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 \textit{STAR} accession numbers (N82-10000 series).
2. AIAA entries by their \textit{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:
   \begin{itemize}
   \item AIRCRAFT PROTUBERANCES
   \item \textit{U} PROTUBERANCES
   \item FLIGHT PERFORMANCE
   \item \textit{U} FLIGHT CHARACTERISTICS
   \end{itemize}

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:
   \begin{itemize}
   \item FLOW RESISTANCE
   \item \textit{NT} AERODYNAMIC DRAG
   \item \textit{NT} FRICTION DRAG
   \item \textit{NT} SUPERSONIC DRAG
   \end{itemize}

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:

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

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:

\begin{itemize}
\item EMELIANOV, M. D.
\item and
\item YEMELYANOV, M. D.
\end{itemize}
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.
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The use of adaptive control for helicopter trajectories in search operations

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Determination of the glide path of an aircraft with power off

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Optimum climb and descent trajectories for airliner missions

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Singular perturbation techniques for real time aircraft trajectory optimization and control

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Fuel efficient flight profiles in an ASC flow management environment

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On-line optimization of aircraft altitude and flight path angle dynamics

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Optimal trajectories in supersonic flight

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U QUARTZ TRANSDUCERS

Boundary layer transducers /DCL/ developed for the study of the flow over helicopter rotor blades

[ONRA, TP NO. 1981-93] p0548 A82-42817

La Recherche Aerospatiale, B-monthly Bulletin No. 1981-2, March - April 1981 ---- aerodynamic research

[ESA-77-713] p0136 A82-14388

Current pressure measuring system in the transonic wind tunnel

[AD-A106272] p0192 A82-16096

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Wing design for supersonic cruise/transonic maneuver aircraft

Redesigning Mach'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 0.85

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Some MTF laser velocimeter installation and operation considerations.

Cryogenic wind tunnels: A selected, annotated bibliography.

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Wind tunnel investigations on thin supercritical airfoils in high subsonic flow.

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