NASA Contractor Report 178414, Part 1

SPACE SHUTTLE PHASE B WIND TUNNEL MODEL AND TEST INFORMATION

VOLUME 1 - BOOSTER CONFIGURATION

J. L. Glynn and D. E. Poucher

CHRYSLER CORPORATION
Military Public Electronic Systems
Michoud Engineering Office
New Orleans, Louisiana

Contract NAS1-18276
July 1988

(NASA-CR-178414-Vol-1-Pt-1) SPACE SHUTTLE PHASE B WIND TUNNEL MODEL AND TEST INFORMATION. VOLUME 1: BOOSTER CONFIGURATION (Chrysler Corp.) 388 p CSCL 01A

N88-29745

Unclas
G3/02 0161078

National Aeronautics and
Space Administration

Langley Research Center
Hampton, Virginia 23665

ABSTRACT

Archived wind tunnel test data are available for flyback booster or other alternate recoverable configurations as well as reusable orbiters studied during initial development (Phase B) of the Space Shuttle. Considerable wind tunnel data were acquired by the competing contractors and the NASA centers for an extensive variety of configurations with an array of wing and body planforms.

All contractor and NASA wind tunnel test data acquired in the Phase B development have been compiled into a database and are available for applying to current winged flyback or recoverable booster aerodynamic studies.

The Space Shuttle Phase B Wind Tunnel Database is structured by vehicle component and configuration type. Basic components include the booster, the orbiter and the launch vehicle.

Booster configuration types include straight and delta wings, canard, cylindrical, retro-glide and twin body.

Orbiter configuration types include straight and delta wings, lifting body, drop tanks and double delta wings.

Launch configuration types include booster and orbiter components in various stacked and tandem combinations.

The digital database consists of 220 files of data containing basic tunnel recorded data. Database structure is documented in a series of reports which include configuration sketches for the various planforms tested.

*TABLE OF CONTENTS

*Pages 386-738 published under separate cover as NASA CR-178414, Part 2.

INDEX OF TABLES

*FIRST CHARACTER - TABLE NUMBER; SECOND CHARACTER - TEST DISCIPLINE; THIRD CHARACTER - VOLUME/COMPONENT

INDEX OF FIGURES

BOOSTER AERODYNAMICS

INDEX OF FIGURES

BOOSTER AERODYNAMICS

INDEX OF FIGURES

BOOSTER AIRLOADS

INDEX OF FIGURES

BOOSTER HEAT TRANSFER

ACRONYMS FOR TEST FACILITIES AND CONTRACTORS

AEDC -- ARNOLD ENGINEERING DEVELOPMENT CENTER

ARC -- AMES RESEARCH CENTER

CAL -- CORNELL AERONAUTICAL LABORATORY

CCSD -- CHRYSLER CORP. SPACE DIVISION

GAC -- GRUMMAN AEROSPACE CORPORATION

GD/C -- GENERAL DYNAMICS/CONVAIR

JPL -- JET PROPULSION LABORATORY

LaRC -- LANGLEY RESEARCH CENTER

LMSC -- LOCKHEED MISSILES AND SPACE COMPANY

LTV -- LING TEMCO VOUGHT

MAC -- McDONNELL AIRCRAFT COMPANY

MDAC -- McDONNELL DOUGLAS AIRCRAFT CORPORATION

MMC -- MARTIN MARIETTA CORPORATION

MSC -- MANNED SPACECRAFT CENTER

MSFC -- MARSHALL SPACE FLIGHT CENTER

NR -- NORTH AMERICAN ROCKWELL

NRLAD -- NORTH AMERICAN ROCKWELL CORP., LOS ANGELES DIVISION

NSRDC -- NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER

TAM -- TEXAS A&M

TBC -- THE BOEING COMPANY

UW -- UNIVERSITY OF WASHINGTON

1.0 INTRODUCTION

1.1 Space Shuttle Development Phases

Development of the Space Transportation System (STS) encompassed the study of a large number of conceptual designs and an extensive wind tunnel testing program. Phases of the development program are identified as:

- Phase A - Concept Feasibility Studies - 1969-1970
- Phase B - Preliminary Design Studies - 1970-1972
- Phase C/D - Design and Development - 1972-1983

During the Phase A and B periods, completely reusable systems were studied including the "flyback" booster. However, due to the large cost of the completely reusable concept, NASA decided at the end of the Phase B period to employ an expendable booster design. Phase C/D design and development was then concentrated on a two-stage, parallel-burn booster system concept.

In the development stage (Phase B) of Space Shuttle design, extensive wind tunnel data were acquired for a variety of alternate configurations. These data were accumulated, converted into standard formats, placed in a data bank and documented. This work was performed by the Chrysler Corporation Military Public Electronic

Systems, Michoud Engineering Office under contract to NASA/MSFC.

Developmental configurations considered for early Space Shuttle studies were extremely varied. These included winged "flyback boosters," "inline" staged launch vehicles and various "parallel staged" orbiter-booster combinations. Wind tunnel models of the various vehicles were tested both in the launch and entry configurations. Aerodynamics, airloads and heat transfer data were collected and compiled from four major contractors and parallel NASA directed studies. Results were documented individually through a series of NASA technical reports, contractor reports and test reports. The digital data and associated descriptive documentation which were archived have been maintained and are available for ongoing applications.

Current advanced launch vehicle studies are focusing on many of the approaches considered during original Space Shuttle studies. Available wind tunnel data for configurations similar to those currently being evaluated can be highly valuable to the preliminary design engineer.

The archived Phase B data are available to the technical community. Extracts of descriptive information, configuration sketches, and digital test data have been compiled and are reported herein to facilitate use of the large data bank for booster, orbiter and launch configurations.

1.2 Chrysler's Test Database and Archive System

Extensive Chrysler involvement in wind tunnel data application on NASA programs prior to the Space Shuttle resulted in development of complex computer systems for automating these processes. These processes included automating the management and database functions in addition to automating the engineering data applications and computer graphics. These combined functions were reflected in the name DATAMAN.

The Chrysler developed Data Management System (DATAMAN) was used to develop design applicable aerodynamic data, generate extensive plots and cross plots, document, and database wind tunnel test data from the Space Shuttle Phase B test program under contract to the NASA/MSFC.

Chrysler initiated the DATAMAN project in early 1970 and continued through both the Phase B and Phase C/D test programs. Extensive management procedures were devised to effectivley identify and track the expected large volumes of data to be generated by a number of contractors, and a variety of Phase B configurations. Hence, a means of conveying descriptive information relative to the configurations and associated data was required.

A four digit report identifier was assigned as initial test inputs were made to the DATAMAN system to track and report activities on individual tests. For the Phase B test program, these identifiers were DMS-DR-1001 through DMS-DR-1278. Thus, approximately 278 sets of test results were processed, documented, and databased.

The assignment of identifiers was sequential and they are,therefore, chronological throughout the Phase B configuration management. Many other identifiers are associated with individual tests such as configuration type, NASA series number, test facility designations and contractor(s) involved.

Each test was documented in a DATAMAN test data report, test data were archived in standard DATAMAN formats, and salient tracking information was compiled. All these were disseminated to NASA technical and program management personnel for technical assessment of the data and managing the overall test program.

1.3 Extracting Phase B Test Database Information

The effort involved extracting and compiling Phase B test data contents and descriptive information from the archived test data bank and documentation file. Digital database files contained a mix of basic tunnel recorded data and calculated analysis data used for graphic displays. These files were reduced to basic tunnel data and structured by configuration tested and contractor. A series of catalog reports were assembled to provide a readily accessible overview of test results available for future space transportation system studies.

These catalog reports are in increasing levels of detail. The first level consists of summary tables and selected sketches. These enable the user to scan for possible applications to his ongoing work.

For a promising or likely candidate configuration, the user can proceed to the second level of detail where all available configuration sketches and test conditions are compiled.

The third level of detail is the digital data files where tunnel recorded data reside .

2.0 COMPILATION OF PHASE B DATABASE ARCHIVE CONTENTS

2.1 Compilation Outline

Results of the Phase B database compilation are contained in the following list.

1) Summary catalog report, DMS-DR-01, containing an overview of database contents and availability.

2) A three volume catalog report, DMS-DB-02, containing configuration sketches and conditions tested. The three volumes correspond to booster, orbiter and launch test configurations.

3) A series of magnetic data tapes containing available digital files. These are also structured by configuration and are described in transmittal documents DMS-TD-01 through 03, corresponding to booster, orbiter and launch test configurations, respectively.

4) A directory database information file formatted for the R-base relational database system.

Documentation of the contents of the database is contained in two reports; DMS-DB-01 and DMS-DB-02.

2.2 Summary Volume

The first document (DMS-DB-01) is a single volume summary report containing planform line drawings of the various configurations tested during the Space Shuttle Phase B program. Tabular information from the directory file is included and is divided by component (booster, orbiter and launch) and by test discipline (aerodynamics, airloads and heat transfer).

2.3 Model and Test Information

The second document (DMS-DB-02) is a three volume report containing extracts from the individual test data reports. All line drawings and collation sheets/run schedules are included. The three volumes correspond to the three component classifications; booster, orbiter and launch, respectively. A series of tabular information from the directory file provide an outline of available test information.

Structure of the tables and sketches is by component and test discipline with sorting by configuration and contractor. Each booster and each orbiter configuration tested are assigned a 2-character code for purposes of grouping and sorting.

These codes are

	Code	General Configuration
Booster -	B1	Canard
	B2	Cylindrical
	B3	Delta Wing
	B4	Straight Wing
	B5	Unique
Orbiter -	01	Delta Body
	02	Delta Wing
	03	Straight Wing
	04	Unique

Launch configurations tested are identified by a combination of the above codes. Test information is also sorted by individual contractors and NASA centers. Acronyms for these contractors and test facilities are presented in the frontispiece.

It should be noted that individual tests may be identified as multiple configurations. For example, booster and orbiter alone data may have been taken along with launch configurations in a single test. The test would appear in the tabular listings for all applicable classifications, but line drawings and run schedules would be included only in the launch section. Cross references are provided in the Index of Figures for this case and also where multiple booster or orbiter configuration codes were involved in the same test.

Directory information displayed in tables 1, 3, 4 and 6 provide information only for the component documented in that individual volume. Tables 2 and 5 display information for all tests and components. An outline of the contents of the three volumes is illustrated in the Index of Tables.

2.4 Digital Database

The digital database also follows the structure of table 1. Database contents represent data as received from the test facility. However, for some tests an additional, calculated, coefficient schedule is included. These additional schedules are mainly a second axis system or extract data from a multi-balance test. Individual datasets within a file are encoded with the configuration code in the header information.

Test data are stored on five magnetic data tapes. These tapes are 9-track, 6250 FPI, ASCII format.

File contents are:

Tape#	Component	#Files	#Datasets	Config. Codes
1	Booster - Aerodynamics	53	4,216	B1-B5
2	Orbiter - Aerodynamics	89	4,500	01+02
3	Orbiter - Aerodynamics	20	1,962	03+04
4	Launch - Aerodynamics	34	4,034	B1-B3
5	Launch - Aerodynamics	19	637	B4+B5
	- Airloads	4	1,182	ALL
	- Heat Transfer	1	21	ALL
	Total	220	16,552	

Specific test locations on the digital database are shown in table 6.

2.5 Directory File

The directory data file was constructed to assist in the categorization of tests and to generate tabular reports.

Information was extracted from existing administrative reports and from individual test data reports. The file was created using the R-base relational database system by Microrim. A description of the table information is as follows:

ORIGINAL PAGE IS
OF POOR QUALITY

Table: DMS-DR#
Read Password: NO
Modify Password: NO

Column definitions

#	Name	Type	Length (Characters)	Description
1	DR#	TEXT	4	DATAMAN Report Number
2	CR#	TEXT	8	Contractor Report Number
3	TMX#	TEXT	12	NASA TMX Report Number
4	NSN	TEXT	14	NASA Test Series Number
5	#VOL	TEXT	1	Number of Report Volumes
6	VOL#	TEXT	1	Report Volume Number
7	PUB.DATE	TEXT	13	Report Publication Date
8	LINE#	TEXT	1	Print Key for Tabular Report
9	TESTTYPE	TEXT	15	Test Discipline
10	COMP	TEXT	7	Test Component
11	BCC	TEXT	3	Booster Configuration Code
12	OCC	TEXT	3	Orbiter Configuration Code
13	B-CODE	TEXT	15	Booster Classification
14	B-CONTRA	TEXT	10	Booster Model Contractor
15	O-CODE	TEXT	15	Orbiter Classification
16	O-CONTRA	TEXT	10	Orbiter Model Contractor
17	FAC	TEXT	5	Test Facility
18	TUN	TEXT	6	Test Wind Tunnel
19	TEST#	TEXT	15	Facility Test Number
20	FAC-TST#	TEXT	26	Facility, Tunnel, Facility Test Number
21	MACH	TEXT	15	Mach Number Range
22	SCALE	TEXT	12	Model Scale
23	DMS-CODE	TEXT	6	Two Character Dataset Identifier
24	B-TYPE	TEXT	23	Booster Configuration Type
25	O-TYPE	TEXT	33	Orbiter Configuration Type
26	CONFIG	TEXT	220	Description of Configurations Tested
27	PURPOSE	TEXT	150	Major Test Purpose
28	TITLE	TEXT	250	Data Report Title
29	PROJ.ENG	TEXT	175	Contractor/NASA Test Engineers
30	DMS-ENG	TEXT	30	DATAMAN Cognizant Engineers
31	COMMENTS	TEXT	150	Directory File Comments/Exceptions

Current number of rows: 488

2.6 Guide to Phase B Database Use

Users of the Chrysler Phase B database have varying levels of detail available for review. A typical application is to investigate similarities between current preliminary configuration designs and configurations tested during Phase B. As an example, current applications may be representative of a winged flyback booster with canards. To research this configuration the user could follow the steps illustrated below:

Step 1 - DMS-DB-01, Summary Report; This report would be reviewed to identify configurations of interest and corresponding configuration types and contractors.

INDEX OF MODEL FIGURES - BOOSTER

Booster Type	Contractor	PAGE NUMBER Aerodynamics	Airloads	Heat Transfer
CANARD	MDAC	A-1-1	B-1-1	C-1-1
	MDAC/MMC	A-1-4		
	MSFC	A-1-5		
	TBC	A-1-6		
CYLINDRICAL	GD/C	A-1-7		
	LMSC	A-1-8		
	MDAC	A		

Step 2 - Table 1, DMS-DB-01, Summary Report: Using the configuration type and contractors identified above, a list of applicable tests is obtained.

Table 1.1.1

Space Shuttle Phase B Wind Tunnel Test
Database Summary

Booster Aerodynamics

CODE	CONFIG. I.D.	CONTRACTOR	DMS-DR#	MACH RANGE	FACILITY	MODEL SCALE	CONFIGURATIONS TESTED
B1	CANARD	MDAC	1035	0.16	MAC	0.01	MDAC SPACE SHUTTLE BOOSTER
B1	CANARD	MDAC	1108	2.0-6.0	AEDC	0.00556	MARTIN BOOSTER
B1	CANARD	MDAC	1139	0.36	NSRDC	0.015	MDAC DELTA CANARD BOOSTER
B1	CANARD	MDAC/MMC	1054	0.26	MAC	0.02	MDAC/MMC SPACE SHUTTLE BOOSTER
B1	CANARD	MDAC/MMC	1066	0.6-2.0	ARC	0.007	MDC-MMC SSV CONFIG.-14 BOOSTER (SINGLE BODY, CANARD)
B1	CANARD	MDAC/MMC	1077	0.0-0.26	MAC	0.02	MDAC/MMC SPACE SHUTTLE BOOSTER
B1	CANARD	MDAC/MMC	1080	7.4	ARC	0.007	MDC-MMC SSV BOOSTER SINGLE BODY CANARD
		MDAC/MMC	1116				MMC/MDC SBC BOOSTER

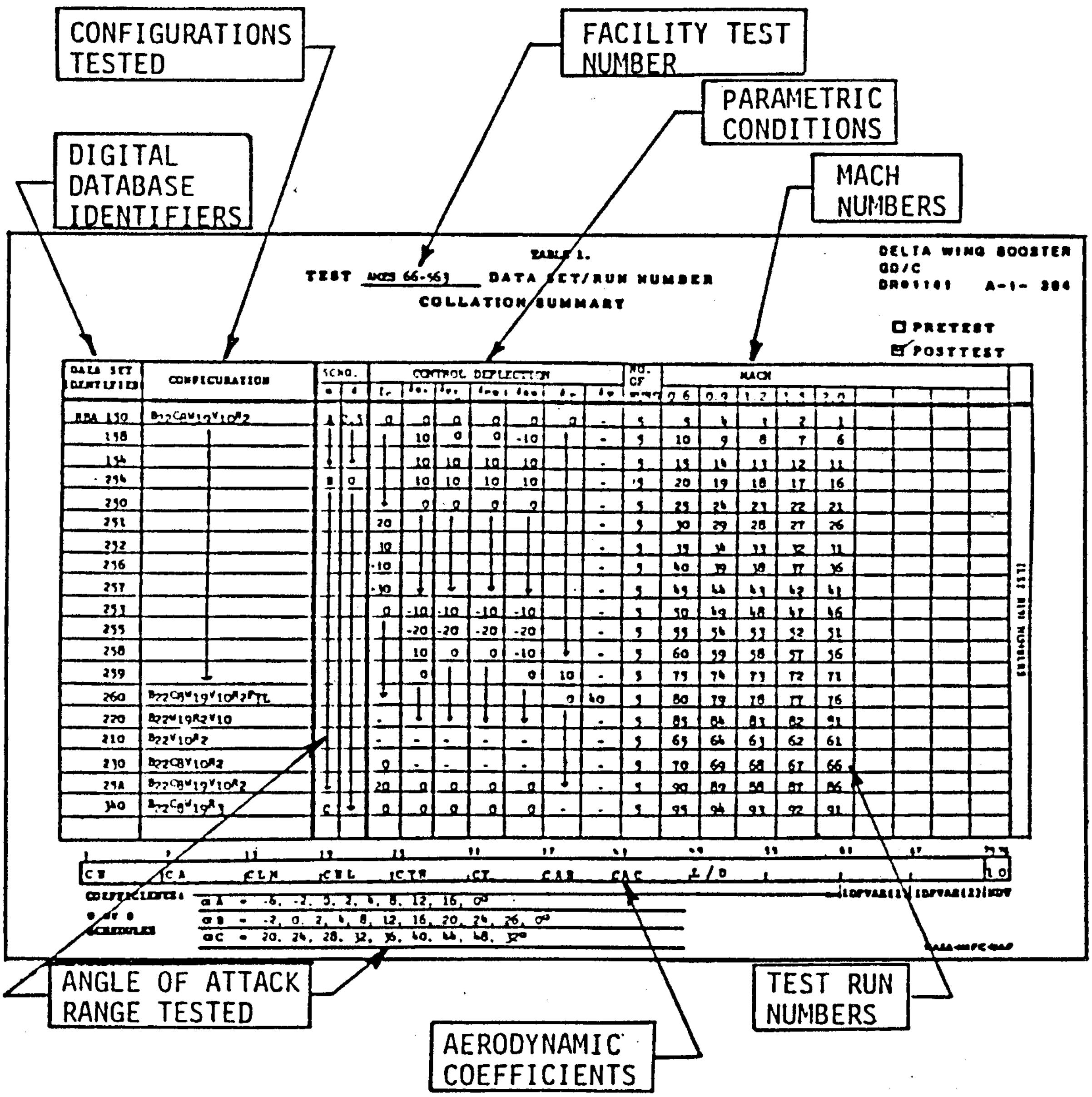
Step 3 - DMS-DB-02, Vol.1, Booster Configuration; Locate the model sketches and test conditions and parameters.

INDEX OF FIGURES

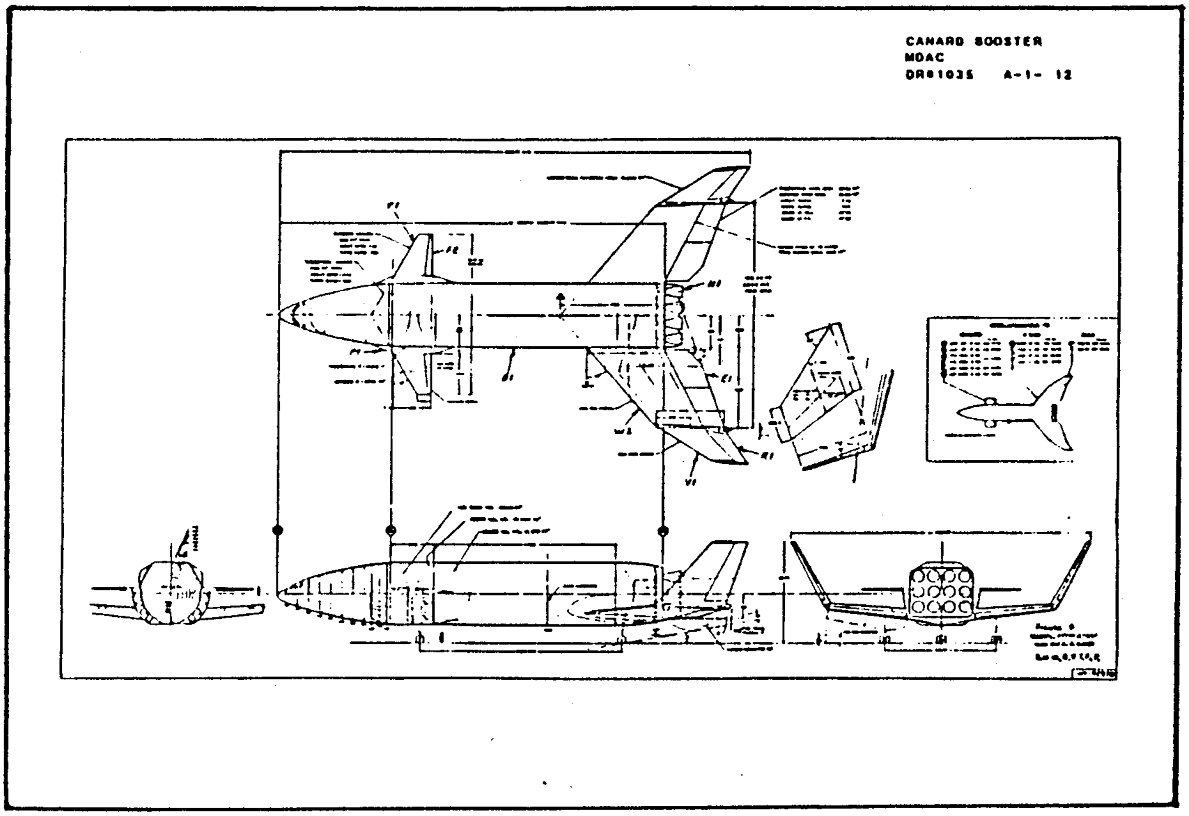
BOOSTER AERODYNAMICS

BOOSTER CONFIG. CODE	BOOSTER CONTRACTOR	DMS-DR #	PAGE NUMBER
B1	MDAC	1035	A-1-1
B1	MDAC	1108	SEE C-1-23
B1	MDAC	1139	A-1-13
B1	MDAC/MMC	1054	A-1-45
B1	MDAC/MMC	1066	A-1-64
B1	MDAC/MMC	1077	A-1-78
B1	MDAC/MMC	1080	A-1-96
	MDAC/MMC	[illegible]	A-1-[illegible]
	[illegible]/MMC		

Step 4a- <u>Dataset/Run Number Collation Summary</u>: Examine collation sheets to determine test Mach range, angle of attack/sideslip ranges, configurations and control surfaces/parametric conditions.



Step 4b- <u>Configuration Sketches</u>: Examine configuration sketches to obtain model and aerodynamic details such as model dimensions, wing type, canard surfaces, tail surfaces, body shape, etc.



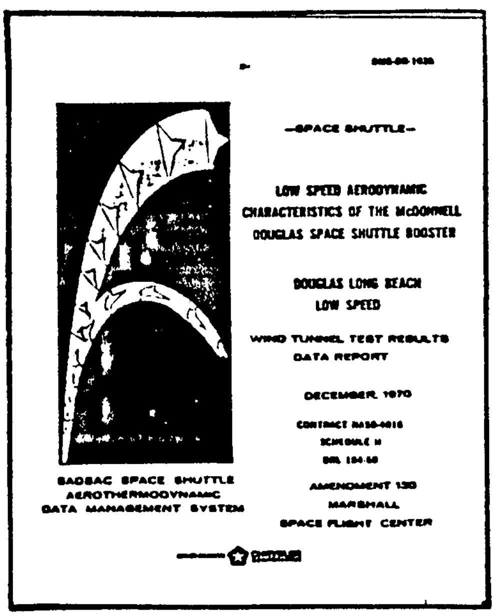
Step 5 - Table 2, DMS-DB-02, Vol.1; Refer to table to determine publication availability: data report, contractor report or NASA publication.

Table 2

Space Shuttle Phase B Wind Tunnel Test Database Listed by Chrysler DATAMAN Report Number

DMS-DR#	NASA SERIES NUMBER	VOLUME NUMBER	NASA CR NUMBER	NASA TM-X NUMBER	FACILITY TEST NUMBER	VEHICLE COMPONENT
1001	61002-61801	1	102.150	--	MSFC 14TWT 461	BOOSTER
1002	60006	1	--	62.036	ARC 3.5HWT 70	ORBITER
						BOOSTER
1033						
1034	80232	1	103.160	--	NRLAO LSWT 632	ORBITER
1035	80404	1	103.161	--	MAC LSWT 1351	BOOSTER
1036	H0401-H0403	1	--	--	LARC.8VGWT 147-179,206-322	LAUNCH
				--	LARC 8VGWT 147-179,206-322	BOOSTER

Step 6 - Test Documentation; Refer to test documentation to obtain test procedures, model description and data presentation.



Step 7 - <u>Digital Database</u>, Table 2 in DMS-DB-01 (Table 6 in DMS-DB-02); the user, after determining applicability, can access the test data from the digital database files for further analysis and application.

TABLE 2.1

SPACE SHUTTLE PHASE B
DIGITAL DATABASE
BOOSTER AERODYNAMICS

FILE #	BCC	B-CONTRA	DR#	2-CHAR. CODE	# D/S's	# RECORDS
1	81	MDAC	1035	CC	69	967
2			1133	N2	574	8037
3		MDAC/MMC	1054	CE	208	2185
4			1066	AD	86	1033
5			1077	CØ	96	1057

3.0 NOMENCLATURE AND AXIS SYSTEMS

A standard set of nomenclature and axis systems definitions for DATAMAN reports were established during the Phase B test period. They were compiled from inputs from the various contractors and test facilities involved in the test program and are shown on the following pages.

Additions to the standards were required for individual tests due to the many configurations investigated. These additions are documented in the individual test data reports.

Numerous reference dimensions and moment reference center locations were used by the varius contractors for the many configurations tested. Model reference dimensions and moment center locations for each configuration are described in the individual test data reports. This information is also contained in the header block of each dataset on the digital database.

NOMENCLATURE
General

SYMBOL	SADSAC SYMBOL	DEFINITION
a		speed of sound; m/sec, ft/sec
C_p	CP	pressure coefficient; $(p_l - p_\infty)/q$
M	MACH	Mach number; V/a
p		pressure; N/m^2, psf
q	Q(NSM) Q(PSF)	dynamic pressure; $1/2\rho V^2$, N/m^2, psf
RN/L	RN/L	unit Reynolds number; per m, per ft
V		velocity; m/sec, ft/sec
α	ALPHA	angle of attack, degrees
β	BETA	angle of sideslip, degrees
ψ	PSI	angle of yaw, degrees
ϕ	PHI	angle of roll, degrees
ρ		mass density; kg/m^3, $slugs/ft^3$

Reference & C.G. Definitions

SYMBOL	SADSAC SYMBOL	DEFINITION
A_b		base area; m^2, ft^2
b	BREF	wing span or reference span; m, ft
c.g.		center of gravity
ℓ_{REF} $\bar{c}$	LREF	reference length or wing mean aerodynamic chord; m, ft
S	SREF	wing area or reference area; m^2, ft^2
	MRP	moment reference point
	XMRP	moment reference point on X axis
	YMRP	moment reference point on Y axis
	ZMRP	moment reference point on Z axis

SUBSCRIPTS

b	base
l	local
s	static conditions
t	total conditions
∞	free stream

ORIGINAL PAGE IS
OF POOR QUALITY

NOMENCLATURE (Continued)

Body-Axis System

SYMBOL	SADSAC SYMBOL	DEFINITION
C_N	CN	normal-force coefficient; $\frac{\text{normal force}}{qS}$
C_A	CA	axial-force coefficient; $\frac{\text{axial force}}{qS}$
C_Y	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
C_{A_b}	CAB	base-force coefficient; $\frac{\text{base force}}{qS}$ $-A_b(p_b - p_\infty)/qS$
C_{A_f}	CAF	forebody axial force coefficient, $C_A - C_{A_b}$
C_m	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS\ell_{REF}}$
C_n	CYN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qSb}$
C_ℓ	CBL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qSb}$

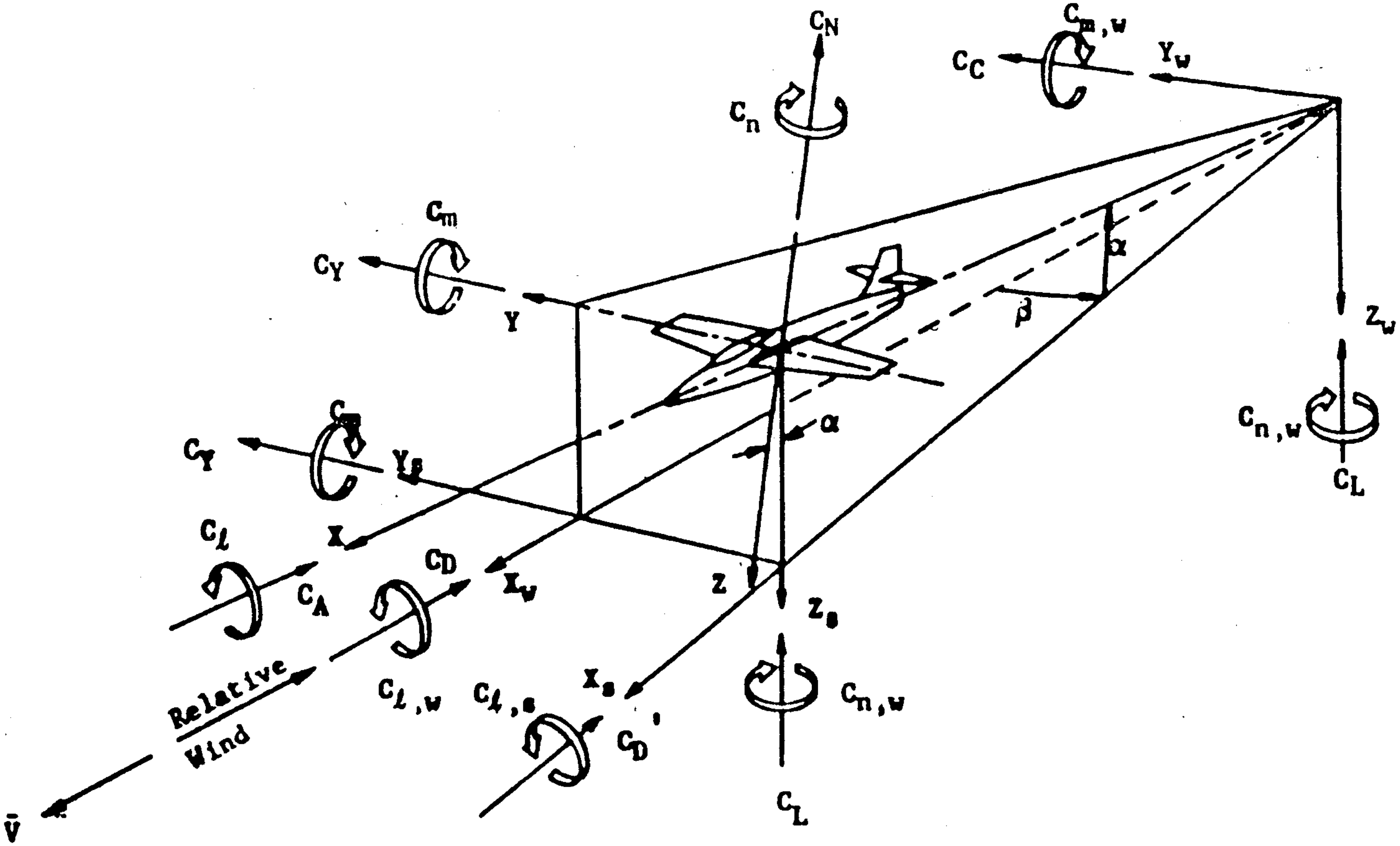
Stability-Axis System

SYMBOL	SADSAC SYMBOL	DEFINITION
C_L	CL	lift coefficient; $\frac{\text{lift}}{qS}$
C_D	CD	drag coefficient; $\frac{\text{drag}}{qS}$
C_{D_b}	CDB	base-drag coefficient; $\frac{\text{base drag}}{qS}$
C_{D_f}	CDF	forebody drag coefficient; $C_D - C_{D_b}$
C_Y	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
C_m	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS\ell_{REF}}$
C_n	CLN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qSb}$
C_ℓ	CSL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qSb}$
L/D	L/D	lift-to-drag ratio; C_L/C_D

Notes:

1. Positive directions of force coefficients moment coefficients, and angles are indicated by arrows.

2. For clarity, origins of wind and stability axes have been displaced from the center of gravity.



Axis systems, showing direction and sense of force and moment coefficients, angle of attack, and sideslip angle

Table 1.1.1

Space Shuttle Phase B Wind Tunnel Test
Database Summary

Booster Aerodynamics

CODE	CONFIG. I.D.	CONTRACTOR	DMS-DR#	MACH RANGE	FACILITY	MODEL SCALE	CONFIGURATIONS TESTED
B1	CANARD	MDAC	1035	0.18	MAC	0.01	MDAC SPACE SHUTTLE BOOSTER
B1	CANARD	MDAC	1108	2.0-6.0	AEDC	0.00556	MARTIN BOOSTER
B1	CANARD	MDAC	1139	0.38	NSRDC	0.015	MDAC DELTA CANARD BOOSTER
B1	CANARD	MDAC/MMC	1054	0.26	MAC	0.03	MDAC/MMC SPACE SHUTTLE BOOSTER
B1	CANARD	MDAC/MMC	1066	0.6-2.0	ARC	0.007	MDC-MMC SSV CONFIG.-14 BOOSTER (SINGLE BODY, CANARD)
B1	CANARD	MDAC/MMC	1077	0.0-0.26	MAC	0.03	MDAC/MMC SPACE SHUTTLE BOOSTER
B1	CANARD	MDAC/MMC	1080	7.4	ARC	0.007	MDC-MMC SSV BOOSTER SINGLE BODY CANARD
B1	CANARD	MDAC/MMC	1116	0.6-2.0	ARC	0.007	MMC/MDC SBC BOOSTER
B1	CANARD	MDAC/MMC	1117	2.3-4.6	LARC	0.007	MDAC/MMC HCR DELTA WING ORBITER, MDAC/MMC SBC BOOSTER
B1	CANARD	MDAC/MMC	1120	0.26	MAC	0.03	MDAC/MMC BOOSTER
B1	CANARD	MDAC/MMC	1190	0.25	LARC	0.0032	MDAC/MMC 256-14 BOOSTER, MDAC 0050B ORBITER, NAR/GDC B-15B-1 BOOSTER, NAR 134D ORBITER
B1	CANARD	MSFC	1164	0.4-1.25	NSRDC	0.015	MSFC PARAMETRIC BOOSTER
B1	CANARD	MSFC	1192	0.4-1.2	NSRDC	0.015	MSFC PARAMETRIC BOOSTER
B1	CANARD	MSFC	1212	0.4-1.1	CAL	0.015	MSFC PARAMETRIC BOOSTER
B1	CANARD	TBC	1148	0.6-5.0	MSFC	0.002456	TBC AR11981-1 BOOSTER WITH GAC G3-A ORBITER, BOEING AR11981-1 BOOSTER
B1	CANARD	TBC	1160	0.6-5.0	MSFC	0.002456	BOEING AR-11981-3 BOOSTER
B2	CYLINDRICAL	GD/C	1204	0.6-5.0	MSFC	0.003366	GD/C B19B BOOSTER WITH MSC 040A ORBITER, GD/C B19B BOOSTER
B2	CYLINDRICAL	GD/C	1210	0.9-4.96	MSFC	0.003366	TWIN PRESSURE FED BOOSTER WITH MSC 040A ORBITER, GD/C B-18E-2 BOOSTER, GD/C B-18E-3 BOOSTER
B2	CYLINDRICAL	LMSC	1242	1.96-4.96	MSFC	0.00227	NASA/MSFC PARAMETRIC BOOSTER

Table 1.1.1 - Continued

Space Shuttle Phase B Wind Tunnel Test
Database Summary

Booster Aerodynamics

CODE	CONFIG.~I.D.	CONTRACTOR	DMS-DR#	MACH RANGE	FACILITY	MODEL SCALE	CONFIGURATIONS TESTED
B2	CYLINDRICAL	MDAC	1230	0.6-4.5	MDAC	0.006	PARALLEL BURN PRESSURE FED AND SRM BOOSTERS, 040A ORBITER
B2	CYLINDRICAL	MSFC	1208	0.6-5.0	MSFC	0.003366	MSFC PRESSURE FED BOOSTER
B2	CYLINDRICAL	MSFC	1226	0.9-4.96	MSFC	0.003366	MSFC PRESSURE FED BOOSTER
B2	CYLINDRICAL	MSFC	1240	0.9-4 96	MSFC	0.0028	MSFC PRESSURE FED BOOSTER
B2	CYLINDRICAL	MSFC	1245	0.9-4.96	MSFC	0.0034	MSFC PUMP-FED BOOSTER
B2	CYLINDRICAL	MSFC	1253	0.6-4.0	MSFC	0.00513	156 INCH SOLID ROCKET MOTOR
B2	CYLINDRICAL	TBC	1128	1.5-4.0	TBC	0.0144	TBC 979-185 SOLID ROCKET MOTOR
B2	CYLINDRICAL	TBC	1214	6.0	LARC	0.0035	TBC PRESSURE FED BOOSTER
B2	CYLINDRICAL	TBC	1227	0.6-4.96	MSFC	0.003366	PRESSURE FED BOOSTER WITH MSC 040A ORBITER, PRESSURE FED BOOSTER
B2	CYLINDRICAL	TBC	1228	0.6-1.1	TBC	0.008899	TBC RECOVERABLE BALLISTIC BOOSTER
B2	CYLINDRICAL	TBC	1228	2.0-4.0	TBC	0.008899	TBC RECOVERABLE BALLISTIC BOOSTER
B2	CYLINDRICAL	TBC	1275	0.35-1.1	TBC	0.008899	PRESSURE FED RECOVERABLE BOOSTER 979-160
B2	CYLINDRICAL	TBC	1275	0.35-1.1	TBC	0.008899	PRESSURE FED RECOVERABLE BOOSTER 979-160
B2	CYLINDRICAL	TBC	1275	1.3-4.0	TBC	0.008899	PRESSURE FED RECOVERABLE BOOSTER 979-160
B2	CYLINDRICAL	TBC	1275	1.3-4.0	TBC	0.008899	PRESSURE FED RECOVERABLE BOOSTER 979-160
B2	CYLINDRICAL	TBC	1276	0.6-1.1	TBC	0.006944	PRESSURE FED RECOVERABLE BOOSTER 979-160
B2	CYLINDRICAL	TBC	1276	1.3-4.0	TBC	0.006944	PRESSURE FED RECOVERABLE BOOSTER 979-160
B3	DELTA WING	GD/C	1029	8.05	GDC	0.0035	MODIFIED CONVAIR (B-8B) SPACE SHUTTLE BOOSTER
B3	DELTA WING	GD/C	1030	.184-.318	GDC	0.0175	GD/C SPACE SHUTTLE BOOSTER (STRAIGHT WING), GD/C DELTA WING BOOSTER
B3	DELTA WING	GD/C	1039	.184-.259	GDC	0.0175	GD/C BOOSTER

Table 1.1.1 - Continued

Space Shuttle Phase B Wind Tunnel Test
Database Summary

Booster Aerodynamics

CODE	CONFIG. I.D.	CONTRACTOR	DMS-DR#	MACH RANGE	FACILITY	MODEL SCALE	CONFIGURATIONS TESTED
B3	DELTA WING	GD/C	1052	1.1-1.6	GDC	0.0035	GD/C STRAIGHT WING BOOSTER (B8X), GD/C DELTA WING BOOSTER (B-9J), NAR STRAIGHT WING ORBITER (130G), NAR DELTA WING ORBITER (134B)
B3	DELTA WING	GD/C	1087	0.2-0.3	LARC	0.0076	GD/C BOOSTER B15B-1
B3	DELTA WING	GD/C	1093	10.0	LARC	0.0035	GD/C BOOSTER
B3	DELTA WING	GD/C	1102	0.6-5.0	MSFC	0.0035	GD/C BOOSTER B-15B-1
B3	DELTA WING	GD/C	1109	0.2	GDC	0.0175	GD BOOSTER B-15B WITH MODS
B3	DELTA WING	GD/C	1110	0.2	GDC	0.0175	GD BOOSTER B-15B-1
B3	DELTA WING	GD/C	1121	0.6-2.0	ARC	0.0076	GD/C BOOSTER B-15B-1
B3	DELTA WING	GD/C	1130	0.6-5.0	MSFC	0.0035	NR/GD DELTA WING BOOSTER, NR 134D DELTA WING ORBITER
B3	DELTA WING	GD/C	1141	0.6-2.0	ARC	0.0076	GD/C B-9U BOOSTER
B3	DELTA WING	GD/C	1150	0.22-.253	LARC	0.0076	GD/C BOOSTER B-9U
B3	DELTA WING	GD/C	1152	0.6-4.96	MSFC	0.0035	GD/C B-9U BOOSTER
B3	DELTA WING	GD/C	1155	1.2-4.96	MSFC	0.0035	GD/C BOOSTER B-15B-1
B3	DELTA WING	GD/C	1156	10.0	LARC	0.0035	GD-C B-9U BOOSTER
B3	DELTA WING	GD/C	1162	0.6-4.96	MSFC	0.0031	NR/GD DELTA WING BOOSTER B-15B-1 WITH REUSABLE NUCLEAR STAGE, NAR/GD REUSABLE NUCLEAR STAGE, NAR/GD B-15B-1 DELTA WING BOOSTER
B3	DELTA WING	GD/C	1190	0.25	LARC	0.0029	MDAC/MMC 256-14 BOOSTER, MDAC 0050B ORBITER, NAR/GDC B-15B-1 BOOSTER, NAR 134D ORBITER
B3	DELTA WING	GD/C	1210	0.9-4.96	MSFC	0.0035	TWIN PRESSURE FED BOOSTER WITH MSC 040A ORBITER, GD/C B-18E-2 BOOSTER, GD/C B-18E-3 BOOSTER
B3	DELTA WING	GD/C	1223	0.2	GDC	0.02	GD/C B-18E3 BOOSTER
B3	DELTA WING	GD/C	1237	1.6-2.16	LARC	0.0056	GD/C B9U BOOSTER WITH NR 134D ORBITER, GD/C B9U BOOSTER, NR 134D ORBITER

Table 1.1.1 - Continued

Space Shuttle Phase B Wind Tunnel Test
Database Summary

Booster Aerodynamics

CODE	CONFIG. I.D.	CONTRACTOR	DMS-DR#	MACH RANGE	FACILITY	MODEL SCALE	CONFIGURATIONS TESTED
B3	DELTA WING	MDAC	1014	0 18	MAC	0.01	M/DAC DELTA WING BOOSTER
B3	DELTA WING	MMC	1213	0.6-4.96	MSFC	0.0034	MMC RETRO-GLIDE BOOSTER WITH MSC 040A ORBITER, MMC RETRO-GLIDE BOOSTER
B3	DELTA WING	MSC	1115	0.6-1.4	LTV	0.008105	MSC S-13A ORBITER, MSC SB-13A BOOSTER
B3	DELTA WING	MSC/MDAC	1038	0.6-2.0	ARC	0.08	MSC/MDAC STRAIGHT WING BOOSTER, MSC/MDAC STRAIGHT AND DELTA WING ORBITERS, MSC/MDAC DELTA WING BOOSTER
B3	DELTA WING	MSFC	1001	0.3-5.0	MSFC	0.0035	MSFC BOOSTER (B-005)
B3	DELTA WING	TBC	1183	0.6-4.96	MSFC	0.003366	TBC RS-IC BOOSTER WITH MSC 040A ORBITER, TBC RS-IC BOOSTER
B3	DELTA WING	TBC	1209	0.6-4.96	MSFC	0.003366	AR 12161-2 BOOSTER
B3	DELTA WING	TBC	1220	6.0	LARC	0.0035	TBC FLYABLE LOX/RP BOOSTER
B4	STRAIGHT WING	GD/C	1025	0.9-4.6	GDC	0.0035	GD/CONVAIR (B-8B) BOOSTER
B4	STRAIGHT WING	GD/C	1029	8.05	GDC	0.0035	MODIFIED CONVAIR (B-8B) SPACE SHUTTLE BOOSTER
B4	STRAIGHT WING	GD/C	1030	.184-.318	GDC	0.0175	GD/C SPACE SHUTTLE BOOSTER (STRAIGHT WING), GD/C DELTA WING BOOSTER
B4	STRAIGHT WING	GD/C	1039	.184-.259	GDC	0.0175	GD/C BOOSTER
B4	STRAIGHT WING	GD/C	1050	0.6-2.0	ARC	0.0076	NAR/GD STRAIGHT WING BOOSTER WITH NAR/GD STRAIGHT WING AND DELTA WING ORBITERS, NAR/GD STRAIGHT WING BOOSTER
B4	STRAIGHT WING	GD/C	1051	0.6-2.0	MSFC	0.0035	NAR-GD/C STRAIGHT WING BOOSTER (B-8H MODIFIED), NAR-GD/C STRAIGHT WING ORBITER (130G), NAR-GD/C DELTA WING ORBITER (134B)
B4	STRAIGHT WING	GD/C	1052	1.1-1.6	GDC	0.0035	GD/C STRAIGHT WING BOOSTER (B8X), GD/C DELTA WING BOOSTER (B-9J), NAR STRAIGHT WING ORBITER (130G), NAR DELTA WING ORBITER (134B)
B4	STRAIGHT WING	GD/C	1075	0 6-2 0	ARC	0.0076	GD/C B-811-1 BOOSTER, NAR ORBITER
B4	STRAIGHT WING	GD/C	1100	0.25	LARC	0.0076	GD/C B-8H-1 BOOSTER

Table 1.1.1 - Concluded

Space Shuttle Phase B Wind Tunnel Test
Database Summary

Booster Aerodynamics

CODE	CONFIG. I.D.	CONTRACTOR	DMS-DR#	MACH RANGE	FACILITY	MODEL SCALE	CONFIGURATIONS TESTED
B4	STRAIGHT WING	MSC	1033	.259	TAM	0.0132	MSC 251 BOOSTER MODEL SB-15
B4	STRAIGHT WING	MSC/MDAC	1038	0.6-2.0	ARC	0.08	MSC/MDAC STRAIGHT WING BOOSTER, MSC/MDAC STRAIGHT AND DELTA WING ORBITERS, MSC/MDAC DELTA WING BOOSTER
B4	STRAIGHT WING	TBC	1079	0.10-0.29	UW	0 02992	BOEING BOOSTER
B4	STRAIGHT WING	TBC	1111	0.3-2.0	ARC	0.00667	BAC H-32 BOOSTER
B4	STRAIGHT WING	TBC	1158	8.12	GAC	0.00435	BOEING H-32 BOOSTER
B4	STRAIGHT WING	TBC	1191	0.3-1.1	TBC	0.00667	BOEING H-32 BOOSTER
B5	UNIQUE CONFIGS.	CCSD	1046	0.4-2.0	ARC	0.0055	CCSD SERV I
B5	UNIQUE CONFIGS.	CCSD	1068	2.6-4.64	LARC	0.0055	CCSD SERV VEHICLE
B5	UNIQUE CONFIGS.	CCSD	1089	0.4-2.0	ARC	0.0055	SERV ASCENT VEHICLE WITH PERSONNEL MODULE, SERV ASCENT VEHICLE WITH WINGED ORBITER, SERV REENTRY VEHICLE
B5	UNIQUE CONFIGS.	CCSD	1089	2.6-4.64	LARC	0.0055	SERV ASCENT VEHICLE WITH PERSONNEL MODULE, SERV ASCENT VEHICLE WITH WINGED ORBITER, SERV REENTRY VEHICLE
B5	UNIQUE CONFIGS.	GD/C	1006	10	AEDC	0.0182	SAMSO-GD/CONVAIR T-18 BOOSTER
B5	UNIQUE CONFIGS.	LARC	1015	0.22-0.35	LARC	NONE	TWIN BODY BOOSTER
B5	UNIQUE CONFIGS.	LARC	1017	1.5-2.86	LARC	NONE	TWIN BODY BOOSTER
B5	UNIQUE CONFIGS.	LARC	1019	3.95-4.63	LARC	NONE	TWIN BODY BOOSTER
B5	UNIQUE CONFIGS.	LARC	1193	0.25	LARC	NONE	LARC LOW FINENESS RATIO BOOSTER
B5	UNIQUE CONFIGS.	LARC	1197	1.5-2.16	LARC	0.0076	LARC LOW FINENESS RATIO BOOSTER WITH NAR 134D ORBITER, NASA LOW FINENESS RATIO BOOSTER
B5	UNIQUE CONFIGS.	LARC	1198	10.2	LARC	NONE	LARC LOW FINENESS RATIO BOOSTER WITH NAR 134D ORBITER, LARC LOW FINENESS RATIO BOOSTER
B5	UNIQUE CONFIGS.	LARC	1200	0.4-1.2	LARC	0.0076	LOW FINENESS RATIO BOOSTER WITH NAR 134D ORBITER, LOW FINENESS RATIO BOOSTER

Table 1.2.1

Space Shuttle Phase B Wind Tunnel Test
Database Summary

Booster Airloads

CODE	CONFIG. I.D.	CONTRACTOR	DMS-DR#	MACH RANGE	FACILITY	MODEL SCALE	CONFIGURATIONS TESTED
B1	CANARD	MDAC	1222	0.6-1.3	AEDC	0.00556	MDAC CANARD BOOSTER AND DELTA WING ORBITER
B1	CANARD	MDAC	1225	8.0	AEDC	0.011	MDAC CANARD BOOSTER AND DELTA WING ORBITER, AND NR DELTA WING ORBITER
B4	STRAIGHT WING	GD/C	1129	0.6-2.0	ARC	0.00761	GD/C STRAIGHT WING BOOSTER, GD/C STRAIGHT WING BOOSTER WITH NR DELTA WING ORBITER, GD/C STRAIGHT WING BOOSTER WITH NR STRAIGHT WING ORBITER
B5	UNIQUE CONFIGS.	CCSD	1125	0.0-1.25	AEDC	0.025	SERV

Table 1.3.1

Space Shuttle Phase B Wind Tunnel Test
Database Summary

Booster Heat Transfer

CODE	CONFIG. I.D.	CONTRACTOR	DMS-DR#	MACH RANGE	FACILITY	MODEL SCALE	CONFIGURATIONS TESTED
B1	CANARD	MDAC	1170	7.5-13.0	CAL	0.007	MDAC CANARD BOOSTER WITH MDAC DELTA WING ORBITER, MDAC DELTA WING ORBITER, MDAC CANARD BOOSTER
B1	CANARD	MDAC	1207	8.0	AEDC	0.011	MDAC CANARD BOOSTER AND DELTA WING ORBITER
B1	CANARD	MDAC	1262	8.0	AEDC	0.011	MDAC CANARD BOOSTER AND DELTA WING ORBITER
B1	CANARD	MDAC/MMC	1036	10.0	LARC	0.00325	MDC/MMC PHASE B BASELINE BOOSTER, MDC/MMC PHASE B LOW CROSS RANGE ORBITER, MDC/MMC PHASE B ALTERNATE BOOSTER, MDC/MMC PHASE B HIGH CROSS RANGE ORBITER
B1	CANARD	MDAC/MMC	1036	8.0	LARC	0.00325	MDC/MMC PHASE B BASELINE BOOSTER, MDC/MMC PHASE B LOW CROSS RANGE ORBITER, MDC/MMC PHASE B ALTERNATE BOOSTER, MDC/MMC PHASE B HIGH CROSS RANGE ORBITER
B1	CANARD	MDAC/MMC	1138	8.0	LARC	0.00325	MDC/MMC PHASE B BOOSTER WITH VENTRAL TIP FINS
B2	CYLINDRICAL	GD/C	1236	8.0	LARC	0.0035	GD/C B9V BOOSTER NOSE-FUSELAGE CONFIGURATION
B2	CYLINDRICAL	TBC	1261	8.0	LARC	0.0033	MSC 040A ORBITER WITH CYLINDRICAL BOOSTER 979-160, CYLINDRICAL BOOSTER 979-160
B3	DELTA WING	GD/C	1020	10.0	LARC	0.0035	CONVAIR STRAIGHT WING (B-8B) BOOSTER, CONVAIR DELTA WING (B-9J) BOOSTER
B3	DELTA WING	GD/C	1024	8.0	LARC	0.0035	CONVAIR STRAIGHT WING (B-8B) BOOSTER, CONVAIR DELTA WING (B-9J) BOOSTER
B3	DELTA WING	GD/C	1070	7.80-7.95	LARC	0.0032	DELTA WING BOOSTER WITH CANARD (B-15B)
B3	DELTA WING	GD/C	1098	2.5-3.7	LARC	0.006	GD/C DELTA WING BOOSTER (B-9J), NAR STRAIGHT WING ORBITER, NAR DELTA WING ORBITER
B3	DELTA WING	GD/C	1145	7.80-7.95	LARC	0.003	GD/C BOOSTER B-9U WITH NAR ORBITER 161C, GD/C BOOSTER B-15B-2, GD/C BOOSTER B-9U
B3	DELTA WING	GD/C	1145	7.80-7.95	LARC	0.0033	GD/C BOOSTER B-9U WITH NAR ORBITER 161C, GD/C BOOSTER B-15B-2, GD/C BOOSTER B-9U

Table 1.3.1 - Concluded

Space Shuttle Phase B Wind Tunnel Test
Database Summary

Booster Heat Transfer

CODE	CONFIG. I.D.	CONTRACTOR	DMS-DR#	MACH RANGE	FACILITY	MODEL SCALE	CONFIGURATIONS TESTED
B3	DELTA WING	GD/C	1145	7.80-7.95	LARC	0.004	GD/C BOOSTER B-9U WITH NAR ORBITER 161C, GD/C BOOSTER B-15B-2, GD/C BOOSTER B-9U
B3	DELTA WING	GD/C	1177	8.0	AEDC	0.009	GD/C B-15B-2 BOOSTER, NAR 161B ORBITER
B3	DELTA WING	GD/C	1179	7.4	ARC	0.006	GD/C DELTA WING BOOSTER (B-9J)
B3	DELTA WING	GD/C	1244	6.0	LARC	0.0035	GD/C B-18E3 BOOSTER
B3	DELTA WING	GD/C	1264	8.0	AEDC	0.013	NR DELTA WING ORBITER, GD/C BOOSTER
B4	STRAIGHT WING	GD/C	1020	10.0	LARC	0.0035	CONVAIR STRAIGHT WING (B-8B) BOOSTER, CONVAIR DELTA WING (B-9J) BOOSTER
B4	STRAIGHT WING	GD/C	1024	8.0	LARC	0.0035	CONVAIR STRAIGHT WING (B-8B) BOOSTER, CONVAIR DELTA WING (B-9J) BOOSTER
B4	STRAIGHT WING	GD/C	1032	8.0	LARC	0.0035	CONVAIR STRAIGHT WING (B-8B) AND DELTA WING (B-9J) BOOSTERS, NAR STRAIGHT AND DELTA WING ORBITERS, CONVAIR B-95 BOOSTER WITH NAR DELTA WING ORBITER
B4	STRAIGHT WING	GD/C	1134	7.4	ARC	0.006	GD/C B-8B STRAIGHT WING BOOSTER

Table 2

Space Shuttle Phase B Wind Tunnel
Test Database Listed by Chrysler
DATAMAN Report Number

DMS-DR#	NASA SERIES NUMBER	VOLUME NUMBER	NASA CR NUMBER	NASA TM-X NUMBER	FACILITY TEST NUMBER	VEHICLE COMPONENT
1001	S1002-S1801	1	103,150	--	MSFC 14TWT 451	BOOSTER
1002	S0005	1	--	62,035	ARC 3.5HWT 78	ORBITER
1003	S1802	1	103,152	--	MSFC 14TWT 453	ORBITER
1004	S0011-S0014	1	--	--	LARC 20HT6 6315	ORBITER
1005	S1809	1	103,153	--	GAC 710SWT 280	ORBITER
1006	S1808	1	103,151	--	AEDC HWTC VT0055	BOOSTER
1007	S0016	1	103,154	--	MAC LSWT 223	ORBITER
1008	S0006	1	103,155	--	TAM 710SWT S-VI	ORBITER
1009	S1206	1	--	--	LARC 22HT 7341-7343	ORBITER
1010	S0201	1	103,156	--	NRLAD LSWT 629	ORBITER
1011	S0009	1	--	--	ARC 66SWT 465	ORBITER
1012	S0036	1	--	--	ARC 11TWT 481-1	ORBITER
1013	S1207	1	--	--	LARC LTPT 50	ORBITER
1014	S1807	1	103,157	--	MAC LSWT 132	BOOSTER
1015	S1201	1	--	--	LARC LTPT 47	BOOSTER
1016	H1201	1	--	--	LARC CFHT 50	LAUNCH
1017	S1204	1	--	--	LARC UPWT 886	BOOSTER
1018	S1205	1	--	--	LARC LTPT 49	ORBITER
1019	S1203	1	--	--	LARC UPWT 913	BOOSTER
1020	H0202	1	--	--	LARC CFHT 52	BOOSTER
1021	S1806	1	--	62,066	ARC 66SWT 484	ORBITER
1022	S1208	1	--	--	LARC 710SWT 905	ORBITER
1023	S1202	1	--	--	LARC 20HT6 6329	ORBITER

Table 2 - Continued

Space Shuttle Phase B Wind Tunnel
Test Database Listed by Chrysler
DATAMAN Report Number

DMS-DR#	NASA SERIES NUMBER	VOLUME NUMBER	NASA CR NUMBER	NASA TM-X NUMBER	FACILITY TEST NUMBER	VEHICLE COMPONENT
1024	H0204	1	--	--	LARC 8VDHT 123-136,180-188	BOOSTER
1025	S0203	1	103,158	--	GDC 4HSWT 291-0	BOOSTER
1026	S0204	1	--	--	ARC 66SWT 503	ORBITER
1027	S0209	1	119,962	--	MSFC 14TWT 468	ORBITER
1028	S0405-S0406	1	--	62,039	ARC 66SWT 514	ORBITER
1029	S0205	1	103,159	--	GDC 18HWT 247-0	BOOSTER
1030	S0202	1	119,963	--	GDC 812SWT 579-0	BOOSTER
1031	S1805	1	--	62,065	ARC 3.5HWT 88	ORBITER
1032	H0205	1	--	--	LARC 8VDHT 137-146,189-205	LAUNCH
1032	H0205	1	--	--	LARC 8VDHT 137-146,189-205	ORBITER
1032	H0205	1	--	--	LARC 8VDHT 137-146,189-205	BOOSTER
1033	S0024	1	103,164	--	TAM 710SWT S-XXIV	BOOSTER
1034	S0232	1	103,160	--	NRLAD LSWT 632	ORBITER
1035	S0404	1	103,161	--	MAC LSWT 1351	BOOSTER
1036	H0401-H0403	1	--	--	LARC,8VDHT 147-179,206-322	LAUNCH
1036	H0401-H0403	1	--	--	LARC 8VDHT 147-179,206-322	BOOSTER
1036	H0401-H0403	1	--	--	LARC CFHT 53	LAUNCH
1036	H0401-H0403	1	--	--	LARC CFHT 53	BOOSTER
1036	H0401-H0403	2	--	--	LARC 8VDHT 147-179,206-322	LAUNCH
1036	H0401-H0403	2	--	--	LARC 8VDHT 147-179,206-322	BOOSTER
1036	H0401-H0403	2	--	--	LARC CFHT 53	LAUNCH
1036	H0401-H0403	2	--	--	LARC CFHT 53	BOOSTER
1037	S0201	1	103,193	--	NRLAD LSWT 630	ORBITER
1038	S0065	1	--	62,069	ARC 66SWT 486	LAUNCH

Table 2 - Continued

Space Shuttle Phase B Wind Tunnel
Test Database Listed by Chrysler
DATAMAN Report Number

DMS-DR#	NASA SERIES NUMBER	VOLUME NUMBER	NASA CR NUMBER	NASA TM-X NUMBER	FACILITY TEST NUMBER	VEHICLE COMPONENT
1038	S0065	1	--	62,069	ARC 66SWT 486	BOOSTER
1039	S0228	1	103,162	--	GDC 812SWT 580-0	BOOSTER
1040	S0407	1	103,163	--	MAC LSWT 235	ORBITER
1041	S0429	1	103,194	--	MAC LSWT 240	ORBITER
1042	S0041	1	--	--	ARC 66SWT 488	LAUNCH
1043	S0235	1	103,085	--	MSFC 14TWT 471	ORBITER
1044	S1044	1	103,195	--	MSFC 14TWT 470	LAUNCH
1045	S1210	1	--	--	LARC LTPT 50-2	ORBITER
1046	S1401	1	--	--	ARC 66SWT 522	BOOSTER
1047	S1209	1	--	--	LARC CFHT 54	LAUNCH
1048	S1213	1	--	--	LARC 20HT6 6355-6329	ORBITER
1049	S0208.01	1	--	--	LARC LTPT 52	ORBITER
1050	S0206	1	--	62,070	ARC 66SWT 505	LAUNCH
1050	S0206	1	--	62,070	ARC 66SWT 505	BOOSTER
1051	S0217	1	103,196	--	MSFC 14TWT 466	LAUNCH
1051	S0217	1	103,196	--	MSFC 14TWT 466	BOOSTER
1052	S0207	1	103,197	--	GDC 4HSWT 304-0	LAUNCH
1052	S0207	1	103,197	--	GDC 4HSWT 304-0	BOOSTER
1052	S0207	1	103,197	--	GDC 4HSWT 304-0	ORBITER
1053	S1803	1	103,198	--	GAC 710SWT 279	ORBITER
1054	S0410-S0411	1	103,199	--	MAC LSWT 239	BOOSTER
1055	S1006	1	103,200	--	MSFC 14TWT 476	LAUNCH
1056	H0201-H0203	1	--	--	LARC CFHT 51	ORBITER
1056	H0201-H0203	1	--	--	LARC 8VDHT 1-58	ORBITER

Table 2 - Continued

Space Shuttle Phase B Wind Tunnel
Test Database Listed by Chrysler
DATAMAN Report Number

DMS-DR#	NASA SERIES NUMBER	VOLUME NUMBER	NASA CR NUMBER	NASA TM-X NUMBER	FACILITY TEST NUMBER	VEHICLE COMPONENT
1057	S0018-S0035	1	119,853	--	TAM 710SWT S-18/S-35	ORBITER
1058	S0028	1	119,854	--	LTV HSWT S-28	LAUNCH
1059	S1214	1	--	--	LARC 22HT 7369	ORBITER
1060	S0008	1	119,855	--	TAM 710SWT S-8-1	ORBITER
1061	S1211	1	--	--	LARC CFHT 54	LAUNCH
1062	S0038	1	119,856	--	TAM 710SWT S-38	ORBITER
1063	S0042	1	--	62,072	ARC 66SWT 524	LAUNCH
1064	S0244	1	--	--	LARC LTPT 545	ORBITER
1065	S0414	1	--	--	ARC 66SWT 508	LAUNCH
1065	S0414	2	--	--	ARC 66SWT 508	LAUNCH
1066	S0412	1	--	62,037	ARC 66SWT 504	BOOSTER
1067	S0423	1	119,857	--	MAC LSWT 248	ORBITER
1068	S1402	1	--	--	LARC UPWT 9143	BOOSTER
1069	S1212	1	--	--	LARC UPWT 922	ORBITER
1070	H0214	1	--	--	LARC 8VDHT 703-766	BOOSTER
1071	S0415-S0434	1	--	--	ARC 3.5HWT 111/113	ORBITER
1072	S0413	1	--	--	ARC 3.5HWT 104	ORBITER
1073	S0039	1	119,858	--	TAM 710SWT S-39	ORBITER
1074	S0430	1	119,859	--	MAC LSWT 138	ORBITER
1075	S0219-S0219.01	1	--	--	ARC 66SWT 511	BOOSTER
1075	S0219-S0219.01	1	--	--	ARC 66SWT 511	LAUNCH
1075	S0219-S0219.01	2	--	--	ARC 66SWT 511	BOOSTER
1075	S0219-S0219.01	2	--	--	ARC 66SWT 511	LAUNCH
1076	S0240-S0241	1	119,860	--	MSFC 14TWT 478	ORBITER

Table 2 - Continued

Space Shuttle Phase B Wind Tunnel
Test Database Listed by Chrysler
DATAMAN Report Number

DMS-DR#	NASA SERIES NUMBER	VOLUME NUMBER	NASA CR NUMBER	NASA TM-X NUMBER	FACILITY TEST NUMBER	VEHICLE COMPONENT
1077	S0419-S0426	1	119,861	--	MAC LSWT 249	BOOSTER
1078	S0214-S0218	1	--	62,044	ARC 66SWT 503/513	ORBITER
1079	S0602	1	119,964	--	UW 812SWT 1021	BOOSTER
1080	S0416	1	--	62,038	ARC 3.5HWT 112	BOOSTER
1081	S0603	1	119,862	--	GAC 710SWT 289	ORBITER
1082	S0204-S0218	1	--	62,045	ARC 66SWT 503/513	ORBITER
1083	S0426	1	--	62,042	ARC 66SWT 527	ORBITER
1084	S0224.01	1	--	--	LARC CFHT 63	ORBITER
1085	S0801	1	--	62,073	ARC 66SWT 542	LAUNCH
1086	S1217	1	--	--	LARC 22HT 7377	ORBITER
1087	S0238	1	--	--	LARC LTPT 59	BOOSTER
1088	S1215	1	--	--	LARC 22HT 7376	ORBITER
1089	S1401-S1402	1	--	--	ARC 66SWT 522	BOOSTER
1089	S1401-S1402	1	--	--	LARC UPWT 9143	BOOSTER
1090	S0408	1	119,965	--	MAC LSWT 237	ORBITER
1091	S1034	1	119,966	--	MSFC 14TWT 485	LAUNCH
1092	S1019	1	119,967	--	AEDC PWT4T TC135	ORBITER
1093	S0231	1	--	--	LARC CFHT 64	BOOSTER
1094	S0428	1	--	62,108	ARC 3.5HWT 125	ORBITER
1095	S0224	1	--	--	LARC 20HT6 6366	ORBITER
1096	S0227	1	--	--	LARC UPWT 951	ORBITER
1097	S1216	1	--	--	LARC 8TPT 574	ORBITER
1098	H0209	1	--	--	LARC UPWT 945	LAUNCH
1098	H0209	1	--	--	LARC UPWT 945	ORBITER

Table 2 - Continued

Space Shuttle Phase B Wind Tunnel
Test Database Listed by Chrysler
DATAMAN Report Number

DMS-DR#	NASA SERIES NUMBER	VOLUME NUMBER	NASA CR NUMBER	NASA TM-X NUMBER	FACILITY TEST NUMBER	VEHICLE COMPONENT
1098	H0209	1	--	--	LARC UPWT 945	BOOSTER
1099	S0433	1	--	62,059	ARC 66SWT 557	LAUNCH
1100	S0220	1	--	--	LARC LTPT 55	BOOSTER
1101	S1219	1	--	--	LARC UPWT 944/961	ORBITER
1102	S0213	1	119,992	--	MSFC 14TWT 481	BOOSTER
1103	S0802	1	--	--	LARC UPWT 955	ORBITER
1104	S0212	1	--	62,067	ARC 3.5HWT 109A	ORBITER
1104	S0212	2	--	62,068	ARC 3.5HWT 109A	ORBITER
1105	S0225	1	--	--	LARC 8TPT 573	ORBITER
1106	S0221	1	--	--	LARC LTPT 57	ORBITER
1107	S1218	1	--	--	LARC LTPT 58	ORBITER
1108	S1023	1	119,973	--	AEDC SWTA 1163	BOOSTER
1108	S1023	1	119,973	--	AEDC SWTA 1163	ORBITER
1108	S1023	1	119,973	--	AEDC SWTA 1163	LAUNCH
1108	S1023	2	119,972	--	AEDC SWTA 1163	BOOSTER
1108	S1023	2	119,972	--	AEDC SWTA 1163	ORBITER
1108	S1023	2	119,972	--	AEDC SWTA 1163	LAUNCH
1108	S1023	3	119,971	--	AEDC SWTA 1163	BOOSTER
1108	S1023	3	119,971	--	AEDC SWTA 1163	ORBITER
1108	S1023	3	119,971	--	AEDC SWTA 1163	LAUNCH
1108	S1023	4	119,968	--	AEDC SWTA 1163	BOOSTER
1108	S1023	4	119,968	--	AEDC SWTA 1163	ORBITER
1108	S1023	4	119,968	--	AEDC SWTA 1163	LAUNCH
1108	S1023	5	119,969	--	AEDC SWTA 1163	BOOSTER

Table 2 - Continued

Space Shuttle Phase B Wind Tunnel
Test Database Listed by Chrysler
DATAMAN Report Number

DMS-DR#	NASA SERIES NUMBER	VOLUME NUMBER	NASA CR NUMBER	NASA TM-X NUMBER	FACILITY TEST NUMBER	VEHICLE COMPONENT
1108	S1023	5	119,969	--	AEDC SWTA 1163	ORBITER
1108	S1023	5	119,969	--	AEDC SWTA 1163	LAUNCH
1108	S1023	6	119,970	--	AEDC SWTA 1163	BOOSTER
1108	S1023	6	119,970	--	AEDC SWTA 1163	ORBITER
1108	S1023	6	119,970	--	AEDC SWTA 1163	LAUNCH
1108	S1023	7	119,985	--	AEDC SWTA 1163	BOOSTER
1108	S1023	7	119,985	--	AEDC SWTA 1163	ORBITER
1108	S1023	7	119,985	--	AEDC SWTA 1163	LAUNCH
1109	S0237	1	119,974	--	GDC 812SWT 587-0	BOOSTER
1110	S0247	1	119,975	--	GDC 812SWT 587-1	BOOSTER
1111	S0612	1	--	62,115	ARC 66SWT 550	BOOSTER
1112	S0608	1	--	62,060	ARC 66SWT 547	ORBITER
1113	S1222	1	--	--	LARC CFHT 62	ORBITER
1114	S1018	1	119,976	--	MSFC 14TWT 477	ORBITER
1115	S0030	1	119,986	--	LTV HSWT S-30	LAUNCH
1115	S0030	1	119,986	--	LTV HSWT S-30	ORBITER
1115	S0030	1	119,986	--	LTV HSWT S-30	BOOSTER
1116	S0431	1	--	62,049	ARC 66SWT 510	BOOSTER
1117	S0424	1	--	--	LARC UPWT 963	LAUNCH
1117	S0424	1	--	--	LARC UPWT 963	ORBITER
1117	S0424	1	--	--	LARC UPWT 963	BOOSTER
1117	S0424	2	--	--	LARC UPWT 963	LAUNCH
1117	S0424	2	--	--	LARC UPWT 963	ORBITER
1117	S0424	2	--	--	LARC UPWT 963	BOOSTER

Table 2 - Continued

Space Shuttle Phase B Wind Tunnel
Test Database Listed by Chrysler
DATAMAN Report Number

DMS-DR#	NASA SERIES NUMBER	VOLUME NUMBER	NASA CR NUMBER	NASA TM-X NUMBER	FACILITY TEST NUMBER	VEHICLE COMPONENT
1117	S0424	3	--	--	LARC UPWT 963	LAUNCH
1117	S0424	3	--	--	LARC UPWT 963	ORBITER
1117	S0424	3	--	--	LARC UPWT 963	BOOSTER
1118	S0431.01	1	--	--	ARC 66SWT 512	LAUNCH
1118	S0431.01	2	--	--	ARC 66SWT 512	LAUNCH
1119	S0236	1	119,977	--	MSFC.14TWT 489	LAUNCH
1120	S0436	1	119,978	--	MAC LSWT 258	BOOSTER
1121	S0239	1	--	62,048	ARC 66SWT 526	BOOSTER
1122	S0606	1	--	--	ARC 66SWT 546	LAUNCH
1123	S1220	1	--	--	LARC CFHT 61	ORBITER
1124	S0215	1	119,979	--	NRLAD LSWT 633	ORBITER
1125	P1403	1	119,993	--	AEDC PWT16T TF-250	BOOSTER
1126	S0246	1	119,980	--	MSFC 14TWT 484	ORBITER
1127	S0229	1	--	62,063	ARC 66SWT 548	LAUNCH
1128	S0631	1	120,079	--	TBC 84SWT 558	BOOSTER
1129	P0203	1	--	--	ARC 66SWT 509	BOOSTER
1129	P0203	1	--	--	ARC 66SWT 509	ORBITER
1129	P0203	1	--	--	ARC 66SWT 509	LAUNCH
1129	P0203	2	--	--	ARC 66SWT 509	BOOSTER
1129	P0203	2	--	--	ARC 66SWT 509	ORBITER
1129	P0203	2	--	--	ARC 66SWT 509	LAUNCH
1129	P0203	3	--	--	ARC 66SWT 509	BOOSTER
1129	P0203	3	--	--	ARC 66SWT 509	ORBITER
1129	P0203	3	--	--	ARC 66SWT 509	LAUNCH

Table 2 - Continued

Space Shuttle Phase B Wind Tunnel
Test Database Listed by Chrysler
DATAMAN Report Number

DMS-DR#	NASA SERIES NUMBER	VOLUME NUMBER	NASA CR NUMBER	NASA TM-X NUMBER	FACILITY TEST NUMBER	VEHICLE COMPONENT
1130	S0242-S0242.10	1	119,994	--	MSFC 14TWT 490	BOOSTER
1130	S0242-S0242.10	1	119,994	--	MSFC 14TWT 490	LAUNCH
1130	S0242-S0242.10	2	119,994	--	MSFC 14TWT 490	BOOSTER
1130	S0242-S0242.10	2	119,994	--	MSFC 14TWT 490	LAUNCH
1130	S0242-S0242.10	3	119,994	--	MSFC 14TWT 490	BOOSTER
1130	S0242-S0242.10	3	119,994	--	MSFC 14TWT 490	LAUNCH
1130	S0242-S0242.10	4	119,994	--	MSFC 14TWT 490	BOOSTER
1130	S0242-S0242.10	4	119,994	--	MSFC 14TWT 490	LAUNCH
1131	H0207	1	--	62,078	ARC 3.5HWT 106	ORBITER
1134	H0206	1	--	62,077	ARC 3.5HWT 105	BOOSTER
1136	S1601	1	--	62,062	ARC 66SWT 561	LAUNCH
1136	S1601	1	--	62,062	ARC 66SWT 561	LAUNCH
1137	S0611	1	--	62,061	ARC 66SWT 551	LAUNCH
1138	H0406	1	--	--	LARC 8VDHT 1204-1213	BOOSTER
1139	S1009	1	119,995	--	NSRDC 710TWT 3110	BOOSTER
1139	S1009	2	119,996	--	NSRDC 710TWT 3110	BOOSTER
1139	S1009	3	119,997	--	NSRDC 710TWT 3110	BOOSTER
1139	S1009	4	119,998	--	NSRDC 710TWT 3110	BOOSTER
1140	S1035	1	119,981	--	MSFC 14TWT 491	LAUNCH
1141	S0229.01	1	--	62,118	ARC 66SWT 563	BOOSTER
1142	S0610	1	119,982	--	GAC 710SWT 290	ORBITER
1143	H0801	1	--	--	LARC 8VDHT 1075-1107	LAUNCH
1144	S0245	1	--	--	LARC UPWT 951B	ORBITER
1145	H0213	1	--	--	LARC 8VDHT 1237-1297	LAUNCH

Table 2 - Continued

Space Shuttle Phase B Wind Tunnel
Test Database Listed by Chrysler
DATAMAN Report Number

DMS-DR#	NASA SERIES NUMBER	VOLUME NUMBER	NASA CR NUMBER	NASA TM-X NUMBER	FACILITY TEST NUMBER	VEHICLE COMPONENT
1145	H0213	1	--	--	LARC 8VDHT 1237-1297	BOOSTER
1146	H0602-H0603	1	--	--	LARC CFHT 66	ORBITER
1147	S1223	1	--	--	LARC V/STOL 007	ORBITER
1148	S0616	1	119,983	--	MSFC 14TWT 492	LAUNCH
1148	S0616	1	119,983	--	MSFC 14TWT 492	BOOSTER
1149	S1224	1	--	--	LARC LTPT 62	ORBITER
1150	S0230	1	--	--	LARC LTPT 64	BOOSTER
1151	S1221	1	--	--	LARC CFHT 68/71	ORBITER
1152	S0223	1	119,999	--	MSFC 14TWT 493	BOOSTER
1153	S1026	1	120,000	--	MSFC 14TWT 494	ORBITER
1154	H0601	1	119,984	--	GAC 36HWT 017	ORBITER
1155	S0248	1	119,987	--	MSFC 14TWT 495	BOOSTER
1156	S0226	1	--	--	LARC CFHT 70	BOOSTER
1157	S1225	1	--	--	LARC LTPT 63	ORBITER
1158	S0605	1	120,002	--	GAC 36HWT 020	BOOSTER
1159	S0604	1	119,988	--	GAC 36HWT 019	ORBITER
1160	S0617	1	120,003	--	MSFC 14TWT 496	BOOSTER
1161	S0607	1	119,989	--	GAC 26TWT 035	ORBITER
1162	S0249	1	120,004	--	MSFC 14TWT 497	BOOSTER
1162	S0249	1	120,004	--	MSFC 14TWT 497	ORBITER
1162	S0249	1	120,004	--	MSFC 14TWT 497	LAUNCH
1163	S0609	1	119,990	--	GAC 15SWT 022	ORBITER
1164	S1010	1	120,005	--	NSRDC 710TWT 3210	BOOSTER
1165	H0211	1	--	--	LARC 8VDHT 823-887	ORBITER

Table 2 - Continued

Space Shuttle Phase B Wind Tunnel
Test Database Listed by Chrysler
DATAMAN Report Number

DMS-DR#	NASA SERIES NUMBER	VOLUME NUMBER	NASA CR NUMBER	NASA TM-X NUMBER	FACILITY TEST NUMBER	VEHICLE COMPONENT
1166	S1040	1	119,991	--	MSFC 14TWT 501	LAUNCH
1167	S0615	1	120,006	--	GAC 710SWT 292	ORBITER
1168	S1228	1	--	--	LARC LTPT 65	ORBITER
1169	S0803	1	--	--	LARC LTPT 69	ORBITER
1170	H0404	1	120,007	--	CAL 96HST H/T MDAC	LAUNCH
1170	H0404	1	120,007	--	CAL 96HST H/T MDAC	ORBITER
1170	H0404	1	120,007	--	CAL 96HST H/T MDAC	BOOSTER
1171	S0437	1	--	--	LARC 8TPT 595	ORBITER
1171	S0437	1	--	--	LARC 44SPT 438	ORBITER
1172	S1229	1	--	--	LARC LTPT 71	ORBITER
1173	S1227	1	--	--	LARC UPWT 942	ORBITER
1174	P1002	1	120,008	--	AEDC SWTA 1163	LAUNCH
1174	P1002	2	120,061	--	AEDC SWTA 1163	LAUNCH
1174	P1002	3	120,062	--	AEDC SWTA 1163	LAUNCH
1174	P1002	4	120,063	--	AEDC SWTA 1163	LAUNCH
1174	P1002	5	120,064	--	AEDC SWTA 1163	LAUNCH
1174	P1002	6	120,065	--	AEDC SWTA 1163	LAUNCH
1175	S1226	1	--	--	LARC 44SPT 432	ORBITER
1176	S1237	1	--	--	LARC 22HT 7386-7390	ORBITER
1177	H1009	1	120,009	--	AEDC HWTB 1162-1	BOOSTER
1177	H1009	1	120,009	--	AEDC HWTB 1162-1	ORBITER
1177	H1009	1	120,009	--	AEDC HWTB 1162-1	LAUNCH
1177	H1029	2	119,987	--	AEDC HWTB 1162-2	BOOSTER
1177	H1029	2	119,987	--	AEDC HWTB 1162-2	ORBITER

Table 2 - Continued

Space Shuttle Phase B Wind Tunnel Test Database Listed by Chrysler DATAMAN Report Number

DMS-DR#	NASA SERIES NUMBER	VOLUME NUMBER	NASA CR NUMBER	NASA TM-X NUMBER	FACILITY TEST NUMBER	VEHICLE COMPONENT
1177	H1029	2	119,987	--	AEDC HWTB 1162-2	LAUNCH
1177	H1022	3	120,029	--	AEDC HWTB 1162-3	BOOSTER
1177	H1022	3	120,029	--	AEDC HWTB 1162-3	ORBITER
1177	H1022	3	120,029	--	AEDC HWTB 1162-3	LAUNCH
1178	H0603	1	--	--	LARC CFHT 69	LAUNCH
1178	H0603	1	--	--	LARC CFHT 69	ORBITER
1179	H0206	1	--	62,058	ARC 3.5HWT 105	BOOSTER
1180	H0207	1	--	62,057	ARC 3.5HWT 106	ORBITER
1181	S1042	1	120,010	--	MSFC 14TWT 504	LAUNCH
1182	S1044	1	120,011	--	MSFC 14TWT 505	LAUNCH
1182	S1044	1	120,011	--	MSFC 14TWT 505	ORBITER
1183	S0618	1	120,012	--	MSFC 14TWT 506	LAUNCH
1183	S0618	1	120,012	--	MSFC 14TWT 506	BOOSTER
1184	S1236	1	120,013	--	MSFC,14TWT 507	ORBITER
1185	S0050	1	120,014	--	MSFC 14TWT 509	LAUNCH
1185	S0050	1	120,014	--	MSFC 14TWT 509	ORBITER
1186	S0065	1	120,015	--	MSFC 14TWT 510	ORBITER
1187	S1043	1	120,016	--	MSFC 14TWT 502	LAUNCH
1187	S1043	1	120,016	--	MSFC 14TWT 502	ORBITER
1188	S1041	1	120,017	--	MSFC 14TWT 503	LAUNCH
1189	S1230	1	--	--	LARC LTPT 75	ORBITER
1190	S1238	1	--	--	LARC 22HT 7377-79,7380-90	LAUNCH
1190	S1238	1	--	--	LARC 22HT 7377-79,7380-90	BOOSTER
1190	S1238	1	--	--	LARC 22HT 7377-79,7380-90	ORBITER

Table 2 - Continued

Space Shuttle Phase B Wind Tunnel
Test Database Listed by Chrysler
DATAMAN Report Number

DMS-DR#	NASA SERIES NUMBER	VOLUME NUMBER	NASA CR NUMBER	NASA TM-X NUMBER	FACILITY TEST NUMBER	VEHICLE COMPONENT
1191	S0619	1	120,018	--	TBC BTWT 1265	BOOSTER
1192	S1036	1	120,019	--	NSRDC 710TWT 3310	BOOSTER
1193	S1239	1	--	--	LARC LTPT 73	BOOSTER
1194	S1231	1	--	--	LARC CFHT 76	ORBITER
1195	S1232	1	--	--	LARC 8TPT 604	ORBITER
1196	S1233	1	156,979	--	LARC UPWT 964	ORBITER
1197	S1240	1	--	--	LARC UPWT 962	LAUNCH
1197	S1240	1	--	--	LARC UPWT 962	BOOSTER
1198	S1242	1	--	--	LARC CFHT 74	LAUNCH
1198	S1242	1	--	--	LARC CFHT 74	BOOSTER
1199	S1241	1	--	--	LARC 44SPT 430	ORBITER
1200	S1243	1	--	--	LARC 8TPT 605	LAUNCH
1200	S1243	1	--	--	LARC 8TPT 605	BOOSTER
1201	S1026.10	1	120,020	--	MSFC 14TWT 498	ORBITER
1202	S0054	1	--	62,112	ARC 66SWT 605	ORBITER
1203	S1234	1	--	--	LARC 20HT6 6392	ORBITER
1204	S0250	1	120,022	--	MSFC 14TWT 512	LAUNCH
1204	S0250	1	120,022	--	MSFC 14TWT 512	BOOSTER
1205	S0008	1	120,023	--	TAM 710SWT S-8-2	ORBITER
1206	H1008	1	120,024	--	AEDC SWTA 1162-F00	ORBITER
1207	H1009	1	120,025	--	AEDC HWTB 1162-4	BOOSTER
1207	H1009	1	120,025	--	AEDC HWTB 1162-4	ORBITER
1207	H1014	2	120,043	--	AEDC HWTB 1162-12	BOOSTER
1207	H1014	2	120,043	--	AEDC HWTB 1162-12	ORBITER

Table 2 - Continued

Space Shuttle Phase B Wind Tunnel
Test Database Listed by Chrysler
DATAMAN Report Number

DMS-DR#	NASA SERIES NUMBER	VOLUME NUMBER	NASA CR NUMBER	NASA TM-X NUMBER	FACILITY TEST NUMBER	VEHICLE COMPONENT
1208	S1046	1	120,026	--	MSFC 14TWT 518	BOOSTER
1209	S0621	1	120,027	--	MSFC 14TWT 513	BOOSTER
1210	S0251	1	120,028	--	MSFC 14TWT 514	BOOSTER
1210	S0251	1	120,028	--	MSFC 14TWT 514	LAUNCH
1211	S1235	1	--	--	LARC 22HT 7397	ORBITER
1212	S1037	1	120,030	--	CAL 8TWT 18-063	BOOSTER
1213	S0440	1	120,031	--	MSFC 14TWT 517	LAUNCH
1213	S0440	1	120,031	--	MSFC 14TWT 517	BOOSTER
1214	S0627	1	--	--	LARC 20HT6 6397	BOOSTER
1215	S0051	1	--	--	LARC LTPT 85	ORBITER
1216	S1233	1	--	--	LARC UPWT 964/969	ORBITER
1218	S1244	1	--	--	LARC 22HT 7398	ORBITER
1219	S0056	1	--	--	LARC CFHT 80	ORBITER
1220	S0628	1	--	--	LARC 20HT6 6398	BOOSTER
1221	S0055	1	120,033	--	JPL 20SWT 681	ORBITER
1222	P1001	1	120,034	--	AEDC PWT4T TC174-PC1154	BOOSTER
1222	P1001	1	120,034	--	AEDC PWT4T TC174-PC1154	LAUNCH
1222	P1001	2	120,034	--	AEDC PWT4T TC174-PC1154	BOOSTER
1222	P1001	2	120,034	--	AEDC PWT4T TC174-PC1154	LAUNCH
1223	S0252	1	120,035	--	GDC 812SWT 603-0	BOOSTER
1224	H1030	1	120,036	--	AEDC HWTF 1162-F00	ORBITER
1224	H1031	2	120,045	--	AEDC HWTB 1162-5	ORBITER
1225	P1006	1	120,037	--	AEDC HWTB 1162-5	BOOSTER
1225	P1006	1	120,037	--	AEDC HWTB 1162-5	ORBITER

Table 2 - Continued

Space Shuttle Phase B Wind Tunnel Test Database Listed by Chrysler DATAMAN Report Number

DMS-DR#	NASA SERIES NUMBER	VOLUME NUMBER	NASA CR NUMBER	NASA TM-X NUMBER	FACILITY TEST NUMBER	VEHICLE COMPONENT
1225	P1007	2	120,046	--	AEDC HWTB 1162-7	BOOSTER
1225	P1007	2	120,046	--	AEDC HWTB 1162-7	ORBITER
1225	P1008	3	120,047	--	AEDC HWTB 1162-8	BOOSTER
1225	P1008	3	120,047	--	AEDC HWTB 1162-8	ORBITER
1226	S1047	1	120,038	--	MSFC 14TWT 521	BOOSTER
1227	S0625	1	120,039	--	MSFC 14TWT 523	LAUNCH
1227	S0625	1	120,039	--	MSFC 14TWT 523	BOOSTER
1228	S0622-S0623	1	120,069	--	TBC 8TWT 1273	BOOSTER
1228	S0622-S0623	1	120,069	--	TBC 84SWT 553	BOOSTER
1229	S1245	1	--	--	LARC LTPT 72	ORBITER
1230	S0441	1	120,083	--	MDAC 4TWT S-222	BOOSTER
1230	S0441	1	120,083	--	MDAC 4TWT S-222	ORBITER
1230	S0441	1	120,083	--	MDAC 4TWT S-222	LAUNCH
1230	S0441	2	120,084	--	MDAC 4TWT S-222	BOOSTER
1230	S0441	2	120,084	--	MDAC 4TWT S-222	ORBITER
1230	S0441	2	120,084	--	MDAC 4TWT S-222	LAUNCH
1230	S0441	3	120,085	--	MDAC 4TWT S-222	BOOSTER
1230	S0441	3	120,085	--	MDAC 4TWT S-222	ORBITER
1230	S0441	3	120,085	--	MDAC 4TWT S-222	LAUNCH
1230	S0441	4	120,086	--	MDAC 4TWT S-222	BOOSTER
1230	S0441	4	120,086	--	MDAC 4TWT S-222	ORBITER
1230	S0441	4	120,086	--	MDAC 4TWT S-222	LAUNCH
1230	S0441	5	120,087	--	MDAC 4TWT S-222	BOOSTER
1230	S0441	5	120,087	--	MDAC 4TWT S-222	ORBITER

Table 2 - Continued

Space Shuttle Phase B Wind Tunnel
Test Database Listed by Chrysler
DATAMAN Report Number

DMS-DR#	NASA SERIES NUMBER	VOLUME NUMBER	NASA CR NUMBER	NASA TM-X NUMBER	FACILITY TEST NUMBER	VEHICLE COMPONENT
1230	S0441	5	120,087	--	MDAC 4TWT S-222	LAUNCH
1231	H1028	1	120,048	--	AEDC HWTB 1162-9	ORBITER
1232	S1246	1	--	--	LARC UPWT 968	ORBITER
1232	S1246	1	--	--	LARC LTPT 77	ORBITER
1233	S1247	1	--	--	LARC LTPT 87	ORBITER
1234	H0605	1	--	--	LARC 8VDHT 1948-2000	LAUNCH
1234	H0605	1	--	--	LARC 8VDHT 1948-2000	ORBITER
1235	S1249	1	--	--	LARC UPWT 970	ORBITER
1236	H0216	1	--	--	LARC 6HRNT 489	BOOSTER
1237	S1248	1	--	--	LARC UPWT 966	LAUNCH
1237	S1248	1	--	--	LARC UPWT 966	BOOSTER
1237	S1248	1	--	--	LARC UPWT 966	ORBITER
1238	H1032	1	--	--	LARC 20HT6 6386-6387	LAUNCH
1239	S1250	1	--	--	LARC LTPT 86/88	ORBITER
1240	S1049	1	120,040	--	MSFC 14TWT 524	BOOSTER
1241	S0076	1.	120,041	--	MSFC 14TWT 531	LAUNCH
1242	S1048	1	120,042	--	MSFC 14TWT 526	BOOSTER
1243	S0067	1	120,050	--	MSFC 14TWT 528	ORBITER
1244	H0217	1	--	--	LARC 20HT6 1-20	BOOSTER
1245	S1052	1	120,051	--	MSFC 14TWT 529	BOOSTER
1249	S1054	1	120,053	--	MSFC 14TWT 534	LAUNCH
1250	S0066	1	--	62,120	ARC 11TWT 628	ORBITER
1251	S1058	1	120,055	--	MSFC 14TWT 538	LAUNCH
1252	H1601	1	--	62,114	ARC 3.5HWT 131	ORBITER

Table 2 - Continued

Space Shuttle Phase B Wind Tunnel
Test Database Listed by Chrysler
DATAMAN Report Number

DMS-DR#	NASA SERIES NUMBER	VOLUME NUMBER	NASA CR NUMBER	NASA TM-X NUMBER	FACILITY TEST NUMBER	VEHICLE COMPONENT
1253	S1059	1	120,056	--	MSFC 14TWT 541	BOOSTER
1254	S1060	1	120,057	--	MSFC 14TWT 542	ORBITER
1255	P1009	1	120,058	--	MSFC 14TWT 543	LAUNCH
1256	S1055	1	120,059	--	MSFC 14TWT 544	LAUNCH
1258	S1251	1	--	--	LARC UPWT 979	ORBITER
1259	P1010	1	120,066	--	MSFC 14TWT 540	LAUNCH
1259	P1010	1	120,066	--	MSFC 14TWT 540	ORBITER
1260	H1033	1	--	--	LARC CFHT 78	LAUNCH
1261	H0606	1	--	--	LARC 8VDHT 2505-2565	LAUNCH
1261	H0606	1	--	--	LARC 8VDHT 2505-2565	BOOSTER
1262	H1011	1	120,067	--	AEDC HWTB 1162-9	BOOSTER
1262	H1011	1	120,067	--	AEDC HWTB 1162-9	ORBITER
1262	H1011	1	120,067	--	AEDC HWTB 1162-9	LAUNCH
1262	H1011	2	120,067	--	AEDC HWTB 1162-9	BOOSTER
1262	H1011	2	120,067	--	AEDC HWTB 1162-9	ORBITER
1262	H1011	2	120,067	--	AEDC HWTB 1162-9	LAUNCH
1263	H1034	1	--	--	LARC UPWT 967	LAUNCH
1264	H1010	1	120,049	--	AEDC HWTB 1162	BOOSTER
1264	H1010	1	120,049	--	AEDC HWTB 1162	ORBITER
1264	H1010	1	120,049	--	AEDC HWTB 1162	LAUNCH
1264	H1015-H1028	2	120,071	--	AEDC HWTB 1162	BOOSTER
1264	H1015-H1028	2	120,071	--	AEDC HWTB 1162	ORBITER
1264	H1015-H1028	2	120,071	--	AEDC HWTB 1162	LAUNCH
1265	S1254	1	--	--	LARC UPWT 981	LAUNCH

Table 2 - Concluded

Space Shuttle Phase B Wind Tunnel
Test Database Listed by Chrysler
DATAMAN Report Number

DMS-DR#	NASA SERIES NUMBER	VOLUME NUMBER	NASA CR NUMBER	NASA TM-X NUMBER	FACILITY TEST NUMBER	VEHICLE COMPONENT
1266	H0019	1	120,072	--	AEDC HWTB 0288	ORBITER
1267	S0079-S0080	1	--	--	ARC 11TWT 629	LAUNCH
1267	S0079-S0080	1	--	--	ARC 97SWT 629	LAUNCH
1268	S1252	1	--	--	LARC LTPT 103	ORBITER
1270	S1253	1	--	--	LARC 22HT 405	ORBITER
1270	S1253	2	--	--	LARC 22HT 405	ORBITER
1272	S1055.1	1	120,074	--	MSFC 14TWT 544X	LAUNCH
1273	P1011	1	120,075	--	MSFC 14TWT 550	LAUNCH
1274	S1062	1	120,076	--	MSFC 14TWT 551	ORBITER
1275	S0629-S0630	1	120,073	--	TBC BTWT 1282	BOOSTER
1275	S0629-S0630	1	120,073	--	TBC B4SWT 557	BOOSTER
1276	S0629-S0630	1	120,078	--	TBC BTWT 1282	BOOSTER
1276	S0629-S0630	1	120,078	--	TBC B4SWT 557	BOOSTER
1277	S1256	1	--	--	LARC CFHT 85	ORBITER
1278	H1035	1	--	--	LARC 8VDHT 2886-2929	LAUNCH

Table 3.1.1

Space Shuttle Phase B Wind Tunnel Test
Database Chrysler DATAMAN Report Titles

Booster Aerodynamics

DMS-DR#	CONFIG. I.D.	VOLUME NUMBER	REPORT TITLE
1001	DELTA WING	1	MSFC BOOSTER (B-005) LOW SPEED STATIC STABILITY AND LANDING INVESTIGATION, HIGH SPEED GRIT STUDY
1006	UNIQUE CONFIGS.	1	AEDC VON KARMEN TUNNEL C TEST VT0055 SAMSO-GD/CONVAIR T-18 HYPERSONIC STATIC STABILITY AND CONTROL EFFECTIVENESS INVESTIGATION
1014	DELTA WING	1	M/DAC DELTA WING BOOSTER -- DETERMINATION OF LOW SPEED DIRECTIONAL STABILITY CHARACTERISTICS
1015	UNIQUE CONFIGS.	1	TWIN BODY BOOSTER - TEST NO. 47 -- INVESTIGATION OF SUBSONIC LONGITUDINAL STABILITY AND PERFORMANCE CHARACTERISTICS
1017	UNIQUE CONFIGS.	1	SUPERSONIC AERODYNAMIC AND STATIC STABILITY CHARACTERISTICS OF THE TWIN BODY BOOSTER
1019	UNIQUE CONFIGS.	1	TWIN BODY BOOSTER INVESTIGATION OF SUPERSONIC AERODYNAMIC AND STATIC STABILITY CHARACTERISTICS
1025	STRAIGHT WING	1	LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE GD/CONVAIR B8B BOOSTER
1029	STRAIGHT WING	1	LONGITUDINAL AND LATERAL AERODYNAMIC CHARACTERISTICS OF THE CONVAIR B8B SPACE SHUTTLE BOOSTER WITH MODIFICATIONS
1030	STRAIGHT WING	1	GENERAL DYNAMICS/CONVAIR SPACE SHUTTLE BOOSTER -- INVESTIGATION OF SUBSONIC STABILITY AND CONTROL EFFECTIVENESS
1033	STRAIGHT WING	1	INVESTIGATION OF STATIC AERODYNAMIC CHARACTERISTICS OF THE MSC 251 BOOSTER
1035	CANARD	1	LOW SPEED AERODYNAMIC CHARACTERISTICS OF THE MCDONNELL DOUGLAS SPACE SHUTTLE BOOSTER
1038	STRAIGHT WING	1	AERODYNAMIC CHARACTERISTICS OF THE MSC/MDAC SPACE SHUTTLE LAUNCH CONFIGURATION - ORBITER/BOOSTER INTERFERENCE EFFECTS (M = 0.6 TO 2.0)
1039	DELTA WING	1	GENERAL DYNAMICS/CONVAIR SPACE SHUTTLE BOOSTER -- EFFECTS OF CRUISE ENGINE NACELLE ARRANGEMENT AND TAIL SIZE ON STATIC STABILITY AND CONTROL EFFECTIVENESS
1046	UNIQUE CONFIGS.	1	STATIC AERODYNAMIC CHARACTERISTICS OF THE CHRYSLER CORPORATION SPACE DIVISION SERV 1 ASCENT AND REENTRY VEHICLE AT MACH NUMBERS OF 0.4 TO 2.0
1050	STRAIGHT WING	1	AERODYNAMIC CHARACTERISTICS OF THE NAR/GD SPACE SHUTTLE LAUNCH CONFIGURATION ORBITER/BOOSTER INTERFERENCE EFFECTS (M = 0.6 TO 2.0)
1051	STRAIGHT WING	1	STATIC STABILITY AND CONTROL INVESTIGATION OF THE NAR-GD/C STRAIGHT WING BOOSTER (B-8H MODIFIED) WITH THE STRAIGHT WING ORBITER (130G) OR DELTA WING ORBITER (134B)
1052	STRAIGHT WING	1	AERODYNAMIC FORCES AND MOMENT ON ORBITER AND BOOSTER DURING SPACE SHUTTLE ABORT SEPARATION
1054	CANARD	1	SUBSONIC AERODYNAMIC CHARACTERISTICS OF MDAC/MMC SPACE SHUTTLE BOOSTER CONFIGURATION AT MACH NUMBER = 0.26

Table 3.1.1 - Continued

Space Shuttle Phase B Wind Tunnel Test
Database Chrysler DATAMAN Report Titles

Booster Aerodynamics

DMS-DR#	CONFIG. I.D.	VOLUME NUMBER	REPORT TITLE
1066	CANARD	1	AERODYNAMIC CHARACTERISTICS AND CONTROL EFFECTIVENESS OF THE MDAC-MMC SSV CONFIGURATION-14 BOOSTER (SINGLE BODY, CANARD) M =.0.6 TO 2.0
1068	UNIQUE CONFIGS.	1	STATIC AERODYNAMIC CHARACTERISTICS OF THE CHRYSLER CORPORATION SPACE DIVISION SERV ASCENT AND REENTRY VEHICLE AT MACH NUMBERS OF 2.6 TO 4.6
1075	STRAIGHT WING	1	AERODYNAMIC CHARACTERISTICS OF SPACE SHUTTLE CONFIGURATIONS CONSISTING OF A STRAIGHT WING BOOSTER WITH VEE TAIL AND ORBITERS WITH STRAIGHT AND DELTA WINGS -- ISOLATED BOOSTER
1075	STRAIGHT WING	2	AERODYNAMIC CHARACTERISTICS OF SPACE SHUTTLE CONFIGURATIONS CONSISTING OF A STRAIGHT WING BOOSTER WITH VEE TAIL AND ORBITERS WITH STRAIGHT AND DELTA WINGS -- COMPOSITE CONFIGURATIONS
1077	CANARD	1	MDAC/MMC SPACE SHUTTLE BOOSTER DETERMINATION OF STABILITY AND CONTROL CHARACTERISTICS AND POWER EFFECTS AT SUBSONIC SPEED (M = 0.0 AND 0.26)
1079	STRAIGHT WING	1	STATIC AERODYNAMIC CHARACTERISTICS OF THE BOEING SPACE SHUTTLE BOOSTER CONFIGURATION AT MACH 0.10 TO 0.29
1080	CANARD	1	HYPERSONIC AERODYNAMIC CHARACTERISTICS AND CONTROL EFFECTIVENESS OF THE MDAC-MMC SSV CONFIGURATION - 14 BOOSTER (SINGLE BODY, CANARD) M = 7.4
1087	DELTA WING	1	AERODYNAMIC CHARACTERISTICS OF THE GENERAL DYNAMICS / CONVAIR SPACE SHUTTLE BOOSTER B-15B-1 IN LANDING, CRUISE AND TRANSITION CONFIGURATIONS
1089	UNIQUE CONFIGS.	1	STATIC AERODYNAMIC CHARACTERISTICS OF THE CHRYSLER CORPORATION SPACE DIVISION REVISED BASELINE SERV ASCENT AND REENTRY VEHICLE AT MACH NUMBERS OF 0.4 TO 4.64
1089	UNIQUE CONFIGS.	1	STATIC AERODYNAMIC CHARACTERISTICS OF THE CHRYSLER CORPORATION SPACE DIVISION REVISED BASELINE SERV ASCENT AND REENTRY VEHICLE AT MACH NUMBERS OF 0.4 TO 4.64
1093	DELTA WING	1	STATIC AERODYNAMIC STABILITY AND CONTROL CHARACTERISTICS OF THE GD/CONVAIR DELTA WING BOOSTER AT NOMINAL MACH NUMBER = 10.0
1100	STRAIGHT WING	1	LOW SPEED LONGITUDINAL AND LATERAL AERODYNAMIC CHARACTERISTICS OF THE GD/C B-8H-1 BOOSTER
1102	DELTA WING	1	LONGITUDINAL AND LATERAL AERODYNAMIC CHARACTERISTICS OF THE 0.0035-SCALE GD/C AEROSPACE BOOSTER (B-15B-1)
1108	CANARD	1	INVESTIGATION OF THE MCDONNELL-DOUGLAS ORBITER AND BOOSTER SHUTTLE MODELS IN PROXIMITY AT MACH NUMBERS 2.0 TO 6.0 -- MACH NUMBER 5 BOOSTER PROXIMITY DATA
1108	CANARD	2	INVESTIGATION OF THE MCDONNELL-DOUGLAS ORBITER AND BOOSTER SHUTTLE MODELS IN PROXIMITY AT MACH NUMBERS 2.0 TO 6.0 -- MACH NUMBER 5 ORBITER PROXIMITY DATA
1108	CANARD	3	INVESTIGATION OF THE MCDONNELL-DOUGLAS ORBITER AND BOOSTER SHUTTLE MODELS IN PROXIMITY AT MACH NUMBERS 2.0 TO 6.0 -- MACH NUMBER 3 BOOSTER PROXIMITY DATA

Table 3.1.1 - Continued

Space Shuttle Phase B Wind Tunnel Test
Database Chrysler DATAMAN Report Titles

Booster Aerodynamics

DMS-DR#	CONFIG. I.D.	VOLUME NUMBER	REPORT TITLE
1108	CANARD	4	INVESTIGATION OF THE MCDONNELL-DOUGLAS ORBITER AND BOOSTER SHUTTLE MODELS IN PROXIMITY AT MACH NUMBERS 2.0 TO 6.0 -- MACH NUMBER 3 ORBITER PROXIMITY DATA
1108	CANARD	5	INVESTIGATION OF THE MCDONNELL-DOUGLAS ORBITER AND BOOSTER SHUTTLE MODELS IN PROXIMITY AT MACH NUMBERS 2.0 TO 6.0 -- MACH NUMBER 2 BOOSTER PROXIMITY DATA
1108	CANARD	6	INVESTIGATION OF THE MCDONNELL-DOUGLAS ORBITER AND BOOSTER SHUTTLE MODELS IN PROXIMITY AT MACH NUMBERS 2.0 TO 6.0 -- MACH NUMBER 2 ORBITER PROXIMITY DATA
1108	CANARD	7	INVESTIGATION OF THE MCDONNELL-DOUGLAS ORBITER AND BOOSTER SHUTTLE MODELS IN PROXIMITY AT MACH NUMBERS 2.0 TO 6.0 -- PROXIMITY DATA AT MACH 4 AND 6, INTERFERENCE FREE AND LAUNCH VEHICLE DATA
1109	DELTA WING	1	AERODYNAMIC CHARACTERISTICS OF GD B-15B BOOSTER DURING CRUISE AND LANDING M = 0.2
1110	DELTA WING	1	LOW SPEED CRUISE, TAKEOFF AND LANDING AERODYNAMIC CHARACTERISTICS, INCLUDING ENGINE EXHAUST EFFECTS OF THE GD/C B-15B BOOSTER
1111	STRAIGHT WING	1	AERODYNAMIC CHARACTERISTICS OF A SPACE SHUTTLE BOOSTER WITH STRAIGHT WING AND HORIZONTAL TAIL (M = 0.26 TO 2.0)
1115	DELTA WING	1	EFFECT OF ORBITER/BOOSTER PROXIMITY INTERFERENCES ON THE AERODYNAMIC CHARACTERISTICS OF THE LAUNCH CONFIGURATION DURING SEPARATION OR ABORT MANEUVERS M = 0.6 - 1.38
1116	CANARD	1	TRANSONIC/SUPERSONIC AERODYNAMIC CHARACTERISTICS AND CONTROL EFFECTIVENESS OF THE PROPOSED HIGH-WING SINGLE-BODY CANARD SSV BOOSTER VEHICLE M = 0.6 TO 2.0
1117	CANARD	1	SUPERSONIC AERODYNAMIC CHARACTERISTICS OF THE MDAC/MMC SBC BOOSTER, DELTA WING ORBITER, AND ASCENT CONFIGURATIONS
1117	CANARD	2	SUPERSONIC AERODYNAMIC CHARACTERISTICS OF THE MDAC/MMC SBC BOOSTER, DELTA WING ORBITER, AND ASCENT CONFIGURATIONS
1117	CANARD	3	SUPERSONIC AERODYNAMIC CHARACTERISTICS OF THE MDAC/MMC SBC BOOSTER, DELTA WING ORBITER, AND ASCENT CONFIGURATIONS
1120	CANARD	1	STATIC LONGITUDINAL, DIRECTIONAL AND LATERAL CHARACTERISTICS AND CONTROL SURFACE EFFECTIVENESS OF THE MDAC-STS CANARD BOOSTER
1121	DELTA WING	1	AERODYNAMIC CHARACTERISTICS OF A SPACE SHUTTLE BOOSTER WITH DELTA WING AND CANARD AT MACH NUMBERS OF 0.6 TO 2.0 (MARCH 1971 TESTS)
1128	CYLINDRICAL	1	AERODYNAMIC CHARACTERISTICS IN NOSE-FIRST, NOZZLE-FIRST, AND TUMBLING RE-ENTRY MODES AND EFFECTIVENESS OF SEVERAL DRAG DEVICES FOR THE BOEING 0.0144-SCALE PARALLEL-BURN SOLID ROCKET MOTOR, MODEL 979-185

Table 3.1.1 - Continued

Space Shuttle Phase B Wind Tunnel Test
Database Chrysler DATAMAN Report Titles

Booster Aerodynamics

DMS-DR#	CONFIG. I.D.	VOLUME NUMBER	REPORT TITLE
1130	DELTA WING	1	STATIC STABILITY AND CONTROL INVESTIGATION OF NR/GD DELTA WING BOOSTER (B-20) AND DELTA WING ORBITER (134D) -- DELTA WING BOOSTER
1130	DELTA WING	2	STATIC STABILITY AND CONTROL INVESTIGATION OF NR/GD DELTA WING BOOSTER (B-20) AND DELTA WING ORBITER (134D) -- LAUNCH CONFIGURATION PIGGYBACK BASELINE
1130	DELTA WING	3	STATIC STABILITY AND CONTROL INVESTIGATION OF NR/GD DELTA WING BOOSTER (B-20) AND DELTA WING ORBITER (134D) -- LAUNCH CONFIGURATIONS PIGGYBACK, BELLY TO BELLY AND INCIDENCE VARIATIONS
1130	DELTA WING	4	STATIC STABILITY AND CONTROL INVESTIGATION OF NR/GD DELTA WING BOOSTER (B-20) AND DELTA WING ORBITER (134D) -- LAUNCH CONFIGURATIONS COMPONENT DATA BOOSTER, ORBITER BUILD-UP
1139	CANARD	1	STABILITY AND CONTROL EFFECTIVENESS OF THE MDAC PARAMETRIC DELTA CANARD BOOSTER AT MACH 0.38 -- CANARD PARAMETRIC VARIATIONS
1139	CANARD	2	STABILITY AND CONTROL EFFECTIVENESS OF THE MDAC PARAMETRIC DELTA CANARD BOOSTER AT MACH 0.38 -- WING PARAMETRIC VARIATIONS - SIZE AND LOCATION
1139	CANARD	3	STABILITY AND CONTROL EFFECTIVENESS OF THE MDAC PARAMETRIC DELTA CANARD BOOSTER AT MACH 0.38 -- WING PARAMETRIC VARIATIONS - INCIDENCE AND DIHEDRAL
1139	CANARD	4	STABILITY AND CONTROL EFFECTIVENESS OF THE MDAC PARAMETRIC DELTA CANARD BOOSTER AT MACH 0.38 -- SURFACE EFFECTIVENESS, MODEL BUILDUP, AND DIRECTIONAL STABILITY AT HIGH ANGLES OF ATTACK
1141	DELTA WING	1	AERODYNAMIC CHARACTERISTICS OF A SPACE SHUTTLE BOOSTER WITH A DELTA WING AND CANARD (M = 0.6 TO 2.0)
1148	CANARD	1	AERODYNAMIC STABILITY AND CONTROL CHARACTERISTICS OF A TBC SPACE SHUTTLE BOOSTER AND GAC ORBITER M = 0.6 - 4.96
1150	DELTA WING	1	AERODYNAMIC CHARACTERISTICS OF THE GD/C B-9U BOOSTER IN LANDING AND CRUISE CONFIGURATIONS
1152	DELTA WING	1	VERIFICATION OF BOOSTER TRANSITION CHARACTERISTICS FOR TRANSONIC AND SUPERSONIC MACH NUMBERS (M = 0.6-5.0)
1155	DELTA WING	1	EFFECT OF CONFIGURATION CHANGES ON THE DIRECTIONAL CHARACTERISTICS OF A GD/C BOOSTER MACH NO. 1.2 - 4.96
1156	DELTA WING	1	AERODYNAMIC STABILITY AND CONTROL CHARACTERISTICS OF A GD/C B-9U DELTA WING BOOSTER M = 10.2
1158	STRAIGHT WING	1	STATIC STABILITY CHARACTERISTICS AND CONTROL SURFACE EFFECTIVENESS OF THE BOEING .00435 SCALE MODEL SPACE SHUTTLE BOOSTER H-32
1160	CANARD	1	INVESTIGATION OF THE AERODYNAMIC STABILITY AND CONTROL CHARACTERISTICS OF THE TBC SHUTTLE BOOSTER AR-11981-3

Table 3.1.1 - Continued

Space Shuttle Phase B Wind Tunnel Test
Database Chrysler DATAMAN Report Titles

Booster Aerodynamics

DMS-DR#	CONFIG. I.D.	VOLUME NUMBER	REPORT TITLE
1162	DELTA WING	1	A STATIC STABILITY AND CONTROL INVESTIGATION OF THE NR-GD/C DELTA WING BOOSTER (B-15B-1) AND A REUSABLE NUCLEAR STAGE (RNS) M = 0.6 - 4.96
1164	CANARD	1	EFFECTS OF CRUISE ENGINE LOCATION AND POWER ON INTERFERENCE FOR A MSFC PARAMETRIC BOOSTER (M = 0.40 TO 1.13)
1183	DELTA WING	1	AERODYNAMIC STABILITY AND CONTROL CHARACTERISTICS OF A 0.0036-SCALE BOEING RS-1C/MSC-040A ORBITER AT MACH NUMBERS 0.6 TO 5.0
1190	CANARD	1	HYPERSONIC STATIC LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF PHASE B ASCENT CONFIGURATIONS
1191	STRAIGHT WING	1	VERIFICATION OF TRANSONIC REENTRY CORRIDOR AT HIGH ANGLES OF ATTACK AND DETERMINATION OF TRANSITION AERODYNAMIC CHARACTERISTICS AND SUBSONIC AERODYNAMIC CHARACTERISTICS AT LOW ANGLES OF ATTACK FOR THE BOEING H-32 BOOSTER
1192	CANARD	1	DIRECTIONAL AND LATERAL STABILITY AND INTERFERENCE EFFECTS OF CRUISE ENGINE LOCATION ON A 0.015 SCALE SHUTTLE BOOSTER
1193	UNIQUE CONFIGS.	1	SUBSONIC STABILITY AND PERFORMANCE OF A LOW FINENESS RATIO BOOSTER (M = 0.25)
1197	UNIQUE CONFIGS.	1	SUPERSONIC AERODYNAMIC CHARACTERISTICS OF A LOW FINENESS RATIO BOOSTER WITH DELTA WING ORBITER LAUNCH CONFIGURATION (M = 1.5 TO 2.16)
1198	UNIQUE CONFIGS.	1	AERODYNAMIC CHARACTERISTICS OF A LOW-FINENESS-RATIO BOOSTER AND ASCENT CONFIGURATION AT HYPERSONIC SPEED M = 10.23
1200	UNIQUE CONFIGS.	1	TRANSONIC AERODYNAMIC CHARACTERISTICS OF A LOW FINENESS RATIO BOOSTER AND DELTA WING ORBITER LAUNCH CONFIGURATION (M = 0.4 TO 1.2)
1204	CYLINDRICAL	1	DETERMINATION OF LONGITUDINAL AND LATERAL-DIRECTIONAL AERODYNAMIC CHARACTERISTICS OF THE B19B PRESSURE-FED BOOSTER AND THE B19B BOOSTER/040A ORBITER LAUNCH CONFIGURATION
1208	CYLINDRICAL	1	AERODYNAMIC CHARACTERISTICS OF THE MSFC PRESSURE FED BOOSTERS AT HIGH ANGLES OF ATTACK (M = 0.6 TO 5.0)
1209	DELTA WING	1	FOREBODY AND VERTICAL STABILIZER EFFECTS ON DIRECTIONAL STABILITY OF A REUSABLE LOX/RP (061) BOOSTER AR 12161-2
1210	CYLINDRICAL	1	HIGH ANGLE OF ATTACK TRANSITION AND LOW ANGLE OF ATTACK LAUNCH PHASE AERODYNAMIC STABILITY AND CONTROL OF GD/C B-18E-2, B-18E-3 DELTA WING BOOSTER, AND LAUNCH CONFIGURATION OF MSC-040A ORBITER AND TWIN PRESSURE FED BOOSTERS
1212	CANARD	1	EXPERIMENTAL INVESTIGATIONS FOR BASE DRAG REDUCTION ON A 0.015 SCALE MODEL MSFC PROPOSED SPACE SHUTTLE BOOSTER AT MACH NUMBERS FROM 0.40 TO 1.10

Table 3.1.1 - Continued

Space Shuttle Phase B Wind Tunnel Test
Database Chrysler DATAMAN Report Titles

Booster Aerodynamics

DMS-DR#	CONFIG. I.D.	VOLUME NUMBER	REPORT TITLE
1213	DELTA WING	1	AERODYNAMIC CHARACTERISTICS OF 0.003367 SCALE MODELS OF THE MMC RETRO-GLIDE BOOSTER ALONE AND MATED WITH THE MSC 040-A ORBITER
1214	CYLINDRICAL	1	HYPERSONIC PERFORMANCE AND STABILITY OF TBC PROPOSED SPACE SHUTTLE PRESSURE-FED BOOSTER AT HIGH ANGLES OF ATTACK
1220	DELTA WING	1	HYPERSONIC HIGH ANGLE-OF-ATTACK AERODYNAMIC CHARACTERISTICS AND BODY GEOMETRY AND FLYBACK ENGINE LOCATION EFFECTS OF THE 0.0035 SCALE FLYABLE LOX/RP BOOSTER VEHICLE
1223	DELTA WING	1	LOW SPEED AERODYNAMIC CHARACTERISTICS OF THE GD/C B-18E3 BOOSTER
1226	CYLINDRICAL	1	AERODYNAMIC STABILITY AND DRAG CHARACTERISTICS OF THE MSFC PRESSURE FED BOOSTER CONFIGURATIONS AT MACH NUMBERS FROM 0.9 TO 5.0
1227	CYLINDRICAL	1	AERODYNAMIC CHARACTERISTICS OF A COMPOSITE BOOSTER/040A ORBITER LAUNCH CONFIGURATION WITH FIN AND BOOSTER BODY CONFIGURATION EFFECT CONTRIBUTION
1228	CYLINDRICAL	1	RE-ENTRY STABILITY AND PERFORMANCE CHARACTERISTICS IN THE TRANSONIC AND SUPERSONIC FLIGHT REGIMES OF THE BOEING BALLISTIC RECOVERABLE BOOSTER
1228	CYLINDRICAL	1	RE-ENTRY STABILITY AND PERFORMANCE CHARACTERISTICS IN THE TRANSONIC AND SUPERSONIC FLIGHT REGIMES OF THE BOEING BALLISTIC RECOVERABLE BOOSTER
1230	CYLINDRICAL	1	AERODYNAMIC CHARACTERISTICS OF VARIOUS MDAC SPACE SHUTTLE ASCENT CONFIGURATIONS WITH PARALLEL BURN PRESSURE FED AND SRM BOOSTERS -- VOLUME I - ASCENT CONFIGURATION WITH HO CENTERLINE TANKS T1 AND T2
1230	CYLINDRICAL	2	AERODYNAMIC CHARACTERISTICS OF VARIOUS MDAC SPACE SHUTTLE ASCENT CONFIGURATIONS WITH PARALLEL BURN PRESSURE FED AND SRM BOOSTERS -- VOLUME II - ASCENT CONFIGURATION WITH HO CENTERLINE TANK T3
1230	CYLINDRICAL	3	AERODYNAMIC CHARACTERISTICS OF VARIOUS MDAC SPACE SHUTTLE ASCENT CONFIGURATIONS WITH PARALLEL BURN PRESSURE FED AND SRM BOOSTERS -- VOLUME III - ASCENT CONFIGURATION WITH HO CENTERLINE TANK T4
1230	CYLINDRICAL	4	AERODYNAMIC CHARACTERISTICS OF VARIOUS MDAC SPACE SHUTTLE ASCENT CONFIGURATIONS WITH PARALLEL BURN PRESSURE FED AND SRM BOOSTERS -- VOLUME IV - ASCENT CONFIGURATION PLUME STUDIES AND CONFIGURATION BUILDUP
1230	CYLINDRICAL	5	AERODYNAMIC CHARACTERISTICS OF VARIOUS MDAC SPACE SHUTTLE ASCENT CONFIGURATIONS WITH PARALLEL BURN PRESSURE FED AND SRM BOOSTERS -- VOLUME V - ORBITER ALONE, TANKS ALONE, AND BOOSTER ALONE
1237	DELTA WING	1	STATIC AERODYNAMIC CHARACTERISTICS OF STAGE ARRANGEMENTS AT SUPERSONIC SPEEDS FOR A SPACE SHUTTLE (.0056 SCALE MODEL)

Table 3.1.1 - Concluded

Space Shuttle Phase B Wind Tunnel Test
Database Chrysler DATAMAN Report Titles

Booster Aerodynamics

DMS-DR#	CONFIG. I.D.	VOLUME NUMBER	REPORT TITLE
1240	CYLINDRICAL	1	AERODYNAMIC STATIC STABILITY CHARACTERISTICS, FIN EFFECTIVENESS, AND FIN LOCATION OF THE MSFC 33-FOOT PRESSURE FED BOOSTER AT HIGH ANGLES OF ATTACK
1242	CYLINDRICAL	1	AERODYNAMIC CHARACTERISTICS OF CONE-CYLINDER-FLARE-FIN CONFIGURATIONS AT MACH NUMBERS OF 1.96, 2.74, AND 4.96 AND ANGLES OF ATTACK FROM 50 TO 90 DEGREES
1245	CYLINDRICAL	1	AERODYNAMIC STATIC STABILITY CHARACTERISTICS OF THE MSFC 33-FOOT PUMP FED BOOSTER AT HIGH ANGLES OF ATTACK
1253	CYLINDRICAL	1	AERODYNAMIC CHARACTERISTICS OF A 156-INCH SOLID ROCKET MOTOR AT ANGLES OF ATTACK FROM -10 DEG. TO 190 DEG.
1275	CYLINDRICAL	1	STABILITY AND CONTROL EFFECTIVENESS AT HIGH AND LOW ANGLES OF ATTACK AND EFFECTS OF VARIATIONS IN ENGINE SHROUD, FIN, AND DRAG PETAL CONFIGURATIONS FOR THE BOEING 0.008899-SCALE PRESSURE-FED BALLISTIC RECOVERABLE BOOSTER, MODEL 979-160
1275	CYLINDRICAL	1	STABILITY AND CONTROL EFFECTIVENESS AT HIGH AND LOW ANGLES OF ATTACK AND EFFECTS OF VARIATIONS IN ENGINE SHROUD, FIN, AND DRAG PETAL CONFIGURATIONS FOR THE BOEING 0.008899-SCALE PRESSURE-FED BALLISTIC RECOVERABLE BOOSTER, MODEL 979-160
1276	CYLINDRICAL	1	RE-ENTRY STABILITY IN NOSE-FORWARD AND BASE SHIELD-FORWARD ORIENTATIONS AND THE EFFECTIVENESS OF DRAG DEVICES FOR THE BOEING 0.006944-SCALE BALLISTIC RECOVERABLE BOOSTER, MODEL 979-071
1276	CYLINDRICAL	1	RE-ENTRY STABILITY IN NOSE-FORWARD AND BASE SHIELD-FORWARD ORIENTATIONS AND THE EFFECTIVENESS OF DRAG DEVICES FOR THE BOEING 0.006944-SCALE BALLISTIC RECOVERABLE BOOSTER, MODEL 979-071

Table 3.2.1

Space Shuttle Phase B Wind Tunnel Test
Database Chrysler DATAMAN Report Titles

Booster Airloads

DMS-DR#	CONFIG. I.D.	VOLUME NUMBER	REPORT TITLE
1125	UNIQUE CONFIGS.	1	STATIC PRESSURE DISTRIBUTION ON CHRYSLER CORPORATION SPACE DIVISION SERV BOOSTER CONFIGURATION
1129	STRAIGHT WING	1	PRESSURE TESTS OF MODELS OF A STRAIGHT-WING ORBITER, DELTA-WING ORBITER, AND A STRAIGHT-WING BOOSTER (MACH NUMBER 0.6 TO 2.2) -- STRAIGHT-WING BOOSTER
1129	STRAIGHT WING	2	PRESSURE TESTS OF MODELS OF A STRAIGHT-WING ORBITER, DELTA-WING ORBITER, AND A STRAIGHT-WING BOOSTER (MACH NUMBER 0.6 TO 2.2) -- DELTA-WING ORBITER
1129	STRAIGHT WING	3	PRESSURE TESTS OF MODELS OF A STRAIGHT-WING ORBITER, DELTA-WING ORBITER, AND A STRAIGHT-WING BOOSTER (MACH NUMBER 0.6 TO 2.2) -- STRAIGHT-WING ORBITER
1222	CANARD	1	PRESSURE INVESTIGATION OF A SPACE SHUTTLE LAUNCH CONFIGURATION CONSISTING OF A DELTA-WING ORBITER AND A SWEPT-WING BOOSTER WITH CANARD AND TIP FINS (M = 0.6 TO 1.3)
1222	CANARD	2	PRESSURE INVESTIGATION OF A SPACE SHUTTLE LAUNCH CONFIGURATION CONSISTING OF A DELTA-WING ORBITER AND A SWEPT-WING BOOSTER WITH CANARD AND TIP FINS (M = 0.6 TO 1.3)
1225	CANARD	1	SURFACE PRESSURE AND INVISCID FLOW FIELD PROPERTIES OF THE MCDONNELL-DOUGLAS DELTA-WING ORBITER FOR NOMINAL MACH NUMBER OF 8
1225	CANARD	2	SURFACE PRESSURE AND INVISCID FLOW FIELD PROPERTIES OF THE NORTH AMERICAN ROCKWELL DELTA-WING ORBITER FOR NOMINAL MACH NUMBER OF 8
1225	CANARD	3	SURFACE PRESSURE AND INVISCID FLOW FIELD PROPERTIES OF THE MCDONNELL-DOUGLAS BOOSTER AT NOMINAL MACH NUMBER OF 8

Table 3.3.1

Space Shuttle Phase B Wind Tunnel Test
Database Chrysler DATAMAN Report Titles

Booster Heat Transfer

DMS-DR#	CONFIG. I.D	VOLUME NUMBER	REPORT TITLE
1020	STRAIGHT WING	1	CONVAIR STRAIGHT-WING (B-8B) AND DELTA-WING (B-9J) BOOSTERS -- AERODYNAMIC HEAT TRANSFER TO THE SPACE SHUTTLE BOOSTER SURFACES AT HYPERSONIC SPEEDS
1024	STRAIGHT WING	1	CONVAIR STRAIGHT-WING (B-8B) AND DELTA-WING (B-9J) BOOSTERS -- AERODYNAMIC HEAT TRANSFER TO THE SPACE SHUTTLE BOOSTER SURFACES AT HYPERSONIC SPEEDS
1032	STRAIGHT WING	1	CONVAIR STRAIGHT WING (B-8B) AND DELTA WING (B-9J) BOOSTERS WITH NAR STRAIGHT WING AND DELTA WING ORBITERS -- INTERFERENCE HEAT TRANSFER TO SPACE SHUTTLE VEHICLE SURFACES IN CLOSE PROXIMITY AT HYPERSONIC VELOCITY
1036	CANARD	1	THERMAL MAPPING INVESTIGATION MDAC/MMC PHASE B SPACE SHUTTLE VEHICLES
1036	CANARD	1	THERMAL MAPPING INVESTIGATION MDAC/MMC PHASE B SPACE SHUTTLE VEHICLES
1036	CANARD	2	THERMAL MAPPING INVESTIGATION MDAC/MMC PHASE B SPACE SHUTTLE VEHICLES -- CONTOUR TRACINGS
1036	CANARD	2	THERMAL MAPPING INVESTIGATION MDAC/MMC PHASE B SPACE SHUTTLE VEHICLES -- CONTOUR TRACINGS
1070	DELTA WING	1	DEFINITION OF REGIONS OF HIGH HEAT TRANSFER AND DETERMINATION OF LOCAL HEAT TRANSFER COEFFICIENTS ON THE DELTA WING BOOSTER WITH CANARDS (B-15B)
1098	DELTA WING	1	HEAT TRANSFER RESULTS ON SPACE SHUTTLE PHASE B LAUNCH CONFIGURATION AT MACH NUMBERS OF 2.5 AND 3.7
1134	STRAIGHT WING	1	AERODYNAMIC HEATING OF A SPACE SHUTTLE STRAIGHT WING BOOSTER
1138	CANARD	1	THERMAL MAPPING INVESTIGATION OF A 0.0035 SCALE MDC/MMC PHASE B BOOSTER CONFIGURATION WITH VENTRAL TIP FINS
1145	DELTA WING	1	HEAT TRANSFER TEST TO DETERMINE THERMAL PROTECTION SYSTEM DESIGN REQUIREMENTS FOR BOOSTERS B-9U, B-15B-2, AND BOOSTER/ORBITER B-9U/161C
1170	CANARD	1	AERODYNAMIC HEATING TESTS OF THE MDAC DELTA WING ORBITER AND CANARD BOOSTER
1177	DELTA WING	1	HEAT TRANSFER RATE MEASUREMENTS ON CONVAIR BOOSTER (B-15B-2) AND NORTH AMERICAN ROCKWELL ORBITER (161B) AT NOMINAL MACH NUMBER OF 8
1177	DELTA WING	2	HEAT TRANSFER RATE MEASUREMENTS ON CONVAIR BOOSTER (B-15B-2) AT NOMINAL MACH NUMBER OF 8
1177	DELTA WING	3	HEAT TRANSFER RATE MEASUREMENTS ON NORTH AMERICAN ROCKWELL ORBITER (161B) AT NOMINAL MACH NUMBER OF 8
1179	DELTA WING	1	AERODYNAMIC HEATING OF A SPACE SHUTTLE DELTA-WING BOOSTER AT M = 7.4

Table 3.3.1 - Concluded

Space Shuttle Phase B Wind Tunnel Test
Database Chrysler DATAMAN Report Titles

Booster Heat Transfer

DMS-DR*	CONFIG. I.D.	VOLUME NUMBER	REPORT TITLE
1207	CANARD	1	HEAT TRANSFER RATE DISTRIBUTIONS ON MCDONNELL-DOUGLAS DELTA WING ORBITER DETERMINED BY PHASE-CHANGE PAINT TECHNIQUE FOR NOMINAL MACH NUMBER OF 8
1207	CANARD	2	HEAT TRANSFER RATE DISTRIBUTIONS ON MCDONNELL-DOUGLAS BOOSTER DETERMINED BY PHASE-CHANGE TECHNIQUE FOR NOMINAL MACH NUMBER OF 8
1236	CYLINDRICAL	1	AERODYNAMIC HEATING ON SPACE SHUTTLE BOOSTER NOSE-FUSELAGE CONFIGURATIONS AT M = 6
1244	DELTA WING	1	AERODYNAMIC HEATING DATA ON THE SPACE SHUTTLE B-18E3 BOOSTER CONFIGURATION AT M = 6
1261	CYLINDRICAL	1	AN EVALUATION OF ORBITER INDUCED INTERFERENCE HEATING ON THE BOOSTER, ORBITER TANK, AND INTERSTAGE FAIRINGS FOR BOTH LOW AND HIGH-ALPHA RE-ENTRY
1262	CANARD	1	HEAT TRANSFER TESTS OF THE MCDONNELL-DOUGLAS DELTA WING ORBITER MATED WITH -17A BOOSTER AT MACH NUMBER 8
1262	CANARD	2	HEAT TRANSFER TESTS OF THE MCDONNELL-DOUGLAS DELTA WING ORBITER AND THE -17A BOOSTER (NOT MATED) AT MACH NUMBER 8
1264	DELTA WING	1	ASCENT HEAT TRANSFER RATE DISTRIBUTION ON THE NR DELTA WING ORBITER AND THE GD/C BOOSTER AT MACH NUMBER OF 8 (MATED)
1264	DELTA WING	2	ASCENT HEAT TRANSFER RATE DISTRIBUTION ON THE NR DELTA WING ORBITER AND THE GD/C BOOSTER AT MACH NUMBER OF 8 (NOT MATED)

Table 4.1.1

Space Shuttle Phase B Wind Tunnel Test
Database Test Engineers and Test Purposes

Booster Aerodynamics

DMS-DR#	CONFIG. I.D	FACILITY TEST NUMBER	TEST ENGINEERS	PURPOSE
1001	DELTA WING	MSFC 14TWT 451	D. E. HEIM, P. E. RAMSEY /MSFC	LANDING CHARACTERISTICS
1006	UNIQUE CONFIGS.	AEDC HWTC VT0055	W. H. GALLAHER, C. J. SPURLIN /GD/C	RE-ENTRY CHARACTERISTICS, CONTROL EFFECTIVENESS
1014	DELTA WING	MAC LSWT 132	C. M. FINCH /MDAC-W	LOW SPEED AERO CHARACTERISTICS
1015	UNIQUE CONFIGS	LARC LTPT 47	B. SPENCER, G. M. WARE /LARC	CONFIGURATION VARIATION EFFECTS
1017	UNIQUE CONFIGS.	LARC UPWT 886	E. B. GRAVES /LARC	WING CONFIGURATION AND SPAN, HORIZONTAL STABILIZER DIHEDRAL ANGLE EFFECTS
1019	UNIQUE CONFIGS.	LARC UPWT 913	E. B. GRAVES /LARC	WING CONFIGURATION AND SPAN EFFECTS
1025	STRAIGHT WING	GDC 4HSWT 291-0	W. V. CARTER, M. J. LANFRANCO /GD/C	NOSE, AFTERBODY VARIATIONS, WING AND TAIL ASSEMBLY CONFIGURATIONS, TAIL DEFLECTION EFFECTS
1029	STRAIGHT WING	GDC 18HWT 247-0	H. ROBINSON, W. GALLAHER /GD/C	BODY LENGTH, CRUISE ENGINE AND TAIL CONFIGURATION EFFECTS
1029	DELTA WING	GDC 18HWT 247-0	H. ROBINSON, W. GALLAHER /GD/C	BODY LENGTH, CRUISE ENGINE AND TAIL CONFIGURATION EFFECTS
1030	STRAIGHT WING	GDC 812SWT 579-0	W. ZOMBEK /GD/C	LOW SPEED CONTROL EFFECTIVENESS - CONFIGURATION STUDY
1030	DELTA WING	GDC 812SWT 579-0	W. ZOMBEK /GD/C	LOW SPEED CONTROL EFFECTIVENESS - CONFIGURATION STUDY
1033	STRAIGHT WING	TAM 710SWT S-XXIV	R. H. MOORE /MSC	EVALUATION OF LOW SPEED STATIC-AERO CHARACTERISTICS
1035	CANARD	MAC LSWT 1351	C. M. FINCH /MDAC-W	CONFIGURATION DEVELOPMENT, JET FLAP INTERFERENCE EFFECTS
1038	STRAIGHT WING	ARC 66SWT 486	J. J. BROWNSON /ARC - A. M. WHITNAH /MSC	WING CONFIGURATION AND INTERFERENCE EFFECTS, LAUNCH CONFIGURATION
1038	DELTA WING	ARC 66SWT 486	J. J. BROWNSON /ARC - A. M. WHITNAH /MSC	WING CONFIGURATION AND INTERFERENCE EFFECTS, LAUNCH CONFIGURATION
1039	DELTA WING	GDC 812SWT 580-0	W. ZOMBEK, W. GOLDBERG, J. RAUSCH /GD/C	STABILITY AND CONTROL EFFECTIVENESS, CONFIGURATION VARIATIONS

Table 4.1.1 - Continued

Space Shuttle Phase B Wind Tunnel Test
Database Test Engineers and Test Purposes

Booster Aerodynamics

DMS-DR#	CONFIG. I.D.	FACILITY TEST NUMBER	TEST ENGINEERS	PURPOSE
1039	STRAIGHT WING	GDC 812SWT 580-0	W ZOMBEK, W. GOLDBERG, J. RAUSCH /GD/C	STABILITY AND CONTROL EFFECTIVENESS, CONFIGURATION VARIATIONS
1046	UNIQUE CONFIGS.	ARC 66SWT 522	J. MELLENTHIN /ARC - R. A. MEYER, E. A RAWLS /CCSD	STATIC STABILITY CHARACTERISTICS, ASCENT AND DESCENT
1050	STRAIGHT WING	ARC 66SWT 505	J. J. BROWNSON /ARC - L. CLARKE /NR	INTERFERENCE EFFECTS, POSITION AND INCIDENCE ANGLE
1051	STRAIGHT WING	MSFC 14TWT 466	E. C. ALLEN, J. F. HARDESTY /NR - F. W. EDER /GD/C	STATIC STABILITY AND CONTROL ABILITY
1052	STRAIGHT WING	GDC 4HSWT 304-0	J. M. DEBEVOISE /GD/C	ABORT SEPARATION EFFECTS
1052	DELTA WING	GDC 4HSWT 304-0	J. M. DEBEVOISE /GD/C	ABORT SEPARATION EFFECTS
1054	CANARD	MAC LSWT 239	D. MICHNA, G. HOLLE /MMC	POWER EFFECTS, CANARD AND WING FLAP VARIATION EFFECTS
1066	CANARD	ARC 66SWT 504	D L. CIFFONE /ARC - W. S. COX /MDAC-W	AERODYNAMIC CHARACTERISTICS AND CONTROL EFFECTIVENESS
1068	UNIQUE CONFIGS.	LARC UPWT 9143	E. GRAVES /LARC - R. A. MEYER, E. A. RAWLS /CCSD	STABILITY CHARACTERISTICS, ASCENT AND RE-ENTRY VERSIONS
1075	STRAIGHT WING	ARC 66SWT 511	J. J. BROWNSON /ARC	TRANSITION CHARACTERISTICS
1077	CANARD	MAC LSWT 249	D MICHNA, E. LAYS /MMC - C FINCH, R ROENSCH /MDAC-W	STABILITY AND CONTROL CHARACTERISTICS, CONFIGURATION VARIATION
1079	STRAIGHT WING	UW 812SWT 1021	J HOUSER /TBC	LOW SPEED PERFORMANCE, STABILITY AND CONTROL DATA, CONFIGURATION BUILD-UP
1080	CANARD	ARC 3.5HWT 112	D. L. CIFFONE /ARC - D. SARVER /MMC	HYPERSONIC AERO-CHARACTERISTICS
1087	DELTA WING	LARC LTPT 59	W. D. REEDER, W. S. ZOMBEK /GD/C	STATIC AERODYNAMIC CHARACTERISTICS, LANDING AND CRUISE CONDITIONS
1089	UNIQUE CONFIGS.	ARC 66SWT 522	J. MELLENTHIN /ARC - E. GRAVES /LARC - E. A. RAWLS, R. A. MEYER, J. J. HULL /CCSD	STATIC AERO CHARACTERISTICS
1089	UNIQUE CONFIGS.	LARC UPWT 9143	J. MELLENTHIN /ARC - E. GRAVES /LARC - E A. RAWLS, R. A. MEYER, J. J. HULL /CCSD	STATIC AERO CHARACTERISTICS

Table 4.1.1 - Continued

Space Shuttle Phase B Wind Tunnel Test
Database Test Engineers and Test Purposes

Booster Aerodynamics

DMS-DR*	CONFIG I.D.	FACILITY TEST NUMBER	TEST ENGINEERS	PURPOSE
1093	DELTA WING	LARC CFHT 64	T. BLACKSTOCK /LARC - D. L. GROSS, W. RISTER /GD/C	STABILITY AND CONTROL CHARACTERISTICS, BUILD-UP DATA
1100	STRAIGHT WING	LARC LTPT 55	G. M. WARE /LARC - H. L. ROBINSON /GD/C	LANDING-CRUISING AND OTHER LOW SPEED CHARACTERISTICS
1102	DELTA WING	MSFC 14TWT 481	J. M. DEBEVOISE, R. F. MCGINNIS /GD/C	LONGITUDINAL AND LATERAL AERODYNAMIC CHARACTERISTICS, RE-ENTRY TO CRUISE TRANSITION INFORMATION
1108	CANARD	AEDC SWTA 1163	L. L. TRIMMER, R. H. BURT /ARO - D. A. LOVE, J. M. RAMPY /LMSC - J. P. DECKER /LARC - K. L. BLACKWELL /MSFC	SEPARATION AERODYNAMICS
1109	DELTA WING	GDC 812SWT 587-0	J. J. WALKER, E. BURNS, W. H. GALLAHER /GD/C	CRUISE AND LANDING CHARACTERISTICS, COMPONENT VARIATION
1110	DELTA WING	GDC 812SWT 587-1	J. J. WALKER, E. BURNS, W. H. GALLAHER /GD/C	CRUISE, TAKEOFF AND LANDING CHARACTERISTICS - INCLUDES EXHAUST EFFECTS
1111	STRAIGHT WING	ARC 66SWT 550	J. J. BROWNSON /ARC - R. M. MILLER, J. HOUSER /TBC	TRANSONIC, SUPERSONIC AERODYNAMIC DATA
1115	DELTA WING	LTV HSWT S-30	P. R. ROMERE, I. H. FOSSLER /MSC	AERO CHARACTERISTICS DURING SEPARATION OR ABORT
1116	CANARD	ARC 66SWT 510	D. L. CIFFONE /ARC - D. SARVER /MMC	TRANSONIC/SUPERSONIC AERODYNAMIC CHARACTERISTICS AND CONTROL EFFECTIVENESS, CONFIGURATION BUILD-UP
1117	CANARD	LARC UPWT 963	E. B. GRAVES /LARC - G. HOLLE /MMC	AERODYNAMIC CHARACTERISTICS, INTERFERENCE EFFECTS
1120	CANARD	MAC LSWT 258	T. W. JARRETT /MDAC-W	STATIC AERODYNAMIC STABILITY AND CONTROL CHARACTERISTICS
1121	DELTA WING	ARC 66SWT 526	J. J. BROWNSON /ARC - H. L. ROBINSON, P. R. PEARSON /GD/C - M. WHITCOMB /ARO	TRANSONIC/SUPERSONIC AERODYNAMIC CHARACTERISTICS
1128	CYLINDRICAL	TBC B4SWT 558	T. L. GROW, R. L. HANSON, J. HOUSER, M. Y. OIYE /TBC	AERODYNAMIC CHARACTERISTICS OF RE-ENTRY MODES, DRAG DEVICE EFFECTIVENESS
1130	DELTA WING	MSFC 14TWT 490	E. C. ALLEN /NR - F. W. EDER /GD/C	STATIC STABILITY AND CONTROL INVESTIGATION

ORIGINAL PAGE IS OF POOR QUALITY

Table 4.1.1 - Continued

Space Shuttle Phase B Wind Tunnel Test
Database Test Engineers and Test Purposes

Booster Aerodynamics

DMS-DR#	CONFIG. I.D.	FACILITY TEST NUMBER	TEST ENGINEERS	PURPOSE
1139	CANARD	NSRDC 710TWT 3110	D. BRADLEY, R. BUCHHOLTZ /LMSC	STABILITY AND CONTROL EFFECTIVENESS, COMPONENT VARIATIONS
1141	DELTA WING	ARC 66SWT 563	J. BROWNSON /ARC - W. GALLAHER, J. DEBEVOISE /GD/C	VERIFICATION OF LOW SUPERSONIC CHARACTERISTICS
1148	CANARD	MSFC 14TWT 492	J. JOHNSON, L. L. WATTS /TBC	STABILITY AND CONTROL CHARACTERISTICS
1150	DELTA WING	LARC LTPT 64	W. D. REEDER, W. S. ZOMBEK /GD/C	RE-ENTRY STABILITY AND CONTROL CHARACTERISTICS
1152	DELTA WING	MSFC 14TWT 493	W. V. CARTER, R. F. MCGINNIS /GD/C	ELEVON, CANARD, RUDDER, AILERON, BODY FLAP EFFECTIVENESS
1155	DELTA WING	MSFC 14TWT 495	J. BRICKEY, T. BRICE, K. E. MARKS /GD/C	EFFECTS OF CONFIGURATION VARIABLES ON LATERAL-DIRECTIONAL CHARACTERISTICS
1156	DELTA WING	LARC CFHT 70	D. L. GROSS, W. RISTER /GD/C	CONFIGURATION BUILD-UP, CANARD AND ELEVON VARIATIONS
1158	STRAIGHT WING	GAC 36HWT 020	J. HOUSER, W. H. RUNCIMAN /TBC	HYPERSONIC STABILITY CHARACTERISTICS AND CONTROL EFFECTIVENESS
1160	CANARD	MSFC 14TWT 496	E. R. PHELPS, L. L. WATTS, R. W. AINSWORTH /TBC	AERODYNAMIC STABILITY AND CONTROL CHARACTERISTICS
1162	DELTA WING	MSFC 14TWT 497	E. C. ALLEN /NR	AERODYNAMIC FORCE AND MOMENT DATA, CONTROL EFFECTIVENESS
1164	CANARD	NSRDC 710TWT 3210	D. BRADLEY /LMSC	INTERFERENCE EFFECTS OF CRUISE ENGINE LOCATIONS, PARAMETRIC VARIATIONS
1183	DELTA WING	MSFC 14TWT 506	L. L. WATTS, R. AINSWORTH, S. VANDERLEEST /TBC	REENTRY AND TRANSITIONAL GLIDE AERODYNAMIC DATA
1190	CANARD	LARC 22HT 7377-79,7380-90	J. P. ARRINGTON /LARC	STATIC AERODYNAMIC CHARACTERISTICS, ASCENT INTERFERENCE EFFECTS
1190	DELTA WING	LARC 22HT 7377-79,7380-90	J. P. ARRINGTON /LARC	STATIC AERODYNAMIC CHARACTERISTICS, ASCENT INTERFERENCE EFFECTS
1191	STRAIGHT WING	TBC 8TWT 1265	J. HOUSER, L. J. JOHNSON, M. OIYE, W. RUNCIMAN /TBC	TRANSONIC REENTRY CORRIDOR, SUBSONIC AERODYNAMIC CHARACTERISTICS

Table 4.1.1 - Continued

Space Shuttle Phase B Wind Tunnel Test
Database Test Engineers and Test Purposes

Booster Aerodynamics

DMS-DR#	CONFIG I.D.	FACILITY TEST NUMBER	TEST ENGINEERS	PURPOSE
1192	CANARD	NSRDC 710TWT 3310	R. BUCHHOLTZ /LMSC	EFFECTS OF VARYING WING POSITION, DIHEDRAL, CRUISE ENGINE LOCATION, AND COMBINATIONS OF WING-TIP AND CENTERLINE DORSAL FINS
1193	UNIQUE CONFIGS	LARC LTPT 73	D. C. FREEMAN /LARC	SUBSONIC LONGITUDINAL AND LATERAL-DIRECTIONAL CHARACTERISTICS
1197	UNIQUE CONFIGS.	LARC UPWT 962	D. C. FREEMAN, W. A. CORLETT /LARC	SUPERSONIC AERODYNAMIC CHARACTERISTICS
1198	UNIQUE CONFIGS.	LARC CFHT 74	P. T. BERNOT /LARC	HYPERSONIC AERODYNAMIC CHARACTERISTICS, COMPONENT BREAKDOWN DATA
1200	UNIQUE CONFIGS.	LARC 8TPT 605	D. C. FREEMAN /LARC	LONGITUDINAL AND LATERAL-DIRECTIONAL FORCE DATA
1204	CYLINDRICAL	MSFC 14TWT 512	R. F. MCGINNIS, F. W. EDER /GD/C	LONGITUDINAL AND LATERAL DIRECTIONAL CHARACTERISTICS
1208	CYLINDRICAL	MSFC 14TWT 518	J. BAKER /LMSC	AERODYNAMIC STATIC STABILITY CHARACTERISTICS
1209	DELTA WING	MSFC 14TWT 513	C. E. ROTH, L. L. WATTS, R. W. AINSWORTH /TBC	EFFECTS OF FOREBODY AND VERTICAL STABILIZER ON DIRECTIONAL STABILITY
1210	CYLINDRICAL	MSFC 14TWT 514	J. M. DEBEVOISE, R. F. MCGINNIS /GD/C	LAUNCH-PHASE STABILITY AND CONTROL
1210	DELTA WING	MSFC 14TWT 514	J. M. DEBEVOISE, R. F. MCGINNIS /GD/C	LAUNCH-PHASE STABILITY AND CONTROL
1212	CANARD	CAL 8TWT 18-063	D. BRADLEY /LMSC	BASE DRAG REDUCTION INVESTIGATION
1213	DELTA WING	MSFC 14TWT 517	D. J. MICHNA, D. ALLAYAUD /MMC	LAUNCH CONFIGURATION AND BOOSTER REENTRY CONFIGURATION STABILITY AND CONTROL DATA
1214	CYLINDRICAL	LARC 20HT6 6397	M. Y. OIYE, E. R. PHELPS /TBC - J. C. EMERY, T. F. GOLDBERG /LARC	HYPERSONIC PERFORMANCE AND STABILITY CHARACTERISTICS, COMPONENT VARIATION EFFECTS
1220	DELTA WING	LARC 20HT6 6398	M. Y. OIYE, E. R. PHELPS /TBC - J. C. EMERY, T. J. GOLDBERG /LARC	HYPERSONIC PERFORMANCE, STABILITY AND CONTROL EFFECTIVENESS, EFFECTS OF BODY GEOMETRY AND FLYBACK ENGINE PLACEMENT

Table 4.1.1 - Continued

Space Shuttle Phase B Wind Tunnel Test
Database Test Engineers and Test Purposes

Booster Aerodynamics

DMS-DR#	CONFIG. I.D.	FACILITY TEST NUMBER	TEST ENGINEERS	PURPOSE
1223	DELTA WING	GDC 812SWT 603-0	W. V. CARTER, W. H. GALLAHER /GD/C	LOW SPEED AERODYNAMIC CHARACTERISTICS, CONFIGURATION BUILD-UP
1226	CYLINDRICAL	MSFC 14TWT 521	J. BAKER /LMSC	SIX COMPONENT AERODYNAMIC FORCE AND MOMENT DATA
1227	CYLINDRICAL	MSFC 14TWT 523	R. W. AINSWORTH, J. C. JOHNSON, L. L. WATTS /TBC	FIN CONFIGURATION AND BODY CONFIGURATION EFFECTS
1228	CYLINDRICAL	TBC BTWT 1273	J. HOUSER, S. VANDERLEEST /TBC	RE-ENTRY TRANSONIC AND SUPERSONIC STABILITY AND PERFORMANCE CHARACTERISTICS
1228	CYLINDRICAL	TBC B4SWT 553	J. HOUSER, S. VANDERLEEST /TBC	RE-ENTRY TRANSONIC AND SUPERSONIC STABILITY AND PERFORMANCE CHARACTERISTICS
1230	CYLINDRICAL	MDAC 4TWT S-222	T. W. JARRETT /MDAC	AERODYNAMIC CHARACTERISTICS, INDIVIDUAL CONTRIBUTIONS DURING ASCENT, AND RELATIVE ORBITER AND BOOSTER POSITION INTERFERENCE EFFECTS
1237	DELTA WING	LARC UPWT 966	W. I. SCALLION, R. H. FOURNIER /LARC	FORCES AND MOMENTS, INTERFERENCE EFFECTS, COMPONENT EFFECTS
1240	CYLINDRICAL	MSFC 14TWT 524	T. HAMILTON /NSI	SIX COMPONENT AERODYNAMIC FORCE AND MOMENT DATA
1242	CYLINDRICAL	MSFC 14TWT 526	D. BRADLEY, R. ELLIS /LMSC	HIGH ALPHA FORCE AND STATIC STABILITY DATA
1245	CYLINDRICAL	MSFC 14TWT 529	T. HAMILTON /NSI	SIX COMPONENT AERODYNAMIC FORCE AND MOMENT DATA
1253	CYLINDRICAL	MSFC 14TWT 541	R. E. BUCHHOLTZ, D. J. ELDER /LMSC	REYNOLDS NUMBER EFFECT ON AERODYNAMIC STABILITY AND CONTROL
1275	CYLINDRICAL	TBC BTWT 1282	R. L. HANSON, R. G. O'BRIEN, M. Y. OIYE, S. VANDERLEEST /TBC	2-COMPONENT, 6-COMPONENT FORCE DATA AND BASE PRESSURE DATA
1275	CYLINDRICAL	TBC BTWT 1282	R. L. HANSON, R. G. O'BRIEN, M. Y. OIYE, S. VANDERLEEST /TBC	2-COMPONENT, 6-COMPONENT FORCE DATA AND BASE PRESSURE DATA
1275	CYLINDRICAL	TBC B4SWT 557	R. L. HANSON, R. G. O'BRIEN, M. Y. OIYE, S. VANDERLEEST /TBC	2-COMPONENT, 6-COMPONENT FORCE DATA AND BASE PRESSURE DATA

Table 4.1.1 - Concluded

Space Shuttle Phase B Wind Tunnel Test
Database Test Engineers and Test Purposes

Booster Aerodynamics

DMS-DR#	CONFIG. I.D.	FACILITY TEST NUMBER	TEST ENGINEERS	PURPOSE
1275	CYLINDRICAL	TBC B4SWT 557	R. L. HANSON, R. G. O'BRIEN, M. Y. OIYE, S. VANDERLEEST /TBC	2-COMPONENT, 6-COMPONENT FORCE DATA AND BASE PRESSURE DATA
1276	CYLINDRICAL	TBC BTWT 1282	R. L. HANSON, R. G. O'BRIEN, M. Y. OIYE, S. VANDERLEEST /TBC	6-COMPONENT FORCE DATA AND BASE PRESSURE DATA
1276	CYLINDRICAL	TBC B4SWT 557	R. L. HANSON, R. G. O'BRIEN, M. Y. OIYE, S. VANDERLEEST /TBC	6-COMPONENT FORCE DATA AND BASE PRESSURE DATA

Table 4.2.1

Space Shuttle Phase B Wind Tunnel Test
Database Test Engineers and Test Purposes

Booster Airloads

DMS-DR#	CONFIG. I.D.	FACILITY TEST NUMBER	TEST ENGINEERS	PURPOSE
1125	UNIQUE CONFIGS	AEDC PWT16T TF-250	E. A. PRICE /ARO - J. J. HULL, E. A RAWLS /CCSD	DRAG AND FOREBODY STATIC PRESSURE DISTRIBUTIONS
1129	STRAIGHT WING	ARC 66SWT 509	J. A. MELLENTHIN /ARC - B. W. CAMERON, C. R. LEEF /NR	PRESSURE DATA PERTINENT TO AERODYNAMIC LOADING CHARACTERISTICS
1222	CANARD	AEDC PWT4T TC174-PC1154	J. M. RAMPY /NSI - K. L. BLACKWELL /MSFC - G. R. GOMILLION /ARO	LAUNCH CONFIGURATION PRESSURE DATA AT TRANSONIC SPEEDS
1225	CANARD	AEDC HWTB 1162-5	J. D. WARMBROD /MSFC - W. R. MARTINDALE, R. K. MATTHEWS /ARO	SURFACE PRESSURE AND FLOW FIELD TESTS

Table 4.3.1

Space Shuttle Phase B Wind Tunnel Test
Database Test Engineers and Test Purposes

Booster Heat Transfer

DMS-DR*	CONFIG. I.D.	FACILITY TEST NUMBER	TEST ENGINEERS	PURPOSE
1020	STRAIGHT WING	LARC CFHT 52	A. M. ROBERGE, W. R. GINSKY /GD/C	HYPERSONIC AERO HEATING OF SURFACES
1020	DELTA WING	LARC CFHT 52	A. M. ROBERGE, W. R. GINSKY /GD/C	HYPERSONIC AERO HEATING OF SURFACES
1024	STRAIGHT WING	LARC 8VDHT 123-136,180-188	R. A. JONES, W. GINSKY /GD/C	HYPERSONIC AERO HEATING OF SURFACES
1024	DELTA WING	LARC 8VDHT 123-136,180-188	R. A. JONES, W. GINSKY /GD/C	HYPERSONIC AERO HEATING OF SURFACES
1032	STRAIGHT WING	LARC 8VDHT 137-146,189-205	W. R. GINSKY /GD/C - R. RAPARELLI /NR	EVALUATION OF INTERFERENCE HEATING RATES
1036	CANARD	LARC 8VDHT 147-179,206-322	P. L. CLICK, D. SCHMITT /MMC	THERMAL MAPPING
1036	CANARD	LARC CFHT 53	P. L. CLICK, D. SCHMITT /MMC	THERMAL MAPPING
1070	DELTA WING	LARC 8VDHT 703-766	R. O. DOUGHTY, R. C. ERICKSON /GD/C	CANARD ANGLE-OF-ATTACK AND CONFIGURATION VARIATION EFFECTS
1098	DELTA WING	LARC UPWT 945	R. L. STALLINGS /LARC - A. M. ROBERGE /GD/C - H. GOROWITZ /NR	ASCENT HEAT TRANSFER DISTRIBUTIONS, INTERFERENCE HEATING INFORMATION
1134	STRAIGHT WING	ARC 3.5HWT 105	W. K. LOCKMAN, C. E. DEROSE /ARC	DETAILED AERO HEATING DISTRIBUTIONS
1138	CANARD	LARC 8VDHT 1204-1213	D. A. SCHMITT /MMC	THERMAL MAPPING INVESTIGATION, PHASE CHANGE PAINT TEST
1145	DELTA WING	LARC 8VDHT 1237-1297	R. O. DOUGHTY, R. C. ERICKSON /GD/C	THERMAL PROTECTION SYSTEM REQUIREMENTS
1145	DELTA WING	LARC 8VDHT 1237-1297	R. O. DOUGHTY, R. C. ERICKSON /GD/C	THERMAL PROTECTION SYSTEM REQUIREMENTS
1145	DELTA WING	LARC 8VDHT 1237-1297	R. O. DOUGHTY, R. C. ERICKSON /GD/C	THERMAL PROTECTION SYSTEM REQUIREMENTS
1170	CANARD	CAL 96HST H/T MDAC	T. L. ANDRESEN /MDAC-E	THERMAL ENVIRONMENT DATA FOR THERMAL PROTECTION SYSTEM DESIGN
1177	DELTA WING	AEDC HWTB 1162-1	J. D. WARMBROD /MSFC - W. R. MARTINDALE, R. K. MATTHEWS /ARO	ASCENT AND REENTRY HEATING DATA
1179	DELTA WING	ARC 3.5HWT 105	C. E. DEROSE, W. K. LOCKMAN /ARC - A. ROBERGE, N. NICODEMOS /GD/C	DETAILED AERODYNAMIC HEATING DISTRIBUTIONS
1207	CANARD	AEDC HWTB 1162-4	J. D. WARMBROD /MSFC, - W. R. MARTINDALE, R. K. MATTHEWS /ARO	HEAT TRANSFER RESULTS

Table 4.3.1 - Concluded

Space Shuttle Phase B Wind Tunnel Test
Database Test Engineers and Test Purposes

Booster Heat Transfer

DMS-DR#	CONFIG. I.D.	FACILITY TEST NUMBER	TEST ENGINEERS	PURPOSE
1236	CYLINDRICAL	LARC 6HRNT 489	C STAINBACK /LARC - E. SCHWARTZ, A. ROBERGE /GD/C	LAMINAR, TRANSITIONAL AND TURBULENT FLOW HEAT TRANSFER DATA
1244	DELTA WING	LARC 20HT6 1-20	J. C. EMERY /LARC - R. OTWELL, A. M. ROBERGE, E. SCHWARTZ /GD/C	EFFECTS OF CONFIGURATION ON HEAT TRANSFER RATES
1261	CYLINDRICAL	LARC 8VDHT 2505-2565	J. HOUSER, A PERLBACHS /TBC - L. E. CLARK /LARC	INTERFERENCE HEATING, RE-ENTRY HEATING
1262	CANARD	AEDC HWTB 1162-9	R. K. MATTHEWS, W. R. MARTINDALE /ARO - J. D. WARMBROD /MSFC	INTERFERENCE HEATING DATA
1264	DELTA WING	AEDC HWTB 1162	R. K. MATTHEWS, W. R. MARTINDALE /ARO - J. D. WARMBROD /MSFC	INTERFERENCE HEATING DATA

Table 5

Space Shuttle Phase B Facility
Wind Tunnel Summary

FACILITY	SUBFACILITY	FACILITY TEST NUMBER	VEHICLE COMPONENT	TEST DISCIPLINE	DMS-DR#	PUB. DATE	DATASET CODE
AEDC	HWTB	0288	ORBITER	HEAT-TRANSFER	1266	07/72	N/A
AEDC	HWTB	1162	ORBITER	HEAT-TRANSFER	1264	07/72	N/A
AEDC	HWTB	1162	LAUNCH	HEAT-TRANSFER	1264	07/72	N/A
AEDC	HWTB	1162	BOOSTER	HEAT-TRANSFER	1264	07/72	N/A
AEDC	HWTB	1162-1	ORBITER	HEAT-TRANSFER	1177	11/71	N/A
AEDC	HWTB	1162-1	LAUNCH	HEAT-TRANSFER	1177	11/71	N/A
AEDC	HWTB	1162-1	BOOSTER	HEAT-TRANSFER	1177	11/71	N/A
AEDC	HWTB	1162-4	BOOSTER	HEAT-TRANSFER	1207	08/72 REV. 01	N/A
AEDC	HWTB	1162-4	ORBITER	HEAT-TRANSFER	1207	08/72 REV. 01	N/A
AEDC	HWTB	1162-5	ORBITER	AIRLOADS	1225	01/72	N/A
AEDC	HWTB	1162-5	BOOSTER	AIRLOADS	1225	01/72	N/A
AEDC	HWTB	1162-9	ORBITER	HEAT-TRANSFER	1231	04/72	N/A
AEDC	HWTB	1162-9	ORBITER	HEAT-TRANSFER	1262	06/72	N/A
AEDC	HWTB	1162-9	LAUNCH	HEAT-TRANSFER	1262	06/72	N/A
AEDC	HWTB	1162-9	BOOSTER	HEAT-TRANSFER	1262	06/72	N/A
AEDC	HWTC	VT0055	BOOSTER	AERODYNAMICS	1006	07/70	T4
AEDC	HWTF	1162-F00	ORBITER	HEAT-TRANSFER	1224	04/72	N/A
AEDC	PWT16T	TF-250	BOOSTER	AIRLOADS	1125	10/71	T7
AEDC	PWT4T	TC135	ORBITER	AERODYNAMICS	1092	07/71	RT
AEDC	PWT4T	TC174-PC1154	LAUNCH	AIRLOADS	1222	02/73	TC
AEDC	PWT4T	TC174-PC1154	BOOSTER	AIRLOADS	1222	02/73	TC
AEDC	SWTA	1162-F00	ORBITER	HEAT-TRANSFER	1206	05/72	N/A

ORIGINAL PAGE IS
OF POOR QUALITY

Table 5 - Continued

Space Shuttle Phase B Facility
Wind Tunnel Summary

FACILITY	SUBFACILITY	FACILITY TEST NUMBER	VEHICLE COMPONENT	TEST DISCIPLINE	DMS-DR#	PUB. DATE	DATASET CODE
AEDC	SWTA	1163	LAUNCH	AERODYNAMICS	1108	07/71	T8
AEDC	SWTA	1163	LAUNCH	AIRLOADS	1174	06/72	T8
AEDC	SWTA	1163	BOOSTER	AERODYNAMICS	1108	07/71	T8
AEDC	SWTA	1163	ORBITER	AERODYNAMICS	1108	07/71	T8
ARC	11TWT	481-1	ORBITER	AERODYNAMICS	1012	09/70	A5
ARC	11TWT	628	ORBITER	AERODYNAMICS	1250	04/72	BF
ARC	11TWT	629	LAUNCH	AERODYNAMICS	1267	09/72	BG
ARC	3.5HWT	104	ORBITER	AERODYNAMICS	1072	03/71	AJ
ARC	3.5HWT	105	BOOSTER	HEAT-TRANSFER	1179	10/71	N/A
ARC	3.5HWT	105	BOOSTER	HEAT-TRANSFER	1134	01/72	DO
ARC	3.5HWT	106	ORBITER	HEAT-TRANSFER	1131	01/72	CO
ARC	3.5HWT	106	ORBITER	HEAT-TRANSFER	1180	10/71	N/A
ARC	3.5HWT	109A	ORBITER	AERODYNAMICS	1104	08/71	AK
ARC	3.5HWT	111/113	ORBITER	AERODYNAMICS	1071	03/71	AH
ARC	3.5HWT	112	BOOSTER	AERODYNAMICS	1080	04/71	AL
ARC	3.5HWT	125	ORBITER	AERODYNAMICS	1094	01/72	AX
ARC	3.5HWT	131	ORBITER	HEAT-TRANSFER	1252	04/72	N/A
ARC	3.5HWT	78	ORBITER	AERODYNAMICS	1002	06/70	A6
ARC	3.5HWT	88	ORBITER	AERODYNAMICS	1031	11/70	A4
ARC	66SWT	465	ORBITER	AERODYNAMICS	1011	09/70	A7
ARC	66SWT	484	ORBITER	AERODYNAMICS	1021	10/70	A3
ARC	66SWT	486	BOOSTER	AERODYNAMICS	1038	09/72 REV. 01	AA
ARC	66SWT	486	LAUNCH	AERODYNAMICS	1038	09/72 REV. 01	AA

Table 5 - Continued

Space Shuttle Phase B Facility
Wind Tunnel Summary

FACILITY	SUBFACILITY	FACILITY TEST NUMBER	VEHICLE COMPONENT	TEST DISCIPLINE	DMS-DR#	PUB. DATE	DATASET CODE
ARC	66SWT	488	LAUNCH	AERODYNAMICS	1042	12/70	AN
ARC	66SWT	503	ORBITER	AERODYNAMICS	1026	10/70	AE
ARC	66SWT	503/513	ORBITER	AERODYNAMICS	1082	06/71	AF
ARC	66SWT	503/513	ORBITER	AERODYNAMICS	1078	06/71	AF
ARC	66SWT	504	BOOSTER	AERODYNAMICS	1066	02/71	AD
ARC	66SWT	505	BOOSTER	AERODYNAMICS	1050	01/71	AG
ARC	66SWT	505	LAUNCH	AERODYNAMICS	1050	01/71	AG
ARC	66SWT	508	LAUNCH	AERODYNAMICS	1065	04/71	AB
ARC	66SWT	509	ORBITER	AIRLOADS	1129	08/72	AX
ARC	66SWT	509	LAUNCH	AIRLOADS	1129	08/72	AX
ARC	66SWT	509	BOOSTER	AIRLOADS	1129	08/72	AX
ARC	66SWT	510	BOOSTER	AERODYNAMICS	1116	08/71	AR
ARC	66SWT	511	LAUNCH	AERODYNAMICS	1075	10/72	AH
ARC	66SWT	511	BOOSTER	AERODYNAMICS	1075	10/72	AH
ARC	66SWT	512	LAUNCH	AERODYNAMICS	1118	12/72	AC
ARC	66SWT	514	ORBITER	AERODYNAMICS	1028	12/70	A9
ARC	66SWT	522	BOOSTER	AERODYNAMICS	1089	05/71	RL
ARC	66SWT	522	BOOSTER	AERODYNAMICS	1046	01/71	AO
ARC	66SWT	524	LAUNCH	AERODYNAMICS	1063	03/71	AO
ARC	66SWT	526	BOOSTER	AERODYNAMICS	1121	08/71 REV. 01	AS
ARC	66SWT	527	ORBITER	AERODYNAMICS	1083	06/71	AT
ARC	66SWT	542	LAUNCH	AERODYNAMICS	1085	05/71	AV
ARC	66SWT	546	LAUNCH	AERODYNAMICS	1122	05/72	AW
ARC	66SWT	547	ORBITER	AERODYNAMICS	1112	12/71	8B

ORIGINAL PAGE IS
OF POOR QUALITY

Table 5 - Continued

Space Shuttle Phase B Facility
Wind Tunnel Summary

FACILITY	SUBFACILITY	FACILITY TEST NUMBER	VEHICLE COMPONENT	TEST DISCIPLINE	DMS-DR#	PUB. DATE	DATASET CODE
ARC	66SWT	548	LAUNCH	AERODYNAMICS	1127	09/72	AZ
ARC	66SWT	550	BOOSTER	AERODYNAMICS	1111	04/72	BD
ARC	66SWT	551	LAUNCH	AERODYNAMICS	1137	12/71	BC
ARC	66SWT	557	LAUNCH	AERODYNAMICS	1099	02/72	AY
ARC	66SWT	561	LAUNCH	AERODYNAMICS	1136	02/72	BC
ARC	66SWT	561	LAUNCH	AIRLOADS	1136	02/72	BC
ARC	66SWT	563	BOOSTER	AERODYNAMICS	1141	05/72	BA
ARC	66SWT	605	ORBITER	AERODYNAMICS	1202	02/72	BE
ARC	97SWT	629	LAUNCH	AERODYNAMICS	1267	09/72	BG
CAL	8TWT	18-063	BOOSTER	AERODYNAMICS	1212	02/72	U9
CAL	96HST	H/T MDAC	ORBITER	HEAT-TRANSFER	1170	01/72	N/A
CAL	96HST	H/T MDAC	BOOSTER	HEAT-TRANSFER	1170	01/72	N/A
CAL	96HST	H/T MDAC	LAUNCH	HEAT-TRANSFER	1170	01/72	N/A
GAC	15SWT	022	ORBITER	AERODYNAMICS	1163	09/71	CS
GAC	26TWT	035	ORBITER	AERODYNAMICS	1161	08/71	CR
GAC	36HWT	017	ORBITER	HEAT-TRANSFER	1154	07/71	N/A
GAC	36HWT	019	ORBITER	AERODYNAMICS	1159	09/71	CT
GAC	36HWT	020	BOOSTER	AERODYNAMICS	1158	11/71	CX
GAC	710SWT	279	ORBITER	AERODYNAMICS	1053	01/71	CL
GAC	710SWT	280	ORBITER	AERODYNAMICS	1005	07/70	C3
GAC	710SWT	289	ORBITER	AERODYNAMICS	1081	04/71	CO
GAC	710SWT	290	ORBITER	AERODYNAMICS	1142	09/71	CW
GAC	710SWT	292	ORBITER	AERODYNAMICS	1167	11/71	D1
GDC	18HWT	247-0	BOOSTER	AERODYNAMICS	1029	12/70	C9

Table 5 - Continued

Space Shuttle Phase B Facility
Wind Tunnel Summary

FACILITY	SUBFACILITY	FACILITY TEST NUMBER	VEHICLE COMPONENT	TEST DISCIPLINE	DMS-DR#	PUB. DATE	DATASET CODE
GDC	4HSWT	291-0	BOOSTER	AERODYNAMICS	1025	10/70	C6
GDC	4HSWT	304-0	LAUNCH	AERODYNAMICS	1052	03/71	CA
GDC	4HSWT	304-0	ORBITER	AERODYNAMICS	1052	03/71	CA
GDC	4HSWT	304-0	BOOSTER	AERODYNAMICS	1052	03/71	CA
GDC	812SWT	579-0	BOOSTER	AERODYNAMICS	1030	11/70	C7
GDC	812SWT	580-0	BOOSTER	AERODYNAMICS	1039	01/71	C8
GDC	812SWT	587-0	BOOSTER	AERODYNAMICS	1109	08/71	CM
GDC	812SWT	587-1	BOOSTER	AERODYNAMICS	1110	08/71	CV
GDC	812SWT	603-0	BOOSTER	AERODYNAMICS	1223.	04/72	D4
JPL	20SWT	681	ORBITER	AERODYNAMICS	1221	05/72	GB
LARC	20HT6	1-20	BOOSTER	HEAT-TRANSFER	1244	03/72	N/A
LARC	20HT6	6315	ORBITER	AERODYNAMICS	1004	07/70	L1
LARC	20HT6	6329	ORBITER	AERODYNAMICS	1023	11/70	LA
LARC	20HT6	6355-6329	ORBITER	AERODYNAMICS	1048	01/71	LA
LARC	20HT6	6366	ORBITER	AERODYNAMICS	1095	06/71	LU
LARC	20HT6	6386-6387	LAUNCH	HEAT-TRANSFER	1238	08/72	HT
LARC	20HT6	6392	ORBITER	AERODYNAMICS	1203	03/72 REV. 01	MR
LARC	20HT6	6397	BOOSTER	AERODYNAMICS	1214	12/71	O4
LARC	20HT6	6398	BOOSTER	AERODYNAMICS	1220	02/72	O2
LARC	22HT	405	ORBITER	AERODYNAMICS	1270	08/72	ON
LARC	22HT	7341-7343	ORBITER	AERODYNAMICS	1009	09/70	L2
LARC	22HT	7369	ORBITER	AERODYNAMICS	1059	02/71	LH
LARC	22HT	7376	ORBITER	AERODYNAMICS	1068	04/71	LV
LARC	22HT	7377	ORBITER	AERODYNAMICS	1086	06/71	LZ

Table 5 - Continued

Space Shuttle Phase B Facility
Wind Tunnel Summary

FACILITY	SUBFACILITY	FACILITY TEST NUMBER	VEHICLE COMPONENT	TEST DISCIPLINE	DMS-DR#	PUB. DATE	DATASET CODE
LARC	22HT	7377-79,7380-90	BOOSTER	AERODYNAMICS	1190	02/72	MU
LARC	22HT	7377-79,7380-90	ORBITER	AERODYNAMICS	1190	02/72	MU
LARC	22HT	7377-79,7380-90	LAUNCH	AERODYNAMICS	1190	02/72	MU
LARC	22HT	7386-7390	ORBITER	AERODYNAMICS	1176	01/72	MT
LARC	22HT	7397	ORBITER	AERODYNAMICS	1211	02/72	MS
LARC	22HT	7398	ORBITER	AERODYNAMICS	1218	06/72	O6
LARC	44SPT	430	ORBITER	AERODYNAMICS	1199	05/72	MX
LARC	44SPT	432	ORBITER	AERODYNAMICS	1175	01/72	LY
LARC	44SPT	438	ORBITER	AERODYNAMICS	1171	12/71	MJ
LARC	6HRNT	489	BOOSTER	HEAT-TRANSFER	1236	02/72	N/A
LARC	710SWT	905	ORBITER	AERODYNAMICS	1022	10/70	L8
LARC	8TPT	573	ORBITER	AERODYNAMICS	1105	09/71	LO
LARC	8TPT	574	ORBITER	AERODYNAMICS	1097	06/71	MO
LARC	8TPT	595	ORBITER	AERODYNAMICS	1171	12/71	MJ
LARC	8TPT	604	ORBITER	AERODYNAMICS	1195	12/71	MN
LARC	8TPT	605	BOOSTER	AERODYNAMICS	1200	03/72	MZ
LARC	8TPT	605	LAUNCH	AERODYNAMICS	1200	03/72	MZ
LARC	8VDHT	1-58	ORBITER	HEAT-TRANSFER	1056	01/71	N/A
LARC	8VDHT	1075-1107	LAUNCH	HEAT-TRANSFER	1143	06/71	N/A
LARC	8VDHT	1204-1213	BOOSTER	HEAT-TRANSFER	1138	07/71	N/A
LARC	8VDHT	123-136,180-188	BOOSTER	HEAT-TRANSFER	1024	10/70	N/A
LARC	8VDHT	1237-1297	LAUNCH	HEAT-TRANSFER	1145	07/71	N/A
LARC	8VDHT	1237-1297	BOOSTER	HEAT-TRANSFER	1145	07/71	N/A
LARC	8VDHT	137-146,189-205	ORBITER	HEAT-TRANSFER	1032	11/70	N/A

Table 5 - Continued

Space Shuttle Phase B Facility
Wind Tunnel Summary

FACILITY	SUBFACILITY	FACILITY TEST NUMBER	VEHICLE COMPONENT	TEST DISCIPLINE	DMS-DR#	PUB. DATE	DATASET CODE
LARC	8VDHT	137-146,189-205	BOOSTER	HEAT-TRANSFER	1032	11/70	N/A
LARC	8VDHT	137-146,189-205	LAUNCH	HEAT-TRANSFER	1032	11/70	N/A
LARC	8VDHT	147-179,206-322	BOOSTER	HEAT-TRANSFER	1036	12/70	N/A
LARC	8VDHT	147-179,206-322	LAUNCH	HEAT-TRANSFER	1036	12/70	N/A
LARC	8VDHT	1948-2000	LAUNCH	HEAT-TRANSFER	1234	04/72	N/A
LARC	8VDHT	1948-2000	ORBITER	HEAT-TRANSFER	1234	04/72	N/A
LARC	8VDHT	2505-2565	BOOSTER	HEAT-TRANSFER	1261	06/72	N/A
LARC	8VDHT	2505-2565	LAUNCH	HEAT-TRANSFER	1261	06/72	N/A
LARC	8VDHT	2886-2929	LAUNCH	HEAT-TRANSFER	1278	10/72	N/A
LARC	8VDHT	703-766	BOOSTER	HEAT-TRANSFER	1070	03/71	N/A
LARC	8VDHT	823-887	ORBITER	HEAT-TRANSFER	1165	08/71	N/A
LARC	CFHT	50	LAUNCH	HEAT-TRANSFER	1016	09/70	N/A
LARC	CFHT	51	ORBITER	HEAT-TRANSFER	1056	01/71	N/A
LARC	CFHT	52	BOOSTER	HEAT-TRANSFER	1020	10/70	N/A
LARC	CFHT	53	BOOSTER	HEAT-TRANSFER	1036	12/70	N/A
LARC	CFHT	53	LAUNCH	HEAT-TRANSFER	1036	12/70	N/A
LARC	CFHT	54	LAUNCH	AERODYNAMICS	1047	01/71	LB
LARC	CFHT	54	LAUNCH	AERODYNAMICS	1061	02/71	LC
LARC	CFHT	61	ORBITER	AERODYNAMICS	1123	01/72	LT
LARC	CFHT	62	ORBITER	AERODYNAMICS	1113	07/71	M9
LARC	CFHT	63	ORBITER	AERODYNAMICS	1084	08/71	LQ
LARC	CFHT	64	BOOSTER	AERODYNAMICS	1093	05/71	LG
LARC	CFHT	66	ORBITER	HEAT-TRANSFER	1146	07/71	N/A
LARC	CFHT	68/71	ORBITER	AERODYNAMICS	1151	11/71	M4

Table 5 - Continued

Space Shuttle Phase B Facility
Wind Tunnel Summary

FACILITY	SUBFACILITY	FACILITY TEST NUMBER	VEHICLE COMPONENT	TEST DISCIPLINE	DMS-DR#	PUB. DATE	DATASET CODE
LARC	CFHT	69	LAUNCH	HEAT-TRANSFER	1178	10/71	N/A
LARC	CFHT	69	ORBITER	HEAT-TRANSFER	1178	10/71	N/A
LARC	CFHT	70	BOOSTER	AERODYNAMICS	1156	12/71	MB
LARC	CFHT	74	LAUNCH	AERODYNAMICS	1198	01/72	MY
LARC	CFHT	74	BOOSTER	AERODYNAMICS	1198	01/72	MY
LARC	CFHT	76	ORBITER	AERODYNAMICS	1194	12/71	MQ
LARC	CFHT	78	LAUNCH	HEAT-TRANSFER	1260	09/72	OK
LARC	CFHT	80	ORBITER	AERODYNAMICS	1219	05/72	O5
LARC	CFHT	85	ORBITER	AERODYNAMICS	1277	09/72	OO
LARC	LTPT	103	ORBITER	AERODYNAMICS	1268	08/72	OH
LARC	LTPT	47	BOOSTER	AERODYNAMICS	1015	09/70	L6
LARC	LTPT	49	ORBITER	AERODYNAMICS	1018	10/70	L7
LARC	LTPT	50	ORBITER	AERODYNAMICS	1013	09/70	L3
LARC	LTPT	50-2	ORBITER	AERODYNAMICS	1045	01/71	LF
LARC	LTPT	52	ORBITER	AERODYNAMICS	1049	11/71	L9
LARC	LTPT	545	ORBITER	AERODYNAMICS	1064	03/71	LD
LARC	LTPT	55	BOOSTER	AERODYNAMICS	1100	07/71	LE
LARC	LTPT	57	ORBITER	AERODYNAMICS	1106	07/71	LN
LARC	LTPT	58	ORBITER	AERODYNAMICS	1107	06/71	M1
LARC	LTPT	59	BOOSTER	AERODYNAMICS	1087	07/71	LS
LARC	LTPT	62	ORBITER	AERODYNAMICS	1149	08/71	MF
LARC	LTPT	63	ORBITER	AERODYNAMICS	1157	09/71	MG
LARC	LTPT	64	BOOSTER	AERODYNAMICS	1150	10/71	MC
LARC	LTPT	65	ORBITER	AERODYNAMICS	1168	11/71	M5

Table 5 - Continued

Space Shuttle Phase B Facility
Wind Tunnel Summary

FACILITY	SUBFACILITY	FACILITY TEST NUMBER	VEHICLE COMPONENT	TEST DISCIPLINE	DMS-DR#	PUB. DATE	DATASET CODE
LARC	LTPT	69	ORBITER	AERODYNAMICS	1169	04/72	MI
LARC	LTPT	71	ORBITER	AERODYNAMICS	1172	12/71	ML
LARC	LTPT	72	ORBITER	AERODYNAMICS	1229	05/72	O7
LARC	LTPT	73	BOOSTER	AERODYNAMICS	1193	05/72	MV
LARC	LTPT	75	ORBITER	AERODYNAMICS	1189	12/71	MN
LARC	LTPT	77	ORBITER	AERODYNAMICS	1232	06/72	O9
LARC	LTPT	85	ORBITER	AERODYNAMICS	1215	01/72	O1
LARC	LTPT	86/88	ORBITER	AERODYNAMICS	1239	04/72	OE
LARC	LTPT	87	ORBITER	AERODYNAMICS	1233	04/72	EO
LARC	UPWT	886	BOOSTER	AERODYNAMICS	1017	10/70	L4
LARC	UPWT	913	BOOSTER	AERODYNAMICS	1019	09/70	L5
LARC	UPWT	9143	BOOSTER	AERODYNAMICS	1089	05/71	RL
LARC	UPWT	9143	BOOSTER	AERODYNAMICS	1068	03/71	RL
LARC	UPWT	922	ORBITER	AERODYNAMICS	1069	03/71	LI
LARC	UPWT	942	ORBITER	AERODYNAMICS	1173	12/71	MK
LARC	UPWT	944/961	ORBITER	AERODYNAMICS	1101	06/71	M7
LARC	UPWT	945	BOOSTER	HEAT-TRANSFER	1098	06/71	N/A
LARC	UPWT	945	LAUNCH	HEAT-TRANSFER	1098	06/71	N/A
LARC	UPWT	945	ORBITER	HEAT-TRANSFER	1098	06/71	N/A
LARC	UPWT	951	ORBITER	AERODYNAMICS	1096	05/71	LP
LARC	UPWT	951B	ORBITER	AERODYNAMICS	1144	09/71	MD
LARC	UPWT	955	ORBITER	AERODYNAMICS	1103	06/71	M2
LARC	UPWT	962	LAUNCH	AERODYNAMICS	1197	03/72	MW
LARC	UPWT	962	BOOSTER	AERODYNAMICS	1197	03/72	MW

Table 5 - Continued

Space Shuttle Phase B Facility
Wind Tunnel Summary

FACILITY	SUBFACILITY	FACILITY TEST NUMBER	VEHICLE COMPONENT	TEST DISCIPLINE	DMS-DR#	PUB. DATE	DATASET CODE
LARC	UPWT	963	ORBITER	AERODYNAMICS	1117	09/71	LR
LARC	UPWT	963	BOOSTER	AERODYNAMICS	1117	09/71	LR
LARC	UPWT	963	LAUNCH	AERODYNAMICS	1117	09/71	LR
LARC	UPWT	964	ORBITER	AERODYNAMICS	1196	01/72	MN
LARC	UPWT	964/969	ORBITER	AERODYNAMICS	1216	05/72	MO
LARC	UPWT	966	LAUNCH	AERODYNAMICS	1237	05/72	OB
LARC	UPWT	966	ORBITER	AERODYNAMICS	1237	05/72	OB
LARC	UPWT	966	BOOSTER	AERODYNAMICS	1237	05/72	OB
LARC	UPWT	967	LAUNCH	HEAT-TRANSFER	1263	09/72 REV. A	OL
LARC	UPWT	968	ORBITER	AERODYNAMICS	1232	06/72	O9
LARC	UPWT	970	ORBITER	AERODYNAMICS	1235	05/72	OC
LARC	UPWT	979	ORBITER	AERODYNAMICS	1258	05/72	OF
LARC	UPWT	981	LAUNCH	AERODYNAMICS	1265	01/73	OH
LARC	V/STOL	007	ORBITER	AERODYNAMICS	1147	09/71	ME
LTV	HSWT	S-28	LAUNCH	AERODYNAMICS	1058	02/71	CH
LTV	HSWT	S-30	ORBITER	AERODYNAMICS	1115	08/71	CU
LTV	HSWT	S-30	BOOSTER	AERODYNAMICS	1115	08/71	CU
LTV	HSWT	S-30	LAUNCH	AERODYNAMICS	1115	08/71	CU
MAC	LSWT	132	BOOSTER	AERODYNAMICS	1014	10/70	C2
MAC	LSWT	1351	BOOSTER	AERODYNAMICS	1035	12/70	CC
MAC	LSWT	138	ORBITER	AERODYNAMICS	1074	04/71	CN
MAC	LSWT	223	ORBITER	AERODYNAMICS	1007	08/70	C1
MAC	LSWT	235	ORBITER	AERODYNAMICS	1040	12/70	CB
MAC	LSWT	237	ORBITER	AERODYNAMICS	1090	05/71	CD

Table 5 - Continued

Space Shuttle Phase B Facility
Wind Tunnel Summary

FACILITY	SUBFACILITY	FACILITY TEST NUMBER	VEHICLE COMPONENT	TEST DISCIPLINE	DMS-DR#	PUB. DATE	DATASET CODE
MAC	LSWT	239	BOOSTER	AERODYNAMICS	1054	02/71	CE
MAC	LSWT	240	ORBITER	AERODYNAMICS	1041	01/71	CF
MAC	LSWT	248	ORBITER	AERODYNAMICS	1067	03/71	CP
MAC	LSWT	249	BOOSTER	AERODYNAMICS	1077	04/71	CO
MAC	LSWT	258	BOOSTER	AERODYNAMICS	1120	08/71	CZ
MDAC	4TWT	S-222	LAUNCH	AERODYNAMICS	1230	11/72	D7
MDAC	4TWT	S-222	BOOSTER	AERODYNAMICS	1230	11/72	D7
MDAC	4TWT	S-222	ORBITER	AERODYNAMICS	1230	11/72	D7
MSFC	14TWT	451	BOOSTER	AERODYNAMICS	1001	06/70	19
MSFC	14TWT	453	ORBITER	AERODYNAMICS	1003	07/70	17
MSFC	14TWT	466	LAUNCH	AERODYNAMICS	1051	03/71	22
MSFC	14TWT	466	BOOSTER	AERODYNAMICS	1051	03/71	22
MSFC	14TWT	468	ORBITER	AERODYNAMICS	1027	10/70	21
MSFC	14TWT	470	LAUNCH	AERODYNAMICS	1044	02/71	24
MSFC	14TWT	471	ORBITER	AERODYNAMICS	1043	02/71	23
MSFC	14TWT	476	LAUNCH	AERODYNAMICS	1055	02/71	25
MSFC	14TWT	477	ORBITER	AERODYNAMICS	1114	09/71	26
MSFC	14TWT	478	ORBITER	AERODYNAMICS	1076	04/71	27
MSFC	14TWT	481	BOOSTER	AERODYNAMICS	1102	03/72	28
MSFC	14TWT	484	ORBITER	AERODYNAMICS	1126	09/71	29
MSFC	14TWT	485	LAUNCH	AERODYNAMICS	1091	05/71	30
MSFC	14TWT	489	LAUNCH	AERODYNAMICS	1119	07/71	31
MSFC	14TWT	490	LAUNCH	AERODYNAMICS	1130	03/72	32
MSFC	14TWT	490	BOOSTER	AERODYNAMICS	1130	03/72	32

Table 5 - Continued

Space Shuttle Phase B Facility
Wind Tunnel Summary

FACILITY	SUBFACILITY	FACILITY TEST NUMBER	VEHICLE COMPONENT	TEST DISCIPLINE	DMS-DR#	PUB. DATE	DATASET CODE
MSFC	14TWT	491	LAUNCH	AERODYNAMICS	1140	08/71	33
MSFC	14TWT	492	BOOSTER	AERODYNAMICS	1148	09/71	34
MSFC	14TWT	492	LAUNCH	AERODYNAMICS	1148	09/71	34
MSFC	14TWT	493	BOOSTER	AERODYNAMICS	1152	09/71	35
MSFC	14TWT	494	ORBITER	AERODYNAMICS	1153	10/71	36
MSFC	14TWT	495	BOOSTER	AERODYNAMICS	1155	09/71	37
MSFC	14TWT	496	BOOSTER	AERODYNAMICS	1160	10/72	38
MSFC	14TWT	497	BOOSTER	AERODYNAMICS	1162	10/71	39
MSFC	14TWT	497	LAUNCH	AERODYNAMICS	1162	10/71	39
MSFC	14TWT	497	ORBITER	AERODYNAMICS	1162	10/71	39
MSFC	14TWT	498	ORBITER	AERODYNAMICS	1201	03/72	41
MSFC	14TWT	501	LAUNCH	AERODYNAMICS	1166	09/71	43
MSFC	14TWT	502	LAUNCH	AERODYNAMICS	1187	07/72	44
MSFC	14TWT	502	ORBITER	AERODYNAMICS	1187	07/72	44
MSFC	14TWT	503	LAUNCH	AERODYNAMICS	1188	02/72	45
MSFC	14TWT	504	LAUNCH	AERODYNAMICS	1181	01/72	46
MSFC	14TWT	505	LAUNCH	AERODYNAMICS	1182	02/72	47
MSFC	14TWT	505	ORBITER	AERODYNAMICS	1182	02/72	47
MSFC	14TWT	506	LAUNCH	AERODYNAMICS	1183	10/71	48
MSFC	14TWT	506	BOOSTER	AERODYNAMICS	1183	10/71	48
MSFC	14TWT	507	ORBITER	AERODYNAMICS	1184	06/72	49
MSFC	14TWT	509	LAUNCH	AERODYNAMICS	1185	02/72	51
MSFC	14TWT	509	ORBITER	AERODYNAMICS	1185	02/72	51
MSFC	14TWT	510	ORBITER	AERODYNAMICS	1186	11/71	52

Table 5 - Continued

Space Shuttle Phase B Facility
Wind Tunnel Summary

FACILITY	SUBFACILITY	FACILITY TEST NUMBER	VEHICLE COMPONENT	TEST DISCIPLINE	DMS-DR#	PUB. DATE	DATASET CODE
MSFC	14TWT	512	BOOSTER	AERODYNAMICS	1204	12/71	50
MSFC	14TWT	512	LAUNCH	AERODYNAMICS	1204	12/71	50
MSFC	14TWT	513	BOOSTER	AERODYNAMICS	1209	04/72	53
MSFC	14TWT	514	BOOSTER	AERODYNAMICS	1210	02/72	58
MSFC	14TWT	514	LAUNCH	AERODYNAMICS	1210	02/72	58
MSFC	14TWT	517	LAUNCH	AERODYNAMICS	1213	02/72	56
MSFC	14TWT	517	BOOSTER	AERODYNAMICS	1213	02/72	56
MSFC	14TWT	518	BOOSTER	AERODYNAMICS	1208	01/72	54
MSFC	14TWT	521	BOOSTER	AERODYNAMICS	1226	05/72	55
MSFC	14TWT	523	LAUNCH	AERODYNAMICS	1227	02/72	57
MSFC	14TWT	523	BOOSTER	AERODYNAMICS	1227	02/72	57
MSFC	14TWT	524	BOOSTER	AERODYNAMICS	1240	04/72	59
MSFC	14TWT	526	BOOSTER	AERODYNAMICS	1242	06/72	61
MSFC	14TWT	528	ORBITER	AERODYNAMICS	1243	03/72	62
MSFC	14TWT	529	BOOSTER	AERODYNAMICS	1245	04/72	63
MSFC	14TWT	531	LAUNCH	AERODYNAMICS	1241	06/72	60
MSFC	14TWT	534	LAUNCH	AERODYNAMICS	1249	04/72	65
MSFC	14TWT	538	LAUNCH	AERODYNAMICS	1251	04/72	66
MSFC	14TWT	540	LAUNCH	AIRLOADS	1259	01/73	67
MSFC	14TWT	540	ORBITER	AIRLOADS	1259	01/73	67
MSFC	14TWT	541	BOOSTER	AERODYNAMICS	1253	09/72	68
MSFC	14TWT	542	ORBITER	AERODYNAMICS	1254	08/72	69
MSFC	14TWT	543	LAUNCH	AIRLOADS	1255	03/73	70
MSFC	14TWT	544	LAUNCH	AERODYNAMICS	1256	08/72	71

Table 5 - Continued

Space Shuttle Phase B Facility
Wind Tunnel Summary

FACILITY	SUBFACILITY	FACILITY TEST NUMBER	VEHICLE COMPONENT	TEST DISCIPLINE	DMS-DR#	PUB. DATE	DATASET CODE
MSFC	14TWT	544X	LAUNCH	AERODYNAMICS	1272	10/72	71
MSFC	14TWT	550	LAUNCH	AIRLOADS	1273	01/73	73
MSFC	14TWT	551	ORBITER	AERODYNAMICS	1274	09/72	74
NRLAD	LSWT	629	ORBITER	AERODYNAMICS	1010	08/70	C4
NRLAD	LSWT	630	ORBITER	AERODYNAMICS	1037	01/71	C5
NRLAD	LSWT	632	ORBITER	AERODYNAMICS	1034	11/70	CG
NRLAD	LSWT	633	ORBITER	AERODYNAMICS	1124	07/71	CJ
NSRDC	710TWT	3110	BOOSTER	AERODYNAMICS	1139	10/71	N2
NSRDC	710TWT	3210	BOOSTER	AERODYNAMICS	1164	02/72	N3
NSRDC	710TWT	3310	BOOSTER	AERODYNAMICS	1192	05/72	N4
TAM	710SWT	S-18/S-35	ORBITER	AERODYNAMICS	1057	02/71	G3
TAM	710SWT	S-38	ORBITER	AERODYNAMICS	1062	02/71	G7
TAM	710SWT	S-39	ORBITER	AERODYNAMICS	1073	04/71	G2
TAM	710SWT	S-8-1	ORBITER	AERODYNAMICS	1060	03/71	G6
TAM	710SWT	S-8-2	ORBITER	AERODYNAMICS	1205	10/72	RG
TAM	710SWT	S-VI	ORBITER	AERODYNAMICS	1008	08/70	G1
TAM	710SWT	S-XXIV	BOOSTER	AERODYNAMICS	1033	12/70	G4
TBC	B4SWT	553	BOOSTER	AERODYNAMICS	1228	06/72	D4
TBC	B4SWT	557	BOOSTER	AERODYNAMICS	1276	09/72	D9
TBC	B4SWT	557	BOOSTER	AERODYNAMICS	1275	11/72	D8
TBC	B4SWT	558	BOOSTER	AERODYNAMICS	1128	08/72	DC
TBC	BTWT	1265	BOOSTER	AERODYNAMICS	1191	02/72	D2
TBC	BTWT	1273	BOOSTER	AERODYNAMICS	1228	06/72	D4
TBC	BTWT	1282	BOOSTER	AERODYNAMICS	1276	09/72	D9

Table 5 - Concluded

Space Shuttle Phase B Facility
Wind Tunnel Summary

FACILITY	SUBFACILITY	FACILITY TEST NUMBER	VEHICLE COMPONENT	TEST DISCIPLINE	DMS-DR#	PUB. DATE	DATASET CODE
TBC	BTWT	1282	BOOSTER	AERODYNAMICS	1275	11/72	D8
UW	812SWT	1021	BOOSTER	AERODYNAMICS	1079	07/71 REV. 01	U1

TABLE 6.1

SPACE SHUTTLE PHASE B
DIGITAL DATABASE
BOOSTER AERODYNAMICS

FILE #	BCC	B-CONTRA	DR#	2-CHAR. CODE	# D/S's	# RECORDS
1	B1	MDAC	1035	CC	69	967
2			1139	N2	574	8037
3		MDAC/MMC	1054	CE	208	2185
4			1066	AD	86	1033
5			1077	CØ	96	1057
6			1080	AL	126	1387
7			1116	AR	76	799
8			1120	CZ	180	1981
9		MSFC	1164	N3	207	2899
10			1212	U9	132	1849
11	B2	LMSC	1242	61	112	1569
12		MSFC	1208	54	70	876
13			1226	55	33	463
14			1240	59	45	631
15			1245	63	15	211
16			1253	68	56	673
17		TBC	1128	DC	33	430
18			1214	Ø4	22	254
19			1228	D4	48	673
20			1275	D8	104	1249
21			1276	D9	16	209
22	B3/B4	GD/C	1029	C9	39	547
23			1030	C7	134	1877
24			1039	C8	108	1513
25	B3		1087	LS	68	753
26			1093	LG	88	1013
27			1102	28	106	1326
28			1109	CM	109	1527

TABLE 6.1 (Concluded)

SPACE SHUTTLE PHASE B
DIGITAL DATABASE
BOOSTER AERODYNAMICS

FILE #	BCC	B-CONTRA	DR#	2-CHAR. CODE	# D/S's	# RECORDS
29	B3	GD/C	1110	CV	90	1261
30			1121	AS	34	409
31			1141	BA	38	438
32			1152	35	26	365
33			1155	37	84	1009
34			1156	MB	78	937
35			1223	D6	96	1345
36		MDAC	1014	C2	17	239
37		MSFC	1001	19	107	1392
38		TBC	1209	53	85	1191
39			1220	Ø2	18	253
40	B4	GD/C	1025	C6	72	757
41			1100	LE	35	491
42		MSC	1033	G4	25	351
43		TBC	1079	U1	46	553
44			1111	BD	20	221
45			1158	CX	70	806
46			1191	D2	46	576
47	B5	CCSD	1046	AQ	14	169
48			1068	LL	12	169
49		GD/C	1006	T4	70	946
50		LARC	1015	L6	29	233
51			1017	L4	80	921
52			1019	L5	34	392
53			1193	MV	30	361

(THIS PAGE INTENTIONALLY LEFT BLANK)

APPENDEX

MODEL FIGURES

PRECEDING PAGE BLANK NOT FILMED

TEST MDAC-W, LSWT 135 DATA SET COLLATION SHEET

SHEET 1 of 4

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES δ_e	δ_F	Ω	Λ	NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) δ_{IN}	δ_{IJ}	δ_{IT}	δ_a			0.16	0.18			
RCC068	BINI	A	0	—	—	—	—		—	—	—	—				9			
069			-6	—	—	—	—		—	—	—	—				10			
064	BINITIF2PI		0	—	0	—	—		—	—	3	—				26			
065			-6	—	0	—	—		—	—		—				27			
066			0	—	20	—	—		—	—		—				42			
067			0	—	40	—	—		—	—		—				43			
062	BINIJI		0	—	—	—	—		—	3	—	—				12			
063			-6	—	—	—	—		—	3	—	—				11			
058	BINIWIEI		0	0	—	—	—		3	—	—	0				8			
059			-6	0	—	—	—			—	—					7		22	
052	BINIWIEITIF2PI		0	0	0	—	—			—	3					29			
053			-6		0	—	—			—	3					28			
050	BINIWIEIJI		0		—	—	—			3	—					5			
051			-6		—	—	—			3	—					6			
033	BINIWIEIVI		0		—	6	25			—	—					33			
034			-6		—					—	—					32			
035			0	-15	—					—	—					36			
036			0	-30	—					—	—					34			
037			0	15	—					—	—					35			

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CLM	CY	CYN	CRL	CA	CAF	CLF	CDF	L/D			

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

A) -6, -4, -2, 0, 2, 4, 6, 8, 10, 12, 14, 16

Ω FIN TOE-IN ANGLE

Λ FIN ROLL OUT ANGLE

CANARD BOOSTER

MDAC

DR#1035 A-1- 1

ORIGINAL PAGE IS OF POOR QUALITY

CANARD BOOSTER
MDAC
DR#1035 A-1- 2
SHEET 2 of 4

TEST MDAC-W, LSWT 1351 DATA SET COLLATION SHEET

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	δ_e	δ_F	Ω	Λ	NO. of RUNS	δ_{IW}	δ_{IT}	δ_{IT}	δ_a			0.16	0.18			
RCC005	BINIWIEIVITIF2PI	A	0	0	0	6	25		3	—	3	0				30			
006			-6	0	0					—		0				31			
007			0	0	40					—		0				53			
008			0	0	0					—		15			66				
009			0	-15	0					—		0				39			
010			0	-15	20					—						38			
011			0	-15	40					—						37			
012			0	-30	0					—						54			
013			0	15	0					—						40			
014			0	0	0	0				—						64			
015			-6	0	0	0				—						65			23
016			0	-15	0	0				—						71			
017	BINIWIEIV4TIF2PI		0	0	0	6				—						59			
018			-6	0	0					—						60			
001	BINIWIEIVIJI		0	0	—					3	—					2			
002			-6	0	—						—					1			
003			0	-15	—						—					4			
004			0	-30	—						—					3			
046	BINIWIEIV3		0	0	—	—	—			—	—					58			
047			-6	0	—	—	—			—	—					57			

1 7 13 19 25 31 37 43 49 55 61 67 75 76

CN	CLM	CY	CYN	CRL	CA	CAF	CLF	CDF	L/D

COEFFICIENTS: IDPVAR(1) IDPVAR(2) NDV

α or β SCHEDULES A) -4, -2, 0, 2, 4, 6, 8, 10, 12, 14, 16

Ω FIN TOE-IN ANGLE
Λ FIN ROLL OUT ANGLE

TEST MDAC-W, LSWT 1351 DATA SET COLLATION SHEET

SHEET 3 of 4

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES δ_e	δ_F	Ω	Λ	NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) δ_{IW}	δ_{IJ}	δ_{IT}	δ_a			0.16	0.18				
RCC 043	B1N1W1E1V3T1F2P1	A	0	0	0	–	–		3	–	3	0				62				
044			-6	0	0	–	–			–						61				
045			0	-15	0	–	–			–						63				
RCC 060	B1N1W2E1	A	0	0	–	–	–		3	–	–	0				22				
061			-6	0	–	–	–			–	–					23				
056	B1N1W2E1T1F2P1		0	0	0	–	–			–	3					25				
057			-6	0	0	–	–			–	3					24				
054	B1N1W2E1J1		0	0	–	–	–			3	–					13			24	
055			-6	0	–	–	–			3	–					14				
038	B1N1W2E1V1		0	0	–	6	25			–	–					21				
039			-6	0	–					–	–					20				
040			0	-15	–					–	–					51				
041			0	-30	–					–	–					49				
042			0	15	–					–	–					50				
019	B1N1W2E1V1J1		0	0	–					3	–					16				
020			-6	0	–					3	–					15				
021			0	-15	–					3	–					17				

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CLM	CY	CYN	CRL	CA	CAF	CLF	CDF	L/D			

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES: A) -6, -4, -2, 0, 2, 4, 6, 8, 10, 12, 14, 16

Ω FIN TOE-IN ANGLE

Λ FIN ROLL-OUT ANGLE

CANARD BOOSTER
MDAC
DR#1035 A-1-

ORIGINAL PAGE IS OF POOR QUALITY

CANARD BOOSTER
MDAC
DR#1035 A-1- 4
SHEET 4 of 4

☐ PRETEST
☒ POSTTEST

TEST MDAC-W, LSWT 1351 DATA SET COLLATION SHEET

DATA SET IDENTIFIER	CONFIGURATION	SCHD. u	SCHD. β	PARAMETERS/VALUES δ_e	δ_F	Ω	Λ	NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) δ_{IW}	δ_{II}	δ_{IT}	δ_a			0.16	0.18				
RCC022	B1N1W2E1V1T1F2P1	A	0	0	0	6	25		3	—	3	0				18				
023			-6	0	0					—						19				
024			0	-15	0					—						46				
025			0	-15	20					—						45				
026			0	-15	40					—						44				
027			0	-30	0					—						48				
028			0	15	0					—						47				
029			0	0	0	0				—						67				
030			-6	0	0					—						68				
031			0	-15	0					—						70				
032			-6	-15	0					—						69				
048	B1N1W2E1V3		0	0	—	—	—			—	—					55				
049			-6	0	—	—	—			—	—					56				

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CLM	CY	CYN	CRL	CA	CAF	CLF	CDF	L/D			

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

u or β SCHEDULES: A) -6, -4, -2, 0, 2, 4, 6, 8, 10, 12, 14, 16

Ω Fin Toe-In Angle
Λ Fin Roll-out Angle

NASA-MSFC-MAF

ORIGINAL PAGE IS OF POOR QUALITY

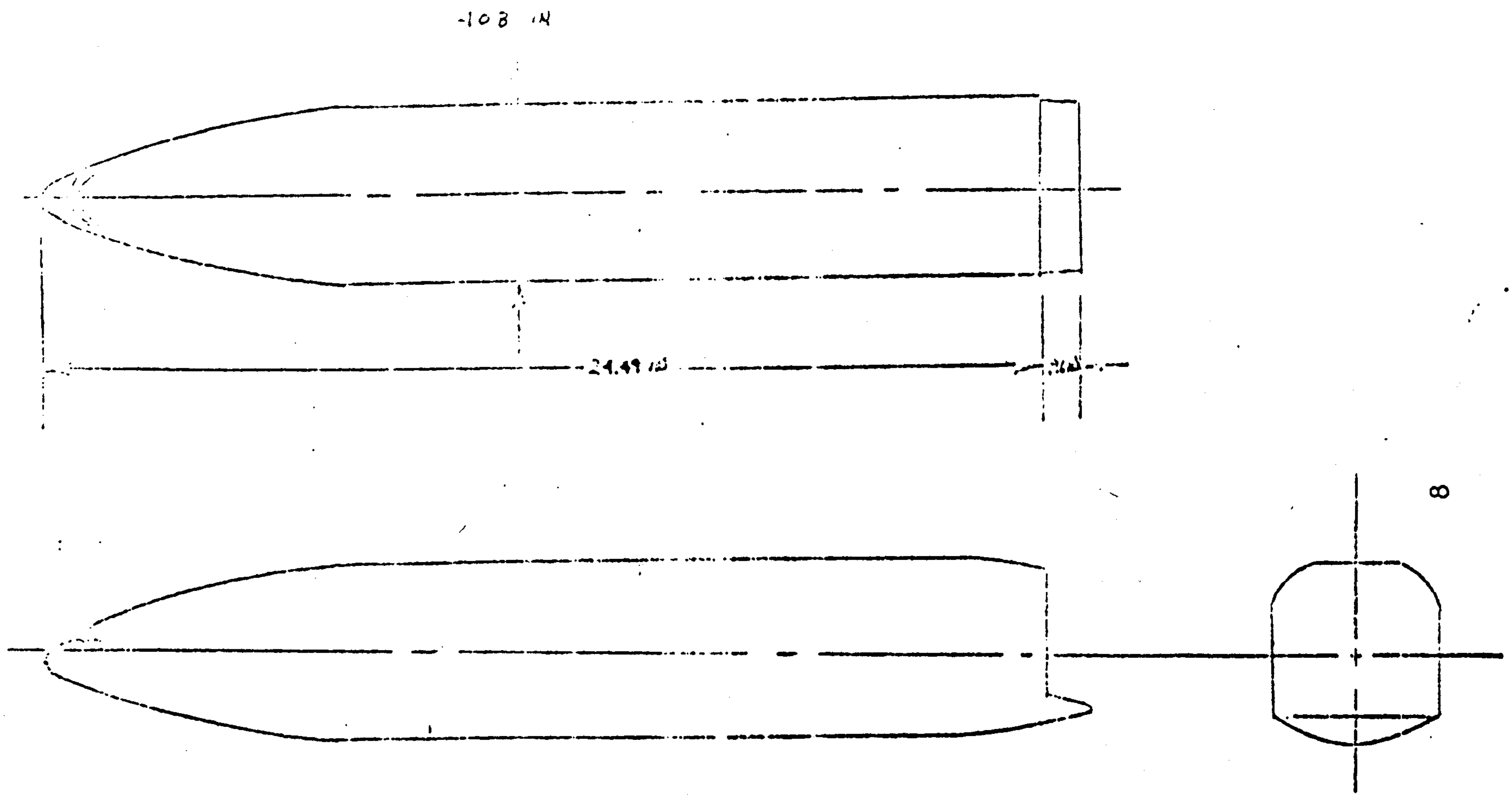


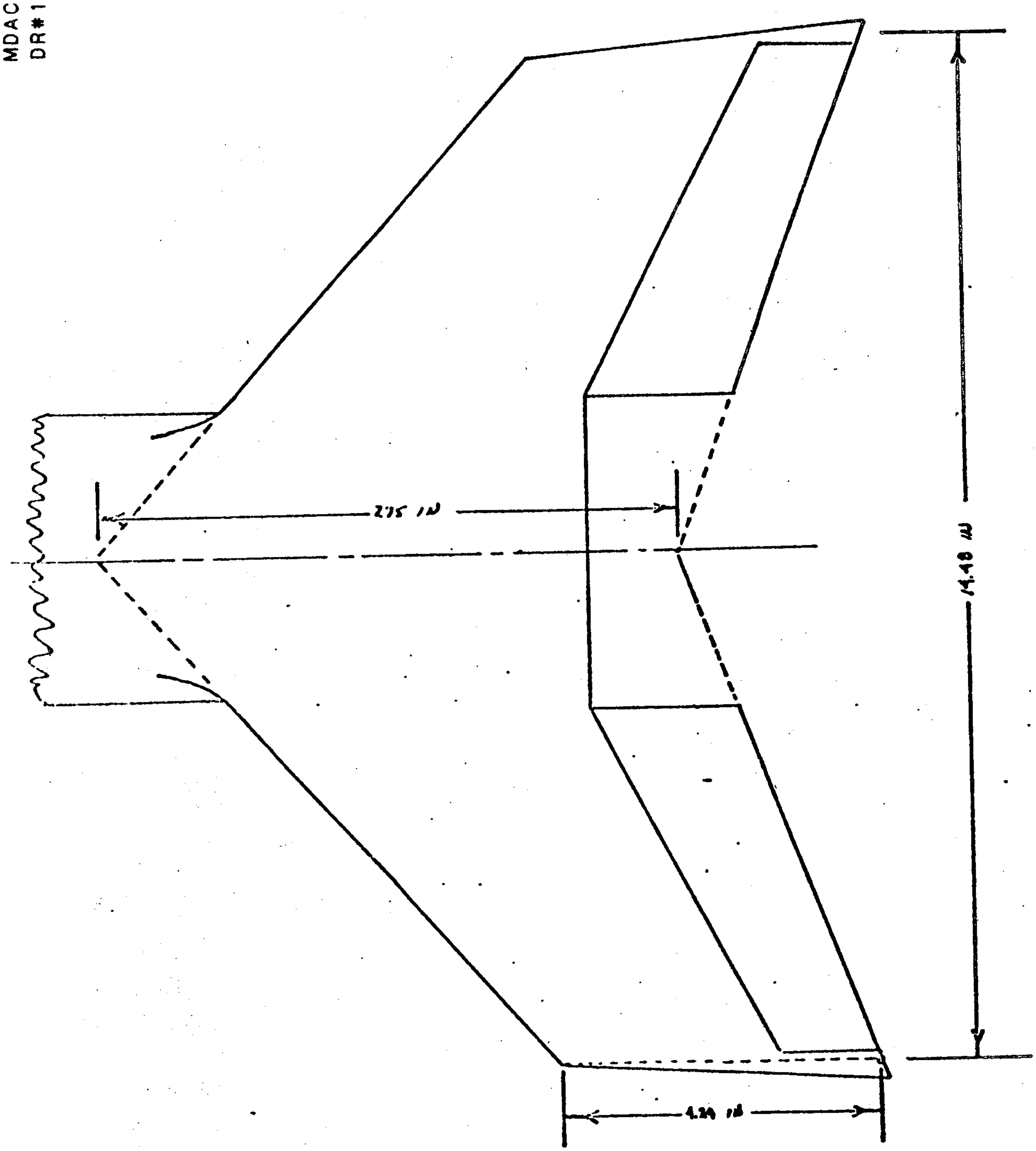
FIGURE 1. BODY (0.01)
B1

CANARD BOOSTER
MDAC
DR#1035 A-1- 5

BOOSTER WING (0.01)

W1 WING

E1 ELEVON



10

FIGURE 2 Booster Wing (W_1) with Elevon (E_1)

BOOSTER AERODYNAMIC CANARD (0.01)

T1 AERODYNAMIC CANARD

F2 FLAP

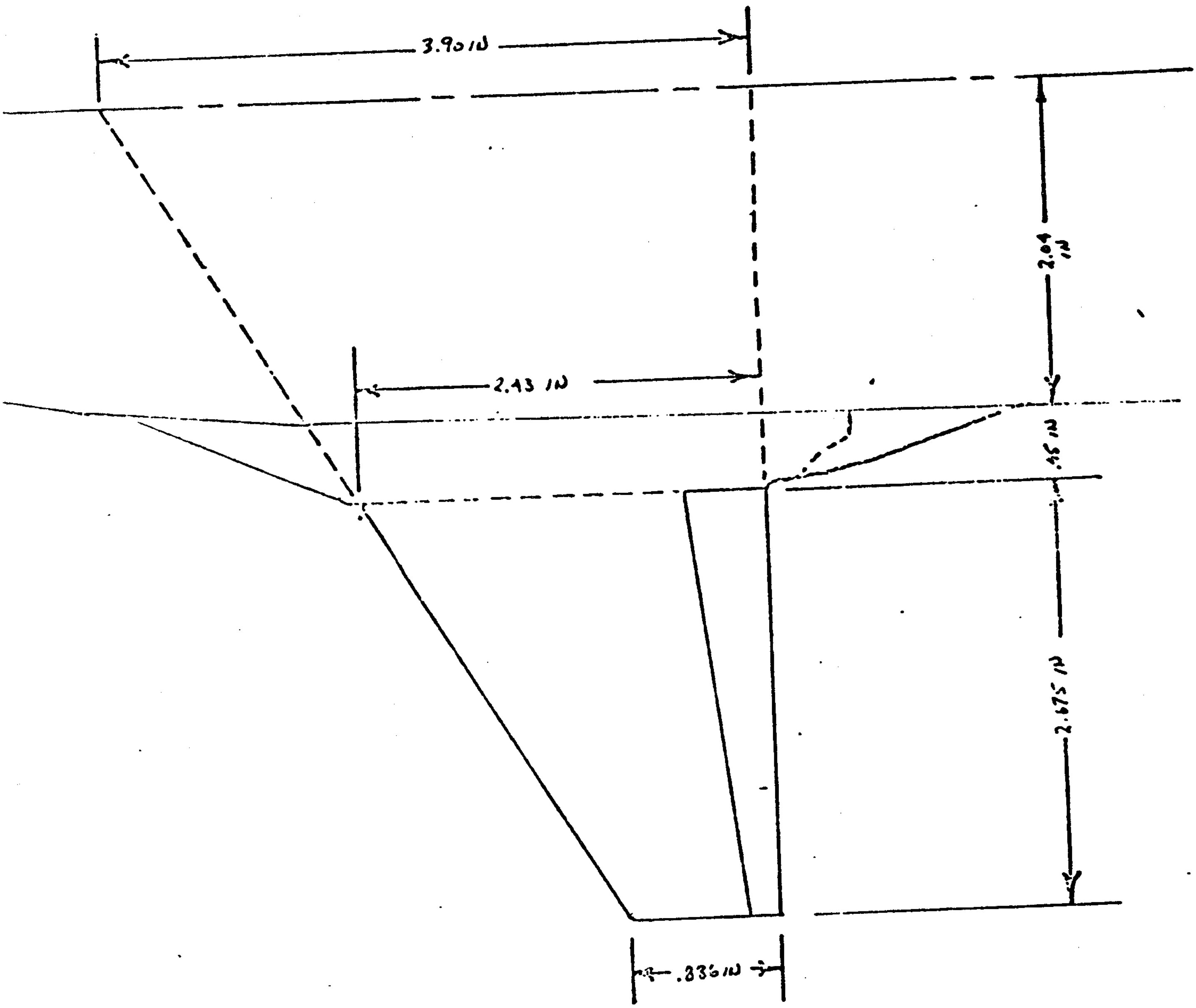


FIGURE 3 AERODYNAMIC CANARD (T_1) with FLAP (F_2)

BOOSTER SIMULATED JET FLAP CANARD

J1 JET CANARD (0.01)

CANARD BOOSTER
MDAC
DR#1035 A-1- 8

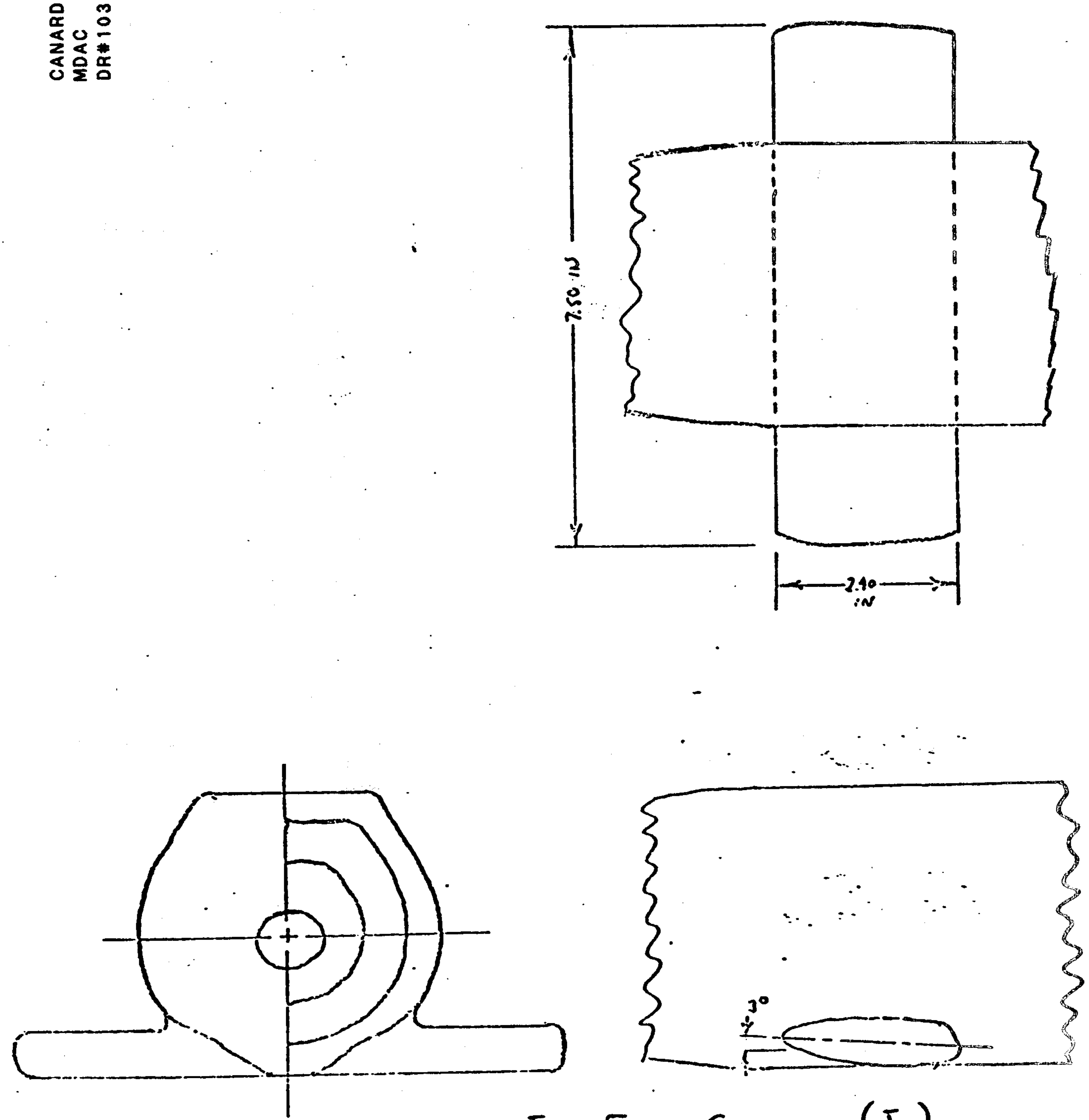


FIGURE 4. JET FLAP CANARD (J.)

BOOSTER WING TIP VERTICAL (0.01)

V1 VERTICAL AIRFOIL SECTION: NACA 64A 009

V4 VERTICAL AIRFOIL SECTION: NACA 4415

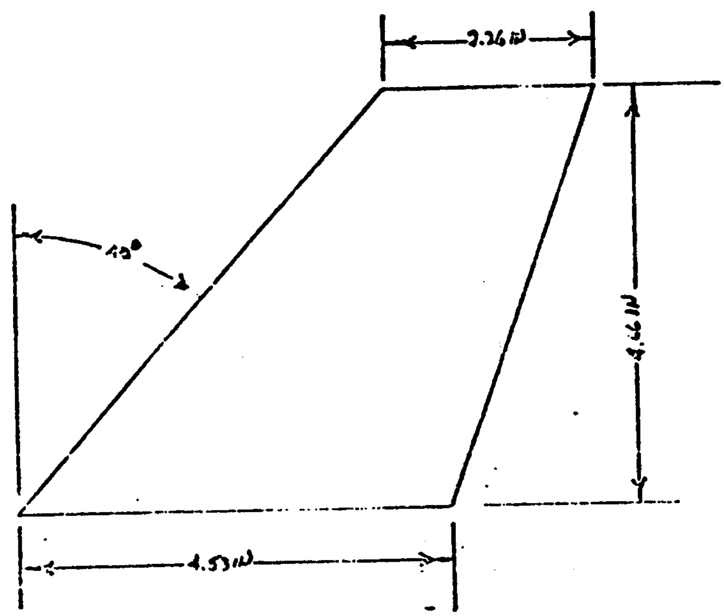


FIGURE 5. WING TIP VERTICAL FIN (V_1), (V_4)

BOOSTER CENTER VERTICAL FIN (0.01)

V3 VERTICAL

CENTER VERTICAL FIN

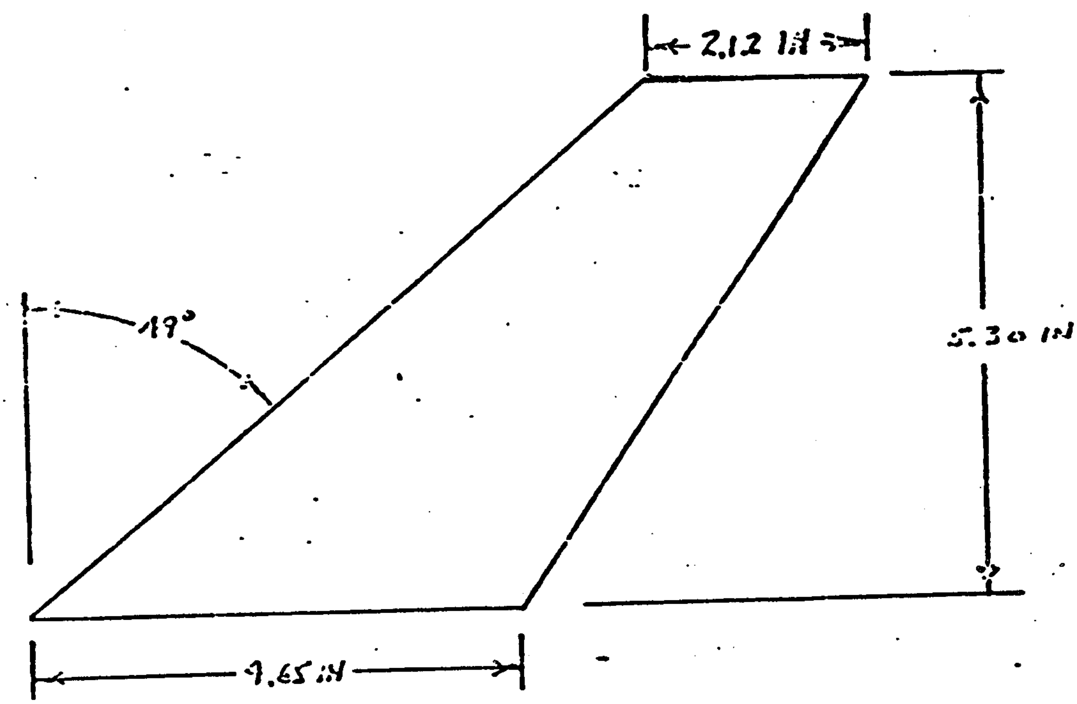


FIGURE 6 BODY CENTERLINE VERTICAL FIN (V_3)

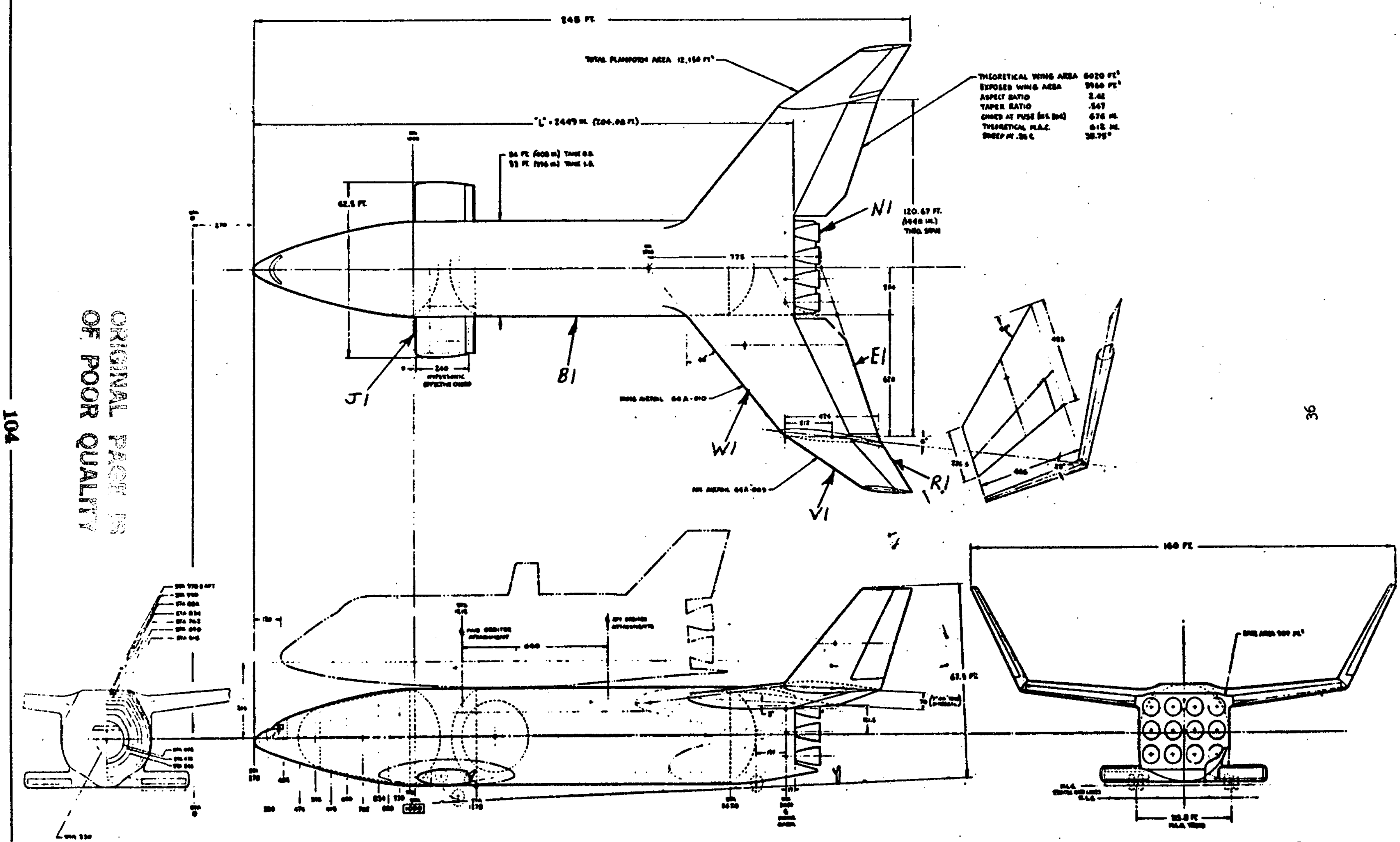


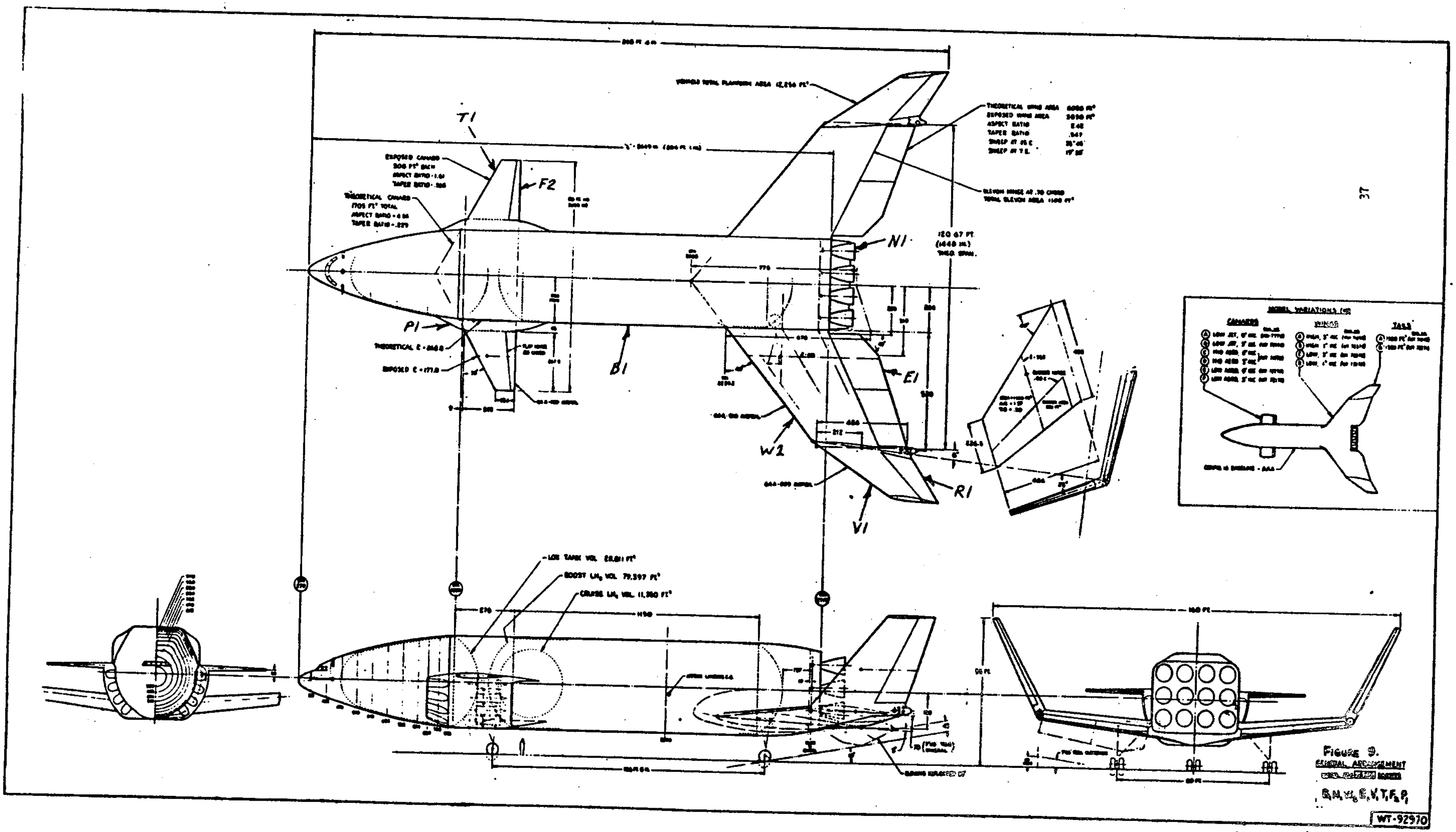
FIGURE 8.
GENERAL ARRANGEMENT
MODEL 256[-16] BOOSTER
B, N, W, E, V, J,

WT-71070

36

CANARD BOOSTER
MDAC
DR#1035 A-1- 11

CANARD BOOSTER
MDAC
DR#1035 A-1- 12



TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	RUN NUMBER C.4			NO. of RUNS	δ_e	δ_c	δ_a	δ_r	Γ_w	i_c	i_w	CND POS	WNG POS			
RN2001	B1C2F1W1V1	A	0	34/0			1	0	0	0	0	7°40	3	0	1	1			
002		0	A	39/0															
003		6		40/0															
004		15		41/0															
005		A	0	23/0									15						
006		0	A	24/0															
007		6		25/0															
008		15		26/0															
009		A	0	33/0									3		2				
010		0	A	34/0															
011		6		35/0															
012		15		46/0															
013		A	0	51/0									15						
014		0	A	54/0															
015		6		53/0															
016		15		57/0															
017		A	0	315/0									3		1	2			
018		0	A	316/0															
019		6		317/0															
020		15		318/0															

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	CAB			13
CAF	B.P.(1)	B.P.(3)										

COEFFICIENTS: IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

αA: -4, 0, 2, 4, 6, 8, 10, 15, 20

βA: -6, -3, 0, 3, 6

CANARD BOOSTER
MDAC
DR#1139 A-1- 13

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	RUN NUMBER 0.4	NO. of RUNS	δ_e	δ_c	δ_a	δ_r	Γ_w	i_c	i_w	CND POS	WING POS
RN2021	B1C2F1W1V1	A	0	414/0	1	0	0	0	0	7°40'	15	0	1	2
022		0	A	415/0										
023		6		416/0										
024		15		417/0										
025		A	0	419/0							3		2	
026		0	A	411/0										
027		6		412/0										
028		15		[illegible]/0										
029		A	0	474/0							15			
030		0	A	473/0										
031		6		470/0										
032		15		475/0										
033		A	0	124/0							3	3	1	1
034		0	A	143/0										
035		6		126/0										
036		15		127/0										
037		A	0	120/0							15			
038		0	A	121/0										
039		6		122/0										
040		15		123/0										

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	CAB			
C.A.F.	B.P.(1)	B.P.(3)								MACH		13

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

αA: -4, 0, 2, 4, 6, 8, 10, 15, 20

βA: -6, -3, 0, 3, 6

NASA-MSFC-MAF

ORIGINAL PAGE IS OF POOR QUALITY

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	RUN NUMBER 0.4	NO. of RUNS	δ_e	δ_c	δ_a	δ_r	Γ_w	i_c	i_w	CND POS	WNG POS
BN2041	B1C2F1W1V1	A	0	133/0	1	0	0	0	0	7°40'	3	3	2	1
042		0	A	134/0										
043		6		135/0										
044		15		136/0										
045		A	0	141/0							15			
046		0	A	142/0										
047		6		143/0										
048		15		144/0										
049		A	0	162/0							3		1	2
050		0	A	163/0										
051		6		165/0										
052		15		165/0										
053		A	0	167/0							15			
054		0	A	168/0										
055		6		169/0										
056		15		170/0										
057		A	0	184/0							3		2	
058		0	A	185/0										
059		6		186/0										
060		15		187/0										

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	CAB			13
C.A.F.	BP(1)	BP(3)								MACH		
										IDPVAR(1)	IDPVAR(2)	NDV

COEFFICIENTS:
α or β
SCHEDULES

αA: -4, 0, 2, 4, 6, 8, 10, 15, 20

βA = -6, -3, 0, 3, 6

CANARD BOOSTER
MDAC
DR#1139 A-1- 15

ORIGINAL PAGE IS
OF POOR QUALITY

CANARD BOOSTER
MDAC
DR#1139 A-1- 16

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	RUN NUMBER 0.4				NO. of RUNS	PARAMETRIC VALUES δ_e	δ_c	δ_a	δ_r	Γ_W	i_c	i_W	CND POS	WNG POS			
RN2061	B1C2F1W1V1	A	0	180/0				1	0	0	0	0	7°40'	15	3	2	2			
062		0	A	181/0																
063		6		182/0																
064		15		183/0																
065	B1C1F1W1V1	A	0	33/0										3	0	1	1			
066		0	A	34/0																
067		6		35/0																
068		15		36/0																
069		A	0	28/0										15						
070		0	A	29/0																
071		6		30/0																
072		15		31/0																
073		A	0	47/0										3		2				
074		0	A	48/0																
075		6		49/0																
076		15		50/0																
077		A	0	55/0										15						
078		0	A	56/0																
079		6		57/0																
080		15		58/0																

1	7	13	19	25	31	37	43	49	55	61	67	73 76
CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	CAB			AI
CAF	BP(1)	BP(3)								MACH		
COEFFICIENTS:										IDPVAR(1)	IDPVAR(2)	NDV

α or β SCHEDULES

αA = -4, 0, 2, 4, 6, 8, 10, 15, 20

βA = -6, -3, 0, 3, 6

ORIGINAL PAGE IS OF POOR QUALITY

NASA-MSFC-HAF

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	RUN NUMBER 0.4				NO. of RUNS	δ_e	δ_c	δ_a	δ_r	Γ_w	i_c	i_w	CND POS	WNG POS			
RN2081	B1C1F1W1V1	A	0	311/0				1	0	0	0	0	7°40'	3	0	1	2			
082		0	A	[illegible]/0																
083		6		321/0																
084		15		322/0																
085		A	0	[illegible]/0										15						
086		0	A	[illegible]/0																
087		6		[illegible]/0																
088		15		[illegible]/0																
089		A	0	470/0										3		2				
090		0	A	471/0																
091		6		[illegible]/0																
092		15		[illegible]/0																
093		A	0	[illegible]/0										15						
094		0	A	[illegible]/0																
095		6		[illegible]/0																
096		15		[illegible]/0																
097		A	0	[illegible]/0										3	3	1	1			
098		0	A	[illegible]/0																
099		6		[illegible]/0																
100		15		[illegible]/0																

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	CAB			13
C.A.F.	BP(1)	BP(3)								MACH		

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

αA: -4, 0, 2, 4, 6, 8, 10, 15, 20

βA: -6, -3, 0, 3, 6

ORIGINAL PAGE IS OF POOR QUALITY

CANARD BOOSTER
MDAC
DR#1139 A-1- 17

CANARD BOOSTER
MDAC
DR#1139 A-1- 18

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	RUN NUMBER 0.4				NO. of RUNS	δ_e	δ_c	δ_a	δ_r	Γ_W	i_c	i_W	CND POS	WNG POS			
RN2101	B1C1F1W1V1	A	0	116/0				1	0	0	0	0	7°40'	15	3	1	1			
102		0	A	117/0																
103		6		118/0																
104		15		119/0																
105		A	0	131/0										3		2	1			
106		0	A	132/0																
107		6		137/0																
108		15		140/0																
109		A	0	149/0										15						
110		0	A	150/0																
111		6		151/0																
112		15		152/0																
113		A	0	155/0										3		1	2			
114		0	A	157/0																
115		6		160/0																
116		15		161/0																
117		A	0	171/0										15						
118		0	A	172/0																
119		6		173/0																
120		15		174/0																

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	CAB			
C.A.F.	B.P.(1)	B.P.(3)								MACH		13

COEFFICIENTS: IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

αA: -4, 0, 2, 4, 6, 8, 10, 15, 20

βA: -6, -3, 0, 3, 6

ORIGINAL PAGE IS OF POOR QUALITY

NASA-MSFC-MAF

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	RUN NUMBER 0.4				NO. of RUNS	PARAMETRIC VALUES δ_c	δ_c	δ_a	δ_r	Γ_w	i_c	i_w	CND POS	WNG POS			
RN2 121	BICIFIWIVI	A	0	131/0				1	0	0	0	0	7°40'	3	3	2	2			
122		0	A	137/0																
123		6		140/0																
124		15		171/0																
125		A	0	176/0										15						
126		0	A	177/0																
127		6		175/0																
128		15		177/0																
129	BICIFIWIV2DI	A	0	431/0										3	0	1	1			
130		0	A	432/0																
131		6		433/0																
132		15		434/0																
133		A	0	435/0										15						
134		0	A	436/0																
135		6		437/0																
136		15		435/0																
137		A	0	72/0										3		2				
138		0	A	73/0																
139		6		74/0																
140		15		75/0																

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	CAB			
C.A.F.	BP(1)	BP(3)								MACH		13
COEFFICIENTS:										IDPVAR(1)	IDPVAR(2)	NDV

α or β SCHEDULES

αA : -4, 0, 2, 4, 6, 8, 10, 15, 20

βA = -6, -3, 0, 3, 6

CANARD BOOSTER
MDAC
DR#1139 A-1- 19

ORIGINAL PAGE IS OF POOR QUALITY

CANARD BOOSTER
MDAC
DR#1139 A-1- 20

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST

☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	RUN NUMBER 0.4	RUN NUMBER	RUN NUMBER	RUN NUMBER	NO. of RUNS	δ_e	δ_c	δ_a	δ_r	Γ_w	i_c	i_w	CND POS	WNG POS			
RN2141	B1C1F1W1V2D1	A	0	20/0				1	0	0	0	0	7°40'	15	0	2	1			
142		0	A	21/0																
143		6		22/0																
144		15		23/0																
145		A	0	[illegible]/0										3		1	2			
146		0	A	[illegible]/0																
147		6		[illegible]/0																
148		15		[illegible]/0																
149		A	0	[illegible]/0										15						
150		0	A	[illegible]/0																
151		6		[illegible]/0																
152		15		[illegible]/0																
153		A	0	[illegible]/0										3		2				
154		0	A	[illegible]/0																
155		6		[illegible]/0																
156		15		[illegible]/0																
157		A	0	[illegible]/0										15						
158		0	A	[illegible]/0																
159		6		[illegible]/0																
160		15		[illegible]/0																

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	CAB			13
CAF	BP(1)	BA(3)								MACH		

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

αA = -4, 0, 2, 4, 6, 8, 10, 15, 20

βA = -6, -3, 0, 3, 6

NASA-MSFC-MAF

ORIGINAL PAGE IS OF POOR QUALITY

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST

☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	RUN NUMBER 0.4	RUN NUMBER	RUN NUMBER	RUN NUMBER	NO. of RUNS	δ_e	δ_c	δ_a	δ_r	Γ_w	i_c	i_w	CND POS	WNG POS			
RN2161	B1C1F1W1V2D1	A	0	153/0				1	0	0	0	0	7°40'	3	3	1	1			
162		0	A	15[illegible]/0																
163		6		155/0																
164		15		156/0																
165		A	0	112/0										15						
166		0	A	113/0																
167		6		114/0																
168		15		1[illegible]3/0																
169		A	0	77/0										3		2				
170		0	A	7[illegible]/0																
171		6		79/0																
172		15		80/0																
173		A	0	85/0										15						
174		0	A	86/0																
175		6		87/0																
176		15		8[illegible]/0																
177		A	0	[illegible]3/0										3		1	2			
178		0	A	[illegible]4/0																
179		6		[illegible]5/0																
180		15		[illegible]6/0																

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	CAB			13
CAF	BP(1)	BP(3)								MACH		
										IDPVAR(1)	IDPVAR(2)	NDV

COEFFICIENTS:

α or β SCHEDULES

αA : -4, 0, 2, 4, 6, 8, 10, 15, 20

βA = -6, -3, 0, 3, 6

CANARD BOOSTER
MDAC
DR#1139 A-1- 21

TEST NSRDC-3110 DATASET COLLATION SHEET

CANARD BOOSTER
MDAC
DR#1139 A-1- 22

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	RUN NUMBER 0.4				NO. of RUNS	δ_e	δ_c	δ_a	δ_r	Γ_w	i_c	i_w	CND POS	WNG POS			
RN2181	B1C1F1W1V2D1	A	0	[illegible]/0				1	0	0	0	0	7°40'	15	3	1	2			
182		0	A	[illegible]/0																
183		6		507/0																
184		15		508/0																
185		A	0	173/0										3		2				
186		0	A	[illegible]/0																
187		6		175/0																
188		15		[illegible]/0																
189		A	0	500/0										15						
190		0	A	501/0																
191		6		[illegible]/0																
192		15		503/0																
193	B1C2F1W1V2D1	A	0	417/0										3	0	1	1			
194		0	A	418/0																
195		6		419/0																
196		15		410/0																
197		A	0	431/0										15						
198		0	A	[illegible]/0																
199		6		441/0																
200		15		442/0																

1	7	13	19	25	31	37	43	49	55	61	67	73
CN	CA	CLM.	CBL	CYN	CY	CL	CD	L/D	CAB			
C.A.F.	BP(1)	BP(3)								MACH		

COEFFICIENTS:

α or β SCHEDULES

αA: -4, 0, 2, 4, 6, 8, 10, 15, 20 → IDPVAR(1) | IDPVAR(2) | NDV

βA = -6, -3, 0, 3, 6

NASA-MSFC-MAF

ORIGINAL PAGE IS OF POOR QUALITY

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST

☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	RUN NUMBER 0.4				NO. of RUNS	δ_c	δ_c	δ_a	δ_r	Γ_w	i_c	i_w	CND POS	WNG POS			
RN2201	B1C2F1W8V2D1	A	0	63/0				1	0	0	0	0	7°40'	3	0	2	1			
202		0	A	[illegible]7/0																
203		6		70/0																
204		15		71/0																
205		A	0	64/0										15						
206		0	A	65/0																
207		6		66/0																
208		15		67/0																
209		A	0	811/0										3		1	2			
210		0	A	812/0																
211		6		813/0																
212		15		814/0																
213		A	0	443/0										15						
214		0	A	444/0																
215		6		445/0																
216		15		446/0																
217		A	0	456/0										3		2				
218		0	A	453/0																
219		6		455/0																
220		15		457/0																

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	CAB			
C.A.F.	B.P.(1)	B.P.(3)								MACH		

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

αA = -4, 0, 2, 4, 6, 8, 10, 15, 20

βA = -6, -3, 0, 3, 6

ORIGINAL PAGE IS OF POOR QUALITY

CANARD BOOSTER
MDAC
DR#1139 A-1- 23

CANARD BOOSTER
MDAC
DR#1139 A-1- 24

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	RUN NUMBER 0.4				NO. of RUNS	δ_e	δ_c	δ_a	δ_r	Γ_w	i_c	i_w	CND POS	WNG POS			
RN2221	B1C2F1W1V2D1	A	0	100/0				1	0	0	0	0	7°40'	15	0	2	2			
222		0	A	101/0																
223		6		102/0																
224		15		103/0																
225		A	0	94/0										3	3	1	1			
226		0	A	95/0																
227		6		96/0																
228		15		97/0																
229		A	0	108/0										15						
230		0	A	109/0																
231		6		110/0																
232		15		111/0																
233		A	0	81/0										3		2				
234		0	A	82/0																
235		6		83/0																
236		15		84/0																
237		A	0	87/0										15						
238		0	A	90/0																
239		6		91/0																
240		15		92/0																

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	CAB			13
C.A.F.	BP(1)	BP(3)								MACH		

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

αA: -4, 0, 2, 4, 6, 8, 10, 15, 20

βA = -6, -3, 0, 3, 6

ORIGINAL PAGE IS OF POOR QUALITY

NASA-MSFC-MAF

61

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	RUN NUMBER 0.4			NO. of RUNS	δ_e	δ_c	δ_a	δ_r	Γ_w	i_c	i_w	CND POS	WNG POS			
RN2241	B1C2F1W1V2D1	A	0	327/0			1	0	0	0	0	7°40'	3	3	1	2			
242		0	A	328/0															
243		6		329/0															
244		15		330/0															
245		A	0	509/0									15						
246		0	A	510/0															
247		6		[illegible]/0															
248		15		512/0															
249		A	0	442/0									3		2				
250		0	A	443/0															
251		6		[illegible]/0															
252		15		445/0															
253		A	0	446/0									15						
254		0	A	447/0															
255		6		448/0															
256		15		471/0															
257	B1C2F1W2D1	A	0	553/0									3	0	1	1			
258		0	A	554/0															
259		6		555/0															
260		15		556/0															

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	CAB			13
C.A.F.	BP(1)	BP(3)								MACH		
										IDPVAR(1)	IDPVAR(2)	NDV

COEFFICIENTS:

α or β SCHEDULES

αA = -4, 0, 2, 4, 6, 8, 10, 15, 20

βA = -6, -3, 0, 3, 6

ORIGINAL PAGE IS OF POOR QUALITY

CANARD BOOSTER
MDAC
DR#1139 A-1- 25

CANARD BOOSTER
MDAC
DR#1139 A-1- 26

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	RUN NUMBER 0.4				NO. of RUNS	δ_e	δ_c	δ_a	δ_r	Γ_W	i_c	i_w	CND POS	WNG POS			
RN2261	B1C2F1W2D1	A	0	570/0				1	0	0	0	0	7°46'	15	0	1	1			
262		0	A	571/0																
263		6		572/0																
264		15		573/0																
265		A	0	575/0										3		2				
266		0	A	576/0																
267		6		577/0																
268		15		578/0																
269		A	0	549/0										15						
270		0	A	550/0																
271		6		551/0																
272		15		554/0																
273		A	0	514/0												1	2			
274		0	A	515/0																
275		6		516/0																
276		15		517/0																
277		A	0	524/0										3		2				
278		0	A	525/0																
279		6		526/0																
280		15		527/0																

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	CAB			13
CAF	BP(1)	BP(3)								MACH		

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

αA: -4, 0, 2, 4, 6, 8, 10, 15, 20

βA: -6, -3, 0, 3, 6

ORIGINAL PAGE IS OF POOR QUALITY

NASA-MSFC-MAF

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST

☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	RUN NUMBER 0.4				NO. of RUNS	δ_e	δ_c	δ_a	δ_r	Γ_w	i_c	i_w	CND POS	WNG POS			
RN2281	B1C2F1W2D1	A	0	[illegible]/0				1	0	0	0	0	7°40	15	0	2	2			
282		0	A	[illegible]/0																
283		6		[illegible]/0																
284		15		[illegible]/0																
285		A	0	535/0										3	3	1	1			
286		0	A	536/0																
287		6		537/0																
288		15		538/0																
289		A	0	578/0										15						
290		0	A	579/0																
291		6		580/0																
292		15		581/0																
293		A	0	[illegible]/0										3		2				
294		0	A	[illegible]/0																
295		6		[illegible]/0																
296		15		[illegible]/0																
297		A	0	583/0										15						
298		0	A	584/0																
299		6		585/0																
300		15		550/0																

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	CAB			
CAF	BP(1)	BP(3)								MACH		13
										IDPVAR(1)	IDPVAR(2)	NDV

COEFFICIENTS:

α or β SCHEDULES

αA: -4, 0, 2, 4, 6, 8, 10, 15, 20

βA = -6, -3, 0, 3, 6

CANARD BOOSTER
MDAC
DR#1139 A-1- 27

ORIGINAL PAGE IS OF POOR QUALITY

CANARD BOOSTER
MDAC
DR#1139 A-1- 28

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	RUN NUMBER 0.4				NO. of RUNS	δ_e	δ_c	δ_a	δ_r	Γ_W	i_c	i_W	CND POS	WNG POS			
RN2301	B1C2F1W2D1	A	0	[illegible]/0				1	0	0	0	0	7°40'	3	3	1	2			
302		0	A	[illegible]/0																
303		6		[illegible]/0																
304		15		[illegible]/0																
305		A	0	[illegible]/0										15						
306		0	A	[illegible]/0																
307		6		[illegible]/0																
308		15		[illegible]/0																
309		A	0	[illegible]/0										3		2				
310		0	A	[illegible]/0																
311		6		530/0																
312		15		[illegible]/0																
313		A	0	[illegible]/0										15						
314		0	A	[illegible]/0																
315		6		[illegible]/0																
316		15		[illegible]/0																
317	B1	A	0	401/0					-	-	-	-	-	-	-	-	-			
318		0	A	[illegible]/0					-	-	-	-	-	-	-	-	-			
319		6		[illegible]/0					-	-	-	-	-	-	-	-	-			
320		15		[illegible]/0					-	-	-	-	-	-	-	-	-			

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	CAB			
C.A.F.	B.P.(1)	B.P.(3)								MACH		0.5

COEFFICIENTS: → IDPVAR(1) IDPVAR(2) NDV

α or β SCHEDULES

αA : -4, 0, 2, 4, 6, 8, 10, 15, 20

βA : -6, -3, 0, 3, 6

NASA-MSFC-MAF

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	RUN NUMBER 0.4				NO. of RUNS	δ_e	δ_c	δ_a	δ_r	Γ_w	i_c	i_w	CND POS	WNG POS			
RN2321	B1C2F2W1V1	A	0	21/0				1	0	10	0	0	7°/0	3	0	1	1			
322		0	A	24/0																
323		6		23/0																
324		15		26/0																
325		A	0	27/0						20										
326		0	A	28/0																
327		6		29/0																
328		15		30/0																
329	B1C2F1W1V1	A	0	07/0					-20	0										
330		0	A	08/0																
331		6		09/0																
332		15		10/0																
333	B1C2F2W1V1	A	0	12/0						10										
334		0	A	13/0																
335		6		14/0																
336		15		15/0																
337		A	0	62/0						20										
338		0	A	63/0																
339		6		64/0																
340		15		65/0																

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	CAB			13
C.A.F.	B.P.(1.)	B.P.(3.)								MACH		

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

αA = -4, 0, 2, 4, 6, 8, 10, 15, 20

βA = -6, -3, 0, 3, 6

ORIGINAL PAGE IS OF POOR QUALITY

CANARD BOOSTER
MDAC
DR#1139 A-1- 29

CANARD BOOSTER
MDAC
DR#1139 A-1- 30

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	RUN NUMBER 0.4			NO. of RUNS	δ_e	δ_c'	δ_a	δ_r	Γ_W	i_c	i_W	CND POS	WNG POS			
RN2341	B1C2F1W1V1	A	0	611/0			1	-10	0	0	0	7°40'	3	0	1	1			
342		0	A	612/0															
343		6		613/0															
344		15		614/0															
345	B1C2F2W1V1	A	0	616/0					10										
346		0	A	617/0															
347		6		618/0															
348		15		619/0															
349		A	0	688/0					20										
350		0	A	689/0															
351		6		690/0															
352		15		691/0															
353	B1C2F1W1V1	A	0	615/0				10	0										
354		0	A	616/0															
355		6		617/0															
356		15		618/0															
357	B1C2F2W1V1	A	0	630/0					10										
358		0	A	631/0															
359		6		632/0															
360		15		633/0															

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	CAB			L3
C.A.F.	B.P.(1)	B.P.(3)								MACH		
										IDPVAR(1)	IDPVAR(2)	NDV

COEFFICIENTS:

α or β SCHEDULES

αA = -4, 0, 2, 4, 6, 8, 10, 15, 20

βA = -6, -3, 0, 3, 6

NASA-MSFC-MAF

ORIGINAL PAGE IS OF POOR QUALITY

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	RUN NUMBER 0.4				NO. of RUNS	δ_e	δ_c	δ_a	δ_r	Γ_w	i_c	i_w	CND POS	WNG POS			
RN2361	B1C2F2W1V1	A	0	158/0				1	10	20	0	0	7%	3	0	1	1			
362		0	A	185/0																
363		6		186/0																
364		15		187/0																
365	B1C2F1W1V1	A	0	119/0					20	0										
366		0	A	136/0																
367		6		121/0																
368		15		123/0																
369	B1C2F2W1V1	A	0	118/0						10										
370		0	A	169/0																
371		6		110/0																
372		15		111/0																
373		A	0	196/0						20										
374		0	A	197/0																
375		6		198/0																
376		15		199/0																
377	B1C2F1W1V1	A	0	165/0					30	0										
378		0	A	161/0																
379		6		164/0																
380		15		163/0																

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	CAB			73
C.A.F.	B.P.(1)	B.P.(3)								MACH		
										IDPVAR(1)	IDPVAR(2)	NDV

COEFFICIENTS:

α or β SCHEDULES

αA = -4, 0, 2, 4, 6, 8, 10, 15, 20

βA = -6, -3, 0, 3, 6

CANARD BOOSTER
MDAC
DR#1139 A-1- 31

ORIGINAL PAGE IS OF POOR QUALITY

CANARD BOOSTER
MDAC
DR#1139 A-1- 32

☐ PRETEST
☑ POSTTEST

TEST NSRDC-3110 DATASET COLLATION SHEET

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	RUN NUMBER 0.4	NO. of RUNS	δ_e	δ_c	δ_a	δ_r	Γ_W	i_c	i_W	CNO POS	WNG POS
RN2381	B1C2F2W1V1	A	0	[illegible]/0	1	30	10	0	0	7°40'	3	0	1	1
382		0	A	[illegible]/0										
383		6		[illegible]/0										
384		15		[illegible]/0										
385		A	0	[illegible]/0			20							
386		0	A	[illegible]/0										
387		6		[illegible]/0										
388		15		[illegible]/0										
389		A	0	[illegible]/0		0	0	10						
390		0	A	[illegible]/0										
391		6		[illegible]/0										
392		15		[illegible]/0										
393		A	0	[illegible]/0				20						
394		0	A	[illegible]/0										
395		6		[illegible]/0										
396		15		[illegible]/0										
397		A	0	[illegible]/0		-10	0	10						
398		0	A	[illegible]/0										
399		6		[illegible]/0										
400		15		[illegible]/0										

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	CAB			
CAF	BP(1W)	BP(3)								MACH		

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

αA: -4, 0, 2, 4, 6, 8, 10, 15, 20

βA: -6, -3, 0, 3, 6

NASA-MSFC-MAF

ORIGINAL PAGE IS OF POOR QUALITY

TEST NSRDC-3110 DATASET COLLATION SHEET 27

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	RUN NUMBER 0.4				NO. of RUNS	PARAMETRIC VALUES δe	δc	δa	δr	Γw	ic	iv	CNO POS	WNG POS			
RN2401	B1C2F2W1V1	A	0	233/0				1	-10	0	20	0	7°40'	3	0	1	1			
402		0	A	234/0																
403		6		235/0																
404		15		236/0																
405		A	0	221/0					10		10									
406		0	A	222/0																
407		6		223/0																
408		15		224/0																
409		A	0	225/0							20									
410		0	A	226/0																
411		6		227/0																
412		15		228/0																
413		A	0	241/0					0	20	10									
414		0	A	242/0																
415		6		243/0																
416		15		244/0																
417		A	0	253/0					0	20	20									
418		0	A	254/0																
419		6		255/0																
420		15		256/0																

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	CAB			
C.A.F.	B.C.(1).	B.E.(3).								MACH		

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

αA : -4, 0, 2, 4, 6, 8, 10, 15, 20

βA : -6, -3, 0, 3, 6

CANARD BOOSTER
MDAC
DR#1139 A-1- 33

ORIGINAL PAGE IS OF POOR QUALITY

CANARD BOOSTER
MDAC
DR#1139 A-1- 34

TEST HSWDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	RUN NUMBER 0.4				NO. of RUNS	PARAMETRIC VALUES δ_e	δ_c'	δ_a	δ_r	Γ_W	i_c	i_W	CND POS	WNG POS			
RN2421	B1C2F2W1V1	A	0	137/0				1	-10	20	-10	0	7°40'	-3	0	1	1			
422		0	A	138/0																
423		6		139/0																
424		15		140/0																
425		A	0	157/0							20									
426		0	A	158/0																
427		6		159/0																
428		15		160/0																
429		A	0	145/0					10		10									
430		0	A	146/0																
431		6		147/0																
432		15		148/0																
433		A	0	149/0							20									
434		0	A	150/0																
435		6		151/0																
436		15		152/0																
437	B1C2F1	A	0	413/0					-	0	-	-	-		-		-			
438		0	A	414/0					-		-	-	-		-		-			
439		6		415/0					-		-	-	-		-		-			
440		15		416/0					-		-	-	-		-		-			

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	CAB			
C.A.F.	B.P.(1)	B.P.(2)								MACH		

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

αA : -4, 0, 2, 4, 6, 8, 10, 15, 20

βA : -6, -3, 0, 3, 6

NASA-MSFC-MAF

ORIGINAL PAGE IS OF POOR QUALITY

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	RUN NUMBER 0.4				NO. of RUNS	δ_e	δ_c	δ_a	δ_r	Γ_W	i_c	i_W	CND POS	WNG POS			
RN2441	B1C2F1	A	0	711/0				1	–	10	–	–	–	3	–	1	–			
442	↓	0	A	712/0				↓	–	↓	–	–	–	↓	–	↓	–			
443	↓	6	↓	713/0				↓	–	↓	–	–	–	↓	–	↓	–			
444	↓	15	↓	714/0				↓	–	↓	–	–	–	↓	–	↓	–			
445	↓	A	0	715/0				↓	–	20	–	–	–	↓	–	↓	–			
446	↓	0	A	716/0				↓	–	↓	–	–	–	↓	–	↓	–			
447	↓	6	↓	717/0				↓	–	↓	–	–	–	↓	–	↓	–			
448	↓	15	↓	718/0				↓	–	↓	–	–	–	↓	–	↓	–			
449	B1C2F2	A	0	799/0				↓	–	↓	–	–	–	↓	–	↓	–			
450	↓	0	A	[illegible]/0				↓	–	↓	–	–	–	↓	–	↓	–			
451	↓	6	↓	801/0				↓	–	↓	–	–	–	↓	–	↓	–			
452	↓	15	↓	802/0				↓	–	↓	–	–	–	↓	–	↓	–			
453	↓	A	0	803/0				↓	–	10	–	–	–	↓	–	↓	–			
454	↓	0	A	804/0				↓	–	↓	–	–	–	↓	–	↓	–			
455	↓	6	↓	805/0				↓	–	↓	–	–	–	↓	–	↓	–			
456	↓	15	↓	806/0				↓	–	↓	–	–	–	↓	–	↓	–			
457	B1W1V1	A	0	652/0				↓	-20	–	0	0	7°40'	–	0	–	1			
458	↓	0	A	653/0				↓	↓	–	↓	↓	↓	–	↓	–	↓			
459	↓	6	↓	654/0				↓	↓	–	↓	↓	↓	–	↓	–	↓			
460	↓	15	↓	655/0				↓	↓	–	↓	↓	↓	–	↓	–	↓			

1	7	13	19	25	31	37	43	49	55	61	67	75 76
GN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	CAB			
G.A.F.	B.P.(1,1)	BP(3,1)								MACH		

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

αA = -4, 0, 2, 4, 6, 8, 10, 15, 20

βA = -6, -3, 0, 3, 6

CANARD BOOSTER
MDAC
DR#1139 A-1- 35

ORIGINAL PAGE IS OF POOR QUALITY

TEST NSRDC-3110 DATASET COLLATION SHEET

CANARD BOOSTER
MDAC
DR#1139 A-1- 36

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	RUN NUMBER 0.4				NO. of RUNS	PARAMETRIC VALUES δ_e	δ_c	δ_a	δ_r	Γ_W	i_c	i_W	CNO POS	WNG POS			
RN2461	B1W1V1	A	0	644 / 0				1	-10	-	0	0	1°40'	-	0	-	1			
462	↓	0	A	645 / 0				↓	↓	-	↓	↓	↓	-	↓	-	↓			
463	↓	6	↓	646 / 0				↓	↓	-	↓	↓	↓	-	↓	-	↓			
464	↓	15	↓	647 / 0				↓	↓	-	↓	↓	↓	-	↓	-	↓			
465	↓	A	0	636 / 0				↓	0	-	↓	↓	↓	-	↓	-	↓			
466	↓	0	A	637 / 0				↓	↓	-	↓	↓	↓	-	↓	-	↓			
467	↓	6	↓	638 / 0				↓	↓	-	↓	↓	↓	-	↓	-	↓			
468	↓	15	↓	639 / 0				↓	↓	-	↓	↓	↓	-	↓	-	↓			
469	↓	A	0	640 / 0				↓	10	-	↓	↓	↓	-	↓	-	↓			
470	↓	0	A	641 / 0				↓	↓	-	↓	↓	↓	-	↓	-	↓			
471	↓	6	↓	642 / 0				↓	↓	-	↓	↓	↓	-	↓	-	↓			
472	↓	15	↓	643 / 0				↓	↓	-	↓	↓	↓	-	↓	-	↓			
473	↓	A	0	648 / 0				↓	20	-	↓	↓	↓	-	↓	-	↓			
474	↓	0	A	649 / 0				↓	↓	-	↓	↓	↓	-	↓	-	↓			
475	↓	6	↓	650 / 0				↓	↓	-	↓	↓	↓	-	↓	-	↓			
476	↓	15	↓	651 / 0				↓	↓	-	↓	↓	↓	-	↓	-	↓			
477	↓	A	0	656 / 0				↓	30	-	↓	↓	↓	-	↓	-	↓			
478	↓	0	A	657 / 0				↓	↓	-	↓	↓	↓	-	↓	-	↓			
479	↓	6	↓	655 / 0				↓	↓	-	↓	↓	↓	-	↓	-	↓			
480	↓	15	↓	657 / 0				↓	↓	-	↓	↓	↓	-	↓	-	↓			

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	CAB			15
C.A.F.	B.P.(1).	B.P.(3).								MACH		

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

αA: -4, 0, 2, 4, 6, 8, 10, 15, 20

βA: -6, -3, 0, 3, 6

NASA-MSFC-MAF

ORIGINAL PAGE IS OF POOR QUALITY

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST

☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	RUN NUMBER 0.4				NO. of RUNS	δ_c	δ_c	δ_a	δ_r	Γ_W	i_c	i_W	CND POS	WND POS			
RN2481	BIWIVI	A	0	765/0				1	0	-	10	0	7°40'	-	0	-	1			
482		0	A	766/0						-				-		-				
483		6		767/0						-				-		-				
484		15		768/0						-				-		-				
485		A	0	777/0						-	20			-		-				
486		0	A	778/0						-				-		-				
487		6		779/0						-				-		-				
488		15		780/0						-				-		-				
489		A	0	761/0					-10	-	10			-		-				
490		0	A	762/0						-				-		-				
491		6		763/0						-				-		-				
492		15		764/0						-				-		-				
493		A	0	781/0					-10	-	20			-		-				
494		0	A	782/0						-				-		-				
495		6		783/0						-				-		-				
496		15		784/0						-				-		-				
497		A	0	769/0					10	-	10			-		-				
498		0	A	770/0						-				-		-				
499		6		771/0						-				-		-				
500		15		772/0						-				-		-				

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	CAB			15
C.A.F.	B.C.(1)	B.C.(2)								MACH		
										IDPVAR(1)	IDPVAR(2)	NDV

COEFFICIENTS:

α or β SCHEDULES

αA : -4, 0, 2, 4, 6, 8, 10, 15, 20

βA : -6, -3, 0, 3, 6

CANARD BOOSTER
MDAC
DR#1139 A-1- 37

ORIGINAL PAGE IS OF POOR QUALITY

CANARD BOOSTER
MDAC
DR#1139 A-1- 38

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	RUN NUMBER 0,4				NO. of RUNS	δ_e	δ_c	δ_a	δ_r	Γ_W	i_c	i_W	CND POS	WNG POS			
RN2501	B1W1V1	A	0	170/0				1	10	-	20	0	7°40'	-	0	-	1			
502		0	A	174/0						-				-		-				
503		6		175/0						-				-		-				
504		15		176/0						-				-		-				
505		0		185/0					0	-	0	-5		-		-				
506		6		186/0						-				-		-				
507		15		187/0						-				-		-				
508		0		188/0						-		-10		-		-				
509		6		189/0						-				-		-				
510		15		190/0						-				-		-				
511	B1C2F1W1V1	0		201/0						0		-5		3		1				
512		6		203/0																
513		15		207/0																
514		0		210/0								-10								
515		6		211/0																
516		15		214/0																
517		A	0	561/0								0	15°							
518		0	A	562/0																
519		6		563/0																
520		15		564/0																

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	CAB			13
C.A.E.	B.P.(1)	B.P.(3)								MACH		
										IDPVAR(1)	IDPVAR(2)	NDV

COEFFICIENTS:

α or β SCHEDULES

αA = -4, 0, 2, 4, 6, 8, 10, 15, 20

βA = -6, -3, 0, 3, 6

NASA-MSFC-MAF

ORIGINAL PAGE IS OF POOR QUALITY

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	RUN NUMBER 0.4			NO. of RUNS	δ_c	δ_c	δ_a	δ_r	Γ_N	i_c	i_W	CNO POS	WNG POS			
RN2521	B1C2F1W1V1	A	0	565/0			1	0	0	0	0	15	3	0	2	1			
522		0	A	566/0															
523		6		567/0															
524		15		568/0															
525	B1C2F1W1V2D1	A	0	514/0											1				
526		0	A	515/0															
527		6		516/0															
528		15		517/0															
529		A	0	509/0											2				
530		0	A	510/0															
531		6		511/0															
532		15		512/0															
533	B1C2F1W2D1	A	0	591/0										3	1				
534		0	A	592/0															
535		6		593/0															
536		15		594/0															
537		A	0	595/0											2				
538		0	A	596/0															
539		6		597/0															
540		15		598/0															

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	CAB			15
C.A.F.	BP(1)	BP(3)								MACH		

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

αA : -4, 0, 2, 4, 6, 8, 10, 15, 20

βA : -6, -3, 0, 3, 6

CANARD BOOSTER
MDAC
DR#1139 A-1- 39

CANARD BOOSTER
MDAC
DR#1139 A-1- 40

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	RUN NUMBER 0.4				NO. of RUNS	δ_e	δ_c	δ_a	δ_r	Γ_W	i_c	i_W	CND POS	WNG POS			
RN2541	BIC2F1W1V1	A	0	[illegible]/0				1	0	10	0	0	7°40'	3	0	1	1			
542		0	A	[illegible]/0																
543		6		[illegible]/0																
544		15		[illegible]/0																
545		A	0	[illegible]/0						20										
546		0	A	[illegible]/0																
547		6		[illegible]/0																
548		15		[illegible]/0																
549	BIC2F2W1V1	A	0	631/0												2				
550		0	A	632/0																
551		6		[illegible]/0																
552		15		634/0																
553	BIC2F1W1V2	A	0	[illegible]/0						0		–				1				
554		0	A	427/0								–								
555		6		[illegible]/0								–								
556		15		[illegible]/0								–								
557	BIC2F1W1V1	A	0	551/0								0								
558		0	A	552/0																
559		6		[illegible]/0																
560		15		560/0																

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	CAB			
C.A.F.	BF(L.W)	dP(3.)								MACH		

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

αA: -4, 0, 2, 4, 6, 8, 10, 15, 20

βA: -6, -3, 0, 3, 6

NASA-MSFC-MAF

ORIGINAL PAGE IS OF POOR QUALITY

TEST NSRDC-3110 DATASET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	RUN NUMBER 0.4				NO. of RUNS	PARAMETRIC VALUES δ_e	δ_c	δ_a	δ_r	Γ_W	i_c	i_N	CND POS	WNG POS			
RN2561	B1C2F1W1V1D2	A	0	847/0				1	0	0	0	0	7°40'	3	0	1	1			
562		0	A	848/0																
563		6		849/0																
564		15		850/0																
565	B1C3F3W1V1	A	0	839/0																
566		0	A	840/0																
567		6		841/0																
568		15		842/0																
569	B1C2F1W1V1D3	A	0	852/0																
570		0	A	853/0																
571		6		854/0																
572		15		855/0																
573	B2C2F1W1V1	A	0	857/0																
574		0	A	858/0																
575		6		859/0																
576		15		860/0																

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	CAB			3
C.A.F.	B.P.(1)	B.P.(3)								MACH		
										IDPVAR(1)	IDPVAR(2)	NDV

COEFFICIENTS:
α or β
SCHEDULES

αA: -4, 0, 2, 4, 6, 8, 10, 15, 20

βA: -6, -3, 0, 3, 6

CANARD BOOSTER
MDAC
DR#1139 A-1- 41

ORIGINAL PAGE IS
OF POOR QUALITY

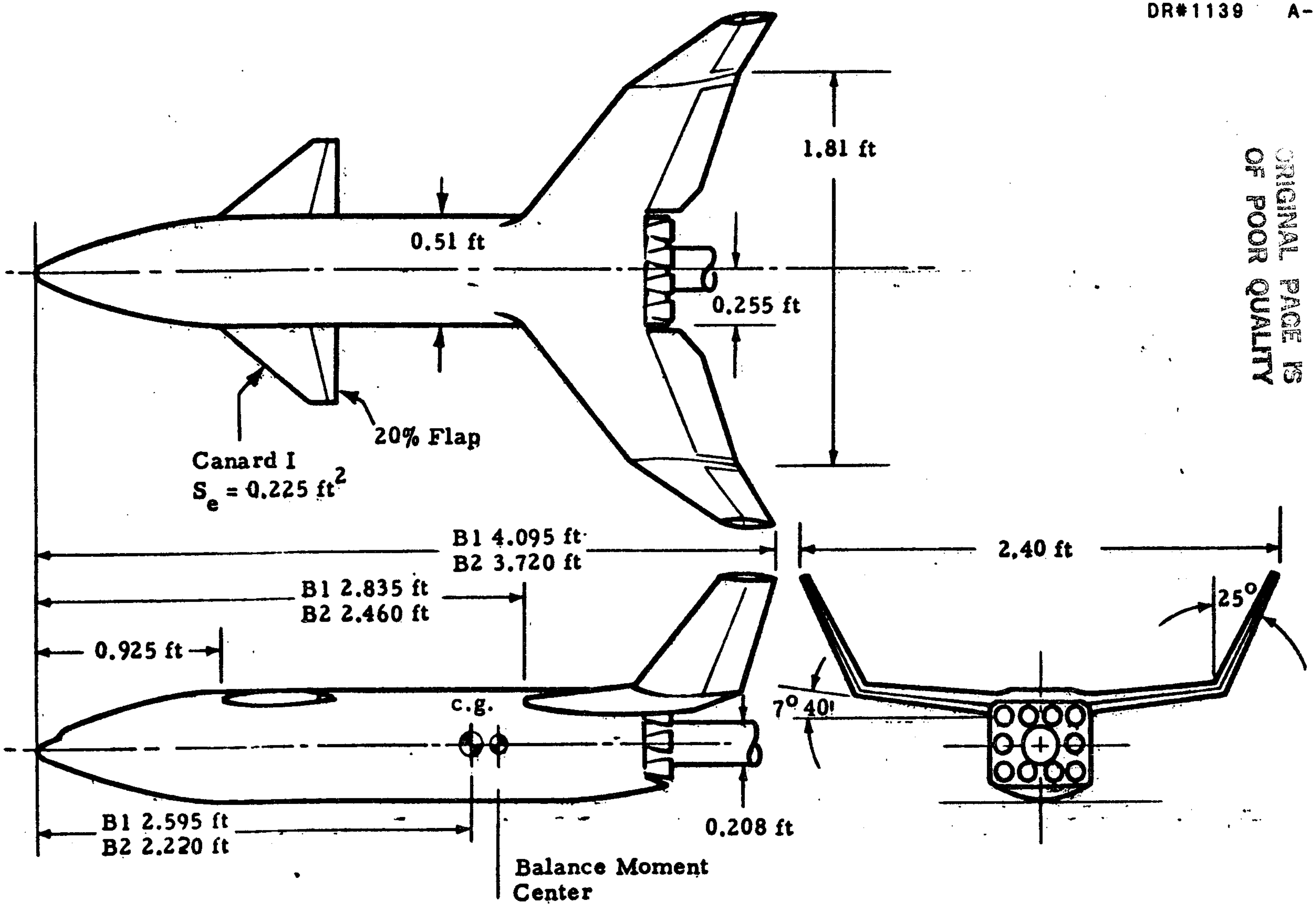


Fig. 2. General Arrangement of a Typical High Wing – High Canard Configuration

ORIGINAL PAGE IS
OF POOR QUALITY

LMSC-HREC D162856-A

48

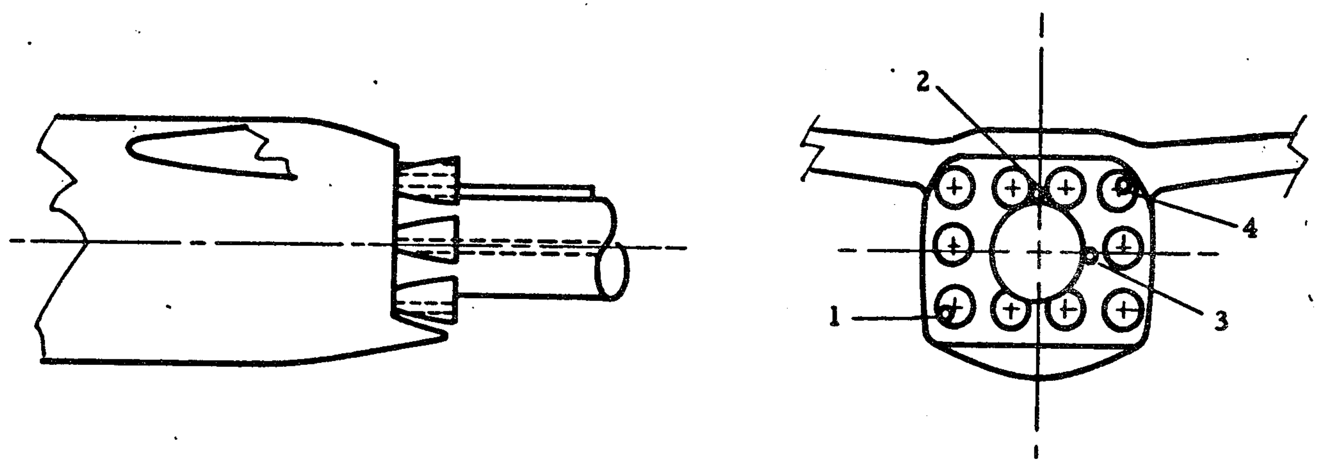


Fig. 4. - Location and Identification of Base Pressure Tubes

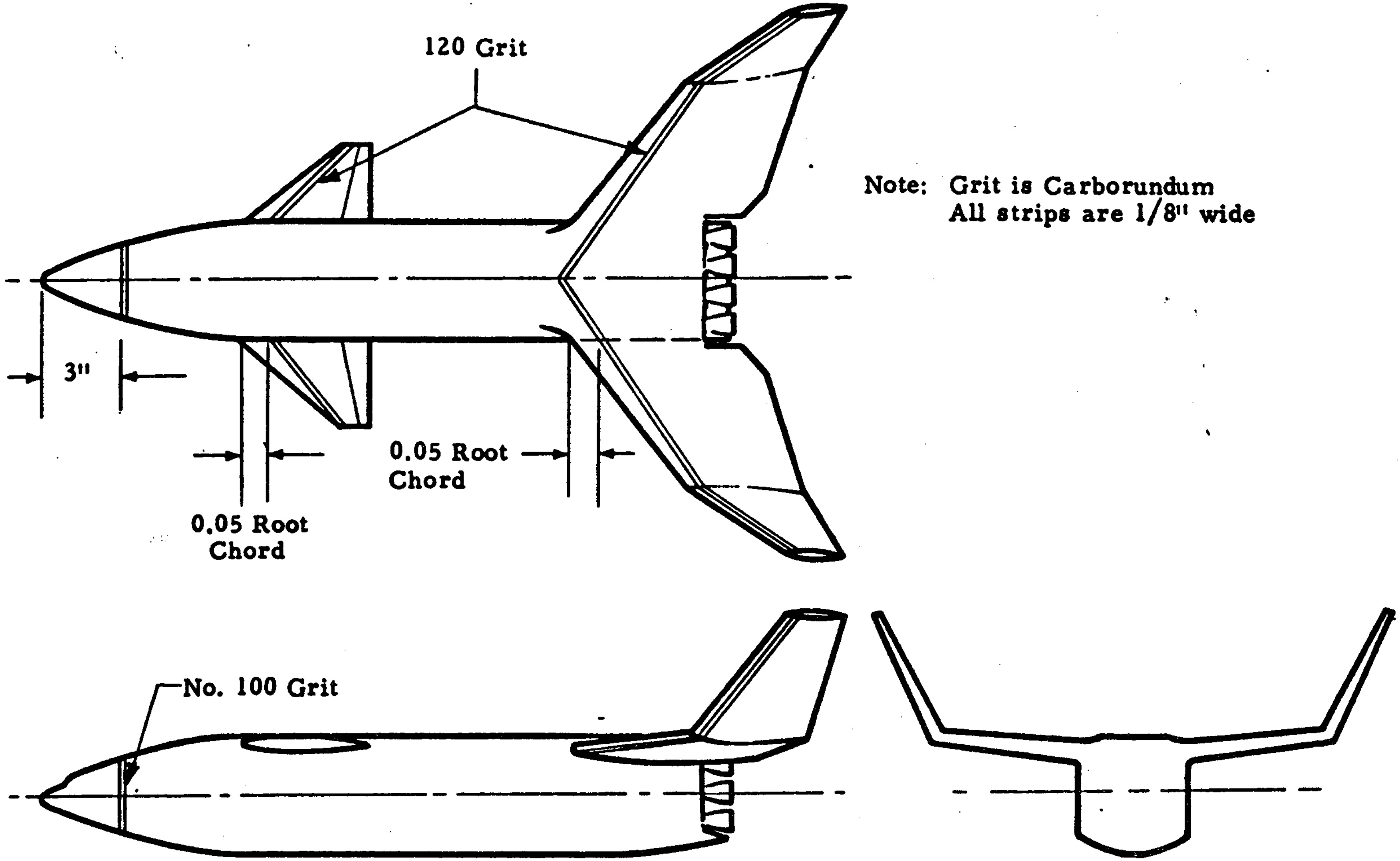


Fig. 5. - Typical Transition Grit Installation on Body, Wing and Canard

TEST MDAC LSWT 559 DATA SET COLLATION SHEET

☐ PRETEST

☐ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. M	β VALUE / COND. 0	5°	10°		NO. of RUNS	PARAMETERS / VALUES [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
RCE001	B1N1	A	.26	37	113	X		2	—	—	—	—	—	—	0		—	—	—	—
002	B1N1T1P1			38	37	116		3	—	—	3		—	—			—	0	—	—
003	B1N1W1			35	115	X		2	3	7.67	—		—	—			0	—	—	0
004	B1N1T1P1W1			43	45	44		3			3		—	—				0	—	
005	B1N1T1P1W1V1			45	46	47		3					3	65					0	
006				50	51	52		3					3	75						
007				53	54	55		3					6	65						
008				72	73	74		3		0			3							
009				56	X	X		1		7.67										
010				71	X	X		1	1											
011				70	X	X		1	1		0									
012				69	X	X		1	3		0									
013				63	X	64		2	3		3								5	
014				65	X	66		2											10	
015				67	X	68		2											0	10
016	B1N1T1P1W1V1G1			62	X	X		1											0	0
017	B1N1T1P1W1V2			58	59	60		3											0	
018	B1N1T2P1W1			108	109	X		2			0		—	—					—	

1 7 13 19 25 31 37 43 49 55 61 67 75 76

CL CD CLM CY CLN CSL CDF BETA ALPHA

COEFFICIENTS: → IDPVAR(1) IDPVAR(2) NDV

α or β SCHEDULES α SCHEDULE A: -6, -4, -2, 0, 2, 4, 6, 8, 10, 12, 14, 16, 20, 24

CANARD BOOSTER
MDAC/MMC
DR#1054 A-1- 45

25

ORIGINAL PAGE IS OF POOR QUALITY

CANARD BOOSTER
MDAC/MMC
DR#1054 A-1- 46

TEST MDAC LSWT 259 DATA SET COLLATION SHEET

☐ PRETEST
☐ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. M	β VALUE / RUN NO. 0	5°	10°		NO. of RUNS	PARAMETERS / VALUES [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
RCE019	BIN2T1P1W2	A	.26	104	105	X		2	3	2.67	0	—	—	—	0	0	0	0	—	0
020	BIN2T1P1W2V1			87	88	89		3		0	3		3	65						
021				90	91	92		3											0	
022				93	X	X		1	1	2.67										
023	BIN2T1P1W2V1G2			95	X	X		1	3											
024	BIN2T2P1W2			101	102	X		2			0		—	—					—	
025	BIN2T2P1W2V1			97	98	X		2			0		3	65						
026				96	X	X		1			3								0	
027	BIN1T1P1W3V1			76	77	78		3												
028	BIN3T1P1W3V1			80	X	81		2												
029	BIN9T1P1W3V1			82	X	X		1												
030	BIN2T1P1W4V1			85	X	X		1												
031	BIN1W1V1			117	118	X		2			—							—		
032	BIN1J1W1V1			124	125	126		3			—	3						0		
087	BIN2T1P1W2V1	E		2322	2323			2			3	—			60	3.03				
088	BIN2J1W2V5			331	335	336		3			—	3	—	—	0	0				
089	BIN1J1W1V5			339	340	341		3			—	3	—	—	0	0				

1 7 13 19 25 31 37 43 49 55 61 67 75 76

COEFFICIENTS: CL CD CLM CY CLN CSL CB? BETA ALPHA

IDPVAR(1) IDPVAR(2) NDV

α or β SCHEDULES
α SCHEDULE A: -6, -4, -2, 0, 2, 4, 6, 8, 10, 12, 14, 16, 20, 24
α SCHEDULE E: -6, -4, -2, 0, 2, 4, 6, 8, 10, 12, 14, 16

26

ORIGINAL PAGE IS OF POOR QUALITY

TEST MMC LSWT 239 DATA SET COLLATION SHEET

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	CONTROL DEFLECTION δ_C	δ_E	δ_F	δ_A	NO. of RUNS	PARAMETERS / VALUES δ_{TW}	Γ_W	δ_{TT}	δ_{TU}	δ_V	Γ_V	P_{JT}	M	PJ/%			RUN NO.
FCE 033	B1N1T1P1W1V1	0	B	0	0	0	0	1	3	7.67	3	—	3	65	0	.26	0			45
034	B1N1T1P1W1V1T	0				0					3		3	65						49
035	B1N1T1P1W1	10				—					0		—	—						107
036	B1N1T2P1W1					—							—	—						110
037	B1N1T2P1W1V1					0							3	65						111
038	B1N2T1P1W2					—							—	—						106
039	B1N2T2P1W2					—							—	—						103
040	B1N2T2P1W2V1					0							3	65						95
041	B1N1J1W1V1	0			15						—	3			344		2.36			215
042		5			15										344		2.36			216
085	B1N2J1W2V5	10			0										0		0.			337
086	B1N1J1W1V5	10			0										0		0			342

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CL	CD	CLM	CY	CLN	CSL	CBB				ALPHA	BETA	

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES: B: -10, -8, -6, -4, -2, 0, 2, 4, 6, 8, 10

CANARD BOOSTER
MDAC/MMC
DR#1054 A-1- 47

ORIGINAL PAGE IS OF POOR QUALITY

27

CANARD BOOSTER
MDAC/MMC
DR#1054 A-1- 48

TEST MDAC LSWT 239 DATA SET COLLATION SHEET

☐ PRETEST
☒ POSTTEST

* INDICATES CONFIGURATION WITH $\delta_{MW} = 3°$, $\Gamma_W = 7.67°$, $\delta_{ic} = \delta_{iT} = 3°$
$\delta_V = 3°$ AND $\Gamma_V = 65°$

DATA SET IDENTIFIER	CONFIGURATION *	SCHD. α	SCHD. β	CONTROL DEFLECTION δ_E	δ_F	δ_R	M	NO. of RUNS	PJT/P∞ VALUES / RUN NO. 1.65	1.85	2.02	2.19	2.36	2.52	2.70	2.75	2.84	2.90	2.96	3.03
RCE 013	B1N1J1W1V1	0	0	0	30	0	.184	12	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178
014	|	6	0	0	30	0	.36	12	2191	2192	2193	2194	2195	2196	[illegible]	[illegible]	[illegible]	2200	2201	2202
015	|	6	0	0	30	0	0	1	2166	2166	2166	[illegible]	2166	2166	2166	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

1 7 13 19 25 31 37 43 49 55 61 67 75 76

CL CD CLM CY CLN CSL CD3 RPJTRGALPHA

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β
SCHEDULES

28

ORIGINAL PAGE IS
OF POOR QUALITY

Revised 11/6/80
PJC

TEST MDAC LSWT 239 DATA SET COLLATION SHEET

⁂ INDICATES CONFIGURATION WITH $\delta_{SW}=3°$, $\Gamma_W=7.67°$, δ_{IJ} OR $\delta_{IT}=3°$
$\delta_V=3°$ AND $\Gamma_V=65°$

☐ PRETEST

☒ POSTTEST

NOTE: AT M=0 THE COEFFICIENTS ARE REDUCED USING q=100 PSF

DATA SET IDENTIFIER	CONFIGURATION ⁂	SCHD. α	SCHD. β	CONTROL DEFLECTION δ_E	δ_T	δ_R		NO. OF RUNS	PJ/PC VALUES / RUN NO. [illegible]	1.85	2.[illegible]	[illegible]	[illegible]	[illegible]	3.20					
RCE 046	BINIJINIVI	E	0	0	0	0		3	X	[illegible]	X	2152	[illegible]	X	X					M 0
047					15			4	X	157	X	2158	2159	X	2160					
048					30			4	X	2141	X	2142	X	2143	2156					
049					45			3	X	2138	X	2139	X	2140	X					
050					60			2	X	2127	2128	X	X	X	X					
051					0			4	204	2205	X	2206	2207	X	X					.26
052					15			5	143	2149	X	2150	2153	X	2154					
053					30			5	144	2145	X	2146	X	2147	2155					
054					45			4	133	2135	X	2136	X	2137	X					
055					60			3	132	2130	2131	X	X	X	X					
056	BINIJIYNI				30			1	X	X	X	2221	X	X	X					
057	BINLJI		5		15			1	X	X	X	2223	X	X	X					
058			0		15			4	227	2224	X	2225	2226	X	X					
059	BIN2JIW2VI		0					3	X	2228	X	2229	2230	X	X					0
060			5					1	X	X	X	2231	X	X	X					
061			0		30			3	X	2232	X	2233	X	2234	X					
062			0		15			4	242	2241	X	2242	2243	X	X					.26
063			5		15			1	X	X	X	2244	X	X	X					
064			0		30			4	236	2237	X	2238	X	2239	X					

1 7 13 19 25 31 37 43 49 55 61 67 75 76

CL	CD	CLM	CY	CLN	CSL	CD3				BETA/ALPHA	

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES α SCHEDULE E: -6, -4, -2, 0, 2, 4, 6, 8, 10, 12, 14, 16

CANARD BOOSTER
MDAC/MMC
DR#1054 A-1- 49

29

ORIGINAL PAGE IS OF POOR QUALITY

TEST MDAC LSWT 239 DATA SET COLLATION SHEET

* INDICATES CONFIGURATION WITH $\delta_{SW} = 3°$, $\Gamma_V = 7.47°$, δ_{I1} or $\delta_{I7} = 3°$
$\delta_V = 3°$ AND $\Gamma_V = 65°$

NOTE: AT M=0 THE COEFFICIENTS ARE REDUCED USING $\bar{q}$=100 PSF

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION *	SCHD. α	β	CONTROL DEFLECTION $\delta_?$	$\delta_?$	$\delta_?$		NO. of RUNS		P_{C}/P_{∞} VALUES / RUN NO. 0	2.02	2.36	2.50	2.86	3.05	3.20			M
RCE 065	BIN2J3 W2 V1	E	0	0	30	0		3		235		2245				2246			.26
066								2				2248				2247			0 SEE NOTE
067	BIN2J4 W2V1							1				2249							
068								2		236		2250							.26
069	BIN1J5 W1 V1							4		144			2253	2252		2251			
070					45			4		133			2256	2255		2254			
071					60			4		132			2259	2258		2257			
072					30			3					2268	2267		2266			0 SEE NOTE
073					45			3					2265	2264		2263			
074					60			3					2262	2261		2260			
075	BIN1T1P1W1V1				0			2			2275				2276				
076								3		316	2277				2278				.26
077	BIN4T1P1W1V1							2		308					2309				
079	BIN6T1P1W1V1							2		314					2315				
080	BIN2T1P1W2V1							5		87	2321				2322				
081								2			2318				2319				0 SEE NOTE
082	BIN5T1P1W1V1							2		312					2313				.26

1 7 13 19 25 31 37 43 49 55 61 67 75 76

CL CD CLM CY CLN CSL CDF RPITPA ALPHA

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES: α SCHEDULE E: −6, −4, −2, 0, 2, 4, 6, 8, 10, 12, 14, 16

30

ORIGINAL PAGE IS OF POOR QUALITY

TEST MDAC LSWT 639 DATA SET COLLATION SHEET

☐ PRETEST

☒ POSTTEST

* INDICATES CONFIGURATION WITH $\delta_{BW} = 5°$, $\Gamma_W = 7.67°$, δ_{2J} OR $\delta_{1T} = 5°$, $\delta_V = 5°$ AND $\Gamma_V = 65°$

DATA SET IDENTIFIER	CONFIGURATION *	SCHD. α	SCHD. β	PARAMETERS δ_R	δ_F	F/?	M.	NO. of RUNS	ELEVON DEFLECTIONS, δ_E: -30	-20	-10	0	10	20	30
RCE 090	BIN1J1 W1 V1	E	0	0	0	2.7?	.??	3		2219	2208	2207			
091					15	2.7?		3			2209	2153	2216		
092					30	2.3?		3			2210	2146	2215		
093					45	2.34		4			2211	2156	2214	2218	
094					60	1.85		4			2212	2150	2213	2217	
095	BIN1T1P1W1V1				0	2.0?		1				2277			
096					0	3.03		4	2300	2294	2292	2278			
097					10			4		2296	2290	2280	2302		
098					20			3			2288	2282	2304		
099					30			3			2286	2284	2306		
100					0	0		4	299	293	291	45			
101					10			4		295	289	279	301		
102					20			5	298	297	287	281	303		
103					30			3			285	283	305		
105	BIN2T1P1W2V1				0			2			324	90			
106					20			1			326				
107					0	3.05		3		2328	2325	2322			
108					20	3.03		1			2327				

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CL	CD	CLM	CY	CLN	CSL	CD?				ELEV	ALPHA	

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

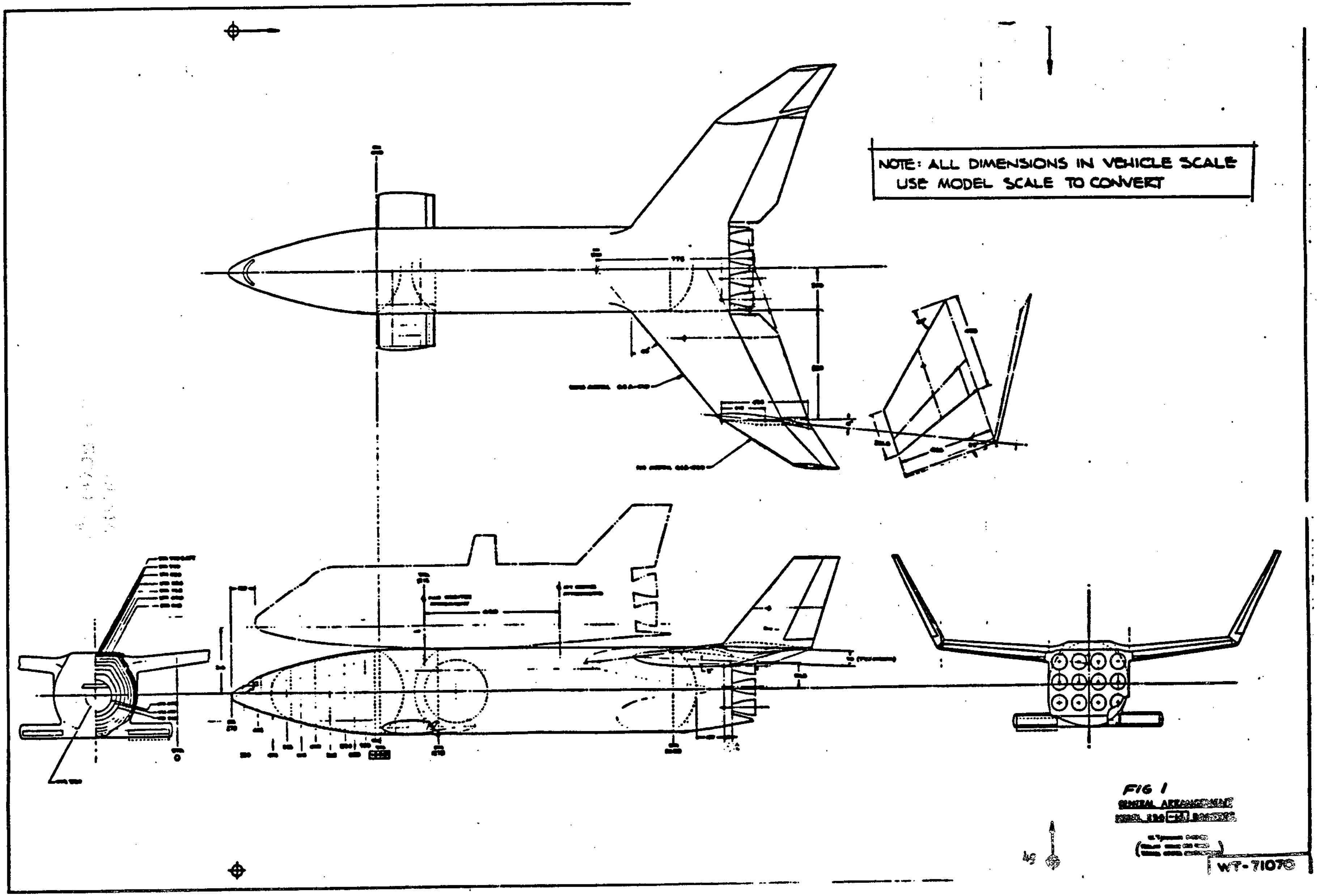
α or β SCHEDULES: α SCHEDULE E: -6, -4, -2, 0, 2, 4, 6, 8, 10, 12, 14, 16

ORIGINAL PAGE IS OF POOR QUALITY

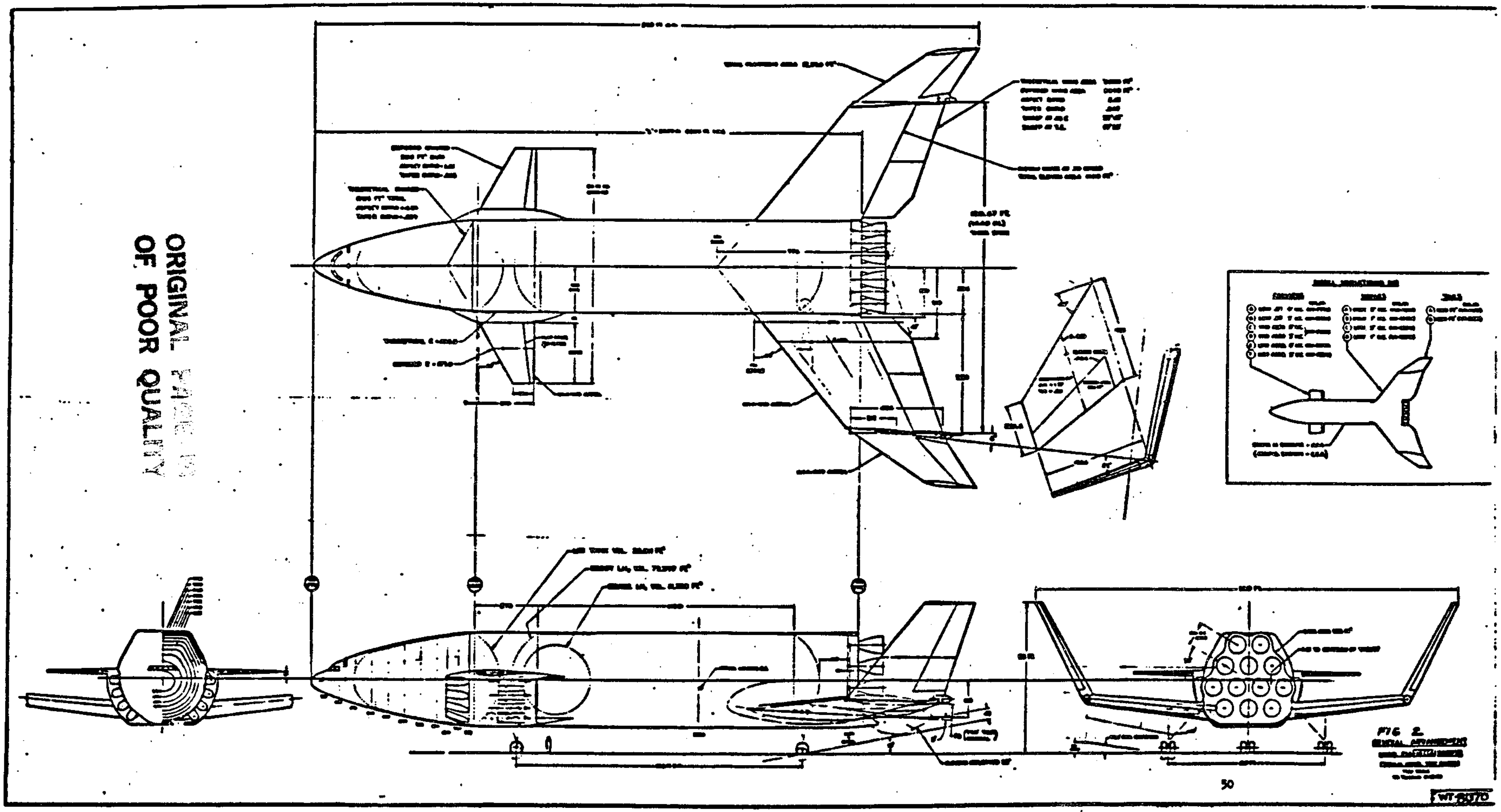
31

CANARD BOOSTER
MDAC/MMC
DR#1054 A-1- 51

CANARD BOOSTER
MDAC/MMC
DR#1054 A-1- 52

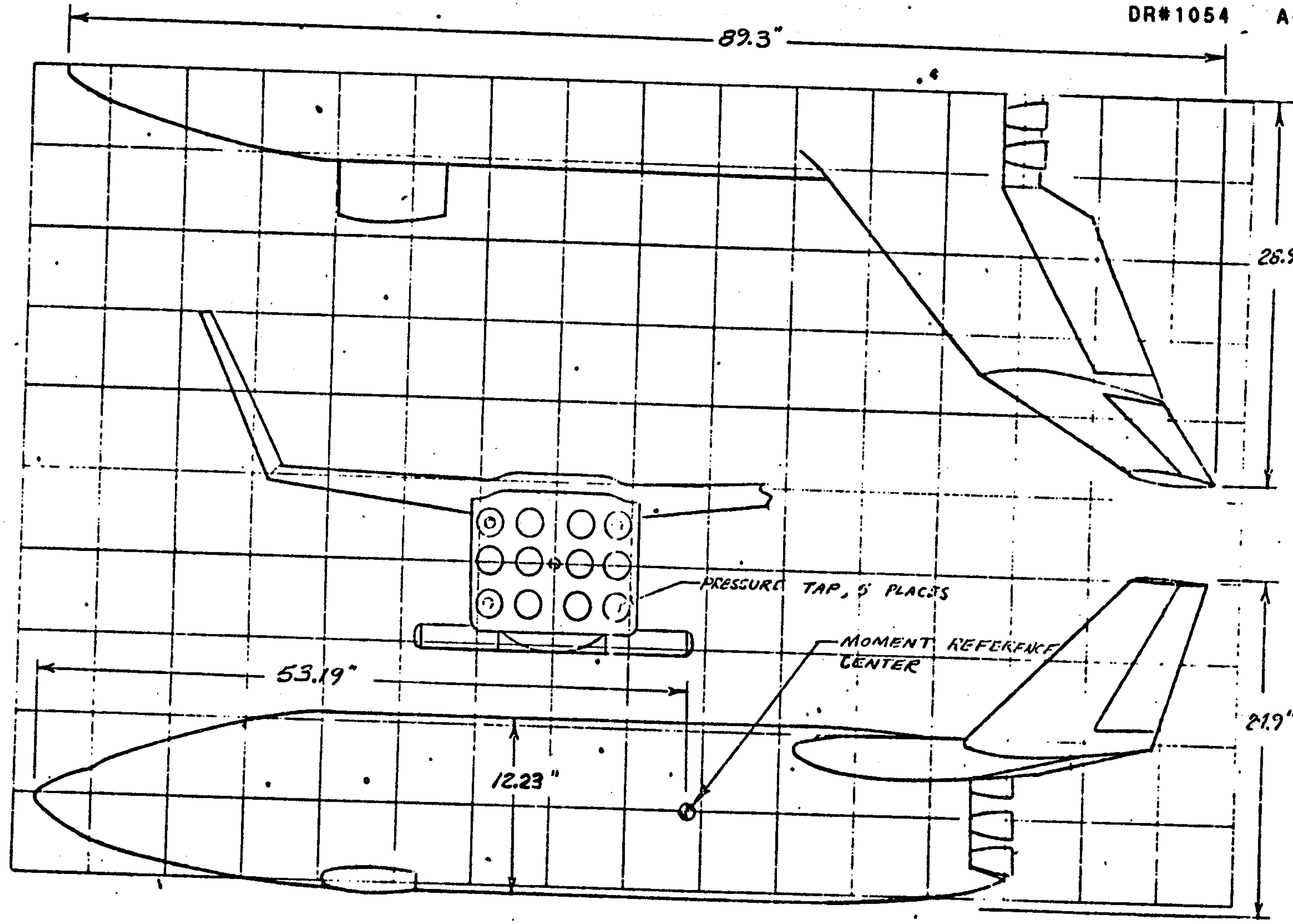


ORIGINAL PAGE IS
OF POOR QUALITY



CANARD BOOSTER
MDAC/MMC
DR#1054 A-1- 53

CANARD BOOSTER
MDAC/MMC
DR#1054 A-1- 54



51

Figure 3 BASELINE MODEL CONFIGURATION

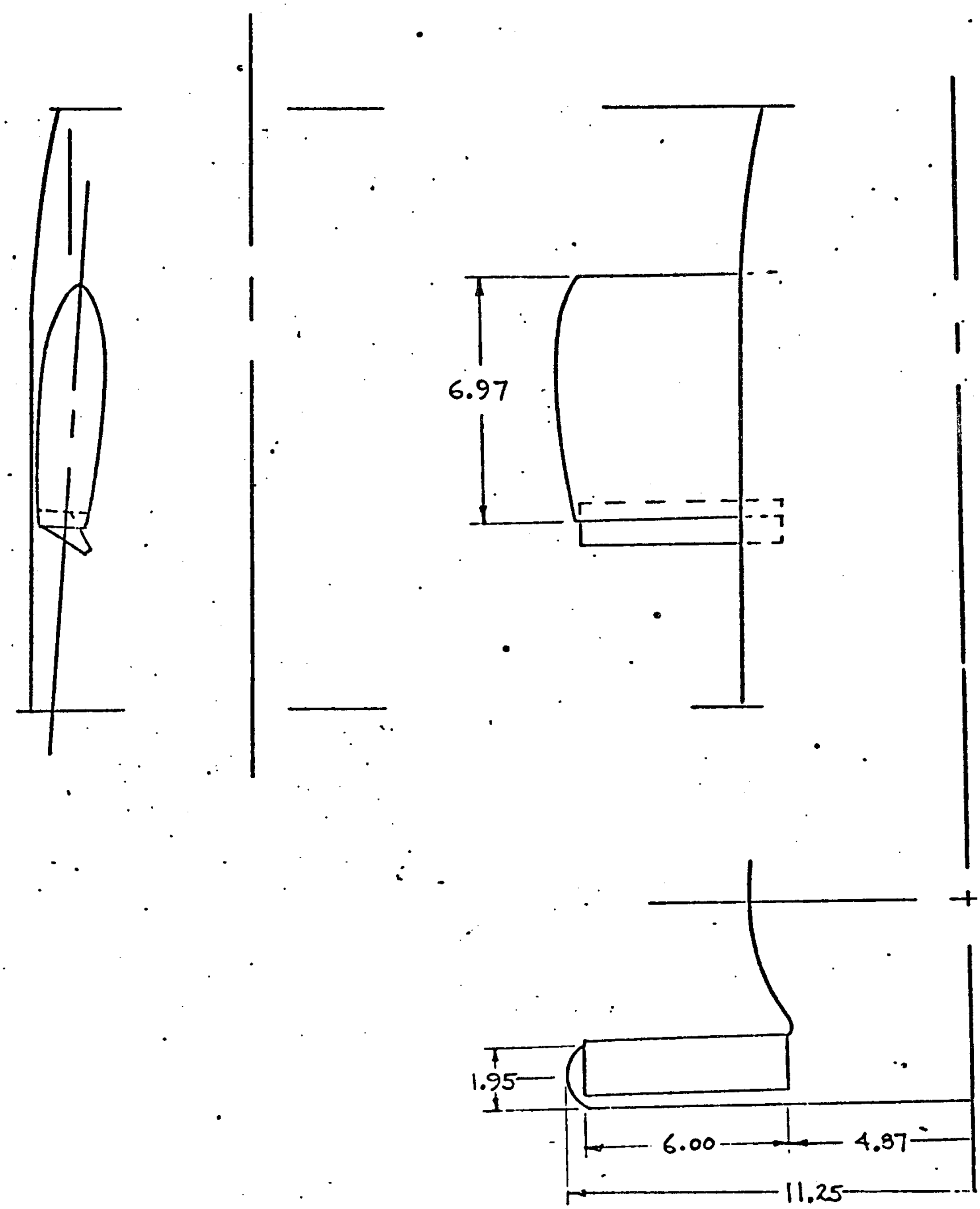


FIG 4a PROPULSIVE CANARD

ORIGINAL PAGE IS
OF POOR QUALITY

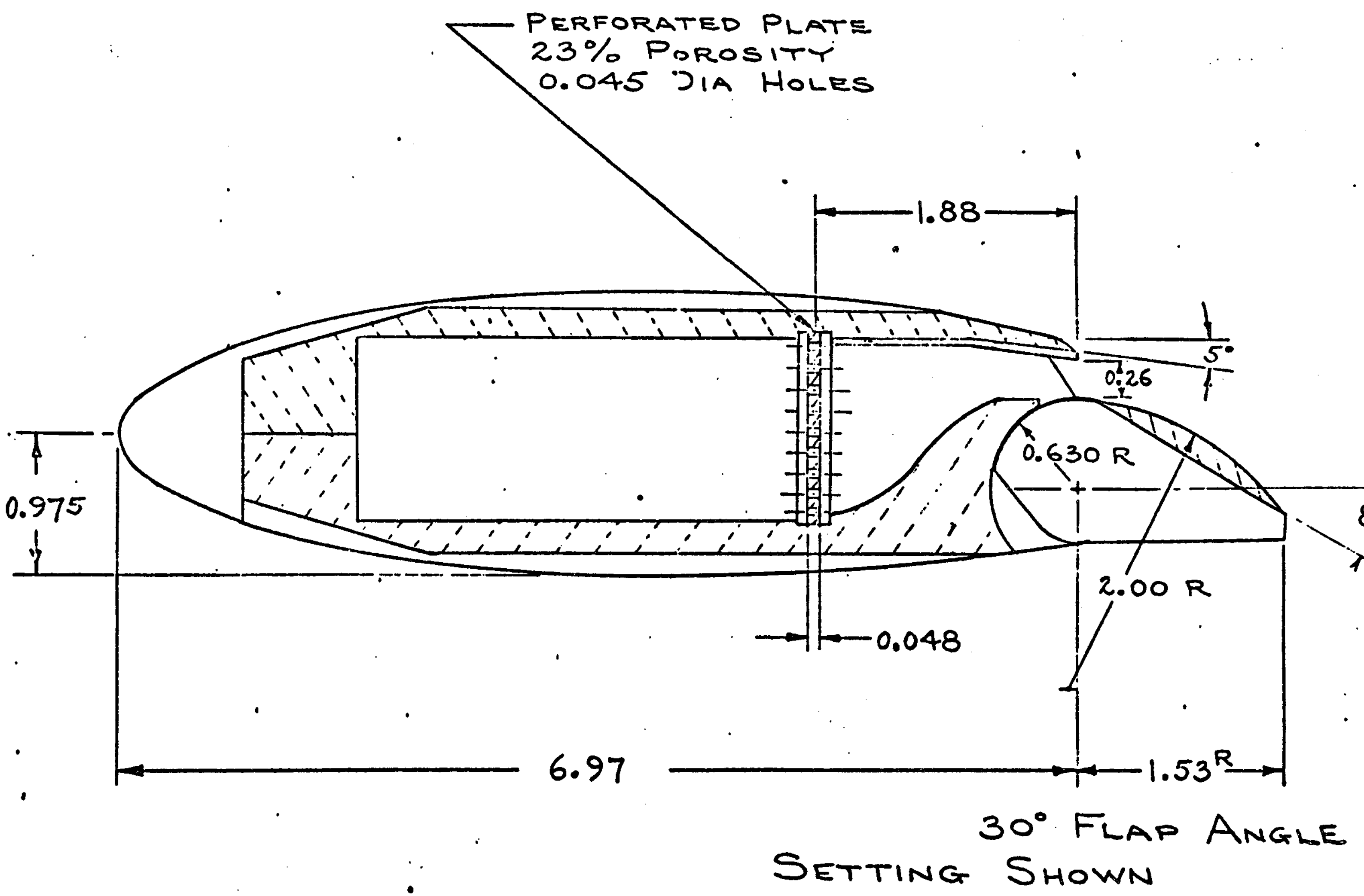


FIG 4b PROPULSIVE CANARD INTERNAL DETAILS

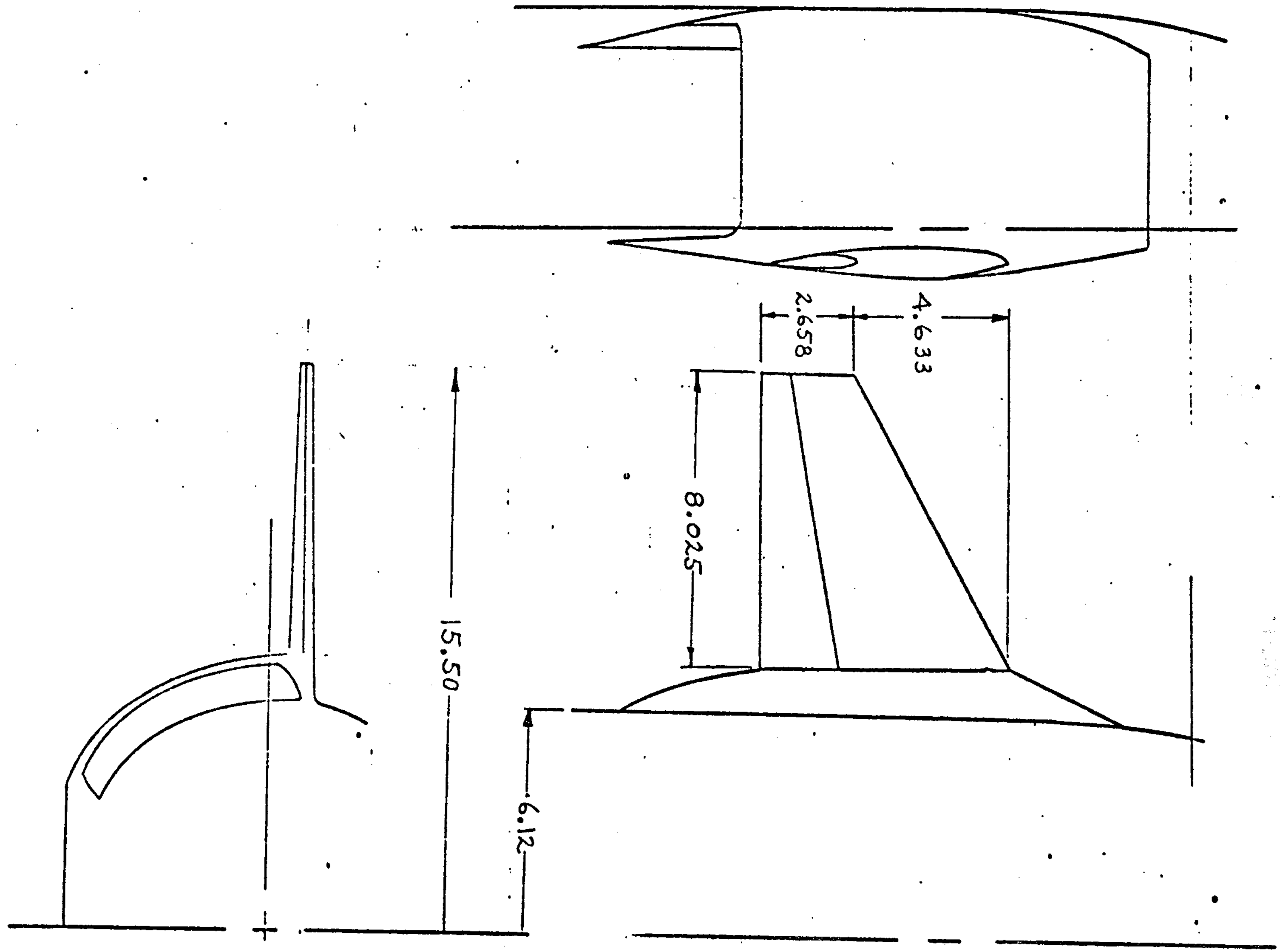


FIG 4C MID AERO CANARD AND PODDED ENGINES

54

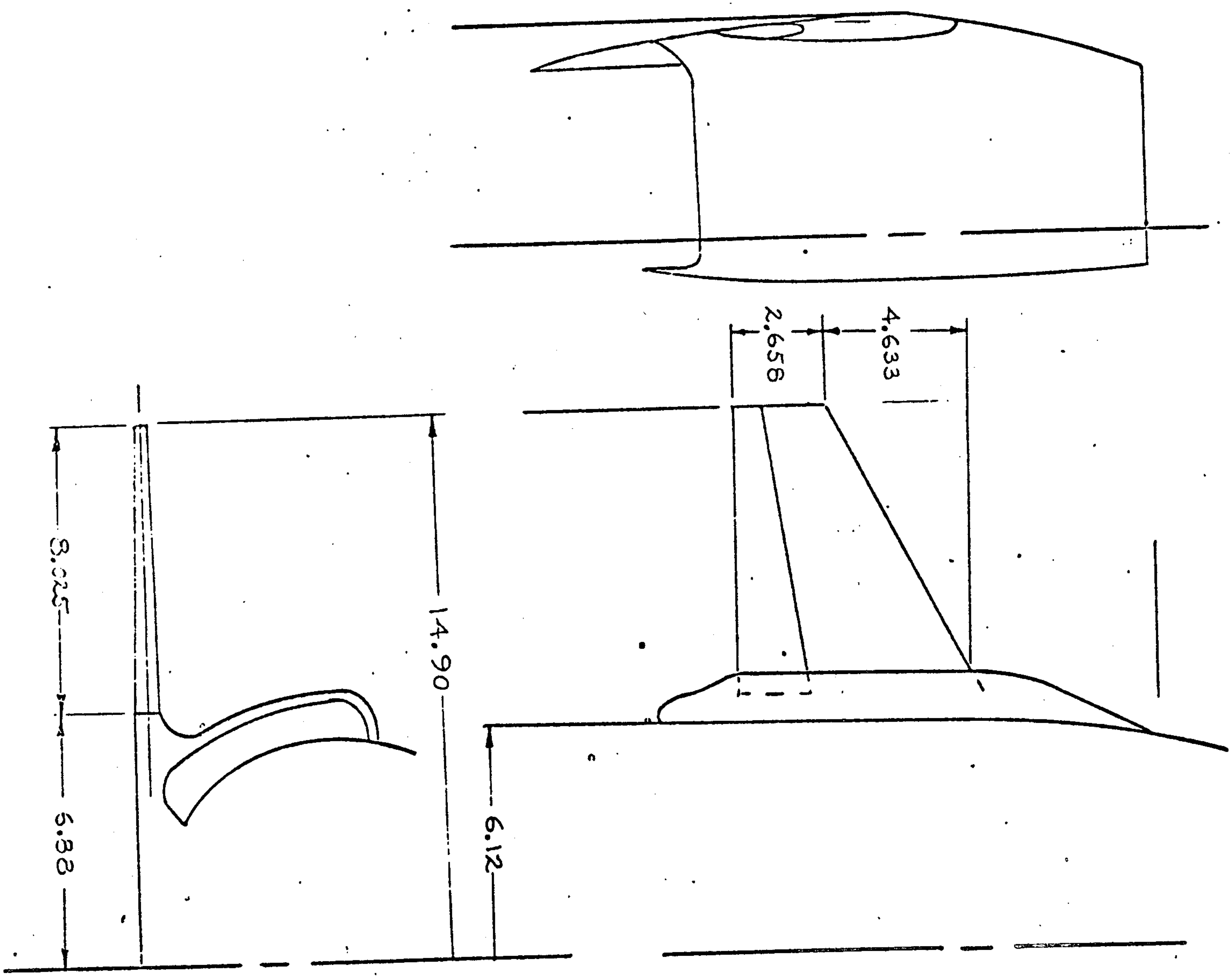
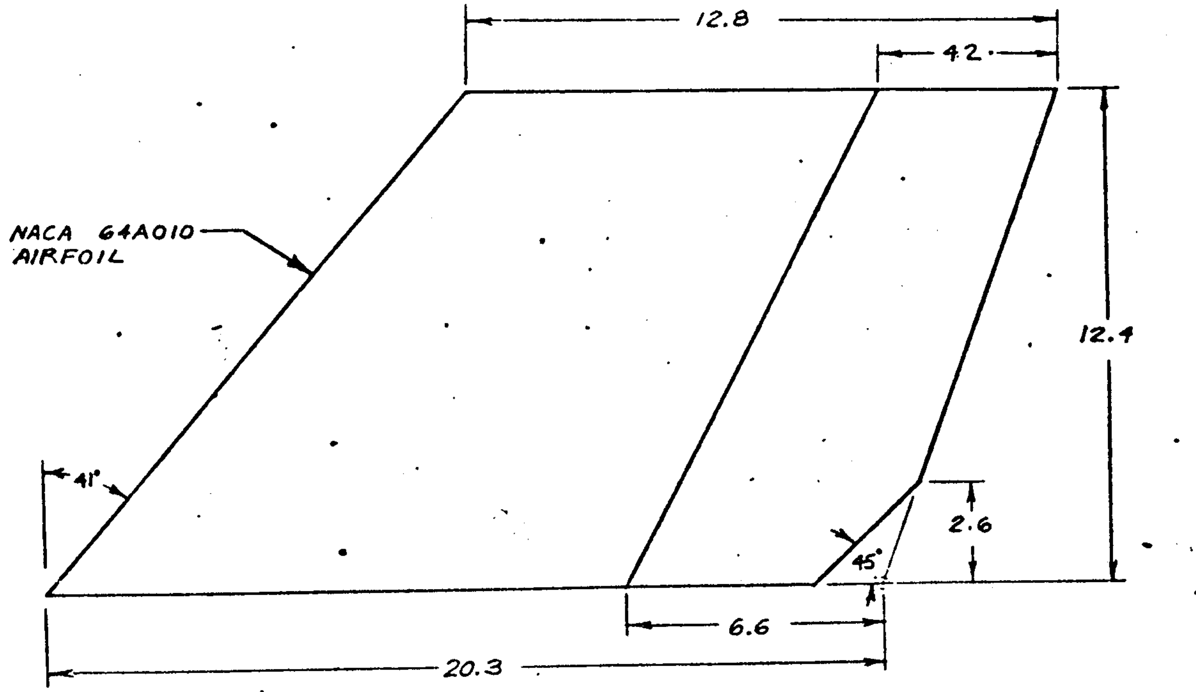
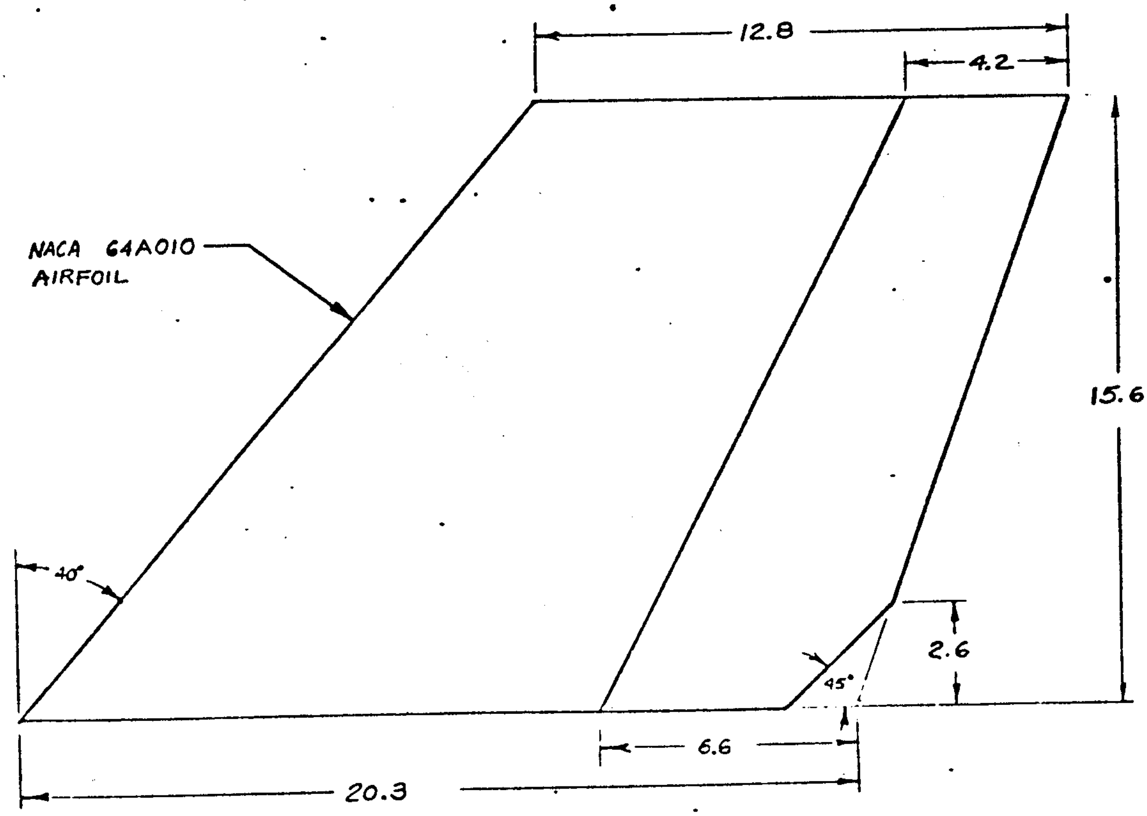


FIG 4d LOW AERO CANARD AND PODDED ENGINES



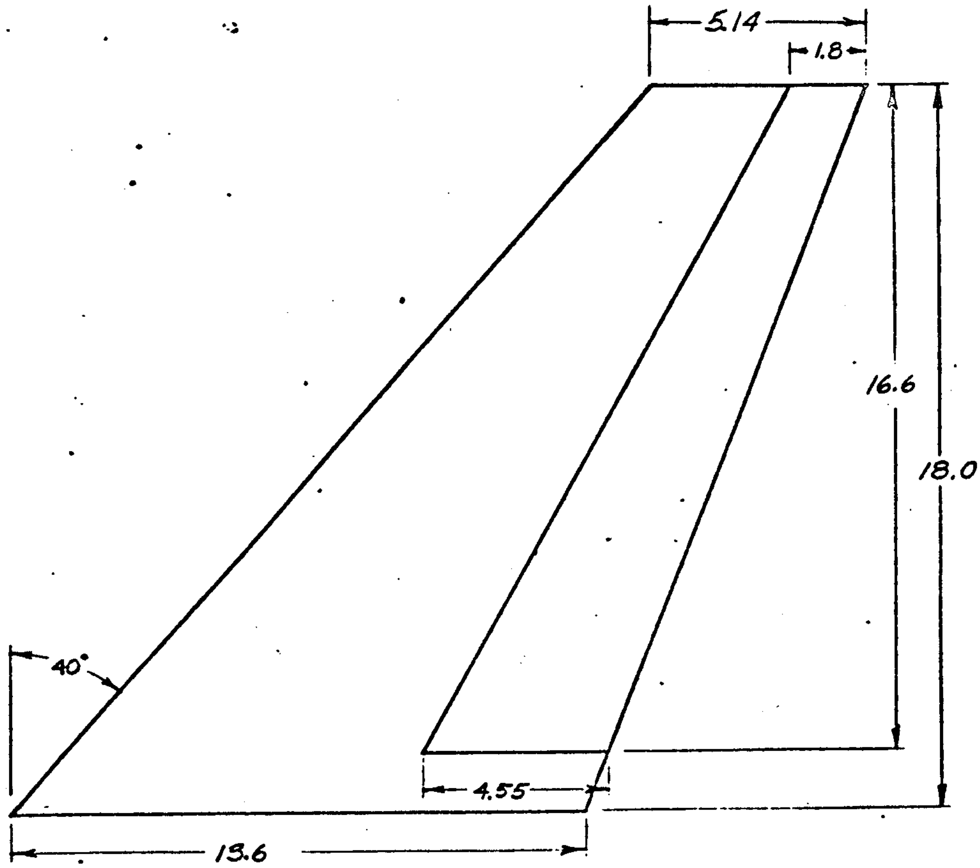
WING PANEL W3 & W4

DIMENSIONS ARE IN INCHES



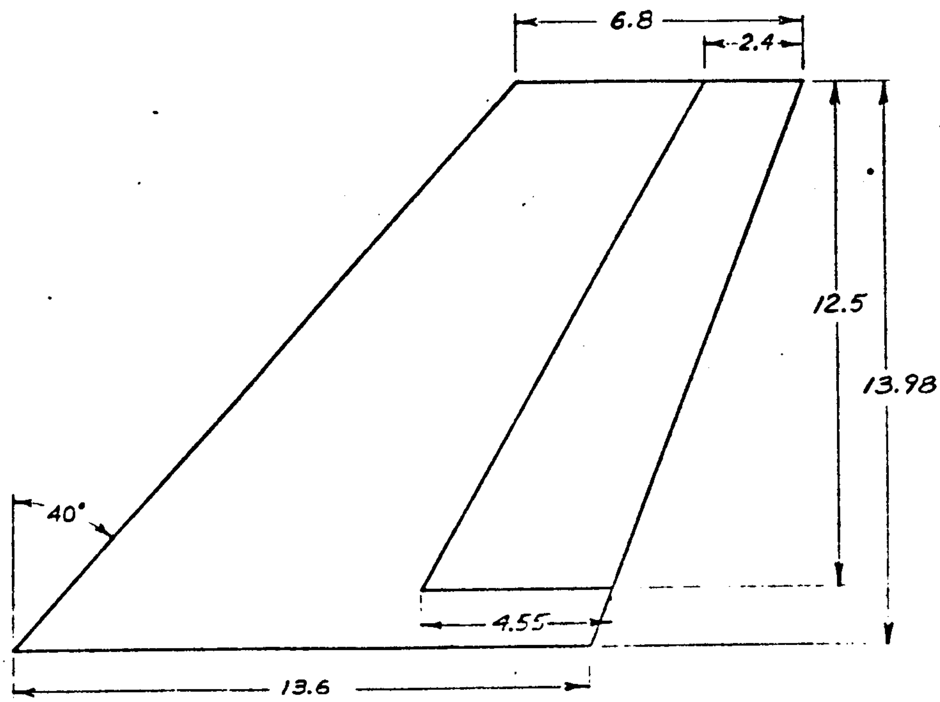
WING PANEL W1 & W2

FIG 4e



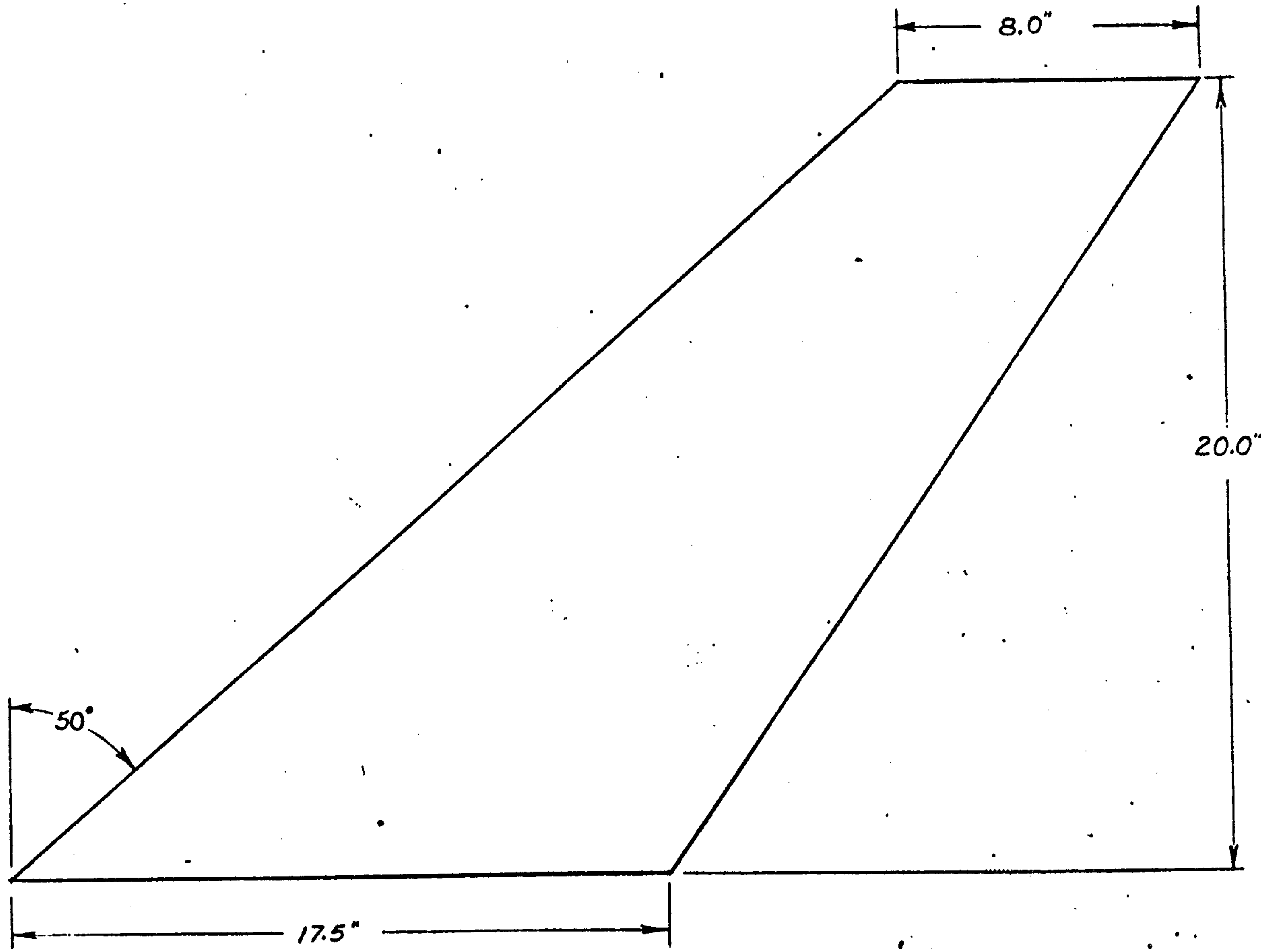
TIP FIN V2

DIMENSIONS ARE IN INCHES



TIP FIN V1

FIG 4f



SINGLE CENTER FIN V5

Fig 48

CANARD BOOSTER
MDAC/MMC
DR#1054 A-1- 61

ORIGINAL PAGE IS
OF POOR QUALITY

NOTES:

1. BASE PRESSURE TAPS ARE NUMBERED 1 THRU 16.
2. ALL PRESSURE TAPS ARE FLUSH WITH BASE PLATE, EXCEPT FOR NOS. 2, 3, 4 AND 5 WHICH EXTEND APPROX. .95 IN.
3. SEE COMPONENT NOMENCLATURE FOR DIFFERENCES BETWEEN N1, N3, N4, N5, N6, N7, N9, N20, N30 AND N40.

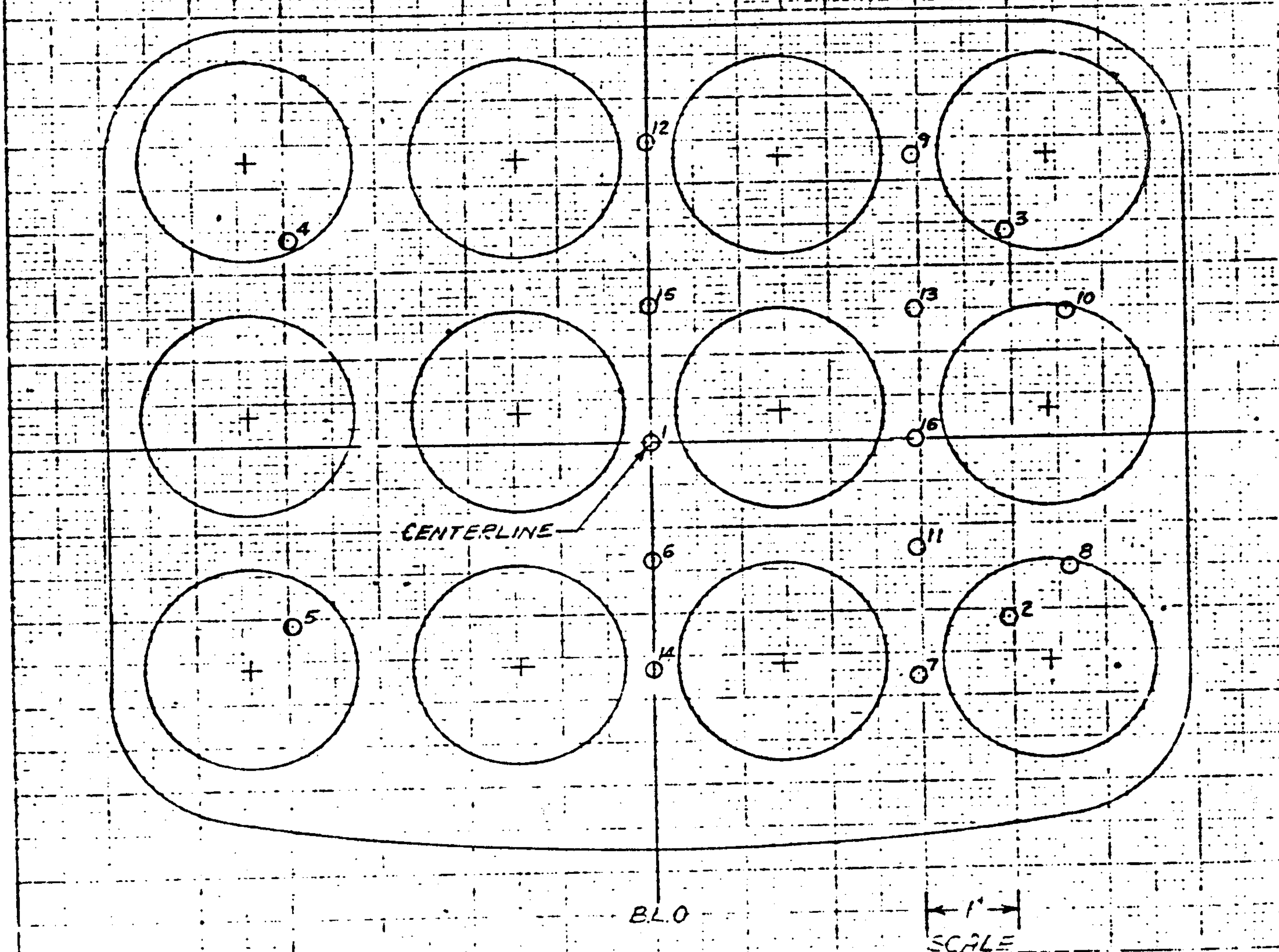


FIG 4h BASE NOZZLE ARRANGEMENT ON HIGH WING CONFIGS.

NOTES:

1. BASE PRESSURE TAPS ARE NUMBERED 1 THRU 16.
2. ALL PRESSURE TAPS ARE FLUSH WITH BASE PLATE, EXCEPT FOR NOS. 2, 3, 4 AND 5 WHICH EXTEND APPROX. .75 IN.
3. SEE COMPONENT NOMECLATURE FOR DIFFERENCES BETWEEN N2, N8 AND N20.

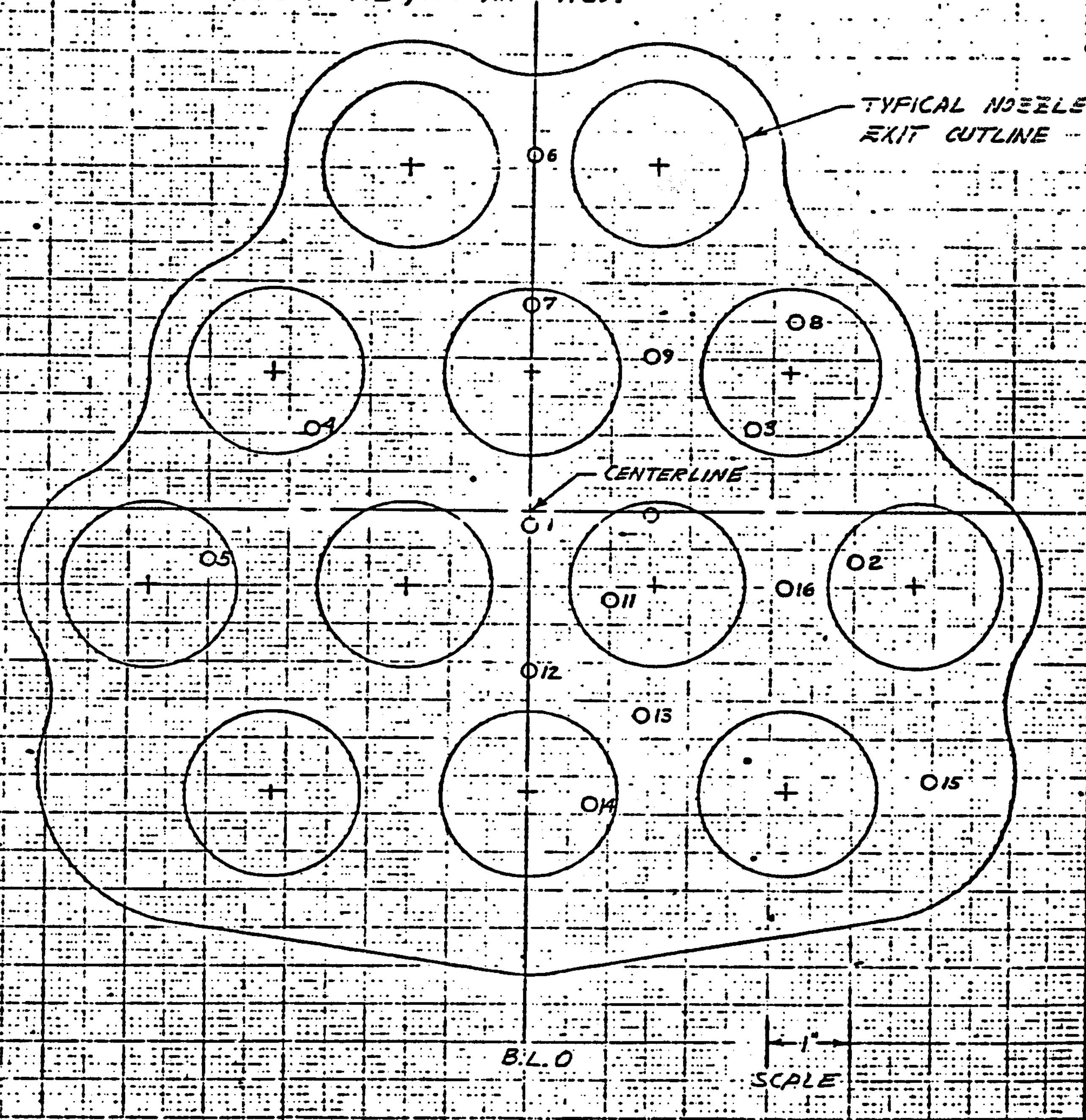


FIG 4i BASE NOZZLE ARRANGEMENT ON LOW WING CONFIGS.

Table 7

CANARD BOOSTER
MDAC/MMC
DR#1066 A-1- 64

TEST Ames - 504 DATA SET COLLATION SHEET
MCD Booster

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES δe	δa	δr	δ_{TW}	δ_{rc}	δ_F	# of runs	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE,	0.6	0.85	1.1	1.2	1.5	2.0			
RAD011	B_1	A	O	–	–	–	–	–	–	4		4		3		2	1			
012	✓	C	O	–	–	–	–	–	–	4				40	39	38	37			
013	✓	O	D	–	–	–	–	–	–	5		36	35	34		33	32			
014	✓	50	D	–	–	–	–	–	–	5		78		77	76	75	74			
021	$B_1W_1E_1$	A	O	0	0	–	3.0	–	–	5		9	8	7		6	5			
051	$B_1N_3W_1E_1$	C	O	0	0	–	3.0	–	–	3					43	42	41			
041	$B_1N_1W_1E_1J_1$	O	D	0	0	–	3.0	0.0		3		31		30			29			
042	✓	A	O	0	0	–	3.0	0.0		5		161	163	160		162	159			
101	$B_1N_3W_1E_1J_1$	50	D	0	0	–	3.0	0.0		3					63	62	61			
031	$B_1N_1W_1E_1V_1R_1J_1$	A	O	0	0	0	3.0	0.0		5		14	13	12		11	10			
032	✓	↓	↓	-10	↓	↓	↓	↓		3		17		16			15			
033	✓	↓	↓	-20	↓	↓	↓	↓		3		104		103			102			
034	✓	↓	↓	10	↓	↓	↓	↓		3		107		106			105			

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CAB	CLM	CY	CYN	CBL	CNC			MACH	ALPHA	8
										IDPVAR(1)	IDPVAR(2)	NDV

COEFFICIENTS:

α or β SCHEDULES

A = -1.5, 0, 3, 5, 8, 12, 16, 20, 24, 28
C = 32, 35, 40, 45, 50, 55, 60
D = -11.5, -10, -5, 0, 2, 5, 8, 13
E = -10, -5, -3, 0, 2, 5, 8, 13

ORIGINAL PAGE IS OF POOR QUALITY

65

Table 7 (Cont.)

TEST Ames-504 DATA SET COLLATION SHEET

②

☐ PRETEST

☐ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES δ_e	δ_a	δ_r	δ_{TW}	δ_{TC} NO. OF RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE. δ_F	# of runs		0.6	0.85	1.10	1.20	1.50	2.0			
RAD035	$B_1N_1W_1E_1V_1R_1J_1$	A	0	0	0	0	1	0	0	3		110		109			108			
036	✓	A	5	0	0	0	3			5		143	142	141		140	139			
037	✓	0	D	0	0	0				5		22	21	20		19	18			
038	✓	0	D	0	10	0				3		25		24			23			
039	✓	0	D	0	0	10				3		28		27			26			
091	$B_1N_3W_1E_1V_1R_1J_1$	C	0	0	0	0				5		48		47	46	45	44			
092	✓	C	0	-20	0	0				3					51	50	49			
093	✓	C	5	0	0	0				4		82			81	80	79			
094	✓	50	D	0	0	0				5		60		59	58	57	56			
095	✓	50	D	0	0	10				3					55	54	53			
081	$B_1N_1W_1E_1V_1R_1T_2F_2P_1$	A	0	0	0	0			0	3		113			112		111			
082	✓	A	0	0	0	0			20	3		116			115		114			
111	$B_1N_1W_1E_1V_1R_1T_1F_2P_1$	A	0	0	0	0			0	3		119			118		117			
112		0	E	0	0	0	3	0	0	3		147			146		145			

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CAB	CLM	CY	CYN	CBL	CNL			MACH	ALPHA	B

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

60

ORIGINAL PAGE IS OF POOR QUALITY

CANARD BOOSTER
MDAC/MMC
DR#1066 A-1- 65

Table 7 (Cont.)

CANARD BOOSTER
MDAC/MMC
DR#1066 A-1- 66

TEST Ames - 504 DATA SET COLLATION SHEET

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES δ_e	δ_a	δ_r	δ_{TW}	δ_{TC} NO. OF RUNS	δ_F	# of runs		0.6	0.85	1.10	1.20	1.50	2.0			
RAD061	$B_1N_3W_1E_1V_1R_1T_1F_2P_1$	C	O	0	0	0	3	0	0	5		101		100	99	98	97			
062	✓	50	D	0	0	0			0	3					66	65	64			
121	$B_1N_2W_2E_1V_1R_1T_1F_2P_1$	A	0	0	0	0			0	5		124	123		122	121	120			
122		A	0	0	0				20	3		127			126		125			
123		A	0	0	0				-20	3		130			129		128			
124		A	0	-20	0				0	2					135		134			
125		A	5	0	0				0	3		138			137		136			
126		0	E	0	10			0	0	3		150			149		148			
127		0	E	0	0				0	5		155	154		153	152	151			
128		A	0	0	0			3	0	3		133			132		131			
071	$B_1N_4W_2E_1V_1R_1T_1F_2P_1$	C	0	0	0			0	0	4		90			89	88	87			
072		C	0	0	0			0	20	3					96	95	94			
073		C	0	20	0			0	0	3					93	92	91			
074		C	5	0	0			0	0	4		86			85	84	83			
075		50	D	0	0			0	0	4		70			69	68	67			
076		50	D	-30	10	0	3	0	0	3					73	72	71			
				δ_{e_L} =	-20°															
				δ_{e_R} =	-40°															

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CAB	CLM	CY	CYN	CBL	CNC			MACH	ALPHA	B

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

ORIGINAL PAGE IS OF POOR QUALITY

61

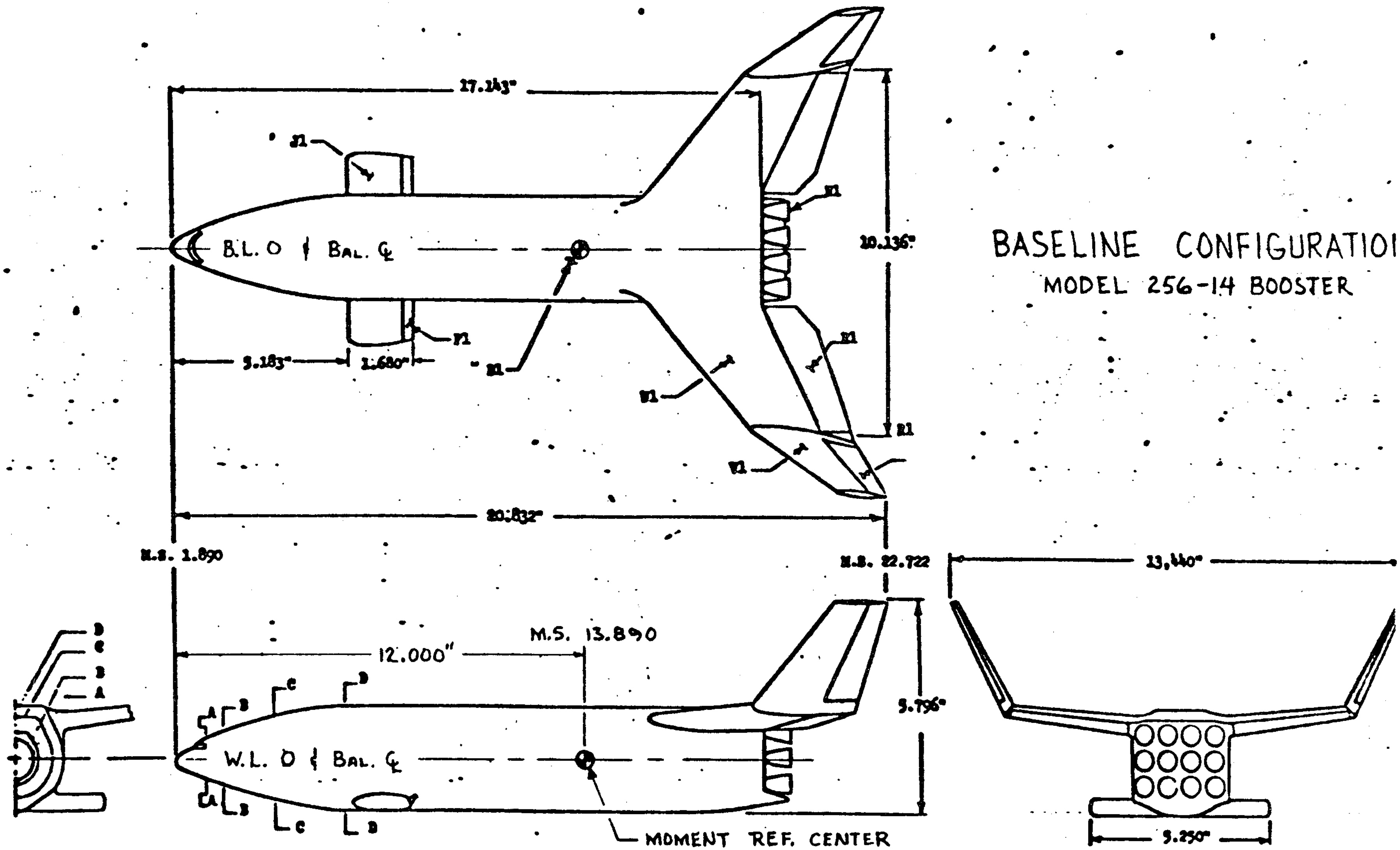


Fig. 2 THREE VIEW LAYOUT; MDC-MMC 0.007-SCALE MODEL SSV BOOSTER, MODEL 256-14.

CANARD BOOSTER
MDAC/MMC
DR#1066 A-1- 67

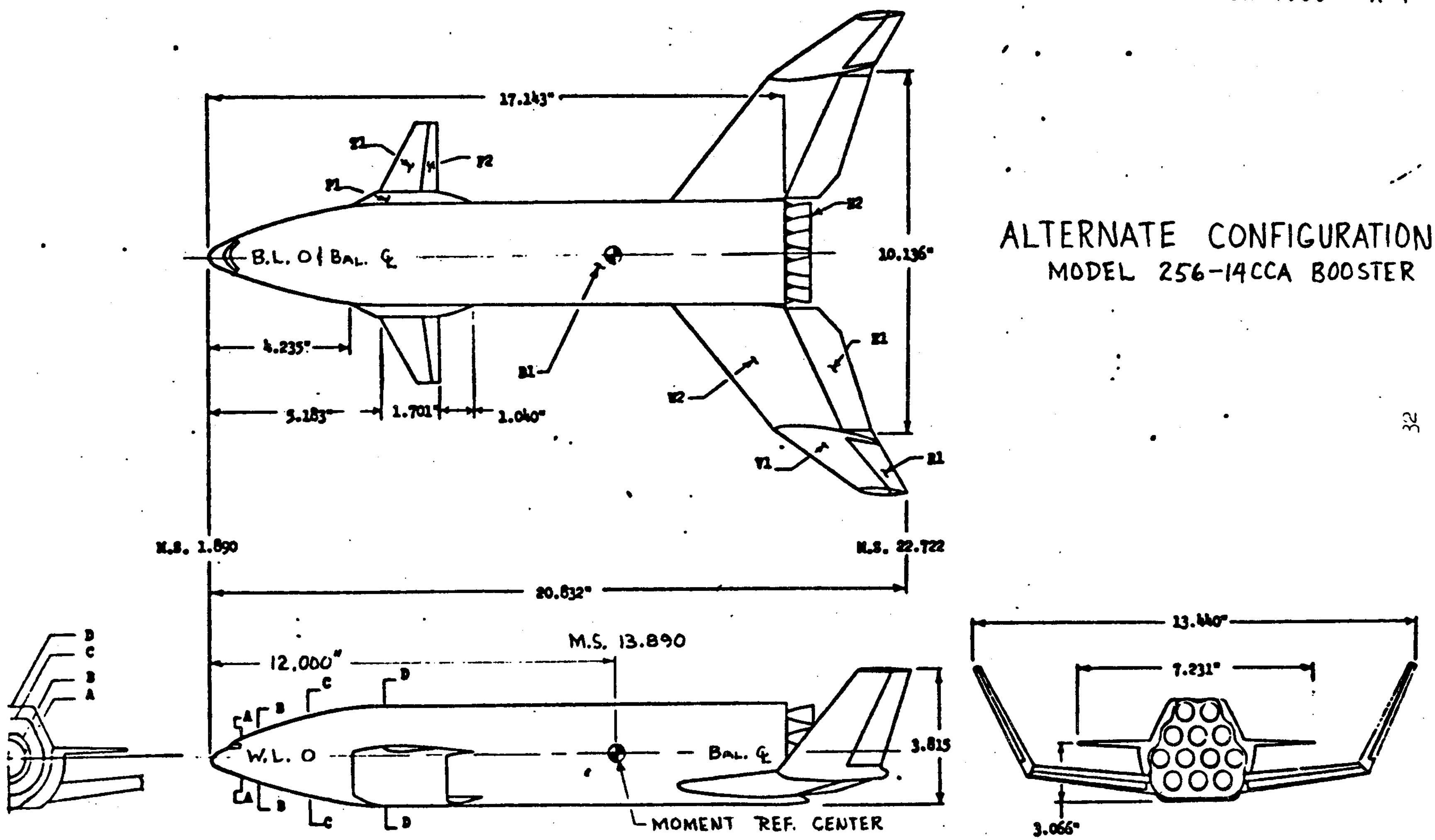


Fig. 3 THREE VIEW LAYOUT; MDC-MMC 0.007-SCALE MODEL SSV BOOSTER MODEL 256-14CCA

ORIGINAL PAGE IS OF POOR QUALITY

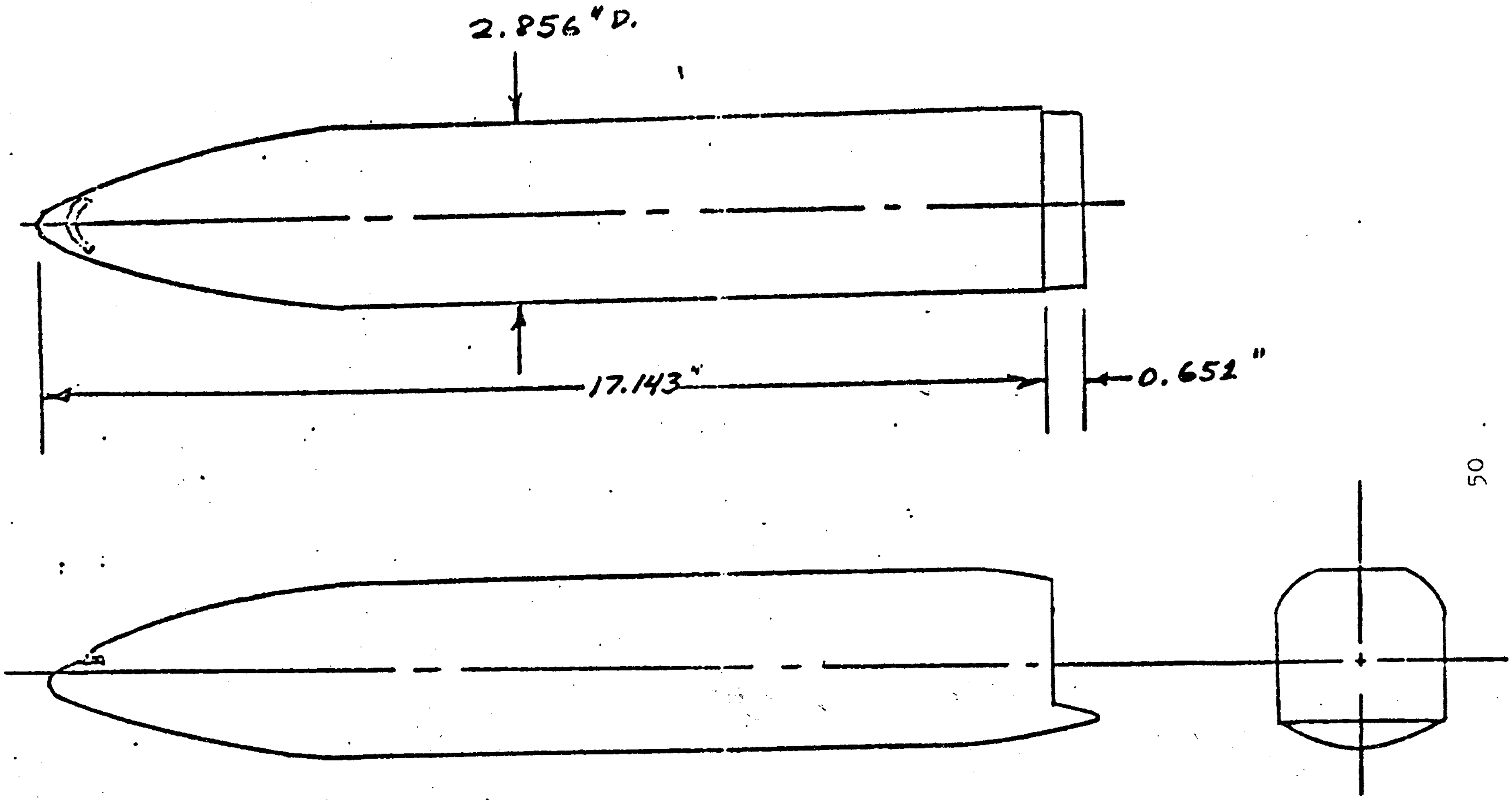


Fig. 8 SKETCH OF BASIC BODY, B_1

CANARD BOOSTER
MDAC/MMC
DR#1066 A-1- 70

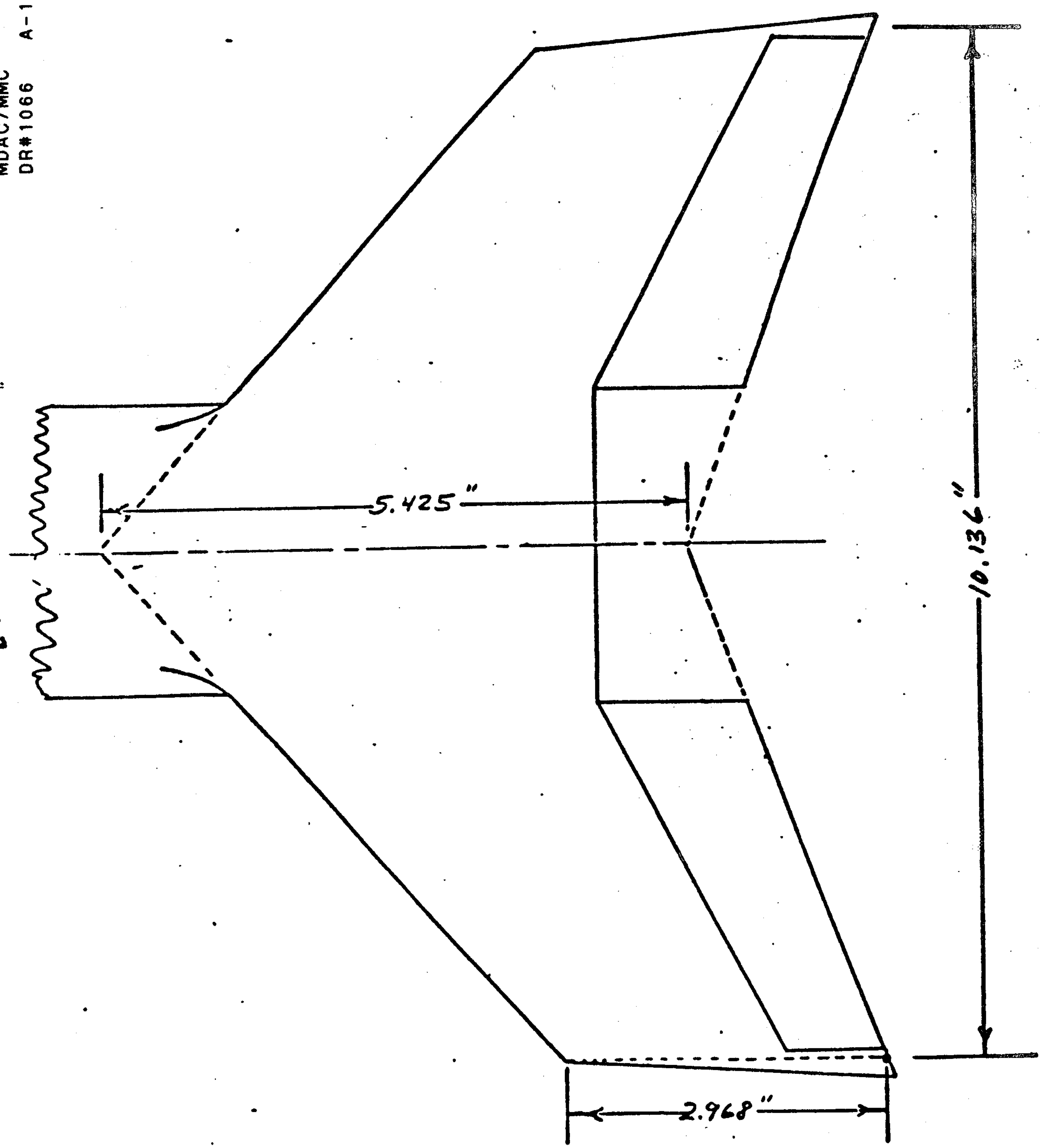
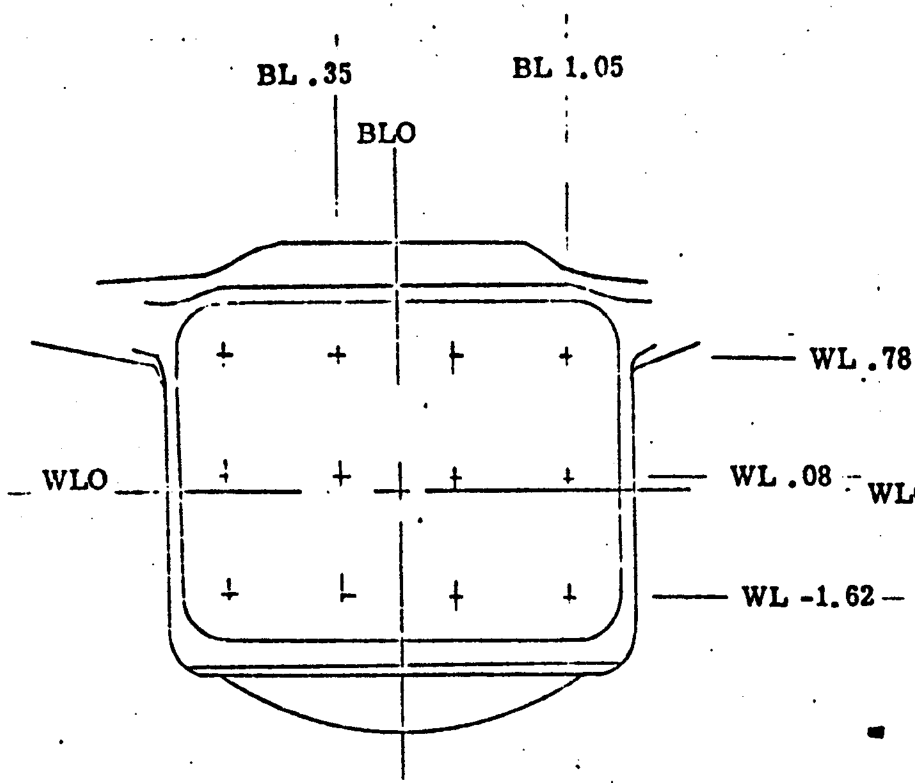
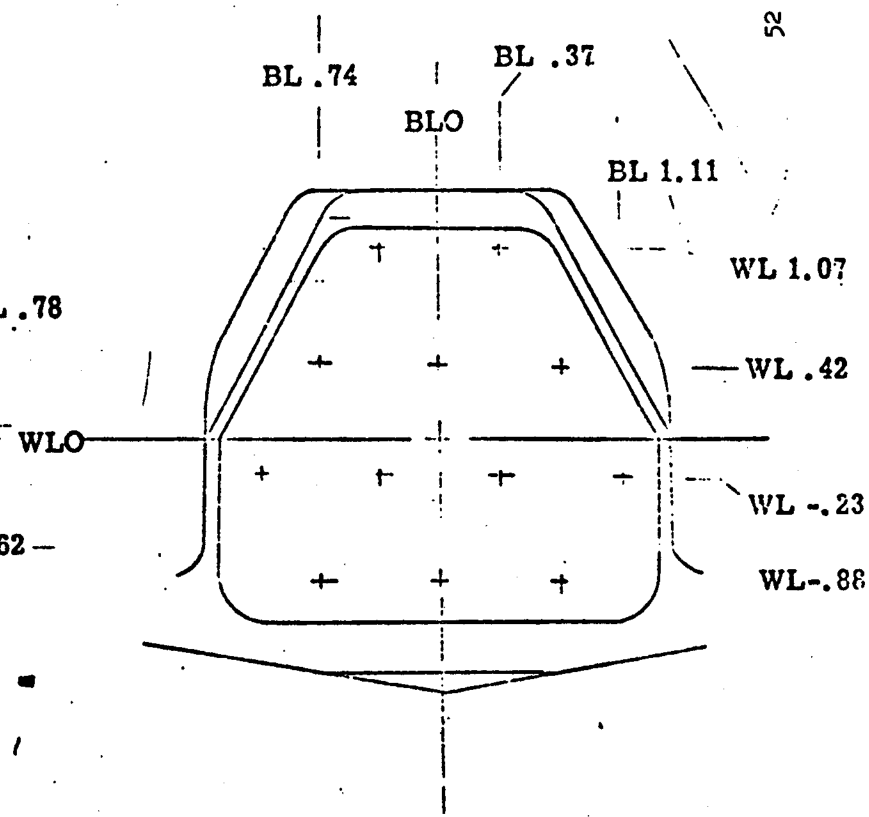


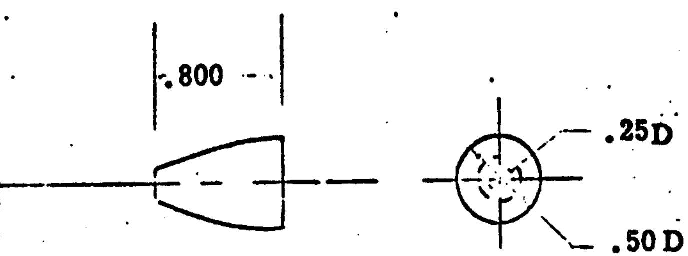
Fig. 9 Sketch of High Wing and Elevon, W_1E_1



N_1 Nozzle Configuration



N_2 Nozzle Configuration

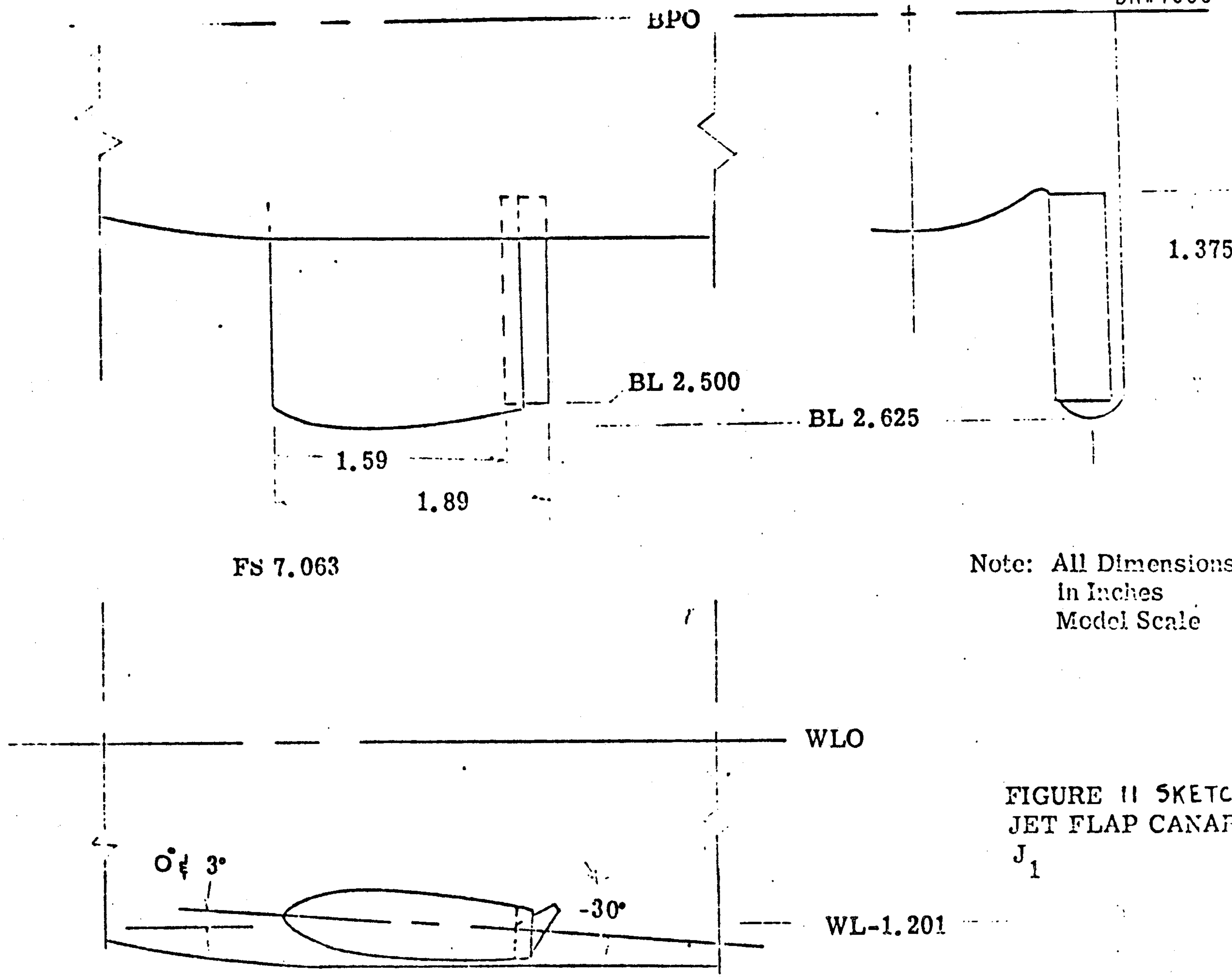


Individual Nozzle Geometry

Note: o Dimensions in Inches Model Scale
o Nozzle ℄'s Shown

FIGURE 10 SKETCH OF MODEL BASE END CONFIGURATIONS WITH N_1 & N_2

CANARD BOOSTER
MDAC/MMC
DR#1066 A-1- 71



Note: All Dimensions
in Inches
Model Scale

FIGURE 11 SKETCH OF
JET FLAP CANARD,
J_1

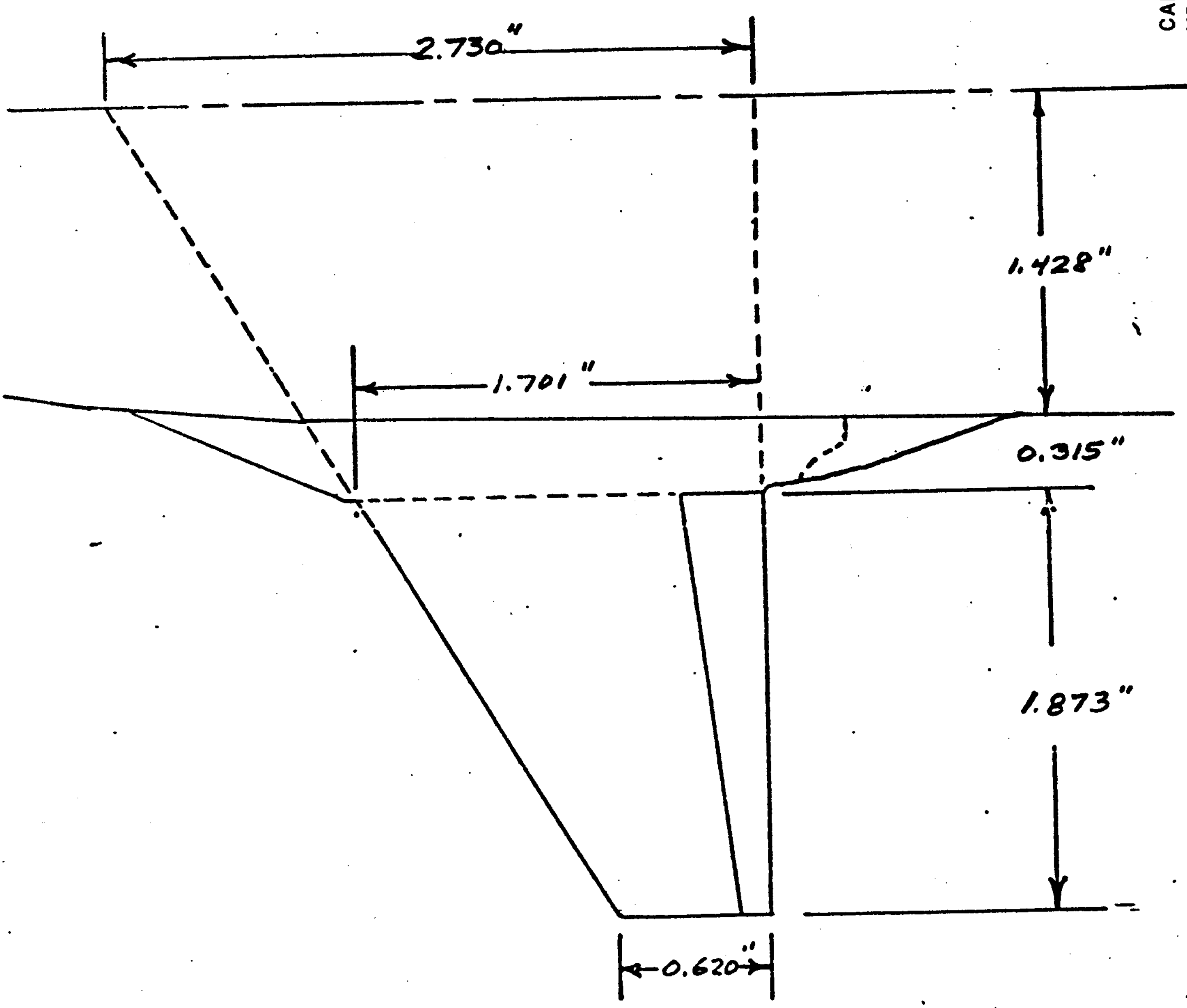


Fig. 12 Sketch of Mid-body Aerodynamic Canard With Flap, $T_1 F_2$

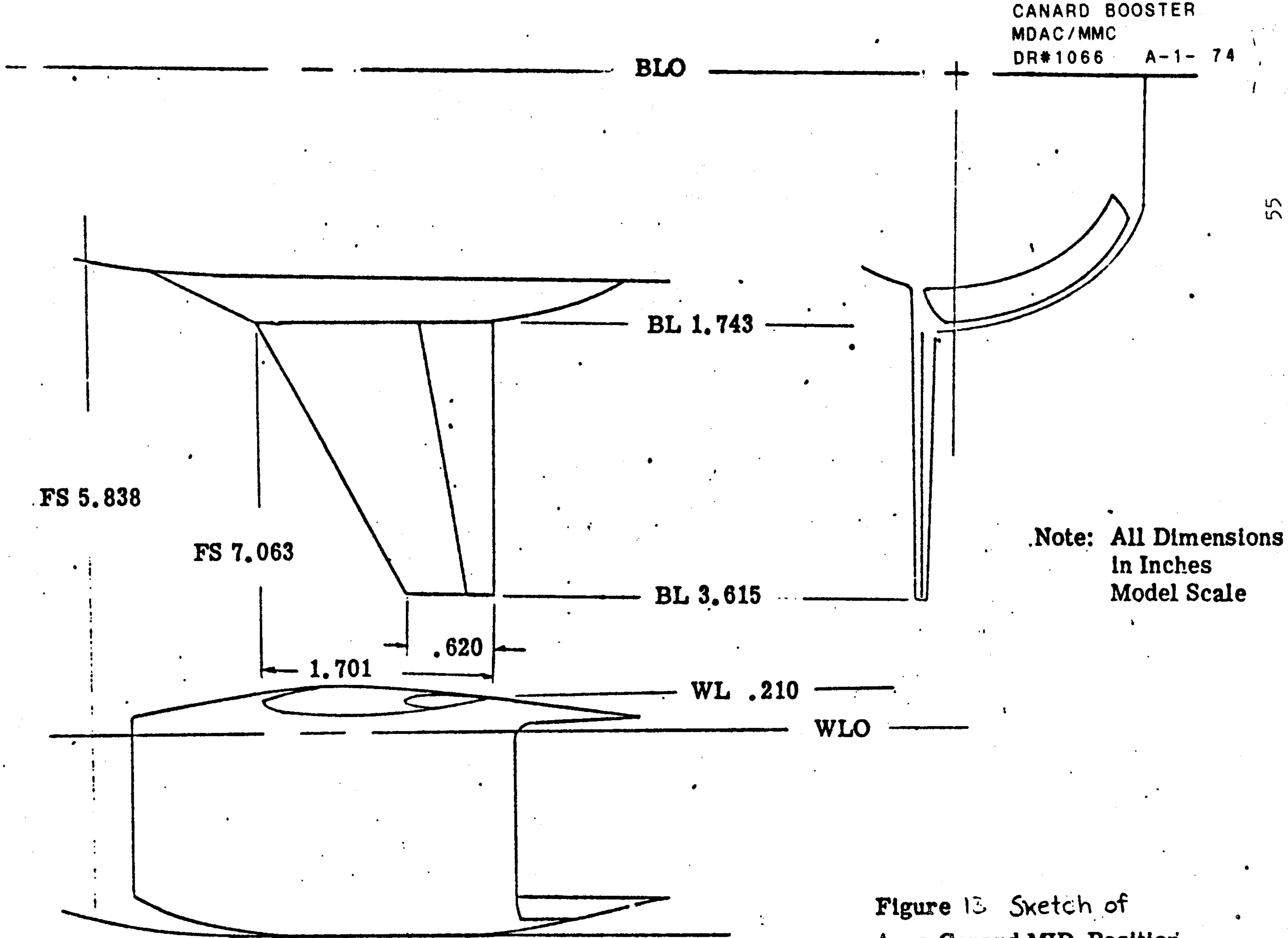


Figure 13 Sketch of Aero Canard MID-Position, $P_1T_1F_2$

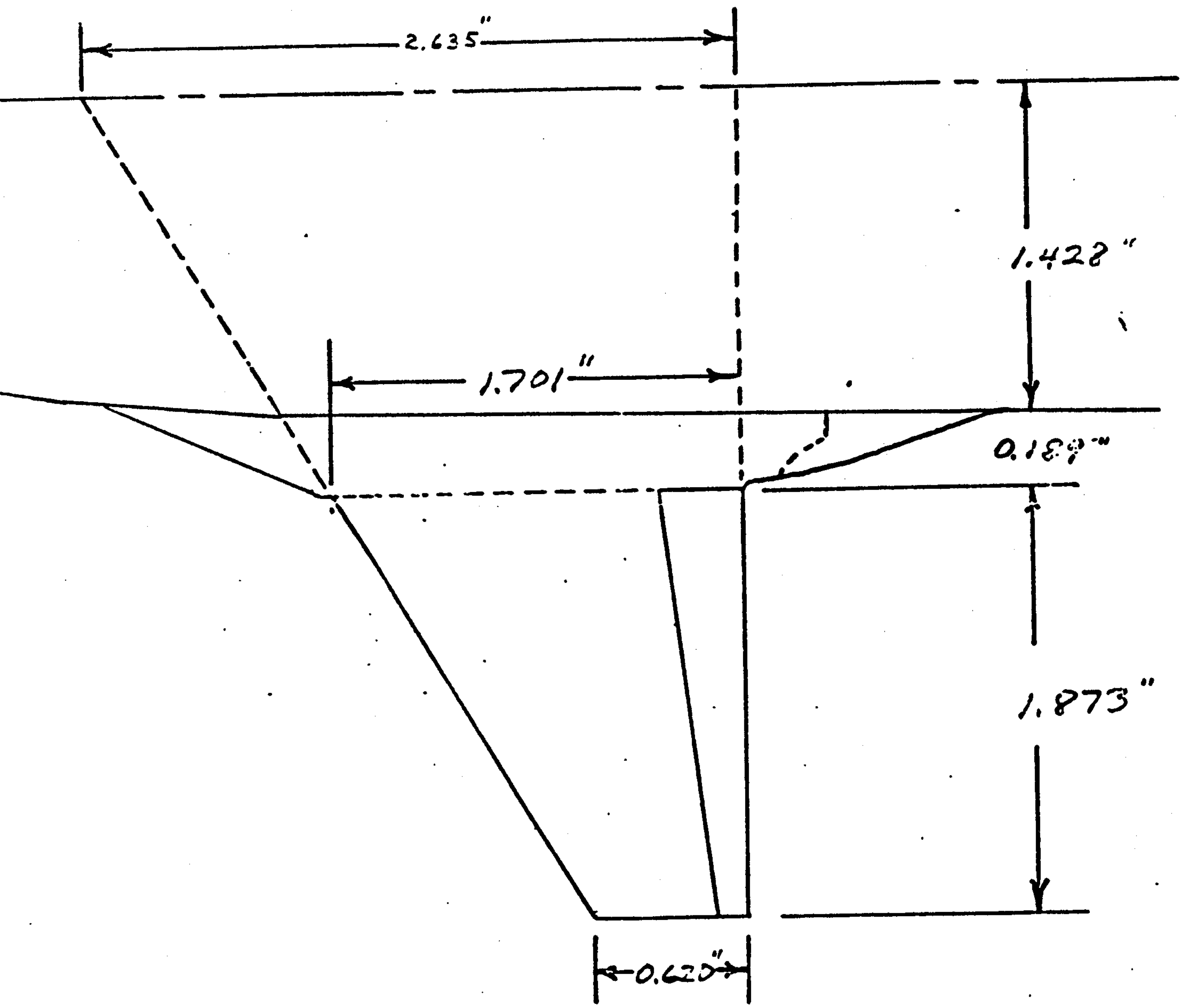
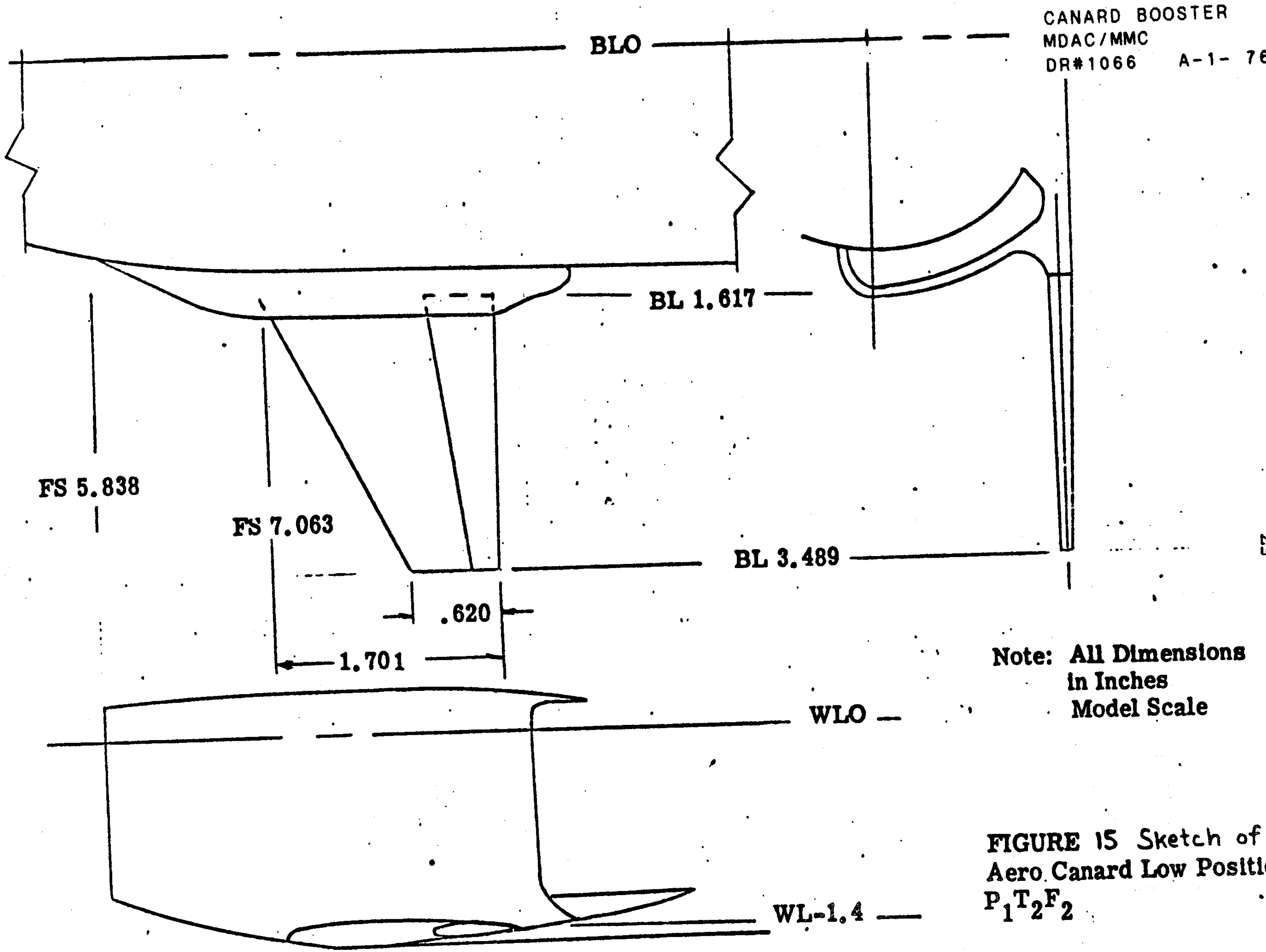


Fig. 14 Sketch of Low Aerodynamic Canard With Flap, $T_2 F_2$



Note: All Dimensions in Inches Model Scale

FIGURE 15 Sketch of **Aero Canard Low Position,** $P_1T_2F_2$

NOTE: All Dimensions in Inches Model Scale.
V_2R_2 Not Used In These Tests.

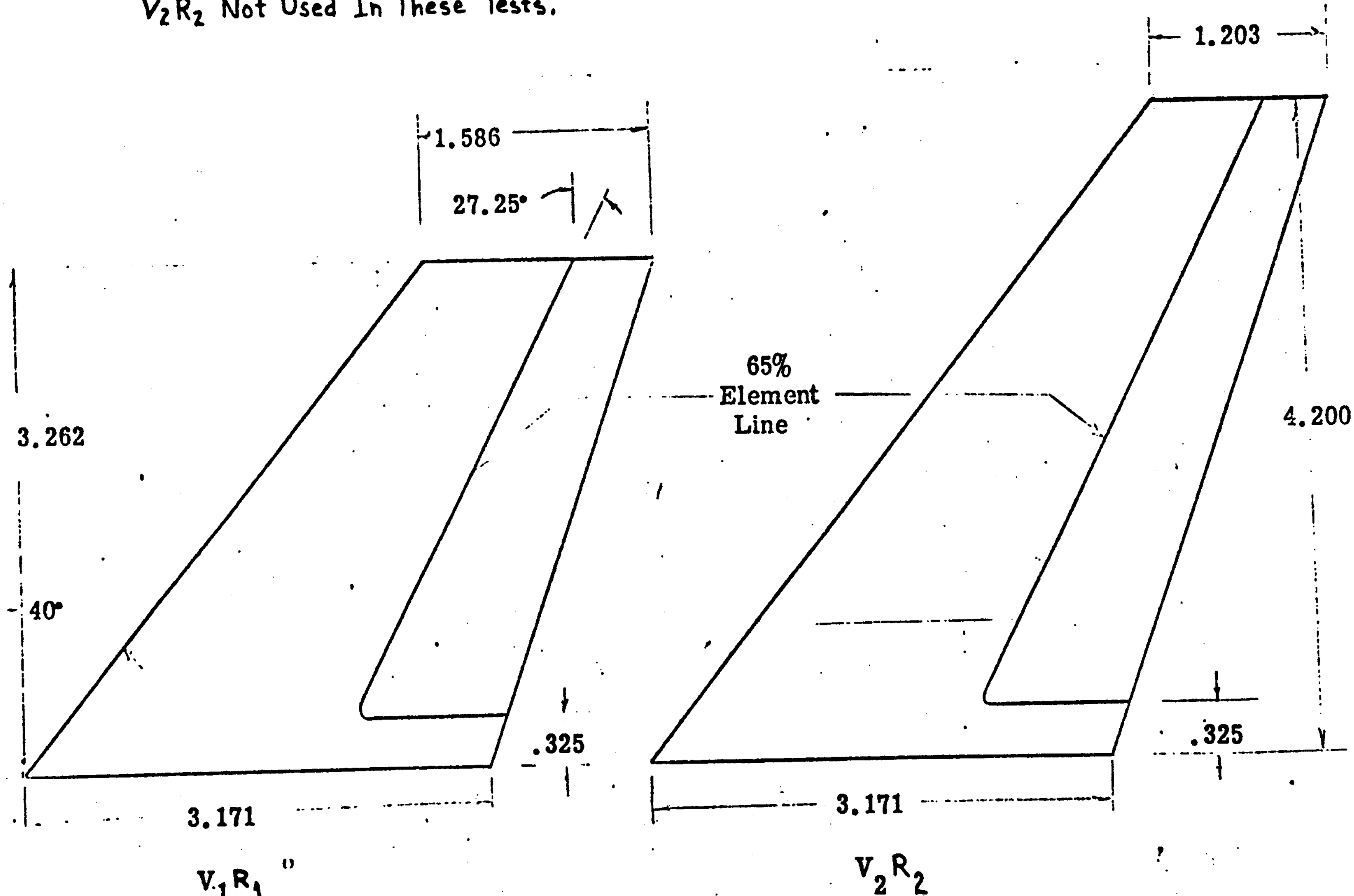


Fig. 16 Sketch of Vertical Stabilizer and Rudder, V_1R_1 & V_2R_2

CANARD BOOSTER
MDAC/MMC
DR#1066 A-1- 77

CANARD BOOSTER
MDAC/MMC
DR#1077 A-1- 78

TEST MDAC LSWT 249 DATA SET COLLATION SHEET

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	α SWEEPS: α SCHD	α SWEEPS: β/RUN 0	β SWEEPS: β SCHD	β SWEEPS: α VALUE / RUN NO. 0	M	RPJTPΦ	CONTROL DEFLECTION: δ_E	δ_R	δ_A	δ_{JF}	NO. of RUNS
RCΦ 001	B3N11W5V6	C	20			.26	1.0	0	0	0	—	1
002	B3N11W5		25					0	—	0		
003	B3N11		66					—		—		
004	B3N11J6		61					—		—	0	
005	B3N11J6W5		33					0		0	0	
006	B3N11J6W5V6		40					0	0	0	0	
009	B3N11W5V7		27					0	0	0	—	
010	B3N11J9W5V6		82					0	0	0	0	
011	B3N11J9		71					—	—	—		
012	B3N11J9W5		75					0		0		
013	B3N11J8		70					—		—		
014	B3N11J8W5V6		83					0	0	0		
015	B3N11J7		64					—	—	—		
016	B3N11J7W5V6		47					0	0	0		

1 7 13 19 25 31 37 43 49 55 61 67 75 76

BETA	CL	CD	CLM	α	CLN	CSL	CAB			BETA	ALPHA	

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES/

α SCHEDULE C: -6, -4, -2, 0, 2, 4, 6, 8, 10, 12, 14 & 16

β SCHEDULE D: -10, -8, -6, -4, -2, 0, 2, 4, 6, 8 & 10

ORIGINAL PAGE IS OF POOR QUALITY

20

TEST MDAC LSWT 249 DATA SET COLLATION SHEET

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	α SWEEPS α SCHD	α SWEEPS β/RUN 0		β SWEEPS β SCHD	α VALUE / RUN NO. 0	4	6	8	10				M	RPJTPØ	CONTROL DEFLECTION δ_E	δ_R	δ_A	δ_{JF}	NO. of RUNS
RCØ 101	B3N11				D	67			68					.26	1.0	—	—	—	—	
102	B3N11J6					62			63							—	—	—	0	
109	B3N11W5					88	89		90							0	—	0	—	
103	B3N11J6W5					34	35	36	37	38						0	—	0	0	
108	B3N11W5V6					85	86		87							0	0	0	—	
104	B3N11J6W5V6					41	42	44	43	45						0	0	0	0	
105						99	100	101	102	103						0	-10	0	0	
106						49	50	51	52	53						0	0	10	0	
107						55	56	57	58	59						-10	-10	0	0	
110	B3N11J6W5V7					28	29		30	31						0	0	0	0	
111						93	94		95							0	0	10	0	
112						96	97		98							0	-10	0	0	
113	B3N11J9					72			73							—	—	—	0	
114	B3N11J9W5					76	77	78	79	80						0	—	0	0	

1 7 13 19 25 31 37 43 49 55 61 67 75 76

ALPHA	CL	CD	CLM	CY	CLN	CSL	CAB			ALPHA	BETA	

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

α SCHEDULE C: -6, -4, -2, 0, 2, 4, 6, 8, 10, 12, 14, & 16

β SCHEDULE D: -10, -8, -6, -4, -2, 0, 2, 4, 6, 8 & 10

CANARD BOOSTER
MDAC/MMC
DR#1077 A-1- 79

ORIGINAL PAGE IS OF POOR QUALITY

TEST MDAC LSWT 249 DATA SET COLLATION SHEET

CANARD BOOSTER
MDAC/MMC
DR#1077 A-1- 80

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	CONTROL DEFLECTION δ_R	δ_A	δ_{JF}		NO. of RUNS	ELEVON DEFLECTION / RUN NO -40	-30	-20	-10	0	10	20	30			RPJTFC	M
RCØ 201	B3N11W5V6	C	0	0	0	—						21	20	22	23				1.0	.26
202	B3N11J6W5V6			0	0	0						54	40	48						
203	B3N11W5V7			0	0	—						92	27	91						

1 7 13 19 25 31 37 43 49 55 61 67 75 76

BETA CL CD CLM CY CLN CSL CAB ELEVON ALPHA

IDPVAR(1) IDPVAR(2) NDV

COEFFICIENTS:

α or β SCHEDULES

α SCHEDULE C ; -6, -4, -2, 0, 2, 4, 6, 8, 10, 12, 14 & 16

ORIGINAL PAGE IS OF POOR QUALITY

TEST MDAC LSWT 249 **DATA SET COLLATION SHEET**

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	CONTROL DEFLECTION δ_E	δ_R	δ_A		NO. of RUNS	JET FLAP DEFLECTION / RUN NO. -15	0	15	30	45	60					P_J/P_∞	M
RCΦ 301	B3N11J10W5V6	C	0	0	0	0			105	108	111	160							1.86	0
302									106	109	112	161							2.20	
303									107	110	113	—							2.54	
304	B3N11J10			—	—	—			141	136	132	155							1.0	.26
305									142	137	133	156							1.86	
306									143	138	134	157							2.20	
307									—	—	135	—							2.37	
308									144	140	—	—							2.54	
309	B3N11J10W5V6			0	0	0			122	118	114	162							1.0	
310									123	119	115	163							1.86	
311									124	120	116	164							2.20	
312									—	—	129	—							2.37	
313									125	121	117	—							2.54	
314	B3N11J10			—	—	—			145	148	151	158							1.86	0
315									146	149	152	159							2.20	
316									—	—	153	—							2.37	
317									147	150	—	—							2.54	

1 7 13 19 25 31 37 43 49 55 61 67 75 76

BETA CL CD CLM CY CLN CSL CAB CANFLP ALPHA

COEFFICIENTS: IDPVAR(1) IDPVAR(2) NDV

α or β SCHEDULES: α SCHEDULE C ; -6, -4, -2, 0, 2, 4, 6, 8, 10, 12, 14, & 16

ORIGINAL PAGE IS OF POOR QUALITY

CANARD BOOSTER
MDAC/MMC
DR#1077 A-1- 81

CANARD BOOSTER
MDAC/MMC
DR#1077 A-1- 82

☐ PRETEST

☒ POSTTEST

TEST. MDAC LSWT 249 DATA SET COLLATION SHEET

DATA SET IDENTIFIER	CONFIGURATION	α SWEEPS: α SCHD	α SWEEPS: β/RUN 0		β SWEEPS: β SCHD	α VALUE / RUN NO. 0	4	6	8	10			M	RPJTPΦ	CONTROL DEFLECTION δE	δR	δA	δJF	NO. of RUNS
RCΦ 501	B3N11				D	67			68				.26	1.0	—	—	—	—	
502	B3N11J6					62			63						—	—	—	0	
503	B3N11W5					88	89		90						0	—	0	—	
504	B3N11J6W5					34	35	36	37	38					0	—	0	0	
505	B3N11W5V6					85	86		87						0	0	0	—	
506	B3N11J6W5V6					41	42	44	43	45					0	0	0	0	
507						99	100	101	102	103					0	-10	0	0	
508						49	50	51	52	53					0	0	10	0	
509						55	56	57	58	59					-10	-10	0	0	
510	B3N11J6W5V7					28	29		30	31					0	0	0	0	
511						93	94		95						0	0	10	0	
512						96	97		98						0	-10	0	0	
513	B3N11J9					72			73						—	—	—	0	
514	B3N11J9W5					76	77	78	79	80					0	—	0	0	

1 7 13 19 25 31 37 43 49 55 61 67 75 76

CP1	CP2	CP3	CP4	CP5	CP6					ALPHA	BETA	
										IDPVAR(1)	IDPVAR(2)	NOV

COEFFICIENTS:

α or β SCHEDULES

α SCHEDULE C: -6, -4, -2, 0, 2, 4, 6, 8, 10, 12, 14 & 16

β SCHEDULE D: -10, -8, -6, -4, -2, 0, 2, 4, 6, 8 & 10

ORIGINAL PAGE IS OF POOR QUALITY

TEST MDAC LSWT 249 DATA SET COLLATION SHEET

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	α SWEEPS α SCHD	α SWEEPS β/RUN 0		β SWEEPS β SCHD	α VALUE / RUN NO. 0	4	6	8	10			M	RPJTPΦ	CONTROL DEFLECTION δ_E	δ_R	δ_A	δ_{JF}	NO. of RUNS
RCΦ515	B3N11				D	67			68				.26	1.0	—	—	—	—	
516	B3N11J6				↓	62			63				↓	↓	—	—	—	0	
517	B3N11W5					88	89		90						0	—	0	—	
518	B3N11J6W5					34	35	36	37	38					0	—	0	0	
519	B3N11W5V6					85	86		87						0	0	0	—	
520	B3N11J6W5V6					41	42	44	43	45					0	0	0	0	
521	↓					99	100	101	102	103					0	-10	0	0	
522						49	50	51	52	53					0	0	10	0	
523						55	56	57	58	59					-10	-10	0	0	
524	B3N11J6W5V7					28	29		30	31					0	0	0	0	
525	↓					93	94		95						0	0	10	0	
526						96	97		98						0	-10	0	0	
527	B3N11J9					72			73						—	—	—	0	
528	B3N11J9W5				↓	76	77	78	79	80			↓	↓	0	—	0	0	

1 7 13 19 25 31 37 43 49 55 61 67 75 76

CP7 CP8 CP9 CP10 CP11 ALPHA BETA

COEFFICIENTS: → IDPVAR(1) IDPVAR(2) NDV

α or β SCHEDULES

α SCHEDULE C: -6, -4, -2, 0, 2, 4, 6, 8, 10, 12, 14 & 16

β SCHEDULE D: -10, -8, -6, -4, -2, 0, 2, 4, 6, 8 & 10

CANARD BOOSTER
MDAC/MMC
DR#1077 A-1- 83

CANARD BOOSTER
MDAC/MMC
DR#1077 A-1- 84

TEST MDAC LSWT 249 DATA SET COLLATION SHEET

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	CONTROL DEFLECTION δ_R	δ_A	δ_{VE}		NO. of RUNS	ELEVON DEFLECTION / RUN NO -40	-30	-20	-10	0	10	20	30			[illegible]	M
RCΦ529	B3N11W5V6	C	0	0	0	—						21	20	22	23				1.0	.26
↓ 530	B3N11J6W5V6	↓	↓	0	0	0						54	40	48					↓	↓
↓ 531	B3N11W5V7	↓	↓	0	0	—						92	27	91					↓	↓

1 7 13 19 25 31 37 43 49 55 61 67 75 76

CP1 CP2 CP3 CP4 CP5 CP6 ELEVON ALPHA

COEFFICIENTS: → IDPVAR(1) IDPVAR(2) NDV

α SCHEDULE C: -6, -4, -2, 0, 2, 4, 6, 8, 10, 12, 14 & 16

α or β SCHEDULES:

ORIGINAL PAGE IS OF POOR QUALITY

TEST MDAC LSWT 249 DATA SET COLLATION SHEET

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	CONTROL DEFLECTION δ_R	δ_A	δ_{VF}		NO. of RUNS	ELEVON DEFLECTION / RUN NO -40	-30	-20	-10	0	10	20	30				M
RCΦ532	B3N11W5V6	C	O	O	O	—						21	20	22	23				1.0	.26
533	B3N11J6W5V6	↓	↓	O	O	O						54	40	48					↓	↓
534	B3N11W5V7	↓	↓	O	O	—						92	27	91					↓	↓

1 7 13 19 25 31 37 43 49 55 61 67 75 76

CP7 CP8 CP9 CP10 CP11 ELEVON ALPHA

COEFFICIENTS: IDPVAR(1) IDPVAR(2) NDV

α or β SCHEDULES: α SCHEDULE C: -6, -4, -2, 0, 2, 4, 6, 8, 10, 12, 14 & 16

ORIGINAL PAGE IS OF POOR QUALITY

CANARD BOOSTER
MDAC/MMC
DR#1077 A-1-85

CANARD BOOSTER
MDAC/MMC
DR#1077 A-1- 86

TEST MDAC LSWT 249 DATA SET COLLATION SHEET

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	α SWEEPS α SCHD	α SWEEPS β/RUN 0		β SWEEPS β SCHD	β SWEEPS α VALUE / RUN NO. 0	M	RPITPΦ	CONTROL DEFLECTION δ_E	δ_R	δ_A	δ_{JF}	NO. of RUNS
RCΦ 535	B3N11W5V6	C	20				.26	1.0	0	0	0	—	1
536	B3N11W5	↓	25				↓	↓	0	—	0	↓	↓
537	B3N11	↓	66				↓	↓	—	↓	—	↓	↓
538	B3N11J6	↓	61				↓	↓	—	↓	—	0	↓
539	B3N11J6W5	↓	33				↓	↓	0	↓	0	0	↓
540	B3N11J6W5V6	↓	40				↓	↓	0	0	0	0	↓
541	B3N11W5V7	↓	27				↓	↓	0	0	0	—	↓
542	B3N11J9W5V6	↓	82				↓	↓	0	0	0	0	↓
543	B3N11J9	↓	71				↓	↓	—	—	—	↓	↓
544	B3N11J9W5	↓	75				↓	↓	0	↓	0	↓	↓
545	B3N11J8	↓	70				↓	↓	—	↓	—	↓	↓
546	B3N11J8W5V6	↓	83				↓	↓	0	0	0	↓	↓
547	B3N11J7	↓	64				↓	↓	—	—	—	↓	↓
548	B3N11J7W5V6	↓	47				↓	↓	0	0	0	↓	↓

1 7 13 19 25 31 37 43 49 55 61 67 75 76

CP1	CP2	CP3	CP4	CP5	CP6					BETA	ALPHA	
										IDPVAR(1)	IDPVAR(2)	NDV

COEFFICIENTS:

α or β SCHEDULES

α SCHEDULE C: -6, -4, -2, 0, 2, 4, 6, 8, 10, 12, 14 & 16

β SCHEDULE D: -10, -8, -6, -4, -2, 0, 2, 4, 6, 8 & 10

ORIGINAL PAGE IS OF POOR QUALITY

TEST MDAC LSWT 249 DATA SET COLLATION SHEET

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	α SWEEPS: α SCHD	α SWEEPS: β/RUN 0		β SWEEPS: β SCHD	β SWEEPS: α VALUE / RUN NO. 0								M	RPJTPO	CONTROL DEFLECTION δ_E	δ_R	δ_A	δ_{JF}	NO. of RUNS
RCO 549	B3N11W5V6	C	20											.26	1.0	0	0	0	—	1
550	B3N11W5		25													0	—	0		
551	B3N11		66													—		—		
552	B3N11J6		61													—		—	0	
553	B3N11J6W5		33													0		0	0	
554	33N11J6W5V6		40													0	0	0	0	
555	B3N11W5V7		27													0	0	0	—	
556	B3N11J9W5V6		82													0	0	0	0	
557	B3N11J9		71													—	—	—		
558	B3N11J9W5		75													0		0		
559	B3N11J8		70													—		—		
560	B3N11J8W5V6		83													0	0	0		
561	B3N11J7		64													—	—	—		
562	B3N11J7W5V6		47													0	0	0		

1 7 13 19 25 31 37 43 49 55 61 67 75 76

CP7	CP8	CP9	CP10	CP11	BETA	ALPHA
COEFFICIENTS:					IDPVAR(1)	IDPVAR(2) NDV

α or β SCHEDULES:

α SCHEDULE C: -6, -4, -2, 0, 2, 4, 6, 8, 10, 12, 14 & 16

β SCHEDULE D: -10, -8, -6, -4, -2, 0, 2, 4, 6, 8 & 10

CANARD BOOSTER
MDAC/MMC
DR#1077 A-1- 87

CANARD BOOSTER
MDAC/MMC
DR#1077 A-1-88

TEST MDAC LSWT 249 DATA SET COLLATION SHEET

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	CONTROL DEFLECTION δ_E	δ_R	δ_A		NO. of RUNS	JET FLAP DEFLECTION / RUN NO. -15	0	15	30	45	60					RN/L	M
RCφ 563*	B3N11J10W5V6	C	0	0	0	0			105	108	111	160							1.86	0
564*									106	109	112	161							2.20	
565*									107	110	113	—							2.54	
566	B3N11J10			—	—	—			141	136	132	155							1.0	.26
567									142	137	133	156							1.86	
568									143	138	134	157							2.20	
569									—	—	135	—							2.37	
570									144	140	—	—							2.54	
571	B3N11J10W5V6			0	0	0			122	118	114	162							1.0	
572									123	119	115	163							1.86	
573									124	120	116	164							2.20	
574									—	—	129	—							2.37	
575									125	121	117	—							2.54	
576*	B3N11J10			—	—	—			145	148	151	158							1.86	0
577*									146	149	152	159							2.20	
578*									—	—	153	—							2.37	
579*									147	150	—	—							2.54	

1 7 13 19 25 31 37 43 49 55 61 67 73 76

CP1 CP2 CP3 CP4 CP5 CP6 CANFLPALPHA

COEFFICIENTS: IDPVAR(1) IDPVAR(2) NDV

α or β SCHEDULES: α SCHEDULE C ; -6, -4, -2, 0, 2, 4, 6, 8, 10, 12, 14, & 16

* JET TARES RUN AT M=0, WITH NO PRESSURE COEFFICIENTS CALCULATED

ORIGINAL PAGE IS OF POOR QUALITY

TEST MDAC LSWT 249 DATA SET COLLATION SHEET

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	CONTROL DEFLECTION δ_E	δ_R	δ_A		NO. of RUNS	JET FLAP DEFLECTION/RUN NO. -15	0	15	30	45	60						P_J/P_∞	M
RC♁ 580	B3N11J10W5V6	C	0	0	0	0			105	108	111	160								1.86	0
581									106	109	112	161								2.20	
582									107	110	113	—								2.54	
583	B3N11J10			—	—	—			141	136	132	155								1.0	.26
584									142	137	133	156								1.86	
585									143	138	134	157								2.20	
586									—	—	135	—								2.37	
587									144	140	—	—								2.54	
588	B3N11J10W5V6			0	0	0			122	118	114	162								1.0	
589									123	119	115	163								1.86	
590									124	120	116	164								2.20	
591									—	—	129	—								2.37	
592									125	121	117	—								2.54	
593*	B3N11J10			—	—	—			145	148	151	158								1.86	0
594*									146	149	152	159								2.20	
595*									—	—	153	—								2.37	
596*									147	150	—	—								2.54	

1 7 13 19 25 31 37 43 49 55 61 67 75 76

CP7 CP8 CP9 CP10 CP11 CANFLP ALPHA

COEFFICIENTS: IDPVAR(1) IDPVAR(2) NDV

α or β SCHEDULES

α SCHEDULE C ; -6, -4, -2, 0, 2, 4, 6, 8, 10, 12, 14, & 16

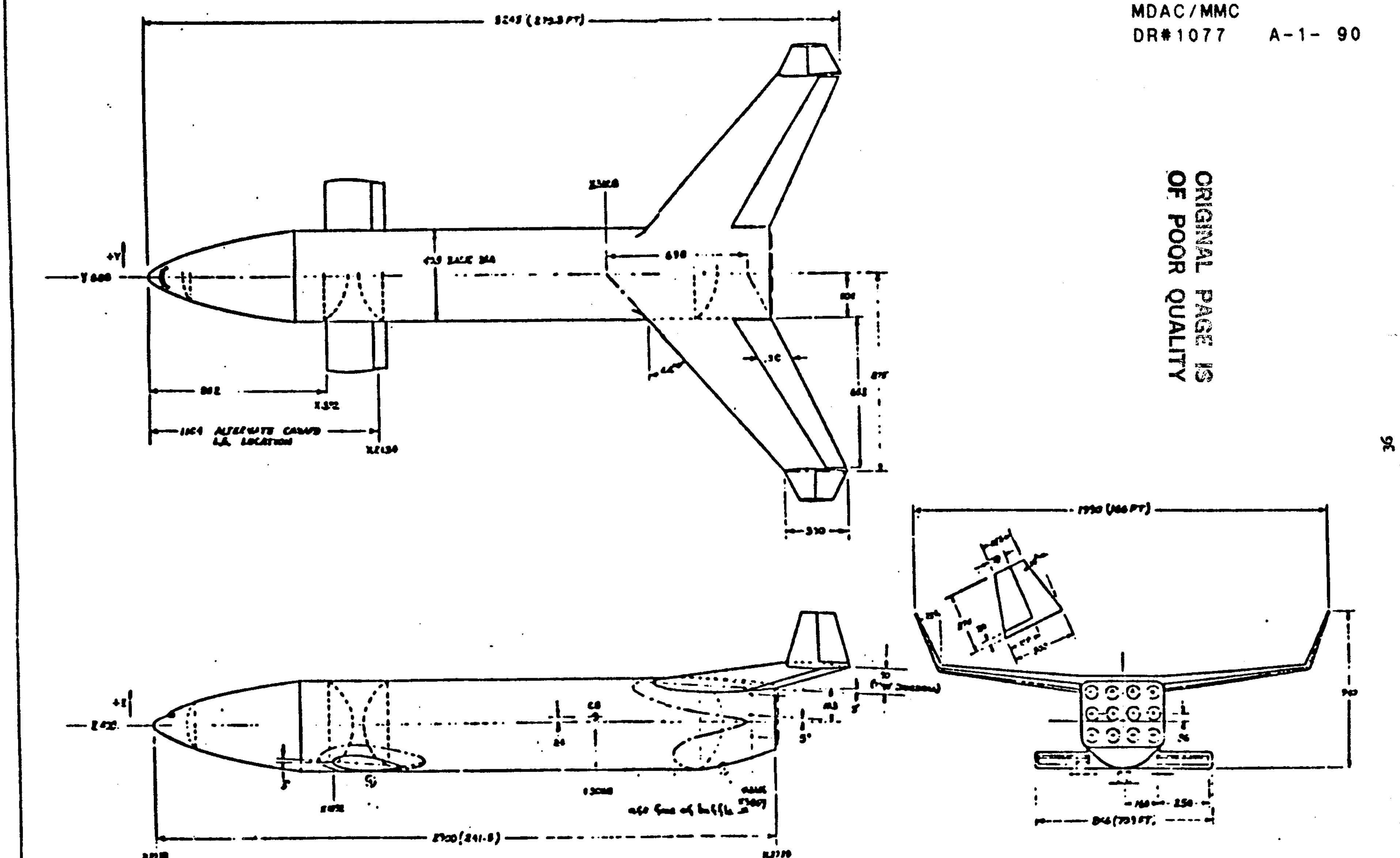
* JET TARES RUN AT M=0, WITH NO PRESSURE COEFFICIENTS CALCULATED

ORIGINAL PAGE IS OF POOR QUALITY

CANARD BOOSTER
MDAC/MMC
DR#1077 A-1- 89

CANARD BOOSTER
MDAC/MMC
DR#1077 A-1- 90

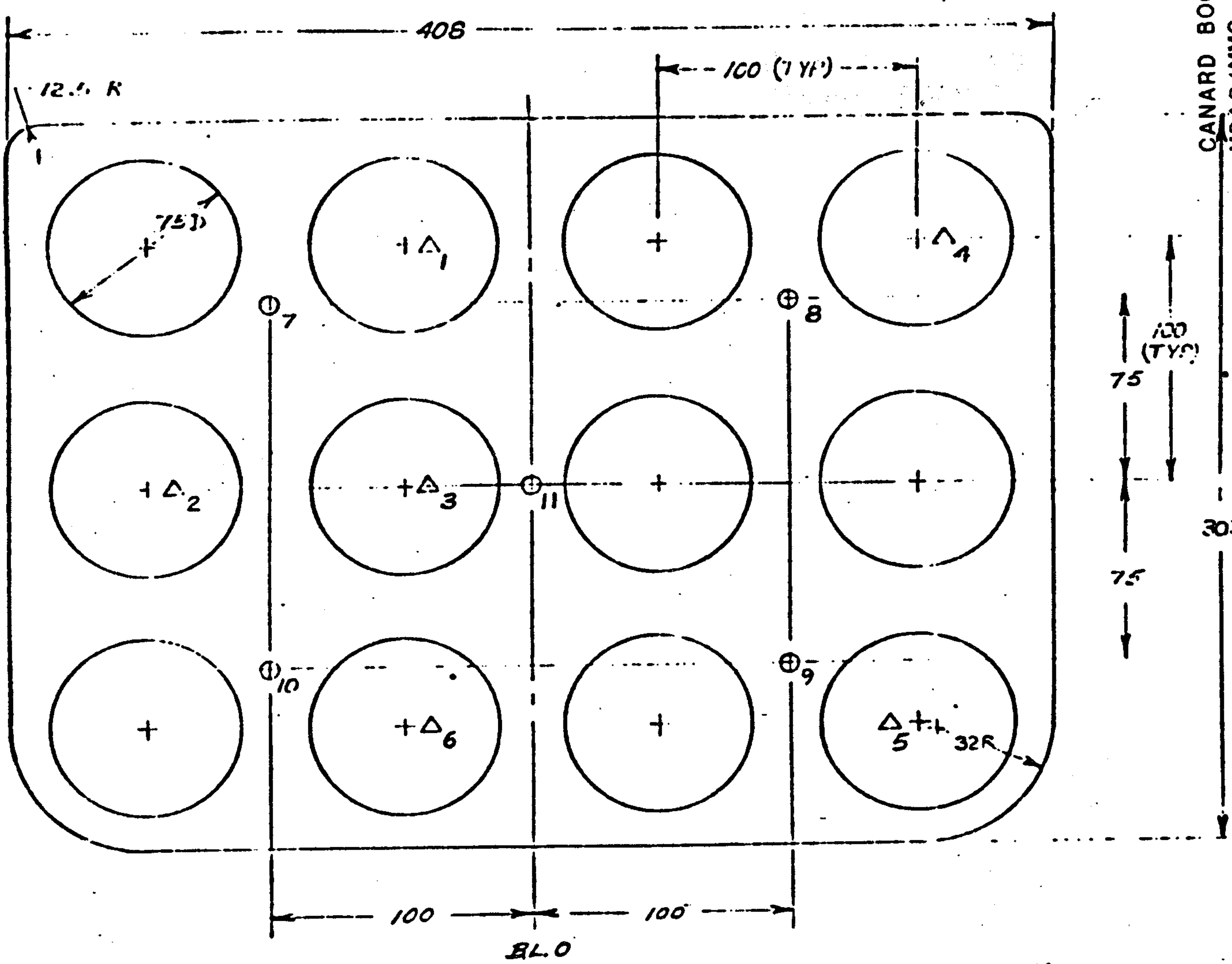
ORIGINAL PAGE IS
OF POOR QUALITY



GENERAL ARRANGEMENT LOW SPEED TEST CONFIGURATION
FULL SCALE DIMENSIONS SHOWN
D. MOHWA 1-8-71

FIG 1

DM
1-4-71



O PRESSURE TAPS ON BASE PLATE ARE NOS. 7 THRU 11.

Δ PRESSURE TAPS ON NOZZLE EXITS ARE NOS. 1 THRU 6. THESE SIX TAPS LOCATED APPROXIMATELY AS SHOWN AND AS NEAR NOZZLE CENTERS AS PRACTICAL.

DIMENSIONS SHOWN ARE FULL SCALE IN INCHES

BASE AREA = 856 FT^2 , NOZZLE EXIT AREA IS 368 FT^2

FIG. 3 BASE - NOZZLE ARRANGEMENT, NII, AND BASE PRESSURE TAP LOCATIONS ON SECOND SERIES 3% BOOSTER MODEL

CANARD BOOSTER
MDAC/MMC
DR#1077 A-1- 92

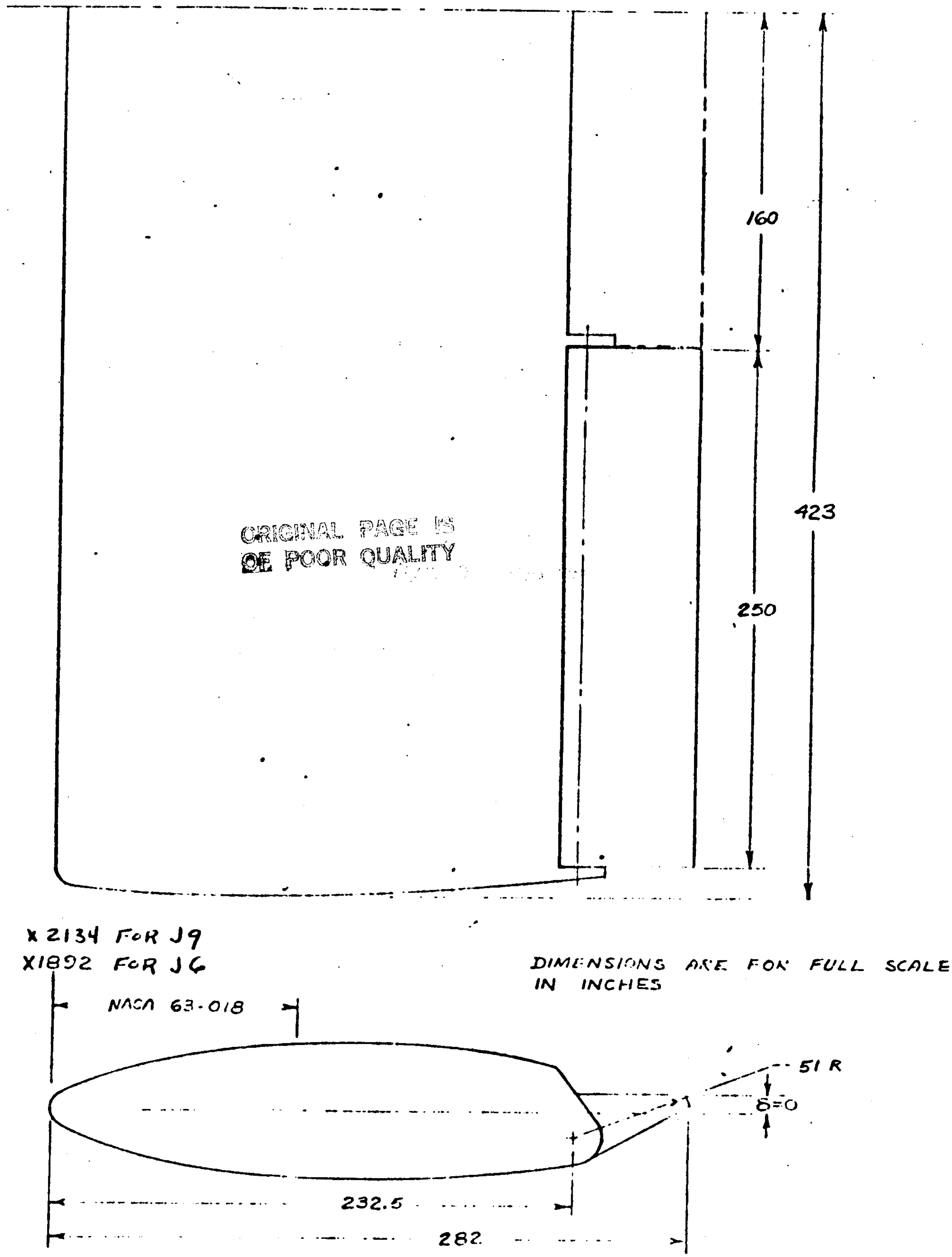


FIG. 4 DETAILS FOR JET CANARD J6 AND J9

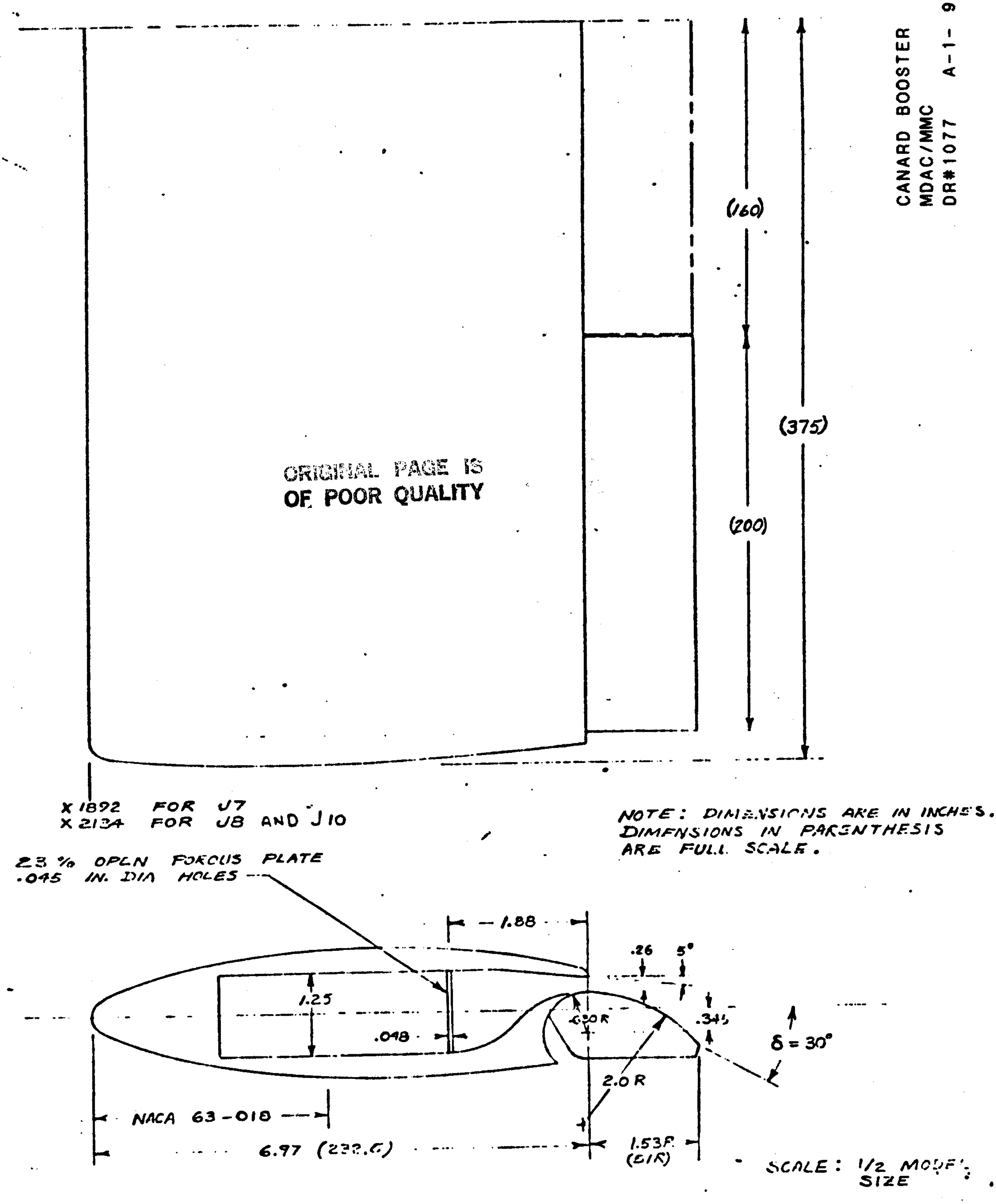
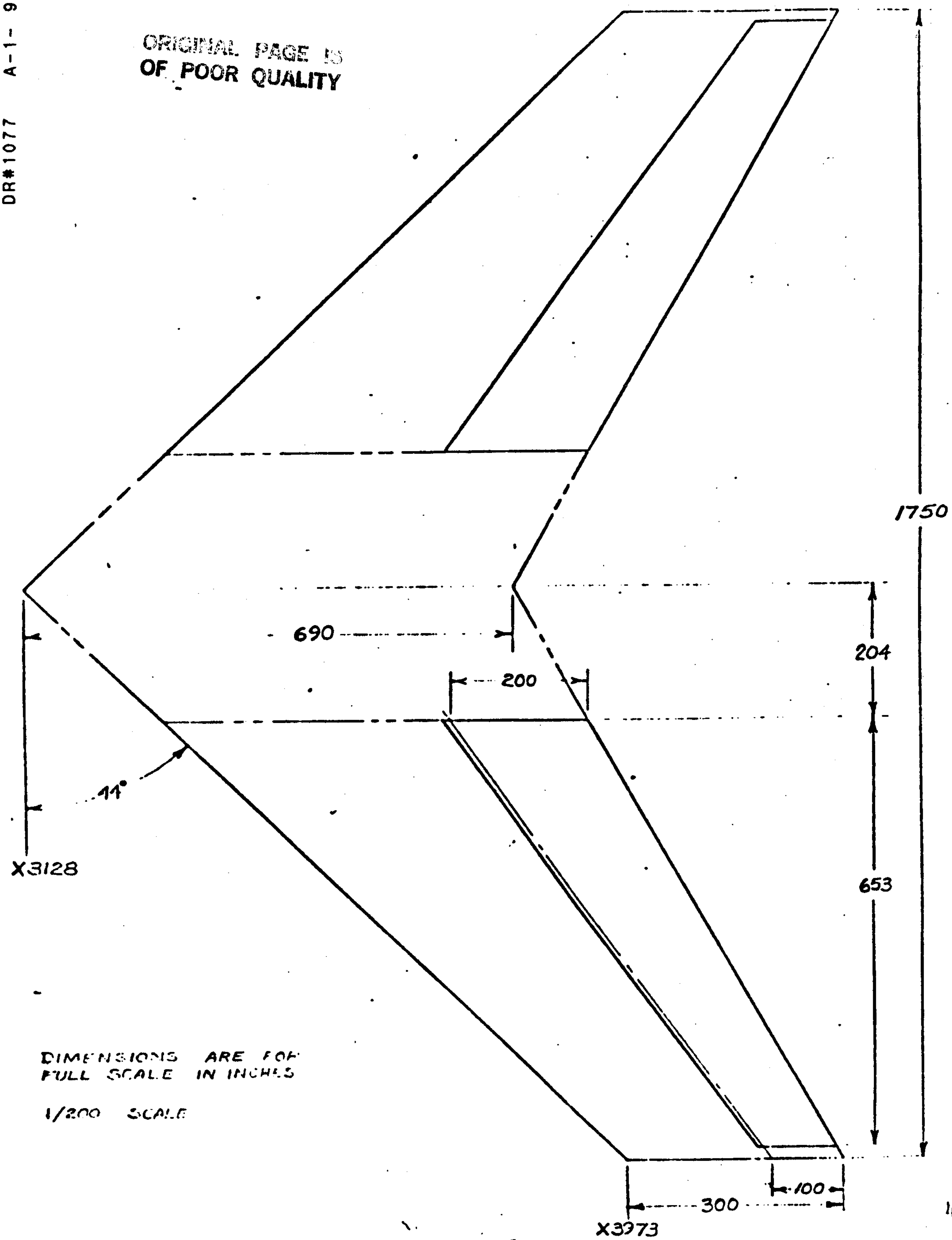


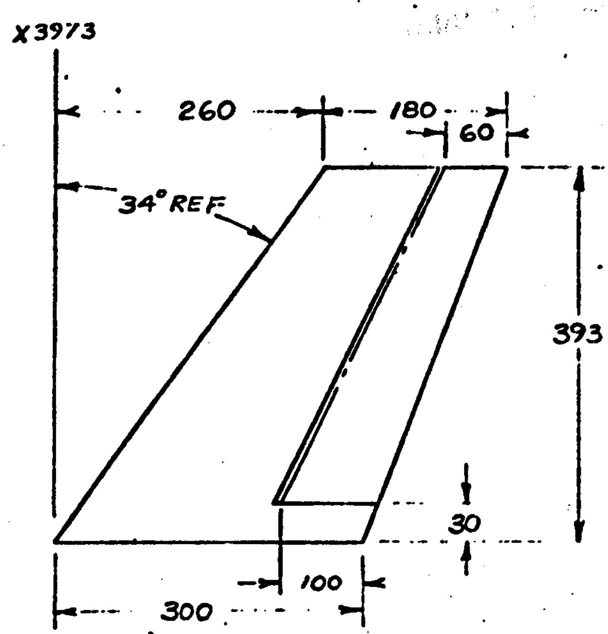
FIG. 5 JET CANARD DETAILS, J7, J8 AND J10

CANARD BOOSTER
MDAC/MMC
DR#1077 A-1- 94



40

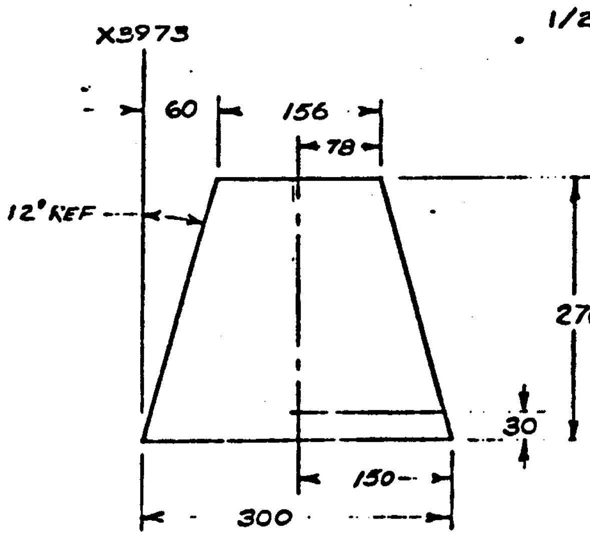
FIG 6 DETAILS OF WING W5



TIP FIN V7

DIMENSIONS ARE FOR FULL SCALE IN INCHES

1/200 SCALE



TIP FIN V6

FIG 7 DETAILS OF TIP FINS

TEST ARC 3.5#112 DATA SET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

TABLE 7

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	β	[illegible]	[illegible]	[illegible]	[illegible]	NO. OF RUNS	[illegible]	[illegible]	[illegible]	δV	ELEVON OFF	[illegible]	[illegible]	[illegible]	0	[illegible]	[illegible]
RAL001	B_1	B	0	.4	—	—	—		—	—	—	—	40						
RAL002		C											1						
RAL003	B_1 [illegible]						3						39						
RAL004		C											2						
RAL005	$B_1N_3W_1E_1$	B			0				0								38		
RAL006		C															3		
RAL007	$B_1N_3J_1V_1E_1$	B					3	2							30		29		
RAL008		C													501		4		
RAL009		B	-10					1									51		
RAL010		C															25		
RAL011	$B_1N_3J_1W_1E_1V_1R_1$	B	0					5		0	10	0		32	311	23	35	34	
RAL012		C												7	601	8	10	9	
RAL013		B	-10					1									52		
RAL014		C															24		
RAL015		50	C														63		
RAL016										-10	0						62		
RAL017			-10														53		
RAL020		C															23		
RAL																			
RAL																			

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CLM	CY	CYN	CBL	L/D	CAB			[illegible], ALPHA		

COEFFICIENTS: → IDPVAR(1) IDPVAR(2) NDV

α or β SCHEDULES

α: B = 30 → 40 ; C = 50 → 68

β: C = -8 → +10

* WHEN ELEVON IS OFF:
IDPVAR(1) = MACH

⇧ FOR β SWEEPS:
IDPVAR(2) = BETA

TEST ARC 35-112 DATA SET COLLATION SHEET

TABLE 7

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	M	δ_a	δ_F	δ_E	NO. of RUNS	δ_{IW}	δ_R	δ_{BF}	δ_V	ELEVON OFF	-40	-20	-10	0	+10	+20	
RAL021	$B_1N_3J_1W_1E_1V_1R_1$	B	0	7.4	10	—	3	1	3	0	10	0					36			
RAL022	↓	C	↓		↓						↓	↓					11			
RAL023	$B_1N_3J_1W_1E_1V_1R_1$ $\delta_V=6$	B			0						0	6					37			
RAL024		C	↓														12			
RAL025		B	-10														54			
RAL026		50	C							↓							61			
RAL027		B	-10							-10							55			
RAL028	↓	50	C							↓		↓					60			
RAL029	$B_1N_3J_1W_1E_1V_2R_2$	B	-10							0		0					56			
RAL030		50	C							↓							59			
RAL031		B	-10							-10							57			
RAL032	↓	50	C														58			
RAL033	$B_1N_3J_1W_1E_1V_1R_1$	B	0	↓	↓	↓	↓	↓	↓	↓	↓	↓			31					
RAL																				
RAL																				
RAL																				
RAL																				
RAL																				
RAL																				
RAL																				

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CLM	CY	CYN	CBL	L/D	CAB			ELEVON	ALPHA*	

COEFFICIENTS: α: β:

IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES:
B = 30 → 50   C = -10 → +8
C = 50 → 68

* WHEN ELEVON'S OFF: IDPVAR(1) = MACH

⇧ For β sweeps: IDPVAR(2) = BETA

ORIGINAL PAGE IS OF POOR QUALITY

CANARD BOOSTER
MDAC/MMC
DR#1080 A-1-97

TEST ARC 3.5#112 DATA SET COLLATION SHEET

CANARD BOOSTER
MDAC/MMC
DR#1080 A-1-98
☐ PRETEST
☑ POSTTEST

TABLE 7

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS [illegible]	[illegible]	[illegible]	[illegible]	NO. of RUNS	PARAMETERS [illegible]	[illegible]	[illegible]	[illegible]	ELEVON [illegible]	[illegible]	[illegible]	-10	0	[illegible]	[illegible]
RAL101	[illegible]$N_4W_2E_1$	B	0	[illegible]	0	—	—	1	3	—	—	—					44		
RAL102		C															19		
RAL103	$B_1N_4P_1T_1F_2W_2E_1$	B				0	3										43		
RAL104		C															15		
RAL105		B	-10														50		
RAL106		C	-10														26		
RAL107	$B_1N_4P_1T_1F_2W_2E_1V_1R_1$	B	0					2		0	10	0			46		45		
RAL108		C													17		16		
RAL109		B	-10					1									48		
RAL110		C	-10														27		
RAL111		B	-10							-10	0						42		
RAL112		C	-10														28		
RAL113						[illegible]				0	10						47		
RAL114						0												18	
RAL																			
RAL																			
RAL																			
RAL																			
RAL																			
RAL																			

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CLM	CY	CYN	CBL	L/D	CAB			ELEVON [illegible]		

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES:

α: B = 30 → 48; C = 50 → 68

β: C = -8 → +10

* WHEN ELEVON IS OFF: IDPVAR(1) = MACH
* FOR e SWEEPS IDPVAR(2) = BETA

ORIGINAL PAGE IS OF POOR QUALITY

TEST ARC 3.5#112 DATA SET COLLATION SHEET

TABLE 7

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS M	PARAMETERS δc	PARAMETERS δF	PARAMETERS δB	NO. OF RUNS	PARAMETERS δW	PARAMETERS δF	PARAMETERS δFF	PARAMETERS δV	ELEVON OFF	ELEVON -40	ELEVON -20	ELEVON -10	ELEVON 0	ELEVON 10	ELEVON 20	
RAL [illegible]	E1P	[illegible]	0	[illegible]	—	—	—	1	—	—	—	—	41							
RAL [illegible]	↓	C		↓	↓	↓	↓	↓	↓	↓	↓	↓	13							
RAL [illegible]	F1P1T1F2	B					3						42							
RAL [illegible]	↓	C			↓		↓		↓				14							
RAL [illegible]	B1N4V12E1	C	-10		0		—		3	↓	↓	↓					20			
RAL [illegible]	B1N4V12E1W1R1									0	10	0					21			
RAL [illegible]	↓	↓	↓	↓	↓	↓	↓	↓	↓	-10	0	↓					22			
RAL																				
RAL																				
RAL																				
RAL																				
RAL																				
RAL																				
RAL																				
RAL																				
RAL																				
RAL																				
RAL																				
RAL																				
RAL																				

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CLM	CY	CYN	CBL	L/D	CAB			ELEVON/ELEV*		
										IDPVAR(1)	IDPVAR(2)	NDV

COEFFICIENTS:

α or β SCHEDULES:

α: B = 30 → 48
C = 50 → 68

β: A = 0 → 18
C = -10 → +8

* WHEN ELEVON IS OFF:
IDPVAR(1) = MACH
FOR α SWEEPS
IDPVAR(2) = BETA

CANARD BOOSTER
MDAC/MMC
DR#1080 A-1- 99

ORIGINAL PAGE IS OF POOR QUALITY

TEST ARC 3.5'/12 DATA SET COLLATION SHEET

CANARD BOOSTER
MDAC/MMC
DR#1080 A-1- 100
☐ PRETEST
☑ POSTTEST

TABLE 7

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS M	δ_a	δ_{F}	[illegible]	NO. of RUNS	PARAMETERS δ_{SW}	δ_R	δ_{RF}	ΔV	ELEVON OFF	-40	-20	-10	0	10	20	
RAL 201	$B_1N_3J_1W_1E_1$	50	C	7.4	0	—	3	1	3	—	—	—					64			
RAL 202	↓	60	a	↓	↓	↓	↓	↓	↓	↓	↓	↓					66			
RAL 203	$B_1N_3W_1E_1V_1R_1$	C	0	↓	↓	↓	—	↓	↓	0	10	0					72			
RAL 204	$B_1N_3P_1T_1E_2W_1E_1V_1R_1$	↓	↓	↓	↓	0	3	↓	↓	↓	↓	↓					73			
RAL 205	↓	↓	↓	↓	↓	20	↓	↓	↓	↓	↓	↓					74			
RAL 206	$B_1N_3J_1W_1E_1V_1R_1$	50	C	↓	10	—	↓	↓	↓	↓	↓	↓					65			
RAL 207	↓	60	a	↓	↓	↓	↓	↓	↓	↓	↓	↓					67			
RAL 208	↓	↓	↓	↓	0	↓	↓	↓	↓	↓	↓	↓					68			
RAL 209	↓	↓	↓	↓	↓	↓	↓	↓	↓	-10	0	↓					69			
RAL 210	$B_1N_3J_1W_1E_1V_1R_1$ \ $S_1=6$	↓	↓	↓	↓	↓	↓	↓	↓	0	↓	6					70			
RAL 211	↓	↓	↓	↓	↓	↓	↓	↓	↓	-10	↓	↓					71			
RAL																				
RAL																				
RAL																				
RAL																				
RAL																				
RAL																				
RAL																				
RAL																				
RAL																				

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CLM	CY	CYN	CBL	L/D	CAB			ELEVON	ALPHA	*
										IDPVAR(1)	IDPVAR(2)	NDV

COEFFICIENTS:

α or β SCHEDULES

α: β:

B = 30 → 48 A = -10 → +8

C = 50 → 68

* WHEN ELEVON IS OFF: IDPVAR (1) = MACH

⇧ FOR α SWEEPS: IDPVAR (2) = BETA

ORIGINAL PAGE IS OF POOR QUALITY

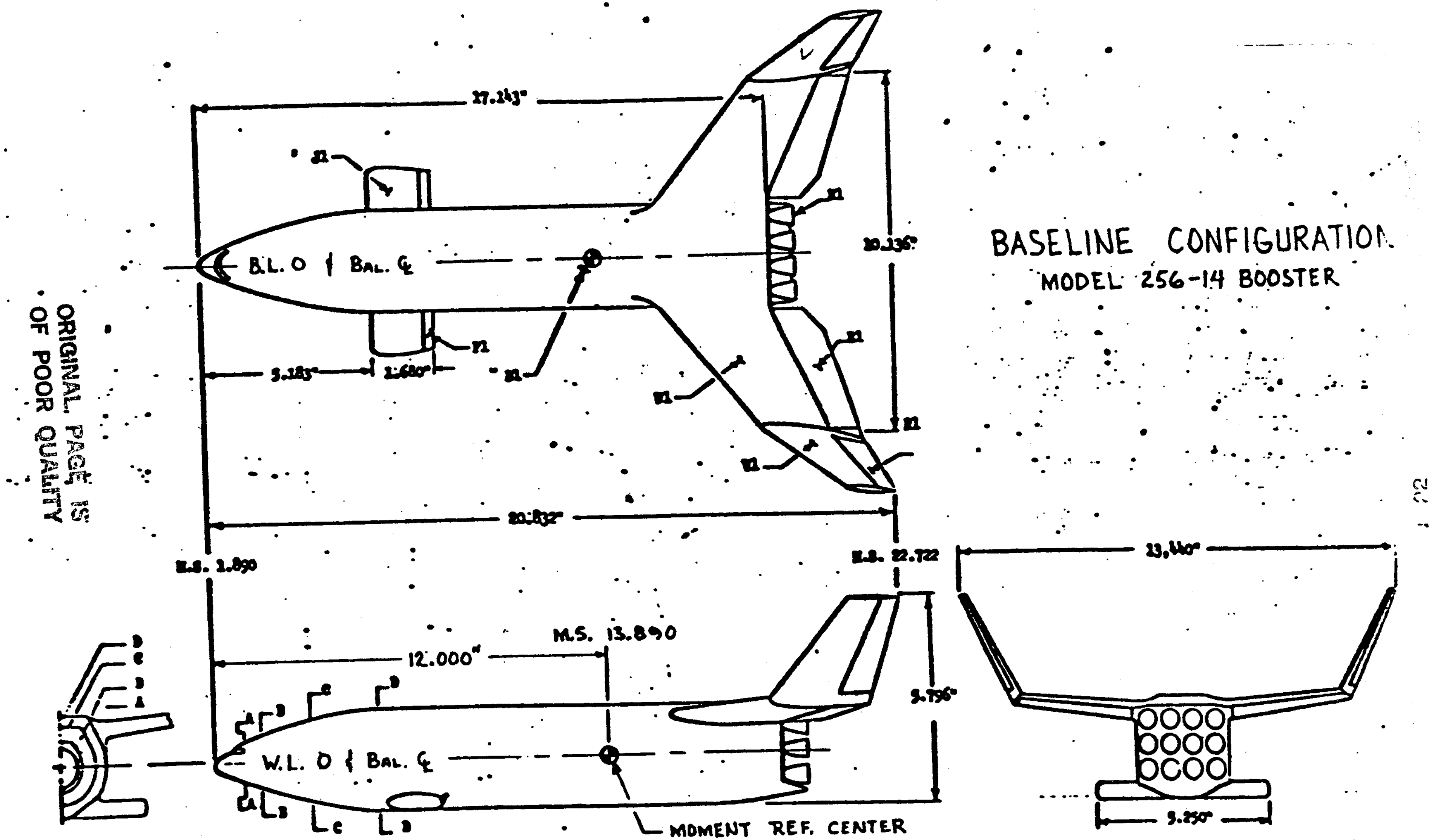
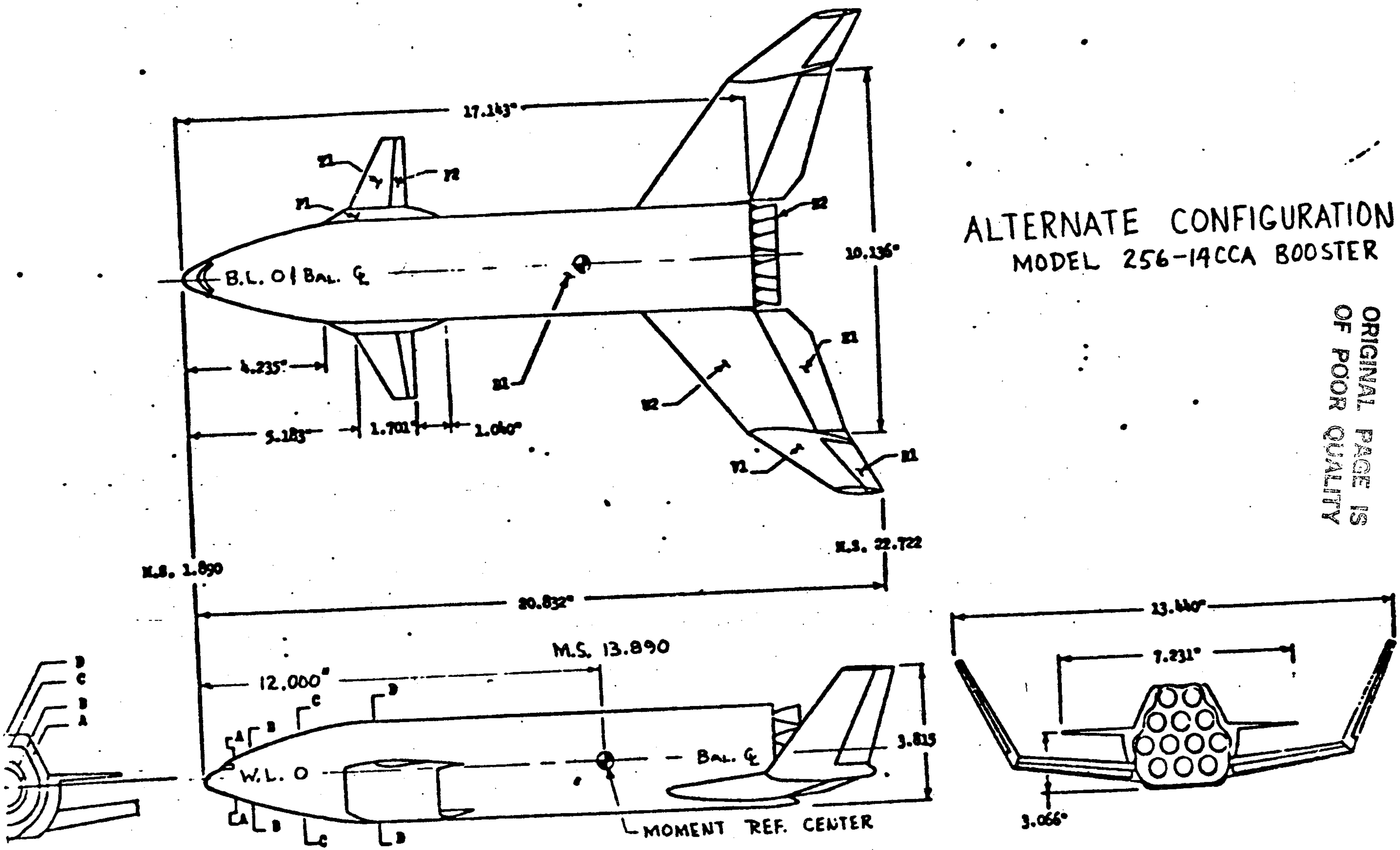


Fig. 1 THREE VIEW LAYOUT; MDC-MMC 0.007-SCALE MODEL SSV BOOSTER, MODEL 256-14.

CANARD BOOSTER
MDAC/MMC
DR#1080 A-1- 102

ALTERNATE CONFIGURATION
MODEL 256-14CCA BOOSTER



ORIGINAL PAGE IS OF POOR QUALITY

Fig. 2 THREE VIEW LAYOUT; MDC-MMC 0.007-SCALE MODEL SSV BOOSTER MODEL 256-14CCA

CANARD BOOSTER
MDAC/MMC
DR#1080 A-1- 103

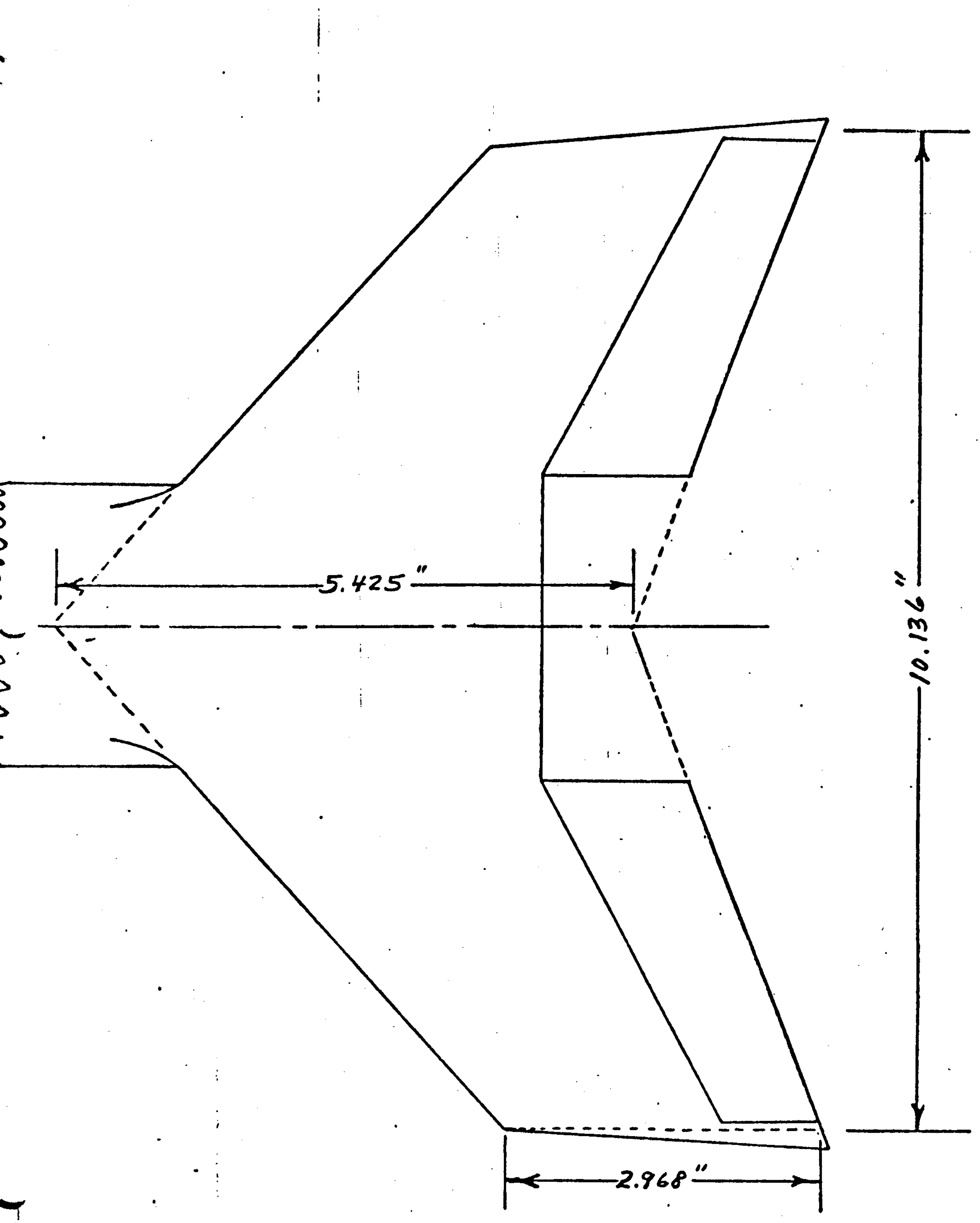
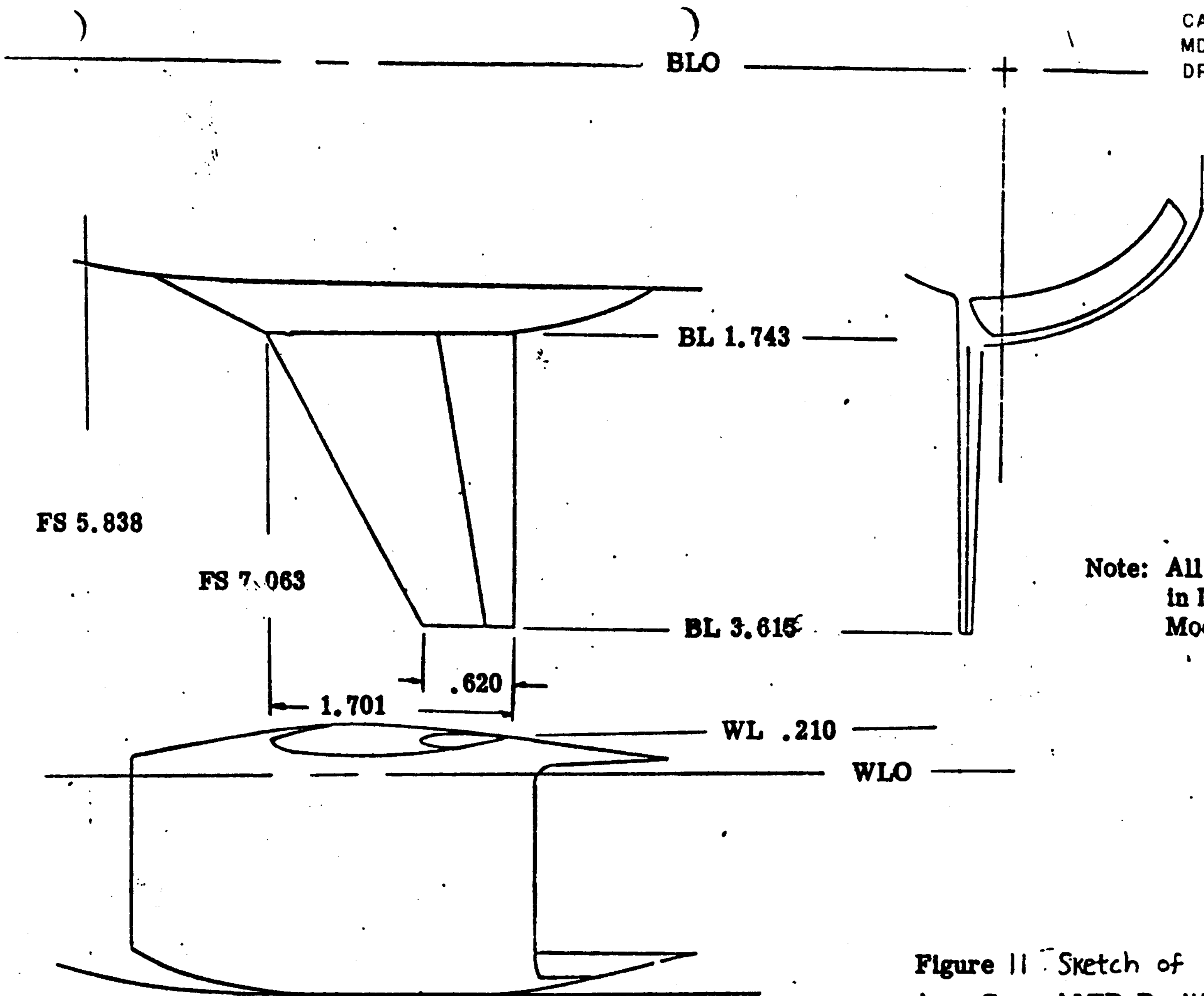


Fig. 10 Sketch of High Wing and Elevon, $W_1 E_1$



Note: All Dimensions in Inches Model Scale

ORIGINAL PAGE IS OF POOR QUALITY

Figure 11 Sketch of Aero Canard MID-Position, $P_1T_1F_2$

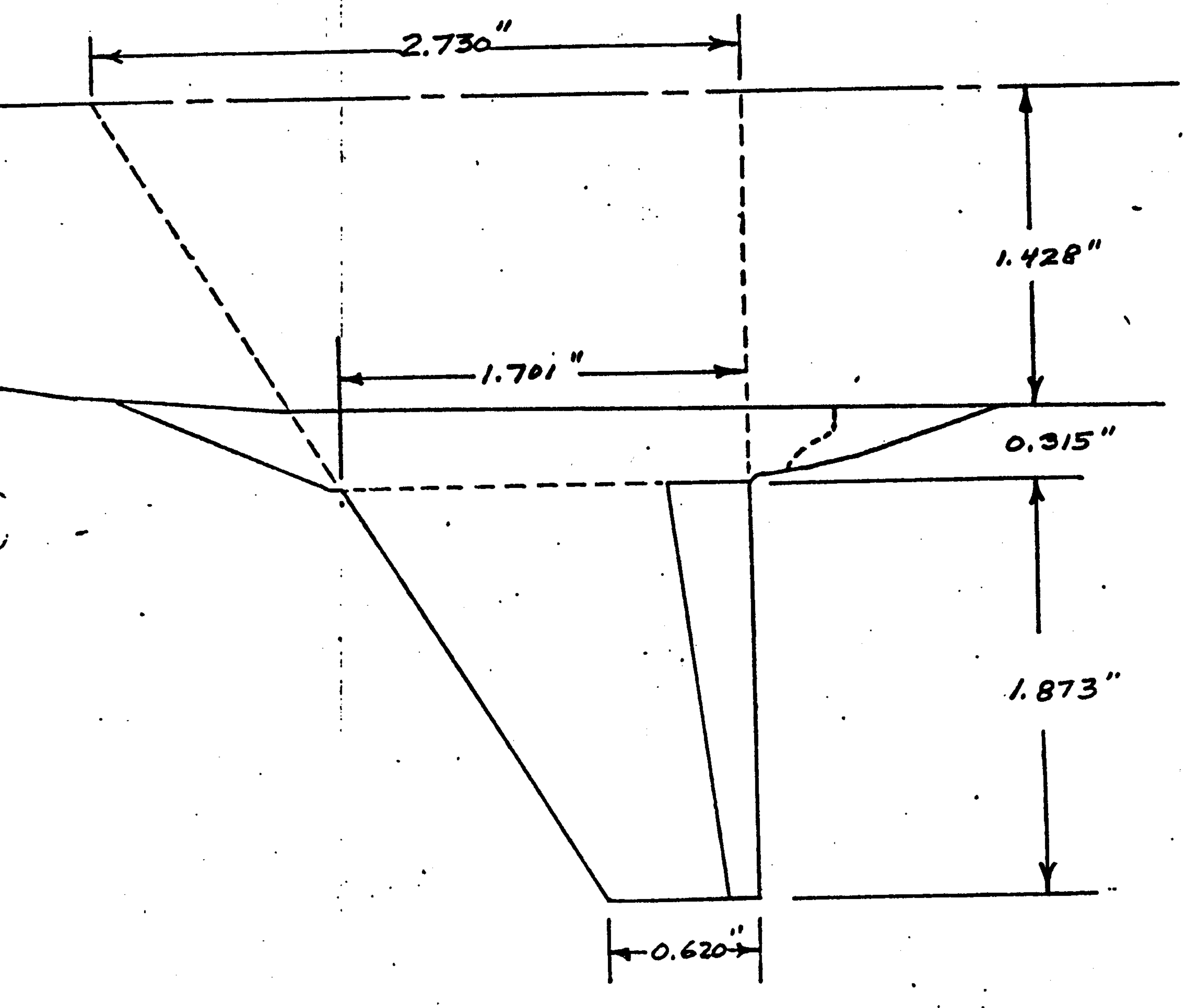
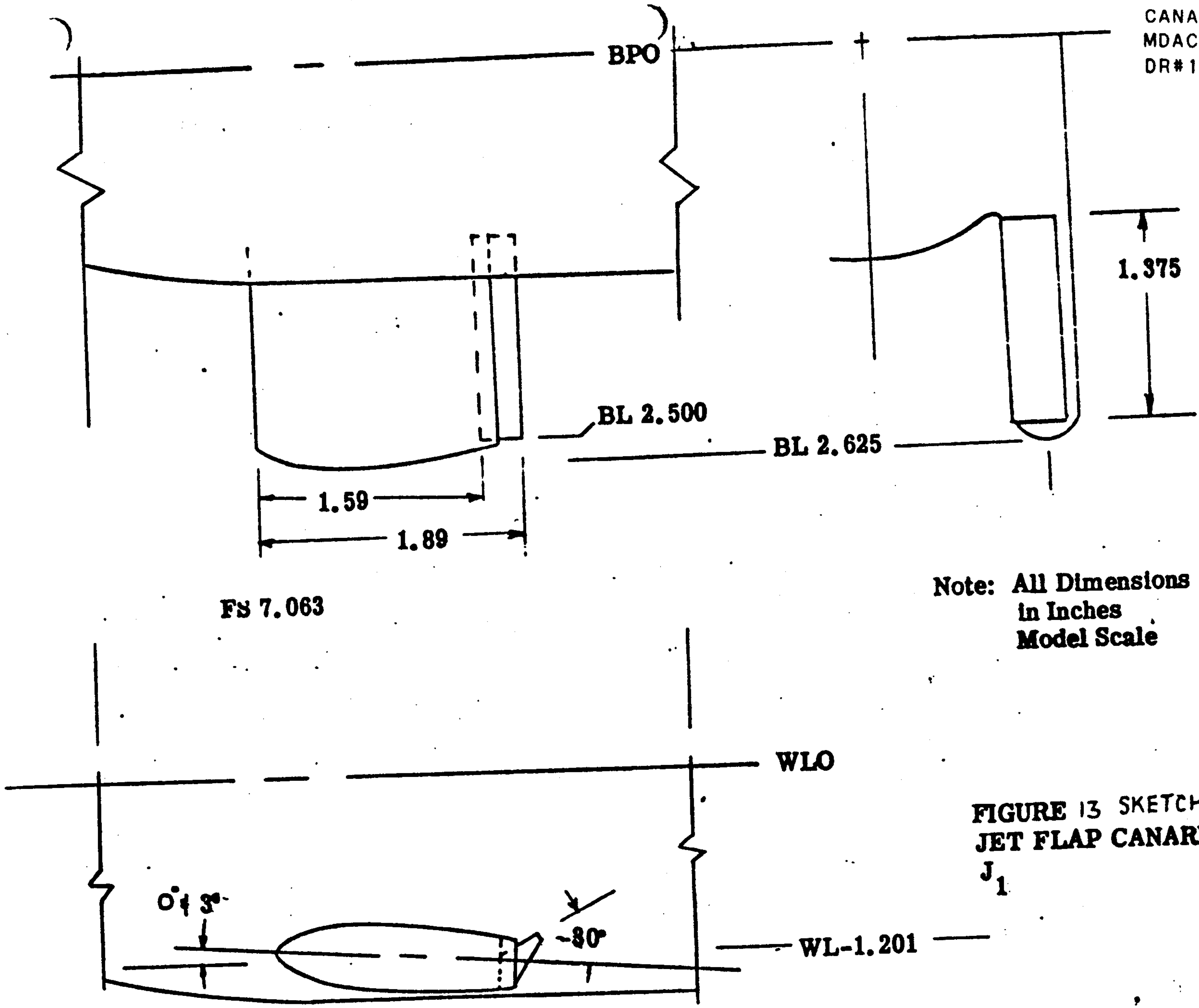
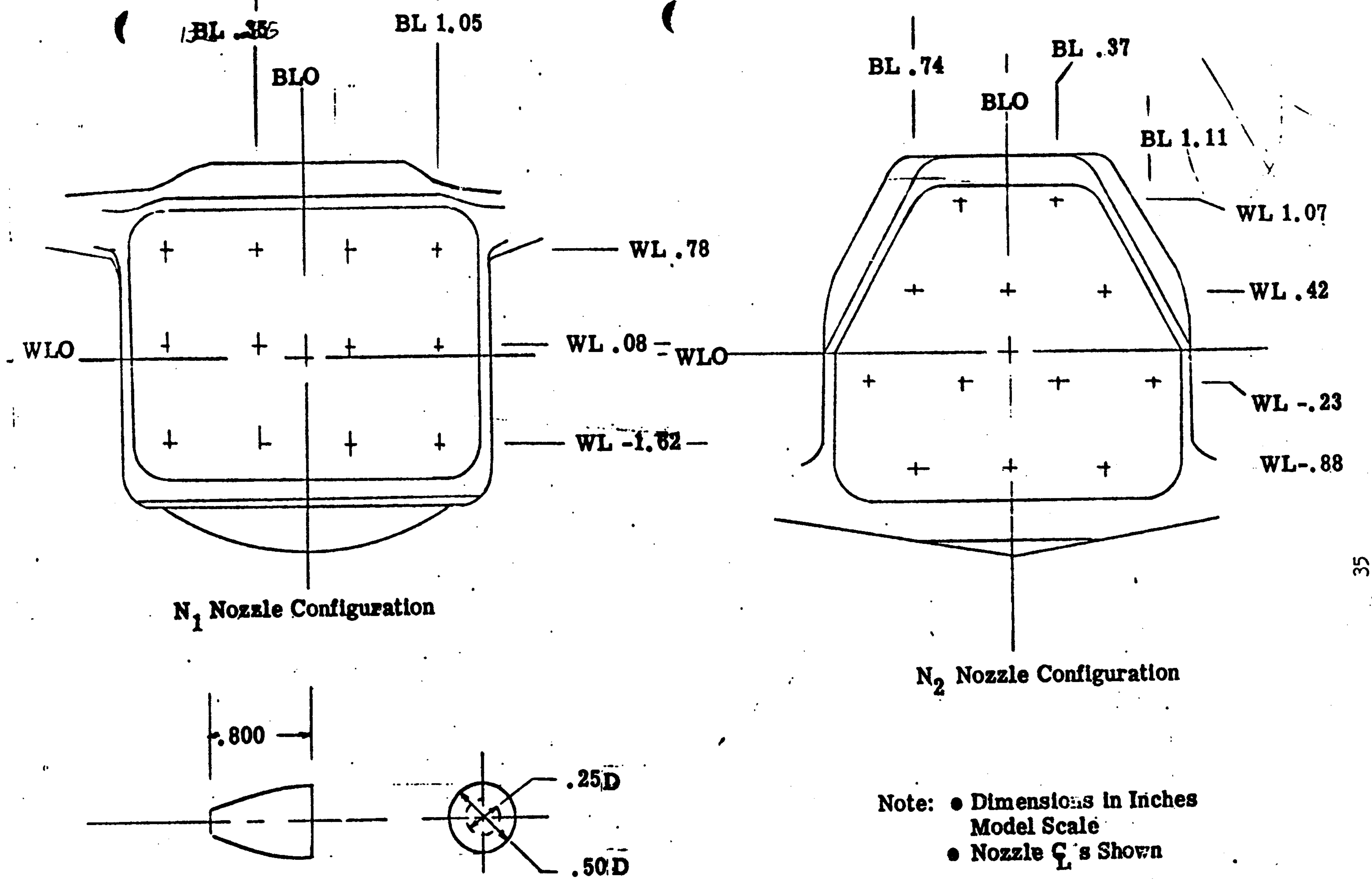


Fig. 12 Sketch of Mid-body Aerodynamic Canard With Flap, T_1F_2



Note: All Dimensions in Inches Model Scale

FIGURE 13 SKETCH OF JET FLAP CANARD, J_1



N_1 Nozzle Configuration

N_2 Nozzle Configuration

Individual Nozzle Geometry

Note: • Dimensions in Inches Model Scale
• Nozzle ℄'s Shown

FIGURE 14 SKETCH OF, MODEL BASE END CONFIGURATIONS WITH N_1 & N_2 (OR N_3 & N_4 RESP.)

NOTE: All Dimensions in Inches Model Scale

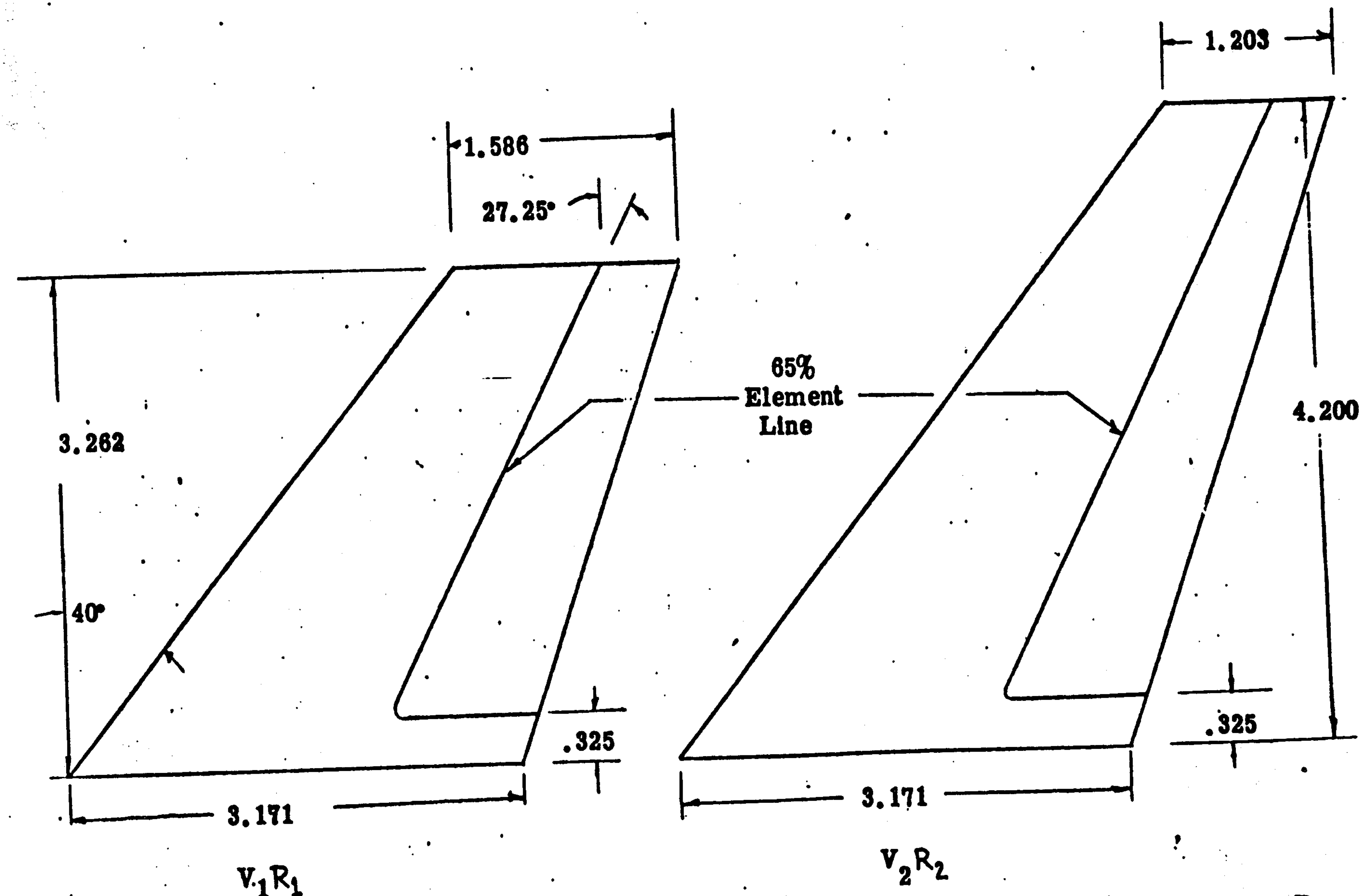
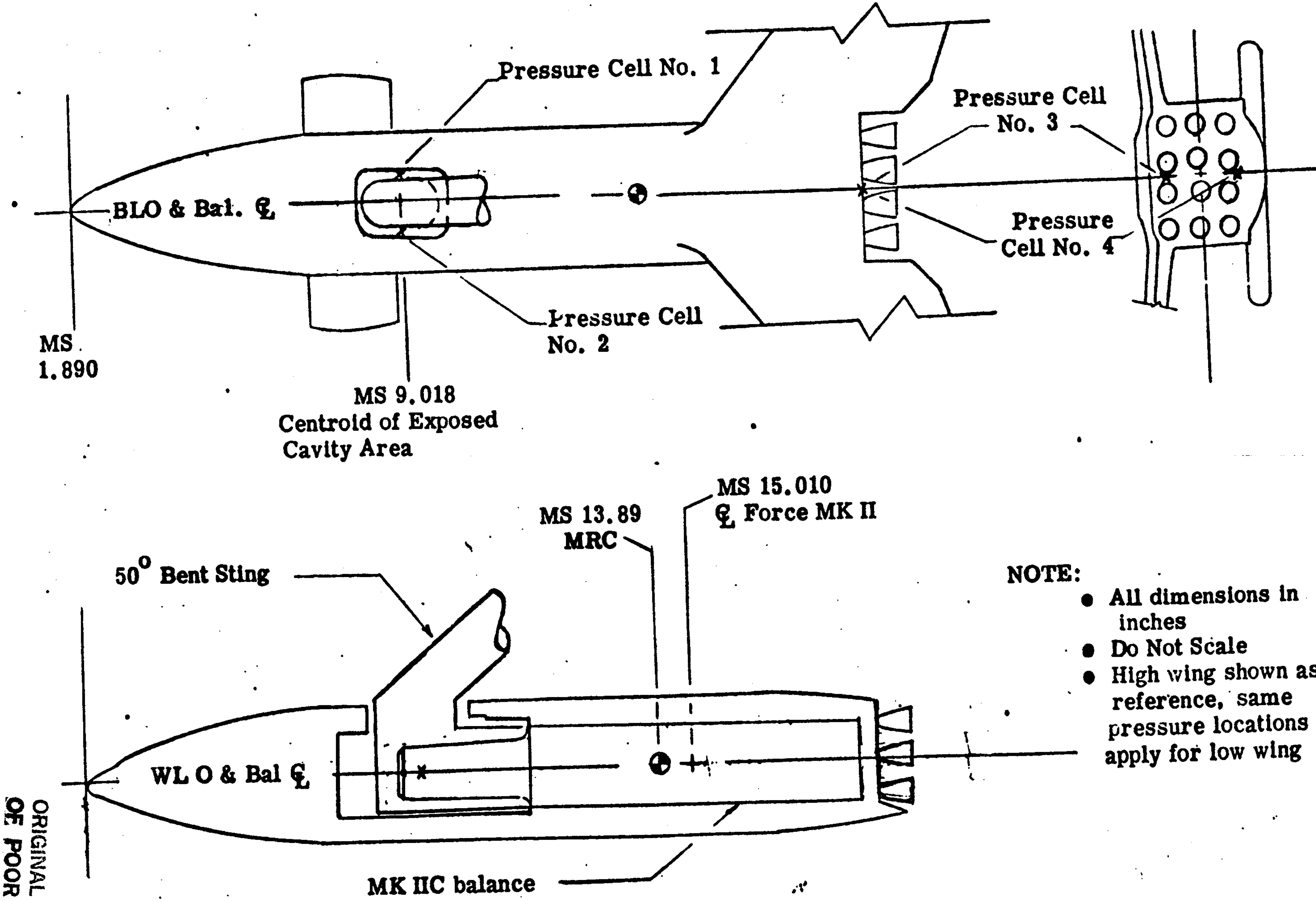


Fig. 15 Sketch, of Vertical Stabilizer and Rudder, V_1R_1 & V_2R_2



38

ORIGINAL PAGE IS OF POOR QUALITY

FIGURE 17 MODEL FORCE AND PRESSURE LOCATIONS

CANARD BOOSTER
MDAC/MMC
DR#1080 A-1- 109

CANARD BOOSTER
MDAC/MMC
DR#1116 A-1- 110

TEST ARC 6x6 #510 DATA SET COLLATION SHEET
(BOOSTER)

TABLE III (Cont.)

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS, VALUES δ_e	δ_a	δ_R	δ_{RF}	NO. of RUNS	δ_{TW}			.60	.85	1.1	1.2	1.5	2.0			
RAR 211	$B_2N_{12}W_5E_3V_6R_6$	D	5	0	0	0	0	5	3			100	99		98	97	96			
301	$J_6F_4W_5E_3$	C	-5			—	—	3							108	107	106			
302	V_6R_6					0	0								111	110	109			
303							10								114	113	112			
403		B	0			-10									120	119	118			
404						0									117	116	115			
405				-20											123	122	121			
406				-40											126	125	124			
407				0	10										129	128	127			
408					0	—	—								132	131	130			
409	W_5E_3														135	134	133			
410				—	—				—						138	137	136			
411	J_6F_4														141	140	139			
412	$B_4N_{12}J_6F_4W_5E_3V_6R_6$			0	0	0	10		0						144	143	142			
501	B_3	35	a						3						147	146	145			
502						-10									150	149	148			
503						—	—								153	152	151			
504	V_6R_6				10	0	10	2							155		154			

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CAF	CLM	CY	CYN	CBL	CAB	CPB	CPN	CPC	MACH	ALPHA*	
										IDPVAR(1)	IDPVAR(2)	NDV

COEFFICIENTS:

α or β SCHEDULES

ALPHA & A=-7 → +23 D=-8 → +42 BETA & a=-10 → +10
B=+23 → +53 b=-8 → +10
C=+23 → +48

* IDPVAR(2) = BETA for sideslip runs.

NASA-MSFC-MAF

ORIGINAL PAGE IS OF POOR QUALITY

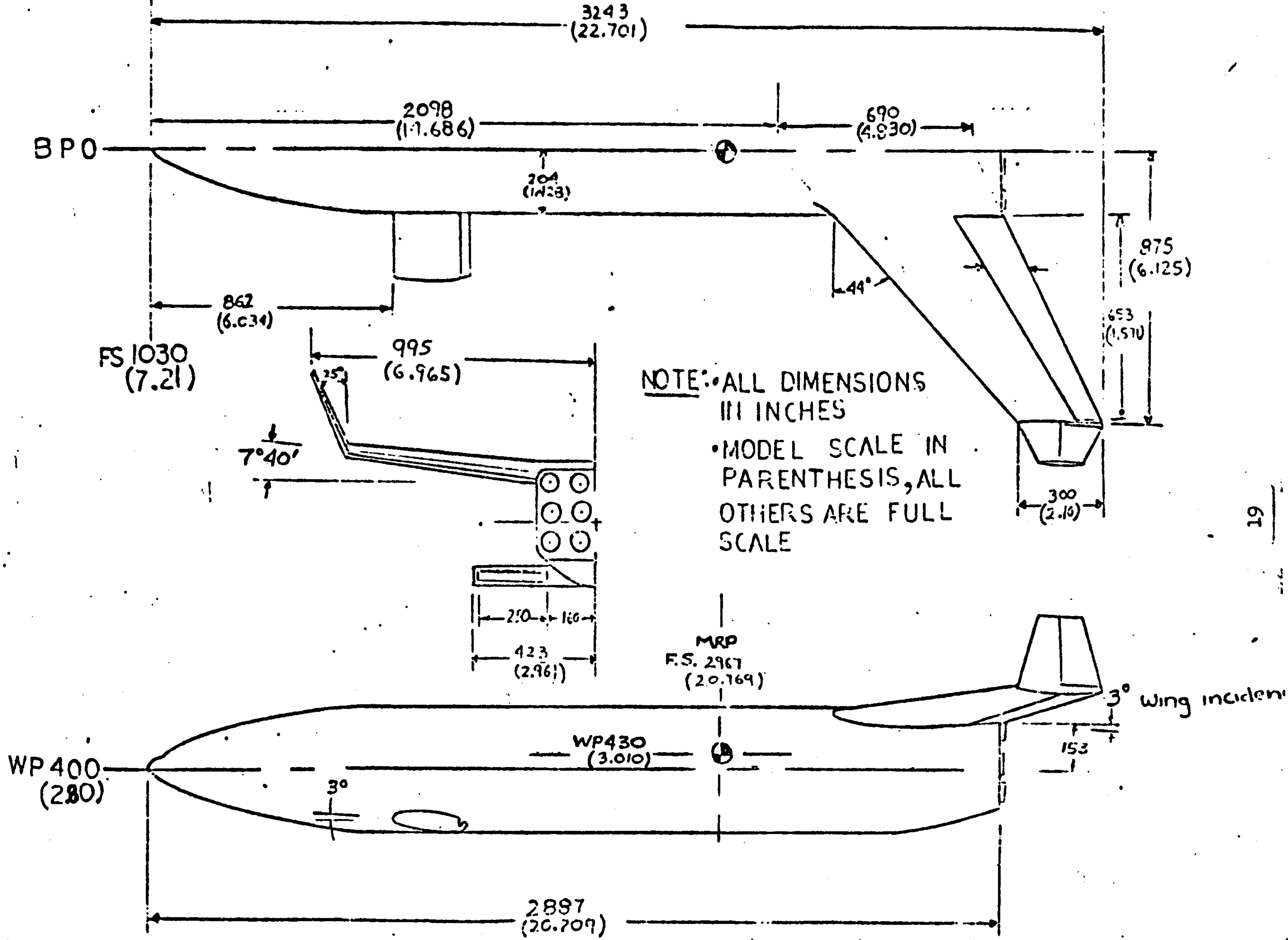
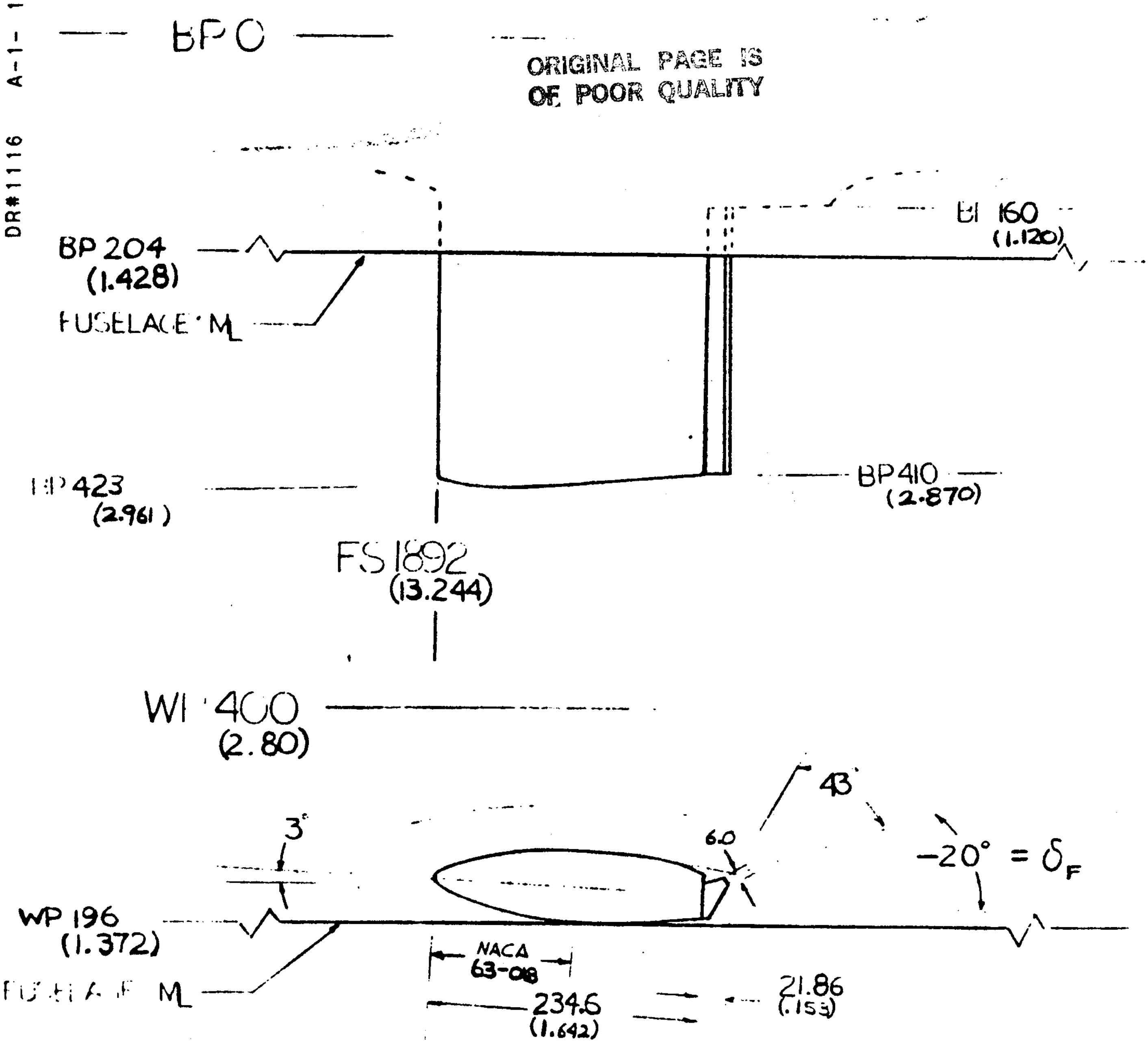


FIGURE A CONFIGURATION $B_3N_{12}J_6F_4W_5E_3V_6R_6$ GENERAL ARRANGEMENT

CANARD BOOSTER
MDAC/MMC
DR#1116 A-1- 111

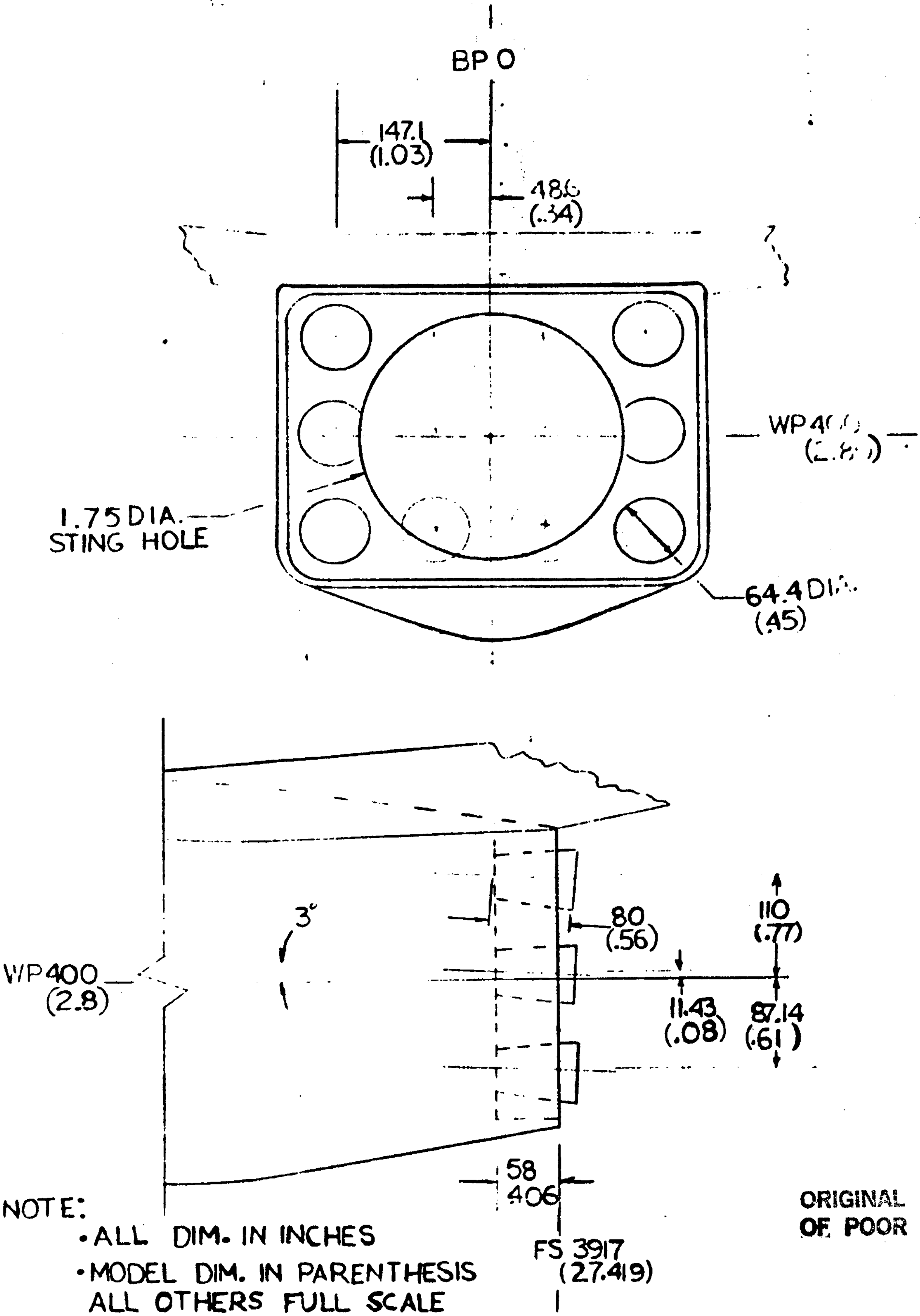
ORIGINAL PAGE IS OF POOR QUALITY

19



NOTE • ALL DIMENSIONS IN INCHES
• MODEL DIMENSIONS IN PARENTHESIS ALL OTHERS FULL SCALE
• FUSELAGE NOSE AT FS 1030

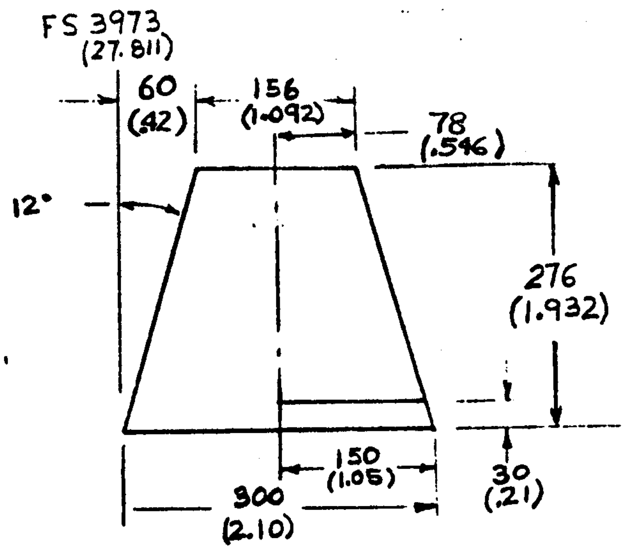
FIGURE B JET FLAP CANARD ~ $J_6 F_4$



NOTE:
- ALL DIM. IN INCHES
- MODEL DIM. IN PARENTHESIS ALL OTHERS FULL SCALE
- FUSELAGE NOSE AT FS 1030

ORIGINAL PAGE IS OF POOR QUALITY

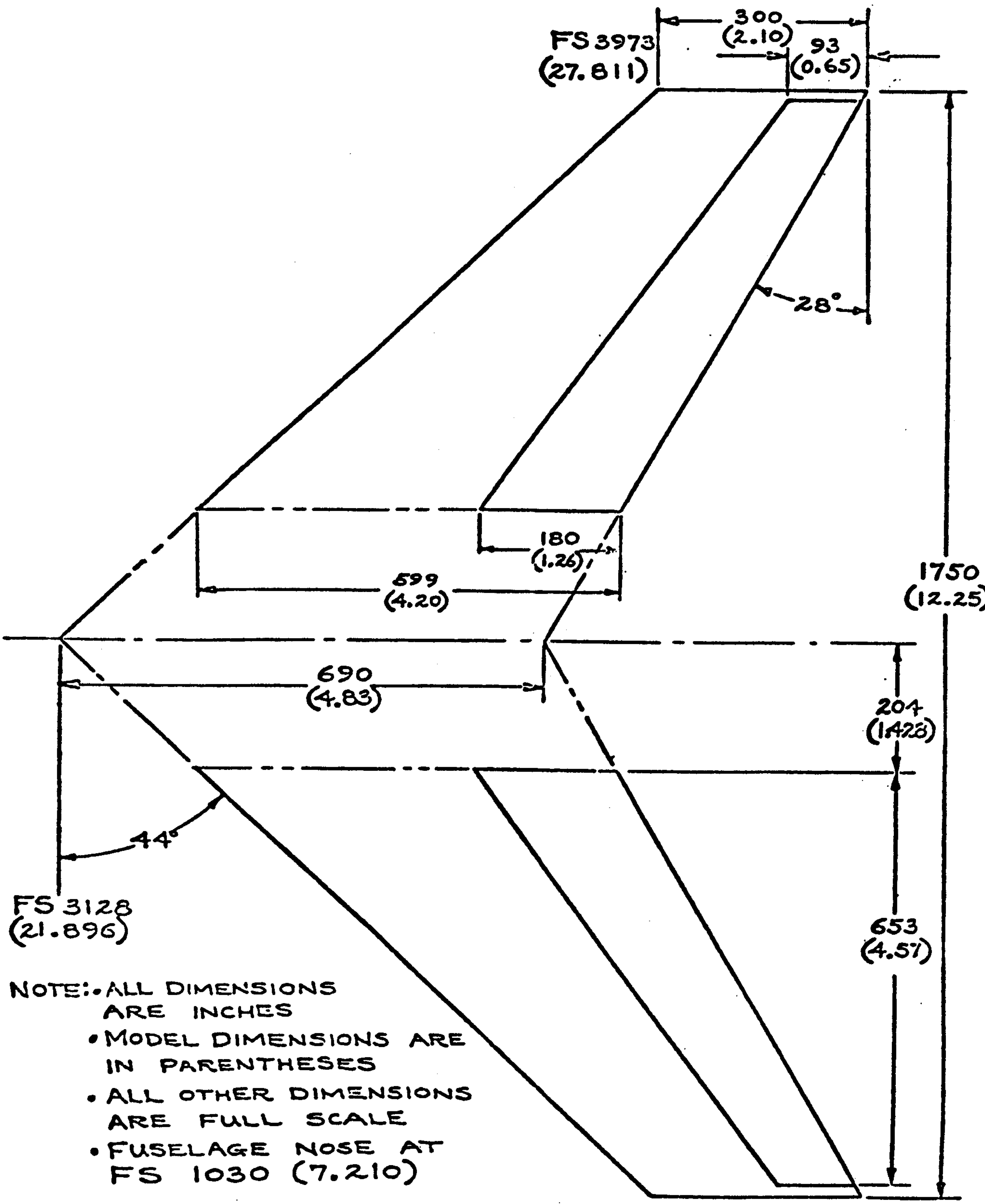
FIGURE C BASE END CONFIGURATION ~ N_{12}



NOTE:
- ALL DIMENSIONS IN INCHES
- MODEL DIMENSIONS IN PARENTHESIS, ALL OTHERS FULL SCALE
- FUSELAGE NOSE AT FS 1030

FIGURE D TIP FIN ~ $V_6 R_6$

CANARD BOOSTER
MDAC/MMC
DR#1116 A-1- 115



NOTE: • ALL DIMENSIONS ARE INCHES
• MODEL DIMENSIONS ARE IN PARENTHESES
• ALL OTHER DIMENSIONS ARE FULL SCALE
• FUSELAGE NOSE AT FS 1030 (7.210)

FIGURE E DETAILS OF WING W5 E3

NOTE:
- ALL DIMENSIONS IN INCHES
- NO. 120 CARBORUNDUM GRIT USED
- ALL STRIPS 3/32 INCHES WIDE
- STRIPS LOCATED AT 5% LOCAL CHORD OF WING, CANARD, AND VERTICAL TAILS
- GRIT LOCATED ON BOTH UPPER AND LOWER SURFACES

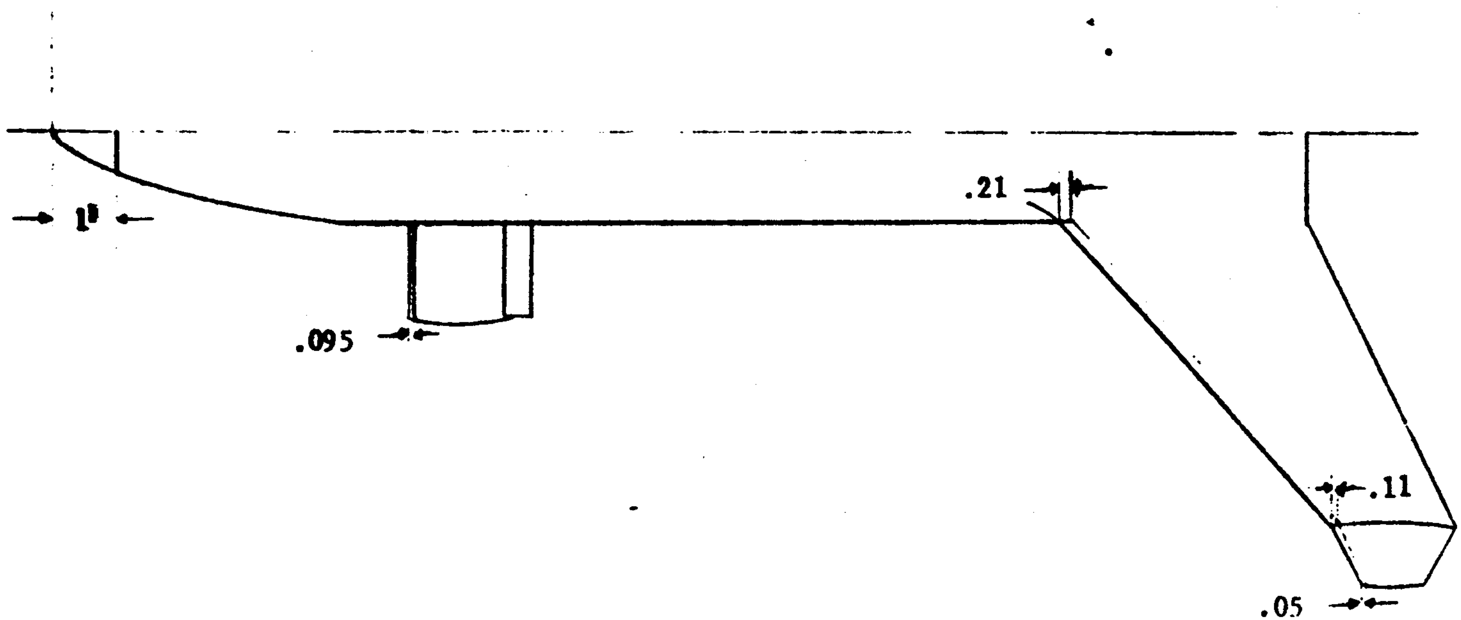
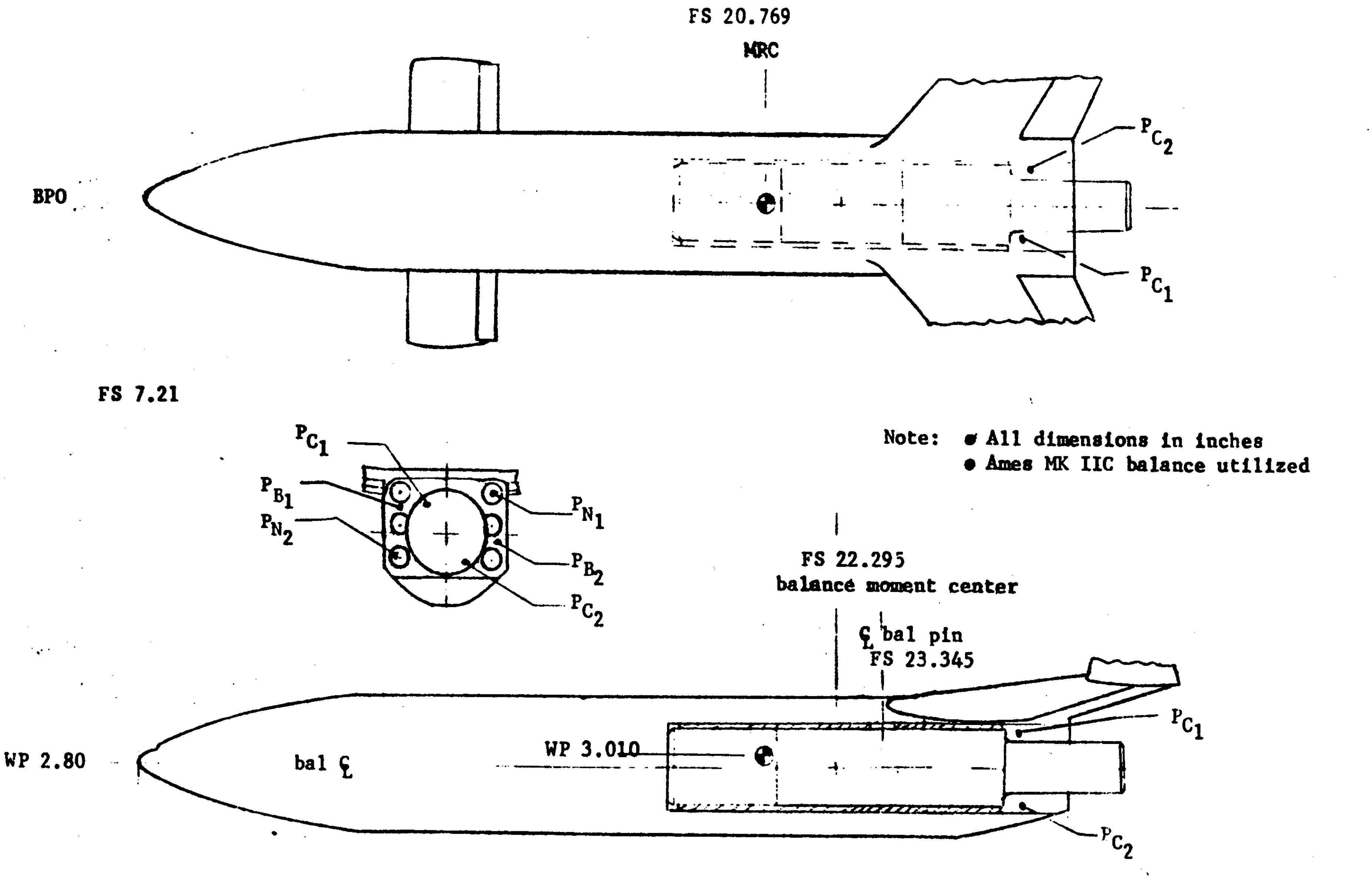


FIGURE K BOUNDARY LAYER TRANSITION STRIP LOCATIONS



CANARD BOOSTER
MDAC/MMC
DR#1116 A-1- 117

FIGURE M MODEL INSTRUMENTATION

TEST LSWT-258 DATA SET COLLATION SHEET

☐ PRETEST

☒ POSTTEST

1 of 6

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	CONTROL DEFLECTION δ_E	δ_A	δ_R	δ_{TF}	NO. of RUNS	MACH NUMBERS 2.26											
RCZ001	B3N11W5J6	-4	E	0	0	—	0	1	3											
002		0		0	0	—	0	1	4											
003		4		0	0	—	0	1	5											
004		6		0	0	—	0	1	6											
005		8		0	0	—	0	1	7											
006		10		0	0	—	0	1	8											
007		-4		0	20	—	0	1	9											
008		0		0	20	—	0	1	10											
009		4		0	20	—	0	1	11											
010		6		0	20	—	0	1	12											
011		8		0	20	—	0	1	13											
012		10		0	20	—	0	1	14											
013		0		5	30	—	0	1	15											
014		4		5	30	—	0	1	16											
015		6		5	30	—	0	1	17											
016		8		5	30	—	0	1	18											

1 7 13 19 25 31 37 43 49 55 61 67 75 76

CD CL CLM CY CLN CSL CAB MACH BETA 1

IDPVAR(1) IDPVAR(2) NDV

COEFFICIENTS:

α or β SCHEDULES $E = -10, -8, -6, -4, -2, 0, 2, 4, 6, 8, 10$

6

MCAIR-
TEST LSWT-25P DATA SET COLLATION SHEET

☐ PRETEST

☒ POSTTEST

2 of 6

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	CONTROL DEFLECTION δE	δA	δR	δJF	NO. of RUNS	MACH NUMBERS 0.26											
RCZ021	B3N11W5J6V9	-4	E	0	0	0	0	1	25											
022		0		0	0	0	0	1	26											
023		4		0	0	0	0	1	27											
024		6		0	0	0	0	1	28											
025		8		0	0	0	0	1	29											
026		10		0	0	0	0	1	30											
027		-4		0	20	0	0	1	31											
028		0		0	20	0	0	1	32											
029		4		0	20	0	0	1	33											
030		6		0	20	0	0	1	34											
031		8		0	20	0	0	1	35											
032		10		0	20	0	0	1	36											
034	B3N11W5J6V9	0	E	5	30	0	0	1	63											
035		4		5	30	0	0	1	64											
036		6		5	30	0	0	1	65											
037		8		5	30	0	0	1	66											

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CD	CL	CLM	CY	CLN	CSL	CAB				MACH	BETA	7

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

CANARD BOOSTER
MDAC/MMC
DR#1120 A-1- 119

ORIGINAL PAGE IS OF POOR QUALITY

MCAIR-
TEST LSWT-258 DATA SET COLLATION SHEET

☐ PRETEST
☒ POSTTEST

3 of 6

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	CONTROL DEFLECTION δE	δA	δR	δT	NO. of RUNS	MACH NUMBERS 0.26											
RCZ015	B3N11W5J6V9	-4	E	0	0	10	0	1	50											
046		0		0	0	10	0	1	51											
047		1		0	0	10	0	1	52											
048		6		0	0	10	0	1	53											
049		8		0	0	10	0	1	54											
050		10		0	0	10	0	1	55											
051		-4		0	0	20	0	1	67											
052		0		0	0	20	0	1	68											
053		4		0	0	20	0	1	69											
054		6		0	0	20	0	1	70											
055		8		0	0	20	0	1	71											
056		10		0	0	20	0	1	72											
060	B3N11W5J6V9	-4	E	0	20	10	0	1	38											

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CD	CL	CLM	CY	CLN	CSL	CAB				MACH	BETA	7
										IDPVAR(1)	IDPVAR(2)	NDV

COEFFICIENTS:

α or β SCHEDULES

ORIGINAL PAGE IS OF POOR QUALITY

8

MCAIR-

TEST LSWT-258 DATA SET COLLATION SHEET

☐ PRETEST

☒ POSTTEST

4 OF 6

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	CONTROL DEFLECTION δF	δA	δR	δJF	NO. of RUNS	MACH NUMBERS 0.26	
RCZ061	B3N11W5J6V9	0	E	0	20	10	0	1	39	
062		4		0	20	10	0	1	40	
063		6		0	20	10	0	1	41	
064		8		0	20	10	0	1	42	
065		10		0	20	10	0	1	43	
066		-4		0	-20	10	0	1	44	
067		0		0	-20	10	0	1	45	
068		4		0	-20	10	0	1	46	
069		6		0	-20	10	0	1	47	
070		8		0	-20	10	0	1	48	
071		10		0	-20	10	0	1	49	
072		0		0	0	10/0	0	1	56	R6/R8 DEFLECTION = δR
073		4		0	0	10/0	0	1	57	
074		6		0	0	10/0	0	1	58	
075		8		0	0	10/0	0	1	59	
076		10		0	0	10/0	0	1	60	
080	B3N11W5V9	0	E	0	0	0	—	1	75	

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CD	CL	CLM	CY	CLN	CSL	CAB				MACH	BETA	7
										IDPVAR(1)	IDPVAR(2)	NDV

COEFFICIENTS:

α or β SCHEDULES

9

ORIGINAL PAGE IS OF POOR QUALITY

CANARD BOOSTER
MDAC/MMC
DR#1120 A-1- 121

CANARD BOOSTER
MDAC/MMC
DR#1120 A-1- 122

MCAIR-
TEST LSWT-258 DATA SET COLLATION SHEET

☐ PRETEST
☒ POSTTEST

5 of 6

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	CONTROL DEFLECTION δE	δA	δF	δJF	NO. of RUNS	MACH NUMBERS 0.26											
RCZ081	B3N11W5V9	4	E	0	0	0	—	1	76											
082		6		0	0	0	—	1	77											
083		8		0	0	0	—	1	78											
084		0		0	20	0	—	1	79											
085		4		0	20	0	—	1	80											
087	B3N11W5V9	8	E	0	20	0	—	1	81											
088		0		0	0	10	—	1	82											
089		4		0	0	10	—	1	83											
091		8		0	0	10	—	1	84											
092	B3N11W5V8	0	A	0	0	0	—	1	87											
093		4		0	0	0	—	1	88											
094		8		0	0	0	—	1-	89											
095		0		0	20	0	—	1	90											
096		4		0	20	0	—	1	91											
097		8		0	20	0	—	1	92											
098		0		0	0	10	—	1	93											
099		4		0	0	10	—	1	94											
100		8		0	0	10	—	1	95											

10

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CD	CL	CLM	CY	CLN	CSL	CAE				MACH	BETA	7

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES: A = -4, -2, 0, 2, 4, 6

MCAIR-

TEST LSWT-258 DATA SET COLLATION SHEET

☐ PRETEST

☒ POSTTEST

6 OF 6

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	CONTROL DEFLECTION δE	δA	δR	δJF	NO. of RUNS	MACH NUMBERS .26
SCZ101	B3N11W5J6	D	0	0	0	—	0	1	2
102	↓	↓	0	10	0	—	0	1	20
103	↓	↓	0	-10	0	—	0	1	19
104	↓	↓	0	20	0	—	0	1	21
106	B3N11W5J6V9	D	0	0	0	0	0	1	24
107	↓	↓	0	10	0	0	0	1	61
108	↓	↓	0	-10	0	0	0	1	62
109	↓	↓	0	20	0	0	0	1	23
111	B3N11W5V9	D	0	0	0	0	—	1	74
112	B3N11W5V8	C	0	0	0	0	—	1	86

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CD	CL	CLM	CY	CLN	CSL	CAB				MACH	ALPHA	7
										IDPVAR(1)	IDPVAR(2)	NDV

COEFFICIENTS:

α or β SCHEDULES

C = -2, 0, 2, 4, 6, 8, 10, 12

D = -6, -4, -2, 0, 2, 4, 6, 8, 10, 12, 14, 16

CANARD BOOSTER
MDAC/MMC
DR#1120 A-1- 123

11

ORIGINAL PAGE IS OF POOR QUALITY

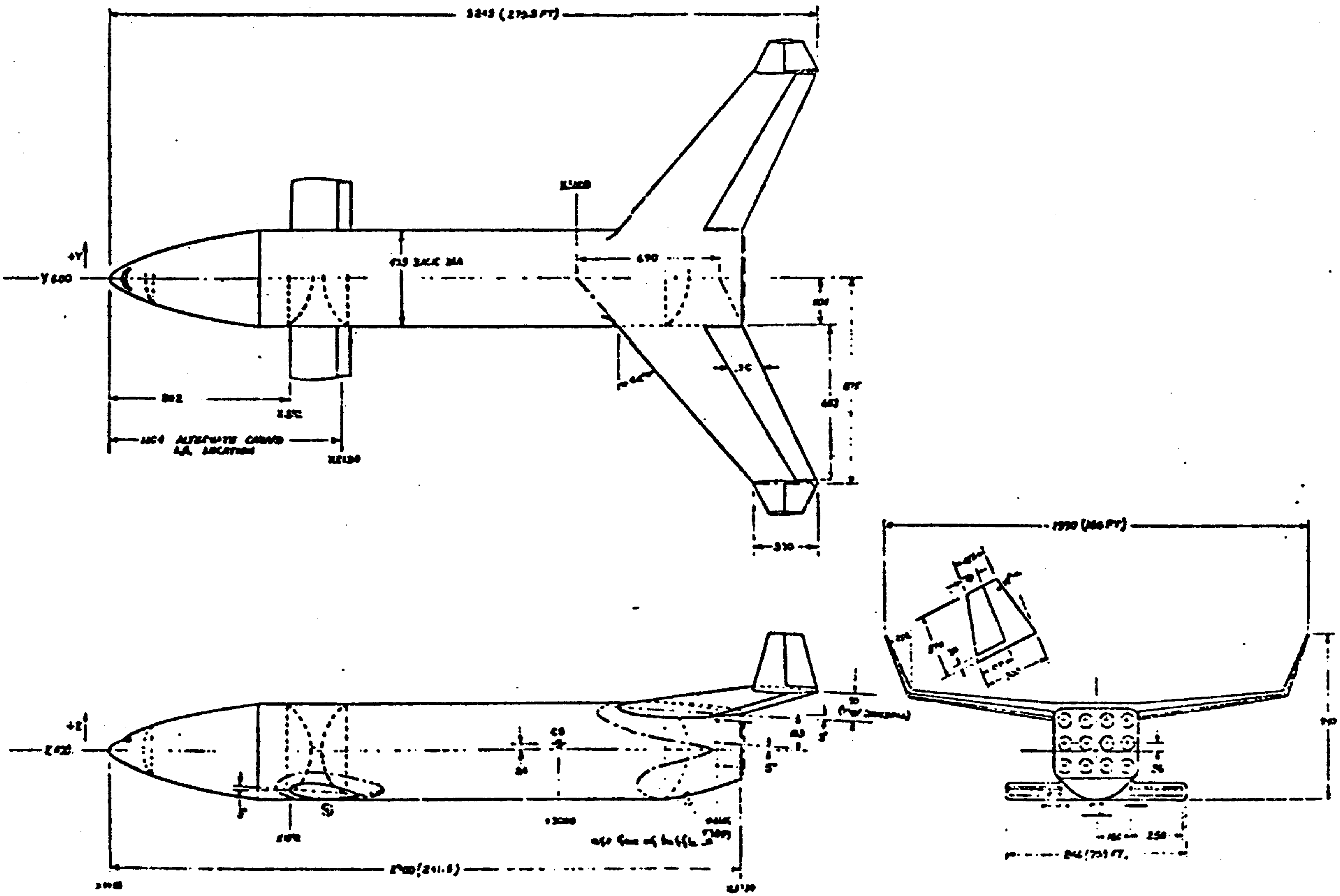
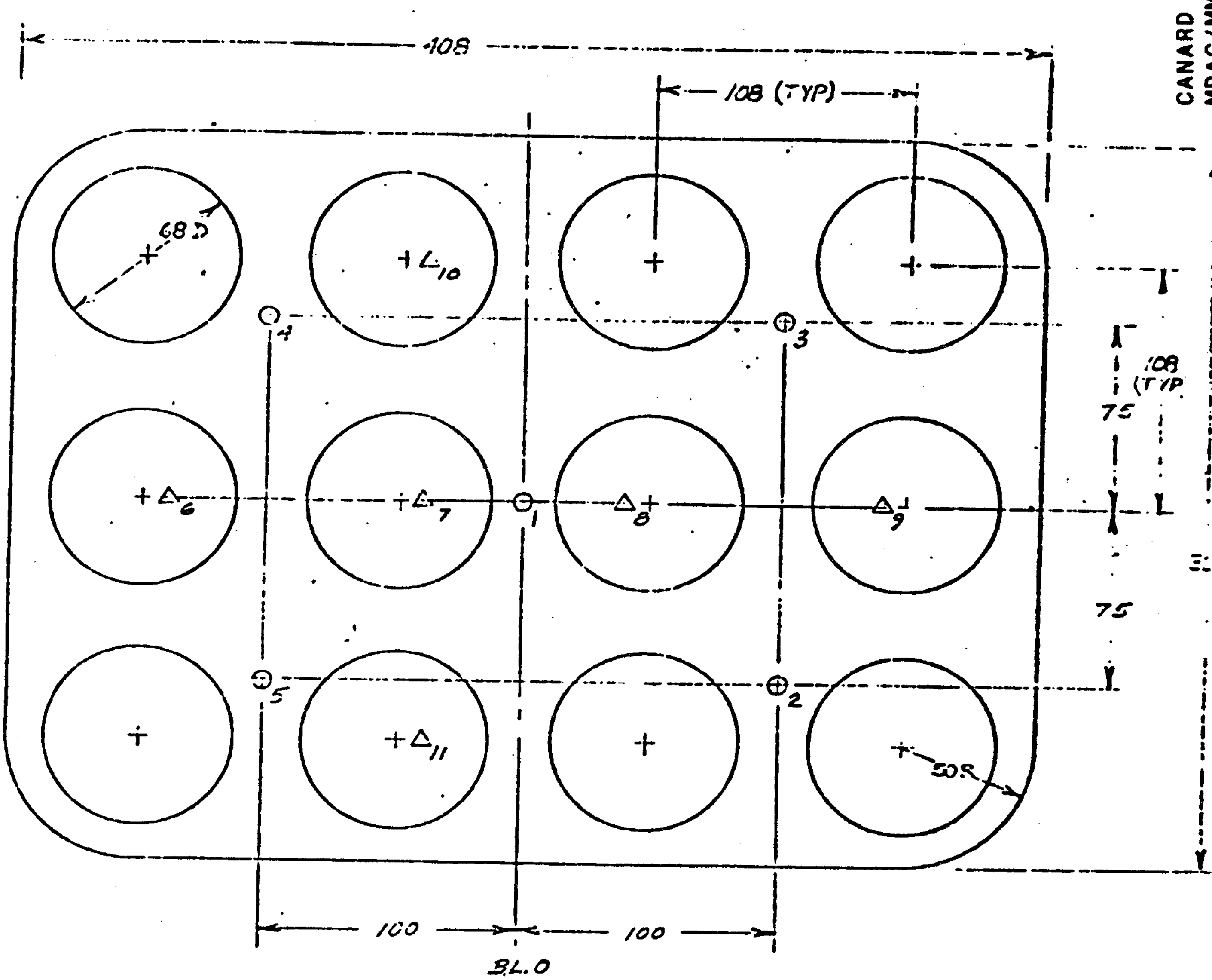


FIGURE 2. BOOSTER GENERAL ARRANGEMENT

ORIGINAL PAGE IS
OF POOR QUALITY



○ PRESSURE TAPS ON BASE PLATE. TAPS 1 THRU 5.
△ PRESSURE TAPS ON NOZZLE EXITS. TAPS 6 THRU 11.

DIMENSIONS SHOWN ARE FULL SCALE IN INCHES
BASE AREA = 834 FT^2, NOZZLE EXIT AREA IS 303 FT^2

FIGURE 3. BASE PRESSURE TAP LOCATIONS

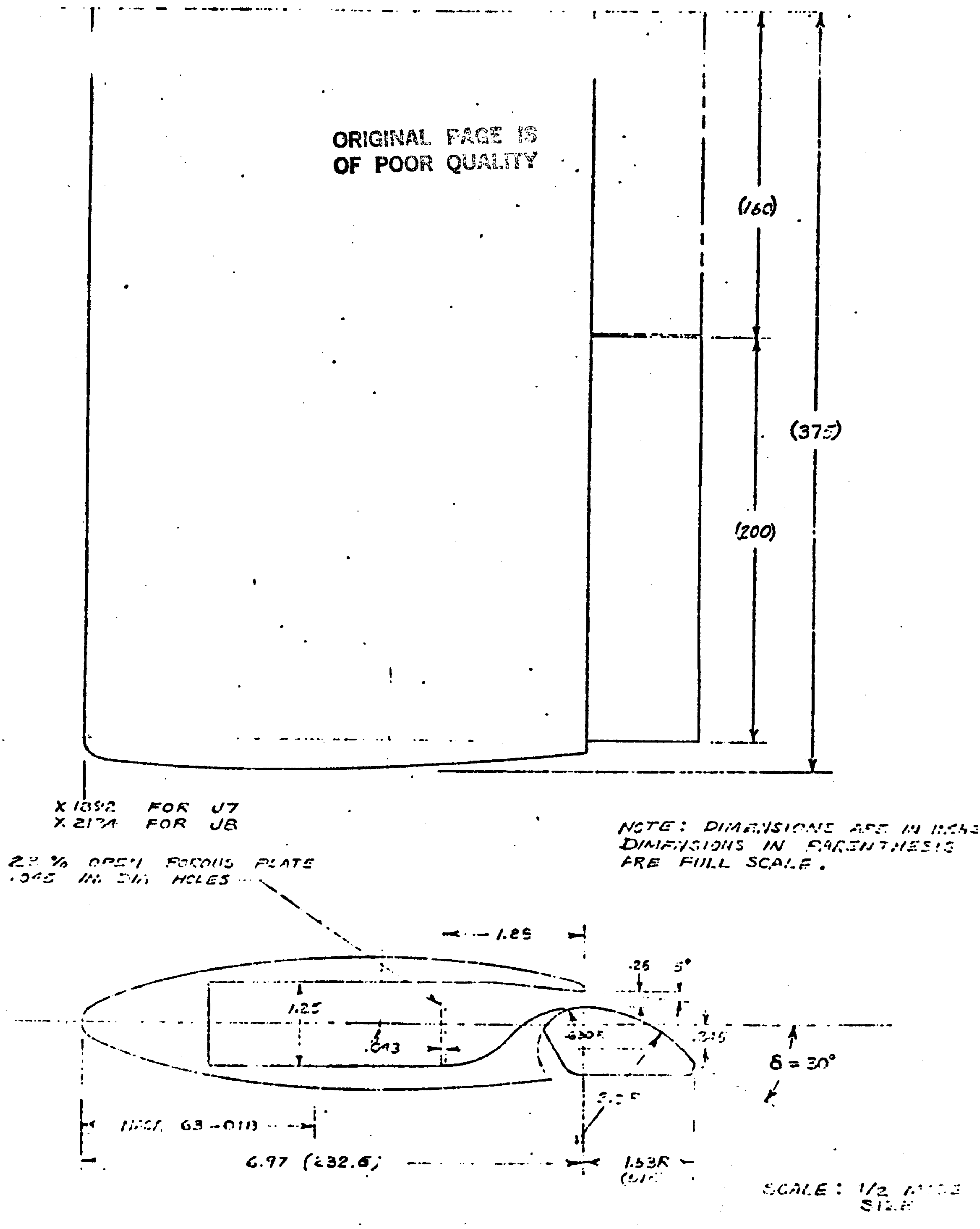


FIGURE 4. JET CANARD, J_7 AND J_8

CANARD BOOSTER
MDAC/MMC
DR#1120 A-1- 127

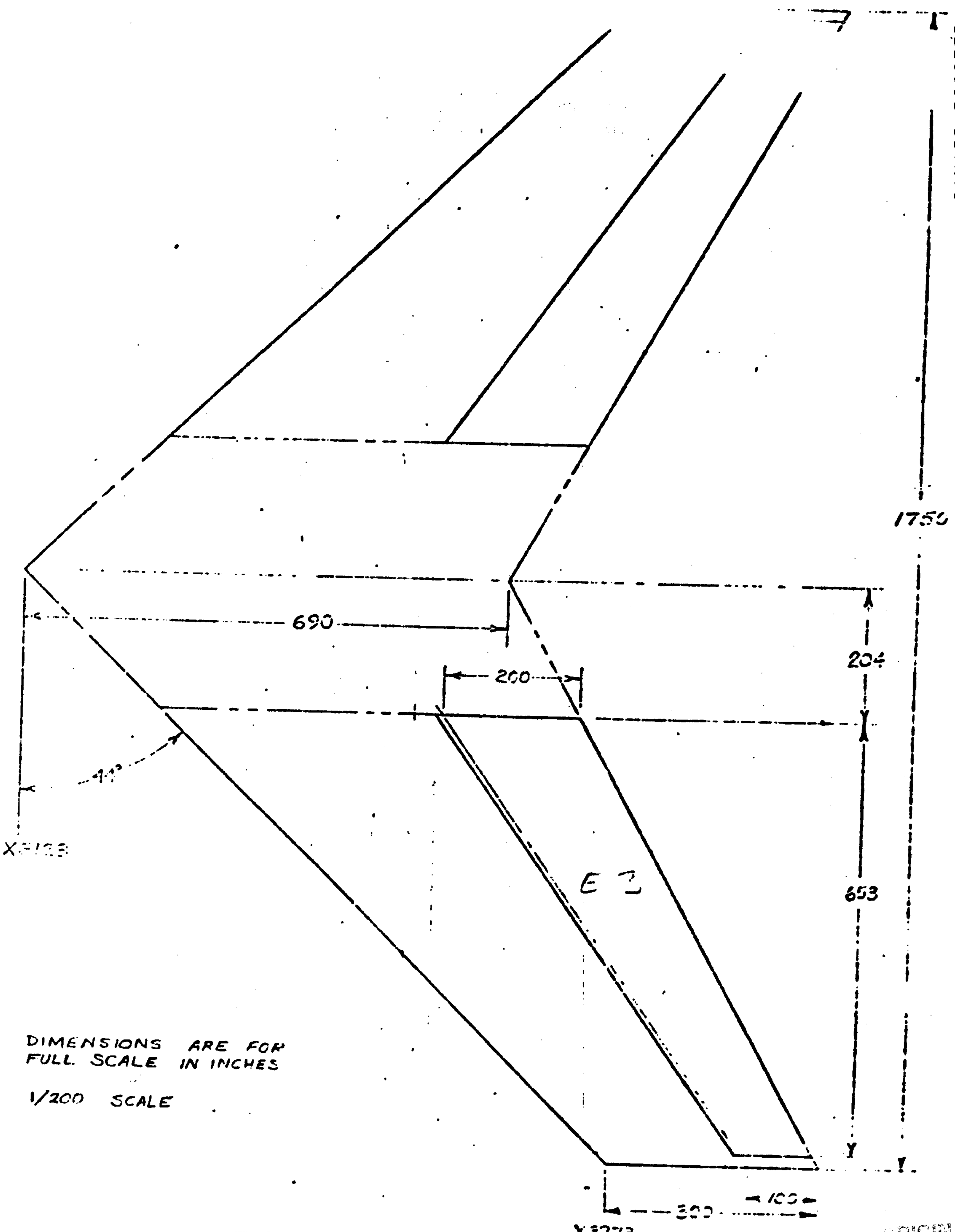
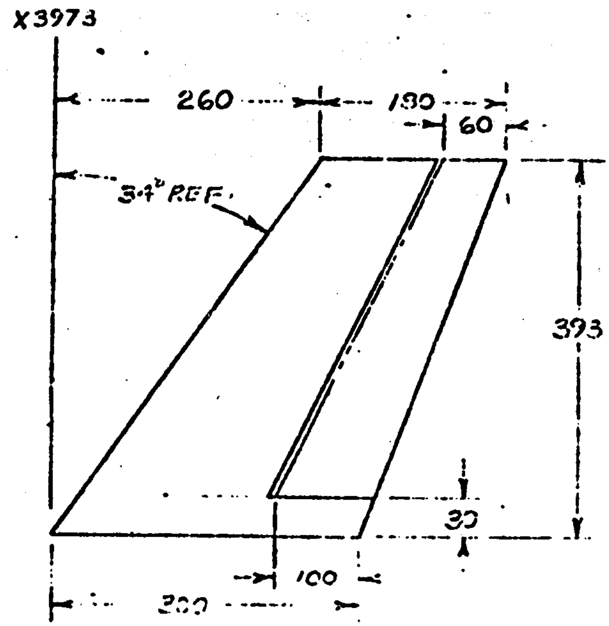


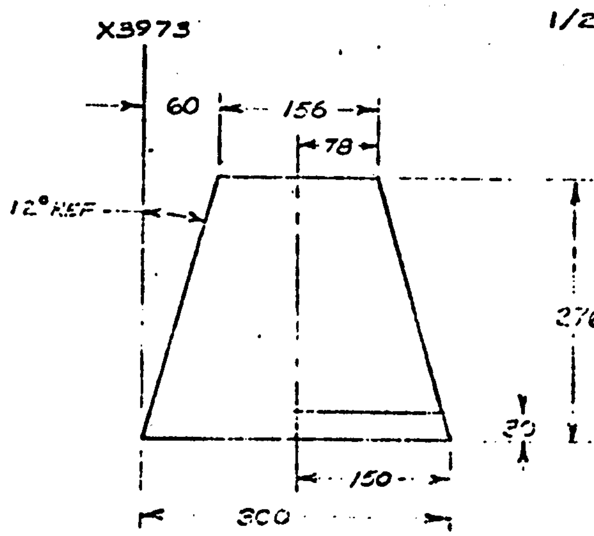
FIGURE 5. WING W_5



TIP FIN V7

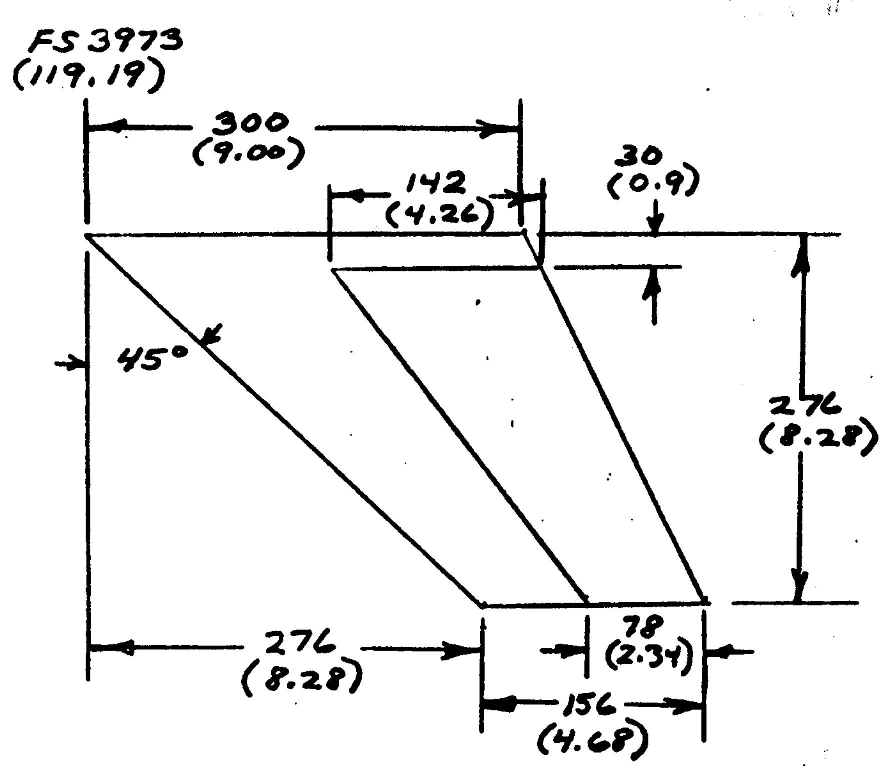
DIMENSIONS ARE FOR FULL SCALE IN INCHES

1/200 SCALE



TIP FIN V6

FIGURE 6. WING TIP FINS V_6, V_7



NOTES:
- ALL DIMENSIONS IN INCHES
- MODEL DIMENSIONS IN PARENTHESES, ALL OTHERS FULL SCALE
- FUSELAGE NOSE AT F.S. 1030

FIGURE 7. VENTRAL TIP FIN V_8R_8

TEST NSRDC 3210 DATA SET/RUN NUMBER

COLLATION SUMMARY

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	δ_e	δ_c	δ_a	δ_r	NO. of RUNS	CND POS	WNG POS	i_c	i_w				Mach .7	Mach .8	Mach .9	Mach 1.0	Mach 1.125	TEST RUN NUMBERS
RN3001	B1C2F2W1V1	A	0	0	0	0°	0	5	1	1	3°	0°				5	9	13	17	21	
02		0	A													6	10	14	18	22	
03		6														7	11	15	19	23	
04		15														8	12	16	20	24	
05		A	0	10												63	67	71	75	79	
06		0	A													64	68	72	76	80	
07		6														65	69	73	77	81	
08		15														66	70	74	78	82	
09		A	0	-10												25	29	33	37	41	
10		0	A													26	30	34	38	42	
11		6														27	31	35	39	43	
12		15														28	32	36	40	44	
13		A	0	-20												46	50	54	58	62	
14		0	A					4								47	51	55	59		
15		6														48	52	56	60		
16		15														49	53	57	61		
17		A	0	20												135	139	143	147		
18		0	A													136	140	144	148		
19		6														137	141	145	149		
20		15														138	142	146	150		

1 7 13 19 25 31 37 43 49 55 61 67 75 76

COEFFICIENTS: IDPVAR(1) IDPVAR(2) NDV

α or β SCHEDULES
ALPHA SCHEDULE A: -4, 0, 2, 4, 6, 8, 10, 15, 20
BETA SCHEDULE A: -6, -3, 0, 3, 6

TEST NSRDC-3210 DATA SET/RUN NUMBER

COLLATION SUMMARY

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	δ_e	δ_c	δ_a	δ_r	NO. of RUNS	CND POS	WNG POS	i_c	i_w	.7	.8	.9	1.0	1.125
RN3021	BIC2F2W1V1	A	0	0	10	0	0	5	1	1	3°	0°	232	236	240	244	248
22		0	A										233	237	241	245	249
23		6											234	238	242	246	250
24		15						4					235	239	243	247	—
25		A	0					5					83	87	91	95	99
26		0	A	10									84	88	92	96	100
27		6											85	89	93	97	101
28		15						4					86	90	94	98	—
29		A	0	20				5					199	203	207	211	215
30		0	A										200	204	208	212	216
31		6						4					201	205	209	213	—
32		15						4					202	206	210	214	—
33		A	0	0	20			5					251	255	259	263	267
34		0	A										252	256	260	264	268
35		6											253	257	261	265	269
36		15						4					254	258	262	266	—
37		A	0		0	10		5					164	168	172	176	180
38		0	A										165	169	173	177	181
39		6											166	170	174	178	182
40		15						4					167	171	175	179	—

TEST RUN NUMBERS

1 7 13 19 25 31 37 43 49 55 61 67 75 76

IDPVAR(1) IDPVAR(2) NDV

COEFFICIENTS:

α or β SCHEDULES

ALPHA SCHEDULE A: -4, 0, 2, 4, 6, 8, 10, 15, 20

BETA SCHEDULE A: -6, -3, 0, 3, 6

CANARD BOOSTER
MSFC
DR#1164 A-1- 131

TEST NSRDC 3210 DATA SET/RUN NUMBER

COLLATION SUMMARY

8

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	δ_e	δ_c	δ_s	δ_r	NO. of RUNS	CND POS	WNG POS	i_c	i_w				Mach .7	Mach .8	Mach .9	Mach 1.0	Mach 1.125
RN3041	B1C2F2W1V1	A	0	0	0	20°	0	1	1	1	3°	0°				151	-	-	-	-
42		0	A					4								152	155	158	161	-
43		6														153	156	159	162	-
44		15														154	157	160	163	-
45		A	0			0	-5	1								183	-	-	-	-
46		0	A					5								184	187	190	193	196
47		6														185	188	191	194	197
48		15														186	189	192	195	198
50		0					-10									217	220	223	226	229
51		6														218	221	224	227	230
52		15														219	222	225	228	231
53		A	0				0	4	2							102	106	110	114	-
54		0	A													103	107	111	115	-
55		6														104	108	112	116	-
56		15														105	109	113	117	-
57		A	0	20				5								118	122	126	130	134
58		0	A					4								119	123	127	131	-
59		6														120	124	128	132	-
60		15														121	125	129	133	-
61	B1W1V2	A		0	-	0	-	5	-	1	-	0				271	275	279	283	287

TEST RUN NUMBERS

1 7 13 19 25 31 37 43 49 55 61 67 75 76

IDPVAR(1) IDPVAR(2) NDV

COEFFICIENTS:

α or β SCHEDULES

ALPHA SCHEDULE A: -4,0,2,4,6,8,10,15,20

BETA SCHEDULE A: -6,-3,0,3,6

ORIGINAL PAGE IS OF POOR QUALITY

TEST *NSRDC 3210* DATA SET/RUN NUMBER

COLLATION SUMMARY

☐ PRETEST

☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES δ_e	δ_c	δ_s	δ_r	NO. of RUNS	Parameters/Values CND POS	WNG POS	i_c	i_w	$\dot{m}$	Mach Numbers .4	.5	.7	.8	.9	1.0	1.125
RN3062	B1W1V2	0	A	0	-	0°	-	5	-	1	-	0°	-	-	-	272	276	280	284	288
63		6												-	-	273	277	281	285	289
64		15												-	-	274	278	282	286	290
65	B1W1V1	A	0											-	-	291	295	298	301	304
66		0	A											-	-	292	296	299	302	305
67		6												-	-	293	297	300	303	306
68		15						1						-	-	294	-	-	-	-
69	B	A		-		-		3		-		-		-	-	-	-	307	308	309
70	B1C2F2W1V1E3P	A	0	0	0	0	0	1	1	1	3°	0°	0	-	310	-	-	-	-	-
71		0	A											-	311	-	-	-	-	-
72		6												-	312	-	-	-	-	-
73		15												-	313	-	-	-	-	-
74		A	0										.732	-	314	-	-	-	-	-
75		0	A											-	315	-	-	-	-	-
76		6												-	316	-	-	-	-	-
77		15												-	317	-	-	-	-	-
78		A	0										0	318	-	-	-	-	-	-
79		0	A											319	-	-	-	-	-	-
80		6												320	-	-	-	-	-	-
81		15												321	-	-	-	-	-	-

TEST RUN NUMBERS

1 7 13 19 25 31 37 43 49 55 61 67 75 76

COEFFICIENTS: → IDPVAR(1) IDPVAR(2) NDV

α or β SCHEDULES

ALPHA SCHEDULE A: -4, 0, 2, 4, 6, 8, 10, 15, 20

BETA SCHEDULE A: -6, -3, 0, 3, 6

CANARD BOOSTER

MSFC

DR#1164 A-1- 133

ORIGINAL PAGE IS OF POOR QUALITY

10

TEST NSRDC 3210 DATA SET/RUN NUMBER COLLATION SUMMARY

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	δ_e	δ_c	δ_a	δ_r	NO. of RUNS	CND POS	WNG POS	i_c	i_w	$\dot{m}$		.5 (TEST RUN NUMBERS)
RN3082	BIC2F2W1V1E3P	A	0	0	0	0	0	1	1	1	3	0	.753		322
083		0	A												323
084		6													324
085		15													325
086	BIC2F2W1V1E3	A	0										0		326
087		0	A												327
088		6													328
089		15													329
090		A	0										.763		330
091		0	A												331
092		6													332
093		15													333
094		A	0										0		334
095		0	A												335
096		6													336
097		15													337
098		A	0										.760		341
099		0	A												342
100		6													343
101		15													344

Parameters/Values — Mech Numbers

1 7 13 19 25 31 37 43 49 55 61 67 75 76

IDPVAR(1) | IDPVAR(2) | NDV

COEFFICIENTS:
α or β SCHEDULES
ALPHA SCHEDULE A: -4, 0, 2, 4, 6, 8, 10, 15, 20
BETA SCHEDULE A: -6, -3, 0, 3, 6

ORIGINAL PAGE IS OF POOR QUALITY

TEST NSROC 3210 DATA SET/RUN NUMBER

COLLATION SUMMARY

☐ PRETEST

☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES δe	δc	δa	δr	NO. of RUNS	Parameters/Values CND POS	WNG POS	i_c	i_w	$\dot{m}$	Mach Number .4	.5						
RN3102	BIC2F2W1V1E4	A	0	0	0	0	0	1	1	1	3°	0°	0	345	-						
03		0	A											346	-						
04		6												347	-						
05		10												348	-						
06		A	0										.781	349	-						
07		0	A											350	-						
08		6												351	-						
09		10												352	-						
10		A	0										0	-	354						
11		0	A											-	355						
12		6												-	356						
13		10												-	357						
14		A	0										.717	-	358						
15		0	A											-	359						
16		6												-	360						
17		10												-	361						
18	BIC2F2W1V1E2	A	0										0	362	-						
19		0	A											363	-						
20		6												364	-						
21		10												365	-						

TEST RUN NUMBERS

1 7 13 19 25 31 37 43 49 55 61 67 75 76

IDPVAR(1) IDPVAR(2) NDV

COEFFICIENTS:

α or β SCHEDULES

ALPHA SCHEDULE A: -4, 0, 2, 4, 6, 8, 10, 15, 20

BETA SCHEDULE A: -6, -3, 0, 3, 6

ORIGINAL PAGE IS OF POOR QUALITY

CANARD BOOSTER
MSFC
DR#1164 A-1- 135

13

TEST NSRDC 3210 DATA SET/RUN NUMBER COLLATION SUMMARY

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES δ_e	δ_c	δ_a	δ_r	NO. of RUNS	Parameters/Values CND POS	WNG POS	i_c	i_w	$\dot{m}$	Mach Number .4	.5
RN3142	B1C2F2W1V1E1	A	0	0	0	0	0	1	2	1	3°	0°	0	392	-
43		0	A											393	-
44		6												394	-
45		10												395	-
46		A	0										.735	396	-
47		0	A											397	-
48		6												398	-
49		10												399	-
50		A	0										0	-	401
51		0	A											-	402
52		6												-	403
53		15												-	404
54		A	0										.459	-	405
55		0	A											-	406
56		6												-	407
57		15												-	408
58	B1C2F2W1V1	A	0										-	-	410
59		0	A											-	411
60		6												-	412
61		15												-	413

TEST RUN NUMBERS

1 7 13 19 25 31 37 43 49 55 61 67 75 76

COEFFICIENTS: IDPVAR(1) IDPVAR(2) NDV

α or β SCHEDULES
ALPHA SCHEDULE A: -4, 0, 2, 4, 6, 8, 10, 15, 20
BETA SCHEDULE B: -6, -3, 0, 3, 6

ORIGINAL PAGE IS OF POOR QUALITY

TEST NSRDC 3210 DATA SET/RUN NUMBER

COLLATION SUMMARY

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES δ_e	δ_c	δ_a	δ_r	NO. of RUNS	Parameters/Values CND POS	WNG POS	i_c	i_w		Mach Number .4	.5					
RN3162	B1C2F2W1V1	A	0	0	0	0	0	1	1	1	3°	0°		–	413					
63		0	A											–	414					
64		6												–	415					
65		15												–	416					
66	B1C2F2W1V1G3P	A	0											417	–					
67		0	A											418	–					
68		6												419	–					
69		15												420	–					
70		A	0											–	421					
71		0	A											–	422					
72		6												–	423					
73		15												–	424					
74	B1C2F2W1V1G3	A	0											425	–					
75		0	A											426	–					
76		6												427	–					
77		15												428	–					
78		A	0											–	429					
79		0	A											–	430					
80		6												–	431					
81		15												–	432					

TEST RUN NUMBERS

1 7 13 19 25 31 37 43 49 55 61 67 75 76

IDPVAR(1) | IDPVAR(2) | NDV

COEFFICIENTS:

α or β SCHEDULES

ALPHA SCHEDULE A: -4, 0, 2, 4, 6, 8, 10, 15, 20

BETA SCHEDULE A: -6, -3, 0, 3, 6

ORIGINAL PAGE IS OF POOR QUALITY

CANARD BOOSTER
MSFC
DR#1164 A-1- 137

CANARD BOOSTER
MSFC
DR#1164 A-1- 138

15

TEST NSRDC 3210 DATA SET/RUN NUMBER

COLLATION SUMMARY

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES δ_e	δ_c	δ_a	δ_r	NO. of RUNS	Parameters/Values CND POS	WNG POS	i_c	i_w		Mach Number .4	.5	.7	.8	.9	1.0		TEST RUN NUMBERS
RN3182	B1C2F2W1V1G4	A	0	0	0	0	0	1	1	1	3	0		433	434	435	-	436	438		
183		0	A											-	-	-	-	437	-		
184		A	0											433	-	-	-	-	-		
185		0	A											451	-	-	-	-	-		
186		6												452	-	-	-	-	-		
187		15												453	-	-	-	-	-		
188		A	0											-	431	-	-	-	-		
189		0	A											-	454	-	-	-	-		
190		6												-	455	-	-	-	-		
191		15												-	456	-	-	-	-		
192	B1C2F2W1V1G2	A	0											439	-	-	-	-	-		
193		0	A											445	-	-	-	-	-		
194		6												446	-	-	-	-	-		
195		15												447	-	-	-	-	-		
196		A	0											-	440	-	-	-	-		
197		0	A											-	448	-	-	-	-		
198		6												-	449	-	-	-	-		
199		15												-	450	-	-	-	-		
200		A	0											439	440	441	-	442	444		
201		0	A											-	-	-	-	443	-		

1 7 13 19 25 31 37 43 49 55 61 67 75 76

COEFFICIENTS: IDPVAR(1) IDPVAR(2) NDV

α or β SCHEDULES

ALPHA SCHEDULE A: -4, 0, 2, 4, 6, 8, 10, 15, 20
BETA SCHEDULE A: -6, -3, 0, 3, 6

ORIGINAL PAGE IS OF POOR QUALITY

TEST NSRDC 3210 DATA SET/RUN NUMBER

COLLATION SUMMARY

☐ PRETEST

☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES δ_e	δ_c	δ_a	δ_r	NO. of RUNS	Parameters/Values CND POS	WNG POS	i_c	i_w		Mach Number .4	.5						TEST RUN NUMBERS
RK3202	B1C2F2WV1 G1	A	0	0	0	0	0	1	1	1	3	0		461	-						
3		0	A											462	-						
4		6												463	-						
5		15												464	-						
6		A	0											-	457						
7		0	A											-	458						
8		6												-	459						
9		15												-	460						

1 7 13 19 25 31 37 43 49 55 61 67 75 76

COEFFICIENTS: IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

ALPHA SCHEDULE A: -4, 0, 2, 4, 6, 8, 10, 15, 20

BETA SCHEDULE A: -6, -3, 0, 3, 6

CANARD BOOSTER
MSFC
DR#1164 A-1- 140

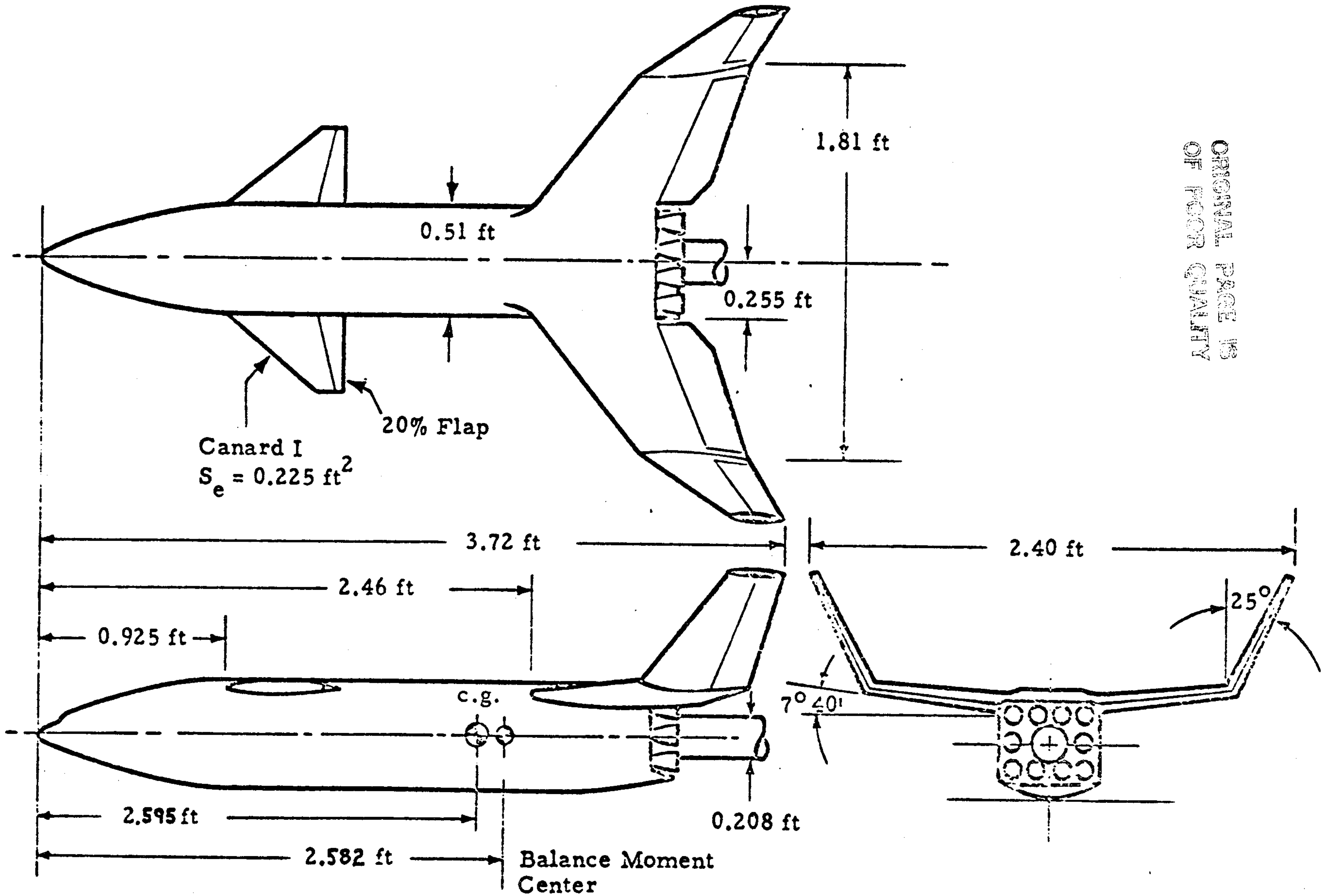


Fig. 2.- General Arrangement of a Typical High Wing – High Canard Configuration

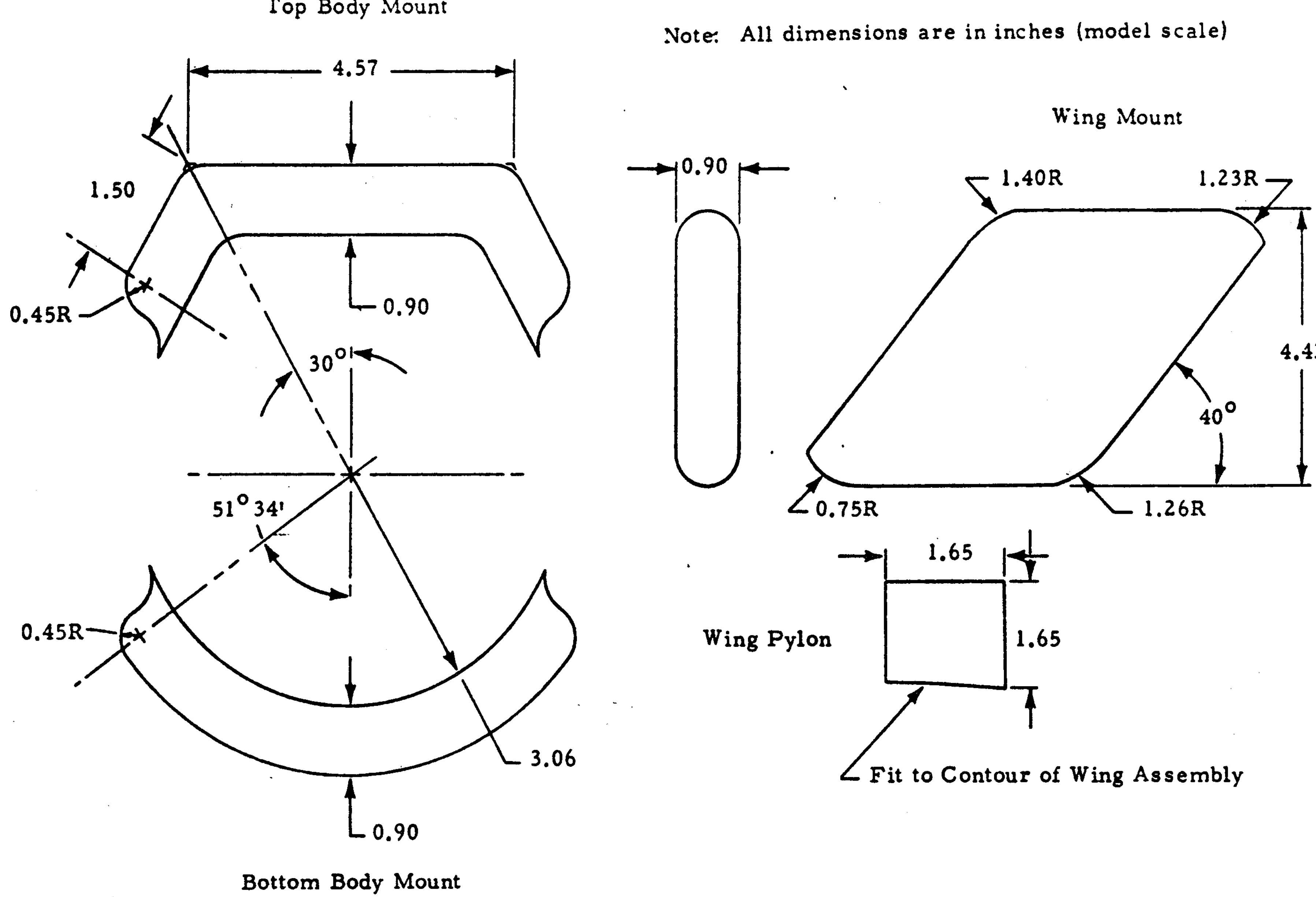


Figure 3. - Sketch of Dummy Engine Pods

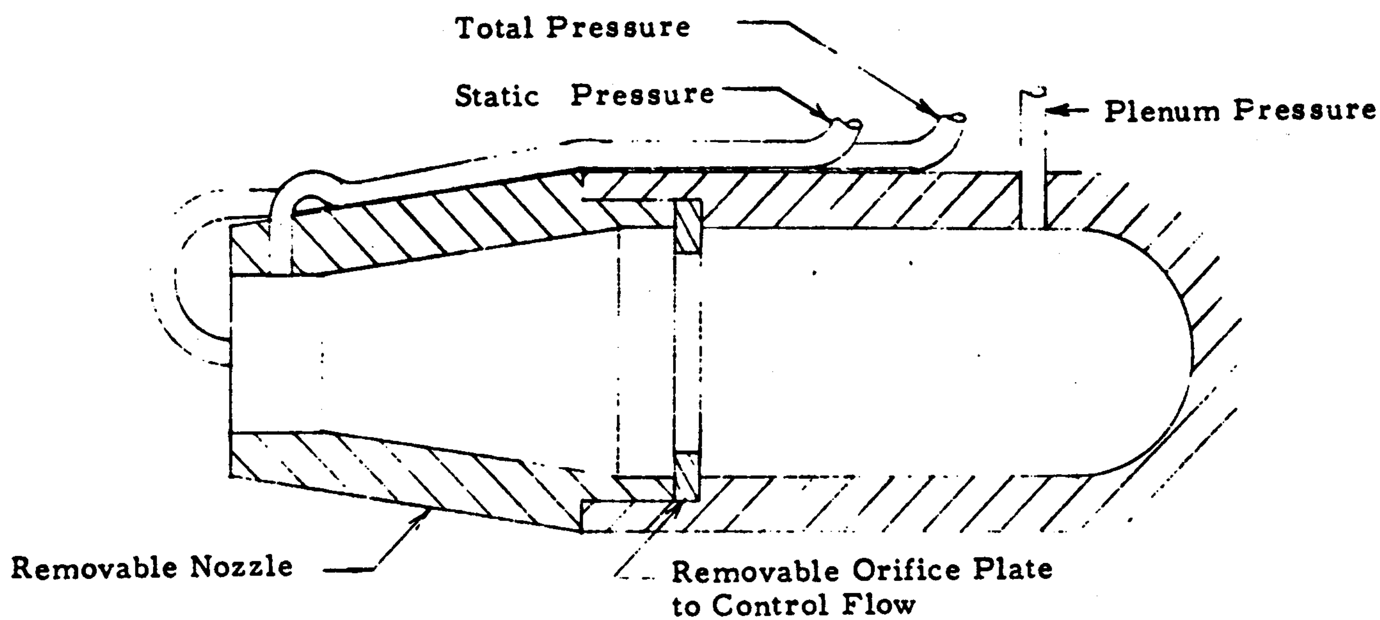


Figure 4. - Nozzle Instrumentation

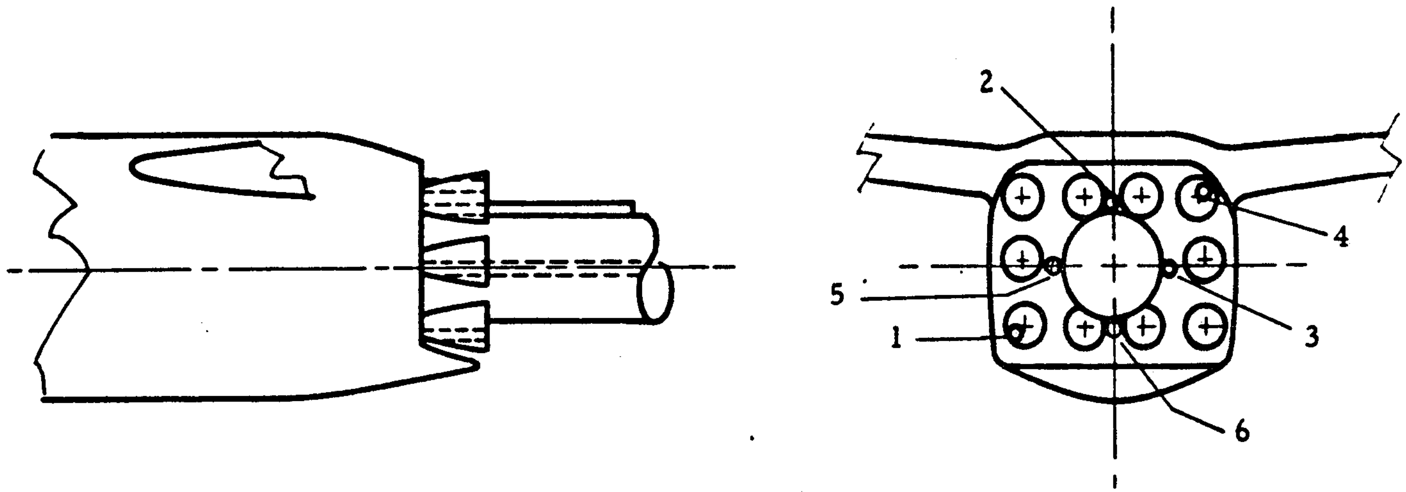


Figure 5. - Location and Identification of Base Pressure Tubes

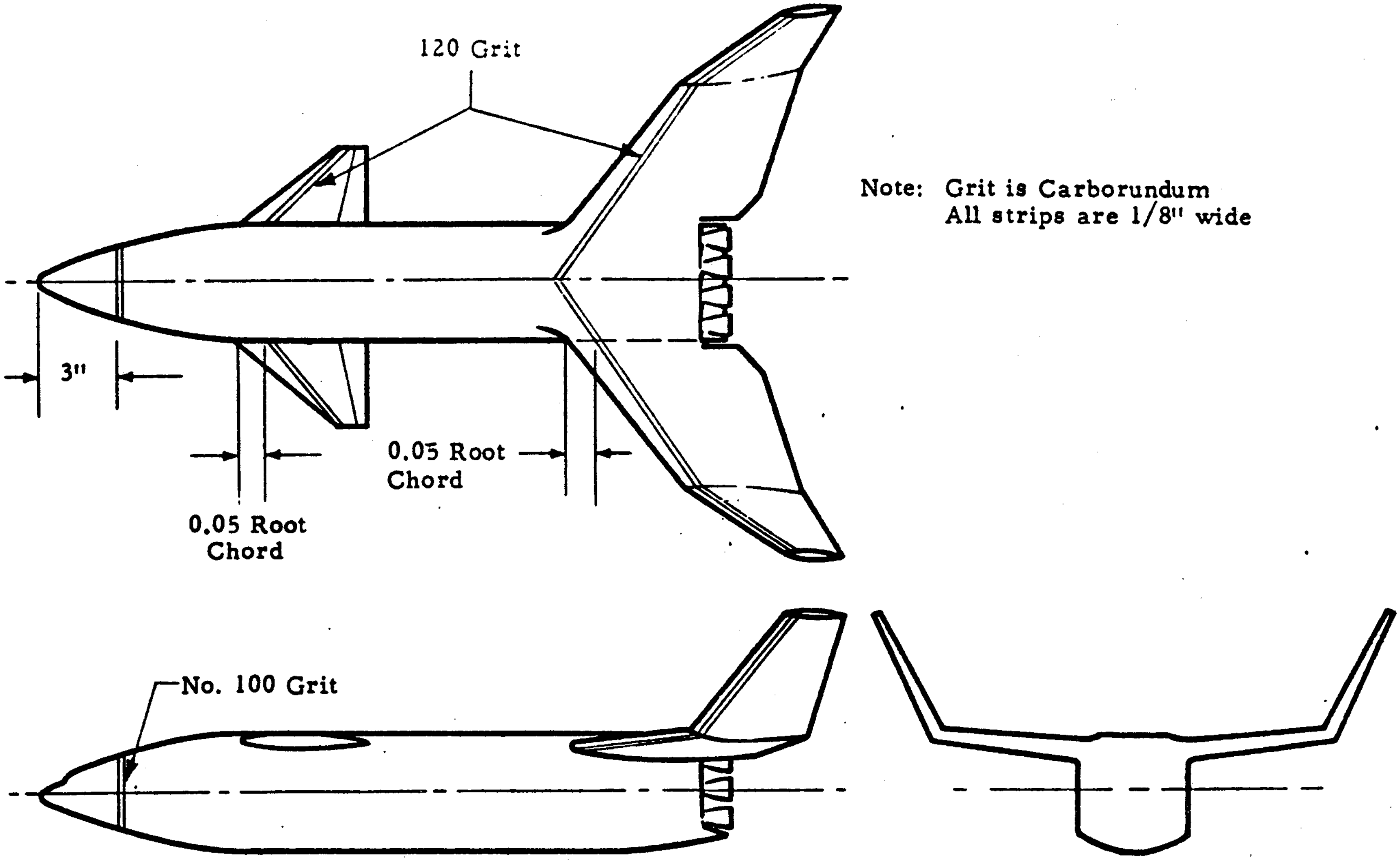


Figure 6. - Typical Transition Grit Installation on Body, Wing and Canard

TABLE II.

TEST NSRDC 3310 DATA SET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

PARAMETERS/VALUES | MACH NUMBERS

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	δ_e	δ_c	δ_a	δ_r	NO. of RUNS	CND POS	WNG POS	i_c	i_w	Γ_W	0.4	0.7	0.8	0.9	1.0
RV4 001	B1C2F1W1V2	A	0	0	0	0	–	1	1	1	3°	0°	-7°40'	7 0				
002		0	A				–							8 0				
003		6					–							9 0				
004		15					–							10 0				
005	B1C2F1W1V2D1	A	0				0							11 0	15 0	19 0	23 0	27 0
006		0	A											12 0	16 0	20 0	24 0	28 0
007		6												13 0	17 0	21 0	25 0	29 0
008		15												14 0	18 0	22 0	26 0	
009	B1C2F1W1V1D1	A	0											30 0				
010		0	A											31 0				
011		6												32 0				
012		15												33 0				
013	B1C2F1W1V1	A	C											34 0				
014		C	A											35 0				
015		6												36 0				
016		15												37 0				
017	B1C2F1W1V2	A	C				–						15°	38 0				
018		C	A				–							39 0				
019		6					–							40 0				
020		15					–							41 0				

1	7	13	19	25	31	37	43	49	55	61	67	75 76
	CA	CLM	CSL	CYN	CY	CL	CD	L/D	CAB			13
	30(1,1)	30(1,3)										

→ IDPVAR(1) | IDPVAR(2) | NDV

COEFFICIENTS: α A = -4, 0, 2, 4, 6, 8, 10, 15, 18

α or β SCHEDULES β A = -6, -3, 0, 3, 6

CANARD BOOSTER
MSFC
DR#1192 A-1- 145

ORIGINAL PAGE IS OF POOR QUALITY

TABLE II. (Continued)

TEST NSRDC 3310 DATA SET COLLATION SHEET

12

☐ PRETEST
☑ POSTTEST

PARAMETERS/VALUES | MACH NUMBERS

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	δ_e	δ_c	δ_a	δ_r	NO. of RUNS	CND POS	WNG POS	i_c	i_w	Γ_w	0.4	0.7	0.8	0.9	1.0		
RN4021	B1C2F1W1V1D1	A	0	0	0	0	0	1	1	1	3°	0°	7°40'	43/0						
022		0	A											49/0						
023		6												50/0						
024		15												51/0						
025	B1C2F1W1V1G6	A	0											52/0	56/0	60/0	64/0	68/0		
026		0	A											53/0	57/0	61/0	65/0	69/0		
027		6												54/0	58/0	62/0	66/0	70/0		
028		15												55/0	59/0	63/0	67/0	71/0		
029	B1C2F1W1V2D1	A	0							2			15°	74/0						
030		0	A											75/0						
031		6												76/0						
032		15												77/0						
033	B1C2F1W1V2	A	0				—							78/0						
034		0	A				—							79/0						
035		6					—							80/0						
036		15					—							81/0						
037	B1C2F1W1V1D1	A	0				0						7°40'	83/0						
038		0	A											84/0						
039		6												85/0						
041		15												86/0						

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CY / CE	CA / CD(1)	CLM / CP(3)	COL	CYN	CY	CL	CD	L/D	CAB			13

IDPVAR(1) | IDPVAR(2) | NDV

COEFFICIENTS: αA = -4, 0, 2, 4, 6, 8, 10, 15, 18

α or β
SCHEDULES βB = -6, -3, 0, 3, 6

TABLE II. (Continued)

TEST NSRDC 3310 **DATA SET COLLATION SHEET**

☐ PRETEST
☑ POSTTEST

PARAMETERS/VALUES | MACH NUMBERS

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES δ_e	δ_c	δ_a	δ_r	NO. of RUNS	CND POS	WNG POS	i_c	i_w	Γ_w	0.4					
[illegible]4041	B1C2F1W1V2D1T1	A	0	0	0	0	0	1	1	2	3°	0°	7°40'	88/0					
042		0	A											89/0					
043		6												90/0					
044		15												91/0					
045	B1C2F1W1V2D1T2	A	0											92/0					
046		0	A											93/0					
047		6												94/0					
048		15												95/0					
049	B1C2F1W1V2	A	0				–							97/0					
050		0	A				–							98/0					
051		6					–							99/0					
052		15					–							100/0					
053	B1C2F1W1V1	A	0	-20			0							102/0					
054		0	A											103/0					
055		6												104/0					
056		15												105/0					
057		A	0	-10										106/0					
058		0	A											107/0					
059		6												108/0					
060		15												109/0					

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN CLE	CA RP(3)	CLM RP(3)	CBL	CYN	CY	CL	CD	L/D	CAB			15

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

αA = -4, 0, 2, 4, 6, 8, 10, 15, 18

βA = -6, -3, 0, 3, 6

CANARD BOOSTER
MSFC
DR#1192 A-1- 147

ORIGINAL PAGE IS OF POOR QUALITY

TABLE II. (Continued)

TEST NSRDC 3310 DATA SET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	δ_e	δ_c	δ_a	δ_r	NO. of RUNS	CND POS	WNG POS	i_c	i_w	Γ_w	0.4						
RY4061	31C2F1W1V1	A	0	10	0	0	0	1	1	2	3°	0°	7°40'	110/0						
062		0	A											111/0						
063		6												112/0						
064		15												113/0						
065	31C2F2W1V1	A	0		20									114/0						
066		0	A											115/0						
067		6												116/0						
068		15												117/0						
069	31C2F1W1V1	A	0	20	0									119/0						
070		0	A											120/0						
071		6												121/0						
072		15												122/0						
073		A	0	30	0									123/0						
074		0	A											124/0						
075		6												125/0						
076		15												126/0						
077		A	0	0	0	10								127/0						
078		0	A											128/0						
079		6												129/0						
080		15												130/0						

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CLE	CA EP(1)	CLM EP(3)	CLL	CYN	CY	CL	CD	L/D	CAB	IDPVAR(1)	IDPVAR(2)	13 NDV

COEFFICIENTS:

α or β SCHEDULES

αA = -4, 0, 2, 4, 6, 8, 10, 15, 18

βA = -6, -3, 0, 3, 6

TABLE II. (Continued)

TEST NSRDC 3310 DATA SET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

PARAMETERS/VALUES | MACH NUMBERS

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	δ_e	δ_c	δ_a	δ_r	NO. of RUNS	CND POS	WNG POS	i_c	i_w	Γ_w	0.4						
14081	B1C2F1W1V1	A	0	0	0	20	0	1	1	2	3°	0°	7°40'	131/0						
082		0	A											132/0						
083		6												133/0						
084		15												134/0						
085		A	0			0	-5							135/0						
086		0	B											136/0						
087		6												137/0						
088		15												138/0						
089		0					-10							139/0						
090		6												140/0						
091		15												141/0						
092	B1C2F1W1V2D1	A	0	-20			0			1			-7°40'	142/0						
093		0	A											143/0						
094		6												144/0						
095		15												145/0						
096		A	0	-10										150/0						
097		0	A											151/0						
098		6												152/0						
099		15												153/0						

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	CAB			12

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

αA = -4, 0, 2, 4, 6, 8, 10, 15, 18

βA = -6, -3, 0, 3, 6

βB = -6, 0, 6

CANARD BOOSTER
MSFC
DR#1192 A-1- 149

TABLE II. (Continued)

TEST NSRDC 3310 DATA SET COLLATION SHEET

☐ PRETEST
PARAMETERS/VALUES | MACH NUMBERS ☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	δ_e	δ_c	δ_a	δ_r	NO. of RUNS	CND POS	WNG POS	i_c	i_w	Γ_w	0.4						
RN4100	B1C2F1W1V2D1	A	0	10	0	0	0	1	1	1	3°	0°	-7°40'	154 / 0						
101		0	A											155 / 0						
102		6												156 / 0						
103		15												157 / 0						
104	B1C2F2W1V2D1	A	0		20									158 / 0						
105		0	A											159 / 0						
106		6												160 / 0						
107		15												161 / 0						
108	B1C2F1W1V2D1	A	0	20	0									146 / 0						
109		0	A											147 / 0						
110		6												148 / 0						
111		15												149 / 0						
112		A	0	30										162 / 0						
113		0	A											163 / 0						
114		6												164 / 0						
115		15												165 / 0						
116		A	0	0		10								166 / 0						
117		0	A											167 / 0						
118		6												168 / 0						
119		15												169 / 0						

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	CAB			13
CE	BD(1)	BD(3)								IDPVAR(1)	IDPVAR(2)	NDV

COEFFICIENTS:

α or β SCHEDULES

αA = -4, 0, 2, 4, 6, 8, 10, 15, 18

βA = -6, -3, 0, 3, 6

TABLE II. (Continued)

TEST NSRDC 3310 DATA SET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

PARAMETERS/VALUES | MACH NUMBERS

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	δe	δc	δa	δr	NO. of RUNS	CNO POS	WNC POS	i_c	i_w	Γ_w	0.4						
RN4 120	B1C2F1W1V2D1	A	0	0	0	20	0	1	1	1	3°	0°	-7°40'	170/0						
121		0	A											171/0						
122		6												172/0						
123		15												173/0						
124		0	B			0	5							174/0						
125		6												175/0						
126		15												176/0						
127		0					10							177/0						
128		6												178/0						
129		15												179/0						
130	B1C2F1W1V2V5D1	A	0				0							195/0						
131		0	A											196/0						
132		6												197/0						
133		15												198/0						
134	B1C2F1W1V3	A	0											181/0						
135		0	A											182/0						
136		6												183/0						
137		15												184/0						

1	7	13	19	25	31	37	43	49	55	61	67	75 76
[illegible]	CA BP(1)	CLM BP(3)	CBL	CYN	CY	CL	CD	L/D	CAB			13

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

αA = -4, 0, 2, 4, 6, 8, 10, 15, 18

βA = -6, -3, 0, 3, 6

βB = -6, 0, 6

CANARD BOOSTER
MSFC
DR#1192 A-1- 151

ORIGINAL PAGE IS OF POOR QUALITY

TABLE II. (Continued)

TEST NSRDC 3310 DATA SET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	δ_e	δ_c	δ_a	δ_r	NO. of RUNS	CND POS	WNG POS	i_c	i_w	Γ_w	0.4	0.7	0.8	0.9			
SN4 138	B1C2F1W1V4	A	0	0	0	0	0	1	1	1	3°	0°	-7°40'	191 0						
139		0	A											192 0						
140		6												193 0						
141		15												194 0						
142	B1C2F1W1	A	0				–						7°40'	200 0						
143		0	A				–							201 0						
144		6					–							202 0						
145		15					–							203 0						
146	B1C2F1W1V1G5	A	0				0							205 0	209 0	212 0	215 0			
147		0	A											206 0	210 0	214 0	216 0			
148		6												207 0	211 0	213 0	217 0			
149		15												208 0	0	0	0			
150	B1C2F1W1V4	A	0										+7°40'	219 0						
151		0	A											220 0						
152		6												221 0						
153		15												222 0						

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	CAB			13
CAF	CP(1)	CP(3)								IDPVAR(1)	IDPVAR(2)	NDV

COEFFICIENTS:

α OR β SCHEDULES

α A= -4, 0, 2, 4, 6, 8, 10, 15, 18

β A= -6, -3, ...

ORIGINAL PAGE IS OF POOR QUALITY

TABLE II. (Continued)

TEST NSRDC 3210 DATA SET/RUN NUMBER

COLLATION SUMMARY

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES δ_e	δ_c	δ_a	δ_r	NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) CND POS	WNG POS	i_c	i_w		0.4	0.5	0.7	0.8	0.9	1.0	1.125
RN3001	B1C2F2W1V1	A	0	0	0	0	0	5	1	1	3°	0°				5	9	13	17	21
002		0	A					5								6	10	14	18	22
003		6	A					5								7	11	15	19	23
004		15	A					5								8	12	16	20	24
193	B1C2F2W1V1G2	0	A					1						445						
194		6	A					1						446						
195		15	A					1						447						
200		A	0					5						439	440	441		442	444	
202	B1C2F2W1V1G1	A	0					1						461						
203		0	A					1						462						
204		6	A					1						463						
205		15	A					1						464						

TEST RUN NUMBERS

1 7 13 19 25 31 37 43 49 55 61 67 75 76

IDPVAR(1) | IDPVAR(2) | NDV

COEFFICIENTS: Alpha Schedule A: -4, 0, 2, 4, 6, 8, 10, 15, 20

α or β SCHEDULES Beta Schedule A: -6, -3, 0, 3, 6

CANARD BOOSTER
MSFC
DR#1192 A-1- 153

ORIGINAL PAGE IS OF POOR QUALITY

TABLE II. (Continued)

TEST NSRDC-3110 DATA SET COLLATION SHEET

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES δ_e	δ_c	δ_a	δ_r	NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) CND POS	WNG POS	i_c	i_w	T_w							0.4
RN2001	B1C2F1W1V1	A	0	0	0	0	0	1	1	1	3°	0°	7°40'							38
002		0	A																	39
003		6	A																	40
004		15	A																	41
017		A	0	0	0	0	0		1	2	3°	0°	7°40'							815
018		0	A																	816
019		6	A																	817
020		15	A																	818
209	B1C2F1W1V2D1	A	0	0	0	0	0		1	2	3	0	7°40'							811
210		0	A																	812
211		6	A																	813
212		15	A																	814
517	B1C2F1W1V1	A	0	0	0	0	0		1	1	3°	0°	15°							501
518		0	A																	502
519		6	A																	503
520		15	A																	504
525	B1C2F1W1V2D1	A	0	0	0	0	0		1	1	3°	0°	15°							514
526		0	A																	515
527		6	A																	516
528		15	A																	517

1 7 13 19 25 31 37 43 49 55 61 67 75 76

IDPVAR(1) | IDPVAR(2) | NDV

COEFFICIENTS: Alpha Schedule A : -4, 0, 2, 4, 6, 8, 10, 15, 20

α or β SCHEDULES: Beta Schedule A : -6, -3, 0, 3, 6

TABLE II. (Continued)

TEST NSRDC-311D DATA SET COLLATION SHEET

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES δ_e	δ_c	δ_a	δ_r	NO. of RUNS	CND POS	WNG POS	i_c	i_w	T_w							0.4
RN2553	B1C2F1W1V2	A	0	0	0	0	—		1	1	3°	0°	7°40'							426
54		0	A																	427
55		6	A																	428
56		15	A																	429
57	B1C2F1W1V1	A	0				0													557
58		0	A																	558
59		6	A																	559
60		15	A																	560
61	B1C2F1W1V1D2	A	0																	847
62		0	A																	848
63		6	A																	849
64		15	A																	850

1 7 13 19 25 31 37 43 49 55 61 67 75 76

COEFFICIENTS: IDPVAR(1) IDPVAR(2) NDV

α or β SCHEDULES

Alpha Schedule : A −4, 0, 2, 4, 6, 8, 10, 15, 20

Beta Schedule : A −6, −3, 0, 3, 6

CANARD BOOSTER
MSFC
DR#1192 A-1- 155

ORIGINAL PAGE IS OF POOR QUALITY

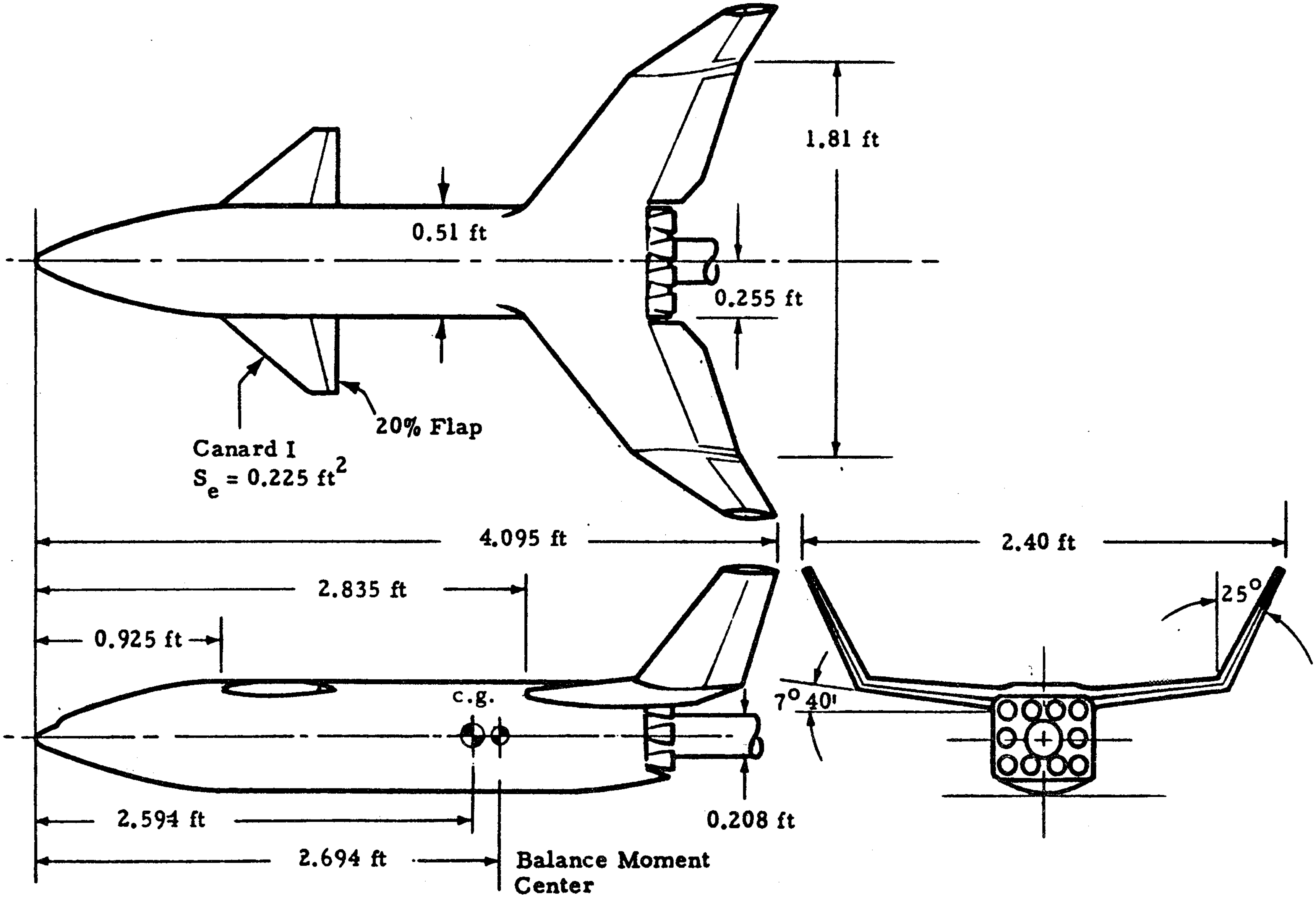
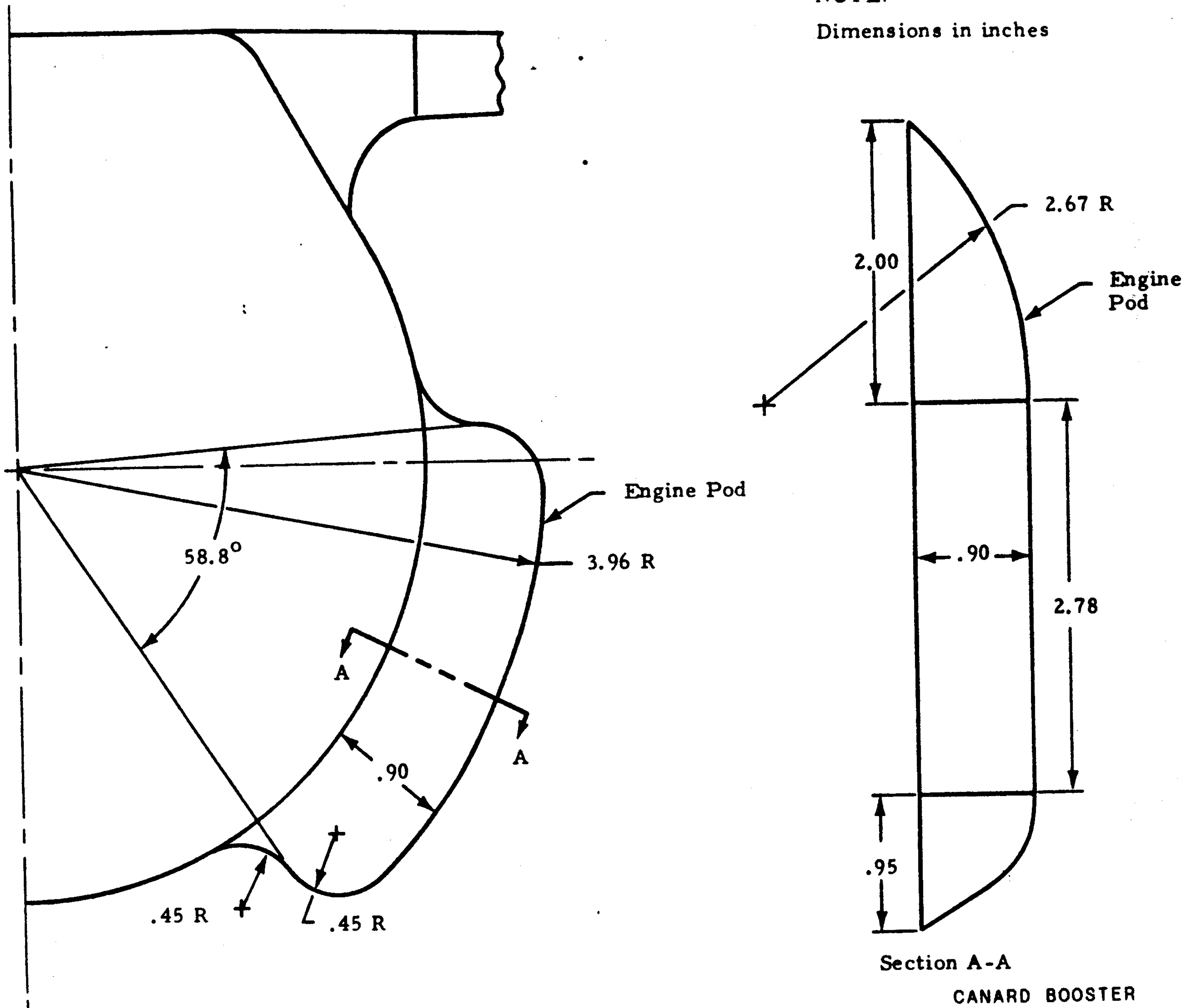


Fig. 2- General Arrangement of a Typical High Wing – High Canard Configuration



CANARD BOOSTER
MSFC
DR#1192 A-1- 157

Fig. 3 – Configuration and Location of Dummy Engine Pods

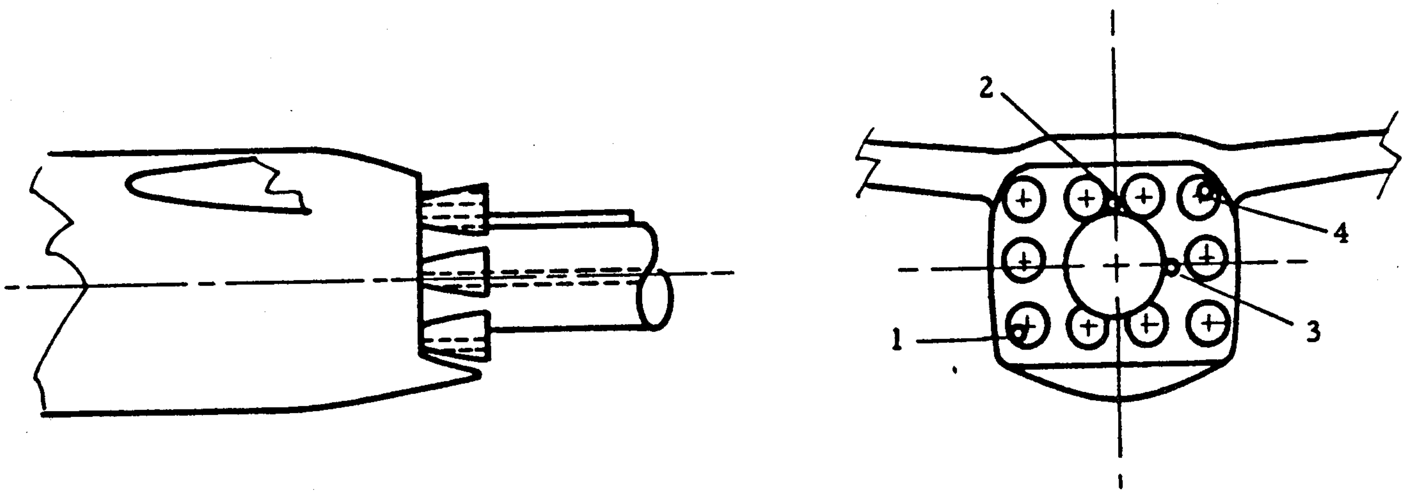


Fig. 4 - Location and Identification of Base Pressure Tubes

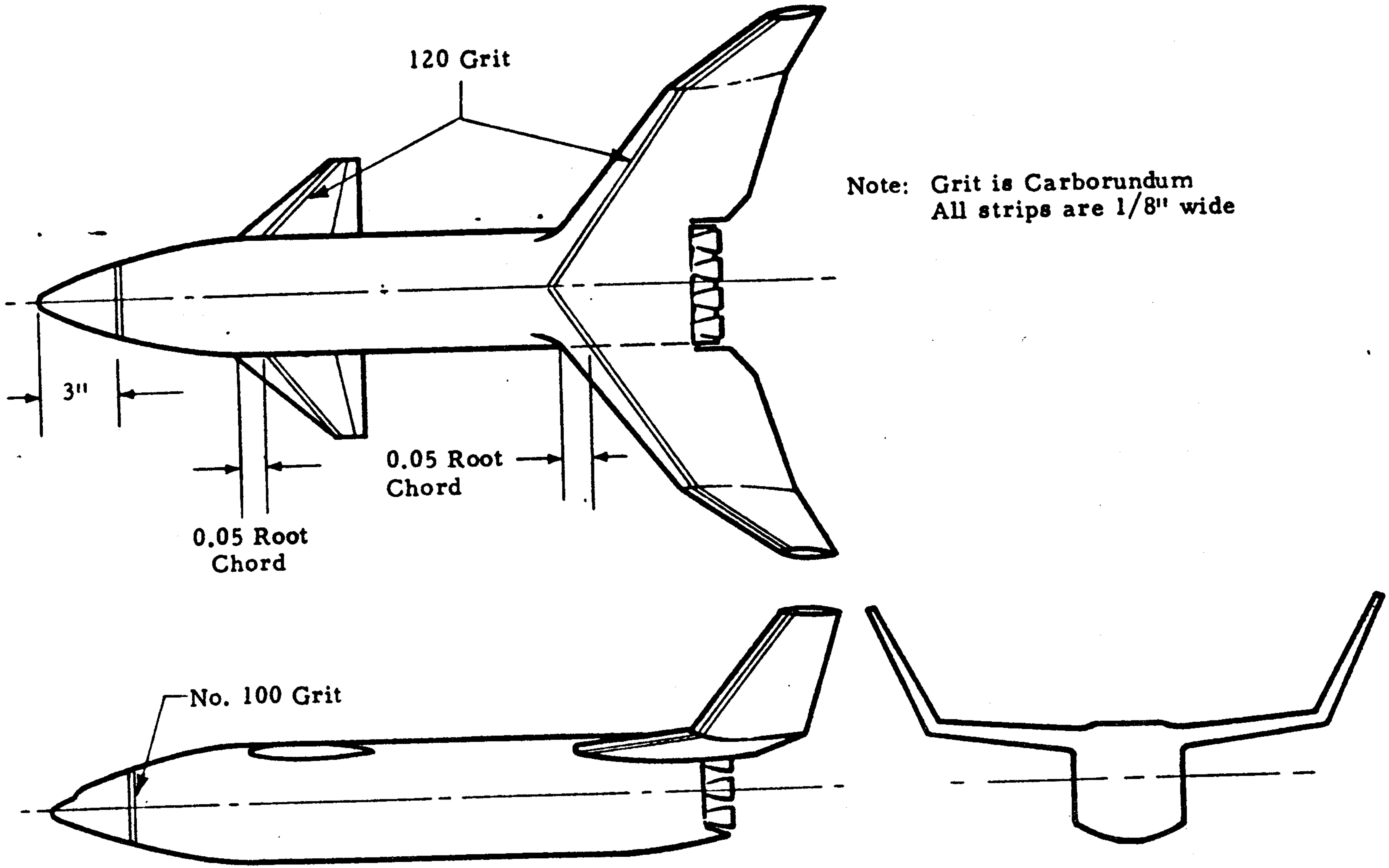


Fig. 5 - Typical Transition Grit Installation on Body, Wing and Canard

CANARD BOOSTER
MSFC
DR#1212 A-1- 160

TABLE I

TEST CAL 8x8' DATA SET COLLATION SHEET

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES				NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE)											
					[illegible]	[illegible]	[illegible]		0.6	0.7	0.8	0.9	1.0	1.1						
RU9001	B4C2F2W3V1	A	0		0	0	0	1	7	71	78	30	85	86						
002		0	A					1	3	75	79	91	83	87						
003		6							73	76	80	92	84	98						
004		15						1	12	77	81	93	35	59						
005	B5C2F2W3V1	A	0					1	14											
006		0	A					1	16											
007		6						1	17											
008		15						1	15											
009	B6C2F2W3U1	A	0					1	20											
010		0	A					1	21											
011		6						1	22											
012		15						1	23											
013	B4C2F2W3V1	A	0		10	0		1	24											
014		0	A					1	25											
015		6						1	26											
016		15						1	27											
017		A	0		-10			1	41											
018		0	A					1	45											
019		6						1	[illegible]											
020		15						1	41											

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN CP	CA CP2	CLM CP3	CBL CP4	CYN CP5	CY CP6	CL CP7	CD CP8	L/D CDC1	CAB CDC2			

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES
αA = 0 ± 4 2 6 8 10 15 20
βA = 0 ± 3 ± 6 @ α = 0, 6, 15

NASA-MSFC-MAF

ORIGINAL PAGE IS OF POOR QUALITY

TEST CAL 8×8' DATA SET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES	δ_e	δ_c	$\dot{m}_b$	NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE)	0.40
RU9021	B4C2F2W3V1	A	0		20	0	—	1		48
022		0	B					1		49
023		6						1		50
024		15						1		51
025		A	0		30			1		52
026		0	B					1		53
027		6						1		54
028		15						1		55
029		A	0		0	10		1		56
030		0	B					1		57
031		6						1		58
032		15						1		59
033		A	0			20		1		60
034		0	B					1		61
035		6						1		62
036		15						1		63
037		A	0		10			1		32
038		0	A					1		33
039		6						1		34
040		15						1		35

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN CV	CA CAB	CLM CBL	CBL	CYN	CY	CL	CD	L/D	CAF			

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

αA = 0 4 8 2 6 8 10 15 20

βA = 0 3 3 4 6 β: 2 = 0, 6, 15

NASA-MSFC-MAF

254

CANARD BOOSTER
MSFC
DR#1212 A-1- 161

ORIGINAL PAGE IS OF POOR QUALITY

TEST *CAL 8×8'* DATA SET COLLATION SHEET

☐ PRETEST

☐ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES	δ_e	δ_c	ml	NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE)	0.40										
RU9011	B4C2F2W3V1	A	0		-10	20	–	1		36										
012		0	A					1		37										
013		6						1		38										
014		15						1		39										
015		A	0		+10	10		1		28										
016		0	A					1		29										
017		6						1		30										
018		15						1		31										
049		A	0		-10			1		40										
050		0	A					1		41										
051		6						1		42										
052		15						1		43										
053		A	0		-20	0		1		94										
054		0	A					1		95										
055		6						1		96										
056		15						1		97										
057		A	0		0	0	353	1		68										
058		0	A					1		69										
059		6						1		70										
060		15						1		71										

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	CAB	IDPVAR(1)	IDPVAR(2)	NDV

COEFFICIENTS:

α or β SCHEDULES

ORIGINAL PAGE IS OF POOR QUALITY

TEST CAL 8x8 DATA SET COLLATION SHEET

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES				NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE)											
		α	β		δ_c	δ_e	$\dot{m}$		0.0	0.40										
RU9061	B4C2F2W3V1	0	0		0	0	VAR.			5										
062	↓	↓	↓		↓	↓	↓		67											
063	↓	↓	↓		↓	↓	↓			13										
064	↓	↓	↓		↓	↓	↓			72										
065	B7C2F2W3V1	↓	↓		↓	↓	↓			10										
066	B5C2F2W3V1	↓	↓		↓	↓	↓			15										

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN / CP	CA / CP2	CLM / CP3	CBL / CP4	CYN / CP5	CY / CP6	CL / CP7	CD / CP8	L/D / CPS1	CAB / CPC2		BSFLOW	

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES: ṁb VAR – VARIABLE FLOWRATE (0 – .815 in uneven increments)

NASA-MSFC-MAF

ORIGINAL PAGE IS OF POOR QUALITY

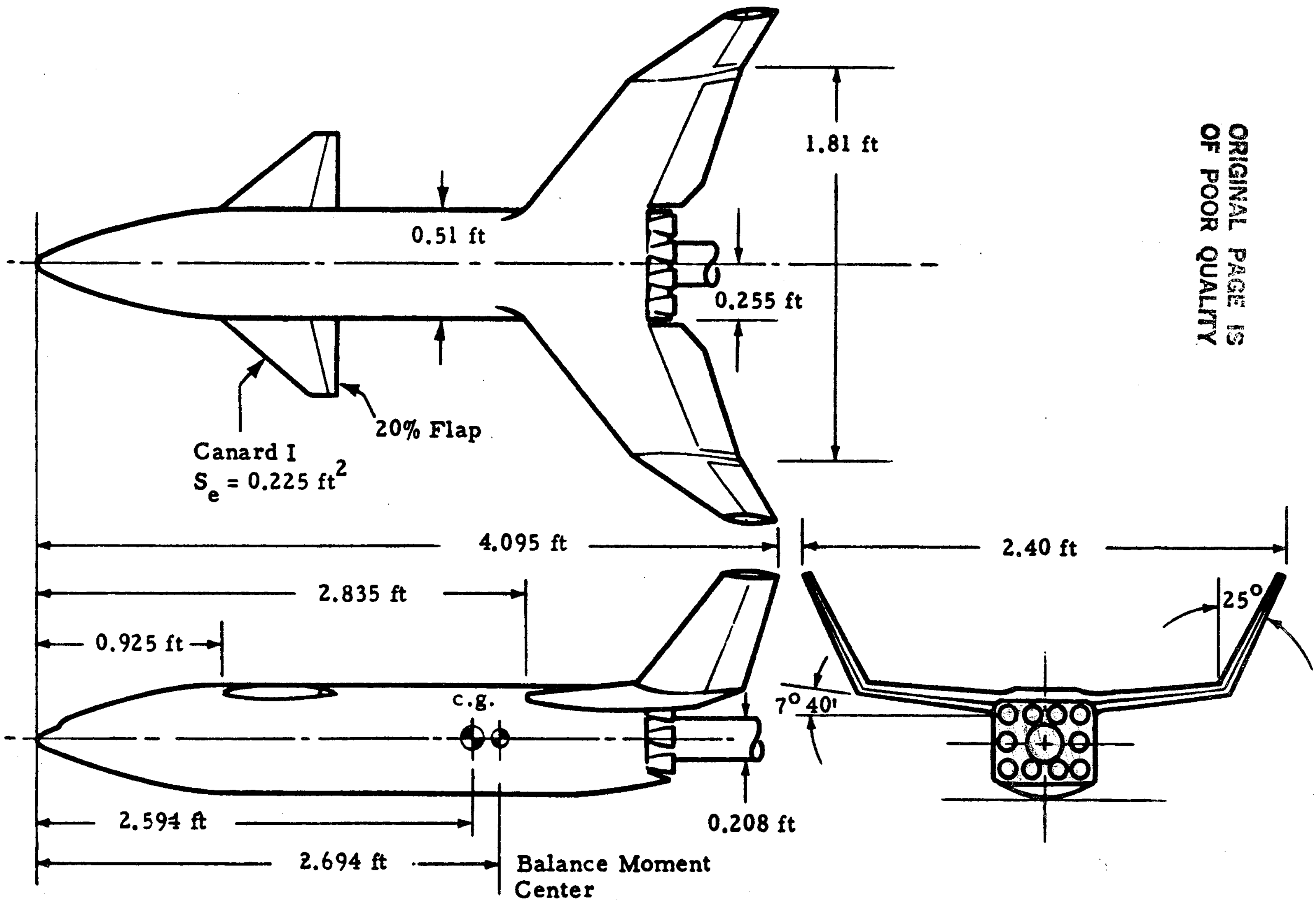
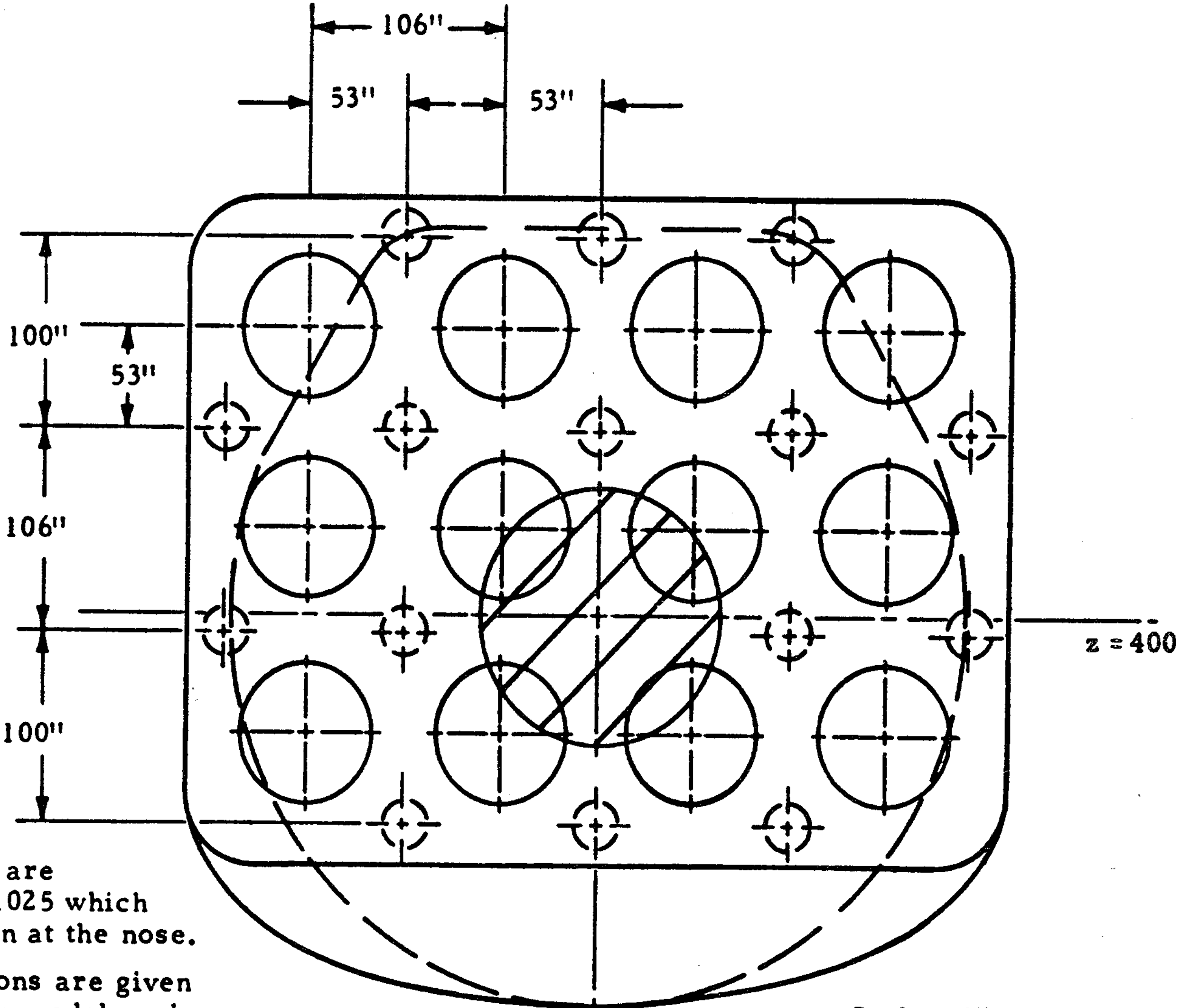


Fig. 2 - General Arrangement of the Baseline Model



Note: (1) All stations are relative to 1025 which is the station at the nose.

(2) All dimensions are given in full scale; model scale is 0.015.

Fig. 6 - Base Plenum Orifice Location (End View)

ORIGINAL PAGE IS OF POOR QUALITY

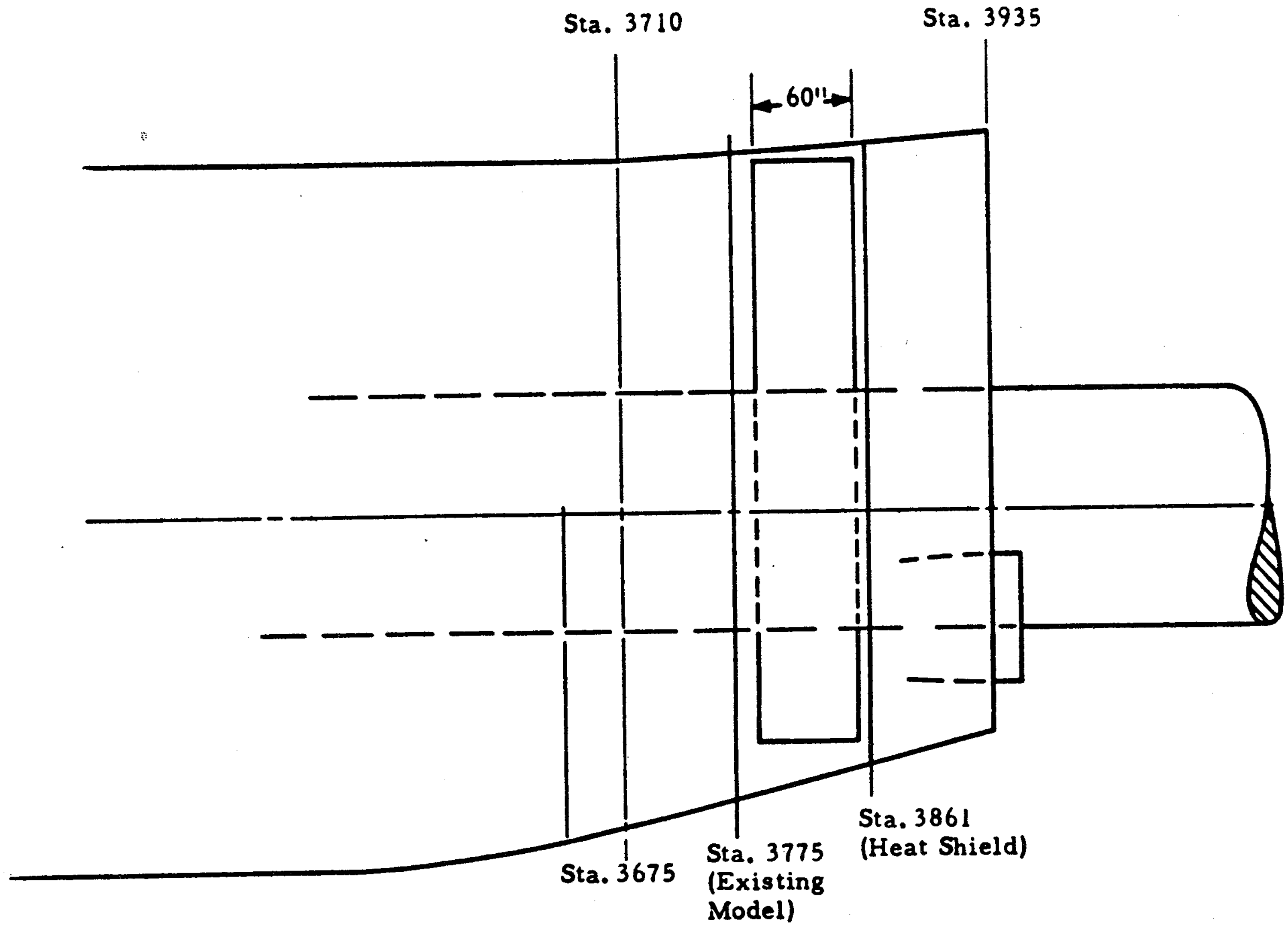


Fig. 7 - Base Plenum Orifice Location (Side View)

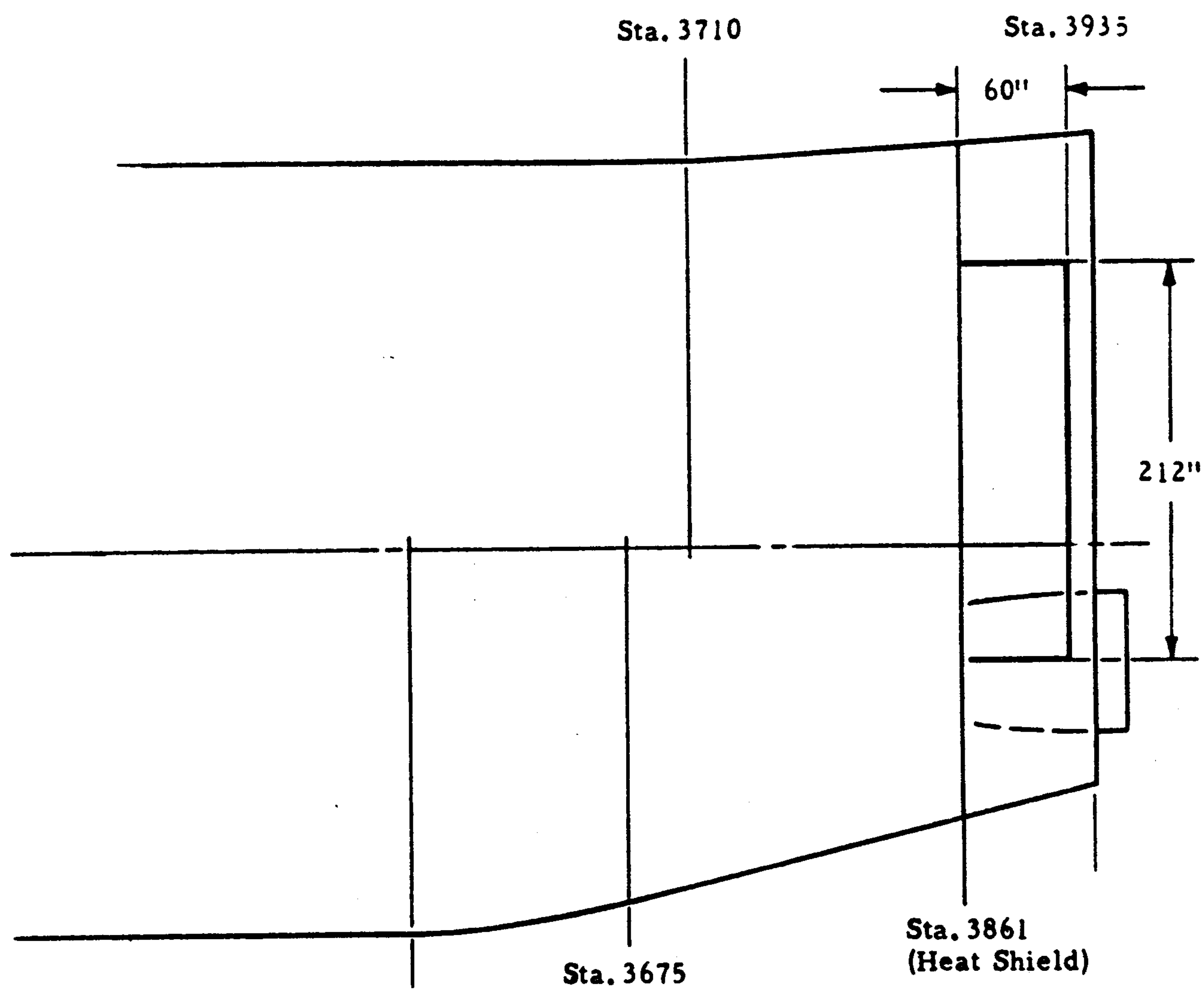


Fig. 8 - Base Venting (Side View)

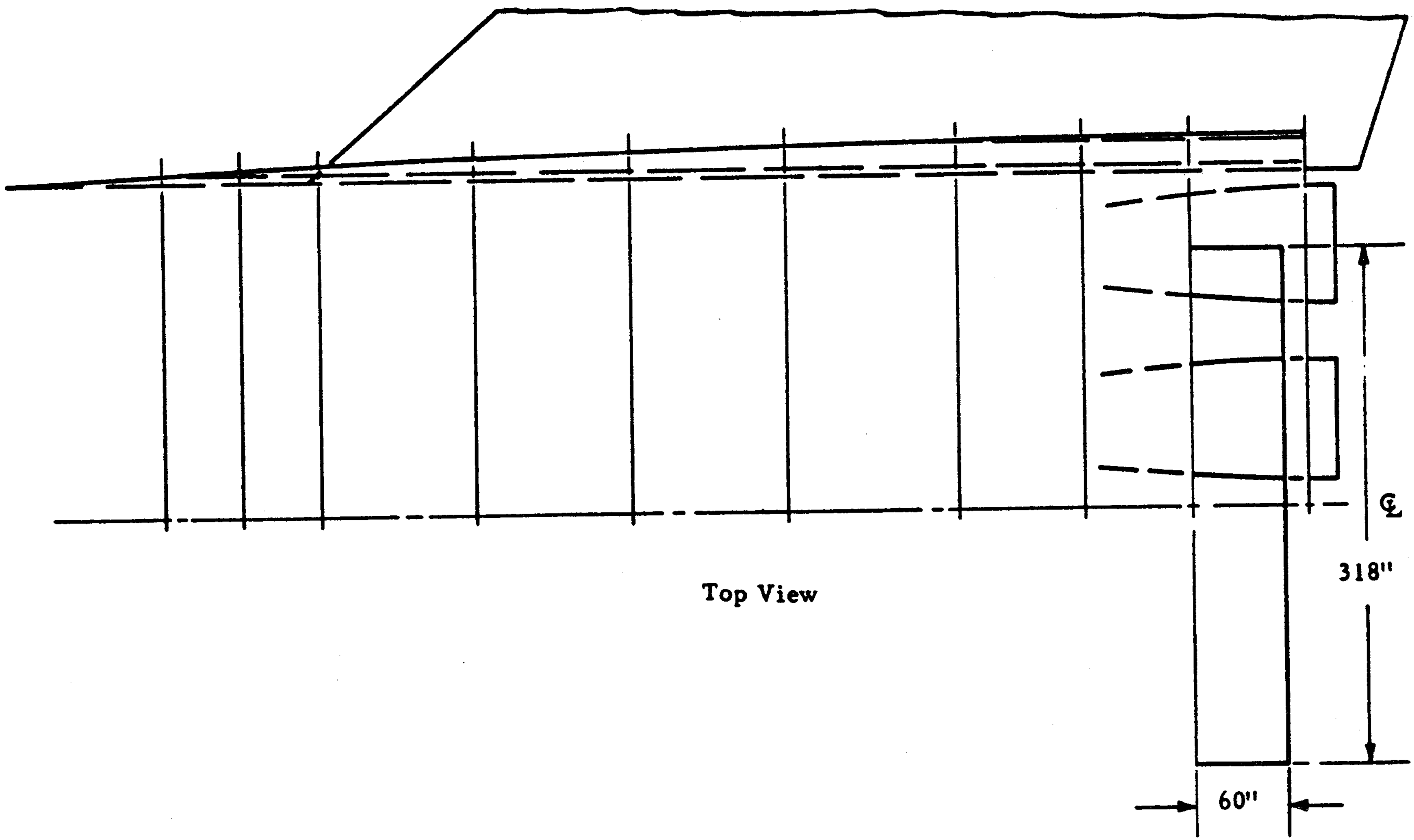


Fig. 9 - Base Venting (Top View)

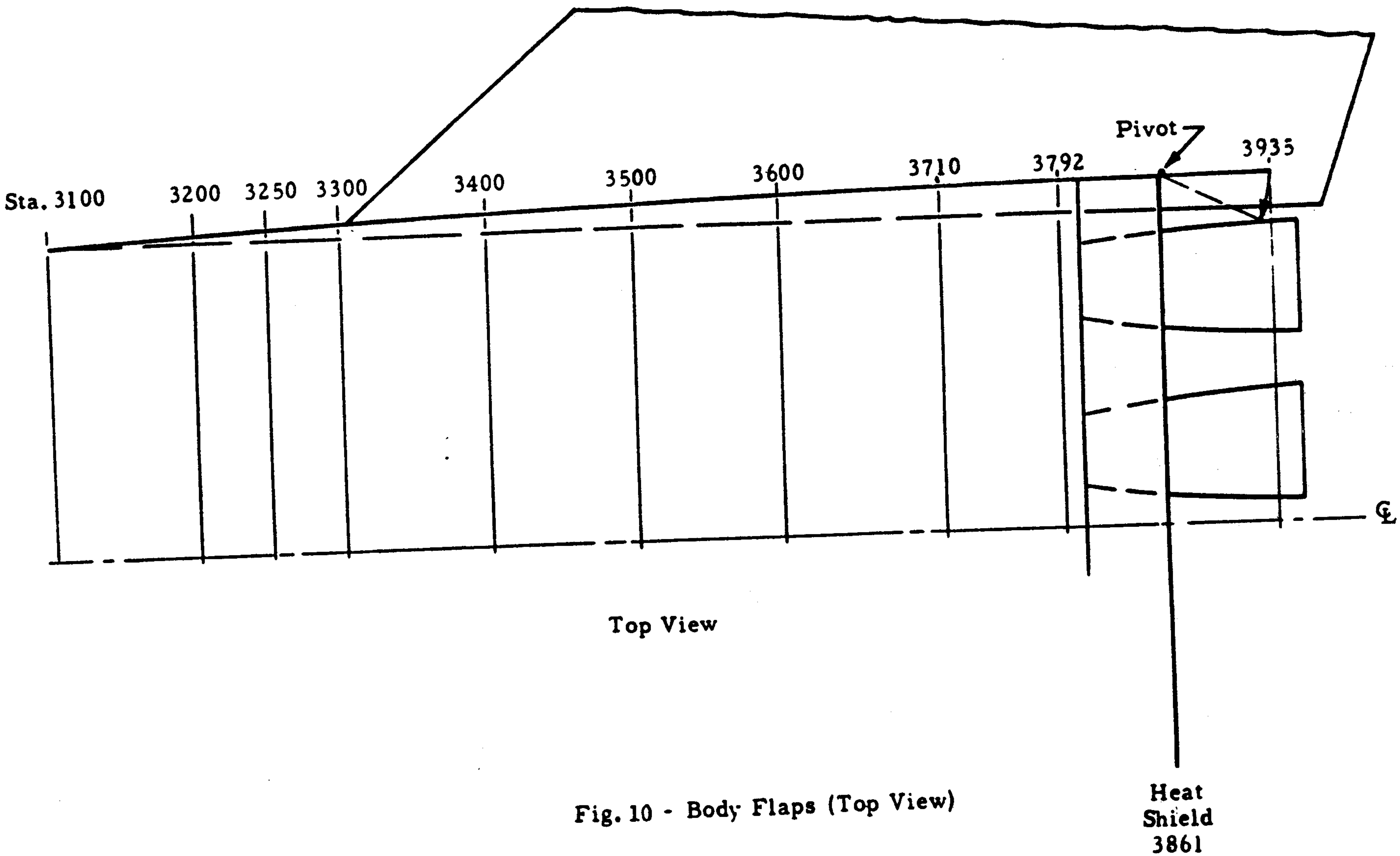


Fig. 10 - Body Flaps (Top View)

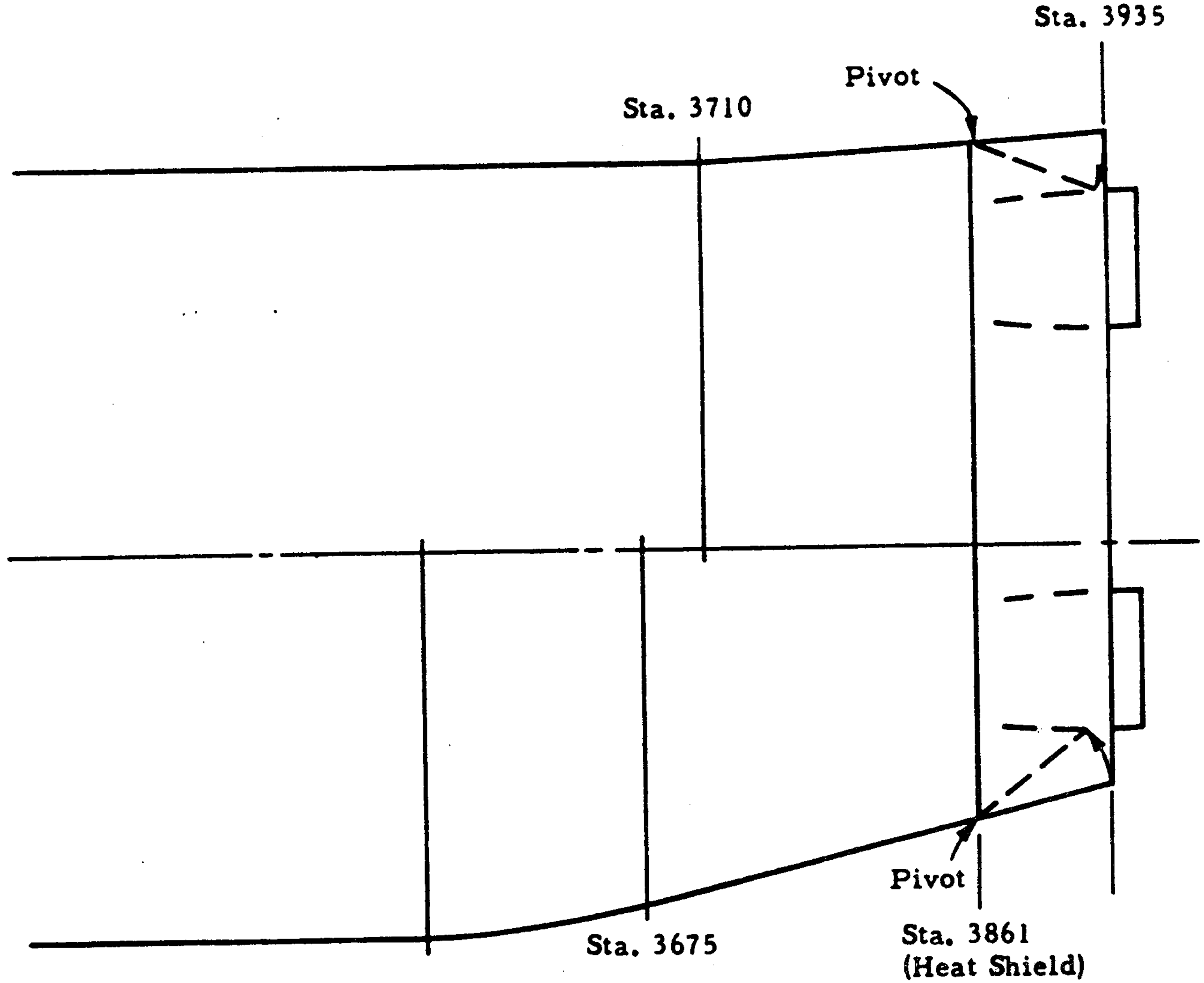


Fig. 11 - Body Flaps (Side View)

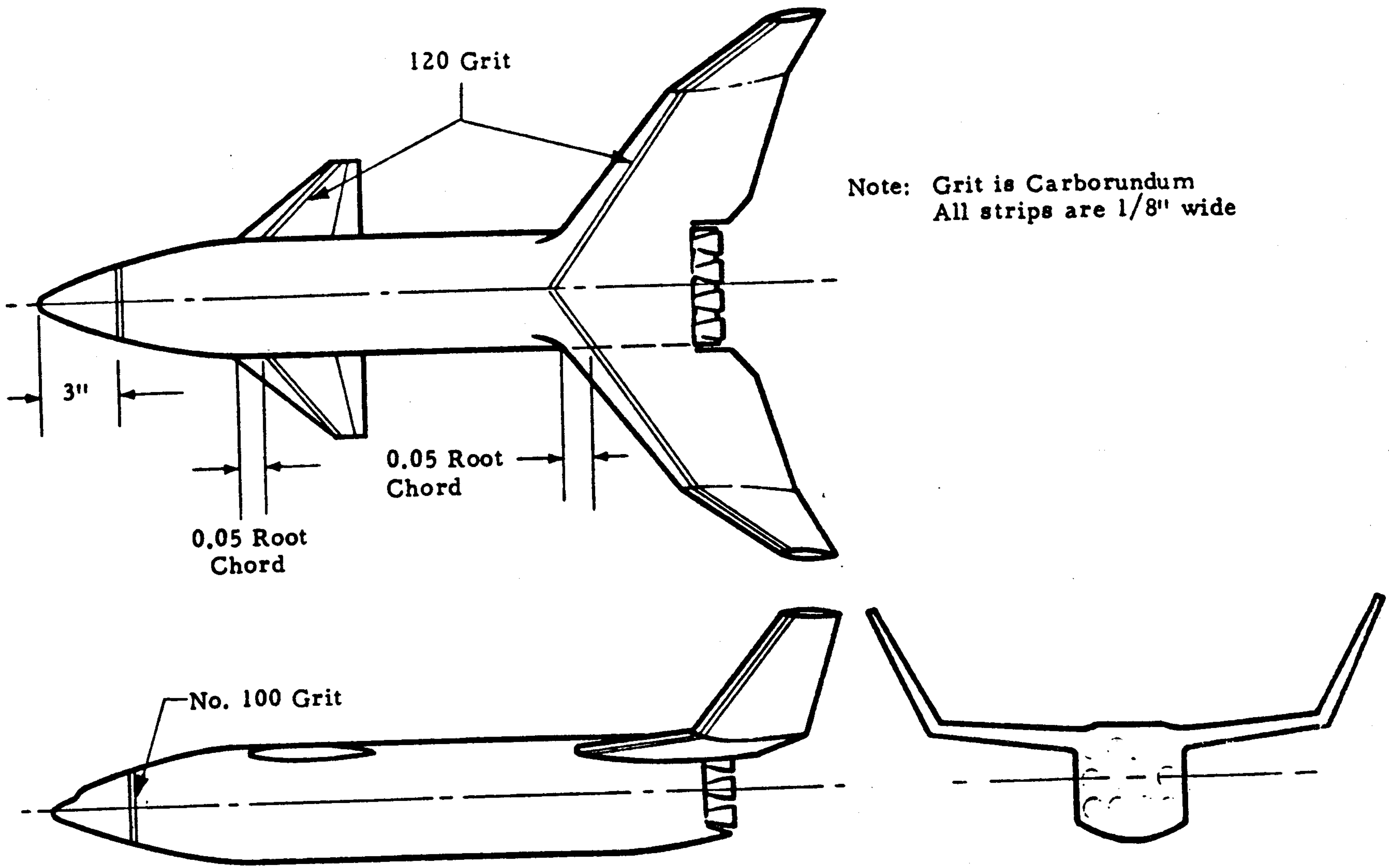


Fig. 12- Typical Transition Grit Installation on Body, Wing and Canard

CANARD BOOSTER
MSFC
DR#1212 A-1- 171

CANARD BOOSTER
TBC
DR#1160 A-1- 172

TABLE II.

TEST TWT #496 DATA SET COLLATION SHEET

$\delta_e = \delta_{e_L} / \delta_{e_R}$

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES δ_e	δ_c	ϵ	i_w	NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) 0.6	0.9	1.0	1.2	1.96	3.5	4.96					
R3601A	B_2	A	0	—	—	10	0	4	074/0	075/0		076/0	032/0							
01M		M						6	146/0	145/0		144/0	151/0	221/0	222/0					
01K		K						6	147/0	148/0		149/0	150/0	225/0	224/0					
02A	$B_2 C_1^R$	A			0			3	079/0	078/0		077/0								
04M		M			-40			1					152/0							
05K		K			-60			1							226/0					
03H		15	F		-20			1					031/0							
04I		30	F		-40			1							223/0					
06M	$W_6 B_2$	M	0	0	—			3				143/0	153/0		220/0					
06K		K	0					4				141/0	157/0	216/0	215/0					
06G		10	F					3	073/0	072/0		071/0								
06H		15	F					1					034/0							
06I		30	F					2					154/0	217/0						
08A	$W_6 B_2 V_2$	A	0	+10/0				3	066/0			067/0	037/0							
11A		A		-30/-30				3		069/0		068/0	038/0							
09M		M		0				4				131/0	165/0	196/0	197/0					
07M		M		+30/0				2				132/0	163/0							
10M		M		-30/0				4				133/0	164/0	199/0	200/0					
09K		K		0				4				135/0	159/0	206/0	207/0					
R3609U	(NO. 54 GRIT)	K		0				1					158/0							

1	7	13	19	25	31	37	43	49	55	61	67	75 79
CLM	CN	CY	CBL	CYN	CAE	CAB	CPBI	CL	CDF			10

COEFFICIENTS: → IDPVAR(1) IDPVAR(2) NDV

α or β SCHEDULES

$\alpha A = 0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20$ DEG.

$\alpha M = 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40$ DEG.

$\alpha K = 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60$ DEG.

$\beta F = -10, -8, -6, -4, -2, 0, 2, 4, 6, 8, 10$ DEG.

12

ORIGINAL PAGE IS OF POOR QUALITY

TEST TWT #496 DATA SET COLLATION SHEET

☐ PRETEST

☒ POSTTEST

$\delta_e = \delta_{e_L} / \delta_{e_R}$

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	δ_e	δ_c	ε	i_w	NO. of RUNS	0.6	0.9	1.0	1.2	1.96	3.5	4.96
R38071K	$W_6B_2V_2$	K	O	+30/0	—	10	0	3				136/0	160/0	208/0	
12K		K	O	0/OFF	—	↓	↓	4				137/0	161/0	202/0	201/0
09A	↓	A	O	0	—			1					036/0		
13G	$W_6B_2C_1^2$	10	F	0	0			1					035/0		
14H	↓	15	↓	↓	±20			3				070/0	033/0	008/0	
15I		30			-40			4				142/0	155/0	218/0	219/0
16J	↓	50	↓		-60			3					156/0	213/0	214/0
17A	$W_6B_2C_1^2V_2$	A	O		0			3	063/0			062/0		004/0	
17S	(WAX FAIRINGS ON CANARD L.E.)	A	↓		0			3	064/0			065/0		005/0	
18A	↓	A			-20			3				061/0	039/0	003/0	
18M		M			-20			3				134/0	164/0	198/0	
19M		M			-40			3				130/0	166/0	195/1	
19K		K			-40			4				138/0	168/0	207/0	210/0
20K		K	↓		-60			4				139/0	169/0	205/0	204/0
17E		0	F		0			3		058/0		057/0		003/0	
18E		15	↓		-20			4	059/0			060/0	040/0	007/0	
19I		30			-40			4				129/0	167/0	193/1	194/1
20J		50	↓	↓	-60			4				140/0	170/0	212/0	211/0
21K	↓	K	O	OFF	-60			1							203/0
R38197T	↓ (NO TRIP STRIPS)	30	F	0	-40	↓	↓	1						242/0	

13

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CLM	CN	CY	CBL	CYN	CAF	CAB	CPBL	CL	CDF	IDPVAR(1)	IDPVAR(2)	NDV 10

COEFFICIENTS:

α or β SCHEDULES

NASA-MSFC-MAF

ORIGINAL PAGE IS OF POOR QUALITY

CANARD BOOSTER
TBC
DR#1160 A-1- 173

TABLE II (CONTINUED)

TEST $TWT^{\#}496$ DATA SET COLLATION SHEET

$$\delta_e = \delta_{e_L} / \delta_{e_R}$$

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES δ_e	δ_c	ϵ	i_w	NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) 0.6	0.9	1.0	1.2	1.96	3.5	4.96
R3841C	$W_6B_2O_1'C_1^2V_2$	C	O	0	0	10	0	4		044/0	043/0		042/0		001/0
41F		0	F					6	046/0	045/0	047/0	048/0	041/0		002/0
41G		10						4	053/0	054/0	055/0	056/0			
41L		-10						4	052/0	051/0	050/0	049/0			
37A	$W_6^HB_2C_1^2V_2$	A	O					5	101/0	102/0		103/0	023/0	012/0	
37F		0	F					3	097/0	098/0			022/0		
37G		10						2	100/0	099/0					
38H		15			-20			1					020/0		
39I		30			-40			1						238/0	
40J		50			-60			1							237/0
33F	$W_6^HB_2C_1^2$	0			0			2	096/0	095/0					
33G		10			0			2	093/0	094/0					
34H		15			-20			1					021/0		
35I		30			-40			1						235/0	
R3836J		50			-60			1							236/0

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CLM	CN	CY	CBL	CYN	CAF	CAB	CPBL	CL	CDF	IDPVAR(1)	IDPVAR(2)	NDV 10

COEFFICIENTS

α or β SCHEDULES: $\alpha C = -10, -8, -6, -4, -2, 0, 2, 4, 6, 8, 10$ DEG.

NASA-MSFC-MAF

ORIGINAL PAGE IS OF POOR QUALITY

TABLE II. (CONTINUED)

TEST $TWT^{\#}496$ DATA SET COLLATION SHEET

$$\delta_e = \delta_{e_L} / \delta_{e_R}$$

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	δ_e	δ_c	ε	i_w	NO. of RUNS	0.6	0.9	1.0	1.2	1.96	3.5	4.96					
R3823A	$W_9B_2V_1$	A	0	0	—	10	0	5	088/0	089/0		090/0	024/0	011/0						
23M		M						6	126/0	127/0		128/0	177/0	186/0	187/0					
23K		K						6	121/0	122/0	—	123/0	179/0	184/0	183/0					
23F		0	F					4	082/0	083/0		084/0	027/0							
23G		10						2	087/0	086/0										
23H		15						3				085/0	026/0	010/0						
23I		30						4				125/0	176/0	189/0	188/0					
23J		50						4				124/0	180/0	181/1	182/0					
24A	$W_9B_2C_1^2V_1$	A	0		0			1	091/0											
26M		M			-40			2					178/0	192/0						
27K		K			-60			1							185/0					
24F		0	F		0			1					028/0							
24G		10			0			1	092/0											
25H		15			-20			1					025/0							
26I		30			-40			1							191/0					
22F	W_9B_2	0			—			2	081/0				029/0							
22G		10						1	080/0											
22H		15						2					030/0	009/0						
R3822I		30						2					175/0	190/0						

1 7 13 19 25 31 37 43 49 55 61 67 75 76

NDV: 10

CLM CN CY CBL CYN CAE CAB CPBL CL CDF → IDPVAR(1) IDPVAR(2) NDV

COEFFICIENTS:

α or β SCHEDULES

NASA-MSFC-MAF

ORIGINAL PAGE IS OF POOR QUALITY

CANARD BOOSTER
TBC
DR#1160 A-1- 175

TABLE II. (CONCLUDED)

TEST TWT #496 DATA SET COLLATION SHEET

$\delta_e = \delta_{e_L} / \delta_{e_R}$

☐ PRETEST

☒ POSTTEST

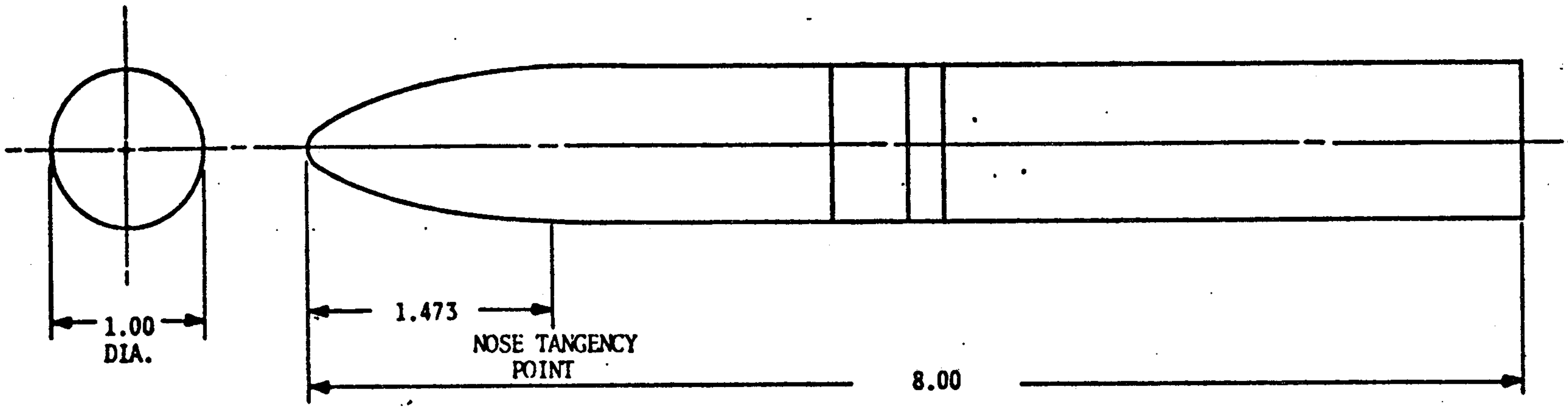
DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES δe	δc	ϵ	i_w	NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) 0.6	0.9	1.0	1.2	1.96	3.5	4.96					
R3828A	$W_4B_2V_2$	A	0	0	—	10	0	2	113/0				017/0							
28M		M						3					173/0	240/0	239/0					
28K		K						2						241/0	229/0					
28F		0	F					2	111/0				016/0							
28G		10						1	112/0											
28H		15						1					018/0							
28I		30						1							234/0					
28J		50						1							243/0					
29A	$W_4B_2C_1^2V_2$	A	0		0			5	106/0	105/0		104/0	014/0	013/0						
31M		M			-40			6	114/0	115/0		116/0	172/0	231/0	230/0					
32K		K			-60			6	120/0	119/0		118/0	171/0	228/0	227/0					
29F		0	F		0			2	110/0				015/0							
29G		10			0			3	107/0	108/0		109/0								
30H		15			-20			1					019/0							
R3831I		30			-40			4				117/0	174/0	232/0	233/0					

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CLM	CN	CY	CBL	CYN	CAF	CAB	CPBL	CL	CDF	IDPVAR(1)	IDPVAR(2)	NDV 10

COEFFICIENTS:

α or β SCHEDULES

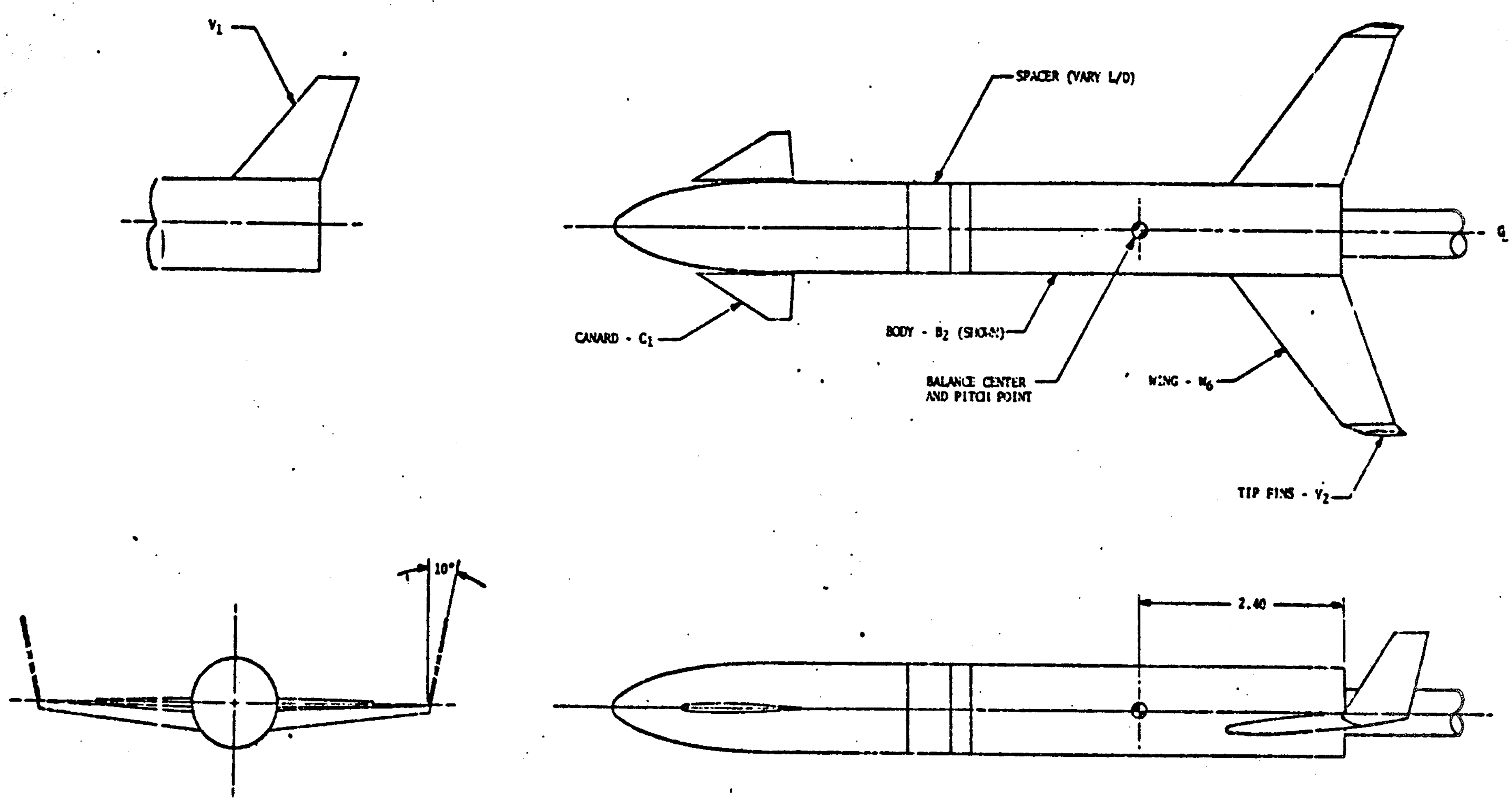
ORIGINAL PAGE IS OF POOR QUALITY



AR-1198 BODY B_2

Figure 2. AR-1198 Body B_2

CANARD BOOSTER
TBC
DR#1160 A-1- 178



0.002456 SCALE AR1198 BOOSTER MODEL

Figure 3. 0.002456 Scale AR-1198 Booster Model

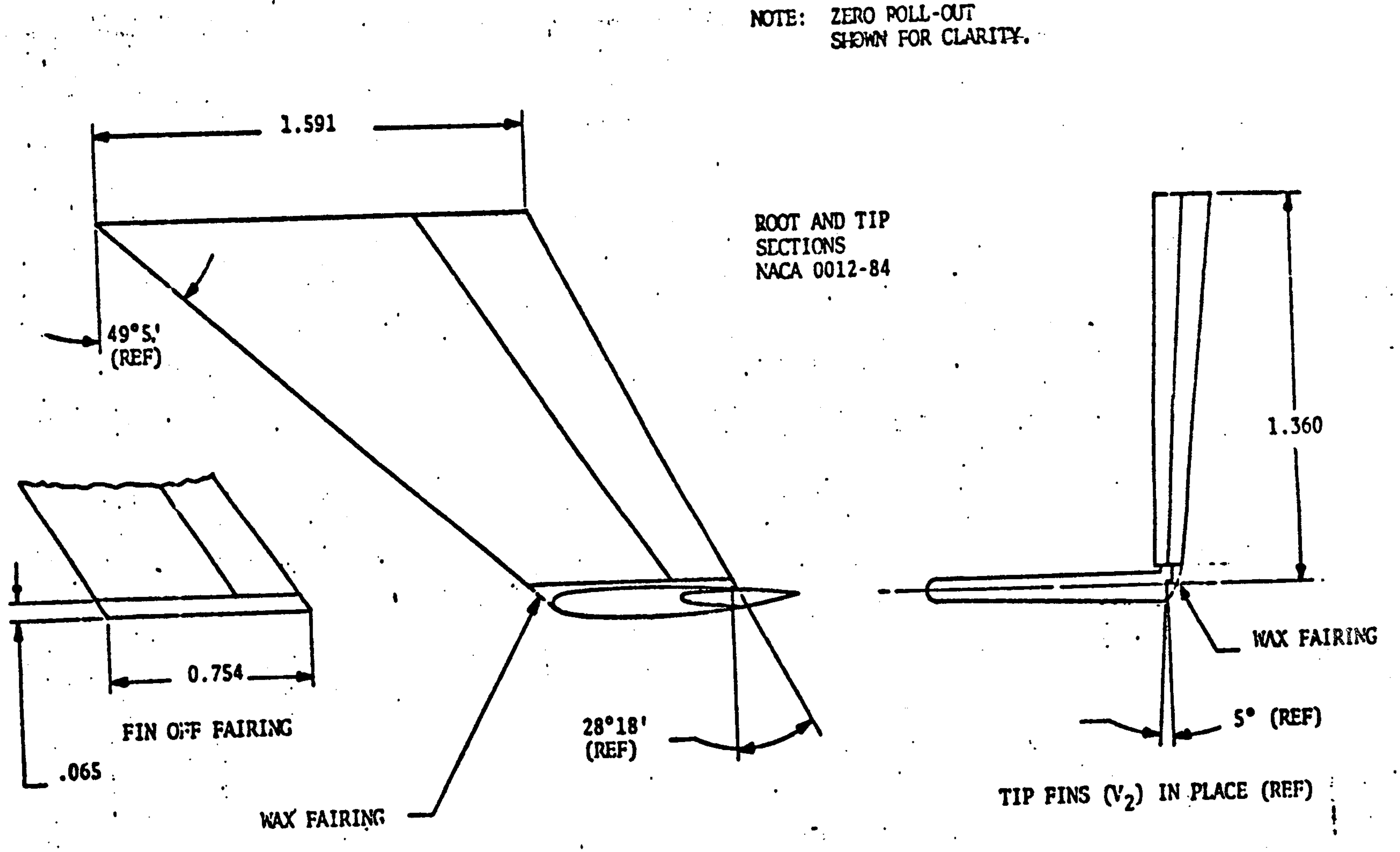


Figure 5. Wing, W_4

NOTE: ZERO ROLL-OUT
SHOWN FOR CLARITY.

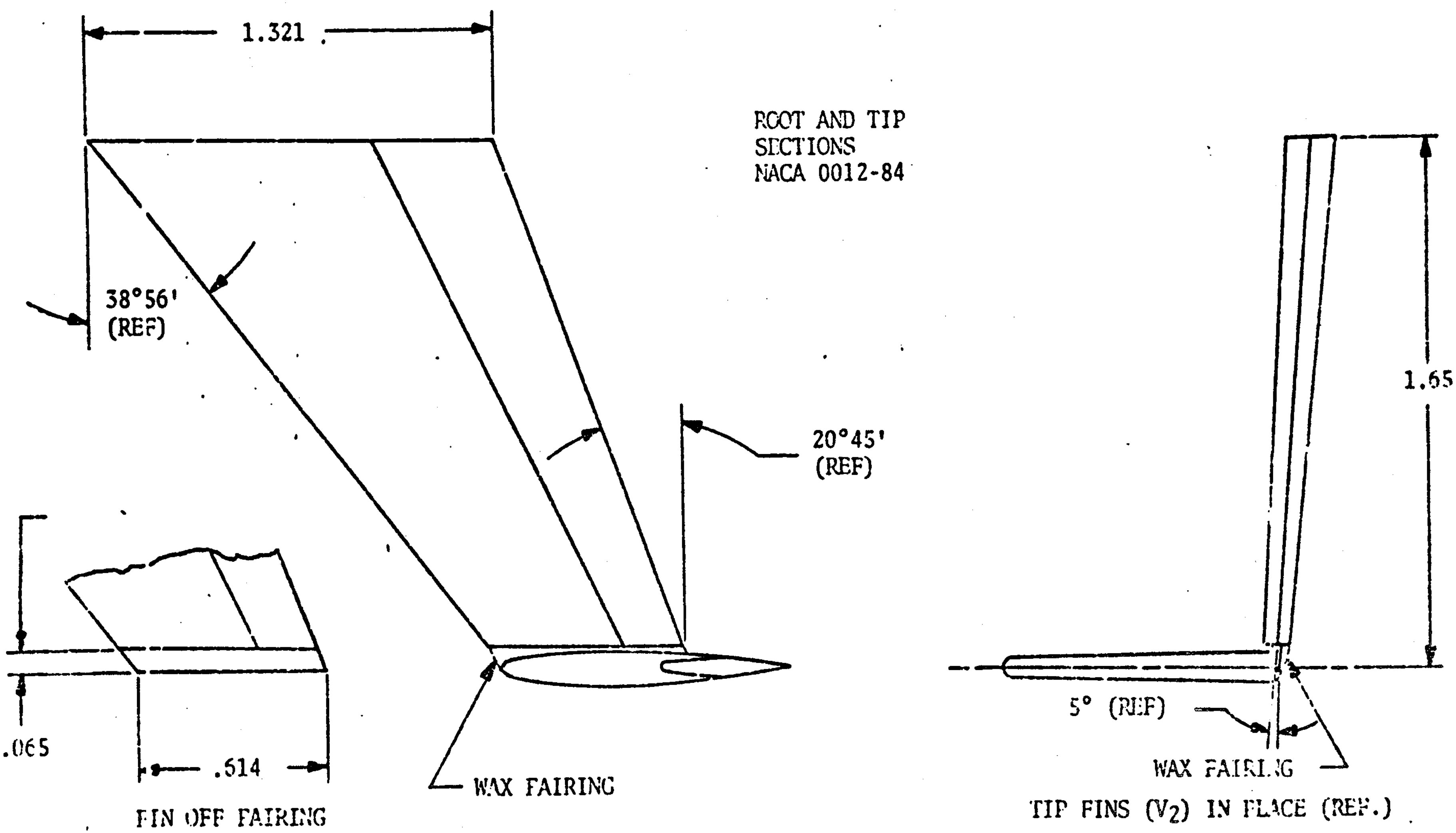


Figure 6. Wing, W_6

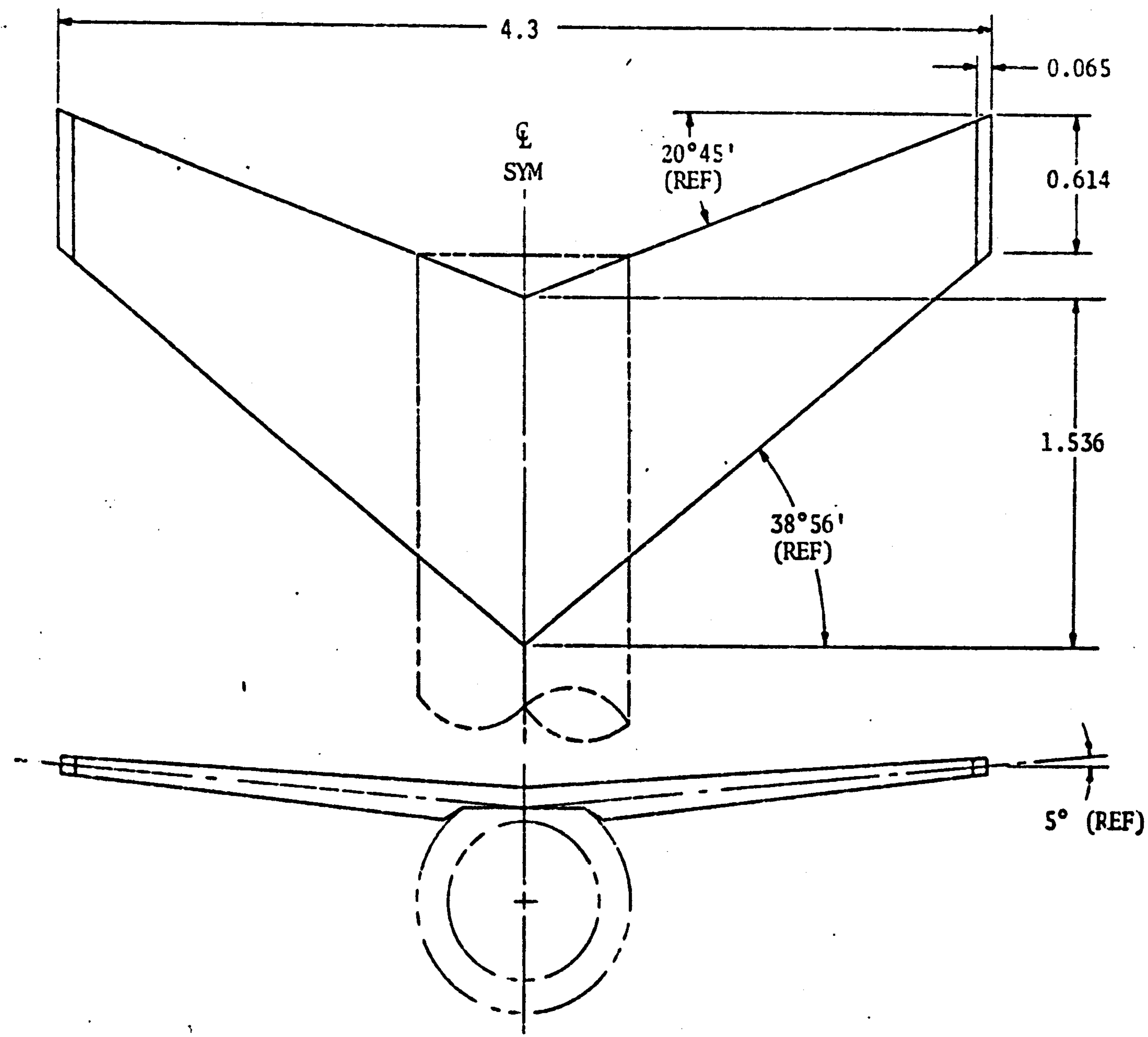


Figure 7. Wing, W_6^H

CANARD BOOSTER
TBC
DR#1160 A-1- 181

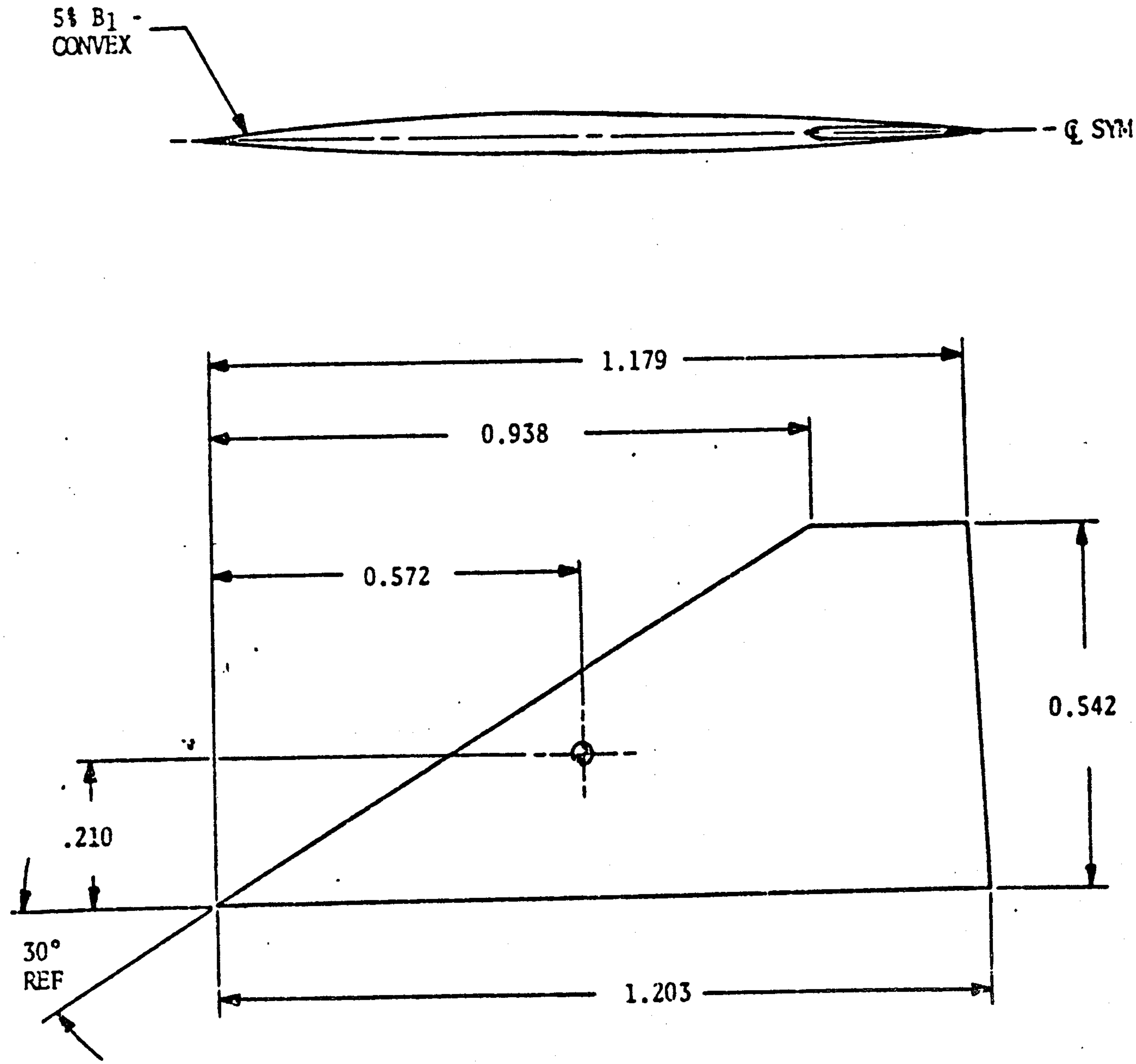


Figure 9. Canard, C_1

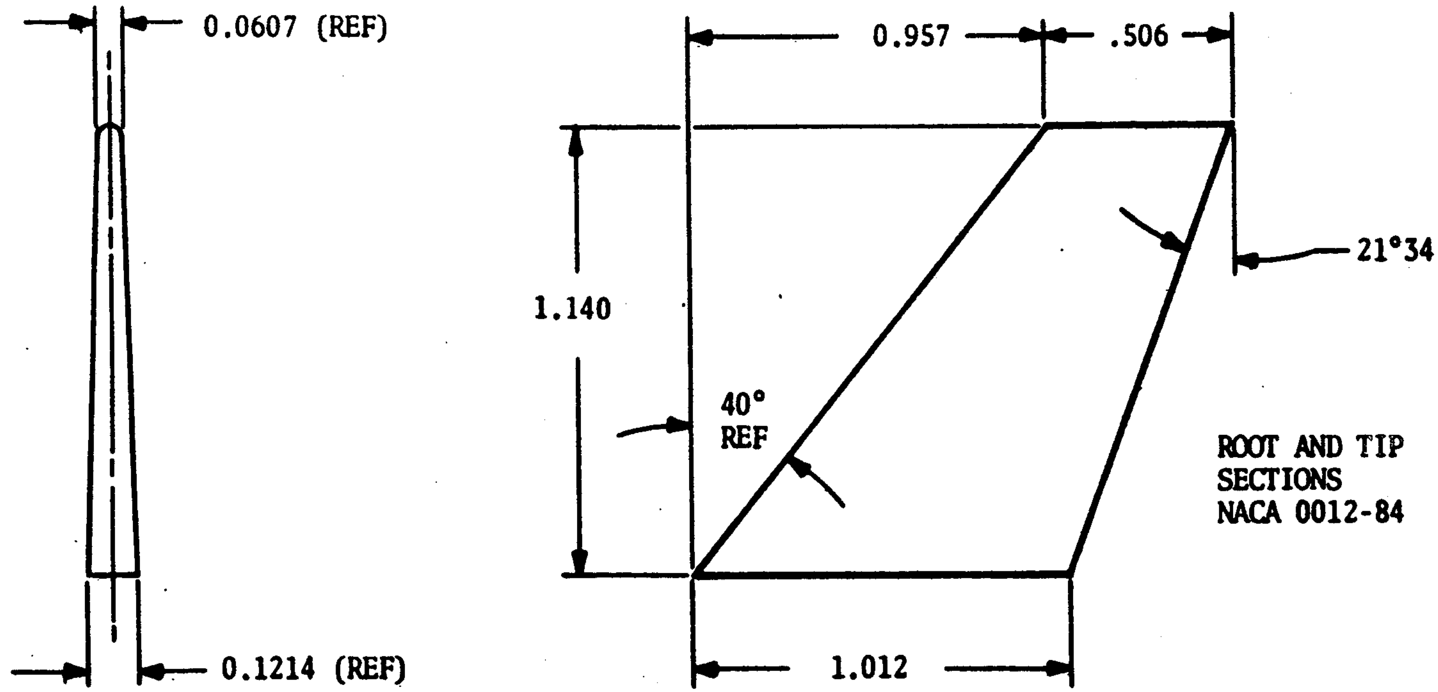


Figure 10. Vertical Tail, V_1

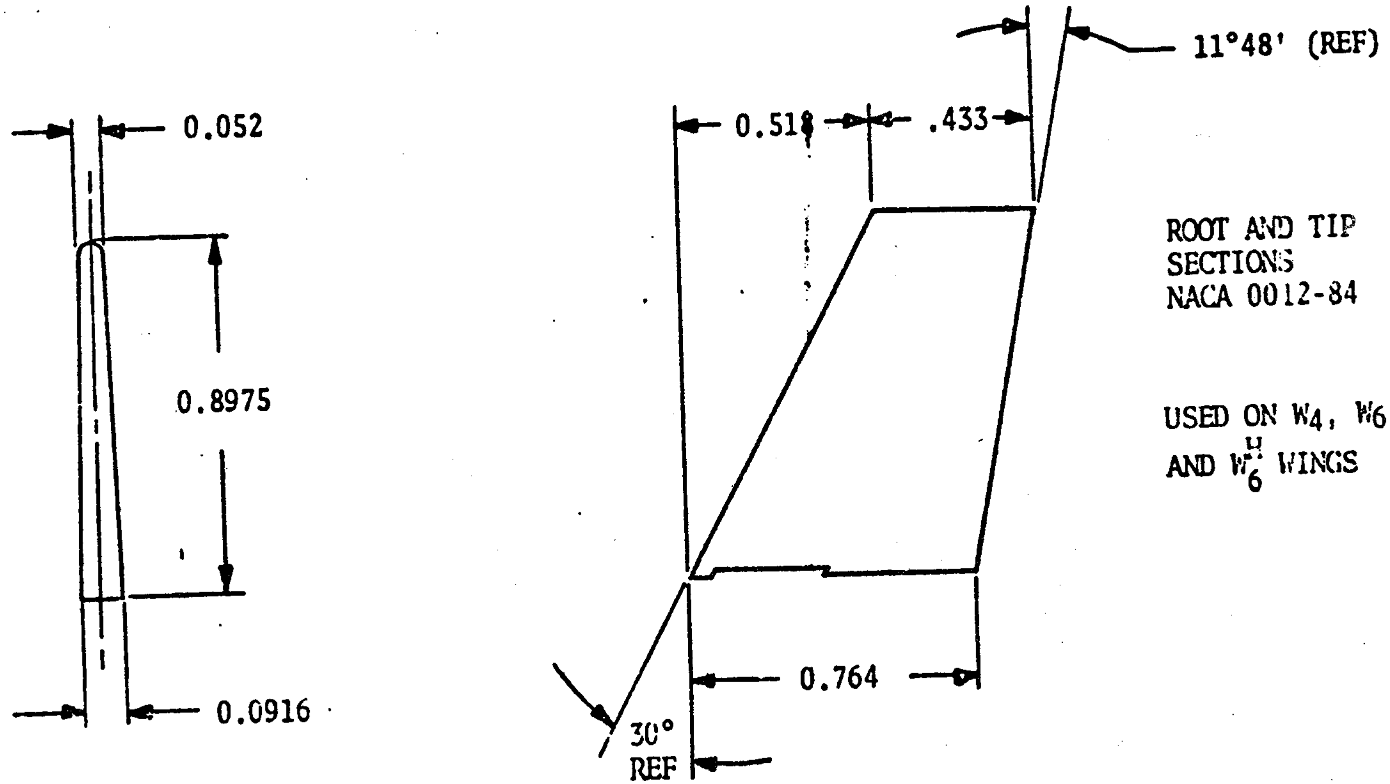


Figure 11. Wing Tip Fins, V_2

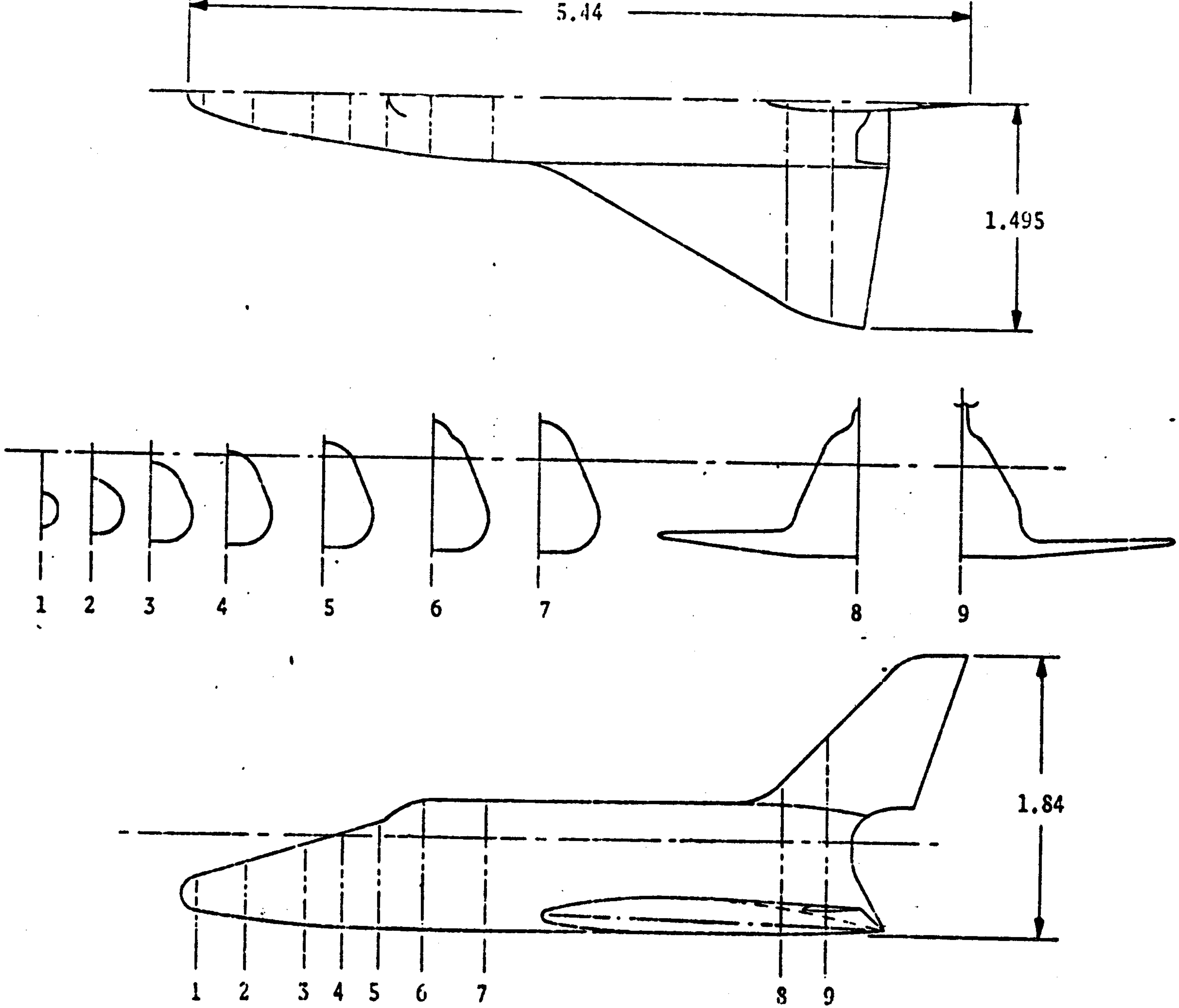


Figure 12. Grumman G3-A Orbiter Body

CANARD BOOSTER
TBC
DR#1160 A-1- 186

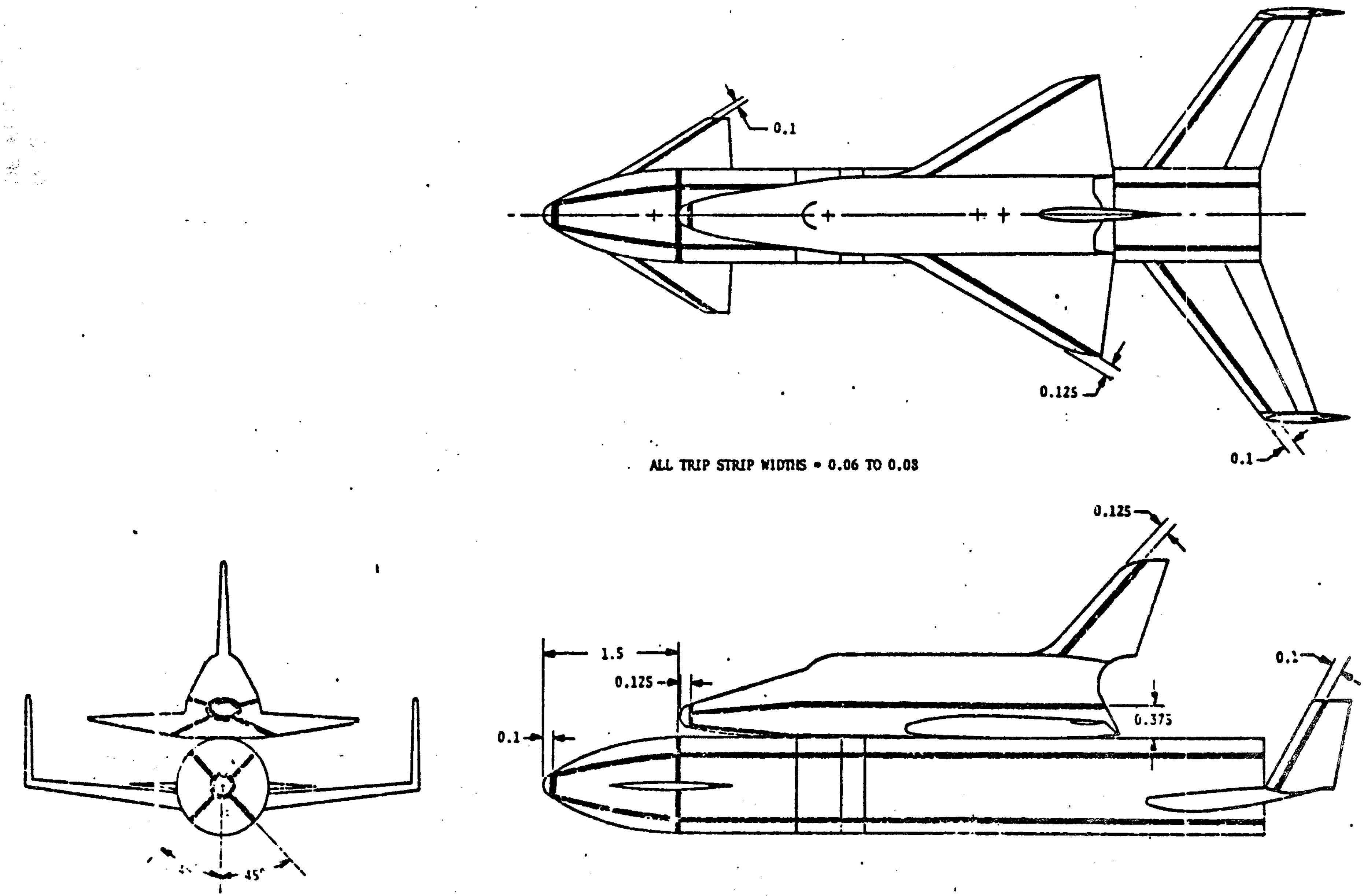


Figure 14. Trip Strip Chart - AR-1198 Booster

TABLE II.

TEST MSFC TWT526 DATA SET COLLATION SHEET

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES α_c	ℓ_y	α_p	δ_T	NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) 1.96	2.74	4.96
R61001	N1C1F0	D	0	25.	2.157	0.	0.	3	096 / 0	003 / 0	004 / 0
002		E	0					3	073 / 0	002 / 0	001 / 0
003		60	A					3	095 / 0	006 / 0	005 / 0
004	N3C1F0	D	0	40.				3	097 / 0	010 / 0	009 / 0
005		E	0					3	065 / 0	063 / 0	064 / 0
006		60	A					3	086 / 0	007 / 0	008 / 0
007	N3C1F1	D	0			7.5		3	098 / 0	011 / 0	012 / 0
008		E	0					3	066 / 0	062 / 0	061 / 0
009		60	A					3	089 / 0	014 / 0	013 / 0
010	N3C1F2	D	0			15.		3	092 / 0	019 / 0	020 / 0
011		E	0					3	067 / 0	059 / 0	060 / 0
012	N1C1F3	D	0	25.		20.		3	240 / 0	022 / 0	021 / 0
013		E	0					3	069 / 0	058 / 0	057 / 0
014		60	A					3	239 / 0	023 / 0	024 / 0
015	N3C1F3	D	0	40.				3	091 / 1	018 / 1	017 / 1
016		E	0					3	068 / 1	055 / 0	056 / 0
017		60	A					3	090 / 0	015 / 0	016 / 0
018	N3C1F0T1	D	0			0.	.424	3	090 / 0	027 / 0	028 / 0
019		E	0					3	070 / 0	054 / 0	053 / 0
020		60	A					3	081 / 0	026 / 0	025 / 0

1	7	13	19	25	31	37	43	49	55	61	67	73 75
CLM	CN	CY	CBL	CYN	CA	CAB	CPB1	CPC	CPB2			1 0

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

α: D = 50 TO 70 DEG, Δα = 2 DEG; E = 70 TO 90 DEG, Δα = 2 DEG

β: A = -10 TO 10 DEG, Δβ = 2 DEG

ORIGINAL PAGE IS OF POOR QUALITY

CYLINDRICAL BOOSTER
LMSC
DR#1242 A-1- 187

TABLE II. (Continued_

TEST MSFC TWT 526 DATA SET COLLATION SHEET

CYLINDRICAL BOOSTER
LMSC
DR#1242 A-1- 188

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES α_c	l_{CY}	α_F	S_T	NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) 1.96	2.74	4.96
R61021	N3C1FOT2	D	0	40.	2.457	0.	.848	3	083 / 0	030 / 1	029 / 0
022	↓	E	0	↓	↓	↓	↓	3	071 / 0	051 / 0	052 / 0
023	↓	60	A				↓	3	082 / 0	031 / 0	032 / 0
024	N3C1FOT3	D	0				1.272	3	084 / 2	035 / 1	036 / 1
025	↓	E	0				↓	3	072 / 0	050 / 1	049 / 0
026	↓	60	A		↓		↓	3	085 / 0	034 / 0	033 / 0
027	N3C2FO	D	0		3.357		0.	3	079 / 0	038 / 0	037 / 0
028	↓	E	0					3	074 / 0	047 / 0	048 / 0
029	↓	60	A			↓		3	078 / 0	039 / 1	040 / 0
030	N3C2F3	D	0			20.		3	076 / 0	043 / 0	044 / 0
031	↓	E	0					3	075 / 0	046 / 0	045 / 0
032	↓	60	A	↓	↓	↓		3	077 / 0	042 / 0	041 / 0
033	N1C3FO	D	0	25.	4.257	0.		3	101 / 0	243 / 0	244 / 0
034	↓	E	0					3	115 / 0	242 / 0	241 / 0
035	↓	60	A	↓				3	119 / 0	246 / 0	245 / 0
036	N3C3FO	D	0	40.				2	097 / 0	255 / 0	
037	↓	E	0					2	116 / 0	259 / 0	
038	↓	60	A			↓		3	098 / 0	258 / 0	257 / 0
039	N3C3F1	D	0			7.5		3	104 / 0	282 / 0	281 / 0
040	↓	E	0	↓	↓	↓	↓	3	120 / 0	304 / 0	305 / 0

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CLM	CN	CY	CBL	CYN	CA	CAB	CPB1	CPC	CPB2			10
										IDPVAR(1)	IDPVAR(2)	NDV

COEFFICIENTS:

α or β SCHEDULES: α: D = 50 TO 70 DEG, Δα = 2 DEG; E = 70 TO 90 DEG, Δα = 2 DEG
β: A = -10 TO 10 DEG, Δβ = 2 DEG

NASA-MSFC-MAF

ORIGINAL PAGE IS OF POOR QUALITY

TABLE II. (Continued)

TEST MSFC TWT 526 DATA SET COLLATION SHEET

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES α_c	ℓ_{ey}	α_F	δ_T	NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) 1.96	2.74	4.96
R61 041	N3C3F1	60	A	40.	4.257	7.5	0.	3	111 / 0	259 / 0	260 / 0
042	N3C3F2	D	0			15.		3	105 / 0	273 / 0	280 / 0
043		E	0					3	121 / 0	303 / 0	302 / 0
044	N1C3F3	D	0	25.		20.		3	108 / 0	296 / 0	299 / 0
045		E	0					3	124 / 0	135 / 0	301 / 0
046		60	A					3	109 / 0	262 / 0	261 / 0
047	N2C3F3	D	0	33.				3	107 / 0	297 / 0	296 / 0
048		E	0					3	123 / 1	134 / 0	300 / 0
049		60	A					0	—	—	—
050	N3C3F3	D	0	40.				2	106 / 0	265 / 0	
051		E	0					2	122 / 0	133 / 0	
052		60	A					3	110 / 0	263 / 0	264 / 0
053	N3C3F0T1	D	0			0.	0.424	3	102 / 0	290 / 0	283 / 0
054		E	0					3	117 / 0	127 / 0	126 / 0
055		60	A					3	112 / 0	268 / 0	267 / 0
056	N3C3F0T2	D	0				0.848	3	100 / 0	291 / 0	292 / 0
057		E	0					3	118 / 0	128 / 0	129 / 0
058		60	A					3	095 / 0	273 / 0	279 / 0
059	N3C3F0T3	D	0				1.272	2	103 / 0	294 / 0	
060		E	0					2	113 / 0	131 / 1	

1 7 13 19 25 31 37 43 49 55 61 67 75 76

CLM CN CY CBL CYN CA CAB CPB1 CPC CPB2 | 10

COEFFICIENTS: → IDPVAR(1) IDPVAR(2) NDV

α or β SCHEDULES

α : D = 50 to 70 Deg., Δα = 2 Deg.; E = 70 to 90 Deg., Δα = 2 Deg.

β : A = -10 to 10 Deg., Δβ = 2 Deg.

ORIGINAL PAGE IS OF POOR QUALITY

CYLINDRICAL BOOSTER
LMSC
DR#1242 A-1- 189

TABLE II. (Continued)

TEST MSFC TWT 526 DATA SET COLLATION SHEET

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES α_L	ℓ_{CY}	α_F	S_T	NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) 1.96	2.74	4.96									
R61061	N3C3F0T3	60	A	40.	4.257	0.	1.272	3	113 / 0	274	275 / 0									
062	N1C1F1	D	0	25.	2.451	7.5	0.	1	093 / 0	—	—									
063		E	0					0	—	—	—									
064		60	A					1	094 / 0	—	—									
065	N2C1F0	D	0	33.		0.		3	231 / 0	137 / 0	136 / 0									
066		E	0					3	226 / 0	162 / 0	161 / 0									
067		60	A					0	—	—	—									
068	N2C1F3	D	0	33.		20.		3	232 / 1	138 / 1	139 / 1									
069		E	0					3	227 / 1	159 / 0	160 / 0									
070		60	A					0	—	—	—									
071	N3C1F1T2	D	0	40.		7.5	.848	3	233 / 1	152 / 1	140 / 1									
072		E	0					3	228 / 1	158 / 1	157 / 0									
073		60	A					3	234 / 0	142 / 0	143 / 0									
074	N3C1F1T1	D	0				.424	3	236 / 1	146 / 0	147 / 0									
075		E	0					3	230 / 1	155 / 0	156 / 0									
076		60	A					3	235 / 0	145 / 0	144 / 0									
077	N3C1F1T3	D	0				1.272	3	237 / 0	149 / 1	148 / 1									
078		E	0					2	—	154 / 1	153 / 1									
079		60	A					3	238 / 0	150 / 0	151 / 0									
080	N3C2F1	D	0		3.357		0.	3	218 / 0	201 / 0	202 / 0									

1	7	13	19	25	31	37	43	49	55	61	67	73 76
CLM	CN	CY	CBL	CYN	CA	CAB	CPB1	CPC	CPB2			10

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES
α: D = 50 to 70 Deg., Δα = 2 Deg. ; E = 70 to 90 Deg., Δα = 2 Deg.
β: A = -10 to 10 Deg., Δβ = 2 Deg.

ORIGINAL PAGE IS OF POOR QUALITY

TABLE II. (Continued)

TEST MSFC TWT 526 DATA SET COLLATION SHEET

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES α_c	ℓ_{cy}	α_F	S_T	NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) 1.96	2.74	4.96
R61 081	N3C2F1	E	0	40	3357	7.5	0.	3	219 / 0	163 / 0	164 / 0
082		60	A					3	205 / 0	204 / 0	203 / 0
083	N3C2F0T2	D	0			0.	.848	3	216 / 1	193 / 1	194 / 1
084		E	0					3	221 / 1	166 / 1	165 / 1
085		60	A					3	207 / 0	196 / 0	195 / 0
086	N3C2F0T1	D	0				.424	3	217 / 2	200 / 1	199 / 0
087		E	0					3	220 / 1	167 / 1	168 / 0
088		60	A					3	206 / 0	197 / 0	198 / 0
089	N3C2F1T1	D	0			7.5		3	212 / 0	178 / 1	177 / 1
090		E	0					3	225 / 1	175 / 0	176 / 0
091		60	A					3	211 / 0	179 / 0	180 / 0
092	N3C2F1T2	D	0				.848	3	213 / 1	184 / 1	183 / 1
093		E	0					3	224 / 1	174 / 0	173 / 0
094		60	A					3	210 / 0	182 / 0	181 / 0
095	N3C2F0T3	D	0			0.	1.272	3	215 / 1	192 / 1	191 / 1
096		E	0					3	222 / 1	170 / 0	169 / 1
097		60	A					3	208 / 0	189 / 0	190 / 0
098	N3C2F1T3	D	0			7.5		3	214 / 1	185 / 1	186 / 1
099		E	0					3	223 / 1	171 / 0	172 / 0
100		60	A					3	209 / 0	188 / 0	187 / 0

1	7	13	19	25	31	37	43	49	55	61	67	73 75
CLM	CN	CY	CBL	CYN	CA	CAB	CPB1	CPC	CPB2			10

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

α: D = 50 to 70 Deg. Δα = 2 Deg. E = 70 to 90 Deg. Δα = 2 DEG.

β: A = -10 to 10 Deg. Δβ = 2 Deg.

ORIGINAL PAGE IS OF POOR QUALITY

CYLINDRICAL BOOSTER
LMSC
DR#1242 A-1- 191

TABLE II. (Continued)

TEST MSFC TWT 526 DATA SET COLLATION SHEET

CYLINDRICAL BOOSTER
LMSC
DR#1242 A-1- 192

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	α_c	θ_{cy}	α_p	S_T	NO. of RUNS	MACH 1.96	MACH 2.74	MACH 4.96
RGI101	N2C3F0	D	0	33.	4.257	0.	0.	3	325 / 0	250 / 0	249 / 0
102	↓	E	0	↓	↓	↓	↓	3	324 / 0	251 / 0	253 / 0
103	↓	60	A	↓	↓	↓	↓	3	332 / 0	247 / 0	248 / 0
104	N3C3F1T1	D	0	40.	↓	7.5	.424	2		237 / 0	288 / 0
105	↓	E	0	↓	↓	↓	↓	2		307 / 0	306 / 0
106	↓	60	A	↓	↓	↓	↓	3	331 / 0	269 / 0	270 / 0
107	N3C3F1T2	D	0	↓	↓	↓	.818	2		283 / 0	284 / 0
108	↓	E	0	↓	↓	↓	↓	2		308 / 0	309 / 0
109	↓	60	A	↓	↓	↓	↓	3	330 / 0	272 / 0	271 / 0
110	N3C3F1T3	D	0	↓	↓	↓	1.272	1		299 / 0	
111	↓	E	0	↓	↓	↓	↓	1		311 / 0	
112	↓	60	A	↓	↓	↓	↓	3	329 / 0	277 / 0	278 / 0
113	N3C3F0 + T.S.	D	0	↓	↓	0.	0.	1	–	318 / 0	–
114	↓	E	0	↓	↓	↓	↓	1	–	319 / 0	–
115	N3C3F0T3 + T.S.	D	0	↓	↓	↓	1.272	1	–	317 / 0	–
116	↓	E	0	↓	↓	↓	↓	1	–	320 / 0	–

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CLM	CN	CY	CBL	CYN	CA	CAB	CPBL	CPC	CPBZ			1 α

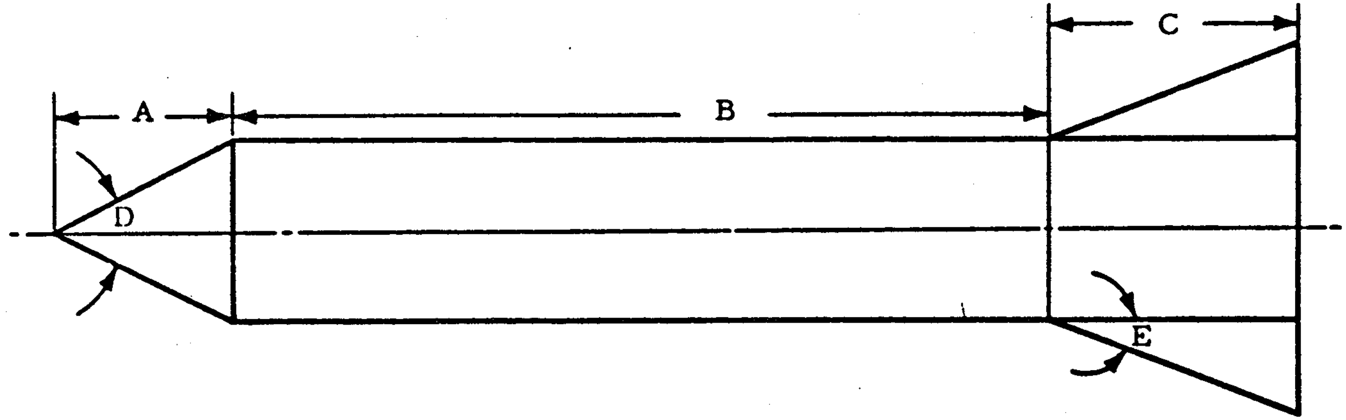
IDPVAR(1) | IDPVAR(2) | NDV

COEFFICIENTS: α: D = 50 to 70 Deg, Δα = 2 Deg. E = 70 to 90 Deg. Δα = 2 Deg.

α or β SCHEDULES: β: A = -10 to 10 Deg, Δβ = 2 Deg.

NASA-MSFC-MAF

ORIGINAL PAGE IS OF POOR QUALITY

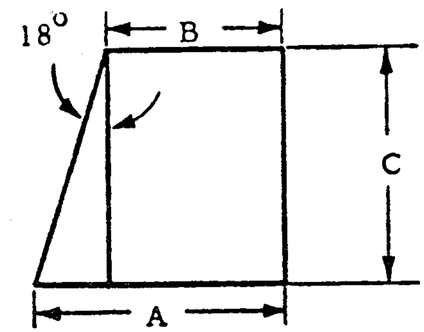


A		B		C		D (deg)		E (deg)	
N1	.9648	C1	2.457	F0	1.35	N1	50	F0	0
N2	.6929	C2	3.357	F1	1.35	N2	66	F1	7.5
N3	.5363	C3	4.257	F2	1.35	N3	80	F2	15
				F3	1.35			F3	20

NOTE: All dimensions in inches (Model Scale)

Fig. 2 - Model Geometry
(a) Cones, Cylinders and Flares

Planform View of Fin



NOTE: All dimensions in inches (Model Scale)

Fin	A	B	C
T1	0.691	0.45	0.743
T2	0.868	0.45	1.287
T3	1.013	0.45	1.734

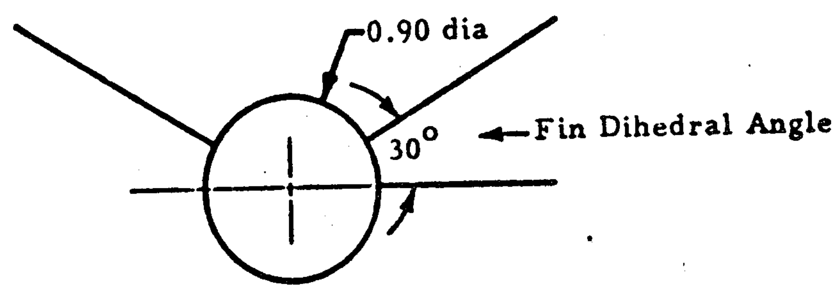


Fig. 2- Concluded
(b) Fins

TEST MSFC 518 DATA SET/RUN NUMBER

COLLATION SUMMARY

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES Γ				NO. of RUNS	0.6	0.8	0.9	1.0	1.1	1.2	1.46	1.96	2.74	3.5	4.96	
									MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE)											
R54 001	N_1B_1	A	0	-				7	001/0		002/0		003/0	004/0		063/0	064/0		065/0	
002		B	0	-				6			007/0		006/0	005/0		062/0	067/0		066/0	
003	$N_1B_1F_2$	A	0	30				3	009/0		012/0			011/0						
004		B	0					3	013/0		008/0			010/0						
005		50	C					2			014/0			015/0						
006		30	C					3	018/0		017/0			016/0						
007	$N_1B_1F_6$	A	0					3	042/0		041/0			043/0						
008		B	0					3			040/0			039/0					072/0	
009		50	C					2			046/0			047/0						
010		30	C					2			045/0			044/0						
011	$N_1B_1F_2$	A	0	0				1						030/0						
012		B	0					1						029/0						
013	$N_1B_1F_2F_3$	30	C					1						031/0						
014	$N_1B_1F_6$	A	0					3	036/0		035/0			034/0						
015		B	0					2			037/0			038/0						
016	$N_1B_1F_6F_4$	30	C					1						033/0						
017	$N_1B_1F_2$	A	0	45				1						027/0						
018		B	0					1						028/0						
019		30	C					1						026/0						
020		50	C					1						025/0						

TEST RUN NUMBERS

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CLM	CN	CY	CBL	CYN	CA	CAB	CAF	CAC	XCP	IDPVAR(1)	IDPVAR(2)	NDV 10

COEFFICIENTS:

α or β SCHEDULES

A: $\alpha = 20^\circ$ to 40°

B: $\alpha = 40^\circ$ to 60°

C: $\beta = -10^\circ$ to $+10^\circ$

CYLINDRICAL BOOSTER
MSFC
DR#1208 A-1- 195

CYLINDRICAL BOOSTER
MSFC
DR#1208 A-1- 196

TEST MSFC 518 DATA SET/RUN NUMBER

COLLATION SUMMARY

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES Γ				NO. of RUNS	0.6	0.8	0.9	1.0	1.1	1.2	1.46	1.96	2.74	3.5	4.96	
R54 021	$N_1B_1F_6$	A	0	45				5	054/0		053/0			052/0		059/0			069/0	
022		B	0					4			055/0			056/0		058/0			068/0	
023		30	C					4			050/0			051/0		060/0			070/0	
024		50	C					4			049/0			048/0		061/0			071/0	
025	$N_1B_1F_2F_3$	30	C	30				3	024/0		023/0			022/0						
026		50	C					3	019/0		020/0			021/0						
027	$N_1B_1F_2$	D	0	0				1	032/0											
028	$N_1B_1F_6$ + TS	A	0	45				1	057/0											

MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE)

TEST RUN NUMBERS

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CLM	CN	CY	CBL	CYN	CA	CAB	CAF	CAC	XCP			10

COEFFICIENTS: IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

A: $\alpha = 20^0$ to 40^0

B: $\alpha = 40^0$ to 60^0

C: $\beta = -10^0$ to 10^0

D: $\alpha = 30^0$ to 40^0

ORIGINAL PAGE IS OF POOR QUALITY

TEST MSFC 518 DATA SET/RUN NUMBER

COLLATION SUMMARY

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES Γ				NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) 0.6	0.8	0.9	1.0	1.1	1.2	1.46	1.96	2.74	3.5	4.96	
R54 029	N_2B_2	A	0	-				2			094/0			095/0						
030	↓	B	0	-				5			093/0			092/0		085/0	074/0		073/0	
031	$N_2B_2F_7$	B	0	45				2									076/0		075/0	
032		50	C	45				2									078/0		077/0	
033		B	0	30				5			090/0			091/0		086/0	082/0		081/0	
034		50	C	30				5			089/0			088/0		087/0	080/0		079/0	
↓ 035	↓	B	0	0				2									084/0		083/0	

TEST RUN NUMBERS

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CLM	CN	CY	CBL	CYN	CA	CAB	CAF	CAC	XCP			10
										IDPVAR(1)	IDPVAR(2)	NDV

COEFFICIENTS:

α or β SCHEDULES

A: $\alpha = 20^\circ$ to 40°

B: $\alpha = 40^\circ$ to 60°

C: $\beta = -10^\circ$ to 10°

CYLINDRICAL BOOSTER
MSFC
DR#1208 A-1- 197

ORIGINAL PAGE IS OF POOR QUALITY

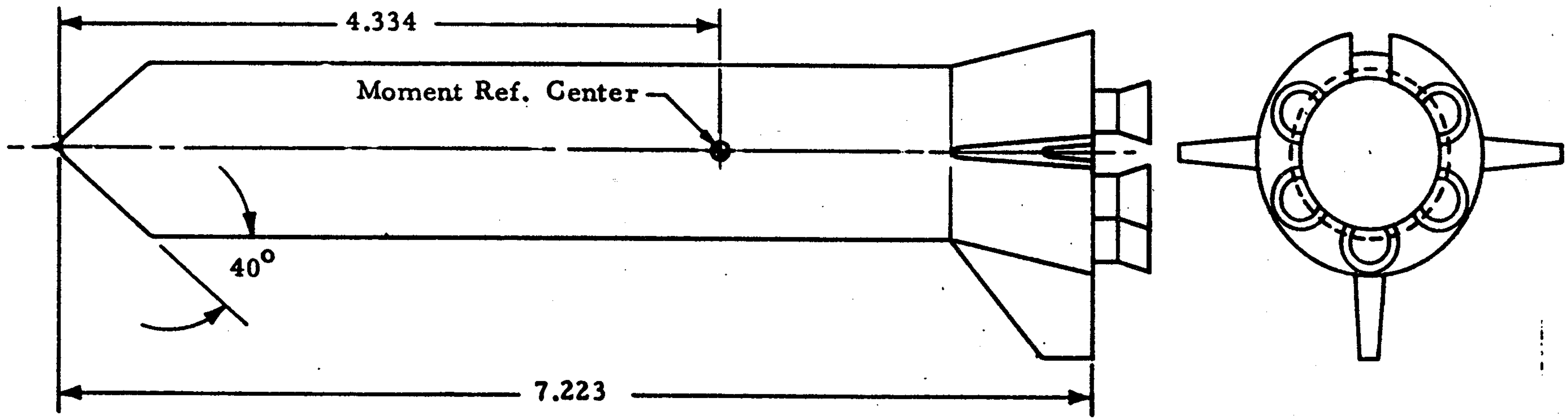


Figure 3. MSFC Pressure Fed Booster
Moment Reference Center Location

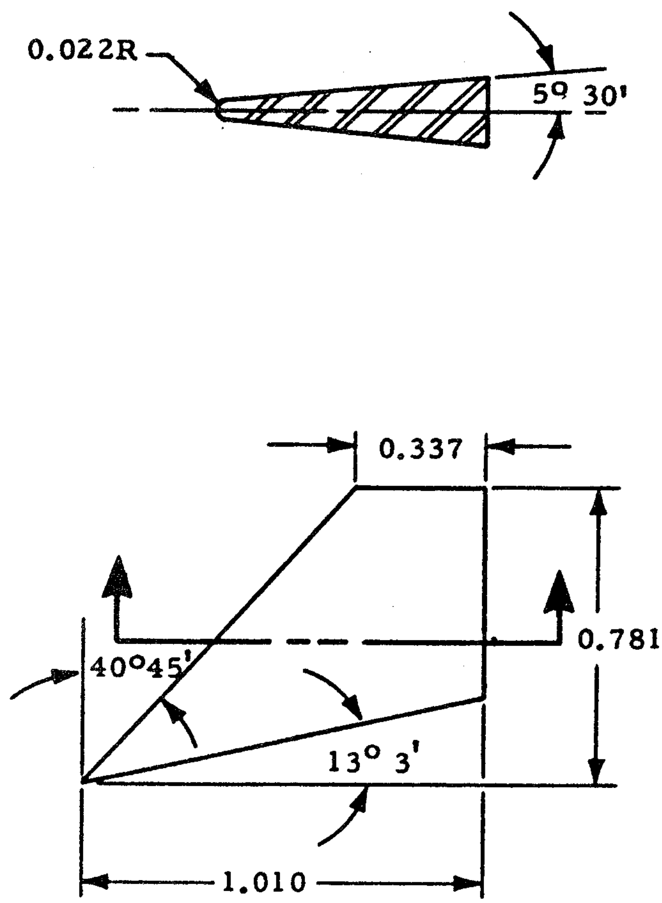


Figure 4 - Fins F2, F3

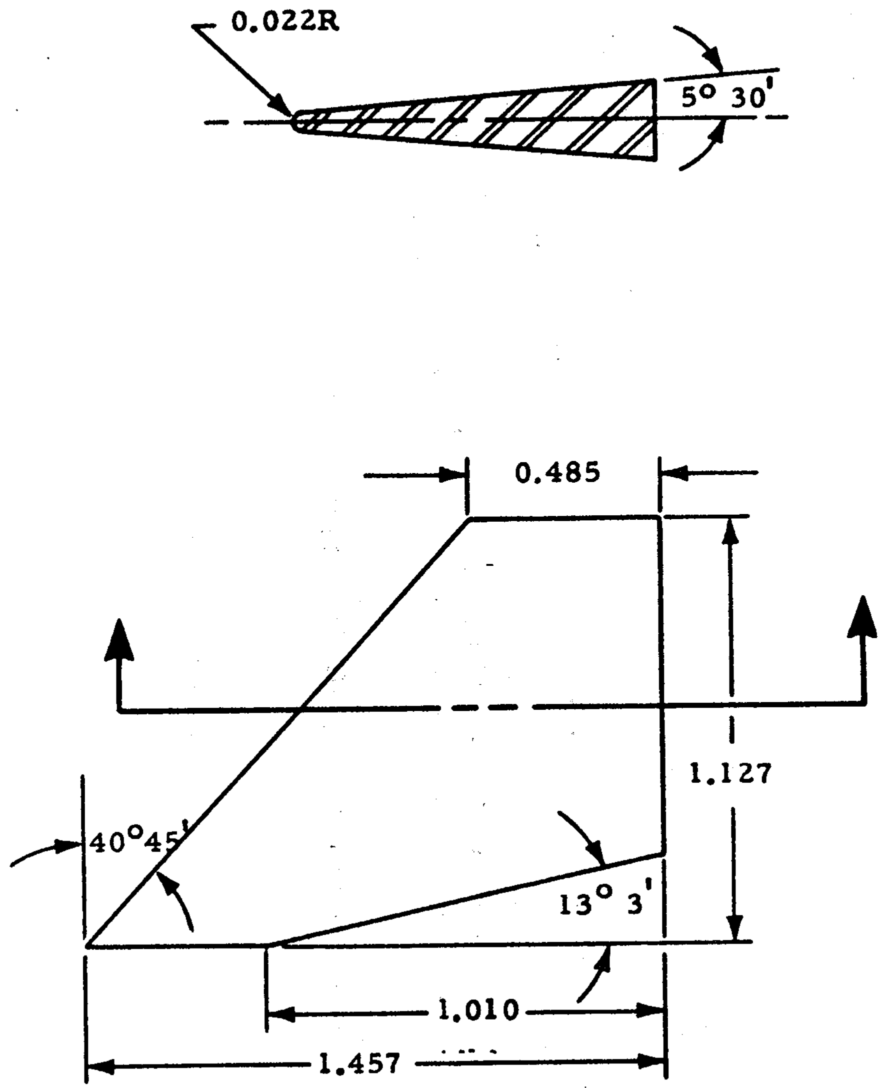
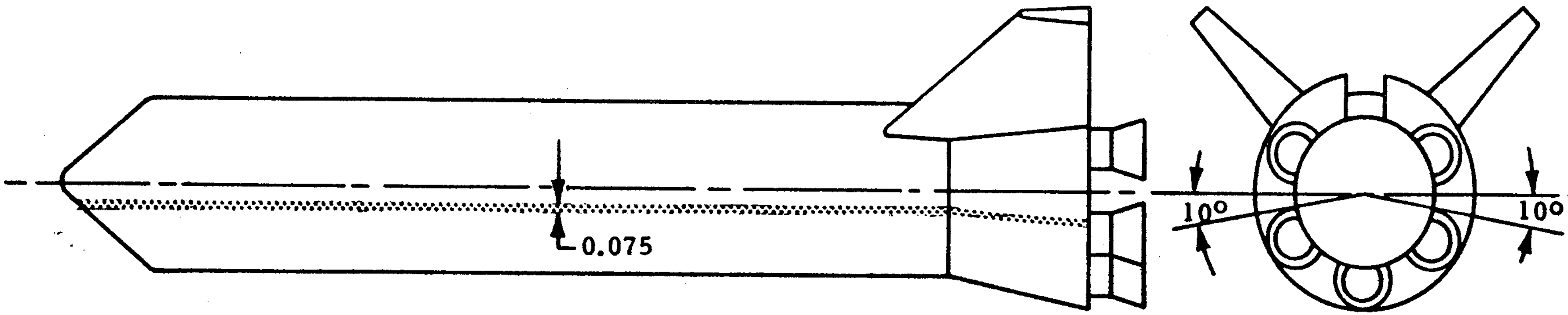


Figure 5 - Fins F4, F6



Transition strip No. 120 carborundum grit

Figure. 6 - Transition Strip

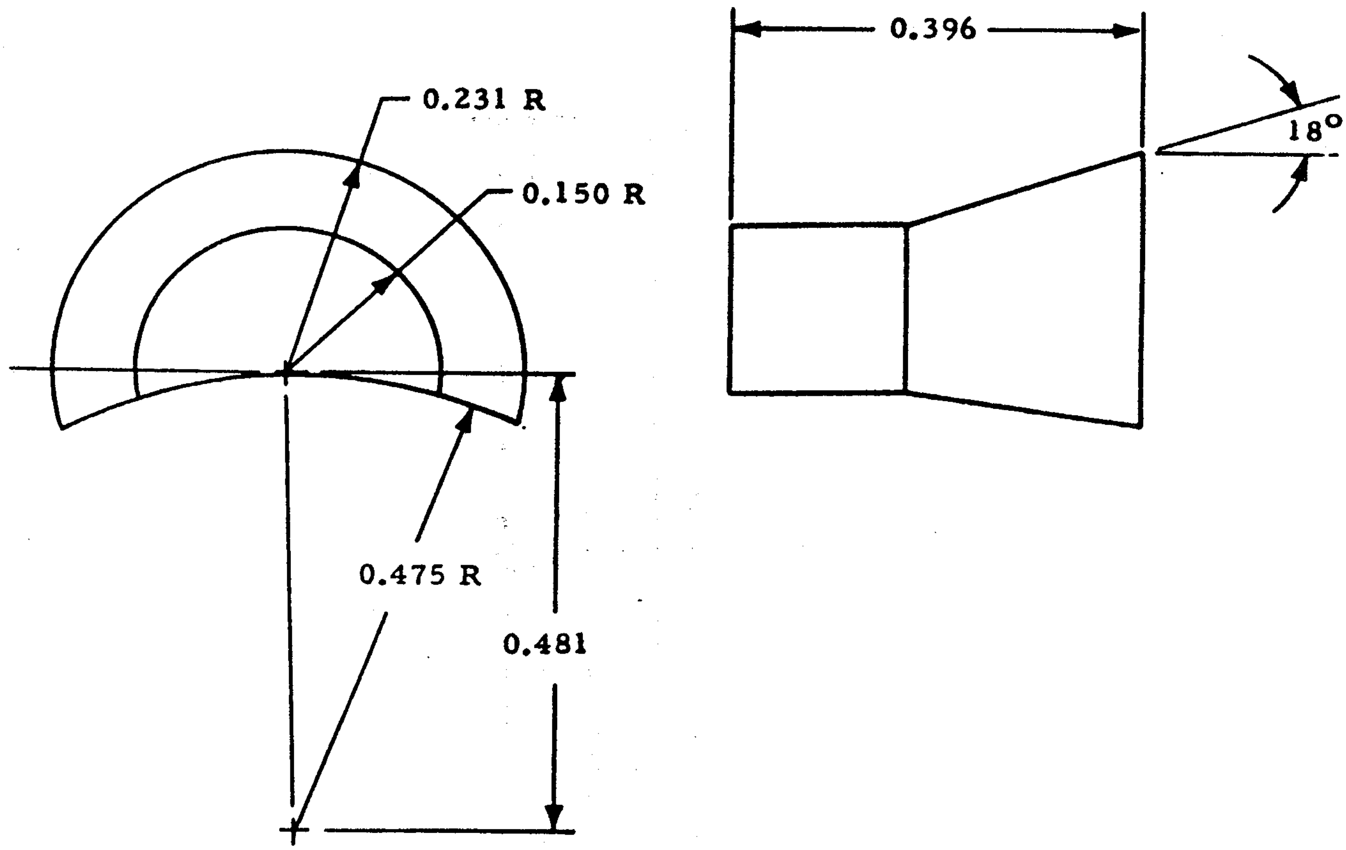


Figure. 7 - **Rocket Engines for N1B1**

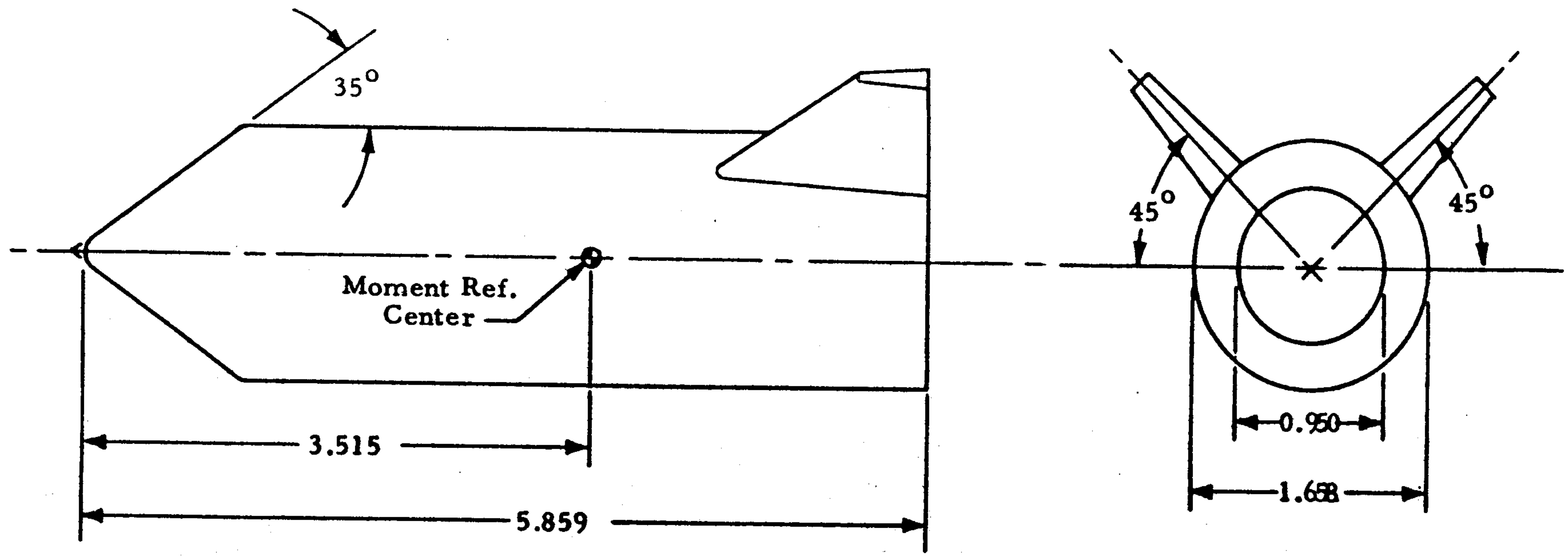


Figure 9 - MSFC Pressure Fed Booster Configuration X
Moment Reference Center Location

CYLINDRICAL BOOSTER
MSFC
DR#1208 A-1- 203

CYLINDRICAL BOOSTER
MSFC
DR#1208 A-1- 204

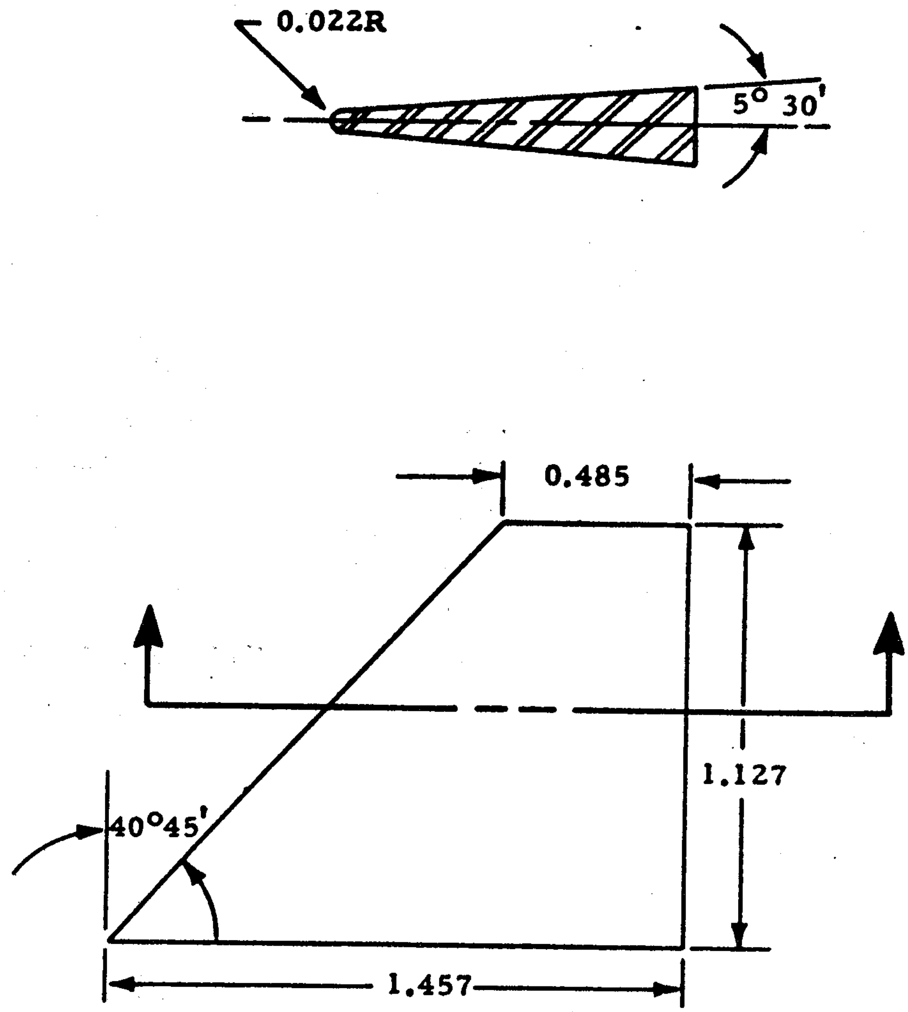
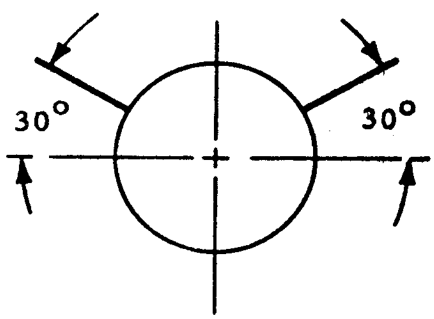
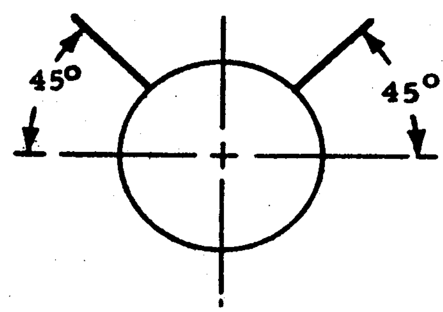


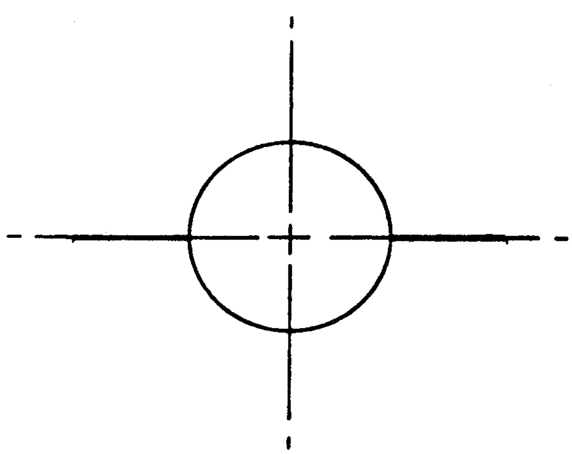
Figure 10. Fins F7



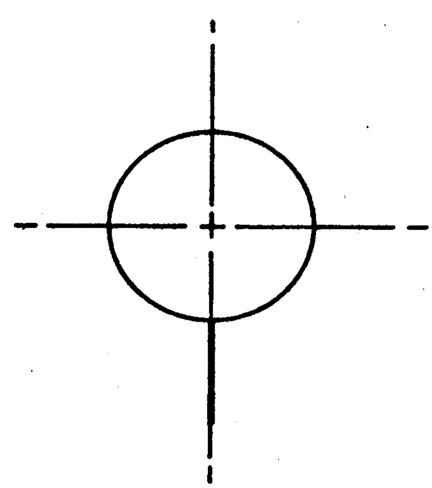
F2, F6, F7 30° Dihedral



F2, F6, F7 45° Dihedral



F2, F6, F7 0° Dihedral



F3, F4 Fin Vertical

Figure 11. Fin Positions

CYLINDRICAL BOOSTER
MSFC
DR#1226 A-1- 206 6

TABLE II.

TEST MSFC TWT 521 DATA SET COLLATION SHEET

☐ PRETEST

☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES Γ				NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) 0.6	0.8	0.9	1.0	1.1	1.2	1.46	1.96	2.74	3.48	4.96	
R55 001	N_1E_1	0	C	–				3			075/0			074/0	070/0					
002		30	C	–				6			062/0			061/0		066/0	005/0	[illegible]	[illegible]	
003		51	C	–				6			065/0			064/0		065/0	009/0	005/0	006/0	
004	$N_1B_1F_2$	B	0	30				4								066/0	016/0	017/0	018/0	
005		30	C					4								[illegible]	[illegible]	023/0	024/0	
006		51	C					4								069/0	021/0	020/0	019/0	
007	$N_1B_1F_6$	D	0					3			071/0			075/0	080/0					
008		B	0					4								070/0	015/0	014/0	013/0	
009		0	C					3			076/0			075/0	080/0					
010		30	C					4								077/0	010/0	011/0	012/0	
011		51	C					4								071/0	[illegible]	008/0	007/0	
R55 012	N_1B_3	D	0	–				1											099/0	
013		A	0	–				7			120/0			121/0	116/0	115/0	110/0	109/0	108/0	
014		B	0	–				6			054/0			055/0		096/0	033/0	032/0	031/0	
015		E	0	–				4								100/0	[illegible]	[illegible]	[illegible]	
016		0	C	–				3			084/0			083/0	085/0					
017		30	C	–				6			051/0			049/0		047/0	027/0	026/0	025/0	
018		51	C	–				6			053/0			059/0		[illegible]	[illegible]	029/0	[illegible]	
019	$N_1B_1F_{17}$	D	0	30				3			[illegible]			079/0	[illegible]					

1 7 13 19 25 31 37 43 49 55 61 67 75 76

CLM	CN	CY	CBL	CYN	CA	CAB	CAF	CAC	XCP			IC

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

C: β = −10° To 10° Δβ = 2° A: α = 20° To 40° Δα = 2°
B: α = 40° To 60° Δα = 2° E: α = 60° To 80° Δα = 2°
D: α = −10° To 10° Δα = 2°

NASA-MSFC-MAF

ORIGINAL PAGE IS OF POOR QUALITY

TEST MSFC TWT 521 DATA SET COLLATION SHEET

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES Γ				NO. of RUNS	0.6	0.8	0.9	1.0	1.1	1.2	1.46	1.96	[illegible]	3.93	4.96	
RS5 020	$N_1B_3F_{12}$	A	0	30				7			117/0			118/0	[illegible]	119/0	113/0	112/0	111/0	
021	↓	B	0	↓				4								045/0	034/0	035/0	036/0	
022	↓	E	0	↓				4								101/0	104/0	103/0	102/0	
023	↓	O	C	↓				3			081/0			082/0	05[illegible]/0					
024	↓	30	C	↓				6			059/0			060/0		047/0	048/0	049/0	042/0	
025	↓	51	C	↓				4								049/0	051/0	052/0	053/0	
RS5 026	N_2B_2	E	0	—				4								091/0	095/0	097/0	096/0	
027	$N_2B_2F_7$	E	0	30				4								094/0	093/0	099/0	095/0	
RS5 028	N_2B_4	A	0	—				4								125/0	13[illegible]/0	131/0	130/0	
029	↓	B	0	—				4								126/0	12[illegible]/0	12[illegible]/0	127/0	
030	↓	E	0	—				4								137/0	13[illegible]/0	131/0	13[illegible]/0	
031	N_2B_5	A	0	—				1											133/0	
032	↓	B	0	—				1											134/0	
033	↓	E	0	—				2										140/0	135/0	

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CLM	CN	CY	CBL	CYN	CA	CAB	CAF	CAC	XCP			10

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

A: $\alpha = 20°$ To $40°$ $\Delta\alpha = 2°$ C: $\beta = -10°$ To $10°$ Δ [illegible]

B: $\alpha = 40°$ To $60°$ $\Delta\alpha = 2°$

E: $\alpha = 60°$ To $80°$ $\Delta\alpha = 2°$

ORIGINAL PAGE IS OF POOR QUALITY

CYLINDRICAL BOOSTER
MSFC
DR#1226 A-1- 207

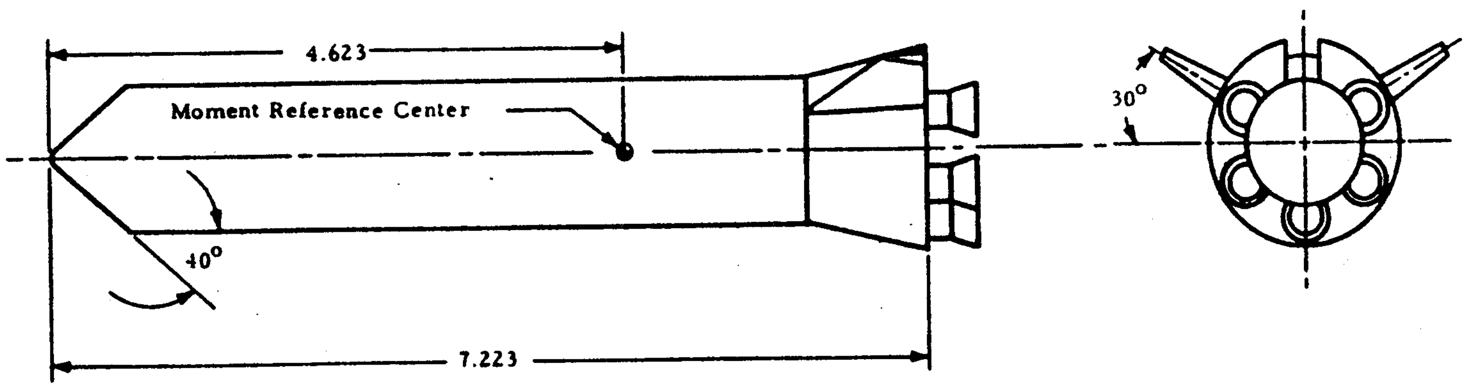


Fig. 2. MSFC Pressure Fed Booster N1B1F2 Moment Reference Center Location

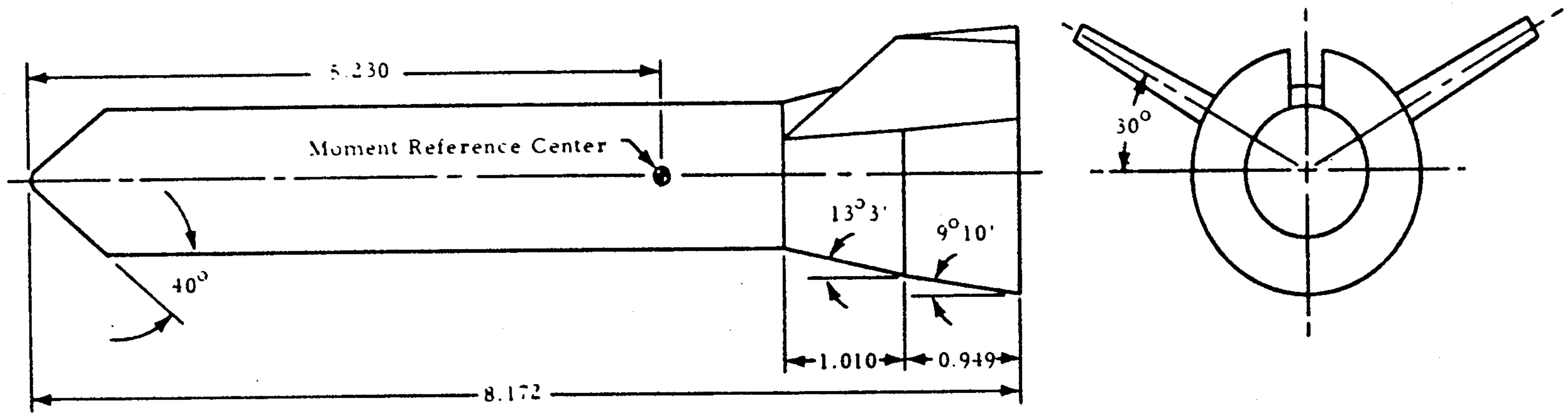


Fig. 3 - MSFC Pressure Fed Booster N1B3F12 Moment Reference Center Location

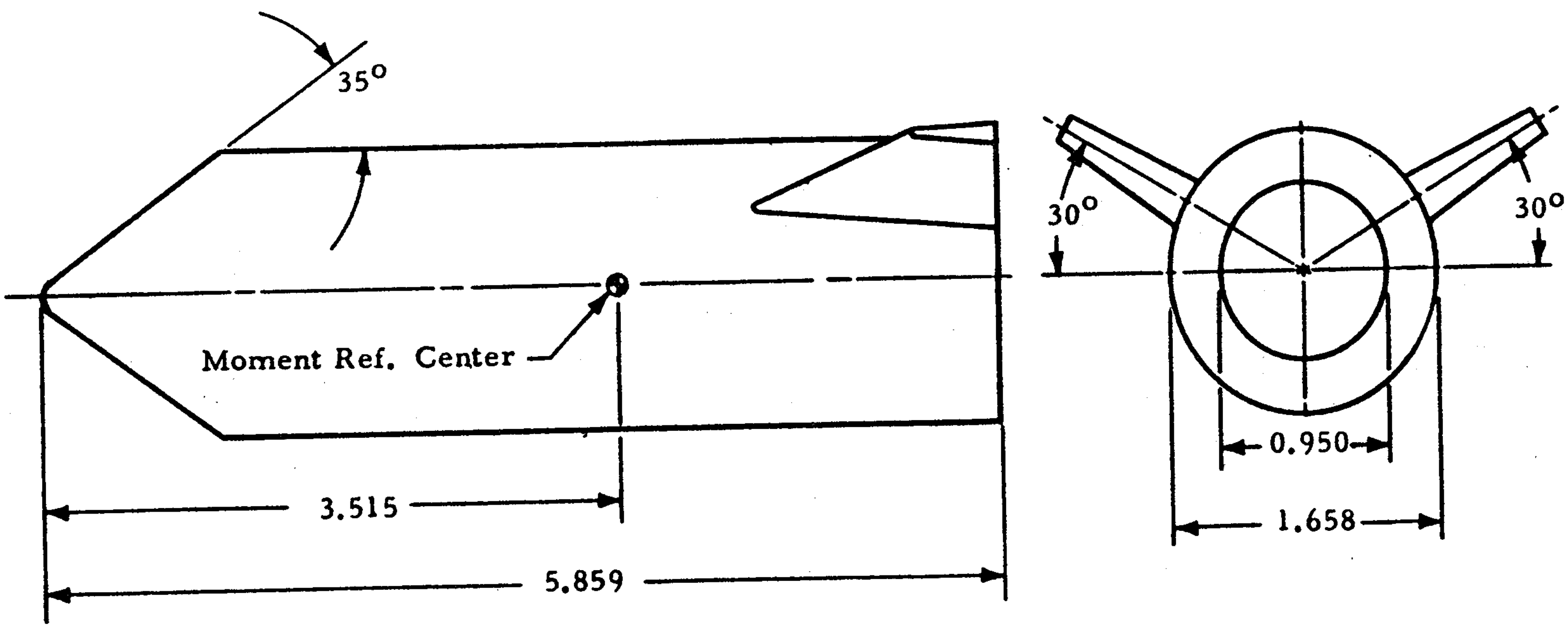


Fig. 4 - MSFC Pressure Fed Booster N2B2F7 Moment Reference Center Location

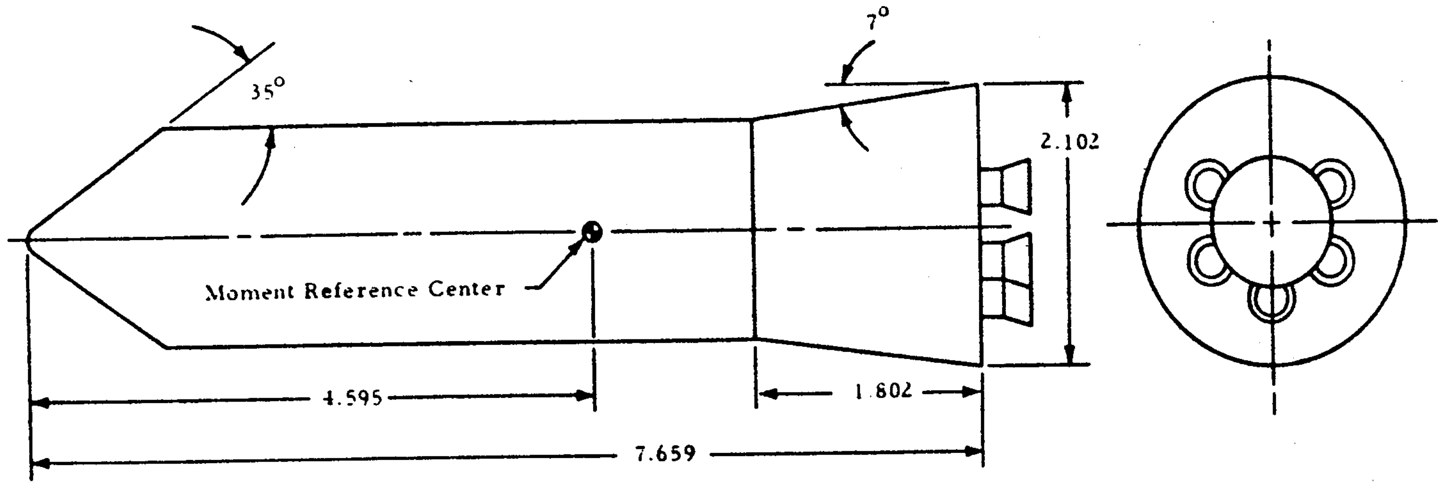


Fig. 5 - MSFC Pressure Fed Booster N2B4 Moment Reference Center Location

CYLINDRICAL BOOSTER
MSFC
DR#1226 A-1- 211

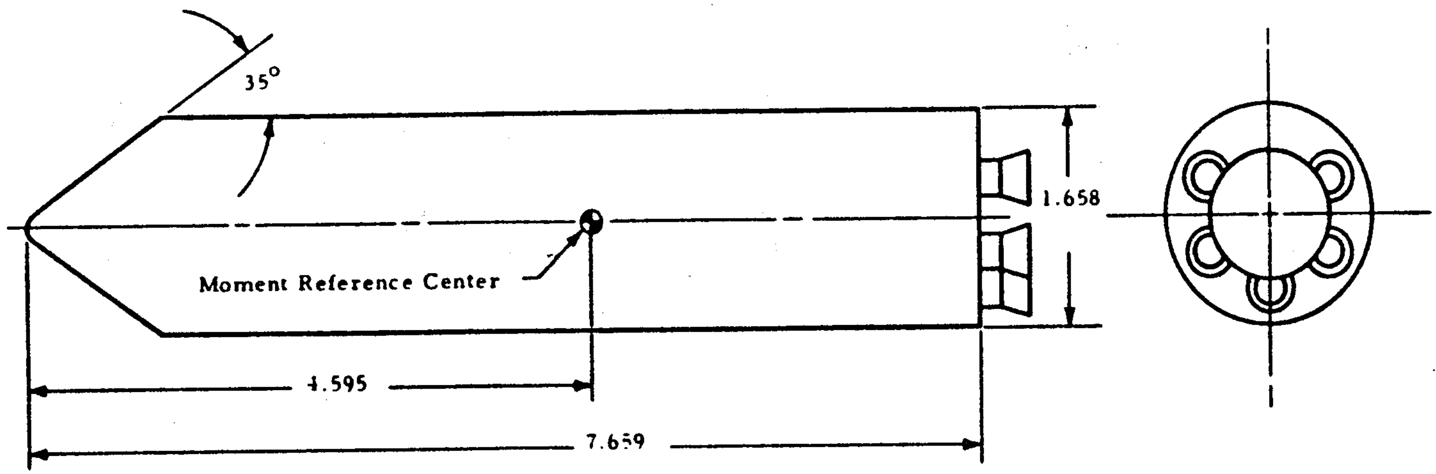


Fig. 6 - MSFC Pressure Fed Booster N2B5 Moment Reference Center Location

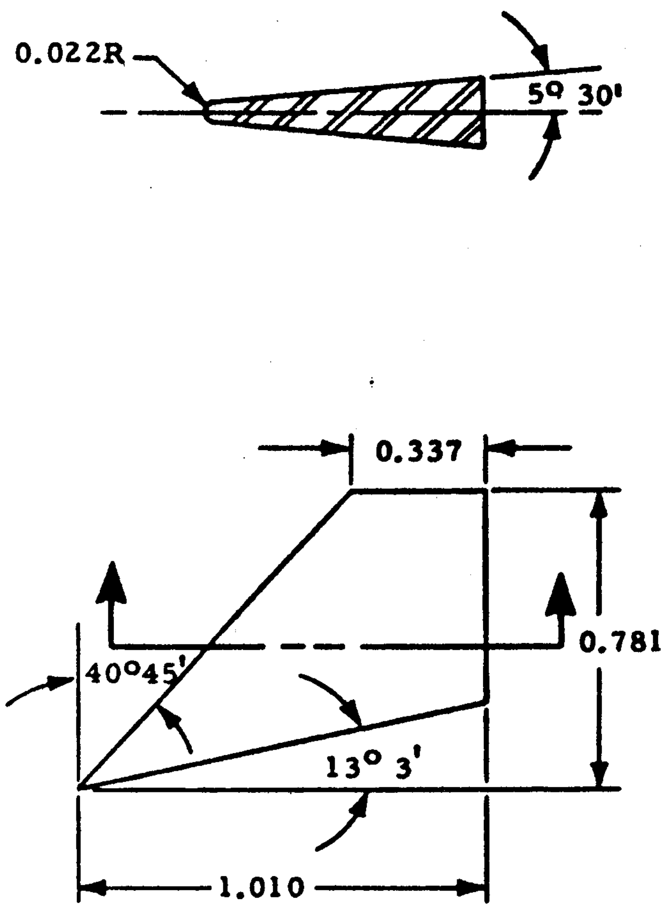


FIGURE 7. FINS F2

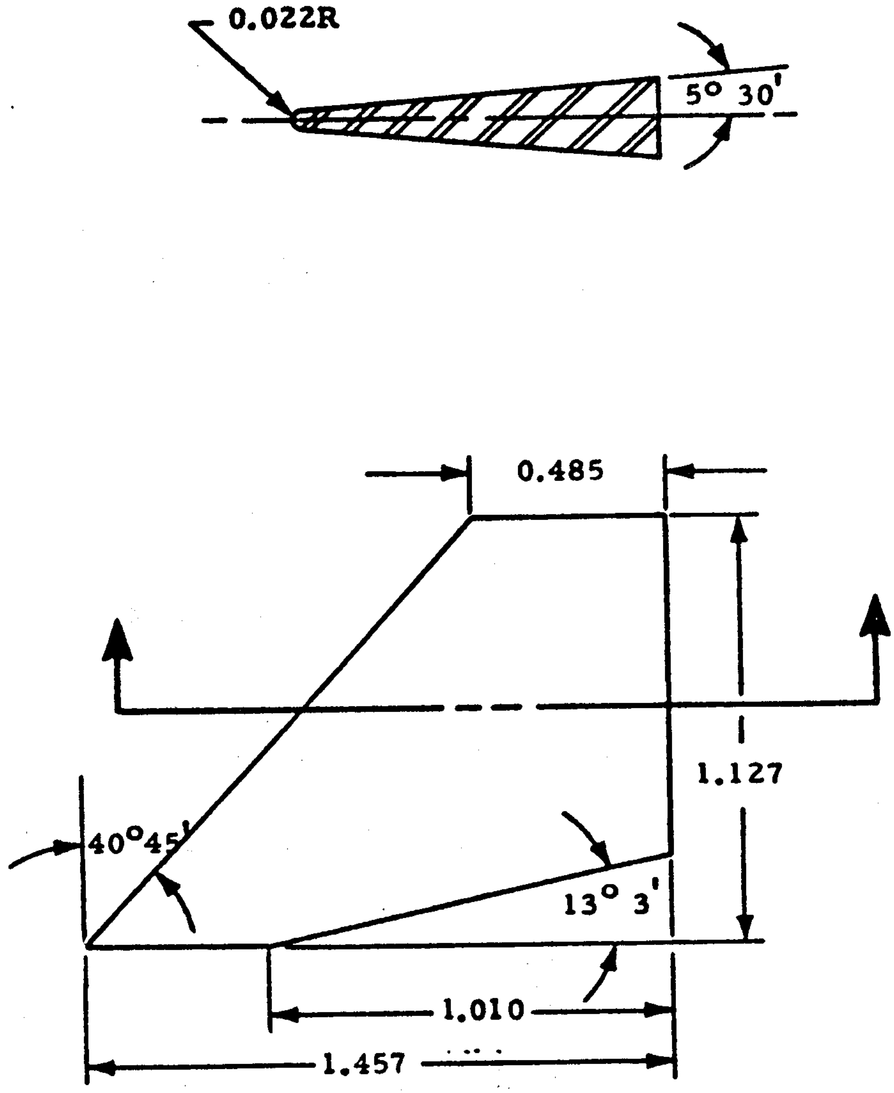


FIGURE 8. FINS F6

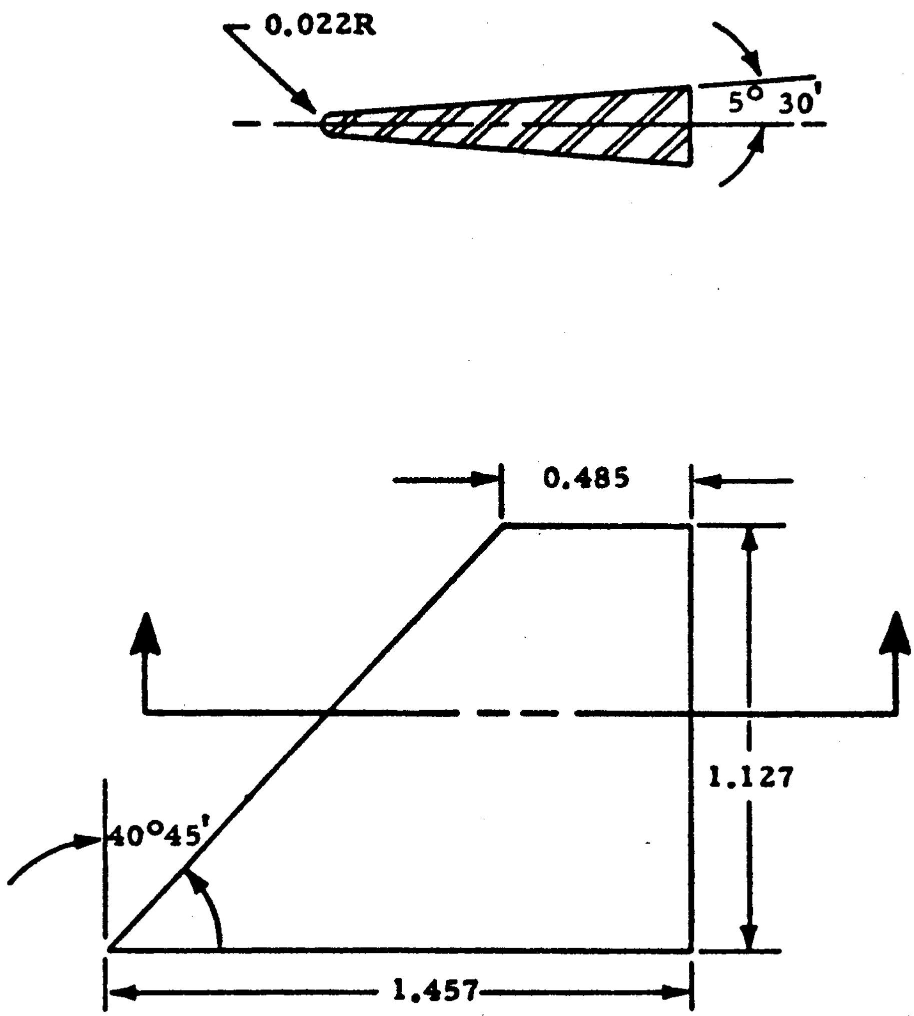


FIGURE 9. FINS F7

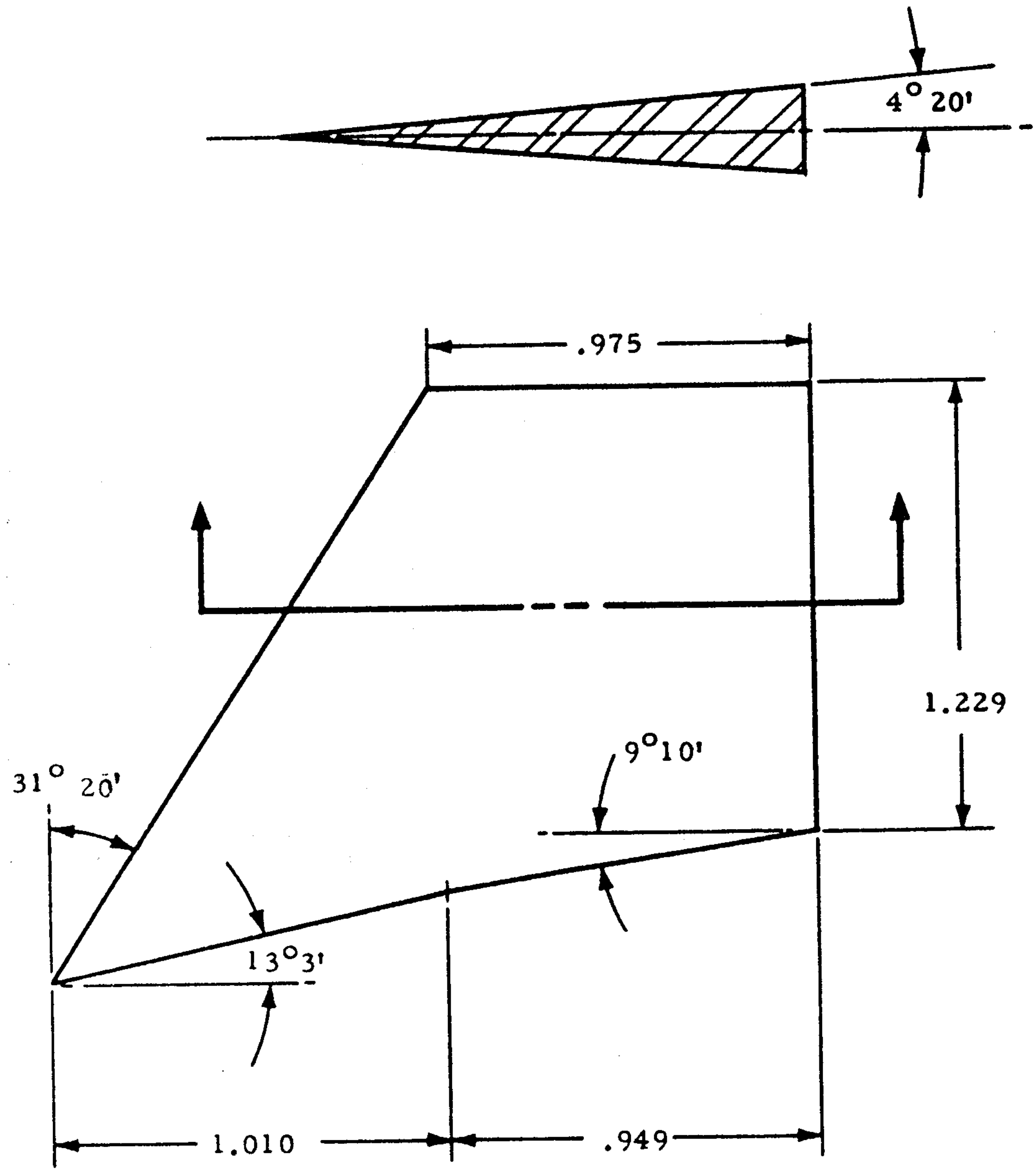


Fig. 10- Fins F12

CYLINDRICAL BOOSTER
MSFC
DR#1226 A-1- 217

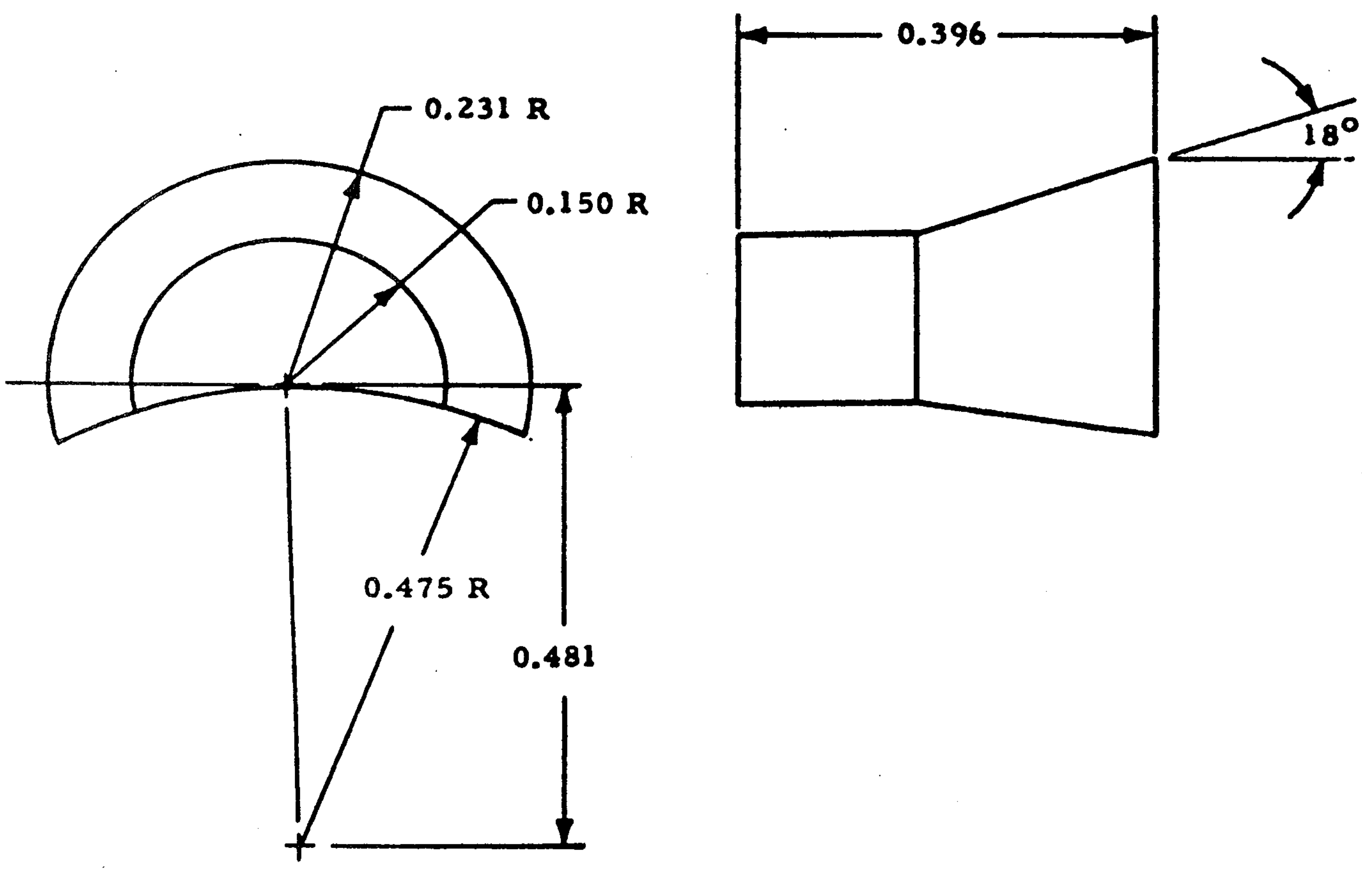


Fig. 11. Rocket Engines for N1B1, N2B4 and N2B5

CYLINDRICAL BOOSTER
MSFC
DR#1240 A-1- 218

☐ PRETEST

☒ POSTTEST

TABLE-II.

TEST MSFC TWT 524 DATA SET COLLATION SHEET

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS δ_F	PARAMETERS LOC	PARAMETERS Γ	NO. RUNS	MACH NUMBERS 0.9	1.2	1.46	1.96	2.74	3.48	4.96			
R59 001	$N_1 B_1 R_1$	A	O	—	—	—	4	1	2		12			13			
002		B	O				4	4	3		11			14			
003		30	E				4	8	7		9			16			
004		50	E				4	5	6		10			15			
005	$N_2 B_1 R_1$	C	O				5		139		94	19	18	17			
006		D	O				5		140		95	20	21	22			
007		60	E				5		142		85	77	76	24			
008		30	E				5		141		96	78	79	23			
009	$N_2 B_1 R_1 X_1 F_2$	C	O	15°	1	30°	3		134		110			28			
010		C	O	0°			5		131		111	66	65	25			
011		C	O	-15°			3		135		107			29			
012		C	O	-30°			5		138		106	71	72	32			
013		C	O	-45°			2				103			33			
014		D	O	15°			3		133					27			
015		D	O	0°			5		132		112	67	68	26			
016		D	O	-15°			3		136		108			30			
017		D	O	-30°			5		137		105	70	69	31			
018		D	O	-45°			2				104			34			
019		60	E	0°			5		130		114	63	64	36			
020		90	E	0°			5		129		113	62	61	35			

1	7	13	19	25	31	37	43	49	55	61	67	75	76
CLM	CN	CY	CBL	CYN	CL	CDT	CAT						8

COEFFICIENTS → IDPVAR(1) IDPVAR(2) NDV

α or β SCHEDULES

A: α = 20° TO 40° Δα = 2° C: α = 50° TO 70° Δα = 2°

B: α = 40° TO 60° Δα = 2° D: α = 70° TO 90° Δα = 2° E: β = -10° TO 10° Δβ = 2°

TEST MSFC TWT 524 DATA SET COLLATION SHEET

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS δ_F	PARAMETERS LOC	PARAMETERS Γ	NO. RUNS	MACH NUMBERS 0.9	1.2	1.46	1.96	2.74	3.48	4.96			
RS9 021	$N_2 B_1 R_1 X_2 F_2$	C	0	15°	2	30°	3		123		90			41			
022		C	0	0°			5		126		86	55	56	40			
023		C	0	-15°			3		122		98			44			
024		C	0	-30°			5		118		99	50	49	45			
025		C	0	-45°			3		119		102			48			
026		D	0	15°			3		124		91			42			
027		D	0	0°			5		125		87	54	53	39			
028		D	0	-15°			3		121		97			43			
029		D	0	-30°			5		117		100	51	52	46			
030		D	0	-45°			3		120		101			47			
031		60	E	0°			5		127		89	58	57	37			
032		80	E	0°			5		123		88	59	60	38			
033	$N_2 B_1 R_1 X_1 F_2$	60	E	-30°	1		1							75			
034		C	0	30/-30			1							73			
035		D	0	30/-30			1							74			
036		C	0	0°	3		1							81			
037		D	0	0°			1							50			
038	$N_2 B_1 R_1$ (ENG OFF)	C	0	—	—	—	2				82			72			
039		D	0	—	—	—	2				83			33			
040		80	E	—	—	—	1				84						

1 7 13 19 25 31 37 43 49 55 61 67 75 76

CLM CN CY CBL CYN CL CDT CAT

COEFFICIENTS

α or β SCHEDULES

C: α = 50° TO 70° Δα = 2° E: β = -10° TO 10°, Δβ = 2°

D: α = 70° TO 90° Δα = 2°

CYLINDRICAL BOOSTER
MSFC
DR#1240 A-1- 219

ORIGINAL PAGE IS OF POOR QUALITY

CYLINDRICAL BOOSTER
MSFC
DR#1240 A-1- 220

TABLE II. (Continued)
TEST MSFC TWT 524 DATA SET COLLATION SHEET

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS δ_F	PARAMETERS LOC	PARAMETERS Γ	NO. RUNS	MACH NUMBERS 0.9	1.2	1.46	1.96	2.74	3.48	4.96
RS9 041	$N_2B_1R_1X_2F_2$	C	0	0/-30	2	30°	2				115			143
042		D	0	0/-30			2				116			144
043		D	0	15/-15			1							145
044		D	0	-10/-40			1							146
045	$N_2B_1R_1X_2F_3$	D	0	0°			1							147

1	7	13	19	25	31	37	43	49	55	61	67	75	76
CLM	CN	CY	CBL	CYN	CL	CDT	CAT			IDPVAR(1)	IDPVAR(2)		NDV 2

COEFFICIENTS

α or β SCHEDULES
C: α = 50° TO 70° Δα = 2°
D: α = 70° TO 90° Δα = 2°

ORIGINAL PAGE IS OF POOR QUALITY

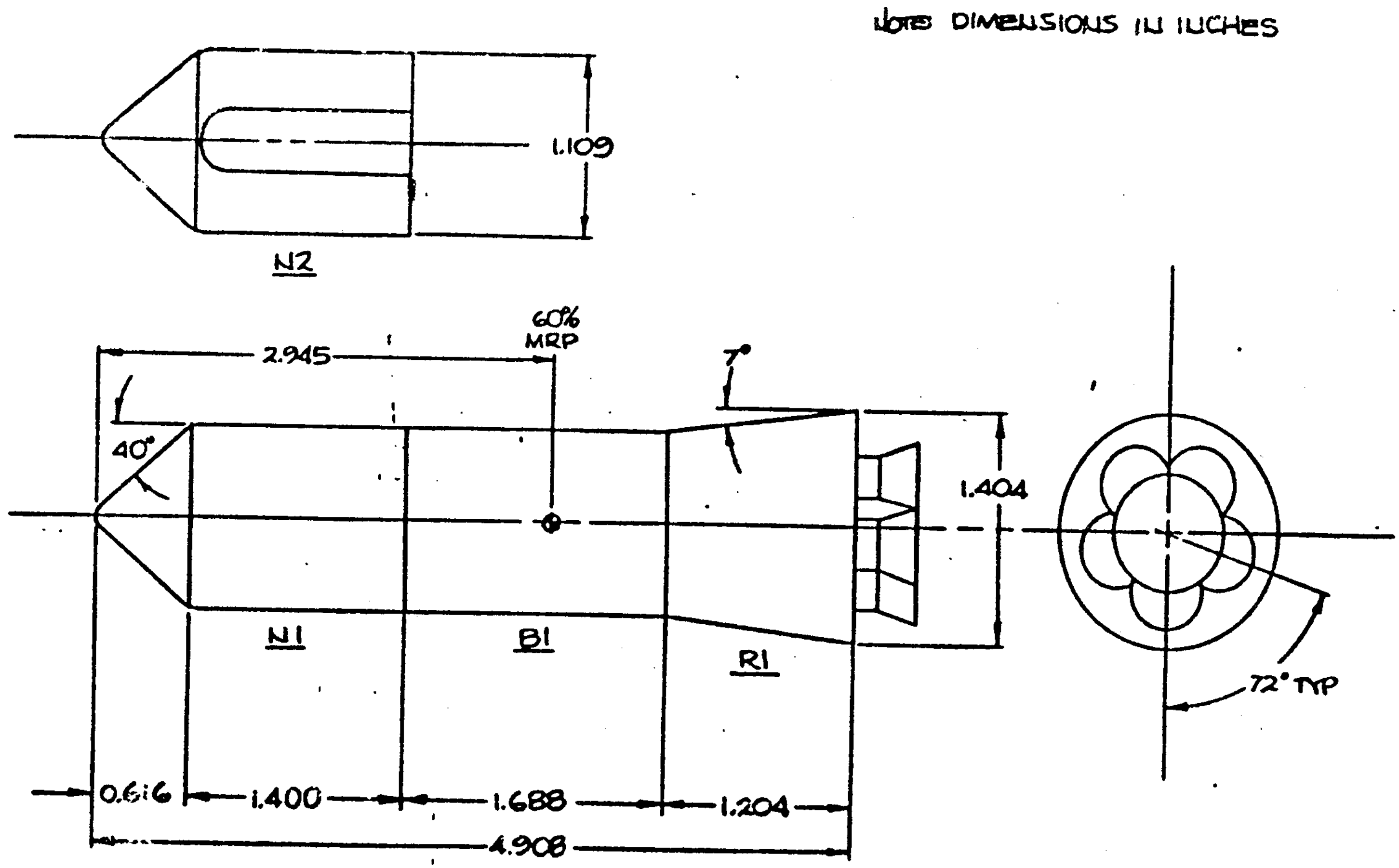


FIGURE 2. MSFC IN-HOUSE PRESSURE FED BOOSTER

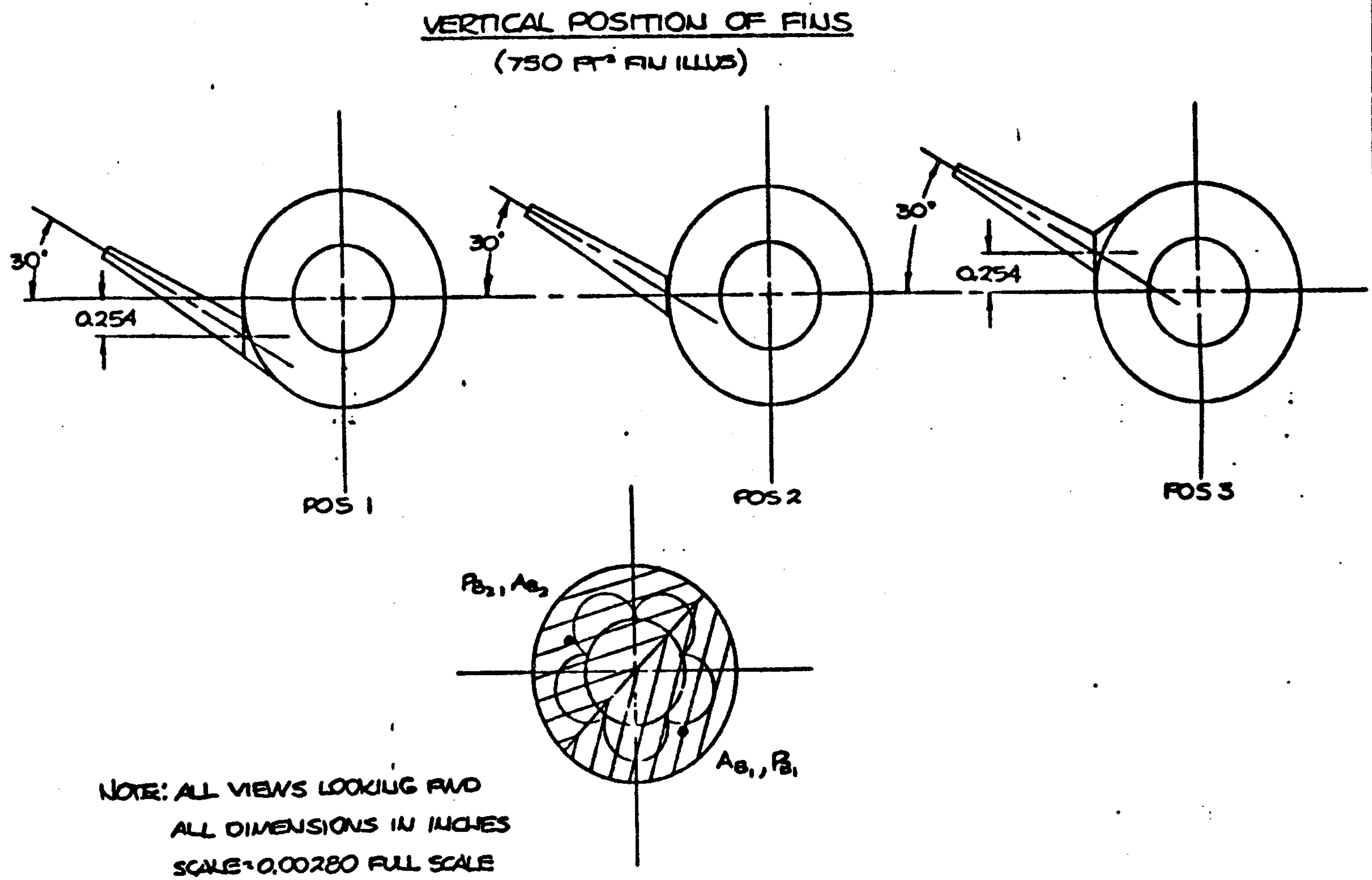


FIGURE 3. BASE PRESSURE AND AREA LOCATIONS

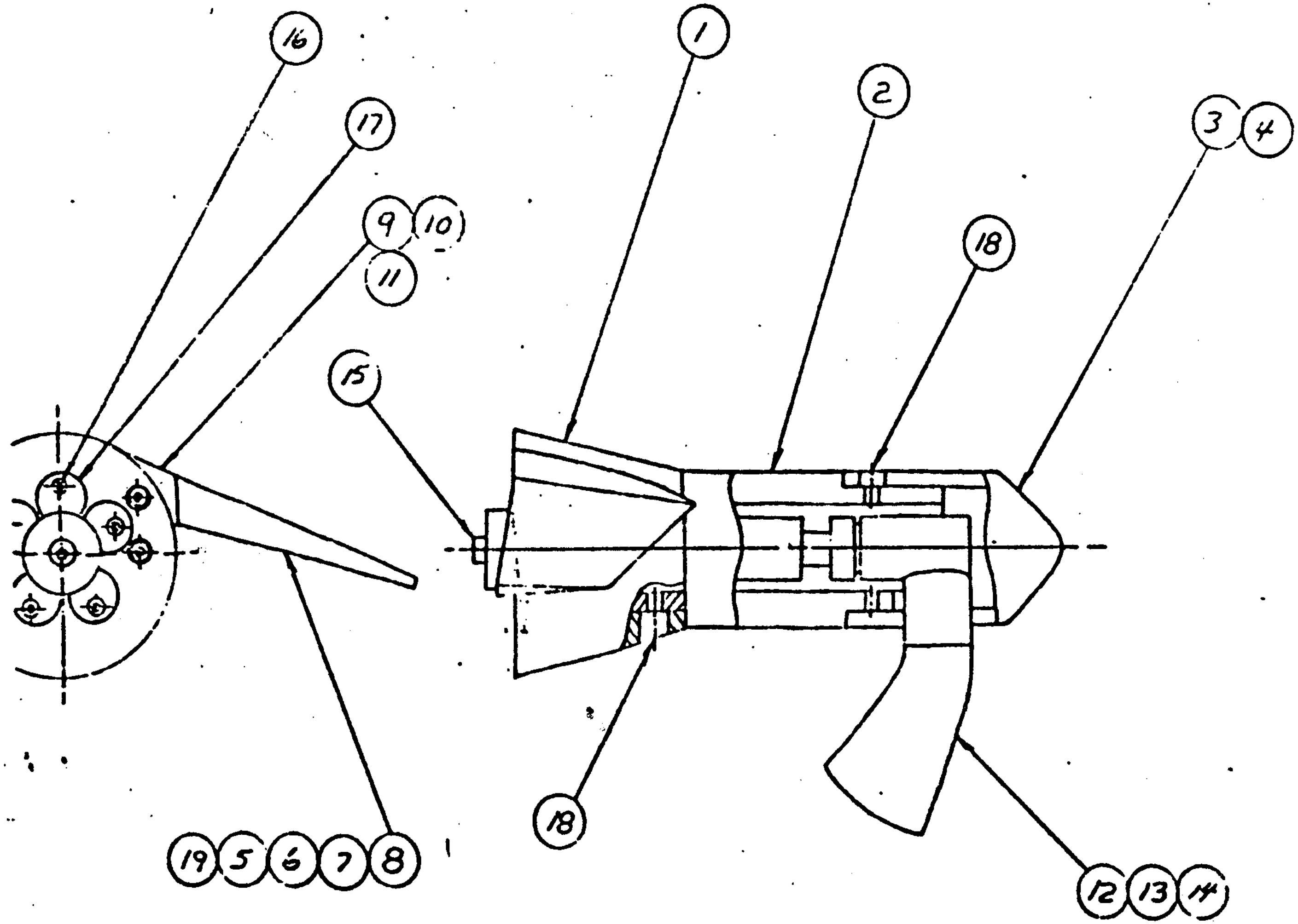


FIGURE 4a. PRESSURE FED BOOSTER SHOWING MODEL PARTS

CYLINDRICAL BOOSTER
MSFC
DR#1240 A-1- 224

Qty. No.	Ch.
Nose #1	As Shn.
Nose #2	Omit 3/8 Slot

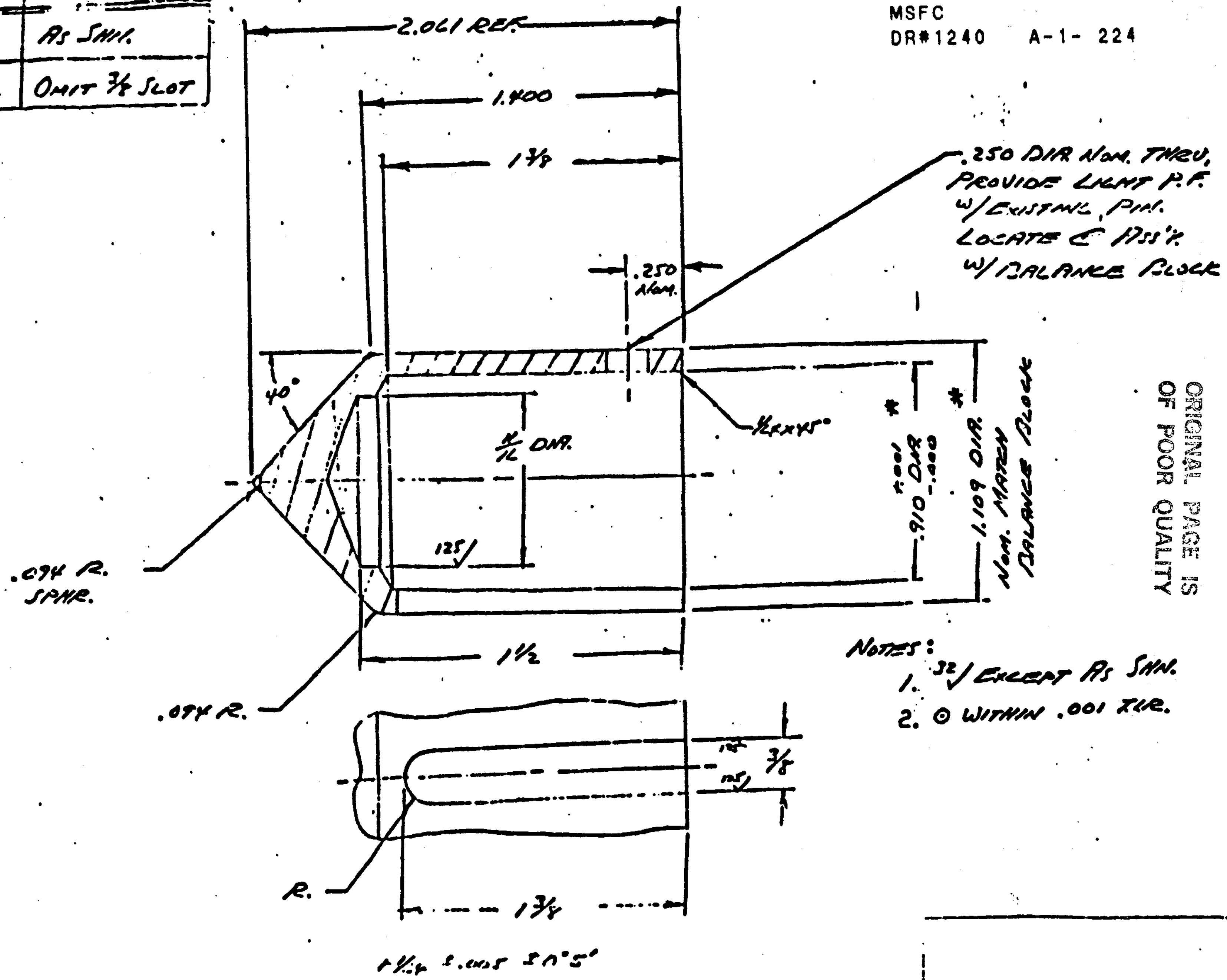


FIGURE 6. NOSE NUMBER 1 AND 2

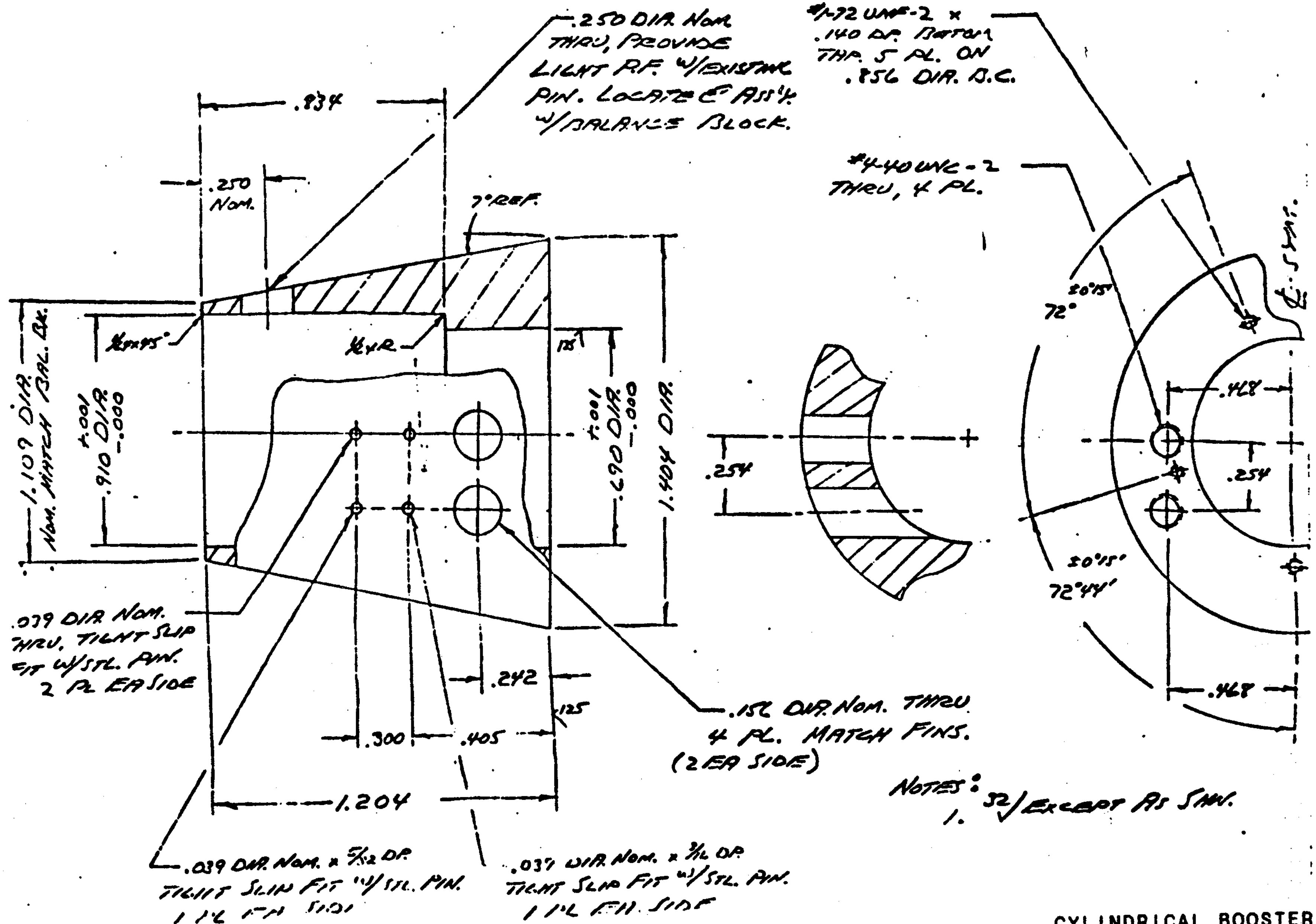


FIGURE 8. SHROUD

CYLINDRICAL BOOSTER
MSFC
DR#1240 A-1- 225

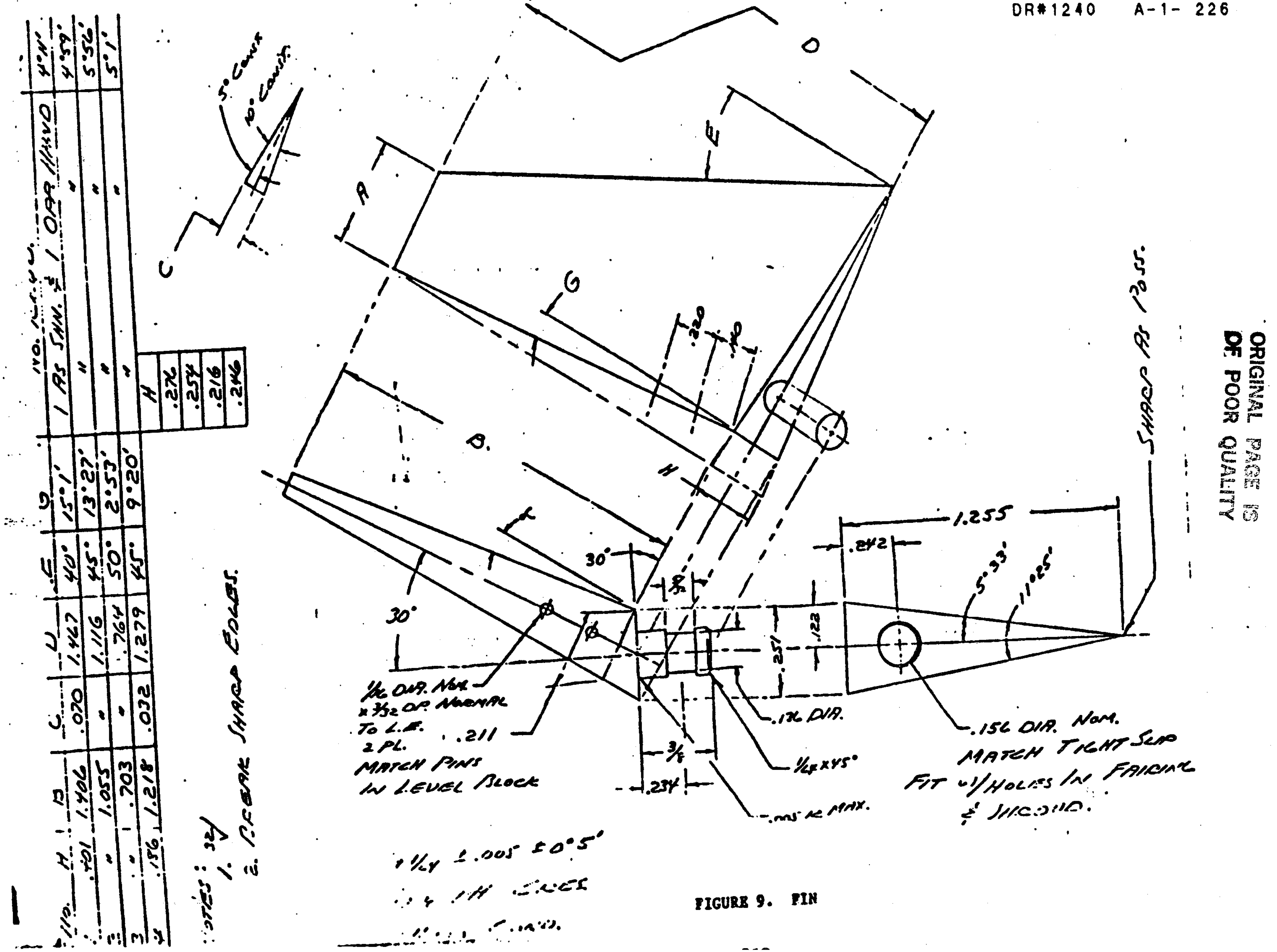

NO.
H
B
C
D
E
G
1 AS SHN. & 1 OPP HAND
H
1 .401 1.406 .070 1.467 40° 15°1' .276
2 " 1.055 " 1.116 45° 13°27' .254
3 " .703 " .764 50° 2°53' .216
4 .156 1.218 .032 1.279 45° 9°20' .246
5° CONV.
10° CONV.
C
D
E
A
G
B.
H
30°
30°
.220
.110
1/16 DIA. NOM. x 3/32 DP. NORMAL TO L.E. 2 PL.
.211
MATCH PINS IN LEVEL BLOCK
.176 DIA.
3/8
.234
1/64 x 45°
.156 DIA. NOM. MATCH TIGHT SLIP FIT W/HOLES IN FAIRING
1.255
.242
5°33'
11°25'
.251
.123
SHARP AS POSS.
NOTES: 32
1. BREAK SHARP EDGES.
2.
± 1/64 ±.005 ±0°5'

FIGURE 9. FIN

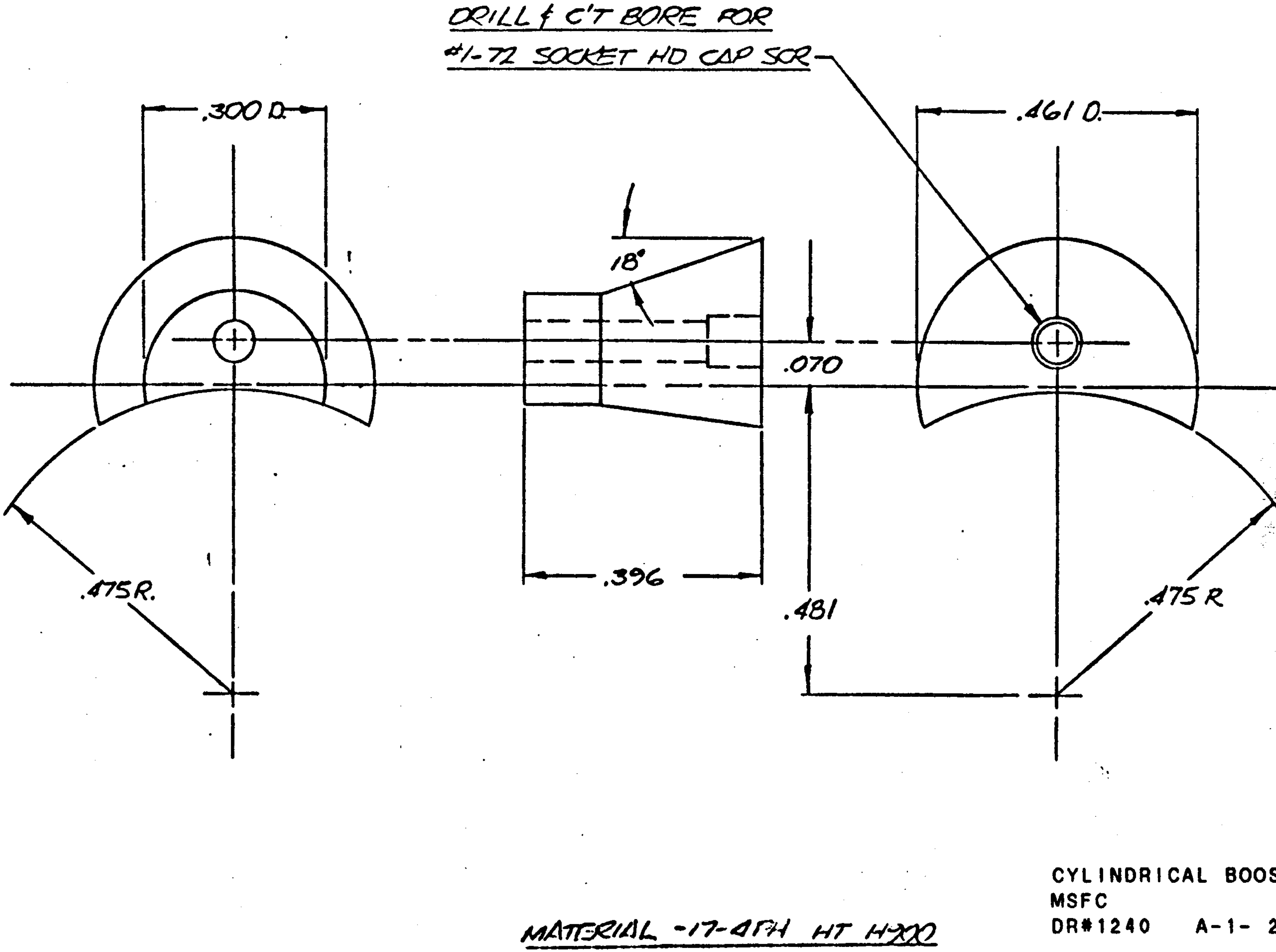


FIGURE 10. ENGINE

CYLINDRICAL BOOSTER
MSFC
DR#1240 A-1- 227

CYLINDRICAL BOOSTER
MSFC
DR#1240 A-1- 228

Pt. No.	Desc.
1	As Shn.
2	Opp. Hand

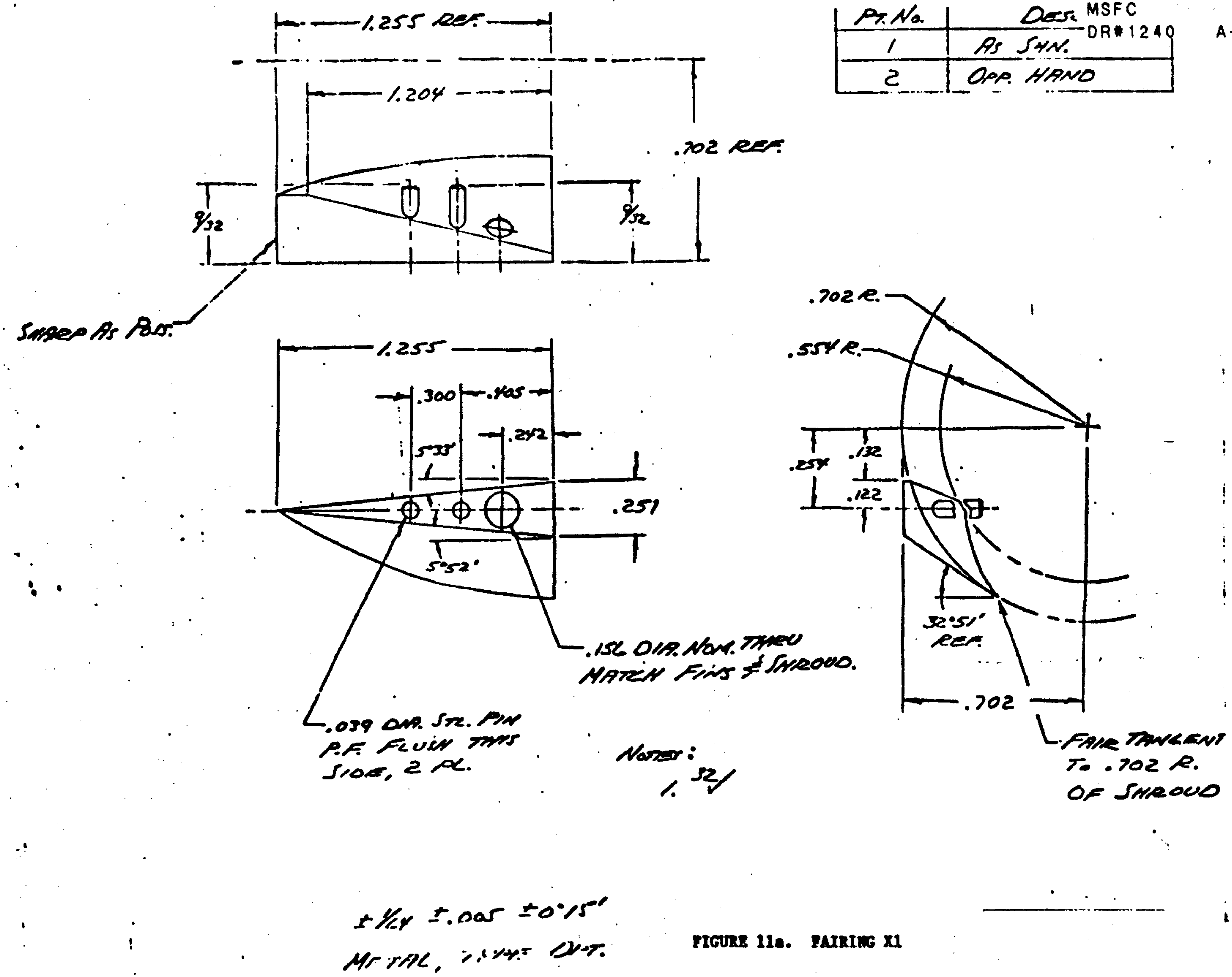
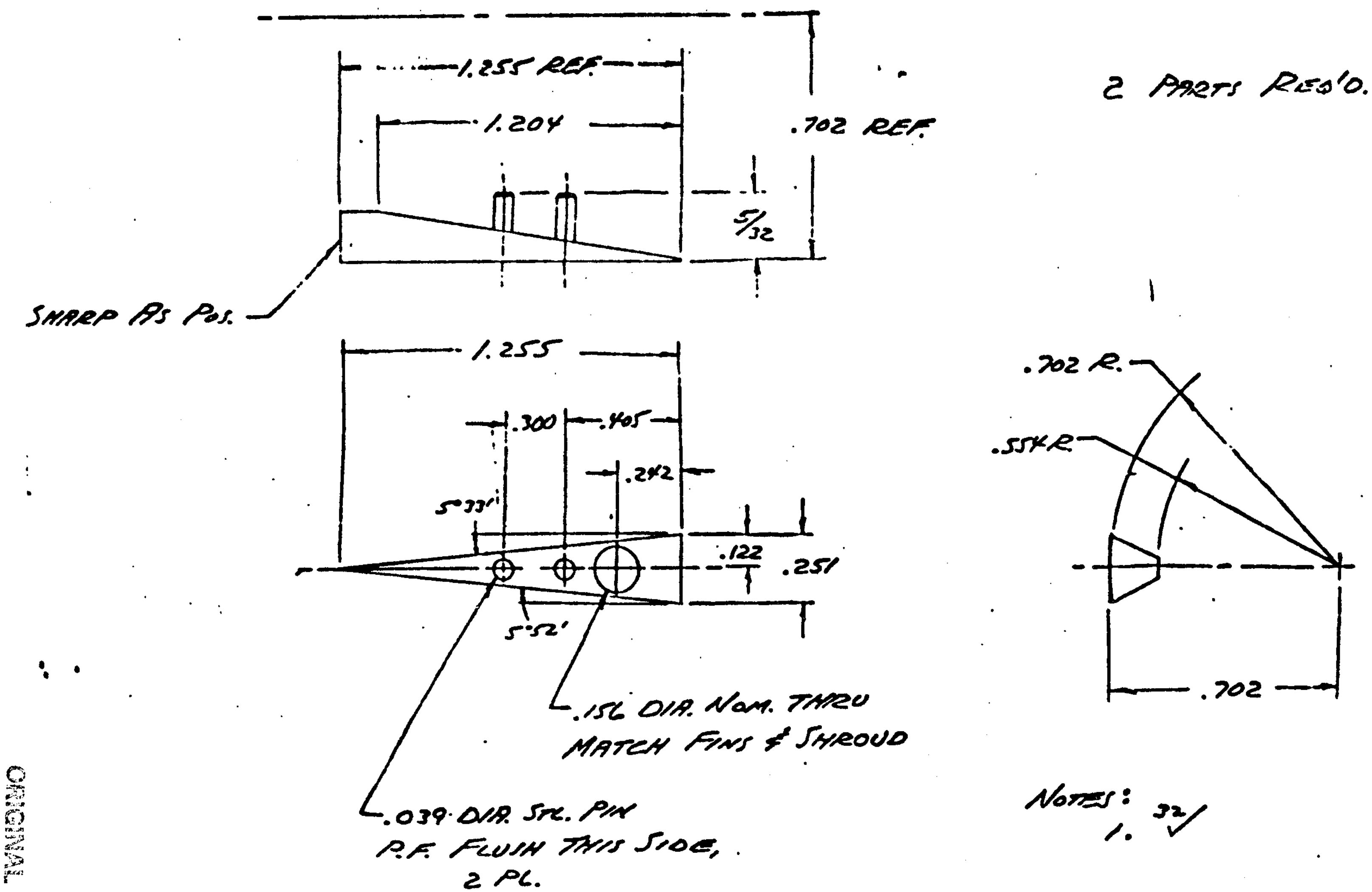


FIGURE 11a. FAIRING X1



ORIGINAL PAGE IS
OF POOR QUALITY

FIGURE 11b. FAIRING X2

CYLINDRICAL BOOSTER
MSFC
DR#1240 A-1- 229

CYLINDRICAL BOOSTER
MSFC
DR#1245 A-1- 230

TABLE II.

TEST MSFC TWT 529 DATA SET COLLATION SHEET

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES Γ	LOC			NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) 0.6	0.9	1.2	1.46	2.74	4.96
R63001	N_1B_6	C	O	—	—				45	44	43	49	70	71
002		D	O						46	47	48	42	73	72
003	$N_1B_6F_3$	D	O	30	2							41		
004	N_1B_7	C	O	—	—				13	14	15	34	12	11
005		D	O						18	17	16	33	9	10
006		60	E									35		
007		80	E									36		
008	$N_1B_7F_2$	C	O	30	2				23	21	22	31	4	1
009		D	O						19	20		32	3	2
010		60	E						24	25	26	30	5	6
011		80	E						28	27		29	8	7
012	$N_1B_7F_3$	C	O						50	51	52	39	69	68
013		D	O						53	54	55	40	66	67
014		60	E						59	60	61	38	62	63
015		80	E						58	57	56	37	65	64

1 7 13 19 25 31 37 43 49 55 61 67 75 76

CLM	CN	CY	CBL	CYN	CL	CDT	CAT				IDPVAR(1)	IDPVAR(2)	NDV
													8

COEFFICIENTS:

α or β SCHEDULES

C: $\alpha = 50° \text{ TO } 70°$ $\Delta\alpha = 2°$ E: $\beta = -10° \text{ TO } 10°$ $\Delta\beta = 2°$

D: $\alpha = 70° \text{ TO } 90°$ $\Delta\alpha = 2°$

NASA-MSFC-MAF

ORIGINAL PAGE IS OF POOR QUALITY

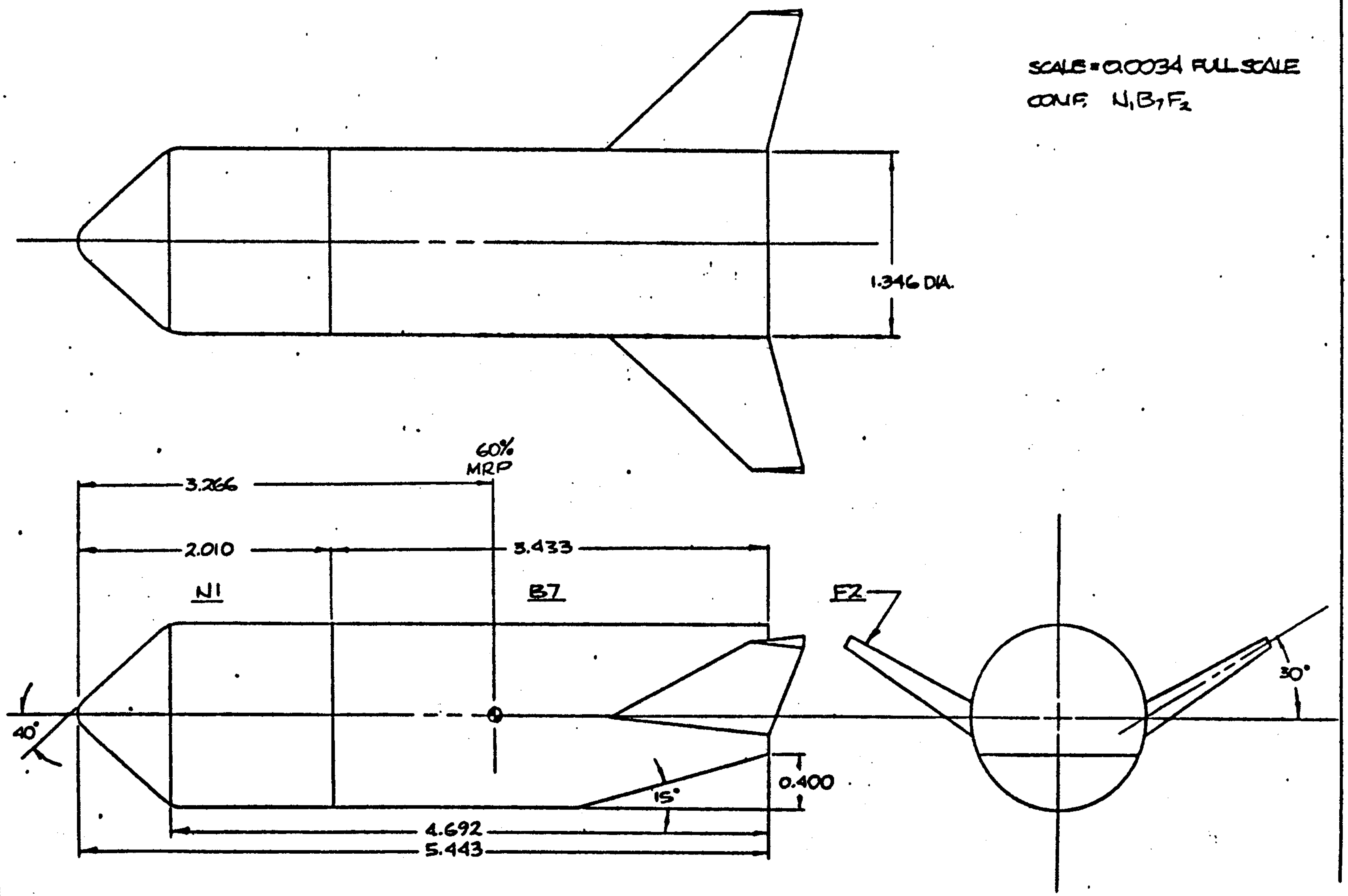


FIGURE 2. MSFC PUMP FED BOOSTER

CYLINDRICAL BOOSTER
MSFC
DR#1245 A-1- 231

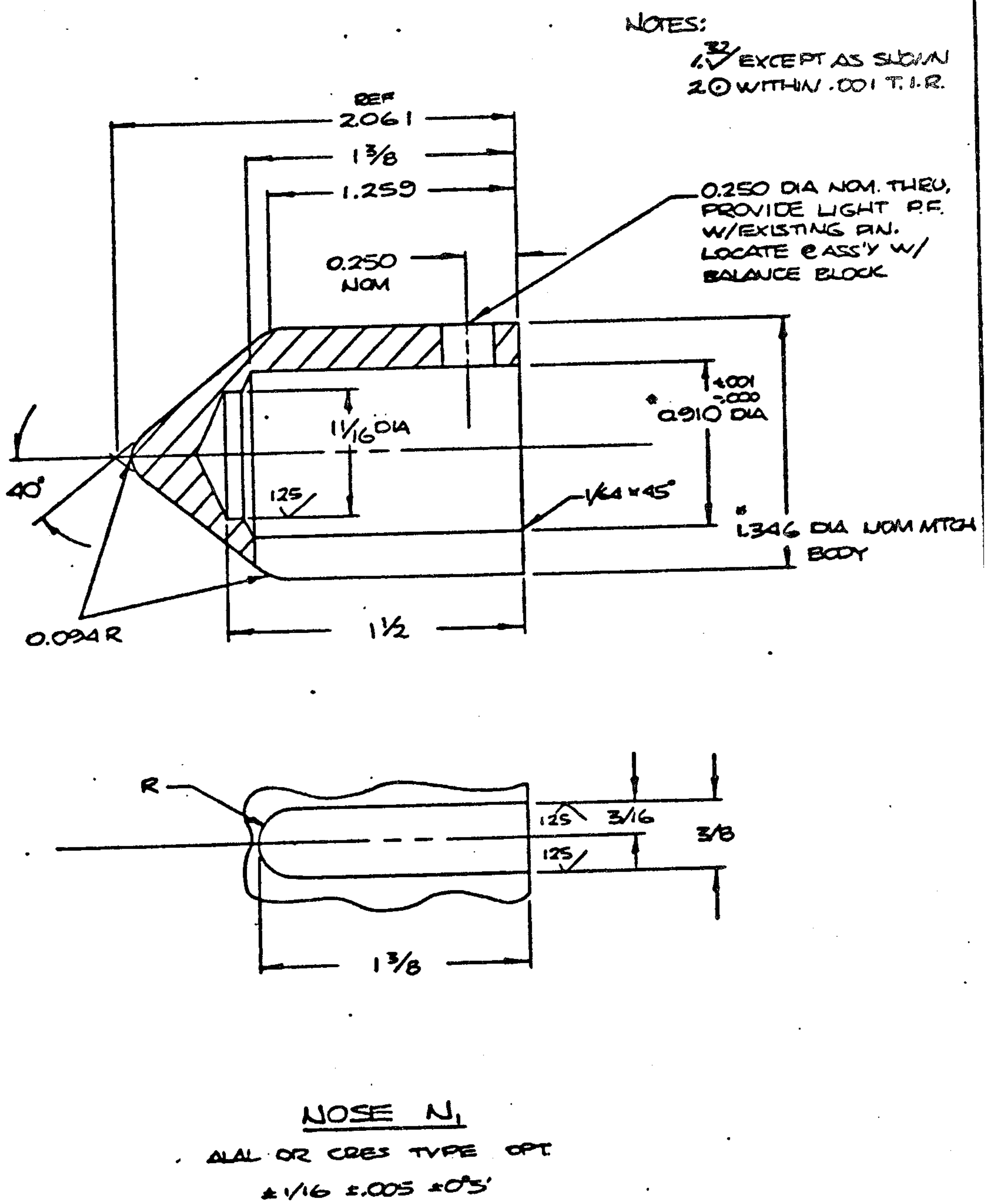
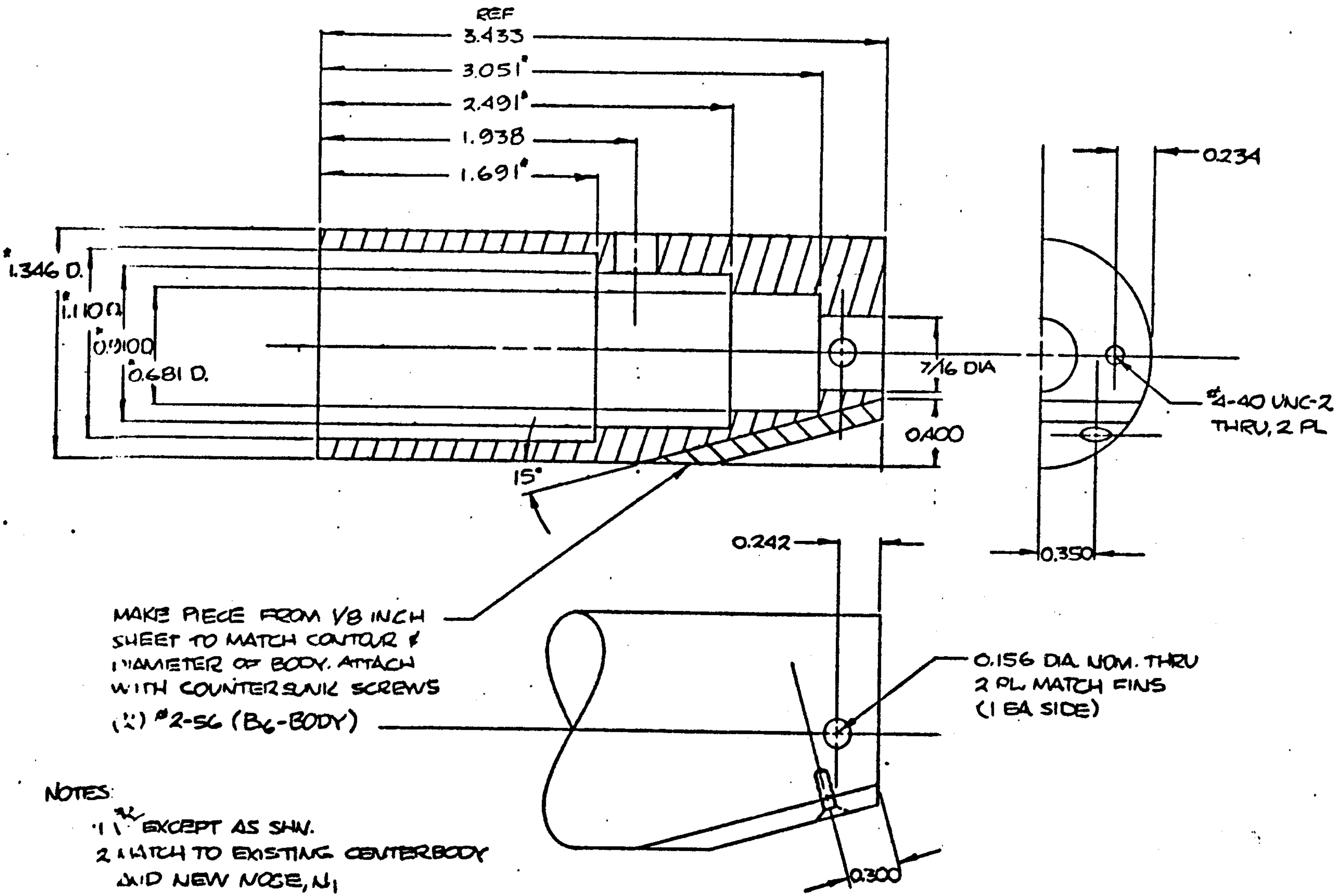


FIGURE 3. NOSE N_1



NOTES:
1. ✱ EXCEPT AS SHN.
2. MATCH TO EXISTING CENTERBODY AND NEW NOSE, N_1
3.* CONCENTRIC WITHIN .001 T.I.R.

BODY B_6, B_7
AL AL OR CRES TYPE OPT.
±1/16 ±.005 ±0°5'

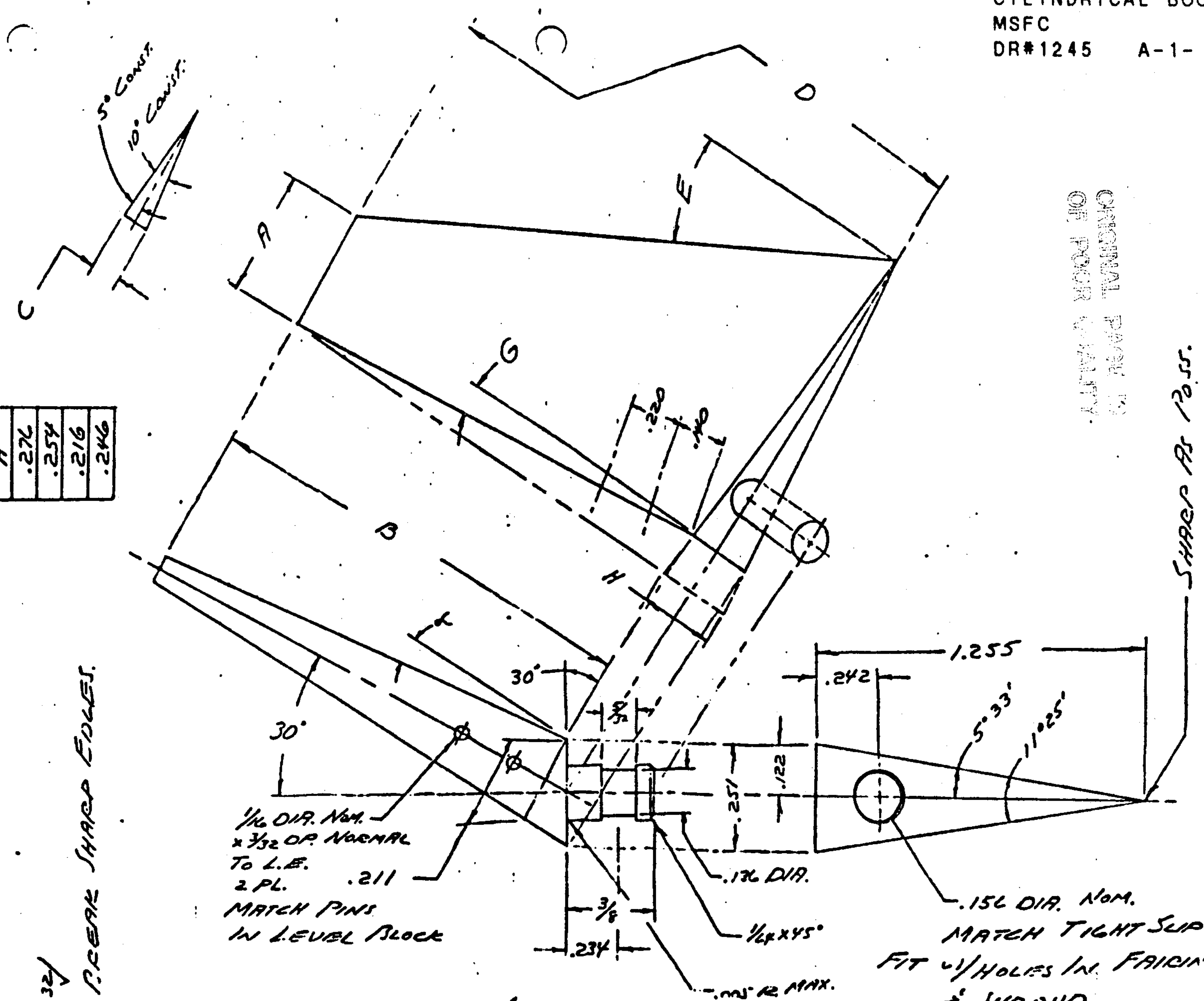
FIGURE 4. BODY B_6, B_7

ORIGINAL PAGE IS
OF POOR QUALITY

1	.401	1.406	.070	1.467	40°	15°1'	1 As Shn. & 1 Opp Hand	4°11'
2	"	1.055	"	1.116	45°	13°27'	"	4°59'
3	"	1 .703	"	.764	50°	2°53'	"	5°56'
4	.186	1.218	.032	1.279	45°	9°20'	"	5°1'

H
.276
.254
.216
.246

Notes: 1. 32
2. Break Sharp Edges.



+1/64 ±.005 ±0°5'

FIGURE 6. FIN

Fin

TEST TWT 541 DATA SET COLLATION SHEET

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES φ			NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) .6	.9	1.1	1.2	1.4	1.96	3.0	4.0				
R68001	N181E1	A	0°	0°			8	1	2	4	3	97	75	112	111				
002				90°			5	71	72		73		76		110				
003				-90°			5	70	69		68		77		109				
004				45°			5	65	66		67		83		108				
005		B		0°			8	52	53	55	54	98	80	103	102				
006				90°			5	59	60		61		79		105				
007				-90°			5	58	57		56		78		106				
008				45°			5	64	63		62		82		107				
009		20°	A	0°			5	51	50		49		81		104				
010		C	0°				8	8/1	7/1	5/3	6/2	99	74	100	101				
011	N281E2	H	0°				8	29	28	30	27	64/1	93	119	118				
012		I	0°				8	22	21	19	20	95	91	120	121				
013				90°			5	45	44		43		90		122				
014				-90°			5	40	41		42		89		123				
015				45°			5	39	38		37		88		124				
016		160	A	0°			5	46	47		48		92		125				
017		J	0	0°			8	23	24	26	25	96	84	113	114				
018				90°			5	12	13		14		85		115				
019				-90°			5	33	32		31		86		116				
020				45°			5	34	35		36		87		117				

1 7 13 19 25 31 37 43 49 55 61 67 75 76

CLM CN CY CBL CYN CA CAB CL CD CPB | IDPVAR(1) | IDPVAR(2) | NDV

COEFFICIENTS:
α or β SCHEDULES

α: A = -10° to 10° by Δα = 2°; B = 10° to 30° by Δα = 5°; C = 30° to 60° by Δα = 6°
H = 130° to 150° by Δα = 6°; I = 150° to 170° by Δα = 5°; J = 170° to 190° by Δα = 2°
β: A = -10° to 10° by Δα = 6°

⊗ Shadowgraph at Δα = 5°

NASA-MSFC-MAF

CYLINDRICAL BOOSTER
MSFC
DR#1253 A-1- 235

ORIGINAL PAGE IS OF POOR QUALITY

CYLINDRICAL BOOSTER
MSFC
DR#1253 A-1- 236

TABLE II. (Continued)

TEST TWT544 DATA SET COLLATION SHEET

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES φ	NO. of RUNS	.6	.9	1.1	1.2	1.4	1.96	3.0	4.0
R68021	N1B1E2	D	0°	0°	8	164	163	162	161	150	216	237	236
022				90°	5	165	166		167		217		235
023				-90°	5	170	169		168		218		234
024				45°	5	171	172		173		219		233
025		60°	A	0°	5	158	159		160		220		226
026		80°	A	0°	5	157	156		155		221		227
027		E	0°	0°	8	143/1	142	141	140	151	222	229	228
028				90°	5	144	145		146		223/1		230
029				-90°	5	149	148		147		224		231
030				45°	5	152	153		154		225/1		232
031		F		0°	8	196	195/1	194	193/1	138	212	134	133
032				90°	5	197	198		199		213		135
033				-90°	5	202	201		200		214		136
034				45°	5	203	204		205		215		137
035		100°	A	0°	5	190	191		192		211		132
036		120°	A	0°	5	189	188		187		210		131
037		G	0°	0°	8	177	176	175	174	139	206	127	126
038				90°	5	178	179		180		207		128
039				-90°	5	183	182		181		208		129
040				45°	5	184	185		186		209		130

1 7 13 19 25 31 37 43 49 55 61 67 75 76

IDPVAR(1) | IDPVAR(2) | NDV

COEFFICIENTS: α or β SCHEDULES

α: D = 50° to 70° by Δα = 6° ; E = 70° to 80° by Δα = 5° and 80° to 90° by Δα = 2°
F = 90° to 100° by Δα = 2° and 100° to 110° by Δα = 5° ; G = 110° to 130° by Δα = 6°
β: A = -10° to 10° by Δα = 5°

⊗ Shadowgraph at Δα = 6°

MSFC - Form 363-2 (February 1973)

TEST TWT 541 DATA SET COLLATION SHEET

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES φ				NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) .6	.9	1.1	1.2	1.4	1.96	3.0	4.0				
RGB 041	N2B1E2 + Trip Strip	I	0°	0°				3	9 x	10 x		11 x		x						
↓ 042	(Hysteresis)	K	0°	0°				3	15 x	16 x		17 x		x						
	N1B1E1 (Schlieren)	A		0°						x		x		x						
		A		90°						x		x		x						
	N2B1E2	J		0°						x		x		x						
		J		90°						x		x		x						
	(shadowgraph)	I		0°						x		x		x						
		I		90°						x		x		x						
	N1B1E1	B		0°						x		x		x						
		B		90°						x		x		x						
RGB 043	N1B1E2	D	0°	0°				1								238				
044	N1B1E2	E						1								239				
045		E						2	18							240				
046		D						1								241				
047	N1B1	D	0°	—				1								242				
↓ 048	N1B1	E	0°	—				1								243				

1 7 13 19 25 31 37 43 49 55 61 67 75 76

COEFFICIENTS: IDPVAR(1) IDPVAR(2) NDV

α or β SCHEDULES
α: I = 150° to 170° by Δα = 5° ; K = 150° to 130° by Δα = 5°
A: = -10° to 10° ; B = 10° to 30° ; I = 170° to 190°
shadowgraphs and ~~[illegible]~~ Schlieren are at Δα = 5°

MSFC - Form 368-2 (February 1978)

CYLINDRICAL BOOSTER
MSFC
DR#1253 A-1- 237

ORIGINAL PAGE IS OF POOR QUALITY

TABLE II. (Concluded)

TEST 7WT541 DATA SET COLLATION SHEET

CYLINDRICAL BOOSTER
MSFC
DR#1253 A-1- 238

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES ϕ	Γ	FIN LOC		NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) .6	.9	1.1	1.2	1.46	1.96	2.99	4.00				
R6B049	N1 B1EZ S1	E	0°	90°	0°	0°		4	269			270		253		244				
050	S2C					0°		4	264			263		254		245				
051						15°		4	265			266		255		246				
052						30°		4	268			267		256		247				
053	S2A				15°	0°		4	261			262		257		248				
054	S2B				30°	0°		4	260			259		258		249				
055	N1B1EZ	E	0°	90°	–			4	272			271		223/1		250				
056	N1B1EZ	F	0°	90°	–			4	273			274		252		251				

1 7 13 19 25 31 37 43 49 55 61 67 75 76

COEFFICIENTS: IDPVAR(1) IDPVAR(2) NDV

α or β

SCHEDULES

MSFC - Form 363-2 (February 1972)

ORIGINAL PAGE IS OF POOR QUALITY

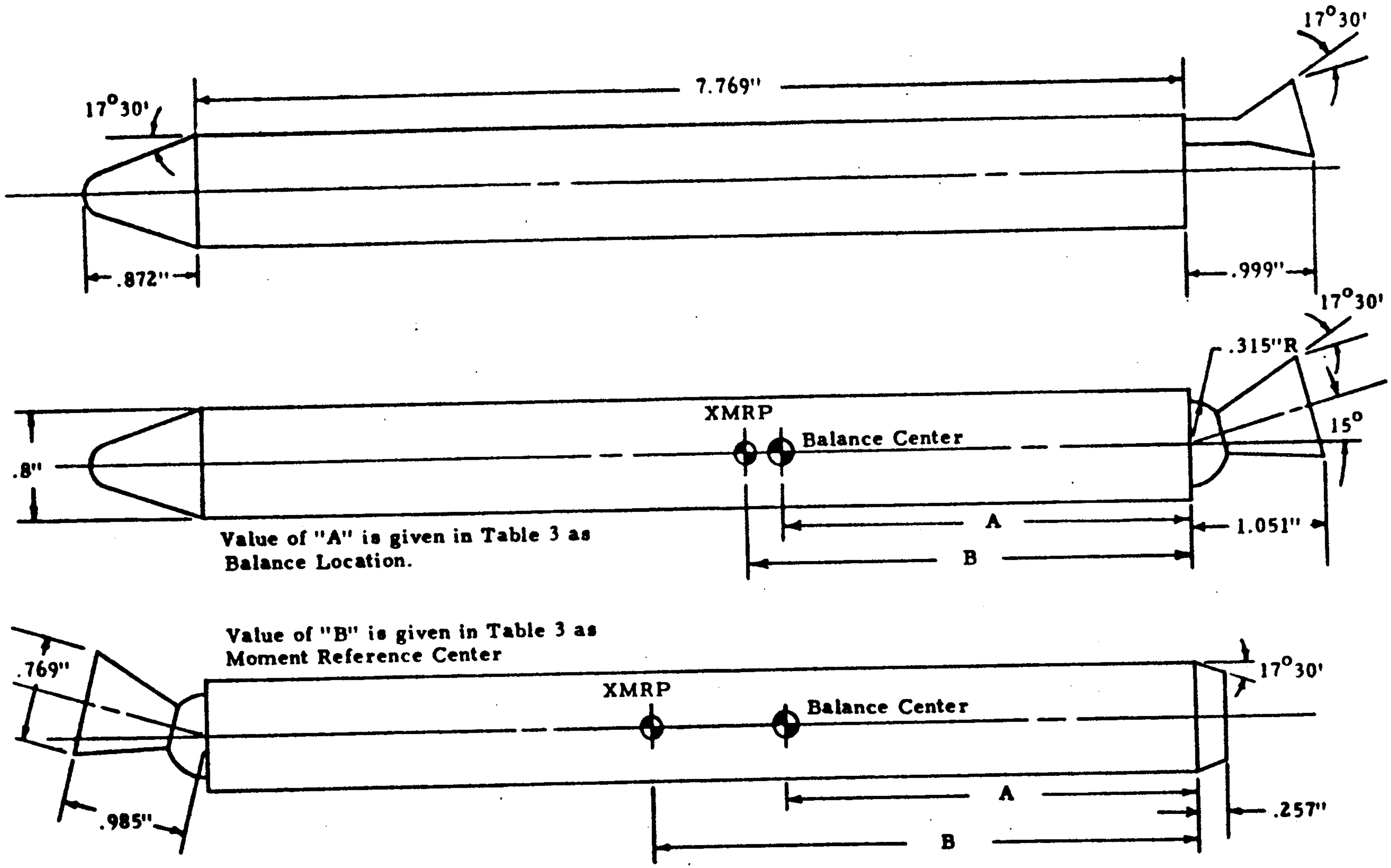


Fig. 1 - 0.00513 Scale 156-Inch SRM Geometry (MSFC Model 446)

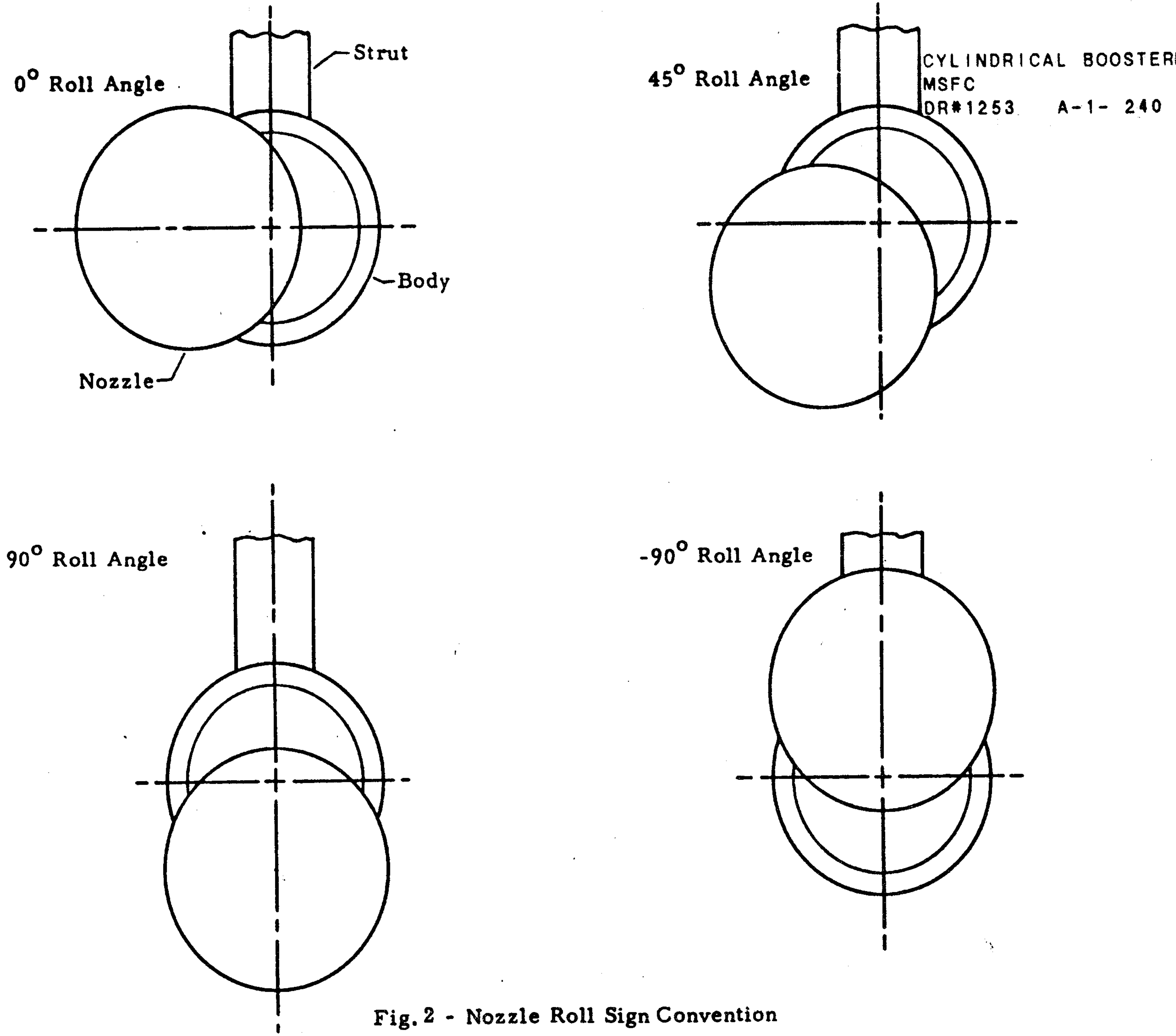


Fig. 2 - Nozzle Roll Sign Convention

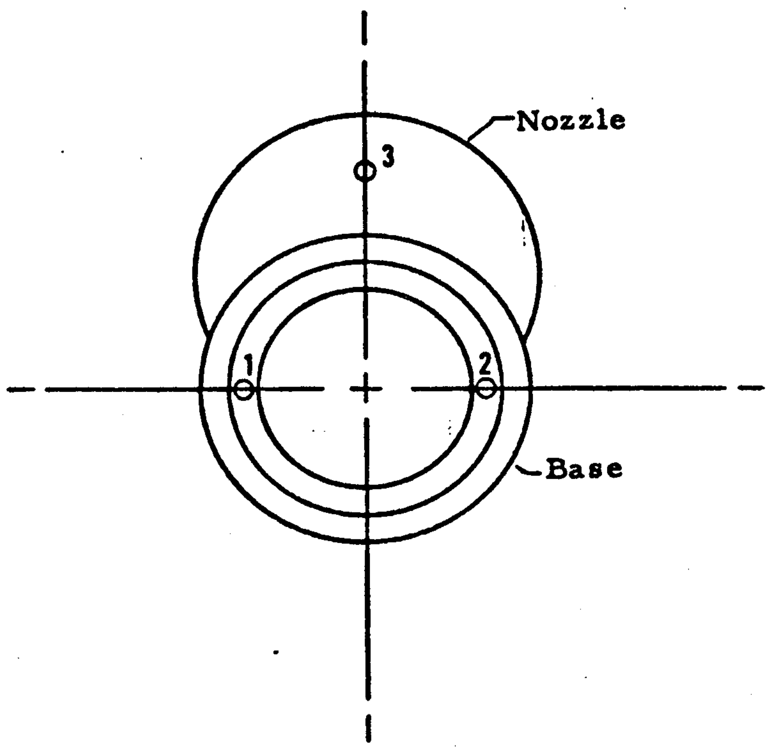


Fig. 7 - Base Pressure Locations

TABLE II

TEST BSWT 558 DATA SET COLLATION SHEET

CYLINDRICAL BOOSTER
TBC
DR#1128 A-1- 242

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES	NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) 1.5	2.2	3.0	4.0
RDC012	B_1N_1	B	0		4	3	14	17	27
014		D			1				73
015		E			1				78
028	B_1E_1	L			4	4	15	16	26
028		H			1				80
029		J			1				75
038	$B_1E_1D_{1N}$	L			2	5			25
042	$B_1N_1D_2$	B			3	6	13		24
058	$B_1E_1D_{2N}$	L			4	7	12	18	23
068	$B_1E_1D_{3N}$	L			4	8	11	19	22
078	$B_1E_1D_{4N}$	L			4	9	10	20	21
082	$B_1N_1D_{3N}$	B			2	30			28
091	$B_1N_1E_1$	A			1	31			
092		B			1				65
093		C			2	36			64
094		D			3	37	72		56
095		E			2	40			55
096		F			4	41	45	47	50
097		G			2	42	43		
RDC098	$B_1N_1E_1$	H	0		2	39			54

1 7 13 19 25 31 37 43 49 55 61 67 75 76

CL CD CN CA CLM | IDPVAR(1) | IDPVAR(2) | NDV

COEFFICIENTS: A: -12 to 18; B: -7 to 23; C: 11 to 41; D: 33 to 63

α SCHEDULES
E: 55 to 85; F: 78 to 108; G: 102 to 72; H: 125 to 95
J: 147 to 117; K: 170 to 140; L: 187 to 157; M: 192 to 162

NASA-MSFC-MAF

ORIGINAL PAGE IS OF POOR QUALITY

TEST BSWT 558 DATA SET COLLATION SHEET

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES	NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) 1.5	2.2	3.0	4.0
RDC099	$B_1N_1E_1$	J	O		3	38	71		57
09A		K			2	35			62
09C		M			2	34			66
101	$B_2N_1E_1$	A			1	32			
112	$B_1N_1E_1D_{3N}$	B			1				68
113		C			1				60
114		D			2			69	59
115		E			1				52
116		F			1				51
118		H			1				53
119		J			2			70	58
11A		K			1				61
RDC11C	$B_1N_1E_1D_{3N}$	M	O		1				67

1 CL 7 CD 13 CN 19 CA 25 CLM 31 37 43 49 55 61 67 75 76

COEFFICIENTS: IDPVAR(1) IDPVAR(2) NDV

α SCHEDULES

A: -12 to 18; B: -7 to 23; C: 11 to 41 D: 33 to 63

E: 55 to 85; F: 78 to 108; G: 102 to 72 H: 125 to 95

J: 147 to 117; K: 170 to 140; L: 187 to 157 M: 192 to 162

ORIGINAL PAGE IS OF POOR QUALITY

NASA-MSFC-MAF

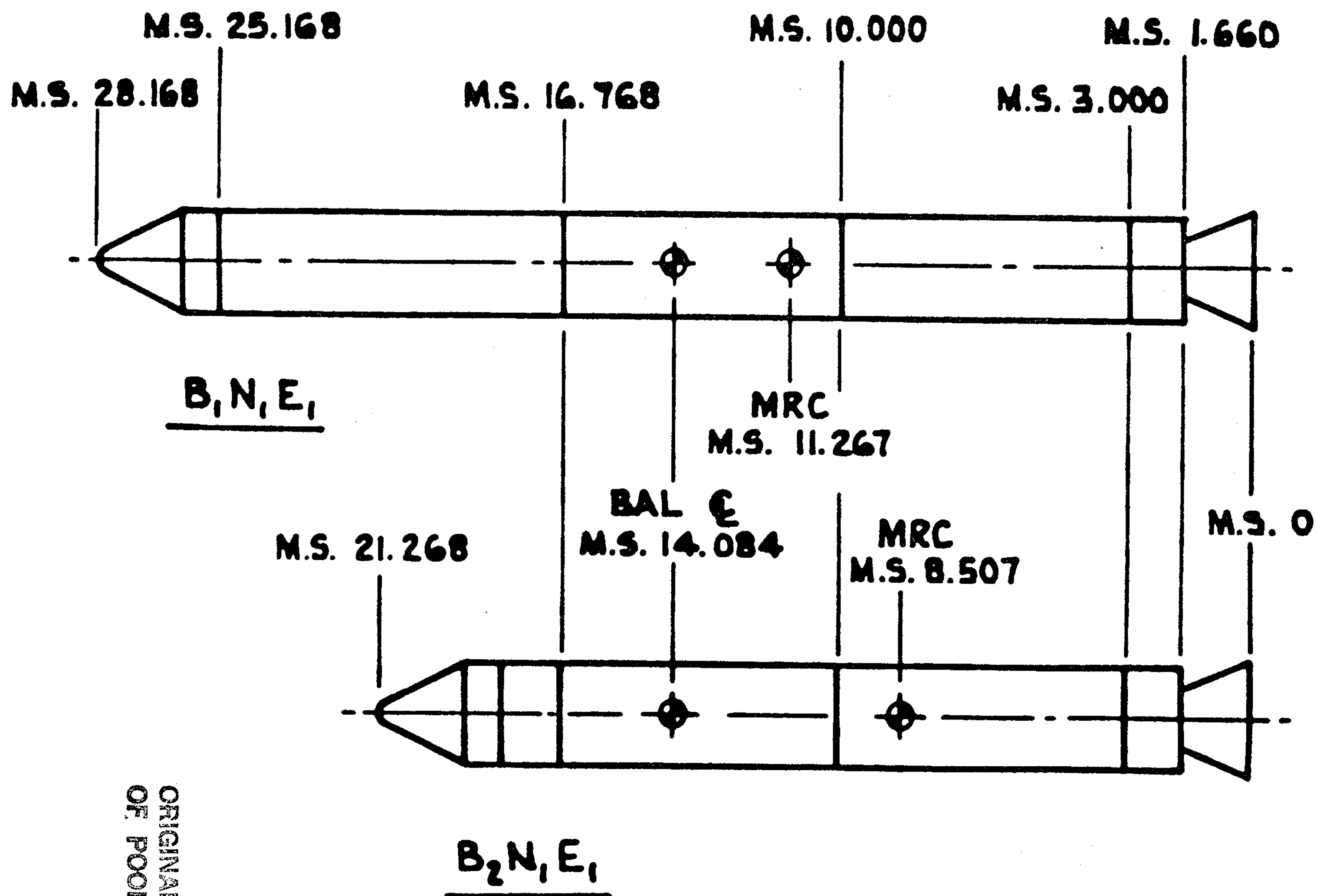
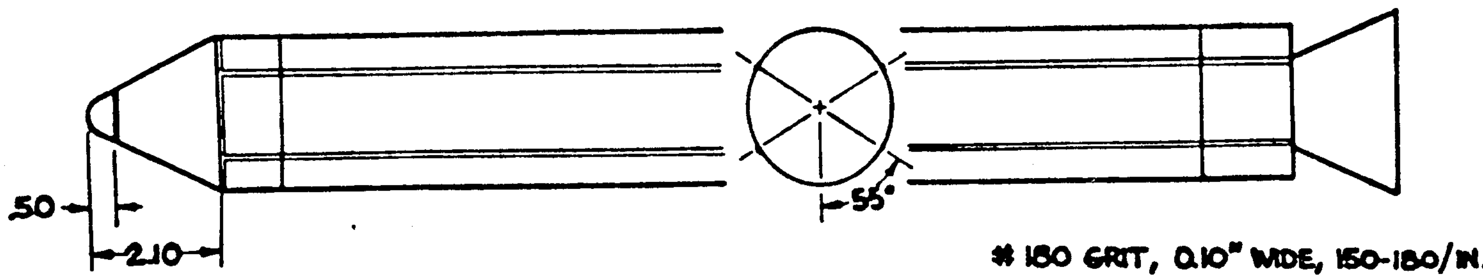


Figure 1. Configurations $B_1N_1E_1$ and $B_2N_1E_1$



TRIP STRIP DEFINITION

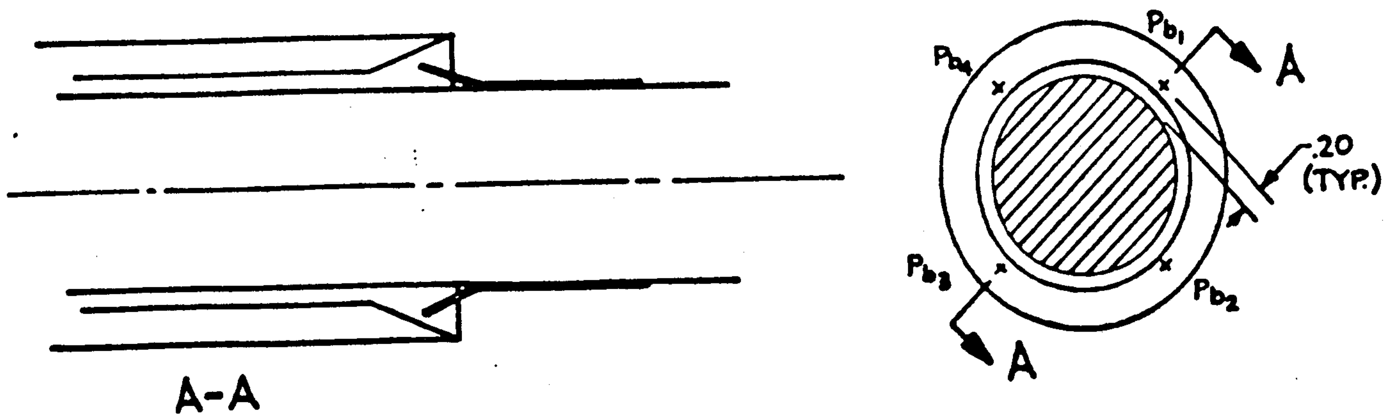


Figure 2. Trip Strip Definition and Base Pressure Locations

CYLINDRICAL BOOSTER
TBC
DR#1128 A-1- 246

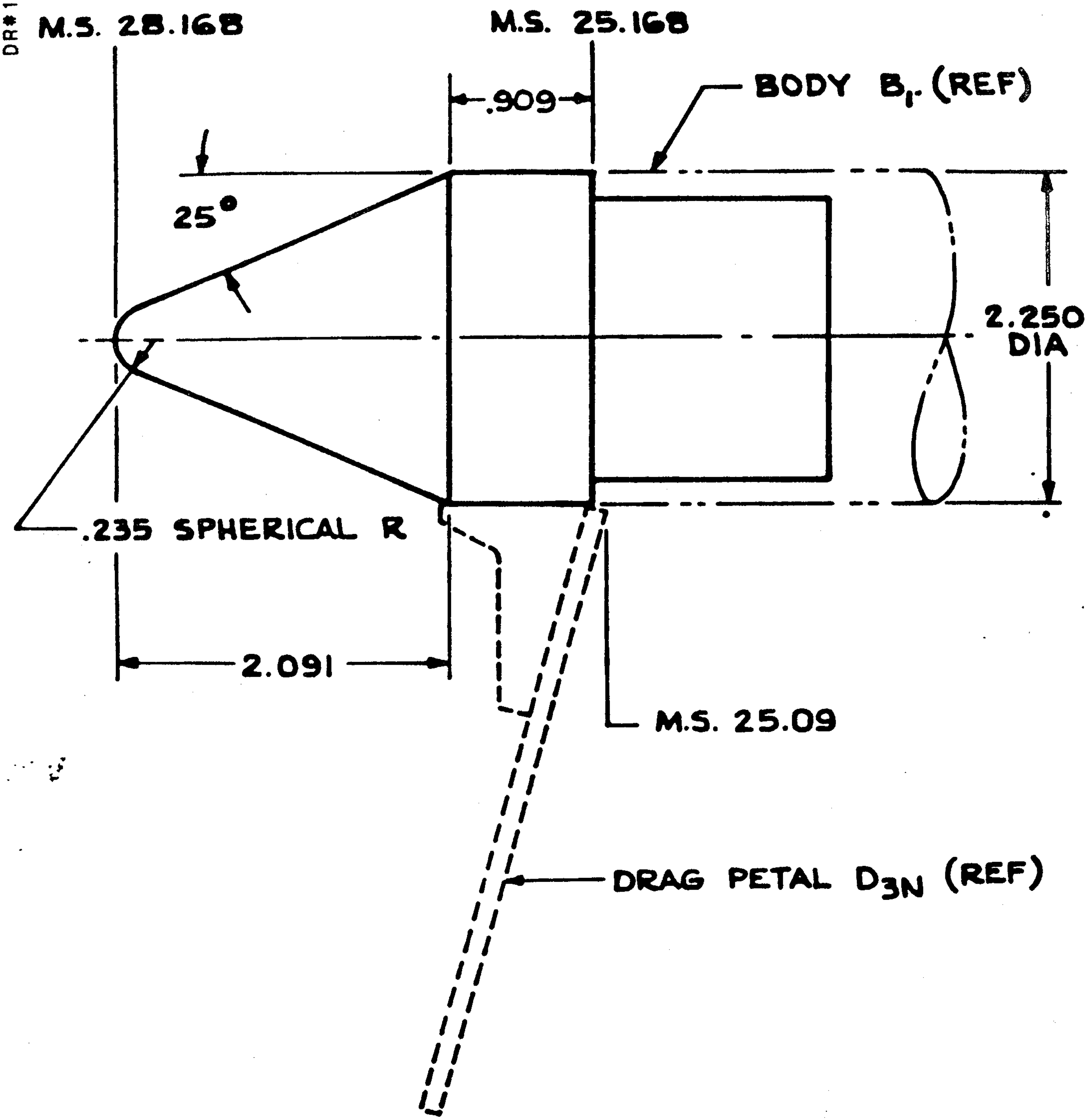


Figure 7. Nose Component N_1

CYLINDRICAL BOOSTER
TBC
DR#1128 A-1- 247

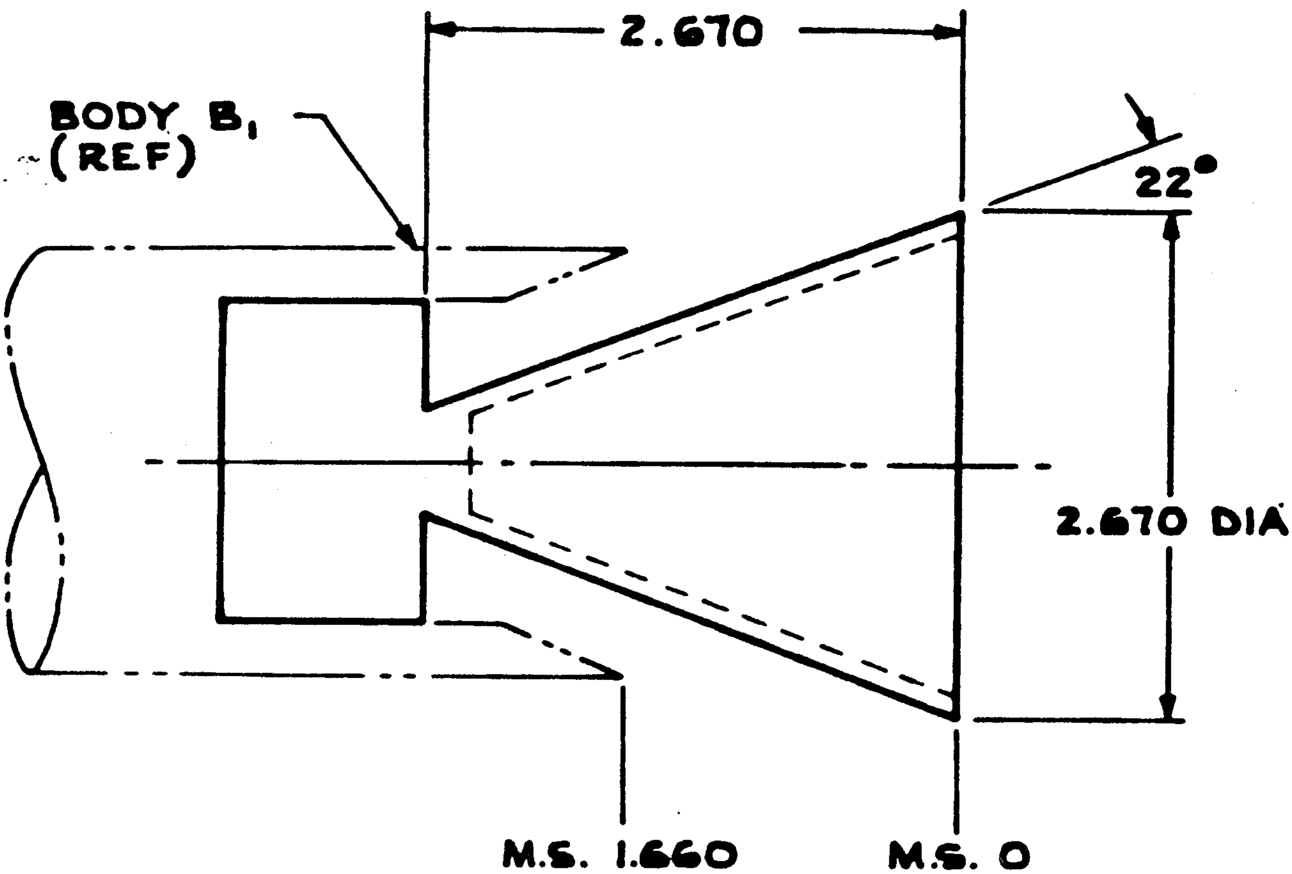


Figure 8. Nozzle Component E_1

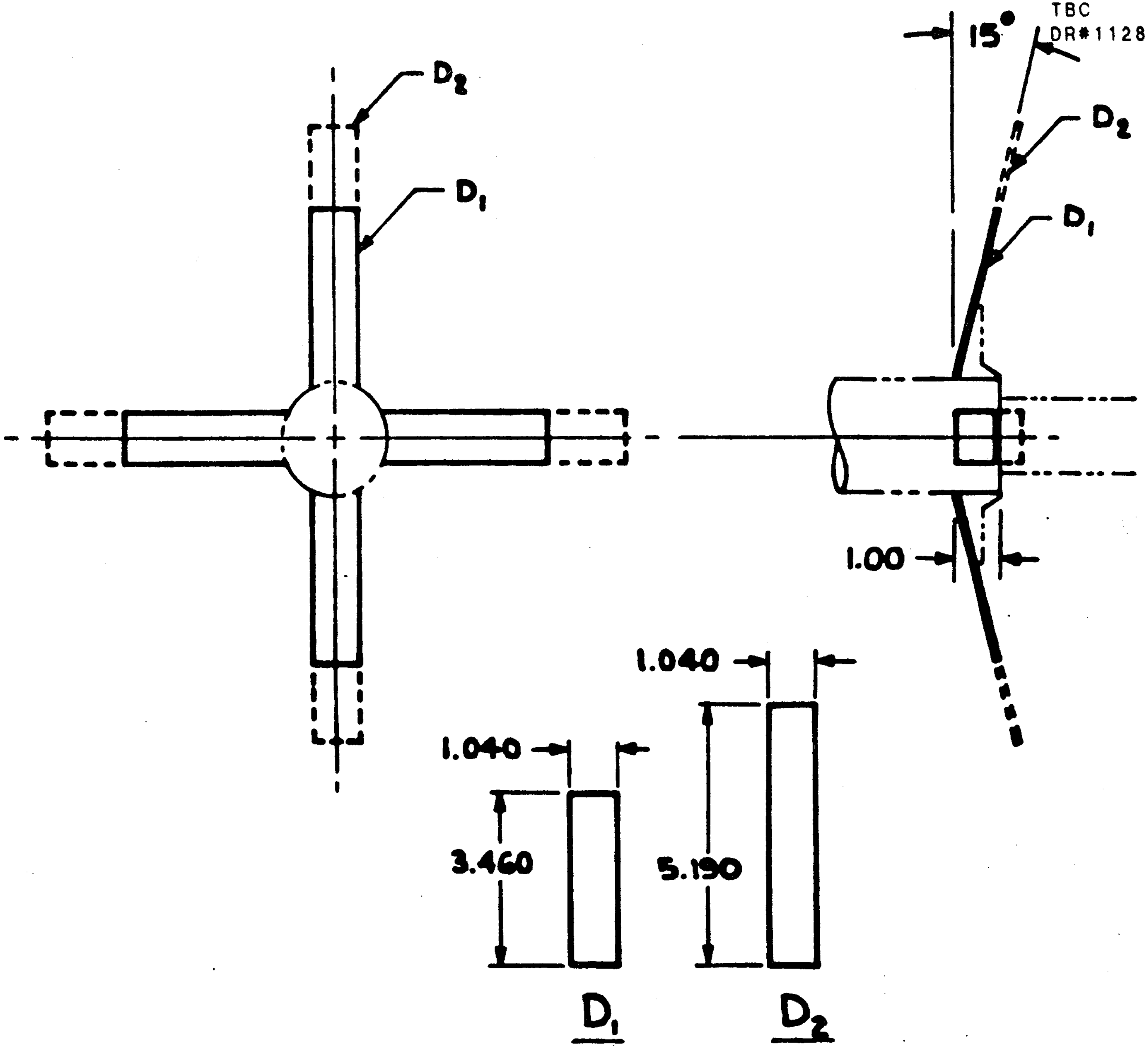


Figure 9. Drag Petals Sting Mount, D_1 and D_2

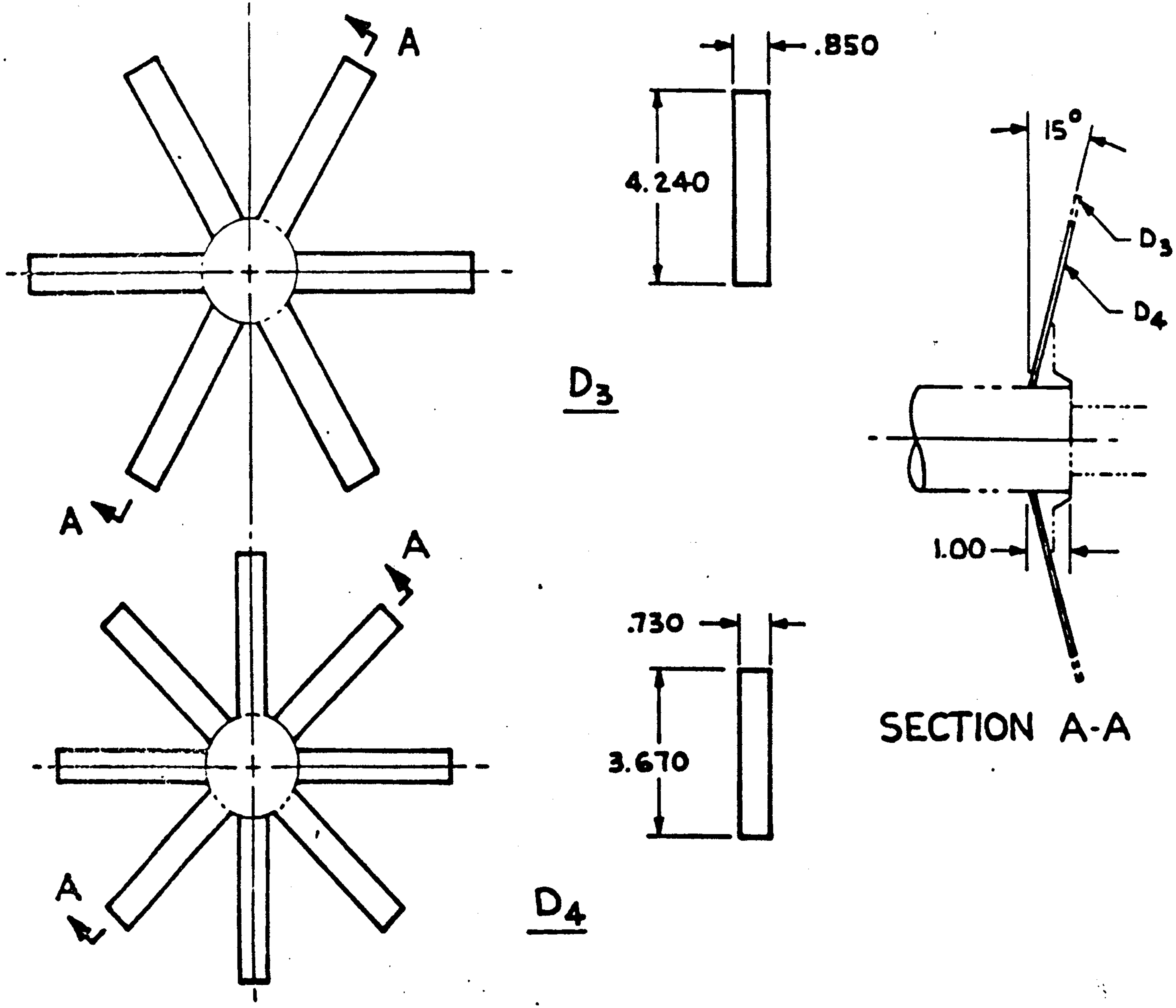


Figure 10. Drag Petals Sting Mount, D_3 and D_4

TEST LaRC 20"-6397 DATA SET/RUN NUMBER
COLLATION SUMMARY

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES Γ (FIN DIHEDRAL)				NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) 6.0
RΦ4011	B_1	A	0°	–					13
021	B_1S_1			–					12
031	$B_1S_1V_1$			15					14
041	$B_1S_1V_1$			30					10
051	$B_1S_1V_2$			30					20
061	B_1S_2			–					19
071	$B_1S_2V_1$			30					17
RΦ4032	$B_1S_1V_1$	B	-5°	15					15
042	$B_1S_1V_1$			30					11
052	$B_1S_1V_2$			30					21
072	$B_1S_2V_1$			30					18

TEST RUN NUMBERS

1	7	13	19	25	31	37	43	49	55	61	67	75	76
BETA	CN	CA	CAB	CLM	CY	CYN	CBL	L/D		IDPVAR(1)	IDPVAR(2)	NDV	

COEFFICIENTS:

α or β SCHEDULES

α_A = 50°, 55°, 60°, 65°, 70°, 75°, 80°, 85°

α_B = 50°, 55°, 65°, 75°, 85°

NASA-MSFC-MAF

CYLINDRICAL BOOSTER
TBC
DR#1214 A-1- 251

AX 1230 I - 1

MODEL ASSEMBLY (TYP)
BASE LINE CONFIGURATION $B_1S_1V_1^{30}$

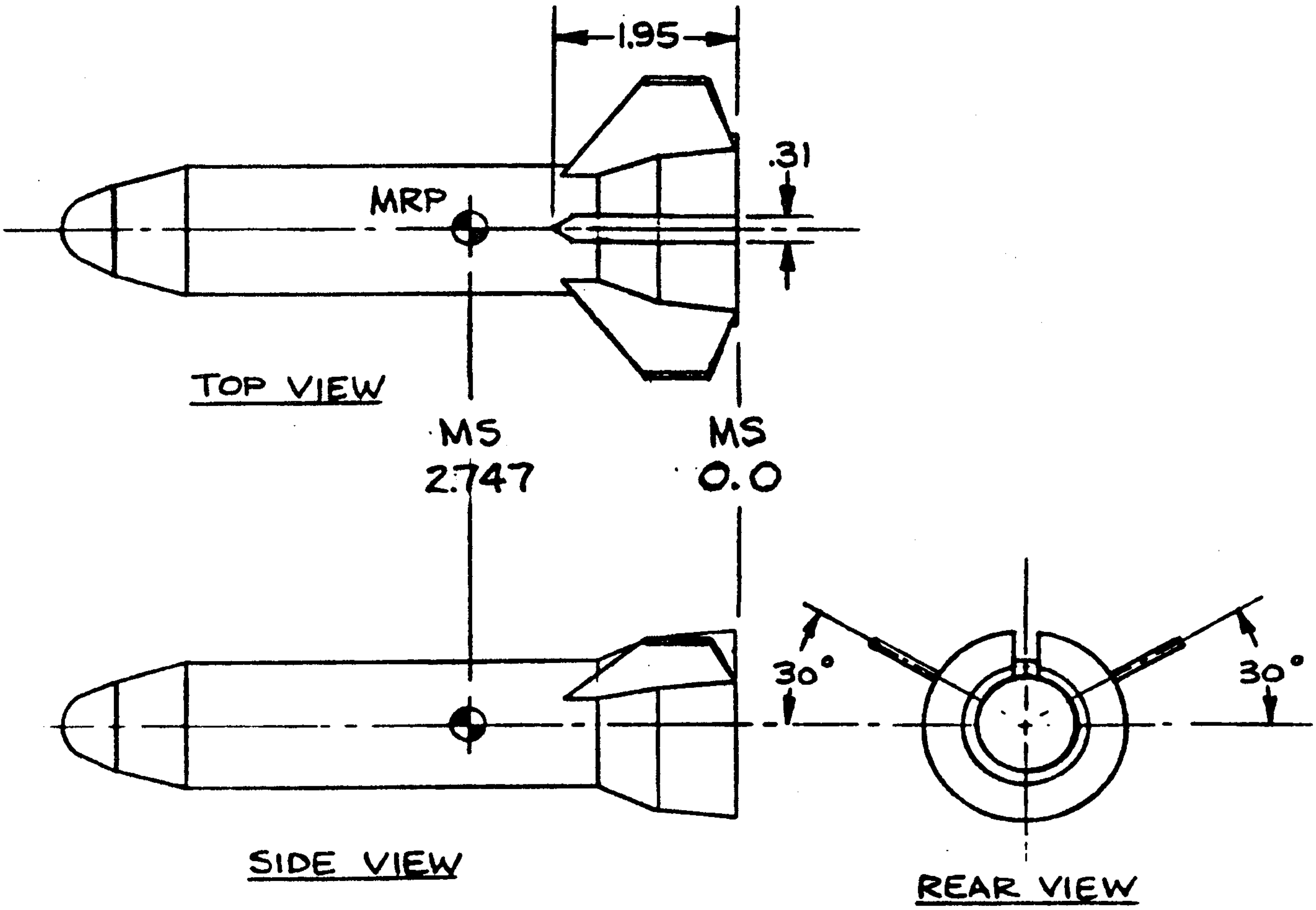


Figure 2.

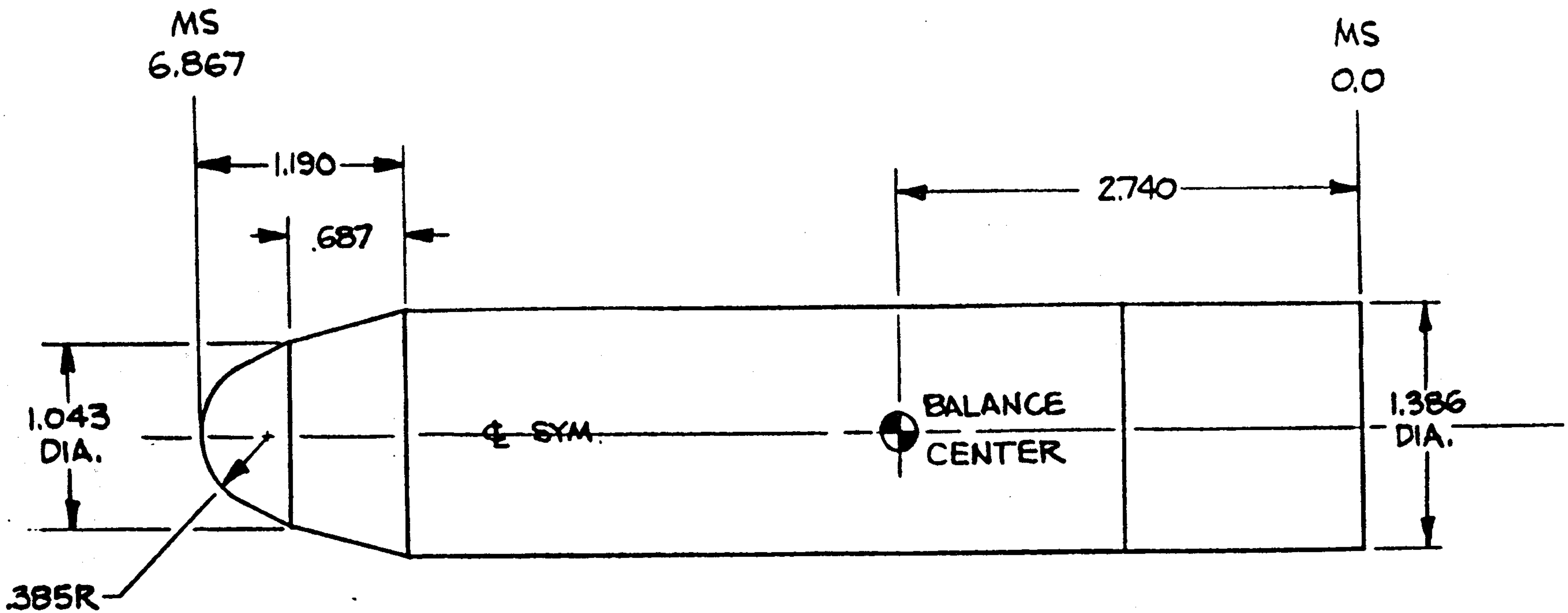


Figure 4. AX 1230I-1

BODY B_1

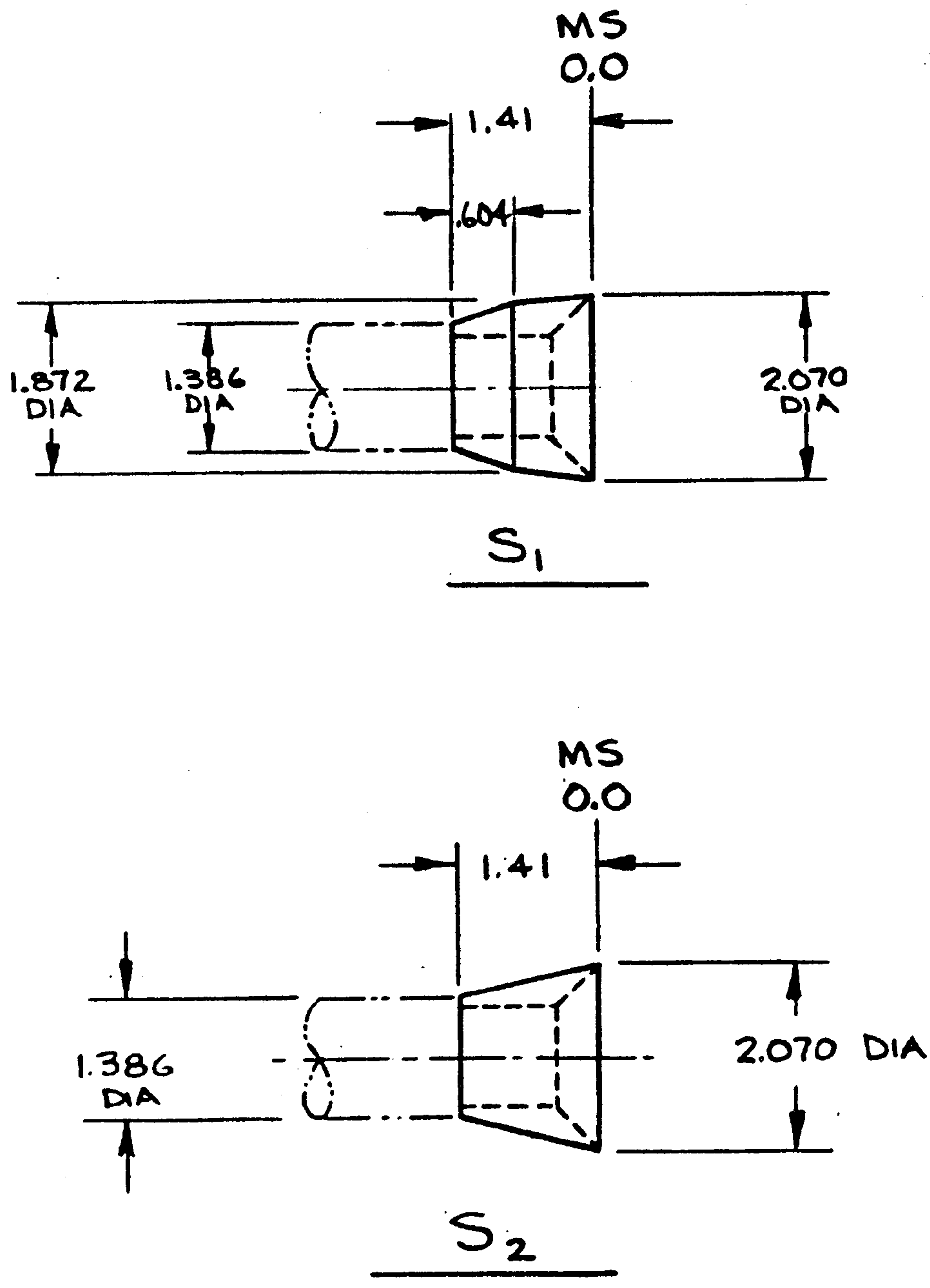
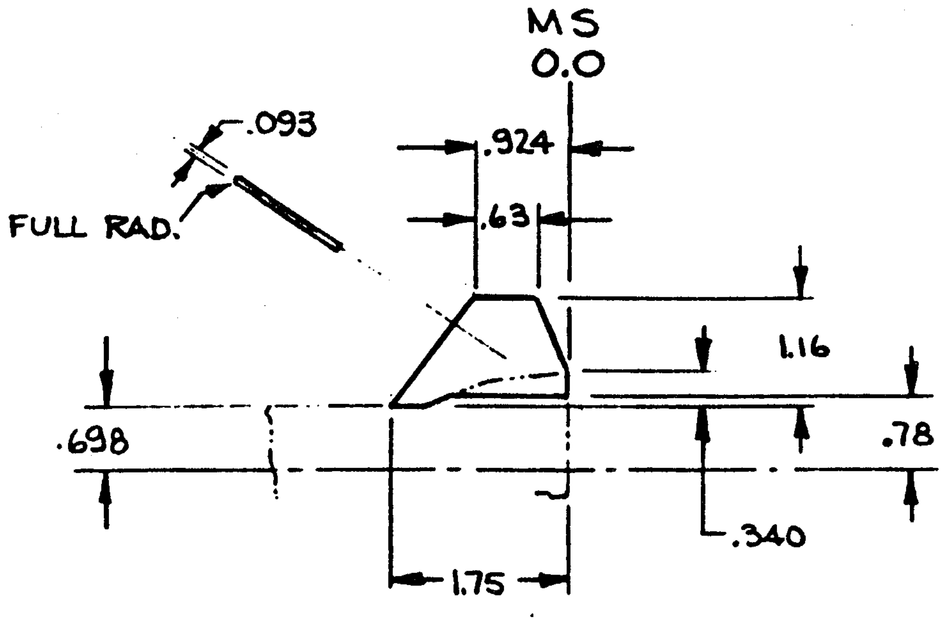


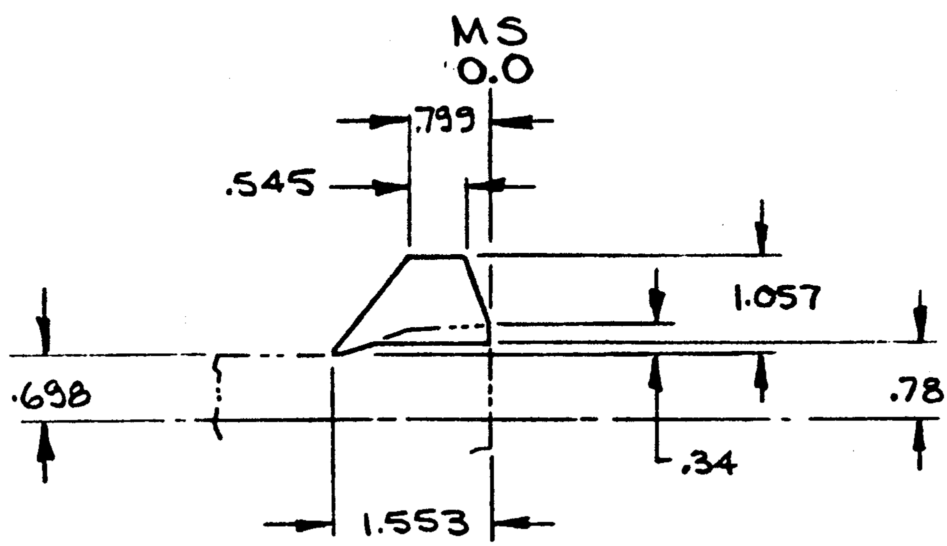
Figure 5. AX 1230 I-1

SKIRTS

CYLINDRICAL BOOSTER
TBC
DR#1214 A-1- 254



V_1



V_2

Figure 6. AX 1230I -1

FINS

BTWT-1273

TEST BSWT-533 DATA SET COLLATION SHEET

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES				NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) .6	.8	.9	.95	1.0	1.05	1.1	2.0	2.7	3.5	4.0	
RDA011	B_1	A	0°					9		39	42	41		40	38	5	22	35	37	
013	B_1	17.5	C					2									23	34		
021	B_1S_1	A	0°					9		33	36	35		34	32	6	21	31	40	
023	B_1S_1	17.5	C					3								7	20	33		
024	B_1S_1	70°	C					3		24		25		23						
031	$B_1S_1V_1$	A	0°					10	80	76	79	78		77	75	9	17	29	41	
032	$B_1S_1V_1$	50	C					8		109	112	111		110	108	53	50	45		
033	$B_1S_1V_1$	17.5	C					3								8	16	28		
034	$B_1S_1V_1$	70	C					6		18	20	73	19	17	72					
035	$B_1S_1V_1$	77.5	C					3								54	49	46		
036	$B_1S_1V_1$	55°	C					5		115	118	117		116	114					
041	$B_1S_1V_2$	A	0°					10	87	82	86	85		84	81	10	18	26	43	
042	$B_1S_1V_2$	50°	C					8		103	106	105		102	104	52	51	44		
043	$B_1S_1V_2$	17.5	C					3								11	19	27		
044	$B_1S_1V_2$	70°	C					5		89	92	91		90	88					
045	$B_1S_1V_2$	77.5°	C					3								55	48	47		
046	$B_1S_1V_2$	55°	C					5		95	98	97		96	94					
051	$B_2S_1V_1$	A	0°					9	65	61	64	63		62	59	13	14		42	
053	$B_2S_1V_1$	17.5	C					2								12	15			
RDA054	$B_2S_1V_1$	70°	C					5		67	70	69		68	66					

1	7	13	19	25	31	37	43	49	55	61	67	75	76
CN	CA	CLM	CY	CYN	CBL	CAB	CLMB	CYNB					9

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

ΔA: 50° to 85°

βC -17.5° + 15°

NASA-MSFC-MAF

13

ORIGINAL PAGE IS OF POOR QUALITY

CYLINDRICAL BOOSTER
TBC
DR#1228 A-1- 255

TABLE II (Continued)

TEST ~~BSWT-553~~ BTWT-1273 DATA SET COLLATION SHEET

CYLINDRICAL BOOSTER
TBC
DR#1228 A-1- 256

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES				NO. of RUNS	.6	.8	.9	.95	1.0	1.05	1.1	2.0	2.7	3.5	4.0	
RDA061	B₁V₂	A	0°					7		45.		46.			44	58.	62.	65.	66.	
064	B₁V₂	75°	C					6		48.		49.		47.		59.	63.	64.		
071	B₂V₂	A	0°					8	58.	53.	57.	56.		54.	52	60.	61.			
RDA081	B₁.₁₅V₂	A	0°					1										25		

1 7 13 19 25 31 37 43 49 55 61 67 75 76

CN ... CA ... CLM .. CY ... CYN .. CBL ... CAB .. CLMR .. CYNB → IDPVAR(1) | IDPVAR(2) | NDV

COEFFICIENTS: αA: 50° to 85°

α or β SCHEDULES: βC: -17.5° to +15°

NASA-MSFC-MAF

ORIGINAL PAGE IS OF POOR QUALITY

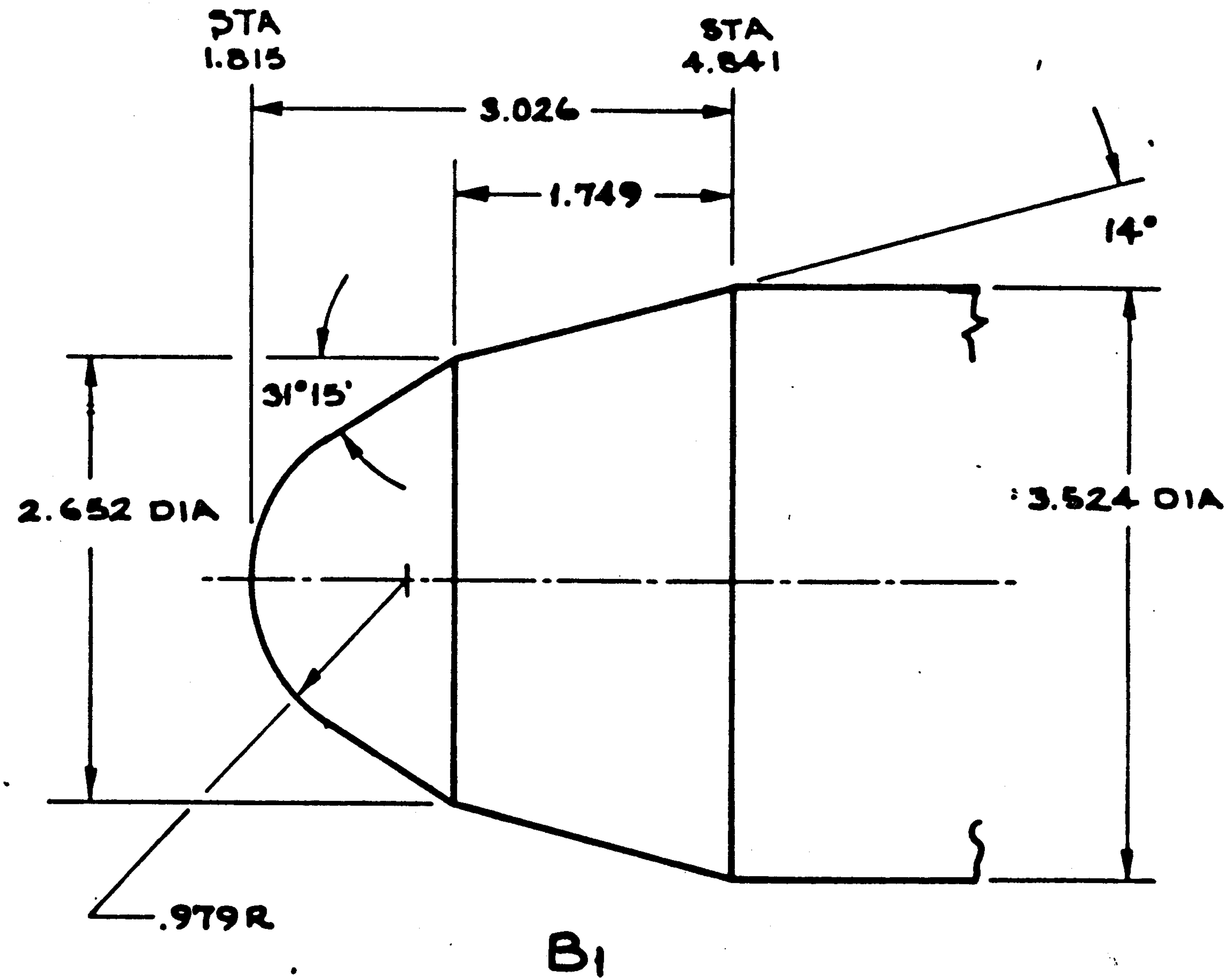


FIGURE 2. MODEL COMPONENT B1

CYLINDRICAL BOOSTER
TBC
DR#1228 A-1- 257

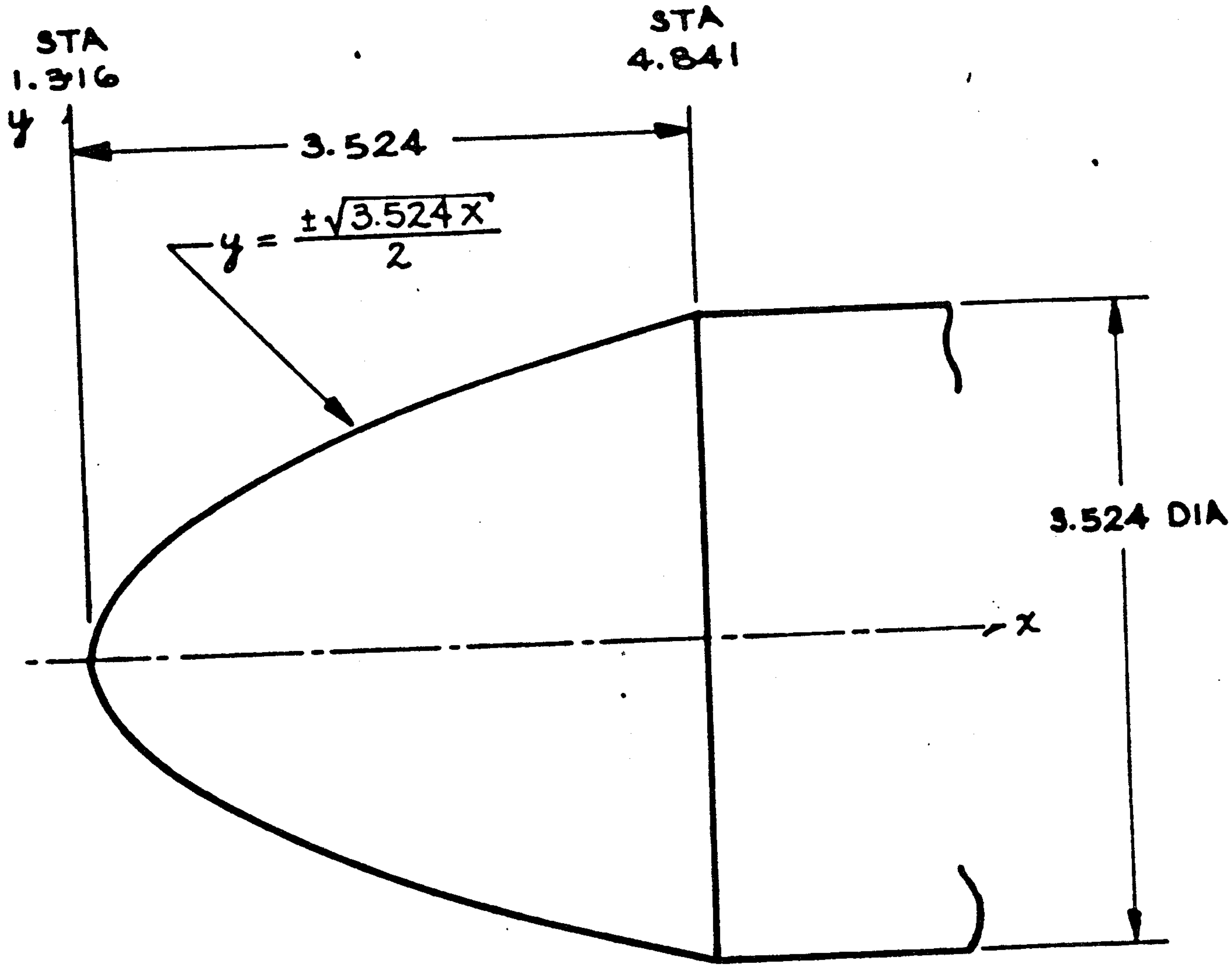


FIGURE 3. MODEL COMPONENT B2

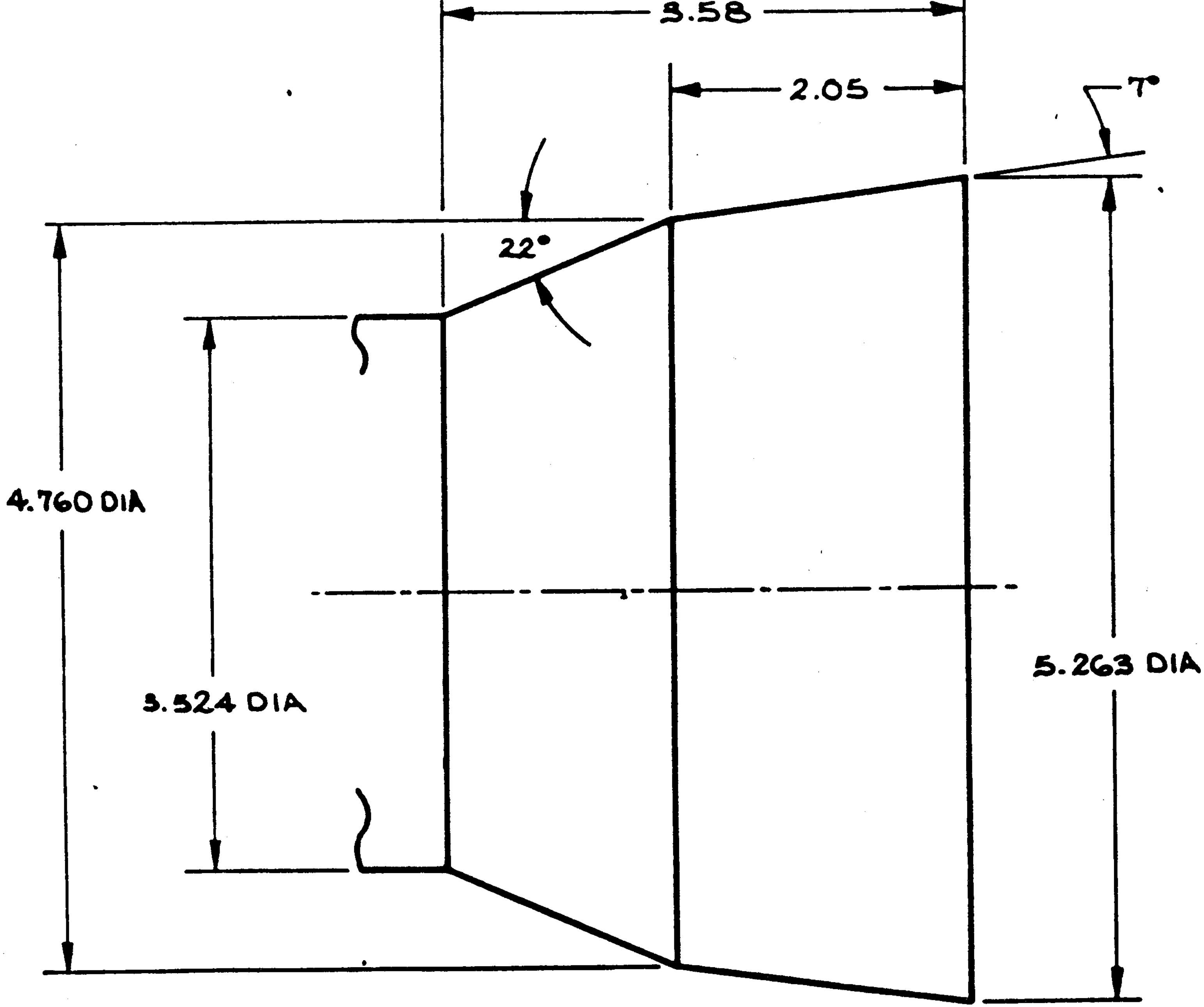


FIGURE 4. MODEL COMPONENT S1

CYLINDRICAL BOOSTER
TBC
DR#1228 A-1- 259

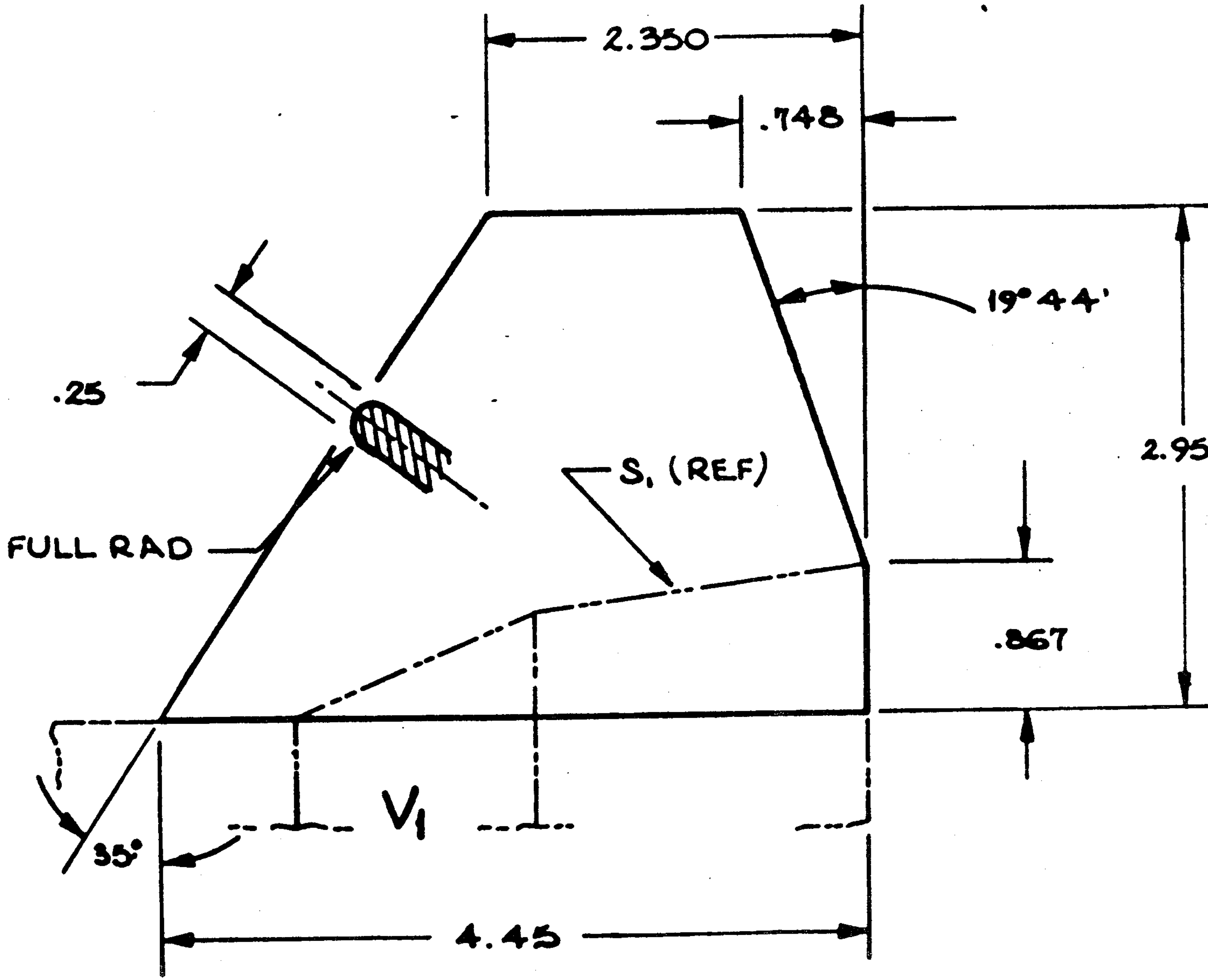


FIGURE 5. MODEL COMPONENT V1

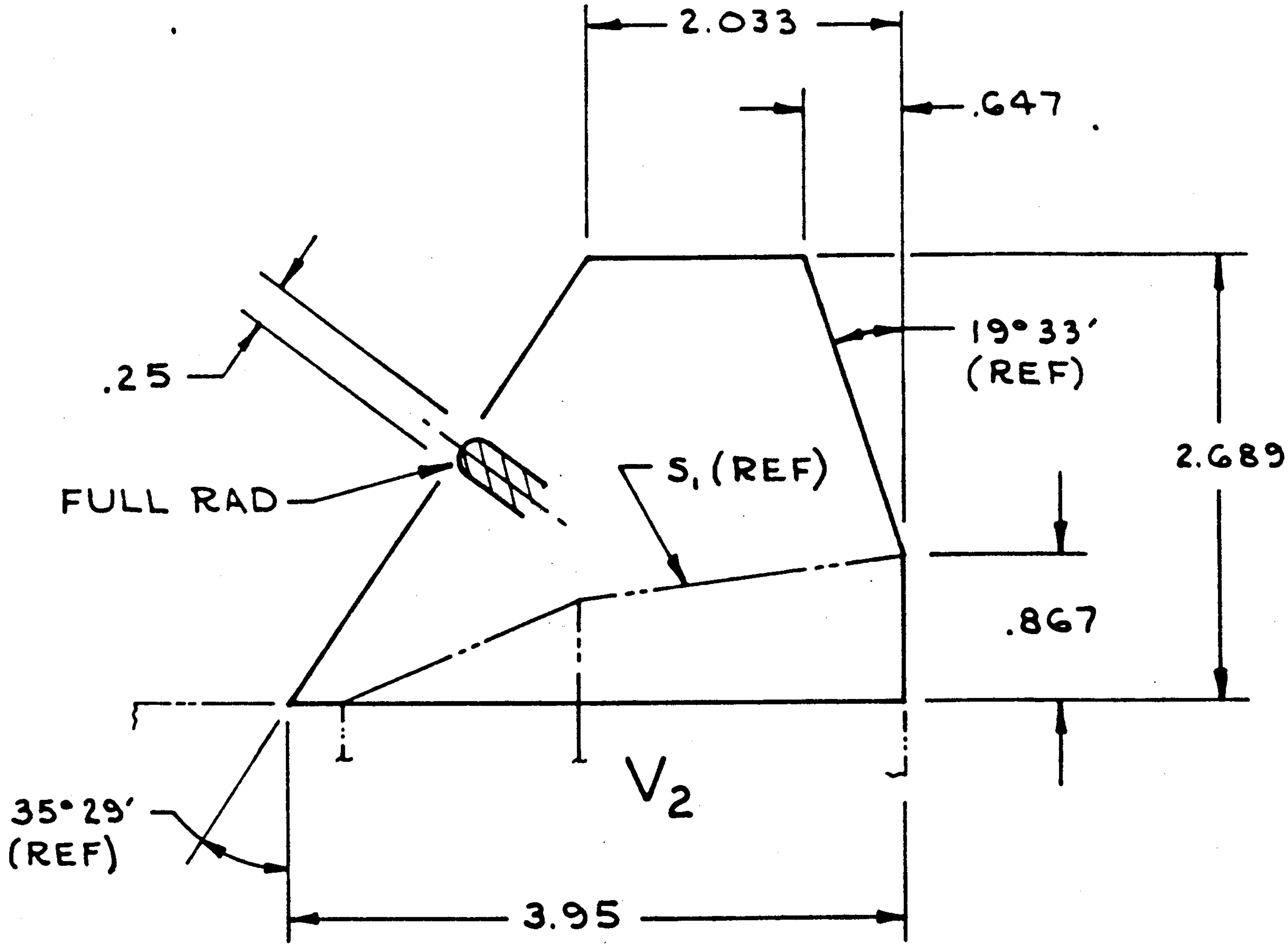


FIGURE 6. MODEL COMPONENT V2

CYLINDRICAL BOOSTER
TBC
DR#1228 A-1- 261

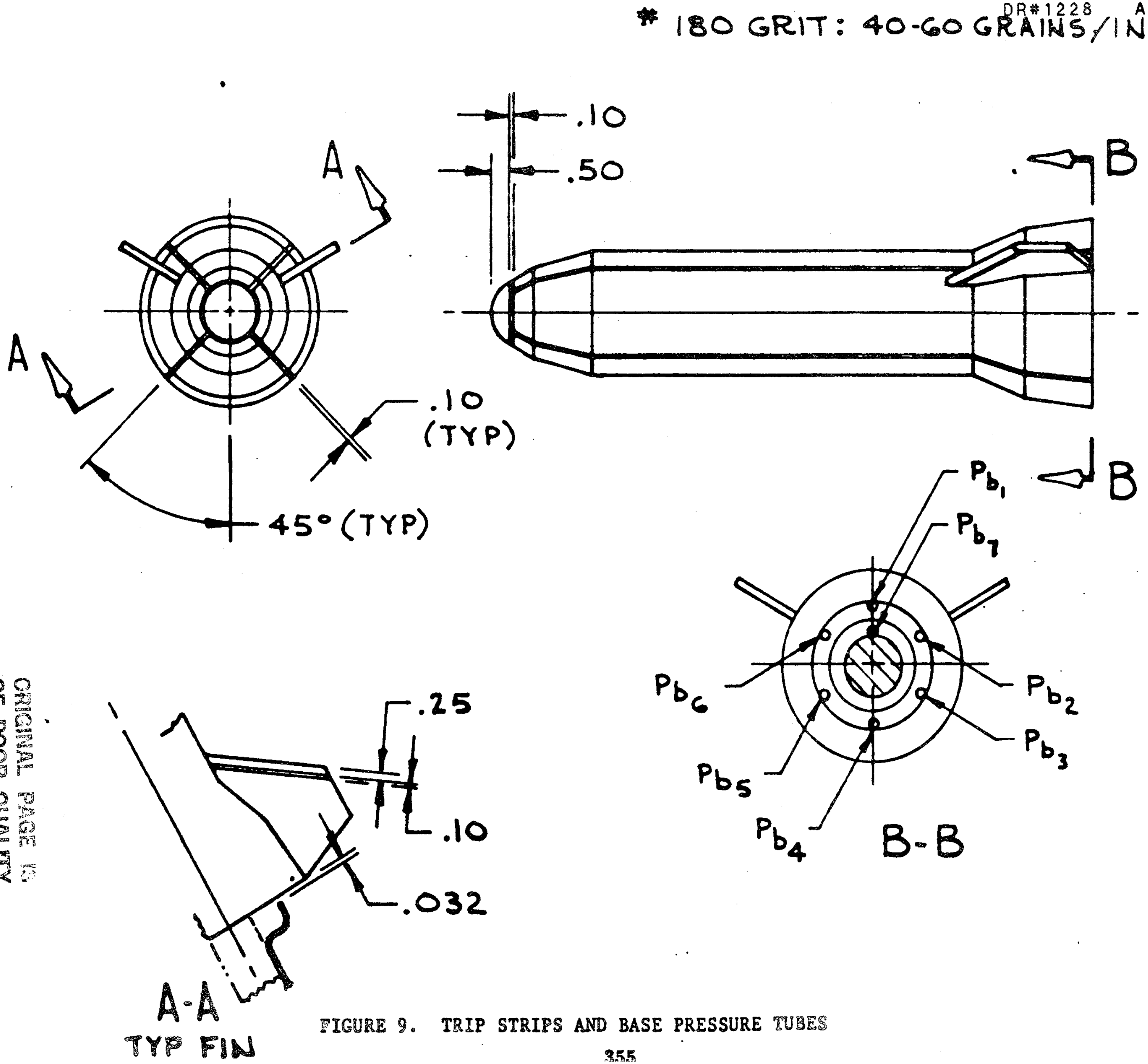
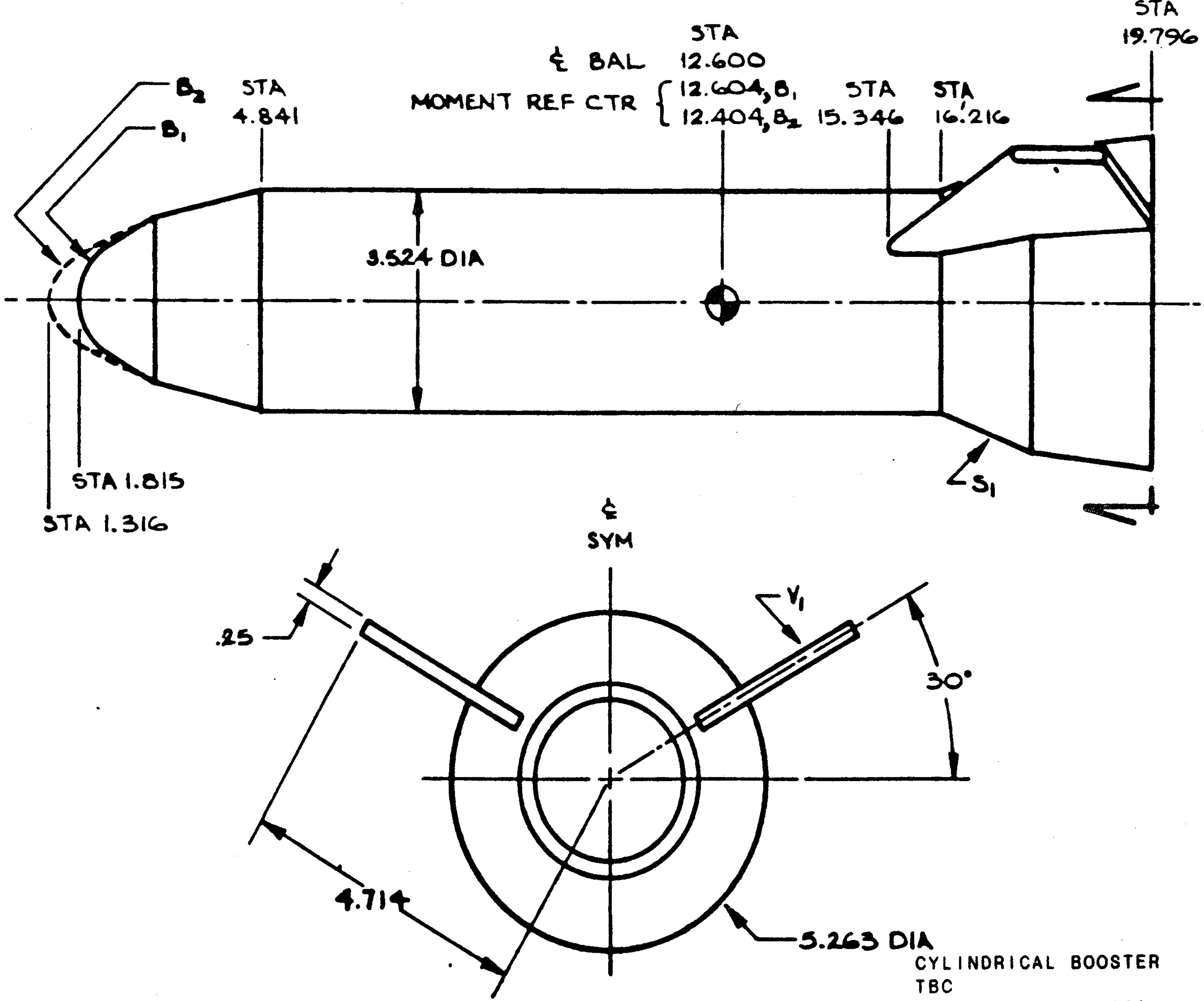


FIGURE 9. TRIP STRIPS AND BASE PRESSURE TUBES



CYLINDRICAL BOOSTER
TBC
DR#1228 A-1- 263

FIGURE 10. MODEL ASSEMBLY

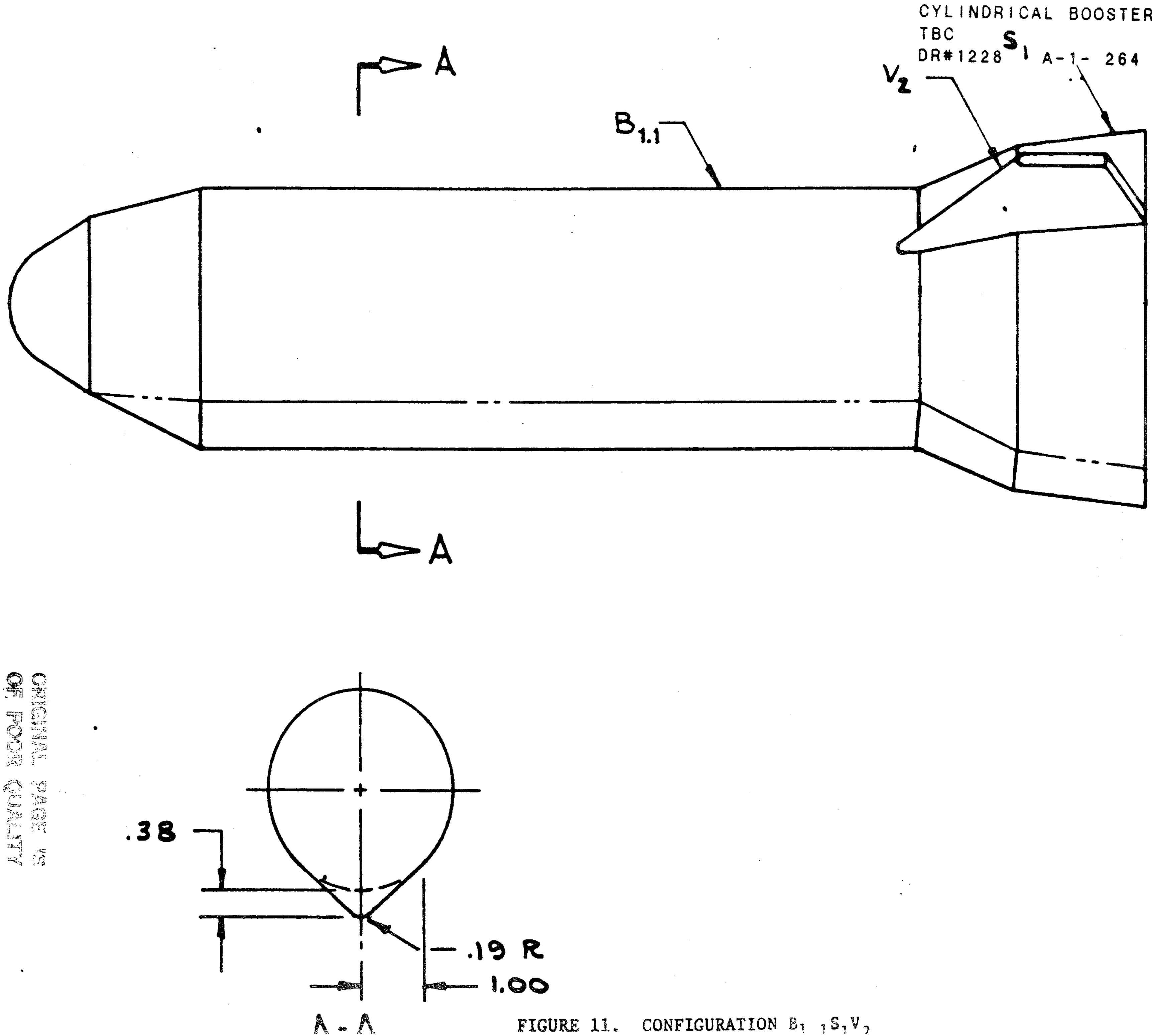


FIGURE 11. CONFIGURATION $B_{1,1}S_1V_2$

TABLE II

TEST BTWT 1282/BSWT 557 DATA SET COLLATION SHEET

BTWT | BSWT

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES δV				NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) 35/1.1	.35	.6	.8	.9	.95	1.0	1.05	1.1	1.3	1.4	1.6	2.0	2.7	3.5	4.0
RD8001	B_5S_3	A	O					7			54		53			52		5			4	3		7
002		B	O					5												54	59	60	81	65
007		7/2.5	C					2												211			206	
009		O	O					1	55															
011	D_1	A	O					2										28						8
021	D_2							2										29						9
031	D_3							1																11
041	D_4							2										27						12
051	D_5							7			61		60			59		26			42	23		13
059	D_5	O	O					1	62															
061	D_6	A	O					0																~~82~~
071	D_7							2										91						83
081	D_8							2										90						84
091	$D_{1.1}$							2										32						19
101	$D_{3.1}$							4										31			39	20		10
111	$D_{5.1}$							7			58		57			56		25			41	24		14
121	$D_{1.2}$							4										33			37	21		15
131	$D_{3.2}$							4										34			38	22		16
141	$D_{6.2}$							2										88						87
RD8151	$B_5S_3D_{1.3}$							3										35			36			18

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CN	CAF	CLM	CY	CYN	CBL	CNFIN	CLMH			IDPVAR(1)	IDPVAR(2)	NDV

COEFFICIENTS:

α or β SCHEDULES

αA : -5 → +25

αB : 55 → 85

βC : -10 → +10

CYLINDRICAL BOOSTER

TBC

DR#1275 A-1- 265

TABLE II (continued)

TEST BTWT 1282/BSWT 557 DATA SET COLLATION SHEET

☐ PRETEST
☒ POSTTEST

BTWT ← | → BSWT

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES δv				NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) .35/1.1	.35	.6	.8	.9	.95	1.0	1.05	1.1	1.3	1.4	1.6	2.0	2.7	3.5	4.0
RD8161	$B_5S_3D_{3.3}$	A	0					1																17
171	$D_{5.3}$							8			64		63			65		44	45		43	46		47
181	$D_{7.3}$							2											51					50
191	$D_{8.3}$							2										89						86
201	$D_{9.4}$							2											93					100
301	$D_{9.4}V_{6.1}$			0				3											94		101			99
304	$D_{9.4}V_{6.1}$	7.7	C					1											95					
311	$V_{6.1}$	A	0					2											97					98
314	$V_{6.1}$	7.7	C					1											96					
321	$D_{10.4}V_{6.1}$	A	0					5			97	94	96			95	93							
325		10	C					5			103	100	102			101	99							
328		-10	C					5			108	105	107			106	104							
329		0	0					1	98															
331	$D_{10.5}V_{6.1}$	A	0					2											176					165
333		0	C					2											174					168
334		7.7	C					2											175					166
341	$D_{10.6}V_{6.1}$	A	0					6			117	114	116		115				172					170
343		0	C					2											173					169
349		0	0					1	113															
RD8351	$B_5S_3D_{4.5}V_6$	A	0					10			122	119	121		120	123	118		240	233			232	241

1 7 13 19 25 31 37 43 49 55 61 67 75 76

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

αA: $-5 \rightarrow +25$

αB: $55 \rightarrow 85$

βC: $-10 \rightarrow +10$

TEST BTWT 1282/BSWT 557 DATA SET COLLATION SHEET

BTWT ← | → BSWT

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES δ_V				NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) .35/1.1	.35	.6	.8	.9	.95	1.0	1.05	1.1	1.3	1.4	1.6	2.0	2.7	3.5	4.0
RD8353	$B_5S_3D_{4.5}V_6$	0	C	0				4											239	234			231	242
359	$D_{4.5}V_6$	0	0					1	124															
361	$D_{1.5}V_6$	A	0					1																247
364		7.7	C					1																246
365		10	C					3			75		74			73								
369		0	0					0																
371	$D_{4.7}V_6$	A	0					5			129	126	128			127	125							
379	$D_{4.7}V_6$	0	0					1	130															
381	$D_{1.7}V_6$	A	0					5			135	132	134			133	131							
389	$D_{1.7}V_6$	0	0					1	136															
401	V_6	A	0					4											237	236			229	244
402		B	0					5												55	58	61	80	64
403		0	C					4											238	235			230	243
404		7.7	C					1																245
406		67.5	C					4												56	57	62	67	
412		B	0	-40				2												70			69	
416		67.5	C	-40				2												71			68	
422		B	0	-60				2												73			78	
426		67.5	C	-60				2												72			79	
RD8432		B	0	-80				2												74			77	

1 7 13 19 25 31 37 43 49 55 61 67 75 76

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

$\alpha A: -5 \rightarrow +25$

$\alpha B: +55 \rightarrow +85$

$\beta C: -10 \rightarrow +10$

CYLINDRICAL BOOSTER
TBC
DR#1275 A-1- 267

ORIGINAL PAGE IS OF POOR QUALITY

CYLINDRICAL BOOSTER
TBC
DR#1275 A-1- 268

TEST BTWT 1282/BSWT 557 DATA SET COLLATION SHEET

☐ PRETEST
☒ POSTTEST

BTWT | BSWT

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES δv				NO. of RUNS	SWEEP 35/1.1	.35	.6	.8	.9	.95	1.0	1.05	1.1	1.3	1.4	1.6	2.0	2.7	3.5	4.0
RD8436	$B_5S_3V_6$	67.5	C	-80				2												75			76	
501	V_{6F}	A	O	0				3			35		34			33								
502		B	O					11		14		9	11	13	12	10	8			191	204	203	199	
505		10	C					3			38		37			36								
507		72.5	C					7		32		29	30		31		28			193			200	
512		B	O	-40				11		21		16	18	20	19	17	15			194	205	202	201	
522		B	O	-60				7		26		23	24		25		22			195			198	
532		B	O	-80				2												196			197	
541	$D_{10.4}V_{6F}$	A	O	0				3			44		43			42								
545	$D_{10.4}V_{6F}$	10	C					3			41		40			39								
551	$D_{1.5}V_{6F}$	A	O					3			47		46			45								
555	$D_{1.5}V_{6F}$	10	C					2					50			49								
602	V_8	B	O					1															182	
612	V_{9A}	B	O					2												213			183	
614		7.7	C					1											253					
617		72.5	C					2												214			184	
622	V_{9B}	B	O					2												209			208	
627	V_{9B}	72.5	C					2												210			207	
632	V_{9C}	B	O					2												216			186	
RD8637	$B_5S_3V_{9C}$	72.5	C					2												215			185	

1 7 13 19 25 31 37 43 49 55 61 67 75 76

IDPVAR(1) | IDPVAR(2) | NDV

COEFFICIENTS:

α or β SCHEDULES

αA: −5 → +25

αB: 55 → 85

βC: −10 → +10

ORIGINAL PAGE IS OF POOR QUALITY

TABLE II (continued)

TEST BTWT 1282/BSWT 557 DATA SET COLLATION SHEET

BTWT | BSWT

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES δ_T				NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) SWEEP .35/1.1	.35	.6	.8	.9	.95	1.0	1.05	1.1	1.3	1.4	1.6	2.0	2.7	3.5	4.0
RD8642	$B_5S_3V_{9D}$	B	O					2												218			188	
647	V_{9D}	72.5	C					2												219			189	
651	$V_{9A}F_3$	A	O					6			68		67			66			251		250			248
654		7.7	C					2											252					249
655		10	C					3			72		71			70								
659		O	O					1	69															
701	B_6S_3	A	O					1																49
711	$B_6S_3D_{5.3}$							1																48
801	$B_5S_2V_3$							2											152					161
811	$V_3F_{2.1}$							2											153					160
821	V_3F_1							2											154					159
831	$V_{3.2}$							2											151					162
841	$V_{3.2}F_1$							3			86		85			84								
845	842 $V_{3.2}F_1$	10	C					3			89		88			87								
851	$V_{3.3}F_1$	A	O					2											155					158
854	$V_{3.3}F_1$	7.7	C					2											156					157
902	$B_5S_4V_7$	B	O					1															178	
907		72.5	C					1															179	
912	T_1^{30}	B	O	30				1															180	
RD8922	T_2^{75}	B	O	75				1															181	

1 7 13 19 25 31 37 43 49 55 61 67 75 76

COEFFICIENTS: IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

$\alpha A: -5 \rightarrow +25$

$\alpha B: 55 \rightarrow 85$

$\beta C: -10 \rightarrow +10$

CYLINDRICAL BOOSTER
TBC
DR#1275 A-1- 269

CYLINDRICAL BOOSTER
TBC
DR#1275   A-1- 270

TEST BTWT 1282/BSWT 557 DATA SET COLLATION SHEET

☐ PRETEST
☒ POSTTEST

BTWT ← | → BSWT

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES δ_v				NO. of RUNS	SWEEP 35/1.1	.35	.6	.8	.9	.95	1.0	1.05	1.1	1.3	1.4	1.6	2.0	2.7	3.5	4.0
RD8932	B_5S_5	B	0					2												221			222	
RD8942	$B_5S_5V_8$	B	0					1															226	
RD8952	$B_5S_5V_9$	B	0					2												220			224	
RD8006	B_5S_3	67.5	C					1															66	
RD8405	$B_5S_3V_6$	10	C	0				0																
RD8559	$B_5S_3D_{1.5}V_{6F}$	0	0	0				1	48															
RD8322	$D_{10.4}V_{6.1}$	A	0	0				2											177					164
RD8842	$B_5S_2V_{3.2}F_1$	A	0					2											150					163

1 7 13 19 25 31 37 43 49 55 61 67 75 76

IDPVAR(1) | IDPVAR(2) | NDV

COEFFICIENTS:

α or β SCHEDULES

αA: −5 → +25

αB: 55 → 85

βC: −10 → +10

ORIGINAL PAGE IS OF POOR QUALITY

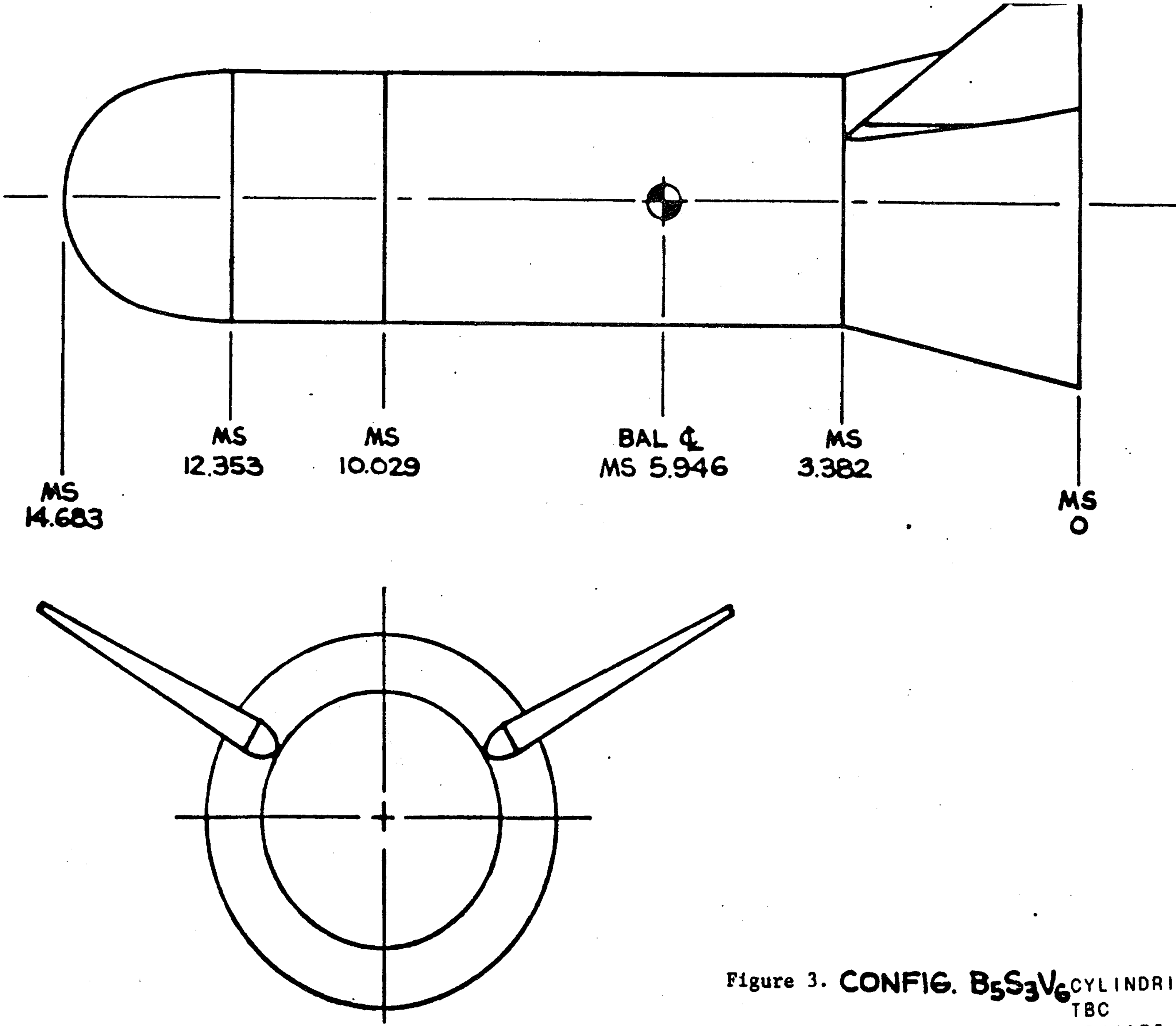


Figure 3. CONFIG. $B_5S_3V_6$ CYLINDRICAL BOOSTER
TBC
DR#1275 A-1- 271

CYLINDRICAL BOOSTER
TBC
DR#1275 A-1- 272

T.S. : *180 GRIT ; 150~180 GRAINS/IN.

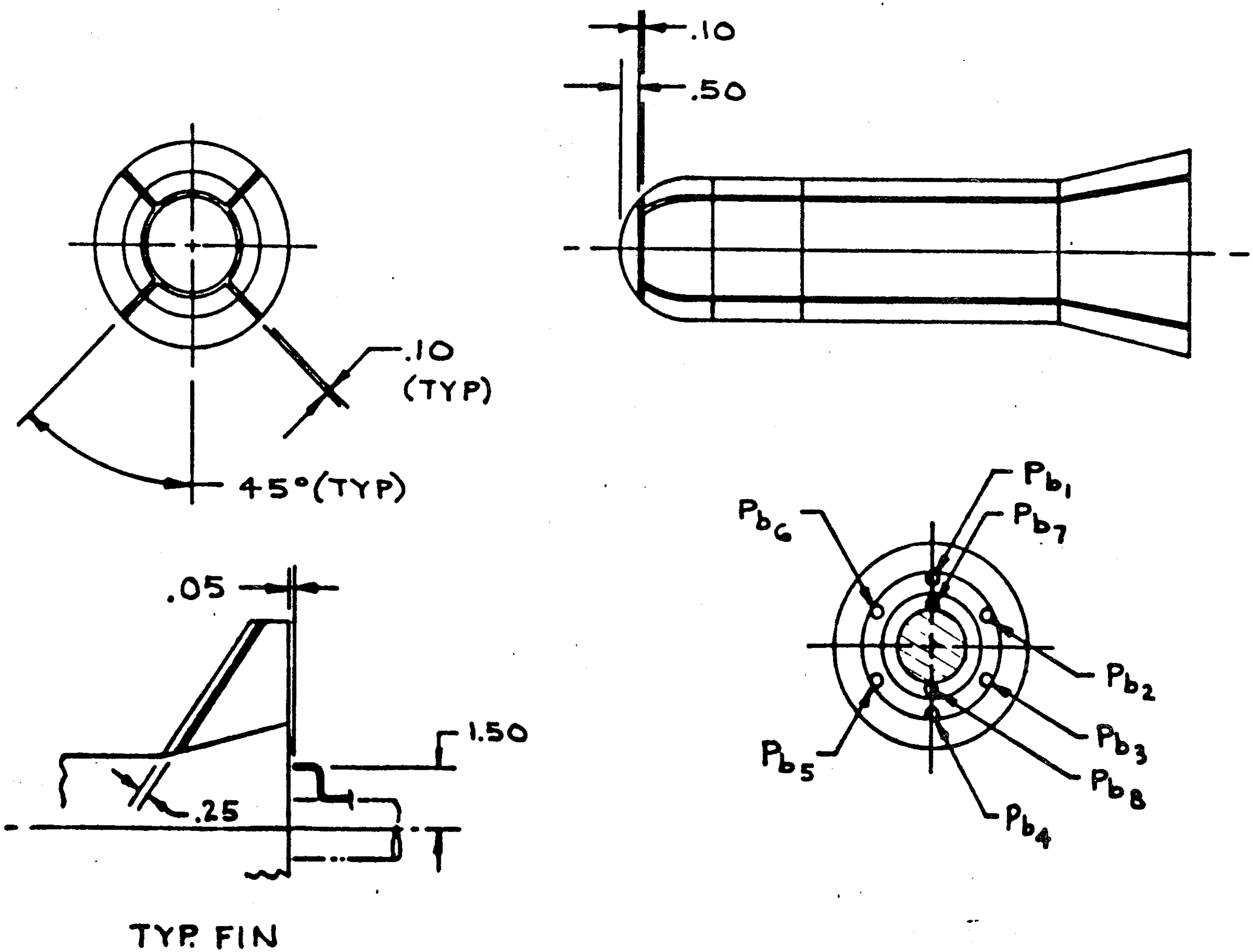


Figure 4. Trip Strips and Base Pressures

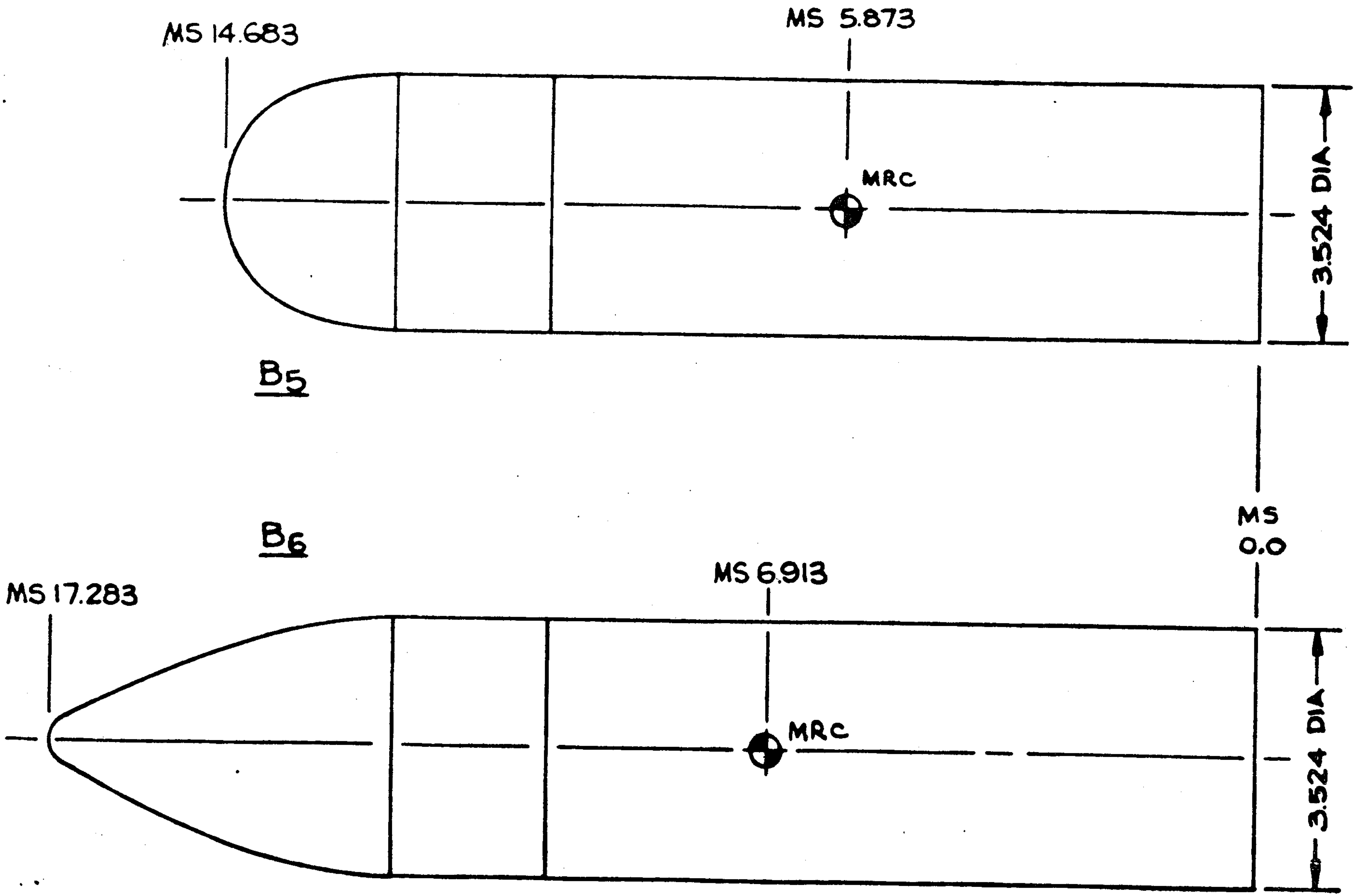


Figure 5. Bodies B5 and B6

CYLINDRICAL BOOSTER
TBC
DR#1275 A-1- 273

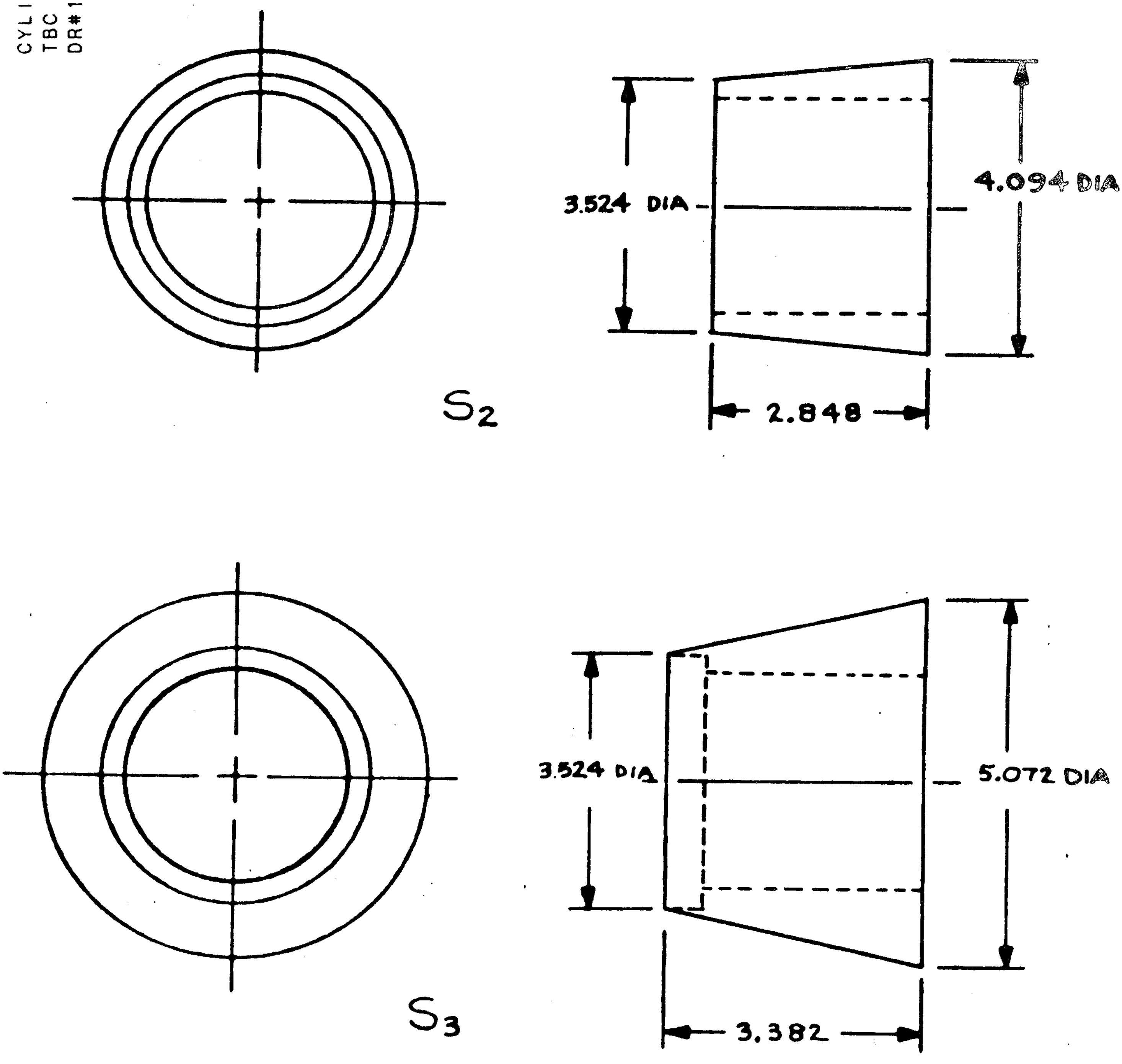


Figure 6. ENGINE SHROUDS S_2 & S_3

CYLINDRICAL BOOSTER
TBC
DR#1275 A-1- 275

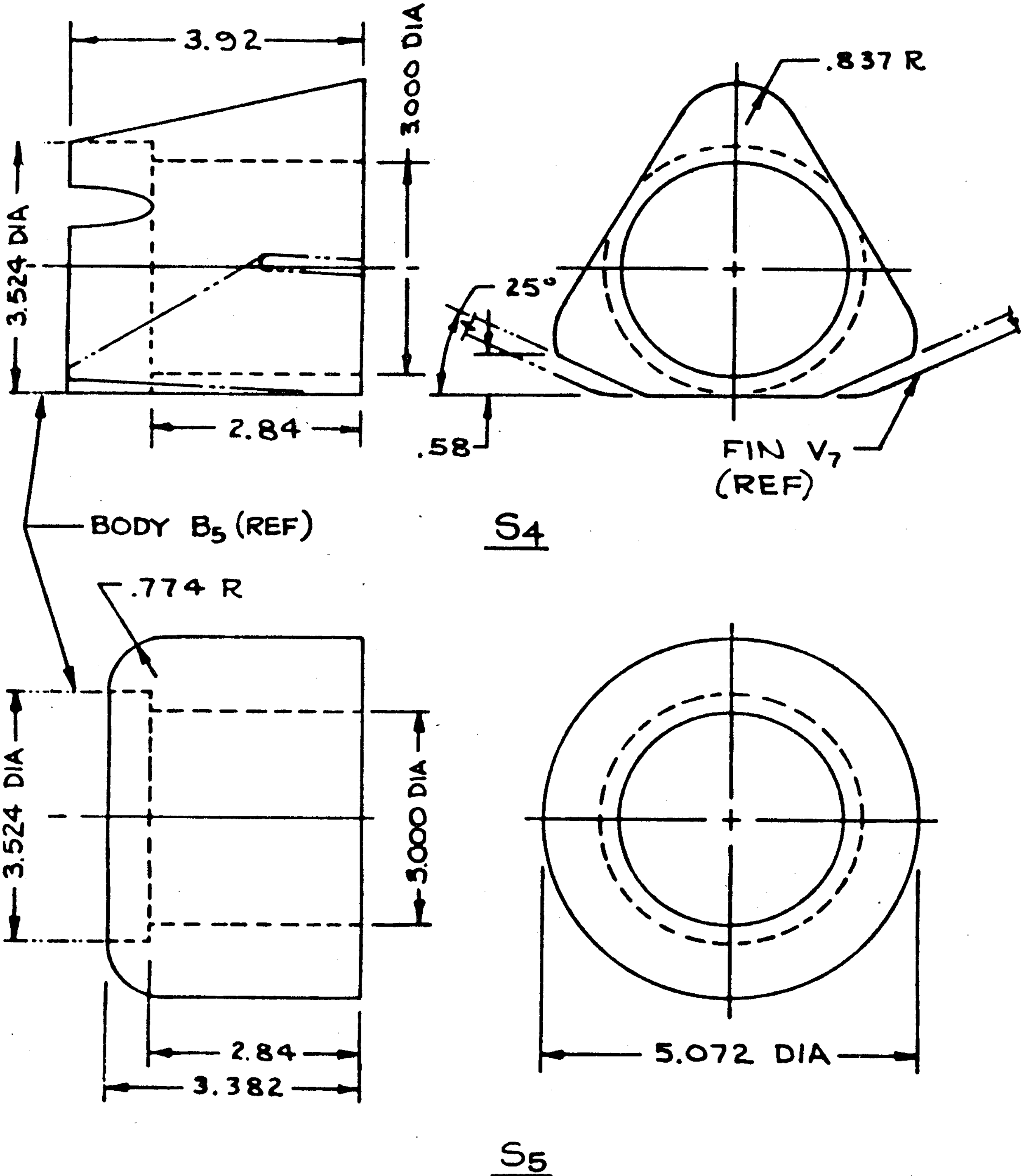


Figure 7. Engine Shrouds S_4 & S_5

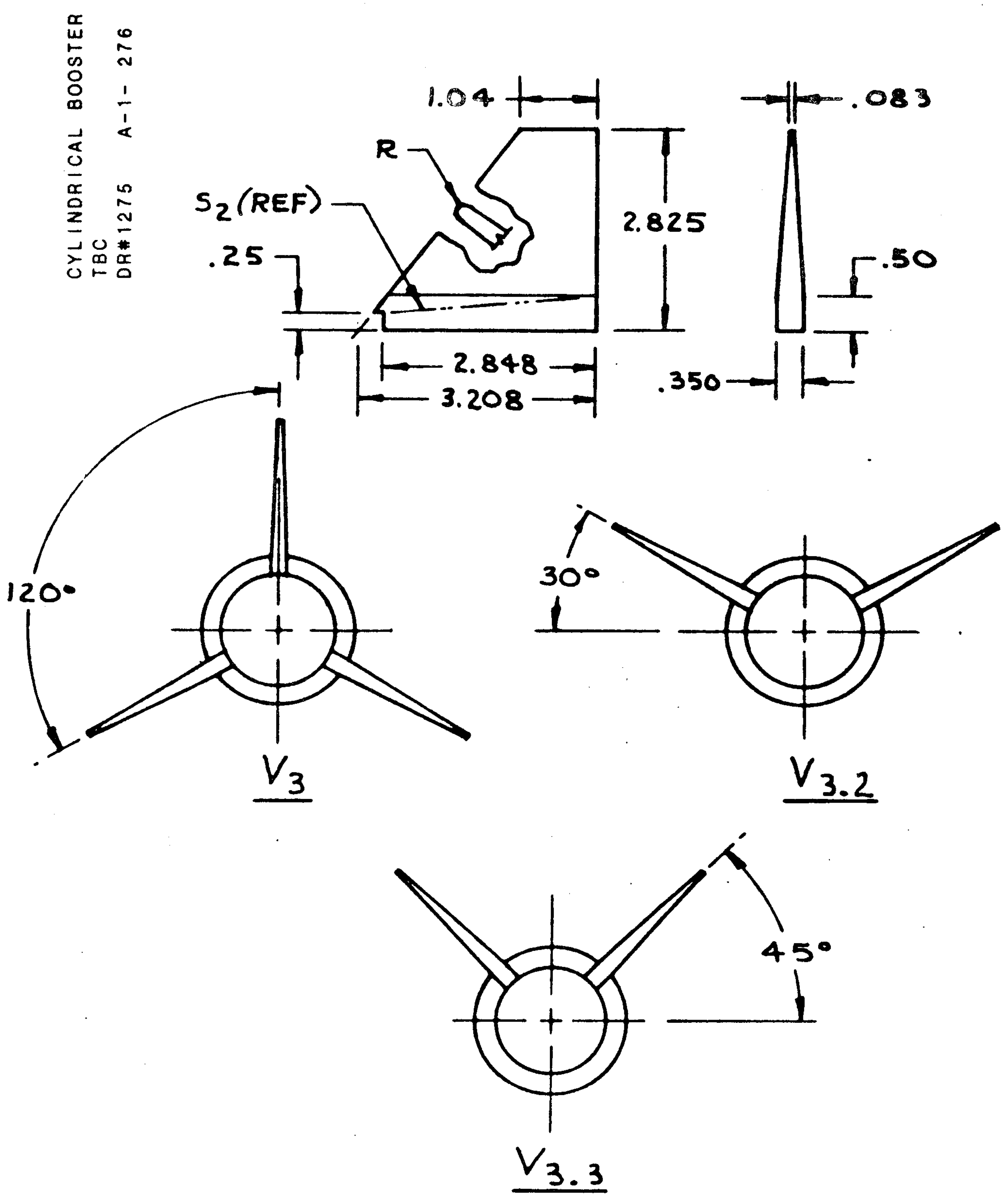


Figure 8. Fin V_3

CYLINDRICAL BOOSTER
TBC
DR#1275 A-1- 277

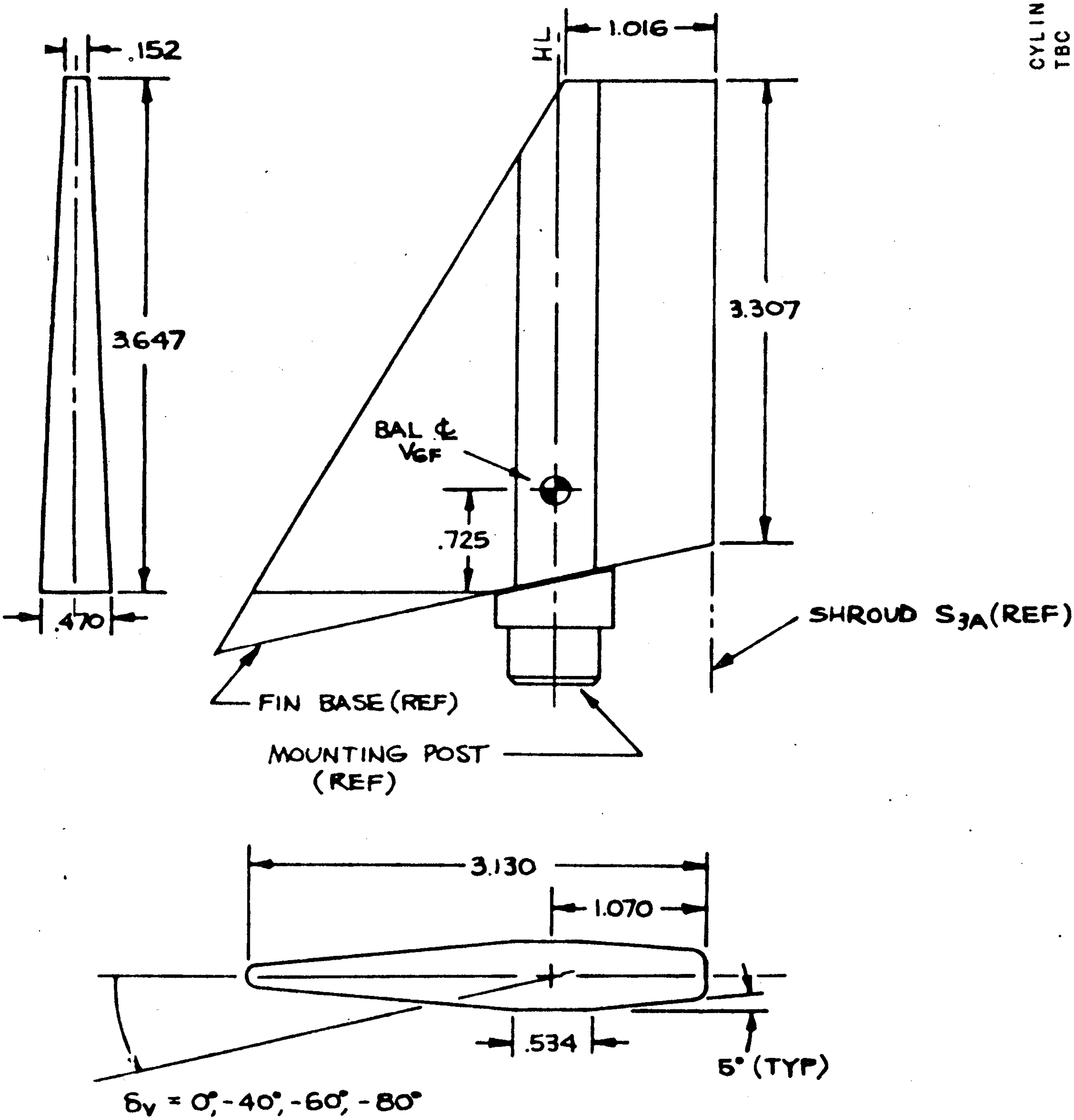


Figure 9. Fin V_6 & V_{6F}

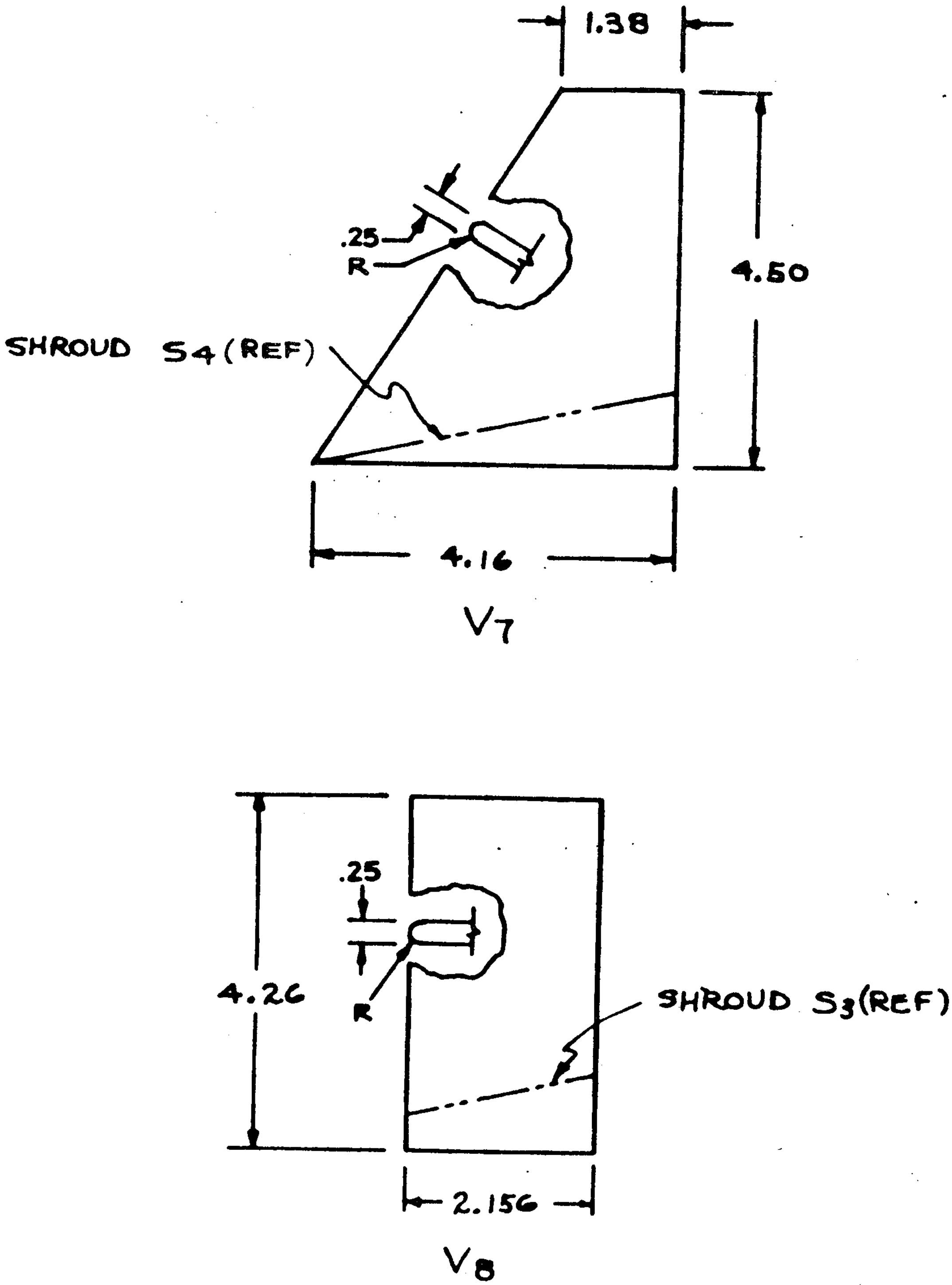


Figure 10. Fins V_7 & V_8

CYLINDRICAL BOOSTER
TBC
DR#1275 A-1- 279

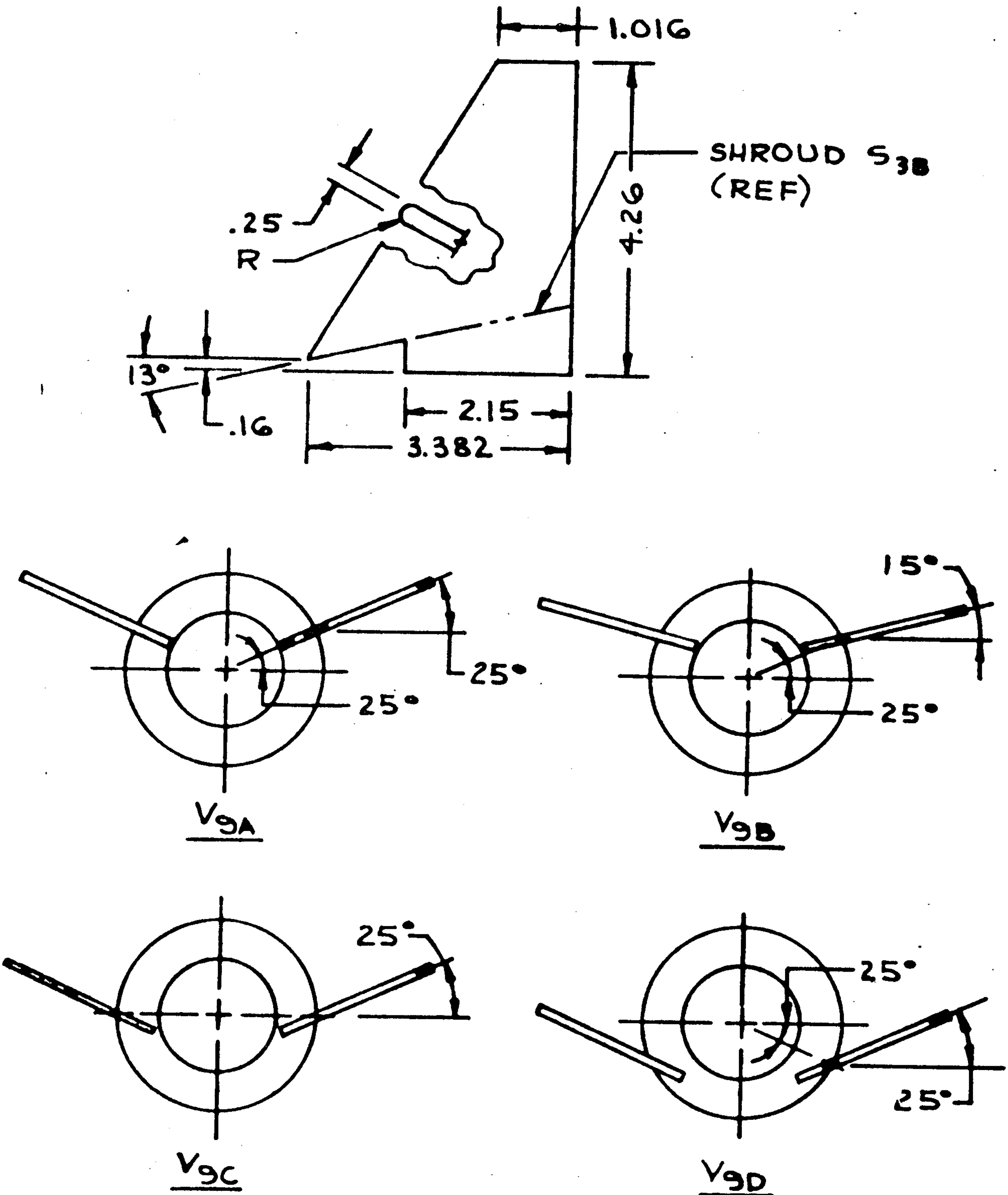


Figure 11. Fin V_9

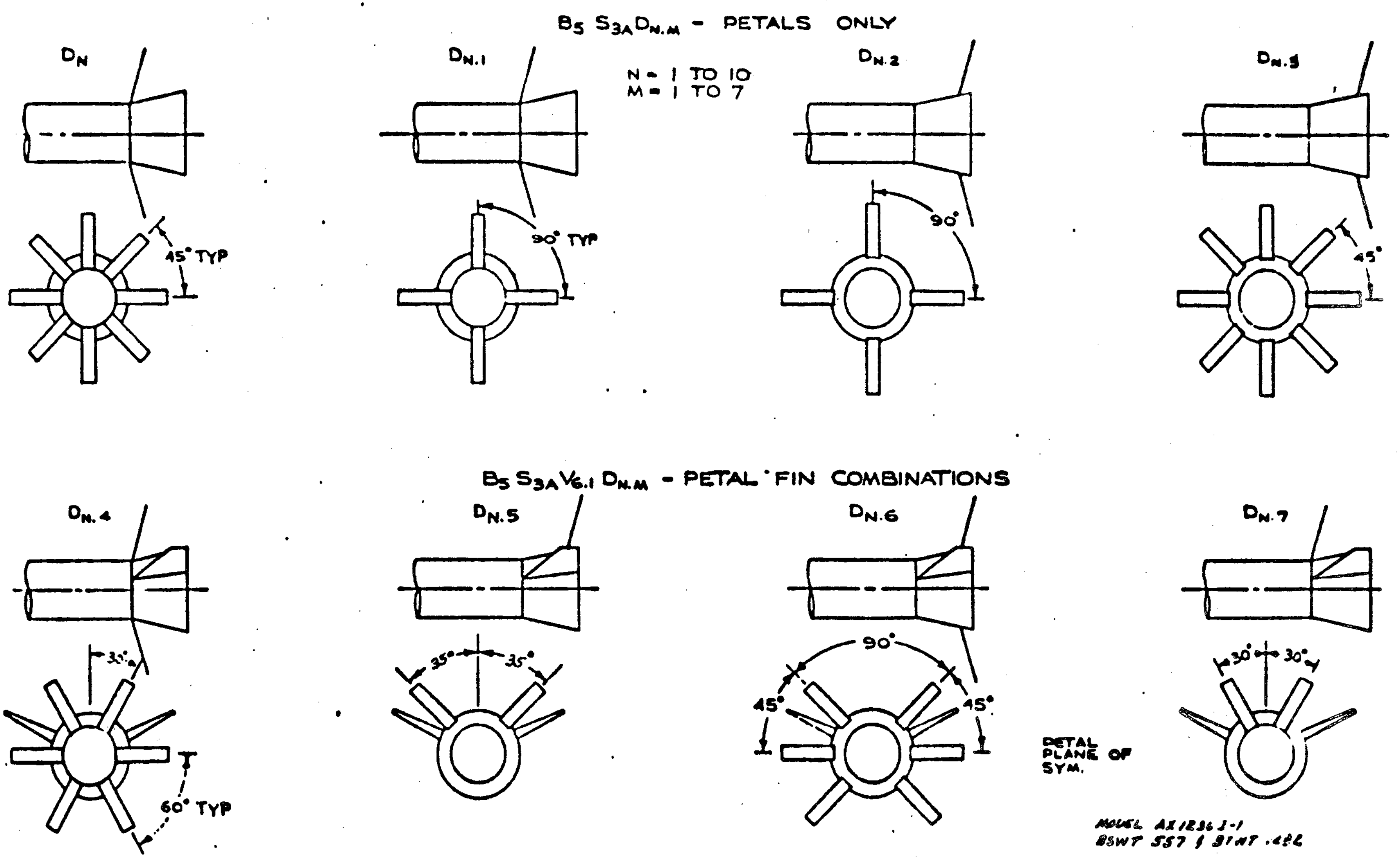


Figure 12. Drag Petal Axial Location & Arrangement

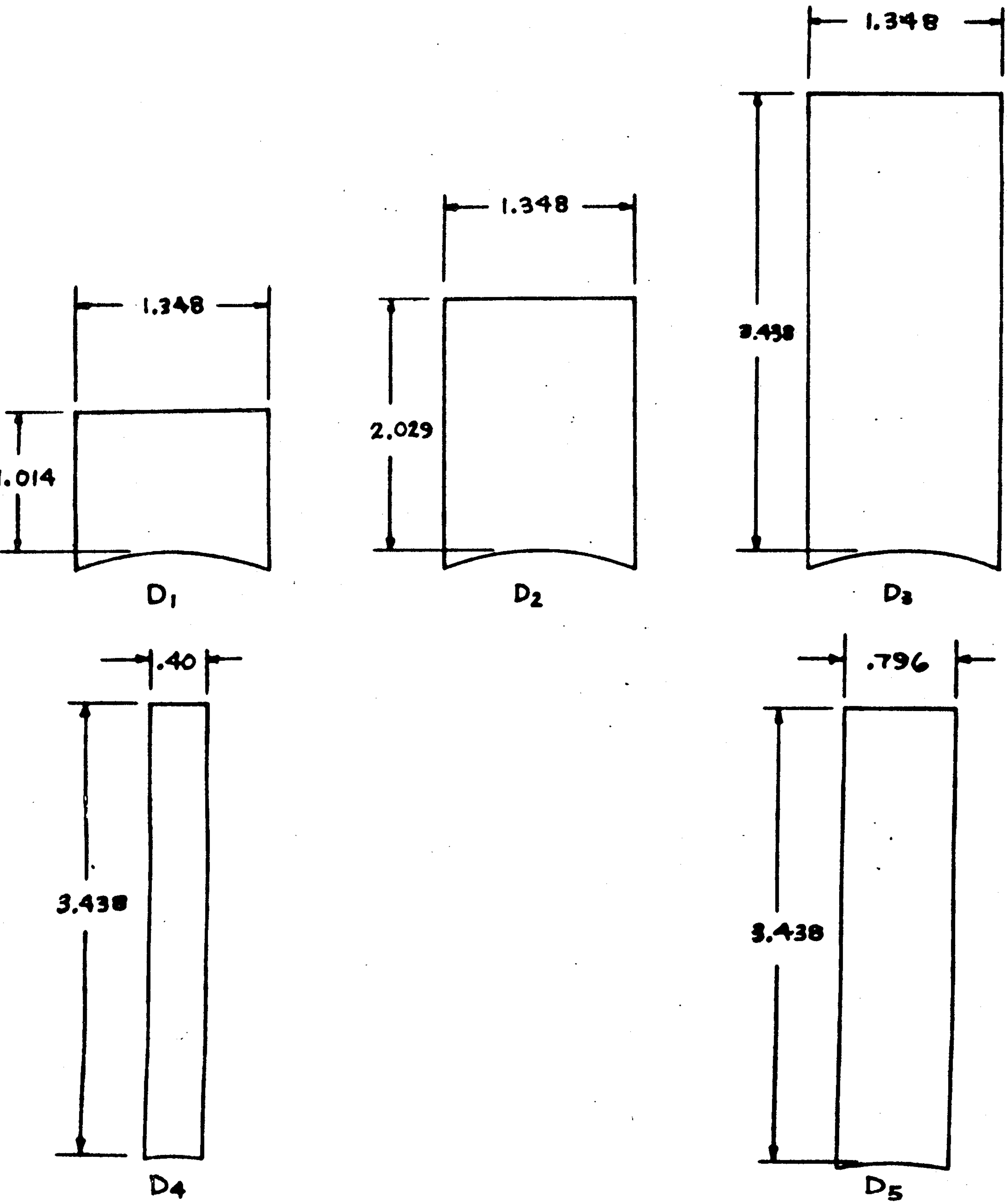


Figure 13. Drag Petal Planforms D_1 through D_5

CYLINDRICAL BOOSTER
TBC
DR#1275 A-1- 281

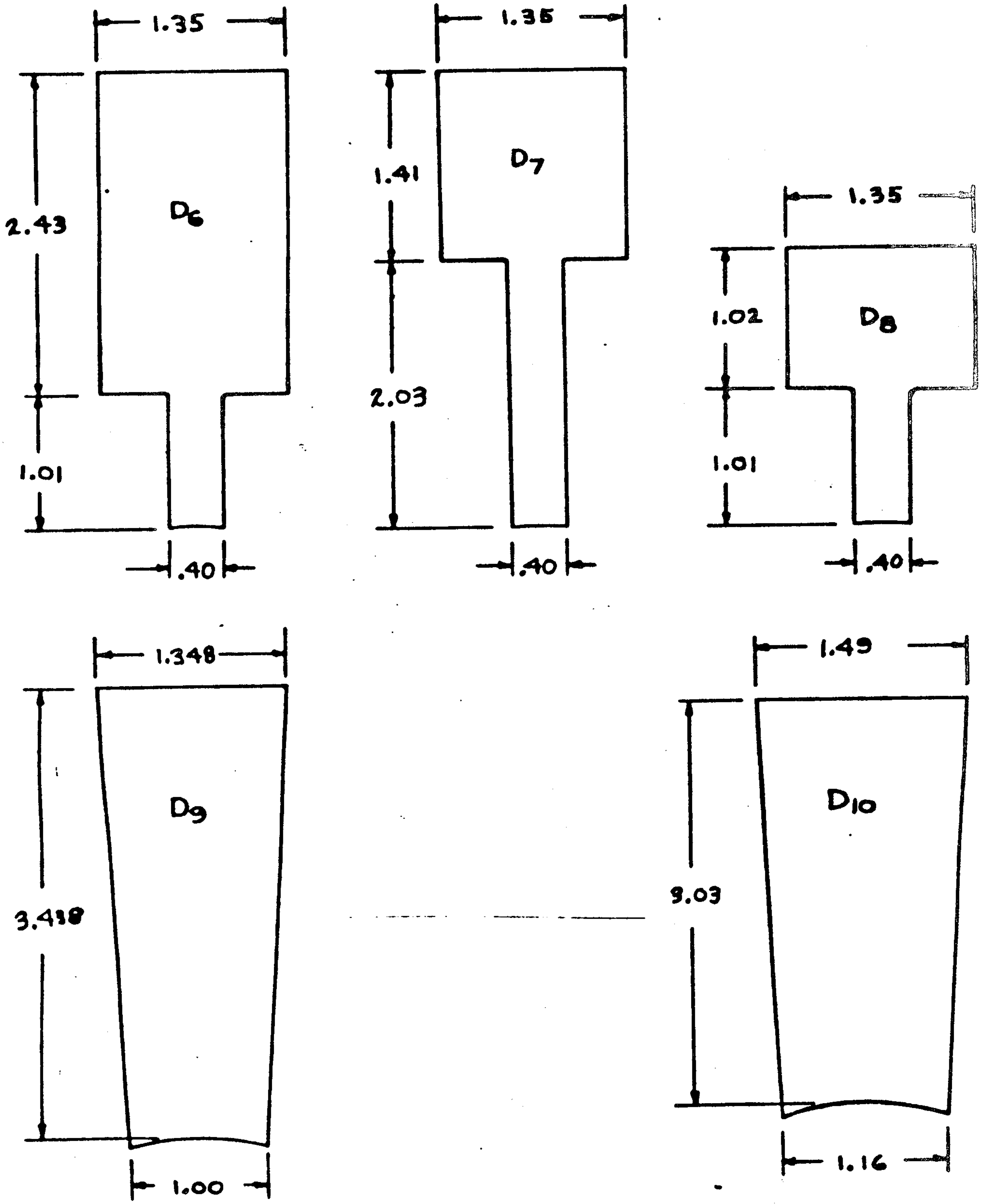


Figure 14. Drag Petal Planforms D_6 through D_{10}

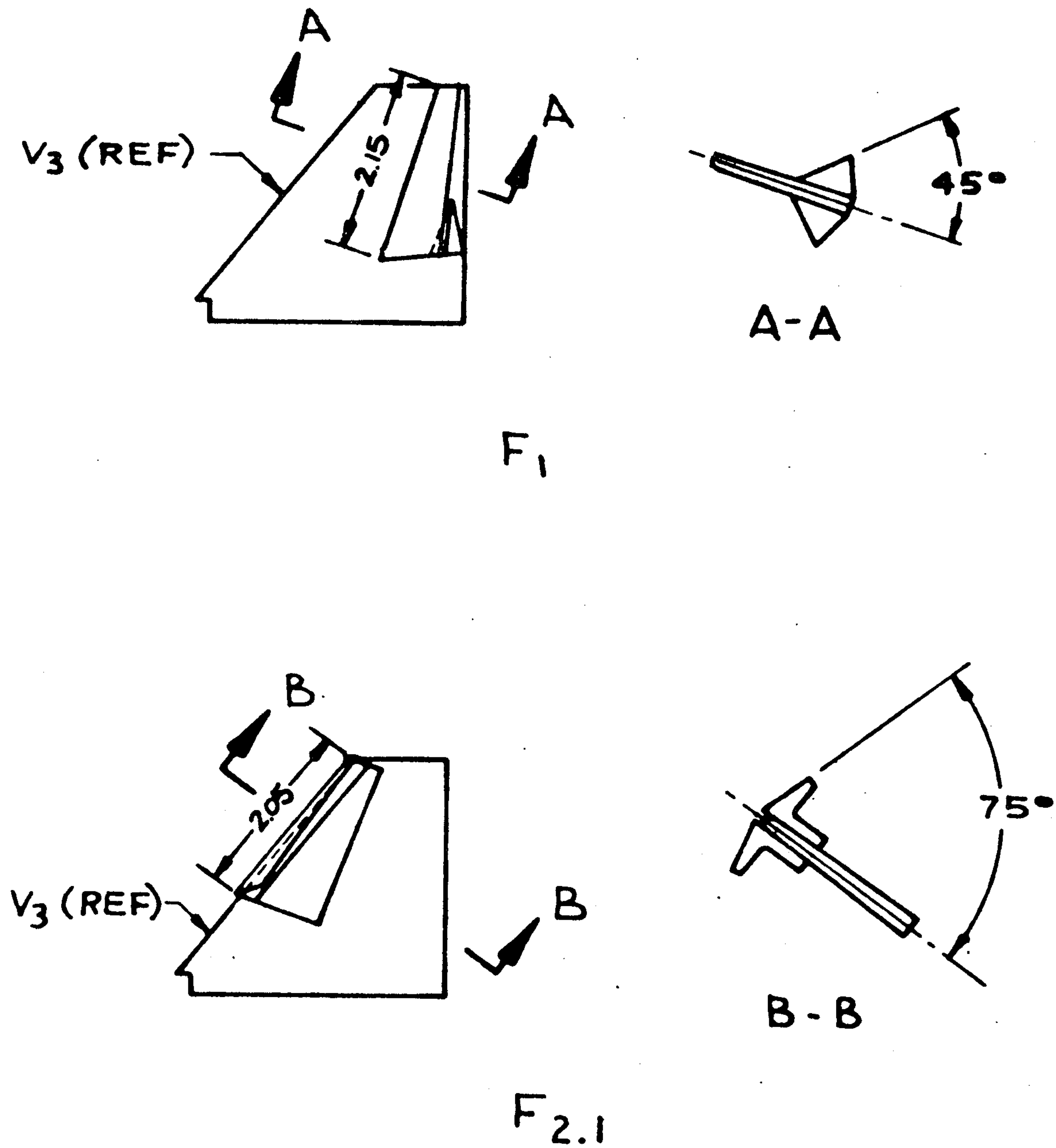


Figure 15. F_1 and $F_{2.1}$ Fin Flarings

CYLINDRICAL BOOSTER
TBC
DR#1275 A-1- 284

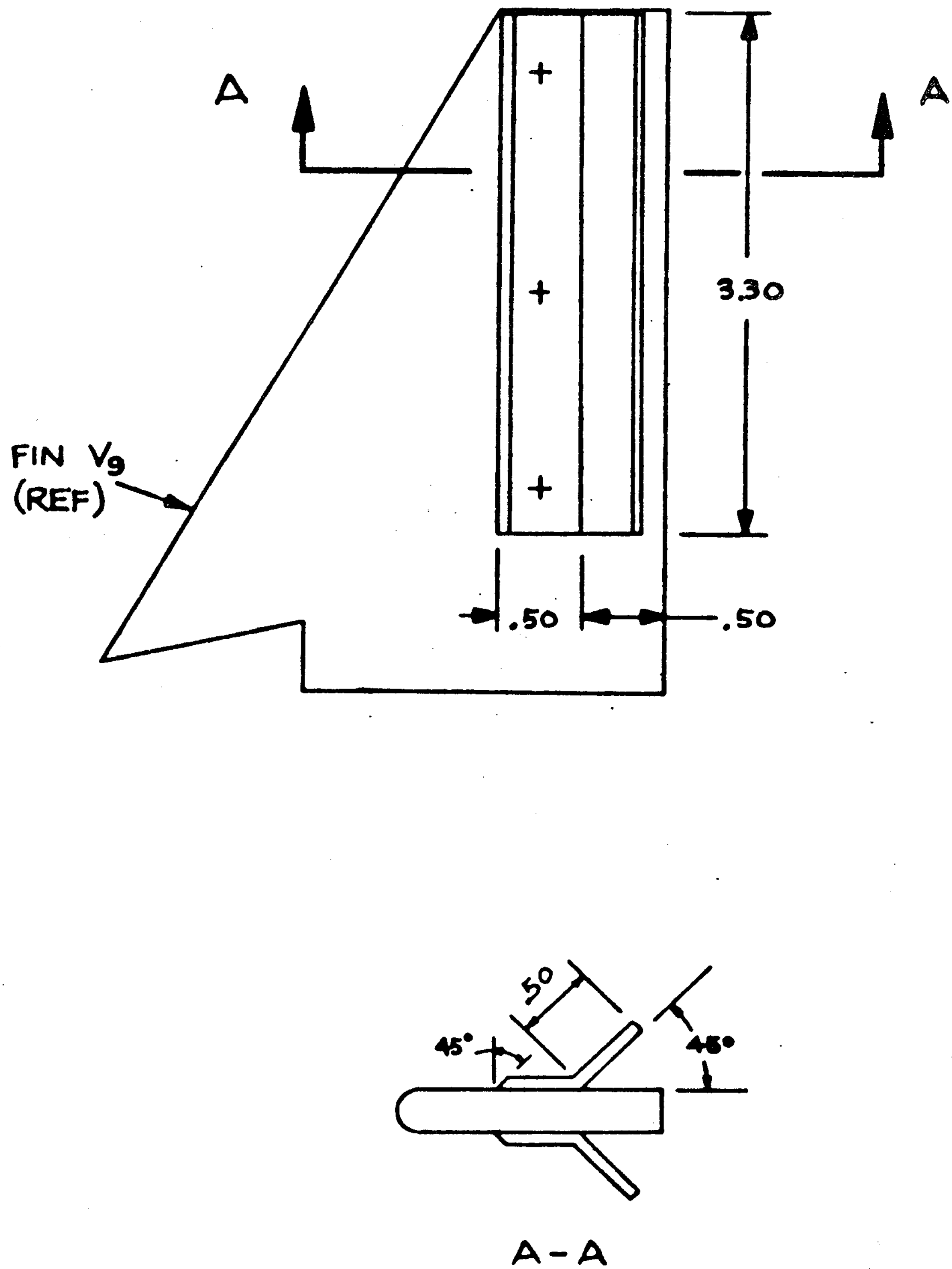


Figure 16. F_3 Fin Flarings

TABLE II

TEST BTWT 1282/BSWT 557 DATA SET COLLATION SHEET

BTWT | BSWT

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES				NO. of RUNS	SWEEP .6→1.1	0.6	0.9	1.05		1.3	1.4	2.0	2.7	4.0		
RD9111	$B_1S_{1.1}$	A	0					2						109				132		
121	$B_1S_{1.2}$							2						110				131		
131	$B_1S_{1.3}$							5		151	150	149		111				130		
141	$B_{1.1}S_{1.1}$							3							119	145		124		
151	$D_{2.3}$							2							121			122		
161	$D_{5.3}$							2							120			123		
211	$B_2S_{2.1}$							3						107	148			134		
221	$B_2S_{2.2}$							3						106	147			135		
231	$B_2S_{2.3}$							7		148	147	146		108	149	258		133		
232		7.7	B					2							257	259				
233		0	0					1	79											
241	$B_{2.1}S_{2.1}$	A	0					8·		139	138	137		112	116	142	141	125		
251	D_2							2							114			126		
261	D_5							2							115			127		
271	$D_{2.3}$							7		145	143	144			118	143	140	136		
RD9281	$D_{5.3}$							7		142	140	141			117	144	139	138		

1	7	13	19	25	31	37	43	49	55	61	67	75 76
CL	CDF	CN	CAF	CLM	CY	CYN	CBL	CAB				

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

$\alpha A: -5 \rightarrow +25$

$\beta B: -10 \rightarrow +10$

CYLINDRICAL BOOSTER
TBC
DR#1276 A-1- 285

ORIGINAL PAGE IS OF POOR QUALITY

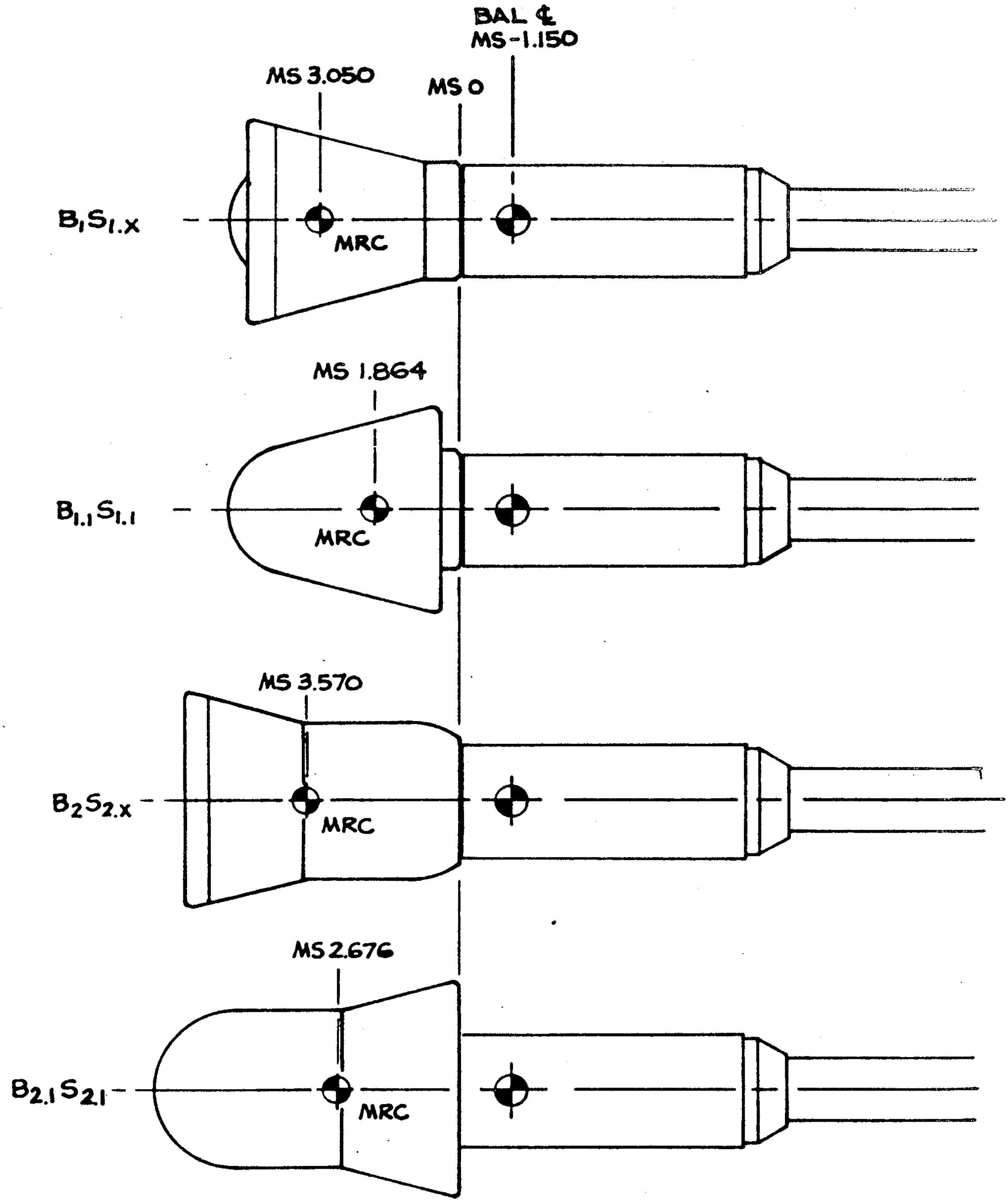


Figure 3. Model Comparison

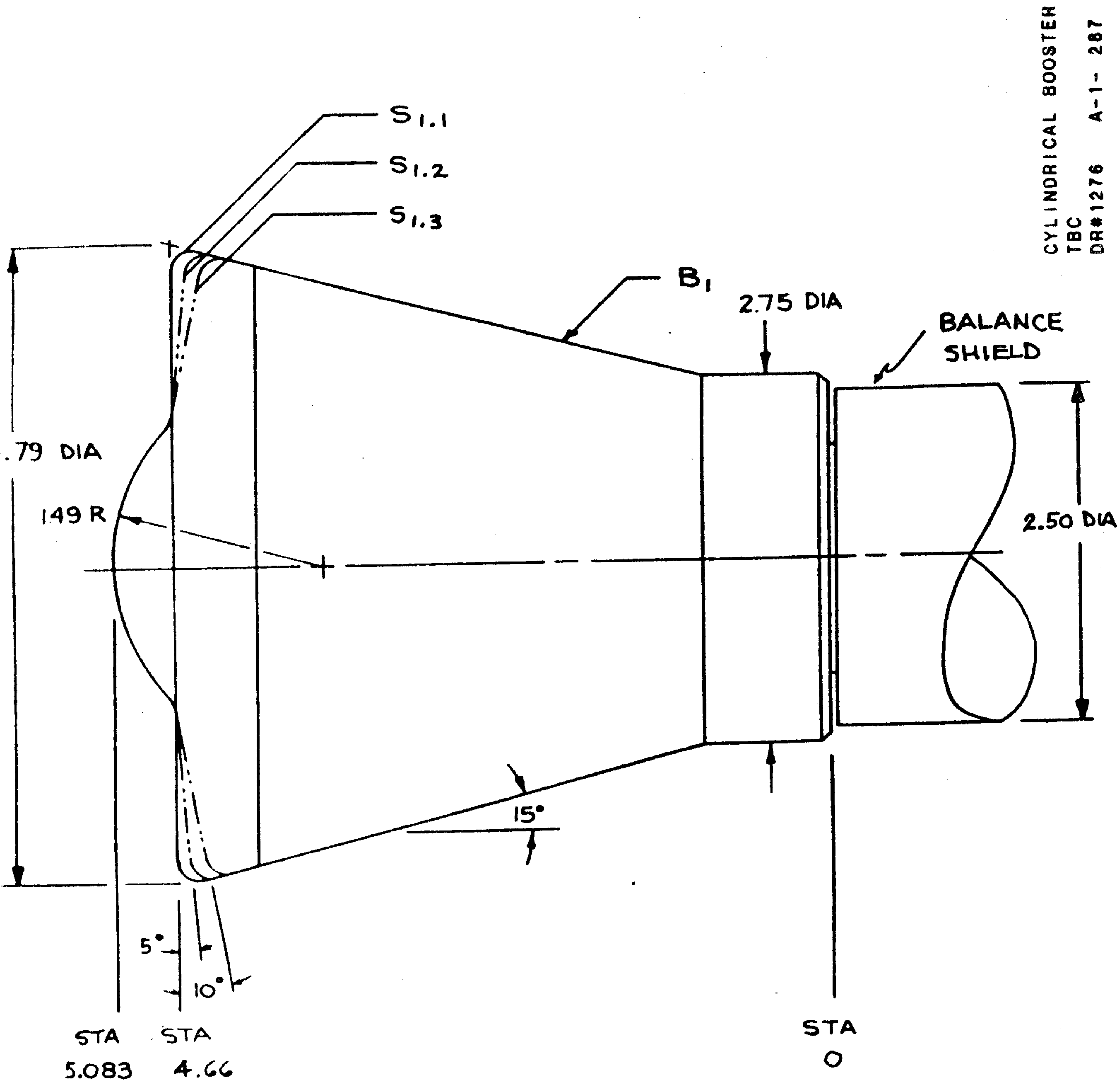


Figure 4. Configurations $B_1S_{1.n}$, n = 1,2,3

CYLINDRICAL BOOSTER
TBC
DR#1276 A-1- 288

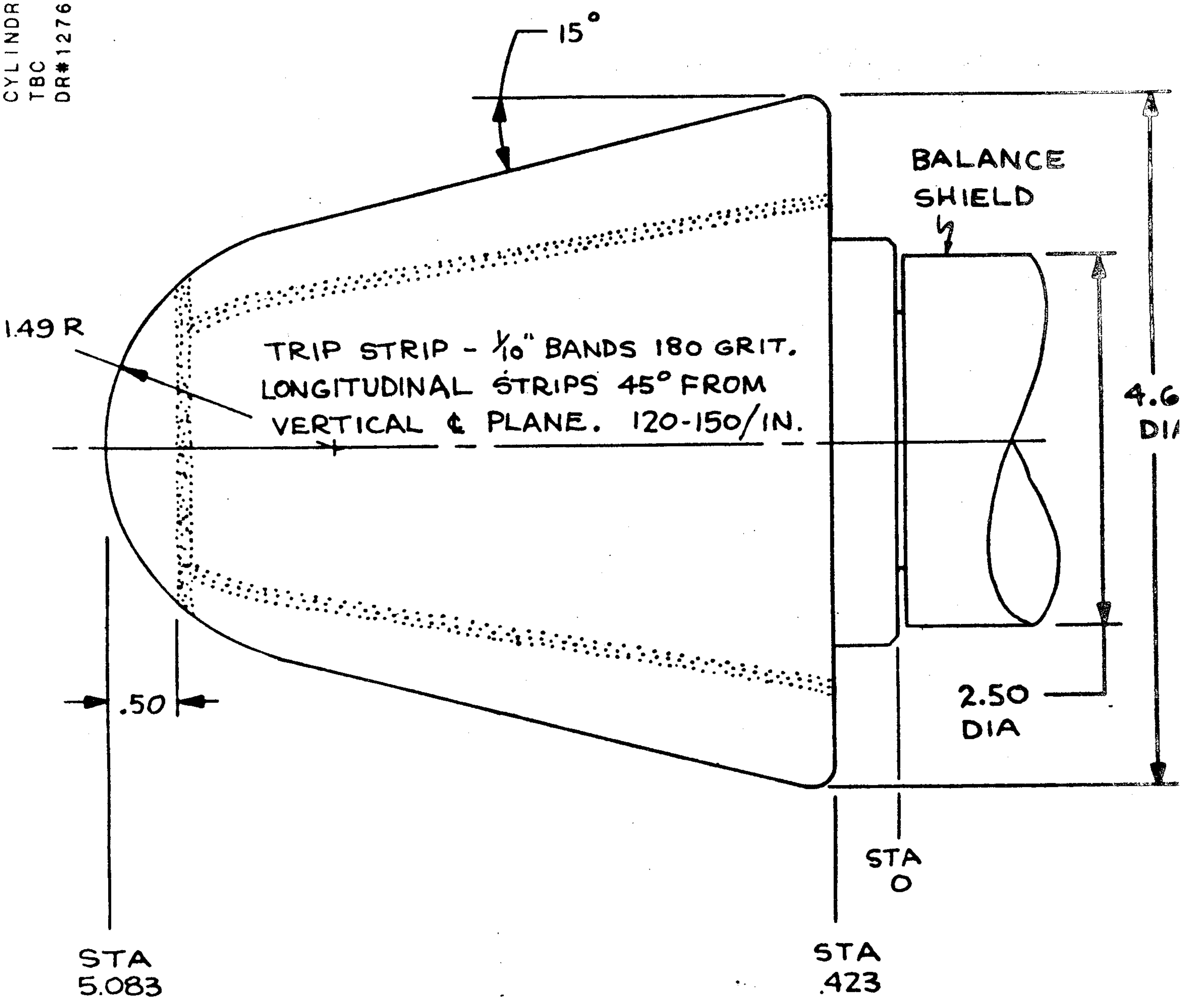


Figure 5. Configuration $B_{1.1}S_{1.1}$ Showing Trip Strip

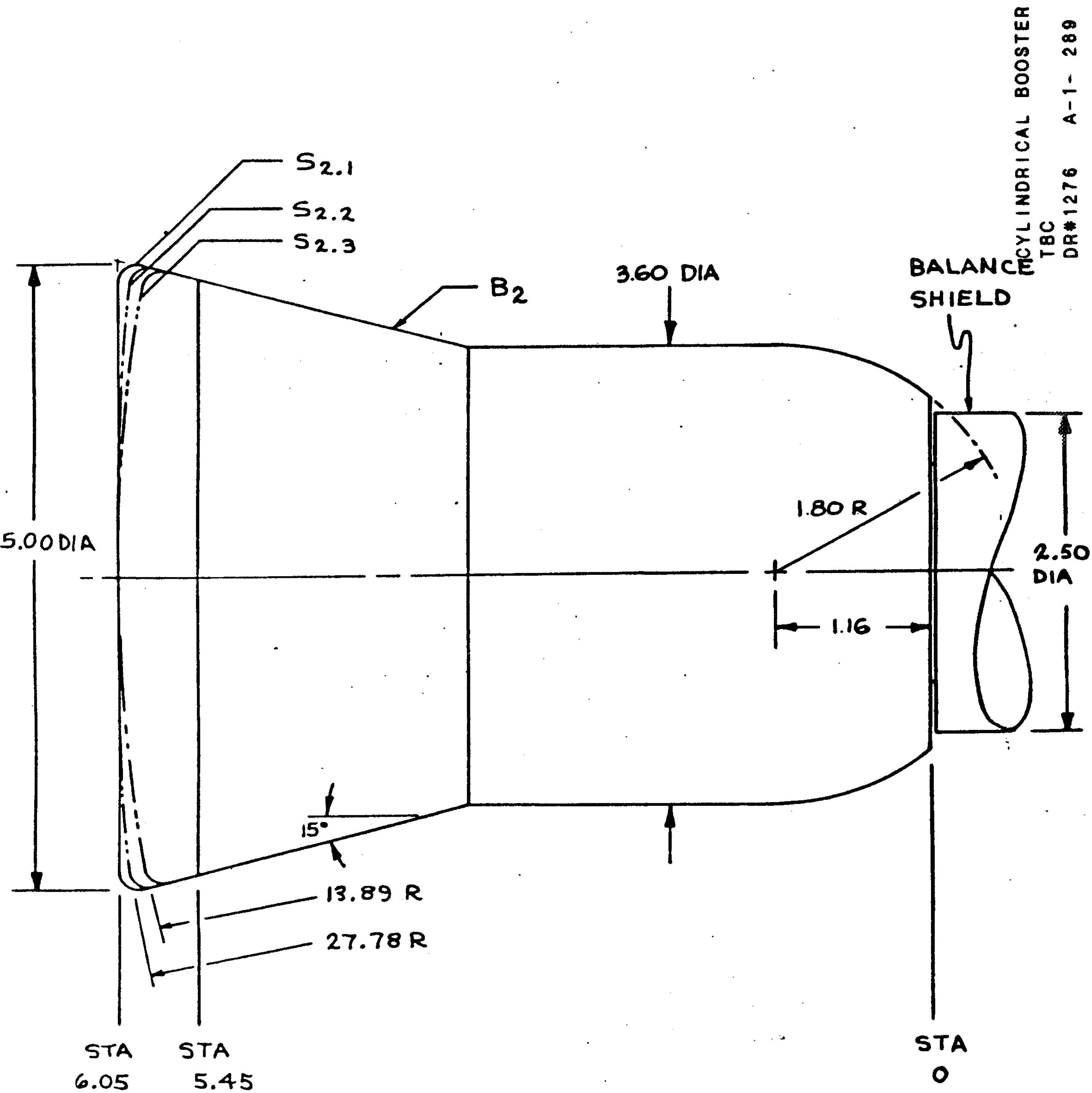


Figure 6. Configurations $B_2S_{2.n}$, n = 1,2,3

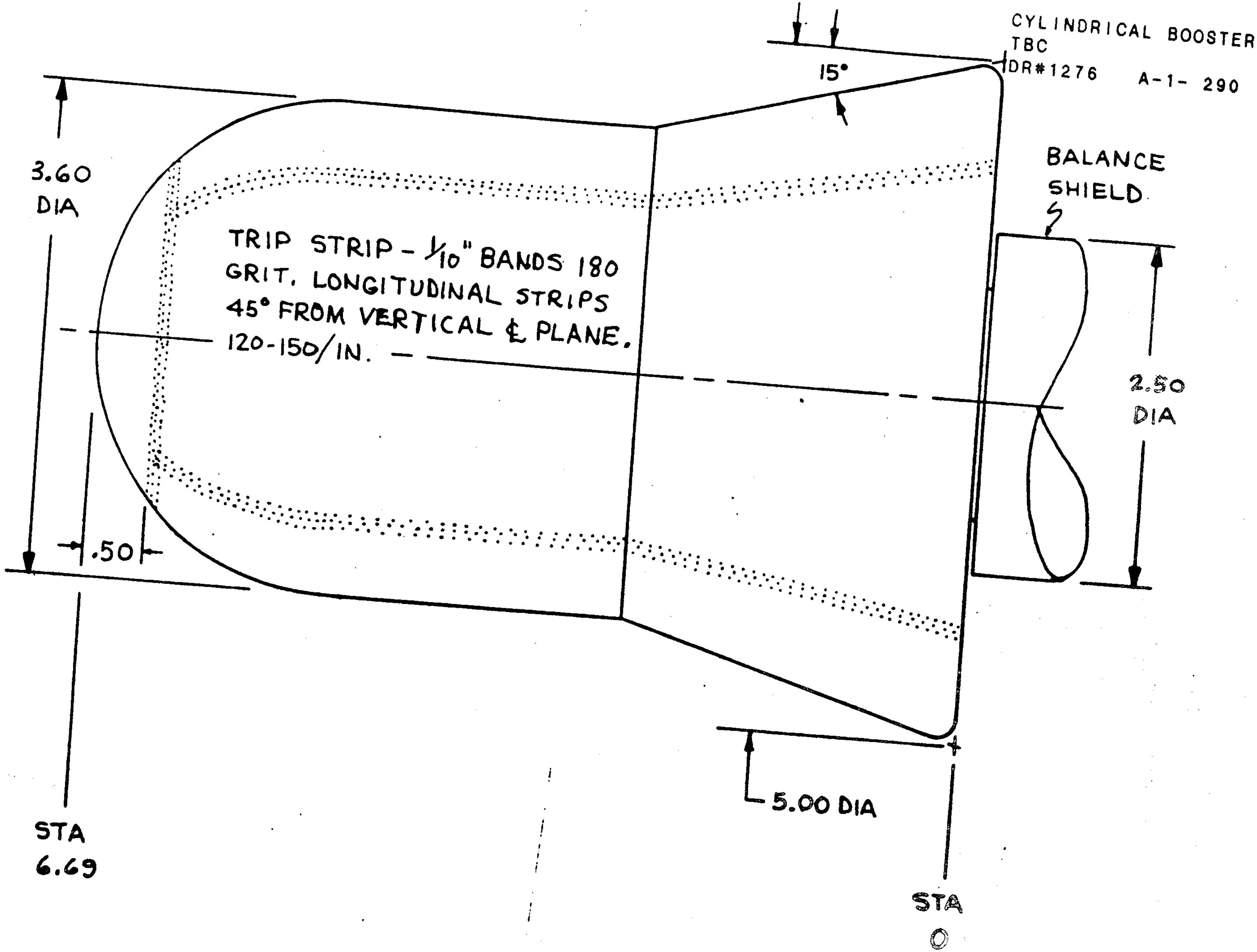


Figure 7. Conf[illegible]

CYLINDRICAL BOOSTER
TBC
DR#1276 A-1- 291

DRAG PETALS MOUNTED AT 8 PLACES EQUALLY SPACED:

AT BODY STA. 2.74 OR 1.12 ON $B_{2.1} S_{2.1}$

AT BODY STA. 0.88 ON $B_{1.1} S_{1.1}$

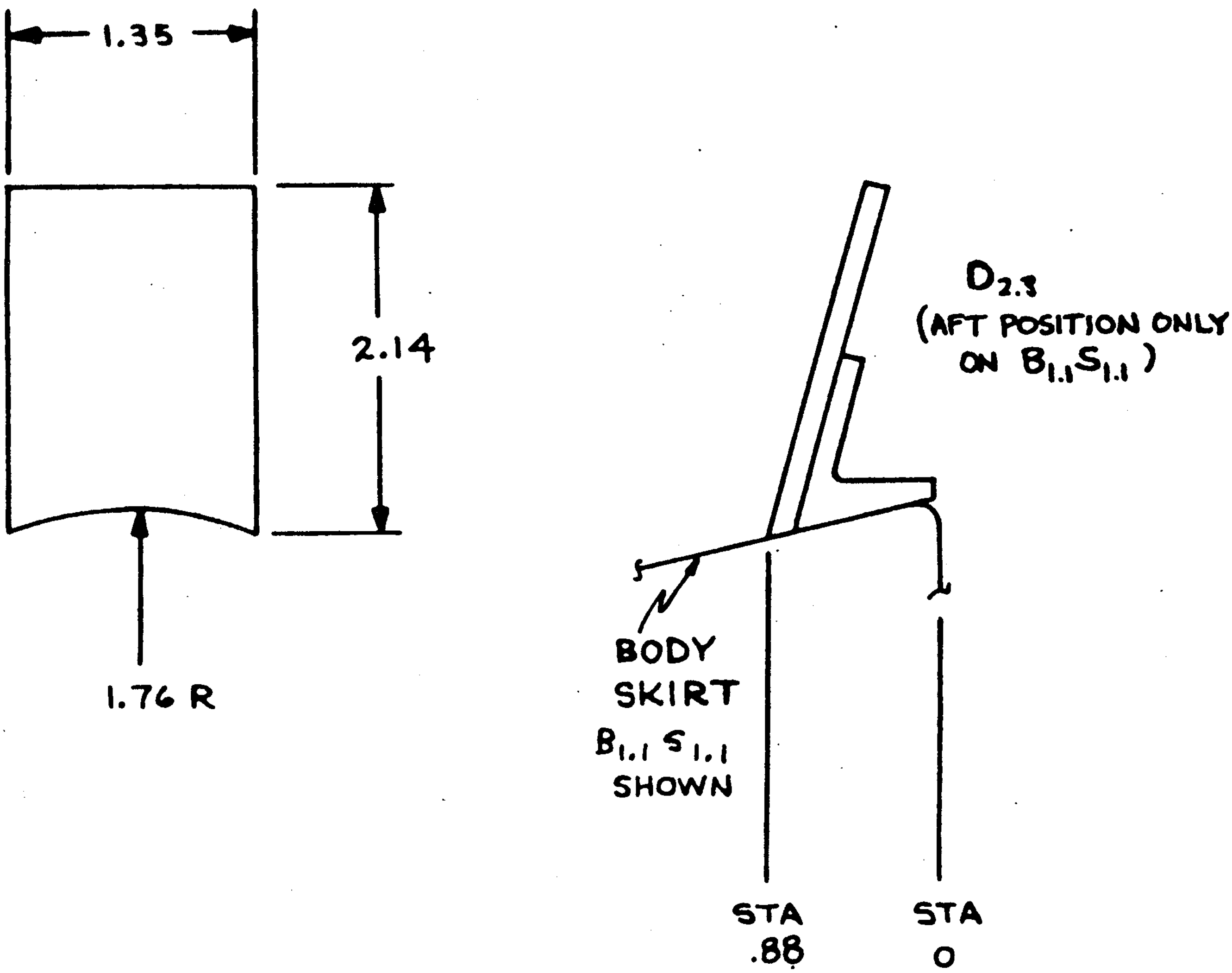


Figure 8. Drag Petal D_2

DRAG PETALS MOUNTED AT 8 PLACES EQUALLY SPACED:
AT BODY STA 2.74 OR 1.12 ON $B_{2.1}$ $S_{2.1}$
AT BODY STA 0.88 ON $B_{1.1}$ $S_{1.1}$

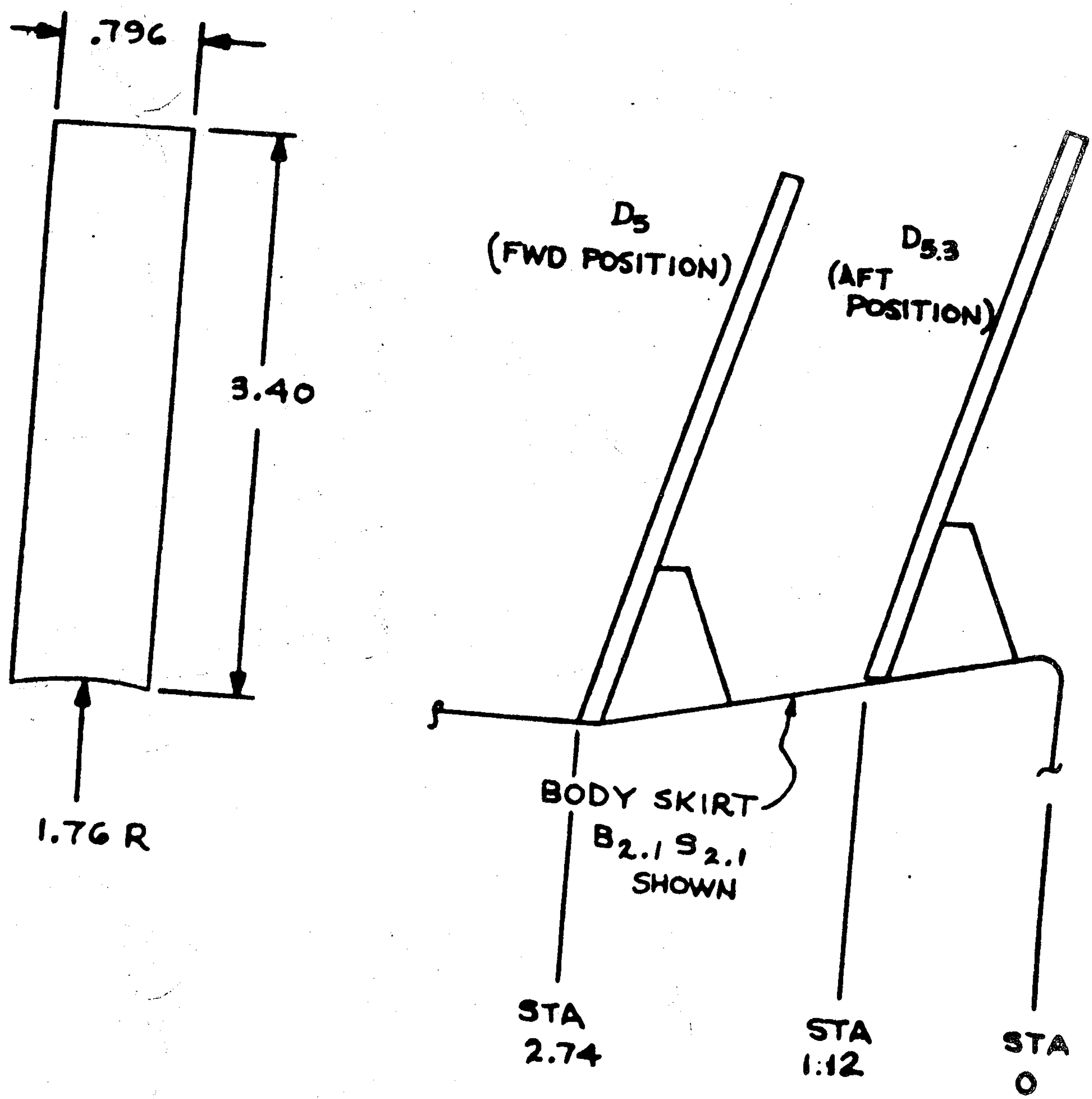


Figure 9. Drag Petal D_5

Standard Bibliographic Page

1. Report No. NASA CR-178414, Part 1	2. Government Accession No.	3. Recipient's Catalog No.
4. Title and Subtitle SPACE SHUTTLE PHASE B WIND TUNNEL MODEL AND TEST INFORMATION, VOLUME 1 - BOOSTER CONFIGURATION		5. Report Date July 1988
		6. Performing Organization Code
7. Author(s) J. L. Glynn and D. E. Poucher		8. Performing Organization Report No. DMS-DB-02, Vol. 1
9. Performing Organization Name and Address Chrysler Corporation Military Public Electronic Systems Michoud Engineering Office P.O. Box 29200 New Orleans, Louisiana 70189		10. Work Unit No. 506-40-11-08
		11. Contract or Grant No. NAS1-18276
12. Sponsoring Agency Name and Address National Aeronautics and Space Administration Langley Research Center Hampton, VA 23665-5225		13. Type of Report and Period Covered Contractor Report
		14. Sponsoring Agency Code

15. Supplementary Notes

Langley Technical Monitor: James C. Young
Volume 2 - NASA CR-178415; Volume 3 - NASA CR-178416

16. Abstract

Archived wind tunnel test data are available for flyback booster or other alternate recoverable configurations as well as reusable orbiters studied during initial development (Phase B) of the Space Shuttle. Considerable wind tunnel data was acquired by the competing contractors and the NASA centers for an extensive variety of configurations with an array of wing and body planforms.

All contractor and NASA wind tunnel test data acquired in the Phase B development have been compiled into a database and are available for applying to current winged flyback or recoverable booster aerodynamic studies.

The Space Shuttle Phase B Wind Tunnel Database is structured by vehicle component and configuration type. Basic components include the booster, the orbiter and the launch vehicle.

Booster configuration types include straight and delta wings, canard, cylindrical, retro-glide and twin body.

Orbiter configuration types include straight and delta wings, lifting body, drop tanks and double delta wings.

Launch configuration types include booster and orbiter components in various stacked and tandum combinations.

17. Key Words (Suggested by Authors(s)) Space Shuttle Phase B Wind Tunnel Tests Digital Database Aerodynamics Recoverable Booster	18. Distribution Statement Unclassified - Unlimited Subject Category 02

19. Security Classif.(of this report) Unclassified	20. Security Classif.(of this page) Unclassified	21. No. of Pages 387	22. Price A17

For sale by the National Technical Information Service, Springfield, Virginia 22161