>NT IMPACT TOLEBANCES</td>
<td></td>
</tr>
<tr>
<td>Analysis and tolerance study of an array antenna for a new generation ofsecondary radars</td>
<td>p0163 N82-19521</td>
</tr>
<tr>
<td>Computer aided coordinate measuring systems --- in engineering design of helicopter components</td>
<td>p0501 N82-40540</td>
</tr>
<tr>
<td>Damage tolerant design for cold-section turbine engine disks [AD-410708]</td>
<td>p0204 N82-17176</td>
</tr>
<tr>
<td>Multistage axial compressor program on tap clearance effects</td>
<td>p0536 N82-29325</td>
</tr>
<tr>
<td>TOLEBANCES (PHYSIOLOGY)</td>
<td></td>
</tr>
<tr>
<td>NT HUMAN TOLEBANCES</td>
<td></td>
</tr>
<tr>
<td>TOPOGRAPHY</td>
<td></td>
</tr>
<tr>
<td>Determination of material properties by limited scan X-ray tomography [AD-1416670]</td>
<td>p0594 N82-32822</td>
</tr>
<tr>
<td>Holographic interferometry and tomography at Ames Research Center</td>
<td>p0597 N82-32681</td>
</tr>
<tr>
<td>TUBEYERT</td>
<td>U PRESSURE MEASUREMENT</td>
</tr>
<tr>
<td>TOOGING</td>
<td></td>
</tr>
<tr>
<td>Aircraft composite materials and structures</td>
<td>p0103 N82-16143</td>
</tr>
<tr>
<td>Tailor-made structures; today, and tomorrow: New materials, an exploratory investigation into their potential use --- in aircraft [BAR-55-85/1/104/005]</td>
<td>p0353 N82-22253</td>
</tr>
<tr>
<td>TOOLS</td>
<td></td>
</tr>
<tr>
<td>NT MACHINING TOOLS</td>
<td></td>
</tr>
<tr>
<td>NT SPACE TOOLS</td>
<td></td>
</tr>
</tbody>
</table>
TRANSONIC AIRCRAFT

Gatwick diversity and competition in international air transportation

Characteristics of a Paris-New York flight on board the Concorde

TRANSONIC AIRCRAFT

U.S. SUPersonic Aircraft Technology Program

DFACT PROGRAM

TRANSONIC COMPRESSORS

Performance analysis of the test results on a two-stage transonic fan

A theoretical analysis of the stream surface of revolution with supersonic inlet flow in a transonic axial compressor

Aerodynamic considerations in the prediction of uninstalled supersonic flatter in transonic fans

The through flow calculations

Performance of single-stage axial-flow transonic compressor with rotor and stator aspect ratios of 1.62 and 1.78, respectively, and with design pressure ratio of 1.02

TRANSONIC FIGHTER

One year flight testing of the Transonic Wing

Commerical transports - Aerodynamic design for cruise performance efficiency

Practical aerodynamic problems - Military aircraft

Extension of FLO codes to transonic flow prediction for fighter configuration

Wing design for supersonic cruise/transonic maneuver aircraft

Reducing Rack's mechanics - Bombs away --- weapons delivery of fighter aircraft at transonic speed

Supersonic cruise/transonic maneuver wing section development study

Supercritical maneuvering fighter configuration. Wind-tunnel investigation at Mach numbers of 0.60 to 0.75

TRANSONIC FLOW

Experimental study of subsonic and transonic flows past a wing

Strong matching method for computing transonic viscous flows including wakes and separations - Lifting airfoils

Remarks on the calculation of transonic potential flow by a finite volume method

Conputational treatment of transonic canard-wing interactions

A more-accurate transonic computational method for wing-body configurations

Transonic three-dimension viscous-inviscid interaction for wing-body configuration analysis

Relaxation solution for viscous transonic flow about fighter-type forebodies and afterbodies

Computations of transonic flow over an oscillating airfoil with shock-induced separation

A contribution to the hodograph method for shock-free transonic airfoil sections

Numerical simulation of three-dimensional unsteady transonic flow over wing including inviscid/viscous interactions

TRANSONIC AIRCRAFT

Transonic perturbation analysis of wing-fuselage-nacelle/pylon configurations with powered jet exhausts

Numerical design of the contoured wind-tunnel liner for the NASA swept-wing LFC test

Transonic flow past thin wings

Application of a transonic potential flow code to the static aerodynamic analysis of three-dimensional wings

A system for the numerical simulation of sub- and transonic viscous attached flows around wing-body configurations

The equivalent simple body /ESB/ method for transonic wing analysis

A high-frequency transonic small disturbance code for unsteady flows in a cascade

Calculation of the flow-field velocities of a prediction of inlet flow fields in the vicinity of generalized forebodies

Calculations of viscous transonic flow over airfoils

Transonic computational experience for advanced tactical aircraft

Application of computational methods to transonic turbomachinery cascades

Transonic design using computational aerodynamics

Application of computational methods to transonic wing-design

A-7 transonic wing designs

Transonic computational experience for advanced tactical aircraft

Evaluation of full potential flow methods for the design and analysis of transport wings

A grid interfacing zonal algorithms for three-dimensional transonic flows about aircraft configurations

Numerical solution of a problem concerning transonic flow past a wing-fuselage configuration

A new Transonic Airfoil Design Method and its application to helicopter rotor airfoil design

Calculations of transonic steady state aerelastic effects for a canard airplane

Viscous transonic airfoil flow simulation

Transonic small disturbance code for body-wing configuration coupled with full potential code for wing alone

An implicit finite-volume method for solving the Euler equations
The development of cryogenic wind tunnels and
superior characteristics at transonic speeds
(AIAA Paper 82-0235) p0166 A82-24669
Efficient aerodynamic performance on a single-decked
tunnel model
(AIAA Paper 82-0234) p0177 A82-17858
A progress report on the European Transonic Wind
Tunnel Project
(AERI, TP 80-1981-121) p0163 A82-19737
Aerodynamics of a transport aircraft-type
wing-tunnelage assembly
(AERI, TP 80-122-122) p0164 A82-19738
The effect of ejector augmentation on test-section
flow quality in the Calisan 8-ft transonic wind
tunnel
(AIAA Paper 82-0571) p0236 A82-24658
Transonic wind tunnel wall interference
corrections for the supersonic wind tunnel models
(AIAA Paper 82-0568) p0237 A82-24663
Development of an aero-optimal flexible
technology HOTFF/ transonic wind tunnel model
(AIAA Paper 82-0601) p0237 A82-24673
Structural modeling of high Reynolds number wind
tunnel models
(AIAA Paper 82-0602) p0238 A82-24674
Evaluation of four subcritical response methods
for on-line prediction of flatter cased in
wind-tunnel tests
(AIAA Paper 82-0644) p0337 A82-30160
Static and unsteady pressure measurements on a 50
degree clipped delta wing at M = 0.5
(AIAA Paper 82-0686) p0338 A82-30153
The cryogenic wind tunnel for high Reynolds number
testing
(AIAA Paper 82-0639) p0361 A82-33317
Status of the national transonic facility
(AIAA Paper 82-0690) p0381 A82-33326
A review of Reynolds number studies conducted in the
Langley 0.3-m Transonic Cryogenic Tunnel
(AIAA Paper 82-0541) p0386 A82-34007
Experimental testing at transonic speeds --- wind
tunnels
(AIAA Paper 82-0521) p0519 A82-35557
Transonic wind tunnel test of a subsonic nozzle
installation
A-838

SUBJECT INDEX

[AIAA Paper 82-1045] p0437 A82-37677
Aerodynamic behavior of a slender slot in a wind
wall
(AIAA Paper 82-1045) p0437 A82-37677
Estimation of simulation errors in the European
Transonic Wind Tunnel /ETW/
(AIAA Paper 82-1045) p0437 A82-37677
Adaptation and first cryogenic operation of T2
Onera/Centrale tunnel
(AIAA Paper 82-1045) p0510 A82-40950
Boiling procedure for Teflon seals
(AIAA Paper 82-1045) p0564 A82-42531
Corrections for wall effects in Onera industrial
wind tunnel
(AIAA Paper 82-1045) p0576 A82-42792
Application of laser velocimetry to large
industrial wind tunnels
(AIAA Paper 82-1045) p0576 A82-42792
Aerelasticity matters - Some reflections on two
decades of testing in the NASA Langley
Transonic Dynamics Tunnel
(AIAA Paper 82-1045) p0053 A82-12041
Construction and performance of NAS
Transonic Dynanics Tunnel
(AIAA Paper 82-1045) p0053 A82-12041
A look inside the Langley 16-foot transonic
tunnel: User's guide
(AIAA Paper 82-1045) p0053 A82-12041
An afterbody drag balance --- transonic wind
tunnel gases
(AIAA Paper 82-1045) p0053 A82-12041
Research on an induction driven cryogenic wind
tunnel
(AIAA Paper 82-1045) p0053 A82-12041
Longitudinal and lateral static stability and
control characteristics of a 1/6-scale model of a
remotely piloted research vehicle with a
supercritical wing
(AIAA Paper 82-1045) p0166 A82-15075
Programs for the transonic wind tunnel data
processing installation. Part 9: Pressure
measurements updated
(AIAA Paper 82-1045) p0192 A82-16905
Current pressure measuring system in the transonic
wind tunnel
(AIAA Paper 82-1045) p0192 A82-16905
Induction driven transonic wind tunnel T2:
Operation at room temperature and cryogenic
adaptation
(AIAA Paper 82-1045) p0262 A82-19158
NASA Langley laminar flow control airfoil experiment
(AIAA Paper 82-1045) p0301 A82-20150
Cryogenic Technology, part 1 --- conference
proceedings; cryogenic wind tunnel design and
instrumentation
(AIAA Paper 82-1045) p0307 A82-20357
Cryogenic Technology, part 2 --- conference
proceedings; cryogenic wind tunnel design and
instrumentation
(AIAA Paper 82-1045) p0307 A82-20357
The development of cryogenic wind tunnels and
their application to maneuvering aircraft
Aerospace
(AIAA Paper 82-1045) p0307 A82-20357
Wind-Tunnel/Flight Correlation, 1981
(AIAA Paper 82-2225) p0403 A82-25196
Status of the National Transonic Facility
(AIAA Paper 82-2225) p0403 A82-25197
Review of the 1980 Wind-Tunnel/Flight Correlation
Panel
(AIAA Paper 82-2225) p0403 A82-25198
Wind-tunnel/Flight-drag correlation
(AIAA Paper 82-2225) p0403 A82-25198
Tunnel-to-tunnel correlation
(AIAA Paper 82-2225) p0403 A82-25199
Problems in correlation caused by propulsion systems
(AIAA Paper 82-2225) p0404 A82-25200
Operating manual holographic interferometry system
for 2 x 2 foot transonic wind tunnel
(AIAA Paper 82-2225) p0404 A82-25200
National Transonic Facility (NTF) prototype fan
wind tunnel fatigue test
(AIAA Paper 82-2225) p0521 A82-26261
Programs for the transonic wind tunnel data
processing installation. Part 8: Programs for
processing data on the central site computer
(AIAA Paper 82-2225) p0521 A82-26261
Design basis for a new transonic wind tunnel
(AIAA Paper 82-2225) p0527 A82-28310

Wind tunnel capability related to test sections, cryogenic, and computer-wind tunnel integration
[ASME-AB-81-174]
Correlation of Preston-tube data with laminar skin friction (Log No. J12894)
[NASA-TH-80-6227]
Wind tunnel investigations on thin supercritical airfoils in high subsonic flow
[DPFL-B-62-066]
Control software for two dimensional airfoil tests using a self-streamlining flexible walled transonic test section
[NASA-CE-165941]
Application of a transonic similarity rule to correct the effects of sidewall boundary layers in two-dimensional transonic wind tunnels
[NASA-TH-82-62866]
Surface flow visualization requirements for testing in NTF
[0596 H82-32667]
Shadowgraph techniques in transonic tests with powered nacelles
Transonic applications of the Wake Imaging System
[0597 H82-32674]
Flow visualization in the Langley 0.3-meter Transonic Cryogenic Tunnel and preliminary plans for the National Transonic Facility
[0597 H82-32677]
Seeing through flows in Langley's 0.3-meter Transonic Cryogenic Tunnel
[0597 H82-32678]
Development of a laser velocimeter for a large transonic wind tunnel
[0598 H82-32688]
Seed considerations for an LV system in a large transonic wind tunnel
[0598 H82-32689]
Laser Doppler velocimetry application in the Langley 0.3-meter Transonic Cryogenic Tunnel
[0599 H82-32696]
Velocity and flow angle measurements in the Langley 0.3-meter transonic cryogenic tunnel using a laser transit anemometer
[0599 H82-32697]
Some NTF laser velocimeter installation and operation considerations
Cryogenic wind tunnels: A selected, annotated bibliography
[NASA-TH-84876]

TRANSONICS

TRANSPARENCY

[0225 AB2-24301]
Transparency development needs for military aircraft in the 1980's
[0225 AB2-24302]
Deficiencies and constraints that affect the design of cockpit enclosures and transparencies
[0226 AB2-24303]
Transparencies - What an aircraft designer should know
[0226 AB2-24305]
Transparency design decisions - Assessing their impact on visual performance
[0226 AB2-24306]
Aircraft transparency design guide
[0226 AB2-24307]
A new angular deviation measurement device for aircraft transparencies
[0226 AB2-24308]
Portable transparency optical test system /P-TOTS/
[0226 AB2-24309]
Abrasion resistant coated plastic products for aircraft
[0226 AB2-24310]
Proposed method for abrasion testing transparent plastics and coatings
[0227 AB2-24311]
Windshield system structural enhancement
[0227 AB2-24312]
The role of finite element analysis in the design of birdstrike resistant transparencies

TRANSPARENT MATERIALS

U TRANSPARENCES

Aircraft transparency bird impact analysis using the NASA computer program
[0227 AB2-24314]
Acrylic - A timely review
[0227 AB2-24315]
Lucas stretched acrylic
[0227 AB2-24317]
The effects of absorbed moisture upon the physical properties of stretched acrylic materials
[0228 AB2-24320]

TRANSPORT AIRCRAFT

Aircraft transparency bird impact analysis using the NASA computer program
[0227 AB2-24314]
Acrylic - A timely review
[0227 AB2-24315]
Lucas stretched acrylic
[0227 AB2-24317]
The effects of absorbed moisture upon the physical properties of stretched acrylic materials
[0228 AB2-24320]

TRANSPORT COOLING

Frequency sharing between passive sensors and aeronautical radionavigation systems employing ground transponders in the band 4.2 - 4.4 GHz
[NASA-CE-165941]
[0449 AB2-26261]
On-board communication for active-control transport aircraft

Operational evaluation of the new generation of jet transport aircraft

Progress in aerostatical research and technology applicable to civil air transports

An advanced facility for processing aircraft dynamic test data

Enhanced aircraft handling qualities by longitudinal dynamics mode decoupling

The well tempered transport aircraft engine. /The Sir Henry Royce Memorial Lecture/

Productivity and safety --- reducing transport aircraft operating costs and increasing safety

Liquid hydrogen - An outstanding alternate fuel for transport aircraft

Consideration of mechanical, physical, and chemical properties in designing selection for landing gear of large transport aircraft

A mathematical model of a subsonic transport aircraft

Analysis of selected VTOL concepts for a civil transportation mission

Aerodynamics of a transport aircraft-type wing-fuselage assembly

The prospects for liquid hydrogen fueled aircraft

Digital avionics - Advances in maintenance designs

Design possibilities for improved fuel efficiency of civil transport aircraft

Advanced subsonic transport propulsion

Airbus Industrie - The year of progress

The outlook for advanced transport aircraft

Aerodynamic evaluation of winglets for transport aircraft

Reliability centered maintenance /RCS/

Fuel-efficient windshields for transport, commuter and business aircraft

Airworthiness considerations in the design of commercial transport aircraft

Aircraft surface coatings for drag reduction/environment protection

The cargo helicopter - A logistical vehicle

Advanced electronic displays and their potential in future transport aircraft

Some thoughts on design optimization of transport helicopters

Very large vehicles - Technology looking for a need

Application of a dimensionless criterion of transport efficiency in evaluating aircraft modifications

Very large aircraft - A common response to a rapidly changing, global environment

The potential of large aircraft

Multi-body transport concept

System study of application of composite materials for future transport aircraft

Commercial transport developments for the 1980's

Transport engine control design

Commercial transports - Aerodynamic design for cruise performance efficiency

Investigation of the unstable airloads on a transport aircraft type airfoil with two interchangeable oscillating trailing edge flaps, at transonic speed and high Reynolds numbers

A concept for 4Q-guidance of transport aircraft as the TMA --- Terminal Maneuvering Area

Experimental and theoretical studies of three-dimensional turbulent boundary layers on an airfoil of a typical transport airplane

Requirements and trends in fuel consumption in transport mission with aircraft and surface vehicles

Aerodynamic concepts for fuel-efficient transport aircraft

Progress at Douglas on laminar flow control applied to commercial transport aircraft

A crack growth model under spectrum loading

Application of composite materials and new design concepts for future transport aircraft

Aerodynamic research applications at Boeing

Analysis of jet transport wings with deflected control surfaces by using a combination of 2- and 3-D methods

Aircraft R&D in Europe - A perspective view

Theoretical investigation of the influence of spoiler dynamics on the handling qualities of an aircraft with direct lift control

Propulsion study for Small Transport Aircraft Technology (STAT)

Propulsion study for Small Transport Aircraft Technology (STAT), Appendix B

Control law design for transport aircraft flight tasks

In-service inspection methods for graphite-epoxy structures on commercial transport aircraft

Electronic flight deck displays for military transport aircraft

Aerodynamics of Power Plant Installations

Aerodynamic aspects of a high bypass ratio engine installation on a fuselage afterbody

Accelerated development and flight evaluation of active controls concepts for subsonic transport aircraft. Volume 2: AFT C.S. simulation and analysis

Symposium on commercial-aviation energy-conservation strategies

Systems study of transport aircraft incorporating advanced aluminum alloys

Longitudinal dynamics node decoupling dynamic test data

Application of a dimensionless criterion of transport efficiency in evaluating aircraft modifications

Very large aircraft - A common response to a rapidly changing, global environment

The potential of large aircraft

A-440
Tendencies in the development of subsonic transport aircraft with special consideration of aerodynamics

Transport aircraft cockpit standardization (Federal Aviation regulations part 25)

Extended study of vortex encounters by a twin-engine, commercial, jet transport airplane

Numerical aircraft design using 3-D transonic analysis with optimization. Volume: 1

Extended summary

Numerical aircraft design using 3-D transonic analyses with optimization. Volume: 2

Transport design

Transport aircraft accident dynamics

Cost and fuel consumption per nautical mile for transport aircraft

Fuel efficiency engines for large transport aircraft

The 737 graphite composite flight spoiler flight service evaluation

Commercial jet transport crashworthiness

Definition of display/control requirements for small transport aircraft night/average weather capability

Transport aircraft crash dynamics

Study of advanced propulsion systems for small transport aircraft

Cost and fuel consumption per nautical mile for two engine jet transports using OPTIB and TBAGEB

Aerodynamics/ACES: Aircraft energy efficiency

Guidance and control/ACES

An analytical study of turbulence responses, including horizontal tail loads, of an aerodynamic configured jet transport with relaxed static stability

Characteristics of future aircraft impacting aircraft and airport compatibility

Cable safety in large transport aircraft

Analytical and simulator study of advanced transport

Fireworthiness of transport aircraft interior system

System data communication structures for active-control transport aircraft, volume 1

System data communication structures for active-control transport aircraft, volume 2

Aerodynamics on a transport aircraft type wing-body model

Integrated application of active controls (IAC) technology to an advanced subsonic transport project. Initial ACT configuration design study

Integrated application of active controls (IAC) technology to an advanced subsonic transport project. Conventional baseline configuration study

Environmental exposure effects on composite materials for commercial aircraft

Scenarios of economic development within the European community up to the year 2000

TRANSPORT COEFFICIENTS

U TRANSPORT PROPERTIES

TRANSPORT PROPERTIES

BT ELECTRICAL RESISTIVITY

NT THERMAL CONDUCTIVITY

NT VISCOSITY

Relations for the thermodynamic and transport properties in the testing environment of the Langley hypersonic CPA tunnel

Thermodynamic and transport combustion properties of hydrocarbons with air. Part 1: Properties in SI units

Thermodynamic and transport combustion properties of hydrocarbons with air. Part 2: Compositions corresponding to Kelvin temperature schedules in part 1

Thermodynamic and transport combustion properties of hydrocarbons with air. Part 3: Properties in SI customary units

Thermodynamic and transport combustion properties of hydrocarbons with air

Transportation noise, its impact, planning and regulation

Maximizing South Carolina's aviation resources: Identifying potentially profitable computer airline routes, volume 2

Transportation energy

Technological innovation for success - Liquid hydrogen propulsion

Requirements and trends in fuel consumption in transport mission with aircraft and surface vehicles

Transportation networks Beyond 2000 - The airlift challenge ahead

Air aircraft evaluation in air network planning

Transport waves

Transverse electric waves for VLF/LF communication between aircraft (AD-A115834)

Tragoidal tail surfaces

Pressure distributions on three different cruciform aft-tail control surfaces of a wingless missile at Mach 1.60, 2.36, and 3.76. Volume 1: Tragoidal tail

Tragoidal wings

Experimental study of subsonic and transonic flows past a wing

An experimental investigation of leading-edge spanwise blowing

Unsteady pressure measurements at stall and buffeting

Travelling waves

A practical approach to systems mode analysis --- for disc-blade-rotor assemblies

Antenna (selected articles)

Assessment of aircraft capacitive carousel medium wave antennas according to their efficiency

Trends

Tare tire temperatures during antiskid braking
The effect of coolant flow on the efficiency of a transonic HP turbine profile suitable for a small engine

[ASME PAPER 82-GT-63] p0422 A82-35315

The use of performance-monitoring to prevent compressor and turbine blade failures

[ASME PAPER 82-GT-66] p0422 A82-35316

A two-dimensional boundary-layer program for turbine airfoil heat transfer calculations

[ASME PAPER 82-GT-93] p0424 A82-35336

Effect of crossflows on the discharge coefficient of film cooling holes

[ASME PAPER 82-GT-147] p0426 A82-35371

Dry friction damping mechanisms in engine blades

[ASME PAPER 82-GT-162] p0426 A82-35383

Measurements of heat transfer coefficients on gas turbine components. I - Description, analysis and experimental verification of a technique for use in hostile environments

[ASME PAPER 82-GT-174] p0426 A82-35387

The effect of rotor blade thickness and surface finish on the performance of a small axial flow turbine

[ASME PAPER 82-GT-222] p0428 A82-35409

Structural dynamics of shroudless, hollow, fan blades with composite air-foils

[ASME PAPER 82-GT-204] p0430 A82-35456

The effect of erosion wear on the vibration characteristics of axial-turbine blades

[ASME PAPER 82-GT-124] p0433 A82-35574

Aerodynamic performance of high turning core turbine vane in a two-dimensional cascade

[AIAA PAPER 82-1288] p0439 A82-37716

Comparison of HP turbine 'deep blade design' effects in turbofan engine gas generators with different bearing structure configurations

[ASME PAPER 82-GT-184] p0445 A82-37628

Acoustic emission inspection of aircraft engine turbine blades for intergranular corrosion

[ASME PAPER 82-GT-204] p0450 A82-41914

Mathematical models of rotor strength and optimization in computer-aided design

[ASME PAPER 82-GT-222] p0456 A82-42462

Thermal-barrier-coated turbine blade studies

[ASME-CR-165351] p0439 A82-10040

A new method of cooling turbine vanes

[ASME-CR-161027] p0439 A82-11027

New welding method of three-dimensional hollow photonic metallic and centrifugal stress analysis of air-cooled turbine blade models

[BAL-TB-42177] p0437 A82-11067

Progress in protective coatings for aircraft gas turbines: A review of NASA sponsored research

[BAL-TB-82540] p0439 A82-12216

Stability and flutter analysis of turbine blades at low speed

[ASME PAPER 82-GT-184] p0451 A82-15050

On the numerical analysis of stall flutter in turbine cascades

[NASA-PAP02] p0451 A82-15054

Seventh European Rotorduct and Powered Lift aircraft Forum

[ASME-PAP02] p0456 A82-15054

Fluctuating pressures on fan blades of a turbofan engine: Static and wind-tunnel investigations


Energy efficient engine shroudless, hollow fan blade technology report

[BAL-CR-165586] p0477 A82-21215

Engine depot maintenance repair technology

[ASME PAPER 82-GT-93] p0485 A82-22174

Repair and regeneration of turbine blades, vanes and discs

[ASME PAPER 82-GT-184] p0496 A82-22185

Laser anemometer measurements in an annular cascade of core turbine vanes and comparison with theory

[ASME PAPER 82-GT-218] p0497 A82-26320

Static internal performance characteristics of two thrust reverser concepts for asymmetric nozzles

[ASME PAPER 82-GT-204] p0501 A82-26325

Towing of wind turbines with blade cyclic-pitch variation

[ASME PAPER 82-GT-218] p0504 A82-26822

TURBINE ENGINES

NT J-85 ENGINE

NT JET ENGINES

NT PULSEJET ENGINES

NT RAJET ENGINES

NT SUPERSONIC COMBUSTION BAJET ENGINES

NT T-56 ENGINE

NT TURBOFAN ENGINES

NT TURBOJET ENGINES

NT TURBOPROP ENGINES

Superalloy turbine components - Which is the superior manufacturing process, an-HIP, HIP plus laser forming, or 'gatorising' of extrusion consolidated billet

[ASME PAPER 82-GT-174] p0501 A82-12497

Superalloy powder engine components; controls employed to assure high quality hardware

[ASME PAPER 82-GT-174] p0501 A82-12499

Aviation turbine fuel properties and their trends

[AIAA PAPER 82-0320] p0502 A82-26526

Bird impact analysis package for turbine engine fan blades

[AIAA 82-0656] p0503 A82-30162

Turbine stage heat flux measurements

[AIAA PAPER 82-1289] p0504 A82-35102

Demonstration of ceramic hot-section static components in a radial flow turbine

[ASME PAPER 82-GT-184] p0507 A82-35392

Ceramic turbine housings

[ASME PAPER 82-GT-293] p0508 A82-35463

Evaluation of a multivariable control design on a variable cycle engine simulation

[AIAA PAPER 82-1077] p0509 A82-37682

Development of multivariable controllers for aircraft turbine engines

[ASME PAPER 82-GT-184] p0510 A82-10587

Corrosion inhibiting engine oils

[AD-A106127] p0513 A82-10599

Interactive-graphic flowpath plotting for turbine engines

[NASA-TB-82766] p0514 A82-15041

Helicopter Propulsion Systems

[AGARD-CP-302] p0506 A82-17203

Development test programs adapted to helicopter engines

[AD-A109724] p0507 A82-17205

The influence of new turbine technologies on their components

[AD-A109715] p0508 A82-17210

Cooled variable-area radial turbine technology program

[NASA-CR-165409] p0509 A82-19221

A retirement-for-cause study of an engine turbine disk

[AD-A111151] p0510 A82-20184

Real channel fuel control program, phase 2

[AD-A111148] p0505 A82-20615

The role of modern control theory in the design of controls for aircraft engine turbine fans

[AIAA PAPER 82-GT-293] p0534 A82-22262

Advanced general aviation engine/airframe integration study

[NASA-CR-165565] p0534 A82-22266

Advanced turbine study - airfoil cooling in rocket turbines

[NASA-CR-165603] p0534 A82-23269

Fracture mechanics criteria for turbine engine hot section components

[NASA-CR-165603] p0534 A82-23269

Blade tip gap effects in turbomachines: A review

[AD-A111169] p0509 A82-25527

Turbine engine lubricant reclamation

[AD-A111298] p0509 A82-26312

Bird impact analysis package for turbine engine fan blades

[NASA-TM-82531] p0540 A82-26701

Briefs of accidents involving turbine-powered aircraft, US general aviation, 1979

[P802-138118] p0545 A82-27250

Foreign object impact design criteria, volume 2

[AD-A112701] p0473 A82-27313

Foreign object impact design criteria, volume 3

[AD-A112874] p0458 A82-27314

An exploratory research and development program leading to specifications for aviation turbine
**TURBINE EXHAUST NOZZLES**

fuel from whole crude shale oil. Part 1: Preliminary process analyses

[AD-8112681] p0527 N82-28462

An exploratory research and development program leading to specifications for aviation turbine fuel from whole crude shale oil. Part 2: Process variable analyses and laboratory sample production

[AD-8112682] p0528 N82-28463

An exploratory research and development program leading to specifications for aviation turbine fuel from whole crude shale oil. Part 3: Production of specification J-4 fuel from geokinetik shale oil

[AD-8112683] p0528 N82-28464

Aviation fuels-future outlook and impact on aircraft fire threat

p0532 N82-29282

Remote sensing of turbine engine gases

[AD-8115043] p0559 N82-30310

Energy efficient engine: High pressure turbine uncooled rig technology report

[DE82-000796] p0461 N82-26828

**TURBINE EXHAUST NOZZLES**

Infrared emissions from turbine fans with high aspect ratio nozzles

p0103 A82-16092

Demonstration of ceramic hot-section static components in a radial flow turbine

[ASME PAPEB 82-GT-184] p0427 A82-35392

Prediction of off-design performance of turbo-shaft engines a simplified method

p0246 N82-18132

**TURBINE WHEELS**

Optima journal bearing parameters for marine rotor, Fifta engine responses in synchronous whirl

[ASME PAPEB 82-GT-55] p0161 A82-19314

Natural frequencies of rotating bladed discs using clamped-free blade modes

[ASME PAPEB 82-GT-124] p0162 A82-19338

An investigation of dual mode phenomena in a mistuned bladed-disc

[ASME PAPEB 82-GT-133] p0142 A82-19347

Dispersion and temperature-force dependence of the high-temperature characteristic of a gas-turbine engine disk alloy

p0102 A82-21636

Sliced disc design - A composite concept for a turbo engine axial compressor

p0115 A82-40995

An examination of the dynamics of rotary machines

--- French thesis

p0552 A82-43724

**TURBINES**

WT AXIAL FLOW TURBINES

WT GAS TURBINES

WT SHROUDED TURBINES

WT START TURBINES

WT SUPERSONIC TURBINES

WT TWO STAGE TURBINES

WT WIND TURBINES

Wind tunnel tests on models: A comparison of two methods of simulating the jets of jet engines

p0095 N82-13087

Roll up model for rotor wake vortices, part 5

[ASME PAPEB 82-GT-144] p0150 N82-17127

User's manual for the vertical axis wind turbine code DDARTZ

[DB-82-00876] p0461 N82-26828

CF6 jet engine performance improvements: High pressure turbine active clearance control

[NASA-CS-165556] p0526 N82-28297

Cooled variable nozzle radial turbine for rotor craft applications

[NASA-CS-165307] p0536 N82-29323

The CF6 jet engine performance improvements: Low pressure turbine active clearance control

[NASA-CS-165307] p0610 N82-33393

**TURBOCHARGERS**

U SUPERCHARGERS

**TURBOCOMPRESSORS**

Wind tunnel tests on airfoils in tandem cascade

p0112 A82-10987

Design procedures for compressor blades

p0107 A82-17135

Water ingestion into jet engine axial compressors

[AIHA PAPEB 82-0196] p0117 A82-17836

**SUBJECT INDEX**

Four pad tilting pad bearing design and application for multistage axial compressors

[ASME PAPEB 82-GT-12] p0126 A82-18429

Effect of wakes of upstream stator blade on the rotor of an axial flow compressor

p0276 A82-26208

The excitation of compressor/duct systems

p0327 A82-28993

An experimental investigation of interfacial temperatures in blade-steam material rubbing of aircraft compressors

[AIHA PAPEB 82-0058] p0373 A82-31691

Test facility and data handling system for the development of axial compressors

[ASME PAPEB 82-GT-74] p0163 A82-35322

Comprehensive analysis of an axial compressor test with adjustable guide vanes

[ASME PAPEB 82-GT-81] p0423 A82-35323

Optimization of compressor vane and bleed settings

[ASME PAPEB 82-GT-103] p0423 A82-35340

Effect of the rear stage casing treatment on the overall performance of a multistage axial-flow compressor

[ASME PAPEB 82-GT-110] p0424 A82-35354

An inviscid-viscous interaction treatment to the blade-to-blade performance of axial compressors with leading edge normal shock waves

[ASME PAPEB 82-GT-135] p0425 A82-35363

The use of optimization techniques to design controlled diffusion compressor blading

[ASME PAPEB 82-GT-149] p0426 A82-35373

The effect of fan blade thickness and surface finish on the performance of a small axial flow turbine

p0420 A82-35409

The calculation of deviation angle in axial-flow compressor cascades

p0420 A82-35412

Progress in the development of energy efficient engine components

p0420 A82-35450

The effect of intake flow disturbances on APB compressor blade high cycle fatigue in the Airbus A300

p0429 A82-35450

Sliced disc design - A composite concept for a turbo engine axial compressor

p0515 A82-40995

An experimental examination of compressor blade finish

[ONEBA, IP NO. 1982-31] p0547 A82-42808

Numerical calculation of the flow in compressor and turbine cascades --- German thesis

p0578 A82-45222

An aerodynamic design method for transonic axial flow compressor stage

[ASME PAPEB 82-GT-194] p0164 A82-10984

Initial experimental research into the response of turbojet engine compressors to distortion of intake pressure

[ASME PAPEB 82-GT-110] p0322 A82-11006

An experimental investigation of the rotating stall, surge and wake behind the rotor for a single stage axial compressor

[ASME PAPEB 82-GT-108] p0333 A82-11008

A theoretical analysis of the steam surface of revolution with supersonic inlet flow in a transonic axial compressor

[ASME PAPEB 82-GT-125] p0303 A82-11025

Three dimensional flow investigation with a method of characteristics in the inlet region and the blade-to-blade channels of supersonic axial compressors

[ESA-TT-637] p0088 N82-12078

The use of optimization techniques to design controlled diffusion compressor blading

[ASME PAPEB 82-GT-675] p0134 A82-14094

Optimization of compressor vane and bleed settings

[ASME PAPEB 82-GT-149] p0134 A82-14095

Computer program for aerodynamic and blading design of multistage axial-flow compressors

[ASME PAPEB 82-GT-110] p0144 A82-15039

Practical experience with a noncontact blade vibration measuring system in industrial turbocompressors - Vibration mode identification

A-40A
A computer program for variable-geometry single-stage axial compressor test data analysis

[AD-A106476] p0192 B2-16086
Through flow calculations in axial turbochargers

Survey on diffusion factors and profile losses

[AD-A106476] p0204 B2-17178
End-wall boundary layer calculation methods

[AD-A106476] p0204 B2-17178
Correlation for secondary flows and clearance effects

[AD-A106476] p0204 B2-17178
Effects of Reynolds number and turbulence level on axial cascade performance

[AD-A106476] p0204 B2-17179
Axial compressor stall and surge

[AD-A106476] p0204 B2-17179
Summary of answers to the questionnaire

[AD-A106476] p0204 B2-17179
Single stage transonic compressor and equivalent plane cascade

[AD-A106476] p0204 B2-17179
BEC/Salzer. 4 stage transonic compressor

[AD-A106476] p0204 B2-17179
Results of calculations

[AD-A106476] p0204 B2-17179
The through flow calculations

[AD-A106476] p0204 B2-17179
Axial-flow turbine prediction through flow calculation methods

[AD-A106476] p0204 B2-17201
Blade-to-blade computations and boundary layer corrections in axial compressors and turbines

[AD-A106476] p0206 B2-17202
Analytical investigation of nonrecoverable stall

[AD-A106476] p0317 B2-21915
Allowing for the wall boundary layer in a stage of an axial compressor

[AD-PN-90067] p0319 B2-21209
The mechanical testing of compressors and turbines for aircraft gas turbine engines --- Rolls royce engines

[AD-PN-90067] p0319 B2-21211
Encounters with surge: Some experiences of development of axial compressors for gas turbines

[AD-PN-90067] p0355 B2-22274
Computer modeling of fan-exit-splinter spacing effects on F100 response to distortion

[AD-PN-167879] p0369 B2-23246
STGSTK: A computer code for predicting multistage axial flow compressor performance by a realine stage stacking method

[AD-PN-99022] p0408 B2-25250
Three dimensional mean velocity and turbulence characteristics in the annulus wall region of an axial flow compressor rotor passage

[AD-PN-99022] p0408 B2-25252
Aerodynamically induced vibration

[AD-A110493] p0455 B2-26306
Core compressor exit stage study, volume 6

[AD-PN-165553] p0472 B2-27310
Advanced stratified charge rotary aircraft engine design study

[AD-PN-165353] p0478 B2-27743
Multistage axial compressor program on tap -- clearance effects

[AD-A107485] p0536 B2-29285
Water ingestion into axial flow compressors. Part 3: Experimental results and discussion

[AD-A1114830] p0537 B2-29326
Effect of water on axial flow compressors. Part 2: Computational program

[AD-A1114831] p0537 B2-29327
Aerodynamics of advanced axial-flow turbocharger

[AD-A1114911] p0537 B2-29328
Computations of three dimensional unsteady nonuniform flow in the blade-free annular channel of a turbomachine --- military aircraft, turbocompressors

[OSDA-11982-2] p0592 B2-32372
TURBOFAN ENGINE

#-445
Performance improvement features of General Electric turbofan engines
[ASME PAPER 82-CP-270] p0429 A82-35696
Flight evaluation of a digital electronic engine control system in an F-15 airplane
[ASME PAPER 82-1001] p0438 A82-37663
Experimental performance evaluation of ventilated mixers - A new mixer concept for high bypass turbofan engines
[AI A PAPER 82-1136] p0439 A82-37695
Optimized 10 ton class commercial aircraft engine design
[AI A PAPER 82-1002] p0505 A82-40890
Recent advances in the performance of high bypass ratio fans
[AI A PAPER 82-40891]
Third generation turbo fans
[AI A PAPER 82-40964]
Comparison of HP turbine 'deep blade design' effects in turbofan engine gas generators with different bearing structure configurations
[AI A PAPER 82-40996]
Sensor failure detection system - A study to define the research and technology requirements for advanced turbo/propfan transport aircraft
[NASA-CE-165515] p0100 A82-13145
Tests of a vented thrust deflecting nozzle behind a shrouded turbofan engine
[NASA-CE-3508] p0198 A82-17122
CF6 jet engine performance improvement: High pressure turbine roundness
[NASA-CE-165555] p0203 A82-17174
Damage tolerant design for cold-section turbine engine direct drive motors
[AD-A107863] p0204 A82-17176
A study to define the research and technology requirements for advanced turbo/propfan transport aircraft
[NASA-CR-165515] p0254 A82-18202
Effects of fan inlet temperature disturbances on the stability of a turbofan engine
[NASA-TM-82695] p0256 A82-18222
Aerodynamic noise generated by jet wing/flip interactions of the external USB configuration of STOVL aircraft. Part 2: Full scale model experiment using F2710 turbofan engine
[BAL-TO-6877-PF-2] p0270 A82-19945
Tests and analysis of a vented D thrust deflecting nozzle on a turbofan engine -- conducted at the outdoor aerodynamic research facility of the Lewis Research Center
[NASA-CR-166138] p0301 A82-20143
Identification of multivariable high performance turbofan engine dynamics from closed loop data
[NASA-CR-166138] p0307 A82-20339
Fluctuating pressures on fan blades of a turbofan engine: Static and wind-tunnel investigations
[NASA-TP-1976] p0309 A82-21037
V/STOL Tandem Fan transition section model test --- in the Lewis Research Center 10-by-10 foot wind tunnel
[NASA-CR-166587] p0312 A82-21158
Energy efficient engine shroudless, hollow fan blade technology report
[NASA-CR-166586] p0317 A82-21196
Developments to improve the noise and combustion emissions on the Fokker 72 aircraft and its Rolls-Royce RB185-555 engine. Section 1: Development of the new internal 10-lobe mixer
[PH-90061] p0318 A82-21207
The Rolls royce role in aircraft noise reduction - jet engines, acoustic lining
[PH-90069] p0319 A82-21210
Simulation of turbofan engine models in the Windbridge loud sound wind tunnel --- gas supply control
[BAE-REPORT-8076-46] p0319 A82-21212
Energy efficient engine exhaust mixer technology
[NASA-CR-165695] p0356 A82-22264
Computer modeling of face-exit-splitter spacing effects on F100 response to distortion
[NASA-CR-167879] p0369 A82-23246
Alternative for jet engine control
[NASA-CR-168894] p0369 A82-23247
Propulsion/Airframe
[NASA-FACTS-93-0-81] p0403 A82-25251
Exhaust emissions survey of a turbofan engine for flame holder swirl type augmenters at simulated altitude flight conditions
[NASA-TM-62787] p0408 A82-25255
Thrust reversers for a long duct fan engine --- for turbofan engines
[NASA-CASE-128-1319-1] p0453 A82-26293
Effect on fuel efficiency of parameter variations in the cost function for multivariable control of a turbofan engine
[AD-A110614] p0454 A82-26301
Acoustic properties of turbofan inlets
[NASA-CR-169016] p0462 A82-27290
Performance deterioration due to acceptance testing and flight loads; JT9D jet engine diagnostic program
[NASA-CR-165572] p0472 A82-27309
Forward velocity effects on fan noise and the suppression characteristics of advanced CF6 nozzle as measured in the NASA-1840 by 80 foot wind tunnel
[NASA-CR-152328] p0540 A82-30030
A preliminary analysis of TPJ-100/400 jet engine research data in support of the BAP system implementation at NASA Glenn Research Center
[AD-A110452] p0550 A82-30308
Rough analysis of installation effects on turboshaft engine performance
[NASA-TM-82924] p0574 A82-32082
Integrated airborne propulsion control
[NASA-CR-3606] p0593 A82-32382
Automated procedure for developing hybrid computer simulations of turbofan engines. Part 1: General description
[NASA-TF-1851] p0600 A82-33020
The CF6 jet engine performance improvement: Low pressure turbine active clearance control
[NASA-CR-165557] p0610 A82-33393
Circumferentially segmented duct liners optimized for axisymmetric and standing wave sources -- reducing noise from turbofan engines galekian method acoustic attenuation
[NASA-TF-2075] p0614 A82-34190
TURBOPANS
Stability analysis of the twin node model of coupled flexion/torsion vibrations in turbopans
[NASA-CR-152328] p0643 A82-15057
Aerodynamic considerations in the production of uninstalled supersonic flutter in transonic fans
[NASA-CR-152328] p0643 A82-15058
Evaluation of the effects of model scale and test technique on jet-induced effects
[NASA-CASE-LBI-13199-1] p0616 A82-21317
TURBOJET AIRCRAFT
U JET AIRCRAFT
TURBOJET ENGINE CONTROL
An approach to robust nonlinear control design --- with illustration of J-85 turbojet engine simulation
[NASA-TF-1851] p0605 A82-13128
Transport engine control design
[NASA-PAPER 82-4076] p0416 A82-36196
Performance of a 20-CD noseasymmetric exhaust nozzle on a turbojet engine at altitude
[AI A PAPER 82-1137] p0497 A82-40420
Compressor stall inducing installation effects of an engine control parameter for the CF-5 aircraft
[NASA-CR-166138] p0505 A82-13085
TURBOJET ENGINES
MT BRISTOL-SIDDELEY BS 53 ENGINE
MT J-58 ENGINE
MT J-79 ENGINE
MT J-85 ENGINE
MT T-56 ENGINE
MT TURBOFANS ENGINES
MT TURBOPROP ENGINES
Study of reingestion of exhaust gases with different initial temperature in a reversed turbojet engine
[NASA-CASE-LBI-13199-1] p0514 A82-11444
The operational characteristics of turbojets, giving particular attention to the cooled high-pressure turbine
[NASA-CR-152328] p0506 A82-14414
Optimization of requirements on the pitting-prevention properties of turbojet-engine oils
[NASA-CR-152328] p0502 A82-15723
An application of total synthesis to robust coupled design --- turbojet engine control
[NASA-CASE-LBI-13199-1] p0515 A82-15061
Low grade fuels for turbo and jet engines
[NASA-CR-152328] p0221 A82-23435
TURBULENT MIXING

Turbulence measurements in a confined jet using a near-orientation hot-wire probe technique
\[^{\text{AIAA PAPER 82-1262}}\]\text{p0439 A82-37710}
Fluid dynamics of jets with applications to F/2S20L
\[^{\text{NASP-CR-208}}\]\text{p0360 A82-23150}

TURBULENT MIXING

An experimental and analytical study of mixing
flow of turbulent fan exhaust through circular and 2-dimensional mixer/nozzle
\[^{\text{AIAA PAPER 82-0130}}\]\text{p0286 A82-27007}
Numerical study of vibrational relaxation in the turbulent mixing of jets in a supersonic nozzle
\[^{\text{A934 A82-29000}}\]

TURBULENT WAKES

ST PROPELLER SLIPSTREAMS

Reduction in parasite drag due to forebody wake effects
\[^{\text{AIAA PAPER 81-1939}}\]\text{p0007 A82-10417}
Rotor wake characteristics relevant to rotor-stator interaction noise generation
\[^{\text{AIAA PAPER 81-2031}}\]\text{p0008 A82-10456}
Instantaneous turbulence profiles in the wake of an oscillating airfoil
\[^{\text{AIAA PAPER 82-0353}}\]\text{p0119 A82-17501}
Dynamic response of blades and vanes to wakes in an axial turbomachinery
\[^{\text{ASME PAPER 81-DET-13}}\]\text{p0160 A82-19307}
Effect of wakes of upstream stator blades on the rotor of an axial flow compressor
\[^{\text{A82-26200}}\]
Secondary flow effects and mixing of the wake behind a turbine stator
\[^{\text{ASME PAPER 82-07-86}}\]\text{p0402 A82-35304}
Turbulent wake development behind streamlined bodies
\[^{\text{ABS 92-13-1014}}\]\text{p0607 A82-13104}
Effect of modification of the trailing edge of a separating wall on the downstream mixing of parallel flowing streams
\[^{\text{A82-17124}}\]\text{p0394 A82-24181}

TURBULENT FLOW

Efficient combinations of numerical techniques applied to aircraft turning performance optimization
\[^{\text{A82-26214}}\]
Optimal three-dimensional turning performance of supercruise aircraft
\[^{\text{AIAA PAPER 82-1326}}\]\text{p0688 A82-39103}
Flight dynamics of rotorcraft in steep high-g turns
\[^{\text{AIAA PAPER 82-1345}}\]\text{p0688 A82-39117}
MINANCE-TIME THREE-DIMENSIONAL TURN TO A POINT OF SUPERCRUISE
\[^{\text{AIAA PAPER 82-0353}}\]\text{p0556 A82-44402}
Observeability of the parameters of an inertial navigation system for a 360-deg coordinated turn
\[^{\text{EASA-TR-665}}\]\text{p0253 A82-18200}
Validation of zero-order feedback strategies for moderate range air-to-air interception in a horizontal plane
\[^{\text{AD-A111096}}\]\text{p0368 A82-23237}
Minimum time turns constrained to the horizontal plane
\[^{\text{AD-A111096}}\]\text{p0456 A82-26317}

TVC (COTROL)

U THRUST VECTOR CONTROL

TWEETED WINGS

The aerodynamic influences of rotor blade taper, twist, airfoils and solidity on hover and forward flight performance
\[^{\text{A82-33357}}\]
Means for controlling aerodynamically induced twist
\[^{\text{NASA- CASE-LAE-12175-11}}\]\text{p0605 A82-33357}

TWO DIMENSIONAL WAKES

LOW REYNOLDS NUMBER AIRFOIL SURVEY, VOLUME 1
\[^{\text{NACA-TN-45805-TOL-1}}\]\text{p0131 A82-14059}
TWO DIMENSIONAL BOUNDARY LAYER

A two-dimensional boundary-layer program for turbine airfoil heat transfer calculation
\[^{\text{ASME PAPER 82-07-93}}\]\text{p0424 A82-35336}
TWO DIMENSIONAL FLOW

Control laws for adaptive wind tunnels
\[^{\text{A82-10985}}\]
Add force flow properties for infrared analysis
\[^{\text{A82-17606}}\]
A contribution to the hodograph method for shock-free transonic airfoils sections
\[^{\text{A82-29000}}\]

SUSPECT INDEX

Turbulence measurements in a confined jet using a near-orientation hot-wire probe technique
\[^{\text{AIAA PAPER 82-1262}}\]\text{p0439 A82-37710}
Fluid dynamics of jets with applications to F/2S20L
\[^{\text{NASP-CR-208}}\]\text{p0360 A82-23150}
A vortext sheet method for calculating separated two-dimensional flows at high Reynolds number
\[^{\text{AIAA PAPER 82-1030}}\]\text{p0276 A82-26223}
Turbulent boundary-layer development on a two-dimensional aerfoil with supersonic flow at low Reynolds number
\[^{\text{A82-34398}}\]\text{p0209 A82-10994}
Effects of Reynolds number and turbulence level on axial cascade performance
\[^{\text{AIAA PAPER 82-0951}}\]\text{p0407 A82-37467}
Aerodynamic performance of high turning core turbine vanes in a two-dimensional cascade
\[^{\text{AIAA PAPER 82-1288}}\]\text{p0439 A82-37716}
The use of adaptive walls in plane flow
\[^{\text{A82-28279}}\]\text{p0548 A82-37313}
Flow over wings with leading-edge vortex separation
\[^{\text{NASA-CR-1650856}}\]\text{p0468 A82-26230}
Application of a transonic similarity rule to correct the effects of sidewall boundary layers in two-dimensional transonic wind tunnels
\[^{\text{NASA-TM-49447}}\]\text{p0594 A82-32284}

TWO PHASE FLOW

The relative motion of a particle in the case of exponential changes of the velocity of the medium
\[^{\text{A82-26479}}\]\text{p0381 A82-40537}
Linear particle dynamics and rate of evaporation in the rotating field of centrifugal compressors
\[^{\text{AIAA PAPER 82-07-86}}\]\text{p0423 A82-35332}
Turbulence development behind the rotor
\[^{\text{A82-87-89}}\]\text{p0243 A82-35333}

TWO STAGE TURBINES

The two stage auto engine turbine
\[^{\text{A82-17163}}\]\text{p0204 A82-17163}

T2J AIRCRAFT

U-2 AIRCRAFT

U.S.C.G.

Factors shaping conceptual design of rotary-wing aircraft
\[^{\text{A82-37773}}\]\text{p0440 A82-37773}

US-13 HELICOPTER

US-13 HELICOPTER

US-1 HELICOPTER

U.S. military helicopter ice spray system - Improvements and flight experience
\[^{\text{A82-12636}}\]\text{p0203 A82-12636}
Adaptation of pulsejus to the manufacture of helicopter components
\[^{\text{A82-05537}}\]\text{p0501 A82-05537}
Performance testing of a main rotor system for a utility helicopter at 1/4 scale
\[^{\text{A82-22251}}\]\text{p0352 A82-22251}
Flight tests for the assessment of tank performance and control activity
\[^{\text{A82-23213}}\]\text{p0365 A82-23213}

US-60A HELICOPTER

Design and fabrication of a composite rear fuselage for the US-60 /Black Hawk/
\[^{\text{A82-05434}}\]\text{p0502 A82-05434}
Limited artificial and natural icing tests on US-60A helicopter (re-equipment
\[^{\text{AD-A112596}}\]\text{p0452 A82-26287}

ULTRA SHORT WAVE RADIO EQUIPMENT

U VERY HIGH FREQUENCY RADIO EQUIPMENT

A-850
Improvement of ejector thrust augmentation by pulsating or flapping jets

An accurate method for evaluating the kernel of the integral equation relating lift to downwash in unsteady potential flow

A harmonic analysis method for unsteady transverse flow and its application to the flapping of airfoils

Modified version of LTBN2: A calculation method for advanced transonic flow about thin airfoils in moderate unsteady motion

Computation of three-dimensional unsteady nonuniform flow in the blade-free annular channel of a turbomachine --- military aircraft, turboengines

Static and unsteady pressure measurements on a 50 degree clipped delta wing at N = 0.9

Unsteady wings

Taylor: Infinite Span Wings

Taylor: Rectangular Wings

Aeroelastic properties of wings in transonic flow

Application of modal control to wing-flutter suppression

Dynamic analysis of a wind tunnel for model wing vibrating problems

User's manual for the vertical axis ving turbine

The Sortie-Generation Model system. Volume 2: Development and applications of a full-scale flammability test data for validation of aircraft fire mathematical models

Noise impact on communities from aircraft

USA (UNITED STATES)

USER HANDLING (COMPUTER PROGRAMS)

Rotorcraft flight simulation computer program C81 with DATABASE interface. Volume 1: User's manual

Rotorcraft flight simulation computer program C81 with DATABASE interface. Volume 2: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 1: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 2: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 3: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 4: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 5: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 6: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 7: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 8: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 9: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 10: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 11: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 12: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 13: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 14: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 15: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 16: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 17: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 18: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 19: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 20: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 21: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 22: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 23: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 24: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 25: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 26: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 27: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 28: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 29: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 30: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 31: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 32: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 33: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 34: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 35: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 36: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 37: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 38: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 39: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 40: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 41: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 42: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 43: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 44: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 45: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 46: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 47: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 48: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 49: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 50: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 51: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 52: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 53: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 54: User's manual

Photovoltack and magnetometer data at the IKP with DATABASE interface. Volume 55: User's manual
Operational delay day forecasts for the 20 air route traffic control centers for the year 1992 through 2011

Subject Index

[NASA-CR-165986] p0566 892-31298
A computer program for the prediction of near field noise of aircraft in cruising flight: User’s guide [NASA-CR-159274] p0600 892-32148
Chief of Naval Air Training automated management information system (CNALS) users guide [AD-A115852] p0603 892-33280
User’s manual for interfacing a leading edge, vortex rollup program with two linear panel methods [NASA-TM-70814] p0604 892-33340

Sea requirements

Public service helicopters - Is the grass greener on the other side of the fence [AD-A06525] p0045 892-13238
Airline ATE requirements [AD-A22788] p0294 892-27886
Next generation trainer /AGT/ engine requirements - An application of lessons learned [AIAA PAPER 82-11144] p0418 892-35049
Transportation systems evaluation methodology development and applications, phase II [NASA-CR-164999] p0055 892-12051
Development of integrated programs for aerospace-vehicle design (IPAD) - IPAD user requirements [NASA-CR-2205] p0141 892-15034
A versatile data acquisition system for a low speed wind tunnel [AD-A036269] p0192 892-16097

Military requirements: Too little or too much


Sифика: Controlled requirements expression -- avionics specification through common and standard [BAP-TNAS-84] p0316 892-21192
Identification of terms to define unconstrained air transportation demands [NASA-CR-165961] p0568 892-31311
Terminal Information Processing System (TIPS) Consolidated CAD Display (CCD) comparative analysis [FAM-CT-81-8] p0587 892-32331

Utility aircraft

The powerplants of the Yak-40 and Mi-15 aircraft - Russian book [AD-A06261] p0439 892-36907
The need for a dedicated public service helicopter design [AD-A06261] p0482 892-38422

Utilization

NT COAL UTILIZATION NT LASER APPLICATIONS NT WASTE ENERGY UTILIZATION NT HYDROPOWER UTILIZATION

Advantages and limitations of various materials used in the construction of modules -- aircraft construction [MIAAS-812-551-103] p0086 892-12072

V/STOL Aircraft

Operations on extremely high frequencies V/STOL aircraft NT AH-16 HELICOPTER NT AH-64 HELICOPTER NT H-105 HELICOPTER NT CH-46 HELICOPTER NT CH-47 HELICOPTER NT FLIGHT PLATFORMS NT HEAVY LIFT HELICOPTERS NT MILITARY HELICOPTERS NT OH-13 HELICOPTER NT OH-58 HELICOPTER NT P-531 HELICOPTER NT RIGID ROTOR HELICOPTERS NT TILT ROTOR HELICOPTERS NT TILT ROTOR AIRCRAFT NT V/STOL aircraft NT V/STOL aircraft NT V/STOL aircraft NT V/STOL aircraft NT V/STOL aircraft NT V/STOL aircraft NT V/STOL aircraft

V/STOL aircraft

Operational delay day forecasts for the 20 air route traffic control centers for the year 1992 through 2011 [AD-A019004] p0304 892-20173
The K-14 - 24 years of V/STOL flight testing [AD-A210002] p0075 892-19427
Experience with high performance V/STOL fighter projects at NASA [AD-A210002] p0107 892-16901
A summary of V/STOL inlet analysis methods [AD-A210002] p0107 892-16902
Development and validation of the V/STOL aerodynamics and stability and control manual [AD-A210002] p0107 892-16903
Ground tent of a large scale V/STOL. deflecting nozzle [AD-A210002] p0108 892-16907
NASA V/STOL Propulsion Control Analysis - Phase I and II program status [AD-A210002] p0108 892-16908
V/STOL propulsion control technology [AD-A210002] p0108 892-16909
V/STOL status from the engine technology viewpoint [AD-A210002] p0108 892-16910
A low cost missile control aircraft -chaff/weapon system - anti-ship missile defense [AD-A210002] p0108 892-16916
Type 'A' V/STOL - one aircraft for all support missions [AD-A210002] p0109 892-16917
Introduction to V/STOL airplanes - Book [AD-A210002] p0122 892-18117
Ground effect hover characteristics of a large-scale twin tilt-rudder V/STOL model [AD-A210002] p0155 892-19201
Experimental investigation of a jet inclined to a subsonic crossflow [AD-A210002] p0155 892-19202
Analysis of data from a wind tunnel investigation of a large-scale model of a highly maneuverable supersonic V/STOL fighter - STOL configuration [AD-A210002] p0155 892-19207
Large-scale wind tunnel tests of a sting-supported V/STOL fighter model at high angles of attack [AD-A210002] p0156 892-19208
Low speed testing of the inlets designed for a tandem-fan V/STOL nacelle [AD-A210002] p0156 892-19210
Application of thrusting ejectors to tactical aircraft having vertical lift and short-field capability [AD-A210002] p0156 892-19211
Optimization of compressor vane and bleed settings
[AIAA Paper 82-02-01] p0423 882-35527
Aerodynamic performance of high-turning core
variable turbine in a two-dimensional cascade
[AIAA Paper 82-1288] p0439 882-37716
Effect of tip vanes on the performance and flow
field of a rotor in hover
[p0498 882-40511
Gas turbine ceramic-coated-vane concept with
convection-cooled porous metal core
[NASA TP-1942] p0134 882-14090
Hover tests of a model H-force rotor
[p0250 882-18159
VABS
U TRUCKS
VAPOR GENERATORS
U VAPORIZERS
VAPOR TRAILS
U CONTROLS
VAPORIZATION
Experimental study of external fuel vaporization
[AIAA Paper 82-02-59] p0422 882-35312
VAPORIZATION
NY COAL GASIFICATION
NT FLASHING (VAPORIZING)
HT PREVAPORIZATION
VAPORS
A Vapour cycle cabin cooling system for the Sea
King Mk. 50 helicopter
[AD-A105211] p0088 882-12069
Vapor condensation control of JP-4 emissions from
underground storage tanks at March Air Force
Base, California
[AD-A1179075] p0612 882-33554
VARIABLE
Structure and variability of the Alboran Sea
frontal system
p0168 882-20447
Characteristics and principal gaps and phases and
their use in multivariable control design tools
--- generalizing Nyquist and root-locus diagram
multivariable design techniques
[p0029 882-10050
Multivariable design techniques based on singular
value generalizations of classical control
[p0029 882-10051
VARIABLE AREA WINGS
U TRAILING-EDGE FLAPS
VARIABLE CYCLE ENGINES
A concept for light-powered flight
[AIAA Paper 82-1214] p0418 882-35067
Individual bypass throttling in fighter engines
[AIAA Paper 82-1265] p0419 882-35100
Evaluation of a multivariable control design on a
variable cycle engine simulation
[AIAA Paper 82-1077] p0438 882-37662
Reliability design study for a fault-tolerant
electronic engine control
[AIAA Paper 82-1129] p0438 882-37609
V/STOL Tandem Fan transition section model test
--- in the Lewis Research Center 10-by-10 foot
wind tunnel
[NASA CR-165567] p0312 882-21158
VARIABLE GEOMETRY STRUCTURES
Investigation of the stress-strain state of a
rectangular vane section of variable thickness
under concentrated loads and heating
[p0127 882-16588
Comprehensive analysis of a axial compressor test
with adjustable guide vanes
[AIAA Paper 82-02-74] p0423 882-35323
Variable geometry aerofoils as applied to the
Beech 8-5 and B-6 airplanes
[p0512 882-40968
Integral characteristics in the computer-generated
design of geometrical objects of complex
configuration
[p0582 882-46603
The subsonic performance of practical military
variable area convergent nozzles
[p0994 882-13076
Pollution reduction technology program small jet
aircraft engines, phase J
[NASA CR-165386] p1334 882-14095
VARIABLE LIFT
U LIFT
VARIABLE PITCH PROPELLERS
Optimization of blade pitch angle for higher
harmonic rotor control
SUBJECT INDEX

[IAA PAPER 81-2612] p0107 A82-16904
Greenlandair VTOOL transportation study
[IAA PAPER 81-2642] p0108 A82-16912
VTOOL as it applies to resource development in the
Canadian north
[IAA PAPER 81-2640] p0156 A82-19215
Analysis of selected VTOOL concepts for a civil
transportation mission
[IAA PAPER 81-6855] p0157 A82-19220
Tak-36 Forger - The brand X VTOL fighter
[IAA PAPER 81-26045] p0275 A82-26045
85 Navy begins slow shuffle towards V/STOL
[IAA PAPER 81-28311] p0256 A82-28311
Vertical takeoff technology - Flight mechanics,
low-speed flight, and propulsion systems --- German
book
[IAA PAPER 81-33348] p0381 A82-33348
JV, what an opportunity --- Joint Services
Advanced Vertical Lift Aircraft Program
[IAA PAPER 81-30423] p0482 A82-30423
An X-Wing aircraft control system concept
[IAA PAPER 81-1540] p0485 A82-38954
An analysis of a nonlinear instability in the
implementation of a VTOL control system during
hover
[IAA PAPER 81-6511] p0485 A82-38990
Support of the HH-65A - The impact of advanced
technology of VTOL systems upon existing product
support
[IAA PAPER 81-40581] p0501 A82-40581
An investigation of scale model testing of VTOL
aircraft in hover
[IAA PAPER 81-40911] p0507 A82-40911
An investigation of automatic guidance concepts to
toeck a VTOL aircraft to a small aviation
facial skip
[IAA PAPER 81-16087] p0191 A82-16087
Review of defense-related vertical and short
takeoff and landing (V/STOL) aircraft programs
[IAA PAPER 81-28278] p0254 A82-12025
A short takeoff performance computer model
[IAA PAPER 81-20179] p0304 A82-20179
A translational velocity command system for VTOL
low speed flight
[IAA PAPER 81-20186] p0305 A82-20186
ALG-164 POD/AV-RC environmental evaluation flight
test
[IAA PAPER 81-21178] p0314 A82-21178
Aerodynamic analysis of VTOOL inlet and deflection
of a short, blowing-lip inlet
[IAA PAPER 81-16567] p0339 A82-22211
An analysis of a nonlinear instability in the
implementation of a VTOL control system during
hover
[IAA PAPER 81-84220] p0356 A82-22281
Jet V/STOL wind-tunnel simulation and groundplane
effects
[IAA PAPER 81-23165] p0361 A82-23165
The modeling and prediction of multiple jet VTOL
aircraft flow fields in ground effect
[IAA PAPER 81-23166] p0361 A82-23166
Evaluation of the effects of model scale and test
technique on jet-induced effects
[IAA PAPER 81-23167] p0361 A82-23167
Current developments lighter than air systems ---
heavy lift airships
[IAA PAPER 81-84744] p0394 A82-24176
Study of VTOL in ground-effect flow field
including temperature effect
[IAA PAPER 81-16658] p0400 A82-25170
Natural control system design for VTOOL landing on
a DOD63 in high sea states
[IAA PAPER 81-16907] p0456 A82-26315
Control optimization, stabilization and computer
algorithms for aircraft applications
[IAA PAPER 81-16905] p0461 A82-27009
VERTICAL TAKEOFF AND LANDING
U VERTICAL TAKEOFF
VIETL MILITARY HELICOPTERS
U VERTICAL TAKEOFF
VF AERIAL VEHICLE
VFIOOL HIGH FREQUENCIES
VHF radio link for ground-air-ground
communications using an integrated voice-data
modulation
[IAA PAPER 81-38045] p0831 A82-38045
Combined amplitude-phase modulation for a VHF
communication link
[IAA PAPER 81-43870] p0553 A82-43870
Improved 243 MHz bowing antenna system for use on
helicopters

VIBRATION DAMPING

[IAA PAPER 81-80122] p0523 H82-28276
VERY HIGH FREQUENCY RADIO EQUIPMENT
Fb broadcast interference related to airborne ILS,
VOR and VHF communications
[RTCA/DO-176] p0268 H82-19419
Investigation of the effects of airborne
installation factors on receiver interference
[RTCA/DO-176] p0268 H82-19422
VERY HIGH SPEED INTEGRATED CIRCUITS
0 VHSIC (CIRCUITS)
VERY LOW FREQUENCIES
Omega station 10.2 kHz signal selection made easy
[AD-A109755] p0122 A82-16368
Long-range radio VHSIC signal reliability
[AD-AI09755] p0544 A82-19515
VHF OMNIRANGE NAVIGATION
VOR waveform synthesis and calibration
[AD-A107653] p0106 A82-16563
Solid-state VOR/TAC with remote maintenance and
monitoring
[AD-A107653] p0122 A82-18194
Navigation system integrity and reliability for
civil aviation
[AD-A107653] p0124 A82-18159
Investigation of Wilcor model 5856 very high
frequency omnidirectional radio range (VOR)
system, part 3
[AD-A107653] p0200 H82-17149
Fb broadcast interference related to airborne ILS,
VOR and VHF communications
[RTCA/DO-176] p0268 H82-19419
Investigation of technical requirements
[RTCA/DO-176] p0268 H82-19420
Investigation of airborne VHSIC communications and
navigation equipment
[RTCA/DO-176] p0268 H82-19421
Ground speed measurement from DBS/VHSIC omnirange
navigation (VOR) data
[RTCA/DO-176] p0402 H82-25185
VHSIC (CIRCUITS)
Very high speed integrated circuits: Into the
second generation, II - Entering Phase 1
[RTCA/DO-176] p0182 A82-21848
VIBRATION
0 FLUTTER
0 FORCED FLUTTER
0 FREE FLUTTER
0 LINEAR VIBRATION
0 MISSILE VIBRATION
0 PANEL FLUTTER
0 RANDOM VIBRATION
0 RESONANT VIBRATION
0 SELF INDUCED VIBRATION
0 STRUCTURAL VIBRATION
0 SUBSONIC FLUTTER
0 SUPERSONIC FLUTTER
0 TORSIONAL VIBRATION
0 TRANSSONIC FLUTTER
Vibration levels in Army helicopters: Measurement
recommendations and data
[AD-A108131] p0255 H82-18209
Aerodynamically induced vibration
[AD-A10493] p0455 H82-26306
Aeroelastic analysis for helicopter rotors with
blade appended pendulum vibration absorbers.
Mathematical derivations and program user's manual
[IAA PAPER 81-165896] p0566 H82-11298
Coupled rotor/airframe vibration analysis program
manual. Volume 1: User's and
programmer's instructions
[IAA PAPER 81-165891] p0573 H82-31965
Coupled rotor/airframe vibration analysis program
manual. Volume 2: Sample input and output
listings
[IAA PAPER 81-165892] p0573 H82-31966
The Shock and Vibration Digest, volume 14, no. 3
[AD-A112023] p0596 H82-32525
Subsynchronous vibrations of rotor systems
[AD-A112023] p0596 H82-32528
VIBRATION DAMPERS
0 VIBRATION ISOLATORS
VIBRATION DAMPING
Quiet please --- aircraft hydraulic systems
noise reduction
[AD-A108131] p0012 A82-10854
Wing/store flutter - An active adaptive control
application
[AD-A108131] p0044 A82-13122
A-457
VIBRATION EFFECTS

Flight testing the nonmetallic spline coupling technology at the Naval Air Test Center

Mechanisms for the elimination of instability in a helicopter fuselage

Self-oscillations of the front fuselage wheel strut for a given track width under the assumption of the wheel drift hypothesis

Flutter node suppression using aeroelastic feedback

The effect of the blade type on the aerodynamic damping of blade vibrations with allowance for the profile curvature

Balancing of flexible rotors by the complex modal method

Suppression of self-oscillations in open wind tunnels

Design of higher harmonic control for the ABC

Evaluation of the effect of elastomer damping material on the stability of a cantilever main rotor system

Application of combined balancing methods to flexible rotors of aviation gas-turbine engines

The use of damper inserts for the damping of the natural vibrations of twin-rotor gyrocopters

Active flutter suppression on an F-5F aircraft

Damping and a doublet lattice method for the determination of aerodynamic forces induced by vibration of a cascade blade

The effect of journal misalignment on the oil-film forces generated in a squeeze-film damper

A simple system for helicopter individual-blade-control and its application to stall flutter suppression

The Helicopter Blade Mode Revolution

A simple system for helicopter individual-blade-control and its application to subsonic-induced vibration alleviation

Substructure program for analytical helicopter structural modes

Use of optimization in helicopter vibration control by structural modification

Survey of active and passive means to reduce rotorcraft vibrations

F-16 active flutter suppression program

Robust Kalman filter design for active flutter suppression systems

Application of the sequential optimization method to the tuning of the natural frequencies of gas-turbine engine compressor blades

Helicopter vibration reduction by blade modal shaping

Preliminary study for an advanced flight research rotor

Theoretical and experimental evaluation of joint-structural damping interaction for airplane construction

An experimental examination of compressor blade flutter

Polyurethane foams for aircraft shock mounts. 3: Vibration damping by polyurethane foam

Damping for turbocharger blade vibrations in a subsonic flow

Review of helicopter Fast Mounted Sight (HMS) base motion isolation and Line-of-Sight (LOS) stabilization concepts

Self-tuning regulators for multicycle control of helicopter vibration

Reduction of structural vibration by a dynamic absorber --- helicopter cabin

Experiment on active flutter suppression of a cantilever wing

Basic technology of squeeze film dampers for rotor dynamics control

Helicopter vibration suppression using simple pendulum absorbers on the rotor blade

VIBRATION EFFECTS

Theoretical fatigue life problem - Application of Aerospaline method

Army helicopter crew seat vibration - Past performance, future requirements

The Shock and Vibration Digest, volume 13, no. 9

The effect of aspect ratio on the unsteady aerodynamic forces induced by vibration of a cantilever wing

The effect of maneuver and after damage

A doublet lattice method for the determination of rotor induced unsteady vibration aerodynamics.

Analysis description and program documentation

Activations of the Institute of Sound and Vibration Research

VIBRATION ISOLATORS

The possibility of using deformable rubber components in landing gear

Helicopter vibration suppression using simple pendulum absorbers on the rotor blade

Experimental evaluation of squeeze film supported flexible rotor blades

Solution to a bistable vibration problem using a pendulum absorber on the rotor blade
The structural dynamic interface required for developing structural helicopter target acquisition systems

STOL aircraft structural vibration prediction from acoustic excitation

The vibratory behavior of a rotating propeller shaft. Part 4: Vibrations tests of a rotating propeller shaft in a rubber stern tube bearing --- ship propellers

Helicopter vibration reduction by rotor blade modal shaping

Calculation of natural modes of vibration for rotor blades by the finite element method

Stability analysis of the twin node model of coupled flexion/torsion vibrations in turbosan

Vibration analysis with a noncontact blade vibration measuring system in industrial turbocompressors --- vibration mode identification

A wind tunnel study of the flutter characteristics of a supercritical wing

Experimental verification of force determination and ground flying on a full-scale helicopter

Radiation of the 1n-series aircraft-derivative gas turbines

The effect of erosion wear on the vibration characteristics of axial-turbine blades

Vibration reduction by rotor blade modal shaping
The United States Air Force automated vibration Diagnostics System (AVID) for improved jet engine maintenance

An automated technique for improving model test/analysis Correlation

[AIAA 82-0540]

Quantification of helicopter vibration ride qualities

Improved methods in ground vibration testing

[AHS PREPRINT 81-6]

Correlation of predicted vibrations and test data for a wind tunnel helicopter model

Error minimization in ground vibration testing --- of helicopter structures

An experimental examination of compressor blade flutter

[SBM TP 90. 1982-31]

A random vibration test for the evaluation of stiff-sensitive component parts

The Shock and Vibration Digest, volume 13, no. 9

[D-1050667] N82-10421

Vibration test procedures for accessory angle drive gearboxes on Atar 09C engines --- turbojet engine

[AD-A105269]

Modal characteristics of rotor blades: Finite element approach and measurement by ground vibration test

Vibration levels in Army helicopters: Measurement recommendations and data

[AD-A108131]

ALQ-166 POD/AV-8C environmental evaluation flight test

[AD-A1101019]

Investigations of helicopter structural dynamics and a comparison with ground vibration tests --- using nastran

[MBB-U-03-80-0]

The testing and approval of aircraft engine mounted accessories --- subject to vibration

[RBB-90051]

Vibration qualification of external aircraft stores and equipment

[SBB-FE-173/3/FUB/66]

Dynamic Environmental Qualification Techniques --- conference

[AGARD-CP-318]

Development and use of dynamic qualification standards for Air Force stores

[DP-33-62-22145]

Qualification of equipment for grease induced vibration

[DP-33-62-22145]

Dynamic qualification testing of F-16 equipment

[DP-33-62-22145]

Development of vibration qualification test spectra for the F-16 aircraft

[DP-33-62-22160]

Equipment vibration qualification for Harrier and Hawk aircraft

[DP-33-62-22161]

Aircraft fuel tank slosh and vibration test

[DP-33-62-22164]

Approach to dynamic qualification of light helicopter stores and equipment

[DP-33-62-22166]

Application of modal synthesis techniques for the dynamic qualification of wing with stores

[DP-33-62-22168]

Development of a taped random vibration technique for acceptance testing

[DP-33-62-22171]

VIBRATIONAL FREQUENCIES

U VIBRATIONAL SPECTRA

VIBRATION RELATION

U MOLECULAR RELATION

VIBRATIONAL SPECTRA

Control of Vibration in an Aeroelastic Cascade Experiment

Aeroelastic characteristics of a mastened bladed-disc assembly

A-460
Deficiencies and constraints that affect the aerodynamics on a transport aircraft type sore than meets the eye - The oil dot technique

Experimental methods for the prediction of the numerical solution of incompressible turbulent skin friction lines

Transonic three-dimension viscous-inviscid interaction for wing-body configuration analysis

Relaxation solution for viscous transonic flow about fighter-type forebodies and afterbodies

A system for the numerical simulation of sub- and transonic viscous attached flows around wing-body configurations

Calculations of viscous transonic flow over aerfoils

Theoretical solutions of incompressible turbulent flow over airsfoils

Experimental methods for the prediction of the effect of viscosity on propeller performance

VISCOSITY AND TRANSPORT FLUIDS

VISCOSITY: Research and development program for non-linear structural modeling with advanced time-temperature dependent constitutive relationships [NASA-IR-195513] p0190 N82-16080

Nonlinear constitutive theory for turbine engine structural analysis p0613 N82-33740

VISCOSITY: Relations for the thermodynamic and transport properties in the testing environment of the Langley hypersonic CPF tunnel p0146 N82-15359

VISCOSITY Damping

VISCOSITY DRAG

NASA research on viscous drag reduction [NASA-TR-84510] p0604 N82-33344

VISCOSITY FLOW

VISCOSITY SEPARATION

VISCOSITY SECONDARY FLOW

Skin friction lines

VISCOSITY ACCURACY

VISCOSITY AIDS

Flight simulators

Group I: Scenario design and development issues

Fluent mounted visual aids

Experimental investigation of visual aids for helicopters: Low level flight at night and poor visibility

Displays

VISCOSITY CONTROL

The effect of visual information on manual approach and landing [NASA-CS-ARC-10990-1] p0077 N82-12064

Spectrally balanced chromatic landing approach lighting system

Visual technology research simulator, visual and motion system dynamics [AD-A1117861] p0077 N82-12064

Visual technology research simulator, visual and motion system dynamics [AD-A1117861] p0077 N82-12064

Visual displays and display devices

Visual fields

Influence of contrast on spatial perception in TV display of moving images [PB-50] p0477 N82-27609

Visual Flight

Muzzle and near missair collisions on two- and three-dimensional curvilinear flight paths [NASA-TP-685] p0053 N82-10280

Unified results of several analytical and experimental studies of helicopter handling qualities in visual terrain flight p0365 N82-23215

Transonic Crystallographic Tunnel p0597 N82-32678

AERODYNAMIC DESIGN OF COCKPIT ENCLOSURES AND TRANSPARENCIES

Influence of contrast on spatial perception in TV display of moving images [PB-50] p0477 N82-27609

Visual Flight

Muzzle and near missair collisions on two- and three-dimensional curvilinear flight paths [NASA-TP-685] p0053 N82-10280

Unified results of several analytical and experimental studies of helicopter handling qualities in visual terrain flight p0365 N82-23215

Transonic Crystallographic Tunnel p0597 N82-32678
VISUAL PERCEPTION

Conceptual design study for an advanced call and visual system, volume 1

Conceptual design study for an advanced call and visual system, volume 2

Simulator for air-to-air combat versus real world: Visual cue analysis for simulated air-to-air combat training
[AD-A110570] p0410 B62-25270

VISUAL PERCEPTION

ST SPACE PERCEPTION
Airborne color CRT displays
p0073 B62-14823

Transparency design decisions - Assessing their impact on visual performance
p0226 B62-24306

Design study for a low-distortion holographic HUD
[AD-A113952] p0525 B62-26292

Effects of approach lighting and variation in visible runway length on perception of approach angle in simulated night landings
[AD-A116792] p0533 B62-29290

VISUAL STIMULUS
Simulator for air-to-air combat versus real world: Visual cue analysis for simulated air-to-air combat training
[AD-A110570] p0410 B62-25270

VISUAL TRACKING
U OPTICAL TRACKING

VISUALISATION OF FLOW

U FLOW VISUALIZATION

VITRIFICATION
Development of in-can melting process and equipment, 1979 and 1980
[DD82-001050] p0165 B62-16034

VOCODERS
A comparative study of narrowband vocoder algorithms in Air Force operational environments using the Diagnostic Rhyme Test
[AD-A112053] p0460 B62-26546

VOICE COMMUNICATION
High-accuracy ranging over voice radios for downed aircrew rescue
p0066 B62-14694

A modular multiplexed digital voice communications system
p0068 B62-14721

Voice communications - The vital link
p0220 B62-23324

VHF radio link for ground-air-ground communications using an integrated voice-data modulation
p0681 B62-38405

Combined amplitude-phase modulation for a VHF communication link
p0553 B62-43870

Colubus, Ohio, Voice response system demonstration and evaluation
[AD-A104750] p0091 B62-12304

NASA aviation safety reporting system

Evaluation of a voice recognition system for the NASA pseudo pilot station function

Human factors in air traffic control
[AGARD-AG-275] p0534 B62-29293

Voice Interactive Systems Technology Avionics (VISTA) Program
[AD-A117288] p0608 B62-33383

VOICE CONTROL
Using voice control onboard combat aircraft
p0092 B62-13056

The role of voice technology in advanced helicopter cockpits
p0366 B62-23223

VOLATILITY
Assessment of burning characteristics of aircraft interior materials

VOLCANOES
U VOLCANOLOGY

VOCAUTION
Airborne lidar measurements of the Soufriere eruption of 17 April 1979
p0383 B62-33657

VOLTAGE
U ELECTRIC POTENTIAL
Fuselage effects in leading edge vortex flap
Span wise distribution of vortex drag and
Investigations regarding vortex formation at wings
On the vortex flow over delta and double-delta wings
Measurements of velocity distributions in the
The requirements for reduced FPR separations on
Secondary flow effects and mixing of the wake
Investigations regarding vortex formation at wings
Measurements of velocity distributions in the
The use of linearized-aerodynamics and vortex-flow
Prediction of high alpha flight characteristics
Vortex formation over double-delta wings
Span wise distribution of vortex drag and
Fuselage effects in leading edge vortex flap
Experimental and analytical studies of a model
Helicopter rotor downwash: Results of experimental research at the DFVLR-rotor test stand and their comparison with theoretical results
Simulator study of vortex encounters by a twin-engine, commercial, jet transport airplane
Chicago monostatic acoustical vortex sensing system. Volume 2: Decay of B-707 and DC-8 vortices
Optimum performance and wake geometry of co-axial rotor in hover
A numerical approach to co-axial rotor aerodynamics
User's manual for interfacing a leading edge, & flight investigation of blade-section aerodynamics for a helicopter main rotor having EC-SC2 airfoil sections
Prediction of blade side-edge suction forces and maximum inviscid lift
Production version of the extended NASA-Langley vortex lattice FORTRAN computer program. Volume 2: Decay of B-707 and DC-8 vortices
Aerocoustic from corner flow and flap flow
A study of wing vorticity patterns
A study of wing vorticity patterns
Preparing of wing side-edge separation forces and maximum inviscid lift
Prediction of wing side-edge separation forces and maximum inviscid lift
A flight investigation of blade-section aerodynamics for a helicopter main rotor having EC-SC2 airfoil sections
A study of wing vorticity patterns
Concerning the calculation of the aerodynamic characteristics of mechanized wings
Steady and unsteady nonlinear hybrid vortex method for lifting surfaces at large angles of attack
Approximate boundary condition procedure for the two-dimensional numerical solution of vortex wakes
Vorticity HELICOPTER
A study of wing vorticity patterns
A study of wing vorticity patterns
A study of wing vorticity patterns
A study of wing vorticity patterns
A study of wing vorticity patterns
Protection of advanced electrical power systems from atmospheric electromagnetic hazards
[AD-A126162] p0608 N82-23379

Alternative employment concepts for Remotely Piloted Vehicles (RPV) FLIR/TV mission payload
[AD-A117677] p0608 N82-33379

Calculations of viscous transonic flow over aerofins
[AIAA PAPER 82-0597] p0375 A82-31957

Secondary flow mixing losses in a centrifugal impeller
[AIAA PAPER 82-02-44] p0421 A82-35302

The influence of flow rate on the wake in a centrifugal impeller
[AIAA PAPER 82-02-45] p0421 A82-35303

Chicago nonreactive acoustic vortex sensing system. Volume 2: Decay of b-707 and DC-0 vortices
[AD-A109516] p0421 A82-20157

Finite difference modeling of rotor flows including wake effects
[NASA-TM-84240] p0608 N82-33345

WALL FLOW
Control laws for adaptive wind tunnels
[PNB-90067] p0319 N82-32330

Optimal subsonic diffuser vail design for arbitrary entry conditions
[AIAA PAPER 82-0312] p0115 A82-17600

Recent sidewall boundary-layer investigations with suction in the Langley 0.3-a Transonic Cryogenic Tunnel
[AIAA PAPER 82-0234] p0117 A82-17658

Self streamlining wind tunnels without computers
[p0275 A82-26181

Bach reflection of a shock wave from an inclined wall
[p0391 A82-34748

Casing wall boundary-layer development through an isolated compressor rotor
[AIAA PAPER 82-02-18] p0420 A82-35340

Influence of casting treatment on the operating range of axial compressors
[AIAA PAPER 82-02-103] p0420 A82-35340

Turbulent boundary layer on a porous surface with injection at various angles to the wall
[p0421 A82-39482

Comparison of experimental and analytical performance for contoured endwall stators
[AIAA PAPER 82-1286] p0497 A82-40424

Corrections for wall effects in OMAX industrial wind tunnels
[OMAX, TP NO. 1982-34] p0548 A82-42810

Higher-order flow angle corrections for three-dimensional wind tunnel wall interference
[p0555 A82-44246

End-wall boundary layer calculation methods
[p0204 N82-17188

Experimental investigation of turbine endwall heat transfer. Volume 1: Description of experimental hardware and test conditions
[AD-A110332] p0317 N82-21199

Experimental investigation of turbine endwall heat transfer. Volume 2: Linear and annular cascade summary data sets
[AD-A110333] p0317 N82-21200

Fluid dynamics of jets with applications to V/STOL
[AGARD-CP-300] p0360 N82-23150

Effect of modification of the trailing edge of a separating wall on the downstream mixing of parallel flowing streams
[AD-A111216] p0394 N82-24181

Three dimensional mean velocity and turbulence characteristics in the annulus wall region of an axial flow compressor rotor passage
[NASA-CR-169003] p0408 N82-25252

Comparison of experimental and analytical performance for contoured endwall stators
[NASA-TV-82877] p0186 N82-26299

Measuring the flow properties of slotted rear-section walls
[FPA-135] p0529 N82-26571

Application of a transonic similarity rule to correct the effects of sidewall boundary layers in two-dimensional transonic wind tunnels
[NASA-TN-88487] p0594 N82-32384

WALL JETS
Complete velocity profile and 'optimum' skin friction formulas for the plane wall-jet
[NASA-CR-161866] p0367 N82-23234

Fluid dynamics of jets with applications to V/STOL
[AGARD-CP-300] p0360 N82-23150

Experimental investigation of turbulent wall-jets in the presence of adverse pressure gradients in a rectangular diffuser
[p0378 A82-32330

A new method of estimating the lateral wall effect on the airflow incidence due to the suction at side walls
[SES-TR-680] p0186 N82-17123

The pressure signature method for blockage corrections, and its applications to the industrial wind tunnel
[p0267 A82-19231

Allowing for the wall boundary layer in a stage of an axial compressor
[PRR-90067] p0319 N82-21209

Jet V/STOL wind-tunnel simulation and groundplane effects
[p0361 A82-23165

Determination of wind tunnel constraint effects by a unified pressure signature method. Part 1: Applications to winged configurations
[NASA-CR-161866] p0367 N82-23234

Determination of wind tunnel constraint effects by a unified pressure signature method. Part 2: Application to jet-in-crossflow
[NASA-CR-161865] p0367 N82-23235

Experimental study of turbulence in blade end wall corner regions
[NASA-CR-169283] p0572 N82-31639

WALL TEMPERATURE
An experimental and analytical study of mixing flow of turbofan engine exhaust through circular and 2-dimensional mixer/nozzle
[AIAA PAPER 82-0130] p0286 A82-27087

Walls
FT FORBIDIC WALLS
FT TEIN WALLS
FT WIND TUNNEL W4LLS

WAPAN Engines
Advanced general aviation engine/airframe integration study
[NASA-CR-165565] p0354 N82-22268

Real time pressure sensor system for a rotary engine
[P0453 N82-26294

Advanced stratified charge rotary aircraft engine design study
[NASA-CR-165398] p0478 A82-27743

WAVES
Evaluation of aircraft in simulated combat: Computer against computer or computer against human pilot
[p0348 A82-22202

WARFARE
FT ANTI-SUBMARINE WARFARE
FT COMBAT
FT ELECTRONIC WARFARE

Type 'A' V/STOL - One aircraft for all support missions
[AIAA PAPER 81-2661] p0109 A82-16917

SIMAF - An air battle simulation of the USAF Tactical Air Control System (TACS) with advanced Tactical Radars
[p0158 A82-19256

WARHEADS
Analysis methods for predicting structural response to projectile impact
[p0202 A82-17162

WARNING
FT HEATING
FT WARNING DEVICES
FT WARNING SYSTEMS

A-464

SUBJECT INDEX
Optimal placement model for the B-52G weapons system trajectory
[AD-A1109777] p0457 N82-26323
Impact of advanced Avionics Technology and Ground Attack Weapon Systems
[AGAED-CP-306] p0670 N82-27293
Impact of advanced avionics and munitions technology on ground attack weapon systems in night and adverse weather conditions
p079 N82-27294
Weapon system of a future attack aircraft
p078 N82-27301
Kinematic investigation Hughes Helicopter 7.62mm chain gun
[AD-A1131114] p0529 N82-28287
Final engineering report for computer, weapon - aiming CP-1444A
[AD-A115238] p0569 N82-31327
Maintenance support resource forecasting models. Volume 2: Reliability and maintenance model and expected values model
[AD-A1171109] p0505 N82-32307
Math model description for the Visual Technology Research Simulator (VRTS) conventional takeoff and landing (CTOL) weapon delivery visual system
[AD-A1171141] p0611 N82-33407
WEAPONS
MT GUNS (ORDNANCE) MT LASER WEAPONS MT WARHEADS
WEAPONS DELIVERY
P-8 Advanced Avionics Flight Test
[AIAA PAPER 81-2464] p0058 A82-13929
Development of a lifting parachute to provide self-dispersing capability for an Avco-designed tactical munition
[AIAA PAPER 81-1028] p0060 A82-13962
Advanced fighter technology integration APTI/P-16 test program overview
[AIAA PAPER 82-2053] p0659 N82-14398
Weapon delivery system using GPS
p0676 A82-14771
Integrated flight/weapon control design and evaluation
p0659 A82-14741
Airborne Electronic Terrain Map System. II - Applications
p0711 A82-14733
A high strength ejector release unit for the Tornado
p1033 A82-16025
Recent improvements in prediction techniques for supersonic weapon separation
[AIAA PAPER 82-0170] p0316 A82-17020
Recent developments in artillery telemetry
p0150 A82-18508
Application of thrust vectoring for STOL
p0155 A82-19205
Laser application in weapon guidance and active imaging
p033 A82-35767
Target acquisition system/air-to-surface weapon compatibility analysis
[AIAA 82-1616] p0406 A82-38995
Unmanned aircraft in future combat
p0492 A82-39728
Radar cross-sections of tactical weapons to Mach number 8 and angle-of-attack of 180 deg
[AIAA PAPER 82-0250] p0110 A82-17064
F-16 weapon system development
p0223 A82-23774
WEAPONS
Correlation of wear with oxidation of carbon-carbon composites
p0285 A82-27068
WEAPONS DEVELOPMENT
AvroSpacelines of tactical weapons to Mach number 8 and angle-of-attack of 180 deg
[AIAA PAPER 82-0250] p0110 A82-17064
F-16 weapon system development
p0223 A82-23774
WEAPONS
Correlation of wear with oxidation of carbon-carbon composites
p0285 A82-27068
The flight control system of a future attack aircraft
p0433 A82-35767
WEATHER DATA RECORDERS
Monitoring engine wear by oil analysis
p0220 A82-24012
Proposed method for abrasion testing trace elements in plastics and coatings
p0227 A82-24311
Corrosion fatigue behaviour of some aluminium alloys
p0210 A82-17365
Flight-by-flight corrosion fatigue test program
p0210 A82-17360
Lubricant effects on efficiency of a helicopter transmission
[AIAA-82-02657] p0412 A82-25520
WEATHER
ST COLD WEATHER
Weather impact on low-altitude imaging infrared sensors in Europe - An availability model
p0072 A82-14779
The effects of weather on runway operations
p0285 A82-27050
The operation of aircraft and helicopters in difficult meteorological and environmental conditions - Russian book
p0491 A82-39295
Proceedings: Fifth Annual Workshop on meteorological and Environmental Inputs to Aviation Systems
[AIAA-CP-2192] p0310 A82-21139
Operational procedures relative to severe weather
p0310 A82-21142
Effect of heavy rain on aircraft
p0311 A82-21149
Prototype Regional Observation and Forecast System (PROPS)
p0311 A82-21150
Briefs of fatal accidents involving weather as a cause/factor, U.S. general aviation, 1979
[PHB-139934] p0465 A82-27248
Software functional description of mass weather dissemination system exploratory engineering model
[AD-A127006] p0477 A82-27573
Field program operations: Turbulence and gust front
[AD-A150477] p0562 A82-30804
Testing of turbine-powered runway distance and taxiway markers
[AD-A110585] p0612 A82-33408
WEATHER CONDITIONS
ST WEATHER
The Flight Service Automation System (FSAS) system benchmark. Volume 1: Summary, introduction and concepts
[PHB-143538] p0468 A82-27277
The Flight Service Automation System (FSAS) system benchmark. Volume 2: The model of the application
[PHB-143566] p0468 A82-27278
The Flight Service Automation System (FSAS) system benchmark. Volume 3: The vendor interface package
[PHB-143553] p0468 A82-27279
WEATHER FORECASTING

WEATHER FORECASTING

The NASA NEAT program - Developing new concepts for accurate flight planning

[AIAA PAPER 82-0400] p0119 H82-17894

FAA/WSCI aviation route forecast /AFR/ Development

[AIAA PAPER 82-0013] p0183 H82-22027

Communicating critical weather information to pilots

--- (Z.1125)

[AIAA PAPER 82-0016] p0285 H82-27082

The aviation route forecast /AFR/ program - An interactive system for pilot self-briefing -

--- (R.1508)

[AIAA PAPER 82-0011] p0553 H82-23821

A modular automated approach to airfield weather systems

p0579 H82-45813

Turbulence and wind shear experiments related to aircraft operation in the terminal area

p0579 H82-45817

Aspects of clear air turbulence severity forecasting and detection

p0579 H82-45823

The WSCI real-time aviation weather information system - An alternative to standard general aviation weather briefing procedures

p0580 H82-45834

Operational environment, meteorological conditions and weather forecasting

p036 H82-11057

Aircraft icing avoidance and protection

P0200 H82-17139

Weather deterioration models applied to alternate airport criteria

--- (AD-104676)

P0309 H82-20811

NASA research programs responding to workshop recommendations

p0311 H82-21189

Evaluation of the FAA/WSCI weather data device

AD-114466

P0562 H82-30800

Considerations for optimum situating of BEAMD to detect convective phenomena hazardous to terminal air navigation, part 1 --- meteorological radar

--- (DOZ/FAA/BD-82/56)

P0568 H82-32329

Efficient transfer of weather information to the pilot in flight

--- (NASA-CR-165899)

P0591 H82-32363

WEATHER PHENOMENON

[WEATHER PHENOMENON]

WEATHER MODIFICATION

MT LIGHTNING SUPPRESSION

WEATHER RADAR

0 METEOROLOGICAL RADAR

WEATHER STATIONS

MT AUTOMATIC WEATHER STATIONS

Instruments and installations for meteorological measurements at airports --- Russian book

P0326 H82-28826

Automated low-cost weather observation system

--- (ALMOS)

P0614 H82-33954

WEATHERING

Practical aspects of instrumentation system installation, volume 13

--- (NASA-TR-04067)

P0099 H82-13140

WEDGE FLOW

Calculation of the unsteady loads on the surface of a moving wedge with an incident shock wave

P0128 H82-18590

Hypersonic interactions with surface mass transfer. I - Steady flow over a slender wedge wing

--- (AIAA PAPER 82-0975)

P0374 H82-31944

Improved solutions to the Falkner-Skan boundary-layer equation

P0481 H82-38283

WEIGHS

Elastic-plastic finite-element analyses of thermally cycled double-edge wedge specimens

--- (NASA-TP-1972)

P0368 H82-20566

WEIGHT (MASS)

MT STRUCTURAL WEIGHT

WEIGHT ANALYSIS

Zone loading of flight-vehicle structures

P0334 H82-29838

WEIGHT INDICATORS

MT MICROMEASURES

MT STRAIN GAGE BALANCES

A 466

--- (NASA-CR-166390)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)

--- (NASA-CR-166590)
WIND SHEAR

SUBJECT INDEX

A review of the history of nondestructive testing in Japan
p0584 A82-48257

ELDRED STRUCTURES
Welding for low-cost advanced titanium airframe structures
p022 A82-23757

Production welding on the A-10 aircraft
p032 A82-26995

ELDRED
MT HEATING
MT DIFFUSION WELDING
MT ELECTRON BEAM WELDING
MT TORSION WELDING
MT GAS TUNGSTEN ARC WELDING
MT PLASMA ARC WELDING
MT ULTRASONIC WELDING
Welding technology for the aerospace industry;
Proceedings of the Conference, Las Vegas, NV,
October 7, 8, 1980
p022 A82-23753

ELDRED MACHINES
Novel approaches to electron beam welding machine
utilization
p022 A82-23753

WEST GERMANY
Analysis of two air traffic samples in the
terminal area of Frankfurt am Main, 9 August 1978
p0140 A82-15029

WESTLAND AIRCRAFT
MT P-53I HELICOPTER
Industrial experience in the Anglo-French
helicopter collaboration
p0312 A82-21150

WESTLAND P-53I HELICOPTER
U P-53I HELICOPTER

WINDSHIELD U MOISTURE CONTENT

WHEEL BRAKES
Touchdown technology --- large aircraft landing
gear stress
p0496 A82-40057

Dynamics of aircraft assisted braking systems ---
conducted at the Langley aircraft landing loads
and traction facility
[NASA-TN-1959] p0254 A82-18204

Proof-of-concept hydraulic system
[AD-A111319] p0407 A82-25245

WINDS
MT FLWHEELS
MT NOSE WHEELS
MT TURBINE WHEELS
Self-oscillations of the front caster wheel strut
for a given track width under the assumption of
the wheel drift hypothesis
p0105 A82-16290

NASA vertical drag test report --- rotor system research aircraft
[NASA-CR-166399] p0587 A82-32341

WHEEL
U ROTATION
WHEEL INSTABILITY
U ROTARY STABILITY

WHEELING
U ROTATION
WHEELING TESTS
U SPIN TESTS

WHISKER COMPOSITES
High-temperature composites. Status and future
directions
[NASA-TN-82529] p0559 A82-30336

WHISKERS (CRYSTALS)
The Schnellit fuel injector: An initial
performance evaluation without burning
[AD-A1113612] p0473 A82-27315

WHISTLERS
Linear and nonlinear analysis of vortex whistle:
Another blade buster
p014 A82-15067

WIDERBAND
U BROADBAND

WIDERBAND COMMUNICATION
The influence of technology advances on integrated
CMI avionics --- integrated communications,
Navigation, and Identification Avionics for
military aircraft
p0176 A82-20672

WIGHTMAN THEORY
U FIELD THEORY (PHYSICS)

WINDSHEAR
MT BIRDS
MT CRIMINOLOGY
MT GROUND WIND
MT GUSTS
MT SQUALLS

WIND CIRCULATION
U ATMOSPHERIC CIRCULATION

WIND DIRECTION
Gust front structure observed by Doppler radar
[AD-A083866] p0004 A82-10223

The characteristics and detection of low level
wind shear in the critical phases of flight
p0297 A82-28349

Wind determination and wind shear detection from
flight test and airline flight data
p0579 A82-45815

WIND EFFECTS
The influence of wind shear and vertical winds on
takeoffs and go-arounds
p0082 A82-15023

Minimum cost atmospheric cruise control - Most
efficient speedup for a given wind component
[AILA PAPER 82-0341] p0119 A82-17695

Sudden changes in wind velocity - Their effect on
aircraft and means of reducing hazard
p0334 A82-29871

Optimal dolphin hang glider flight
p0201 A82-17157

Eigenvalue techniques for active flutter suppression
[NASA-CR-168931] p0396 A82-24206

The shock and vibration digest, volume 14, no. 7
[ED-A117233] p0585 A82-32301

WIND ENERGY
U WINDPOWER UTILIZATION

WIND VELOCITY
U WIND VELOCITY MEASUREMENT

WIND DETERMINATION
Detection and display of wind shear and turbulence
p0004 A82-10222

Wind and temperature database for flight planning
[SAP PAPER 81040] p0231 A82-24385

The dynamic behaviour of propeller anemometers
p0276 A82-26184

The detection of low level wind shear
p0463 A82-38663

Aspects of clear air turbulence severity
p0579 A82-45823

Methods for analysis of wind ripple in wind turbines
[SAND-81-7006] p0306 A82-20193

WIND PRESSURE
Hurricane-induced wind loads
[PB82-122267] p0476 A82-27548

Aerodynamic forces acting on the blades of stall-
regulated propeller type windmills
[DE82-901178] p0579 A82-31718

WIND PROFILES
Numerical and flight simulator test of the flight
deterioration concept
[NASA-CR-3500] p0193 A82-16655

Wind tunnel measurements of three-dimensional
wakes of buildings --- for aircraft safety
applications
[NASA-CR-3565] p0461 A82-26921

WIND SHEAR
An airport wind shear detection and warning system
using Doppler radar
p0001 A82-10220

Instrumented aircraft verification of clear-air
radar detection of low-level wind shear
p0004 A82-10221

Detection and display of wind shear and turbulence
p0004 A82-10222

A decoupled control system for improved flight
performance in wind shear
p043 A82-13079

A criterion for determining the causes of wind
shear at Punta Rassa airport, on the basis of
statistical data from barograph records
p0080 A82-15686

The influence of wind shear and vertical winds on
takeoffs and go-arounds
p0082 A82-15023

An experimental investigation of the influence of
vertical wind shear on the aerodynamic
characteristics of an airfoil
[AILA PAPER 82-0219] p0117 A82-17843

Simulation of phugoid excitation due to hazardous
wind shear
p0001 A82-15686

A-669
A laser-interferometer method for determining the forces on a freely-flying model in a shock-tunnel: I. Test and comparison with theoretical predictions p. 1742

Cryogenic Technology, part 1 conference proceedings: cryogenic wind tunnel design and instrumentation p. 1743

Wind tunnel calibration: Automatic checking of measuring units in the National Transonic Facility (NTF) p. 1744

Wind tunnel balances II: Weight indicators p. 1745

Wind tunnel apparatus I: Overview of the European Transonic Wind Tunnel Project p. 1746

Wind tunnel nozzle design p. 1747

A progress report on the European Transonic Wind Tunnel Project p. 1748

Evaluation and wind tunnel tests of the 4,000 lb (normal-force) pitch/yaw and roll dynamic stability balance systems for measuring direct, cross, and cross-coupling derivatives — Part 2 p. 1749

Development and trial of a rotary balance for the 4,000 lb wind tunnel in the Federal Republic of Germany p. 1750

An investigation of the transonic calibration tunnel - Flight Correlation, 1981 p. 1751

Theoretical optimisation and experimental verification of an injector p. 1752
A study of flight control requirements for advanced, winged, earth-to-orbit vehicles with far-off center-of-gravity locations
[NASA-CP-19917] p0267 B82-19226
A descriptive study of the analysis of variance and regression techniques in an error analysis program for test data obtained in a 16 foot transonic tunnel
p0309 B82-20997
Fluctuating pressures on fan blades of a turbofan engine: Static and wind-tunnel investigations
[NASA-TP-1976] p0309 B82-21037
35/STOL fan transition sections model test --- in the Low Reynolds Research Center 10-by-10 foot wind tunnel
[NASA-CP-165587] p0312 B82-21158
Low-speed measurements of the static pressure distribution and overall forces on a cambered and a symmetric mild gothic wing of aspect ratio 1.4 --- in a wind tunnel
[SAB-TR-60066] p0312 B82-21161
Pressure distributions on some delta wings at \( \alpha = 4 \) --- wind tunnel tests
[SAB-TR-60068] p0313 B82-21164
A preliminary comparison between the 8A-3 propeller noises in flight and in a wind tunnel
[NASA-TR-82005] p0322 B82-19998
Aerospatiale survey of wind tunnel test cases of small and large scale Roscos
[SNRA-82-2010-17] p0350 B82-22225
Experiment on active flutter suppression of a cantilever wing
[NAL-TR-6809] p0356 B82-22282
Experiments on propeller noise
p0359 B82-22978
Fluid dynamics of jets with applications to 35/STOL
[AGARD-CP-308] p0360 B82-23150
Jet 35/STOL wind tunnel simulation and groundplane effects
p0364 B82-23165
Wind tunnel investigations of mainplane fuselage with different latticing and wing settings --- aerodynamic drag measurement
p0364 B82-23200
Evaluation of four subcritical response methods for on-line prediction flutter onset in wind-tunnel tests --- conducted in the Langley Transonic Dynamics Tunnel
[NASA-TR-83278] p0368 B82-23240
Structural half-span model support system
[NASA-CASE-LAB-12641-1] p0370 B82-23254
Wind-Tunnel/Flight Correlation, 1981
[NASA-CP-2225] p0403 B82-25196
Review of the 1980 Wind-Tunnel/Flight Correlation Panel
Wind-tunnel/flight-drag correlation
p0403 B82-25198
Wind-tunnel/flight correlation program on XD-70-8-1
p0404 B82-25201
Problems in correlation caused by propagation systems
p0404 B82-25202
F-15 wind-tunnel/flight correlations
p0404 B82-25203
Opportunities for wind-tunnel/flight correlation with new Boeing airplanes
p0404 B82-25206
F-16\( \infty \) program overview and wind tunnel/flight correlation
p0404 B82-25207
F-29A forward-swept-wing demonstrator airplane
p0404 B82-25209
Application of Computational Fluid Dynamics (CFD) in transonic wind-tunnel/flight-test correlation
p0404 B82-25211
Elastic deformation effects on aerodynamic characteristics for a high-aspect-ratio supersonic-wing model
p0404 B82-25214
Thrust-induced effects on low-speed aerodynamics of fighter aircraft --- Langley 4\( \infty \) by 7-meter tunnel
[NASA-TR-83277] p0405 B82-25218
Aerocentricity of compressor blades: Subsonic stall flutter
p0414 B82-26189
Effects of wing-leading-edge modifications on a full-scale, low-mounted general aviation airplane: Wind-tunnel investigation of high-angle-of-attack aerodynamic characteristics --- conducted in Langley 30\( \infty \) by 60-foot tunnel
[NASA-TP-2011] p0446 B82-26217
Aerodynamic interactions between a 1/6 scale helicopter rotor and a body of revolution
[NASA-TR-84247] p0521 B82-28252
Wind-tunnel evaluation of an aeroelectronically controllable rotor
[AD-AL10838] p0521 B82-28260
Investigation of correlation between full-scale and fifth-scale wind tunnel tests of a Bell helicopter X-Factor Model 222
p0535 B82-29315
Windtunnel capability related to test sections, cryogenics, and computer-windtunnel integration
[AGARD-AB-178] p0535 B82-29334
Forward velocity effects on fan noise and the suppression characteristics of advanced inlets as measured in the NASA Ames 40 by 80 foot wind tunnel
[NASA-CR-152128] p0540 B82-30030
Wind tunnel investigations on this supercritical airfoils in high subsonic flow
[DFVL-62-06] p0557 B82-30296
Supercritical maneuvering fighter configuration: Wind-tunnel investigation at Mach numbers of .60 to .95
[NASA-TR-4513] p0567 B82-31303
WIND TUNNEL WALLS
Control laws for adaptive wind tunnels
p0612 B82-10505
On low-speed wind tunnels with deformable boundaries
p0616 B82-11462
Three-dimensional flow studies on a slotted transonic wind tunnel wall
[AINA-PAPER-72-2203] p0117 B82-17055
Transonic wind tunnel wall interference corrections for three-dimensional models
[AINA 82-0598] p0237 B82-24666
Self streaming wind tunnels without computers
p0275 B82-26181
Wind-tunnel wall interference corrections for three-dimensional flows
p0379 B82-32047
Aerodynamic behavior of a slender slot in a wind tunnel wall
p0481 B82-38261
Wind-tunnel testing of 35/STOL configurations at high lift
p0510 B82-40949
Corrections for wall effects in ORBA industrial wind tunnels
[FORRE, TP NO. 1982-34] p0548 B82-42810
The use of adaptive walls in plane flows
[ORBA, TP NO. 1982-38] p0548 B82-42813
Higher-order flow angle corrections for three-dimensional wind tunnel wall interference
p0555 B82-44246
The pressure signature method for blockage corrections, and its applications to the industrial wind tunnel
[BD-263] p0267 B82-19231
Sonic wind tunnel of the Institute of Fluid Mechanics of Lille
[NASA-TR-76687] p0306 B82-20192
Theoretical and experimental investigations of wind tunnel interference due to angle of attack
[NASA-PB-1240/9928/34] p0320 B82-22126
A numerical investigation of two-dimensional, subsonic, linear, wind tunnel interference theory
[AFRL/AEDO-NP-043] p0369 B82-23197
Determination of wind tunnel constraint effects by a unified pressure signature method. Part 1: Applications to wanged configurations
[NASA-CR-166186] p0367 B82-23234
Determination of wind tunnel constraint effects by a unified pressure signature method. Part 2: Application to jet-in-crossflow
[NASA-CR-166187] p0367 B82-23235
Adaptive-wall wind tunnel research at NASA-Ames Research Center
[NASA-TR-86236] p0397 B82-24214
Wind-Tunnel/Flight Correlation, 1981
[NASA-CP-2225] p0403 B82-25196
Tunnel-to-tunnel correlation
p0404 B82-25200
Measuring the flow properties of slotted test-section walls
[PPA-135] p0529 B82-28571
Application of a transonic similarity rule to correct the effects of sidewall boundary layers in two-dimensional transonic wind tunnels [NASA-TN-84897] p0594 A82-32304

WIND TUNNELS

- BISD TOSHELS
- BISDHIHDSIU.S (HIHDPOHBBBD HACHIIBS)
- HIHDIBS
- HIIDHILLIBG
- BUD V8LOCHI HBASOBBaBHT
- BIHD VABIAIIOHS
- BIHD TABES
- BISD VBLOCIII

Application of a transonic similarity rule to correct the effects of sidewall boundary layers in two-dimensional transonic wind tunnels [NASA-TN-84897]

Aerodynamics - Retrospect and prospect /The 21st

Lancaster Memorial Lecture/ p0275 A82-26098

Aerolechnical research and development [Owens, TP No. 1961-90] p0387 A82-36114

Evaluation of the acoustic measurement capability of the NASA Langley V/STOL wind tunnel open test section with acoustically absorbent ceiling and floor treatments [NASA-CR-165796] p0030 A82-10059


A versatile data acquisition system for a low speed wind tunnel (AD-405265) p0192 A82-16907

Applications of a laser velocimeter in the Langley 4- by 7-meter tunnel p0598 A82-32693


WIND TUNNELS

Darwin’s rotor aerodynamics p0304 A82-33708

Methods for analysis of wind ripple in wind tunnels [SAND-81-7006] p0306 A82-20193

Approach to the fatigue analysis of vertical-axis wind-turbine blades [DE82-003193] p0308 A82-20573

Yawing of wind turbines with blade cyclic-pitch variation [DE81-029639] p0461 A82-26822

Aerodynamic forces acting on the blades of stall regulated propeller type windmills [DE82-901178] p0573 A82-31718

WIND VAMES

Programmable controller system for wind tunnel diversion vanes p0543 A82-41046

WIND VARIATIONS

Methods for analysis of wind ripple in wind turbines [SAND-81-7006] p0306 A82-20193

WIND VELOCITY

Gust front structure observed by Doppler radar [AD-408366] p0094 A82-10223

The characteristics and detection of low level wind shear in the critical phases of flight p0297 A82-28349

Sudden changes in wind velocity - Their effect on aircraft and means of reducing hazard, I p0334 A82-29871

Wind determination and wind shear detection from flight test and airplane flight data p0579 A82-45815

On the aerodynamics of windblast [AD-8110595] p0405 A82-25221

Computer-simulated analysis of a jet in a cross-stream p0539 A82-29555

WIND VELOCITY MEASUREMENT

The Joint Airport Weather Studies Project p0311 A82-21152

WINDING

- BISD FILAMENT WINDING
- BISDROLLING
- BISD AUTOROLLING

WINDMILLS (WINDPOWERED MACHINES)

Source model for the verification of computational methods

[ISDO-275] p0214 A82-17638

Static investigations of rotor blades under deadweight and during stationary operation [ISDO-269] p0214 A82-17639

Stability and response to gravity of the flap lag motion for a rigid rotor blade with flap-pitch coupling [ISDO-270] p0214 A82-17640

Dynamic analysis of a rotor blade with flap and lag freedom and flap-pitch coupling [ISDO-271] p0214 A82-17641

Static and dynamic investigations for the model of a wind rotor [ISDO-272] p0214 A82-17642

An extension of the local momentum theory to the rotors operating in twisted flow field p0245 A82-18123

Modal characteristics of rotor blades: Finite element approach and measurement by ground vibration test p0245 A82-18127

WINDS (APERTURES)

Algorithms for an adaptive dynamic window in electronic map system p0711 A82-14769

Fall scale test facilities for radomes and antenna windows p0281 A82-26667

WINDPOWER UTILIZATION

Biannual Wind Energy Conference and Workshop, 5th, Washington, DC, October 5-7, 1981, Proceedings p0303 A82-33701

WINDPOWERED GENERATORS

German-Argentine experiment: Vertical-rotor wind engine p0091 A82-12648

Loading cycles and material data for the layout of a wind turbine of special hub concept [ISDO-273] p0215 A82-17643

Methods for analysis of wind ripple in wind turbines [SAND-81-7006] p0306 A82-20193

User's manual for the vertical axis wind turbine code VDAT72 [DE82-000756] p0461 A82-26828

WINDSCREENS

- U WINDSCREENS

Windshields Design analysis of high temperature transparent windshields for high performance aircraft [ASHE PAPEB BI-EHAS-S] p0011 A82-10893


Transparency development needs for military aircraft in the 1980's p0225 A82-24302

Deficiencies and constraints that affect the design of cockpit enclosures and transparencies p0226 A82-24303

Fuel-efficient windshields for transport, computer and business aircraft p0226 A82-24304

Transparencies - What an aircraft designer should know p0226 A82-24305

Aircraft transparency design guide p0226 A82-24307

A new angular deviation measurement device for aircraft transparency p0226 A82-24308

Proposed method for abrasion testing transparent plastics and coatings p0227 A82-24311

Windshield system structural enhancement p0227 A82-24312

The role of finite element analysis in the design of birdstrike resistant transparencies p0227 A82-24313

The development of high strength light-weight windshields for the new generation of Boeing 757 and 767 airliners p0228 A82-24314

D.C.9 windscreen - Effect of attachment torque p0228 A82-24323

B.A.C. One-Eleven flight deck glazing product improvement p0228 A82-24324

Concorde glazings - 5 years of Bach II Service p0228 A82-24326
Analysis of an airplane windshield anti-icing system [AIAA PAPER 82-1372] p0489 A82-39134

Experimental trim drag values for conventional and supercritical wings [NASA-CR-185500] p0198 A82-17126
Slotted variable camber flap [NASA-CASE-Lab-12561-1] p0254 A82-18203
Aerelastic tailoring for control and performance: Are requirements compatible? p0348 A82-22200

Increasing the lift/drag ratio of a flat delta wing p0016 A82-11899

Experimental study of subsonic and transonic flows past a wing p0005 A82-10363

Wing design for light transport aircraft with improved fuel economy p0065 A82-14016

The NASA Langley laminar flow control airfoil experiment [AIAA PAPER 82-0567] p0381 A82-33327

The unsteady motion of a wing flying at subsonic speed above a plane p0491 A82-39356

Vortex formation over double-delta wings p0514 A82-40989

Nonlinear prediction of subsonic aerodynamic loads on wings and bodies at high angles of attack p0015 A82-11359

On the question of trailing airplane motion p0053 A82-13560

Divergence of a swept-forward wing p0127 A82-48586

Investigation of the stream-strain state of a rectangular wing section of variable thickness under concentrated loads and heating p0183 A82-22004

Wind-canon aerodynamics at transonic speeds - Fundamental considerations on missile drag p0238 A82-24674

Development of a preloaded hybrid advanced composite wing pivot fairing p0267 A82-27131

Instability effects on pylon and engine loading in an aircraft with high-aspect-ratio wings p0388 A82-34163

Investigation of the unsteady airloads on a transport aircraft type airfoil with two interchangeable oscillating trailing edge flaps, at transonic speed and high Reynolds numbers p0507 A82-40909

The design integration of wingtip devices for light general aviation aircraft p0508 A82-40933

Operation V107 - Development of a composite material wing p0509 A82-40934

A crack growth model under spectrum loading p0511 A82-40961

Test results of chordwise and spanwise blowing for low-speed lift augmentation p0515 A82-40999

Maximum induced drag of canard configurations p0518 A82-41116

The design of airfoil profiles with trailing edge loading in transonic flow --- French thesis p0554 A82-44224

A study on numerical method for evaluating the spanwise integral in subsonic lifting-surface theory [NAL-TR-6611] p0034 A82-11035

Aerelastic theory for noncompact wing-gust interaction [NASA-CR-81-17] p0306 A82-11071

Effect of fighter attack spectrum on composite fatigue life [AD-10503h] p0069 A82-12143

Development of an efficient procedure for calculating the aerodynamic effects of planform variation [NASA-CR-3489] p0137 A82-14529

Some unsteady aerodynamic effects on helicopter rotors p0250 A82-18162

A surface singularity method for rotors in hover or climb [AD-A3068] p0340 A82-20786

Prediction of wing side-edge suction forces and maximum inactivit lift p0403 A82-25192

Comparison of analytical and wind-tunnel results for flutter and gust response of a transport wing with active controls [NASA-TP-12010] p0460 A82-26703

Automated optimum design of wing structures. Deterministic and probabilistic approaches [NASA-TR-84775] p0535 A82-29317

Aerodynamic theory for noncompact wing-gust interaction [NASA-CR-3194] p0568 A82-32346

Wing Nacelle Configurations

Transonic perturbation analysis of wing-fuselage-nacelle-pylon configurations with powered jet exhausts [AIAA PAPER 82-0255] p0184 A82-22077

The use of small strakes to reduce interference drag of a low wing, twin engine airplane [AIAA PAPER 82-1323] p0407 A82-39100

The prediction of propeller/wing interaction effects p0510 A82-40948

Establishment of an experimental technique to provide accurate measurement of the installed drag of close coupled civil nacelle/airframe configurations, using a full span model with turbine powered engine simulators p0096 A82-13069

Evaluation of an experimental technique to investigate the effects of the engine position on engine/fuselage/nacelle/pylon/wing interaction p0096 A82-13090

A numerical method for studying nacelle-jet-airfoil interaction in inviscid three-dimensional flow p0096 A82-13094

Transonic perturbation analysis of wing-fuselage-nacelle-pylon configurations with powered jet exhausts [NASA-CR-165852] p0262 A82-19167

Selected wingtip and mixed flow long duct nacelle development for DC-10 derivative aircraft [NASA-CR-32296] p0589 A82-32347

Wing Oscillations

Experimental study of airframe stall-through vibrations p0015 A82-11947

A method for locating aircraft wing damage by nonlinear vibration analysis p0109 A82-17116

Instantaneous turbulence profiles in the wake of an oscillating airfoil [AIAA PAPER 82-0352] p0119 A82-17901

L-476

SUBJECT INDEX
Responses of oscillating wings in weak shear flow
Torsional vibrations of a wing carrying a concentrated load /asymptotic behavior/
A simplified wing procedure in connection with the lifting line theory and the doublet-lattice method
The velocity potential for the harmonically oscillating, rectangular wing with semi-infinite span in nonlinear theory
Unsteady lifting-line theory with applications
Flow field around an oscillating airfoil
Numerical calculation of lift, moment coefficient and dynamic stability derivatives on sideslipping wings in unsteady supersonic flows
Oscillating supersonic/hypersonic wings at high incidence
Recent developments in wings with stores flutter suppression
Results of recent measurements on an oscillating aerofoil
Unsteady response of rectangular wings in spanwise uniform shear flow
Wing/control surface flutter analyses using experimentally corrected aerodynamics
Experimental study of oscillating-wing propulsion
Test demonstration of digital control of wing/store flutter
Static and unsteady pressure measurements on a 50 degree clipped delta wing at H = 0.9
Comparison between computations and experimental data in unsteady three-dimensional transonic aerodynamics, including aeroelastic applications
Transonic flutter study of a wind-tunnel model of a supercritical wing with/without winglet
Feedback control of a cantilever wing in steady airflow
Fundamental torsional frequency of a class of solid wings
On the torsional modes of a uniformly tapered solid wing
Dynamic load measurements with delta wings undergoing self-induced roll-oscillations
Theoretical and experimental investigation of joint-structural damping interaction for airplane construction
Sensitivity analysis and optimization of aeroelastic stability
Transonic flutter and response analyses of two 3-degree-of-freedom airfoils
Choice of weight coefficients in the problem of the optimal damping of the elastic oscillations of a wing
The effect of a screen on the aerodynamic characteristics of an oscillating profile
Aerelasticity patterns: Some reflections on two decades of testing in the NASA Langley transonic dynamics tunnel
Lifting surface theory for wings in low frequency small amplitude yawing and side slipping oscillating motions at low speeds
A theoretical investigation of wing rocking

Application of the ONERA dynamic stall model to a helicopter blade in forward flight
Pressure measurements on a wing oscillating in supercritical flow
Application of modal synthesis techniques for the dynamic qualification of wings with stores
Static and unsteady pressure measurements on a 50 degree clipped delta wing at R = 0.5 --- conducted in the Langley Transonic Dynamics Tunnel
Application of modal control to wing-flutter suppression

WING PLATFORMS
Formation of triangular-element stiffness matrix using sliding interpolation
Multilevel optimum design of structures with fiber-composite stiffened-panel components
Bolted field repair of graphite/epoxy wing skin laminates
Flight service evaluation of advanced structures
Nondestructive detection of exfoliation corrosion around fastener holes in aluminum wing skins
Efficient optimum design of structures - Program DDDD
Operation V10F - Development of a composite material wing
Development of an efficient procedure for calculating the aerodynamic effects of planform variation
User's manual for interfacing a leading edge, vortex rollup program with two linear panel methods

WING PLATFORMS
AT ARROW WINGS
AT DELTA WINGS
AT INFINITE SPAN WINGS
AT SWEEP FORWARD WINGS
AT SWEEPBACK WINGS
AT TRAPEZOIDAL WINGS
AT VARIABLE SPAN WINGS
A simplified wing procedure in connection with the lifting line theory and the doublet-lattice method
Numerical solution of three-dimensional unsteady transonic flow over wings including inviscid/viscous interactions
YF-16 design concept and philosophy
Helicopter rotor performance improvement by utilization of swept back parabolic blade tip
Analysis of small-aspect-ratio lifting surfaces in ground effect
An experimental study at free-stream Mach 5 of the aerodynamic heating of the upper surface of plane wings of various planforms
Hysteresis of the normal force of a wing of complex planform under unsteady motion
Transonic computational experience for advanced tactical aircraft
Chordwise and compressibility corrections for arbitrary planform slender wings
Wind tunnel test and aerodynamic analysis of three aerodynamically tailored wings
The effect of a weak shock wave on a wing of complex planform at supersonic velocities
Development of an efficient procedure for calculating the aerodynamic effects of planform
WINGED VEHICLES
In-flight deflection measurement of the HiHAT aerodynamically tailored wing
[AIAA PAPER 81-2450] p0063 A82-14381

WINGLETS
Aerodynamic evaluation of winglets for transport aircraft
[AIAA PAPER 81-1215] p0186 A82-22245

Transonic flutter study of a wind-tunnel model of a supercritical wing with/without winglet
[AIAA 82-0721] p0340 A82-30171

The design integration of wingtip devices for light general aviation aircraft
p0508 A82-40933

Transonic flutter study of a wind-tunnel model of a supercritical wing with/without winglet
-- conducted in Langley Transonic Dynamics Tunnel
NASA-TM-82239

Selected winglet and mixed flow long duct nacelle development for DC-10 derivative aircraft
[NASA-CR-3296] p0589 N82-32347

Application of an optimized winglet configuration to an advanced commercial transport
[NASA-CR-191596] p0589 N82-32348

WINGS
\[\text{ NT ARROW WINGS} \]
\[\text{ NT BEARINGLESS ROTORS} \]
\[\text{ NT CARBONIZED WINGS} \]
\[\text{ NT CANT WINGS} \]
\[\text{ NT DELTA WINGS} \]
\[\text{ NT FIXED WINGS} \]
\[\text{ NT FLEXIBLE WINGS} \]
\[\text{ NT INFINITE SPAN WINGS} \]
\[\text{ NT LIFTING ROTORS} \]
\[\text{ NT LOW ASPECT RATIO WINGS} \]
\[\text{ NT OBLIQUE WINGS} \]
\[\text{ NT PAIR WINGS} \]
\[\text{ NT RECTANGULAR WINGS} \]
\[\text{ NT RIGID ROTORS} \]
\[\text{ NT RIGID WINGS} \]
\[\text{ NT ROTARY WINGS} \]
\[\text{ NT SLENDER WINGS} \]
\[\text{ NT SUPERCRITICAL WINGS} \]
\[\text{ NT SWEPT FORWARD WINGS} \]
\[\text{ NT SWEPT BACK WINGS} \]
\[\text{ NT TWIN WINGS} \]
\[\text{ NT TILTING ROTORS} \]
\[\text{ NT TRAPEZODAL WINGS} \]
\[\text{ NT TWISTED WINGS} \]
\[\text{ NT UNSCRIPTED WINGS} \]
\[\text{ NT VARIABLE SLEEP WINGS} \]

Angle of downwash behind a wing in unsteady flow
p0241 A82-2970

Structural design and construction of the new technology wing
p0283 A82-26541

Experimental program for general aviation -- wing design, construction and flight testing
p0283 A82-26542

One year flight testing of the Transonic Wing
p0283 A82-26543

Fracture control in ballistic-damaged graphite/epoxy wing box structure
p0284 A82-26639

Durability evaluation of highly stressed wing box structure
p0290 A82-27163

Design considerations and experiences in the use of composite material for an aerelastic research wing
[AIAA 82-0978] p0338 A82-30146

The equivalent simple body /ESB/ method for transonic wing analysis
[AIAA PAPER 82-0936] p0374 A82-31923

Design of finite element grids for the computation of the three-dimensional transonic flow around a wing
[AIAA PAPER 82-1019] p0375 A82-31972

Multibody transport concept
[AIAA PAPER 82-0810] p0376 A82-31983

Application of computational methods to transonic wing design
p0431 A82-35561

A-7 transonic wing designs
p0431 A82-35562

Evaluation of full potential flow methods for the design and analysis of transport wings
p0432 A82-35567

Investigations regarding vortex formation at wings with bent leading edges
p0433 A82-35568

Optimization of flight with tilt wings
p0507 A82-40912

Advanced aerodynamic wing design for commercial transports -- Review of a technology program in the Netherlands
p0514 A82-40985

The application of geometric programming to the structural design of aircraft wings
p0546 A82-42546

A study of wing vorticity patterns
p0582 A82-46621

Prediction of fatigue crack propagation in plane specimens and thin-walled structural elements of aircraft wing skins under program loading
p0508 A82-42729

Aircraft wing trailing-edge noise
[NASA CR-164952] p0589 N82-11039

On the kernel function collocation method in steady subsonic flow for wing with control surfaces
p0584 A82-12023

Calculation of wing-body-nacelle interference in subsonic and transonic potential flow
p0097 A82-13095

Prediction of aerodynamic loads on aircraft with external stores at transonic speeds
p0101 A82-13813

Integration of a code for aerelastic design of conventional and composite wings into ACSINT, an aircraft synthesis program -- wing aerelastic design (WADOD)
[NASA-CR-137805] p0189 A82-16069

Theory and experiment in unsteady aerodynamics
[NASA CR-60046-6] p0199 A82-17128

Experimental verification of an aerodynamic parameter optimization program for wind tunnel testing
[AD-A107727] p0199 A82-17124

EFP-I2A diagnostic and development programs
[AD-A108354] p0254 A82-18206

Numerical aircraft design using 3-D transonic analysis with optimization. Volume 1: Executive summary
[AD-A1010053] p0314 A82-21180

Numerical aircraft design using 3-D transonic analysis with optimization. Volume 2: Part 1: Transport design
[AD-A102231] p0315 A82-21181

Some remarks on buffetting --- of wings, wind tunnel models
[NASA-TH-9976-960] p0319 A82-21216

Investigation of passive shock wave-boundary layer control for transonic airfoil drag reduction
p0349 A82-22209

Experiment on active flutter suppression of a cantilever wing
[AD-TH-690] p0356 A82-22822

Application of a transonic potential flow code to the static aerelastic analysis of three-dimensional wings
[NASA CR-63296] p0363 A82-23193

Aerodynamics of an airfoil with a jet issuing from its surface
[NASA CR-84025] p0523 A82-28279

Aerodynamics of an airfoil with a jet issuing from its surface
[NASA CR-84025] p0531 A82-29267

An effective algorithm for shock-free wing design
[AD-116265] p0569 A82-31322

Investigation of the interference effects of mixed flow long duct nacelles on a DC-10 wing
[NASA CR-15202] p0586 A82-32319

A-679
Decoupler pylons: wing/store flutter suppressor
[NASA-CASE-LAR-12668-1] p0592 B82-332373
A color video display technique for flow field surveys
Langley test highlights, 1981
[NASA-Th-84519] p0603 B82-333330
NIEK
ST ELECTRIC WIRE
Wire strike protection
Techniques for overhead-wire detection -- to prevent helicopter wirestrikes
[NASA-Th-82793] p0259 B82-18612
NIEK CLOTH
Metal honeycomb to porous wireform substrate
Diffusion bond evaluation
[NASA-Th-82793] p0259 B82-18612
NIEK RESH
U WIRE CLOTH
NIEKING
The variation of induced currents in aircraft wiring
[NASA-Th-82793] p0259 B82-18612
NILED SYSTEMS
U NIEKING
WORK
The work environment
Efficient use of working fluids in aviation hydraulic systems
[NASA-Th-82793] p0534 B82-29299
WORKLOADS (PSYCHOPHYSIOLOGY)
Assessing pilot workload - Without disturbing pilot behavior
Flight simulation consoles, aid or obstruction -- Objectives
Evaluation of control consoles of modern flight and tactics simulators
[DGLN PAPER 81-007] p0159 B82-19269
Combined multisensor displays -- image preprocessing for shape coding to reduce pilot workload
[NASA-Th-82793] p0210 B82-22905
Utilizing the helicopter's versatility to improve the AC system
[NASA-Th-82793] p0210 B82-23316
Boeing's new 767 gains crew workload
[NASA-Th-82793] p0497 B82-40308
Electronic master monitor and advisory display systems, operational functions report
[AD-A105516] p0133 B82-14087
Update of the survey report of 1977-1978 tank force on aircraft workload
[AD-A112547] p0484 B82-26258
Real-time simulation of an airborne radar for overwater approaches
[NASA-EC-166293] p0485 B82-26262
Cockpit display of traffic information and the measurement of pilot workload: An annotated bibliography
[AD-A112547] p0487 B82-27291
Special investigation report: Air traffic control system
[PB82-136276] p0523 B82-28277
Pilot/vehicle model analysis of visual and motion cue requirements in flight simulation
[NASA-Th-82793] p0562 B82-30038
X
X BAND
O SUPERHIGH FREQUENCIES
X BAND ASTRONOMY
Construction and testing of an Omega navigation system for the balloon-borne X-ray experiment
German thesis
X BAND INSPECTION
Characterization of material properties by limited scan X-ray tomography
[AD-A113670] p0594 B82-32422
X BAND SPECTROGRAPHY
O X BAND SPECTROSCOPY
X BAND SPECTROSCOPY
O X BAND SPECTROSCOPY
X BAND SPECTROSCOPY
Techniques suitable for a portable X-ray analyzer
Subject Index
[AD-A111352] p0411 B82-25488
X WING ROTORS
Advanced helicopter concepts compete
[NASA-Th-84519] p0283 B82-26537
X-wing and the Navy V/STOL initiative
[NASA-Th-84519] p0385 B82-33915
An X-Wing aircraft control system concept
[AD-A113670] p0405 B82-38954
An investigation of a stoppable helicopter rotor with circulation control -- area 40 by 80 foot wind tunnel
[NASA-Th-81210] p0206 B82-10030
Development of low-order model of an X-wing aircraft by system identification
[AD-A113750] p0469 B82-27286
X-14 AIRCRAFT
The X-14 -- 24 years of V/STOL flight testing
[NASA-Th-82793] p0210 B82-19427
X-70 AIRCRAFT
O X-70 AIRCRAFT
X-70 AIRCRAFT
Special investigation report: Air traffic control system
[AD-A113670] p0213 B82-17477
Implementation of a V/STOL control system -- airborne laser tracking system
[NASA-Th-82793] p0334 B82-22174
V/STOL tilt rotor research aircraft
[NASA-EC-166293] p0385 B82-44468
Simulation of the XV-15 tilt rotor research aircraft
[AD-A112547] p0395 B82-24194
Versatility of an X-V/STOL tilt rotor research aircraft
[NASA-EC-166293] p0395 B82-24194
XV-15 AIRCRAFT
A study of the suitability of the all fiberglass IV-14 aircraft for fuel efficient general aviation flight research
[AD-A112547] p0160 B82-44468
XV-15 AIRCRAFT
Bever tests of the XV-15 Tilt Rotor Research Aircraft
[AD-A112547] p0206 B82-44468
Advanced technology airfoil development for the XV-15 tilt-rotor vehicle
[NASA-EC-166293] p0206 B82-44468
Flexibility vs. XV-15 tilt-rotor concept
[NASA-EC-166293] p0206 B82-44468
XV-15 -- Forecasting things to come
[NASA-EC-166293] p0206 B82-44468
XV-15 program update
[AD-A112547] p0206 B82-44468
Electronics for the XV-15 tilt rotor research aircraft
[NASA-EC-166293] p0206 B82-44468
XV-15 tilt rotor research aircraft
[NASA-EC-166293] p0206 B82-44468
V/STOL tilt rotor research aircraft.
Volume 1: General information, revision C
[NASA-EC-166293] p0206 B82-44468
V/STOL tilt rotor research aircraft.
Volume 2: Ship 1 instrumentation
[NASA-EC-166293] p0206 B82-44468
V/STOL tilt rotor research aircraft.
Volume 3: Ship 2 instrumentation
[NASA-EC-166293] p0206 B82-44468
V/STOL tilt rotor research aircraft.
Volume 4: CFE technical data
[NASA-EC-166293] p0206 B82-44468
Y
YAG LASERS
Options for GTE precision automated tracking system
-- airborne laser tracking system
[AD-A113670] p0434 B82-13020
YAK 40 AIRCRAFT
The powerplants of the Yak-40 and 8-15 aircraft
-- Russian book
[AD-A113670] p0434 B82-13020
YAK
An analysis of a nonlinear instability in the implementation of a V/STOL control system during hover
[AD-A113670] p0405 B82-38990
A velocity vector measuring system with 13 asymmetric wedge type gages -- measuring flow distribution around the empennage of STOL models
[AD-A113670] p0218 B82-19577
An analysis of a nonlinear instability in the implementation of a V/STOL control system
[AD-A113670] p0218 B82-19577
YAWING MOMENTS
Jet effects on forces and moments of a V/STOL fighter type aircraft
[NASA-Th-82793] p0261 B82-23168
Yawing of wind turbines with blade cyclic-pitch variation

A multidimensional-crack-growth prediction methodology for flaws originating at fastener holes.

On the bearing strengths of CFPB laminates.

---

A

ABBAGNO, C. E.
Evaluating CERP prototype structures for aircraft
[NASA-TN-82-0929] 82-10222

ABBAGNO, L.
Evaluation of CERP prototype structures for aircraft
[NASA-TN-82-0929] 82-10222

ABBAGNO, L.
Comparison of analytical and wind-tunnel results for flutter and gust response of a transport wing with active controls
[NASA-TP-1980] 82-26703

ABBAGNO, L.
The Sortie-Generation Model system. Volume 1: Executive summary
[AD-110897] 82-26222

ABBAGNO, L.
The Sortie-Generation Model system. Volume 2: Sortie-Generation Model user’s guide
[AD-110897] 82-26222

ABBAGNO, L.
The Sortie-Generation Model system. Volume 4: Sortie-Generation Model programmers manual
[AD-110897] 82-26222

ABBAGNO, L.
The Sortie-Generation Model system. Volume 6: Spaces subsystem
[AD-110900] 82-26222

ABBAGNO, L.
The toll of IIS-preventable aviation accidents
[0242 82-25325

ABBAGNO, W. K.
Costs of noise nuisance from aircraft
[0246 82-13314

ABBAGNO, W. K.
Transonic perturbation analysis of wing-fuselage-nacelle-pylon configurations with powered jet exhausts
[AIAA PAPER 82-0255] 82-22077

ABBAGNO, W. K.
Simulator study of a pictorial display for general aviation instrument flight
[NASA-TP-1963] 82-20180

ABBAGNO, W. K.
Simulator study of a pictorial display for general aviation instrument flight
[NASA-TP-1963] 82-20180

ABBAGNO, W. K.
Simulator study of a pictorial display for general aviation instrument flight
[NASA-TP-1963] 82-20180

ABBAGNO, W. K.
Simulator study of a pictorial display for general aviation instrument flight
[NASA-TP-1963] 82-20180

ABBAGNO, W. K.
Simulator study of a pictorial display for general aviation instrument flight
[NASA-TP-1963] 82-20180

ABBAGNO, W. K.
Simulator study of a pictorial display for general aviation instrument flight
[NASA-TP-1963] 82-20180

ABBAGNO, W. K.
Simulator study of a pictorial display for general aviation instrument flight
[NASA-TP-1963] 82-20180

ABBAGNO, W. K.
Simulator study of a pictorial display for general aviation instrument flight
[NASA-TP-1963] 82-20180

ABBAGNO, W. K.
Simulator study of a pictorial display for general aviation instrument flight
[NASA-TP-1963] 82-20180

ABBAGNO, W. K.
Simulator study of a pictorial display for general aviation instrument flight
[NASA-TP-1963] 82-20180

ABBAGNO, W. K.
Simulator study of a pictorial display for general aviation instrument flight
[NASA-TP-1963] 82-20180

ABBAGNO, W. K.
Simulator study of a pictorial display for general aviation instrument flight
[NASA-TP-1963] 82-20180

ABBAGNO, W. K.
Simulator study of a pictorial display for general aviation instrument flight
[NASA-TP-1963] 82-20180

ABBAGNO, W. K.
Simulator study of a pictorial display for general aviation instrument flight
[NASA-TP-1963] 82-20180

ABBAGNO, W. K.
Simulator study of a pictorial display for general aviation instrument flight
[NASA-TP-1963] 82-20180

ABBAGNO, W. K.
Simulator study of a pictorial display for general aviation instrument flight
[NASA-TP-1963] 82-20180

ABBAGNO, W. K.
Simulator study of a pictorial display for general aviation instrument flight
[NASA-TP-1963] 82-20180

ABBAGNO, W. K.
Simulator study of a pictorial display for general aviation instrument flight
[NASA-TP-1963] 82-20180

ABBAGNO, W. K.
Simulator study of a pictorial display for general aviation instrument flight
[NASA-TP-1963] 82-20180

ABBAGNO, W. K.
Simulator study of a pictorial display for general aviation instrument flight
[NASA-TP-1963] 82-20180

ABBAGNO, W. K.
Simulator study of a pictorial display for general aviation instrument flight
[NASA-TP-1963] 82-20180

ABBAGNO, W. K.
Simulator study of a pictorial display for general aviation instrument flight
[NASA-TP-1963] 82-20180

ABBAGNO, W. K.
Simulator study of a pictorial display for general aviation instrument flight
[NASA-TP-1963] 82-20180

ABBAGNO, W. K.
Simulator study of a pictorial display for general aviation instrument flight
[NASA-TP-1963] 82-20180

ABBAGNO, W. K.
Simulator study of a pictorial display for general aviation instrument flight
[NASA-TP-1963] 82-20180

ABBAGNO, W. K.
Simulator study of a pictorial display for general aviation instrument flight
[NASA-TP-1963] 82-20180

ABBAGNO, W. K.
Simulator study of a pictorial display for general aviation instrument flight
[NASA-TP-1963] 82-20180

ABBAGNO, W. K.
Simulator study of a pictorial display for general aviation instrument flight
[NASA-TP-1963] 82-20180

ABBAGNO, W. K.
Simulator study of a pictorial display for general aviation instrument flight
[NASA-TP-1963] 82-20180

ABBAGNO, W. K.
Simulator study of a pictorial display for general aviation instrument flight
[NASA-TP-1963] 82-20180

ABBAGNO, W. K.
Simulator study of a pictorial display for general aviation instrument flight
[NASA-TP-1963] 82-20180

ABBAGNO, W. K.
Simulator study of a pictorial display for general aviation instrument flight
[NASA-TP-1963] 82-20180

ABBAGNO, W. K.
Simulator study of a pictorial display for general aviation instrument flight
[NASA-TP-1963] 82-20180

ABBAGNO, W. K.
Simulator study of a pictorial display for general aviation instrument flight
[NAS...
Mechanical property characterization and modeling

The military flying qualities specification, a

Calculations of transonic steady state aeroelastic

Basic problem of aircraft gasturbine engine

Unsteady lifting-line theory with applications

Pavement management and rehabilitation of portland

A summary of jet-impingement studies at McDonnell

Where is cobalt irreplaceable

Weapon delivery system using GPS

Instruments and installations for meteorological

Methods for analysis of wind ripple in wind turbines

Current aerial cameras

Engine dynamic analysis with general nonlinear
finite element codes. Part 2: Bearing element
implementation overall numerical characteristics
and benchmarking

Semi-active damping, archaeology, and ancient land use
in the Naga lowlands

Recent results in nose beam nulling

Control law design to meet constraints using
SIMUL-synthesis package for active controls

Type 't' V/STOL - One aircraft for all support
missions

Active beacon collision avoidance logic

Problems related to the integration of fault
tolerant aircraft electronic systems

The Air Force Flight Test Center - Utah Test and
Training Range in the 1980's

Application of the sequential optimization method
to the tuning of the natural frequencies of
gas-turbine engine compressor blades

Instruments and installations for meteorological
measurements at airports

Current aerial cameras

Where is cobalt irreplaceable

A summary of jet-impingement studies at McDonnell
Douglas Research Laboratories

Pavecoat management and rehabilitation of portland
cement concrete pavements

Weapon delivery system using GPS

Basic problems of aircraft gasturbine engine

Calculations of transonic steady state aeroelastic
effects for a canard airplane

The military flying qualities specification, a
help or a hindrance to good fighter design

Collection and evaluation of propeller aircraft
noise certification data

Mechanical property characterization and modeling
of structural materials

Unsteady lifting-line theory with applications

Large scale model measurements of airframe noise
using cross-correlation techniques

Transient vibration of high speed lightweight
turbomachinery due to sudden imbalance

Rotor model for the verification of computational
methods

Numerical aircraft design using 3-D transonic
analysis with optimization, Volume 1:
Executive summary

Numerical aircraft design using 3-D transonic
analysis with optimization, Volume 2. Part 2:
Fighter design

Numerical aircraft design using 3-D transonic
analysis with optimization, Volume 2. Part 2:
User's guide to fighter design computer program

Structural dynamic of shroudless, hollow fan
blades with composite in-lays

Large displacements and stability analyses of
nonlinear propeller structures

Stability and flutter analysis of turbine blades
at low speed

Calculation of aerodynamic characteristics of jet
flapped airplane

Evaluation of graphite/epoxy shims in a high
capacity laminate helicopter bearing

Composite control tubes

Investigation of the aerodynamic contour method
with control functions in the form of smooth
constant-sign contours

Integral characteristics in the computer-aided
design of geometrical objects of complex
configuration

Evaluating the effectiveness of hydrocoiling of
the low-stability component of T-1 fuel

Development of multivariable controllers for
aircraft turbine engines

Sensor failure detection system

Study of reagentivation of exhaust gases with
different initial temperature in a reversed
turbojet engine

Methods for analysis of wind ripple in wind turbines
<table>
<thead>
<tr>
<th>Personal Author Index</th>
<th>Performance Algorithm Development</th>
<th>Personal Author Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akin, T.</td>
<td>Hydrogen economy assessment for long-term energy systems in Japan</td>
<td>p0378 A82-32159</td>
</tr>
<tr>
<td>Akari, M.</td>
<td>Analysis of vibration induced error in turbulence velocity measurements from an aircraft wing tip boom</td>
<td>p0530 A82-28881</td>
</tr>
<tr>
<td>Albright, V. E.</td>
<td>Helicopter TPS - Past, present and future and future</td>
<td>p0066 A82-13245</td>
</tr>
<tr>
<td>Albritton, C. R.</td>
<td>Blockage and flow studies of a generalized test apparatus including various wing configurations in the Langley 7-inch Mach 7 Pilot Tunnel [NASA-TN-83361]</td>
<td>p0370 A82-23471</td>
</tr>
<tr>
<td>Albright, C.</td>
<td>Engine/drive/airframe compatibility: A way of life</td>
<td>p0208 A82-17220</td>
</tr>
<tr>
<td>Albright, C. L.</td>
<td>CBS-the designer's media, the analyst's model</td>
<td>p0519 A82-40991</td>
</tr>
<tr>
<td>Aldeman, J.</td>
<td>Technology overview for advanced aircraft automation system program [AD-A107760]</td>
<td>p0201 A82-17155</td>
</tr>
<tr>
<td>Aldred, G.</td>
<td>The Agusta's solution of AGS's hypothetical fatigue life problem</td>
<td>p0230 A82-24701</td>
</tr>
<tr>
<td>Almesh, V. L.</td>
<td>Problems in the simulation of correlation-extremal navigation systems</td>
<td>p0492 A82-29403</td>
</tr>
<tr>
<td>Alexander, D.</td>
<td>F-16 inlet development experience [AIAA Paper 82-G7-5]</td>
<td>p0419 A82-35278</td>
</tr>
<tr>
<td>Alexander, R. E.</td>
<td>Optimization of thrust algorithm calculation for Computing System (fCS) for thrust the NASA Highly Maneuverable Aircraft Technology (Hlat) vehicle propulsion system [NASA-CR-163121]</td>
<td>p0317 A82-21198</td>
</tr>
<tr>
<td>Alleghe, G. L.</td>
<td>The effect of a screen on the aerodynamic characteristics of an oscillating profile</td>
<td>p0583 A82-46693</td>
</tr>
<tr>
<td>Alger, E. D.</td>
<td>Evaluation of the North Island A/C crash/rescue training facility [AD-A105740]</td>
<td>p0257 A82-10228</td>
</tr>
<tr>
<td>Allada, D.</td>
<td>Corrosion fatigue behavior of some aluminum alloys</td>
<td>p0210 A82-17345</td>
</tr>
<tr>
<td>Allev, L. A.</td>
<td>Evaluating the effectiveness of hydrorefining of the low-stability component of T-I fuel</td>
<td>p0430 A82-36673</td>
</tr>
<tr>
<td>Alifano, G. M.</td>
<td>Inverse heat-transfer problems - Domains of application in the design and testing of technical systems</td>
<td>p0274 A82-25971</td>
</tr>
<tr>
<td>Problems in the automation of the thermal stress analysis of flight vehicles</td>
<td>p0293 A82-27509</td>
<td></td>
</tr>
<tr>
<td>Aljabali, M. M.</td>
<td>The prediction of propeller/wing interaction effects</td>
<td>p0510 A82-40998</td>
</tr>
<tr>
<td>Alleva, E. M.</td>
<td>Engine supercritical temperature and infrared signature</td>
<td>p0247 A82-18136</td>
</tr>
</tbody>
</table>

Alleva, J. | Comparison of two parallel/series flow turbofans | p0238 A82-24701 |

Alf, L. M. | Propulsion concepts for supercritical V/STOL [AIAA Paper 81-2637] | p0156 A82-19214 |

Allee, J. E. | Aerodynamic development of laminar flow control on swept wings using distributed suction through porous surfaces | p0505 A82-40894 |

Allee, J. E. | Aerodynamics: The science of air in motion | 2nd edition | p0303 A82-33671 |

Allee, J. H. | Weather impact on low-altitude imaging infrared sensors in Europe - An availability model | p0072 A82-14779 |

Allee, P. D. | Algorithms development for infra-red air-to-air guidance systems | p0490 A82-39191 |

Allee, R. M. | Functional requirements for the new V/STOL systems research facility [NASA-CR-166315] | p0352 A82-22248 |


Alli, F. | The Agusta's solution of AGS's hypothetical fatigue life problem | p0238 A82-24701 |

Allison, R. | Automation-6 in the skies | p0584 A82-47224 |

Allison, R. | Airline fuel saving through JT9D engine refurbishment [SAGE Paper 81051] | p0232 A82-24395 |

Allmersden, R. | Standard tests of a research model rotor in a wind tunnel, including model similarity [BNW-PWT-79-16] | p0025 A82-10016 |

Alls, R. | Lightning effects on aircraft and composites. Literature study on lightning strikes and protection [FOA-C-20388-F9] | p0026 A82-10024 |


Alspaugh, G. W. | Quasilinearization solution of the proportional navigation problem [AD-A113668] | p0468 A82-27273 |


Allston, R. M. | A descriptive study of the application of analysis of variance and regression techniques in an error analysis program for test data obtained in a 16 foot transonic tunnel | p0309 A82-20997 |

Ait, R. M. | Performance of the AEDC Mark 1 Aeronautical Environmental Chamber without oil diffusion pumping [AD-A111406] | p0457 A82-26322 |

Althaler, G. M. | A significant role for composites in energy-efficient aircraft | p0435 A82-37065 |

Althaler, R. L. | The challenge of standardizing fatigue methodology | p0238 A82-24703 |


Althaler, R. L. | Development and testing of dry chemicals in advanced extinguishing systems for jet engine nacelle fires [NASA-CR-165011] | p0101 A82-13186 |

Alvareg, G. M. | Preliminary functional description of integrated flow management [AD-A109909] | p0313 A82-21171 |

Alvareg, J. | Effect of a part span variable inlet guide vane on
A roadmap to fatique qualification process

Beal time digital filtering test in the SI

Barriers and dispersal surfaces in minimum-time

Implementing aircraft identification schemes by

Self excited flow oscillation in the low pressure steam turbine cascade

Evaluation of CFEP prototype structures for aircraft

Real time digital filtering test in the S1

Real time digital filtering test in the S1

Status of NASA advanced LPC airfoil high-lift study

Evaluation of CFEP prototype structures for aircraft

Evaluation of CFEP prototype structures for aircraft

Very large vehicles - Technology looking for a need

Implementing aircraft identification schemes by

The use of adaptive walls in plane flows

The application of large screen CRT's, touch panels, and voice to the flight stations of the 1990's

Air-to-air combat analysis - Review of differential-gaging approaches

Barriers and dispersal surfaces in minimum-time

A summary of weight savings data for composite VSTOL structure

A roadmap toward a fatigue qualification process for modern technology helicopters
Thrust-induced effects on low-speed aerodynamics

Overview of flight and ground testing with the IAH-64A composite flexbeam tall rotor

Analysis of flight data in the frequency domain

Design and analysis of a multivariable control system for a CCV-type fighter aircraft

Identification of the form of motion of an aircraft

The YH-64A composite flexbeam tail rotor

Overview of flight and ground testing with emphasis on the wind tunnel

Arms - realistic or futuristic?

Thrust-induced effects on low-speed aerodynamics of fighter aircraft

Thrust-induced effects on low-speed aerodynamics of fighter aircraft

The study of combat aircraft maneuverability by air to air combat simulation
F-15 rotary balance data for an angle-of-attack analysis of visual and motion cues requirements in flight simulation.

BARTLETT, F. L.

Pilot/vehicle model analysis of visual and motion cues requirements in flight simulation.

BARTHEL, J.

Accounting for thickness effects in the calculation of subcritical unsteady aerodynamic forces: Application to wing-fuselage interactions.

BARTLETT, J. C.

The application of geometric programming to the structural design of aircraft wings.

BARTLETT, K.

Bonding procedure for Teflon seals.

BARTY, B.

Measurements of heat transfer coefficients on gas turbine component. I - Description, analysis and experimental verification of a technique for use in hostile environments.

BARTSIKIS, A.

Acoustic similarity laws for centrifugal fans.

BARTSCHEN, F. W.

The application of geometric programming to the structural design of aircraft wings.

BARTSCHEN, S. H.

Passive direction finding and signal location.

BARTOCH, F. B.

Developing procedure for Teflon seals.

BARRY, B.

Measurements of heat transfer coefficients on gas turbine components. I - Description, analysis and experimental verification of a technique for use in hostile environments.

BARTSCHEN, F. W.

Acoustic similarity laws for centrifugal fans.

BARTSCHEN, F. W.

The application of geometric programming to the structural design of aircraft wings.

BARTLETT, P. W.

Investigation of a rotor system incorporating a constant lift tip.

BARTLETT, P. W.

Flight vibration optimization via conformal mapping.

BARTON, C. R.

Development of a transmission loss test facility for light aircraft structures.

BARTON, J. R.

Inclusions and service induced cracks in a natural population of gas turbine engine bearings.

BARTSEVICH, A. P.

Aircraft electrical equipment - Design and operation.

BAAS, J.

Calculation and measurement of electric field strength for airborne antennas in the L/F/RF range.

BAAS, J.

Tensile fatigue assessment of candidate resins for use in fibre reinforced composite repair schemes.

BASSILIS, K.

Design, fabrication and test of liquid metal heat-pipe sandwich panels.

BASSILIS, L.

Studies of new perfluoroether elastomeric sealants.

BASSEVILLE, M.

Materials aspects of aircraft BHC design.

BASSEY, R.

The TADS/PRVS 'eyes' for the AH-64 attack helicopter.

BATES, L. P.

Demonstration of ceramic hot-section static components in a radial flow turbine.

BERG, L. J.

Pantsers for composite structures.

BEISENBURG, J.

A planning system for F-16 air-to-surface missions.

BEYER, R. M.

A study of potentially low cost millimetre-wave radiometric sensors.

BETZ, J. E.

Transonic time-response analysis of three D.O.P. conventional and supercritical airfoils.

BIBBON, T. R.

A unique integrated flight testing facility for advanced control/display research.

BIBBON, T. R.

A unique integrated flight testing facility for advanced control/display research.

BIBBON, T. R.

A unique integrated flight testing facility for advanced control/display research.

BIBBON, T. R.

A unique integrated flight testing facility for advanced control/display research.

BIBBON, T. R.

A unique integrated flight testing facility for advanced control/display research.

BIBBON, T. R.

A unique integrated flight testing facility for advanced control/display research.

BIBBON, T. R.

A unique integrated flight testing facility for advanced control/display research.

BIBBON, T. R.

A unique integrated flight testing facility for advanced control/display research.

BIBBON, T. R.

A unique integrated flight testing facility for advanced control/display research.

BIBBON, T. R.

A unique integrated flight testing facility for advanced control/display research.

BIBBON, T. R.

A unique integrated flight testing facility for advanced control/display research.

BIBBON, T. R.

A unique integrated flight testing facility for advanced control/display research.

BIBBON, T. R.

A unique integrated flight testing facility for advanced control/display research.

BIBBON, T. R.

A unique integrated flight testing facility for advanced control/display research.

BIBBON, T. R.

A unique integrated flight testing facility for advanced control/display research.

BIBBON, T. R.

A unique integrated flight testing facility for advanced control/display research.

BIBBON, T. R.

A unique integrated flight testing facility for advanced control/display research.

BIBBON, T. R.

A unique integrated flight testing facility for advanced control/display research.

BIBBON, T. R.

A unique integrated flight testing facility for advanced control/display research.

BIBBON, T. R.

A unique integrated flight testing facility for advanced control/display research.

BIBBON, T. R.

A unique integrated flight testing facility for advanced control/display research.

BIBBON, T. R.

A unique integrated flight testing facility for advanced control/display research.

BIBBON, T. R.

A unique integrated flight testing facility for advanced control/display research.

BIBBON, T. R.

A unique integrated flight testing facility for advanced control/display research.

BIBBON, T. R.

A unique integrated flight testing facility for advanced control/display research.
Efficient use of working fluids in aviation hydraulic systems

Application of structural optimization technique to reduce the external vibrations of a gas-turbine engine

The future of integrated CAD/CAM systems - The Boeing perspective

Design study into a high endurance mini-rotorcraft

Turbine engine lubricant reclamation

Airworthiness regulation: What is our strategy - What are the issues

The electromagnetic theta gun and tubular current generators

The CF6 jet engine performance improvement: Some results from a conventional measuring technique and predictions

The design of a viewing system for near real-time stereo images from a DBA borne linescan sensor

Foundations for computer simulation of a low pressure oil flooded single screw air compressor (AD-A108230)

Fuel quality processing study, volume 1 (NASA-CR-165327-VAL-1) p0300 A82-24649

Electromechanical Actuation Development Program (EADP). Power control development (AD-A116126) p0572 A82-31694

Performance characteristics of a buoystable quad-rotor research aircraft

Comparisons of two jet wash simulation methods

Proposed multipurpose flying radio-physical laboratory using an XL-16 aircraft

Implementation of the DAIS executive

Measurement of heat transfer coefficients on gas turbine components. II - Applications of the technique described in part I and comparisons with results from a conventional measuring technique and predictions

Competition of two jet wash simulation methods

Active gust and maneuver load control concepts

The design of a viewing system for near real-time stereo images from a DBA borne linescan sensor

A true air speed sensor for miniature unmanned aircraft

Some results from a conventional measuring technique and predictions

Surface tension at the solid/liquid interface and liquid film spreading on a solid surface (AD-A107855) p0200 A82-17149

Hire generation of electrokinetic streaming currents

Applying the DAIS executive

Delivery of a correlated finite element dynamic model of a complete aero engine (ASME PAPER 81-DST-74) p0161 A82-19326

Efficient use of working fluids in aviation hydraulic systems

Application of structural optimization technique to reduce the external vibrations of a gas-turbine engine (ASME PAPER 81-DST-43) p0162 A82-19351

Fuel quality processing study, volume 2: Appendix. Task 1 literature survey

Turbine engine lubricant reclamation

Reducing elements for hemispherically scanned arrays

Airworthiness regulation: What is our strategy - What are the issues

The electromagnetic theta gun and tubular current generators

Active gust and maneuver load control concepts

The design of a viewing system for near real-time stereo images from a DBA borne linescan sensor

A true air speed sensor for miniature unmanned aircraft

Some results from a conventional measuring technique and predictions

Surface tension at the solid/liquid interface and liquid film spreading on a solid surface (AD-A107855) p0200 A82-17149

Hire generation of electrokinetic streaming currents

Applying the DAIS executive

Delivery of a correlated finite element dynamic model of a complete aero engine (ASME PAPER 81-DST-74) p0161 A82-19326

Efficient use of working fluids in aviation hydraulic systems

Application of structural optimization technique to reduce the external vibrations of a gas-turbine engine (ASME PAPER 81-DST-43) p0162 A82-19351

Fuel quality processing study, volume 2: Appendix. Task 1 literature survey

Turbine engine lubricant reclamation

Reducing elements for hemispherically scanned arrays

Airworthiness regulation: What is our strategy - What are the issues

The electromagnetic theta gun and tubular current generators

Active gust and maneuver load control concepts

The design of a viewing system for near real-time stereo images from a DBA borne linescan sensor

A true air speed sensor for miniature unmanned aircraft

Some results from a conventional measuring technique and predictions

Surface tension at the solid/liquid interface and liquid film spreading on a solid surface (AD-A107855) p0200 A82-17149

Hire generation of electrokinetic streaming currents

Applying the DAIS executive

Delivery of a correlated finite element dynamic model of a complete aero engine (ASME PAPER 81-DST-74) p0161 A82-19326
PERSONAL AUTHOR INDEX

Development of a correlated finite element dynamic model of a complete aero engine [PHR-90081] p0355 A82-22272

BELLINGERS, R. D.
Aerodynamic lag functions, divergence, and the British flutter method p0433 A82-35920

BELOTSEREVSKIY, K. L.
Computer aided investigation of turbomachine aerodynamics and aerelasticity p0143 A82-15053

BELTY, D.
Helicopter icing spray system - Improvements and flight experience p0223 A82-12696

Helicopter icing spray system p0177 A82-20754

Helicopter Icing Spray System (HISS) nozzle improvement evaluation [AD-109405] p0264 A82-19208

BER, D. J.
Measuring LF and HF antenna radiation patterns by means of a helicopter p0391 A82-34772

BERRLY, L. J.
Emergency in-flight egress for general aviation aircraft p0077 A82-14953

BERNS, L.
Exterior noise on the fuselage of light propeller driven aircraft in flight p0581 A82-46114

BERZIUS, G. L.
Digital active control system for load alleviation for the Lockheed L-1011 p0104 A82-16147

BEROLBA, R. J.
In situ ozone data for comparison with laser absorption remote sensor: 1980 PEP/SEBOS program [NASA-TM-84471] p0613 A82-25661

BENZELL, C.
VHF radio link for ground-air-ground communications using an integrated voice-data modulation p0881 A82-38405

Combined amplitude-phase modulation for a VHF communication link p0553 A82-43870

BERGLEIN, R. L.
Surface flow visualization requirements for testing in STP p0596 A82-32667

BERNARDO, S.
Effect of crossflows on the discharge coefficient of foil cooling holes [ASBE PAPER 82-01-147] p0826 A82-53571

BERNO, G. M. L.
New techniques in data retrieval and display p0401 A82-25174

BERKET, C.
A study of the suitability of the all fiberglass XV-II4 aircraft for fuel efficient general aviation flight research p0178 A82-20764

BENNETT, J. A.
External aerodynamic design for a laminar flow control glove on a Lockheed JetStar wing p0505 A82-40895

BENNETT, J. C.
Development of a correlated finite element dynamic model of a complete aero engine [ASBE PAPER 81-DET-74] p0161 A82-19326

Development of a correlated finite element dynamic model of a complete aero engine [PHR-90081] p0355 A82-22272

BENNETT, L.
Meteorological aspects of North Atlantic flight tracks - The development of programs for minimum-time tracks p0549 A82-43249

Optimum structural design p0502 A82-40593

Application of a transonic potential flow code to the static aerelastic analysis of three-dimensional wings [AIAA 82-0869] p0339 A82-30156

BERNSTEIN, L. L.
Application of a transonic potential flow code to the static aerelastic analysis of three-dimensional wings [AIAA 82-0869] p0339 A82-30156

Time-marching transonic flutter solutions including angle-of-attack effects [NASA-TM-83295] p0363 A82-23196

BERSON, J. O.
Limited artificial and natural icing tests production US-50A helicopter (re-evaluation) [AD-A112582] p0452 A82-26287

BENTLEY, L. E.
Standards in aircraft noise certification [APF-90052] p0322 A82-22005

BERNDT, D. L.
The city and aviation p0149 A82-18988

BERESHEVA, E. S.
Allowing for the wall boundary layer in a stage of the axial compressor [PHR-90067] p0319 A82-21209

BERKMKI, V. A.
Proposed multipurpose flying radio-physical laboratory using an IL-18 aircraft p0550 A82-93278

BENG, B. L.
Development of a low rank augmentation system for an energy efficient transport having relaxed static stability [NASA-CR-159166] p0592 A82-32377

BENEDICK, H.
Comparison between the exact and an approximate feedback solution for medium range interception problems p0044 A82-13106

BENH, H.
Theory and experiment in unsteady aerodynamics [JLE-HP-90006] p0199 A82-17128

BERBERKELIN, J. M.
The use of 'Kapton' polyimide film in aerospace applications [SER PAPER 811091] p0234 A82-24413

BERKOVITZ, L.
Fatigue life of legs under service loading - Test results and predictions p0015 A82-11685

BERKOVICE, M.
Advanced stratified charge rotary aircraft engine design study [NASA-CR-162398] p0478 A82-27743

BERLIN, K. M.
Repair and maintenance of buildings in civil aviation p0544 A82-42059

BERNAM, L.
Structural system identification technology verification [AD-109181] p0267 A82-19583


BERNEEN, L.
X-29A flight control system design experiences [AIAA 82-15358] p0486 A82-39003

BERWALL, F.
CATIA - A computer aided design and manufacturing tridimensional system p0514 A82-40990

New image generators for the next generation of civil aircraft [SER PAPER 811767] p0555 A82-44236

BERENT, E. L.
Measuring the flow properties of slotted test-section walls [TFP-135] p0529 A82-28571

BERKEDOF, L. L.
Digital signal processing on a background of reflections for the international aircraft landing system p0553 A82-13703

BERSTHE, L. L.
Mechanical property characterization and modeling of structural materials [AD-A113841] p0478 A82-27784
A laser-interferometer method for determining the forces on a freely-flying model in a shock-tunnel

Static internal performance of single expansion-ramp nozzles with thrust vectoring and reversing

Investigation of subsonic nozzle performance improvement concept

Flying qualities - A costly lapse in flight-control design

Performance testing of a main rotor system for a utility helicopter at 1/4 scale

The LANTIRN wide field-of-view raster Head-Up Display

Crashworthy airframe design concepts: Fabrication and testing

Aircraft alerting systems standardization study. Volume 2: Aircraft alerting system design guidelines

Aircraft alerting systems standardization study. Volume 1: Candidate system validation and time-critical display evaluation

Aircraft alerting systems standardization study. Phase 4: Accident implications on systems design

Helicopter development in France

Civil (French/OS) certification of the Coast Guard "HH-65A" Dauphin

The outlook for advanced transport aircraft

Detached flow past V-shaped low-aspect-ratio wings

Aerodynamically induced vibration

Aerodynamic interactions between a 1/5-scale helicopter rotor and a body of revolution

Aerodynamic interactions between a 1/5-scale helicopter rotor and a body of revolution

Corrosion prevention measures used in the construction of an aircraft airframe: The case of 2014 and 2124 alloys

The development and use of a computer-interactive data acquisition and display system in a flight environment.
BIBLIOGRAPHY

BIBD, P.
Preplanned product improvement and other modification strategies: Lessons from past aircraft modification programs.

BIBCH, S. A.
Electrochemical actuators.

BILLE, W., J., L.
Prediction of high alpha flight characteristics utilizing rotary balance data.

BILHA, B. A.
The use of analog computers in solutions of inverse problems of heat conduction for the identification of boundary conditions on the surfaces of gas-turbine-engine parts on the basis of temperature-measurement results.

BILLING, T.
R.F. calibrators for Doppler radars.

BILLHAB, B. B.
Active beam collision avoidance logic evaluation. Volume 2: Collision avoidance (BCAS) threat phase.

BILLPB, B. H.
Analysis of a nonlinear altitude tracking method.

BIPDE, B.
Secondary flow effects and mixing of the wake behind a turbine engine.

BISCH, B.
Improvement of ejection thrust augmentation by pulsating or flapping jets.

BISH, C. J.
The aerodynamic influences of rotor blade taper, twist, airfoils and solidity on hover and forward flight performance.

BISH, B. H.
Combustion behavior of solid fuel rocket engines. Volume 1: Correlation of reacting and non-reacting flow characteristics.

BIPP, B. H.
Visualization of flow separation and separated flows with the aid of hydrogen bubbles.

BIRCH, L. B.
Experimental investigations of the separated flow around a rectangular wing.

BIRCH, L. D.

BIRCH, L. F.
The constructed rigging line trials technique for assessing the opening characteristics of parachutes.

BIRD, L.
Flight trajectory control investigation.

BIRD, M. A.
PCSC - A commercial flight management computer system.

BIRD, W. J.
Tailor-made structures: today, and tomorrow: New materials, an exploratory investigation into their potential use.

BIRD, L. H.
Structural strength of materials and parts of gas turbine engines.

BIRK, L. L.
Structural optimization of a swept wing on the basis of the aerion efficiency condition.

BIRK, L. H.
Improved techniques for the calibration and measurement of in-flight loads.

BLANCHARD, L.
Notebook on electromagnetic properties of composite materials below 1 GHz.

BLANCHER, J. L.
Computer enhanced analysis of a jet in a cross-stream.

BLANCHER, J. L.
The control and guidance unit for MACH.

BLIND, S. R.
Doppler radars.

BLIND, E. R.
Direct comparison of community response to road traffic noise and to aircraft noise.

BLIND, R. E.
Wind design for light transport aircraft with improved fuel economy.

BLOCHOFF, D. E.
Investigation of low order lateral directional transfer function models for augmented aircraft.

BLOCHOFF, R. E.
Development of longitudinal equivalent system models for selected US Navy tactical aircraft.

BLOS, R. H.
The design and development of the Tornado engine air intake.

BLOEMANS, C. J.
Feedforward control, communications and intelligence /C3I/ systems.

BLOOM, D. E.
Development of in-can melting process and equipment, 1979 and 1980.

BLOOM, E. J.
Tail rotor studies for satisfactory performance.

BLOOM, E. J.
Stability and dynamic behavior.

BLOOM, J. A.
Integrated airframe propulsion control.

BLOOM, J. P.
Asymmetric approach and landing thrust reverser -- impacts on usage and LCC.

BLOOM, J. E.
Experimental testing at transonic speeds.

BLOOM, J. E.
Predesign study for an advanced flight research rotor.

BLOOM, J. E.
Adaptation of pultrusion to the manufacture of helicopter components.

BLOOM, J. E.
Design and analysis of a digitally controlled integrated flight/fire control system.

BLOOM, J. E.
Theoretical and experimental study of the interaction of 2nd echelon moving targets using real time sensors.

BLOOM, J. E.
Research on an induction driven cryogenic wind.
channel of a turbomachine
BRYANT, G. F.
Optimization in multivariable design
p0546 882-42565
BRYANT, H. L.
Design and flight testing of a digital optimal control general aviation autopilot
p0507 882-40906
Description of a dual fail operational redundant strapdown inertial measurement unit for integrated avionics systems research
p0138 882-14842
BRSOR, I. E., JR.
An overview of optimal control in aerospace systems
p0036 882-11074
BUBILTS, P.
Unsteady pressure measurements at stall and buffeting
(FOPE-EIT-79-09) , p0364 882-23198
BUCH, L.
Fatigue life of legs under service loading - Test results and predictions
p0015 882-11685
BUCHANAN, R.
Small turbine engine augmentor design methodology
[AIAA PAPER 82-1179] p0417 882-35044
BUCHANAN, T. R.
Evaluation and wind tunnel tests of the 4,000 lb (normal-force) pitch/yaw and roll dynamic stability balance systems for measuring direct, cross, and cross-coupling derivatives
[AD-A105122] p0085 882-12047
BUCHROW, E.
Applications of covariance analysis simulation to avionics flight testing
p0070 882-14767
BUCHROW, W.
Aerodynamic characteristics of a large-scale, thin tilt-receivable V/STOL model
[AIAA PAPER 81-0150] p0462 882-38443
BUCKHORNER, R. A.
Design of a catadioptric VCAS helmet-mounted display
[AIAA PAPER 81-99431] p0305 882-21081
BUCK, R. M.
Flight crew management and cockpit performance systems
p0111 882-17285
BUCHER, J. G.
Inflatable system for fast deployment of parachutes at low altitudes from slow moving aircraft or stationary supports
[AIAA PAPER 81-1053] p0008 882-10428
BUCKICHIN, R. R.
Design challenges of high performance aircraft POD
BOCA cooling systems
[AIAA PAPER 81-888-6] p0011 882-10894
BUCKETT, D. M.
Effect of mechanical surface and heat treatments on erosion resistance
p0285 882-27071
BUCH, R. W.
Progress in the development of energy efficient engine components
[AIAA PAPER 82-05-275] p0429 882-35450
Technology advancements for energy efficient aircraft engines
[AIAA PAPER 82-1051] p0030 882-35479
BUDILLO, E.
Corrosion fatigue behaviour of some aluminium alloys
p0210 882-17365
BULBULSOO, C.
Helicopters - Flight operations
p0153 882-19017
BULATRINOY, V. L.
Proposed multipurpose flying radio-physical laboratory using an 11-18 aircraft
p0550 882-63278
BULATOV, S. E.
Investigation of the stream-strain state of a rectangular wing section of variable thickness under concentrated loads and heatings
p0127 882-18598
Analysis of shells of straight-wing type
p0330 882-29843
BULL, C.
Determining performance parameters of general aviation aircraft

BULL, J.
Wind tunnel tests of ejection seat for high dynamic pressure escape
p0177 882-20759
BULL, J. S.
Demonstration of radar reflector detection and ground clutter suppression using airborne weather and mapping radar
p0500 882-40532
BULOSCH, C.
On-board computers save fuel and help ATC
p0275 882-26046
BULOW, A. V.
Present challenges of research and technology politics
ARTA-TM-76370] p0565 882-31147
BULGER, L. P.
Dispersion and temperature-force dependence of the high-temperature strength characteristics of a gas-turbine-engine disk alloy
p0182 882-21636
BUNICE, R. L.
Effects of cable geometry and aircraft attitude on the accuracy of a magnetic leader cable system for aircraft guidance during rollout and turnoff
[AIAA-TP-1978] p0351 882-22239
BUNKER, R. L.
Proposed method for abrasion testing transparent plastics and coatings
p0227 882-26311
BUNK, R.
In situ composites for jet propulsion and stationary gas turbine applications
p0092 882-15824
BUNKOFF, V. G.
Finite element calculation of the aerodynamic forces on a vibrating wing in supersonic flow
p0367 882-34128
BUCHELL, R. M.
Development of low-order model of an X-wing aircraft by system identification
[AD-A113760] p0469 882-27286
BUROM, D. F.
Analysis of high load dampers
[AIAA CR-16503] p0369 882-23248
BUDDY, A.
Low grade fuels for turbo and jet engines
p0221 882-23439
BUCCHER, R. M.
Multiple pure tone elimination strut assembly
[AIAA-CASE-PROC-11062-1] p0193 882-16800
BUCCHER, A. W., JR.
Recent propulsion systems flight tests at the NASA Dryden Flight Research Center
[AIAA PAPER 81-2438] p0055 882-13674
Flight evaluation of a digital electronic engine control system in an F-15 airplane
[AIAA PAPER 82-1080] p0438 882-37683
BURE, J. S.
Flow control for a high energy laser target using trapped vortices
p0561 882-30547
BURBESS, J. D.
Simulation report: Advanced display for complex flight trajectories
[AD-A11259] p0457 882-26320
BURGESS, R.
Propulsion problems associated with aircraft communications systems
p0539 882-29535
BURGESS, J. A.
The electromagnetic theta gun and tubular projectiles
p0125 882-10182
BURGEMEISTER, H.
Aerodynamic investigations to determine possible ace flight paths
[AIAA-TP-7648] p0463 882-27235
BURK, J. E.
Predesign study for a modern 4-bladed rotor for the NASA rotor systems research aircraft
[AIAA CR-16153] p0167 882-16042
BURRE, J. J.
 Fibrous composites in structural design
p0287 882-27126
BURRE, J. J.
Application of a microprocessor controlled cockpit display for enhanced pilot control of flight

B-19
<table>
<thead>
<tr>
<th>Personal Author Index</th>
<th>Cappellini, V.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caggiano, G.</td>
<td>AUTOPILOT: A distributed planner for air fleet control (AD-A107139) p0067 882-27269</td>
</tr>
<tr>
<td>Caggiano, C.</td>
<td>Development of a clear air radar to detect meteorological hazards at airports (AD-A108036) 82-10835</td>
</tr>
<tr>
<td>Caggiano, L.</td>
<td>AN ADVANCED CASES DATA BASE FOR THE ANALYSIS OF LAMINAR TURBULENT</td>
</tr>
</tbody>
</table>
Correlation of wear with oxidation of carbon-carbon composites

CASBI, B. L.

Comprehensive analysis of an axial compressor test

CASTLEBERRY, J. B.

State-of-the-art cockpit design for the HH-65A helicopters

CASTRO, F. P.

An evaluation of several polymers for high density humidity PC coatings

CATRE, D.

Geophysical flight line flying and flight path recovery

CHEN, H. L.

The effect of a well on the aerodynamics of a spoiler

CHENG, C. I.

Recent improvements in prediction techniques for supersonic weapon separation

CHINET, J. L.

Navigation task partitioning in distributed-processing avionics systems

CHIEN, J. H.

Fatigue test of the typical main rotor controls component

CHIEN, J. P.

Importance of a tactical cargo aircraft in emergency relief

CHACO, J.

The use of adaptive control for helicopter trajectories in search operations

CHADDA, M.

Electronic stabilization of an aircraft

CHADDA, M.

Electronic aircraft stabilization

CHADDEK, J. B.

JYIDS BELLAY network off-line simulation

CHADDEK, J. B.

Development of a clear air radar to detect meteorological hazards at airports

CHAFER, J.

Data processing at the Global Positioning System

CHANG, R. N.

Master control station

CHIA, L. P.

An experimental study of steady and quasi-steady jet flaps

CHASEAVART, J. A. M.

Application of singular perturbation theory

CHASE, C.

Modeling procedures for handling qualities evaluation of flexible aircraft

CHASE, C.

The ideal controlled element for real airplanes in not 4/f

CHASE, C.

In-flight investigation of large airplane flying qualities for approach and landing

CHASE, C.

In-flight investigation of the effects of pilot location and control system design on airplane flying qualities for approach and landing

CHALLIS, R.

The effects of bird orientation on load profile and damage level

CHASELLIN, R.

Advanced subsonic transport propulsion

CHASE, C.

Environmental and high strain rate effects on composites for engine applications

CHASE, C.

Structural dynamics of shrouded, hollow, fan blades with composite inner-lays

CHASE, C. C.

Integrated analysis of engine structures

CHANG, R. N.

Environmental and high-strain rate effects on composites for engine applications

CHASE, C.

Terrain information display system benefits and costs

CHASE, C.

Fatigue behavior of weldbonded joints

CHASELLER, C. L.

Minimum cost atmospheric cruise control - Most efficient airspeed for a given wind component

CHASELLER, C. L.

Terrain reflection effects on data reception from airborne vehicles

CHASELLER, R. P.


CHASELLER, R. P.

Terrain reflection effects on data reception from airborne vehicles

CHASELLER, R. P.

A cost effective method for the control of roll due to side slip on a low speed aircraft

CHASELLER, R. P.

The influence of Coriolis forces on gyroscopic motion of spinning blades

CHASELLER, R. P.

A model for sensor-interceptor trade-off analysis

CHASELLER, R. P.

Comprehensive analysis of an axial compressor test with adjustable guide vanes

CHASELLER, R. P.

A laboratory mock-up ultrasonic inspection system for composites

CHASELLER, R. P.

Correlation of wear with oxidation of carbon-carbon composites
B-29
Flight test method for the determination of the role of avionics in the all electric airplane

Design and performance of airborne radomes — A review

Helicopter landing gear design and test criteria

Light weight adhesive joining of composite structures

Computer program for aerodynamic and blading design of multistage axial-flow compressors

Discrete address beacon, navigation and landing system

In-flight propeller flow visualization using fluorescent substances

Transonic applications of the Hake Imaging System

Radome rain damage — An environmental analysis technique

Method for refurbishing and processing parachutes

Development of accelerated fuel-engines

The need for, and development of, a simulation facility at the Naval Air Test Center

Terrain model animation

Ejector powered propulsion and high lift subsonic wing

Radar mapping, archaeology, and ancient land use in the Maya lowlands

Three-engine control system for the prototype

Development of accelerated fuel-engines

The need for, and development of, a simulation facility at the Naval Air Test Center

Investigation of functional commonality of avionics systems in naval aircraft

Maneuvering and pilotage systems

Sabondary aerodynamic and flutter characteristics of several wings calculated by the SODSSA Pl.1 panel method

Sabondary aerodynamic and flutter characteristics of several wings calculated by the SODSSA Pl.1 panel method

Steady, Oscillatory, and Unsteady Subsonic and Transonic Aerodynamics, production version I.1

Investigation of aerodynamic and flutter characteristics of several wings calculated by the SODSSA Pl.1 panel method

Design of a longitudinal ride-control system by Zakian’s method of inequalities

Lightning simulation and testing

Computer program for aerodynamic and blading design of multistage axial-flow compressors

Laboratory-scale simulation of underground coal gasification: Experiment and theory

Casing wall boundary-layer development through an emergency escape at dynamic pressures up to 1600 Q

High angle-of-attack characteristics of a forward swept wing fighter configuration

Development of accelerated fuel-engines

A method for predicting the lifetime of gas turbine blades

Performance of a 2D–CD nonaxisymmetric exhaust nozzle on a turbojet engine at altitude

A cost modeling approach to engine optimization

A cost modeling approach to engine optimization

Investigation of microw wave protection during emergency escape at dynamic pressures up to 1600 Q

Casing wall boundary-layer development through an isolated compressor rotor

Sabondary aerodynamic and flutter characteristics of several wings calculated by the SODSSA Pl.1 panel method

Sabondary aerodynamic and flutter characteristics of several wings calculated by the SODSSA Pl.1 panel method

Steady, Oscillatory, and Unsteady Subsonic and Transonic Aerodynamics, production version I.1

Investigation of functional commonality of avionics systems in naval aircraft

Three-engine control system for the prototype
DAWILIA, C.

Integration of controls and displays in U.S. Army helicopter cockpits
[AD-A109594]
p0306 A82-20191

DAWILIA, C.

Synthesis of an integrated cockpits management system
[AD-A109594]
p0306 A82-23222

DAWILIA, C.

Flag-lag-torsional dynamics of extensional and
incompressible rotor blades in hover and in a
forward flight
[NASA-CR-165159]  p0535 A82-29312

DAWILIA, S. J.

Aircraft composite materials and structures
Aerospace applications of composites
[AD-A109594]
p0547 A82-42675

DAYO, J. T.

Sound transmission through ducts and aircraft
noise prediction, volume I
[AD-A1157583]  p0062 A82-33164

DHALENO, K. L.

A generalized escape system simulation computer
program: A user's manual
[AD-A106552]  p0187 A82-16055

DAVENDRA, J.

Logistics research program in the United States
Air Force
p0511 A82-40963

DAVENDRA, R. E.

Optimization and performance calculation of
dual-rotation propellers
[NASA-TP-1986]  p0131 A82-14049

DAVENDRA, R. E.

New developments in cockpit-human interfaces
[NAF-TR-4-412]  p0255 A82-18215

DAVENDRA, R. E.

Fluidics in aircraft engine controls
[AD-A109594]
p1128 A82-18691

DAVENDRA, R. E.

Powder metallurgical innovations for improved hot
section alloys in aero-engine applications
[PHB-90072]  p0170 A82-20524

DAVENDRA, J. L.

The development of terrain following displays for
the Tornado aircraft
[REPT-200]  p0587 A82-32337

DAVENDRA, J. L.

LAF - An advanced avionics system design
[AIAA 81-2249]  p0188 A82-12472

DAVENDRA, J. L.

Three dimensional mean velocity and turbulence
characteristics in the annulus wall region of an
axial flow compressor rotor passage
[NASA-CR-169003]  p0408 A82-25252

DAVENDRA, C. C.

Performance of multiple, angled nozzles with short
mixing stack eductor systems
[AD-A1105172]  p0454 A82-26302

DAVENDRA, R. L.

Coaxial dasp rocket combustor combustion
instability. Part I: Parametric test data
[AD-A111355]  p0409 A82-25259

DAVENDRA, R. L.

Pollution reduction technology program small jet
aircraft engines, phase I
[NASA-CR-165386]  p0134 A82-14995

EBS fuel addendum: Pollution reduction
technology program small jet aircraft engines,
phase I
[NASA-CR-165387]  p0134 A82-14096

DAVENDRA, R. L.

Engine experience of turbine rotor blade materials
and coatings
[AIAA PAPER 82-GT-244]  p0428 A82-35425

DAVENDRA, G. A.

Recent improvements at the Naval Air Test Center
for increased test system flexibility
[AIAA PAPER 81-2392]  p0056 A82-13888

DAVENDRA, J. W.

Fatigue behavior of selected non-woven fiber
composites for helicopter rotor blades
[AD-A109594]
p170 A82-20524

DAVENDRA, J. W.

Passive direction finding and signal location
[AD-A109594]
p0570 A82-45346

DAVENDRA, J. W.

A stage-by-stage dual-spool compression system
modeling technique
[AIAA PAPER 82-GT-189]  p0427 A82-35394

DAVIS, R. E.

Fuel conservation now
p0111 A82-17281

The employment of two-engine and four-engine
aircraft for dropping the latest chemical fire
extinguishing agents in connection with the
fighting of forest fires
p0331 A82-29583

DAVIS, R. E.

Probability of laminar flow loss because of ice
crystal encounters
p0302 A82-20153

DAVIS, R. E.

Advanced turboprop engines for long endurance
naval patrol aircraft
[AIAA PAPER 82-GT-217]  p0427 A82-35404

DAVIS, R. E.

Analytical design and validation of digital flight
control system structure
[AIAA PAPER 82-1626]  p0497 A82-40434

DAVIS, R. E.

A Schwarz-Christoffel method for generating
internal flow grids
p0328 A82-29005

DAVIS, R. E.

Advanced exhaust nozzle concepts using spanwise
blowing for aerodynamic lift enhancement
[AIAA PAPER 82-1132]  p0438 A82-37692

DAVIS, R. E.

Design principles of a computer-aided design system
p0333 A82-29289

DAVIS, R. E.

Air cooled engine test facilities
p0223 A82-24004

DAVIS, R. E.

An experimental investigation of a bearingless
model rotor in hover
p0498 A82-40512

DAVIS, J. S.

A split coefficient locally monotonic scheme for
multichannel supersonic flow
[AIAA PAPER 82-0287]  p0184 A82-22082

DAVIS, J. S.

Effects of higher order control systems on
aircraft approach and landing longitudinal
handling qualities
p0563 A82-30988

DAVIS, J. S.

Direct digital design method for reconfigurable
multivariable control laws for the A-7D Digitac
II aircraft
p0074 A82-14620

DAVIS, J. S.

Material identification for the design of
crater composite rotary wings
p0509 A82-40937

DAVIS, J. S.

Modernizing air traffic control in France
p0205 A82-27048

DAVIS, J. S.

Subsonic flow over airborne optical turrets
p0114 A82-17605

DAVIS, J. S.

A simple crack closure model for prediction of
fatigue crack growth rates under variable-amplitude
loading
p0204 A82-26630

DAVIS, J. S.

Recent developments in materials and processes for
aircraft corrosion control
p0241 A82-26825

DAVIS, J. S.

Recent developments in materials and processes for
aircraft corrosion control
p0293 A82-27446

DAVIS, J. S.

A new approach to the problems of stress corrosion
cracking in 7075-T6 aluminum
p0222 A82-23772

DAVIS, J. S.

Instantaneous turbulence profiles in the wake of
an oscillating airfoil
[AIAA PAPER 82-0353]  p0119 A82-17901

DAVIS, J. S.

Real-time failure detection of aircraft engine
output sensors
p0297 A82-28403

DAVIS, J. S.

The impact of mission on the preliminary design of
an ABC rotor

D-32
personal author index

dell, r. l.

thunderstorm hazards flight research - program overview
[airal paper 01-2612] p0053 a82-13653

DEBRAH, L. L.

operational evaluation of thunderstorms penetration
[airal paper b-206] p0078 a82-16954

DEBRAH, R. L.

national交通安全 facility (nff) prototype fan

blade fatigue test
[ad-a114005] p0521 a82-26261

DEBRAH, R. L., III.

impedance modeling of acoustic absorbing materials
for aircraft engine applications
p0062 a82-14043

DEBRAH, R. L.

additional experiments on flowability improvements
of aviation fuels at low temperatures, volume 2
[nasa-cr-167912] p0571 a82-31546

Debraeck, v. m.

in-flight deflection measurement of the biva aerodynamically tailored wing
[airal paper 01-2650] p0063 a82-14381

DEBRAH, R. L.

real time simulation of computer-assisted
sequencing of terrestrial area operations
[nasa-cr-166195] p0137 a82-16817

DEBRAH, D. B.

elastic suspension of a wind tunnel test section
p0370 a82-23363

DECARLO, D.

monopole antenna patterns on finite size composite
ground planes
p0518 a82-41055

DECKER, R.

airfield and airspace capacity/delay policy analysis
[ad-a110777] p0458 b82-26326

DECKER, B.

irradiated emissions from turbofans with high aspect
ratio nozzles
p1013 a82-16092

DECKE, R.

aircraft meteorological data relay
[ad-a15899] p0579 a82-65822

DECKE, R. M.

recent progress in vstol technology
[nasa-tm-84238] p0603 b82-33338

DECKHAMP, R. L.

optical inertial navigation using terrain
correlation: an attractive solution to the
ground attack aircraft navigation problem
p0362 a82-23464

DEDE, J. P.

the distress regime on the bimotored helicopter
p0200 a82-17129

parametric study of the influence of the engine
upon the operating cost of a civil helicopter
p0246 b82-18131

parametric study of the influence of the engine
upon the operating cost of a civil helicopter
[nmia-827-210-l02] p0355 b82-22273

DEPRE, R. A.

hydrocarbon fuel chemistry: sediment water
interaction
[ad-a119792] p0612 b82-33552

DEGRAN, C.

development and evaluation of automatic landing
control laws for light wing loading stol aircraft
[nasa-cr-166160] p0028 b82-10043

DEGREG, R. L.

investigations of helicopter structural dynamics
and a comparison with ground vibration tests
[am-77-053-80-0] p0315 b82-21106

DEGRAAF, L. A. B.

comparison of reliability, sensitivity and
accuracy of some rov techniques
[nla-nt-80039-0] p0371 b82-23542

comparison of probability of detection,
sensitivity, and accuracy of five nondestructive
inspection methods
[nla-nt-801030-0] p0398 b82-24500

DEGROH, H. H.

frequency sharing between passive sensors and
aeronautical radionavigation systems employing
ground transponders in the band 4.2 - 4.4 gHz

An accurate method for evaluating the kernel of the integral equation relating lift to downwash in unsteady potential flow [NASA-TM-83281] p0363 82-23194
Subsonic aerodynamic and flutter characteristics of several wings calculated by the S02SSA P1.1 panel method [NASA-TM-84885] p0405 82-25216

DESSERT, R.
Experimental investigations on the flow in the gaspeller of a centrifugal fan [ASME PAPER 82-GT-37] p0421 82-35298

DESHORES, L.
Concept studies of an advanced composite helicopter fin [SRIA-821-210-106] p0353 82-22257

DESONE, L.
Finite difference modeling of rotor flows including wake effects [NASA-TM-80280] p0640 82-33345

DESTRUPPER, L.
Recent developments in wing with stores flutter suppression [OHEA, TP No. 1961-145] p0245 82-24077
Investigation of the unsteady airloads on a transport aircraft type airfoil with two interchangeable oscillating trailing edge flaps, at transonic speed and high Reynolds numbers [NASA-TM-84090] p0507 82-24077

DETHOMAS, L. F.
A preliminary laboratory evaluation of a reconfigurable integrated flight control concept [AIAA 02-1597] p0405 82-39682

DEUTSCH, T. R.
Development of a clear air radar to detect meteorological hazards at airports [AD-A108236] p0129 82-25185

DEVAUX, L.
Aeroacoustics of tactical weapons to Mach number 6 and angle-of-attack of 180 deg [AIAA PAPER 82-0250] p0118 82-17864

DEVANE, G. R.
Advanced attack helicopter fatigue testing - Overview [NASA-TM-821-210-106] p0353 82-22257

DI FONZO, P. L.
An improved propulsion system simulation technique for scaled wind tunnel model testing of advanced fighters [NASA-TM-84090] p0507 82-24077

DIETZ, J.
Development of a tapered random vibration technique for acceptance testing [NASA-TM-84090] p0507 82-24077

DIEDRICH, S. G.
Results of experimental study of heat transfer to turbine blades with porous cooling [NASA-TM-84090] p0507 82-24077

DIETRICH, J.
Digital simulation of aircraft electrical generating system by means of Spectre program [AIAA PAPER 82-1597] p0405 82-39682

DI FONZO, P. L.

DI FOENI, J.
Initial experimental research into the response of turbojet engine compressors to distortion of intake pressure [NASA-TM-84090] p0507 82-24077
A preliminary experimental investigation of the response of a turbojet engine to inlet pressure distortion [NASA-TM-84090] p0507 82-24077

DIETRICH, S. G.
Study of air compressor hazards in underground and surface mines [NASA-TM-84090] p0507 82-24077

DIETRICH, J.
Energy savings with today's technology [NASA-TM-84090] p0507 82-24077
DORSEY, L. N. 
Crashworthy military passenger seat development 
[AD-A082-14976]

DORSEY, L. A. 
Fast front structure observed by Doppler radar 
[AD-A083686]

DORSEY, G. T. 
Gain of optimization in helicopter vibration control by structural modification 
[AD-PREPRINT 81-27]

DORSEY, L. J. 
Long duct nacelle aerodynamic development for DC-10 derivatives 
[NASA-CR-159277]

DORSEY, J. N. 
Investigation of the interference effects of mixed flow long duct nacelles on a DC-10 wing 
[NASA-CR-159202]

DORSEY, J. B. 
Head-up displays - The integrity of flight information 
[AD-A100 1484-16562]

DORSEY, J. B. 
Research on an induction driven cryogenic wind tunnel 
[AD-A100 1484-14394]

DORSEY, E. M. 
Analysis of the temperature field of a baffled-cooled gas-turbine-engine blade under conjugated boundary conditions 
[AD-A100 1484-28015]

DORSEY, C. J. 
Very large aircraft - A common response to a rapidly changing global environment 
[AD-A100 1484-31979]

DORSEY, L. H. 
High-frequency monitoring of surface layers of metals 
[AD-A100 1484-23603]

DORSEY, M. H. 
Evolution in airplane construction? Grob G110: The first modern fiber glass composition airplane shortly before its maiden flight 
[AD-A100 1484-22246]

DORSEY, L. J. 
Some observations on the corrosion of aircraft at the air force base in Baghdad, Turkey 
[AD-A100 1484-17353]

DORSEY, B. P. 
STOL aircraft structural vibration prediction from acoustic excitation 
[AD-A100 1484-22169]

DORSEY, J. G. 
Development of a Structural Integrity Recording System (SIRIS) for US Army AH-1S helicopters 
[AD-A100 1484-23264]

DOTT, R. 
Enhancements and algorithms for aeronautical information processing systems design methodology 
[AD-A117948]

DOUGHERTY, R. L. 
Effect on fuel efficiency of parameter variations in the cost function for multivariable control of a turbofan engine 
[AD-A110614]

DOUGHERTY, R. F. 
High voltage/high power for airborne applications 
[AD-A110614]

DOUGLAS, C. D. 
Effects of moisture on the mechanical properties of glass/epoxy composites 
[AD-A110614]

DOUGLAS, L. L. 
Fatigue methodology - A technical management system for helicopter safety and durability 
[AD-A1105775]

DOYES, R. 
Digital flight controls 
[AD-A1105775]

DOLDO, J. 
As airport wind shear detection and warning system using Doppler radar 
[AD-A1105775]

DODGE, A. 
Field program operations: Turbulence and gust front detection for avionics data to terminal air navigation, part I 
[AD-A1105775]

DODGE, A. 
Control laws for adaptive wind tunnels 
[AD-A1105775]

DODGE, J. 
Feasibility of a control general aviation autopilot 
[AD-A1105775]

DODGE, L. 
Limitations on achievable performance of multivariable feedback systems 
[AD-A1105775]

DODGE, C. B. 
Autoated calculation of the stressed state of shell systems under asymmetrical mechanical and thermal loading 
[AD-A1105775]

DODGE, B. 
Standardization of helicopter fatigue methodology - A manufacturer's view 
[AD-A1105775]

DODGE, R. B. 
Dynamics of aircraft antiskid braking systems 
[AD-A1105775]

DODGE, C. B. 
Tire tread temperatures during antiskid braking and cornering on a dry runway 
[AD-A1105775]

DODGE, C. B. 
Experimental investigation of active loads control for aircraft landing gear 
[AD-A1105775]

DODGE, C. B. 
The enhancement of heat exchange in channels /2nd revised and enlarged edition/ 
[AD-A1105775]

DODGE, E. L. 
Hydraulic Universal Display Processor System (HBDPS) 
[AD-A114428]

DODGE, E. L. 
The design and implementation of a shared scenario function for the P-16 dynamic system simulator 
[AD-A114428]

DODGE, J. P. 
Boundary layer transition and separation on a compressor rotor airfoil 
[AD-A114428]

DODGE, J. P. 
Research on turbine rotor-stator aerodynamic interaction and rotor negative incidence stall 
[AD-A114428]

DODGE, J. P. 
The gas turbine engine 
[AD-A114428]

DODGE, M. 
Subsonic aerodynamic and flutter characteristics of several wings calculated by the SOPS5A P1.1 panel method 
[AD-A114428]

DODGE, M. 
Subsonic aerodynamic and flutter characteristics of several wings calculated by the SOPS5A P1.1 panel method 
[AD-A114428]

DODGE, J. P. 
Numerical investigation of supersonic base flow 
[AD-A114428]
A computational design method for transonic resonance whirling of aircraft propeller-engine systems

Preliminary design of an advanced integrated power and avionics information system

Production of Reliable Flight Crucial Software: Validation Methods Research for Fault Tolerant Avionics and Control Systems Sub-Working Group Meeting

Helicopter rotor helicopter characteristics in a continuous icing environment

The ILS in Category III operations

Helicopter approaches with a microwave landing system guidance

Decomposition of the meteorological research radar system aboard NOAA/Research Facilities Center WP-3D aircraft

D12: C. W.

Local-C navigation as an aid to aerial photographic operations

D120: E. A.

Structural strength of materials and parts of gas-turbine engines

D120: C. V.

Depressing for turbomachinery blade variations in subsonic flow

D120: E. G.

High voltage surge and partial discharge test to evaluate aerospace equipment parts

D120: M.

Computer image generation: Advanced visual/sensor simulation

D120: E. M.

Process development and evaluation of gas-turbine-engine components in IMI 829

D120: E. M.

The use of performance-monitoring to prevent compressor and turbine blade failures

D120: J. E.

Torpedo-rail helicopter characteristics in a continuous icing environment

D120: J. E.

Robust Kalman filter design for active flutter suppression systems

D120: E.

Helicopter model studies for on-board electrostatic sensors

D120: J.

Polyurethane foams for aircraft shock mounts. 3: Vibration damping by polyether foams

D120: D.

Helical helicopter approaches with microwave landing system guidance

D120: J. D.

Decomposition of the meteorological research radar system aboard NOAA/Research Facilities Center WP-3D aircraft

D120: J.

Resonant whirling of aircraft propeller-engine systems

D120: E.

Aerodynamic flutter and divergence of stiffness coupled graphene/epoxy, castellated plates

D120: E.

Experience with flight test trajectory guidance

D120: E.

A computational design method for transonic turbomachinery cascades

D120: E.

Mechanisms of corrosion fatigue

D120: E.

Comparison of aerodynamic characteristics of aircraft models with forward and aft swept wings at each number 0.5

D120: J.

Design and evaluation of a state-feedback vibration controller

D120: J.

Utilization of radio equipment at airports and on aircraft

D120: J.

A review of recent AGARD Symposia on the Angle of Littigation of Combat Aircraft

D120: J.

An application of total system to resonant coupled design

D120: J.

Analysis of data from a wind tunnel investigation of a large-scale model of a highly maneuverable supersonic V/STOL fighter - STOL configuration

D120: J.

A large-scale investigation of engine influence on inlet performance at angle-of-attack

D120: J.

Ground effect hover characteristics of a large-scale twin tilt-nacelle V/STOL model

D120: J.

Aerodynamic characteristics of a large-scale, twin tilt-nacelle V/STOL model

D120: J.

An investigation of scale model testing of STOL aircraft-in-hover

D120: J.

Helicopter model studies for on-board electrostatic sensors

D120: J.

Polyurethane foams for aircraft shock mounts. 3: Vibration damping by polyether foams

D120: D.

Helical helicopter approaches with microwave landing system guidance

D120: J. D.

Decomposition of the meteorological research radar system aboard NOAA/Research Facilities Center WP-3D aircraft

D120: J.

Resonant whirling of aircraft propeller-engine systems

D120: E.

Aerodynamic flutter and divergence of stiffness coupled graphene/epoxy, castellated plates

D120: E.

Experience with flight test trajectory guidance

D120: E.

A computational design method for transonic turbomachinery cascades

D120: E.
DOBAB, B. G.

DORR, P. A.

DORRIS, A. L.

DORRIS, B. H.

DOS, P. D.

DOVAL, B. B.

DDBL, B. K.

DOBBI, C.

DOBBY, P. J.

DOBSON, M. R.

Development of a clear air radar to detect
BiBIT onboard flight computer system architecture

Development and demonstration of manufacturing

Investigation of subsonic nacelle performance

Investigation of subsonic nozzle performance

Inlet and airframe compatibility for a T/STOL

Further study of helicopter rotor

Design of a jet catcher

An analysis of antijam communication requirements in
in fast media

Application of system integration methods to

The use of frequency methods in rotorcraft system
integration

A history of aeronautics and aviation in Russia -
In the period up to 1914 /2nd revised and
enlarged edition/

Hydraulic Universal Display Processor System (HUDP5)

Transonic flows in an air inlet with large
incidence and the effect of a blowing trap

Development and demonstration of manufacturing
processes for fabricating graphite/LABC 160
polyimide structural elements

A simplified wing procedure in connection with the
lifting line theory and the double-lattice method

EARLE, R. V.

EARLS, B. H.

EARLS, R. E.

EARLS, R. E.

HARBIN, W. B.

HARROW, P. L.

HAST, L.

HAST, L. P.

HAST, L.

HAST, L.

HAST, L.

EARLS, R. E.

EARLS, R. E.

HARBIN, W. B.

EARLS, R. E.

HARBIN, W. B.

HARROW, P. L.

HAST, L.

HAST, L. P.

HAST, L.

HAST, L.

HAST, L.
<table>
<thead>
<tr>
<th>Authors</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERIKSON, G. L.</td>
<td>Vortex flow correlation (AIAA-80-0725)</td>
</tr>
<tr>
<td>BIASI, E. J.</td>
<td>Water tunnel flow visualization and wind tunnel data analysis of the 2x18 (NASA-CR-165859)</td>
</tr>
<tr>
<td>ERIKSON, L. E.</td>
<td>An evaluation of vertical drag and ground effect using the NASA rotor balance system (AIAA 82-62525)</td>
</tr>
<tr>
<td>ERIKSON, L. E.</td>
<td>Viscous flow - Research of the theoretical in pursuit of higher order accuracy (AIAA Paper 82-0594)</td>
</tr>
<tr>
<td>ERIKSON, L. E.</td>
<td>Review of support interference in dynamic tests (AIAA Paper 82-0167)</td>
</tr>
<tr>
<td>ERIKSON, R. P.</td>
<td>Analytic extrapolation to full scale aircraft (AIAA Paper 82-0890)</td>
</tr>
<tr>
<td>ERIKSON, P.</td>
<td>Electrostatic interaction of lightning with aircraft (AIAA Paper 82-0491)</td>
</tr>
<tr>
<td>ERIKSON, P. J.</td>
<td>Atmospheric electricity hazards analytical model development and application. Volume 3: Electrostatic coupling modeling of the lightning/aircraft interaction event (AD-A116017)</td>
</tr>
<tr>
<td>ERIKSON, S. J.</td>
<td>Generation of boundary-conforming grids around wing-body configurations using transfinite interpolation (AIAA Paper 82-0491)</td>
</tr>
<tr>
<td>ERIKSSON, L. J.</td>
<td>Flight simulation studies on the feasibility of laterally segmented approaches in an HVS environment (AIAA Paper 82-0491)</td>
</tr>
<tr>
<td>ERIKSSON, S. J.</td>
<td>A method for applying linear optical control theory to the design of a regulator for a flexible aircraft (AIAA Paper 82-0491)</td>
</tr>
<tr>
<td>ERIKSSON, S. J.</td>
<td>Study and development of an integrated head-up display (AD-A104337)</td>
</tr>
<tr>
<td>ERIKSSON, S. J.</td>
<td>Turbulent boundary layer on a porous surface with injection at various angles to the wall (AIAA Paper 82-0491)</td>
</tr>
<tr>
<td>EREZ, K.</td>
<td>Material flow and defect formation in forging an airfoil shape from metal-matrix composites (AIAA Paper 82-0491)</td>
</tr>
<tr>
<td>ERIKSO, L. E.</td>
<td>Electronic control for small engines (AIAA Paper 82-0491)</td>
</tr>
<tr>
<td>ERIKSO, L. E.</td>
<td>Development of accelerated fuel-engines qualification procedures methodology, Volume 1 (AD-A11134)</td>
</tr>
<tr>
<td>ERIKSO, L. E.</td>
<td>Development of accelerated fuel-engines qualification procedures methodology. Volume 1: Appendices (AD-A11134)</td>
</tr>
<tr>
<td>ERIKSO, L. E.</td>
<td>Optimal climb and descent trajectories for airline missions (NASA-TM-82-0412)</td>
</tr>
<tr>
<td>ERIKSO, L. E.</td>
<td>Automation of on-board flightpath management (NASA-TM-82-0412)</td>
</tr>
<tr>
<td>ERIKSO, L. E.</td>
<td>Land navigation with a low cost GPS receiver (NASA-TM-82-0412)</td>
</tr>
<tr>
<td>ERIKSO, L. E.</td>
<td>Aircraft pitch attitude as a performance parameter (NASA-TM-82-0412)</td>
</tr>
<tr>
<td>ERIKSO, L. E.</td>
<td>The Shock and Vibration Digest, Volume 10, No. 7 (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ERIKSO, L. E.</td>
<td>The Shock and Vibration Digest, Volume 10, No. 3 (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ESPOSITO, R.</td>
<td>Models for a turbulent premixed dump combustor (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ESPOSITO, R.</td>
<td>FAA acceptance tests on the NAVSTAR GPS 2-Set receiver (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ESPOSITO, R.</td>
<td>FAA acceptance tests on the NAVSTAR GPS 2-Set receiver (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ESPOSITO, R.</td>
<td>FAA acceptance tests on the NAVSTAR GPS 2-Set receiver (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ESPOSITO, R.</td>
<td>FAA acceptance tests on the NAVSTAR GPS 2-Set receiver (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ESPOSITO, R.</td>
<td>FAA acceptance tests on the NAVSTAR GPS 2-Set receiver (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ESPOSITO, R.</td>
<td>FAA acceptance tests on the NAVSTAR GPS 2-Set receiver (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ESPOSITO, R.</td>
<td>FAA acceptance tests on the NAVSTAR GPS 2-Set receiver (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ESPOSITO, R.</td>
<td>FAA acceptance tests on the NAVSTAR GPS 2-Set receiver (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ESPOSITO, R.</td>
<td>FAA acceptance tests on the NAVSTAR GPS 2-Set receiver (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ESPOSITO, R.</td>
<td>FAA acceptance tests on the NAVSTAR GPS 2-Set receiver (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ESPOSITO, R.</td>
<td>FAA acceptance tests on the NAVSTAR GPS 2-Set receiver (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ESPOSITO, R.</td>
<td>FAA acceptance tests on the NAVSTAR GPS 2-Set receiver (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ESPOSITO, R.</td>
<td>FAA acceptance tests on the NAVSTAR GPS 2-Set receiver (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ESPOSITO, R.</td>
<td>FAA acceptance tests on the NAVSTAR GPS 2-Set receiver (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ESPOSITO, R.</td>
<td>FAA acceptance tests on the NAVSTAR GPS 2-Set receiver (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ESPOSITO, R.</td>
<td>FAA acceptance tests on the NAVSTAR GPS 2-Set receiver (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ESPOSITO, R.</td>
<td>FAA acceptance tests on the NAVSTAR GPS 2-Set receiver (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ESPOSITO, R.</td>
<td>FAA acceptance tests on the NAVSTAR GPS 2-Set receiver (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ESPOSITO, R.</td>
<td>FAA acceptance tests on the NAVSTAR GPS 2-Set receiver (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ESPOSITO, R.</td>
<td>FAA acceptance tests on the NAVSTAR GPS 2-Set receiver (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ESPOSITO, R.</td>
<td>FAA acceptance tests on the NAVSTAR GPS 2-Set receiver (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ESPOSITO, R.</td>
<td>FAA acceptance tests on the NAVSTAR GPS 2-Set receiver (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ESPOSITO, R.</td>
<td>FAA acceptance tests on the NAVSTAR GPS 2-Set receiver (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ESPOSITO, R.</td>
<td>FAA acceptance tests on the NAVSTAR GPS 2-Set receiver (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ESPOSITO, R.</td>
<td>FAA acceptance tests on the NAVSTAR GPS 2-Set receiver (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ESPOSITO, R.</td>
<td>FAA acceptance tests on the NAVSTAR GPS 2-Set receiver (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ESPOSITO, R.</td>
<td>FAA acceptance tests on the NAVSTAR GPS 2-Set receiver (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ESPOSITO, R.</td>
<td>FAA acceptance tests on the NAVSTAR GPS 2-Set receiver (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ESPOSITO, R.</td>
<td>FAA acceptance tests on the NAVSTAR GPS 2-Set receiver (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ESPOSITO, R.</td>
<td>FAA acceptance tests on the NAVSTAR GPS 2-Set receiver (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ESPOSITO, R.</td>
<td>FAA acceptance tests on the NAVSTAR GPS 2-Set receiver (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ESPOSITO, R.</td>
<td>FAA acceptance tests on the NAVSTAR GPS 2-Set receiver (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ESPOSITO, R.</td>
<td>FAA acceptance tests on the NAVSTAR GPS 2-Set receiver (AIAA Paper 82-0412)</td>
</tr>
<tr>
<td>ESPOSITO, R.</td>
<td>FAA acceptance tests on the NAVSTAR GPS 2-Set receiver (AIAA Paper 82-0412)</td>
</tr>
</tbody>
</table>
FALCHBLO, O.
FALABSKI, B. Dw
FALABRA, B. 0.
FAHRI, R. P. S.
FALL, B. L.
FAIBUB, B. 0.
FAFIB, D. fl.
FABIB, 6. fl.
FABIAB, H.
FABOLI, J. A.
FACER, J. 0.
FABBIS, G.
FABOHHI, J. A,
EIIIS, D. J.
FAHRI, R. P. S.
FAFEBE, B. G.
FABBBB, B. X.
FABLEI, B. I.
FABT, K. A.
FABBELL, B. J.
FABQOHAB, B. R.
FABHEB, B. B.
FABIELLI, I. e.
F4IGIBAI, S.
FABB, B.
D.-B.
FANGER, I.
FAH., D.-B.
FAH, D.-B.
PALCO, B.
FAHBO, B. 0.
FAFEBE, P. F.
FABASSAT, F.
FANGIBAI, S.
FAB6. B.
FANG, B.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
FAHBO, B. R.
## Personal Author Index

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>FINE, D. E.</td>
<td>Advancing blade flight data gathered</td>
<td>p0297 A82-28312</td>
</tr>
<tr>
<td>FINE, P.</td>
<td>Forecasting corrosion damage and maintenance costs for large aircraft</td>
<td>p0212 A82-17357</td>
</tr>
<tr>
<td>FINE, J. L.</td>
<td>Multiple aircraft tracking system for coordinated research missions</td>
<td>p0433 A82-35869</td>
</tr>
<tr>
<td>FINE, R.</td>
<td>Power systems</td>
<td>p0261 A82-19146</td>
</tr>
<tr>
<td>FISCHER, A.</td>
<td>Some aerodynamic aspects of hang gliding</td>
<td>p0109 A82-17124</td>
</tr>
<tr>
<td>FISCHER, P. W.</td>
<td>Aeronautical Information Data Subsystem (AIDS): A ground-based component of air navigation services systems</td>
<td>p0201 A82-17150</td>
</tr>
<tr>
<td>FISCHER, R. B.</td>
<td>Analysis of the characteristics of a bypass engine with allowance for variable pressure losses in the channels</td>
<td>p0282 A82-26496</td>
</tr>
<tr>
<td>FISCHER, R. D.</td>
<td>Studiborg hazards flight research—Program overview</td>
<td>[AIAA 82-01-M] p0653 A82-12853</td>
</tr>
<tr>
<td>FISCHER, C. P.</td>
<td>A laboratory mock-up ultrasonic inspection system for composites</td>
<td>p0419 A82-35256</td>
</tr>
<tr>
<td>FISHER, R. A.</td>
<td>Brittle materials design, high temperature gas turbine</td>
<td>[AD-A106670] p0191 A82-16085</td>
</tr>
<tr>
<td>FISHER, J. J.</td>
<td>The Navy F/A-18A Hornet electromagnetic compatibility program</td>
<td>p0070 A82-14760</td>
</tr>
<tr>
<td>FISHER, R. A.</td>
<td>The impact of missions on the preliminary design of an ARC rotor</td>
<td>p0279 A82-26392</td>
</tr>
<tr>
<td>FISHER, V. L.</td>
<td>Engine controls for the 1980s and 1990s</td>
<td>p0513 A82-65904</td>
</tr>
<tr>
<td>FISK, W.</td>
<td>Conversion of centrifugal compressor performance curves considering non-similar flow conditions</td>
<td>[ASME PAPBB 82-GT-82] p0421 A82-35300</td>
</tr>
<tr>
<td>FITZGERALD, R.</td>
<td>Development in boundary layer Thrust Vector Control</td>
<td>p0010 A82-10085</td>
</tr>
<tr>
<td>FITZSIMONS, R. A.</td>
<td>How large should a commuter transport be</td>
<td>p0186 A82-22222</td>
</tr>
<tr>
<td>FLACH, J. A.</td>
<td>Performance evaluation of a kinesthetic-tactual display</td>
<td>p0366 A82-23221</td>
</tr>
<tr>
<td>FLANDERS, S. E.</td>
<td>Cold regions testing of an air transportable shelter</td>
<td>p0296 A82-28281</td>
</tr>
<tr>
<td>FLENNING, R.</td>
<td>Prediction of aerodynamically induced vibrations in turbomachinery blading</td>
<td>p0327 A82-28986</td>
</tr>
<tr>
<td>FLENNING, F. L.</td>
<td>Sanctuary radar</td>
<td>p0150 A82-18906</td>
</tr>
<tr>
<td>FLENNING, R. E.</td>
<td>Analysis of computing system configurations for highly integrated guidance and control systems</td>
<td>p0363 A82-23189</td>
</tr>
<tr>
<td>FLENNING, R.</td>
<td>Structural design and construction of the New Technology Wing</td>
<td>p0283 A82-26541</td>
</tr>
<tr>
<td>FLENNING, R. J.</td>
<td>An evaluation of vertical drag and ground effect using the RDA rotor balance system</td>
<td>p0498 A82-40510</td>
</tr>
<tr>
<td>FLORES, L.</td>
<td>Photoelectrically driven variable speed fiber optic cable termination polisher</td>
<td>[AD-A104797] p0091 A82-12448</td>
</tr>
<tr>
<td>FLOYD, R. E.</td>
<td>Design of advanced digital flight control systems via Command Generator Tracker (CGT) synthesis method, volume 1</td>
<td>[AD-A115510] p0570 A82-31133</td>
</tr>
<tr>
<td>FLORE, L.</td>
<td>Portable air driven variable speed fiber optic cable termination polisher</td>
<td>[AD-A104797] p0091 A82-12448</td>
</tr>
<tr>
<td>FLOREN, R.</td>
<td>Design of advanced digital flight control systems via Command Generator Tracker (CGT) synthesis method, volume 2</td>
<td>[AD-A115511] p0570 A82-31133</td>
</tr>
<tr>
<td>FLOREN, R.</td>
<td>Design of advanced digital flight control systems via Command Generator Tracker (CGT) synthesis method, volume 3</td>
<td>[AD-A115512] p0570 A82-31133</td>
</tr>
</tbody>
</table>
FRACK, R. E.  
Surveillance simulation testing of terminal and en route node 5 sensors  
[AD-113250]  p0431  H82-24056

FRANK, W. C. M.  
Air traffic management for fuel economy  
[p0110 A82-17279

FRANCIS, B. A.  
Feedback and minimum sensitivity  
[p0030 H82-10050

FRANCIS, M. S.  
A computer-controlled oscillation mechanism for unsteady aerodynamics experiments  
p0308 A82-29018

FRANCISK, A. J.  
The vibratory behavior of a rotating propeller  
[p740 H82-29544

FRANCO, B. G.  
An ejector augmented choking valve for the metering and control of inlet and bleed duct flows  
[AIAA 62-0575]  p0236 A82-24659

FRANCO, J. E.  
Adaptation of a turbine test facility to high-temperature research  
[FAA-LIB-TRAN-2064]  p0040 H82-11089

FRANCO, J. M.  
Effects of aircraft noise on the equilibrium of airport residents: Testing and utilization of a new methodology  
[NASA-TN-76628]  p0042 H82-10136

FRANKLIN, S. G.  
Integrated flight testing based on nonlinear system identification data processing techniques  
[AIAA PAPER 81-2409]  p0564 A82-14690

FRANKLIN, S. M.  
Robust flight control - A design example  
[NASA-76-0046]  p0017 H82-15085

FRANZEN, V. R.  
The powerplants of the YF-40 and Y-15 aircraft  
p0644 A82-20947

FRASER, T. Y.  
In-flight computation of helicopter transmission fatigue life expenditure  
[AIAA PAPER 81-2934]  p0205 A82-13872

FRASER, R. E.  
Duplication of radome aerodynamic heating using the central receiver test facility solar furnace  
[p0261 A82-26468

FREDRIKSSON, B.  
Cracks interacting with contact forces - A finite element study on loaded holes  
p0511 A82-40959

FREEDMAN, R. J.  
Development and utilization of a laser velocimeter system for a large transonic wind tunnel  
[NASA-TN-62086]  p0572 H82-11656

FREEDMAN, C.  
Recent advances in the performance of high bypass ratio fans  
p0505 A82-40891

FREEDMAN, G. L.  
Multiple ejection effects analysis  
[Ad-A100277]  p0252 H82-11819

FREEMAN, B.  
An analysis of selected enhancements to the en route central computing complex  
[AD-A113575]  p0479 H82-28044

FREEMAN, R. B.  
ATE logistics in the United States Air Force  
p0299 A82-27890

FREEMAN, R. J.  
Vehicle test report: Ballistic pickup truck  
[NASA-CE-168637]  p0264 H82-19205

FREY, D. H.  
X-29A forward-swept-wing demonstrator airplane  
p0048 H82-25209

FRENCH, F. J.  
3 DOF gyro analysis from measured and derived rates  
p0116 A82-17031

FRENS, R.  
Aerodynamic investigations to determine possible ice flight paths  
[NASA-TN-76464]  p0589 H82-22759

FRESCO, J.  
Development test programs adapted to helicopter engines  
p0207 H82-17205

FREIBERG, B. L.  
Current techniques for jet engine test cell modeling  
p0439 A82-37718

FREIBERG, H. J.  
Community rotorcraft air transportation benefits and opportunities  
[NASA-CE-166666]  p0147 H82-16000

FEBBIA, F.  
A method for determination of the aerelastic behavior of aircraft with active control systems  
[OFFLE-EE-81-055]  p0029 H82-10047

FEBBIA, F.  
A method for determining the aerelastic behavior of aircraft with active control systems  
[NASA-TR-719]  p0597 H82-24211

FEDERMAN, J.  
Gaussian likelihood failure detection of aircraft flight control sensors  
p0556 A82-44041

FEDERMAN, R. R.  
Aviation turbine fuel properties and their trends  
p0163 A82-19623

FEDERMAN, R. R.  
Experiments on fuel heating for commercial aircraft  
[NASA-TN-62087]  p0589 A82-26463

FEDERMAN, R. R.  
Application of the finite element method to rotary wing aerelasticity  
[p0107 H82-20584

FEDERICH, R.  
Simulation in connection with the development of the Alpha Jet aircraft  
p0550 A82-43333

FELING, R.  
Design and construction of a flexible autonomic electronic display device  
p0503 A82-40569

FELIX, G. R.  
Heavy lift helicopters - A national technology opportunity  
p0045 A82-13241

FELIX, R. T.  
Recent advances in applying Free Vortex Sheet theory to the estimation of vortex flow aerodynamics  
[AIAA PAPER 82-0095]  p0183 A82-22035

FELIX, R. T.  
Analytical study of vortex flaps on highly swept delta wings  
p0515 A82-31003

FELL, R. L.  
Advanced transmission component development  
p0208 H82-17214

FELCH, J. R.  
Mesoscale convective weather systems and aviation operations  
[AIAA PAPER 82-0015]  p0110 A82-17733

FELCH, J. R.  
Mesoscale convective complexes and general aviation  
p0500 A82-45832

FROST, R. C.  
Composite flight test boom for Nomad NN22 aircraft  
[ARL-0086-78]  p0470 H82-27889

FROST, R. L.  
Development and demonstration of manufacturing processes for fabricating graphite/LARC 166 polysiloxane structural elements  
[NASA-CE-165809]  p0507 H82-22315

FROST, R. W.  
An airport wind shear detection and warning system using Doppler radar  
p0003 A82-10220

B-46

PERSONAL AUTHOR INDEX
Simulation of phonoid excitation due to hazardous wind shear
[789] [82-0215] p0117 882-17044

The influence of turbulence on the response of the computer-simulated aircraft landing
[789] [82-02141] p0119 882-17056
Proceedings: Fifth Annual Workshop on Meteorological and Environmental Inputs to Aviation Systems
Analysis of vibration induced error in turbulence velocity measurements from an aircraft wing tip boom
[789] [NASA-CR-3571] p0530 882-28884

FRANKS, R. C.
Refrigeration and upgrading of synfuels from coal and oil shales by advanced catalytic processes
[789] [DE82-00027] p0247 882-23439

FUJII, Y.
Initial experimental research into the response of jet engine compressors to distortion of intake pressure
[789] [DE82-00053] p0333 882-29820

A preliminary experimental investigation of the response of a jet engine to inlet pressure distortion
[789] [DE82-00062] p0332 882-29828

FUJII, K.
Doppler processing, waveforms design and performance measures for some pulsed Doppler and FM-ADCP radars. II
[789] [DE82-00066] p0327 882-30017

FUKUN, L. C.
Analysis and wind tunnel tests of a probe used to measure altitude through measurement of static pressure
[789] [DE82-00070] p0499 882-35448

FUJITA, H.
Aerodynamic characteristics of the external USN powered lift system using side fences for enhancement of Coanda flow attachment
[789] [HAL-TR-886I] p0345 882-22212

FUJITOSHI, K.
Design and experimental verification of the USN-311017 system for NAL STOL aircraft
[789] [DE82-00074] p0508 882-40017

FUJITO, T.
Aerodynamic response of a blade in pitching oscillation with partial and full separation
[789] [DE82-00075] p0512 882-18346

FUJITO, T.
Crossflow shock on the suction side of a flat delta wing with supersonic leading edges
[789] [DE82-00076] p0516 882-23439

FUJITO, Y.
A multidimensional crack-growth prediction methodology for flaws originating at fastener holes
[789] [DE82-00077] p0516 882-23439

FUJITA, I.
The emerging need for improved helicopter navigation
[789] [DE82-00078] p0517 882-23439

FUJITA, T. T.
Downbursts and microbursts - An aviation hazard
[789] [DE82-00079] p0521 882-30017

The Joint Airport Weather Studies Project
[789] [DE82-00080] p0525 882-15047

FUNKI, B.
Acoustic fatigue endurance test of USN-311017 system at elevated temperature
[789] [HAL-TR-683] p0269 882-19370

FUKUOKI, T.
Design, fabrication and qualification of the T-2 composite rudder
[789] [HAL-TR-683] p0269 882-19370

FULLAM, R. W.
Enhanced piloting control through cockpit facilities and L.C.T.
[789] [HAL-TR-683] p0347 882-22195

FULLAM, C. B.
Integrated structural analysis and design support for advanced launch vehicles
[789] [HAL-TR-683] p0338 882-30144

FULLAM, R. R.
Rotor state estimation for rotorcraft
Mathematical model for the maintenance program of modern jet aircraft

GADD, K. L.

p0025 A82-10002

Mathematical model for a maintenance program for modern jet aircraft

GADD, K. B.

p0585 A82-32208

Electrical flight instrument systems /EFIS/, the instrumentation of the 1980s

GALLAGHER, J.

p0242 A82-25324

Instrumentation to determine the suitability of ENSY systems for helicopter navigation in the national airspace system /NAS/.

GALLAGHER, J. A.

p0057 A82-13911

The effect of non-linear propagation in jet noise

GALLAGHER, J. A.

p0121 A82-17936

Blade loss transient dynamic analysis of turbin on machinery

GALLAGHER, J. L.

p0085 A82-34982

Autotuned radar performance evaluation in the Radio Frequency Simulatio n System /RFSS/ at NUC.

GALLAGHER, J. M.

p0281 A82-26471

Flow visualization using a computerized data acquisition system

GALLAGHER, J. T.

p0179 A82-20792

Digital test pilot concept

GALLO, R. A.

p0118 A82-17867

Assessment of community response to high-energy impulsive sounds

GARRETT, T. L.

p0322 A82-21777

The 2D real-time aviation weather information system - An alternative to standard general aviation weather briefing procedures

GARRETT, T. L.

p0580 A82-45834

Design of counter-rotating intershaft support bearing technology for aircraft gas turbine engines

GARRETT, T. L.

p0437 A82-37679

Thermodynamics of organic compounds

GARRETT, T. L.

p0318 A82-21202

Transport aircraft crash dynamics

GARR, R.

p0394 A82-24166

Determination of rotor wake induced empennage airloads

GARR, R. B.

p0443 A82-37796

A doublet lattice method for the determination of rotor induced empennage vibration airloads. Analysis description and program documentation

GARRISON, F. T.

p0565 A82-31295

The effect of hybrid composite materials on the dynamic characteristics of helicopter rotor blades

GARG, L. L.

p0891 A82-39263

Effect of the rear stage casing treatment on the overall performance of a multistage axial-flow compressor

GARG, L. L.

p0424 A82-35364

On computing Floquet transition matrices of rotocraft

GARG, L. L.

p0013 A82-11225

Sensitivity of helicopter aeromechanical stability to dynamic inflow

GARG, L. L.

p0273 A82-25773

Design of supercritical swept wings

GARG, L. L.

p0223 A82-23826

Design Criteria of the A129 helicopter drive system

GARR, R. B.

p0208 A82-17215

Optimization of compressor vane and bleed settings

GARRISON, F. T.

p0423 A82-35327

Optimization of compressors, vanes and bleed settings

GARRISON, F. T.

p0134 A82-14097

A laboratory mock-up ultrasonic inspection system for composites

GARRISON, F. T.

p0419 A82-35256

Energy efficient engine /E3/ technology status

GARRISON, F. T.

p0415 A82-38490

Interim review of the Energy Efficient Engine /E3/ Program

GARRISON, F. T.

p0429 A82-35447

Energy efficient engines: High pressure turbine uncooled rig technology report

GARRISON, F. T.

p0593 A82-32383

Estimation of the peak count of actually controlled aircraft

GARRISON, F. T.

p0518 A82-41117

Estimation of the number of in-flight aircraft on instrument flight rules

GARRISON, F. T.

p0482 A82-38447

The application of subsonic theoretical aerodynamics to active controls

GARRISON, F. T.

p0320 A82-21217

Magnetic heading reference

GARRISON, F. T.

p0448 A82-26260

Head-up display

GARRISON, F. T.

p0536 A82-29319

Conceptual design study for an advanced can and visual system, volume 1

GARRISON, F. T.

p0410 A82-25266

Conceptual design study for an advanced can and visual system, volume 2

GARRISON, F. T.

p0410 A82-25267

Large scale maneuvering areas: Operational problems - Possible development of solutions

GARRISON, F. T.

p0061 A82-15625

The effects of flexibility on the steady-state performance of small ribbon parachute models

GARRISON, F. T.

p0006 A82-10408

Stress measurements in a ribbon parachute canopy during inflation and at steady-state

GARRISON, F. T.

p0007 A82-10420

Stress measurements in bias constructed parachute canopies during inflation and at steady-state

GARRISON, F. T.

p0007 A82-10421

Robust Kalman filter design for active flutter suppression systems

GARRISON, F. T.

p0482 A82-38442

Eigenspace techniques for active flutter suppression

GARRISON, F. T.

p0396 A82-24206

ACAS - Fact or fantasy

GARRISON, F. T.

p0019 A82-12048

Considerations for international joint venture development of very large aircraft

GARRISON, F. T.

p0376 A82-31982

Laser Doppler velocimetry application in the Langley 0.3-meter Transonic Cryogenic Tunnel

GARRISON, F. T.

p0599 A82-32696

Some HIF laser velocimeter installation and operation considerations

GARRISON, F. T.

p0599 A82-32698

Starting transients in supersonic nozzles and nozzle-diffuser assemblies

GARRISON, F. T.

p006 A82-25226

History of flight testing the L-1011 TriStar jet transport. II. Testing highlights since initial certification of the L-1011-1

GARRISON, F. T.

p0019 A82-12049

Design Criteria of the A129 helicopter drive system

GARRISON, F. T.

p0208 A82-17215

Turboprop design - Now and the future

GARRISON, F. T.

p0512 A82-40965
A survey of melting layer research [AD-415659] p0193 N82-16178

Enhanced P-15 air-to-ground flight demonstrations [AIAA PAPER 81-2413] p0054 A82-3854

The application of strapdown inertial technology to attitude and heading reference system requirements p0182 A82-21590

Suppression of self-oscillations in open wind tunnels p0274 A82-25794


GIBBS, L. C. A survey of melting layer research [AD-415659] p0193 N82-16178

GIBBS, L. E. Environmental exposure effects on composite materials for commercial aircraft [NASA-CR-165981] p0594 N82-32421

GIBBS, G. E. Enhanced P-15 air-to-ground flight demonstrations [AIAA PAPER 81-2413] p0054 A82-3854

GIBBS, S. E. Microwave communications to remotely piloted vehicles p0150 A82-10911

GIBSON, E. F. Damping and stiffness of aligned discontinuous fiber reinforced polymer composites p0335 A82-30102

GIBSON, E. S. Flight testing De Havilland Aircraft Limited DASH-8 utilizing onboard data analysis by microprocessor sensor p0057 A82-13907

GIBLE, J. W. Size reduction flight test airborne data systems p0178 A82-20766

GIESCHEK, R. The external balance system of the German-Dutch wind tunnel DW and its strain gage load cells p0549 A82-43184

GIFORD, R. W. The design integration of wingtip devices for light general aviation aircraft p0508 A82-40933

GILL, B. I. High angle-of-attack characteristics of a forward-swept wing fighter configuration [AIAA PAPER 82-1322] p0487 A82-39099

GILBERT, E. C. System optimization by periodic control [AD-A117815] p0611 N82-33402

GILBERT, G. A. Helicopters and Navstar/GPS p0182 A82-21592

GILBERT, R. E. Data reduction procedures for Sea King helicopter flight trials [AD-A117044] p0550 N82-32359

GILBAZ, W. M. Study of reingestion of exhaust gases with different initial temperature in a reversed turbojet engine p0014 A82-11444

GILL, P. B. Design considerations for optimal flight control systems p0039 N82-10777

GILL, J. C. Propulsion study for small transport aircraft technology (SUMT) [NASA-CR-166499] p0027 N82-10037

GILL, R. A. Advanced fighter technology integration AFFT-P-16 test program overview [AIAA PAPER 81-2353] p0065 A82-14398


GILLES, W. C. General aviation aircraft antennas for the global positioning system [NASA-TP-83212] p0041 A82-11339

GILSON, R. D. A tactical display and for primary flight training [NASA-CR-166242] p0351 N82-22238 Performance evaluation of a kinesthetic-tactual display p0366 N82-23221

GILSTER, G. W. The application of strapdown inertial technology to attitude and heading reference system requirements p0182 A82-21590

GILSEK, A. S. Suppression of self-oscillations in open wind tunnels p0274 A82-25794

GIESCHEK, P. Supersonic cruise/transonic maneuver wing section development study [AD-110686] p0448 N82-26256

GIESCHEK, P. B. Transonic computational experience for advanced tactical aircraft p0831 A82-35563

GIBBS, L. C. Microwave communications to remotely piloted vehicles p0150 A82-10911

GILBERT, J. J. Von Karman and W.K. - The first 25 years p0273 A82-25673

GIOVANNI, L. Quantitative interpretation of recirculated flow visualization by the analysis of video pictures p0626 A82-27109

GIBSON, R. E. Microprocessor control system for the monoplane ATC/BS [AIAA PAPER 82-1917] p0006 A82-10003

GIBSON, W. The influence of new turbine technologies on their components p0207 N82-17210

GIBBS, L. C. Aircraft meteorological data relay (MARKAR) p0579 A82-45822

GIBSON, D. New range generators for the next generation of civil aircraft [SEE PAPER 81167] p0555 A82-44236

GIBBS, W. B. Performance evaluation of target report extractor in the monoplane ATC/BS p0071 A82-14776

A multimicroprocessor system for ATC/BS monoplane data processing p0071 A82-14777

GIESSEND, R. T. A multifrequency adaptive radar for detection and identification of objects - Results and preliminary experiments on aircraft against a sea-clutter background p0379 A82-32979

GLASS, D. V. Depot support of gas turbine engines [AD-107141] p0462 A82-27217

GLASS, R. Response of cloud microphysical instruments to aircraft visibility conditions [AD-112317] p0469 A82-27284

GLASS, R. Flight simulation consoles, aid or obstruction - Objective evaluation of control consoles of modern flight and tactics simulators [DGRL PAPER 81-097] p0159 A82-19269

GLASSEN, D. Analysis of built-in-test accuracy p0545 A82-42211

GIBBINS, L. L. Application of combined balancing methods to flexible rotors of aviation gas-turbine engines p0282 A82-26491

GLEN, R. E. Electronic warfare system measure of effectiveness p0553 A82-43840


GILDEHKE, R. J. Advanced exhaust nozzle technology p0095 N82-13078

GIBBINGS, G. R. Effects of blade/blade ratio and spacing on fan noise [AIAA PAPER 81-2033] p0008 A82-10457

GILL, S. C. Effects of vane/blade ratio and spacing on fan noise [AIAA PAPER 81-2033] p0008 A82-10457

GILLES, D. L. Propulsion study for small transport aircraft technology (SUMT) [NASA-CR-166499] p0027 N82-10037
GOODMAN, N. A.
Reliability analysis of the F-8 digital fly-by-wire system
[NASA-CR-163119] p0089 882-12079

GOODMAN, J. W.
Micro-heads-up display
p0501 882-40533

GOODWIN, M. D.
p0327 882-20994

GOODZICK, F. P.
Comparison of simulation and experimental data for a gliding parachute in dynamic flight
[ASA PAPER 81-1974] p0006 882-10409
Development of methods for assessment of gliding parachute applications
[AS-A117101] p0605 882-33356

GOODSON, R.
Civil aviation in China
p0053 882-12600

GOODWIN, N. V.
An investigation of the combustion process in solid fuel r assets
[AD-A104603] p0060 882-11232
Modelling solid-fuel Ramjet combustion including radiation heat transfer to the fuel surface
[AD-A1074841] p0475 882-27436

GOOSEN, W. J.
Control software for two dimensional airfoil tests using a self-streamlining flexible walled transonic test section
[NASA-CH-165941] p0559 882-30314

GOOJIAN, F. R.
Comparison between computations and experimental data in unsteady three-dimensional transonic aerodynamics, including aeroelastic applications
[I&A 82-0690] p0339 882-30157

GOOSZ, L. E.
Process development and evaluation of gas turbine engine components in 1KI 829
[PR9-90050] p0318 882-21205

GORASON, G. G.
Principles of achieving damage tolerance with flexible maintenance programs for new and aging aircraft
p0517 882-41016

GORKOS, D. A.
The formation of benzpyrene during the combustion of aviation fuels
p0282 882-26494

GORSKOV, E. M.
The technology of sheet-metal stamping in the production of aircraft/2nd revised and enlarged edition
p0080 882-19988

GORDON, D. L.
Georgia Tech coherent jammer flight test
[ASA PAPER 81-2492] p0056 882-13898

GORDON, S.
Thermodynamic and transport combustion properties of hydrocarbons with air. Part 1: Properties in S I units
[NASA-TP-1986] p0574 882-32166
Thermodynamic and transport combustion properties of hydrocarbons with air. Part 2: Compositions corresponding to Kelvin temperature schedules as part 1
Thermodynamic and transport combustion properties of hydrocarbons with air. Part 3: Properties in US customary units
Thermodynamic and transport combustion properties of hydrocarbons with air. Part 4: Compositions corresponding to Rankine temperature schedules in part 3
[NASA-TP-1989] p0575 882-32189

GOREESOV, L. F.
Improving the accuracy of the estimates of surfactant content in jet fuels
p0218 882-23250

GOERTZS, L. L.
Survey and design of airfields
[882-43603

GOHR, S. L.
Wind tunnels of the Institute of mechanics of Moscow State University

GOHRE, G. L.
Implementation of AVIDACON MUST
p0397 882-24213

GOHRETSKII, V. G.
Optimization of requirements on the pitting-prevention properties of turbojet-engine oils
p0082 882-15723

GOHRETSKII, H.
Computer program for aerodynamic and blading design of multistage axial-flow compressors
[NASA-TP-1949] p0411 882-15039

GORENHEIM, R.
Air service, airport access and future technology
[p882-105595] p0492 882-16100

GORS Kel, A.
Measures to increase airfield capacity by changing aircraft runway occupancy characteristics
[NASA-CH-168841] p0351 882-22240

GOHRETSKII, E.
D.S. Army remotely piloted vehicle supporting technology program
p0499 882-39779

GOHRETSKII, V. L.
Computer graphics for quality assurance
p0167 882-20276

GOOLAS, L.
The calculation of deviation angle in axial-flow compressor cascades
[ASA PAPER 82-GT-230] p0428 882-35612

GOULD, I. W.
Knee- adaptive wing flight demonstration program
[SAS PAPER 81035] p0232 882-24399

GOULDING, K. E.
Study of the de-icing properties of the ASD8-3 rotodrome
[AD-7115448] p0570 882-31335

GOYINDBAI, K.
Three dimensional turbulent boundary layer development on a fan rotor blade
[IASA PAPER 82-1007] p0375 882-31965

GOYINDBAI, K. S.
Modeling procedures for handling qualities evaluation of flexible aircraft
p0061 882-13968

GHEHALAHI, K.
Tool use in cutting operations involving integral structural components in aircraft construction
p0326 882-26073

GRAB, W.
Compressor stall inducing installation effects of an engine control parameter for the CF-5 aircraft
p0095 882-13085

GRABENSTEIN, J. F.
Pave Mover Flight Test Program
[ESA PAPER 82-2492] p0063 882-14380

GRACI, J. J.
Integrated cockpit for A-129
p0366 882-22325

GRADY, T. E.
p0546 882-42035

GRAF, R. E.
The system of "objective control"
[p0490 882-39245

GRAF, R. E.
Marine Air Traffic Control and Landing System
[HATCALS Investigation], volume 1
[AD-A110862] p0399 882-24188

GRAF, R. E.
Marine Air Traffic Control and Landing System
[HATCALS Investigation], volume 2
[AD-A110863] p0399 882-24189

GRAF, R. E.
Marine Air Traffic Control and Landing System
[HATCALS Investigation]
[AD-A107306] p0466 882-27260

GRAFEN, S. M.
Hi-gh angle-of-attack characteristics of three-surface fighter aircraft
[ASA PAPER 82-2425] p0106 882-22074

GRAFEN, S. M.
Hi-gh angle-of-attack characteristics of a forward-swept wing fighter configuration
[ASA PAPER 82-1322] p0487 882-39099

GRAHAM, J. L.
The effect of aspect ratio on the unsteady aerodynamic forces induced by vibration of a

B-52
Operational test and evaluation handbook for
Hannal reversion flight control system for A-10

Interim review of the Energy Efficient Engine /E3/
Computational fluid dynamics - The coming revolution

Piston engines for general aviation - Is the
International plans for civil and military co-
The effects of weather on runway operations
The use of dynamic mock-ups in the design of
C-5A operational utility evaluation soil tests and
The response of cloud microphysical instruments to
Noise and economic characteristics of an advanced blended supercritical transport concept
Trailing edge flap influence on leading edge vortex flow aerodynamics

An analysis of civil aviation propeller-to-person accidents: 1965-1979
C-SM operational utility evaluation soil tests and analysis
The use of dynamic mock-ups in the design of advanced systems
The influence of smart computers on the cockpit of the future
The feasibility of a high-altitude aircraft platform with consideration of technological and societal constraints
An evaluation of helicopter autorotation assist concepts
Computational fluid dynamics - The coming revolution
The effects of weather on runway operations
International review of the Energy Efficient Engine /E3/ Program
International plans for civil and military coordination
Manual reversion flight control system for A-10 aircraft: Pilot performance and simulator use effects
Operational test and evaluation handbook for aircrew training devices. Volume 3: Operational suitability evaluation
Operational test and evaluation handbook for aircraft training devices. Volume 1: Planning and management

Acrylic - A timely review

Air Force Academy aeronautics digest: 1980

Air Force Academy aeronautics digest: Fall/Summer 1980

Air Force Academy aeronautics digest: 1981

Air Force Academy aeronautics digest: Fall/Spring 1981

Air Force Academy aeronautics digest: Fall/Spring 1980

Air Force Academy aeronautics digest: Fall/Spring 1978
Sensitivity of bonded and bolted joints in composites to load/environmental spectrum

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.

GBIBSS, B. C.
HAAS, J. L.
The effect of rotor blade thickness and surface finish on the performance of a small axial flow turbine

HABERLAND, W.
Wind design for light transport aircraft with improved fuel economy

HABERMAN, D. B.
The use of a multi-degree-of-freedom dual balance system to measure cross and cross-coupling derivatives

HACKETT, J. E.
Determination of wind tunnel constraint effects by a unified pressure signature method. Part 1: Applications to winged configurations

HADDOCK, R. E.
Elastic suspension of a wind tunnel test section

HADDEVAND, A. P.
Investigation of the application of a cryogenic bleeding process to produce antiaising diesel fuels

HALLEY, G. E.
Investigation of the separations behavior on airfoils at high angles of attack, using linear lift theory

HANELE, L.
Processes and procedural approaches used in the design and development of the supporting structure and the demonstration of the airworthiness

HANSEN, L.
Integration of complex systems in current and future aircraft projects for the example of avionics

HAPPEN, L.
Flight mechanics - Modern aircraft design and control concepts

HARE, M.
Vertical takeoff technology - Flight mechanics, aerodynamics, and propulsion systems

HARMS, W.
Transonic wind tunnel wall interference corrections for three-dimensional models

HARVEY, L.
Testing of tritium-powered runway distances and taxiway markers

HAY, D.
Calculation of sensitivity derivatives in thermal problems by finite differences

HAYNES, D. J.
Low-frequency eddy current inspection of aircraft structure

HAYNES, D. J.
Automated ultrasonic inspection of adhesive bonded structures

HEDBRO, F.
Nondestructive detection of exfoliation corrosion in aluminum wing skins

HELM, W. J.
Experimenal evaluation of heat damage to aluminum aircraft structures

HICKMAN, J.
Operational test and evaluation handbook for aircrew training devices. Volume 3: Operational suitability evaluation

HICKEY, B.
Design and experience with a low-cost digital fly-by-wire system in the SAAB JA37 Viggen A/C

HIGGINS, D. C.
The correlation of flight test and analytical M-on-W air combat exchange ratios

HINCH, J. M.
Three dimensional turbulent boundary layer development on a fan rotor blade

HINN, R. J.
Experimental evaluation of squeeze film supported flexible rotors

HITZ, H.
Decomposition and performance measures for some pulsed Doppler and RFD radars II

HODGE, B.
Integrated composite systems in current and future aircraft projects for the example of avionics

HOFER, B.
Requirements for independent and dependent parallel instrument approaches at reduced runway spacing

HOPF, L.
Vibration qualification of external aircraft stores and equipment

HORN, J. W.
Automated Pilot Advisory System

HORN, W.
A laboratory mock-up ultrasonic inspection system for composites

HOSIBORI, T.
Turbulence modeling - Report of a Working Party
PERSONAL AUTHOR INDEX

A concept for a fuel efficient flight planning aid for general aviation
[NASA CR-38133] p0266 A82-19217
HANCOX, J. L.

OT-10A nose gear fork damage analysis
[AD-1118892] p007 A82-25244
HANCOX, F. G.

Heavy rain penalties for a flight simulator
[AIAA PAPER 82-0213] p0286 A82-27093
HANCOX, R. L.

Heavy rain/wind shear accidents
p0580 A82-45825
HANCOX, R. L.

The effect of very heavy rain upon aircraft and its role in wind shear accidents
p0301 A82-25175
Aerodynamic penalties of heavy rain on a landing aircraft
[NASA CR-156805] p0558 A82-30298
HANCOX, R. L.

Initial B-18 carrier suitability testing
p0176 A82-20752
HANCOX, R. L.

Turbine blade nonlinear structural and life analysis
[AIAA PAPER 82-1056] p0415 A82-26981
HANCOX, R. L.

Nonlinear structural and life analyses of a combustor liner
[NASA-TS-82846] p0399 A82-26501
HALL, B. W.

The gas turbine engine
p0325 A82-28087
HALL, R. L.

Direct comparison of community response to road traffic noise and to aircraft noise
p0218 A82-22974
HALL, R. L.

Economic analysis for data base management
p0545 A82-42208
HALL, R. L.

Computer Monitored Inspection Program (CMIP), a key to increased aircraft and personal productivity
p0545 A82-42217
HALL, L.

Principles of achieving damage tolerance with flexible maintenance programs for new and aging aircraft
p0517 A82-41016
HALL, J. E.

Digital flight controls
p0261 A82-19143
HALL, J. E.

Advanced target acquisition and tracking concepts for real time applications
p0472 A82-27305
HALL, J. L.

Analyzing stable pad disturbances and design of a sensor vault to monitor pad stability
[AIAA 82-1505] p0086 A82-39011
HALL, L. E., Jr.

The preparation and characterization of mixtures of polycyclopentadienes as solid ramjet fuels
[AD-1115075] p0560 A82-29641
HALL, G. L.

Acoustic emission from free jets
p0359 A82-22962
HALL, E. L.

F-16 active flutter suppression program
p0448 A82-27947
HALLERTHAUS, R.

Commercial B-18 considerations for small gas turbine engines
p0020 A82-12494
HALLERTHAUS, W. L.

Longitudinal and lateral static stability and control characteristics of a 1/6-scale model of a remotely piloted research vehicle with a supercritical wing
[NASA TP-1360] p0145 A82-15075
HALLER, D. G.

Aerodynamic considerations in the prediction of an unstable supersonic flutter in transonic fans
p0143 A82-15058
HALLER, J. M.

Chicago anemostatic acoustic vortex sensing system. Volume 2: Decay of B-707 and DC-8 vortices
[AD-1090518] p0302 A82-20157
HALLER, M. E.

Automated cadence performance evaluation in the Radio Frequency Simulation System /RFSS/
facility at RICON
p0281 A82-26471
HALLER, M. E.

Quantization solution of the proportional navigation problem
[AD-1113668] p0468 A82-27273
HALPERN, J. C.

An analytical methodology to predict potential aircraft loom due to canopy birdstrikes
p0227 A82-24313
HALPERN, J. C.

Total main rotor isolation system
[ABS PREPRINT 81-15] p0402 A82-37707
HALPS, K. A.

Development of a digital integrated automatic landing system /DIALS/ for steep approach and landing
p0168 A82-20297
HALPS, K. A.

Effects of dynamic stall on SCW
p0384 A82-33707
HANCOX, J. L.

A simple system for helicopter individual-blade-control and its application to stall flutter suppression
p0439 A82-37765
HANCOX, J. L.

A simple system for helicopter individual-blade-control and its application to stall-induced vibration alleviation
[ABS PREPRINT 81-12] p0402 A82-37705
HAREL, L. A.

International aerospace review; Proceedings of the First International Aerospace Symposium, Le Bourget, Seine-Saint-Denis, France, June 2, 3, 1981
p0386 A82-34011
HAREL, L. A.

Optimization of thrust algorithm calibration for Computing System (TCS) for Thrust the NASA Highly Maneuverable Aircraft Technology (HIMAT) vehicle's propulsion system
[NASA CR-163211] p0317 A82-21198
HAREL, J. E.

Allocation of thrust vectoring for STOL
[AIAA PAPER 81-2616] p0155 A82-19205
HARRISON, T. G.

HARIAN - A unmanned aircraft flight research facility
p0493 A82-39735
HARRISON, T. G.

Adaptive multifunction sensor concept for air-ground missions
p0471 A82-27209
HARRISON, C. H.

SPP of high strength aluminum structures
p0328 A82-26997
HARRISON, W. L.

Superplastic aluminum evaluation
[AD-107760] p0210 A82-17338
HARRISON, W. L.

Digital avionics display processor
[AIAA 81-2311] p0051 A82-13513
HARRISON, B. L.

II Approximate method of predicting heating on the windward side of Space Shuttle Orbiter and comparisons with flight data
[AIAA PAPER 82-0223] p0287 A82-31053
HARRISON, B. L.

Evaluation of sensitivity of ultrasonic detection of diamonds in graphite/epoxy to metal joints
p0287 A82-37000
HARRISON, B. L.

Army helicopter crew seat vibration - Past performance, future requirements
[ABS PREPRINT 81-3] p0441 A82-37779
HARRISON, W. L.

Wing/fuselage critical component development program
p0287 A82-27300
HARRIS, L. M.

Evaluation of cast titanium alloy compressor components, volume 1
[AD-1117131] p0296 A82-24204
HARRIS, L. M.

Combining composites to the Boeing 767
p0481 A82-38224
HARRISON, C. L.

Quantification of helicopter vibration ride qualities
p0400 A82-37767
D-57
Gas turbine ceramic-coated-vane concept with cloud top remote sensing by airborne lidar

On the characterization of damage in graphite-epoxy composites

Comparison of theoretical and experimental transonic King designs

Meteorological inputs to advanced simulators

New facility and technique for two-dimensional shape optimization of fiber reinforced composites

Investigation of the unsteady airloads on a transport aircraft type airfoil with two interchangeable oscillating trailing edge flaps, at transonic speed and high Reynolds numbers

Cloud top remote sensing by airborne lidar

Smoke attenuation system for crash rescue/fire training facilities

Gas turbine ceramic-coated-vane concept with convection-cooled porous metallic core

A-7 transonic wing designs

A comparison of theoretical and experimental pressure distributions for two advanced fighter wings

Use of D佘ER in-flight simulator HP 320 Hanes for handling qualities investigations

Advanced aircraft electrical system control technology demonstrator. Phase 1: Analysis and preliminary design

Limited artificial and natural icing tests on production SH-60A helicopter (re-evaluation)

System data communication structures for active-control transport aircraft, volume 1

System data communication structures for active-control transport aircraft, volume 2

The effect of ejector augmentation on test-section flow quality in the Calypso 6-ft transonic wind tunnel

Composite materials

Interim review of the Energy Efficient Engine E3/Program

Air Traffic Control computer replacement - Specification issues and problems

Helicopter vibration suppression using simple pendulum absorbers on the rotor blade

Investigation of the unsteady airloads on a transport aircraft type airfoil with two interchangeable oscillating trailing edge flaps, at transonic speed and high Reynolds numbers

Cloud top remote sensing by airborne lidar

Aircraft alerting systems standardization study. Volume 1: Candidate system validation and technique during piloted approach and landing in a powered lift STOL aircraft

Aircraft alerting systems standardization study. Volume 2: Aircraft alerting system design guidelines

Performance considerations in the design of subsonic cruise missiles

Fatigue life prediction of helicopter pitch link using Raman life calculate methods

Research on turbine rotor-stator aerodynamic interaction and rotor negative incidence stall

Analysis of rotating structures using image derotation with multiple pulsed lasers and moire techniques

Design criteria for flightpath and airspeed control for the approach and landing of STOL aircraft

Numerical computation of optimal atmospheric trajectories involving staged vehicles

Flight measurements of area navigation system performance using various combinations of ground aids and airborne sensors

Personal Author Index
Analysis of data from a wind tunnel investigation of a large-scale model of a highly maneuverable supersonic V/STOL fighter – STOL configuration
for advanced transonic flow about thin airfoils in moderately slow unsteady motion
[NASA-TR-60659-0] p0806 A82-25231
A finite difference method for the calculation of transonic flow about a wing, based on small perturbation theory
[NASA-TR-6-1831-0] p0522 A82-28263
HULL, D. B.
Model honeycomb to porous wireform substrate diffusion bond evaluation
[NASA-TR-62793] p0259 A82-18612
HULL, D. B.
Development of a helicopter rotor/propulsion system dynamics analysis
[NASA PAPER 82-1070] p0116 A82-39997
Development of a rotorcraft. Propulsion dynamics interface analysis, volume 1
[HASS-CB-166380] p0591 A82-33268
Development of a rotorcraft. Propulsion dynamics interface analysis, volume 2
[HASS-CB-166381] p0591 A82-33269
HOLTHUS, C.
RADAR simulator for aircraft instruments
[AD-A117447] p0356 A82-22286
HUNNAD, D. G.
Model helicopter rotor low frequency broadband noise
p0273 A82-25772
HUMMEL, D.
Investigations regarding vortex formation at wings with bent leading edges
p0483 A82-38783
Vortex formation over double-delta wings
p0514 A82-40899
HUMPHRY, C. R.
Flight tests for the assessment of task performance and control activity
p0365 A82-23213
HUMPHREY, G. W.
Airplane performance sensitivities to lateral and vertical profiles
p0883 A82-15846
HURLEY, M.
Solid-state VOR/TAC with remote maintenance and monitoring
p0122 A82-18194
HURST, J. C.
Software features applicable to inertial measurement unit self alignment
[AD-A100511] p0253 A82-18196
HURST, J. L.
Thrust reverser induced flow interference on (tactical) aircraft stability and control
[AD-A11727] p0369 A82-37693
HURST, J. L.
Investigation of upwind schemes for finite element analysis of transonic flow over thin airfoils
[AD-A111168] p0605 A82-25225
HURST, L. E.
Elastic-plastic finite element analyses of thermally cycled double-edge wedge specimens
p0380 A82-20566
HURST, L. E.
Applications to aeroelasticity of the theory of transformations of nonlinear systems
[NASA-TR-64249] p0540 A82-30013
HURST, L. E.
Use of composite materials for helicopter rotor blades
[PB82-126041] p0316 A82-21191
HURST, L. E.
Movement in Category III conditions
p0186 A82-20221
HURST, L. E.
Airborne Ladar measurements of the Soufriere eruption of 17 April 1979
p0383 A82-33657
HUNTER, D. A.
Digital avionics systems - The HAF experience
[AD-A117944] p0517 A82-11991
HUNTER, D. E.
Endwall boundary layer flows and losses in an axial turbine stage
p0160 A82-20298
Casing wall boundary-layer development through an isolated compressor rotor
[ASA PAPER 82-07-18] p0420 A82-37693
HUNTER, J. L.
Integrated flight and fire control demonstration on an F-15B aircraft: System development and
A summary of V/STOL inlet analysis methods

[NASA-TP-82085] p0363 882-23185

HULTON, L. R.
Experimental investigation of turbine endwall heat transfer. Volume 1: Description of experimental hardware and test conditions

[AIAA 81-21199] p0317 882-21199

HULTON, L. R.
Experimental investigation of turbine endwall heat transfer. Volume 2: Linear and annular cascade summary data sets

[AIAA 81-21200] p0317 882-21200

HULTON, L. R.
The effect of design parameters on the selection of a V/STOL system

[p0330 882-24381]
JACOB, K. J. A giant step toward composite helicopters (NASA-CASE-LAB-12441-1) p0411 B82-25402

JACOB, G. An analytical methodology to predict potential aircraft losses due to canopy birdstrikes (NASA-CASE-LAB-12527) p0227 B82-24313

JACOB, C. E. A. Gothic half-span model support system (NASA-CASE-LAB-12441-1) p0370 B82-22354

JACOB, D. L. Operability of military aircraft - Aeronave design aspects (NASA-CASE-LAB-12441-1) p0174 B82-20564

JACOB, L. R. Vortex lift augmentation by suction on a 60 deg swept Gothic wing (NASA-CASE-LAB-12441-1) p0117 B82-17856

JACOB, P. S. The dynamic behaviour of propeller air-sameters (NASA-CASE-LAB-12441-1) p0276 B82-26184

JACOB, R. M. Target tracking using area correlation (NASA-CASE-LAB-12441-1) p0490 B82-39194

JACOB, R. E., Jr. Quality, quantity, and technology - A perspective on fighter development (NASA PAPEB 811097) p0232 B82-24400

JACOB, E. Turbulence measurements in a confined jet using a six-orientation hot-wire probe technique (NASA PAPEB 82-1262) p0439 B82-37710

JACOB, D. Experimental flight test programs for improving combat aircraft maneuverability by maneuver flaps and pylon split flaps (NASA PAPEB 82-1262) p0347 B82-22192

JACOB, G. Importance of a tactical cargo aircraft in emergency relief (NASA PAPEB 82-1262) p0243 B82-25499

JACOB, H. G. Optimization of blade pitch angle for higher harmonic rotor control (NASA PAPEB 82-1262) p0441 B82-37776

JACOB, H. G. Optimal open-loop aircraft control for go-around maneuvers under wind shear influence (NASA PAPEB 82-1262) p0510 B82-40943

JACOB, K. Experimental investigations of the separated flow around a rectangular wing (DFVL-FB-81-12) p0025 B82-10047

JACOB, P. P. Experimental drag values for conventional and supercritical wings (NASA CR-168506) p0198 B82-17126

JACOB, P. P. Performance characteristics of a buoyant quad-rotor research aircraft (NASA PAPEB 82-1262) p0513 B82-40974

JACOBS, B. M. Corona and antenna effects on the 80-539 mine-sweeping helicopter and Baydist navigation set (NASA PAPEB 82-1262) p0295 B82-27946

JACOBS, L. D. Methodology for multi-aircraft mission noise impact landing trajectories (NASA PAPEB 82-1262) p0218 B82-23037

JACOBS, P. W. Transportation systems evaluation methodology development and applications, phase 3 (NASA CR-164955) p0085 B82-12051

JACOBS, D. A. Identification of terms to define unconstrained air transportation demands (NASA CR-165961) p0568 B82-31311

JACOBS, D. O. PEP - Realistic not futuristic (NASA PAPEB 82-1262) p0294 B82-27857

JAGACIUSK, B. J. Performance evaluation of a kinesthetic-tactual display (NASA PAPEB 82-1262) p0366 B82-23221

JAGGER, D. B. Design possibilities for improved fuel efficiency of civil transport aircraft (NASA PAPEB 82-1262) p0169 B82-20514

JAGO, S. Separation monitoring with four types of predators on a cockpit display of traffic information (NASA PAPEB 82-1262) p0564 B82-30860

JAIN, A. C. Hypersonic interactions with surface mass transfer. I - Steady flow over a slender wedge wing (AIAA PAPEB 82-0579) p0374 B82-31994

JAIN, S. C. Superalloy powder engine components; controls employed to assure high quality hardware (NASA-CASE-LAB-12441-1) p0021 B82-12499

JAGEVRITZ, B. R. Calculation of wing-body-nacelle interference in subsonic and transonic potential flow (NASA-CASE-LAB-12441-1) p0097 B82-13095

JAGBOYES, E. R. Helicopter reliability and maintainability trends during development and production for a 105075) p0098 B82-13136

JAIN, S. System for providing an integrated display of instantaneous information relative to aircraft attitude, heading, altitude, and horizontal situation (NASA-CASE-FEC-11005-1) p0199 B82-16075

JAIRO, S. Remarks on the calculation of transonic potential flow by a finite volume method (NASA PAPEB 82-1262) p0439 B82-37710

JAIN, A. C. Viscous transonic airfoil flow simulation (NASA PAPEB 82-1262) p0506 B82-40897

JAIRO, J. C. Transport engine control design (NASA PAPEB 82-1076) p0416 B82-34996

JAIRO, B. Rationalization of the maintenance process for helicopter Ka-26 (NASA PAPEB 82-1262) p0490 B82-39246

JAIN, S. L. Turbulence measurements in a confined jet using a six-orientation hot-wire probe technique (NASA PAPEB 82-1262) p0439 B82-37776

JAIRO, E. Volumetric pattern prediction of antennas on aircraft using the geometrical theory of diffraction (NASA TT-677) p0259 B82-18463

JAIRO, J. Reduced nonlinear flight dynamic model of elastic structure aircraft (NASA PAPEB 82-1262) p0516 B82-41009

JAIRO, J. The preparation and characterization of mixtures of polycyclopentadienes as solid rocket fuels (NASA PAPEB 811097) p0560 B82-30414

JAIRO, E. L. Ceramic applications in turbine engines (NASA CR-165197) p0565 B82-31158

JAIRO, E. Design and investigations of a three dimensionally twisted diffuser for centrifugal compressors (NASA PAPEB 82-07-102) p0424 B82-35339

JAIRO, E. Preliminary experiments on a centrifugal research compressor using a laser -2- focus velocimeter (CHA, TP No. 1982-62) p0553 B82-43756

JAIRO, D. G. System data communication structures for active-control transport aircraft, volume 1 (NASA CR-165773-VOL-1) p0538 B82-29510

JAIRO, D. G. System data communication structures for active-control transport aircraft, volume 2 (NASA CR-165774-VOL-2) p0539 B82-29511

JAIRO, E. Determination of material properties by limited scan X-ray tomography (NASA PAPEB 82-1262) p0594 B82-32422

JAIRO, E. Use of a helmet-mounted matrix display for presenting energy-maneuverability information during simulated close combat (NASA PAPEB 82-1262) p0092 B82-13061

JAIRO, E. D. Generic Test Bed (GTB) aircraft (NASA PAPEB 82-1262) p0314 B82-21176

JAIRO, E. D. Plan-jet airblast atomization of alternative liquid petroleum fuels under high ambient air pressure conditions (NASA PAPEB 82-1262) p0342 B82-22514
Personal Author Index

Jahn, W. M.
Analysis of changes in the gas-dynamic parameters of a gas-turbine helicopter engine during acceleration

Jaworski, E.
Aerodynamically induced vibration

Jenks, B. L.
Static investigation of the circulation control wing/superstructure blowing concept applied to the quasi-shock seal research aircraft

Jennings, B. M.
Process development and evaluation of gas turbine engine components in JHI 829

Jennings, L. L.
Sensitivity of bonded and bolted joints in composites to load/environmental spectrum variations

Jennings, R. C.
The role of software in commercial ATC

Jennings, R. C.
A test of model testing of VTOL aircraft in hover

Jennings, R. E.
A comprehensive model for preliminary design optimization of axial gas turbine stages

Jennings, R. E.
Airfoil-135 tail warning system follow-on operational test and evaluation

Jennings, R. L.
Advanced turboprop testbeds system. Volume 1: Testbed program objectives and priorities, drive systems, and aircraft design studies, evaluation and recommendations and wind tunnel test plans

Jennings, R. L.
Lift system and fan performance of air cushion supported vehicles

Jennings, R. L.
P-15 388

Jennings, R. L.
Practical experience with a noncontact blade vibration measuring system in industrial turbocompressors

Jenks, B. L.
Supplementary studies on the sensitivity of optimized structures

Jenks, B. L.
Improving the MLS through enhanced cockpit displays

Jenks, B. S.
Computer-animated predictive displays for microwave landing approaches

Jenks, S. B.
Evaluation of methods for characterizing surface topography of models for high Reynolds number wind-tunnels

Jenks, B. M.
Fuel quality processing study, Volume 1

Jenks, B. M.
Fuel quality processing study, Volume 2: Appendix. Table 1 literature survey

Jenks, B. M.
Utility of a probability-density-function curve and F-maps in composite-material inspection

Jenks, B. J.
Propeller tip vortex - A possible contributor to aircraft cabin noise

Jenks, B. M.
The feasibility of turnback from a low altitude engine failure during the takeoff climb-out phase

Jenks, B. M.
Agricultural airplane mission time structure characteristics

Jenks, B. M.
Functional requirements for the man-vehicle systems research facility

Jenks, B. M.
Technical approaches for measurement of human errors

Jenks, B. M.
Reports by Systems Technology, Inc., in support of carrier-landing research in the visual technology research simulator

Jenks, B. M.
Application of a pilot control strategy identification technique to a joint FAA/NASA ground based simulation of head up displays for CTOL aircraft

Jenks, B. M.
The effects of atmospheric turbulence on a quadrotor heavy lift airship

Jenks, B. M.
Functional requirements for the man-vehicle systems research facility

Jenks, B. M.
Reports by Systems Technology, Inc., in support of carrier-landing research in the visual technology research simulator

Jenks, B. M.
Stability and control of the Gossamer human powered aircraft by analysis and flight test

Jenks, B. M.
Racecourse Landing System flare subsystem test

Jenks, B. M.
An experimental investigation of the rotating stall, surge and wake behind the rotor for a single stage axial compressor

Jenks, B. M.
A theoretical analysis of the steam surface of revolution with supersonic inlet flow in a transonic axial compressor

Jenks, B. M.
Calculation of the lift distribution and aerodynamic derivatives of quasi-static elastic aircraft

Jenks, B. M.
Semi-empirical analysis of liquid fuel distribution downstream of a plain orifice injector under cross-stream air flow

Jenks, B. M.
Improved vanes-inlet diffusers at high swirl

Jenks, B. M.
Initial experimental research into the response of turbojet engine compressors to distortion of
JONES, D. L.
Fracture and fatigue characterization of aircraft structural materials under blast loading
[AD-A109054B]
p0269 B82-19587

JONES, J. L.
Analysis of computing system configurations for highly integrated guidance and control systems
p036 882-23189

JONES, J. E.
Aircraft excrescence drag
[NASA-KSC-246]
p0025 B82-10020

JONES, J. S.
Development and demonstration of manufacturing processes for fabricating graphite/KEVL 160 polyimide structural elements
[NASA-CH-165089]
p0357 B82-22315

JONES, K. C.
The general purpose research rotor - Design features and considerations
p0278 B82-26779

JONES, K. E.
General purpose research rotor
[NASA-PREPRINT 81-9]
p0441 B82-37777

JONES, K. E.
Determination of in-flight helicopter loads and vibration
[NASA-PREPRINT 81-7]
p0441 B82-37782

JONES, K. E.
Experimental verification of force determination and ground flying on a full-scale helicopter
[OSAA-PREPRINT-81-6-11]
p0395 B82-24199

JONES, K. E.
Distributed data processing modeling for future NAC systems
p0220 B82-23199

JONES, K. E.
The outlook for advanced transport aircraft
p1018 B82-21370

JONES, K. E.
The F22 EAE Bedford civil flight research programme
p0170 B82-20519

JONES, K. E.
Reliability, Availability, Maintainability Data Tracking Plan improved GUARDIAN 5
[AD-A117933]
p0608 B82-33378

JONES, K. E.
Flow visualization in the Langley 0.3-meter Transonic Cryogenic Tunnel and preliminary plans for the National Transonic Facility
p0597 B82-32677

JONES, T. E.
Analytical study of cockpit information requirements
[AD-A108528]
p0256 B82-18218

JONES, T. E.
The effect of temperature ratios on the film cooling process
[NSR-PAPER 82-CF-305]
p0430 B82-35470

JONES, T. M.
Fatigue behavior of adhesively bonded joints
p0328 B82-29032

JONES, C. L.
Two-frequency/\Delta k/ microwave scatterometer measurements of ocean wave spectra from an aircraft
p0581 B82-47493

JOOS, B. D.
Extension of proportional navigation by the use of optimal filtering and control methods
[NSR-TT-683]
p0253 B82-18199

JORGENSEN, D. S.
Aerodynamics and performance of cruciform parachute canopies
[AIAA PAPER 81-1919]
p0006 B82-10405

JORGENSEN, P. L.
Future terminal area systems
p0433 B82-38462

JONES, R.
Practical application of a computerized flight by flight fatigue test system
p0440 B82-37768

JOSEPHSON, R. M.
Combined multisensor displays
p0210 B82-22905

JOSEPH, D. S.
Test demonstration of digital control of wing/store flutter
[AIAA 82-0645]
p0337 B82-30141

JOSHI, P. R.
Design, fabrication and testing of an electrical analogue for heat transfer to coated turbine blade
p0382 B82-33520

JOHNSON, B. D.
Research on turbine rotor-stator aerodynamic interaction and rotor negative incidence stall
[AD-A1103047]
p0310 B82-21203

JOHNSON, P. L.
Singularity embedding method in potential flow calculations
[NASA-CR-166387]
p0566 B82-31300

JOHNSON, R. E.
Finite volume calculation of three-dimensional potential flow around a propeller
[AIAA PAPER 82-0957]
p0374 B82-31933

JOYCEBONE, P.
A method to determine runway capacity
p0553 B82-44100

JUDY-LIANG, S.
Initial experimental research into the response of turbojet engine compressors to distortion of intake pressure
p0203 B82-11006

JURGENSEN, K. J.
A preliminary experimental investigation of the response of a turbojet engine to intake pressure distortion
p0032 B82-11007

JURGENS, K. J.
Air Force Academy aeronautics digest Fall/Summer 1980
[AD-A105338]
p0301 B82-20139

JURGENS, K. J.
Air Force Academy aeronautics digest: Spring/Summer 1981
[AD-A112421]
p0462 B82-27216

JUREN, K. E.
Computer prediction of three-dimensional potential flow fields in which aircraft propellers operate
[NASA-CR-165317]
p0585 B82-32312

JUREN, K. E.
Wing/fuselage critical component development program
p0287 B82-27130

JUREN, K. E.
New processes and methods of technical diagnostics and prognostics in the case of the engine NK-8-4. II
p0335 B82-29925

JUREN, K. E.
Helicopter rotor downwash: Results of experimental research at the NPFK-rotor test stand and their comparison with theoretical results
p0249 B82-18158

K

KADOTA, J.
On the numerical analysis of stall flutter in turbine cascades
p0143 B82-15054

KABARES, R.
Modernizing the Egyptian A.T.C. system
p0125 B82-18273

KABARES, R.
The reliability and safety of small passenger aircraft
p0241 B82-24972

KALLENDREK, H.
A method for observing the deterioration of airframe life in operational conditions
p0436 B82-37123

KAPITAIKALIDIS, M.
A elevator unit for the Alpha-Jet, made from carbon-fibre reinforced plastic
p0325 B82-28649

KAPITAIKALIDIS, M.
A one-shot autoclave manufacturing process for carbon epoxy composites
p0509 B82-40935

KAZEL, S.
Three-dimensional analysis of cascade flutter in parallel shear flow
p0144 B82-15062

KALEBIDES, S. C.
Evaluation of the effects of model scale and test technique on jet-induced effects
p0361 B82-23167

KALEBIDES, S. C.
Study of VWG in ground-effect flow field including temperature effect
[NASA-CR-166258]
p0000 B82-25170

KALEBIS, J.
Evaluation of the helicopter low airspeed system
[AIAA 82-0529]
p0251 B82-18172
Impact of an omnidirectional traffic alert and investigation of the transonic calibration of a computer-controlled oscillation mechanism for nonlinear aerodynamic experiments.

Aerodynamic investigation of Hughes Helicopter 7.62mm chain gun.

Kinematic investigation of a composite rear fuselage for the OH-60 Black Hawk.


Failure analysis of silica phenolic nozzle liners undergoing self-induced roll-oscillations.

Descent-rate cuing for carrier landings: Effects on display gain, display noise, and aircraft type.

Kinematic investigation of a sailplane wing of the U.S. Army research vehicle.

Evaluation of nonlinear constitutive models for advanced medium scale real-time system development.

Investigation of the transonic calibration characteristics of turbine static pressure probes.

Aerodynamic characteristics of a cascade of twisted blades in subsonic and supersonic flows.

Impact of an omnidirectional traffic alert and collision avoidance system on the air traffic control radar beacon system and the discrete addressing beacon system.

Modelling solid-liquid fuel jet combustion including radiation heat transfer to the fuel surface.

Lateral aerodynamics of delta wings with leading edge separation.

Evaluation of plasma source spectrometers for the investigation of ice accretion on airfoils.

A redundancy concept for a digital CSAS.

Evaluation of inelastic constitutive models for nonlinear structural analysis.

Aerodynamic analysis of advanced axial-flow turbocompressors.

Advanced medium-scale real-time system development.

Evaluation of an F-14A airplane utilizing a single engine fighter aircraft.

Aerodynamics of advanced axial-flow turbocompressors.

Aerodynamic investigation of a sailplane wing of the U.S. Army research vehicle.

Aerodynamic investigation of a sailplane wing of the U.S. Army research vehicle.

Impact of advanced propeller technology on the aircraft/mission characteristics of several general aviation aircraft.

Evaluation of plasma source spectrometers for the investigation of ice accretion on airfoils.


Temperature computations of ice accretion on airfoils.

Evaluation of inelastic constitutive models for nonlinear structural analysis.

Evaluation of plasma source spectrometers for the investigation of ice accretion on airfoils.

Aerodynamic investigation of a sailplane wing of the U.S. Army research vehicle.
Tensile fatigue assessment of candidate resins for development of a lifting parachute to provide assessment of the dynamic response of a structure programmable controller system for wind tunnel fracture control in ballistic-damaged analysis of the crossed dipole antenna as a model for future: The potential of the all-electric secondary power system for the energy efficient transport. Shock control in ballistic-damaged graphite/epoxy wing structure. Analysis of the crossed dipole antenna as a model for an electromagnetic environment of a structure when modified by the addition of mass, stiffness, or dynamic absorbers. Development of a lifting parachute to provide self-dispersing capability for an Avco-designed tactical warhead. Tensile fatigue assessment of candidate resins for use in fibre reinforced composite repair schemes. Photo-interpolation key for pine regeneration.
KLAVER, L. J.
- Tracking of low-altitude targets by a combined X/Ka-band radar system
  (IEEE-AP-82-20590)
- Composite bonds improve thermal integrity
  (BVC-EB-82-30004)

KLAVEN, E.
- A review and assessment of fatigue crack growth rate relationships for metallic airframe materials
  (ASTM-EB-82-30479)
- Noise control plan for a new airplane manufacturing facility
  (AGL-EB-82-18730)

KLAVEN, B. W.
- Control law development for a close-coupled, relaxed static stability fighter
  (AIAA-EB-82-1010)
- Piloted simulator evaluation of a relaxed static stability fighter at high angle-of-attack
  (AIAA-EB-82-1295)
- Design, evaluation and simulation of advanced display concepts for the F-16 control configured vehicle
  (AIAA-EB-82-30359)

KLAVEN, V.
- Parameter estimation applied to general aviation aircraft - 1 case study
  (AIAA-EB-82-1013)
- Determination of airplane aerodynamic parameters from flight data at high angles of attack
  (NASA-TN-1916)
- Determination of airplane model structure from flight data by using modified stepwise regression
  (NASA-TN-1916)

KLAVEN, J. J.
- Maneuver dependent component error models and synchronized reset filters for inertial navigation systems
  (AGL-EB-82-18139)

KLEHM, L. D.
- Calculation of wing-body-nacelle interference in subsonic and transonic potential flow
  (AIAA-EB-82-13095)

KLECH, P. J.
- Mechanical properties of a fiberglass prepreg system at cryogenic and other temperatures
  (AIAA-EB-82-0708)

KLENKE, R. C.
- A modular asymmetrical parachute for wind tunnel testing
  (AIAA-EB-81-1913)
- Darrieus rotor aerodynamics
  (AIAA-EB-82-33708)

KLEINEK, V. L.
- The use of analog computers in solutions of inverse problems of heat conduction for the identification of boundary conditions on the surfaces of gas-turbine-engine parts on the basis of temperature-measurement results
  (AIAA-EB-82-39467)

KLEIN, A. L.
- Turbulent boundary layer on a porous surface with injection at various angles to the wall
  (AIAA-EB-82-39462)

KLEIN, H.
- Theoretical investigations on the influence of different strake, tail unit, and conventional HW wing arrangement as well as of CCF on the aerodynamic characteristics of fighter aircraft configurations
  (SBD-P-122/S/PUB/36)

KLEIN, E. F.
- High-sensitivity holographic plates P1-3g
  (AIAA-EB-82-15755)

KLINE, C. S.
- Airborne Electronic Terrain Map System, II - Applications
  (AIAA-EB-82-14773)

KLINEKRE, B.
- Problems pertaining to aeronautical technology in the case of rescue operations with helicopters in mountainous areas
  (MLR-EB-82-19018)
- Improved 243 MHz homing antenna system for use on helicopters
  (MLR-EB-82-20276)

KLOSTER, E.
- System identification helicopter parameters.
  Determination from flight tests, phase 2
  (BND-EB-82-13137)

KLUG, G. E.
- Aircraft fire safety research with antimisting foams - Status report
  (AIAA-EB-82-1235)

KLUG, G. E.
- Active control elements on the transonic wing of the Airbus A-300 (ACTTA A). Airbus A-300 with reduced longitudinal stability (ACTTA-C)
  (AIAA-EB-82-10044)

KLUG, H. W.
- Fuel quality processing study, volume 1
  (NASA-CR-163327-VOL-1)
- Fuel quality processing study. Volume 2: Appendix. Task I literature survey
  (NASA-CR-163327-VOL-2)

KLUSCHKAMP, J.
- Regenerative helicopter engines: Advances in performance and expected development problems
  (AIAA-EB-82-17212)

KNAPP, K.
- Technical/operational ATC scenarios for future TMA navigation
  (AIAA-EB-82-16774)

KNAPP, N. E.
- Active clearance control system for a turboshaft engine
  (NASA-CASE-LN-1225-1)

KNAPP, N. L.
- Assessment of Avionics Equipment Field Reliability and Maintainability as Functions of Unit Cost
  (AD-4105373)

KNEIP, J.
- Airborne antenna pattern calculations
  (AIAA-EB-165095)

KNEIP, J. C.
- Transport engine control design
  (AIAA-EB-82-1076)

KNIER, J. C.
- Production of Reliable Flight Crucial Software: Validation Methods Research for Fault Tolerant Avionics and Control Systems Sub-Working Group Meeting
  (NASA-CR-2222)

KNIER, B. E., Jr.
- Low cost low linear wind tunnel devices
  (AIAA-EB-82-29258)

KNIER, J. C., Jr.
- On the dynamic collapse of a column impacting a rigid surface
  (AIAA-EB-82-0735)

KNIPPA, E.
- The history of aviation turbine lubricants
  (AIAA-EB-82-19629)

KNOCK, L. E.
- Correlation of surface characterization of phosphoric acid anodize oxide with physical properties of bonded specimens
  (BND-EB-82-27437)

KNIPE, C.
- Advanced compressor components. Phase I: 1976 to 1979
  (BND-EB-82-0125)

KNIPE, C.
- An analytical study of landing flare
  (BND-EB-856)

KNOQ, F. S., III
- Human response to fire
  (AIAA-EB-82-29261)

KNOTT, N. L.
- Development of accelerated fuel-engines qualification procedures methodology, Volume 1
  (AD-211361)

KNOTT, N. L.
- Development of accelerated fuel-engines qualification procedures methodology. Volume 1: Appendices
  (AD-2217317)

KNOTT, N. L.
- Development of accelerated fuel-engines qualification procedures methodology. Volume 1: Appendices
  (AD-211361)
KURBARA, A. L.

Systems of the normal force of a wing of complex planform under unsteady motion

KURKO, L. P.

Measurement of aerodynamic work during fan flutter

KURM, L. G.

An afterbody drag balance

KURKOCH, P. L.

Investigation of the streamwise state of a rectangular wing section of variable thickness under concentrated loads and heating

Analysis of shells of straight-wing type

KURZ, K. B.

Smoke abatement system for crash rescue/fire

KUSCHEBEG, P. E.

Inclusions and service induced cracks in a mature aircraft engine, phase III [AIAA PAPER 82-1179]

KUSCHEL, P. E.

Evaluation of an automatic subsystem parameter monitoring

KUSCHEL, L. A.

Optimization of the principal design parameters of a passenger aircraft

KUSZA, L. B.

The effect of the aspect ratio on the unsteady aerodynamic forces induced by vibration of a cascade blade

KUSZNAK, J. L.

On the unsteady aerodynamic forces and moments of the circular cascading blades/Experiments of the outward-flow case/

KUSEN, L. B.

The effect of the cooling of the wing surface on unsteady aerodynamic forces acting on a cascade of oscillating airfoils in subsonic flow

KUSENBERG, P. E.

Inclusions and service induced cracks in a mature population of gas turbine engine bearings

KUSZNAK, J. J.

A method for the investigation of gyrostabilization systems

KURODA, L. B.

The effect of the cooling of the wing surface on laminar-to-turbulent boundary layer transition at supersonic flow velocities

KUROSA, L. A.

Utilization of radio equipment at airports and on aircraft

KUSZNAK, L. B.

The effect of local disruptions of flow over trailing edge and leading edge flaps from the data of wind tunnel tests of a rectangular wing segment

KUSZNAK, L. B.

Strength of the turbine components of a gas-turbine engine under complex loading and associated problems

KUSZNAK, L. B.

Effect of the cooling of the wing surface on laminar-to-turbulent boundary layer transition at supersonic flow velocities

KUSZNAK, L. B.

Utilization of radio equipment at airports and on aircraft

KUSZNAK, L. B.

On the formulation of coupled/uncoupled dynamics analyses of blade-disc assemblies

KUDR, G. D.

Comprehensive analysis of an axial compressor test with adjustable guide vanes

KURODA, L. B.

On the formulation of coupled/uncoupled dynamics analyses of blade-disc assemblies

KUROVA, L. I.

Smoke abatement system for crash rescue/fire
LANDE, L. B.

Ball up model for rotor wake vortices, part 5

LANDER, L. P.

Economical behavior of progressively shear-thickening solutions
p0013 B62-11177

LANDER, L. R.

Jet fuel locks to shale oil: The 1980 technology review
[AD-A104414] p0060 B62-11226

LANDER, L. R.

Jet fuel locks to shale oil: The 1981 technology review
[AD-A111217] p0459 B62-26448

LANDER, L. J.

A prescribed wake rotor inflow and flow field prediction analysis, user's manual and technical approach

LANDER, L. H.

An assessment of various side-stick controller/stability and control augmentation systems for a lightweight Earth flight using piloted simulation
p0365 B62-23216

LAND, W. A.

Durability and damage tolerance control plans for USAF aircraft
[AIAA PAPER 82-0679] p0338 B62-30147

LAND, W. J.

Integrated flight and fire control demonstration on an F-15B aircraft: System development and ground test results
p0363 B62-23185

LAND, B.

Solid-state VOR/NAV with remote maintenance and monitoring
p0122 B62-18144

LANG, J. O.

Organizing and training for innovative flight test management
[AIAA PAPER 81-2446] p0054 B62-13856

LANG, E. H.

Flight test results of the model simulation controller for the HFJ 220 for in-flight simulation of the A310 Airbus
[SPARC-660] p0198 B62-10107

LANG, E. B.

Use of DFVLR in-flight simulator HFJ 320 Hansa for handling qualities investigations
p0577 B62-65146

LANG, E. B.

System study of application of composite materials for future transport aircraft
[AIAA PAPER 82-0612] p0276 B62-21965

APPLICATION OF COMPOSITE MATERIALS AND NEW DESIGN CONCEPTS FOR FUTURE TRANSPORT AIRCRAFT
p0515 B62-60994

LANG, E. J.

Helicopter rotor downwash: Results of experimental research at the DFVLR rotor test stand and their comparison with theoretical results
p0299 B62-18158

LANSFORD, E. W.

Investigation of the transonic calibration characteristics of turbine static pressure probes
[ASME PAPER 82-GT-280] p0930 B62-35454

LANDER, L. B.

General purpose real-time interactive panel for digital simulation
p0074 B62-14831

LAND, R. M.

Design of compensated flutter suppression systems
p0956 B62-40904

A general purpose program for rotor blade dynamics
p0248 B62-18151

LAPIER, R. P.

A protective additive for jet fuels
p0018 B62-12022

LAPIER, R. P.

Control law development for a close-coupled canard, relaxed static stability fighter
[AIAA PAPER 82-0080] p0016 B62-19784

Pilot test evaluation of a relaxed static stability fighter at high angle-of-attack
[AIAA PAPER 82-1295] p0486 B62-39082

LAPRAD, R. P.

Sensor failure detection system

LARGE, R.

Optimal flight paths for winged, supersonic flight vehicles - Extension to the case where thrust can be vectored
p0005 B62-10310

LARGE, G. D.

Cooled variable-area radial turbine technology program

LARGE, J. R.

The status of airport noise prediction, with special reference to the United Kingdom and Europe
p0296 B62-28469

LARGE, D.

Status and tracking system for flight test data products
[AIAA PAPER 81-2395] p063 B62-14376

LARGOJ, J.

Transient simulation of gas turbines including the effects of heat capacity of the solid parts
[ISNB-951-752-496-1] p0453 B62-26296

LARRABEE, B.

Energy efficient engine exhaust mixer model technology
[AD-A165459] p0354 B62-22264

LARANJA, B.

Aircraft potential variations in flight
[ONHAA, TP. No. 1982-61] p0390 B62-34499

LARSON, L. G.

Development of in-can melting process and equipment, 1975 and 1980
[DRBS-001050] p0195 B62-16384

LARSON, L. A.

Symmetric flow characteristics of thin rectangular wings
p0103 B62-16053

Incompressible symmetric flow characteristics of sharp-edged rectangular wings
p0379 B62-32850

On embedded flow characteristics of sharp-edged rectangular wings
[LOOC712] p0531 B62-29263

LARSON, L. C.

Computer-generated images for simulators - The cost of technology
p0569 B62-22881

LAVELLE, G.

An acquisition and analysis system for dynamic tests of air intakes
p0095 B62-13082

System for acquisition and analysis of dynamic tests on air intakes

LASHBA, R. L.

Recent propulsion system flight tests at the NASA Dryden Flight Research Center
[AIAA PAPER 81-2438] p0055 B62-13874

In-flight acoustic results from an advanced-design propeller at Mach numbers to 0.8
[AIAA PAPER 82-1120] p0146 B62-35017

A preliminary comparison between the 58-3 propeller noise in flight and in a wind tunnel

LASCHBA, R.

p0503 B62-60876

LESHEK, H. L.

An experimental study of flow rate and thrust characteristics of a four-nozzle ejector with flow twist
p0561 B62-46140

LASINSKI, R. L.

Computation of the steady viscous flow over a tri-element 'augmentor wing' airfoil
[AIAA PAPER 82-0021] p0114 B62-17735

LEISSNER, W. S.

Design predictions for noise control in the cryogenic National Transonic Facility
p0118 B62-12025

LATTIN, R. S.

Propulsion subsystems - The missing link
[SAGE PAPER 811078] p0233 B62-24041

LATYPOV, A. V.

A mathematical model of a subsonic transport aircraft
ecosasy

Lee, R. G. S. p0169 A82-20516

Lee, R. G. S. Experimental and analytical studies of advanced air cushion landing systems [NASA-CR-3476] p0087 A82-12065

Lee, R. P. Land navigation with a low cost GPS receiver p0175 A82-20656

Lee, R. C. Power system design optimization using Lagrange multiplier techniques p0176 A82-20743


Lee, G. Holographic interferometry and tomography at Ames Research Center p0597 A82-32681

Lee, G. Experiment on active flutter suppression of a multistage wing [NASL-78-699] p0356 A82-22282

Lee, C. Real-time simulation of helicopter IFB approaches into major terminal areas using EHAv, HLS, and CDTI [AIAA PAPER 82-0260] p0118 A82-17869 NASA/FAA helicopter IFB simulation investigation of EHAv/HLS instrument approaches p0501 A82-40535

Lee, J. New separators for battery systems p0015 A82-11715

Lee, J. Applications of conventional and doppler radars for aviation safety p0003 A82-10215

Lee, J. Turbulence and wind shear experiments related to aircraft operation in the terminal area p0579 A82-45917

Doppler radar-research and application to aviation flight safety, 1977 - 1979 [AD-A1035945] p0303 A82-20163

Lee, J. Field program operations: Turbulence and gust front [AIAA-1115407] p0562 A82-30804

Lee, J. Fuel-rich flame combustion [A108136] p0258 A82-18349


Lee, R. M. Formation and characterization of polyisocyanate resins for various densities for aircraft nosing applications [NASA-CR-167421] p0090 A82-12230


Far-field acoustic data for the Texas AEE, Inc. bush house [AD-A1143560] p0540 A82-30032


Lee, G. Influence of flight conditions on jet sound production on the A-10 aircraft p0327 A82-28995

Lee, T. Test and evaluation of the airport radar wind shear detection system [AD-A112603] p0470 A82-27924

Lee, P. Application of numerical methods to the calculation of electrostatic fields in aircraft fuel tanks [AD-A103270] p0027 A82-10033

Lee, C. C. Use of aircraft-derived data to assist in ATC tracking systems. I - Accuracy and theoretical considerations p0546 A82-42504

Lee, R. Influence of airblast atomizer design features on mean drop size [AIAA PAPER 82-1073] p0016 A82-34993

Lefferts, W. M. Altitude estimation using asynchronous alpha-beta tracking filters p0582 A82-46387

Improving conflict alert performance using moving target detector data [AD-A117691] p0607 A82-33370

Memory and computational requirements for tracking in the advanced computer system [AD-A117666] p0612 A82-33619

Lefferts, R. P. Aircraft alerting systems standardization study [AIAA 01-2242] p0046 A82-13468

The fourth dimension p0642 A82-39540

Aircraft alerting systems standardization study. Volume 2: Aircraft alerting system design guidelines [AD-A107673] p0190 A82-16077

Aircraft alerting systems standardization study. Volume 1: Candidate system validation and time-critical display evaluation [AD-A107225] p0463 A82-27236

Leffanq, J. P. A complete method for computation of blade mode characteristics and responses in forward flight [AD-A1105167] p0295 A82-18126

A complete method for computation of blade mode characteristics and responses in forward flight [SIAS-82-210-101] p0353 A82-22254

Leffanq, R. M. The evolution of display formats for advanced fighters using multimode color CRT displays p0505 A82-40808

Legall, G. A numerical method for studying needle-jet-airfoil interaction in an inviscid three-dimensional flow p0096 A82-13094

Legbon, C. Skin friction lines p0383 A82-33629

Generation of noise by turbulence [ONERA-P-1981-3] p0400 A82-24946

Legdon, J. Preliminary investigation into the addition of auxiliary longitudinal thrust on helicopter agility p0249 A82-18155


Lehman, L. G. Aircraft design for fuel efficiency p0512 A82-40973

Lehman, G. Optimization of blade pitch angle for higher harmonic rotor control p0441 A82-37776

Leitner, H. The role of modern control theory in the design of controls for aircraft turbine engines [AIAA PAPER 82-0320] p0282 A82-26526

The role of modern control theory in the design of controls for aircraft turbine engines [NASA-TN-82815] p0354 A82-22262


Leister, R. M. Similarity parameters for the geometric structure of a supersonic jet propagating in a channel and in a submerged space p0387 A82-30132

Lemarchal, P. The use of flight simulators in la Droite de l'air p0171 A82-20520

Lemhar, L. A CPP talleron for the Tornado: Construction and production [RNS-PE-212/KEP/TOU/2] p0207 A82-10035
The general purpose research rotor - Design features and considerations

Performance improvement features of General Electric turbofan engines [ASME PAPER 82-GT-270] p0429 882-35366

Lighting detection and ranging

Fibrous composites in structural design p0287 882-27126

Preliminary design of an advanced integrated power and avionics information system p0072 882-14780

Advanced aircraft electrical system control technology demonstrator. Phase 1: Requirements analysis and conceptual design [AD-103922] p0031 882-10326

Advanced aircraft electrical system control technology demonstrator. Phase 1: Analysis and preliminary design [AD-411363] p0524 882-28286

Improving composite bolted joint efficiency by laminate tailoring p0100 882-20982

Synthesis of system for evaluating gyrostabilizer state with unknown disturbances p0015 882-11469

Experimental study of a jet deflector p0362 882-23173


Further development of the test concept of the NASA JET engine LEBAC 04 p0257 882-18223

Integrated navigation-TP/TA-system based on stored terrain data processing p0362 882-23183

Detection of obstacles by low flying aircraft [704-C-30227-B1] p0140 882-15026

Sensor footprints and homing range of terminal guidance munition [NAV-PHB-81-5] p0146 882-15111

Passive aircraft location p0547 882-42791

Formation of triangular-element stiffness matrix using sliding interpolation p0014 882-11664

Detective and ranging in three-dimensional flows p0547 882-42722

Application of high bypass turbofan computer simulation to flight and test data processing [ASME PAPER 82-GT-161] p0246 882-35366

Application of the ABC helicopter to the emergency medical service role [AIAA PAPER 81-2653] p0157 882-19219

Analytical and simulator study of advanced transport Tactical AI Control System (TACZ) with advanced Tactical Radars p0526 882-20298

The modular 1TB - In air battle simulation of the US Navy Tactical Air Control System (TACZ) with advanced Tactical Radars p0294 882-27886

Chem-Braze abradable seal practical p0341 882-31048

Predictive model for jet engine test cell opacity [AD-1117585] p0610 882-33397

Real gas flows over complex geometries at moderate angles of attack p0165 882-19601

Helicopter engine technology - With particular reference to the Rolls-Royce Gem engine p0009 882-10304

An alternative approach to engineering structures using monitoring systems p0209 882-17223

Thy polarization ratios in a sample of 30 kHz sferics received at altitudes from 0 to 70 km [AD-1108182] p0258 882-18464

V/STOL status from the engine technology viewpoint [AIAA PAPER 81-2648] p0108 882-16913

Collaborative development of aero-engine [P8R-90081] p0355 882-22277

Using phased array radar for data communications p0068 882-14725
Calculation of the lift distribution and flight simulation consoles, aid or obstruction - An experimental investigation of leading-edge Bandom spectrum fatigue crack life predictions

Supersonic jet noise generated by large scale flight evaluation of Loran-C for general aviation

Development and testing of dry chemicals in B4JIP-II - A program system for the dynamic kinematic precision of gear trains

The P-POD Project

High technology raises fighter force readiness

Advanced turboprop testbed systems study. Volume I: Pre-study programs, objectives and priorities, drive system and aircraft design studies, evaluation and recommendations and wind tunnel test plans

Heat transfer measurements of a transonic nozzle guide vane

Advanced turboprop testbed systems study. Volume I: Pre-study programs, objectives and priorities, drive system and aircraft design studies, evaluation and recommendations and wind tunnel test plans

Dilution jet behavior in the turn section of a reverse flow combustor

Dilution jet behavior in the turn section of a reverse flow combustor

Data base generation for digital external view systems

Heat transfer measurements of a transonic nozzle guide vane

In an experimental investigation of S-duct diffusers for high-speed propfans

High technology raises fighter force readiness

Flight evaluation of Loran-C for general aviation area navigation

The F-PD Project

Mathematical models for the synthesis and optimization of spiral bevel gear tooth surfaces

Mathematical models for the synthesis and optimization of spiral bevel gear tooth surfaces

Approximate boundary condition procedure for the aero-dimensional numerical solution of vortex wakes

Approximate boundary condition procedure for the aero-dimensional numerical solution of vortex wakes

Supersonic jet noise generated by large scale instabilities

Boundary layer separation and noise generation in the return flow region of supersonic boundary layer

Random spectrum fatigue crack life predictions with or without considering load interactions

An experimental investigation of leading-edge spanwise blowing

Calculation of the lift distribution and aerodynamic derivatives of quasi-static elastic aircraft

Optimal subsonic diffuser wall design for arbitrary entry conditions

Summary of Federal Aviation Administration responses to National Transportation Safety Board safety recommendations

Summary of Federal Aviation Administration response to National Transportation Safety Board safety recommendations

Summary of Federal Aviation Administration response to National Transportation Safety Board safety recommendations

Summary of Federal Aviation Administration response to National Transportation Safety Board safety recommendations

Vehicle and aircraft navigation problems

Aircraft collision warning and separation system

Aero-engineering research of the DFTLB

Optimal subsonic diffuser wall design for arbitrary entry conditions

Flight evaluation of Loran-C for general aviation area navigation

Loran-C over-the-wing engine acoustic data

The outlook for advanced transport aircraft

Compatible adhesives with phosphoric acid anodizing

Test plans

Fast and accurate gyrocompass using strapdown tuned rotor gyros as a solution to combat helicopters navigation problems

The effect of temperature ratios on the film cooling process

Effects of ultra-clean and centrifugal filtration on rolling-element bearing life

Correlation of surface characterization of phosphoric acid anodized oxide with physical properties of bonded specimens

Noise control plan for a new airplane manufacturing facility

Supplementary studies on the sensitivity of optimized structures

Operational delay day forecasts for the 20 air route traffic control centers for the year 1982 through 2011

Mechanisms for the elimination of instabilities in a chisy problem

Self-oscillations of the front caster wheel strut for a given track width under the assumption of the wheel drift hypothesis

Correlation of surface characterization of phosphoric acid anodized oxide with physical properties of bonded specimens

An evaluation of helicopter autorotation assist concept

Laminar airflow characteristics of an advancing rotor disk, and the effect of polar moments of inertia on the aerodynamic performance of the rotor

High performance, general aviation, general aviation, and the future of general aviation

Evaluating multiaxial fatigue crack growth in aircraft structures

Evaluating multiaxial fatigue crack growth in aircraft structures
The Space Shuttle vehicle checkout involving the Federal Airionavigation Plan status and tracking system for flight test data.

Aerodynamic investigations to determine possible reconfigurable change network for distributed applications. Part 2: Full scale model experiment using F8710 turbofan engine.

N. K. Batsogol, The effect of erosion wear on the vibration characteristics of axial-turbine blades.

M. N. Bates, Development and validation of preliminary analytical models for aircraft interior noise prediction.

G. Batsoggol, Development and validation of preliminary analytical models for aircraft interior noise prediction.


N. B, R., On matching the systems identification technique to the particular application.

M. Bats, T. J., The Joint Airport weather studies project.

F. Bats, T. J., Preliminary assessment of US Coast Guard Short Range Recovery (SRR) Forward Looking Infrared (FLIR) system small target detection performance.


Bats, W. E., Application of numerical methods to the calculation of electrostatic fields in aircraft fuel tanks.

Bats, W. E., AUTOPILOT: A distributed planner for air fleet control. [AIAA 807139].

Bats, W. E., Airworthiness related residential acoustical insulation demonstration project: Report 1720. [PB82-100777].

Bats, W. E., NAPTR global positioning systems. [PB82-19396].

Bats, W. E., A Lores-C prototype navigation receiver for general aviation. [AIAA 81-2329].

Bats, W. E., A Lores-C prototype navigation receiver for general aviation.

Bats, W. E., A Lores-C prototype navigation receiver for general aviation.

Bats, W. E., A Lores-C prototype navigation receiver for general aviation.

Bats, W. E., A Lores-C prototype navigation receiver for general aviation.

Bats, W. E., NAPTR global positioning systems.


Bats, W. E., Application of numerical methods to the calculation of electrostatic fields in aircraft fuel tanks.

Bats, W. E., AUTOPILOT: A distributed planner for air fleet control. [AIAA 807139].

Bats, W. E., Airworthiness related residential acoustical insulation demonstration project: Report 1720. [PB82-100777].

Bats, W. E., NAPTR global positioning systems. [PB82-19396].

Bats, W. E., A Lores-C prototype navigation receiver for general aviation. [AIAA 81-2329].

Bats, W. E., A Lores-C prototype navigation receiver for general aviation.

Bats, W. E., A Lores-C prototype navigation receiver for general aviation.

Bats, W. E., A Lores-C prototype navigation receiver for general aviation.

Bats, W. E., A Lores-C prototype navigation receiver for general aviation.

Bats, W. E., NAPTR global positioning systems.


Bats, W. E., Application of numerical methods to the calculation of electrostatic fields in aircraft fuel tanks.

Bats, W. E., AUTOPILOT: A distributed planner for air fleet control. [AIAA 807139].

Bats, W. E., Airworthiness related residential acoustical insulation demonstration project: Report 1720. [PB82-100777].

Bats, W. E., NAPTR global positioning systems. [PB82-19396].

Bats, W. E., A Lores-C prototype navigation receiver for general aviation. [AIAA 81-2329].

Bats, W. E., A Lores-C prototype navigation receiver for general aviation.

Bats, W. E., A Lores-C prototype navigation receiver for general aviation.

Bats, W. E., A Lores-C prototype navigation receiver for general aviation.

Bats, W. E., A Lores-C prototype navigation receiver for general aviation.

Bats, W. E., NAPTR global positioning systems.


Bats, W. E., Application of numerical methods to the calculation of electrostatic fields in aircraft fuel tanks.

Bats, W. E., AUTOPILOT: A distributed planner for air fleet control. [AIAA 807139].

Bats, W. E., Airworthiness related residential acoustical insulation demonstration project: Report 1720. [PB82-100777].

Bats, W. E., NAPTR global positioning systems. [PB82-19396].

Bats, W. E., A Lores-C prototype navigation receiver for general aviation. [AIAA 81-2329].

Bats, W. E., A Lores-C prototype navigation receiver for general aviation.

Bats, W. E., A Lores-C prototype navigation receiver for general aviation.

Bats, W. E., A Lores-C prototype navigation receiver for general aviation.

Bats, W. E., A Lores-C prototype navigation receiver for general aviation.

Bats, W. E., NAPTR global positioning systems.


Bats, W. E., Application of numerical methods to the calculation of electrostatic fields in aircraft fuel tanks.

Bats, W. E., AUTOPILOT: A distributed planner for air fleet control. [AIAA 807139].

Bats, W. E., Airworthiness related residential acoustical insulation demonstration project: Report 1720. [PB82-100777].

Bats, W. E., NAPTR global positioning systems. [PB82-19396].

Bats, W. E., A Lores-C prototype navigation receiver for general aviation. [AIAA 81-2329].

Bats, W. E., A Lores-C prototype navigation receiver for general aviation.

Bats, W. E., A Lores-C prototype navigation receiver for general aviation.

Bats, W. E., A Lores-C prototype navigation receiver for general aviation.

Bats, W. E., A Lores-C prototype navigation receiver for general aviation.

Bats, W. E., NAPTR global positioning systems.
of SIFT - A fault-tolerant flight control system
Hierarchical specification of the SIFT fault
tolerant flight control system

HELLO, E. H.
Numerical and experimental examination of a
pre-vaporized/premixed combustor
[AIAA PAPER 82-1074]
A spark ignition model for liquid fuel sprays
applied to gas turbine engines
Performance of SBC II fuels in gas-turbine
combustors. Alternative-fuels-utilization program
[DB82-010471]

HELLEWOL, B. B.
Gas turbine and aviation

HELPS, J. M.
Basic problem of aircraft Gasturbine engine
analytic design. II

HERBERT, E. L.
A documented example of strong wind-shear

HERRON, D. L.
A CAD/CAB graphics system with relative datums and
analytic design. II

HERRING, K. S.
Aircraft electrical system control

HERRICK, V. L.
A translational velocity command system for VIOL

HERRICK, C. L.
Integration of multi-sensor navigation data using
optimal estimation techniques

HESSTON, W. L.
Application of multiple model estimation
methods to a recursive terrain height
correlation system

HETAHER, C. P.
User's manual for interfacing a leading edge,
vertex rolloff program with two linear panel
methods

HEZOREN, R. K.
Preliminary functional description of integrated
flow management

HESENBATI-KTSCHANG, L. E.
Corrosion and antenna effects on the CH-53
maneuvering helicopter and Hawkst navigation set

HEDON, R. A.
Corrosion inhibiting engine oils

HEERMAN, J. R.
New trends and concerns in the airliner radio
equipment market

HEIL, E. W.
The gas turbine engine

HERMAN, R. F.
The contribution of thermal barrier coatings to
improvements in the life and performance of gas
turbine components

HEDO, P. M.
 Spokane Hover aided integrated strike avionics system

HEDDALL, S. L.
Cavitation inception in spool valves

HECHER, W. C.
Large scale model measurements of airframe noise
using cross-correlation techniques

HEDEMAN, J. W.
Acoustic from corner flow and flap flow

HEERTZ, J.
Combustion inhibiting engine oils

HEERTZ, J. W.
The gas turbine engine

HEDBERG, C. C.
The contribution of thermal barrier coatings to
improvements in the life and performance of gas
turbine components

HEEN, R. L.
Basic problem of aircraft Gasturbine engine
analytic design. II

HEEG, P. L.
Preliminary results on performance testing of a
turbocharged rotary combustion engine

HEERING, V. L.
A study of wing vorticity patterns

HEENTZ, R.
Remote sensing of turbine engine gases

HERAU, R.
A reconfigurable change network for distributed
process control

HERMAN, C.
Transonic wind tunnel test of a supersonic nozzle
Installation

HERBER, E. L.
Supercritical maneuvering fighter configuration.
Wind-tunnel investigation at Mach numbers of
0.60 to 0.95

HERBER, J.
A European airline's future simulator requirements

HERNOVITCH, L.
Feedback control of a cantilever wing in steady
airflow

HERING, G. L.
Advanced subsonic transport propulsion
[AIAA PAPBB 81-0811]

HERLE, K.
What the operator wants

HANUM-SMITH, P. B.
Focal specification and mechanical verification
HUBBELL, W.

Low speed flight
[NASA-TP-81-042151] p0415 B82-20186

The role of modern control theory in the design of controls for aircraft turbine engines
[NASA-PAPER 82-0230] p0282 B82-26526

Modeling solid-fuel rocket-jet combustion including radiation heat transfer to the fuel surface
[AD-1107441] p0475 B82-27436

The combustion of a fuel jet in a stream of lean gaseous fuel-air mixtures
[NASA-TP-81-04262] p0326 B82-28692

Computer generated images for aircraft pilot training
[800-IB-59-50-08-09] p0321 B82-21229

IV-15 Tilt Rotor fly-by-wire collective control demonstrator development specifications
[NASA-CB-1664207] p0140 B82-15039

User's manual for the ABHES flight path-trajectory simulation code
[8B82-10276] p0538 B82-29438

The design of exact nonlinear model followers
[NASA-TP-81-04249] p0041 B82-13125

Applications of the concept of dynamic trim control and nonlinear system inverses to automatic control of a vertical attitude takeoff and landing aircraft
[NASA-AI-62-2268] p0007 B82-13404

ABPE - A fault tolerant distributed microcomputer structure for aircraft navigation and control
[p0293 B82-27714

Application of nonlinear system inverses to automatic flight control design: system concepts and flight evaluations
[NASA-TP-81-11083] p0039 B82-11083

Applications to aeronautics of the theory of transformations of nonlinear systems
[NASA-TP-81-04249] p0540 B82-30013

Cooled variable-area radial turbine technology program
[NASA-CR-165408] p0266 B82-19221

Techniques for modifying airflow and fairings on aircraft using foam and fiberglass
[NASA-PAPER 81-14465] p0064 A82-14839

A unique flight test facility - Description and results
[800-IB-59-50-08-09] p0508 B82-40925

Multibody aircraft study, volume 1

Multibody aircraft study, volume 2

Prediction of sound radiation from different practical jet engine intake geometries
[NASA-CR-165120] p0195 B82-16810

Development of an analytical technique for the optimization of jet engine and duct acoustic liners
[NASA-CR-165002] p0149 B82-25256

Estimation of the peak coat of actively controlled aircraft
[800-IB-59-50-08-09] p0482 B82-38447

Statistical analysis and time series modeling of air traffic operations data from flight service stations and terminal radar approach control facilities: Two case studies
[AD-1109873] p0304 B82-20172

The model 412 multi-bladed rotor system
[8B82-26376]

Nonlinear structural and life analyses of a combustor liner
[NASA-TP-82-26486] p0390 B82-24501

Fracture mechanics criteria for turbine engine hot section components
[NASA-CR-167096] p0409 B82-25257

Exhaust emissions reduction for intermittent combustion aircraft engines
[NASA-CR-16714] p0610 B82-33392

An algorithm, invariant relative to the initial data, for implementing the polynomial contouring method
[8052 A82-46628]

The effect of barriers on wave propagation phenomena: With application for aircraft noise shielding
[NASA-CR-169120] p0530 B82-29111

Design of a high-order harmonic control for the ABC
[800-IB-59-50-08-09] p0278 B82-26380

Aeroelastic analysis of the elastic gimbal rotor demonstrator development specifications
[NASA-CB-165520] p0312 B82-21157

BASEF - Survival from crashed Navy helicopters
[8007 A82-14977]

Energy efficient engine shroudless, hollow fan blade technology report
[NASA-CR-165586] p0317 B82-21196

Prediction of flyover jet noise spectra from static tests
[NASA-TM-83219] p0139 B82-14808

Prediction of flyover jet noise spectra from static tests
[p0359 B82-22963

Adaptation of a turbine test facility to high-temperature research
[BAB-LIB-TRANS-2064] p0040 B82-11089

Air-air collision avoidance systems
[ASBB-PAPER 81-1764] p0555 B82-44235

The effect of coolant flow on the efficiency of a transonic RP turbine profile suitable for a small engine
[NASA-PAPER 82-DT-63] p0422 A82-35315

Adaptation and first cryogenic operation of T2 OBSE/CIET wind tunnel
RICH, G.
Prediction of flyover jet noise spectra from static tests
[AIAA-P-82-2609] p0139 B82-16880
Prediction of flyover jet noise spectra from static tests
P0359 B82-22963
RICHBER, P. L.
System Description-Aviation-Wide-Angle Visual System (WAVS) computer image
(AD-A1118000) p0474 B82-27323
REDLEFORD, D. B.
Aircraft surface coatings for drag reduction/erosion protection
[SAB PAPER 811070] p0232 B82-20401
REDIAN, L. J.
A digital simulation program describing the motion of an aircraft undergoing engine failure during an in-flight ground roll
(AD-A110420) p0255 B82-18210
REDLIE, E. E.
Airborne antenna pattern calculations
[BASA-CR-165059] p0146 B82-15277
REYNOLDS, D.
Advanced casting: Today and tomorrow
p0528 B82-20466
RGH, M.
Adaptation and first cryogenic operation of T2 OBEBA/CETZ wind tunnel
P0546 B82-42531
Research on an induced driven cryogenic wind tunnel
P0136 B82-14394
Induction driven transonic wind tunnel T2: Operation at room temperature and cryogenic adaptation
P0262 B82-19158
Theoretical optimization and experimental verification of an injector
P0361 B82-23170
RIEDLE, J. E.
A real time Pegasos propulsion system model for VSOTL piloted simulation evaluation
[AIAA PAPER 81-2663] p0157 B82-19221
A real time Pegasos propulsion system model for VSOTL piloted simulation evaluation
[BASA-T-82770] p0160 B82-13144
A piezoelectric linear state variable technique for real time propulsion system simulation
[BASA-T-82851] p0395 B82-29201
RIELO, R. E.
Experimental investigation of turbine endwall heat transfer. Volume 1: Description of experimental hardware and test conditions
(AD-A110332) p0317 B82-21199
Experimental investigation of turbine endwall heat transfer. Volume 2: Linear and annular cascade summary data sets
(AD-A110333) p0317 B82-21200
Experimental investigation of turbine endwall heat transfer. Volume 3: Data base system
(AD-A110334) p0317 B82-21201
RISHELICKY, Y. S.
Optimization of the principal design parameters of a passenger aircraft
P0010 B82-10168
RISHELIRZ, Y. P.
Application of the sequential optimization method to the tuning of the natural frequencies of gas-turbine engine compressor blades
P0492 B82-39399
RISHECHE, P. A.
Determination of antioxidant content in aviation oils using thin-layer chromatography
P0548 B82-42894
RISCHNOW, D. C.
Summary and recent results from the NASA advanced high-speed propeller research program
[AIAA PAPER 82-11119] p0197 B82-40419
Summary and recent results from the NASA advanced High Speed Propeller Research Program
[BASA-P-82-1901] p0447 B82-26219
RISCHNOW, G. E.
ACRA - Fact or fantasy
P0019 B82-12048
RICK, V.
Standard tests of a research model rotor in a wind tunnel, including modal similarity
One year flight testing of the Transonic Binge

Implicit model-following technique - Application
to the design of longitudinal stability
for high-speed turboprop aircraft

Geophysical flight line flying and flight path
correlation utilizing the Litton LTN-76 inertial
navigation system

A method of accounting for the effect of aircraft
deceleration on its future

Sensitivity of helicopter aeromechanical stability
to dynamic inflow

A perspective of computational aerodynamics from
the viewpoint of airplane design applications

Computational aerodynamics - its coming of age and
its future

Evaluation of full potential flow methods for the
design and analysis of transport wings

Target acquisition system/air-to-surface weapon
compatibility analysis

Flying qualities requirements for roll CAS systems

A method of accounting for the effect of aircraft
deceleration on its future

Sensitivity of helicopter aeromechanical stability
to dynamic inflow

A perspective of computational aerodynamics from
the viewpoint of airplane design applications

Computational aerodynamics - its coming of age and
its future

Evaluation of full potential flow methods for the
design and analysis of transport wings

Target acquisition system/air-to-surface weapon
compatibility analysis

Flying qualities requirements for roll CAS systems
Preliminary assessment of US Coast Guard Short Range Recovery (SRR) Forward Looking Infrared (FLIR) system small target detection performance

Mastag, L.

Use of high conical flow theory for the determination of the pressure distribution on the wave rider and its agreement with experimental results for supersonic flow

Mastero, R. I. A.

Effect of the blading type on the aerodynamic damping of blade vibrations with allowance for the profile curvature

Mastero, R. Y.

Damping for turboshaft blade variations in subsonic flow

Matell, K. H.

Computer aided coordinate measuring systems

Mao, R. L.

An extension of the local momentum theory to the rotors operating in twisted flow field

Maury, T. D.

A GPS receiver design for general aviation navigation

Meyer, J. E.

Flight evaluation of Loran-C for general aviation area navigation

Muehle, M.

The testing of new technologies with the aid of the Alpha Jet aircraft

Muggle, E. F.

Control of air pollution from aviation: The emission standard setting process

Mugnai, R. E.

A research program to reduce interior noise in general aviation airplane. Influence of depressurization and damping material on the noise reduction characteristics of flat and curved stiffened panels

Mugnai, R. E.

Development of a computer based presentation of non-steady helicopter rotor flows

Mugnai, R. E.

Noise reduction characteristics of flat and curved stiffened panels

Multi-measurement platform for high altitude research

Mullah, A. S.

Development of aircraft production engineering discipline at IIT, Bombay

Muller, P. D.

Static charging and its effects on avionic systems

Munson, J. W.

Opto-electronical push-broom scanners for navigation, reconnaissance and generation of digital data bases

Munson, J. W.

A simulation study

Murphy, L. H.

Stability of boundary layer with porous suction strips: Experiment and theory

Muse, F. C.

Microprocessor flight control application study

Musil, K. M.

Preliminary assessment of US Coast Guard Short Range Recovery (SRR) Forward Looking Infrared (FLIR) system small target detection performance

Nah, L.

Utilization of AvPAS-94 side-looking airborne radar system in search and rescue

Nah, L.

Preliminary assessment of US Coast Guard Short Range Recovery (SRR) Forward Looking Infrared (FLIR) system small target detection performance

Nah, L.

Utilization of AvPAS-94 side-looking airborne radar system in search and rescue

Nah, L.
Effect of fleet size on estimates of safety against airframe fatigue

Airframe effects on top-mounted inlet system for V/STOL fighter aircraft

An experimental investigation of the influence of vertical wind shear on the aerodynamic characteristics of an airfoil

How large should a computer transport be?

Microprocessor flight control application study

Analytical design and validation of digital flight control system structure

Modeling solid-fuel ramjet combustion including radiation heat transfer to the fuel surface

An investigation of the effects of smoke suppressant fuel additives on engine and test cell exhaust gas emissions

House and economic characteristics of an advanced blended-supersonic transport concept

Flow and pressure field of a model propeller

An investigation of the effects of smoke suppressant fuel additives on engine and test cell exhaust gas emissions

Flowfield and noise sources of jet impingement of flap and ground surface

Dynamic qualification testing of F-16 equipment

A method for locating aircraft wing damage by nonlinear vibration analysis


Analysis of small-aspect-ratio lifting surfaces in ground effect

Numerical design of the contoured wind-tunnel liner for the NASA swept-wing LFC test

Comparison of analytical and wind-tunnel results for flutter and gust response of a transport wing with active controls

Effects of wing-loading-edge modifications on a full-scale, low-wing general aviation airplane: Wind-tunnel investigation of high-angle-of-attack aerodynamic characteristics

Engine for air transport

Nay Far 2100 egress system

Data acquisition and reduction of photon correlated laser Doppler velocimetry

The variation of induced currents in aircraft wiring

Flight test experience with high-alpha control system techniques on the F-16 airplane

Advanced fuel flowmeter for future naval aircraft

Recent advances in the performance of high bypass ratio fans

Poor pad tilting pad bearing design and application for multistage axial compressors
Optimization of requirements on the putting-prevention properties of turbojet-engine oils  

A simplified wing procedure in connection with the lifting line theory and the doublet-lattice method
Direct comparison of community response to road threat perception while viewing single intruder.

Development of a nylon-Kevlar recovery system for a bistable vibration problem using a experimental verification of an aerodynamic structural optimization to achieve antiresonance.

Optical properties of airfield lighting fixtures and the dynamic characteristics of helicopter rotor blades.

Welding for low-cost advanced titanium airframe structures.

A system design for a multispectral sensor using two-dimensional solid-state imaging arrays.

The effect of hybrid composite materials on the dynamic characteristics of helicopter rotor blades.

Laser beam machining to achieve anisotropy in helicopters.

Experimental verification of an aerodynamic parameter optimization program for wind tunnel testing.

Solution to a bistable vibration problem using a planar, uncentralized squeeze-film damper bearing.

Development of a nylon-Kevlar recovery system for the CR-289 AB/DSL 502 surveillance drone.

Perception while viewing single intruder conflicts on a cockpit display of traffic information.

Separation monitoring with four types of predictors on a cockpit display of traffic information.

Direct comparison of community response to road traffic noise and to aircraft noise.

TURBOBALT - A programming language for the performance simulation of arbitrary gas turbine engines with arbitrary control systems.

Evaluation of low order lateral directional transfer function models for augmented aircraft.

Applications of structural adhesive in production.

An estimation of aerodynamic forces and moments on an airplane model under steady state spin conditions.

Basic technology of squeeze-film dampers for rotor dynamics control.

Problem in the automation of the thermal-stress analysis of flight vehicles.

Control of electro/mechanical actuator elements for flight vehicles.

Control of electro/mechanical actuator elements for flight vehicles.

Future technology and requirements for helicopter engines.

Aircraft aerodynamic noise during approach.

Dynamic scheduling of runway operations.

Practical application of a computerized flight by flight fatigue test system.

Fuel efficiency engines for large transport aircraft.

Crank edge instability - A criterion for safe crack propagation limit in thin sheets.

Reliability model for planetary gear.

Prediction and performance of radome-covered reflector antennas.

Radiation enhancement by nonequilibrium during flight through the Titan atmosphere.
Davy spin evaluation of the A-7 airplane

Testing of the Kniper Airborne Observatory 91-CB

Effect of tip vanes on the performance and flow around a rectangular body in a wind tunnel

Investigation and evaluation of a computer program to minimize three-dimensional flight time tracks

Effect of induced sound on the flow field of a rotor in hover

A unified approach to helicopter computer-aided design

Test methodology for evaluation of fireworthy aircraft seat cushions

Fireworthiness of transport aircraft interior systems

Inflight IFB procedures simulator

Digital simulation of aircraft electrical air data data

Applications of adaptive control systems

Advanced display-control concepts for potter plant applications

An operational model of specific range for microprocessor applications in piston-prop general aviation airplanes

Torsional vibrations of a wing carrying a concentrated load /asymptotic behavior/

The application of NAVSTAR differential GPS in the civilian community

An operational model of specific range for microprocessor applications in general aviation airplanes

Charting propulsion's future - The ATES results

Advanced display-control concepts for power plant operation

Analysis of flight test measurements in ground effect

Automated pilot advisory system

Applications of adaptive control systems

Testing of the Kruspe Airborne Observatory 91-CH telescopes

A-7 software module guide

Pary-strap evaluation of the A-7 airplane configured with automatic maneuvering flaps
Electromagnetic interaction of lightning with advanced aircraft

Assessment methodology of the lightning threat to advanced aircraft

Electromagnetic interaction of lightning with aircraft

On the influence of the number of stages on the efficiency of axial-flow turbines

High-speed microwave phase-locked loops

The effect of erosion wear on the vibration characteristics of turbine blades

Airport radar systems

Air Traffic Control Computer replacement - Specification issues and problems

Wind tunnel tests of powered models: A comparison of two methods of simulating the jets of jet engines

Wind tunnel tests of engine-equipped models: Comparison of two jet wash simulation methods

Ozone and aircraft operations

Gunfire blast pressure predictions

Numerical design of the contoured wind-tunnel liner for the NASA swept-wing LFC test

Wind-tunnel/flight-drag correlation

Wing-body system structural enhancement

Development of hybrid gas turbine bucket technology

Universal turret system model determination and controller performance testing

Digital avionics display processor

Control of electromechanical actuator elements for flight vehicles

Determination of losses in a channel with a sudden expansion behind a diffuser
The helicopter in rescue operations in high-mountain areas

Application of structural optimization technique to reduce the external vibrations of a gas-turbine engine

Test demonstration of digital control of wing/store flutter

Preliminary airworthiness evaluation of the OH-58 with hot metal plus plume infrared suppressor and infrared jammers

The influence of protective treatment on the mechanical properties of superalloy parts

Helicopter vibration suppression using simple pendulum absorbers on the rotor blade

Evaluation of an asymptotic method for helicopter rotor airloads

Helicopter rotor loads using a matched asymptotic expansion technique

Helicopter vibration suppression using simple pendulum absorbers on the rotor blade

Helicopter vibration suppression using simple pendulum absorbers on the rotor blade

The influence of protective treatment on the mechanical properties of superalloy parts

Correcting for turbulence effects on average velocity measurements made using five hole spherical pitot tube probes

Application of optimal control techniques to helicopter vibration control problems

The influence of protective treatment on the mechanical properties of superalloy parts

Damage of turbine blades due to interaction with fuel resinification products

Helicopter vibration suppression using pendulum absorbers on the rotor blade

Applications to helicopter vibration control problems

Testing performance of nonlinear systems with applications to helicopter vibration control problems

Damage of turbine blades due to interaction with fuel reminiscence products

The design, construction, and performance of composite fuselage components for the Boeing 734 helicopter

An influence coefficient method for the flutter suppression of the D4ST ABR-I wing

Towards minimum power for environmental control in the airflow in the wake of an helicopter rotor


Application of modal control to wing-flap suppression [NASA-TP-1983] p0275 882-24209

Terminal area automatic navigation, guidance, and control research using the Microwave Landing System (MLS). Part 4: Transition path reconstruction along a straight line path containing a glideslope change waypoint [NASA-CS-1574-TR-4] p0552 882-23269

Fizuk, G.
Liquid particle dynamics and rate of evaporation in the rotating field of centrifugal compressors [AIAA paper 82-078-06] p0423 882-35332

Finnell, D. H.
Materials and design criteria for Kevlar-29 ribbon parachutes [AD-A1116357] p0567 882-14368

Peppe, R. H.
Design of the composite spar-wangkai joint p0165 882-20128

Perk, F.
A multimicroprocessor system for ATCBBB monopulse data processing p0071 882-14777

Pisano, A.
Ground effect hover characteristics of a large-scale twin tilt-nacelle F/STOL model [AIAA paper 81-2609] p0155 882-19201

Acoustic characteristics of a large-scale, twin tilt-nacelle F/STOL model [AIAA paper 81-0150] p0482 882-38643

Pisanek, G. S.
Damping for turbine blades in subsonic flow p0142 882-15048

Pitman, V. D.
ADAMS executive and operating system p0138 882-14831

Pitts, F. L

Pitts, J. H.

Pitzen, R. W.

Platta, C. R.
Structural tailoring of engine blades (STABEL) [NASA-CS-167934] p0610 882-33391

Plant, E.
The significance of electronics for air traffic control at the present time and in the future p0163 882-19649

Platzer, M. F.
Oscillating supersonic/hypersonic wings at high incidence p0223 882-23828

Pledger, D. P.
Integrated control design techniques [AD-A1082223] p0257 882-18224

Pleas, R. N.

'Listening' systems to increase aircraft structural safety and reduce costs p0492 882-35339

Plins, L. D.
Integrated sensor system for flight test instrumentation p054a 882-41869

Ploven, S. I.
Radio-navigation equipment of aircraft - Devices and operation p0282 882-26500

Plouer, R.
The T914A composite flexbeam tail rotor p0278 882-26386

Plouer, P. A.
Maintenance problems in gas turbine components at the Royal Naval Aircraft Yard, Fleetlands p0345 882-22175

Plouer, J. E.
The direct effects of lightning on aircraft [NASA-CS-157914] p0086 882-12052

Plouer, C. L.
AV-8B technical update - Leading edge root extension development p0077 882-14980

Plez, G. L.
Acoustic measurements of P100-F-100 engine operating in hush house NSN 0920-02-070-2721 [AD-A108814] p0270 882-19952

Acoustic measurements of F-15 aircraft operating in hush house, NSN 4920-02-070-2721 [AD-A109827] p0309 882-21041

Acoustic measurements of F-15 aircraft operating in hush house, NSN 4920-02-070-2721 [AD-A109828] p0310 882-21042

Acoustic measurements of F-16 aircraft operating in hush house, NSN 4920-02-070-2721 p0310 882-21043

Poc-Chevelot, M. R.
Aircraft alerting systems standardization study [AIAA 81-2242] p0048 882-13468

Aircraft alerting systems standardization study. Volume 1: Aircraft alerting system design guidelines [AD-A106732] p0190 882-16077

Aircraft alerting systems standardization study. Volume 1: Candidate system validation and time-critical display evaluation [AD-A107125] p0463 882-27236

Porkas, M. L.
Lightning detection and ranging p0277 882-26367

Pogorelsen, F. M.
Novel approaches to electron beam welding machine utilization p0222 882-23753

Poirier, M. R.
The promise of ledien metal in aircraft design p0056 882-60903

Poissot-Quinton, P.
Aerodynamical research and development [OHEA TP No. 1981-90] p0307 882-34114

Poulidis, R.
Development of a taped random vibration technique for acceptance testing p0345 882-22171

Porost, T.
Spoilers or auxiliary flaps p0241 882-2973

A gust damper p0036 882-37127

Polace, L.

Pol, C.
A new facility and technique for two-dimensional subsonic flow p0345 882-22171

Polaris, A. C.
The development of cryogenic wind tunnels and their application to maneuvering aircraft technology p0061 882-13971

The development of cryogenic wind tunnels and their application to maneuvering aircraft technology p0347 882-22196

Paul, C.
A multimicroprocessor system for ATCBBB monopulse data processing p0071 882-14777
Intelligent of multi-sensor navigation data using optimal estimation techniques

BEADING, J. A.

Review of support interference in dynamic tests
[AIAA 82-0594] p0237 A82-24666
Analytic extrapolation to full scale aircraft dynamics
[AIAA PAPER 82-1367] p0490 A82-39143

BEADING, J. A.

Parachute technology under pressure
p0024 A82-12804

BEADING, L.

EAGLE - An interactive engine/airframe life cycle cost model
[AIAA PAPER 82-GT-56] p0422 A8-35311

BEADING, L.

Stability of boundary layers with porous suction strips: Experiment and theory
p0301 A82-20152

BEADING, L. E.

Voice Interactive Systems Technology Avionics
(VISTA) Program
[AD-A117288] p0608 H82-33383

BEADING, M.

The national dynamics 'observer' mini-ERP for tropical operation
p0493 A82-39734

BEADING, R. D.

Sun sensing guidance system for high altitude aircraft
[NASA-CASE-FG-11052-1] p0367 H82-23231

BEADING, R. D.

Correlation of Preston-tube data with laminar skin friction (Log No. J12584)
[NASA-TN-D-82627] p0539 H82-29556

BEADING, W. L., III

Aeroelasticity matters - Some reflections on two decades of testing in the NASA Langley Transonic Dynamics Tunnel
p061 A82-13969

Aeroelasticity matters: Some reflections on two decades of testing in the NASA Langley transonic dynamics tunnel
p0085 H82-12041

Decoupler pylons: wing/store flutter suppressor
[NASA-CASE-LAB-124606-1] p0592 H82-32373

BEADING, W. M.

Evaluation of a selected group of anti-exposure garment configurations for their effects on the operational performance and survival of naval aircrew
p0079 A82-14972

BEAGLE, K.

Airbus Industrie - The year of progress
p0180 A82-21189

BEAGLE, R.

Collection and simulation of spatial infrared signatures of military jet aircraft
[AIAA PAPER 82-2494] p0056 A82-13921

BEAGLE, R.

A terrain following system, an algorithm and a sensor
p0949 A82-39740

BEAGLE, R.

Continuous filament advanced composite isogrid - A promising structural concept
p0288 A82-27132

BEAGLE, R.

Cockpit display of traffic information and the measurement of pilot workload: An annotated bibliography
[AD-A113637] p0470 A82-27291

BEAGLE, R.

Survey of active and passive means to reduce rotorcraft vibrations
p0444 A82-37946

HELICOPTER VIBRATION CONTROL: A survey
[HHB-80-302-80-0] p0316 H82-21185

HELICOPTER TAIL ROTOR OF FIBER COMPOSITE CONSTRUCTION AND VIBRATION ISOLATOR SYSTEMS
[HHB-80-311-80-0] p0316 H82-21187

BEAGLE, C.

Management of powerplant maintenance and restoration programs for fuel conservation
[SAR PAPER 811052] p0231 A82-24394

BEAGLE, D. K.

Simulation study of a hybrid strapdown attitude and heading reference system
p0022 A82-12641

Integration of multi-sensor navigation data using optimal estimation techniques
p0273 A82-25577

BEADING, J. A.

Design aspects of non rigid airship envelopes
p0005 A82-10306

BEADING, L.

Performance of single-stage axial-flow transonic compressor with rotor and stator aspect ratios of 1.63 and 1.78, respectively, and with design pressure ratio of 1.82
[NASA TP-28-1970] p0266 H82-19222

Performance of single-stage axial-flow transonic compressor with rotor and stator aspect ratios of 1.63 and 1.77, respectively, and with design pressure ratio of 2.05
[NASA TP-28-2001] p0355 H82-22269

BEADING, L.

Small aircraft response to turbulence generated by a tall upwind building
p0433 A82-35821

BEADING, L.

An exploratory research and development program leading to specifications for aviation turbine fuel from whole crude shale oil. Part 1: Preliminary process analyses
[AD-A112681] p0527 H82-28462

An exploratory research and development program leading to specifications for aviation turbine fuel from whole crude shale oil. Part 2: Process variable analyses and laboratory sample production
[AD-A112682] p0528 H82-28463

An exploratory research and development program leading to specifications for aviation turbine fuel from whole crude shale oil. Part 3: Production of specification of JP-4 fuel from geokinesis shale oil
[AD-A112683] p0529 H82-28464

An exploratory research and development program leading to specifications for aviation turbine fuel from whole crude shale oil, part 5
[AD-A117438] p0612 H82-33551

BEADING, M.

Silicon liquid crystal light valve for flight simulation applications
[AD-A110928] p0413 H82-26005

BEADING, W. L.

Black Hawk rotor de-icing
p0280 A82-26398

BEADING, W. L.

New advances in signal processing technology for integrated CFI avionics
p0070 A82-17672

Enhanced noise immunity and error control in a fully integrated JTIDS/GPS receiver
[AD-A112681] p0125 H82-18171

The influence of technology advances on integrated CFI avionics
p0176 A82-20672

[AD-A106052] p0136 H82-14424

BEADING, W. L.

A retirement-for-cause study of an engine turbine disk
[AD-A109724] p0305 H82-20184

BEADING, W.

Integrated cockpit for A-129
p0366 H82-23225

BEADING, W.

Advanced technologies applied to reduce the operating costs of small commuter transport aircraft
p0508 A82-40515

BEADING, W.

Computer flight planning for fuel efficiency
p0112 A82-17289

BEADING, W.

Selected bibliography of NASA-NASA aircraft icing publications
[NASA TP-81651] p0035 H82-11053

Aircraft icing research at NASA
[NASA TP-82919] p0558 H82-30297

BEADING, W.

Pate's principles still applicable - Computer monitoring of fighter aircraft emergencies
p0581 A82-46254
ADVANCED COCKPIT FOR TACTICAL AIRCRAFT

SUPERALLOY TURBINE COMPONENTS - WHICH IS THE
SUPERIOR MANUFACTURING PROCESS, AIR-BLAST, HIP PLUS
ISOFORE, OR 'GATORIZING' OF EXTREMELY
CONSOLIDATED BILLET

THE BEHAVIOR OF COMPOSITE THIN-WALLED STRUCTURES
IN DYNAMIC BUCKLING UNDER IMPACT

STRUCTURAL DYNAMICS: MODIFIED CALCULATIONS

THE EFFECT OF ROTOR BLADE THICKNESS AND SURFACE
FINISH ON THE PERFORMANCE OF A SMALL AXIAL FLOW
TURBINE

APPLICATIONS OF A MULTIPLICATED GPS USER SET

EXPERIMENTAL STUDY OF THE EFFECTS OF SECONDARY AIR
ON THE VORTEX AND STABILITY OF A LEAN
PREMIXED COMBUSTOR

AERODYNAMICS - RETROSPECT AND PROSPECT / THE 21st
LANCESTER MEMORIAL LECTURE/

MILITARY AIRCRAFT

COMBINING ANALYSIS WITH OPTIMIZATION AT LANGLEY
RESEARCH CENTER - AN EVOLUTIONARY PROCESS

LOCALS FOR PRECISE POSITION LOCATION - THE VHF-NAY
SYSTEM

DOPPLER PROCESSING, WAVEFORM DESIGN AND
PERFORMANCE MEASURES FOR SOME PULSED DOPPLER AND
IFF-RADARS II

APPLICATION OF THE SEQUENTIAL OPTIMIZATION METHOD
TO THE TUNING OF THE NATURAL FREQUENCIES OF
GAS-TURBINE ENGINE COMPRESSOR BLADES

STC ANALYSIS OF AIRBORNE ANTENNAS RADIATING IN
THE PRESENCE OF LOSSY DIELECTRIC LAYERS

GROUND MOVEMENT CONTROL AND GUIDANCE - CAT. 3
OPERATIONS EXPERIENCE IN AIR INTER

STRESS INTENSITY FACTOR MEASUREMENTS IN COMPOSITE
STRUCTURES

LOTUS-C PLOTTING PROGRAM FOR PLOTTING LINES OF
POSITION ON STANDARD CHARTS

FATIGUE BEHAVIOR OF ADHESIVELY BONDED JOINTS

INSTRUMENTS AND INSTALLATIONS FOR METEOROLOGICAL
MEASUREMENTS AT AIRPORTS

PERSONAL AUTHOR INDEX

ENHANCED NOISE IMMUNITY AND ERROR CONTROL IN A
FULLY INTEGRATED JPS/GPS RECEIVER

MODULAR MULTI-FUNCTION MULTI-BAND AIRBORNE RADAR
SYSTEM (MPBSARS). VOLUME 2: DETAILED REPORT

SECONDARY FLOW EFFECTS AND MIXING OF THE WAKE
BEHIND A TURBINE STATOR

THE USE OF OBSERVERS ON RELAXED STATIC STABILITY
AIRCRAFT

ENHANCED AIRCRAFT HANDLING QUALITIES BY
LONGITUDINAL DYNAMICS MODE DECOUPLING

MODEL CONTROL OF RELAXED STATIC STABILITY AIRCRAFT

APPLICATION OF WEAR DEBRIS ANALYSIS TO AIRCRAFT
HYDRAULIC SYSTEMS

FLEXIBILITY IS OFFERED BY IV-15 TILT-ROTOR CONCEPT

NO-TAIL ROTOR HELICOPTER TESTS CONTINUE

SOCIETY'S NEW 767-6ER CREW WORKLOAD

APACHE TO PROVIDE NIGHT/BAD WEATHER CAPABILITY

757 SYSTEMS KEY TO ROUTE FLEXIBILITY

COMPUTER-ANALYZED PREDICTIVE DISPLAYS FOR
MICROWAVE LANING APPROACHES

COST AND BENEFITS DESIGN OPTIMIZATION MODEL FOR
FAULT TOLERANT FLIGHT CONTROL SYSTEMS

UTILITY OF A PROBABILITY-DENSITY-FUNCTION CURVE
AND TECHNIQUES

THE EFFECT OF EJECTOR AUGMENTATION ON TEST-SECTION
FLOW QUALITY IN THE CALSPAN 8-Ft TRANSONIC WIND
TUNNEL

TESTS AND ANALYSIS OF A VENTED D THRUST DEFLECTING
NOZZLE ON A TURBOMAN ENGINE

TESTS AND ANALYSIS OF A VENTED D THRUST DEFLECTING
NOZZLE ON A TURBOMAN ENGINE

ADVANCED TRANSMISSION COMPONENT DEVELOPMENT

FLIGHT DATA RECOVERY UNDER ADVERSE CONDITIONS

ADVANCED AIRCRAFT ACCIDENT INVESTIGATION EQUIPMENT
AND TECHNIQUES

GROUND TEST OF A LARGE SCALE 'D' VENTED THRUST
DEFLECTING NOZZLE

TECHNOLOGY OVERVIEW FOR ADVANCED AIRCRAFT ARMAMENT
SYSTEM PROGRAM

FLIGHT CONTROL SYSTEMS FOR AERIAL TARGETS

ENVIRONMENTAL CONTROL SYSTEMS
BUDERI, R., K.

B-JS distributed TDMAB/ODMA/terminal development results with emphasis on relative frigate performance p0123 A82-48152

BUDERI, R.

The maneuverable atmospheric Probe (MAP), a remotely piloted vehicle (AD-1116118) p0569 A82-31323

BUDERI, J. L.

Crack growth behavior of center-cracked panels under random spectra loading p0169 A82-20511

BUDDELL, A. J.

Advancing blade concept /ABC/ development test program [AIAA PAP08 81-2437] p0055 A82-13873

IB-59A ABC technology demonstrator altitude expansion and operational tests (AD-1111114) p0469 B82-27282

BUDGET, A. M.

Design and performance of airborne radomes - A review p0106 A82-16564

BUDISSKI, D. N.

Compressor stall inducing installation effects of an engine control parameter for the CF-5 aircraft p0095 A82-13085

BUDOFF, L.

The recognition of air worthiness of aircraft - Comments to a remarkable judicial decision p0444 A82-38025

BUDOFF, T.

Electromagnetic interaction of lightning with aircraft p0432 A82-35731

BUDOFF, T. E.

Atmospheric electricity hazards analytical model development and application. Volume 3: Electrostatic coupling modeling of the lightning/aircraft interaction event (AD-1146017) p0540 B82-29802

BUDY, J. F.

Development and application of Dabber gas tungsten arc welding for repair of aircraft engines, seal teeth [NASA PAP08 82-GT-55] p0422 A82-35310

BUE, L. J.

Conceptual design study for an advanced cab and visual system, Volume 1 [NASA-CS-166235] p0410 A82-25266

Conceptual design study for an advanced cab and visual system, Volume 2 [NASA-CS-166236] p0410 A82-25267

BURFF, S.

Development and construction of pilot ejector seats in Germany from 1938-1945 [D1YIA#-Fp-81-04] p0026 A82-10026

BURFF, L.

Design criteria for a large distance radar p0149 A82-18904

BURGESS, G.

Survey of aeromedical evacuation in Italy p0152 A82-19003

BURKIN, C. L.

Evaluation of four subcritical response methods for on-line prediction of flutter onset in wind-tunnel tests [NASA 82-0644] p0337 A82-30140

Transonic flutter study of a wind-tunnel model of a supercritical wing with/without winglet [NASA 82-0721] p0340 A82-30171

Transonic flutter study of a wind-tunnel model of a supercritical wing with/without winglet [NASA-TM-82279] p0360 A82-23239


BURKOV, M. R.

Long-range radio NAVIAD signal reliability p0544 A82-41951

BURTESE, S. V.

Method for engine-airframe integration using a high-level computer-assisted engine design system of the Attar series p0282 A82-26487

BURXEL, M. D.

Recommended practice for a demonstration of Nondestructive Evaluation /NDE/ reliability on aircraft production parts - Introduction to the guidelines p0510 A82-41140

BURXEL, D. L.

Development of a simple, self-contained flight test data acquisition system [NASA-CS-160912] p0369 A82-23265

BURXING, K.

Matrix analysis of wings p0032 A82-10998

BURFF, L. L.

Simulator for air-to-air combat versus real world: Visual cue analysis for simulated air-to-air combat training (AD-1110570) p0410 A82-25270

BURFF, B. L.

Production welding on the A-10 aircraft p0327 A82-28995

BUSTED, L. L.

Numerical methods for solving boundary value problems for noncavitating and cavitating flow past wing profiles p0463 A82-38722

BURDELL, G. F.

Digital detection and processing of laser beacon signals for aircraft collision hazard warning [NASA 81-2328] p0052 A82-13525

BURSELL, J. S.

Development of accelerated fuel-engines qualification procedures methodology, Volume 1 [AD-113661] p0473 B82-27317

Development of accelerated fuel-engines qualification procedures methodology. Volume 1: Appendices p0473 B82-27318

BURGESS, J. P.

A.I.C. One-Eleven flight deck glazing product improvement p0220 A82-24325

BUSTED, J. G.

Low cost development of IRS sensors for expendable EFT control and navigation [AIAA 81-2391] p0525 B82-28291

BUSTED, J. E.

Aircraft noise reduction p0580 A82-45846

Aircraft noise reduction p0466 B82-27281

BUSTED, M.

The distress regime on the bimotored helicopter p0208 A82-17219

BUSTED, P.

Octave bandwidth dual polarized antennas p0150 A82-19034

BUSTED, R. S.

Experimental and analytical studies of advanced air-cushion landing systems [NASA-CS-3479] p0087 A82-12065

BUSTED, L. E.

A finite element analysis of coupled rotor fan-stage vibration [ABE PER831 81-29] p0442 A82-37792

BUTCHER, R. S.

An analysis of selected enhancements to the on route central computing complex [AD-113575] p0479 B82-28044

BUTBESKO, G. P.

Calculation of quasi-stationary aerodynamic force acting on a cascade of oscillating airfoils in subsonic flow p0142 B82-15051

Calculation of nonstationary force ratios on blades of a rotating row in incompressible flow p0144 B82-15061

BYAN, W. W.

Thrust reverser for a long duct fan engine [NASA-CASP-LEW-13199-1] p0053 A82-26293

BYAN, G. L.

Recent improvements at the Naval Air Test Center for increased test system flexibility [AIAA PAP08 81-2392] p0056 A82-13888

BYAN, L. A.

An algorithm for calculating the compliance matrices of aircraft structures by the substructure method as applied to aerelasticity problems p0380 A82-30161

BYLAND, J. D.

The micro revolution comes to civil air transport
SALEH, R.

Material identification for the design of composite rotary wings

SALEH, R.

Fighting forest fires - A task for the Swiss air force

SABACH, W. E.

Quake under-the-wing engine acoustic data

[SAGA-TR-8269] p0072 482-27311

SAMPSON, P.

The potential impact of future fuels on small gas turbine engines

[AAGW-PAPER 82-07-133] p0025 482-35362

SARPECH, D.

Determination of wind tunnel constraint effects by a unified pressure signature method. Part 1: Applications to winged configurations

[SAGA-CB-166186] p0267 482-22234

SANDERS, D. L.

Determination of wind tunnel constraint effects by a unified pressure signature method. Part 2: Application to jet-in-crossflow

[SAGA-CB-166187] p0267 482-22235

SANDWICH, D. L.

Final regulatory evaluation: Metropolitan Washington Airports Policy

[AD-A102758] p0045 482-26324

SANDFORD, R. E.

Helm systems organization - A change for the better

[SAGA-PAPER 82-07-127] p0170 482-20767

SANDERS, P. L.

Airframe cabin air ozone contamination and compliance with regulations

[SAGA-PAPER 82-07-120] p0342 482-31057

SANDERS, C. D.

Task analytic techniques: Application to the design of a flight simulator instructor/operator console

[SAGA-PAPER 82-07-128] p0257 482-18227

SANDERS, R.

Development of the Sea King composite main rotor blade

[SAGA-PAPER 82-07-129] p0501 482-40539

SANDERSON, K. C.

Practical aspects of instrumentation system installation, volume 13

[SAGA-PAPER 82-07-130] p0099 482-13140

SANDFORD, R. E.

CH-47 fiberglass rotor blade design and fabrication

[SAGA-PAPER 82-07-131] p0200 482-26397

SANDLANDS, C. R.

Management of a large avionics project

[SAGA-PAPER 82-07-132] p0105 482-16557

SANDFORD, G. G.

Advanced microstrip antennas development. Volume 2: Microstrip GPS antennas for general aviation aircraft

[AD-A113620] p0047 482-27586

SANGER, D. J.

On-line control for the regulation of power source in multiple-servo electro-hydraulic systems

[SAGA-PAPER 81-WA/DSC-3] p0234 482-24562

SANGER, N. L.

The use of optimization techniques to design controlled diffusion compressor blading

[AAGW-PAPER 82-07-149] p0526 482-35373

SANGER, N. L.

The use of optimization techniques to design controlled diffusion compressor blading

[SAGA-TR-82762] p0134 482-14094

SANKAR, R. S.

Optimal journal bearing parameters for minimum rotor unbalance response in synchronous whirl

[AAGW-PAPER 81-DAY-55] p0161 482-19314

SARCO, M.

Design and experimental verification of the USB-flap structure for HYL SYLO aircraft

[SAGA-PAPER 82-07-134] p0508 482-40917

SAMI, M.

Acoustic fatigue endurance test of USB flap structure models at elevated temperature

[SAGA-TR-82763] p0269 482-19570

S 聖 MARIA, R. J.

Evaluation of a selected group of anti-exposure garment configurations for their effects on the operational performance and survival of naval aircrews

SAHABABAH, B. N.

Evaluation of an automatic subsystem parameter monitor

[SAGA-PAPER 82-07-125] p0079 482-14972

SAFDO, L.

Effect of impeller extended shrouds on centrifugal compressor performance as a function of specific speed

[AAGW-PAPER 82-07-220] p0428 482-23541

SAFARDO, R. L.

Future technology and requirements for helicopter engines

[SAGA-PAPER 82-07-126] p0207 482-17207

SAKABALUBOKO, K. J.

Minimim cost performance monitoring of turboshaft engines

[SAGA-PAPER 82-07-126] p0172 482-20544

SAKEC, M. S.

Stability of boundary layers with porous suction strips: Experiment and theory

[SAGA-PAPER 82-07-127] p0301 482-20152

SAKHE, S. L.

Developments to improve the noise and combustion emissions on the Fokker F28 aircraft and its Rolls-Royce RB199-555 engines. Section I: Development of the new internal 10-lobe mixer

[SAGA-PAPER 82-07-128] p0318 482-21207

SABINALE, R. E.

A summary of jet-lagiment studies at McDonnell Douglas Research Laboratories

[AAGW-PAPER 82-07-129] p0107 482-16904

SARGENT, C. P.

The development and applications of a full-scale wide body test article to study the behavior of interior materials during a postcrash fuel fire

[SAGA-PAPER 82-07-130] p0533 482-29285

SABRALLON, R. E.

Disengagement of safety harness buckles - C24

[AD-A109098] p0263 482-19199

SAKABALUBOKO, K. J.

A comparison of properties of single overlap tension joints prepared by ultrasonic welding and other means

[AAGW-PAPER 82-07-131] p0335 482-30091

SAHABABAH, B. N.

Leaky wave antenna using an inverted strip dielectric waveguide

[SAGA-PAPER 82-07-132] p0163 482-19552

SABRO, J.

Ch-46 and CH-47 composite rotor blade lightning protection testing

[SAGA-PAPER 82-07-133] p0278 482-26381

SASAKI, M.

Responses of oscillating wings in weak shear flow

[SAGA-PAPER 82-07-134] p0121 482-18021

SASAKI, Y.

Notching stall in blade rows operating in shear flow

[SAGA-PAPER 82-07-135] p0186 482-22205

SAHABABALABO, D. H.

A protective additive for jet fuels

[SAGA-PAPER 82-07-136] p0018 482-12027

SAHABABALABO, D. H.

Antwear properties of additives based on higher fatty acids

[SAGA-PAPER 82-07-137] p0548 482-42897

SAHABABALABO, D. H.

On computing Floquet transition matrices of rotorcraft

[SAGA-PAPER 82-07-138] p0013 482-11224

SAHABABALABO, D. H.

Automatic handoff of multiple targets

[SAGA-PAPER 82-07-139] p0476 482-2756

SATO, K.

A new method of estimating the lateral wall effect on the airflow incidence due to the suction at side walls

[SAGA-TR-82680] p0190 482-1712

SATOF, Y.

Design, fabrication and qualification of the T-22 composite rudder

[SAGA-PAPER 82-07-140] p0047 482-39509

SATOH, Y.

Development of high loading, high efficiency axial flow turbine

[SAGA-PAPER 82-07-141] p0508 482-47069

D-132
Theoretical investigation of the influence of

spoiler dynamics on the handling qualities of an

aircraft with direct lift control

[AD-A113-772] p0124 A82-39095

SCHNEIDER, R. V.

Adaptive-wall wind-tunnel research at NASA-Ames

Research Center

[AD-A113-772] p0077 A82-21358

SCHMALZ, R.

A survey of melting layer research

[AD-A115-224] p0062 A82-32363

SCHEURER, R.

New life for an 'old' body - Vienna's master plan

for revitalization

[AD-A115-224] p0062 A82-20172

SCHENDIG, R. J.

Analysis of two-dimensional internal flows using a

primitive-variable relaxation Navier-Stokes

procedure

[AD-A115-224] p0062 A82-34598

SCHENKE, R. D.

Utilization of hybrid computational equipment for

the simulation of parachute system flight

[AD-A115-224] p0062 A82-19234

SCHENK, J. J.

Sound transmission through ducts and aircraft

noise prediction, volume 1

[AD-A115-224] p0062 A82-33184

SCHENKELBERGER, K.

Applications of adaptive control systems

[AD-A115-224] p0062 A82-28769

Schere, R.

Carbon-fiber composites - A fiber composite

material for highly stressed light-construction

components

[AD-A115-224] p0062 A82-24805

SCHENKELBERGER, R.

ADAS/test data provision for the Tornado ATS - A

challenging task

[AD-A115-224] p0062 A82-27991

SCHERER, J. A.

Comparison of experimental and theoretical

turbulence reduction characteristics for

screened, honeycomb, and honeycomb-screen

combinations

[AD-A115-224] p0062 A82-14055

SCHERRING, K.

Acceptance testing of the Calspan variable

stability Learjet

[AD-A115-224] p0062 A82-14937

SCHERR, E.

Calculation of the stability and post-buckling

behavior of thin shell underframes using the

finite element method

[AD-A115-224] p0062 A82-65519

SCHERR, G. B.

Configuration management techniques for automatic

testing

[AD-A115-224] p0062 A82-27893

SCHERR, J. R.

Analysis and Monte Carlo simulation of

near-missed aircraft flight paths

[AD-A115-224] p0062 A82-23233

SCHF, J.

Application of a new hybrid material /ABALL/ in

aircraft structures

[AD-A115-224] p0062 A82-49575

SCHILLING, R. F.

Development of hybrid gas turbine engine technology

[AD-A115-224] p0062 A82-35337

SCHLITZ, R. J., Jh.

Investigation of the structural degradation and

personnel hazards resulting from helicopter

composite structures exposed to fires and/or

explosions

[AD-A115-224] p0062 A82-20257

SCHLITZ, R.

Jet shape components for small gas turbine engines

[AD-A115-224] p0062 A82-35338

SCHLETT, A.

Scenarios of economic development within the

European community up to the year 2000

[AD-A115-224] p0063 A82-33286

SCHLEDBER, R. L.

Life enhancement of Naval systems through advanced

materials

[AD-A115-224] p0060 A82-34040
SCHEIBER, R. W.

[AD-A160552] p0136 882-14424

SCHEIBER, R. W.

Faulty Censua T 303 Crusader
[AIAA PAPER 81-2940] p0055 882-12876

SCHEIDER, R. C.

The FAA's proposed helicopter certification rules
[p0468 882-13242

SCHEIDER TAFEL, L.

Airbus - Perspectives for the future
[p0109 882-16972

SCHILKIR, R. H.

Helicopter rotor trailing edge noise
[AIAA PAPER 81-2601] p0008 882-10455

Helicopter rotor trailing edge noise
[NASA-CH-3470] p0112 882-11059

SCHEIDOFER, W.

Theoretical investigations on the influence of different stroke, tail unit, and conventional NLR arrangement as well as on CCT on the aerodynamic characteristics of lighter aircraft configurations

SCHM, C.

Applications of adaptive control systems
[p0293 882-27869

SCHMIDT-BISCHOFSSHEMM, H.

Performance characteristics and employment profiles of the new helicopter NH 90
[p0331 882-29586

SCHMID, D. L.

A modern approach to pilot/vehicle analysis and the Real-Smith criteria
[AIAA PAPER 82-1337] p0469 882-39125

Interactive aircraft flight control and aerelastic stabilization
[NASA-CH-165036] p0100 882-13150

Multivariable closed loop control analysis and synthesis for complex flight systems
[p0367 882-22193

SCHMIDT, D. W.

Ultrasonic method for flow field measurement in wind tunnel tests
[p0166 882-20054

SCHMIDT, D. F.

NASA system load - Utilization of the DARC system
[p0219 882-23315

SCHMID, L. F.

An investigation of automatic guidance concepts to steer a VTOL aircraft to a small aviation facility ship
[NASA-CH-152907] p0191 882-16087

SCHMITT, W.

Viscous transonic airflow simulation
[p0506 882-40977

Aerodynamic computational procedures for subsonic and transonic aircraft
[p0550 882-43330

SCHMITZ, L. A.

Multilevel optimum design of structures with fiber-composite stiffened-panel components
[AIAA PAPER 80-0723] p0113 882-17590

SCHOT, T.

Aerodynamics of a transport aircraft type wing-fuselage assembly
[ONERA, TP NO. 1984-122] p0168 882-19738

Aerodynamics on a transport aircraft type wing-body model

SCHRON, D. S.

On the aerodynamics of windblast
[AD-A110405] p0405 882-25221

SCHNIDER, R.

An exploratory research and development program leading to specifications for aviation turbine fuel from whole crude shale oil. Part 1: Preliminary process analyses
[AD-A112461] p0527 882-28462

An exploratory research and development program leading to specifications for aviation turbine fuel from whole crude shale oil. Part 2: Process variable analyses and laboratory sample production
[AD-A112462] p0528 882-28463

An exploratory research and development program leading to specifications for aviation turbine fuel from whole crude shale oil. Part 3:

Production of specification of JP-4 fuel from geolastics shale oil
[p0528 882-28464

The preparation and characterization of mixtures of polyacyclophanthesins as solid fuel fuels
[p0556 882-30414

An exploratory research and development program leading to specifications for aviation turbine fuel from whole crude shale oil. Part 5
[AD-A117438] p0612 882-33551

SCHNIDER, C. W.

Flight service evaluation of advanced structures
[p0291 882-27402

SCHNIDER, E.

The load-carrying behavior of a treapezoidal aluminum-alloy supporting element, subjected to a compressive stress, in the postbuckling region
[p0065 882-14418

SCHNIDER, W.

Thermal expansion accommodation in a jet engine frame
[p0017 882-11599

SCHNIDER, W.

Effect of a part span variable inlet guide vane on T4M fan performance
[NASA-CH-165458] p0080 882-12075

SCHNIDER, W. N.

The effect of radaro scattering on ECM antenna patterns
[AD-A115517] p0561 882-30663

SCHNIDER, W. N.

Aerodynamic components for small turboshaft engines
[p0207 882-17211

SCHNELL, C.

Aerodynamic and non-aerodynamic exhaust jet induced effects on a VTOL vehicle design. Part 2: Analysis of results
[NASA-CH-163565] p0556 882-31301

Aerodynamic and non-aerodynamic exhaust jet induced effects on a VTOL vehicle design. Part 3: Experimental technique
[NASA-CH-166147] p0556 882-31302

SCHROCK, E.

Preliminary results on performance testing of a turbocharged rotary combustion engine
[NASA-TP-62772] p0316 882-21914

SCHROEDER, J.

Fluctuating pressures on fan blades of a turboshaft engine: Static and wind-tunnel investigations
[NASA-TP-1976] p0309 882-21037

SCHROEDER, L.

Advanced technology and fighter cockpit design: Which drives which?
[p0471 882-27302

SCHROEDER, M.

B-52 structures
[p0224 882-24011

SCHROEDER, R. K., Jr.

Recent advances in applying Free Vortex Sheet theory to the estimation of vortex flow aerodynamics
[AIAA PAPER 82-0095] p0183 882-22405

Wind-tunnel investigation of vortex flaps on a highly swept interceptor configuration
[p0516 882-41004

SCHUBERT, G.

Static pressure in the slipstream of a propeller
[p0225 882-24023

SCHEFA, L.

Engineering property comparisons of 7050-77651, 7010-77651 and 7010-77651 aluminum alloy plate
[K-AP-MP-80047-0] p0357 882-22360

SCHEIDLER, M. W.

Aerodynamic components for small turboshaft engines
[p0207 882-17211

SCHMIDT, D. P.

Fundamentals of helicopter fatigue life determination
[p0239 882-24714

Performance and aerelastic tradeoffs on recent rotor blade designs
[p0280 882-26396

Review of helicopter fast mounted sight (HMS) base motion isolation and Line-of-Sight (LOS) stabilization concepts

B-134
helicopter collaboration
[SMIAS-811-210-101]
P0312 A82-21154

SIEGEL, M. E.
Engine industry cost considerations for emerging
technologies
P0292 A82-27429

SIEGFREIT, C. D.
Digital active control system for load alleviation
for the Lockheed L-1011
P0104 A82-16147

SIEBER, P. A.
Thermal-barrier-coated turbine blade study
[NASA-CR-165351]
P0028 A82-10040

SILVA, A.
Airflow-propulsion system aerodynamic
interference predictions at high transonic Mach
numbers including off-design engine airflow
P0097 A82-13098

SILVIRA, W. A.
An iterative finite element-integral technique for
predicting sound radiation from tubofan inlets
in steady flight
[AIAA PAPER 82-0129]
P0115 A82-17796

Acoustic properties of tubofan inlets
[NASA-TR-810016]
P0462 A82-27909

SILGBRIELLY, R. A.
High temperature composites. Status and future
directions
[NASA-TM-82929]
P0559 A82-30336

SILVER, J. G.
United States Air force shale oil to fuels, phase 2
[AD-A114531]
P0530 A82-29476

SILVA, W. A.
Subsonic aerodynamic and flutter characteristics of
everal wings calculated by the SOUSSA P1.1
panel method
[AIAA PAPER 82-0727]
P0341 A82-30193

Subsonic aerodynamic and flutter characteristics of
everal wings calculated by the SOUSSA P1.1
panel method
[NASA-TM-84885]
P0405 A82-25216

SILVANI, G. P.
Feedback control of a cantilever wing in steady
airflow
[AIAA 02-0729]
P0350 A82-22229

SILVEIRO, F. J.
50-608 test program
P0247 A82-18141

SILVERTHORN, J. L.
Design and analysis of a multivariable control
system for a CCY-type fighter aircraft
[AIAA PAPER 82-1350]
P0488 A82-39121

Effects of higher order control systems on
aircraft approach and landing longitudinal
handling qualities
P0563 A82-30488

SILVERTHORN, L. J.
Whirl mode stability of the main rotor of the
F-156 Advanced Attack Helicopter
P0498 AJ2-40513

SILVIOOS, C.
Fire strike protection
P0046 A82-13246

SIEB, A. G.
AD-1 oblique wing aircraft program
[AIAA PAPER 81-2354]
P0064 A82-14390

Unique flight characteristics of the AD-1
oblique-wing research airplane
[AIAA PAPER 82-1329]
P0488 A82-39106

SIEGLO, H.
Hurricane-induced wind loads
[PB82-132267]
P0476 A82-27548

SIEGROS, J. B.
An experimental study of steady and quasi-steady
jet flaps
P0276 A82-26222

SIEGROS, J. V., et al.
Project Sea Hunt: A report on prototype
development and tests
[AD-A109510]
P0302 A82-20160

SIEGROS, R. D.
The characteristics and detection of low level
wind shear in the critical phases of flight
P0297 A82-23849

The detection of low level wind shear. II
P0463 A82-38463

SIEW, R.
Attack on superalloys by chemical and electrolytic
processes
P0063 A82-14365

SIEW, L.
A set of finite elements developed for the dynamic
computation of composite helicopter blades
[ONERA, TP NO. 1961-87]
P0062 A82-13990

SIEPIEERO, J. L.
A method for measuring takeoff and landing
performance of aircraft, using an inertial
sensing system
[NLR-TB-80032-0]
P0133 A82-14084

A method for applying linear optimal control
to the design of a regulator for a
flexible aircraft
P0265 A82-21912

SIEPIEERO, P.
Multi-basis V/STOL with vectored thrust engines
[PNR-90086]
P0356 A82-22278

SIEPIEERO, W. M.
V/STOL tandem fan transition section model test
[NASA-CR-165507]
P0312 A82-21158

SHIMRO, J. G.
The structure of a separating turbulent boundary
layer. I - Mean flow and Reynolds streamlines. II -
Higher-order turbulence results
P0129 A82-10776

SHIMRO, R. M.
Unmanned aircraft in future combat
P0492 A82-39728

SHIMRO, A. L.
Engine component retirement for cause
P0345 A82-22177

SHIMRO, C. C.
Categorization of atmospheric turbulence in terms
of aircraft response for use in turbulence
reports and forecasts
[AD-A109585]
P0306 A82-20190

SHIMRO, L.
Comparison of wind tunnel and theoretical
aerodynamic predictions with flight measured
airloads for the B-1 aircraft
[AIAA PAPER 81-2367]
P0065 A82-14393

SHIMRO, J. B.
Conceptual design study of a visual system for a
rotorcraft simulator and some advances in
platform motion simulation
[NASA-CR-166322]
P0352 A82-22244

SHIMRO, A. I.
An investigation of multi-axis isometric side-arm
controllers in a variable stability helicopter
[AD-A106759]
P0209 A82-17226

SHIMRO, P. C.
Aircraft measurements and analysis of severe
storms: 1976 field experiment
[NASA-CR-168519]
P0259 A82-18603

SHIMRO, S. B. M.
Evaluations of helicopter instrument-flight
handling qualities
[AD-A114004]
P0524 A82-28285

SHIBER, L.
A comparative study of narrowband vocoder
algorithms in Air force operational environments
using the Diagnostic Rhyme Test
[AD-A112053]
P0460 A82-26546

SHINER, J.
The behavior of composite thin-walled structures in
dynamic buckling under impact
P0513 A82-40976

SHINER, J.
Aeropropnlsion research for the O.S. Aroy
[ASR PAPER 82-07-203]
P0427 A82-35398

SHINER, R. A.
Test and evaluation of improved aircrew restraint
systems
P0079 A82-14974

SHINER, A. R.
Test and evaluation of improved aircrew restraint
systems
[AD-A107576]
P0188 A82-16056

SHINER, A. B.
Preliminary functional description of integrated
flow management
[AD-A109909]
P0313 A82-21171

SHINER, A. S. C.
An application of invariance principle to pilot
model for 87-33 aircraft with variable
A mathematical model of an over-sea airborne DBF Flutter node suppression using hyperstable feedback

Fatigue test of the typical main rotor controls

Digital control for flexible aircraft using

Chemistry of combustion of fuel-water mixtures

A study of the effect of the flight vehicle body potential on the characteristics of low altitude transmitters

Fatigue test of the typical main rotor controls

Digital control for flexible aircraft using

Flutter mode suppression using hyperstable feedback

A mathematical model of an over-sea airborne RF
SHIIB, J. B.  
Determination of the glide path of an aircraft with power off  
p0052 A82-43603

SHIIB, J. B.  
The Royal Aircraft Establishment: 100 years of research  
[BAE-TR-FS-032] p0043 H82-22214
Field visual aids research at the Royal Aircraft Establishment  
[BAE-TR-FS-031] p0031 H82-22242

SHIIB, S. A.  
Design, development and flight testing of a jet powered sailplane  
p0178 A82-20761

SHIIB, C.  
Atmospheric chemistry of hydrocarbon fuels. Volume 2: Outdoor chamber data tabulation, Part 1  
[AD-A113665] p0530 H82-28842

SHIIB, C.  
Hydrocarbon fuel chemistry: Sediment water interaction  
[AD-A117984] p0612 H82-33552

SHIIB, C. W. D.  
Development of avionics installation interface standards  
[AD-A117853] p0608 H82-33384

SHIIB, D. J.  
Dense spectral analysis of the noise from short duration impulsively started jets  
p0034 A82-36191

SHIIB, D. O.  
The military helicopter market today and tomorrow  
p0386 A82-34111

SHIIB, D. O.  
Dynamics of aircraft anti-skid braking systems  
[NASA-TP-1959] p0254 H82-10204
Planar equations of roll motion for an aircraft with free or steerable landing gears  
[NASA-TP-1904] p0268 H82-22244
Time trend temperatures during anti-skid braking and contact on a dry runway  
[NASA-TP-2009] p0395 H82-24193

SHIIB, F. D.  
Utilizing the helicopter's versatility to improve the NTC system  
p0219 A82-22336

SHIIB, G. A.  
Application of the concept of dynamic trim control and nonlinear system inversion to automatic control of a vertical attitude takeoff and landing aircraft  
[AD-A112233] p0412 H82-25613

SHIIB, G. W.  
Evaluation of a trajectory command concept for manual control of carrier approaches and landings  
p0563 H82-30856

SHIIB, G. Y.  
Environmental and high strain rate effects on composites for engine applications  
[AD-A112758] p0336 H82-20118
Corporate containment systems for jet engines  
[AD-A112758] p0336 H82-30762
Environmental and high-strain rate effects on composites for engine applications  
[NASA-TP-82882] p0571 H82-31469

SHIIB, J. A.  
Maintenance training simulator design and acquisition: Handbook of ISB procedures for design and documentation  
[AD-A111430] p0457 H82-26321

SHIIB, J. A.  
Experience with flight simulators - Training effectiveness/feasibility developments  
[AD-A112261] p0158 H82-19263

SHIIB, J. E.  
Predesign study for a modern 4-bladed rotor for the NASA rotor systems research aircraft  
[NASA-CR-166153] p0187 H82-16062
Analysis and environmental fate of Air Force distillate and high density fuels  
[AD-A1115949] p0595 H82-32512

SHIIB, J. E.  
Effect of vacuum exhaust pressure on the performance of RB2 ducts at high B-field  
[NASA-TR-FS-02750] p0101 H82-13008

SHIIB, J. F.  
Operational test and evaluation handbook for aircrew training devices. Volume 3: Operational suitability evaluation  
[AD-A112699] p0526 H82-28360
Operational test and evaluation handbook for aircraft training devices. Volume 1: Planning and management  
[AD-A112486] p0537 H82-29332

SHIIB, L. E.  
Application of numerical methods to the calculation of electrostatic fields in aircraft fuel tanks  
[AD-A1103270] p0027 H82-10033

SHIIB, L. E.  
Analysis of a longitudinal pilot-induced oscillation experienced on the approach and landing test of the space shuttle  
Apparatus for damping operator induced oscillations of a controlled system  
[NASA-CASE-FC-11041-1] p0259 H82-18493

SHIIB, L. E.  
Improved penetration process evaluation criteria  
p0560 H82-30386

SHIIB, L. E.  
Predesign study for a modern 4-bladed rotor for the NASA rotor systems research aircraft  
[NASA-CR-166153] p0167 H82-16042

SHIIB, L. E.  
An update of an integrated CNI system - TIES  
[AD-A112292] p0049 H82-13500

SHIIB, L. E.  
Helicopter computers - An optimistic outlook  
p0556 H82-44470

SHIIB, L. R.  
Source assessment system  
[AD-A111223] p0412 H82-25613

SHIIB, L. R.  
The impact and future direction of aircraft noise certification  
[p0266 H82-26150
the Rolls Royce engine in aircraft noise reduction  
[PHR-90069] p0319 H82-21210
The impact and future direction of aircraft noise certification  
[PHR-90053] p0322 H82-21788

SHIIB, L. R.  
Thermodynamics of organic compounds  
[AD-A110830] p0318 H82-21202

SHIIB, L. R.  
Numerical aircraft design using 3-D transonic analysis with optimization, volume 2: Transport design  
[AD-A10231] p0315 H82-21181

SHIIB, L. R.  
Influence of maneuverability on helicopter combat effectiveness  
p0365 H82-23212

SHIIB, L. R.  
Finite element analysis of through the canopy egress from the T-38 aircraft  
[NASA-TR-7065] p0335 H82-30996

SHIIB, L. R.  
Propfan installation aerodynamics of a supersonic swept wing transport configuration  
[AD-A115267] p0009 H82-10466

SHIIB, L. R.  
Analysis of augmented aircraft flying qualities through the application of the Heal-Smith criterion  
[AD-A113996] p0008 H82-10462

SHIIB, L. R.  
Problems in correlation caused by propulsion systems  
[AD-A112520] p0404 H82-25202
Notes on lateral-directional pilot induced oscillations  
[AD-A113996] p0474 H82-27322

SHIIB, L. W.  
User's manual for the vertical axis vane turbine  
[AD-A112261] p0461 H82-26828

SHIIB, L. W.  
Synchronous fault-tolerant flight control systems  
[NASA-TR-7065] p0335 H82-30996

SHIIB, L. W.  
System data communication structures for active-control transport aircraft, volume 1  
[NASA-CR-165773-VOL-1] p0538 H82-29510
System data communication structures for active-control transport aircraft, volume 2
and fifth-scale wind tunnel tests of a Bell helicopter/transport model 222 (NASA CR-166362) p0535 882-29315
SQUIRES, L. T. Ejector powered propulsion and high lift subsonic wing p0512 882-49070
SRIV-JAYANTH, M. A microprocessor-based data acquisition system for stall/spin research (ATA 81-2177) p0002 882-10126
SHIDRAH, J. F. A Schwarz-Christofol method for generating internal flow grids p0328 882-29005
SHIDRAH, S. R. Primary sewage treatment plant as a source of bird hazards at airport p0362 882-33523
SHIDRAH, S. R. Primary sewage treatment plant as a source of bird hazards at airport p0413 882-26184
SHIVHANU, J. V. Dry friction damping mechanisms in engine bladders [AIAA PAPER 82-07-162] p0426 882-35383
SHIVHANU, G. Computation of wing-vortex interaction in transonic flow using implicit finite difference algorithms [NASA CR-166251] p0312 882-21159
STACHE, L. B., J.B. Bonding procedure for Teflon seals p0567 882-42792
STARCHER, G. W. Evaluation of superplastic forming and co-diffusion bonding of Ti-64Al-4V titanium alloy expanded sandwich structures [NASA CR-165873] p0268 882-19358
STARCHER, C. J., J.B. Application and testing of metallic coatings on graphite/epoxy composites p0435 882-37074
STABLE, J. Use of high conical flow theory for the determination of the pressure distribution on the wave rider and its agreement with experimental results for supersonic flow p0154 882-19197
The problem of calculation of the floor around helicopter rotor blade tips p0250 882-18160
On the calculation of transonic blade tip flow for helicopter rotors [JB-P-08-320-61-0] p0252 882-18187
The problem of calculation of the floor around helicopter rotor blade tips [JB-P-08-330-61-0] p0046 882-25233
STABLE, J. W. Assessment of avionic equipment field reliability and maintainability as functions of unit cost (AD-A109373) p0266 882-19218
STABLE, J. E. Evaluation of the effect of elastomeric damping material on the stability of a bearingless main rotor system p0280 882-26394
STABLE, J. A. Dynamic stability of low effective flap range BHE concepts p0277 882-26377
Predesign study for a modern 4-bladed rotor for the NASA rotor systems research aircraft [NASA CR-166153] p0107 882-16042
STABLE, J. A. Store separation from cavities at supersonic flight speeds [AIAA PAPER 82-07-132] p0185 882-22096
STABLE, J. A. Beyond 2000 - The airlift challenge ahead (AIAA PAPER 82-0815) p0377 882-31988
STABLE, J. L. Blade loss transient dynamic analysis of turbomachinery [AIAA PAPER 82-1057] p0415 882-33982
STALOTH-DORSCHER, J. Evaluation of advanced air-to-air gunnery fire control systems p0069 882-14750
STAREBOYER, S. A. D-3 fuel conversion evaluation p0177 882-20755
STARES, P. H. Electronic Warfare Avionics Integration Support Facility support processor p0408 882-25249
STARCHER, M. Analytical determination of undercarriage retraction kinematics p0055 882-10364
STABLE, C. A. Fault isolation BITE for increased productivity p0545 882-42210
STABLE, M. Application and testing of metallic coatings on graphite/epoxy composites p0435 882-37074
STABLE, S. H. Calculations of lightning return stroke electric and magnetic fields above ground p0116 882-17714
STABLE, W. H. Analysis of rotating structures using image derotation with multiple pulsed lasers and probe techniques p0438 882-36999
STABLE, C. W. Maintenance problems associated with the operation of the P02/# /Takoma/ engine in the CV-800 Harrier/ aircraft [AIAA PAPER 81-2656] p0109 882-16915
STABLE, C. L. Functional requirements for the man-vehicle systems research facility [NASA CR-166135] p0352 882-22240
STABLE, D. Options for GTE precision automated tracking system p0043 882-13020
STABLE, H. Design procedures for compressor blades p0109 882-17135
STABLE, O. H. Analyzing stable pad disturbances and design of a sensor vault to monitor pad stability [AIAA 82-1505] p0486 882-39011
STABLE, G. H. The U.S. airline industry - En route to deregulation p0385 882-33920
STABLE, H. Marine Air Traffic Control and Landing System (CATCALS) investigation, volume 1 (AD-A108662) p0396 882-24888
Marine Air Traffic Control and Landing System (CATCALS) investigation, volume 2 (AD-A108663) p0396 882-24889
Marine Air Traffic Control and Landing System (CATCALS) investigation (AD-A107384) p0466 882-27260
STABLE, B. L. Conceptual design study for an advanced cab and visual system, volume 1 [NASA CR-166235] p0410 882-25266
Conceptual design study for an advanced cab and visual system, volume 2 [NASA CR-166236] p0410 882-25267
STARCHER, R. V. Propulsion study for Small Transport Aircraft Technology (STAT) [NASA CR-1656999] p0527 882-10037

B-145
STAUFENBIEHL, R.

A unified and generalized definition of static longitudinal stability in aircraft.


Fluctuating forces and rotor noise due to distorted airflow.

p0510 882-40995

STARKER, J. L.

Digital Avionics Information System (DAIS): Fluctuating forces and rotor noise due to distorted airflow.

p0190 882-16079

STARKER, R.


STARKER, R. C.

Control of electromechanical actuator elements for flight vehicles.

p0020 882-12170

STECK, R. H.

Calculation of level flow using radial grating.

p0404 882-38922

STEBBINS, J. J.

The aviation route forecast /ABF/ program - an interactive system for pilot briefing.

p0553 882-43821

The aviation route forecast /ABF/ program - an interactive system for Pilot Self-Briefing.

p0590 882-95530

STEED, B.

Distributed intelligence for air fleet control.

p0253 882-18195

Scenario for evolution of air traffic control.

p0467 882-27270

STEEVES, R. C.

Simulation of the interaction between airborne platforms and aircraft rollers.

p0569 882-31324

STEFF, G. L.

Propeller flow visualization techniques.

p0597 882-32672

STEGH, J. A.

Computation of wing-vortex interaction in transonic flow using implicit finite difference algorithms [NASA-CR-166251]. p0312 882-21159

STEBLE, R.


p0475 882-27411

STEBLE, R.

Self-tuning regulator design for adaptive control of aircraft wing/store flutter.

p0570 882-45538

LQG-based multivariable design: Frequency domain interpretation.

p0029 882-10053

LQG multivariable design tools.

p0030 882-10054

STENF, E.

Experimental investigation of a helmet mounted sight/display for helicopter.

p0092 882-13060

Experimental investigation of visual aids for helicopters: Low level flight at night and low visibility.

p0251 882-18168

STEIN, S. L.

The Global Positioning System Evaluator.

p1010 882-21508

STEINBERG, L. P.

Low-frequency eddy current inspection of aircraft structure.

p1013 882-21900

STEINBERG, B. B.

Distributed airborne array concepts.

p0342 882-31669

STEINBERG, B.

The NASA ARFF program - developing new concepts for accurate flight planning.

p0118 882-17894

Aircraft flight planning - The weather connection.

p0231 882-24386

STEBBLE, R.

Nondestructive testing in aircraft construction using holographic methods.

p0513 882-40977

STEINBERG, J. B.

The outlook for advanced transport aircraft.

p0181 882-21374

Commercial transport developments for the 1980's.

p0306 882-38109

STEINBERG, R.

Vibration qualification of external aircraft stores and equipment.

[AIAA-FP-173/5/FBB/65]. p0320 882-21210

STEINBERG, R.

Self-tuning regulator design for adaptive control of aircraft engines: Materials for advanced turbine engines.

[AIAA-82-0571]. p0408 882-25250

Tunnel-to-tunnel correlation.

p0408 882-25200

Correlation of Preston tube data with laminar skin friction (Log. No. 120284).

p0539 882-29556

STEINER, R.

Flight test data acquisition and interpretation.

p0239 882-24707

STEINER, S. C.

Have we overlooked the pilot's role in an automated flight deck?

[AIAA 81-2262]. p0048 882-13481

The integration of control and display concepts for improved pilot situational awareness.

p0061 882-13972

STEINIG, W. L.

The effect of hybrid composite materials on the dynamic characteristics of helicopter rotor blades.

p0491 882-39263

STEINBOCK, E. L.

Measuring for turbine blade variations in subsonic flow.

p0142 882-15048

STEINER, F.

A possible way of specifically correcting locating and navigational errors caused by reflection and other propagation anomalies.

[AIAA-9T-667]. p0253 882-18198

STEINER, R.


STEIN, B.

Develop, demonstrate, and verify large area composite structural bonding with polyimide adhesives [NASA-CR-165839]. p0459 882-26665

STEIN, B. P.

A microprocessor-based data acquisition system for stall/spin research.

[AIAA 81-2377]. p0002 882-10126

Design and flight test of a lateral-directional command augmentation system.

[AIAA 81-2351]. p0052 882-13527

Design and flight testing of digital direct side-force control laws.

[AIAA 82-1521]. p0408 882-30941

Investigation of air transportation technology at Princeton University, 1981.

p0446 882-26212

Pilot opinions of sampling effects in lateral directional control.

p0563 882-30849

STEINBERG, Y. S.

Improving the accuracy of the estimates of surfactant content in jet fuels.

p0210 882-23250

STEINBERG, G. U.

Computer aided investigation of turbomachine aerodynamics and aeroelasticity.

p0118 882-17894

S-146
Study of noise reduction characteristics of composite fiber-reinforced panels, interior panel configurations, and the application of the tuned damper concept

Spin tests of a single-engine, high-wing light airplane

Rapid learning diagnostics

An investigation of the use of a propulsive wing/ canard concept for improved maneuvering

Meteorology impact on future aircraft design

Hypothetical fatigue life problems - Application of aeropontial method

Fatigue analysis of composite materials using the fail-safe concept

Quick learning diagnostics

Advanced integrated CHL architectures

Research in supersonic propulsion - A decade of progress

Research in supersonic propulsion: A decade of progress

Marine air traffic control and landing system (METCALS) investigation

Adaptive multifunction sensor concept for air-ground missions

Experimental study of fuel heating at low temperatures in a wing tank model, volume 1

Experiments on fuel heating for commercial aircraft

Additional experiments on flowability improvements of aviation fuels at low temperatures, volume 2

Fatigue substantiation of non-linear structures

The design and development of the Tornado engine air intake

Carbon-fiber composites - A fiber composite material for highly stressed light-construction components

The cargo helicopter - A logistical vehicle

A system safety model for developmental aircraft programs

Hydrodynamics of the normal force of a wing of complex planform under unsteady motion

Application of thrusting ejectors to tactical aircraft having vertical lift and short-field
Input/output models for general aviation

The boaber that radar cannot see

Experience during the development of the

Band spectrum fatigue crack life predictions

Fuel guality processing study, volume I

Bidely-spaced co-axial jet, diffusion-flame

Validation studies of turbulence and combustion

Aerodynamic analysis of VIOL inlets and definition

Performance of highly integrated inlets for

Methodology for measurement of fault latency in a
digital avionic miniprocessor

Tuning of wind turbines with blade cyclic-pitch
variation

Application of damage tolerance technology to type
certification

A crabworthiness test for composite fuselage
structure

Transport engine control design

Wind determination and wind shear detection from
flight test and airline flight data

Advanced fighter technology integration program

Performance of highly integrated inlets for
supersonic aircraft

Aerodynamic analysis of FTOG inlets and definition
of a short, blowing-lip inlet

Application of numerical modeling to gas turbine
combustor development problems

Validation studies of turbulence and combustion
models for aircraft gas turbine combustors

Widely-spaced co-axial jet, diffusion-flame
combustor - Isothermal flow calculations using
the two-equation turbulence model

Helicopter landing gear design and test criteria
investigation

The effect of swirl burner aerodynamics on NOx
formation

Fuel quality processing study, volume I

Random spectrum fatigue crack life predictions
with or without considering load interactions

A review and assessment of fatigue crack growth
crate relationships for metallic airframe materials

Experience during the development of the
German-Japanese helicopter "H 117"

Aeroelasticity of compressor blades - Subsonic
stall flutter

An experimental examination of compressor blade
flutter [ONERA, TP No. 1982-31]

Aeroelasticity of compressor blades: Subsonic stall
flutter
A method of predicting fuselage loads in hover p0250 882-18164

TAYLOR, E. R. Helicopter vibration reduction by rotor blade modal shaping p0998 882-60514

Predesign study for an advanced flight research rotor p0500 882-60525

TAYLOR, E. S. Design philosophy of the Hughes model 600 helicopter p0247 882-18140

TAYLOR, E. S. Direct comparison of community response to road traffic noise and to aircraft noise p0218 882-22974


TEAR, B. Flight demonstration of an integrated floor/fuel isolation system [ABG RESEARCH 81-16] p0842 882-37768

TEPPERGEL, R. M. Community sensitivity to changes in aircraft noise exposure [NASA-CH-3490] p0194 882-16807

TEN BASEIN, J. L. Electric field detection and ranging of aircraft p0436 882-37377

TEBOV, L. P. Cascade converter of dc voltage to ac voltage of higher frequency with voltage and frequency stabilization devices p0326 882-28875

TEREL, J. G. An airport wind shear detection and warning system using Doppler radar p0003 882-10220

TEREL, J. G. Non-steady velocity measurement of the wake of a helicopter rotor at low advance ratios [AD-A107722] p0199 882-17133

TEREL, J. G. Sophisticated aircraft structure developments - Combat aeroplanes p0005 882-10309

TIESLER, R. J. Adaptation of patrition to the manufacture of helicopter components p0501 882-40537

TIEFEL, J. A. Experimental study of external fuel vaporization [ASME PAPER 82-07-59] p0422 882-35312

External fuel vaporization study [NASA-CH-16551] p0136 882-14371


THAMES, R. E. Generation of three-dimensional boundary-fitted curvilinear coordinate systems for wing/wing-tip geometries using the elliptic solver method p0381 882-33318


THATCHER, C. R. Advanced recorder design and development [P84-264105] p0193 882-16385

THIESS, B. The external balance system of the German-Dutch wind tunnel DN and its strain gage load cells p0589 882-43104

THELDER, J. A. Aerodynamic development of laminar flow control on swept wings using distributed suction through porous surfaces p0505 882-40894


TIER, D. Y. Analysis of escape systems at 687 KIAS p0079 882-14978


TIECE, J. G. The history of aviation turbine lubricants p0163 882-19624

TIERL, G. L. Antenna theory and design p0020 882-12323

TIERL, L. Interactive graphics design with COBRA p0554 882-44223

TISDA, M. Attack on superalloys by chemical and electrolytic processes p0063 882-18365

TOMAS, G. R. Disengagement of safety harness buckles - CT4 p0263 882-19199

TOMAS, R. E. FILE-8 aircraft flight test program [AAS 81-041] p0105 882-16335

TOMAS, A. M. Use of aircraft-derived data to assist in ATC tracking systems - X - accuracy and theoretical considerations p0566 882-42504

TOMAS, J. Active beacon collision avoidance logic evaluation. Volume 2: Collision avoidance (NBCA) threat phase [AD-A107805] p0200 882-17148

TOMAS, J. A. Supersonic 3-D surface panel method for rapid analysis of multiple geometry perturbations [AIAA PAPER 82-0993] p0374 882-31954

TOMAS, J. A. Static and aerelastic optimization of aircraft p0444 882-37945

TOMAS, R. E. Direct strike lightning measurement system [AIAA PAPER 81-2513] p0057 882-13910


TOMAS, S. D. Recent applications of the transonic wing analysis computer code, TWING [AIAA PAPER 82-1246] p0604 882-33346

TOMAS, S. D. Increased capabilities of the Langley Bach 7 Scramjet Test Facility [AIAA PAPER 82-1246] p0418 882-35080

TOMAS, S. D. FY-15 program update p0556 882-44468

TOMASSON, P. G. The design of a HPF ground station simulator p0495 882-39750

THOMPSON, G. M. Boling Vertol fatigue life methodology p0240 882-28718

THOMPSON, J. A. Aircraft energy conservation during airport ground operations [AD-A116138] p0589 882-33252

THOMPSON, A. D. Nonlinear constitutive theory for turbine engine structural analysis p0613 882-33744

THOMPSON, A. D. Flight investigations of integrated descent rate control systems p0076 882-14929

THOMPSON, C. M. Computational and experimental studies of light twin aerodynamic interference p0508 882-40930

THOMSY, D. C. Equipment vibration qualification for barrier and barrier aircraft p0340 882-22161

THORNBURG, A. E. An investigation of engine and test cell operating conditions on the effectiveness of smoke suppressant fuel additives [AB-A112000] p0476 882-27527
An investigation of the effects of smoke suppressant fuel additives on engine and test cell exhaust gas opacities [AD-A116171] p0571 A82-21548

THORNE, P. W.

Distributed intelligence for air fleet control [AD-A108611] p0253 A82-18195

THORNE, P. W.

AUTOPILOT: A distributed planner for air fleet control [AD-A107139] p0967 A82-27269

Scenario for evolution of air traffic control [AD-A112566] p0967 A82-27270

THORSTEN, L. L.

Finite element thermal analysis of convectively-cooled aircraft structures p0325 A82-28565

THORNESS, C. B.

Laboratory-scale simulation of underground coal gasification: Experiment and theory [DE82-001063] p0528 A82-20840

THRESE, P. M.

The impact of increasing energy costs upon the design philosophy of atomic fuel systems p0169 A82-20517

THORSON, L.

Coastal survivability in the advanced technology engine study [AIAA 81-0275] p0419 A82-35105

THULLON, R. J.

Advanced weapon systems - Integration technology [AIAA 81-2513] p0553 A82-13538

THULLON, R.

An analysis of selected enhancements to the on-route central computing complex [AD-A113757] p0479 A82-28044

THULLON, R.


THUNG, F. F.

Aircraft radio communications equipment: Design and use p0548 A82-42067

TRAEGER, L.

Structural analysis of fuselages with cutouts by finite element method p0632 A82-10995

TAY, L.

Performance analysis of the test results on a two-stage transonic fan [AIAA Paper 82-0723] p0645 A82-35353

TIBBETS, J. G.

A computer program for the prediction of near-field noise of aircraft in cruising flight: User's guide [NASA-CR-159274] p0600 A82-33140

TIFKART, S. L.

Control law design to meet constraints using GSPAC-TRIM package for active controls [NASA-TM-83269] p0356 A82-22280

TIEGEBL, J. D.

Calculation of the contributions of air traffic and road traffic to air pollution in the region of Schiphol airport in 1974 [NASA-TR-77100-0] p0356 A82-22280

TIESMA, R.

Theory and experiment in unsteady aerodynamics [NASA-SA-60046-0] p0199 A82-17126

TILKERVI, L. L.

On the use of carbon composite in slat and stabilizer constructions p0015 A82-11468

TILL, R. D.

Instrumentation to determine the suitability of ETV systems for helicopter navigation in the national airspace system /NAS/ [AIAA Paper 81-2514] p0507 A82-13911

The helicopter Wavestar GPS test program p0342 A82-31280

TILLMAN, L.

Air service, airport access and future technology [EP-82-105958] p0192 A82-16100

TILLARI, L. L.

Allowance for flow nonuniformity in the slat main section in the optimal contouring of the expanding part of a nozzle [AIAA 81-2528] p0270 A82-25798

TILLTOWN, L. E.

Analysis and wind tunnel tests of a probe used to sense altitude through measurement of static pressure [AIAA Paper 82-1361] p0489 A82-39128

TIBBART, L. J.

Development of accelerated fuel-engines qualification procedures methodology, Volume 1 [AD-A13461] p0873 A82-27317

Development of accelerated fuel-engines qualification procedures methodology, Volume 1 Appendices p0473 A82-27318

TIBBART, L.

Test facility and data handling system for the development of aerial compressors [AIAA Paper 82-073] p0423 A82-35322

TIDMOSS, R.

The F-15/79 test program p0054 A82-13855

TINDEL, R. E.

F-14 inlet development experience [NASA Paper 82-07-5] p0419 A82-35278

TING, R. Y.

Effects of elastomeric additives on the mechanical properties of epoxy resin and composite systems p0113 A82-17538

TINES, R. L.

Subsonic balance and pressure investigation of a 60-deg delta wing with leading-edge devices (data report) [NASA-CR-165006] p0139 A82-15014

TISCHER, R. W.

The effects of atmospheric turbulence on a quadrotor heavy lift aircraft [AIAA 82-1542] p0486 A82-39009

Handling qualification criteria for flight path control of V/STOL aircraft [AIAA Paper 82-1292] p0486 A82-39081

TIEGEBL, R. C.

The outlook for advanced transport aircraft p0181 A82-21374

TIPOTSE, L.

Gas-theoretical method for the synthesis of aircraft control during landing approach p0127 A82-18584

TOWEMLAND, L.

Propulsion system control and design simulation [AIAA Paper 82-0222] p0195 A82-22091

TREACH, R. J.

F-18 roll rate improvement program p0077 A82-14939

F-18 weapon system development p0223 A82-23774

TOHAI, L.

Bifurcation analysis of nonlinear stability of aircraft at high angles of attack [AIAA Paper 82-0244] p0117 A82-17862

Three-dimensional separation and reattachment [NASA-TP-94221] p0333 A82-24167

TOHAI, L.

Real-time simulation of helicopter IFR approaches into major terminal areas using SHIP, MLS, and CODT [AIAA Paper 82-02601] p0118 A82-17866

NASA/FAA Helicopter ABC simulation investigation of RAV/ALS instrument approaches p0501 A82-40535

TOHAI, L.

Configuration management techniques for automatic testing p0295 A82-27893

TOHAI, L. B.

NASA research programs responding to workshop recommendations p0311 A82-21146

TOEHOFF, T.

Research on the behavior of a turboprop engine during internal and external disturbances with respect to early recognition of damage p0503 A82-00561

TOHAI, D. J.


TOHAI, E. C.

Digital detection and processing of laser beacon signals for aircraft collision hazard warning [AIAA 81-2528] p0052 A82-13525
<table>
<thead>
<tr>
<th>Author</th>
<th>Title</th>
<th>Page Numbers</th>
<th>Conference/Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tollefson, G.</td>
<td>Turboprop and jet-turbine engine optimization</td>
<td>p082-20-26511</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aerodynamic noise generated by jet-exhaust/flare interactions of the external USB configuration of STOL aircraft. Part 2: Full scale model experiment using FJ710 turbofan engines</td>
<td>p063-20-47069</td>
<td></td>
</tr>
<tr>
<td>Tollefson, L.</td>
<td>Active Beacon Collision Avoidance System (ABCAS)</td>
<td>p028-20-68293</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Logic performance during operational flight tests [AD-1086893]</td>
<td>p026-20-19203</td>
<td></td>
</tr>
<tr>
<td>Tollefson, M.</td>
<td>Terminal information display system benefits and costs</td>
<td>p053-20-29291</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[AD-114937]</td>
<td>p053-20-29291</td>
<td></td>
</tr>
<tr>
<td>Tollefson, B.</td>
<td>Concept studies of an advanced composite helicopter</td>
<td>[SWAS-821-210-106]</td>
<td>p035-20-22257</td>
</tr>
<tr>
<td>Tollefson, N.</td>
<td>Impact of technology on aviation cost trends [AD-108049]</td>
<td>p025-20-18219</td>
<td></td>
</tr>
<tr>
<td>Tollefson, R. M.</td>
<td>Air-conditioned aircraft environmental susceptibility effects</td>
<td>p022-20-26357</td>
<td></td>
</tr>
<tr>
<td>Tolleson, C.</td>
<td>Quantitative interpretation of recirculated flow visualization by the analysis of video pictures</td>
<td>p026-20-27109</td>
<td></td>
</tr>
<tr>
<td>Tolleson, E.</td>
<td>Determination of the flammability characteristics of aerospace hydraulic fluids</td>
<td>p010-20-16187</td>
<td></td>
</tr>
<tr>
<td>Totah, S.</td>
<td>Evaluation of CFRP prototype structures for aircraft</td>
<td>p005-20-39925</td>
<td></td>
</tr>
<tr>
<td>Tracey, G.</td>
<td>Evaluation of methods for characterizing surface topography of models for high Reynolds number wind-tunnel tests [AIAA 82-0603]</td>
<td>p023-20-26875</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Application of the OBBB dynamic stall model to a helicopter blade in forward flight [AIAA PAPER 82-0262]</td>
<td>p025-20-18161</td>
<td></td>
</tr>
<tr>
<td>Tram, C. T.</td>
<td>Helicopter model studies for on-board electrostatic sensors</td>
<td>p021-20-17882</td>
<td></td>
</tr>
</tbody>
</table>

[AD-105511] p013-3 882-14089

[TRABLE, T. L. | System identification of nonlinear aerodynamic models | p050-20-29996 |
| TRAVERS, E. | Parallel computation for developing nonlinear control procedures [AD-107918] | p020-20-17227 |
| | FAA air traffic activity, FY 1981 | p060-20-33371 |
| TRIBET, E. M. | Instrument landing systems /ILS/ at airports of the German Democratic Republic | p094-20-39249 |
| TRIPAKOV, L. V. | Transonic flow past bodies of the type wing-fuselage with allowance for boundary effects | p038-20-34466 |
| TRIPAKOV, L. V. | Study of air compressor hazards in underground and surface mines [AIAA 82-105184] | p021-20-17597 |
| TRIPAKOV, K. M. | Real time estimation and prediction of ship motions using Kalman filtering techniques [NASA-CH-165284] | p057-20-31637 |
| TRIBERGEN, N. | Investigation of the unsteady aerodynamics on a transport aircraft type airfoil with two interchangeable oscillating trailing edge flaps, at transonic speed and high Reynolds numbers | p050-20-40909 |
| TRICET, N. M. | On-site vibration measurement, dynamic tracking and balancing | p017-20-20545 |
| TRICET, J. L. | Combined multisensor displays | p021-20-22905 |
| TRICET, N. M. | A generalized escape system simulation computer program: A user's manual [AD-106152] | p018-20-16055 |
| TRIBOLI, M. S. | An experimental investigation of S-duct diffusers for high-speed propfans | p041-20-35019 |
| TRICET, M. | Electric field detection and ranging of aircraft | p036-20-37377 |
| TRIPLET, R. W. | Pressure measurements on twin vertical tails in buffetting flow [AIAA 82-20-0641] | p037-20-30130 |
| TRIPP, J. C. | Investigation of the application of a cryogenic blending process to produce rocket engine fuels [AD-110917] | p041-20-25399 |
| TRISCHER, M. | Computer enhanced analysis of a jet in a cross-stream | p059-20-29555 |
| TRISTAR, D. M. | State of the art and recent perspectives on the study of the losses of control and spin | p047-20-22197 |
| TRISCHER, M. | Problems related to the interaction of fault-tolerant aircraft electronic systems | p050-20-29022 |
| TROULINSKE, J. L. | Development and laboratory testing of a thermal emission velocimeter for application to an erosion hone tip test facility [AD-107713] | p012-20-17482 |
TOOPKES, L. E.
The technological aspects of titanium application in the T0-144 aircraft structure

PO009 A02-10500

TOUSHAKHENKO, V. L.
The effect of temperature-time factors on the metal damage and endurance characteristics of gas-turbine-engine rotor blades

P0295 A02-28019

TROIAN, D. L.
Low NOx heavy fuel combiner concept program

P0413 A02-25635

TROTTER, B. L.
Assessment of a meteorological airborne pulse doppler radar

P0062 A02-30820

TSWE, R. C.
Cloud loop environmental control systems for fighter aircraft

P0111 A02-10890

TSAI, R. S.
Model scatter design for fan noise suppression in two-dimensional ducts

P0551 A02-43402

TSAO, C. P.
A color video display technique for flow field surveys

P0596 A02-32669

TSOGNANU, C. E.
The TADS/PVS 'eyes' for the AH-64 attack helicopter

P0085 A02-12329

TUCCHI, T.
Water ingestion into jet engine axial compressors

P0117 A02-17836

TUCCHI, T.
Water ingestion into jet engine axial compressors. Part 3: Experimental results and discussion

AD-A1146380 P0537 A02-29326

TUCCHI, T.
Effect of water on axial flow compressors. Part 2: Computational program

AD-A1146311 P0537 A02-29327

TUJ, J.
Tangential sensitivity of EW receivers

P0012 A02-11020

TUJ, S. L.
Numerical stability analysis of a compressor model

P0610 A02-33396

TUJIIWA, K. S.
Closed loop environmental control systems for fighter aircraft

P0079 A02-10890

TUJ, T. C.
The principles and methods for shaping the wing root regions of a wing-body combination at transonic and lower supersonic speeds

P0033 A02-11016

TUJYAKI, N. L.
A method for locating aircraft wing damage by nonlinear vibration analysis

P0109 A02-17116

TUCKER, J. L.
Exhaust emissions reduction for intercooled combustion aircraft engines

P0610 A02-33392

TUCKER, T. E.
Advanced medium scale real-time system

P0290 A02-27107

TUGANAKOVI, G. Iw.
Calculation of the unsteady loads on the surface of a moving wedge with an incident shock wave

P0128 A02-18590

TULAPURKAR, R. C.
Downwash behind a wing with spanwise blowing

P0382 A02-33514

TULLOCH, E. L.
The use of metal finishing in aircraft fuel systems

P0088 A02-12077

TURKOV, L. F.
Requirements on modern mathematical models of gas turbine engines. I

P0282 A02-28486

TUNG, C.
Experimental and analytical studies of a model helicopter rotor in hover

P0085 A02-12042

TUNG, C.
Finite difference modeling of rotor flows including wake effects

P0604 A02-33345

TUGAIG, B. C.

P0505 A02-40888

TUGGLE, B. R.

P0505 A02-40888
Cryogenic wind tunnels: A selected, annotated bibliography

[NASA-TE-84046] p0572 882-31645

Cryogenic wind tunnels: A selected, annotated bibliography

[NASA-TE-04474] p0611 882-33405

TOTEY, R. H.

TIA's Unit Terminal Concept

p0285 882-27099

TIER, J. C.

Development of accelerated fuel-engines qualification procedures methodology, Volume 1

[AD-A135661] p0473 882-27317

Development of accelerated fuel-engines qualification procedures methodology. Volume 1: Appendices

[AD-A13532] p0473 882-27210

TIBBI, C.

Magnetic anomalies as a reference for ground-speed and map-matching navigation

p0341 882-30314

TSENN, L. G.

The FFA wing body 81 computer program. A panel method for determination of aerodynamic characteristics at subsonic and supersonic speeds

[FFA-TH-AD-1601] p0406 882-25230


digarn

U

UDBA, F.

Ferrous metallurgical innovations for improved hot section alloys in aero-engine applications

[FFA-96072] p0357 882-22358

OECHSHAEDER, G.

Application of multivariable model following method to flight controller

[AIAB PAPER 82-1349] p0488 882-39120

UDDE, T.

Flutter analysis using nonlinear aerodynamic forces

[FFA-07-9672] p0340 882-30176

USKOVROV, V. S.

Efficient use of working fluids in aviation hydraulic systems

p0082 882-15724

UKOLOV, L. A.

Problems in the automation of the thermal-stress analysis of flight vehicles

p0293 882-27509

ULEN, T. W.

A theoretical study of the impact of aircraft wake vortices on roofs in the final approach area of Düsseldorf airport

[DFVLR-DFST-82-02] p0371 882-23560

ULBADRA, Z.

RADAR simulator for aircraft instruments

[FFA-C-40136-13] p0356 882-22286

URAB, R. L.

Calculations of lightning return stroke electric and magnetic fields above ground

[AD-A1104015] p0114 882-17714

Atmospheric electricity hazards analytical model development and application. Volume 1: Lightning environment modeling

[AD-A1140615] p0539 882-29000

UNBERGER, H.

Applications of adaptive control systems

p0293 882-27869

UNDERWOOD, R. L.

Aircraft wing trailing-edge noise

[NASA-CE-164952] p0304 882-11039

UGARD, T. G.

Scanner imaging systems, aircraft

p0529 882-28715

UGOTICIAREV, V.

GTD terrain reflection model applied to ILS glide slope

p0218 882-23027

GTD terrain reflection model with application to ILS glide slope

p0303 882-20166

UGOW, C.

An experimental study of rectangular and circular thrust augmenting ejectors

[AD-A111110] p0654 882-26304

UGTOB, R. H.

Micro-heads-up display

p0051 882-60533

UGRAF, L. A.

Gas path analysis - A tool for engine condition monitoring

p0111 882-17286

Gas path analysis of commercial aircraft engines

p0402 882-25184

UGRAF, L. J.

Impact of advanced avionics and munitions technology on ground attack weapons systems in night and adverse weather conditions

p0470 882-27294

UGRAF, S. M.

Accelerated development and flight evaluation of active control concepts for subsonic transport aircraft. Volume 2: AFC C.G. simulation and analysis

[NASA-CS-159908] p0145 882-15077

ULERING, R. J. M.

A planning system for F-16 air-to-surface munitions

p0471 882-27297

UNQHART, H.

Limiting payload deceleration during ground impact

[AIAB PAPER 81-1916] p0006 882-10400

USHER, B. W.

Summary of using interference effects for cone, missile, and aircraft configurations as determined by dynamic and static measurements

[AIAB PAPER 82-1366] p0497 882-60395

USHAHOV, A. V.

Method for the measurement of elastic deformations of aircraft models in a wind tunnel

p0386 882-34162

USHVISHI, L. L.

A study of the effect of the flight vehicle body potential on the characteristics of ion attitude transmitters

p0128 882-18596

USL, E.

An aerodynamic design and the overall stage performance of an air-cooled axial-flow turbine

[HAL-TN-3212] p0057 882-15109

UTEK, E. M.

Airborne lidar measurements of smoke plume distribution, vertical transmission, and particle size

p0181 882-21386

V

VALEN, T. J.

Aeroelastic aspects of a high bypass ratio engine installation on a fuselage afterbody

p0096 882-13093

VALSTER, W.

On the vortex flow over delta and double-delta wings

[AIAB PAPER 82-0949] p0437 882-37466

VADARE, L.

A grid interfacing zonal algorithm for three-dimensional transonic flows about aircraft configurations

[AIAB PAPER 82-1017] p0437 882-37477

VAREL, W.

Experimental determination of flow-interference effects of wing-mounted, two-dimensional, full-capture propulsion nacelles in close proximity to a vehicle body at a Mach number of 6

[HAL-TN-83287] p0405 882-25217

VALDEMAR, W.

New concepts in multifunctional corrosion for aircraft and other systems

p0212 882-17362

VALAIZ, H.

Study of cabin noise control for twin engine general aviation aircraft

[NASA-CS-165033] p0260 882-18995

VALMYTHANATH, A. N.

Evaluation of an asymptotic method for helicopter rotor airloads

p0498 882-60599

Helicopter rotor loads using a matched asymptotic expansion technique

[NASA-CS-165764] p0312 882-21156

VALLI, L.

Wing-tip jets aerodynamic performance

p0514 882-60987

VARDY, P.

Round table discussion on the transfer of results from the project "Aids to navigation and control
<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VALLEIK, E.</td>
<td>The investigation of aircraft accidents and flight test concept evolution</td>
</tr>
<tr>
<td>VAN DER HOLE, J. T.</td>
<td>Development of the automated AFAPL engine simulator test for lubricant evaluation</td>
</tr>
<tr>
<td>VAN DER WOOGDEN, D. A.</td>
<td>A finite difference method for the calculation of transonic flow about a wing, based on small perturbation theory</td>
</tr>
<tr>
<td>VAN DIJK, B. C.</td>
<td>Roll response criteria for transport aircraft with advanced flight control systems in the landing approach and touchdown</td>
</tr>
<tr>
<td>VAN DIJK, G. C.</td>
<td>Aerodynamic aspects of a high bypass ratio engine installation on a fuselage afterbody</td>
</tr>
<tr>
<td>VAN DIJK, H. L.</td>
<td>Optical properties of airfield lighting fixtures of the Royal Netherlands Airforce. Part 1: Color measurements</td>
</tr>
<tr>
<td>VAN DIJK, E. M.</td>
<td>State of the art and recent perspectives on the study of the loss of control and spin</td>
</tr>
<tr>
<td>VAN DIJK, G. C.</td>
<td>Variable speed constant frequency /VSCP/ electrical system cuts cost of ownership</td>
</tr>
<tr>
<td>VAN DIJK, H. M.</td>
<td>Cost of ownership advantages with a shared oil system</td>
</tr>
<tr>
<td>VAN DIJK, J. H.</td>
<td>Orienting description of air traffic control in the Netherlands</td>
</tr>
<tr>
<td>VAN DIJK, J. G.</td>
<td>Engine component retirement for cause</td>
</tr>
</tbody>
</table>

**Personal Author Index**

<table>
<thead>
<tr>
<th>Model</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>[NLAP-FP-81023-0]</td>
<td>p0529 H82-28685</td>
</tr>
<tr>
<td>[NLAP-TR-80059-0]</td>
<td>p0406 H82-25231</td>
</tr>
<tr>
<td>[NLAP-TR-81031-0]</td>
<td>p0522 H82-28263</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0521 H82-28262</td>
</tr>
<tr>
<td>[NLAP-TR-82012-0]</td>
<td>p0522 H82-28263</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0410 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0526 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0525 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0410 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0526 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0410 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0526 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0410 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0526 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0410 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0526 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0410 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0526 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0410 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0526 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0410 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0526 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0410 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0526 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0410 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0526 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0410 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0526 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0410 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0526 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0410 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0526 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0410 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0526 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0410 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0526 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0410 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0526 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0410 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0526 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0410 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0526 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0410 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0526 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0410 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0526 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0410 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0526 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0410 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0526 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0410 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0526 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0410 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0526 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0410 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0526 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0410 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0526 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0410 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0526 H82-25265</td>
</tr>
<tr>
<td>[NLAP-TR-82010-0]</td>
<td>p0410 H82-25265</td>
</tr>
</tbody>
</table>
Vilhelm, L. B.

Radiating elements for hemispherically scanned arrays

Vialli, P. D.

Airworthiness of helicopter transmissions

Vincen, J. H.

Integrated flight testing based on nonlinear system identification data processing techniques (AIAA Paper 81-2449)

Development of low-order model of an X-wing aircraft by system identification (AD-A113760)

System identification of nonlinear aerodynamic models

Vince, L. R.

Preliminary airworthiness evaluation of the UH-18 with hot metal plus plane infrared suppressor and infrared jammer (AD-A110213)

Vinson, R. E.


On the state of technology and trends in composite materials in the United States

Vira, L. E.

Closed-form solutions of supersonic wing-body interference

Visheva, E. P.

Antimicrobial properties of additives based on higher fatty acids

Vishwath, C. B.

Primary sewage treatment plant as a source of bird hazards at airport

Primary sewage treatment plant as a source of bird hazards at airport

Vishwath, C.

Finite element analysis of some aerospace shell structures

Vitiard, H.

A new method for constructing two-dimensional orthogonal and non-orthogonal meshes

Vlasov, E. V.

Suppression of self-oscillations in open wind tunnels

Vlcek, C.

Bridge the gap from aircraft to space computers (AIAA 81-2142)

Vogelles, O.

Analysis of two air traffic samples in the terminal area of Frankfurt/Main, August 4th 1978 (DFVLR-BITE-81-12)

Analysis of two air traffic samples in the terminal area of Frankfurt am Main, August 3, 1979 (DFVLR-BITE-81-17)

Analysis of two air traffic samples in the terminal area of Frankfurt am Main, 4 August 1978 (DFVLR-BITE-81-12)

Analysis of two air traffic samples in the Frankfurt/Main airport terminal area, August 4, 1978 (ESA-XT-739)

Analysis of two air traffic samples in the Frankfurt/Main airport terminal area, August 3, 1979 (ESA-XT-740)

Vogele, H.

Wind determination and wind shear detection from flight test and airline flight data

Ground speed measurements from DME/VHF omni-range navigation (VOR) data

Vogel, H. S.

A method of characteristics solution for a finite oscillating supersonic cascade with thickness effects

Vogele, H. B.

Application of a new hybrid material /ABAIL/ in aircraft structures

Voisit, B. L.

The low temperature properties of aviation fuels (AIAA Paper 82-07-48)

Voiit, B. L.

Improvement of the first-ply-failure strength in laminates by using softening strips

Volpert, L. L.

Control of the operations of a 'flight complex'

Volpin, D. R.

Computer aided investigation of turbomachine aerodynamics and aerelasticity

Volkov, H. L.

Safety of helicopters in flight

The operation of aircraft and helicopters in difficult meteorological and environmental conditions

Volkov, B. L.

Assembly of aircraft instruments

Volpes, V.

Effects of lightning and nuclear electromagnetic pulse on an advanced composites aircraft

For Allere, B. G.

Numerical calculation of the flow in compressor and turbine cascades

For Heier, B.

Methodology in flight tests

For Schlichtegroll, B. W.

Operational air traffic in the Federal Republic of Germany

Forke, H. J. L.

Data communications within the Aire Navigation Services system

Forsteb, D. H.

Most mounted visual aids

Controls and displays for all-weather operation of helicopters

Forsteb, D. H.

Advanced aerodynamic wing design for commercial transports - Review of a technology program in the Netherlands

Aerodynamic aspects of a high bypass ratio engine installation on a fuselage afterbody

Vorhees, J. W.

Speech Command Auditory Display System (SCADS)

Vorhees, J. W.

Evaluation of methods for characterizing surface topography of models for high Reynolds number wind-tunnels

Aerodynamic characteristics of wavers at subsonic flight speeds
PERSONAL AUTHOR INDEX

VOSS, C.
Official recognition and the significance of simulators for safe flight operations
[DGCR PAPER 81-094] p0159 A82-19271

VOSBERG, L. F.
Composite aircraft structures
p0287 A82-27127

VOORHAY, V. S.
Periodic boundary value problem for the equations about the axis of a flapping hinge
p0387 A82-34127

VUILETT, L.
Helicopter air intakes
[SWIS-82-210-107] p0208 A82-17217

VUKOVIC, D.
Design of a catadioptric VASS helmet-mounted display
[AD-A190931] p0305 A82-20181

VALEKD, R. E.
Aviation gear drives and reducers: Handbook
p0341 A82-30675

VYSTAVKIN, L. L.
Proposed multipurpose flying radio-physical laboratory using an IL-10 aircraft
p0550 A82-43278

W

TAYLOR, L. J.
Applications of parameter estimation in the study of spinning airplanes
[AILIA PAPER 82-1309] p0487 A82-39090

WACHEN, J.
Investigation of vibration of segmented turbine blades
[AILIA PAPER 81-084-129] p0162 A82-19343

Measurement of the influence of flow distortions on the blade vibration amplitude in an air turbine
[AILIA PAPER 81-084-135] p0162 A82-19348

WADDOUS, R. B.
Statistical analysis methods for characterizing composite materials
p0290 A82-27162

Integration of avionics and advanced control technology
p0347 A82-22194

WADGE, R. M.
A binary matrix technique for aircraft collision threat recognition and avoidance
[AILIA PAPER 82-1094] p0116 A82-17828

An MLS with computer aided landing approach
[AILIA PAPER 82-1135] p0489 A82-39122

WAGNER, E. M.
Performance calibration results for a Compact Multimission Aircraft Propulsion Simulator
p0119 A82-17866

An improved propulsion system simulation technique for scaled wind tunnel model testing of advanced fighters
p0517 A82-61019

WAGGE, R. C.
Transonic threedimensional viscous-inviscid interaction for wing-body configuration analysis
[AILIA PAPER 82-0163] p0116 A82-17816

Estimation of simulation errors in the European Transonic Wind Tunnel SSTW
p0510 A82-60950

WAGGER, D. A.
Next generation turboprop gearboxes
[AILIA PAPER 82-027-236] p0428 A82-35418

WAGGER, E. C.
Low maintenance hydraulic accumulator
[AD-A103947] p0227 A82-10034

WAGNER, J. B.
Research on turbine rotor-stator aerodynamic interaction and rotor negative incidence stall
[AD-A110341] p0318 A82-21203

WAGNER, R. A.
A propulsion view of the all-electric airplane
p0261 A82-19136

WAGNER, R. M.
Spanwise distribution of vortex drag and leading-edge suction in subsonic flow
p0516 A82-61085

WAGNER, W. J.
Ultrasonic method for flow field measurement in wind tunnel tests
p0166 A82-20050

WAL, J. C.
Transonic perturbation analysis of wing-fuselage-nacelle-pylon configurations with powered jet exhausts
[AILIA PAPER 82-0255] p0104 A82-22077

Transonic perturbation analysis of wing-fuselage-nacelle-pylon configurations with powered jet exhausts
[AILIA-CR-15855] p0262 A82-19167

WALDECK, R. M. J.
Aircraft for secondary long range emergency ambulance flight
p0154 A82-19021

WALLER, J.
SPF of high strength aluminum structures
p0328 A82-20997

WALLER, R.
A generalized escape system simulation computer program: A user's manual
[AD-A106152] p0187 A82-16055

WALSH, C. J.
A concept for a fuel efficient flight planning aid for general aviation
[AILIA-CR-3533] p0266 A82-19217

WALSH, R. S.
The pressure signature method for blockage corrections, and its applications to the industrial wind tunnel
[BD-263] p0267 A82-19221

WALSH, C. L.
Component research for future propulsion systems
p0209 A82-17224

WALSH, B. J.
Enhanced piloting control through cockpit facilities and I.G.T.
p0347 A82-22195

WALKER, R. M.
Propeller flow visualization techniques
p0597 A82-32672

WALSH, G. F.
An automatic map reader suitable for use in helicopters
p0441 A82-37775

WALSH, R. J.
Annular wing
[AILIA-CASE-FRC-11007-2] p0051 A82-26277

WALSH, R. L.
Design study report for General Aviation Learjet-A72 receiver
[AD-A104921] p0087 A82-12062

WALLIS, J. G.
Comparing the relationships between noise level and annoyance in different surveys - A railway noise vs. aircraft and road traffic comparison
p0329 A82-29165

WALLIS, R. M.
Research and development program for non-linear structural modeling with advanced time-temperature dependent constitutive relationships
[AILIA-CR-165533] p0190 A82-16080

WALLIS, R. H.
Windshield system structural enhancement
p0227 A82-28312

WALLIS, R. L.
A study of flight control requirements for advanced, winged, earth-to-orbit vehicles with far-aft center-of-gravity locations
[AILIA-CR-3391] p0267 A82-19226

WALLIS, R. H.
Support of the RH-65A - The impact of advanced technology of VTOL systems upon existing product support
p0501 A82-40541

WALLIS, R. M.
Advanced postal integration for air combat fighter application
[AILIA PAPER 82-1135] p0439 A82-37694

WALLIS, R. M.
A new approach to the problem of steam corrosion cracking in 7075-T6 aluminum
p0222 A82-23772

WALLENBERG, R.
Inverse SAB and its application to aircraft classification
B-161
implementation of a VTOL control system during hover [AIAA 82-1611] p0485 A82-38890
An analysis of a nonlinear instability in the implementation of a VTOL control system [NASA-TR-84220] p0356 N82-22281
Results of NASA/FAA ground and flight simulation experiments concerning helicopter IF5 airworthiness criteria p0366 N82-23219

WEBER, J. W.
Airborne Electronic Terrain Map System [AIAA 82-14771 p0295 A82-27946
Corona and antenna effects on the HS-130 minisweeping helicopter and Baydall navigation set

WEBER, G.
Midair and near midair collisions on two- and three-dimensional curvilinear flight paths [NASA-TP-685] p0253 N82-16200
A theoretical study of the impact of aircraft wake vortices on roofs in the final approach area of Düsseldorfer airport [DPFLR-BIST-82-01] p0371 N82-23560

WEBER, R. M.
Consequences of american airline deregulation - Legislative theory in a concrete example p0165 A82-19987
WEBER, R. J.
NASA research activities in aeropropulsion [NASA-TP-82788] p0190 N82-16084
WEBER, T.
The effects of flexibility on the steady-state performance of small ribben parachute models [AIAA PAPER 81-1923] p0006 A82-10408
WECKERLING, L. H.
Radome aerodynamic heating effects on boresight error p0261 A82-26465

WEDKIND, G.
Tail versus canard configuration - An aerodynamic comparison with regard to the suitability for future tactical combat aircraft p0506 A82-60901
WEDDEKIND, R.
Measurements of velocity distributions in the leading edge vortex of a delta wing by the laser-Doppler procedure p0483 A82-38786
WEDDEKIND, R. M.
Component research for future propulsion systems p0209 N82-17224

WEDDEKIND, R. E.
Coatings in the aero gas turbine [FSR-90049] p0318 N82-21204

WEDDEKIND, R. E.

WEBER, J. E.
Fracture mechanics based modelling of the corrosion fatigue process p0210 N82-17384

WEBER, C.
Avionics systems simulation for the Northrop P-18L aircraft [AIAA 81-2276] p0069 A82-13468

WEGHUIS, J. E.
A current review of fluid mechanics. Volume 10 p0234 A82-24416

WENNER, G.
Skorosky tail rotor - 1980: Advanced manufacturing and quality control techniques p0279 A82-26390

WEI, G.
A new method of cooling turbine vanes p0034 N82-11027

WEIDL, L.
An experimental investigation of the rotating stall, surge and wake behind the rotor for a single stage axial compressor p0034 N82-11008

WEINE, V. L.
Beyond the horizon coverage for air navigation/traffic control p0235 A82-24647

WELLMAN, L.
Design requirements for modern rescue helicopters p0053 A82-19920
The armed helicopter in air to air missions [N88-D-03-J17-81-0] p0201 N82-17158

WEINLEI, L.

WEINMANN, L.
Functional versus communication structures in modern aironic systems p0196 N82-17092

WEINRABER, R. G.
Comparison of low-speed handling qualities in ground-based and in-flight simulator tests [AIAA PAPER 81-2878] p0059 N82-13936
In-Flight investigation of large airplane flying qualities for approach and landing [AIAA PAPER 82-1296] p0046 N82-39083
In-flight investigation of the effects of pilot location and control system design on airplane flying qualities for approach and landing [NASA-CR-163115] p0145 N82-15074

WENNER, H.
New developments in the field of ramjet missile propulsion [HBB-156-81-0] p0409 A82-25260

WEB, D.
Perspectives for Controlled Weapons Technology: Report of the 9th Helicopter Forum [AAB-0A-532-80-0] p0265 N82-19211

WEINEL, D. W.
Airline fuel saving through JT9D engine refurbishment [SAE PAPER 811051] p0232 A82-24395

WEBB, F.
Gust load alleviation on Airbus A 300 p0054 A82-40881
Active gust and maneuver load control concepts with the example of the Airbus A 300. Part 1: Explanation of a regular in the time zone of wind gust load decrease and examination of its effectiveness in stochastic gusts [RR-PR-172/F/35-PF-1] p0267 A82-19228

WEBB, J.
Composite repair system with long term latency [AD-A116472] p0058 N82-32424

WEBB, D.
A solution to the static geometry problem for JT10D relative navigation [AD-A116472] p0022 A82-12634

WEISSMANN, R.
Airpool related residential acoctualiumaulation demonstration project: Report 1720 [FRR-10078] p0268 A82-19399

WEISS, D.
On the track of practical forward-swept wings p0058 A82-19071
Flutter of forward swept wings, analyses and tests [AIAA 82-0646] p0037 A82-30414
Dynamic stability of flexible forward swept wing aircraft [AIAA PAPER 82-1325] p0408 A82-3940
Interactive aircraft flight control and aeroelastic stabilization [NASA-CR-165036] p0100 N82-13154

WEISS, D. M.
Two-frequency /Delta k/ microwave scatterometer measurements of ocean wave spectra from a aircraft p0504 A82-4749

WEISSER, H.
Ultrasonic method for flow field measurement in wind tunnel tests p0166 A82-2005

WEISS, P. G.
Commercial aircraft airframe fuel systems surveys [AD-A112241] p0076 B82-2732
Commercial aircraft airframe fuel systems survey and analysis [DO/D/FAA/CT-82/00] p0589 N82-3235
Initial experimental research into the response of a turbojet engine to inlet pressure distortion

A preliminary experimental investigation of the response of a turbojet engine to inlet pressure distortion

Numerical computation of unsteady subsonic aerodynamic forces on wing-body-wall exposed to travelling gust

Report covering experience obtained at the German Luftwaffe with respect to training involving the use of flight simulators

FOX formation in flat, laminar, opposed jet methane diffusion flames

Carbon fiber reinforced composite structures protected with metal surfaces against lightning strike damage

Simulation of modern radar installations in full-mission flight and tactics simulators

Scenarios for evolution of air traffic control

Meteorological impact on aviation fuel efficiency

Sensor footprints and homing range of terminal guidance munitions

The role of finite element analysis in the design of birdstrike resistant transparencies

The effects of bird orientation on load profile and damage level

Parallel processing applied to digital flight control systems - Some perspectives

Effect on surface pressures of trapezoidal holes in a T-38 stabilator

Thrust management - Current achievements and future developments
WESTPHAL, G.
Flight simulators  p034 A82-29924

WESTER, D. A.
Combustion behavior of solid fuel rockets. Volume 1: Correlation of reacting and non-reacting flow characteristics  [AD-A106061]  p0136 A82-14316

WHENEMAN, F. L.
The effect of visual information on manual approach and landing  [NL-P-80019-0]  p0087 A82-12064

WHITFLY, L. C.
A modular automated approach to airfield weather systems  p0579 A82-65813
The Modular Automated Weather System (MAWS) concept  p0137 A82-14763

WHITRAY, L. Z.
Fixed pattern noise correction for staring arrays in guidance systems  p0490 A82-39190

WHITPLE, D. L.
Development of a laser velocimeter for a large transonic wind tunnel  p0598 A82-32688

WHITFIELD, R. G.
Current perspectives on emergency spin-recovery systems  p0549 A82-43264

WHITKERN, L. J.
The marketing, organisation and financing of aeromedical evacuation by a nursing organisation  p0151 A82-19002

WHITTAKER, R.
The Lear Fan - The plastic aeroplane arrives  p0126 A82-18348
ALF502 - Plugging the turbofan gap  p0180 A82-21243

WHITNECK, R. F.
Optimal terrain-following feedback control for advanced cruise missiles  [AD-A10286]  p0314 A82-21179

WHITE, A. J.
Measurements of heat transfer coefficients on gas turbine components. I - Description, analysis and experimental verification of a technique for use in hostile environments  [ASME PAPER 82-CF-174]  p0426 A82-35387
Measurements of heat transfer coefficients on gas turbine components. II - Applications of the technique described in part 1 and comparisons with results from a conventional measuring technique and predictions  [ASME PAPER 82-CF-175]  p0426 A82-35388

WHITE, C. L.
Navy spin evaluation of the A-7 airplane configured with automatic maneuvering flaps  p0076 A82-14933

WHITE, D. L.
Advanced crash survivable flight data recorder and Accident Information Retrieval System (AIRS)  [AD-A105S10]  p0132 A82-14072

WHITE, E. A.
Analysis of transient data from aircraft gas turbine engines using AIDS  p0403 A82-25189

WHITE, F.
Math modeling for helicopter simulation of low speed, low altitude and steeply descending flight  [NASA-CR-16685]  p0592 A82-32374

WHITE, G. T.
An evaluation of helicopter autorotation assist concepts  p0500 A82-40528

WHITE, R. V.
Software features applicable to inertial measurement unit self alignment  [AD-A108511]  p0253 A82-18196

WHITE, J. L.
The Shiryaev sequential probability ratio test for redundancy management  [AIAA 82-1623]  p0486 A82-38998

WHITE, M.
Composite main rotor tubular braided  p0009 A82-10547

WHITE, M. A.
Design of a composite main rotor blade spar for fabrication by tubular braiding  p0279 A82-26389
Development of manufacturing technology for fabrication of a composite helicopter main rotor spar by tubular braiding  [AD-A109377]  p0265 A82-19209

WHITE, R. A., Jr.
Wind-tunnel evaluation of an aerodynamically conformable rotor  [AD-A14304]  p0521 A82-28260

WHITE, R. M.
VOR waveforms synthesis and calibration  p0106 A82-16563
Aircraft alerting systems standardization study. Volume 1: Candidate system validation and time-critical display evaluation  [GA-19722]  p0463 A82-27236

WHITING, D. A.
Measured pavement response to transient aircraft loadings  p0101 A82-13442

WHITING, L.
Spin-tunnel investigation of a 1/13-scale model of the NASA AD-1 oblique-wing research aircraft  [NASA-TN-03266]  p0252 A82-18183

WHITMYER, J. D.
Overview of flight and ground testing with emphasis on the wind tunnel  [AIAA PAPER 81-2074]  p050 A82-13250

WHITHEED, C. R., Jr.
Maximizing South Carolina's aviation resources: Identifying potentially profitable commercial airline routes, volume 2  p0532 A82-29277

WHITEHEAD, V.
V/STOL tilt rotor research aircraft. Volume 1: General information, revision C  [NASA-CC-166347]  p0395 A82-24194

WHITLOCK, R. S.
Air traffic, airport access and future technology  [PB82-105958]  p0192 A82-16100

WHITNEY, J. E., Jr.
NASA research in supersonic propulsion - A decade of progress  [AIAA PAPER 82-1048]  p0497 A82-44017

WHITLOW, R. A.
Application of a transonic potential flow code to the static aeroelastic analysis of three-dimensional wings  [AIAA 82-0609]  p0339 A82-30156
Application of a transonic potential flow code to the static aeroelastic analysis of three-dimensional wings  [NASA-TN-03269]  p0363 A82-23193
Time-marching transonic flutter solutions including angle-of-attack effects  p0363 A82-23196

WHITRAN, G. F.
Development of a backpack survival kit for ejection seats  [AD-A136534]  p0464 A82-27242

WHITMAN, F. A.
Application of thrust vectoring for STOL  [AIAA PAPER 81-2616]  p0155 A82-19205
Wind-tunnel investigation of the powered low-speed longitudinal aerodynamics of the Vortex-Engine-Over (VEO) wing fighter configuration  [NASA-TH-03633]  p0349 A82-22207

WHITLEY, F.
Gas turbine heat transfer characteristics with special reference to aircraft propulsion  p0363 A82-33650

WHITEN, C.
Numerical applications of the physical optics approach for the calculation of radar cross sections of convex perfect scatterers  [JPL-MS-261]  p0596 A82-32600

WHITTON, L. L.
An integrated control panel utilizing a programmable variactor-multiplexed digital
WILLIAMS, R. L.

Patrol applications

WILLIAMS, R. L.

Diffusion by a finite strip

WILLIAMS, R. A.

Sea King flight tests pitot-static probe and directional vane instrumentation

[AD-109427]

Boeing probe position error corrections for Sea King Mk 50 flight tests

[AD-109428]

WILLIAMS, R. S.

Results from tests of three prototype general aviation seats

[NASA-TP-84533]

WILLIAMS, R. A.

SPP/DB titanium LFC porous panel concept

[p0302 A82-20155]

Laminar flow control SPP/DB feasibility demonstration

[NASA-CR-165018]

WILLIAMS, R. C.

Low speed testing of the inlets designed for a tandem-fan Y/STOL nozzle

[AILIA PAPER 81-2627]

WILLIAMS, R. E.

Low speed testing of the inlets designed for a tandem-fan Y/STOL nozzle

[NASA-TH-02728]

WILLIAMS, R. L.

X-wing and the Navy Y/STOL initiative

[p0395 A82-33915]

WILLIAMS, R. L.

Airframe effects on top-mounted inlet systems for YSTOL fighter aircraft

[p0156 A82-19212]

WILLIAMS, R. J.

Statistical review of counting accelerometer data for Navy and Marine fleet aircraft from January 1962 to 30 June 1981

[AD-1110660]

WILLIAMS, R. M.

Diffusion bonding in superplastic forming/diffusion bonding

[p0222 A82-23754]

WILLIS, C. M.

Development and validation of preliminary analytical models for aircraft interior noise prediction

[p0048 A82-38077]

WILLIS, R. A.

Development potential of Intermitten Combustion (I.C.) aircraft engines for coasster transport applications

[NASA-TM-82860]

WILLIS, R. K.

Programs for the transonic wind tunnel data processing installation. Part 9: Pressure measurement. Updated

[AD-106271]

WILLIS, R. W.

Current pressure measuring system in the transonic wind tunnel

[AD-106272]

WILLIS, R. R.

Design basis for a new transonic wind tunnel

[AD-A112899]

WILLIS, R. F.

Development of a preloaded hybrid advanced composite wing pivot fairing

[p0287 A82-27131]

WILLIS, R. J.

Sanctuary radar

[p0150 A82-18096]

WILLIE, R. S.

A methodology for planning a cost effective engine development

[AILIA PAPER 82-1140]

WILSON, R. C.

Effects of intake geometry on circular pitot intake performance at zero and low forward speeds

[p0093 A82-13070]

WILKIN, R. R.

The low temperature properties of aviation fuels

[ASRE PAPER 82-0788]

WILKINS, R. L., Jr.

SPL and EPNL noise duration coefficients for the 747 and T-38 aircraft

[NASA-TH-03214]

WILKINS, R. S.

Control optimization, stabilization and computer algorithms for aircraft applications

[NASA-CR-169015]

WILKINSON, R. C.

Aerodynamic interactions with turbulent jet exhaust plumes

[p0361 A82-21090]

WILKINSON, R. F.

Computations of high Reynolds number internal/external flows

[p0353 A82-11046]

WILSON, A. V.

Novel metal-ceramic-composite sealing coatings in aircraft engines

[p0240 A82-24003]

WILSON, A. F.

Automated radar performance evaluation in the Radio Frequency Simulation System /HFS/ facility at AFCON

[p0281 A82-26471]

WILSON, A. L.

TF 102 in-duct combustor noise measurements with a turbine nozzle, volume 1

[NASA-CR-165562-VOL-1]

TF 102 in-duct combustor noise measurements with a turbine nozzle, volume 2

[NASA-CR-165562-VOL-2]

TF 102 in-duct combustor noise measurements with a turbine nozzle, volume 3

[NASA-CR-165562-VOL-3]

WILSON, A. E.

A polled contention multiplex system using MIL-STD-1553 protocol

[AILIA 81-2271]

WILSON, J. M.

373 graphite-epoxy horizontal stabilizer certification

[p0336 A82-30109]

WILSON, J.

Detection and display of wind shear and turbulence directional vane instrumentation algorithms for aircraft applications

[p0049 A82-13407]

WILSON, J. E.

Advanced turboprop tested systems study. Volume 1: Testbed program objectives and priorities, drive system and aircraft design studies, evaluation and recommendations and wind tunnel test plans

[NASA-CR-167928-VOL-1]

WILSON, J. S.

A computerized system for the application of fracture tracking data to aircraft management for the C-5A military aircraft transport

[p0336 A82-30119]

WILSON, J. M.

The Joint Airport Weather Studies project

[AILIA PAPER 89-0017]

WILSON, J. C.

Fuel-rich plume combustion

[p0258 A82-18349]

WILSON, J. J.

Development to improve the noise and combustion emissions on the Fokker F28 aircraft and its Rolls-Royce RB185-555 engines. Section 1: Development of the new internal 10-lobe mixer

[PHR-90061]

WILSON, R.

The ultrasonic inspection of C.C.C.

[NDR-0465]

WILSON, R. J.

Terrain model animation

[AD-A107911]

WILSON, R. M.

Flight test experience with high-alpha control system techniques on the F-14 airplane

[AILIA PAPER 81-2505]

WILSON, R. D.

Analysis of selected VTOL concepts for a civil transportation mission

[AILIA PAPER 81-2665]

WILSON, R. L.

Design analysis of high temperature transparent windshields for high performance aircraft

[p0177 A82-10993]

SPP/DB titanium concepts for structural efficiency foil BC

[p0302 A82-20154]

WEBER, R. H.

Development of Army high-energy fuel diesel/turbine-powered surface equipment, phase 2
Cold-air performance of a 15.41-cm-tip-diameter three-dimensional aircraft position measurement [ASME PAPER 81-RA/DSC-9] p0236 A82-24563

Wide field of view laser beacon system for three-dimensional aircraft position measurements [ASME PAPER 81-RA/DSC-9] p0236 A82-24563

Wide field of view laser beacon system for three-dimensional aircraft range measurements p0466 B82-26216

Analysis of loran-C system reliability for civil aviation p0236 A82-24650

Cold-air performance of a 15.41-cm-tip-diameter axial-flow power turbine with variable-area stator designed for a 75-kW automotive gas turbine engine [NASA-TM-82644] p0316 B82-21193

A comparison of properties of single overlap tension joints prepared by ultrasonic welding and other means [AIAA 82-0661] p0335 B82-30091

A geometric approach to multivariable control system synthesis p0300 B82-10056

Experimental flight test programs for improving combat aircraft maneuverability by maneuver flaps and pylon split flaps p0347 B82-22192

Flying doctor service in East Africa p0152 A82-19008

Low vibration design of AAI for mission proficiency requirements [AIS Preprint 81-2] p0841 A82-37778

An alternate method of specifying bandwidth for flying qualities [AIAA 82-1609] p0865 B82-38988

Comment on 'Optimal control via mathematical programming' p0342 B82-31125

Investigation of the transonic calibration characteristics of turbine static pressure probes [ASMR Paper 82-GT-280] p0830 A82-35854

An initial look at the supersonic aerodynamics of twin-fuselage aircraft concepts p0516 B82-81008

The determination of critical flutter conditions of nonlinear systems [DAR-TR-572807-906] p0397 B82-24210

The military flying qualities specification, a help or a hindrance to good fighter design p0346 B82-22190

An investigation of pole positions derived from GPS satellite and Inertial Navigation System observations [AD-A110765] p0493 B82-26268

Operability of military aircraft - Some design and cost trends p0174 A82-20565

Light aircraft structural design in non-metallics - Use of composite homebuilt light aircraft p0205 B82-10308

Application of thrust vectoring for STOL [AIAA Paper 81-2616] p0155 B82-19205

The analysis of a technology test bed - Integrated Flight/Fire Control I /IFPC I [AIAA Paper 811036] p0232 B82-24398

Passive terrain following using stored map and global positioning system p0711 B82-14772

Modelling of target radar scattering with application to guidance simulation p0175 A82-20570

Tail configurations for highly maneuverable combat aircraft p0348 B82-22201


Thrust modulation methods for a subsonic V/STOL aircraft [NASA-TR-82747] p0098 B82-13112

Airworthiness and flight characteristics test of an OH-58C configured to a Light Combat Helicopter (LCH) [AD-A112501] p0452 B82-26286

HIEE calibration, ice probes and FAA R/O evaluations [AD-A114435] p0524 B82-2829

EMC clearance of modern military aircraft p0229 A82-24359

Deposit formation in liquid fuels. II - The effect of selected compounds on the storage stability of Jet A turbine fuel p0166 A82-22240

Deposit formation in liquid fuels. I - Effect of coal-derived Lewis bases on storage stability of Jet A turbine fuel p0186 A82-22241

Aeromedical evacuation in New Zealand p0153 A82-19011

Repair and regeneration of turbine blades, vanes and discs p0346 B82-22185

An investigation of ring laser gyroscope random walk experiments p0584 A82-47157

Bonding procedure for Teflon seals p0547 A82-42792

Replacement of aboard naval aircraft [AD-A115762] p0590 B82-32356

Technology overview for advanced aircraft armament system program [AD-A107680] p0201 B82-17155

The multi mode matrix flat panel display: Technology and applications p0251 B82-18169

The development of high strength light-weight windshields for the new generation of Boeing 757 and 767 airliners p0228 A82-24323

The lateral response of an airship to turbulence [AD-A115197] p0559 B82-30312

Calculation of the lift distribution and aerodynamic derivatives of quasi-static elastic aircraft p0390 A82-34639

Unconventional internal cracks. II - Method of generating simple cracks p0391 A82-34681


Three-dimensional flow studies on a slotted transonic wind tunnel wall [AIAA Paper 82-0230] p0117 B82-17655

Ring-tip jets aerodynamic performance p0514 A82-40507
YATES, R. C., JR.

[IAA1 PAPER 82-0959] p0374 882-31935

YATES, R. C., JR.

Measured and calculated effects of angle of attack on the transonic flutter of a supercritical wing [IAA1 PAPER 82-0047] p0336 882-39193

Subsonic aerodynamic and flutter characteristics of several wings calculated by the SODSSA P1.1 panel method [IAA1 PAPER 82-0727] p0341 882-30193

Subsonic aerodynamic and flutter characteristics of several wings calculated by the SODSSA P1.1 panel method [NASA-TR-84805] p0405 882-25216


Measured and calculated effects of angle of attack on the transonic flutter of a supercritical wing [NASA-TR-83276] p0613 882-37376

YATES, T.

Experimental determination of parasite apparent mass and its significance in predicting dynamic stability [IAA1 PAPER 81-1920] p0006 882-14096

YBARRA, L. E.

Low speed testing of the inlets designed for a tandem-fan VTOL nacelle [IAA1 PAPER 81-2627] p0156 882-19210

Low speed testing of the inlets designed for a tandem-fan VTOL nacelle [NASA-TR-82728] p0036 882-11042

YCHE, L. E.

Wind-tunnel investigation of the effects of blade tip geometry on the interaction of torsional loads and performance for an articulated helicopter rotor blade [NASA-TP-1926] p0097 882-13107

YEE, D.


YEBB, R. E.

Operational experience with the fiberglass rotor blade [NASA-TM-1926] p0097 882-13107

YELL, E. W.

For waveform synthesis and calibration [NASA-TM-1926] p0097 882-13107

YEBB, R. E.


Component coupling with time-invariant mass matrix for nonsizing, rotating and nonlinear systems [IAA1 PAPER 82-0731] p0340 882-26388

A new transonic airfoil design method and its application to helicopter rotor airfoil design [IAA1 PAPER 82-0731] p0340 882-26388

YEBB, R. E.


YETTER, L. E.

Transonic wind tunnel test of a supersonic nozzle [NASA-TR-82-1045] p0037 882-37677

YING, C.

A theoretical analysis of the stream surface of revolution with supersonic inlet flow in a transonic axial compressor [NASA-TR-82-11025] p0033 882-11025

YIP, L. F.

Wind-tunnel investigation of a full-scale canard-configured general aviation aircraft [NASA-TR-82-1045] p0033 882-11025

Effects of vortex flaps on the low-speed drag, aerodynamic characteristics of an arrow wing [NASA-TP-19194] p0033 882-11025

YIJ, L. F.

Land navigation with a low cost GPS receiver [NASA-TR-82-1045] p0033 882-11025

YINH, C.


YON, J.


YORK, R. E.

Experimental investigation of turbine endwall heat transfer. Volume 1: Description of experimental hardware and test conditions [AD-A110332] p0317 882-21199

Experimental investigation of turbine endwall heat transfer. Volume 2: Linear and annular cascade summary data sets [AD-A110332] p0317 882-21200


YORKIN, R. S.

The effect of critical design parameters on the selection of a VSF system [NASA-TR-82-24381] p0303 882-24381

YOSHIDA, M.


YOSUDA, M.


YOSHIBABA, J.


YOST, R. M.

Development of Army high-energy fuel diesel/turbine-powered surface equipment, phase 2 [AD-A119942] p0549 882-26487

YOST, R. M.

Coasted automatic gain control system [AD-A119942] p0549 882-26487

YOST, R. M.

High speed FSG containment study for VSF system [AD-A119942] p0549 882-26487

YOUT, R. D.

Aircraft exhaust gas drag [NASA-TR-82-264] p0025 882-10020

YOUT, R. D.


YOUT, R. D.

Development of armament avionics system concept [NASA-TR-82-264] p0025 882-10020

YOUT, R. D.

Terrain following/terrain avoidance system concept development [NASA-TR-82-264] p0025 882-10020

YOUT, R. D.

Redundancy management of skewed and dispersed inertial sensors [NASA-TR-82-264] p0025 882-10020

YOUT, R. D.

Study and design of high G augmentation devices for flight simulators [NASA-TR-82-264] p0025 882-10020

YOUT, R. D.

Life-cycle-cost analysis of the microwave landing system ground and airborne systems [NASA-TR-82-264] p0025 882-10020

YOUT, R. D.


YOUT, R. L.

Z

ZACHARIAS, L.  
An experimental and theoretical investigation of the interaction between the engine jet and the surrounding flow field with regard to the pressure drag on afterbodies  p0360 882-23158

ZACHARIAS, G. L.  
Pilot/vehicle model analysis of visual and motion cue requirements in flight simulation  p0562 882-30838

ZADZIK, M.  
Angle of downwash behind a wing in unsteady flow  p0241 882-29970

ZAGAICZUK, V. L.  
Automation of the synthesis of control in a stationary linear system  p0389 882-30468

ZAGARESCO, F.  
Romanian professor Elie Carafoli - 55 years devotion on modern aeronautics and astronautics  p0503 882-97010

ZAKRASEK, R. D.  
Adaptive fuel control feasibility investigation for helicopter applications  [ASME PAPER 82-GT-205] p0427 882-35400

ZAHVELE, Z.  
Low grade fuels for turbo and jet engines  p0221 882-23499

ZAKSEY, L. A.  
Analysis of an ideal-fluid flow past a finite-thickness wing  p0165 882-19013

ZAKSZWA, L. S.  
Antioxidant properties of additives based on higher fatty acids  p0548 882-02893

ZAKRNOV, S. R.  
An asymptotic theory of separated flow past low-aspect-ratio wings  p0581 882-46135

ZAKRNOVA, T. P.  
Structural strength of materials and parts of gas turbine engines  p0544 882-92463

ZALISSE, P. F., SR.  
Flight testing the nonmetallic spline coupling technology at the Naval Air Test Center  [AIAA PAPER 81-2905] p0056 882-13891

ZAHRA, H. E.  
Fiber-optic immunity to EMI/EMP for military aircraft  p0052 882-13529

ZAHRA, G.  
Multivariable design: The optimization of approximate inverses  p0030 882-10057

ZAHOU, G. N.  
Calculation of the stability of crosswise-reinforced cylindrical shells  p0128 882-18621

SOLUTION OF CREEP PROBLEMS BY A FINITE ELEMENT METHOD  p0388 882-34172

ZARATE, C. L.  
The Boeing Flight Test Data System 1980  p0179 882-20769

ZARELLI, R.  
Low level wind shear detection system for airport landing approach areas using the Berin Doppler acoustic sounder /Soda/  p0579 882-45816

ZARA, J. A.  
Harpoon missile captive-carry dynamic environments on the A-6E aircraft  p0583 882-47072

ZARESTEY, E. V.  

ZARESTEY, E. L.  

ZARESTEY, E. D.  

ZARAFONOZKI, E. I.  
Numerical methods for solving boundary value problems for noncavitating and cavitating flow past wing profiles  p0483 882-36722

ZAREZI, E. A.  
Design principles of a computer-aided design system  p0333 882-29829

ZAREZI, H. M.  
Synthetic aperture radar target simulator  [NASA-CASP-NPO-15024-1] p0031 882-10286

ZAREZI, H. M.  
A study of flight control requirements for advanced, winged, earth-to-orbit vehicles with far-aft center-of-gravity locations  (NASA-CR-34941) p0267 882-19226

ZAREZI, H. M.  
Pavement management and rehabilitation of Portland cement concrete pavements  (PB82-131384) p0357 882-22392

ZAREZI, L.  
Engine dynamic analysis with general nonlinear finite element codes. I: Bearing element implementation, overall numerical characteristics and benchmarking  [ASME PAPER 82-GT-292] p0430 882-35462

ZAREZI, L.  
Engine dynamic analysis with general nonlinear finite element codes. II: Bearing element implementation overall numerical characteristics and benchmarking  (NASA-CR-167946) p0609 882-33390

ZAREZI, T. A.  
Performance assessment of an advanced reheated turbo fan engine  [AIAA PAPER 81-2047] p0055 882-12879

ZAREZI, T. A.  
Flutter of forward swept wings, analyses and tests  [AIAA PAPER 82-0616] p0337 882-20142

ZAREZI, T. A.  
Dynamic stability of flexible forward swept wing aircraft  [AIAA PAPER 82-1325] p0488 882-39102

ZAREZI, L.  
Assessment of lightning simulation test techniques, part 1  (AB-1116234) p0277 882-27663
A preliminary experimental investigation of the response of a turbojet engine to inlet pressure distortion

The application of programmable pocket calculators for computations during survey flights

Aircraft noise prediction program theoretical manual, part 1

Aircraft noise prediction program theoretical manual, part 2

Suppression of self-oscillations in open wind tunnels

Instrumented aircraft verification of clear-air radar detection of low-level wind shear

Scanning strategies for air traffic control radars

Considerations for optimum siting of BEIRAD to detect convective phenomena hazardous to terminal air navigation, part 1

It's too logical - It'll never work /Commercial applications of the J7F/

Civil helicopter propulsion system reliability and engine monitoring technology assessments

Component research for future propulsion systems

A theoretical analysis of the stress surface of revolution with supersonic inlet flow in a transonic axial compressor

Status of the COSPAS-SARSAT project and its possible operation in conjunction with INMARSAT system

Theory and experiment in unsteady aerodynamics

A wind tunnel study of the flutter characteristics of a supercritical wing

Aeroelastic properties of wings in transonic flow
CORPORATE SOURCE INDEX

AERONAUTICAL ENGINEERING / a continuing bibliography

1982 Cumulative Index

Typical Corporate Source Index Listing

<table>
<thead>
<tr>
<th>CORPORATE SOURCE</th>
<th>NUMBER</th>
<th>PAGE</th>
<th>ACCESSION NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>AERONAUTICAL RESEARCH LAB., MELBOURNE (AUSTRALIA).</td>
<td>Vibration test procedures for accessory angle drive齿轮s on jet engine [AD-A105269]</td>
<td>p0038</td>
<td>#82-12076</td>
</tr>
</tbody>
</table>

Listings in this index are arranged alphabetically by corporate source. The title of the document provides the user with a brief description of the subject matter. The report number helps to indicate the type of document listed (e.g., NASA report, translation, NASA contractor report). The page and accession numbers are located beneath and to the right of the title. Under any corporate source the accession numbers are arranged in sequence with the AIA accession numbers appearing first.

A

AAI CORP., COCKEYSVILLE, MD.
Minutes of physical configuration audit for the F-16 electronic warfare training device [AD-A110321] p0320 #82-21222

ABERDEEN PROV. (SCOTLAND).
Application of numerical methods to the calculation of electrostatic fields in aircraft fuel tanks [AD-A103270] p0027 #82-10033

ADVANCED ENGINEERING LAB., SALISBURY (AUSTRALIA).
Composite flight test boom for Nomad #22B aircraft [ADL-0096-TR] p0070 #82-27209

ADVISORY GROUP FOR AEROSPACE RESEARCH AND DEVELOPMENT, ENSOLEIL-SUB-SCEIM (FRANCE).
Aircraft excrescence drag [AGABD-AG-264] p0025 #82-10020
Multi-variable analysis and design techniques [AGABD-LS-117] p0029 #82-10048
Air-breathing engine test facilities register [AGABD-AG-269] p0030 #82-10063
Rotocraft icing: Status and prospects [AGABD-AR-166] p0036 #82-11056
Operational environment, meteorological conditions and weather forecasting [AGABD-AR-166] p0036 #82-11057
Technology base for icing instrumentation and mathematical modelling [AGABD-AG-269] p0030 #82-10063
Facilities for development and clearance [AGABD-AR-166] p0036 #82-11058
Ice protection system technology [AGABD-AG-269] p0030 #82-11057
Proposed standard requirements and procedures for icing clearance [AGABD-AG-269] p0030 #82-11056
Theory and applications of optimal control in aerospace systems [AGABD-AG-251] p0038 #82-11073
The impact of new guidance and control systems on military aircraft cockpit design [AGABD-CP-312] p0091 #82-13048
Aerodynamics of Povey Plant Installation [AGABD-CP-301] p0093 #82-13065
Practical aspects of instrumentation system installation, volume I [AGABD-H-80067] p0099 #82-13160
Tactical Airborne Distributed Computing and Networks [AGABD-CP-303] p1015 #82-17086
Design manual for impact damage tolerant aircraft structure [AGABD-CP-303] p0195 #82-17086

C-1
AIB POBCB BEDICAL CBHTEB.

AIB FOBCB BEDICAL CEITEB, iBIGHT-PATTBBSOS APB. OHIO.

An aerodynamic design method for transonic axial OSAP bioenvironmental noise data handbook.

Labyrinth seal effects on rotor bearing system.

Modeling of a tracking radar in terms of a second order phase lock loop.

Design of advanced digital flight control software.

Structural analysis of fuselages with cutouts by finite element method.

Integration of advanced exhaust nozzle technology.

Advanced exhaust nozzle technology.

On the track of practical forward-swept wings.

Jet fuel locks to shale oil: The 1980 technology review.

Tanker avionics and aircrew complement evaluation.

Performance of highly integrated inlets for supersonic aircraft.

Geographic investigations and experimental results for higher subsonic two-dimensional turbine machinery.

Acoustics measurements of F-15 aircraft operating in hush house.

Kovats indices as a tool in characterizing chromatograms.

Effective exhaust gas recirculation rates in jet engines.

Acoustic measurements of P-16 aircraft operating in hush house.

Computer program for variable-pitch single-stage axial compressor test data analysis.

Acoustic measurements of F-100-PW-102 engine operating in hush house, NSN 4920-02-070-2721.

Acoustic measurements of F-14 aircraft operating in hush house, NSN 4920-02-070-2721.

Acoustic measurements of F-15 aircraft operating in hush house, NSN 4920-02-070-2721.

Acoustic measurements of F-16 aircraft operating in hush house, NSN 4920-02-070-2721.
Jet fuel from shale oil: The 1981 technology review
[AD-A1112179] p0059 H82-26484
The numerical solution of the Navier-Stokes equations for incompressible turbulent flow over airfoils
[AD-A1112179] p0060 H82-26412
Aviation fuels-future outlook and impact on aircraft fire threat
p0532 H82-29282
Materials and design criteria for Kevlar-29 ribbons and imambutes
[AD-A1163577] p0567 H82-31308
Terrain following/terrain avoidance system concept development
p0606 H82-33363
AIR NAVIGATION SERVICES, INC., WESTERGREN (WEST GERMANY).
Aeronautilical Information Data Subsystem (AIDS): A ground-based component of air navigation services systems
p0201 H82-17150
Aeronautilical Information data sub-systems
p0201 H82-25178
AIR WEATHER SERVICE, SCOTT AFB, ILL.
Forecasting aircraft condensation trails
[AD-A1112179] p0134 H82-16539
AIRBUS INDUSTRIES, BLANCA (FRANCE).
Airbus Industrie and aomunity noise
p0478 H82-27665
AIRCRAFT RESEARCH ASSOCIATION LTD., BEDFORD (ENGLAND).
Wind tunnel test and analysis techniques using powered simulators for civil nacelle installation drag assessment
p0095 H82-13088
Shadowgraph techniques in transonic tests with powered nacelles
p0597 H82-32474
AEROSPACE RESEARCH CO., PHOENIX, AZ.
Pollution reduction technology program small jet aircraft engines, phase 3
[NASA-CR-165386] p0134 H82-14095
ERBS fuel addendum: Pollution reduction technology program small jet aircraft engines, phase 3
[NASA-CR-165387] p0134 H82-14096
AEROSPACE RESEARCH CO., TORRANCE, CALIF.
Electric ECS
p0261 H82-19140
Electrodynamic Actuation Development Program (EADP).
Electrical control development
[AD-A116126] p0572 H82-31694
AKADEMISCHE FLUGGRUPPE BRUNSCHWIG (WEST GERMANY).
Wind tunnel investigations of sailplane fuselages with different inlets and wing settings
p0340 H82-2300
AKADEMIT RAK SSSR, MOSCOW.
Calculation of quasi-stationary aerodynamic force acting on a cascade of oscillating airfoils in subsonic flow
p0142 H82-15051
Calculation of nonstationary force ratios on blades of a rotating wing in incompressible flow
p0174 H82-15061
AKRON UNIV., OHIO.
Engine dynamic analysis with general nonlinear finite element codes. II - Bearing element implementation, overall numerical characteristics and benchmarking
[ASME PAPER 82-OT-292] p0230 A82-35462
Engine dynamic analysis with general nonlinear finite element codes. II - Bearing element implementation, overall numerical characteristics and benchmarking
[NASA-CR-167904] p0609 H82-33390
ALABAMA UNIV., HUNTSVILLE.
Recent development in hydrothromosioelastic analysis of composites
p0529 H82-26876
ALP AERONOTI S.P.A., NAPLES (ITALY).
Turbojet and turbojet ejector optimization
p0362 H82-23174
AMERICAN AERLINES, INC., FT. WORTH, TX.
The outlook for advanced transport aircraft
p0818 A82-21374
Wide-angle, multiviewer, infinity display system
[AD-A116308] p0571 H82-231336
AMERICAN INST. OF AERONAUTICS AND ASTROPHYSICS, NEW YORK.
Review of defense-related vertical and short takeoff and landing (V/STOL) aircraft programs (GPO-55-276)
p0256 H82-18205
ARCO OIL CO., PAWHPVILLE, ILL.
Evaluation of hydrotreating catalysts for conversion of shale oil into high yields of jet fuels
[AD-A112620] p0876 H82-27523
ANALYSIS AND TECHNOLOGY, INC., NORTH STORINGTON, CORN.
Utilization of AK/APS-94 side-looking airborne radar systems in search and rescue
[AD-A116148] p0561 H82-30437
Preliminary assessment of in Coast Guard Short Range Recovery (SRR) Forward Looking Infrared (FLIR) system small target detection performance
[AD-AI17516] p0615 H82-38230
ANALYTICAL MECHANICS ASSOCIATES, INC., HAMPTON, VA.
An influence coefficient method for the application of the modal technique to wing flutter suppression of the DAST AW-1 wing
[NASA-CR-165772] p0030 H82-11070
Terminal area automatic navigation, guidance, and control research using the Microwave Landing System (MLS). Part 3: A comparison of waypoint guidance algorithms for B747/MLS transition
[NASA-CR-3512] p0188 H82-16060
Terminal area automatic navigation, guidance, and control research using the Microwave Landing System (MLS). Part 4: Transition path reconstruction along a straight line path containing a glideslope change waypoint
ANALYTICAL MECHANICS ASSOCIATES, INC., MOUNTAIN VIEW, CALIF.
Analysis of in-trail following dynamics of CDTI-equipped aircraft
[ASIA PAPER 82-1130] p0408 A82-39107
An investigation of automatic guidance concepts to steer a V/STOL aircraft to a small aviation facility ship
[NASA-CR-152407] p0191 H82-16087
Functional design to support CDTI/D4BS flight and control research using the Microwave Landing System (BLS). Part 2: B747/BLS transition problems for aircraft
[NASA-CR-3511] p0200 H82-17142
Terminal area automatic navigation, guidance, and control research using the Microwave Landing System (MLS). Part 4: Transition path reconstruction along a straight line path containing a glideslope change waypoint
ANALYTICAL METHODS, INC., REDMOND, WASH.
A surface singularity method for rotors in hover or climb
[AD-A109677] p0304 H82-20178
Flows over wings with leading-edge vortex separation
[NASA-CR-165858] p0448 H82-26238
AOA APPARATINGUT G.M.B.H. (WEST GERMANY).
Torsional stiffness element based on cobalt-namurium alloys
[BHFT-FB-B-81-044] p0570 H82-27292
APPLIED GEOPHYSICS, INC., SALT LAKE CITY, UTAH.
Geophysical flight line flying and flight path recovery utilizing the Littin LET-78 inertial navigation system
[DBRS-005155] p0534 H82-29292
APPLIED PHYSICS LAB., JOHNS HOPKINS UNIV., LARGEST.
Numerical investigation of supersonic base flow with parallel injection
[ASIA PAPER 82-1001] p0375 A82-31960
The statistical theory of radio direction finding
[AD-1104156] p0256 H82-10027
Approximate method for predicting supersonic normal force coefficient very-low-aspect-ratio lifting surfaces
[AD-A117770] p0364 H82-23199
Influence of meteorological processes on the verticality of electric fields
[AD-A11549] p0461 H82-26897
APPLIED RESEARCH, INC., HUNTSVILLE, ALA.
Space experiment flight report
[AD-A1170622] p0613 H82-33698
APPLIED SCIENCE ASSOCIATES, INC., VALENCIA, PA.

Maintenance training simulator design and acquisition: ISD-derived training equipment design
[AD-A110671]
p0447 H82-26221

Maintenance training simulator design and acquisition: Handbook of ISD procedures for design and documentation
[AD-A111040]
p0457 H82-26321

ARGONNE NATIONAL LAB., ILL.

Heavy-duty engines analysis, study 4: A preliminary market analysis for gas-turbine applications in the farm market
[D82-001758]
p0308 H82-20599

ARINC RESEARCH CORP., ANNAPOlis, MD.

The use of flight management computers in air carrier operations in the 1980s
[p0312 H82-14071

Impact of technology on avionics cost trends
[AD-A106049]
p0256 H82-18219

Improvement program for the C-141 Navigation Selector Panel
[AD-A111169]
p0408 H82-25248

Electronic Warfare Avionics Integration Support Facility support processor
[AD-A111141]
p0408 H82-25249

Life-cycle-cost analysis of the microwave landing system ground and airborne systems
[AD-A110099]
p0449 H82-26266

Cost analysis of the discrete Address Beacon System for the low-performance general aviation aircraft community
[AD-A110297]
p0523 H82-28274

Reliability, Availability, Maintainability Data Tracking Plan improved GUARDRAIL 5
[AD-A117853]
p0608 H82-33378

Development of avionics installation interface standards
[AD-A116853]
p0608 H82-33384

ARINC RESEARCH CORP., SANTA ANA, CALIF.

Technology overview for advanced aircraft armament system program
[AD-A107680]
p0201 H82-17155

Standardization study for advanced aircraft armament system program
[AD-A107681]
p0201 H82-17156

ARIZONA STATE UNIV., TEMPE.

Wind tunnel measurements of three-dimensional wake of buildings
[NASA-CR-2465]
p0641 H82-26291

ARIZONA UNIV., TUCSON.

Analysis of flight test measurements in ground effect
[p0170 H82-20763

Subcritical and supercritical airfoils for given pressure distribution
[p0085 H82-12031

Design of a catadioptric WCASS helmet-mounted display
[AD-A093431]
p0305 H82-20181

Test of the Kepner Airborne Observatory 91-CB telescope
[NASA-CS-166341]
p0600 H82-25040

Surface generation for aerodynamic applications
[AD-A116263]
p0567 H82-31305

An effective algorithms for shock-free wing design
[AD-A146265]
p0569 H82-31322

ARMY AERONAUTICAL RESEARCH LAB., FORT EUSTIS, VA.

Vibration levels in Army helicopters:
Measurement recommendations and data
[AD-A10121]
p0255 H82-18209

Human response to fire
[p0532 H82-29281

ARMY ARMAMENT RESEARCH AND DEVELOPMENT COMMAND, DOVER, N. J.

Digital image processing for acquisition, tracking, hand-off and rangng
[p0671 H82-27303

Universal turret system model determination and controller performance testing
[AD-A1117687]
p0608 H82-33380

ARMY ARMAMENT RESEARCH AND DEVELOPMENT COMMAND.

WATERSVLEET, N. Y.

C-5A operational utility evaluation soil tests and analysis
[AD-A1055555]
p0133 H82-14083

Stress intensity factors for radial cracks at outer surface of a partially autofrettaged cylinder subjected to internal pressure

C-6
In-service inspection methods for graphite-epoxy structures on commercial transport aircraft

Transonic flight test of a supersonic combustor with new Boeing airplanes.

Transonic perturbation analysis of F100-PF-101 nozzle installation

Practical design and realization of a digital adaptive flight control system

P-15 aircraft including the effect of compressor fuel tanks

P-15 flight test data on an angle-of-attack range of 8 deg to 90 deg

Investigation of correlation between full-scale and fifth-scale wind tunnel tests of a Bell helicopter Textron Model 222

A redundancy concept for a digital CSS

A system safety model for developmental aircraft programs

A study of flight control requirements for advanced, layered, earth-to-orbit vehicles with far-aft center-of-gravity locations

Feasibility study of a 270V dc flat cable aircraft electrical power distributed system

The outlook for advanced transport aircraft

Transonic perturbation analysis of wing-fuselage-nacelle-pylon configurations with powered jet exhausts

Selected advanced aerodynamics and active control concepts development

Surface flow visualization requirements for testing in NTF

Transonic applications of the Wake Imaging System

Boeing Commercial Airplane Co., Renton, Wash.


Airframe-propulsion system aerodynamic interference predictions at high transonic Mach numbers including off-design engine airflow effects

Airborne data systems/monitor systems

ADAMS executive and operating system

High lift selected concepts

Natural laminar flow airfoil analysis and trade studies

Development of Integrated Programs for Aerospace-Vehicule Design (IPAD) - IPAD user requirements

Aircraft alerting systems standardization study.

Volume 2: Aircraft alerting system design guidelines

Environmental exposure effects on composite materials for commercial aircraft

Bell helicopter propulsion system reliability and engine monitoring technology assessments

Investigation of correlation between full-scale and fifth-scale wind tunnel tests of a Bell helicopter Textron Model 222

Bell Aerospace Co., Fort Worth, Tex.

Civil helicopter propulsion system reliability and engine monitoring technology assessments

Investigation of correlation between full-scale and fifth-scale wind tunnel tests of a Bell helicopter Textron Model 222

Aerospace-Vehicule Design (IPAD) - IPAD user requirements

Electric flight systems

Aerodynamic analysis of TVOL inlets and definition of a short, blowing-lip inlet

The 737 graphite composite flight control system flight service evaluation

A study of the effects of long-term exposure to fuels and fluids on the behavior of advanced composite materials

Potential opportunities for wind-tunnel/flight correlation with new Boeing airplanes

Passage structure using advanced technology fiber reinforced composites

A study of flight control requirements for advanced, layered, earth-to-orbit vehicles with far-aft center-of-gravity locations

Bell Aerospace Co., Seattle, Wash.

Feasibility study of a 270V dc flat cable aircraft electrical power distributed system

The outlook for advanced transport aircraft

An aerodynamic analysis method for unsteady transonic flow and its application to the flutter of airfoils

Integrated application of active controls (IAAC) technology to an advanced subsonic transport project. Initial act configuration design study

Integrated application of active controls (IAAC) technology to an advanced subsonic transport project. Initial act configuration design study

The outlook for advanced transport aircraft

Cost and benefits design optimization model for fault tolerant flight control systems

Integrated application of active controls (IAAC) technology to an advanced subsonic transport project. Initial act configuration design study

Integrated application of active controls (IAAC) technology to an advanced subsonic transport project. Initial act configuration design study

Cost and benefits design optimization model for fault tolerant flight control systems

Aerodynamic analysis of VTOI inlets and definition of a short, blowing-lip inlet

The 737 graphite composite flight control system flight service evaluation

A study of the effects of long-term exposure to fuels and fluids on the behavior of advanced composite materials
Some potential novel approaches to the automatic airborne detection and identification of ground targets

BRITISH AEROSPACE AIRCRAFT GROUP.

p0348 802-22161

Integrated control of mechanical system for future combat aircraft

p0197 802-17117

The ultrasonic inspection of C.P. C (BRD-0465)

p0214 802-17513

BRITISH AEROSPACE AIRCRAFT GROUP, WARDEN

p0177 802-27302

An airline view of the corrosion problem

p0211 802-17352

BRITISH AEROSPACE AIRCRAFT GROUP, WARDEN

p0177 802-27302

Gathering and analyzing data on the British Airways Boeing 757 aircraft gas turbine engines using AID5

p0402 802-25186

Brookhaven National Lab., Upton, N. Y.

p0403 802-25189

Development of catalytic systems for the conversion of syngas to jet fuel and diesel fuel and higher alcohols

p0090 802-12255

Water-compatible polymer concrete materials for use in rapid repair systems for airport runways

p0538 802-29464

Brown, Boeing UK CEE, A.G. BARE (SWITZERLAND)

p0143 802-15056

Control of vibration in an aeroelastic cascade experiments

p0453 802-26291

Burke-Rado Corp., Westlake Village, Calif.

p0457 802-26320

Simulation report: Advanced display for complex flight trajectories

p0457 802-26320

Burke-Rado Corp., Wright-Patterson AFB, Ohio.

p0100 802-20369

Tanker Avionics/Aircrrew Complement Evaluation (TAACE) Phase 1: Simulation evaluation.

Volume 1: Results

p0452 802-26290

Tanker Avionics/Aircrrew Complement Evaluation (TAACE) Phase 1: Simulation evaluation.

Volume 2: Crew system design

p0453 802-26291

C

California State Univ., Fullerton.

p0137 802-14817

Real time simulation of computer-assisted sequencing of terminal area operations (NASA-CR-166195)

p0137 802-14817

California State Univ., Sacramento.

p0138 802-24359

Analysis of very low frequency oscillations in a ramjet combustor by use of a sensitivite time lag model

p038 802-21404

CALIFORNIA UNIV., BERKELEY.

p0187 802-21404

Measures to increase airfield capacity by changing aircraft runway occupancy characteristics

[NASA-CR-166068]

p0351 802-22240

CALIFORNIA UNIV., LIVERTMORE. LAWRENCE LIVERMORE LAB.

p0187 802-21404

Laboratory-scale simulation of underground coal gasification: Experiment and theory

[DB82-001063]

p0528 802-28470

CALIFORNIA UNIV., LOS ANGELES.

p0187 802-21404

Multilevel optimum design of structures with fiber-composite stiffened-panel components

[AI/AA PAPER 80-0723]

p0173 802-17594

Large scale model measurements of airborne noise using cross-correlation techniques

[DB82-001063]

p0528 802-28470

Application of the finite element method to rotary wing aeroelasticity

[NASA-CR-165944]

p0308 802-20561

Aerodynamic flow from corner flow and flat flow

[NASA-CR-166396]

p0574 802-32081

CALIFORNIA UNIV., RIVERSIDE.

p0187 802-21404

Atmospheric chemistry of hydrocarbon fuels.

Volume 2: Outdoor chamber data tabulations, Part 1

[AD-A113665]

p0530 802-28042

CALSAN ADVANCED TECHNOLOGY CENTER, BUFFALO, N. Y.

p0187 802-21404

Analysis of augmented aircraft flying qualities through application of the Reel-Smith criterion

[AI/AA PAPER 81-1776]

p0006 802-10462

Modelling procedures for handling qualities evaluation of flexible aircraft

p0530 802-19368

The effect of ejector augmentation on test-section flow quality in the Calspan 8-ft transonic wind tunnel

[AI/AA 82-0571]

p0236 802-24658

In-flight investigation of the effects of pilot location and control system design on airplane flight qualities for approach and landing

[NASA-CR-163115]

p0145 802-15074

CALSAN FIELD SERVICES, INC., ARBOL AIR FORCE STATION, T. H.

p0187 802-21404

Experimental verification of an aerodynamic parameter optimization program for wind tunnel testing

[AD-A107727]

p0399 802-17134

A durable, intermediate temperature, direct reading heat flux transducer for measurements in continuous wind tunnels

[AD-A107729]

p0213 802-17463

Aerodynamic characteristics and store loads of a 1/24 scale F-111 aircraft model with three external store loadings

[AD-A109499]

p0302 802-20585

Performance of the ARDC Mark 1 Aerospace Environmental Chamber without oil diffusion pumping

[AD-A111406]

p0457 802-26322

The use of a multi-Degree-of-Freedom dual balance system to measure cross and cross-coupling derivatives

[AD-A110813]

p0358 802-29333

Calibration and performance of the ARDC/YTF tunnel C, each number 4, aerothermal wind tunnel

[AD-A116279]

p0571 802-31338

CAMBRIDGE UNIV., (ENGLAND).

p0187 802-21404

Characteristic and principal gains and phases and their use as multivariable control design tools

[AD-A107727]

p0399 802-17134

CARTER RESEARCH GROUP, INC., WESTLACE VILLAGE, CALIF.

p0187 802-21404

Descent-rate cueing for carrier landings: Effects of display gain, display noise and aircraft type

[AD-A108801]

p0264 802-19206

Reports by Systems Technology, Inc., in support of carrier-landing research in the visual technology research simulator

[AD-A112666]

p0574 802-27324

CASE WESTERN RESERVE UNIV., CLEVELAND, OHIO.

p0187 802-21404

Dilation jet behavior in the turn section of a reverse flow combustor

[AI/AA PAPER 82-0192]

p0167 802-20291

Linear decentralized systems with special structure

p038 802-34359
Investigation and evaluation of a computer program to minimize three-dimensional flight time (NASACB-164819).

CENTER FOR NAVAL ANALYSES, ALEXANDRIA, VA.

Mobility threats to the Navy (AD-111251) p0459 BB2-26485
A result in the theory of spiral search (AD-111248) p0466 BB2-27262

CENTER D'ETUDES ET DE RECHERCHES, TOULOUSE (FRANCE).

Theoretical optimization and experimental verification of an injector (P0361 BB2-23170)

CIBBIA AIRCRAFT CO., VANDALIA, OHIO.

Impact of advanced propulsion technology on aircraft/mission characteristics of several General aviation aircraft (NASACB-167808) p0604 BB2-33347

CIBBIA AIRCRAFT CO., WICHITA, KANS.

Advanced general aviation comparative engine/airframe integration study (NASACB-165564) p0354 BB2-22263

CHRYSON RESEARCH CO., RICHMOND, CALIF.

Refining and upgrading of synfuels from coal and oil shales by advanced catalytic processes (NASACB-111192) p0213 BB2-17401

CHECAO UNIY, ILL.

Downbursts and microbursts - an aviation hazard (P0003 BB2-10210)

CIDA-SIGHT CORP., ADBSIL, N.C.

Composite repair system with long term latency (AD-1-16477) p0376 BB2-32428

CISS RESEARCH AND CONSULTANCY PRIVATE LTD.

BANGALORE (INDIA).

Primary sewage treatment plant as a source of bird hazards at airports (P0413 BB2-26184)

CINCINNATI UNIY., OHIO.

Flag-lag-torsional dynamics or extensional and inertial rotor blades in hover and in forward flight (NASACB-165078) p0139 BB2-15013
Flag-lag-torsional dynamics of extensional and inertial rotor blades in hover and in forward flight (NASACB-169159) p0535 BB2-29312

CITY COLLEGE RESEARCH FOUNDATION, NEW YORK.

Experimental study of turbulence in blade and wall corner region (NASACB-169283) p0572 BB2-31639

CLERSON UNIY., N.C.

Specification and estimation of dynamic cost functions for aircraft production airframes (AD-1113147) p0463 BB2-27221
Lead-time analysis in aircraft production, part 1 (NASACB-111948) p0479 BB2-28210

Maximizing South Carolina's aviation resources: Identifying potentially profitable computer airline routes, volume 3 (P822-129353) p0532 BB2-29277
Integrated airframe propulsion control (NASACB-3606) p0593 BB2-33282

CREA BOLTEDBROD CO. OF NICHIGIAN, DETROIT.

Carburized high temperature steels (AD-1116559) p0595 BB2-32607

COAST GUARD RESEARCH AND DEVELOPMENT CENTER, SHOTHOR, CALIF.

Preliminary assessment of US Coast Guard Short Range Recovery (SRH) Forward Looking Infrared (FLIR) system small target detection performance (AD-1117916) p0615 BB2-34230

COLLINS RADIO CO. CEDAR FALLS, IOWA.

A standard control display unit for multi-aircraft application (P0092 BB2-13054)

COLORADO SCHOOL OF MINES, GOLDEN.

Deposit formation in liquid fuels. II - The effect of selected compounds on the storage stability of Jet A turbine fuel (P0186 BB2-22240)
Deposit formation in liquid fuels. I - Effect of coal-derived Lewis bases on storage stability of Jet A turbine fuel (P0186 BB2-22241)

COLORADO STATE UNIY., FORT COLLINS.

Aircraft measurements and analysis of severe storms: 1976 field experiment (NASACB-165819) p0259 BB2-18003

Study of the global positioning system for maritime concepts/applications: Study of the feasibility of replacing maritime shipboard navigation systems with NAVSTAR (NASACB-169031) p0499 BB2-26263

CORPORATE ON AEROSPACE SERVICES (G. S. ROSS).

Review of defense-related vertical and short takeoff and landing (V/STOL) aircraft programs (AD-55-270) p0254 BB2-18205

CORPORATE ON COMMERCES, SCIENCE, AND TRANSPORTATION (G. S. SHAPIRO).

Role impact on commuters from aircraft (GPO-80-617) p0215 BB2-17655 Future of general and commuter aviation technology and trade (GPO-85-812) p0302 BB2-20159

CORPORATE ON SCIENCE AND TECHNOLOGY (G. S. ROSS).

Spas recovery training (GPO-66-020) p0605 BB2-10022
Airport and Airway Improvement Act of 1981, part 1 (GPO-76-241-PP-1) p0030 BB2-10062
NASA Authorization, 1982: Index (GPO-84-713) p0361 BB2-10597
Aircraft collision avoidance systems (GPO-79-431) p0264 BB2-19201
Air traffic control on route computer modernization (GPO-89-224) p0264 BB2-19202
Air traffic control on route computer modernization (GPO-89-871) p0303 BB2-20167
FAA air traffic control computer modernization (GPO-82-375) p0303 BB2-20168
Aircraft collision avoidance and air traffic safety (GPO-88-545) p0303 BB2-20169
The 1983 NASA Authorization, Volume 1 (GPO-91-888-VOL-1) p0306 BB2-23068
The first 1 in NASA (GPO-89-876) p0400 BB2-25271

COURTLER GENERAL OF THE UNITED STATES, WASHINGTON, D.C.

Examination of the Federal Aviation Administration’s plan for the National Aerospace System (AD-85-266) p0611 BB2-33003

COMPUTATIONAL MECHANICS CONSULTANTS, EUGENE, OR.

A numerical three-dimensional turbulent simulation of a subsonic VSTOL jet in a cross-flow using a finite element algorithm (AD-3104514) p0068 BB2-11055

COMPUTER SCIENCE CORP., MOUNTAIN VIEW, CALIF.

Simulator certification methods and the vertical motion simulator (NASACB-166252) p0089 BB2-12082
CORPORATE SERVICES CO., OTTAWA (ONTARIO).

Optimization of thrust algorithms calibration for Coating System (CS) for Thrust the NASA Highly Maneuverable Aircraft Technology (HMAC) vehicle's propulsion system (NASACB-165141) p0317 BB2-21190

COFFER STATE COLL., BALTIMORE, MD.

Tand analytic techniques: Application to the design of a flight simulator instructor/operator console (AD-1103729) p0527 BB2-18227

CORNELL UNIY., ITHACA, N.Y.

The sixoex to forty micron spectroscopy from the NASA Lear jet (NASACB-165866) p0310 BB2-20546

COSTELLOOONE AEROSONNCOIICHHOUGNOIO AGUGA S.P.A.

SALLARATT (ITALY).

Design Criteria of the A 129 helicopter drive system (P0200 BB2-17125)

COSTELLOOONE AEROSONNCOIICHHOUGNOIO AGUGA S.P.A.

SARANO (ITALY).

Integrated cockpit for A-129 (P0366 BB2-22225)

CROST AIRCOSPACE AND SYSTEMS, VALANCE (FRANCE).

Using voice control onboard combat aircraft (P0092 BB2-13056)

CURTISS-WRIGHT CORP., WOOD-RIDGE, N.J.

Advanced stratified charge rotary aircraft engine design study (NASACB-165398) p0479 BB2-27743
DEUTSCHE FORSCHUNGS- UND VERSUCHSANSTALT FUR LUFT- 
UND RAHNFAHRT, BERLIN (WEST GERMANY).
Prediction of flyover jet noise spectra from static tests
p0319 N82-22683
DEUTSCHE FORSCHUNGS- UND VERSUCHSANSTALT FUR LUFT- 
UND BAHNFAHRT, BONN (WEST GERMANY).
Development and construction of pilot ejector
seats in Germany from 1938-1945
p0304 N82-23224
DEUTSCHE FORSCHUNGS- UND VERSUCHSANSTALT FUR LUFT- 
UND BAHNFAHRT, WURzburg (WEST GERMANY).
Mathematical model for the maintenance program
of modern jet aircraft
p0313 N82-10003
Control law design for transport aircraft flight
tasks
p0305 N82-11004
Experimental investigation of a helmet mounted
sight/display for helicopter
p0335 N82-12359
Analysis of two air traffic samples in the
terminal area of Frankfurt/Main, August 1978
[DFSLFB-BEIT-81-12] p0352 N82-16073
Analysis of two air traffic samples in the
terminal area of Frankfurt am Main, 3 August
1979
[DFSLFB-BEIT-81-17] p0313 N82-15028
Analysis of two air traffic samples in the
terminal area of Frankfurt am Main, 4 August
1979
[DFSLFB-BEIT-81-12] p0313 N82-15028
Integration of a digital air data computer into
the test aircraft BFB-320
p0354 N82-15038
An observer approach to the identification and
isolation of sensor failures in flight control
systems
[DFSLFB-BEIT-81-26] p0345 N82-15078
Experimental investigation of visual aids for
helicopters: Low level flight at night and
poor visibility
p0351 N82-18168
Noise measurements on the helicopter BK 117
design. Weighted noise levels and influence
of airspeed
[DFSLFB-BEIT-81-18] p0306 N82-19957
Collection and evaluation of propeller aircraft
certification data
[DFSLFB-BEIT-81-20] p0322 N82-19958
Drag reduction using pneumatic turbulence
[DFSLFB-BEIT-81-32] p0305 N82-22223
Ground reflection effects in measuring propeller
aircraft flyover noise
p0359 N82-22990
Flight tests for the assessment of task
performance and control activity
p0365 N82-23213
A theoretical study of the impact of aircraft
wake vortices on roofs in the final approach
area of Hamburg airport
[DFSLFB-BEIT-82-01] p0371 N82-23560
Proceedings of the 11th symposium on aircraft
integrated data systems
[DFSLFB-BEIT-82-02] p0341 N82-25171
The DFVR digital flight data recording and
processing station and its utility
p0402 N82-25180
Wind tunnel investigations on transonic transport
aircraft at high subsonic flow
[DFSLFB-BEIT-82-06] p0357 N82-30296
DEUTSCHE FORSCHUNGS- UND VERSUCHSANSTALT FUR LUFT- 
UND BAHNFAHRT, COLOGNE (WEST GERMANY).
Scientific report of the Fluid Mechanics
Research Department
p0213 N82-17669
Developmental possibilities and restrictions in
air transport
[DFSLFB-BEIT-81-9] p0350 N82-22229
Developmental possibilities in civil aviation in
the Federal Republic of Germany
p0350 N82-22230
Aircraft post-crash fire fighting/rescue
p0353 N82-29287
DEUTSCHE FORSCHUNGS- UND VERSUCHSANSTALT FUR LUFT- 
UND BAHNFAHRT, GOTTINGEN (WEST GERMANY).
Experimental investigations of the separated
flow around a rectangular wing
[DFSLFB-BEIT-81-12] p0325 N82-10017
A method for determination of the aerelastic behavior of aircraft with active control systems [DPYB-85-01-01] p0082 882-10004
Calculation of natural modes of vibration for rotor blades by the finite element method [DPYB-85-104-07] p0031 882-10452
Technical evaluation report on the Aerelasticity in Turbomachines Symposium p0146 882-15070
A three-dimensional approach to lift and moment coefficients of rotating blades p0265 882-18125
Modal characteristics of rotor blades: Finite element approach and measurement by ground vibration test p0265 882-18127
Application of modal systems techniques for the dynamic qualification of wings with stores p0345 882-22160
Experiments on propeller noise p0350 882-22978
DEUTSCHE FORSCHUNGS-UND VERSUCHSANSTALT FÜR LUFT- Und Raumfahrt, Oberpfaffenhofen (WEST GERMANY).
Turbulence measurement at stall and buffet [DPYB-RU-79-09] p0366 882-23198
DEUTSCHE FORSCHUNGS-UND VERSUCHSANSTALT FÜR LUFT- Und Raumfahrt, Stuttgart (WEST GERMANY).
Service life investigation of a tailplane wing of CFEP construction p0367 882-23234
Report from the Working Party on New Fiber Materials p0390 882-24512
DEUTSCHE FORSCHUNGS-UND VERSUCHSANSTALT FÜR LUFT- Und Raumfahrt, Wesseling (WEST GERMANY).
The optical recognition of sea targets as a function of surrounding and observation parameters in air to water observations [BMTG-FMT-81-10] p0147 882-15930
DEUTSCHE GESELLSCHAFT FÜR LUFT- UND RAUMFAHRT, COLOGNE (WEST GERMANY).
Seventh European Rotorcraft and Powered Lift Aircraft Focus p0245 882-18119
DOEBNER-WENKE G. M. B. H, FRIEDRICHSHAFEN (WEST GERMANY).
Structural dynamics: Modified calculations [BMTG-FMT-81-1] p0101 882-13457
Tethered rotorcrafts and their mission potential p0266 882-18145
Experimental flight test programs for improving combat aircraft maneuverability by maneuver flaps and pylon split flaps p0347 882-22192
DOUGLAS AIRCRAFT CO., INC., LONG BEACH, CALIF.
The outlook for advanced transport aircraft [AD-1108274] p0181 882-21374
Kevlar/PMM-15 polyamide matrix composite for a complex shaped DC-9 drag reduction fairing [AD-1108274] p0437 882-37670
Prop-fan integration at cruise speeds p0097 882-13097
Aircrew restraint and mobility test fixture [AD-1108274] p0252 882-18193
Linear flow control SPG/E0 feasibility demonstration [NASA-CR-165818] p0322 882-21532
Airport noise p0564 882-81071
Investigation of the interference effects of mixed flow long duct nacelles on a DC-10 wing [NASA-CR-159202] p0586 882-32319
Selected winglet and mixed flow long duct nacelle development for DC-10 derivative aircraft [NASA-CR-3296] p0589 882-32347
Application of an optimized winglet configuration to an advanced commercial transport [NASA-CR-159156] p0589 882-32348
Advanced turboprop testbed systems study [NASA-CR-167895] p0607 882-33375
DRAPER (CHARLES STARK) LAB., INC., CAMBRIDGE, MASS.
On-board communication for active-control transport aircraft [AIAG-81-2321] p0602 882-13520
DREXEL UNIV., PHILADELPHIA, PA.
On-line optimization of aircraft altitude and flight path angle dynamics p0044 882-13107
Piloted simulation of an on-board trajectory optimization algorithms p0167 882-20296
Singular perturbation techniques for real time aircraft trajectory optimization and control [NASA-CR-3597] p0570 882-31330
DYNARIC CORPORATION, INC., DAYTON, OHIO.
Flight tests of a GE and DCI direct drive fly by wire flight control system [AD-A1172648] p0611 882-13041
DYNARIC SCIENCE, PHOENIX, ARIZ.
Advanced recorder design and development [PBIR-1-244105] p0193 882-16385
DYNARIC TECHNOLOGY, INC., TORRANCE, CALIF.
Turbulence measurements in a confined jet using a six orientation hot-wire probe technique [AD-1208274] p0439 882-37710
UTC ENGINEERING, INC., LONG BEACH, CALIF.
Recommendations for field measurements of aircraft noise [NASA-CR-3540] p0359 882-22955

E

EAGLE Technology, INC., ALEXANDRIA, VA.
Reliability and maintainability analysis of fluidic back-up flight control system and components [AD-A110496] p0074 882-27320
ECOLE POLYTECHNIQUE FEDERALE DE LAUSANNE (SWITZERLAND).
Aerelasticity in turbomachines [BPLI-14-01] p0162 882-15042
Design for turbomachine blade variations in subsonic flow [BPLI-14-01] p0162 882-15042
Numerical experiments on unsteady flows through vibrating cascades [BPLI-14-01] p0162 882-15052
Computer aided investigation of turbomachine aerodynamics and aerelasticity [BPLI-14-01] p0162 882-15053
Practical experience with a noncontact blade vibration measuring system in industrial turbocompressors p0164 882-15065
EDGERTON, GOMBERGHAUER AND GEIER, INC., ALBquerque, N. MEX.
System safety program plan [AD-A110557] p0041 882-11354
EC AND G WATKINS ANALYTICAL SERVICES CENTER, INC., POCONO CITY, PA.
A global atlas of GEO-3 significant waveheight data and comparison of the data with national buoy data [NASA-CR-156862] p0146 882-15098
ELECTRO MAGNETIC APPLICATIONS, INC., DERRY, IOWA.
Atmospheric electricity hazards analytical model development and application. Volume 1: Lightning environment modeling [AD-A110415] p0539 882-29800
Atmospheric electricity hazards analytical model development and application. Volume 3: Electrostatic coupling modeling of the lightning/aircraft interaction event
[AD-A118017] p0500 H82-29820

ELECTRONIQUE-DASSAULT, ST. CLOUD (FRANCE)
Weapon system of a future attack aircraft
[EEPT-96] p0590 H82-32360

ELECTRONIQUE-SYSTEM G. M. B. H., NEUMARK (WEST GERMANY)
Functional versus communication structures in modern avionic systems
[EEPT-96] p0268 H82-19400
Integration of inertial sensors in helicopters
[AD-A110382] p0251 H82-18173

ELLIOT-AUTOMATION SPACE AND ADVANCED MILITARY SYSTEMS LTD., FREMLEY (ENGLAND), The development of terrain following displays for the Tornado aircraft
[REPT-200] p0587 H82-32037
Avionic system development for the Fokcando F K82
[REPT-36] p0590 H82-32661

ELLIS (GEOEGE E.), CHARDON, OHIO, Ethanol production by vapor compression distillation
[DEB-02-00492] p0538 H82-29393

EMERSON ELECTRIC CO., CALABASAS, CALIF. Modernization of OX-256/DBH Tactical Air Navigation (TACAN) antenna group
[AD-A118017] p0649 H82-26264

ENGINEERING DYNAMICS INTERNATIONAL, ST. LOUIS, MO. Airport related residential acoustical insulation demonstration project Report 1720
[PHB-100777] p0268 H82-19396

ENGINEERING-SCIENCE, INC., ARCADIA, CALIF. Vapor condensation control of JP-4 emissions from underground storage tanks at March Air Force Base, California
[AD-A118017] p0612 H82-33554

ENGESH HATTA, VELUX (FRANCE), Advantages and limitations of various materials used in the construction of modules
[SNHIA-812-551-103] p0088 H82-12072

ENVIRONMENTAL RESEARCH AND TECHNOLOGY, INC., CONCORD, MASS. Detection and tracking algorithm refinement
[AD-A109517] p0203 H82-20164

ENVIRONMENTAL RESEARCH INST. OF MICHIGAN, ANN ARBOR, Design study for a low-distortion holographic HUD
[AD-A113962] p0255 H82-28292

EQUIPMENT CONTROLLER, BRUSSELS (BELGIUM), On-line experiments in acquiring and exploiting ADS data for XCP purposes
[AC-120820] p0401 H82-25175

EUROPEAN SPACE AGENCY, PARIS (FRANCE), Theoretical investigation of the influence of spoiler dynamics on the handling qualities of an aircraft with direct lift control
[ESA-TT-641] p0207 H82-10036

System identification of the longitudinal motion of the DFLPL NRA 320 research aircraft with particular consideration of control surface effectiveness
[ESA-TT-644] p0028 H82-10045

A contribution to the stabilization of flight vehicle parachute systems
[ESA-TT-679] p0028 H82-10046

Flight test results of the model simulation controller for the NRA 320 for in-flight simulation of the A330 Airbus
[ESA-TT-660] p0030 H82-10107

Three dimensional flow investigation with a focus on characteristics of the inlet region and the blade-to-blade channels of supersonic axial compressors
[ESA-TT-637] p0088 H82-12078

A simple hybrid visual simulation for research flight simulators
[ESA-TT-660] p0210 H82-17232

Laminar airfoils for transport aircraft
[ESA-TT-680] p0252 H82-18190

A possible method of specifically correlating location and navigational errors caused by refraction and other propagation effects
[ESA-TT-666] p0253 H82-18198

Extension of proportional navigation by the use of optimal filtering and control methods
[ESA-TT-686] p0253 H82-18199
Flair and near-neighbor collisions on two- and three-dimensional curvilinear flight paths

[ESA-TT-685] p0253 H82-18200

Tendencies in the development of subsonic transport aircraft with special consideration of aerodynamics
[ESA-TT-705] p0255 H82-18218

Volcanic particle prediction of antennas on aircraft using the geometrical theory of diffraction
[ESA-TT-677] p0259 H82-18483
Equipping for testing and measuring a "helmet mounted sight and display" system with a coupled movable TV camera in the flight simulator for research of the DFLPL
[ESA-TT-675] p0266 H82-19219

A method for determining the aerelastic behavior of aircraft with active control systems
[ESA-TT-719] p0397 H82-24211

Mathematical model for a maintenance program for modern jet aircraft
[ESA-TT-728] p0585 H82-32308

Analysis of two air traffic samples in the Frankfurt/Main airport terminal area, August 4, 1978
[ESA-TT-719] p0587 H82-32338

Analysis of two air traffic samples in the Frankfurt/Main airport terminal area, August 3, 1979
[ESA-TT-740] p0587 H82-32339

An analytical study of landing flare trajectories
[ESA-TT-656] p0590 H82-32360

Acoustic similarity laws for centrifugal fans
[ESA-TT-712] p0603 H82-33172

Noise reduction in centrifugal fans by the use of lambda/4 resonators
[ESA-TT-723] p0603 H82-33173

Scenario of economic development within the European community up to the year 2000
[ESA-TT-730] p0603 H82-33266

EKTHER PROPRIETARY LTD., HOBART, AUSTRALIA Multistage axial compressor program on tip clearance
[AD-A107445] p0036 H82-29254

EKDON RESEARCH AND ENGINEERING CO., LINDEN, N.J., Radiation/catalytic augmented combustion
[AD-A112736] p0475 H82-27434

FACILITY CHECKING SQUADRON (1046TH), APACS, SCOTT AFB, ILL. TRACALS evaluation report. Special report: A procedure for BTS position improvement using linear regression analysis of glide slope structure
[AD-A115926] p0606 H82-33365

FEDERAL AVIATION ADMINISTRATION, ATLANTIC CITY, N.J. Real-time simulation of helicopter EPI approaches into major terminal areas using BRAF, ALS, and CDTI
[AIAA PAPEB 82-0260] p0118 H82-17868

Index of National Aviation Facilities Experimental Center technical reports 1972 - 1977
[AD-A104759] p0086 H82-12056

Flight evaluation of LORAN-C as a helicopter navigation aid in the Baltimore Canyon oil exploration area
[AD-A105250] p0086 H82-12059

The use of groundspeed, in a wind shear and the flight evaluation of a radar-altimeter-based system for the measurement of groundspeed
[AD-A105728] p0087 H82-12060

Moving target Detector/Airport Surveillance radar (ASTS) field evaluation
[AD-A105196] p0090 H82-12303

Columbus, Ohio, Voice response system demonstration and evaluation
[AD-A105750] p0091 H82-12304

In-service testing of the Precision Approach Path Indicator (PAPI) at Newark International Airport, New Jersey
[DOT/FAA/AIP-81/95] p0132 H82-14076

Active beacon collision avoidance logic evaluation. Volume 2: Collision avoidance (BSAS) threat phase
[AD-A107060] p0200 H82-17188

Investigation of Wilcoxon model 583 very high frequency omnidirectional radio range (VOR) system, part 3

C-14
Field test of an in stack diffusion classifier

Implementation of the recommendations made on Dnalchannel fuel control program, phase 2

Experimental and analytical studies of advanced Transonic Hind tunnel vail interference

Calculations of lightning return stroke electric and magnetic fields above ground

Field test of an in stack diffusion classifier on an aircraft engine test cell

FLOGBAFBI G.B.B.B., HAHBOBG (BBS! GBBBABI).

FLOS BBSBABCH. IBC-. KEBI. BASB.

6ABBEII COBF., PHOEHIX. ABIZ.

GALILEO BLBCIBO-OPTICS COBF., STOBBRID6B, BASS.

TBCBBISCHB TBB1DABALISEB, EOSKIBCBBB (BBST GBBBABI).

FOSTBB-HILLEB ASSOCIATES, IBC., BALTBAB. BASS.

FLOIDIBB EBGIBEBBIBG COBP-, BTBBBAPOLIS. HUH.

FLOB SIHOLATIOITS. IBC., SOBBIVILLB, CALIF.

FLORIDA IISI. OF TECH..

Sensor footprints and homing range of terminal guidance munition

Traffic intrastructure: Can planning still be

influence of turbulence models on simulation of phugoid excitation due to
turbine control tovers

Reduced performance and increased cost warrant reevaluation of the multiple stores ejector rack

Computer outages at air terminal facilities and their correlation to near miss mid-air collisions (AFMD-82-43)

Influence of contrast on spatial perception in IV display of moving images

Study of advanced propulsion systems for Small Transport Aircraft Technology (STAT) program

Mission effectiveness of the AV-8B Harrier 2 could be improved if actions are taken now

Influence of turbulence models on simulation of phugoid excitation due to
turbine control tovers

Reduced performance and increased cost warrant reevaluation of the multiple stores ejector rack

Computer outages at air terminal facilities and their correlation to near miss mid-air collisions (AFMD-82-43)

Influence of turbulence models on simulation of phugoid excitation due to
turbine control tovers

Reduced performance and increased cost warrant reevaluation of the multiple stores ejector rack

Computer outages at air terminal facilities and their correlation to near miss mid-air collisions (AFMD-82-43)
FOREIGN OBJECT IMPACT DESIGN CRITERIA, VOLUME 3

COST/BENEFIT STUDIES OF ADVANCED MATERIALS

SYSTEM DESCRIPTION - AVIATION FLIGHT - ANGLE VISUAL FLOW

FORWARD VELOCITY EFFECTS ON FAN NOISE AND THE CF6 JET ENGINE PERFORMANCE IMPROVEMENT: HIGH CORE COMPRESSOR EXIT STAGE STUDY, VOLUME 6

THRUST REVERSER FOR A LONG DUCT FAN ENGINE

ELECTRONIC MASTER MONITOR AND ADVISORY DISPLAY

OPTICAL TIP CLEARANCE SENSOR FOR AIRCRAFT ENGINE

THERMAL EXPANSION ACCOMMODATION IN A JET ENGINE FRAME

V/STOL PROPULSION CONTROL TECHNOLOGY

THE OUTLOOK FOR ADVANCED TRANSPORT AIRCRAFT

TURBINE BLADE NONLINEAR STRUCTURAL AND LIFE ANALYSIS

BLADE JONES TRANSIENT DYNAMIC ANALYSIS OF TURBOCHARNERY

NASA/GENERAL ELECTRIC BROAD-SPECIFICATION FUELS COMBUSTION TECHNOLOGY PROGRAM - PHASE I RESULTS AND STATUS

PROGRAM IN THE DEVELOPMENT OF ENERGY EFFICIENT ENGINE COMPONENTS

OPTICAL TIP CLEARANCE SENSOR FOR AIRCRAFT ENGINE CONTROLS

C6J JET ENGINE PERFORMANCE IMPROVEMENT: HIGH PRESSURE TURBINE BOUNDARIES

THREE-ENGINE CONTROL SYSTEM FOR THE PROTOTYPE EE-101 HELICOPTER

A PROPULSION VIEW OF THE ALL-ELECTRIC AIRCRAFT

C6F JET ENGINE DIAGNOSIS PROGRAM: HIGH PRESSURE COMPRESSION CLEARANCE INVESTIGATION

THRUST REVERSER FOR A LONG DUCT FAN ENGINE

CORE COMPRESSOR EXIT STAGE STUDY, VOLUME 6

FOREIGN OBJECT IMPACT DESIGN CRITERIA, VOLUME 2

FOREIGN OBJECT IMPACT DESIGN CRITERIA, VOLUME 3

C6F JET ENGINE PERFORMANCE IMPROVEMENT: HIGH PRESSURE TURBINE ACTIVE CLEARANCE CONTROL

FORWARD VELOCITY EFFECTS ON FAN NOISE AND THE SUPPRESSION CHARACTERISTICS OF ADVANCED INLETS AS MEASURED IN THE NASA Ames 40 by 80 foot WIND TUNNEL

C6F JET ENGINE PERFORMANCE IMPROVEMENT: LOW PRESSURE TURBINE ACTIVE CLEARANCE CONTROL

GENERAL ELECTRIC CO., DAYTONA BEACH, FLA.

SYSTEM DESCRIPTION - AVIATION FLAT-Angle VISUAL SYSTEM (AVATS) COMPUTER IMAGE

GENERAL ELECTRIC CO., SYRACUSE, NY.

COST/BENEFIT STUDIES OF ADVANCED MATERIALS TECHNOLOGIES FOR FUTURE AIRCRAFT TURBINE ENGINES: MATERIALS FOR ADVANCED TURBINE ENGINES

GENERAL ELECTRIC CO., LITHB., IAB.

EFFECTS OF VANE/BLADE RATIO AND SPACING ON FAN NOISE

GENERAL ELECTRIC CO., RESEARCHWOOD, WASH.

OPTICAL TIP CLEARANCE SENSOR FOR AIRCRAFT ENGINE CONTROLS

GENERAL ELECTRIC CO., ST. PETERSBURG, FLA.

THERMAL-BARRIER-COATED TURBINE BLADE STUDY

GENERAL ELECTRIC CO., OTICA, N. Y.

AN INTEGRATED CONTROL PANEL UTILIZING A PROGRAMMABLE VARIOUS-ACTION ANIONIC INCH LIQUID CRYSTAL DISPLAY

GENERAL MOTORS CORP., INDIANAPOLIS, IND.

EXPERIMENTAL INVESTIGATION OF TURBINE ENDWALL BEHAVIOR

GOULDING (RENEE L.) AND ASSOCIATES

HEAT TRANSFER. VOLUME 1: DESCRIPTION OF EXPERIMENTAL HARDWARE AND TEST CONDITIONS

AERODYNAMICALLY INDUCED VIBRATION

GENERAL TECHNOLOGY APPLICATIONS, INC., ALLINGTON, Vt.

INVESTIGATION OF THE APPLICATION OF A CYROGENIC BLENDING PROCESS TO PRODUCE ANTISTATIC DIESEL FUELS

GEORGE WASHINGTON UNIV., WASHINGTON, D.C.

TRANSONIC WALL TUNNEL WALL INTERFERENCE CORRECTIONS FOR THREE-DIMENSIONAL MODELS

EXPERIMENTAL TRIM DUG VALUES FOR CONVENTIONAL AND SUPERCRITICAL WINGS

GOODRICH DEW, WASHINGTON, D.C.

FRACURE AND FATIGUE CHARACTERIZATION OF AIRCRAFT STRUCTURAL MATERIALS UNDER BIAXIAL LOADS

GEORGIA INST. OF TECH., ATLANTA

AN ITERATIVE FINITE ELEMENT-TRANSIENT TECHNIQUE FOR PREDICTING SOUND RADIATION FROM TURBOFAN INLETS IN STANDY FLYING

EVALUATION OF AN ASYMPTOTIC METHOD FOR HELICOPTER ROTOR SAILRONS

PREDICTION OF SOUND RADIATION FROM DIFFERENT PRACTICAL JET ENGINE INLETS

DISTRIBUTED DATA PROCESSING: WHAT IS IT?

HELICOPTER ROTOR LOADS USING A MATCHED ASYMPTOTIC EXPANSION TECHNIQUE

MARINE AIR TRAFFIC CONTROL AND LANDING SYSTEM (MATICALS) INVESTIGATION, VOLUME 1

MARINE AIR TRAFFIC CONTROL AND LANDING SYSTEM (MATICALS) INVESTIGATION, VOLUME 2

DEVELOPMENT OF AN ANALYTICAL TECHNIQUE FOR THE OPTIMIZATION OF JET ENGINE AND DUCT ACOUSTIC NOISE

ACOUSTIC PROPERTIES OF TURBOFAN INLETS

MARINE AIR TRAFFIC CONTROL AND LANDING SYSTEM (MATICALS) INVESTIGATION

COMMUNITY NOISE

SUMMARY OF COMMUNITY TECHNOLOGY NEEDS

DEVELOPMENT OF A SPINNING WAVE HEAT ENGINE

DYNAMIC STABILITY OF A BUOYANT QUAD-ROTOR AIRCRAFT

GOODYEAR AEROSPACE CORP., AKRON, OHIO

STUDY OF GROUND HANDLING CHARACTERISTICS OF A MARITIME PATROL AIRSHIP

PRELIMINARY DESIGN STUDY OF A HYBRID AIRSHIP FOR FLIGHT RESEARCH

PRELIMINARY STUDY OF GROUND HANDLING CHARACTERISTICS OF ISORANT QUAD ROTOR (IQR) VEHICLES

GOULDING (RENEE L.) AND ASSOCIATES, GLENDALE, CALIF.

STUDY OF THE DE-ICING PROPERTIES OF THE ASDE-3 ROTODOME

CORPORATE SOURCE INDEX
### INSTITUTES FOR PERCEPTION AVO-TRG

<table>
<thead>
<tr>
<th>Institute Name</th>
<th>Location</th>
<th>Field of Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hughes Aircraft Co.</td>
<td>California</td>
<td>Aerospace Technology</td>
</tr>
<tr>
<td>IBM Research Labs.</td>
<td>Boca Raton, FL</td>
<td>Computer Science</td>
</tr>
<tr>
<td>Illinois Inst. of Tech.</td>
<td>Chicago, IL</td>
<td>Electrical Engineering</td>
</tr>
<tr>
<td>Imperial College of Science and Technology, London</td>
<td>London, UK</td>
<td>Physics</td>
</tr>
</tbody>
</table>

### Calculation of sensitivity derivatives in aerodynamic forces induced by vibration of a cascade blade

<table>
<thead>
<tr>
<th>Reference</th>
<th>City/State</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>[AIAA 82-0690]</td>
<td></td>
<td>Flight-by-flight corrosion fatigue tests</td>
</tr>
<tr>
<td>[BASA-CB-165939]</td>
<td></td>
<td>State of the art and recent perspectives on the transonic flows in an air inlet with large incidence and the effect of a blowing trap</td>
</tr>
<tr>
<td>[AIAA-Paper 82-31898]</td>
<td></td>
<td>Acoustic noise test as part of the dynamic qualification program in aerospace</td>
</tr>
</tbody>
</table>
INSTITUTO DE PESQUISAS ESPACIAIS, SAO JOSE

duration of training on the transfer of training
[IFP-1980-29] p0257 882-18226

INSTITUTO DE PESQUISAS ESPACIAIS, SAO JOSÉ

CAMPUS (BRAZIL)

An on-board supervisory system for applications in space missions

Prelaunch estimates of near Earth satellite lifetimes using quasi-dynamic atmosphere models - application to a proposed Brazilian satellite
[IPEB-2325-PBE-080] p0538 882-29347

INSTITUTO DE PESQUISAS ESPACIAIS, SAO JOSÉ

BOWMAN CONSTRUCTORS, DELFT  (NETHERLANDS)

Investigation into the utility of some quick setting concrete materials for runway repair
[S-60-157/60.7.0157] p0257 882-18225

INSTITUTO DE PESQUISAS ESPACIAIS, SAO JOSÉ

The vibratory behavior of a rotating propeller shaft. Part B: Vibration tests of a rotating propeller shaft in a rubber stern tube bearing
[IWCO-5072208-81-P-2] p0398 882-24514

INTEGRATED SYSTEMS, INC., PALO ALTO, CALIF.

Design and evaluation of a state-feedback vibration controller
[AHS PREPRINT 81-10] p0442 882-37783

INTERTECHNICS, INC., HUNTINGTON BEACH, CALIF.

The application of NAVSTAR differential GPS in the civil aviation community
[p235 A82-24645

INTERNATIONAL HARVESTER CO., SAN DIEGO, CALIF.

Porosity and characterization of polysulfide resilient foams of various densities for aircraft seating applications
[NASA-CR-117421] p0090 882-12230

IOWA STATE UNIV. OF SCIENCE AND TECHNOLOGY, AMES.

Numerical solution of Space Shuttle orbiter flow field
[AIAA PAPER 82-0020] p0206 882-27083

Experimental stress analysis of a thin-walled pressure vessel with a blade in place
[AIAA PAPER 82-0751] p0336 882-30114

Aerodynamics of advanced axial-flow turbomachinery
[p057 882-29358

IOWA UNIV., OAKDALE.

Turbulent wake development behind streamlined bodies
[p097 882-13104

ITALIAN AIR FORCE PRATICA DI HARR, ROMA

Parametric criteria and impact on design trends
[p024 882-18139

ITALIAN ARMY GENERAL STAFF, ROMA.

Military requirements: Too little or too much
[p027 882-18138

ITT AERONICS, BUFFALO, N.Y.

[AD-A106052] p0136 882-18424

J

JAMES AND ASSOCIATES, LANCASHIRE, CALIF.

System for providing an integrated display of instantaneous information relative to aircraft attitude, heading, altitude, and horizontal situation

JET PROPULSION LAB., CALIFORNIA INST. OF TECH., PASADENA.

Biological behavior of progressively shear-thickening solutions
[p013 882-11177

Comment on 'Optimal control via mathematical programming'
[p082 882-31125

Experimental investigation of turbulent wall-jets in the presence of adverse pressure gradients in a rectangular diffuser
[p0378 882-32330

Outline of a multiple-access communication network based on adaptive arrays
[p0390 882-34607

Synthetic aperture radar target simulator
[NASA-CAS-95024-1] p0311 882-10286

Radar mapping, archaeology, and ancient land use in the Saya lowlands

K

KANAN AEROSPACE CORP., BLOOMFIELD, CONN.

General purpose research rotor
[AHS PREPRINT 81-9] p0441 882-37777

Advanced technology lightweight gondola system experimental fabrication program
[AP-A104157] p0133 882-18082

Development of manufacturing technology for fabrication of a composite helicopter main rotor spar by tubular braiding
[AO-18057] p0265 882-19209

Structural system identification technology verification
[AO-110510] p0269 882-19583

Dynamic System Coupling (DSCIO) program. Volume 1: User's manual
[AO-115063] p0573 882-31975

Dynamic System Coupling (DSCIO) program. Volume 2: Theoretical manual
[AO-115064] p0573 882-31975

KANAN AEROSPACE CORP., WINDSOR, CONN.

Experimental verification of force determination and ground flying on a full-scale helicopter
[USSAVADHON-TE-81-D-11] p0395 882-24199

KANSAS UNIV., LAWRENCE.

Development of a simple, self-contained flight test data acquisition system
[p0177 A82-20756

A simple, low cost application of a flight test parameter identification system
[p0087 882-39093

Effects of vortex breakdown on longitudinal and lateral-directional aerodynamics of slender wings by the suction analogy
[AIAA PAPER 82-1385] p089 882-39141

Design and flight testing of a digital optimal control general aviation autopilots
[p0507 A82-40906

The design integration of wingtip devices for light general aviation aircraft
[p0508 A82-40933

KANSAS UNIV. CENTER FOR RESEARCH, INC., LAWRENCE.

The use of differential pressure feedback in an automatic flight control system
[AIAA 82-1596] p0845 882-38981

Icing tunnel tests of a composite porous leading edge for use with a liquid anti-ice system
[NASA-CR-164966] p0355 882-11052

A theoretical investigation of wing rocking

A program to evaluate a control system based on feedback of aerodynamic pressure differentials

Development of a simple, self-contained flight test data acquisition system
[NASA-CR-168438] p0213 882-17478

Study of noise reduction characteristics of composite fiber-reinforced panels, interior panel configurations, and the application of the tuned damper concept

Development of a simple, self-contained flight test data acquisition system

A research program to reduce interior noise in general aviation airplanes. Influence of depreassurization and damping material on the noise reduction characteristics of flat and curved stiffened panels

C-20
Lockheed Missiles and Space Co.,

Numerical aircraft design using 3-D transonic 
analyses with optimisation, volume 3. Part 1: 
User's guide to transport design computer 
programmes. [NASA CR-165829-VOL-1] p0315 
H82-21883

Numerical wind tunnel constraint effects 
by a unified pressure signature method. Part 2: 
Applications to winged configurations. 
[NASA CR-166186] p0367 H82-23234

Wind tunnel flight drag correlation

Multibody aircraft study, volume 1 
[NASA CR-165829-VOL-1] p0588 H82-32344

Multibody aircraft study, volume 2 
[NASA CR-165829-VOL-2] p0588 H82-32345

Advanced turbogrip testbed system study, 
Volume I: Application program objectives and 
priorities, drive system and aircraft design 
studies, evaluation and recommendations and 
wind tunnel test plans. 
[NASA CR-167928-VOL-1] p0591 H82-32370

A computer program for the prediction of near 
field noise of aircraft in cruising flight. 
User's guide

Lockheed Missiles and Space Co., Palo Alto, Calif.

Panel optimization with integrated software 
(Pois). Volume 1: Parda: Interactive 
program for preliminary minimum weight design 
[AD-110963] p0411 H82-25404

Supernumerary studies on the sensitivity of 
optimized structures 
[AD-110994] p0412 H82-25545

Panel optimization with integrated software 
(Pois). Volume 2. User instructions: ECHO 
and HESTS 
[AD-111224] p0477 H82-27411

Lockheed Missiles and Space Co., Sunnyvale, Calif.

Elastic suspension of a wind tunnel test section

Logistics Management Inst., Washington, D.C.

The sortie-generation model system. Volume 1: 
Executive summary 
[AD-110897] p0407 H82-26222

The sortie-generation model system. Volume 2: 
Sortie-generation model user's guide 
[AD-110898] p0407 H82-26223

The sortie-generation model system. Volume 3: 
Sortie-generation model program manual 
[AD-110899] p0407 H82-26224

The sortie-generation model system. Volume 4: 
Maintenance subsystem 
[AD-110815] p0407 H82-26225

The sortie-generation model system. Volume 5: 
Spares subsystem 
[AD-110900] p0407 H82-26226

Depot support of gas turbine engines 
[AD-107141] p0462 H82-27217

Los Alamos Scientific Lab., N.Mex.

Outsider's look at flight instrumentation 
[DB81-025409] p0307 H82-11066

Longbridge Univ., of Technology (England).

An experimental study of the effects of an inlet 
flow conditioner on the noise of a low speed 
axial flow fan 
[78-0101] p0270 H82-19956

Active control technology in aircraft 
[5855 H82-32303

LOF Energy Transport Systems, Capistrano Beach, 
Calif.

Low Reynolds number airfoil survey, volume 1 
[NASA CR-165803-VOL-1] p0311 H82-14059


The use of metal finishing in aircraft fuel 
systems

Lufthansa G.E.R.A.-Hamburg (West Germany)

Side-slip indication systems as a fuel saving and 
in jet transport aircraft operation 
[AD-111594] p0402 H82-25181

Corporate Source Index


A study of general aviation community noise 
impact and annoyance 
[NASA CR-167945] p0568 H82-31066

Harold Avionics Ltd., Rochester (England).

Wide angle raster head up display design and 
application to future single seat fighters 
[AD-110505] p0453 H82-26292

Marten Hardt & Co., Orlando, Fla.

Definition of display/control requirements for 
assault transport night/ adverse weather 
capability

Hartland Univ., College Park, Md.

An experimental study of separated flow on a 
finite wing 
[AIAA PAPER 81-1082] p0315 H82-20293

Numerical investigation of supersonic base flow 
with parallel injection 
[AIAA PAPER 82-1001] p0375 H82-31960

A color video display technique for flow field 
surveys

Massachusetts Inst. of Tech., Cambridge, Mass.

Unsteady lifting-line theory with applications 
[AIAA PAPER 82-0356] p0380 H82-19798

Transonic wind tunnel wall interference corrections for three-dimensional models 
[AD-110814] p0437 H82-24663

Helicopter rotor low frequency broadband 
noise

p0273 H82-25772

Flight evaluation of Loran-C for general 
aviation area navigation 
[AD-109836] p0420 H82-30409

A simple system for helicopter 
Individual-Blade-Control and its application 
to stall flutter suppression 
[AD-109916] p0439 H82-37765

A simple system for helicopter 
Individual-Blade-Control and its application 
to stall-induced vibration alleviation 
[ABS PAPER 81-12] p0420 H82-37765

Dynamic surface measurements on a model 
helicopter rotor during blade slap at high 
angles of attack

p0503 H82-40555

Aerocoustic theory for noncompact wing-gust 
interaction 
[FDAR-81-7] p0442 H82-11071

Roll up model for rotor wake vortices, part 5 
[ASBRL-TR-194-A] p0493 H82-17127

A simplified approach to the free wake analysis of 
a hovering rotor 
[AD-109817] p0245 H82-18121

A program testing assistant 
[AD-109817] p0260 H82-18122

Experimental methods for the prediction of the 
effect of viscosity on propeller performance 
[AD-109866] p0308 H82-20472

Application of Computational Fluid Dynamics 
(CFD) in transonic wind tunnel / flight test 
correlation

p0404 H82-25211

Dynamic scheduling of runway operations 
[AD-110814] p0455 H82-26200

PPPD Programmable pilot-oriented display 
[AD-110814] p0455 H82-26201

The P-PDP Project

p0445 H82-26202

Microwave ice protection 
[AD-110814] p0445 H82-26203

Heat transfer in turbines 
[AD-111594] p0455 H82-26207

Lateral control system design for VTOL landing 
on a D7963 in high sea states 
[NASA CR-169074] p0565 H82-26215

Control optimization, stabilisation and computer 
algorithms for aircraft applications 
[NASA CR-169015] p0461 H82-27009

The cost of noise reduction for departure and 
arrival operations of commercial tilt rotor

C-22
Factors influencing velocity distributions at Advanced training techniques using computer Meteorological inputs to advanced simulators The modeling and prediction of multiple jet VIO Use of test facilities for VSTOL fighter model Final report on the FueFo-4 major theme: Flight characteristics design and development of Development and trial of a rotary balance for System identification helicopter parameters. Standard tests of a research model rotor in a System identification helicopter parameters. Determination from flight tests, phase 2 Interference drag with airframe/engine angles of attack Analysis of anltiple geometry perturbations Interference drag with airframe/engine angles of attack Determination from flight tests, phase 2 Interference drag with airframe/engine angles of attack Development of helicopter fuselages on the interaction between the engine jet and the surrounding flow field with regard to the pressure drag on afterbodies Development and trial of a rotary balance for the 3 a-low speed wind tunnels in the Federal Republic of Germany Aircraft alerting systems standardization study. Impact of systems technology and integration on helicopter design Approach in dynamic qualification of light helicopter storages and equipment Effect of test facilities for VSTOL fighter model Final report on the FueFo-4 major theme: Factors influencing velocity distributions at inlet/combofator interfaces
CORPORATE SOURCE INDEX

[CORPORATE SOURCE INDEX]

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION,

quiet short-haul research aircraft
h-cancelation document, revision 1
[NASA-TM-81298] p0026 882-1003
Effects of aircraft noise on the equilibrium of
airport residents: Testing and utilization of
a new methodology
[NASA-TR-76628] p0042 882-11636
System for acquisition and analysis of dynamic
tests on air intakes
[NASA-TR-76646] p0131 882-14056
Experimental investigation of a transonic
potential flow around a symmetric airfoil
[NASA-TR-76676] p0131 882-14057
Wind tunnel tests of engine-equipped models:
Comparison of two jet wash simulation methods
[NASA-TR-76764] p0134 882-14091
Effects of aircraft noise on the equilibrium of
airport residents: Supplementary analyses to
the study carried out around only
[NASA-TR-76627] p0137 882-14673
Taking into account nighttime annoyance in the
calculation of the popnic index
[NASA-TR-76764] p0137 882-14674
Aerodynamics and space report of the President,
1980 activities
Aircraft noise Statistics
[NASA-TR-84079] p0147 882-15986
Bibliography of NASA published reports on
general aviation, 1975 to 1981
[NASA-83017] p0260 882-19132
Advances in rotorcraft Technology and Tilt
Rotord Workshop. Volume 1: Executive Summary
Advances in rotorcraft Technology and Tilt
Rotord Workshop. Volume 2: Operators' Views
[NASA-TR-81148] p0262 882-19171
Advances in rotorcraft Technology and Tilt
Rotord Workshop. Volume 3: Aerodynamics and
Structures Session
[NASA-TR-81147] p0262 882-19172
Advanced rotorcraft Technology and Tilt
Rotord Workshop. Volume 4: Flight Control
Avionics Systems and Human Factors
[NASA-TR-81146] p0263 882-19173
Fatigue analysis of composite materials using
the fall-safe concept
[NASA-TR-81146] p0263 882-19173
Studies on wind tunnel straighteners
[NASA-TR-81146] p0264 882-22244
Wind tunnels of the institute of Fluid
Mechanics of Lille
[NASA-TR-81146] p0265 882-22245
Sound trials of the Institute of Fluid
Mechanics of Lille
[NASA-TR-81146] p0266 882-22246
Aerodynamic investigations to determine possible
aircraft flight paths
[NASA-TR-81146] p0267 882-22247
Aerodynamics on a transport aircraft type
wing-body model
[NASA-TR-81146] p0268 882-22248
Revolution in airplane construction? Grob G112:
The first modern fiber glass composition
airplane shortly before its maiden flight
[NASA-TR-81146] p0269 882-22249
Socata: TB 20 Trinidad given German debut
[NASA-TR-81146] p0270 882-22250
Current developments lighter than air systems
[NASA-TR-81146] p0271 882-22251
Wind tunnels of the institute of mechanics of
Moscow State University
[NASA-TR-81146] p0272 882-22252
Aircraft noise: We're tomorrow-minded people
[NASA-TR-81146] p0273 882-22253
Aerodynamics/ACEB: Aircraft energy efficiency
[NASA-FACTS-94/6-81] p0407 882-25241
Structures and controls/ACEB
[NASA-FACTS-94/6-81] p0407 882-25242
Propulsion/ACEB
[NASA-FACTS-94/6-81] p0408 882-25243
Guidance and control/ACEB
[NASA-FACTS-94/6-81] p0409 882-25244
Aerodynamics on a transport aircraft type
wing-body model
[NASA-FACTS-94/6-81] p0410 882-25245
Aerodynamic investigations to determine possible
aircraft flight paths
[NASA-FACTS-94/6-81] p0411 882-25246
Aerodynamic investigations to determine possible
aircraft flight paths
[NASA-FACTS-94/6-81] p0412 882-25247
Aerodynamics on a transport aircraft type
wing-body model
[NASA-FACTS-94/6-81] p0413 882-25248
Selection of some rotor parameters to reduce noise on the General purpose research rotor [AIAA PAPER 82-1078] p0416 A82-34997
Development of a helicopter rotor/propulsion system having vertical lift and short-field capability [AIAA PAPER 81-2625] p0156 A82-19209
Application of thrusting ejectors to tactical aircraft having vertical lift and short-field capability [AIAA PAPER 81-2629] p0156 A82-19211
Airframe effects on top-counted inlet systems for VSTOL fighter aircraft [AIAA PAPER 81-2631] p0156 A82-19212
Concept definition and aerodynamic technology studies for single-engine V/STOL fighter/attack aircraft [AIAA PAPER 81-2667] p0157 A82-19216
Analysis of selected V/STOL concepts for a civil transportation mission [AIAA PAPER 81-2655] p0157 A82-19220
Real-Time Simulation Computation System [AIAA PAPER 81-2650] p0150 A82-19260
Analysis of flight test measurements in ground effect [AIAA PAPER 81-2651] p0142 A82-19264
The outlook for advanced transport aircraft at the end of the 70's [AIAA PAPER 81-2134] p0041 A82-19278
The effect of ejector augmentation on test-section flow quality in the Calpian 6-ft transonic wind tunnel [AIAA PAPER 82-0571] p0236 A82-26450
Status and capabilities of the National Full Scale Facility 40- by 80-foot wind tunnel [AIAA PAPER 82-0607] p0230 A82-26476
A new facility and technique for two-dimensional aerodynamic testing [AIAA PAPER 82-0608] p0230 A82-26477
The design of a wind tunnel VSTOL fighter model incorporating turbine powered engine simulators [AIAA PAPER 82-2514] p0242 A82-25154
Selection of some rotor parameters to reduce pitch-roll coupling of helicopter flight dynamics [AIAA PAPER 82-26383] p0278 A82-26383
Performance improvements with the free-tap rotor [AIAA PAPER 82-26387] p0279 A82-26387
Evaluation of the effect of elastomeric damping material on the stability of a bearingless main rotor system [AIAA PAPER 82-26394] p0280 A82-26394
Large scale model measurements of airframe noise using cross-correlation techniques [AIAA PAPER 82-26399] p0280 A82-26399
Numerical solution of Space Shuttle Orbiter flow field [AIAA PAPER 82-0026] p0286 A82-27083
Bar & a fault tolerant distributed microcomputer structure for aircraft navigation and control [AIAA PAPER 82-26383] p0293 A82-27714
Test methodology for evaluation of fireworthy aircraft seat cushions [AIAA PAPER 82-26394] p0280 A82-26394
Large scale model measurements of airframe noise using cross-correlation techniques [AIAA PAPER 82-26399] p0280 A82-26399
Numerical solution of Space Shuttle Orbiter flow field [AIAA PAPER 82-0026] p0286 A82-27083
Bar & a fault tolerant distributed microcomputer structure for aircraft navigation and control [AIAA PAPER 82-26383] p0293 A82-27714
Test methodology for evaluation of fireworthy aircraft seat cushions [AIAA PAPER 82-26394] p0280 A82-26394
Comparison between computations and experimental data on time steady, three-dimensional transonic aerodynamics, including aerelastic applications [AIAA PAPER 82-0620] p0339 A82-30157
Radiation enhancement by nonequilibrium during flight through the Taurus atmosphere [AIAA PAPER 82-0078] p0373 A82-31803
Prediction of separated asymmetric trailing-edge flows at transonic Mach numbers [AIAA PAPER 82-1021] p0375 A82-31974
Development of a helicopter rotor/propulsion system dynamics analysis [AIAA PAPER 82-1078] p0416 A82-24997
General purpose rotor research rotor [AIAA PAPER 81-2120] p0041 A82-27777
Design and evaluation of a state-feedback vibration controller [AIAA PAPER 81-10] p0442 A82-27783
AD-1 oblique wing aircraft program
[AIAA PAPER 81-2356] p0064 A82-14390
Comparison of wind tunnel and theoretical aerodynamic predictions with flight measured airloads for the D-1 aircraft
[AIAA PAPER 81-2367] p0065 A82-14393
Flying qualities - A costly lapse in flight-control design
[p0296 A28-28280
Unique flight characteristics of the AD-1 oblique-wing research airplane
[AIAA PAPER 82-1329] p0488 A82-39106
NASA Dryden's experience in parameter estimation and its use in flight test
[AIAA PAPER 82-1377] p0489 A82-39135
Flight-determined correction terms for angle of attack and sideslip
[AIAA PAPER 82-1374] p0497 A82-40290
Flight experience with a backup flight-control system for the NASTAR research vehicle
[AIAA PAPER 82-1541] p0497 A82-40429
A unique flight test facility - Description and results
[p0508 A82-40925
Aspects of clear air turbulence severity forecasting and detection
[p0579 A82-45823
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION,
CORNELL SPACE FLIGHT CENTER, GREENBUSH, N. S.
Structure and variability of the Alboran Sea frontal system
[p0168 A82-20047
Cloud top remote sensing by airborne lidar
[p0379 A82-32920
Scanner imaging systems, aircraft
[p0529 A82-28715
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION,
LYNDON B. JOHNSON SPACE CENTER, HOUSTON, TEL.
Selected stability and control derivatives from the first Space Shuttle entry
[AIAA PAPER 82-2451] p0056 A82-13880
Electromechanical actuators
[p0261 A82-19148
Full-scale flammability test data for validation of aircraft fire mathematical models
[NASA-TP-56264] p0313 A82-21166
Research and Technology Annual report FY-1981
[AIAA-TH-89192] p0379 A82-24137
Spiral slotted phased antenna array
[p0576 A82-27558
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION,
JOHN F. KENNEDY SPACE CENTER, COCOA BEACH, FLA.
Lightning detection and ranging
[p0277 A82-26367
Method for refurbishing and processing parachutes
[AIAA-CASE-942-1] p0537 A82-29330
In-flight IFN procedures simulator
[AIAA-CASE-KSC-11218-1] p0537 A82-29331
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION,
LANGLEY RESEARCH CENTER, HAMPTON, VA.
Design predictions for nose cone control in the cryogenic Transonic Facility
[p0018 A82-12025
A decoupled control system for improved flight performance in wind shear
[p0043 A82-13079
On matching the system identification technique to the particular application
[p0044 A82-13119
Have we overlooked the pilot's role in an automated flight deck
[AIAA 81-2262] p0048 A82-13481
An advanced programmable/configurable color graphics display system for crew station technology research
[AIAA 81-23116] p0051 A82-13516
On-board communication for active-control transport aircraft
[AIAA 81-2322] p0052 A82-13520
Thunderstorm hazards flight research - Program overview
[AIAA PAPER 81-2412] p0053 A82-13853
Flight test experience with high-alpha control system techniques on the F-14 airplane
[AIAA PAPER 81-2505] p0057 A82-13906
Direct strike lightning measurement system
[AIAA PAPER 81-2513] p0057 A82-13910
A unique integrated flight test facility for advanced control/display research
p0058 A82-13919
Aeroelasticity matters - Some reflections on two decades of testing in the NASA Langley Transonic Dynamics Tunnel
p0061 A82-13965
The development of cryogenic wind tunnels and their application to maneuvering aircraft technology
p0061 A82-13971
The integration of control and display concepts - For improved pilot situational awareness
p0061 A82-13972
Jet V/STOL wind-tunnel simulation and groundplane effects
p0061 A82-13974
Progress in aeronautical research and technology applicable to civil air transports
p0077 A82-14553
Operational evaluation of thunderstorm penetration test flights during project Storm Hazards '80
p0078 A82-15054
Experimental evaluation of a perspective tunnel display for three-dimensional helicopter approaches
p0083 A82-15047
Thrust reversing effects on twin-engine aircraft having nonaxisymmetric nozzles
[AIAA PAPER 81-2349] p0100 A82-16911
Screech suppression in supersonic jets
[AIAA PAPER 82-0950] p0114 A82-17753
Vortex lift augmentation by suction on a 60 deg swept Gothic wing
[AIAA PAPER 82-0231] p0117 A82-17856
Recent sidewall boundary-layer investigations with suction in the Langley 0.3-x Transonic Cryogenic Tunnel
[AIAA PAPER 82-0230] p0117 A82-17858
Evaluation of Local-C enroute navigation and non-precision approaches within the State of Vermont
p0129 A82-18160
Acceleration response of fuselage sidewall panels on a twin-engine, light aircraft
p0129 A82-16972
Quantiﬁcation of airport community noise impact in terms of noise levels, population density, and human subjective response
p0129 A82-18732
On the track of practical forward-swept wings
[AIAA PAPER 82-0243] p0114 A82-19786
Piloted simulation of an on-board trajectory optimization algorithm
p0167 A82-20296
Development of a digital, integrated automatic landing system (DIALS) for steep approach and landing
p0168 A82-20297
A crack-closure model for predicting fatigue crack growth under aircraft spectrum loading
p0168 A82-20509
Multi-parameter yield zone model for predicting spectrum crack growth
p0168 A82-20510
We have just began to create efficient transport aircraft
p0180 A82-21373
CAD/CAM approach to improving industry productivity gathers momentum
p0181 A82-21375
Recent advances in using Free Vortex Sheet theory to the estimation of vortex flow aerodynamics
[AIAA PAPER 82-0095] p0183 A82-22045
High angle-of-attack characteristics of three-surface fighter aircraft
[AIAA PAPER 82-0245] p0184 A82-22074
Transonic perturbation analysis of wing-nacelle-pylon configurations with powered jet exhausts
Comparing the relationships between noise level and annoyance in different surveys - A railway
end groups

Evaluation of four subcritical response methods for on-line prediction of flutter onset in
wing/flap-type control effectiveness and effects of control hinge gap seals for a supercritical
wing [AIAA PAPER 82-0960] p0386 A82-34008

Interior noise considerations for advanced high-speed turboprop aircraft

Increased capabilities of the Langley 0.3-a Transonic Cryogenic Tunnel

A single-frequency multitransmitter telemetry technique

Approximate boundary condition procedure for the two-dimensional numerical solution of vortex
wakes

Development and validation of preliminary analytical models for aircraft interior noise prediction

Robust Kalman filter design for active flutter suppression systems

Piloted simulator evaluation of a relaxed static stability fighter at high angle-of-attack

Applications of parameter estimation in the study of spanning airplanes

An estimation of aerodynamic forces and moments on an airplane model under steady state open
conditions

High angle-of-attack characteristics of a forward-swept wing fighter configuration

The use of linearized-aerodynamics and vortex-flow methods in aircraft design

The prediction of helicopter rotor discrete frequency noise

Observations and implications of natural laminar flow on practical airplane surfaces

NASA research on viscous drag reduction

Design and flight testing of a digital optimal control general aviation autopilot
Determination of airplane aerodynamic parameters from flight data at high angles of attack
[0508 AG-40528
Assessment of advanced technologies for high performance single-engine business airplanes
[0508 AG-40532
The design of wingtip devices for light general aviation aircraft
[0508 AG-40532
Analytical study of vortex flows on highly swept delta wings
[0515 AG-41003
Wind-tunnel investigation of vortex flows on a highly swept interceptor configuration
[0516 AG-41006
An initial look at the supersonic aerodynamics of twin-fuselage aircraft concepts
[0516 AG-41006
Wind-tunnel investigation of a full-scale canard-configured general aviation aircraft
[0517 AG-41026
A miniature electro-optical air flow sensor
[0543 AG-41056
Bonding procedure for Teflon seals
[0547 AG-42792
Statistical analysis of piloted simulation of real time trajectory optimization algorithms
[0549 AG-42626
Current perspectives on emergency spin-recovery systems
[0549 AG-42624
Two-frequency \( \delta \alpha /k \) microwave scatterometer measurements of ocean wave spectra from an aircraft
[0558 AG-47693
Determination of airplane model structure from flight data by using modified stepwise regression.
[0520 AG-10041
Estimation of airplane stability and control derivatives from large amplitude longitudinal maneuvers
[0520 AG-10042
Effects of vortex flows on the low-speed aerodynamic characteristics of an arrow wing
[0533 AG-11013
Wind-tunnel results for a modified 17-percent-thick low-speed airfoil section
[0534 AG-11033
Computations of high Reynolds number internal/external flows
[0535 AG-11046
Parametric study of microwave-powered high-altitude airplane platforms designed for linear flight.
[0535 AG-11046
Management of redundancy in flight control systems using optimal decision theory
[0539 AG-11084
General aviation aircraft antennas for the global positioning system
[0594 AG-11339
Amplified crossflow disturbances in the laminar boundary layer on swept wings with suction
[0594 AG-11391
SEL and EPLF noise duration coefficients for the 747 and T-38 aircraft
[0542 AG-11860
Aeroelasticity matters: Some reflections on two decades of testing in the NASA Langley transonic dynamics tunnel
[0508 AG-12041
Investigation of severe lightning strike incidents to two USAF F-106A aircraft
[0508 AG-12052
A look inside the Langley 16-foot transonic tunnel: User's guide
[0089 AG-12085
Research and Technology
[0091 AG-13043
Force measurements, flow-visualization, and boundary-layer tests on a shuttle orbiter model at Mach 6 [NASA-TP-1952]
[0097 AG-13106
Wind-tunnel investigation of the effects of blade tip geometry on the interaction of torsional loads and performance for an articulated helicopter rotor [NASA-TP-1926]
[0097 AG-13107

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, CONT'D

Pressure distributions on three different cruciform aft-tail control surfaces of a wingless missile at Mach 1.69, 2.36, and 3.70.
[0090 AG-13110
Numerical analysis of the near-scatterer-scat field by using two-dimensional Navier-Stokes equations
[0090 AG-13112
Limited evaluation of an F-14A aircraft utilizing an aileron-rudder interconnect control system in the landing configuration
[0100 AG-13145
Optimization and performance calculation of dual-rotation propellers
[0106 AG-14056
Comparison of experimental and theoretical turbulence reduction characteristics for screens, honeycomb, and honeycomb-screen combinations
[0131 AG-14055
A flight investigation of blade-section aerodynamics for a helicopter main rotor having 10-66C airfoil sections
[0131 AG-14058
Design and implementation of a telecommunication interface for the TAAM/TCV real-time experiment
[0132 AG-14075
A general aviation simulator evaluation of a rate-enhanced instrument landing system display
[0133 AG-14085
[0138 AG-14029
Description of a dual fail operational redundant strapdown inertial measurement unit for integrated avionics systems research
[0138 AG-14042
Prediction of flyover jet noise spectra from static tests
[0139 AG-14060
Low-speed aerodynamic performance of a high-aspect-ratio supercritical-wing transport model equipped with full-span slat and part-span double-slotted flaps
[0139 AG-15015
Longitudinal and lateral static stability and control characteristics of a 1/6-scale model of a remotely piloted research vehicle with a supercritical wing
[0145 AG-15075
Relations for the thermodynamic and transport properties in the testing environment of the Langley hypersonic CPF tunnel
[0146 AG-15359
Optical Information Processing for aerospace applications
[0147 AG-15894
Spin tests of a single-engine, high-wing light airplane
[0189 AG-16068
Research through simulation
[0192 AG-16092
Methodology for measurement of fault latency in a digital avionic microprocessor
[0196 AG-17105
Spin-tunnel investigation of a 1/13-scale model of the NASA A-1 oblique-wing research aircraft
[0252 AG-18103
Slotted variable camber flap
[0254 AG-18203
Dynamics of aircraft antiskid braking systems
[0254 AG-18204
Annoyance caused by propeller airplane flyover noise: Preliminary results
[0260 AG-18596
Digital Flight Systems
[0260 AG-19134
Digital Flight systems integration
[0261 AG-19149
Effects of installation of P101 DFS exhaust nozzles on the afterbody-nozzle characteristic of the F-14 airplane
[0263 AG-19181
Simulator study of vortex encounters by a twin-engine, commercial, jet transport airplane
Thrust-induced effects on low-speed aerodynamics of fighter aircraft

Production version of the extended NASA-Langley Vortex Lattice FOSPAR computer program.

Evaluation of voice recognition systems for the NAPS pilot station function.

Leading edge flap system for aircraft control augmentation

In situ ozone data for comparison with laser absorption remote sensor: 1980 FEPE/EROS project.

An assessment of the real-time application capabilities of the SIFT computer system.

Joint University Program Air for Transportation Research, 1981

Effects of wing-leading-edge modifications on a full-scale, low-wing general aviation airplane: Wind-tunnel investigation of high-angle-of-attack aerodynamic characteristics

Static internal performance characteristics of two thrust reverser concepts for axisymmetric nozzles


Magnetic heading reference system

Hinged strake control system

Flight-test verification of a pictorial display for general aviation instrument approach

Fuselage structure using advanced technology fiber reinforced composites

Comparison of analytical and wind-tunnel results for flutter and gust response of a transport wing with active controls

Characteristics of future aircraft impacting aircraft and airport compatibility

Flight evaluation of LOHAN-C in the State of Vermont

Means for controlling aerodynamically induced twist

Design considerations and experiences in the use of composite material for an aerelastic research wing

Methodology for determining element deflections to train and maneuver the DAST vehicle with negative static margin

The feasibility of a high-altitude aircraft platform with consideration of technological and societal constraints

Automated optimum design of wing structures. Deterministic and probabilistic approaches

Aircraft airplane mission time structure characteristics

Aeropropulsive characteristics of each number up to 2.2 of axisymmetric and axisymmetric nozzles installed on an F-18 model

Data acquisition system for NASA Langley impact dynamics research facility

Structures and Dynamics Division research and technology plans, FY 1982

Advanced reliability modeling of fault-tolerant computer-based systems

Noise transmission loss of aircraft panels using acoustic intensity methods

Airport/Community Noise

Noise and economic characteristics of advanced blended supersonic transport concept

Supercritical aeronautical fighter configuration. Wind-tunnel investigation at Mach numbers of 0.60 to 0.95

Effect of nacelle and vertical-tail variables on the performance of a 3.5-surface P-15 model at transonic Mach numbers

Some design considerations for solar-powered aircraft

Decoupler pylons: wing/store flutter suppressor

Application of a transonic small body rule to correct the effects of sideslip boundary layers in two-dimensional transonic wind tunnels

Operational flow visualization techniques in the Langley Unitary Plan Wind Tunnel

Flow visualization in the Langley 0.3-meter Transonic Cryogenic Tunnel and preliminary plans for the National Transonic Facility

Seeing through flows in Langley's 0.3-meter Transonic Cryogenic Tunnel

Flow field studies using holographic interferometry at Langley

Applications of a laser velocimeter in the Langley 4- by 7-meter tunnel

Laser Doppler velocimetry application in the Langley 0.3-meter Transonic Cryogenic Tunnel

Velocity and flow angle measurements in the Langley 0.3-meter transonic cryogenic tunnel using a laser transit anemometer

Some NTF laser velocimeter installation and operation considerations

Operational evaluation of a propeller test stand in the quiet flow facility at Langley Research Center

Measurements of area static pressure and far field acoustic of shock containing supersonic jets

Langley test highlights, 1981

NASA research on viscous drag reduction

Family of airfoil shapes for rotating blades

Cryogenic wind tunnels: a selected, annotated bibliography

Results from tests of three prototype general aviation seats

C-33
A planning system for F-16 air-to-surface missions

[HAL-TB-676T] p0003 A82-10220

Instrumented aircraft verification of clear-air radar detection of low-level wind shear

[HAL-TB-678T] p0005 A82-10220

Some piloting experiences with multifunction isometric side-arm controllers in a helicopter

[HAL-TB-679T] p0005 A82-13005

An evaluation of the Bosemont ice detector for cloud water content measurements

[HAL-TB-672T] p0008 A82-21156

Optimum performance and wake geometry of co-axial rotor in hover

[HAL-TB-673T] p0008 A82-29321

An evaluation of an experimental technique to investigate the effects of the engine position on upstream/downstream interference

[HAL-TB-676T] p0008 A82-27297

Simulation of phased excitation due to hazardous wind shear

[HAL-TB-678T] p0011 A82-17944

A study on numerical method for evaluating time-variant, three-dimensional flows in military aircraft intakes

[HAL-TB-679T] p0011 A82-13006

Development of a clear air radar to detect meteorological hazards at airports

[HAL-TB-672T] p0026 A82-39835

Evaluation of a meteorological airborne pulse Doppler radar

[HAL-TB-673T] p0026 A82-18201

Three-dimensional flows in military aircraft

[HAL-TB-676T] p0026 A82-17944

American aerospace and defense models with sweptback and tapered tips

[HAL-TB-678T] p0034 A82-11035

Prediction and measurement of time-variant, three-dimensional flows in military aircraft intakes

[HAL-TB-679T] p0034 A82-11034

Field program operations: Turbulence and gust front

[HAL-TB-682T] p0107 A82-16050

Doppler radar research and application to aviation flight safety, 1977 - 1979

[HAL-TB-683T] p0188 A82-16058

Field program operations: Turbulence and gust front

[HAL-TB-684T] p0286 A82-20163

Field program operations: Turbulence and gust front

[HAL-TB-685T] p0286 A82-20163

Field program operations: Turbulence and gust front

[HAL-TB-686T] p0303 A82-23210

Field program operations: Turbulence and gust front

[HAL-TB-687T] p0303 A82-23210
C-38

DEVELOPMENT OF AN EJECTION SEAT BALLISTIC BLOCK FOR THE S-3A AIRCRAFT.

Development of a supported airbag ejection restraint (SBBER) for windblast protection.

Development of longitudinal equivalent system models for selected US Navy tactical aircraft.

Thermal and FSTOL handling qualities specifications, an overview of the current status.


Current ABS restraint system status, trade-off constraints and long range objectives for the Marine Personnel ejection system (MBPS).

An oxygen enriched air system for the AV-8B.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.


Listing of aircraft accidents/incidents by make.

Briefs of fatal accidents involving weather as a cause/factor.

Briefs of accidents involving alcohol as a cause/factor.

Briefs of fatal accidents involving weather as a cause/factor.

Briefs of accidents involving midair collisions.

Briefs of accidents involving missing and missing later discovered aircraft.

Briefs of fatal accidents involving fixed-Hing control system.

Annual review of aircraft accident data: US air carrier operations.

Annual review of aircraft accident data: US air carrier operations.

Annual review of aircraft accident data: US military aviation.

Annual review of aircraft accident data: US general aviation.

Annual review of aircraft accident data: US general aviation.

Listing of aircraft accidents/incidents by make and model.

Annual review of aircraft accident data: General aviation.

Briefs of fatal accidents involving missing and missing later discovered aircraft.

Briefs of accidents involving turbine powered aircraft.

Briefs of accidents involving missing and missing later discovered aircraft.

Briefs of accidents involving midair collisions.

A brief investigation of crossdeck pendant catapult slot interaction.

A survey and update of F-14A mission profiles for the AV-8B.

The AIDS/F-18 diffractive BOD.

The military flying qualities specification, an overview of the current status.

Maintenance models for selected US Navy tactical aircraft.

A method for designing inlet distortion screens for aircraft gas turbine engine tests using an interactive computer program.


A method for designing inlet distortion screens for aircraft gas turbine engine tests using an interactive computer program.

Development of an ejection seat ballistic block for the S-3A aircraft.

Development of a supported airbag ejection restraint (SBBER) for windblast protection.

A short takeoff performance computer program.

Development of longitudinal equivalent system models for selected US Navy tactical aircraft.

VTOL and FSTOL handling qualities specifications, an overview of the current status.

Thermal and FSTOL handling qualities specifications, an overview of the current status.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.

CABIN SAFETY IN LARGE TRANSPORT AIRCRAFT.
Dilution of Precision (GDOP) concept for selecting navigation measurements
[AD-A1082561] p0253 B82-18197

HYDRO ANALYSIS CORP., VIENNA, VA.
National Airspace Data Interchange Network (NASDN) support of Remote Maintenance Monitoring System (RMMS)
[AD-A1109125] p0262 B82-19160

NEVADA UNIV. LAS VEGAS.
Demonstration of radar reflector detection and ground clutter suppression using airborne weather and mapping radar
[AD-A2-40532] p0500 A82-40532

NEW JERSEY INST. OF TECH., NEWARK.
Predictive model for jet engine test cell opacity
[AD-A1170585] p0610 B82-33397

NEW MEXICO UNIV., ALBUQUERQUE.
Design of airport pavements for expansive soils
[AD-A1049660] p0041 B82-11133

NEW SOUTH WALES UNIV., KEENEAU (AUSTRALIA).
Stability analysis of the twin mode model of coupled flexural/torsional vibrations in turboprops
[AD-A1-5057] p0143 B82-15057

NEW SOUTH WALES UNIV., SYDNEY (AUSTRALIA).
Acoustic emission from free jets
[AD-A102962] p0359 B82-22962

NEW YORK UNIV., NEW YORK.
Design of supercritical swept wings
[AD-A1023826] p0223 A82-23826

NEWARK (LOUIS) LTD., CROYDON (ENGLAND).
The influence of sensor and actuator characteristics on overall helicopter AFCS design
[AD-A1-18171] p0251 B82-18171

WILSON ENGINEERING AND RESEARCH, INC., MOUNTAIN VIEW, CALIF.
Integration of a code for aerocoustic design of conventional and composite wings into AC727, an aircraft synthesis program
[NASA-CR-178005] p0189 B82-16069

NORTH CAROLINA AGRICULTURAL AND TECHNICAL STATE UNIV., GREENSBORO.
Impact-initiated damage thresholds in composites
[AD-A102028] p0108 B82-12028

NORTH CAROLINA STATE UNIV., RALEIGH.
Aircraft wing trailing-edge noise
[NASA-CR-16952] p0034 B82-11039

Automated design of minimum drag light aircraft fuselages and nacelles
[NASA-CR-16919] p0368 B82-23238

NORTH CAROLINA UNIV., RALEIGH.
An advanced programmable/reconfigurable color graphics display system for crew station technology research
[AD-A1-3344] p0051 A82-13516

NORTHEASTERN UNIV., BOSTON, MASS.
Engine dynamic analysis with general nonlinear finite element codes. II - Bearing element implementation, overall numerical characteristics and benchmarking
[ASME PAPER 82-CF-282] p0430 A82-35462

Control electronics for air-borne quadrupole ion mass spectrometer
[AD-A115399] p0560 B82-30356

NORTHPAC CORP., HANOVER, CALIF.
Vortex flow correlation
[AD-A108725] p0307 B82-20468

Tail configurations for highly maneuverable combat aircraft
[AD-A108959] p0221 B82-22201

Water tunnel flow visualization and wind tunnel data analysis of the F/A-18
[NASA-CR-165059] p0404 B82-25215

NOTRE DAME UNIV., INDIANA.
Experimental studies of the Eppler 61 airfoil at low Reynolds numbers
[AD-A1082-036] p0164 A82-19796

Stability and flutter analysis of turbine blades at low speed
[AD-A108096] p0142 B82-15050

Alternatives for jet engine control
[NASA-CR-168096] p0269 B82-23247

OAK RIDGE NATIONAL LAB., TENN.
Testing of krita-powered runway distance and taxiway markers
[AD-A114558] p0612 B82-33408

CORPORATE SOURCE INDEX

OFFICE NATIONAL D'ETUDES ET DE RECHERCHES AEROSPATIALES, PARIS (FRANCE).
Application of the OHE dynamic stall model to a helicopter blade in forward flight
[AD-A108610] p0250 B82-18161

OFFICE NATIONAL D'ETUDES ET DE RECHERCHES AEROSPATIALES, PARIS (FRANCE).
Wind tunnel tests of powered models: A comparison of two methods of simulating the jets of jet engines
[AD-A108307] p0095 B82-13007

Studies of air inlets at Reynolds numbers comparable to flight in OHEAs F1 and S1A wind tunnels
[AD-A108309] p0096 B82-13091

[AD-A7-713] p0136 B82-14388

Research on an induction driven cryogenic wind tunnel
[AD-A1-1349] p0136 B82-14394

Multivariable aircraft control by maneuver commands: An application to air to surface missile
[AD-A108218] p0262 B82-19154

Electrical ground testing of aircraft anti-static protection
[AD-A108215] p0262 B82-19156

Induction driven transonic wind tunnel Test: Operation at room temperature and cryogenic adaptation
[AD-A108216] p0262 B82-19158

La Recherche Aerospatiale, bi-monthly bulletin, number 1981-5, September - October 1981
[AD-A7-725] p0263 B82-22165

Helicopter rotor performance improvement by utilization of swept-back parabolic blade tip design
[AD-A1-12151] p0263 B82-22151

Real time digital filtering test on the SI continuous wind tunnel at Bodane
[AD-A108217] p0263 B82-22152

The influence of protective treatment on the mechanical properties of superalloy parts
[AD-A108218] p0262 B82-22180

Application of the theory of bifurcations to the study of the loss of control in combat aircraft
[AD-A108219] p0347 B82-22198

Generation of noise by turbulence
[AD-A108221] p0400 B82-20964

La Recherche Aerospatiale, bi-monthly bulletin, number 1981-6, November-December 1981
[AD-A7-741] p0264 B82-26185

Aerodynamics of compressor blades: Subsonic stall flutter
[AD-A108222] p0414 B82-26189

Wind tunnel studies of store separation with load factor. Freedrops and captive trajectories for supersonic lift
[AD-A108223] p0264 B82-30261

Computation of three dimensional unsteady nonuniform flow in the blade-free annular channel of a turbomachine
[ONERA-NT-1982-2] p0592 B82-32372

OFFICE OF NAVAL RESEARCH, LONDON (ENGLAND).
A technical assessment of aeronautical engineering in Israel
[AD-A106900] p0462 B82-27218

OHIO STATE UNIV., CLEVELAND.
Effect of tip vane on the performance and flow field of a rotor in hover
[AD-A108690] p0498 A82-40511

OHIO STATE UNIV., COLUMBUS.
Improving the RSI through enhanced cockpit displays
[AD-A108691] p0009 A82-10669

Aerodynamic characteristics of airfoils with ice accretions
[AD-A108692] p0104 A82-22081

Development of a computer based presentation of non-steady helicopter rotor flows
[AD-A108693] p0199 B82-17113

Rotor flow research in low speed helicopter flight
[AD-A108694] p0199 B82-17132

Non-steady velocity measurement of the wake of a helicopter rotor at low advance ratios
[AD-A108695] p0199 B82-17133

Terrain model animation
[AD-A108696] p0215 B82-17807

Hover tests of a model H-force rotor
[AD-A108697] p0250 B82-18159
Aeroelastic characteristics of a mistuned bladed-disc assembly
A tactical display aid for primary flight training
[NASA-CH-166242] p0301 H82-20142
GTD analysis of airborne antennas radiating in the presence of longy dielectric layers
[NASA-CH-168770] p0315 H82-22238
Performance evaluation of a kinesthetic-tactual display
Haze age accretion and its effect on air quality performance
[NASA-CH-165599] p0393 H82-20166
Elevation plane analysis of on-aircraft antennas
[AD-A112373] p0460 H82-26554
Gravity induced position errors in airborne inertial navigation
[AD-A113823] p0467 H82-27272
The Earth's gravity field to degree and order 180 using SHARP altimeter data, terrestrial gravity data and other data
[AD-A113098] p0470 H82-27900
Near field analysis of airborne antennas
[AD-A115074] p0561 H82-30462
Geodesic paths of an ellipsoid-mounted antenna
[AD-A116453] p0596 H82-32973
Ohio Univ., Athens.
A Lorenz-C prototype navigation receiver for general aviation
[AAIA 81-2-329] p0203 A82-13532
ILS performance assessment, task 4. Volume I: Evaluation procedures and equipment design
[AD-A105593] p0208 H82-12661
A prototype interface unit for microprocessor based Lorenz-C receiver
[NASA-CH-164807] p0132 H82-14078
GTD terrain reflection model with application to ILS glide slope
Investigation of air transportation technology at Ohio University, 1981
[AD-A104654] p0265 H82-25406
Loran-C plotting program for plotting lines of position on standard charts
[AD-A104526] p0265 H82-25204
A Loran-C prototype navigation receiver for general aviation
[AD-A104526] p0265 H82-25205
A Loran-C prototype navigation receiver for general aviation
[AD-A105593] p0265 H82-25207
A prototype interface unit for microcomputer-based Loran-C receiver
[AD-A105593] p0266 H82-25208
A Loran-C prototype navigation receiver for general aviation
[AD-A118411] p0266 H82-27259
Effects of high voltage transmission lines on non-directional beacon performance
[AD-A112311] p0266 H82-27261
Evaluation of the FAA/MTRC weather data device
[AD-A116466] p0256 H82-30800
Efficient transfer of weather information to the pilot in flight
[NASA-CH-165889] p0259 H82-32363
Oklahoma State Univ., Stillwater.
On the prediction of swirling flowfields found in axisymmetric combustor geometries
A simple finite difference procedure for the vortex controlled diffuser
[AAIA PAPER 82-1-010] p0219 A82-12120
Turbulence measurements in a confined jet using a wire-orientation hot-wire probe technique
[AAIA PAPER 82-1-012] p0215 A82-17708
Flow and acoustic properties of low Reynolds number underexpanded supersonic jets
[AD-A116814] p0257 H82-30288
An aircraft wind shear detection and warning system using Doppler radar
[AD-A105593] p0203 A82-10220
Instrumented aircraft verification of clear-air radar detection of low-level wind shear
[AD-A105593] p0204 A82-10221
OLD DOMINION UNIV., NORFOLK, VA.
Steady and unsteady nonlinear hybrid vortex method for lifting surfaces at large angles of attack
[AAIA PAPER 82-0351] p0185 A82-20208
Fluid element thermal analysis of convectively-cooled aircraft structures
[NASA-CH-164903] p0325 H82-28565
Comparative study of flare control laws
[NASA-CH-164903] p0207 H82-10032
Airborne antenna pattern calculations
[NASA-CH-165059] p0146 H82-15277
Experimental study of delta wing leading-edge devices for drag reduction at high lift
Scale-model studies for the improvement of flow patterns of a low-speed tunnel
[AD-A116130] p0209 H82-17228
Energy environment study
[NASA-CH-164856] p0215 H82-1765A
Aerodynamic performance of slender wings with separated flows
[NASA-CH-168768] p0235 H82-22206
Leading edge flap system for aircraft control augmentation
[NASA-CALIF-12787-1] p0407 H82-25240
OPERATION S, INC., NEWTON (MASS).
Evaluation of the design, construction and operation of a gas fueled engine driven heat pump
[AD-A11-034] p0213 H82-17659
OPERATIONS RESEARCH, INC., SILVER SPRING, MD.
Benefit cost analysis of the aircraft energy efficiency program
[NASA-CH-165116] p0268 H82-27280
Aircraft energy conservation during airport ground operations
[AD-A116130] p0589 H82-32352
PACE ASSOCIATES, INC., HILLSBORO, OR.
Heavy-duty engines analysis, study 4: A preliminary market analysis for gas-turbine applications in the farm market
[DBS-2-001750] p0306 H82-20549
PACE SYSTEMS, INC., AUBURN, VA.
Cockpit integration from a pilot's point of view
[AD-A104364] p0366 H82-23224
PACIFIC NORTHWEST LAB., RICHLAND, WA.
Development of in-can welding process and equipment, 1979 and 1980
[DD-B-001050] p0195 H82-16831
PACIFIC-SIERRA RESEARCH CORP., SANTA MONICA, CALIF.
Transverse electric waves for VIF/OP communication between aircraft
[AD-A115834] p0259 H82-32582
PAREX, INC., Waltham, MASS.
Advanced fuel flowmeter for future naval aircraft
[AD-A104360] p0307 H82-11063
PARKS (RALPH R.) CO., PASADENA, CALIF.
Fuel quality processing study, volume 1
[NASA-CH-165327-701-1] p0359 H82-24649
Fuel quality/processing study, volume 2: Appendix. Task 1 literature survey
[NASA-CH-165327-701-2] p0399 H82-24650
FEER CONSULTANTS, INC., ROCKVILLE, MD.
Executive summary of systems analysis to develop future civil aircraft noise reduction alternatives
[AD-A116467] p0602 H82-33162
Effects of filter response on analysis of aircraft noise data
[AD-A116458] p0602 H82-33167
PENNSYLVANIA STATE UNIV., UNIVERSITY PARK.
Three dimensional turbulent boundary layer development on a fan rotor blade
[AAIA PAPER 82-1-007] p0275 A82-31965
An experimental study of the effect of tail configuration on the spinning characteristics of general aviation aircraft
[NASA-CH-165576] p0267 H82-19224
Three dimensional mean velocity and turbulence characteristics in the annulus wall region of an axial flow compressor rotor passage
[NASA-CH-165003] p0408 H82-25252
Investigation of the tip clearance flow inside and at the exit of a compressor rotor passage
[NASA-CH-165004] p0408 H82-25253
Investigation of spray characterization for flashing impingement of dissolved air and superheated fluids
[NASA-CR-3563] p0453 N82-26295

Computer simulation of three-dimensional potential flow fields in which aircraft propellers operate
[NASA-CR-166316] p0505 N82-22312

The dynamic flexural response of propeller blades
[NASA-CR-166316] p0505 N82-22313

Techniques suitable for a portable wear metal analysis
[AD-111152] p0411 N82-25488

PILATUS AIRCRAFT LTD., SINTI (SWITZERLAND)
Advanced technologies applied to reduce the operating costs of small commercial aircraft
p0508 N82-60915

POLITECNICO DI MILANO (ITALY)
An experimental analysis of the shape of a rotor wake
p0265 N82-18122

Experimental Investigation of aerodynamic instability of open field profile
p0248 N82-18151

FLY AND HUSTLER AIRCRAFT, WEST PALM BEACH, FLA.
Flight evaluation of a digital electronic engine control system in an F-15 airplane
[ALAA PAPER 82-1000] p0928 N82-37683

FLY AND HUSTLER AIRCRAFT, EAST HARTFORD, CONN.
Improved plasma sprayed HCrAlI coatings for aircraft gas turbine applications
p0176 N82-20742

Sub energetics of compressor blade tips seals
p0285 N82-22708

Sensor failure detection system
[AD-107900] p0100 N82-13145

Study of controlled diffusion stator blading. 1. Aerodynamic and mechanical design report
[NASA-CR-165560] p0190 N82-16081

Potential propulsion considerations and study areas for all-electric aircraft
p0261 N82-19137

Energy efficient engine shrouds, hollow fan blade technology report
[NASA-CR-165586] p0317 N82-21196

Energy efficient engine exhaust mixer model technology

Advanced Low-Excursions Catalytic-Combustor Program, phase 1
[NASA-CR-159865] p0354 N82-22265

Analysis of high load dampers
[NASA-CR-165503] p0369 N82-23288

Performance deterioration due to acceptance testing and flight loads; J290 jet engine diagnostic program
[NASA-CR-165572] p0672 N82-23709

B747/JJF9 flight loads and their effect on engine running clearances and performance deterioration; BCC F-111 and NASA J290 engine diagnostic programs
[NASA-CR-165573] p0610 N82-28296

Energy efficient engine: High pressure turbine unloaded rig technology report
[NASA-CR-165148] p0525 N82-32383

Structural tailoring of engine blades (STAIRB)
[NASA-CR-167968] p0510 N82-32391

Energy efficient engine: Turbine transition duct model technology report
[NASA-CR-167966] p0610 N82-33394

PRATT AND HARTFORD AEROPRODUCT GROUP, WEST PALM BEACH, FLA.
Optimization of compressor vane and bleed settings
[AD-106059] p0134 N82-14097

Corrosion inhibiting engine oils
p0155 N82-14099

Damage tolerant design for cold-section turbine engine disks
[AD-107843] p0204 N82-17176

CORPORATE SOURCE INDEX

Engine component retirement for cause

Computer modeling of fan-exit-splitter spacing effects on #106 response to distortion
[NASA-CR-167899] p0269 N82-22326

Chevron abreable seal attachment to aircraft gas turbine compressor components
[AD-111962] p0412 N82-25521

Life and Utilization Criteria Identification In Design (LUCID), volume 1
[AD-111939] p0455 N82-26309

Life and Utilization Criteria Identification In Design (LUCID), volume 2
[AD-111960] p0455 N82-26310

Improved penetrant process evaluation criteria
[AD-111517] p0560 N82-30386

PRINCETON UNIV., N. J.
Digital detection and processing of laser beacon signals for aircraft collision hazard warning
[AD-A1-3238] p0052 N82-13525

Wide field of view laser beacon system for three-dimensional aircraft position measurements
[AD-A1-32456] p0034 N82-25463

An introduction to stochastic optimal control theory
p0308 N82-11076

Digital command augmentation for lateral-directional aircraft dynamic control
[AD-A10274] p0319 N82-21214

Investigation of air transportation technology at Princeton University, 1981
p0496 N82-26212

Flying qualities criteria for GA single pilot IFR operations
p0496 N82-26213

Air data measurement using distributed processing and fiber optics data transmission
p0496 N82-26214

Input/output models for general aviation piston-prop aircraft fuel economy
p0496 N82-26215

Wide field of view laser beacon system for three-dimensional aircraft range measurements
p0496 N82-26216

Development of flying qualities criteria for single pilot instrument flight operations
[NASA-CR-165932] p0533 N82-29288

Pilot opinions of sampling effects in lateral directional control
p0563 N82-20849

PRIVET-KE KBAB LAB., ESO, KILBUSH (ISRAEL)
Pollution of the soil by aviation gasoline
[PM-1979-41] p0147 N82-15596

PORDGE UNIV., LAFAYETTE, Ind.
Water ingestion into jet engine axial compressors
[ALAA PAPER 82-0196] p0117 N82-17836

Diffraction by a finite strip
p0382 N82-33605

Dynamic stability of flexible forward swept wing aircraft
[ALAA PAPER 82-1325] p0480 N82-39102

A modern approach to pilot/vehicle analysis and the Beal-Smith criteria
[ALAA PAPER 82-1357] p0489 N82-39125

Control design of flexible spacecraft
[AD-112099] p0039 N82-11081

Interactive aircraft flight control and aerelastic stabilization
[NASA-CR-165236] p0100 N82-13150

Measured performance response to transient aircraft loadings
p0101 N82-13442

A compilation of stress intensity factor solutions for flawed fastener holes
[AD-100753] p0259 N82-16082

Flutter and time response analyses of three degree of freedom airfoils in transonic flow
[AD-108987] p0267 N82-19227

Multivariable loop control analysis and synthesis for coupled flight systems
p0347 N82-22913

Water ingestion into axial flow compressors
[AD-101677] p0537 N82-29326

Effect of water on axial flow compressors. Part 1: Experimental results and discussion
[AD-1114830] p0537 N82-29327

Effect of water on GxR compressors. Part 2: Computational program
p0537 N82-29327

C-42
CORPORATE SOURCE INDEX

Performance of SBC II fuels in gas-turbine combustors: Alternative-fuels-utilization program (DB82-010471) p0595 B82-32518

RADIO TECHNICAL COMMISSION FOR AERONAUTICS, WASHINGTON, D. C.

Software encodings in airborne systems and equipment certification (STCA/DO-178) p0193 B82-16759
PS broadcast interference related to airborne ILS, VOR and YHF communications (STCA/DO-176) p0268 B82-19419
Investigation of technical requirements (STCA/DO-176) p0268 B82-19420
Investigation of airborne VHF communication and navigation equipment (STCA/DO-178) p0268 B82-19421
Investigation of the effects of airborne installation factors on receiver interference (STCA/DO-179) p0268 B82-19422
FAR/FCC coordination procedures for Ps broadcast stations (STCA/DO-178) p0268 B82-19423
Minimum operational performance standards for automatic direction finding (ADF) equipment (STCA/DO-179) p0523 B82-28270
RAND CORP., SANTA MONICA, CALIF.
A new approach to modeling the cost of ownership for aircraft systems (AD-A104824) p0102 B82-13979
Distributed intelligence for air fleet control (AD-A106611) p0253 B82-18195
Proplanning, project improvement and future planning: Lessons from past -aircraft modification programs (AD-A111309) p0463 B82-27220
AUTOPilot: A distributed planner for air fleet control (AD-A107139) p0467 B82-27269
Scenarios for evolution of air traffic control (AD-A112566) p0467 B82-27270
Reflections on an F-43 in flight emergency (AD-A116673) p0605 B82-33358
Pal's theorem for nonstationary processes (AD-A117067) p0614 B82-34135
REISSER/B POLYTECHNIC INST., THOR, E. L.
Determination and analysis of jet and missile fuel deposits (AD-A105558) p0909 B82-12248
Composite structural materials (NASA-CE-165121) p0193 B82-16182
Parallel computation for developing nonlinear control procedures (AD-A107914) p0209 B82-17227
Mechanisms of corrosion fatigue (AD-A110134) p0210 B82-17343
Investigation of passive shock wave-boundary layer control for transonic airfoil drag reduction (NASA-CE-166804) p0349 B82-22209
An analytical study of turbulence responses, including horizontal tail loads, of a control configured jet transport with relaxed static stability (NASA-CE-167036) p0455 B82-26313
RESEARCH INST. OF NATIONAL DEFENCE, LUND/QING (SWEDEN)
Detection of obstacles by low flying aircraft (FOA-C-30227-21) p0140 B82-15026
Transparent measurements under electric pulse excitation in 37 Viggen aircraft (FOA-C-30243-41) p0370 B82-23409
RESEARCH INST. OF NATIONAL DEFENCE, STOCKHOLM (SWEDEN)
Lightning effects on aircraft and components. Literature study on lightning strikes and protection (FOA-C-30808-P) p0026 B82-10024
RESEARCH INST. OF NATIONAL DEFENCE, DUISBURG (GERMANY), RADIK simulator for aircraft instruments (FOA-C-40136-A) p0356 B82-22826
RESEARCH TUNNEL ENG., RESEARCH TUNNEL, B.C.
An advanced programmable/reconfigurable color graphics display system for crew station technology research (AIAA 81-2314) p0501 A82-13516

Problems related to the integration of fault tolerant aircraft electronic systems (NASA-CR-165926) p0530 B82-22922
RISO NATIONAL LAB., ROSKILDE (DENMARK), Aerodynamic forces acting on the bladed tail regulated propeller type windmills (DB82-90179) p0573 B82-31718
ROCKWELL INTERNATIONAL CORP., CEDAR RAPIDS, IOWA
Digital flight controls (DB82-21943) p0261 B82-21943
State-of-the-art cockpit design for the HH-65A helicopters (DB82-21943) p0366 B82-23220

Delta electrical load analysis C-141B JACC/CP aircraft (AD-A113761) p0524 B82-22823
ROCKWELL INTERNATIONAL CORP., COLUMBUS, OHIO.
Investigation of acoustic interactions in jet thrust augmenting systems (AD-A106063) p0101 B82-13835
FTF-12A diagnostic and development programs (AD-A106063) p0101 B82-13835
ROCKWELL INTERNATIONAL CORP., DOWNEY, CALIF.
Develop, demonstrate, and verify large area composite structural bonding with polyimide adhesives (NASA-CR-165839) p0859 B82-23665
Spiral slotted phased antenna array (NASA-CASE-MSC-14532-2) p0476 B82-23755
ROCKWELL INTERNATIONAL CORP., EL SEGUNDO, CALIF.
Configuration Development System/BABIES Report (AD-A1067277) p0189 B82-16072
Multiple ejection effects analysis (AD-A1082777) p0252 B82-18192
Evaluation of superplastic forming and co-diffusion bonding of Ti-61A-4V titanium alloy expanded sandwich structures (NASA-CR-165827) p0268 B82-19358
Supersonic cruise/transonic maneuver wing section development study (AD-A110666) p0488 B82-26256
ROCKWELL INTERNATIONAL CORP., LOS ANGELES, CALIF.
HiBAT onboard flight computer system architecture and qualification ([AIAA 81-2107) p0001 B82-10062
HiBAT aerodynamic design and flight test experience ([AIAA PAPER 81-2833) p0055 B82-13871
Performance of FFT-lined composite joint bearing ([AIAA PROPEP 82-99-11] p0043 B82-37854
SF/58 titanium concepts for structural efficiency for HC p0302 B82-20154
Investigation of aircrew protection during emergency escape at dynamic pressures up to 1600 g (AD-A117552) p0605 B82-33359
ROCKWELL INTERNATIONAL CORP., THOUSAND OAKS, CALIF.
Superplastic aluminium evaluation ([AD-A110760) p0210 B82-17338
BOLLS-BOTCH LTD., BRISTOL (ENGLAND).
The subsonic performance of practical military variable area convergent nozzles (PBB-90049) p0025 B82-13076
BOLLS-BOTCH LTD., DETHBY (ENGLAND).
Establishment of an experimental technique to provide accurate measurement of the installed drag of close coupled civil nacelle/airframe configurations, using a full span model with turbine powered engine simulator ([AD-A110069) p0906 B82-13089
Aerodynamic considerations in the prediction of unstalled supersonic flutter in transonic fans (PBB-90049) p0143 B82-15058
Coatings in the auto gas turbine ([PHB-90049) p0310 B82-21204
Process development and evaluation of gas turbine engine components in IAI 8202 ([PHB-90050) p0310 B82-21205
The testing and approval of aircraft engine mounted accessories ([PHB-90051) p0310 B82-21206

C-43
Developments to improve the noise and combustion emissions on the Fokker F28 aircraft and its Rolls-royce RB183-555 engines. Section 1: Development of the new internal 10-disc mixer [PHB-90061]

Engines for air transport [PHB-90062]

Allowing for the wall boundary layer in a stage of an axial compressor [PHB-90067]

The Rolls-Royce role in aircraft noise reduction [PHB-90058]

The mechanical testing of compressors and turbines for aircraft gas turbine engines [PHB-90070]

Telemetry in aero engine development [PHB-90051]

The impact and future direction of aircraft noise certification [PHB-90052]

The benefits of data exchange [PHB-90049]

Defects and their effect on the behavior of gas turbine discs [PHB-90071]

RB211 powerplant deterioration: Review of current situation and lessons learned [PHB-90073]

The contribution of thermal barrier coatings to improvements in the life and performance of gas turbine components [PHB-90076]

Development of a correlated finite element dynamic model of a complete aero engine [PHB-90081]

Encounters with surge: Some experiences of development of axial compressors for aero gas turbines [PHB-90071]

Rolls-Royce RB183-555 engines. Section 1: emissions on the Fokker F28 aircraft and its Rolls-Royce RB183-555 engines. Section 1: Development of the new internal 10-disc mixer [PHB-90061]

Engines for air transport [PHB-90062]

Allowing for the wall boundary layer in a stage of an axial compressor [PHB-90067]

The Rolls-Royce role in aircraft noise reduction [PHB-90058]

The mechanical testing of compressors and turbines for aircraft gas turbine engines [PHB-90070]

Telemetry in aero engine development [PHB-90051]

The impact and future direction of aircraft noise certification [PHB-90052]

The benefits of data exchange [PHB-90049]

Defects and their effect on the behavior of gas turbine discs [PHB-90071]

RB211 powerplant deterioration: Review of current situation and lessons learned [PHB-90073]

The contribution of thermal barrier coatings to improvements in the life and performance of gas turbine components [PHB-90076]

Development of a correlated finite element dynamic model of a complete aero engine [PHB-90081]

Encounters with surge: Some experiences of development of axial compressors for aero gas turbines [PHB-90071]

Rolls-Royce RB183-555 engines. Section 1: emissions on the Fokker F28 aircraft and its Rolls-Royce RB183-555 engines. Section 1: Development of the new internal 10-disc mixer [PHB-90061]

Engines for air transport [PHB-90062]

Allowing for the wall boundary layer in a stage of an axial compressor [PHB-90067]

The Rolls-Royce role in aircraft noise reduction [PHB-90058]

The mechanical testing of compressors and turbines for aircraft gas turbine engines [PHB-90070]

Telemetry in aero engine development [PHB-90051]

The impact and future direction of aircraft noise certification [PHB-90052]

The benefits of data exchange [PHB-90049]

Defects and their effect on the behavior of gas turbine discs [PHB-90071]

RB211 powerplant deterioration: Review of current situation and lessons learned [PHB-90073]

The contribution of thermal barrier coatings to improvements in the life and performance of gas turbine components [PHB-90076]

Development of a correlated finite element dynamic model of a complete aero engine [PHB-90081]

Encounters with surge: Some experiences of development of axial compressors for aero gas turbines [PHB-90071]

Rolls-Royce RB183-555 engines. Section 1: emissions on the Fokker F28 aircraft and its Rolls-Royce RB183-555 engines. Section 1: Development of the new internal 10-disc mixer [PHB-90061]

Engines for air transport [PHB-90062]

Allowing for the wall boundary layer in a stage of an axial compressor [PHB-90067]

The Rolls-Royce role in aircraft noise reduction [PHB-90058]

The mechanical testing of compressors and turbines for aircraft gas turbine engines [PHB-90070]

Telemetry in aero engine development [PHB-90051]

The impact and future direction of aircraft noise certification [PHB-90052]

The benefits of data exchange [PHB-90049]

Defects and their effect on the behavior of gas turbine discs [PHB-90071]

RB211 powerplant deterioration: Review of current situation and lessons learned [PHB-90073]

The contribution of thermal barrier coatings to improvements in the life and performance of gas turbine components [PHB-90076]

Development of a correlated finite element dynamic model of a complete aero engine [PHB-90081]

Encounters with surge: Some experiences of development of axial compressors for aero gas turbines [PHB-90071]
Operational test and evaluation handbook for

Operational test and evaluation handbook for

A review of recent AGABD Symposia on the Angle

The experience of corrosion on French military
aerodynamics

A review of recent AGABD Symposia on the Angle

An intermediate solution between basic and
Distinct and dynamic investigations for the model of a wind rotor

Static and dynamic investigations for the model of a wind rotor

Loading cycles and material data for the layout of a wind turbine of special hub concept

Subsonic Aviation Rockford, Ill.

SST airbus constant-speed electrical generation systems

Subsonic data control, Inc., Redmond, Wash.

New techniques in data retrieval and display

A new all-purpose digital flight data recorder

Sundance, Inc., Napa, Calif.

An exploratory research and development program leading to specifications for aviation turbine fuel from whole crude shale oil. Part 1: Preliminary process analyses

An exploratory research and development program leading to specifications for aviation turbine fuel from whole crude shale oil. Part 2: Process variable analyses and laboratory sample production

Aircraft roll over chocks

Alert aircraft roll over chocks

Sistemas General Corp., Sterling, Va.

Frequency sharing between passive sensors and aeronautical radionavigation systems employing ground transponders in the band 4.2 - 4.4 GHz

Sistemas control, Inc., Palo Alto, Calif.

Development of multivariable controllers for aircraft turbine engines

Sensor fault detection system

Differential Omega system development and evaluation

Analysis of computing system configurations for highly integrated guidance and control systems

Real-time simulation of an airborne radar for overwater approaches

Development of low-order model of an V-22 aircraft by system identification

System identification of nonlinear aerodynamic models

Development of a rotorcraft. Propulsion dynamic interface analysis; volume 1 dynamics interface analysis, volume 2


Development of a rotorcraft. Propulsion dynamic interface analysis, volume 5: The preparation and characterization of mixtures of polycyclopentadienes as solid rocket fuels

Aeroelastic stability of rotor blades using finite element analysis

The noisyness of impulsive helicopter noise

Dynamics interface analysis, volume 1

Dynamics interface analysis, volume 2

Computer enhanced analysis of a jet in a cross-stream

Dynamic and aeroelastic boundary value problems

Dynamic and aeroelastic phenomena: Bith application for aircraft and engines

Analysis of wind side-edge suction forces and their implications for IVOL research

Flexible port models for airborne radar for overwater approaches

Stability and response to gravity of the flap

Sensitivity analysis techniques for special hub concept
Summary of theoretical considerations and wind tunnel tests of an aerodynamic analyzer for stall proofing a general aviation airplane.

Academic study of twin-jet shielding.

Academic study of twin-jet shielding.

Academic study of twin-jet shielding.

Academic study of twin-jet shielding.

Academic study of twin-jet shielding.

Academic study of twin-jet shielding.

Academic study of twin-jet shielding.

Academic study of twin-jet shielding.

Academic study of twin-jet shielding.

An extension of the local momentum theory to the parallel shear flow.

A numerical approach to co-axial rotor aerodynamics.

A geometric approach to multi-variable control system synthesis.

Fracture mechanics based modelling of the corrosion fatigue process.

Self excited flow oscillation in the low pressure steam turbine cascade.

Statistical analysis and time series modeling of B-707 and DC-8 vortices.

Evaluation of Loran-C enroute navigation and non-precision approaches within the State of Vermont.

Chicagomostatic acoustic vortex sensing system. Volume 2: Decay of B-707 and DC-8 vortices.

Test plan for SSR.

Statistical analysis and time series modeling of air traffic operation data from service stations and terminal radar approach control facilities: Two case studies.

An analysis of selected enhancements to the en route central computing complex.

Fabrication and testing of a high cost programmable multiprocessor facility.

Low cost programmable multiprocessor facilities.

A comprehensive method for preliminary design optimization of axial gas turbine stages.

To the Editor, ALL.

A comprehensive method for preliminary design optimization of axial gas turbine stages.
<table>
<thead>
<tr>
<th>Corporate Source Index</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Technologies Corp., Stratford,</td>
<td>The role of voice technology in advanced helicopter cockpits</td>
</tr>
<tr>
<td></td>
<td>Fracture mechanics criteria for turbine engine hot section components</td>
</tr>
<tr>
<td></td>
<td>Helicopter rotor trailing edge noise</td>
</tr>
<tr>
<td></td>
<td>Gas turbine analysis of commercial aircraft engines</td>
</tr>
<tr>
<td></td>
<td>Helicopter rotor trailing edge noise</td>
</tr>
<tr>
<td></td>
<td>Corrosion protection schemes for aircraft structures: Some examples for the corrosion behaviour of Al alloys</td>
</tr>
<tr>
<td></td>
<td>Jet effects on forces and moments of a VTOL fighter type aircraft</td>
</tr>
<tr>
<td></td>
<td>Advanced casting: Today and tomorrow</td>
</tr>
<tr>
<td></td>
<td>A pilot's view on possible uses of AIDS</td>
</tr>
<tr>
<td></td>
<td>Allelation of the subsonic pitch-up of delta wings</td>
</tr>
<tr>
<td></td>
<td>Subsonic balance and pressure investigation of a 60-deg delta wing with leading-edge devices</td>
</tr>
<tr>
<td></td>
<td>Subsonic balance and pressure investigation of a 60-deg delta wing with leading-edge devices (data report)</td>
</tr>
<tr>
<td></td>
<td>United States Air Force shale oil to fuels, phase 2</td>
</tr>
<tr>
<td></td>
<td>Operational procedures relative to severe weather</td>
</tr>
<tr>
<td></td>
<td>Determination of rotor wake induced empennage vibration airloads</td>
</tr>
<tr>
<td></td>
<td>Deposit formation in hydrocarbon fuels</td>
</tr>
<tr>
<td></td>
<td>Development of low modulus material for use in aerocore gas path seal applications</td>
</tr>
<tr>
<td></td>
<td>External fuel vaporization study</td>
</tr>
<tr>
<td></td>
<td>Research and development program for non-linear time-temperature dependent constitutive structural aodeling with advanced technical approach</td>
</tr>
<tr>
<td></td>
<td>Aeroelastic analysis for helicopter rotors with blade appended pendulum vibration absorbers. Mathematical derivations and program user's manual</td>
</tr>
<tr>
<td></td>
<td>Hydrocarbon fuel chemistry: Sediment water interaction</td>
</tr>
<tr>
<td></td>
<td>Power system design optimization using Lagrange multiplier techniques</td>
</tr>
</tbody>
</table>
### AERONAUTICAL ENGINEERING / a continuing bibliography

#### January 1983

#### CONTRACT NUMBER INDEX

<table>
<thead>
<tr>
<th>CONTRACT NUMBER</th>
<th>PAGE NUMBER</th>
<th>NASA ACCESSION NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>AF PBOJ. 2310</td>
<td>882-30356</td>
<td>p0560</td>
</tr>
<tr>
<td>AF PBOJ. 2313</td>
<td>882-18094</td>
<td>p0292</td>
</tr>
<tr>
<td>AF PBOJ. 2330</td>
<td>882-20807</td>
<td>p0279</td>
</tr>
<tr>
<td>AF PBOJ. 2361</td>
<td>882-25242</td>
<td>p0413</td>
</tr>
<tr>
<td>AF PBOJ. 2603</td>
<td>882-25269</td>
<td>p0452</td>
</tr>
<tr>
<td>AF PBOJ. 2618</td>
<td>882-39085</td>
<td>p0473</td>
</tr>
<tr>
<td>AF PBOJ. 2860</td>
<td>882-26862</td>
<td>p0401</td>
</tr>
<tr>
<td>AF PBOJ. 2906</td>
<td>882-32422</td>
<td>p0594</td>
</tr>
<tr>
<td>AF PBOJ. 3066</td>
<td>882-26307</td>
<td>p0055</td>
</tr>
<tr>
<td>AF PBOJ. 3067</td>
<td>882-17176</td>
<td>p0204</td>
</tr>
<tr>
<td>AF PBOJ. 3070</td>
<td>882-21818</td>
<td>p0317</td>
</tr>
<tr>
<td>AF PBOJ. 3071</td>
<td>882-20120</td>
<td>p0317</td>
</tr>
<tr>
<td>AF PBOJ. 3072</td>
<td>882-21201</td>
<td>p0316</td>
</tr>
<tr>
<td>AF PBOJ. 3073</td>
<td>882-20286</td>
<td>p0296</td>
</tr>
<tr>
<td>AF PBOJ. 3074</td>
<td>882-39326</td>
<td>p0357</td>
</tr>
<tr>
<td>AF PBOJ. 3075</td>
<td>882-29327</td>
<td>p0256</td>
</tr>
<tr>
<td>AF PBOJ. 3076</td>
<td>882-33164</td>
<td>p0602</td>
</tr>
<tr>
<td>AF PBOJ. 3077</td>
<td>882-26309</td>
<td>p0455</td>
</tr>
<tr>
<td>AF PBOJ. 3078</td>
<td>882-26310</td>
<td>p0455</td>
</tr>
<tr>
<td>AF PBOJ. 3079</td>
<td>882-27313</td>
<td>p0673</td>
</tr>
<tr>
<td>AF PBOJ. 3080</td>
<td>882-28286</td>
<td>p0526</td>
</tr>
<tr>
<td>AF PBOJ. 3081</td>
<td>882-29326</td>
<td>p0357</td>
</tr>
<tr>
<td>AF PBOJ. 3082</td>
<td>882-29327</td>
<td>p0602</td>
</tr>
<tr>
<td>AF PBOJ. 3083</td>
<td>882-33164</td>
<td>p0602</td>
</tr>
<tr>
<td>AF PBOJ. 3084</td>
<td>882-26309</td>
<td>p0455</td>
</tr>
<tr>
<td>AF PBOJ. 3085</td>
<td>882-26310</td>
<td>p0455</td>
</tr>
<tr>
<td>AF PBOJ. 3086</td>
<td>882-27313</td>
<td>p0673</td>
</tr>
<tr>
<td>AF PBOJ. 3087</td>
<td>882-28286</td>
<td>p0526</td>
</tr>
<tr>
<td>AF PBOJ. 3088</td>
<td>882-29326</td>
<td>p0357</td>
</tr>
<tr>
<td>AF PBOJ. 3089</td>
<td>882-29327</td>
<td>p0602</td>
</tr>
<tr>
<td>AF PBOJ. 3090</td>
<td>882-33164</td>
<td>p0602</td>
</tr>
<tr>
<td>AF PBOJ. 3091</td>
<td>882-26309</td>
<td>p0455</td>
</tr>
<tr>
<td>AF PBOJ. 3092</td>
<td>882-26310</td>
<td>p0455</td>
</tr>
<tr>
<td>AF PBOJ. 3093</td>
<td>882-27313</td>
<td>p0673</td>
</tr>
<tr>
<td>AF PBOJ. 3094</td>
<td>882-28286</td>
<td>p0526</td>
</tr>
<tr>
<td>AF PBOJ. 3095</td>
<td>882-29326</td>
<td>p0357</td>
</tr>
<tr>
<td>AF PBOJ. 3096</td>
<td>882-29327</td>
<td>p0602</td>
</tr>
<tr>
<td>AF PBOJ. 3097</td>
<td>882-33164</td>
<td>p0602</td>
</tr>
</tbody>
</table>

**Notes:**
- Listings in this index are arranged alphabetically by contract number. Under each contract number, the accession numbers denoting documents that have been produced as a result of research done under that contract are arranged in ascending order with the IA accession numbers appearing first. The preceding the accession number is the page number where the citation may be found in the supplement.

---

**Typical Contract Number Index Listing**

<table>
<thead>
<tr>
<th>CONTRACT NUMBER</th>
<th>PAGE NUMBER</th>
<th>NASA ACCESSION NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>AF PBOJ. 2052</td>
<td>882-30556</td>
<td>p0561</td>
</tr>
<tr>
<td>AF PBOJ. 2059</td>
<td>882-26307</td>
<td>p0055</td>
</tr>
<tr>
<td>AF PBOJ. 2066</td>
<td>882-17176</td>
<td>p0204</td>
</tr>
<tr>
<td>AF PBOJ. 2070</td>
<td>882-21818</td>
<td>p0317</td>
</tr>
<tr>
<td>AF PBOJ. 2071</td>
<td>882-20120</td>
<td>p0316</td>
</tr>
<tr>
<td>AF PBOJ. 2072</td>
<td>882-21201</td>
<td>p0317</td>
</tr>
<tr>
<td>AF PBOJ. 2073</td>
<td>882-20286</td>
<td>p0296</td>
</tr>
<tr>
<td>AF PBOJ. 2074</td>
<td>882-39326</td>
<td>p0357</td>
</tr>
<tr>
<td>AF PBOJ. 2075</td>
<td>882-29327</td>
<td>p0602</td>
</tr>
<tr>
<td>AF PBOJ. 2076</td>
<td>882-33164</td>
<td>p0602</td>
</tr>
<tr>
<td>AF PBOJ. 2077</td>
<td>882-26309</td>
<td>p0455</td>
</tr>
<tr>
<td>AF PBOJ. 2078</td>
<td>882-26310</td>
<td>p0455</td>
</tr>
<tr>
<td>AF PBOJ. 2079</td>
<td>882-27313</td>
<td>p0673</td>
</tr>
<tr>
<td>AF PBOJ. 2080</td>
<td>882-28286</td>
<td>p0526</td>
</tr>
<tr>
<td>AF PBOJ. 2081</td>
<td>882-29326</td>
<td>p0357</td>
</tr>
<tr>
<td>AF PBOJ. 2082</td>
<td>882-29327</td>
<td>p0602</td>
</tr>
<tr>
<td>AF PBOJ. 2083</td>
<td>882-33164</td>
<td>p0602</td>
</tr>
<tr>
<td>AF PBOJ. 2084</td>
<td>882-26309</td>
<td>p0455</td>
</tr>
<tr>
<td>AF PBOJ. 2085</td>
<td>882-26310</td>
<td>p0455</td>
</tr>
<tr>
<td>AF PBOJ. 2086</td>
<td>882-27313</td>
<td>p0673</td>
</tr>
<tr>
<td>AF PBOJ. 2087</td>
<td>882-28286</td>
<td>p0526</td>
</tr>
<tr>
<td>AF PBOJ. 2088</td>
<td>882-29326</td>
<td>p0357</td>
</tr>
<tr>
<td>AF PBOJ. 2089</td>
<td>882-29327</td>
<td>p0602</td>
</tr>
<tr>
<td>AF PBOJ. 2090</td>
<td>882-33164</td>
<td>p0602</td>
</tr>
<tr>
<td>AF PBOJ. 2091</td>
<td>882-26309</td>
<td>p0455</td>
</tr>
<tr>
<td>AF PBOJ. 2092</td>
<td>882-26310</td>
<td>p0455</td>
</tr>
<tr>
<td>AF PBOJ. 2093</td>
<td>882-27313</td>
<td>p0673</td>
</tr>
<tr>
<td>AF PBOJ. 2094</td>
<td>882-28286</td>
<td>p0526</td>
</tr>
<tr>
<td>AF PBOJ. 2095</td>
<td>882-29326</td>
<td>p0357</td>
</tr>
<tr>
<td>AF PBOJ. 2096</td>
<td>882-29327</td>
<td>p0602</td>
</tr>
<tr>
<td>AF PBOJ. 2097</td>
<td>882-33164</td>
<td>p0602</td>
</tr>
<tr>
<td>CONTRACT NUMBER</td>
<td>INDEX</td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>p0349 882-22213</td>
<td>534-02-13-21</td>
<td></td>
</tr>
<tr>
<td>p0393 882-24168</td>
<td>p0404 882-25214</td>
<td></td>
</tr>
<tr>
<td>p0393 882-24169</td>
<td>p0526 882-20299</td>
<td></td>
</tr>
<tr>
<td>505-43-14</td>
<td>534-03-13-01</td>
<td></td>
</tr>
<tr>
<td>505-43-23-01</td>
<td>p0397 882-24301</td>
<td></td>
</tr>
<tr>
<td>p0448 882-26235</td>
<td>534-04-13-50</td>
<td></td>
</tr>
<tr>
<td>p0557 882-30291</td>
<td>p0351 882-22339</td>
<td></td>
</tr>
<tr>
<td>p0586 882-32320</td>
<td>534-04-13-55</td>
<td></td>
</tr>
<tr>
<td>505-43-23-04</td>
<td>p0406 882-25235</td>
<td></td>
</tr>
<tr>
<td>p0349 882-22207</td>
<td>534-04-13-64</td>
<td></td>
</tr>
<tr>
<td>p0369 882-23240</td>
<td>p0301 882-20145</td>
<td></td>
</tr>
<tr>
<td>505-43-33-01</td>
<td>534-04-13-80</td>
<td></td>
</tr>
<tr>
<td>p0369 882-23240</td>
<td>p0266 882-19217</td>
<td></td>
</tr>
<tr>
<td>505-43-33-01</td>
<td>534-05-00-61-72</td>
<td></td>
</tr>
<tr>
<td>p0405 882-24166</td>
<td>p0313 882-21166</td>
<td></td>
</tr>
<tr>
<td>p0558 882-30297</td>
<td>535-03-11</td>
<td></td>
</tr>
<tr>
<td>505-44-13-01</td>
<td>p0531 882-29271</td>
<td></td>
</tr>
<tr>
<td>p0086 882-12052</td>
<td>535-03-12</td>
<td></td>
</tr>
<tr>
<td>505-44-13-02</td>
<td>p0194 882-16808</td>
<td></td>
</tr>
<tr>
<td>p0358 882-22848</td>
<td>p0194 882-16809</td>
<td></td>
</tr>
<tr>
<td>505-44-21</td>
<td>p0322 882-21996</td>
<td></td>
</tr>
<tr>
<td>p0396 882-24208</td>
<td>p0467 882-26219</td>
<td></td>
</tr>
<tr>
<td>505-44-33-01</td>
<td>p0531 882-29268</td>
<td></td>
</tr>
<tr>
<td>p0254 882-18204</td>
<td>p0572 882-31663</td>
<td></td>
</tr>
<tr>
<td>506-51-13-01</td>
<td>778-11-05</td>
<td></td>
</tr>
<tr>
<td>p0146 882-15359</td>
<td>p0101 882-13908</td>
<td></td>
</tr>
<tr>
<td>506-51-13-02</td>
<td>778-32-01</td>
<td></td>
</tr>
<tr>
<td>p0097 882-13106</td>
<td>p0316 882-21193</td>
<td></td>
</tr>
<tr>
<td>506-52-63-05</td>
<td>778-36-05</td>
<td></td>
</tr>
<tr>
<td>p0270 882-23471</td>
<td>922-21-01</td>
<td></td>
</tr>
<tr>
<td>506-54-63-03</td>
<td>p0085 882-12042</td>
<td></td>
</tr>
<tr>
<td>p0147 882-15894</td>
<td>992-16-05-03</td>
<td></td>
</tr>
<tr>
<td>510-53-12</td>
<td>p0132 882-14075</td>
<td></td>
</tr>
<tr>
<td>p0408 882-25254</td>
<td>992-21-01</td>
<td></td>
</tr>
<tr>
<td>p0456 882-26439</td>
<td>50535 882-29311</td>
<td></td>
</tr>
<tr>
<td>510-57-18</td>
<td>p0604 882-33345</td>
<td></td>
</tr>
<tr>
<td>p0397 882-24326</td>
<td>530-01-13-06</td>
<td></td>
</tr>
<tr>
<td>511-58-12</td>
<td>530-01-13-14</td>
<td></td>
</tr>
<tr>
<td>p0412 882-25516</td>
<td>530-01-13-21</td>
<td></td>
</tr>
<tr>
<td>p0412 882-25520</td>
<td>p0026 882-10031</td>
<td></td>
</tr>
<tr>
<td>p0529 882-28643</td>
<td>p0135 882-16101</td>
<td></td>
</tr>
<tr>
<td>512-54-14</td>
<td>p0305 882-20187</td>
<td></td>
</tr>
<tr>
<td>p0089 882-12079</td>
<td>p0456 882-26314</td>
<td></td>
</tr>
<tr>
<td>516-53-03-12</td>
<td>p0589 882-32343</td>
<td></td>
</tr>
<tr>
<td>p0139 882-15015</td>
<td>532-02-11</td>
<td></td>
</tr>
<tr>
<td>530-01-13-02</td>
<td>p0449 882-26262</td>
<td></td>
</tr>
<tr>
<td>p035 882-11050</td>
<td>p0026 882-10031</td>
<td></td>
</tr>
<tr>
<td>p0035 882-27233</td>
<td>p0135 882-16101</td>
<td></td>
</tr>
<tr>
<td>530-03-13-07</td>
<td>p0412 882-25520</td>
<td></td>
</tr>
<tr>
<td>p0463 882-10031</td>
<td>p0529 882-28643</td>
<td></td>
</tr>
<tr>
<td>530-14-13-01</td>
<td>532-03-11</td>
<td></td>
</tr>
<tr>
<td>p0131 882-14058</td>
<td>p0252 882-11179</td>
<td></td>
</tr>
<tr>
<td>532-01-11</td>
<td>p0350 882-22220</td>
<td></td>
</tr>
<tr>
<td>p0449 882-26262</td>
<td>532-04-11</td>
<td></td>
</tr>
<tr>
<td>532-02-11</td>
<td>p0304 882-20174</td>
<td></td>
</tr>
<tr>
<td>p0026 882-10031</td>
<td>p0395 882-24201</td>
<td></td>
</tr>
<tr>
<td>p0135 882-16101</td>
<td>532-06-11</td>
<td></td>
</tr>
<tr>
<td>p0305 882-20187</td>
<td>p0452 882-26289</td>
<td></td>
</tr>
<tr>
<td>p0456 882-26314</td>
<td>p0560 882-30400</td>
<td></td>
</tr>
<tr>
<td>p0589 882-32343</td>
<td>533-01-32</td>
<td></td>
</tr>
<tr>
<td>532-03-11</td>
<td>p0454 882-26300</td>
<td></td>
</tr>
<tr>
<td>p0252 882-11179</td>
<td>533-01-43-08</td>
<td></td>
</tr>
<tr>
<td>532-04-11</td>
<td>p0535 882-29313</td>
<td></td>
</tr>
<tr>
<td>p0304 882-20174</td>
<td>533-01-43-10</td>
<td></td>
</tr>
<tr>
<td>p0395 882-24201</td>
<td>p0565 882-31294</td>
<td></td>
</tr>
<tr>
<td>532-06-11</td>
<td>533-02-01</td>
<td></td>
</tr>
<tr>
<td>p0452 882-26289</td>
<td>p0611 882-33400</td>
<td></td>
</tr>
<tr>
<td>533-01-11</td>
<td>534-01-13-06</td>
<td></td>
</tr>
<tr>
<td>p0560 882-30400</td>
<td>p0301 882-20149</td>
<td></td>
</tr>
<tr>
<td>533-01-32</td>
<td>p0572 882-31685</td>
<td></td>
</tr>
<tr>
<td>p0454 882-26300</td>
<td>p0604 882-33344</td>
<td></td>
</tr>
<tr>
<td>533-01-43-08</td>
<td>534-01-13-14</td>
<td></td>
</tr>
<tr>
<td>p0535 882-29313</td>
<td>p0041 882-11391</td>
<td></td>
</tr>
<tr>
<td>533-01-43-10</td>
<td>534-02-13-01</td>
<td></td>
</tr>
<tr>
<td>p0565 882-31294</td>
<td>p0260 882-19134</td>
<td></td>
</tr>
<tr>
<td>533-01-43-08</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The image contains a list of numbers and letters, likely representing a report or access index. However, without the context of the rest of the document or a clear title, the specific meaning of this list is unclear. It appears to be a formatted list, possibly used for referencing or indexing purposes within a larger document or database. The numbers and letters are likely codes or identifiers of some sort, but without additional information, it's challenging to provide a more detailed interpretation.
<table>
<thead>
<tr>
<th>Accession Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.51.15484659</td>
<td>p0526 862-268299**</td>
</tr>
<tr>
<td>1.51.1548503</td>
<td>p0574 862-32000**</td>
</tr>
<tr>
<td>1.51.1548506</td>
<td>p0615 862-341919#</td>
</tr>
<tr>
<td>1.51.1548509</td>
<td>p0561 862-305666*</td>
</tr>
<tr>
<td>1.51.1548513</td>
<td>p0567 862-313030*</td>
</tr>
<tr>
<td>1.51.1548519</td>
<td>p0603 862-333300*</td>
</tr>
<tr>
<td>1.51.1548521</td>
<td>p0600 862-331500*</td>
</tr>
<tr>
<td>1.51.1548533</td>
<td>p0613 862-337330*</td>
</tr>
<tr>
<td>1.51.1548705</td>
<td>p0368 862-229243*</td>
</tr>
<tr>
<td>1.51.1548719</td>
<td>p0523 862-209700*</td>
</tr>
<tr>
<td>1.51.1548748</td>
<td>p0394 862-241766*</td>
</tr>
<tr>
<td>1.51.15488263</td>
<td>p0531 862-292676**</td>
</tr>
<tr>
<td>1.51.1548847</td>
<td>p0539 862-295566**</td>
</tr>
<tr>
<td>1.51.1548847</td>
<td>p0594 862-323833**</td>
</tr>
<tr>
<td>1.51.155166</td>
<td>p0400 862-250176*</td>
</tr>
<tr>
<td>1.51.155236</td>
<td>p0588 862-323831*</td>
</tr>
<tr>
<td>1.51.155330</td>
<td>p0589 862-323837*</td>
</tr>
<tr>
<td>1.51.155364</td>
<td>p0393 862-241669*</td>
</tr>
<tr>
<td>1.51.155370</td>
<td>p0535 862-228810*</td>
</tr>
<tr>
<td>1.51.155372</td>
<td>p0526 862-268290**</td>
</tr>
<tr>
<td>1.51.155377</td>
<td>p0567 862-313030*</td>
</tr>
<tr>
<td>1.51.155395</td>
<td>p0530 862-328881*</td>
</tr>
<tr>
<td>1.51.155446</td>
<td>p0526 862-268290**</td>
</tr>
<tr>
<td>1.51.155639</td>
<td>p0570 862-313224*</td>
</tr>
<tr>
<td>1.51.155647</td>
<td>p0613 862-337330*</td>
</tr>
<tr>
<td>1.51.155668</td>
<td>p0535 862-293136*</td>
</tr>
<tr>
<td>1.51.1556815</td>
<td>p0558 862-302900*</td>
</tr>
<tr>
<td>1.51.1556890</td>
<td>p0559 862-328580*</td>
</tr>
<tr>
<td>1.51.1556905</td>
<td>p0560 862-323838*</td>
</tr>
<tr>
<td>1.51.1556916</td>
<td>p0592 862-323837*</td>
</tr>
<tr>
<td>1.51.1556920</td>
<td>p0586 862-323139*</td>
</tr>
<tr>
<td>1.51.1559249</td>
<td>p0593 862-323838*</td>
</tr>
<tr>
<td>1.51.1559271</td>
<td>p0593 862-323830*</td>
</tr>
<tr>
<td>1.51.156157</td>
<td>p0536 862-323835*</td>
</tr>
<tr>
<td>1.51.156165</td>
<td>p0600 862-2683769**</td>
</tr>
<tr>
<td>1.51.156175</td>
<td>p0369 862-232838*</td>
</tr>
<tr>
<td>1.51.1562003</td>
<td>p0369 862-232839*</td>
</tr>
<tr>
<td>1.51.1562029</td>
<td>p0577 862-302628*</td>
</tr>
<tr>
<td>1.51.1562119</td>
<td>p0593 862-323838*</td>
</tr>
<tr>
<td>1.51.1563119</td>
<td>p0593 862-323837*</td>
</tr>
<tr>
<td>1.51.1563129</td>
<td>p0369 862-232838*</td>
</tr>
<tr>
<td>1.51.1563277-VOL1</td>
<td>p0399 862-264699*</td>
</tr>
<tr>
<td>1.51.1563277-VOL2</td>
<td>p0399 862-264650*</td>
</tr>
<tr>
<td>1.51.1563388</td>
<td>p0413 862-265635*</td>
</tr>
<tr>
<td>1.51.1563408</td>
<td>p0413 862-265635*</td>
</tr>
<tr>
<td>1.51.1564558</td>
<td>p0571 862-314040*</td>
</tr>
<tr>
<td>1.51.1565403</td>
<td>p0354 862-222624*</td>
</tr>
<tr>
<td>1.51.1565549</td>
<td>p0458 862-264395*</td>
</tr>
<tr>
<td>1.51.1565599</td>
<td>p0472 862-273100*</td>
</tr>
<tr>
<td>1.51.1565599</td>
<td>p0526 862-209700*</td>
</tr>
<tr>
<td>1.51.1565577</td>
<td>p0610 862-333939*</td>
</tr>
<tr>
<td>1.51.1565582-VOL1</td>
<td>p0309 862-210318*</td>
</tr>
<tr>
<td>1.51.1565582-VOL3</td>
<td>p0309 862-210339*</td>
</tr>
<tr>
<td>1.51.1565585</td>
<td>p0534 862-223839*</td>
</tr>
<tr>
<td>1.51.1565572</td>
<td>p0485 862-232628*</td>
</tr>
<tr>
<td>1.51.1565580</td>
<td>p0317 862-219174*</td>
</tr>
<tr>
<td>1.51.1565586</td>
<td>p0317 862-219166*</td>
</tr>
<tr>
<td>1.51.1565599</td>
<td>p0393 862-241664*</td>
</tr>
<tr>
<td>1.51.1565610</td>
<td>p0396 862-242029*</td>
</tr>
<tr>
<td>1.51.1565667</td>
<td>p0389 862-222114*</td>
</tr>
</tbody>
</table>

**Report/Accession Number Index**
# AERONAUTICAL ENGINEERING

A CONTINUING BIBLIOGRAPHY

Abstracts
January — December 1982

## TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>SP-7037 Supplement</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>145</td>
<td>1</td>
</tr>
<tr>
<td>146</td>
<td>43</td>
</tr>
<tr>
<td>147</td>
<td>103</td>
</tr>
<tr>
<td>148</td>
<td>149</td>
</tr>
<tr>
<td>149</td>
<td>217</td>
</tr>
<tr>
<td>150</td>
<td>273</td>
</tr>
<tr>
<td>151</td>
<td>325</td>
</tr>
<tr>
<td>152</td>
<td>373</td>
</tr>
<tr>
<td>153</td>
<td>415</td>
</tr>
<tr>
<td>154</td>
<td>481</td>
</tr>
<tr>
<td>155</td>
<td>543</td>
</tr>
<tr>
<td>156</td>
<td>559</td>
</tr>
</tbody>
</table>
This bibliography is a cumulative index to the abstracts contained in NASA SP-7037 (145) through NASA SP-7037 (156) of Aeronautical Engineering: A Continuing Bibliography. NASA SP-7037 and its supplements have been compiled through the cooperative efforts of the American Institute of Aeronautics and Astronautics (AIAA) and the National Aeronautics and Space Administration (NASA). This cumulative index includes subject, personal author, corporate source, contract, and report number indexes.
PUBLIC COLLECTIONS OF NASA DOCUMENTS

DOMESTIC

NASA distributes its technical documents and bibliographic tools to eleven special libraries located in the organizations listed below. Each library is prepared to furnish the public such services as reference assistance, interlibrary loans, photocopy service, and assistance in obtaining copies of NASA documents for retention.

CALIFORNIA
University of California, Berkeley

COLORADO
University of Colorado, Boulder

DISTRICT OF COLUMBIA
Library of Congress

GEORGIA
Georgia Institute of Technology, Atlanta

ILLINOIS
The John Crerar Library, Chicago

MASSACHUSETTS
Massachusetts Institute of Technology, Cambridge

MISSOURI
Linda Hall Library, Kansas City

NEW YORK
Columbia University, New York

OKLAHOMA
University of Oklahoma, Bizzell Library

PENNSYLVANIA
Carnegie Library of Pittsburgh

WASHINGTON
University of Washington, Seattle

NASA publications (those indicated by an * following the accession number) are also received by the following public and free libraries:

CALIFORNIA
Los Angeles Public Library
San Diego Public Library

COLORADO
Denver Public Library

CONNECTICUT
Hartford Public Library

MARYLAND
Enoch Pratt Free Library, Baltimore

MASSACHUSETTS
Boston Public Library

MICHIGAN
Detroit Public Library

MINNESOTA
Minneapolis Public Library and Information Center

NEW JERSEY
Trenton Public Library

NEW YORK
Brooklyn Public Library
Buffalo and Erie County Public Library
Rochester Public Library
New York Public Library

OHIO
Akron Public Library
Cincinnati and Hamilton County Public Library
Cleveland Public Library
Dayton Public Library
Toledo and Lucas County Public Library

TEXAS
Dallas Public Library
Fort Worth Public Library

WASHINGTON
Seattle Public Library

WISCONSIN
Milwaukee Public Library

An extensive collection of NASA and NASA-sponsored documents and aerospace publications available to the public for reference purposes is maintained by the American Institute of Aeronautics and Astronautics, Technical Information Service, 555 West 57th Street, 12th Floor, New York, New York 10019.

EUROPEAN

An extensive collection of NASA and NASA-sponsored publications is maintained by the British Library Lending Division, Boston Spa, Wetherby, Yorkshire, England. By virtue of arrangements other than with NASA, the British Library Lending Division also has available many of the non-NASA publications cited in STAR. European requesters may purchase facsimile copy of microfiche of NASA and NASA-sponsored documents, those identified by both the symbols # and * from: ESA - Information Retrieval Service, European Space Agency, 8-10 rue Mario-Nikis, 75738 Paris CEDEX 15, France.