

AD/A-002 868

A STRUCTURAL WEIGHT ESTIMATION PROGRAM
(SWEEP) FOR AIRCRAFT. VOLUME VII -
FUSELAGE MODULE. APPENDIX A: MODULE
FLOW CHARTS AND FORTRAN LISTS. APPENDIX B:
FUSELAGE MODULE SAMPLE OUTPUT

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Three computer programs were written with the objective of predicting the structural weight of aircraft through analytical methods. The first program, the structural weight estimation program (SWEEP), is a completely integrated program including routines for airloads, loads spectra, skin tem- peratures, material properties, flutter stiffness requirements, fatigue life, structural sizing, and for weight estimation of each of the major aircraft structural components. The program produces first-order weight estimates		

and indicates trends when parameters are varied. Fighters, bombers, and cargo aircraft can be analyzed by the program. The program operates within 100,000 octal units on the Control Data Corporation 6600 computer. Two stand-alone programs operating within 100,000 octal units were also developed to provide optional data sources for SWEEP. These include (1) the flexible airloads program to assess the effects of flexibility on lifting surface airloads, and (2) the flutter optimization program to optimize the stiffness distribution required for lifting surface flutter prevention.

The final report is composed of 11 volumes. This volume (volume VII)⁷ contains the methodology, program description, and user's information for the fuselage module of SWEEP.

TABLE OF CONTENTS

Section		Page
I	INTRODUCTION AND SUMMARY	9
	Program Objectives	9
	Background	9
	Approach to Weight Estimation	10
	Summary of Analysis Capabilities and Limitations	14
	Basic Structure Weight Estimation	14
	Geometry	14
	Loads	14
	Stiffness Requirements	15
	Materials	16
	Synthesis	16
	Major Frames	16
	Bulkheads	18
	Shell Structure	18
	Miscellaneous Basic Structure Weight Estimation	19
	Secondary Structure Weight Estimation	20
	Module Operation	21
	Module Input	21
	Module Output	24
	Module Structure	24
II	METHODS AND FORMULATIONS	30
	General Discussion of Methodology	30
	Basic Structure Synthesis	30
	Geometry Derivation	30
	External Geometry	31
	Unit Weight Moment of Inertia Calculations	38
	Internal Geometry	40
	Structural Geometry	45

Section	Page
Loads Derivation	50
Subroutine Usage	50
Definition of Variables	51
Input Error Handling	56
Ground Loads	57
Major Frame Coordinates	59
Major Frame External Loads	62
Body Airloads	75
Net Shell Loads	78
Critical Shell Design Loads	79
Material Properties	80
Shell Synthesis	87
Cover	88
Cover Model	89
Shear Strength	89
Cover Pressure Design	94
Local Panel Flutter	99
Acoustic Fatigue	103
Minor Frames	119
Minor Frame Model	119
General Instability	121
Forced Crippling	122
Longerons, Stringers	135
Longeron Model	135
Forced Crippling	136
Bending Strength	137
Bending Stiffness	141
Bulkheads	142
Geometry	142
Pressure and Design Criteria	143
Synthesis	144
Weight	148

Section	Page
Major Frames	148
Geometry	150
Loads	152
Synthesis	156
Weight Estimation	159
Basic Structure Weight	159
Bulkheads and Frames	159
Cover, Minor Frames, Longerons	163
Miscellaneous Basic Structure	164
Secondary Structure Weight	165
Canopy	167
Windshield, Windows, and Ports	167
Flooring and Supports	170
Stairway and Ladders	171
Radomes	171
Speed Brakes	172
Doors, Panels, and Miscellaneous	172
III PROGRAM DESCRIPTION	176
General Discussion	176
General Logic Flow	176
General Maps	176
Common	183
Labeled Common	183
Mass Storage Files	183
Subroutine Descriptions	322
Program FUS01	322
General Description	322
Arrays and Variables Used	322
Arrays and Variables Calculated	322
Labeled Common Arrays	322
Mass Storage File Records	322
Error Messages	322
Subroutine GEOMF1	323
Subroutine INERT1	325

Section

Page

Subroutine GEOMF2	326
Subroutine INERT2	326
Subroutine FUSLD	327
Subroutine FRMEG	339
Subroutine FLDIN	342
Subroutine FLDDT	344
Subroutine DUMMY1	348
Subroutine FARLD	350
Subroutine FLDNT	352
Subroutine MFCNTL	354
Subroutine MATLF	355
Subroutine MATLP1	356
Subroutine QCRIT	357
Subroutine FFRME	359
Subroutine FRMND1	361
Subroutine FRMND2	363
Subroutine FRMLD	363
Subroutine SFOAWE	365
Program FUS02	367
Subroutine FUSSL	368
Subroutine CUTOUT	388
Subroutine LDCHK	389
Subroutine GJ1GEO	391
Subroutine GJ2GEO	393
Subroutine LONGS	393
Subroutine I1LONG	395
Subroutine I2LONG	397
Subroutine FPANEL	397
Subroutine FHCMB	399
Subroutine FCOVER	399
Subroutine CVPRES	401
Subroutine MINFR	403
Subroutine FBEND	412
Subroutine BLKHDS	416
Subroutine DBLKHD	418
Subroutine MINMUM	420
Subroutine FWEIGH	421
Subroutine PARTIT	425
Subroutine MISCWT	426
Subroutine SECOST	428
Subroutine WTDIST	430
Subroutine SUMRY	430
Subroutine SPRINT	431

REFERENCES

435

	Page
APPENDIX A MODULE FLOW CHARTS AND FORTRAN LISTS	445
Flow Chart Usage	445
Program Table of Contents and References of First Fuselage Overlay	449
Program Flow Charts of First Fuselage Overlay	461
Program FUS01	462
Subroutine DUMMY1	466
Subroutine FARLD	469
Subroutine FFRME	473
Subroutine FLDDT	479
Subroutine FLDIN	488
Subroutine FLDNT	491
Subroutine FRMEG	494
Subroutine FRMLD	499
Subroutine FRMND1	504
Subroutine FRMND2	508
Subroutine FUSLD	511
Subroutine GECMF1	518
Subroutine GECMF2	523
Subroutine INERT1	526
Subroutine INERT2	529
Subroutine MATLF	532
Subroutine MATLP1	536
Subroutine MFCNTL	540
Subroutine QCRIT	544
Subroutine SFOAWE	551
Program Listing of First Fuselage Overlay	554
Program FUS01	555
Subroutine DUMMY1	556
Subroutine FARLD	557
Subroutine FFRME	559
Subroutine FLDDT	562
Subroutine FLDIN	567
Subroutine FLDNT	568
Subroutine FRMEG	569

	Page
Subroutine FRMLD	571
Subroutine FRMND1	574
Subroutine FRMND2	576
Subroutine FUSLD	576
Subroutine GEOMF1	580
Subroutine GEOMF2	582
Subroutine INERT1	582
Subroutine INERT2	584
Subroutine MATLF	584
Subroutine MATLP1	586
Subroutine MFCNTL	587
Subroutine QCRIT	589
Subroutine SFOAWE	590
Program Table of Contents and References of Second Fuselage Overlay	592
Program Flow Charts of Second Fuselage Overlay	613
Program FUS02	614
Subroutine BLKHDS	617
Subroutine CUTOUT	625
Subroutine CVPRES	630
Subroutine DBLKHD	637
Subroutine FBEND	642
Subroutine FCOVER	653
Subroutine FHCMB	660
Subroutine FPANEL	663
Subroutine FUSSL	668
Subroutine FWEIGH	672
Subroutine GJ1GEO	681
Subroutine GJ2GEO	689
Subroutine I1LONG	692
Subroutine I2LONG	697
Subroutine LDCHK	700
Subroutine LONGS	705
Subroutine MINFR	711
Subroutine MINMUM	718
Subroutine MISCWT	721
Subroutine PARTIT	726
Subroutine SECOST	729
Subroutine SPRINT	749
Subroutine SUMRY	763
Subroutine WTDIST	767

	Page
Program Listing of Second Fuselage Overlay	770
Program FUS02	771
Subroutine BLKHDS	771
Subroutine CUTOUT	774
Subroutine CVPRES	776
Subroutine DBLKHD	778
Subroutine FBEND	779
Subroutine FCOVER	785
Subroutine FHOMB	788
Subroutine FPANEL	788
Subroutine FUSSHL	789
Subroutine FWEIGH	791
Subroutine GJ1GEO	796
Subroutine GJ2GEO	800
Subroutine I1LONG	800
Subroutine I2LONG	802
Subroutine LDCHK	803
Subroutine LONGS	804
Subroutine MINFR	806
Subroutine MINUM	809
Subroutine MISCWT	810
Subroutine PARTIT	811
Subroutine SECOST	812
Subroutine SPRINT	819
Subroutine SUMRY	827
Subroutine WTDIST	829
APPENDIX B FUSELAGE MODULE SAMPLE OUTPUT	830

APPENDIX A

MODULE FLOW CHARTS AND FORTRAN LISTS

FLOW CHART USAGE

The automatically generated computer program flow charts (AUTOFLOW) presented in this document include a table of contents, flow charts, and FORTRAN lists of all routines in the module. The 80-column card lists are sequenced and grouped by routine.

Because the AUTOFLOW system used is IBM-oriented, the functions of the BUFFERIN and BUFFEROUT statements are not recognized, but these statements appear in proper order in note boxes. Also, the PROGRAM name does not appear on the main program, and library routines READMS and WRITMS are listed as undefined external references.

CROSS-REFERENCE LIST

The AUTOFLOW table of contents which precedes the flow charts and FORTRAN lists serves to cross reference the latter two. This table lists the following from left to right:

- The card identification from columns 73 through 80 of this card, or card sequence number. When sequence number is used in place of card identification, it is enclosed in parentheses.
- The page and box number where this card is displayed in a flow chart.
- The FORTRAN statement number from columns 1 through 5 of this card.
- The card identification(s) or sequence number(s) of the card(s) referring to this card (repeated as required).
- The pages and box numbers where the cards referring to this card are displayed in a flow chart (repeated as required).

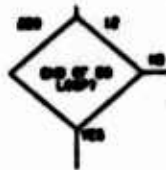
FLOW CHARTS

The flow charts produced by AUTOFLOW use USASI conventional symbols. Since the flow charts are mechanically drawn from the program source deck, there are no omissions or vague generalizations about the processing within the boxes.

Every box on each page is uniquely numbered and may be referred to from elsewhere in the program. The source of a reference to a box will be indicated by showing the page and box number. If the number is followed by an asterisk, there are multiple references to this point, and the others may be found by using the cross-reference list.



The most-often-used symbol is the decision box. Like all boxes, its box number is above and to the right of the box. Its FORTRAN statement number is above and to the left of the box. The decision choices for the paths are printed.



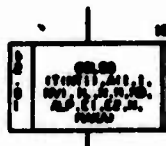
The unconditional transfer connector has its page number destination printed above or to the left of the box number destination within the connector. If there is a FORTRAN statement number at the destination, it is printed below the connector.



The exit box example shows a connector from page 9, box 15.



The subroutine call box includes the calling sequence. The page and box numbers of the flow chart of the called subroutine are shown on the left-hand side of the box. The page number is above the box number.



The note box encloses comments of a functional nature,



as differentiated from the 21 column comments, which are left justified without a box, that show the comment cards included in the FORTRAN deck.

```

----- (000)
CALL SUB PROGRAM
APPA,10 040,10
CONT,10
OPERATION
CONT,10,10,10,10
CONT,10
----- (000)
CALL SUB PROGRAM
APPA,10 040,10
CONT,10
OPERATION
CONT,10,10,10,10
CONT,10

```

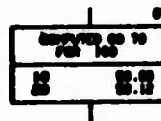
The process box is used to enclose FORTRAN arithmetic statements.



Input and output are shown as communicating with a device. The list used follows, if appropriate:



The computed GO TO becomes a branch table showing the page and box number of each of the ordered branches.



The column connectors and initial connectors are the only boxes without external box numbers. The function of the initial connector is always clear,

but the label given is the symbol in the next FORTRAN card, which is often blank.



The column connector identifies the page and box number to which it connects.



PROGRAM TABLE OF CONTENTS AND REFERENCES
OF
FIRST FUSELAGE OVERLAY

FORTRAN MODULE FIRST FUELAGE OVERLAY

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - PROCEDURES

(000020)	2.04 10	(000027)	2.03	(000027)	2.03
(000021)	2.05	(000028)	2.08		
(000022)	2.06 10				
(000044)	2.10	(000040)	2.13		
(000045)	2.11 41				
(000046)	2.12 42				
(000048)	2.13 40	(000044)	2.10	(000048)	2.11
(000050)	2.14 43	(000047)	2.12		
(000051)	2.17 45	(000053)	2.16		
(000052)	2.01 47	(000053)	2.16		
(000054)	2.02 48	(000058)	2.01		
(000057)	2.03 49	(000058)	2.17	(000058)	2.01
(000058)	2.05 2	(000059)	2.04	(000059)	2.04
(000070)	2.06 3	(000059)	2.04	(000059)	2.04
(000075)	2.10 12	(000059)	2.07		
(000082)	2.15 20	(000059)	2.14	(000059)	2.14

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE SUBFW1

(000001)	0.01 SUBFW1	(000170)	03.14-X		
(000120)	0.02	(000120)	0.03		
(000120)	0.03 10				
(000120)	0.05	(000125)	0.08		
(000125)	0.08 20				
(000140)	0.13	(000140)	0.14		
(000140)	0.14 30				
(000150)	0.16 40	(000155)	0.17	(000155)	0.17
(000150)	0.18 50	(000155)	0.17	(000155)	0.17
(000155)	0.20 55	(000155)	0.18		
(000155)	0.21 60	(000155)	0.17	(000155)	0.17
(000171)	0.24 100	(000155)	0.17	(000155)	0.20
(000172)	0.25 200				
(000182)	0.27 300	(000171)	0.24		

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE FUEL0

(000150)	0.01 FUEL0	(000020)	05.02-X		
(000230)	0.03	(000237)	0.04		
(000237)	0.04 4				
(000245)	0.07 5				
(000244)	0.08 12				
(000245)	0.10 14	(000243)	0.08		
(000250)	0.11 5	(000252)	0.12	(000310)	10.20
(000251)	0.12 7				
(000252)	0.13 8	(000253)	0.11		
(000253)	0.15 9				
(000257)	0.16 10	(000254)	0.14	(000255)	0.10
(000257)	0.18	(000255)	0.16		
(000259)	0.19 11				
(000260)	0.20 15	(000257)	0.16		
(000261)	0.21 16				
(000262)	0.23 17				
(000263)	0.24 18	(000260)	0.20	(000262)	0.22
(000271)	0.26	(000274)	0.27		
(000274)	0.27 20				

TABLE OF CONTENTS AND REFERENCES

AUTOFLEX CHART SET - BEEP

PAGE 2

CARD NO	PAGE/CHN	NAME	REFERENCES	SOURCE	SEQUENCE NO.	AND PAGE/CHN
(000077)	5.30		(000000)	10.01		
(000000)	10.01	30				
(000000)	10.04		(000000)	10.05		
(000000)	10.05	41				
(000000)	10.05		(000000)	10.05		
(000000)	10.05	42				
(000000)	10.10		(000007)	10.13		
(000007)	10.13	01				
(000000)	10.15	000	(000000)	5.05	(000000)	10.14
(000000)	10.15	001				
(000000)	10.17	002	(000004)	10.18		
(000000)	10.18	003				
(000017)	10.19	000	(000000)	10.14	(000000)	10.15
(000000)	10.21	004	(000000)	10.17		
(000007)	10.24		(000000)	10.20		
(000010)	10.25	005				
(000011)	10.27	000	(000000)	10.25		
(000015)	10.30		(000014)	10.28		

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE FTYPE

(000070)	13.01	30	(000004)	14.07				
(000000)	13.03	FTYPE	(000074)	5.11-4				
(000000)	13.05		(000000)	13.05				
(000000)	13.05	10						
(000070)	13.10		(000074)	13.11				
(000074)	13.11	00						
(000077)	13.13	00	(000070)	13.02				
(000000)	13.14	01	(000077)	13.13				
(000004)	13.15	30						
(000000)	13.17		(000000)	13.21				
(000000)	13.18	41						
(000000)	13.20	42						
(000000)	13.21	43	(000000)	13.17				
(000411)	14.01	70	(000410)	14.04	(000404)	15.03		
(000410)	14.03	74						
(000417)	14.04	77						
(000000)	14.05	43	(000000)	13.18				
(000000)	14.05	45	(000000)	13.15	(000000)	13.21		
(000000)	14.05	50	(000070)	13.02				
(000000)	14.11		(000404)	15.07				
(000000)	14.12		(000400)	15.04				
(000400)	14.15	71						
(000400)	14.15	85	(000410)	14.03	(000404)	14.15	(000400)	15.01
(000400)	14.15	101	(000411)	14.23	(000407)	14.25		
(000407)	14.23	102						
(000402)	14.24	110	(000400)	14.02				
(000403)	14.25	111						
(000400)	15.01	70	(000410)	14.02				
(000401)	15.02	70						
(000402)	15.03	65						
(000400)	15.04	100	(000400)	14.24				
(000402)	15.05	210	(000400)	15.05				
(000400)	15.05	211	(000400)	15.05				
(000407)	15.05	250	(000400)	15.07				
(000402)	15.11	0001						
(000407)	15.15		(000477)	15.23				
(000473)	15.19		(000470)	15.22				
(000470)	15.22	00						
(000477)	15.23	01						
(000470)	15.24	0002	(000400)	15.15				
(000401)	15.27	00						
(000402)	15.31	01	(000400)	15.25				
(000404)	15.32	02	(000400)	15.07				
(000404)	15.37	000						
(000400)	15.10	0005						
(000000)	15.14	0004	(000407)	15.05				

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE FL007

(000047)	10.01	FL007	(001700)	00.10-X		
(000000)	10.02		(000070)	10.03		
(000070)	10.03	0				
(000000)	10.05	20	(000000)	10.05		
(000002)	10.07	10	(000000)	10.05		
(000007)	10.08	100	(000000)	10.05	(000001)	00.01
(000001)	00.01	14	(000000)	10.05		
(000000)	00.02	00	(000000)	10.10	(000001)	00.01
(000000)	00.03	00	(000000)	00.02		
(000000)	00.05	01	(000000)	00.02		
(000007)	01.01	40	(000000)	10.05		
(000000)	01.02	41				
(000010)	01.03	42	(000007)	01.01		
(000011)	01.04	43				
(000015)	01.05	44	(000010)	01.03		
(000002)	01.06	00	(000004)	00.04	(000000)	00.00
(000020)	01.10	02	(000002)	01.00		
(000030)	01.11	00	(000000)	01.10		
(000045)	01.13	70	(000000)	10.00	(000007)	00.01
(000000)	01.15	70	(000047)	01.14		
(000004)	02.01	01	(000000)	01.00		
(000031)	02.02	03	(000000)	01.10		
(000040)	02.04	71	(000047)	01.14		
(000000)	02.06	72	(000007)	02.00		
(000000)	03.01	70	(000000)	01.00		
(000702)	03.14	00	(000000)	01.00	(000007)	00.00
(000700)	03.17	00	(000700)	03.10	(000000)	00.17
(000707)	03.02	03	(000700)	03.01		
(000711)	04.01	01	(000700)	03.10		
(000777)	04.03	04	(000700)	03.01		
(000702)	04.05	00	(000700)	03.01	(000700)	03.07
(000703)	04.06	01			(000700)	04.02
(000700)	04.13	00	(000707)	04.12		
(000011)	05.01	00	(000707)	04.12		
(000014)	05.02	100	(000702)	04.00	(000707)	04.12
(000010)	05.03	101			(000000)	04.10
(000000)	05.10	110	(000014)	00.02		
(000000)	05.11	111				
(000000)	05.10	120	(000030)	05.10		
(000000)	05.10	121				
(000007)	05.00		(000000)	00.01		
(000000)	05.01	102				
(000000)	05.02	124	(000000)	05.10		
(000001)	05.03	125	(000000)	05.01		

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE FL010

(000070)	00.01	FL010	(001717)	00.12-X		
(000000)	00.02		(000000)	00.10		
(000001)	00.04	10				
(000002)	00.05		(000007)	00.00		
(000000)	00.06	12				
(000000)	00.08	14				
(000007)	00.09	10	(000001)	00.05	(000004)	00.07
(000000)	00.10	00	(000000)	00.05		
(000010)	00.12		(000010)	00.14		
(000010)	00.14	00				
(000010)	00.17		(000000)	00.10		
(000000)	00.10	40				
(000000)	00.00		(000000)	00.04		

01/02/74 TABLE OF CONTENTS AND REFERENCES

AUTOFLEX SHIRT SET - SHIRT

PAGE 9

Q400 TO PAGE/BOX NVC

REFERENCES (Q400) Q400 NO. AND PAGE/BOX

Q400000 20.02 01
Q400000 20.04 02 Q400000 20.01

Q400 TITLE - NON-FRONTAL STATEMENTS

Q400 TITLE - INTRODUCTORY COMMENTS

Q400 TITLE - SUBROUTINE FLOW

Q400000 24.01 FLOW Q400000 20.02-2
Q400000 24.02 Q400000 24.03
Q400000 24.03 10 Q400000 24.07
Q400000 24.05 Q400000 24.07
Q400000 24.07 20 Q400000 24.12
Q400000 24.11 Q400000 24.12
Q400000 24.12 20

Q400 TITLE - NON-FRONTAL STATEMENTS

Q400 TITLE - INTRODUCTORY COMMENTS

Q400 TITLE - SUBROUTINE FLOW

Q400000 24.01 FLOW Q400000 20.10-2
Q400000 24.07 2 Q400000 24.03
Q400000 24.03 4 Q400000 24.07
Q400000 24.03 6 Q400000 24.07
Q400000 24.10 Q400000 24.03
Q400000 24.17 20 Q400000 24.10
Q400000 24.10 10 Q400000 24.17
Q400000 24.10 11 Q400000 24.10
Q400000 24.03 20 Q400000 24.03
Q400000 24.03 Q400000 24.03
Q400000 24.03 01 Q400000 24.03
Q400000 20.01 02 Q400000 24.03
Q400000 20.04 07 Q400000 24.03
Q400000 20.07 Q400000 20.03
Q400000 20.03 Q400000 20.07
Q400000 20.10 02 Q400000 20.11
Q400000 20.13 02 Q400000 20.11
Q400000 20.10 02 Q400000 20.14
Q400000 20.04 04 Q400000 20.14
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Q400000 20.03 02 Q400000 20.04
Q400000 20.03 70 Q400000 20.03
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Q400000 20.13 Q400000 20.11
Q400000 20.14 70 Q400000 20.03
Q400000 20.17 Q400000 20.15
Q400000 20.10 70 Q400000 20.04 Q400000 20.13
Q400000 20.10 70 Q400000 20.10 Q400000 20.02
Q400000 20.01 70 Q400000 20.10 Q400000 20.02
Q400000 20.02 02 Q400000 24.04 Q400000 20.03

Q400 TITLE - NON-FRONTAL STATEMENTS

Q400 TITLE - INTRODUCTORY COMMENTS

Q400 TITLE - SUBROUTINE FLOW

Q400000 20.01 FLOW Q400000 20.02-2
Q400000 20.02 Q400000 20.03
Q400000 20.03 1 Q400000 20.03
Q400000 20.03 Q400000 20.03
Q400000 20.03 02 Q400000 20.10
Q400000 20.11 Q400000 20.10
Q400000 20.10 02 Q400000 20.10
Q400000 20.14 Q400000 20.10
Q400000 20.10 01

04/00/74 TABLE OF CONTENTS AND REFERENCES

AUTOFLEX CHART SET - SHEEP
REFERENCES (SOURCE SERVICE NO. AND PAGE/BOOK)

PAGE 5

CHART NO	PAGE/BOOK	NOTE	REFERENCES (SOURCE SERVICE NO. AND PAGE/BOOK)
(001230)	20.10		(001230) 20.20
(001230)	20.20	2	
(001240)	20.20		(001240) 20.20
(001240)	20.20	3	
(001240)	20.20		(001251) 41.20
(001240)	20.20		(001250) 20.20
(001250)	20.20	7	
(001252)	20.20		(001252) 40.00
(001250)	40.01	9	(001250) 20.20
(001252)	40.02	11	(001250) 20.20
(001255)	40.04		(001270) 40.00
(001270)	40.05	14	
(001270)	40.05	16	
(001270)	40.05	18	
(001277)	40.10	20	(001272) 40.07
(001270)	40.11		(001252) 40.14
(001270)	40.12		(001251) 40.13
(001281)	40.13	20	
(001282)	40.14	22	
(001285)	40.16		(001285) 40.17
(001285)	40.17	24	
(001285)	40.20		(001284) 40.21
(001284)	40.21	40	
(001287)	40.23		(001312) 41.05
(001280)	40.24		(001303) 40.25
(001303)	40.25	70	
(001305)	40.26		(001311) 41.04
(001307)	41.02	71	
(001311)	41.04	75	(001305) 41.01
(001312)	41.05	80	
(001315)	41.07		(001320) 41.10
(001317)	41.08	83	
(001320)	41.10	85	(001310) 41.08
(001323)	41.12		(001327) 41.14
(001327)	41.14	90	
(001322)	41.17		(001330) 41.20
(001330)	41.20	95	
(001341)	41.22	9901	
(001340)	41.23	9902	(001340) 41.21
(001350)	41.29	979	(001274) 40.00 (001275) 40.00
(001354)	41.30	100	(001275) 40.00

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE PROGRAM

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(001400)	44.11	3		
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(001411)	44.13		(001413)	44.14
(001413)	44.14	5		
(001415)	44.16	100	(001404)	44.00 (001400) 44.11
(001417)	44.17	102		
(001420)	44.19	103		
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(001425)	44.22	103		
(001426)	45.01	124	(001404)	44.20
(001428)	45.04		(001442)	45.05
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(001440)	45.12		(001407)	45.13
(001407)	45.13	204		
(001440)	45.15	200	(001445)	45.07 (001440) 45.00

TABLE OF CONTENTS AND REFERENCES

AUTOFLEX GUNSET - GUNSET

PAGE 6

TABLE OF CONTENTS AND REFERENCES

TABLE NO	PAGE/CH	NOTE
1001400	40.10	
1001401	40.10 310	
1001471	40.22	
1001472	40.23 401	
1001473	40.23	
1001482	40.27 402	
1001483	40.28	
1001484	40.31 403	
1001485	40.32	
1001491	40.33	
1001492	40.33 500	
1001497	40.37 5001	
1001500	40.43 5002	

REFERENCES (SOURCE SYMBOL NO. AND PAGE/CH)

1001400	40.10
1001470	40.20
1001482	40.27
1001483	40.31
1001484	40.32
1001491	40.33
1001492	40.33
1001497	40.37
1001498	40.38

GUNSET TITLE - NEW-PROCESSED STATEMENTS

GUNSET TITLE - INTRODUCTORY COMMENTS

GUNSET TITLE - SUMMARY PAGE

1001510	40.01	1001510	10.00-1

GUNSET TITLE - NEW-PROCESSED STATEMENTS

GUNSET TITLE - INTRODUCTORY COMMENTS

GUNSET TITLE - SUMMARY PAGE

1001520	01.01	1001570	3.10-1
1001571	01.04		
1001580	01.05 010	1001587	01.12
1001581	01.13 000	1001587	01.12
1001582	01.15 002	1001610	01.10
1001611	02.01 070	1001610	01.10
1001670	02.11 0004	1001670	01.05
1001681	02.14	1001701	04.00
1001682	02.16 010	1001682	02.10
1001683	02.17 001		
1001684	02.17	1001684	02.10
1001685	02.21 012		
1001686	02.21	1001686	02.22
1001687	02.24 001	1001687	02.23
1001688	02.25 002	1001688	02.23
1001689	02.25 003	1001689	02.23
1001690	02.27 004	1001690	02.23
1001691	02.01 000	1001691	02.23
1001692	02.02 000	1001692	02.24
1001693	02.03 002	1001693	02.25
1001694	02.04	1001694	02.26
1001695	02.07	1001695	02.27
1001696	02.08 00		
1001697	02.10 2		
1001698	02.11 3	1001698	02.00
1001699	02.12 00		
1001700	02.14 01	1001700	02.11
1001701	02.15 100	1001701	02.13
1001702	02.16 0001		
1001703	04.00 0002	1001703	02.22
1001704	04.00 000	1001704	02.10
1001705	04.12	1001705	04.14
1001706	04.14 000		

GUNSET TITLE - NEW-PROCESSED STATEMENTS

GUNSET TITLE - INTRODUCTORY COMMENTS

GUNSET TITLE - SUMMARY PAGE

1001700	02.01	1001700	3.00-1
1001701	02.02	1001701	02.01

04/05/74 TABLE OF CONTENTS AND REFERENCES

AUTOFLEX CHART SET - DEEP
REFERENCES (SOURCE, EXCHANGE NO., AND PAGE/CH)

PAGE 7

(001041)	00.05	(001042)	00.04
(001042)	00.04 12		
(001043)	00.05 15	(001037)	00.01
(001051)	00.07 20	(001033)	00.11
(001052)	00.08 21	(001033)	00.10
(001054)	00.11 22	(001051)	00.07
(001055)	00.13 31		
(001056)	00.14 32	(001037)	00.12
(001058)	00.15 33		
(001061)	00.16 34	(001033)	00.14
(001062)	00.19 100	(001033)	00.16
(001063)	00.20	(001042)	00.17
(001072)	00.22 101		
(001080)	00.31 102	(001071)	00.21
(001083)	00.33 100		
(001090)	00.35 110	(001075)	00.24
(001092)	00.35 111	(001082)	00.32
(001094)	00.35 112	(001082)	00.07
(001095)	00.10 114		
(001096)	00.11 115	(001084)	00.09
(001098)	00.15 116		
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(001032)	00.31 202	(001084)	00.23
(001035)	00.04 200	(001085)	00.24
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CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE DEEP2

(001081) 00.01 DEEP2 (000070) 3.00-K

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

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(000042)	00.11 202	(000035)	00.05
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CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE DEPT2

(000070) 00.01 DEPT2 (000071) 3.00-K

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE PARLF

(000037)	72.01 PARLF	(000034)	00.00-K
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(000100)	72.02	(000100)	72.05
(000100)	72.05 101		
(000110)	72.04 102		
(000112)	72.05	(000114)	72.05

TABLE OF CONTENTS AND REFERENCES

APPENDIX C - CIP

PAGE 8

REFERENCES (INCLUDE SOURCE NO. AND PAGE/END)

0000141	70.00	100			
0000145	70.00	31			
0000147	70.00	32			
0000149	70.10	104	0000149	70.07	
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0000157	70.14	110			
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0000159	70.24		0000159	70.20	
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0000161	70.26		0000161	70.20	
0000161	70.28	102			
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0000169	70.37	132	0000169	70.20	
0000169	70.39	133			
0000169	70.40	134	0000169	70.20	
0000169	70.42	135			
0000169	70.43	136	0000169	70.41	
0000169	70.44	140			
0000171	70.00		0000171	70.04	
0000171	70.04	141			
0000171	70.05	142	0000171	70.00	
0000171	70.07	143			
0000171	70.08		0000171	70.00	
0000171	70.09	144			
0000171	70.11	145			
0000171	70.14		0000171	70.10	
0000171	70.15	146			
0000171	70.17	147			
0000171	70.18	148			
0000171	70.19	149	0000171	70.17	
0000171	70.20	150	0000171	70.10	
0000171	70.22	151			
0000171	70.24		0000171	70.05	
0000171	70.25	152			
0000171	70.26	153	0000171	70.01	
0000171	70.27	154			

OWN TITLE - NEW-PROFESSIONAL STATEMENTS

OWN TITLE - INTERMEDIATE STATEMENTS

OWN TITLE - ADVANCED STATEMENTS

0000171	70.01	155	0000171	01.00-1	
0000171	70.01	156			
0000171	70.02	157			
0000171	70.03	158	0000171	70.01	
0000171	70.04	159			
0000171	70.05	160	0000171	70.04	
0000171	70.06	161			
0000171	70.07	162	0000171	70.07	
0000171	70.08	163	0000171	70.00	0000171 70.00
0000171	70.09	164			
0000171	70.10	165			
0000171	70.11	166			
0000171	70.12	167			
0000171	70.13	168			
0000171	70.14	169	0000171	70.00	
0000171	70.15	170			
0000171	70.16	171			
0000171	70.17	172			
0000171	70.18	173			
0000171	70.19	174			
0000171	70.20	175	0000171	70.00	
0000171	70.21	176			
0000171	70.22	177			
0000171	70.23	178			

OWN TITLE - NEW-PROFESSIONAL STATEMENTS

OWN TITLE - INTERMEDIATE STATEMENTS

CHART TITLE - SUBROUTINE WFOHL

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(0002304)	00.13	10		
(0002300)	00.14	11	(0002300)	00.25
(0002307)	00.15	112	(0002300)	00.21
(0002300)	00.17	113		
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(0002307)	01.05	30		
(0002300)	01.07	0001		
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CHART TITLE - NEW-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE SCRIT

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(000476)	07.01	28	(000473)	05.01		
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(000000)	05.06	03	(000400)	05.04		
(000007)	05.08	70				

04/02/74 TABLE OF CONTENTS AND REFERENCES

ALFOTLEN CHART SET - SHEEP
REFERENCES (SOURCE, SOURCE NO. AND PAGE/SEN)

PAGE 10

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(000015)	00.13	00	(000002)	00.11	(000003) 00.00 (000004) 00.10

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE SPACE

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(000028)	01.03		(000029)	01.04
(000030)	01.04	4		
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(000070)	01.11		(000039)	01.27
(000070)	01.14	10		
(000080)	01.16	15	(000077)	01.13
(000081)	01.17	20	(000078)	01.15
(000082)	01.18	25		
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(000084)	01.20	35		
(000085)	01.21	40	(000083)	01.19
(000086)	01.23	45		
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(000089)	01.25	51		
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(000097)	01.30	200		
(000091)	01.31		(000090)	01.33
(000099)	01.35	301		
(000013)	01.36	3001		
(000010)	01.40	3002	(000012)	01.35
(000093)	01.41	300	(000093)	01.30

CHART TITLE - NON-PROCEDURAL STATEMENTS

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CARD NO	PAGE/SET	
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000001	0.07	UNDESIGNED - READS - EXTERNAL REFERENCE
000002	0.10	UNDESIGNED SWYAK
000003	0.10	UNDESIGNED - READS - EXTERNAL REFERENCE
000004	0.10	UNDESIGNED - READS - EXTERNAL REFERENCE
000005	0.10	UNDESIGNED - READS - EXTERNAL REFERENCE
000006	0.10	UNDESIGNED - READS - EXTERNAL REFERENCE
000007	0.10	UNDESIGNED - READS - EXTERNAL REFERENCE
000008	0.10	UNDESIGNED - READS - EXTERNAL REFERENCE
000009	0.10	UNDESIGNED - READS - EXTERNAL REFERENCE
000010	0.10	UNDESIGNED - READS - EXTERNAL REFERENCE

PROGRAM FLOW CHARTS

O 3

FIRST FUSELAGE OVERLAY

04/08/74

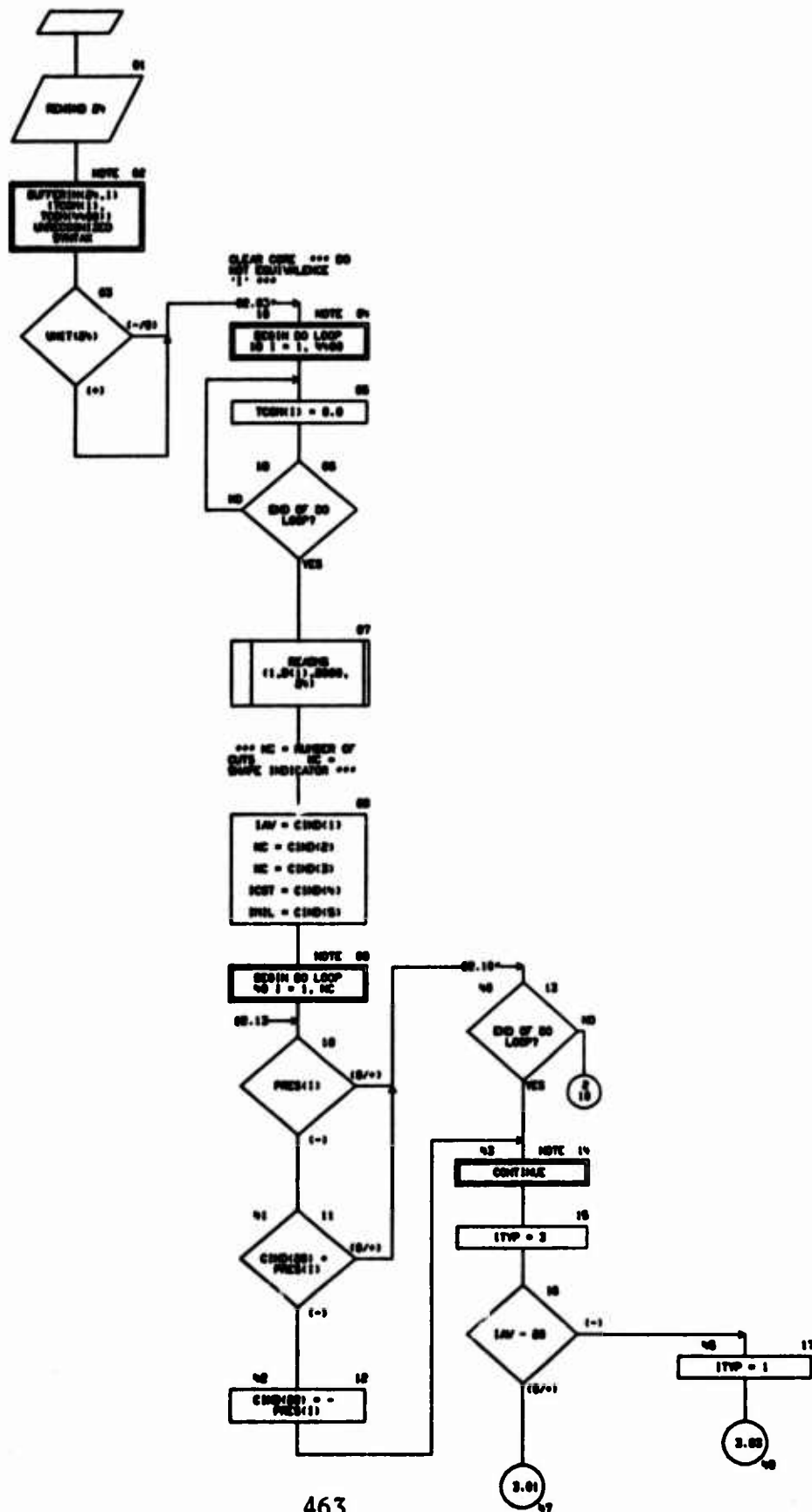
AMPLON CHART SET - SHIP FIRST PULSAR OVERLAY

PAGE 01

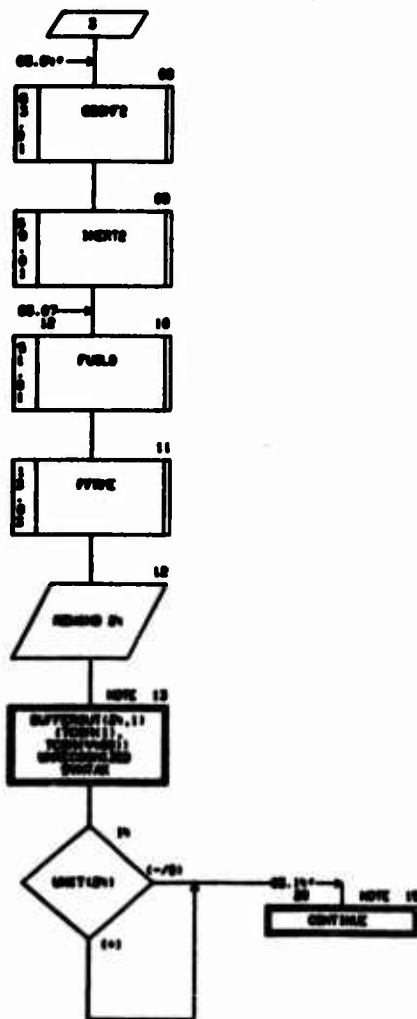
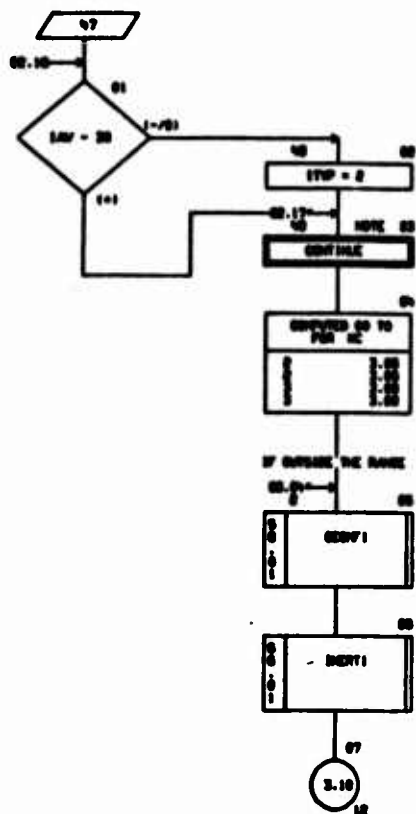
CHART TITLE - INTRODUCTORY COMMENTS

.....
PROGRAM FUSED
.....

CHART TITLE - PROCEDURES



SHOT TITLE - PROCEDURES



04/08/74

ANALYSIS CHART SET - 0407 FIRST FUELAGE OVERLAY

PAGE 04

CHART TITLE - NON-PROCEDURAL STATEMENTS

```
PROGRAM FUELCH  
OPEN TCHN1400  
DIMENSION D(2000),T(2000),DC(100),JD(200)  
DIMENSION C(1000)  
DIMENSION PRES(100)  
EQUIVALENCE (D(1),TCHN(1)),(T(1),TCHN(200)),(DC(1),TCHN(401)),  
(D(1),TCHN(201))  
EQUIVALENCE (D(201),C(100))  
EQUIVALENCE (D(100),PRES(1))  
EQUIVALENCE (D(111),JC), (D(112),JC)  
EQUIVALENCE (D(117),LAT), (D(118),LCST), (D(119),WIL)  
EQUIVALENCE (D(127),ITP)
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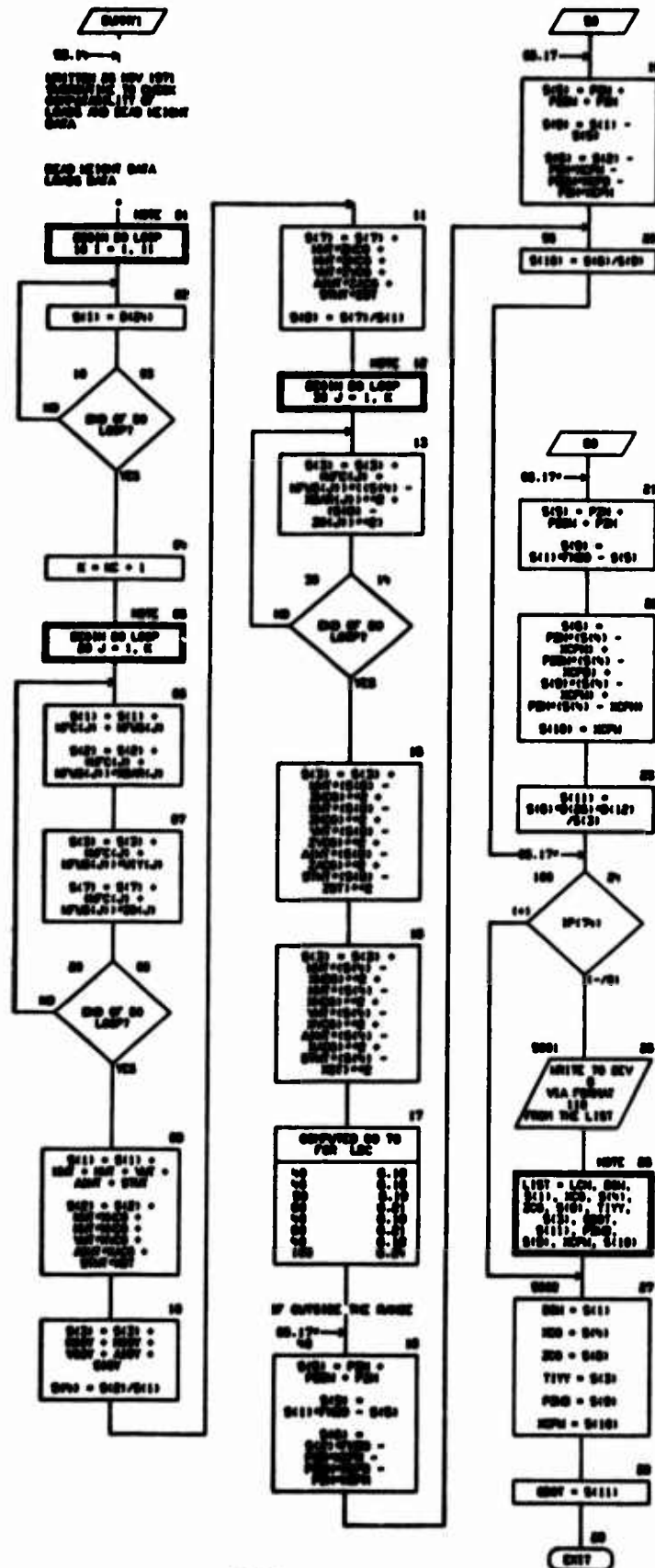
ASTORIA GARY SET - BEEP FIRST PURCHASE ONLY PAGE 05

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SERIALS SHOWN

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CHART TITLE - THERMOCHE GSEP01



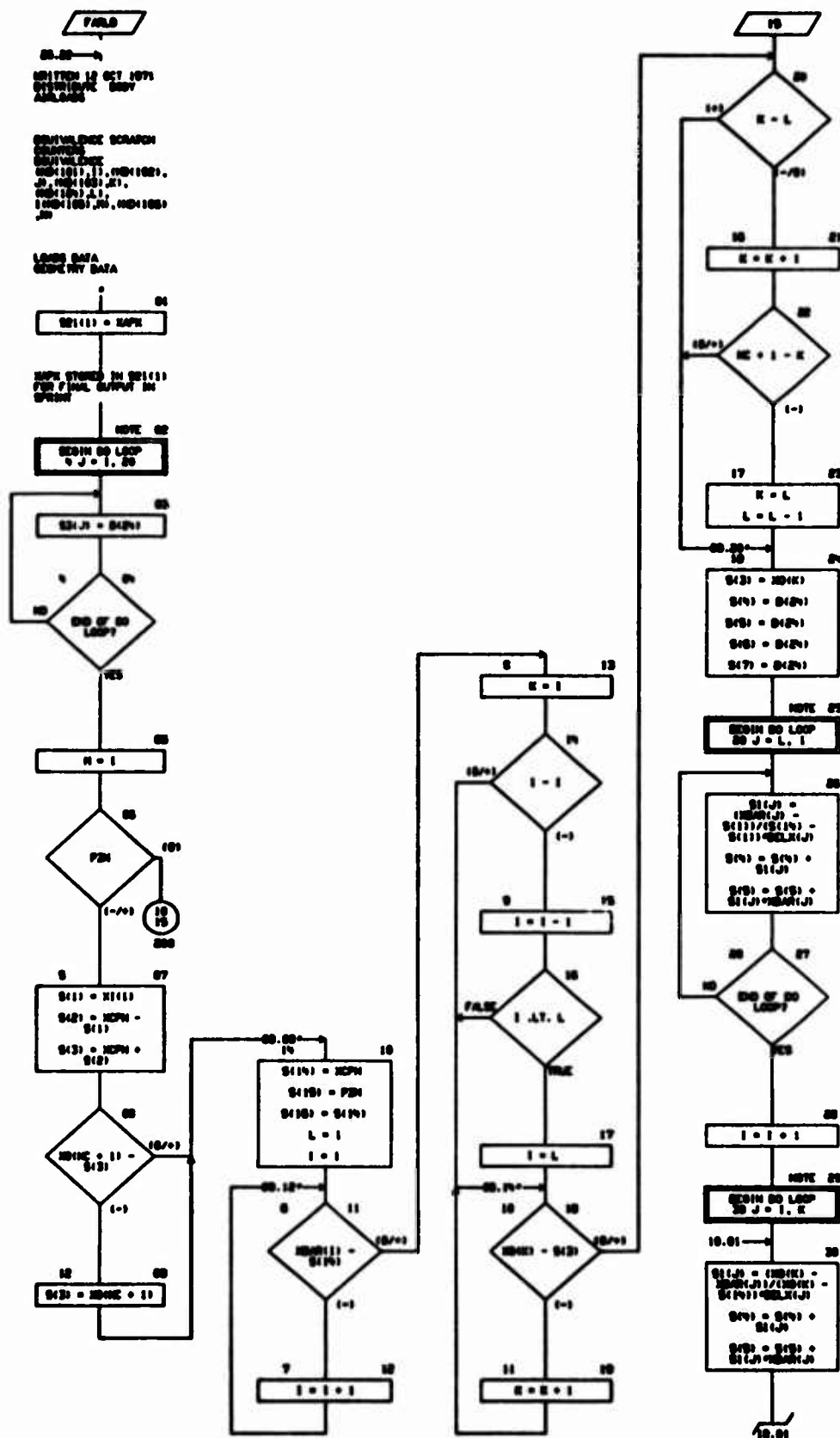
01/03/74

ADDITIONAL CHART SET - SHIP FIRST PUBLICATION

PAGE 00

CHART TITLE - INTERMEDIATE COASTS

RECENTLY PUBLISHED

QUEST TITLE - REPORTING FIELD



GURT TITLE - NON-FRIGORAL STAINMENTS

GURTH TCMW4001
 GURTHGAIN 010001,T10001,0C1101,0D1001
 GURTHGAIN 021101,0D1001
 GURTHGAIN 01001,011001,031001,041001
 GURTHGAIN 0201001,02L11001
 GURTHGAIN 0211001,02010001
 GURTHGAIN 00111,TCMW1111,17111,TCMW100111,0C111,TCMW10111,
 0D111,TCMW100111
 GURTHGAIN 001101,11,0D11001,11,0D11001,11,0D1101,11,
 0D11001,11
 GURTHGAIN 171201,0D1111,171201,02L1111
 GURTHGAIN 001001,021111
 GURTHGAIN 001001,0D1111
 GURTHGAIN 001111,0C1111
 GURTHGAIN 17111,01111,171101,01111,171101,03111,
 171101,04111
 GURTHGAIN 0011001,021111,001101,020111
 GURTHGAIN 1000101,1001,1000117,1001,1000101,1001,
 1000101,1001
 GURTHGAIN 100101,1001

OVER/7

APPROXIMATE SET - 0000

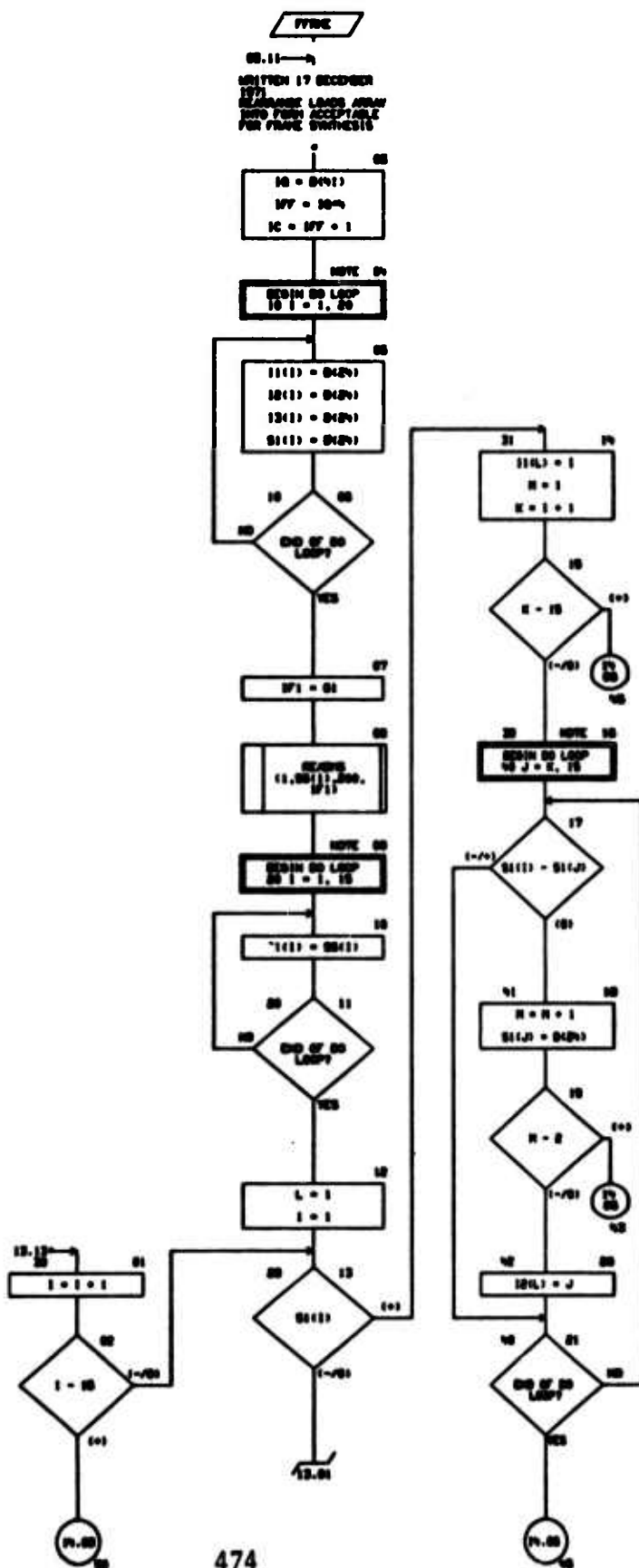
FIRST PUBLICATION OVERLAY

PAGE 10

SHORT TITLE - INTRODUCTORY COMMENTS

SIGNATURE FIVE

CHART TITLE - ALTERNATIVE FIVE



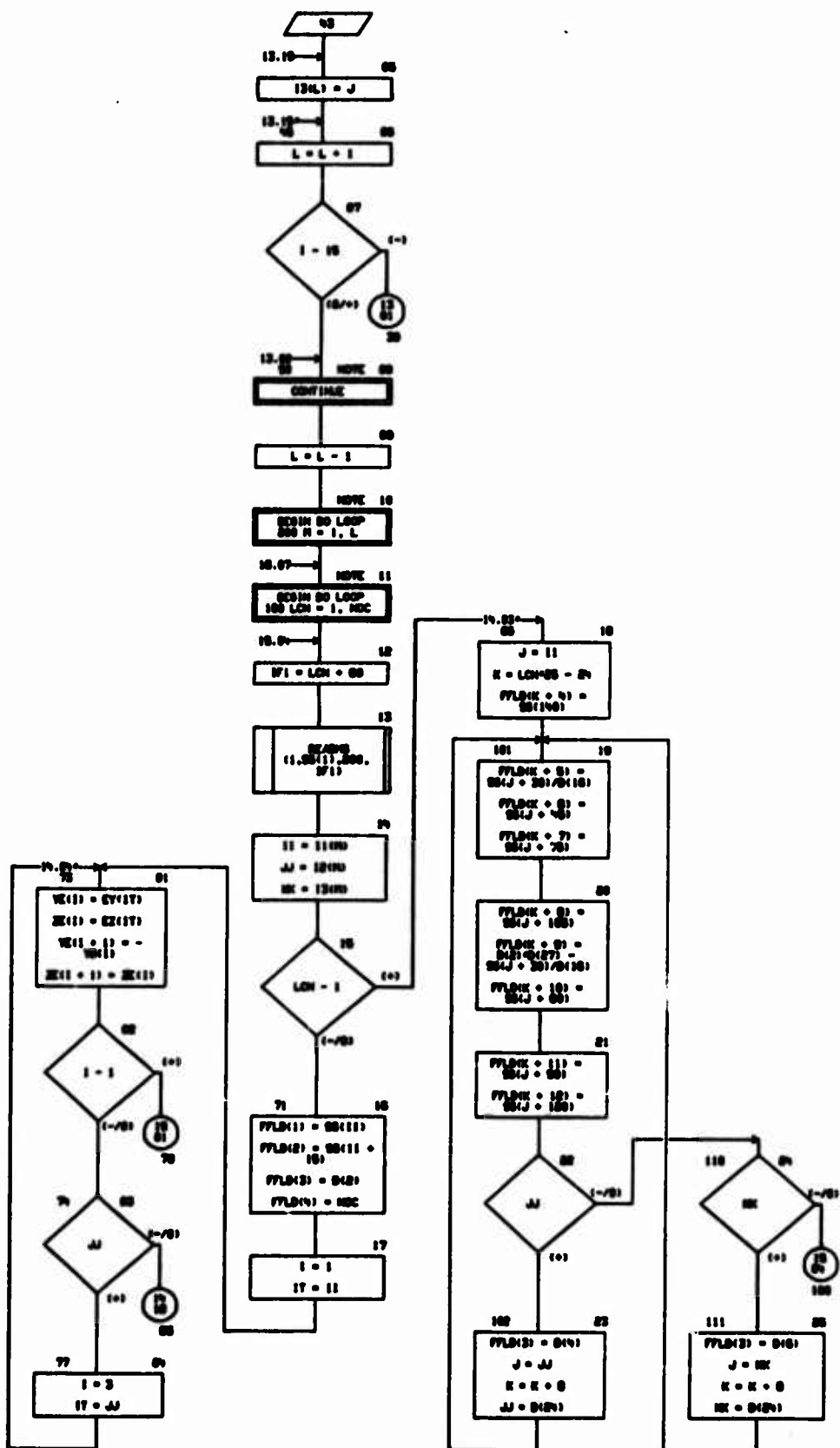
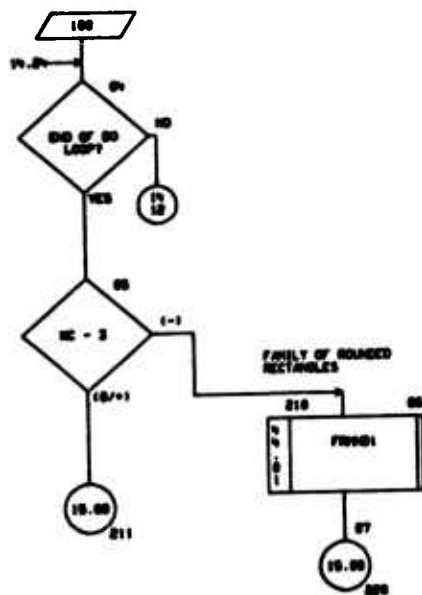
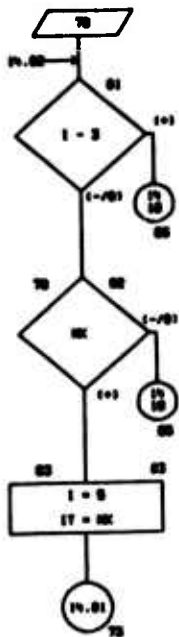
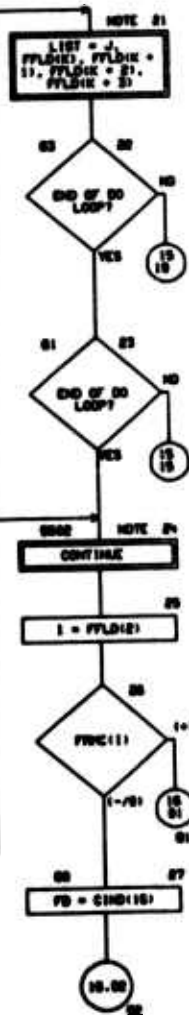
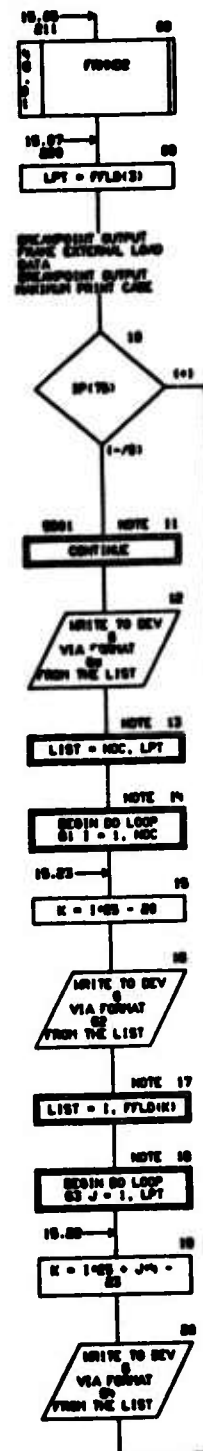


CHART TITLE - SUBROUTINE FTYPE



FAMILY OF ELLIPTICAL SHAPES



ENTRY TITLE - REPORTING TYPE

04/05/74

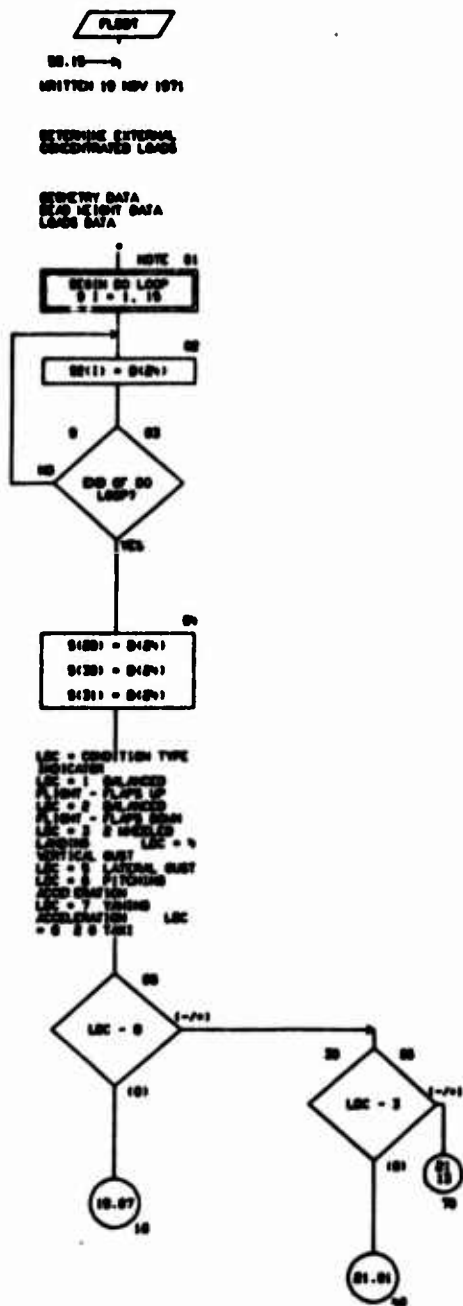
AUTOFLEX GUNNY SET - DESP FIRST PUBLAGE OVERLAY

PAGE 10

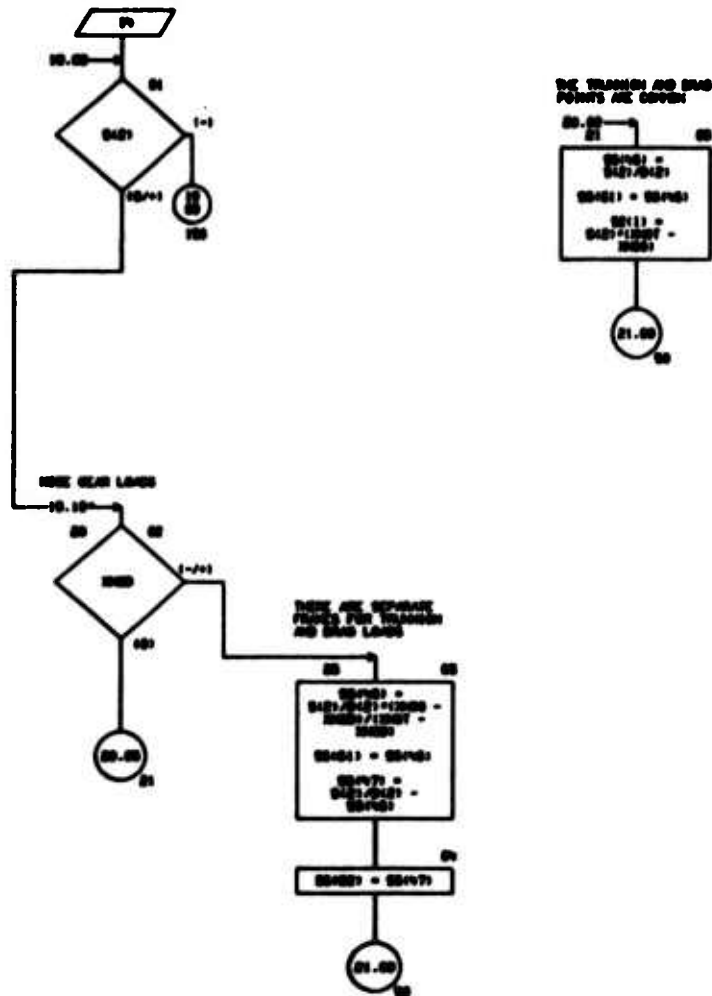
GUNNY TITLE - DIRECTORY CONTENTS

.....
BUREAU OF PLANT
.....

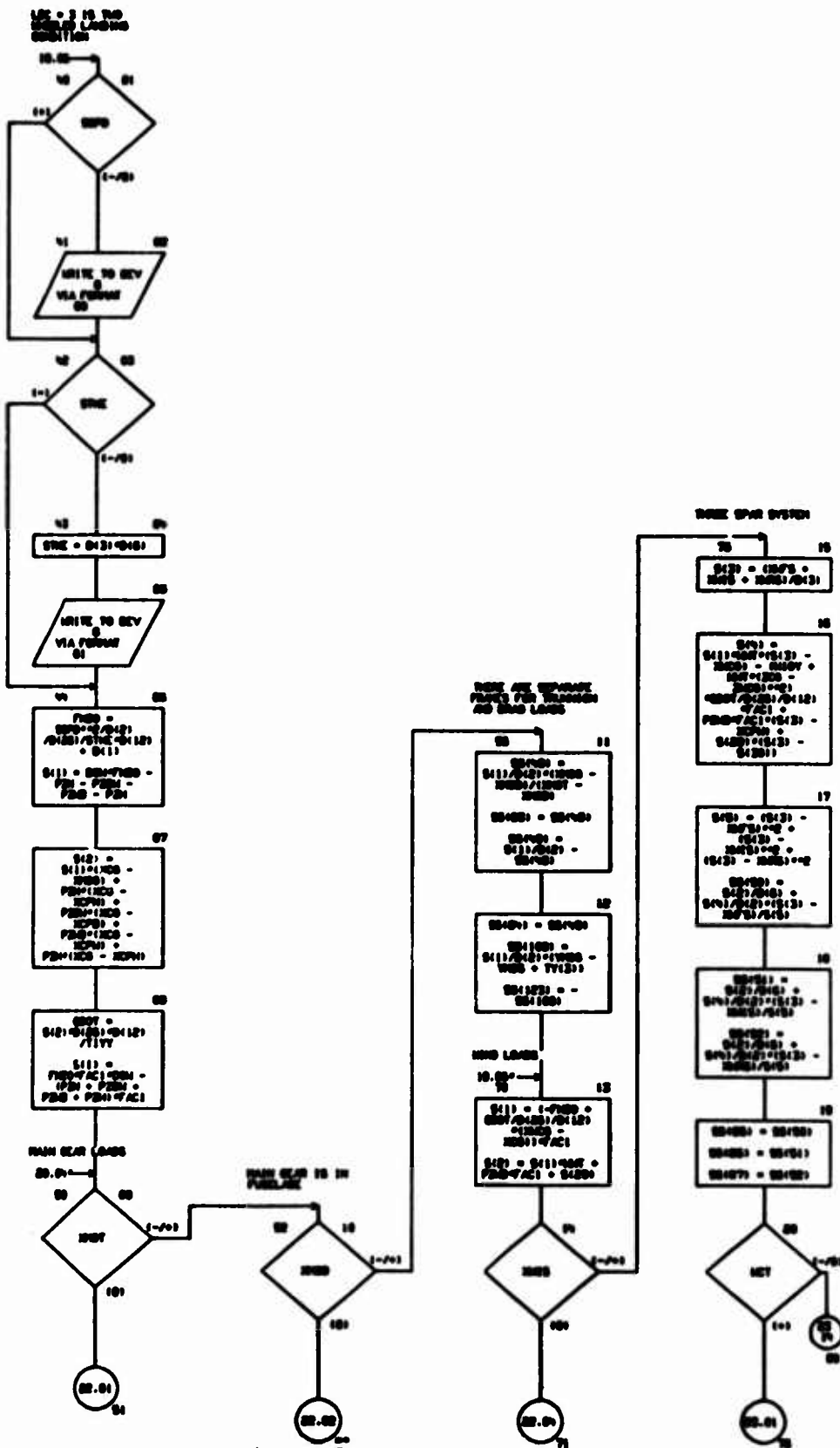
CHART TITLE - SURVEYING PLOT



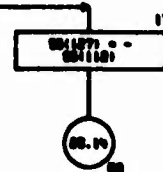
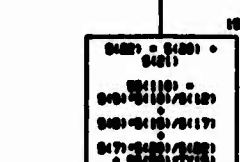
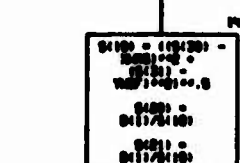
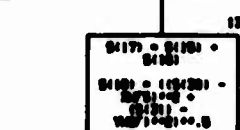
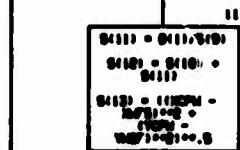
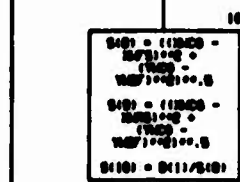
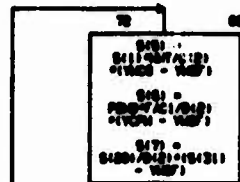
GUNT TITLE - DERRIVING FLEET



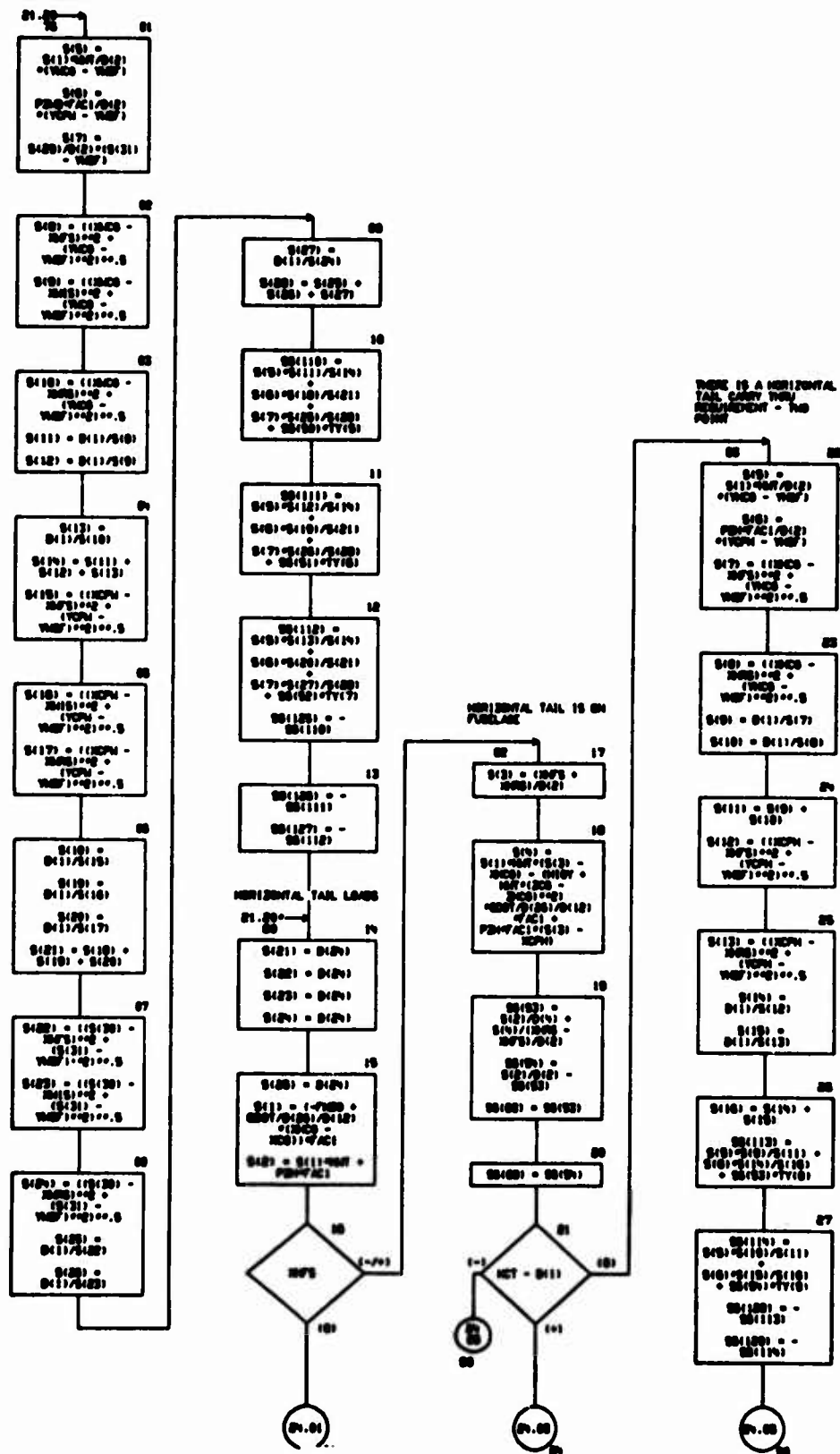
CURT TILK - SUBMITTING FLIGHT



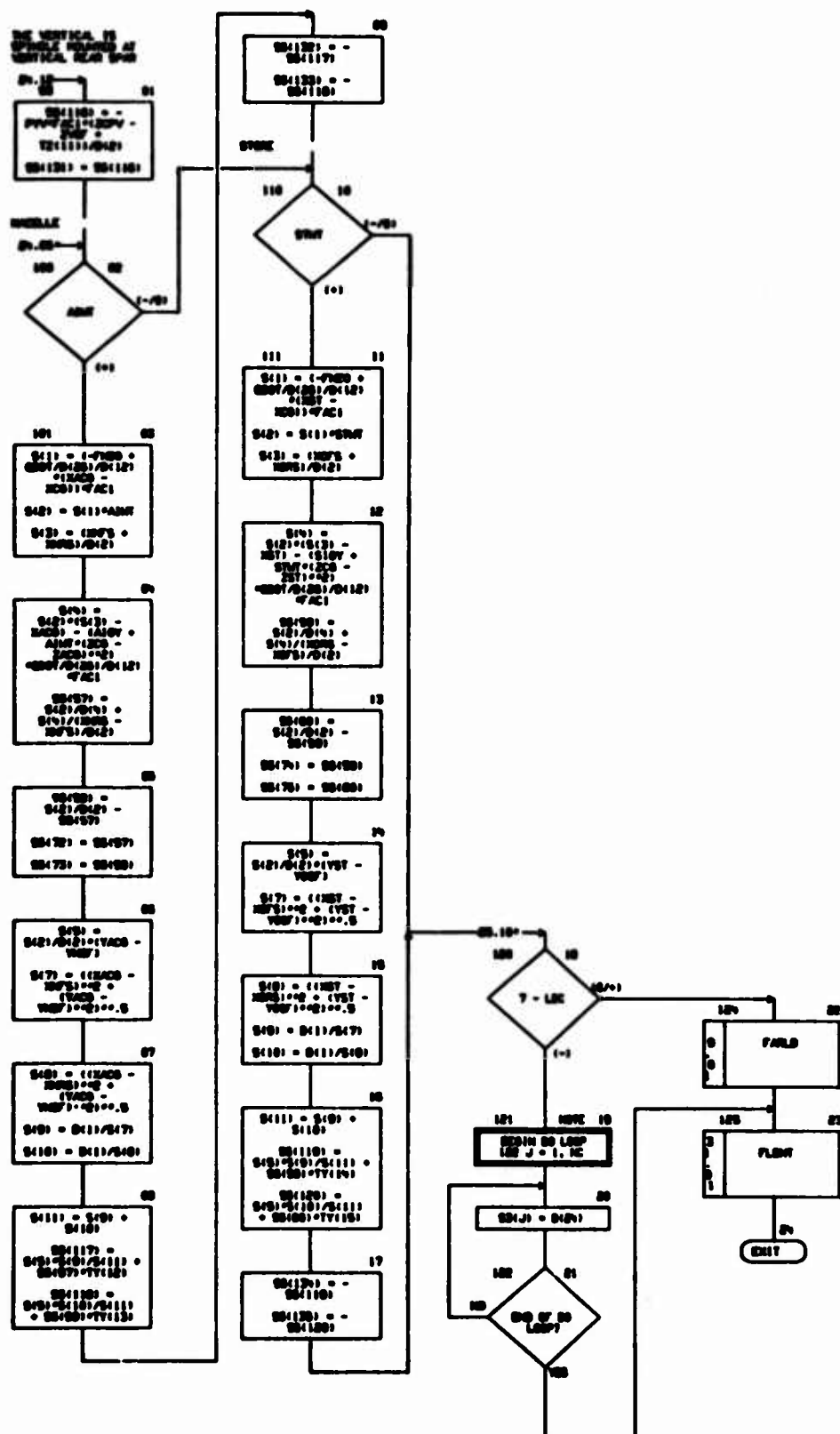
**THERE IS A MIND CARRY
YOU REQUIREMENT**



**THERE IS A MIND CARRY
YOU REQUIREMENT**



485

CHART TITLE - OVERVIEW PLAN

DATE FILED - NEW YORK

[illegible]

04/05/74

AUTOFLON CHART SET - SHEEP FIRST PURCHASE OVERLAY

PAGE 07

CHART TITLE - INTRODUCTORY COMMENTS

.....
SUBROUTINE FLOWIN
.....

CHART TITLE - NEW-PROCEDURAL STANDARDS

```

CONVEX TCM4000
DIMENSION D(0000),T(0000),SC(100),SD(000)
DIMENSION S1(00),S2(00),S3(00),SD(000)
DIMENSION S02(000)
DIMENSION SHY(00),SHX(00),VIZ(00)
DIMENSION HBAR(00),BLX(00)
DIMENSION ND(00)
EQUIVALENCE (D(1),TCM(1)),(T(1),TCM(200)),(SC(1),TCM(410)),
  (SD(1),TCM(401))
EQUIVALENCE (ND(111),JC)
EQUIVALENCE (ND(101),I), (ND(102),J), (ND(103),K), (ND(104),L)
EQUIVALENCE (D(201),ND(1))
EQUIVALENCE (T(201),HBA(1)), (T(201),BLX(1))
EQUIVALENCE (T(101),S1(1)), (T(101),S2(1)), (T(100),SD(1))
  , (T(191),S3(1))
EQUIVALENCE (D(110),S02(1))
EQUIVALENCE (S02(0),FAC(1),S02(3),SHY(1)), (S02(0),SHX(1)),
  (S02(7),VIZ(1))

```

04/03/74

AUTOFLEX CHART SET - SHEEP FIRST FUELAGE OVERLAY

PAGE 30

CHART TITLE - INTRODUCTORY COMMENTS

.....
SUBROUTINE FLINT
.....

SHORT TITLE - SUBROUTINE FLOW

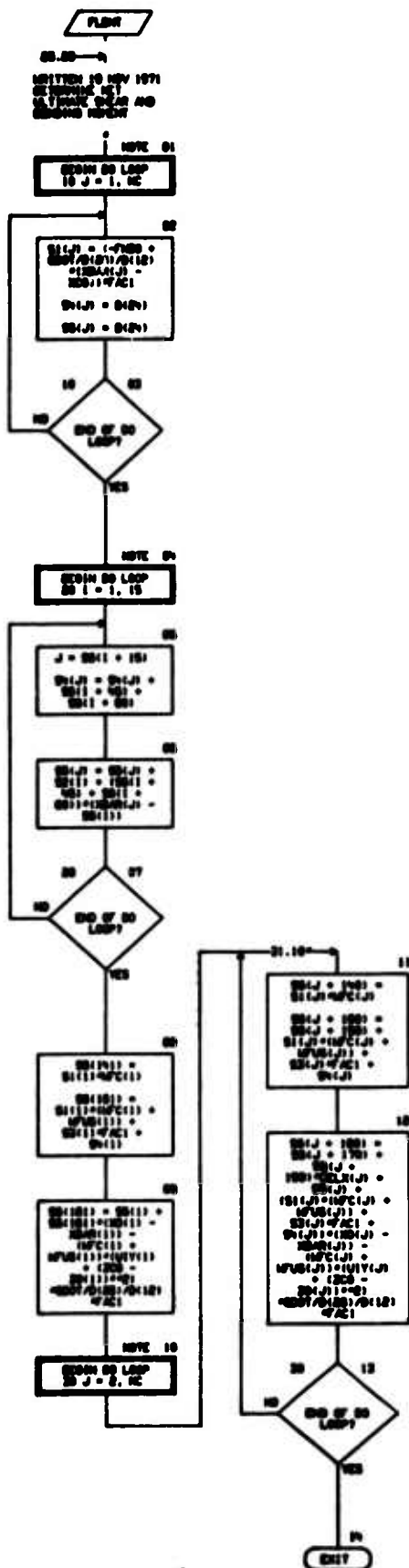


CHART TITLE - NON-PROCEDURAL STANDARDS

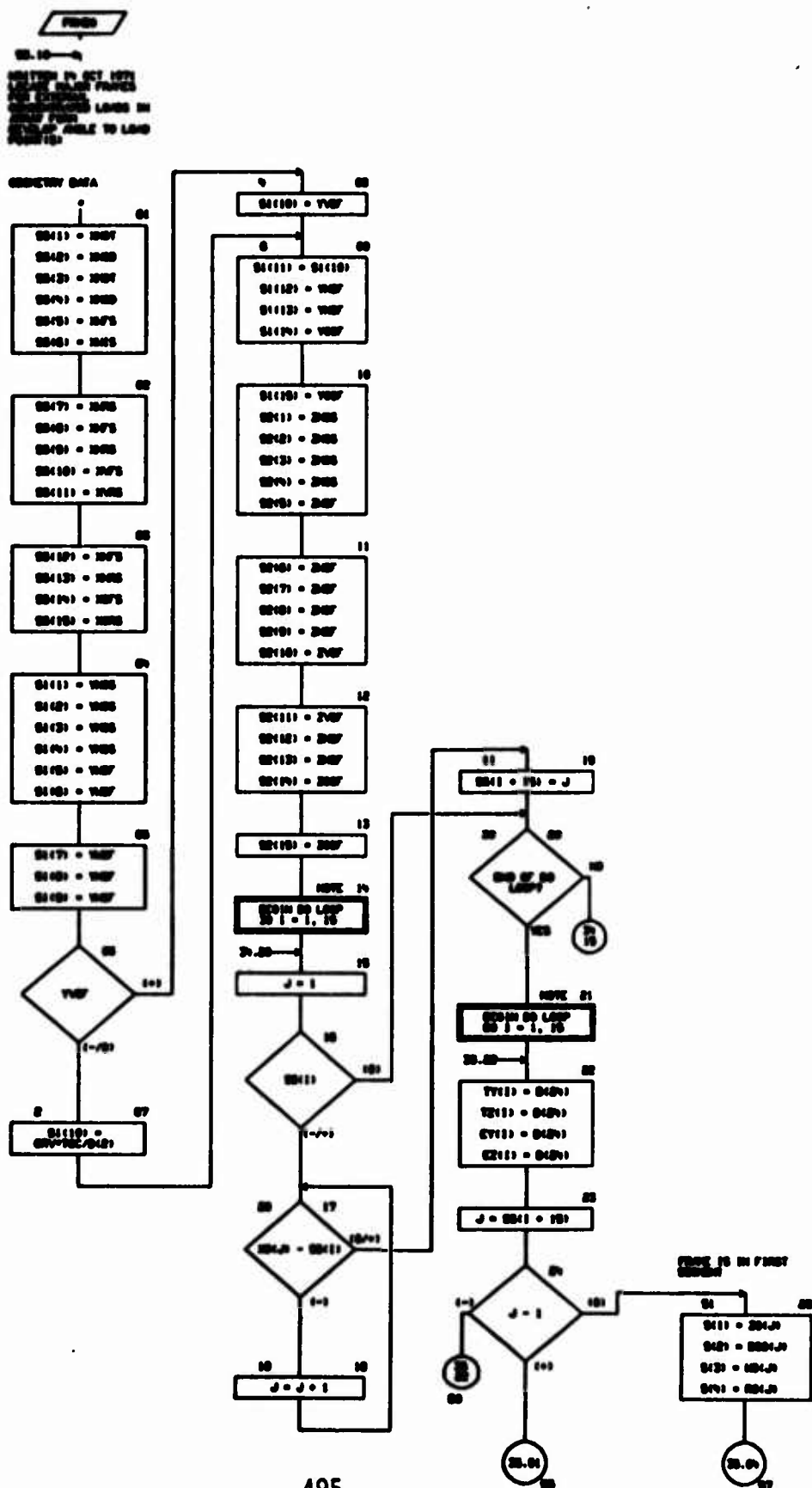
```

COMMON TCOM(400)
DIMENSION S(2000),T(2000),SC(100),SD(200)
DIMENSION ZD(20)
DIMENSION HD(20)
DIMENSION S1(20),S2(20),S3(20),S4(20),S5(20),S6(200)
DIMENSION ZSR(200)
DIMENSION MFC(20),AFUS(20)
DIMENSION HMR(20),SELX(20),MIV(20)
DIMENSIONCE (S(1),TCOM(1)),(T(1),TCOM(200)),(SC(1),TCOM(410)),
              (SD(1),TCOM(201))
DIMENSIONCE (S(20),SD(1))
DIMENSIONCE (T(20),SD(1))
DIMENSIONCE (S(110),ZSR(1))
DIMENSIONCE (ZSR(10),MFC(1)),(ZSR(17),AFUS(1))
DIMENSIONCE (T(20),HMR(1)),(T(20),SELX(1)),(T(20),MIV(1))
DIMENSIONCE (ZSR(6),FAC(1)),(ZSR(7),FMR(1)),(ZSR(10),ZDOT),
              (ZSR(10),JCO), (ZSR(10),JCO)
DIMENSIONCE              (T(10),S1(1)),(T(12),SD(1)),
              (T(14),S3(1)),(T(16),S4(1)),(T(18),SD(1)),(T(100),SD(1))
DIMENSIONCE (SD(10),1), (SD(10),J)
DIMENSIONCE (SD(11),JC)

```


PAGE 13

SUBMITTING PAGES

CHART FILE - BUREAU FILE - PENDING

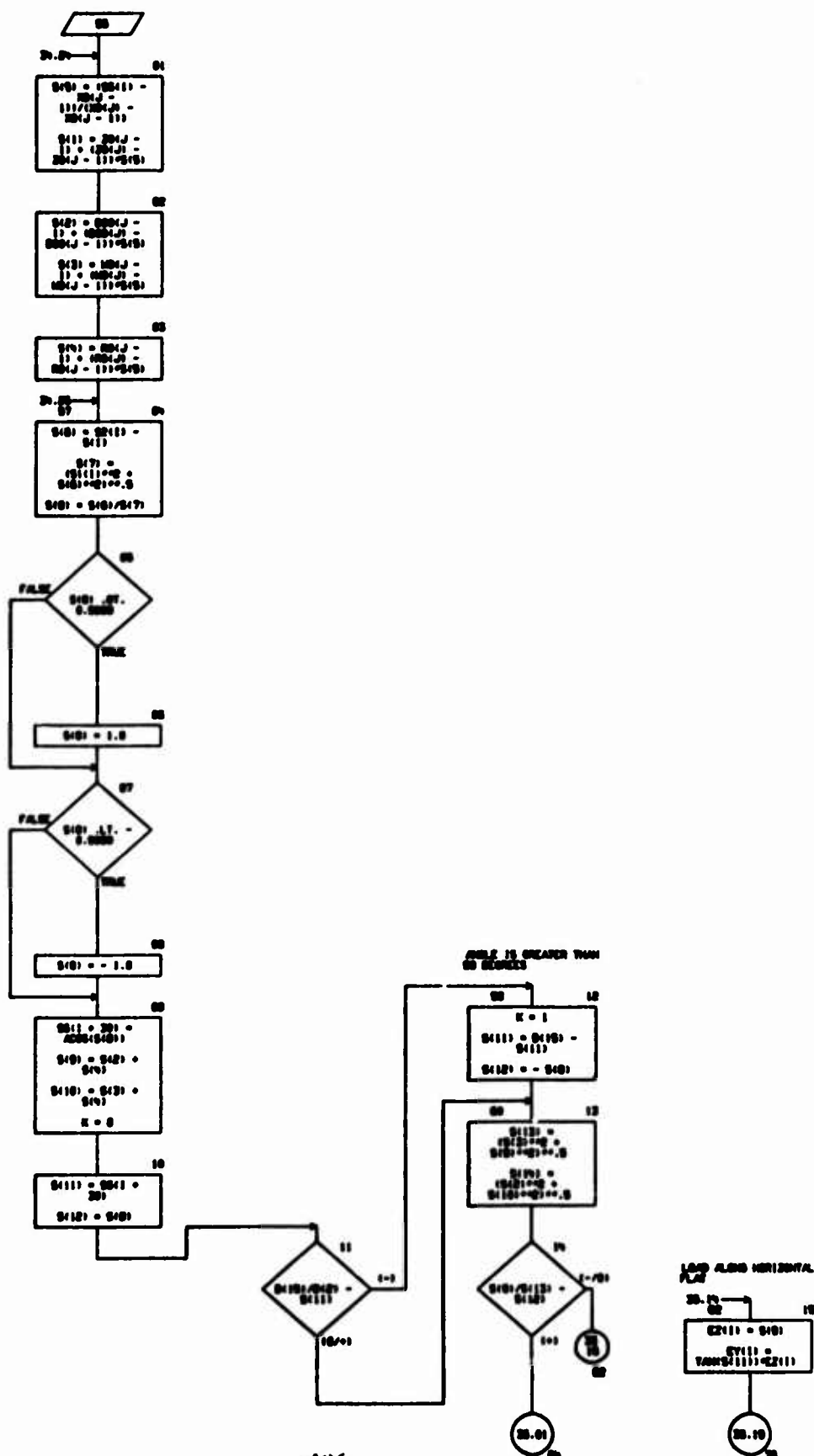
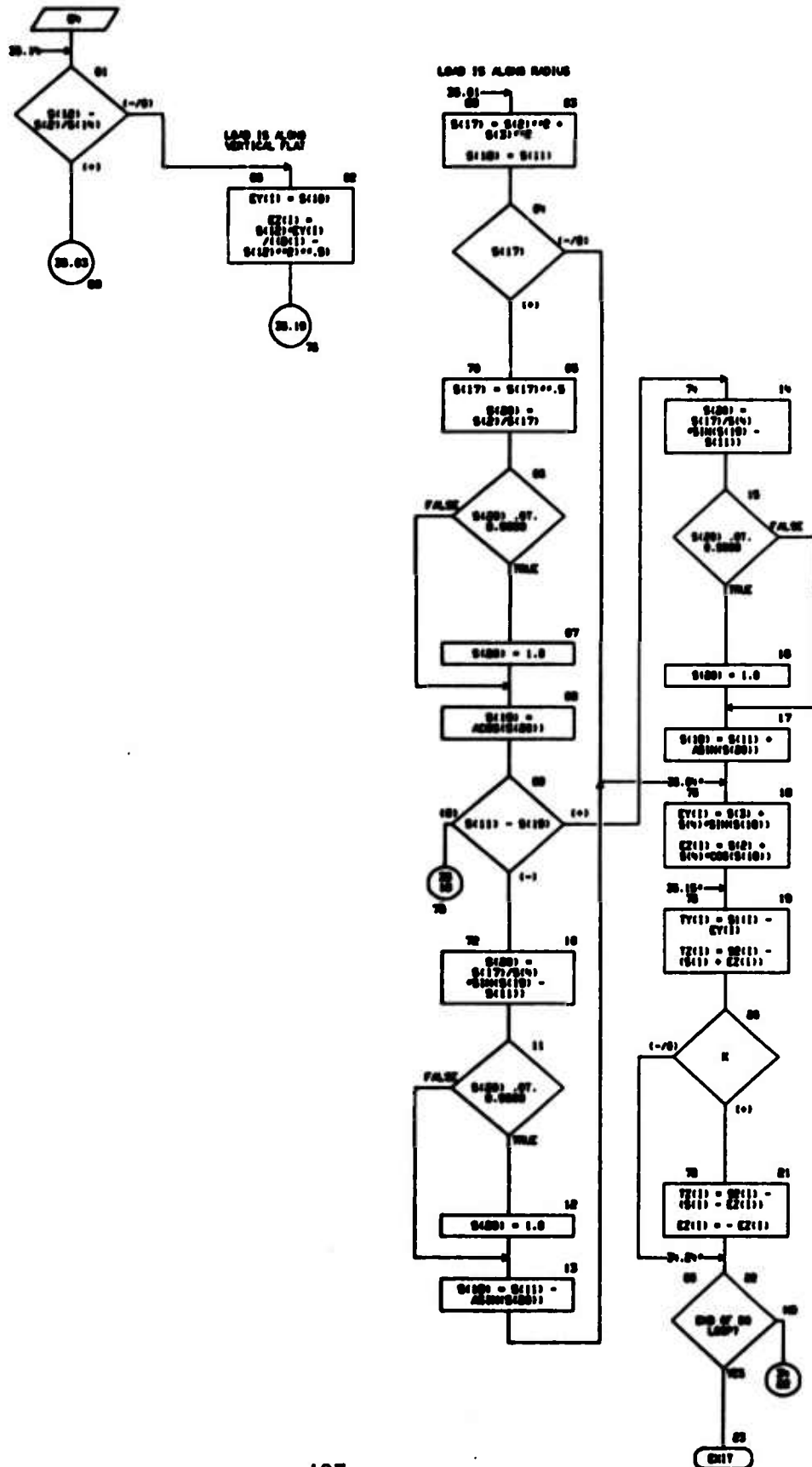
SHORT TITLE - BUREAU OF PRISON

CHART TITLE - SUBROUTINE FIVE

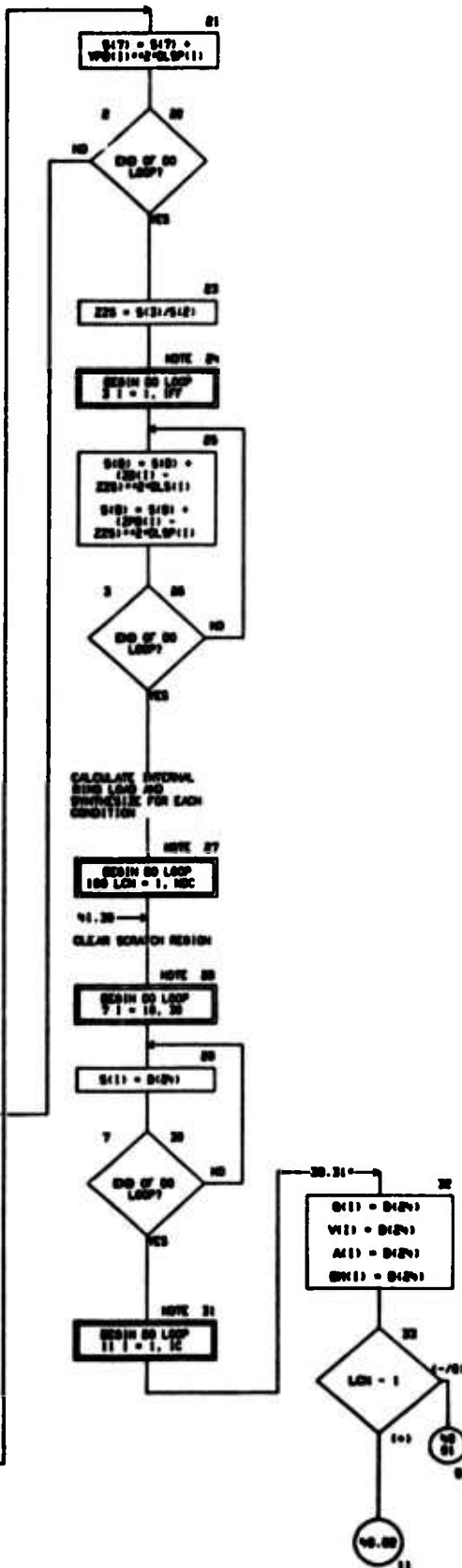


[illegible]

=====

SHIRAZI FOLD

=====



QUEST TITLE - SUBJECTIVE FIELD

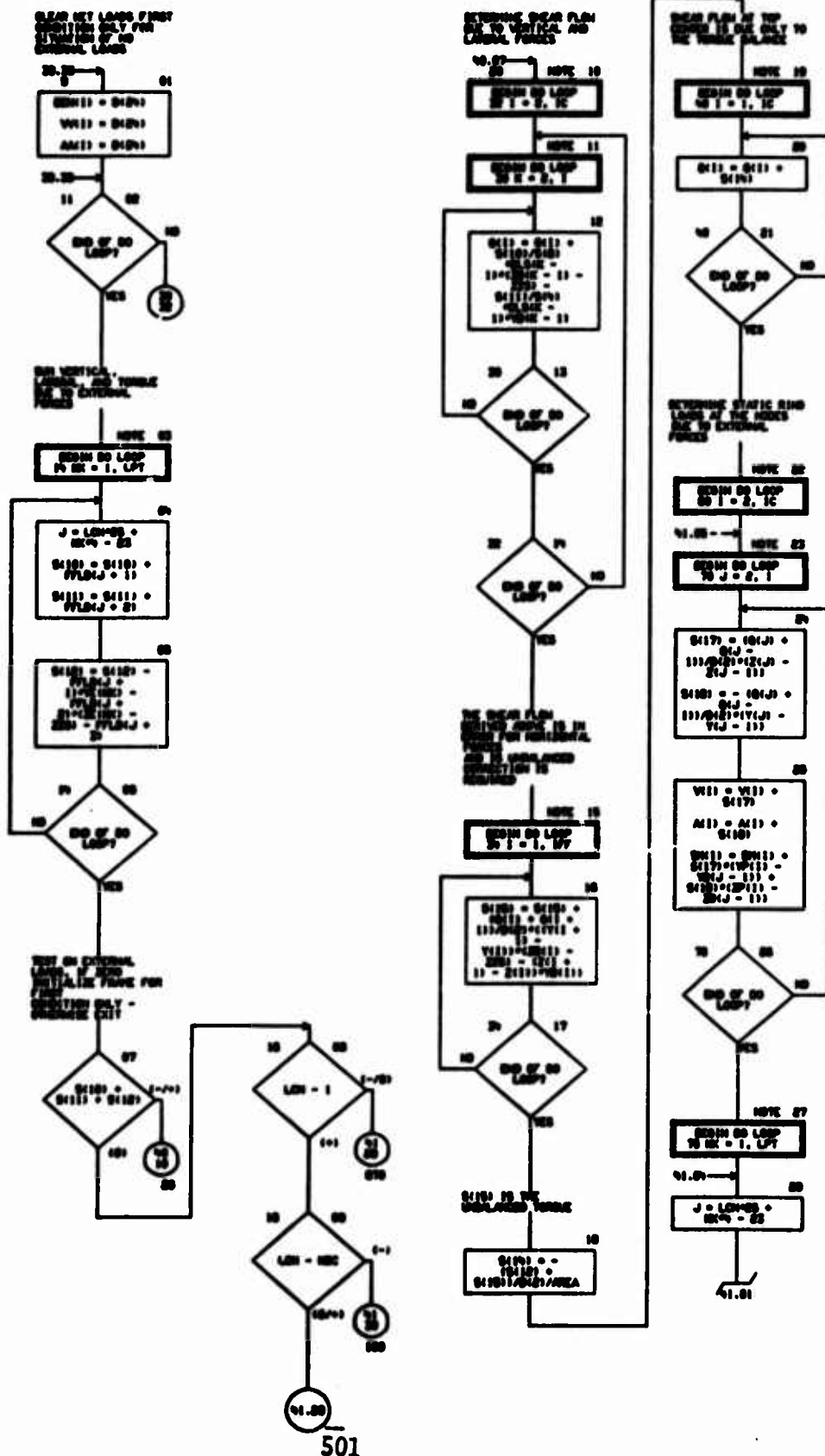


CHART TITLE - SUBROUTINE FUEL

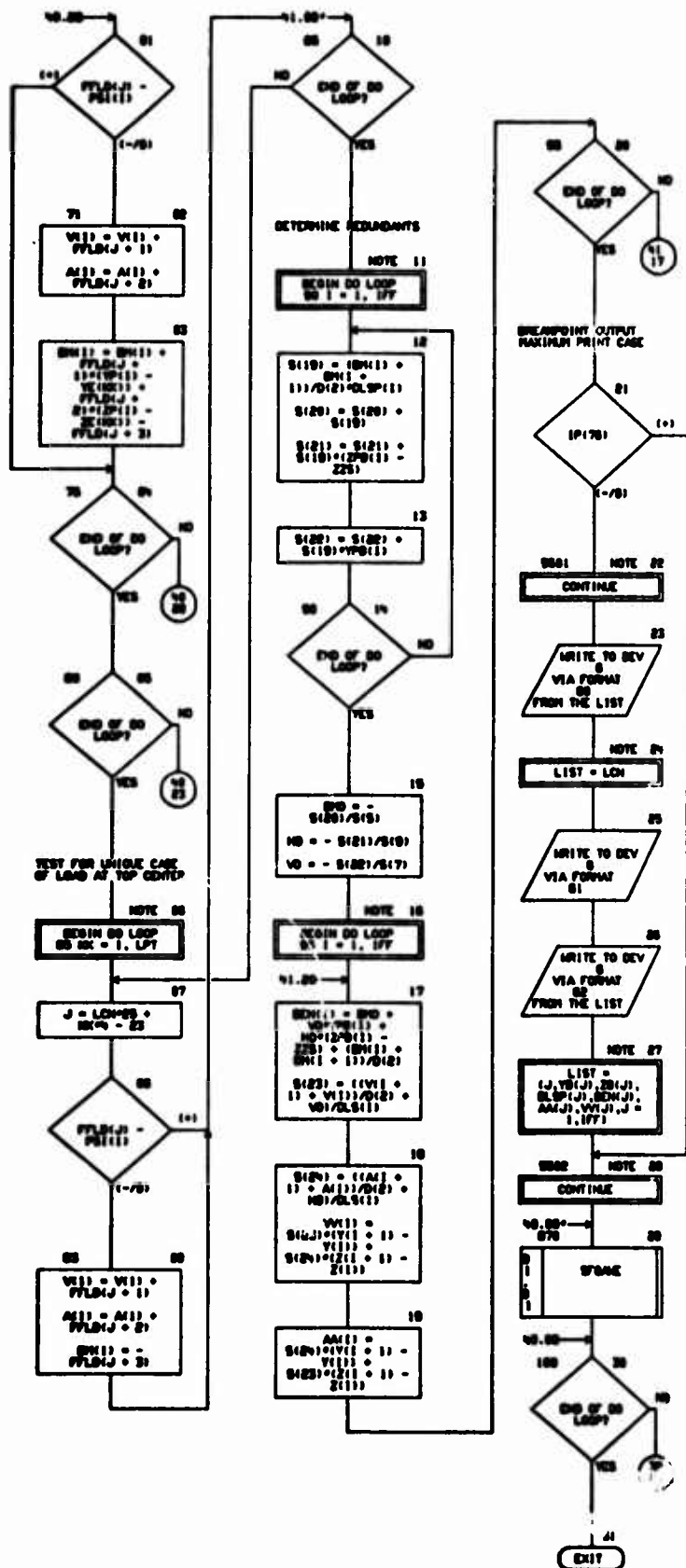


CHART TITLE - NON-PROCEDURAL STATEMENTS

```

      GIVEN TCON(400)
      GIVEN /SPIN/SP(00)
      DIMENSION S(100),FFLD(100),V(10),Z(10),PS(10),VB(10),ZB(10),
      BLS(10),WP(10),SP(10),VFB(10),SPB(10),LSP(10),G(10),V(10)
      DIMENSION VE(10),ZE(10)
      DIMENSION A(10),B(10),BCH(10),AA(10),VV(10)
      EQUIVALENCE (B(1),TCON(1)),(V(1),TCON(201)),(B(1),TCON(4101)),
      (B(1),TCON(4001))
      EQUIVALENCE (V(1),S(1)),(V(10),FFLD(1)),(V(1240),ZB(1))
      , (V(1200),BLS(1)),(V(1207),WP(1)),(V(1400),SP(1))
      , (V(1400),VFB(1)),(V(1000),SPB(1)),(V(1011),LSP(1))
      , (V(1070),V(1)),(V(1703),Z(1)),(V(1700),PS(1))
      , (V(1000),G(1)),(V(1010),V(1)),(B(1101),VB(1))
      EQUIVALENCE (VE(1),T(1201)),(ZE(1),T(1207))
      EQUIVALENCE (B(1201),A(1)),(B(1400),B(1)),(B(1013),BCH(1)),
      (B(1070),AA(1)),(B(1030),VV(1))
      EQUIVALENCE (S(41),FD), (S(42),AREA), (S(43),ZTS), (S(44),B'D),
      (S(45),JD), (S(46),VD)
      EQUIVALENCE (B(101),I), (B(102),J), (B(103),K), (B(100),AK)
      EQUIVALENCE (B(114),LCH), (B(115),BCH), (B(110),LPT),
      (B(110),I0), (B(100),IC), (B(121),MY)
00  FORMAT(1H,2X,10400 SET =,13,7X,BEEP FIELD = (P170) **)
01  FORMAT(1H,2X,BCH,2X,WYBAR,2X,WYBAR,2X,WYBAR,2X,WYBAR,2X,B'D,2X,
      2X,BCHAL,10X,BCHAL)
02  FORMAT(10,F10.3,Z(17.7))

```

01/20/74

ALPHABET CHART SET - SHEEP FIRST FUELAGE OVERLAY

PAGE 43

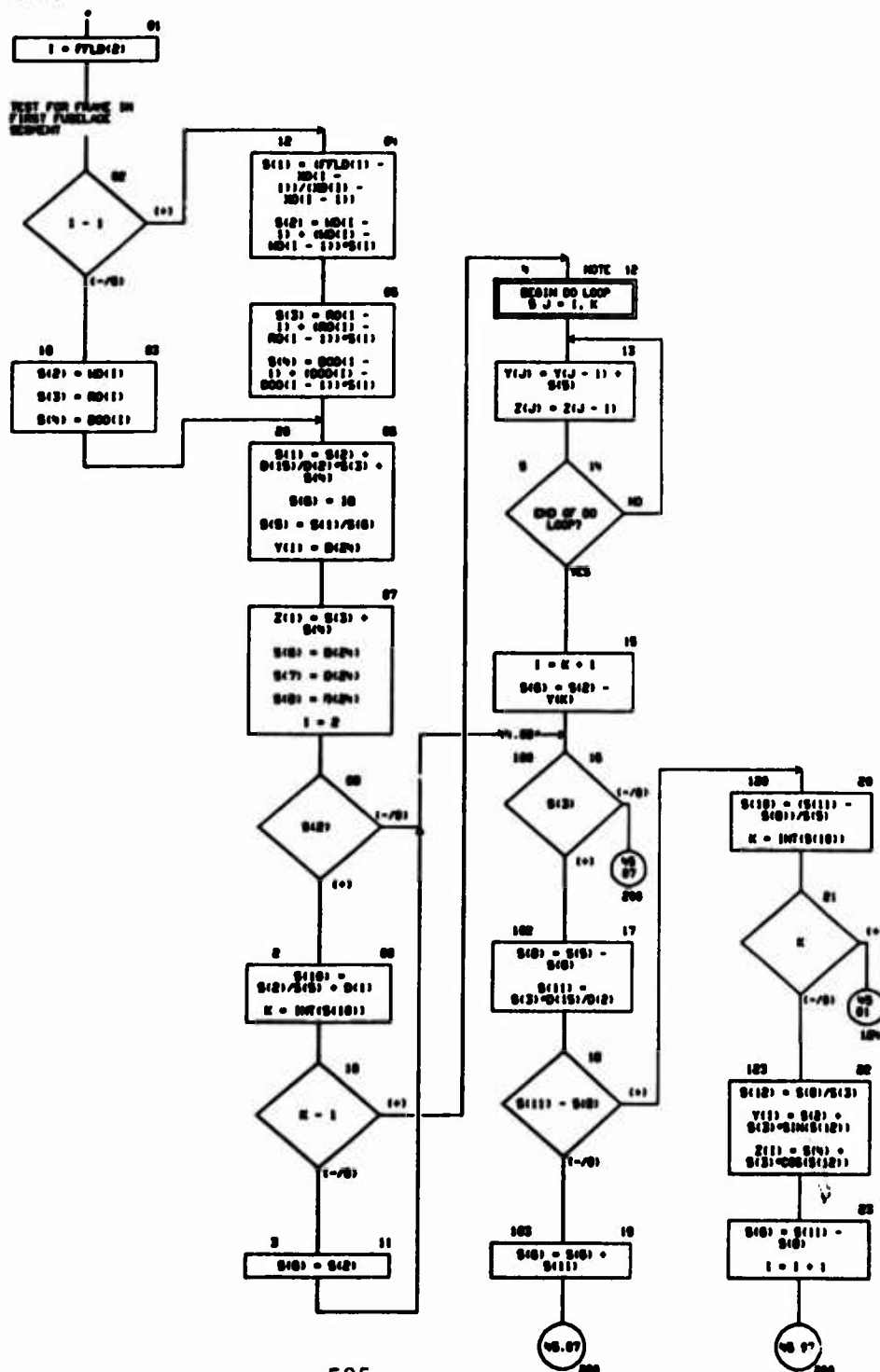
CHART TITLE - INTRODUCTORY COMMENTS

SUBROUTINE FRODO
#####

FIGURE 1

15.05--4
WRITTEN 20 DECEMBER
1971
DEVELOP MORE
COORDINATES FOR 61
PAGES

DO NOT USE ROCK
RESISTOR 3. NO "H"
THIS ROUTINE IS IN A
DO LOOP WITH THE
ADDITIONAL NO
CHANGES



SUBTITLE - SUBROUTINE FROD:

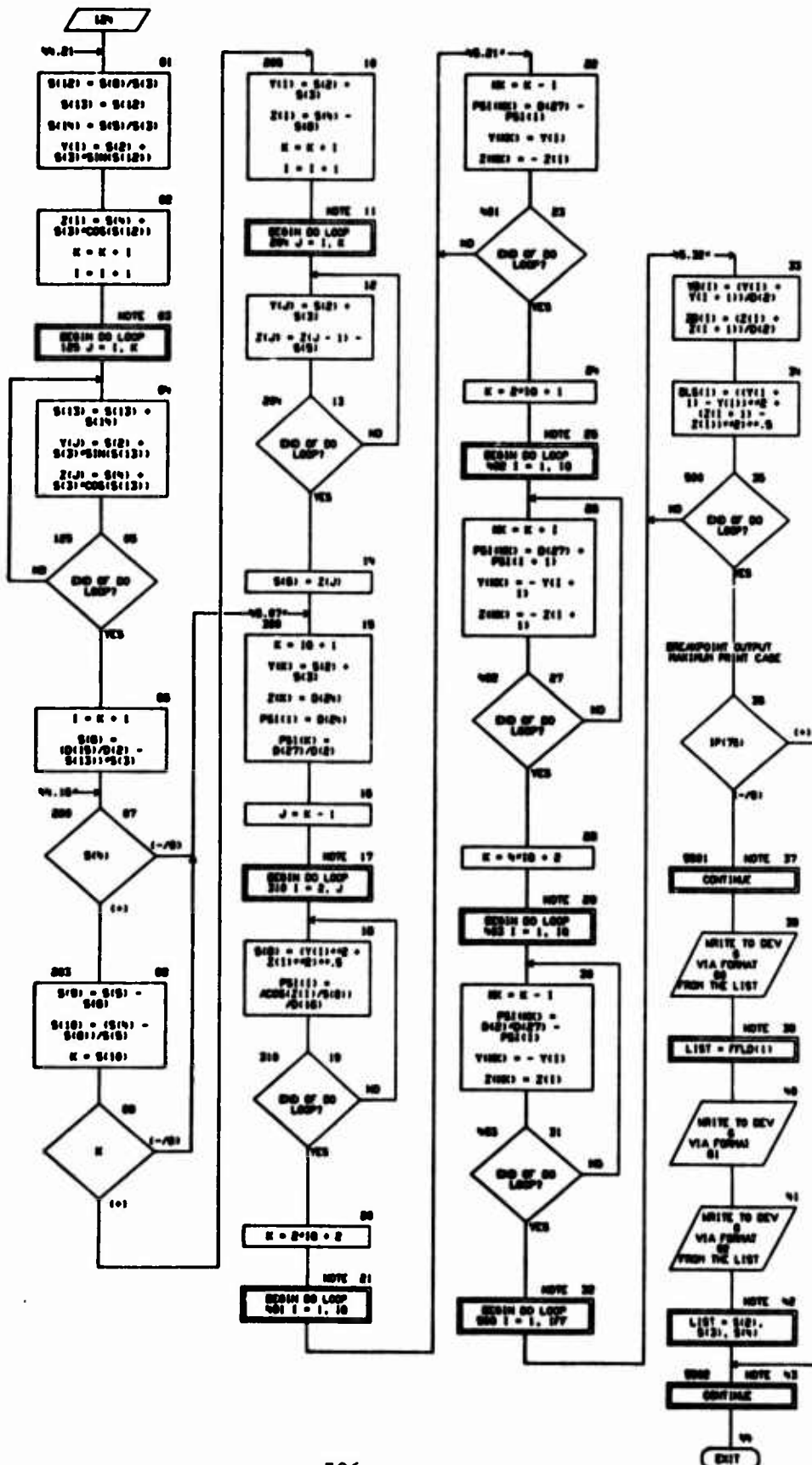


CHART TITLE - NON-PROCEDURAL STATEMENTS

```

      COPEN TCON(400)
      COPEN /IPRINT/IP(00)
      DIMENSION S(1000),T(10000),SC(100),JD(1000)
      DIMENSION ND(20)
      DIMENSION S(100),SD(120),JD(20),JD(20),JFLD(100),
      YB(1),Z(10),PS(10),YB(10),SD(10),LS(10)
      EQUIVALENCE (S(1),TCON(1)),(T(1),TCON(200)),(SC(1),TCON(410)),
      (JD(1),TCON(400))
      EQUIVALENCE (S(20),JD(1))
      EQUIVALENCE (T(1),S(1)),(T(41),SD(1)),(T(46),JD(1))
      , (T(48),JD(1)),(T(62),JFLD(1)),(T(124),SD(1))
      , (T(130),LS(1)),(T(167),Y(1)),(T(173),Z(1))
      , (T(174),PS(1)),(S(110),YB(1))
      EQUIVALENCE (ND(101),1), (ND(102),J), (ND(103),K), (ND(107),1),
      (ND(108),J), (ND(109),K)
      EQUIVALENCE (ND(110),10), (ND(120),10), (ND(121),177)
00      FORMAT(1H,10H,FUSELAGE STATION =,F9.2,4X,
      2H** FROM01 - IP(75) **)
01      FORMAT(1H,14H,SYMMETRY TYPE IS ROUNDED RECTANGLE)
02      FORMAT(1H,4H,10HORIZ FLAT =,F7.2,3H,RADIUS =,F7.2,3H,
      10HVERT FLAT =,F7.2)

```

04/08/74

ARDFLAN GUNT SET - BEEP FIRST FUELAGE OVERLAY

PAGE 47

GUNT TITLE - INTRODUCTORY COMMENTS

oooooooooooooooooooooooooooooooooooooooooooooooooooooooooooo
SUBMITTING POWER
oooooooooooooooooooooooooooooooooooooooooooooooooooooooooooo

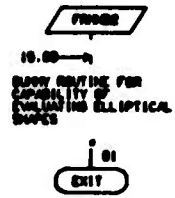
04/03/74

AUTOFLEX SHORT SET - SHEEP

FIRST FUELAGE OVERLAY

PAGE 40

SHORT TITLE - SUBROUTINE FUDGE



PAGE 40

```
DEFIN TCMN=0;
DIMENSION N(1000),T(1000),JC(100),JD(100)
REAL VLSICE (6(1),TCMN(1),7(1),TCM+100(1),8C(1),TCM+10(1)),
      M(1),TCM+50(1))
```

CHART TITLE - INTERPRETATION GUIDANCE

AUSTRIA CHART SET - SHEEP FIRST FUELAGE OVERLAY PAGE 00

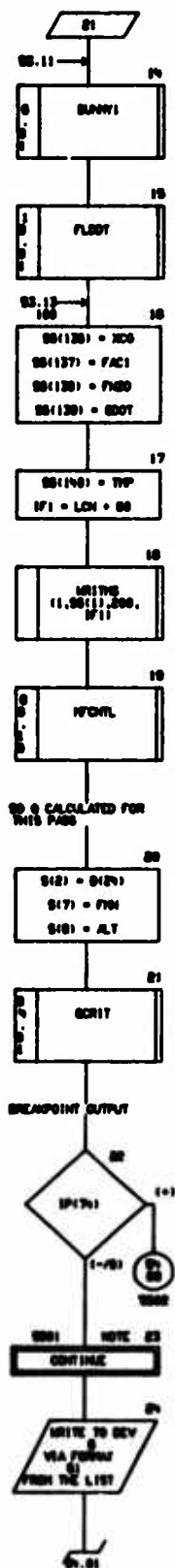
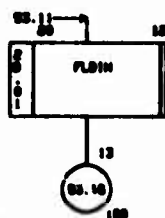
511

512

513

Administrative costs are 20% of total project costs.

44



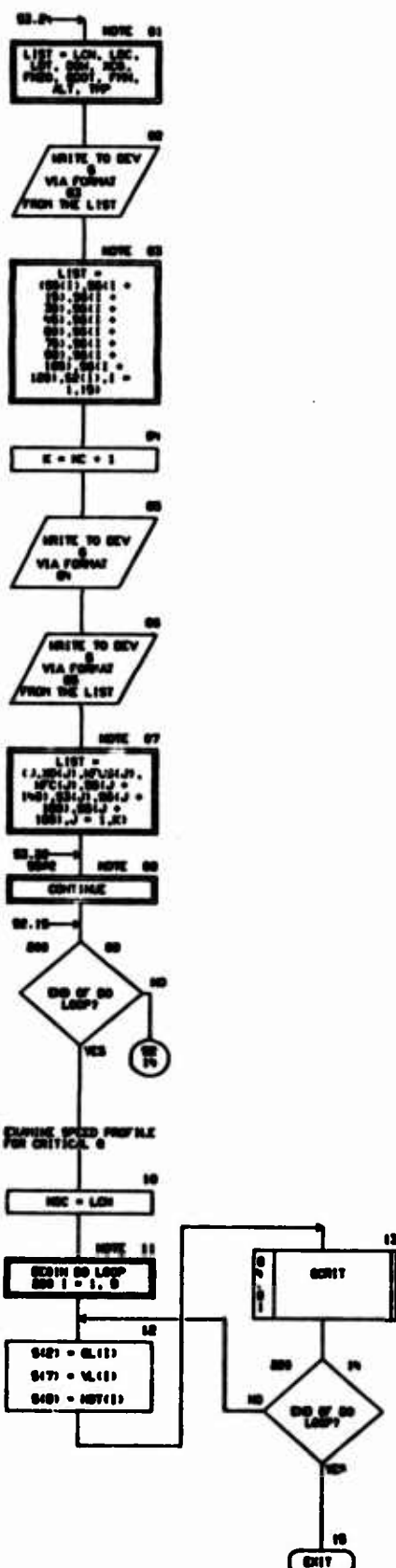


CHART TITLE - NON-PROCEDURAL STATEMENTS

```

      COPEN TCONV400)
      COPEN /PRINT/1P(00)
      DIMENSION S(2000),T(2000),DC(100),ND(200)
      DIMENSION S2(20),S3(200)
      DIMENSION S2(20)
      DIMENSION S(100)
      DIMENSION S2(200)
      DIMENSION NDT(10), NL(10), GL(10)
      DIMENSION S3(20),FUS(20),MFC(20)
      DIMENSION FUS(670),FUSDM(400)
      EQUIVALENCE (S(1),TCONV(1)),(T(1),TCONV(200)),(DC(1),TCONV(101)),
        (ND(1),TCONV(201))
      EQUIVALENCE (S(20),ND(1)),(S(101),S2(1))
      EQUIVALENCE (S(1),T(1))
      EQUIVALENCE (T(12),S2(1)),(T(100),S3(1))
      EQUIVALENCE (T(14),S3(1)),(S2(15),MFC(1)),(S2(17),FUS(1))
      EQUIVALENCE (S2(5),FYP), (S2(6),FAC1), (S2(7),FND0),
        (S2(10),SDOT), (S2(14),FPH), (S2(100),NCP)
      EQUIVALENCE (S2(101),DBH), (S2(15),ALT)
      EQUIVALENCE (ND(10),I), (ND(100),J), (ND(100),K)
      EQUIVALENCE (ND(110),LDC), (ND(110),LCH), (ND(110),NDC),
        (ND(110),LDT)
      EQUIVALENCE (ND(111),NC)
      EQUIVALENCE (ND(100),MPAGE), (ND(91),IF1)
      EQUIVALENCE (ND(1),FUSDM(401)), (NL(1),FUSDM(401)),
        (GL(1),FUSDM(471))
274  FORMAT(1H,2X,2H*** FUEL - 1P(71) **/
      2X,2H*** DATA FROM LOADS PROGRAM TRANSFERRED TO FUEL
      ARE PROGRAM IN RECORD 33 ****/)
276  FORMAT(12H CONDITION LDT LDC TYP FAC1 FND0 FND1 SDOT RD
      OT SDPD STRK HACH ALT PEN NCPN PENM
      XPS/)
280  FORMAT(10,X,2F4.0,2F7.1,2F6.2,2F7.3,2F7.2,2F6.4,2F10.0,2F10.2,
      2F10.0,2F10.2)
282  FORMAT(11H CONDITION P2B NCPN TYPN PEN
      NCPN TYPN PTV NCPV SDPV NING AFCL/)
278  FORMAT(10,X,2F10.0,2F10.2,2F10.0,2F10.2,2F10.0,2F10.2,2F10.2)
274  FORMAT(1H,2X,2H*** FUEL - 1P(71) **/
      2X,2H*** FUELAGE INERTIA AND WEIGHT DISTRIBUTION DAT
      A IN RECORD 34 ****/)
276  FORMAT(1H,2X,12HDESIGN HEIGHT,2X,12HDESIGN HEIGHT,1X,
      12HDESIGNER HEIGHT,1X,12HLOADING HEIGHT,2X,12HINTAKE HEIGHT/
      2X,2HING AFT,7X,2HING FWD/ 31X,12HCONDITIONS,2X,
      12HCONDITIONS,4X,12HCONDITION 9,4X,12HCONDITION 9,
      4X,12HCONDITION 2X/
      31X,12H1,2,3,4,6,2X,100,7,12,13,/
      2X,12H10 11,14,15,2X,2H16 AND 17/2X,12H18,19,20,21,/
      2X,2H22 AND 23/)
280  FORMAT(
      2X,2H24 ,2F15.1/2X,2H25 ,2F15.1/2X,2H26 ,2F15.1/
      2X,2H27 ,2F15.1/2X,2H28 ,2F15.1/2X,2H29 ,2F15.1/
      2X,2H30 ,2F15.1/2X,2H31 ,2F15.1/2X,2H32 ,2F15.1/
      2X,2H33 ,2F15.1/2X,2H34 ,2F15.1/2X,2H35 ,2F15.1/
      2X,2H36 ,2F15.1/2X,2H37 ,2F15.1/2X,2H38 ,2F15.1/
      2X,2H39 ,2F15.1/2X,2H40 ,2F15.1/2X,2H41 ,2F15.1/
      2X,2H42 ,2F15.1/2X,2H43 ,2F15.1/2X,2H44 ,2F15.1/
      2X,2H45 ,2F15.1/2X,2H46 ,2F15.1/2X,2H47 ,2F15.1/
      2X,2H48 ,2F15.1/2X,2H49 ,2F15.1/2X,2H50 ,2F15.1/
      2X,2H51 ,2F15.1/2X,2H52 ,2F15.1/2X,2H53 ,2F15.1/
      2X,2H54 ,2F15.1/2X,2H55 ,2F15.1/2X,2H56 ,2F15.1/
      2X,2H57 ,2F15.1/2X,2H58 ,2F15.1/2X,2H59 ,2F15.1/
      2X,2H60 ,2F15.1/2X,2H61 ,2F15.1/2X,2H62 ,2F15.1/
      2X,2H63 ,2F15.1/2X,2H64 ,2F15.1/2X,2H65 ,2F15.1/
      2X,2H66 ,2F15.1/2X,2H67 ,2F15.1/2X,2H68 ,2F15.1/
      2X,2H69 ,2F15.1/2X,2H70 ,2F15.1/2X,2H71 ,2F15.1/
      2X,2H72 ,2F15.1/2X,2H73 ,2F15.1/2X,2H74 ,2F15.1/
      2X,2H75 ,2F15.1/2X,2H76 ,2F15.1/2X,2H77 ,2F15.1/
      2X,2H78 ,2F15.1/2X,2H79 ,2F15.1/2X,2H80 ,2F15.1/
      2X,2H81 ,2F15.1/2X,2H82 ,2F15.1/2X,2H83 ,2F15.1/
      2X,2H84 ,2F15.1/2X,2H85 ,2F15.1/2X,2H86 ,2F15.1/
      2X,2H87 ,2F15.1/2X,2H88 ,2F15.1/2X,2H89 ,2F15.1/
      2X,2H90 ,2F15.1/2X,2H91 ,2F15.1/2X,2H92 ,2F15.1/
      2X,2H93 ,2F15.1/2X,2H94 ,2F15.1/2X,2H95 ,2F15.1/
      2X,2H96 ,2F15.1/2X,2H97 ,2F15.1/2X,2H98 ,2F15.1/
      2X,2H99 ,2F15.1/2X,2H100 ,2F15.1/2X,2H101 ,2F15.1/
      2X,2H102 ,2F15.1/2X,2H103 ,2F15.1/2X,2H104 ,2F15.1/
      2X,2H105 ,2F15.1/2X,2H106 ,2F15.1/2X,2H107 ,2F15.1/
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000  FORMAT
001  20K,204FC( 1),/F10.1/20K,204FC( 2),/F10.1/20K,204FC( 3),/F10.1/
002  20K,204FC( 4),/F10.1/20K,204FC( 5),/F10.1/20K,204FC( 6),/F10.1/
003  20K,204FC( 7),/F10.1/20K,204FC( 8),/F10.1/20K,204FC( 9),/F10.1/
004  20K,204FC(10),/F10.1/20K,204FC(11),/F10.1/20K,204FC(12),/F10.1/
005  20K,204FC(13),/F10.1/20K,204FC(14),/F10.1/20K,204FC(15),/F10.1/
006  20K,204FC(16),/F10.1/20K,204FC(17),/F10.1/20K,204FC(18),/F10.1/
007  20K,204FC(19),/F10.1/20K,204FC(20),/F10.1/20K,204FUS( 1),/F10.1/
008  20K,204FUS( 2),/F10.1/20K,204FUS( 3),/F10.1/20K,204FUS( 4),/F10.1/
009  20K,204FUS( 5),/F10.1/20K,204FUS( 6),/F10.1/20K,204FUS( 7),/F10.1/
010  20K,204FUS( 8),/F10.1/20K,204FUS( 9),/F10.1/20K,204FUS(10),/F10.1/
011  20K,204FUS(11),/F10.1/20K,204FUS(12),/F10.1/20K,204FUS(13),/F10.1/
012  20K,204FUS(14),/F10.1/20K,204FUS(15),/F10.1/20K,204FUS(16),/F10.1/
013  20K,204FUS(17),/F10.1/20K,204FUS(18),/F10.1/20K,204FUS(19),/F10.1/
014  20K,204FUS(20),/F10.1)
015
016  FORMAT/20K,204FUTITLE,4X,204VEND NO, 2X,140/20K,/F0.1,4X,/F0.4,
017  4X,/F0.1))
018
019  FORMAT(1H1,4X,12H*** LOADS AHEAD ***20K,
020  20H** FUEL - (P174) **20K,
021
022  20H** NO.13,4X,204LOAD TYPE,13,4X,204DATA TYPE,13/2X,
023  20H** =/F0.1,2X,204C.6. =/F7.1,2X,204WEE =/F0.1,2X,204EODT =/F0.3,
024  2X,204WEE =/F0.2,2X,204ULT. =/F0.1,2X,204EODT =/F0.1/2X,204TATION,
025  2X,204HENT,2X,204META,2X,204E-RN,2X,204E-LN,2X,204W-RN,2X,
026  204W-LN,7X,204E-RN,7X,204E-LN,4X,204Y-COULE)
027
028  FORMAT(/F0.1,/F0.3,/F11.1,/F12.1)
029
030  FORMAT(10H,2X,204CUTREC,4X,204TATION,2X,204T FUS,4X,204T CONT.,
031  2X,204E-CON,2X,204VALRAD,2X,204E-VE,2X,204PENT-ITY)
032
033  FORMAT(7X,10,/F13.1,/F12.1,/F14.1)

```




04/05/79

AUTOFLEX CHART SET - SHEEP FIRST PURCHASE OVERLAY

PAGE 07

CHART TITLE - INTRODUCTORY COMMENTS

SUBROUTINE GENOP1
#####



CONF 1

SCRATCH AREA'S
01 = DEPTH
02 = WIDTH
03 = AREA
04 = PERIMETER

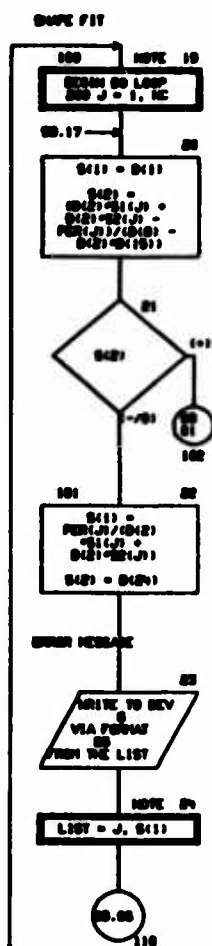
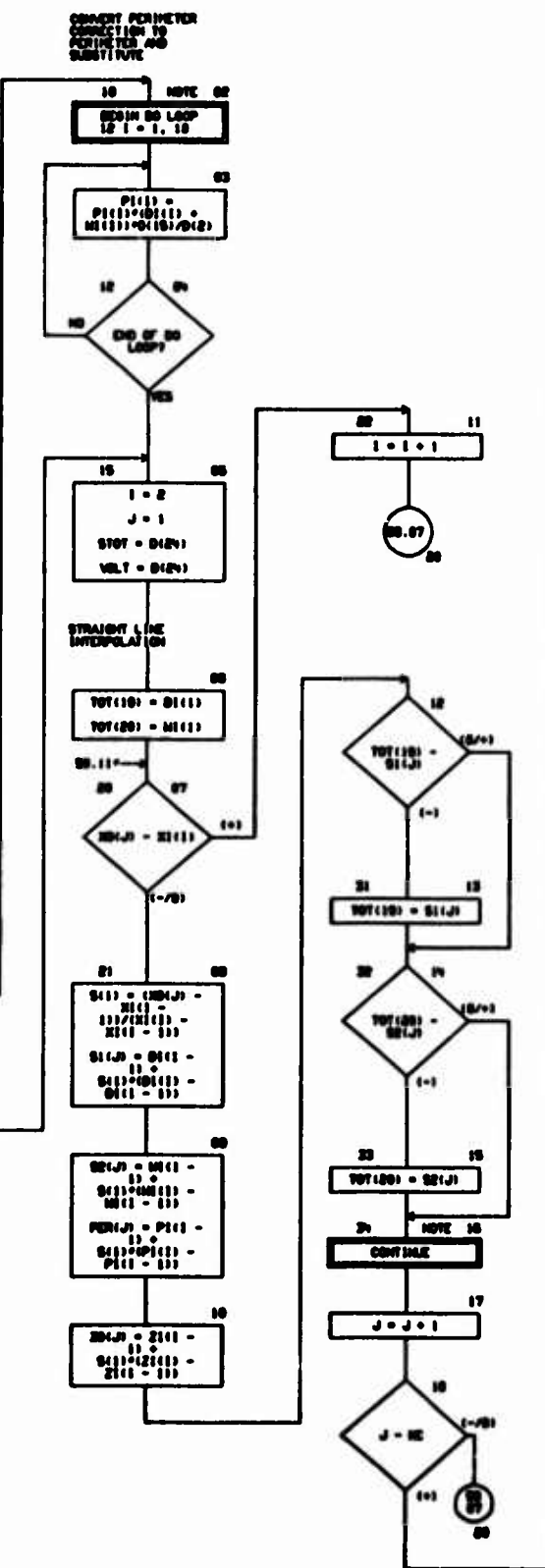
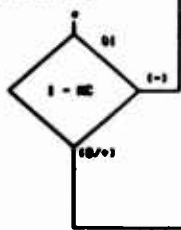


CHART TITLE - SUBROUTINE 00001

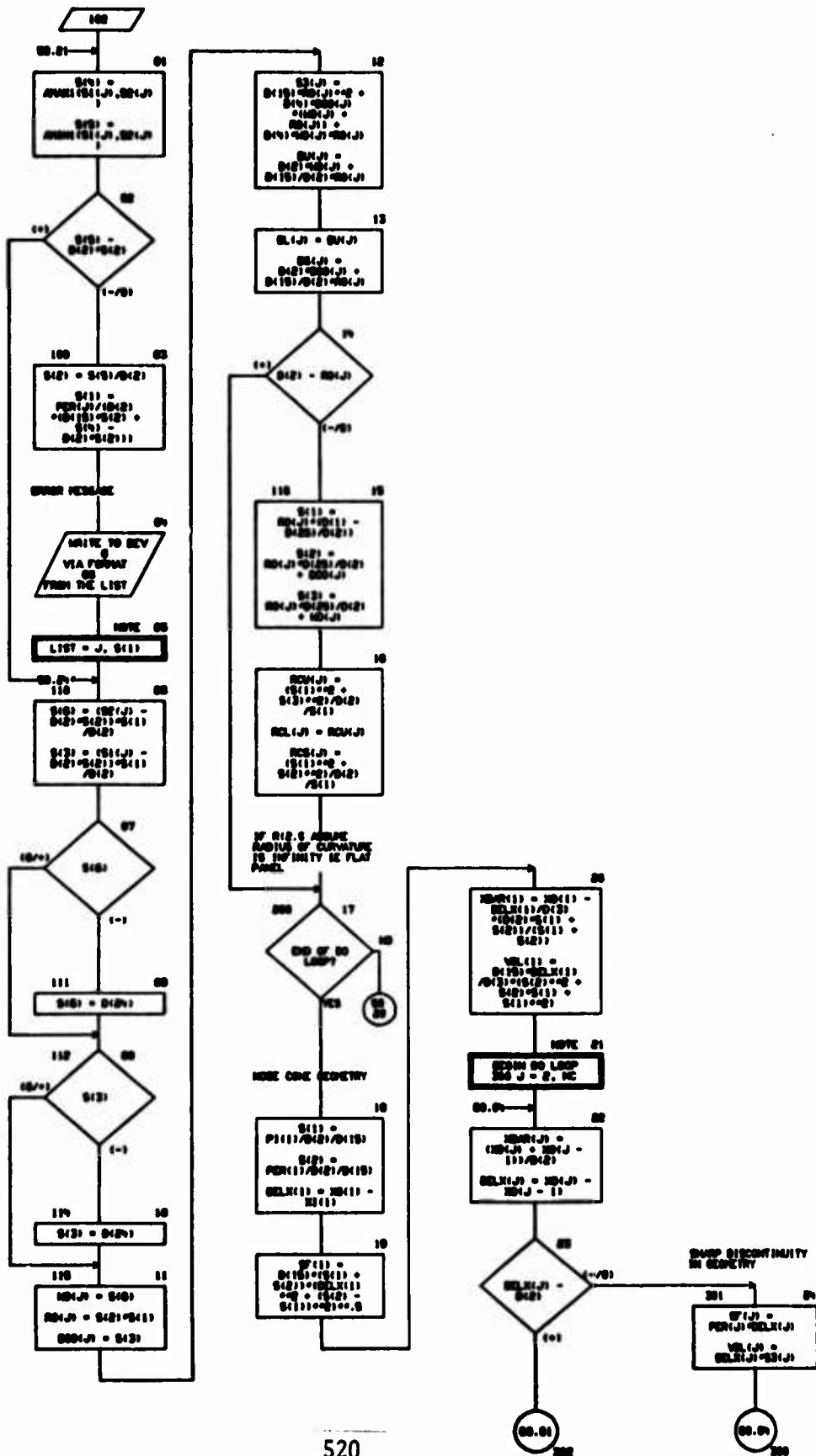
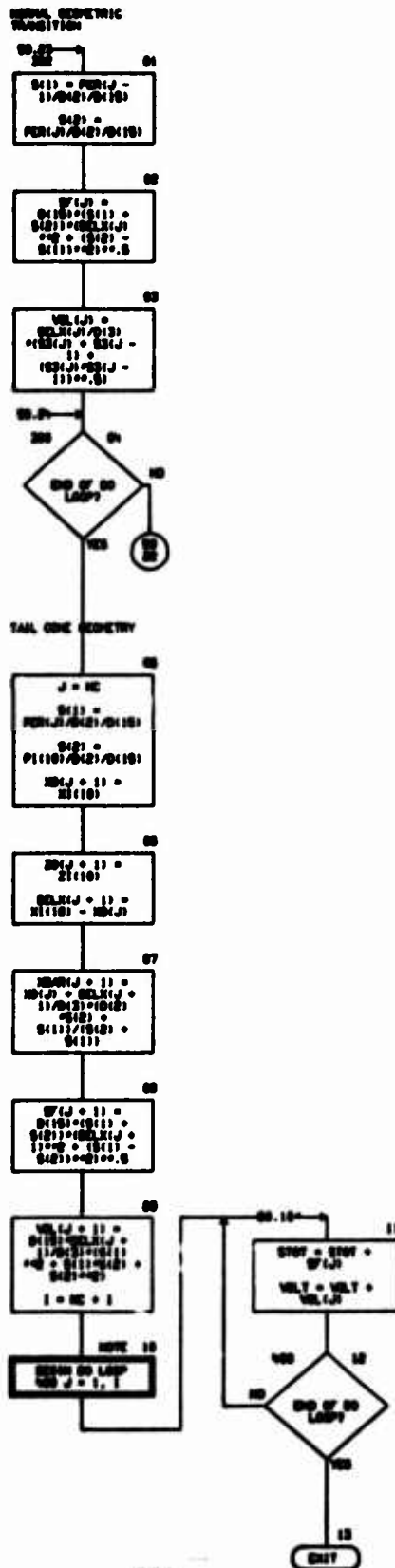


CHART TITLE - SHEPHTIME 00071



01/08/76

AUTOFLOW CHART SET - BEEP

FIRST FUELAGE OVERLAY

PAGE 02

CHART TITLE - INTRODUCTORY COMMENTS

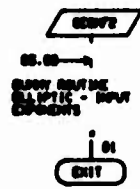
.....
SIGNATURE HERE
.....

04/08/74

APPROX CHART SET - SHEEP FIRST FUELAGE OVERLAY

PAGE 03

CHART TITLE - SUBROUTINE GENDV2



6-7/8/74

AUTOFLY CHART SET - SHEEP

FIRST FUELAGE OVERLAY

PAGE 04

CHART TITLE - NON-PROCEDURAL STATEMENTS

CONVIN TCONV400

DIMENSION 0(2000),7(2000),8C(100),J0(200)

CONVANCE 0(1),TCONV(1),17(1),TCONV000(1),18C(1),TCONV10(1),

0(1),TCONV00(1)

04/05/75

AIRPLAN CHART SET - DEEP FIRST FUELAGE OVERLAY

PAGE 05

CHART TITLE - INTRODUCTORY COMMENTS

SUBROUTINE SHORTS

527

CHART TITLE - NON-PROCEDURAL STATEMENTS

```
COMMON TCBW400)
DIMENSION D(2000),T(2000),DC(100),ND(200)
DIMENSION S(100)
DIMENSION P(100),ND(00)
DIMENSION HBAR(20),SELX(20),DOB(20),MB(20),RD(20),PER(20)
DIMENSION UH(20),UY(20),VIZ(20)
EQUIVALENCE (D(1),TCBW(1)),(T(1),TCBW(200)),(DC(1),TCBW(10)),
            (ND(1),TCBW(50))
EQUIVALENCE (T(1),S(1))
EQUIVALENCE (ND(10),HC)
EQUIVALENCE (ND(100),J)
EQUIVALENCE (T(20),HBA(1)),(T(20),SELX(1)),(T(40),DOB(1)),
            (T(60),MB(1)),(T(80),RD(1)),(T(100),PER(1))
EQUIVALENCE (T(20),UH(1)),(T(20),UY(1)),(T(20),VIZ(1))
EQUIVALENCE (D(20),P(1))
EQUIVALENCE (D(20),ND(1))
```

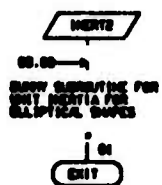
SUBMITTING MEMO

04/00/74

AUTOFLEX CHART SET - BEEP FIRST FUELAGE OVERLAY

PAGE 00

CHART TITLE - SURVIVANCE MERTZ



01/05/74

AUTOFLN SHRT SET - SHRP FIRST PUBLISE OVERLAY

PAGE 70

SHRT TITLE - NON-PROCEEDING STATEMENTS

GENEN TCDN4001
SHRNDN 010001,710001,0C11001,AD1001
SHRNDN 0111,TCN111,1111,TCN000111,0C111,TCN410111,
0111,TCN400111

9/18/74

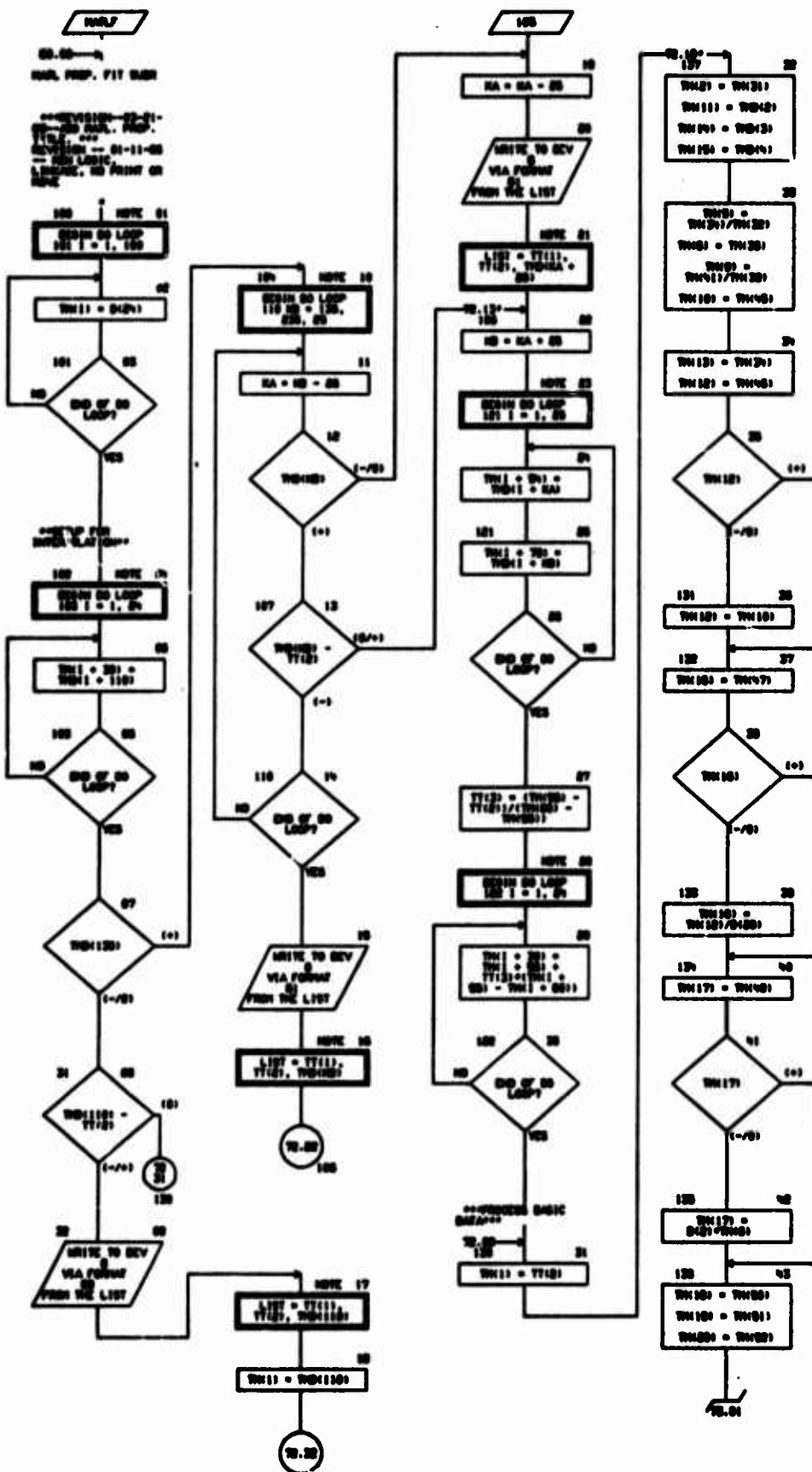
AUTOFLEX CHART SET - DEEP FIRST PAPER/AGE OVERLAY

PAGE 71

CHART TITLE - INTRODUCTORY COMMENTS

.....
DERIVATIVE MAPS
.....

CHART TITLE - SUBROUTINE HALL




```

graph TD
    Start([START]) --> Init1[INITIALIZE  
N = 1  
M = 1  
K = 1  
L = 1  
P = 1  
Q = 1  
R = 1  
S = 1  
T = 1  
U = 1  
V = 1  
W = 1  
X = 1  
Y = 1  
Z = 1]
    Init1 --> Loop1[DO WHILE LOOP  
FOR I = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797
```

```

***** TEMPER:
***** Q1000),T1000),Q2100),Q4000)
***** T0100),T01100),T1100)
***** Q010),T00110),T110),T00110011),Q011),T0011011),
Q011),T0010011)
***** T11001),T0111),T11001),T0111),T11001),T1111)
***** Q01001),1),Q01100),2),Q01101),3),Q01100),4)
FORM1/////101,200*** 100, TEMPERATURE SENS ***/X,X,0000, 00.,
P0.1,00 THERE IS NO TEMPERATURE ON FILE./104,100000. TOP. =,
P7.1,X,1000000 TOP. =P7.1)
FORM1/////101,200*** 100, TEMPERATURE SENS ***/X,X,0000, 00.,
P0.1,X,200000000 IS BEYOND RANGE OF TABLE./104,
100000. TOP. =P7.1,X,100100 TOP. =P7.1)

```

AUTOFLEX GUNST SET - 20000 FIRST OVERLAP OVERLAY

SWIFT TIME - IMMEDIATELY ONWARDS

=====

URGENT: THE KALP!

=====

CHART TITLE - SUBROUTINE PARL1

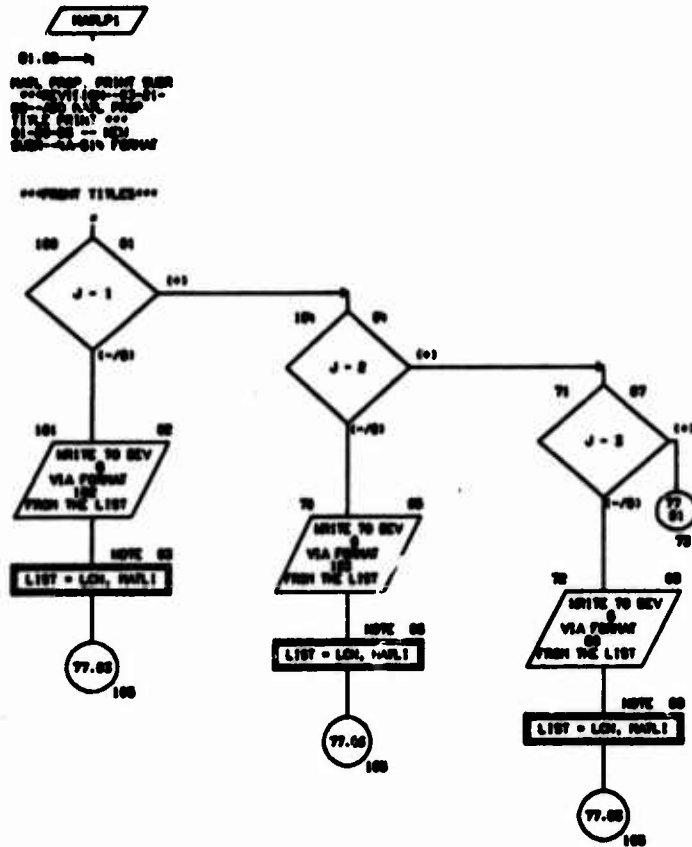
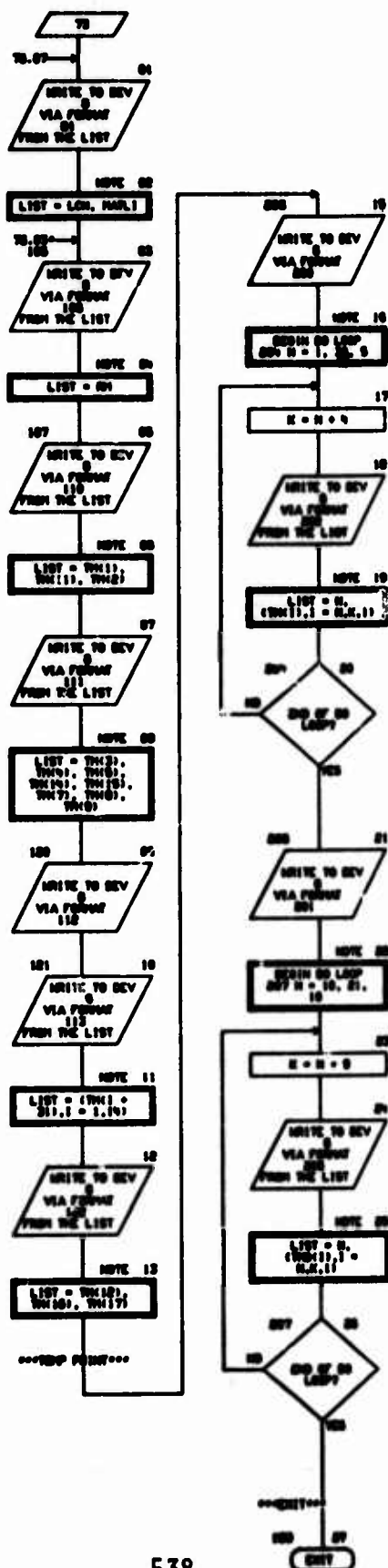


CHART TITLE - SUBMITTING NUMBER

FORM 100-2 - (REV. 1-25-60)

[illegible]

DATA FILE - IMMEDIATELY AVAILABLE

SUBMIT THE FORM

1. The first step in the process of identifying a problem is to recognize that a problem exists. This involves gathering information about the situation and identifying the specific issue that needs to be addressed.

2. Once a problem has been identified, the next step is to define the problem clearly. This involves stating the problem in a concise and specific manner, identifying the scope of the problem, and determining the goals that need to be achieved.

3. The third step in the process is to generate potential solutions. This involves brainstorming ideas and considering different approaches to solving the problem. It is important to consider a wide range of options and to evaluate the potential benefits and drawbacks of each solution.

4. The fourth step is to select the best solution. This involves comparing the potential solutions and choosing the one that is most likely to be effective and feasible. It is important to consider the resources available and the time constraints when making this decision.

5. The final step in the process is to implement the chosen solution. This involves putting the solution into action and monitoring the progress. It is important to be flexible and to make adjustments as needed during the implementation process.

WRITTEN 7 JANUARY
1978
TO DEVELOP AND STORE
MATHEMATICAL PROPERTIES
ON RECORDS 64-100

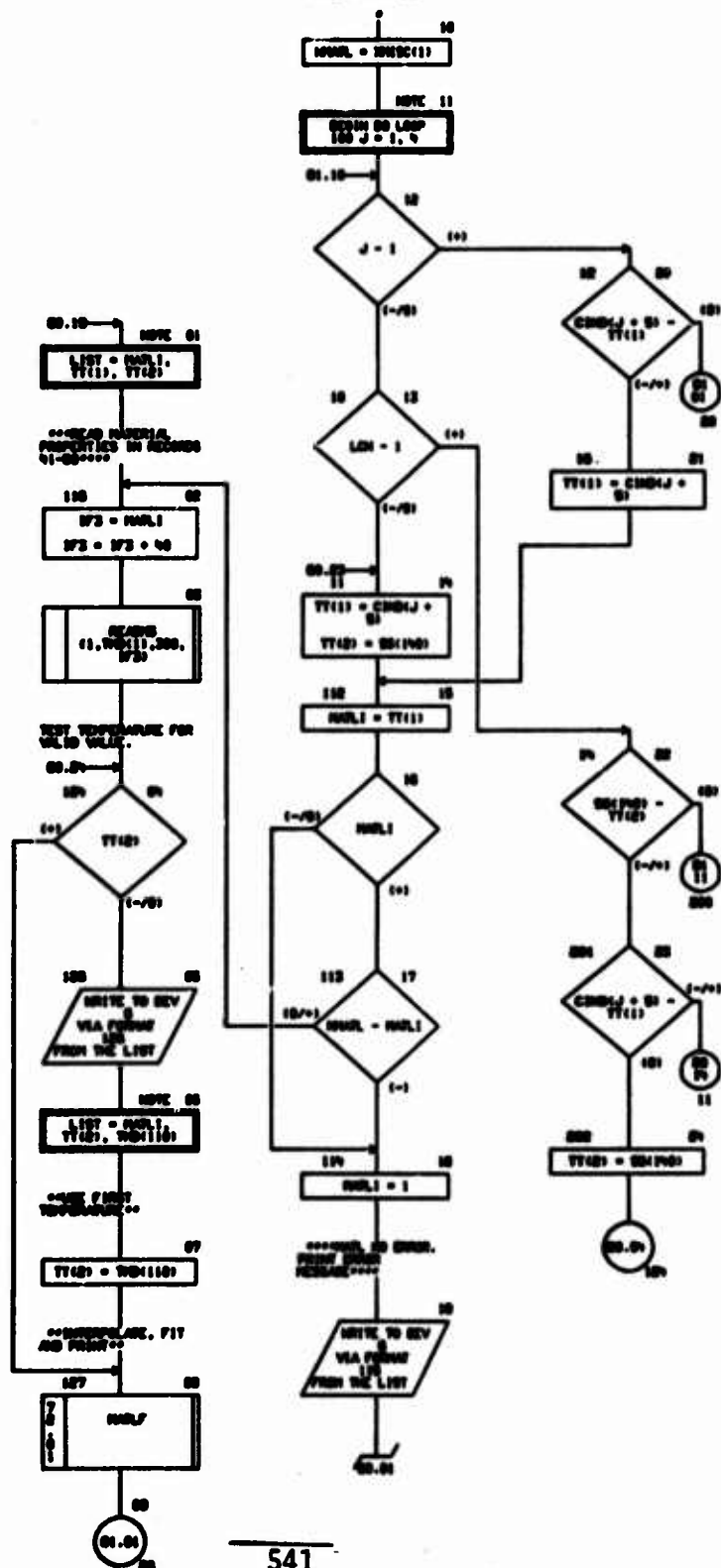
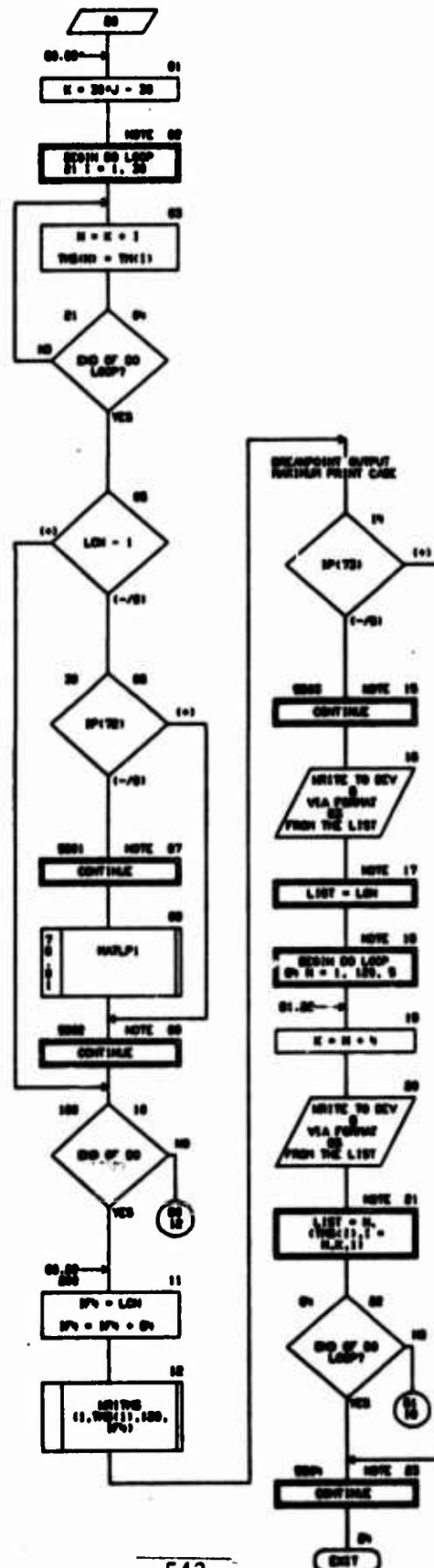


CHART TITLE - SUBROUTINE WCHNL



GAST TITLE - NON-FEDERAL STATEMENTS

```

GASTEN TOSTY100)
GASTEN /PRINT/SP100)
GASTEN /HSC/ HSC100)
CJGASTEN 01000),T1000),EC100),J0400)
GASTEN CND100)
GASTEN 00400),W0400),W0400),T100)
GASTEN W0400)
GASTEN 001),T001),T100),T00100),EC100),T00100),
001),T00100)
GASTEN 00401),CND100)
GASTEN T100),00401),T100),W0401),
T100),W0401),T100),T100)
GASTEN 00100),W0401)
GASTEN 00400),W0401),00401),W0401)
GASTEN 00400),J0401),00401),J0401)
GASTEN 00400),J0401),J0401),J0401),J0401),J0401),J0401),J0401)
GASTEN 00401),J0401)
110 FORM (00) **GAST INPUT ERROR. ASSUMED GAST NO. 1.000 /HSC,1
    3.70-1.70.1)
120 FORM (20) **GAST TEMPERATURE ERROR. GAST NO.70.1,04 HSC.77.1
    ,04 HSC. ASSUMED T00-77.1,04 HSC. )
00 FORM (00),04,1700 HSC100 L00 -12.000.
    GAST INPUT - SP100 **
00 FORM (00),12,00,00.0)

```

04/05/74

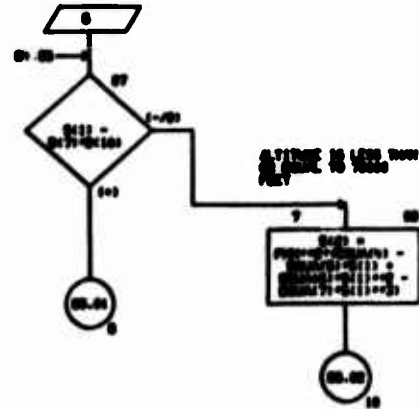
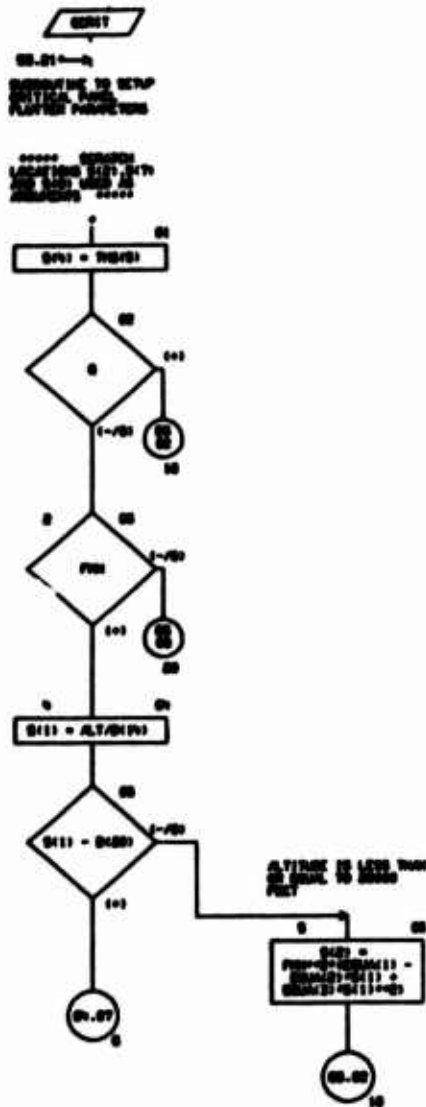
AIRPLANE MUST BEY - DEEP FIRST FUELING DELAY

PAGE 03

DATA TITLE - INTERVIEW RECORDS

REDACTED
REDACTED
REDACTED

GURT TITLE - SUBROUTINE GURT



GURT TITLE - SUBROUTINE GURT

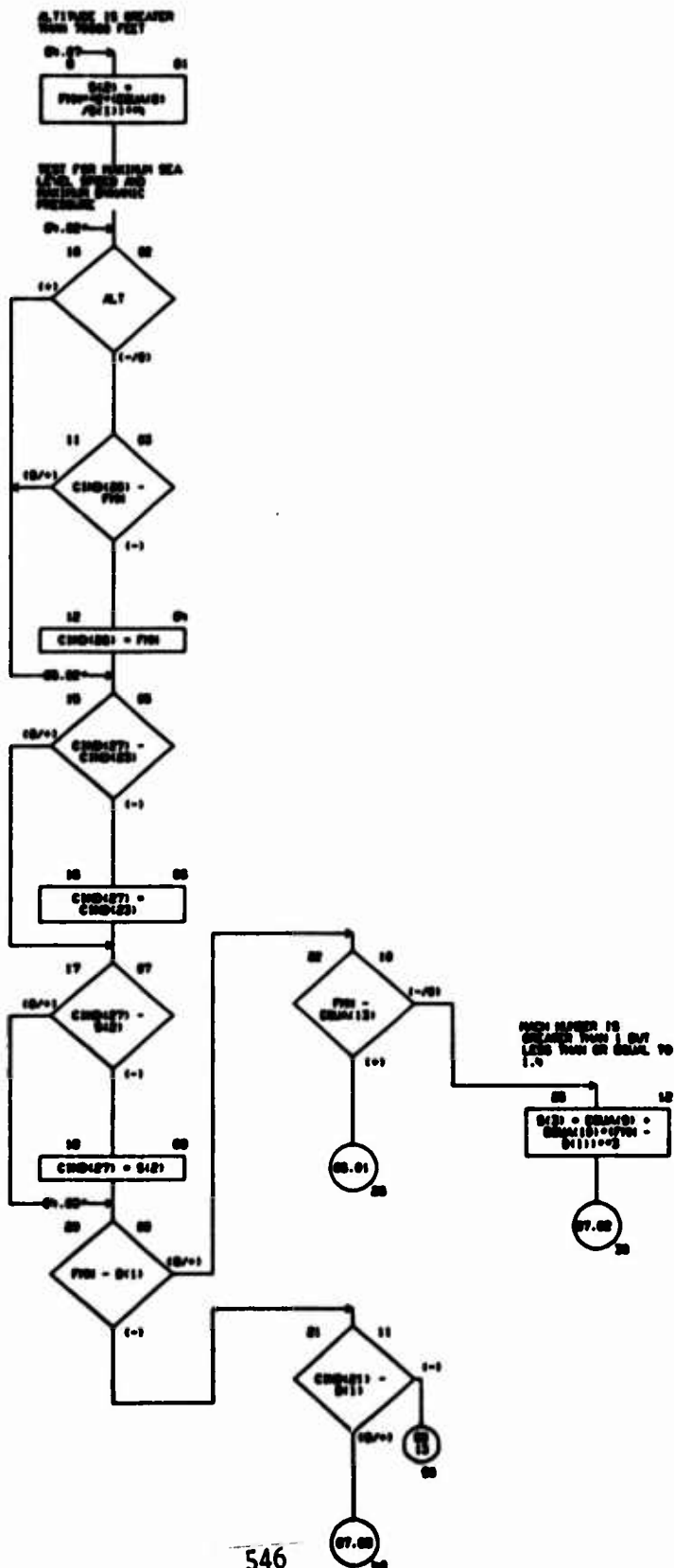
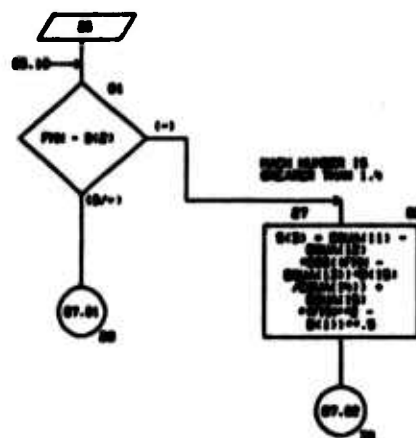


CHART TITLE - SIGNATURE CHIT



Each layer is
greater than or equal
to 2.0

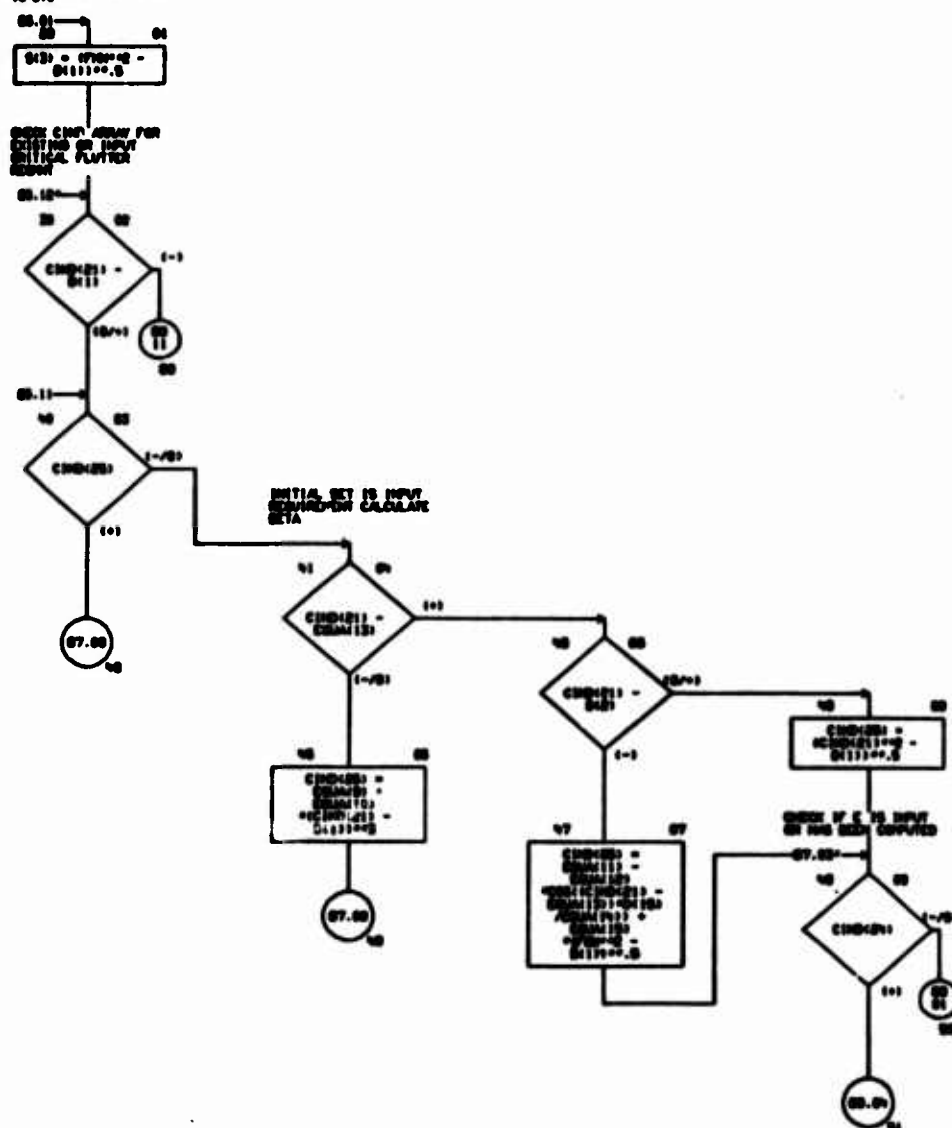
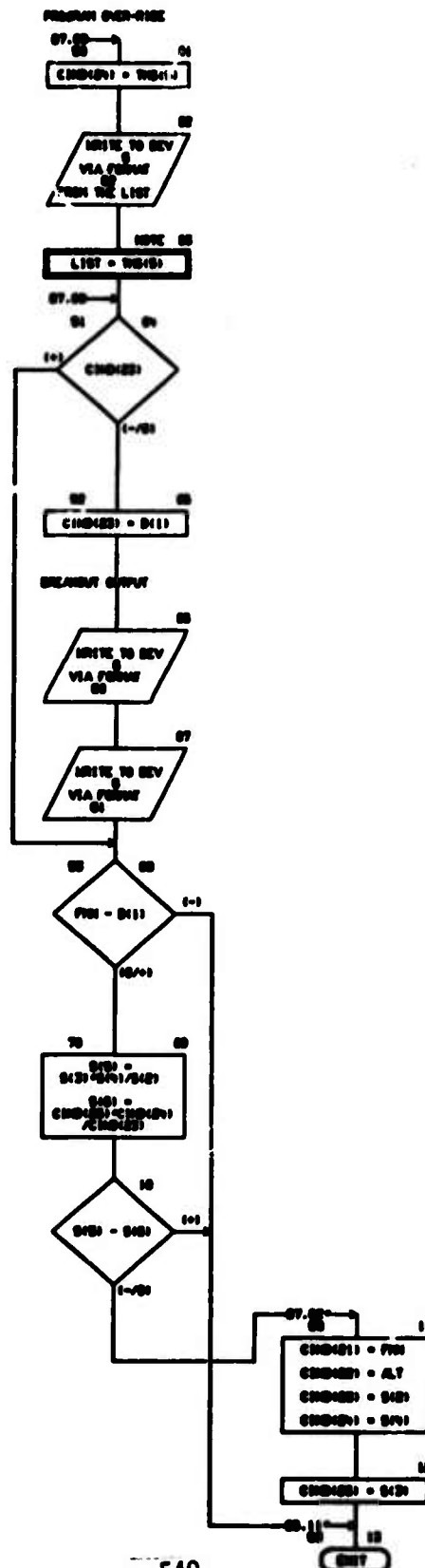


CHART TITLE - SUBMITTING CHART



GWT TITLE - NEW-PROBABLE START-CHTS

```

      GWTEN TOWNV400)
      GWTENEN 010000),T10000),SC1100),JD1000)
      GWTENEN 0001100)
      GWTENEN C10100)
      GWTENEN T01100)
      GWTENEN 01100)
      GWTENEN 0011),TOWN11),T111),TOWN00011),SC11),TOWN1011),
      0011),TOWN10011)
      GWTENEN 00101),00011)
      GWTENEN 001011),C1011)
      GWTENEN 00101),T011)
      GWTENEN T11),011)
      GWTENEN 00101),01,001),P00,001),A1)
02  FORMAT(10,30,30) ** PROGRAM OVER-RIDE **
    //EN,100FLATTE E =,P10.1)
03  FORMAT(10,10,3) **CHECK ON INPUT FLATTE REM/RENT)
04  FORMAT(10,10,3) **DATA ERROR 0 IS ZERO)

```

04/25/74

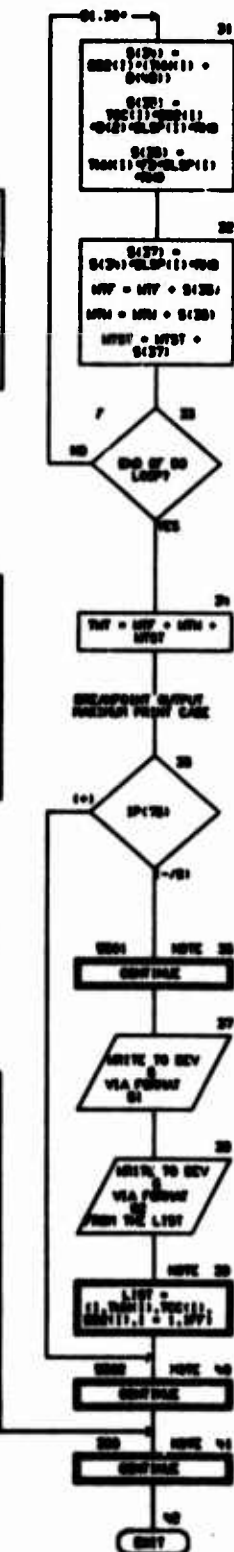
APR/PLN QUART SET - OCEP

FIRST PUBLAGE OVERLAY

PAGE 00

QUART TITLE - INTRODUCTORY COMMENTS

.....
DERIVATIVE STATE
.....



PAGE 17

[illegible]

PROGRAM LISTING
OF
FIRST FUSELAGE OVERLAY

04/05/74 INPUT LISTING ALUFLSH CHART SET - SHEEP FIRST FUELAGE OVERLAY
FORTRAN MEDIAE (LIST,AUTOSB)

CARD NO	CONTENTS
1	C
2	C
3	C PROGRAM FUEL
4	C
5	C
6	C PROGRAM FUEL
7	C
8	C DIMEN TCM(400)
9	C
10	C DIMENSION D(200),Y(200),DC(100),ND(200)
11	C DIMENSION CND(100)
12	C DIMENSION PRES(20)
13	C
14	C EQUIVALENCE (D(1),TCM(1)),(Y(1),TCM(200)),(DC(1),TCM(410)),
15	C (ND(1),TCM(400))
16	C EQUIVALENCE (D(2),CND(1))
17	C EQUIVALENCE (D(100),PRES(1))
18	C EQUIVALENCE (D(111),NC),(ND(112),NC)
19	C EQUIVALENCE (D(117),IAY),(ND(122),ICST),(ND(125),IML)
20	C EQUIVALENCE (D(127),ITVP)
21	C
22	C
23	C READIN IN
24	C
25	C BUFFER IN(4,1)(TCM(1),TCM(400))
26	C
27	C IF(UNIT(4))10,10,10
28	C
29	C CLEAR CORE *** DO NOT EQUIVALENCE 'I' ***
30	C 10 DO 10 I=1,400
31	C TCM(I) = 0.0
32	C 10 CONTINUE
33	C
34	C CALL READIN(1,2(1),2000,24)
35	C
36	C *** NC = NUMBER OF CUTS NC = SHAPE INDICATOR ***
37	C IAY = CND(1)
38	C NC = CND(2)
39	C NC = CND(3)
40	C ICST = CND(4)
41	C IML = CND(5)
42	C
43	C DO 40 I=1,NC
44	C IF(PRES(1)) 41,40,40
45	C 41 IF(CND(100) + PRES(1)) 42,40,40
46	C 40 CND(100) = - PRES(1)
47	C GO TO 43
48	C 40 CONTINUE
49	C
50	C 43 CONTINUE
51	C ITVP = 3
52	C
53	C IF(IAY - 20) 46,47,47
54	C
55	C 46 ITVP = 1
56	C GO TO 40
57	C
58	C 47 IF(IAY - 20) 48,40,40
59	C
60	C 48 ITVP = 2
61	C
62	C 40 CONTINUE
63	C
64	C GO TO 42,2,3,3,NC
65	C
66	C 2 CALL GDSF1
67	C CALL MERT1
68	C GO TO 12
69	C
70	C 3 CALL GDSF2

[illegible]

DATE	INPUT LISTING	ALPHABETIC SET - SHEET	FIRST FUELAGE OVERLAY
CARD NO	CONTENTS		
013	CONTINUENCE (M(101),I), (M(102),J), (M(103),K), (M(104),L),		70110170
014	(M(105),M)		70110180
015	C		70110190
016	C		70110200
017	CONTINUENCE (T(201),XBAR(1)), (T(201),DELX(1))		70110210
018	CONTINUENCE (M(201),X(1))		70110220
019	CONTINUENCE (M(201),M(1))		70110230
020	C CONTINUENCE SCRAMBLING COUNTERS		70110240
021	C CONTINUENCE (M(101),I), (M(102),J), (M(103),K), (M(104),L),		70110250
022	C (M(105),M), (M(106),N)		70110260
023	C		70110270
024	CONTINUENCE (M(111),M)		70110280
025	CONTINUENCE (T(11),S(1)), (T(101),S(1)), (T(141),S(1)),		70110290
026	(T(101),S(1))		70110300
027	CONTINUENCE (M(1001),S(1)), (M(1101),S(1))		70110310
028	C LOAD DATA		70110320
029	CONTINUENCE (S(101),P(1)), (S(111),X(1)), (S(121),P(1)),		70110330
030	(S(131),X(1))		70110340
031	C GEOMETRY DATA		70110350
032	CONTINUENCE (S(201),X(1))		
033	S(111) = X(1)		70110360
034	C X(1) STORED IN S(111) FOR FINAL OUTPUT IN PRINT		70110370
035	DO 4 J=1,20		70110370
036	S(1J) = S(12J)		70110380
037	4 CONTINUE		70110390
038	N = 1		70110400
039	IF (P(1),S(20),S)		70110410
040	5 S(1) = X(1)		70110420
041	S(2) = X(1) - S(1)		70110430
042	S(3) = X(1) - S(2)		70110440
043	IF (S(1),S(2),S(3)) 10,14,14		70110442
044	12 S(3) = S(1) - S(2)		70110444
045	14 S(14) = X(1)		70110446
046	S(15) = P(1)		70110448
047	S(16) = S(14)		70110450
048	L = 1		70110470
049	I = 1		70110480
050	6 IF (S(1),S(2),S(3)) 7,8,8		70110480
051	7 I = I + 1		70110490
052	80 TO 6		70110510
053	8 K = 1		70110520
054	IF (I - 1) 9,10,10		70110530
055	9 I = I - 1		70110532
056	IF (I, L, L) 14		70110534
057	10 IF (S(1),S(2),S(3)) 11,15,15		70110536
058	11 K = K + 1		70110538
059	80 TO 10		70110540
060	15 IF (K - L) 16,16,16		70110542
061	16 K = K + 1		70110544
062	IF (K, L, L) 17,18,18		70110546
063	17 K = L		70110548
064	L = L - 1		70110550
065	18 S(3) = S(1)		70110552
066	S(4) = S(2)		70110554
067	S(5) = S(3)		70110570
068	S(6) = S(4)		70110580
069	S(7) = S(5)		70110590
070	80 TO J-1		70110600
071	S(1J) = (S(1),S(2),S(3),S(4),S(5),S(6),S(7))		70110610
072	S(4) = S(4) + S(1J)		70110620
073	S(5) = S(5) + S(1J)*S(1)		70110630
074	20 CONTINUE		70110640
075	I = I + 1		70110650
076	80 TO J-1		70110660
077	S(1J) = (S(1),S(2),S(3),S(4),S(5),S(6),S(7))		70110670
078	S(4) = S(4) + S(1J)		70110680
079	S(5) = S(5) + S(1J)*S(1)		70110690
080	20 CONTINUE		70110700
081	I = I - 1		70110710
082	80 TO J-1		70110720
083	S(1J) = S(1J)		70110730

DATE/74	INPUT LISTING	ASAPLEN SHORT SET - 0000	FIRST PUBLISHED OVERLAY
DATE NO	****	COMMENTS	****
001	0401 = 0401 + 0410		70110700
002	0471 = 0471 + 0410*0401		70110700
003	41 00000000		70110770
004	I = 101		70110700
005	00 00 01 01		70110700
006	0410 = - 0410		70110000
007	0401 = 0401 + 0410		70110010
008	0471 = 0471 + 0410*0401		70110000
009	42 00000000		70110000
010	0410 = (0401 - 0401*0410)/(0401*0410) - 0401*0471		70110040
011	0410 = (0401*0410) - 0471*0410/0410		70110000
012	00 01 01 01		70110000
013	0410 = 0410 + 0410*0410 + 0410*0410		70110040
014	01 00000000		70110000
015	00 70 0000,0001,01		70110000
016	000 0700000001,000,001		70110070
017	001 01 = 0		70110000
018	L = 1		70110000
019	002 07000001 - 0700000,000,001		70110000
020	000 L = L+1		70110010
021	00 70 000		70110000
022	004 0410 = 0401-10		70110040
023	0701 .LT. 01 0410 = 0410		70110040
024	0401 = 0401 - 0401		70110000
025	0410 = 0401 + 0401		70110000
026	0700000001 - 0410 000,000,000		70110000
027	000 0410 = 0401-10		70110040
028	000 0410 = 0401		70110070
029	0410 = 0401		70110070
030	0700000001 .LT. 0410 0410 = (0410 + 0410)/0410		70110070
031	I = L		70110000
032	00 70 0		70110000
033	000 00000000		70110010
034	C		70110000
035	RETURN		70110000
036	END		70110000
037	C		
038	C (*****)		
039	C SUBROUTINE FIVE		
040	C (*****)		
041	C		
042	C SUBROUTINE FIVE		70170010
043	C		70170000
044	C WRITTEN 17 DECEMBER 1971		70170000
045	C REARRANGE LINES ABOVE INTO FORM ACCEPTABLE FOR PAPER SYNTHESIS		70170000
046	C GIVEN TEMPERATURE		70170000
047	C GIVEN /P/0000/P/0001		
048	C		70170000
049	C DIMENSION D(1000),T(1000),JC(100),J0(1000)		70170070
050	C DIMENSION S(100),S1(100),S2(100),/P/L(1000)		70170000
051	C DIMENSION FIVE(100)		70170000
052	C DIMENSION C(1000)		70170100
053	C DIMENSION FIVE(10)		70170110
054	C DIMENSION TV(100),CZ(100),VE(10),JE(10)		70170110
055	C DIMENSION I(100),S(100),I0(10)		70170100
056	C		70170130
057	C EQUIVALENCE (D(1),T(1000)),(T(1),T(1000)),(JC(1),T(1000)),		70170140
058	C (I(1),T(1000))		70170100
059	C		70170100
060	C EQUIVALENCE (T(1),S(1)),(T(100),S(100)),(T(1000),S(1000)),		70170170
061	C (I(1000),/P/L(1000))		70170100
062	C EQUIVALENCE (C(100),C(100)),C(1000)		70170100
063	C EQUIVALENCE (C(100),/P/L(100))		70170000
064	C EQUIVALENCE (C(1000),/P/L(1000))		70170110
065	C EQUIVALENCE (C(100),/P/L(100),/P/L(1000)),(S(100),/P/L(1000)),		70170000
066	C (I(100),/P/L(100))		70170000
067	C EQUIVALENCE (C(100),S(100)),C(1000),S(1000)		70170000
068	C EQUIVALENCE (C(1000),S(1000))		70170000
069	C EQUIVALENCE (C(1000),/P/L(1000))		70170000

DATE	INPUT LISTING	AUTOFLEX START SET - SHEET	FIRST FUELAGE OVERLAY
CARD NO	CONTENTS		
265	DATAVALUE (M(101),1),M(102),J),M(103),K),M(104),L),		70470500
266	M(105),M),M(107),1),M(108),J),M(109),K)		70470500
267	DATAVALUE (M(114),LCH),M(115),MCH),		70470570
268	M(116),LPT),M(118),10),M(120),10),M(121),10),		70470500
269	M(122),MCH)		70470500
270	DATAVALUE (M(141),11(11),M(142),12(11),M(143),13(11))		70470500
271	10 = 0.41)		70470500
272	177 = 10.4		70470500
273	10 = 177 + 1		70470540
274	10 10 1-1,00		70470500
275	11(1) = 0.124)		70470500
276	12(1) = 0.124)		70470570
277	13(1) = 0.124)		70470500
278	14(1) = 0.124)		70470500
279	10 CONTINUE		70470540
280	171 = 0.1		
281	CALL READ(1,00(1),000,171)		
282	10 10 1-1,10		70470540
283	14(1) = 0.124)		70470540
284	10 CONTINUE		70470540
285	L = 1		70470540
286	I = 1		70470570
287	10 17(1) 11) 30,30,31		70470540
288	30 I = 1 + 1		70470540
289	17(1) = 10) 30,30,30		70470500
290	31 11(1) = 1		70470540
291	H = 1		70470500
292	K = 1 + 1		70470500
293	17(K) = 10) 30,30,40		70470540
294	30 30 40 J-K,10		70470500
295	17(1) 11) = 0.124) 40,41,40		70470500
296	41 H = H + 1		70470570
297	0.124) = 0.124)		70470500
298	17(H) = 2) 40,40,40		70470500
299	42 12(1) = J		70470500
300	40 CONTINUE		70470540
301	10 10 40		70470540
302	43 13(1) = J		70470500
303	40 L = L + 1		70470540
304	17(1) = 10) 30,30,30		70470500
305	10 CONTINUE		70470500
306	L = L - 1		70470570
307	10 100 H-1,L		70470500
308	10 100 LCH+1,MCH		70470500
309	171 = LCH + 00		
310	CALL READ(1,00(1),000,171)		
311	11 = 11(1)		70470700
312	JJ = 12(1)		70470700
313	KK = 13(1)		70470740
314	17(LCH) = 1) 71,71,00		70470700
315	71 17(L) 1) = 00(1)		70470700
316	17(L) 2) = 00(1)+10)		70470770
317	17(L) 3) = 0.12)		70470700
318	17(L) 4) = MCH		70470700
319	I = 1		70470700
320	17 = 11		70470700
321	70 17(1) = 0.12(17)		70470740
322	KK(1) = 0.12(17)		70470700
323	17(1+1) = - 17(1)		70470700
324	KK(1+1) = KK(1)		70470707
325	17(1+1) 74,74,70		70470700
326	74 17(L) 00,00,77		70470700
327	77 I = 3		70470500
328	17 = JJ		70470504
329	10 10 70		70470502
330	70 17(1) = 3) 70,70,00		70470500
331	70 17(M) 00,00,00		70470504
332	00 I = 0		70470500
333	17 = KK		70470500
334	10 10 70		70470507
335	00 J = 11		70470500

[illegible]

04/03/74	INPUT LISTING	AUTOPLOM GUEST SET - 0400	FIRST PUBLISHING OVERLAY
0000	0000	00000000	00000000
0001	0001	00010000	00010000
0002	0002	00020000	00020000
0003	0003	00030000	00030000
0004	0004	00040000	00040000
0005	0005	00050000	00050000
0006	0006	00060000	00060000
0007	0007	00070000	00070000
0008	0008	00080000	00080000
0009	0009	00090000	00090000
0010	0010	00100000	00100000
0011	0011	00110000	00110000
0012	0012	00120000	00120000
0013	0013	00130000	00130000
0014	0014	00140000	00140000
0015	0015	00150000	00150000
0016	0016	00160000	00160000
0017	0017	00170000	00170000
0018	0018	00180000	00180000
0019	0019	00190000	00190000
0020	0020	00200000	00200000
0021	0021	00210000	00210000
0022	0022	00220000	00220000
0023	0023	00230000	00230000
0024	0024	00240000	00240000
0025	0025	00250000	00250000
0026	0026	00260000	00260000
0027	0027	00270000	00270000
0028	0028	00280000	00280000
0029	0029	00290000	00290000
0030	0030	00300000	00300000
0031	0031	00310000	00310000
0032	0032	00320000	00320000
0033	0033	00330000	00330000
0034	0034	00340000	00340000
0035	0035	00350000	00350000
0036	0036	00360000	00360000
0037	0037	00370000	00370000
0038	0038	00380000	00380000
0039	0039	00390000	00390000
0040	0040	00400000	00400000
0041	0041	00410000	00410000
0042	0042	00420000	00420000
0043	0043	00430000	00430000
0044	0044	00440000	00440000
0045	0045	00450000	00450000
0046	0046	00460000	00460000
0047	0047	00470000	00470000
0048	0048	00480000	00480000
0049	0049	00490000	00490000
0050	0050	00500000	00500000
0051	0051	00510000	00510000
0052	0052	00520000	00520000
0053	0053	00530000	00530000
0054	0054	00540000	00540000
0055	0055	00550000	00550000
0056	0056	00560000	00560000
0057	0057	00570000	00570000
0058	0058	00580000	00580000
0059	0059	00590000	00590000
0060	0060	00600000	00600000
0061	0061	00610000	00610000
0062	0062	00620000	00620000
0063	0063	00630000	00630000
0064	0064	00640000	00640000
0065	0065	00650000	00650000
0066	0066	00660000	00660000
0067	0067	00670000	00670000
0068	0068	00680000	00680000
0069	0069	00690000	00690000
0070	0070	00700000	00700000
0071	0071	00710000	00710000
0072	0072	00720000	00720000
0073	0073	00730000	00730000
0074	0074	00740000	00740000
0075	0075	00750000	00750000
0076	0076	00760000	00760000
0077	0077	00770000	00770000
0078	0078	00780000	00780000
0079	0079	00790000	00790000
0080	0080	00800000	00800000
0081	0081	00810000	00810000
0082	0082	00820000	00820000
0083	0083	00830000	00830000
0084	0084	00840000	00840000
0085	0085	00850000	00850000
0086	0086	00860000	00860000
0087	0087	00870000	00870000
0088	0088	00880000	00880000
0089	0089	00890000	00890000
0090	0090	00900000	00900000
0091	0091	00910000	00910000
0092	0092	00920000	00920000
0093	0093	00930000	00930000
0094	0094	00940000	00940000
0095	0095	00950000	00950000
0096	0096	00960000	00960000
0097	0097	00970000	00970000
0098	0098	00980000	00980000
0099	0099	00990000	00990000

04/08/79	INPUT LISTING	COMMENTS	0000
0408 00	0000		
710	0417) = (100PM - 1000) * 0.0 + (VCPM - 1000) * 0.00,5		70000000
711	0418) = 0411/0410)		70000000
712	0419) = 0411/0410)		70000000
713	0420) = 0411/0417)		70000000
714	0421) = 0418) + 0419) + 0420)		70000000
715	0422) = (04130) - 1000) * 0.0 + (04131) - 1000) * 0.00,5		70000070
716	0423) = (04130) - 1000) * 0.0 + (04131) - 1000) * 0.00,5		70000000
717	0424) = (04130) - 1000) * 0.0 + (04131) - 1000) * 0.00,5		70000000
718	0425) = 0411/0420)		70000000
719	0426) = 0411/0420)		70000000
720	0427) = 0411/0424)		70000000
721	0428) = 0425) + 0426) + 0427)		70000000
722	004110) = 040) * 0411/0414) + 040) * 0410/0421) + 0417) * 0420/0420)		70000000
723	0 = 004100) * 7710)		70000000
724	004111) = 040) * 0412/0414) + 040) * 0410/0421) + 0417) * 0420/0420)		70000000
725	0 = 004101) * 7710)		70000000
726	004112) = 040) * 0413/0414) + 040) * 0420/0421) + 0417) * 0427/0420)		70000000
727	0 = 004102) * 7717)		70000000
728	004120) = - 004110)		70000070
729	004120) = - 004111)		70000000
730	004127) = - 004112)		70000000
731	C HORIZONTAL TAIL LAMPS		70000000
732	00 0421) = 0424)		70000010
733	0422) = 0424)		70000000
734	0423) = 0424)		70000000
735	0424) = 0424)		70000000
736	0425) = 0424)		70000000
737	041) = (-1000 + 0007/0420)/0412) * (1000 - 1000) * 0.00,5		70000000
738	042) = 041) * 0.00,5 + 0.004 * 0.00,5		70000070
739	0.000000 00,01,00		70000000
740	C HORIZONTAL TAIL IS ON VERTICAL OR DOES NOT EXIST		70000000
741	04 0421) = 0411) * 0.00,5		70000010
742	0422) = 1000		70000010
743	0423) = 0.004 * 0.00,5		70000010
744	0424) = 1000		70000010
745	0425) = - 1000 + 1000 * (1000 - 1000) * 0.00,5 * 0.0007/0420)/0412) * 0.00,5		70000010
746	00 TO 00		70000010
747	C HORIZONTAL TAIL IS ON FUELAGE		70000000
748	00 0421) = (1000 - 1000) * 0.00,5		70000070
749	0424) = 0411) * 0.00,5 * (0421) - 1000) - 1000 + 1000 * (1000 - 1000) * 0.00,5		70000000
750	1 0.0007/0420)/0412) * 0.00,5 + 0.004 * 0.00,5 + 1000		70000000
751	004120) = 0421/0424) + 0421/1000 - 1000/0421)		70000000
752	004124) = 0421/0424) - 004120)		70000010
753	004120) = 004120)		70000000
754	004120) = 004124)		70000000
755	0.000000 00,00,04		70000070
756	C THERE IS A HORIZONTAL TAIL CARRY THRU REQUIRED - THE POINT		70000000
757	00 0410) = 0411) * 0.00,5 * (0421) * (1000 - 1000)		70000070
758	0410) = 0.004 * 0.00,5 * (VCPM - 1000)		70000070
759	0417) = (1000 - 1000) * 0.00,5 + (1000 - 1000) * 0.00,5		70000000
760	0418) = (1000 - 1000) * 0.00,5 + (1000 - 1000) * 0.00,5		70000000
761	0419) = 0411/0417)		70000000
762	0410) = 0411/0410)		70000010
763	0411) = 0419) + 0410)		70000000
764	0412) = (100PM - 1000) * 0.00,5 + (VCPM - 1000) * 0.00,5		70000000
765	0413) = (100PM - 1000) * 0.00,5 + (VCPM - 1000) * 0.00,5		70000000
766	0414) = 0411/0410)		70000000
767	0415) = 0411/0410)		70000000
768	0416) = 0414) + 0415)		70000070
769	004113) = 040) * 0409/0411) + 040) * 0414/0410)		70000000
770	0 = 004103) * 7710)		70000000
771	004114) = 040) * 0410/0411) + 040) * 0415/0410)		70000000
772	0 = 004104) * 7710)		70000000
773	004120) = - 004113)		70000000

DATE/74	INPUT LISTING	AIRPLAN Gantt SET - 0000	FIRST FUELAGE OVERLAY
LINE NO	****	COMMENTS	****
701	C VERTICAL TAIL		7000000
702	100 07(0000) 100,100,01		7000000
703	01 0(1) = (-7000 + 0007/0(00)/0(10)*1000 - 1000)*7AC1		7000000
704	0(2) = 0(1)*.4 + 0(21) + 0(23)		7000000
705	0(3) = (0075 + 1000)/0(2)		7000000
706	0(4) = 0(1)*.42*0(2) - 1000 - (1007 + 1007*1000 - 1000)*.01		7000000
707	1 0007/0(00)/0(10)*7AC1 + 0(21)*0(2) + 0(23) +		7000000
708	2 0(00)*0(2) - 0(24) + 0(25)		7000000
709	0(100) = 0(21)*0(4) + 0(41)/(1000 - 1000)/0(2)		7000000
710	0(101) = 0(21)*0(2) - 0(100)		7000000
711	0(102) = 0(100)		7000000
712	0(103) = 0(101)		7000000
713	0(104) = PTV*7AC1*100PV - 1000/(1000 - 1000)/0(2)		7000000
714	0(105) = - PTV*7AC1*0(2) - 0(104)		7000000
715	0(106) = 0(105)		7000000
716	0(107) = 0(106)		7000000
717	0(108) = 0(111) 100,00,00		7000000
718	C THERE IS A VERTICAL CARRY THRU REQUIREMENT - THE POINT		7000000
719	01 0(0) = PTV*7AC1*100PV - 1007		7000000
720	0(101) = (100PV - 1000)*.0 + (100PV - 1007)*.01*.5		7000000
721	0(102) = (100PV - 1000)*.0 + (100PV - 1007)*.01*.5		7000000
722	0(103) = 0(11)/0(10)		7000000
723	0(104) = 0(11)/0(10)		7000000
724	0(105) = 0(103) + 0(104)		7000000
725	0(110) = - 0(01)*0(11)/0(10)*0(2) + 0(00)*T2(10)		7000000
726	0(110) = - 0(01)*0(10)/0(10)*0(2) + 0(00)*T2(11)		7000000
727	0(110) = 0(110)		7000000
728	0(111) = 0(110)		7000000
729	00 TO 100		7000000
730	C THE VERTICAL IS SPINBLE HANDED AT VERTICAL REAR SPIN		7000000
731	01 0(100) = - PTV*7AC1*100PV - 1007 + T2(111)/0(2)		7000000
732	0(101) = 0(100)		7000000
733	C HORIZONTAL		7000000
734	100 07(0000) 100,100,101		7000000
735	01 0(1) = (-7000 + 0007/0(00)/0(10)*1000 - 1000)*7AC1		7000000
736	0(2) = 0(1)*.4007		7000000
737	0(3) = (0075 + 1000)/0(2)		7000000
738	0(4) = 0(2)*0(2) - 1000 - (1007 + 1007*1000 - 1000)*.01		7000000
739	1 0007/0(00)/0(10)*7AC1		7000000
740	0(107) = 0(21)*0(4) + 0(41)/(1000 - 1000)/0(2)		7000000
741	0(108) = 0(21)*0(2) - 0(107)		7000000
742	0(109) = 0(107)		7000000
743	0(110) = 0(109)		7000000
744	0(1) = 0(21)*0(21)*1000 - 1007		7000000
745	0(1) = (1000 - 1000)*.0 + (1000 - 1007)*.01*.5		7000000
746	0(1) = (1000 - 1000)*.0 + (1000 - 1007)*.01*.5		7000000
747	0(1) = 0(11)/0(1)		7000000
748	0(101) = 0(11)/0(10)		7000000
749	0(111) = 0(10) + 0(10)		7000000
750	0(117) = 0(10)*0(10)/0(11) + 0(07)*T2(10)		7000000
751	0(110) = 0(10)*0(10)/0(11) + 0(00)*T2(11)		7000000
752	0(110) = - 0(117)		7000000
753	0(110) = - 0(110)		7000000
754	C SPINBLE		7000000
755	100 07(0000) 100,100,111		7000000
756	01 0(1) = (-7000 + 0007/0(00)/0(10)*1000 - 1000)*7AC1		7000000
757	0(2) = 0(1)*.0007		7000000
758	0(3) = (0075 + 1000)/0(2)		7000000
759	0(4) = 0(2)*0(2) - 1000 - (1007 + 1007*1000 - 1000)*.01		7000000
760	1 0007/0(00)/0(10)*7AC1		7000000
761	0(100) = 0(21)*0(4) + 0(41)/(1000 - 1000)/0(2)		7000000
762	0(101) = 0(21)*0(2) - 0(100)		7000000
763	0(102) = 0(100)		7000000
764	0(103) = 0(102)		7000000
765	0(1) = 0(21)*0(21)*1007 - 1007		7000000
766	0(1) = (1007 - 1000)*.0 + (1007 - 1007)*.01*.5		7000000
767	0(1) = (1007 - 1000)*.0 + (1007 - 1007)*.01*.5		7000000
768	0(1) = 0(11)/0(1)		7000000
769	0(101) = 0(11)/0(10)		7000000
770	0(111) = 0(10) + 0(10)		7000000
771	0(110) = 0(10)*0(10)/0(11) + 0(00)*T2(11)		7000000

[illegible]

DATE	INPUT LISTING	AUTOFLEX CHART SET - SHEET	FIRST FUELBASE OVERLAY
CARD NO	CONTENTS		
004	END		70070000
005	C		
006	C		
007	C		
008	C		
009	C		
010	SUBROUTINE PRIN2		70070010
011	C		70070020
012	C		70070030
013	C		70070040
014	C		70070050
015	C		70070060
016	C		70070070
017	C		70070080
018	C		70070090
019	C		70070100
020	C		70070110
021	C		70070120
022	C		70070130
023	C		70070140
024	C		70070150
025	C		70070160
026	C		70070170
027	C		70070180
028	C		70070190
029	C		70070200
030	C		70070210
031	C		70070220
032	C		70070230
033	C		70070240
034	C		70070250
035	C		70070260
036	C		70070270
037	C		70070280
038	C		70070290
039	C		70070300
040	C		70070310
041	C		70070320
042	C		70070330
043	C		70070340
044	C		70070350
045	C		70070360
046	C		70070370
047	C		70070380
048	C		70070390
049	C		70070400
050	C		70070410
051	C		70070420
052	C		70070430
053	C		70070440
054	C		70070450
055	C		70070460
056	C		70070470
057	C		70070480
058	C		70070490
059	C		70070500
060	C		70070510
061	C		70070520
062	C		70070530
063	C		70070540
064	C		70070550
065	C		70070560
066	C		70070570
067	C		70070580
068	C		70070590
069	C		70070600
070	C		70070610
071	C		70070620
072	C		70070630
073	C		70070640
074	C		70070650
075	C		70070660
076	C		70070670
077	C		70070680
078	C		70070690
079	C		70070700
080	C		70070710
081	C		70070720
082	C		70070730
083	C		70070740
084	C		70070750
085	C		70070760
086	C		70070770
087	C		70070780
088	C		70070790
089	C		70070800
090	C		70070810
091	C		70070820
092	C		70070830
093	C		70070840
094	C		70070850
095	C		70070860
096	C		70070870
097	C		70070880
098	C		70070890
099	C		70070900
100	C		70070910
101	C		70070920
102	C		70070930
103	C		70070940
104	C		70070950
105	C		70070960
106	C		70070970
107	C		70070980
108	C		70070990
109	C		70071000
110	C		70071010
111	C		70071020
112	C		70071030
113	C		70071040
114	C		70071050
115	C		70071060
116	C		70071070
117	C		70071080
118	C		70071090
119	C		70071100
120	C		70071110
121	C		70071120
122	C		70071130
123	C		70071140
124	C		70071150
125	C		70071160
126	C		70071170
127	C		70071180
128	C		70071190
129	C		70071200
130	C		70071210
131	C		70071220
132	C		70071230
133	C		70071240
134	C		70071250
135	C		70071260
136	C		70071270
137	C		70071280
138	C		70071290
139	C		70071300
140	C		70071310
141	C		70071320
142	C		70071330
143	C		70071340
144	C		70071350
145	C		70071360
146	C		70071370
147	C		70071380
148	C		70071390
149	C		70071400
150	C		70071410
151	C		70071420
152	C		70071430
153	C		70071440
154	C		70071450
155	C		70071460
156	C		70071470
157	C		70071480
158	C		70071490
159	C		70071500
160	C		70071510
161	C		70071520
162	C		70071530
163	C		70071540
164	C		70071550
165	C		70071560
166	C		70071570
167	C		70071580
168	C		70071590
169	C		70071600
170	C		70071610
171	C		70071620
172	C		70071630
173	C		70071640
174	C		70071650
175	C		70071660
176	C		70071670
177	C		70071680
178	C		70071690
179	C		70071700
180	C		70071710
181	C		70071720
182	C		70071730
183	C		70071740
184	C		70071750
185	C		70071760
186	C		70071770
187	C		70071780
188	C		70071790
189	C		70071800
190	C		70071810
191	C		70071820
192	C		70071830
193	C		70071840
194	C		70071850
195	C		70071860
196	C		70071870
197	C		70071880
198	C		70071890
199	C		70071900
200	C		70071910
201	C		70071920
202	C		70071930
203	C		70071940
204	C		70071950
205	C		70071960
206	C		70071970
207	C		70071980
208	C		70071990
209	C		70072000
210	C		70072010
211	C		70072020
212	C		70072030
213	C		70072040
214	C		70072050
215	C		70072060
216	C		70072070
217	C		70072080
218	C		70072090
219	C		70072100
220	C		70072110
221	C		70072120
222	C		70072130
223	C		70072140
224	C		70072150
225	C		70072160
226	C		70072170
227	C		70072180
228	C		70072190
229	C		70072200
230	C		70072210
231	C		70072220
232	C		70072230
233	C		70072240
234	C		70072250
235	C		70072260
236	C		70072270
237	C		70072280
238	C		70072290
239	C		70072300
240	C		70072310
241	C		70072320
242	C		70072330
243	C		70072340
244	C		70072350
245	C		70072360
246	C		70072370
247	C		70072380
248	C		70072390
249	C		70072400
250	C		70072410
251	C		70072420
252	C		70072430
253	C		70072440
254	C		70072450
255	C		70072460
256	C		70072470
257	C		70072480
258	C		70072490
259	C		70072500
260	C		70072510
261	C		70072520
262	C		70072530
263	C		70072540
264	C		70072550
265	C		70072560
266	C		70072570
267	C		70072580
268	C		70072590
269	C		70072600
270	C		70072610
271	C		70072620
272	C		70072630
273	C		70072640
274	C		70072650
275	C		70072660
276	C		70072670
277	C		70072680
278	C		70072690
279	C		70072700
280	C		70072710
281	C		70072720
282	C		70072730
283	C		70072740
284	C		70072750
285	C		70072760
286	C		70072770
287	C		70072780
288	C		70072790
289	C		70072800
290	C		70072810
291	C		70072820
292	C		70072830
293	C		70072840
294	C		70072850
295	C		70072860
296	C		70072870
297	C		70072880
298	C		70072890
299	C		70072900
300	C		70072910
301	C		70072920
302	C		70072930
303	C		70072940

INOUT L10700	INPUT L10700	CONTENT	INPUT L10700
1005	0 0(11) = 0(110)		7007000
1006	0(112) = 0(0)		7007000
1007	0(113) = 0(0)		7007000
1008	0(114) = 0(0)		7007000
1009	0(115) = 0(0)		7007000
1010	0(11) = 0(0)		7007000
1011	0(12) = 0(0)		7007000
1012	0(13) = 0(0)		7007000
1013	0(14) = 0(0)		7007000
1014	0(15) = 0(0)		7007000
1015	0(16) = 0(0)		7007000
1016	0(17) = 0(0)		7007000
1017	0(18) = 0(0)		7007000
1018	0(19) = 0(0)		7007000
1019	0(110) = 0(0)		7007000
1020	0(111) = 0(0)		7007000
1021	0(112) = 0(0)		7007000
1022	0(113) = 0(0)		7007000
1023	0(114) = 0(0)		7007000
1024	0(115) = 0(0)		7007000
1025	00 20 1-1,15		7007000
1026	J = 1		7007000
1027	07 00 1-100,20,20		7007000
1028	20 07 00 1-100,20,20		7007000
1029	10 J = 1		7007000
1030	00 10 20		7007000
1031	11 00 1-100 = J		7007000
1032	20 00 07 00 1-100		7007000
1033	00 00 1-1,15		7007000
1034	07 11 = 0(15)		7007000
1035	02 11 = 0(15)		7007000
1036	07 11 = 0(15)		7007000
1037	02 11 = 0(15)		7007000
1038	J = 0(15)		7007000
1039	07 11 = 11 00,01,00		7007000
1040	C 07 00 11 00 01 00		7007000
1041	01 0(1) = 0(1)		7007000
1042	0(2) = 0(1)		7007000
1043	0(3) = 0(1)		7007000
1044	0(4) = 0(1)		7007000
1045	00 10 07		7007000
1046	00 0(5) = 0(1) - 0(1) - 0(1) - 0(1) - 0(1)		7007000
1047	0(1) = 0(1) - 0(1) - 0(1) - 0(1) - 0(1)		7007000
1048	0(2) = 0(1) - 0(1) - 0(1) - 0(1) - 0(1)		7007000
1049	0(3) = 0(1) - 0(1) - 0(1) - 0(1) - 0(1)		7007000
1050	0(4) = 0(1) - 0(1) - 0(1) - 0(1) - 0(1)		7007000
1051	07 0(5) = 0(1) - 0(1)		7007000
1052	0(7) = 0(1) - 0(1) - 0(1) - 0(1) - 0(1)		7007000
1053	0(8) = 0(1) - 0(1)		7007000
1054	07 0(9) = 0(1) - 0(1) - 0(1) - 0(1) - 0(1)		7007000
1055	07 0(10) = 0(1) - 0(1) - 0(1) - 0(1) - 0(1)		7007000
1056	00 0(11) = 0(1) - 0(1) - 0(1) - 0(1) - 0(1)		7007000
1057	0(12) = 0(1) - 0(1)		7007000
1058	07 0(13) = 0(1) - 0(1) - 0(1) - 0(1) - 0(1)		7007000
1059	07 0(14) = 0(1) - 0(1) - 0(1) - 0(1) - 0(1)		7007000
1060	07 0(15) = 0(1) - 0(1) - 0(1) - 0(1) - 0(1)		7007000
1061	C 07 0(16) = 0(1) - 0(1) - 0(1) - 0(1) - 0(1)		7007000
1062	07 0(17) = 0(1) - 0(1) - 0(1) - 0(1) - 0(1)		7007000
1063	07 0(18) = 0(1) - 0(1) - 0(1) - 0(1) - 0(1)		7007000
1064	07 0(19) = 0(1) - 0(1) - 0(1) - 0(1) - 0(1)		7007000
1065	07 0(20) = 0(1) - 0(1) - 0(1) - 0(1) - 0(1)		7007000
1066	07 0(21) = 0(1) - 0(1) - 0(1) - 0(1) - 0(1)		7007000
1067	07 0(22) = 0(1) - 0(1) - 0(1) - 0(1) - 0(1)		7007000
1068	07 0(23) = 0(1) - 0(1) - 0(1) - 0(1) - 0(1)		7007000
1069	07 0(24) = 0(1) - 0(1) - 0(1) - 0(1) - 0(1)		7007000
1070	07 0(25) = 0(1) - 0(1) - 0(1) - 0(1) - 0(1)		7007000
1071	07 0(26) = 0(1) - 0(1) - 0(1) - 0(1) - 0(1)		7007000
1072	07 0(27) = 0(1) - 0(1) - 0(1) - 0(1) - 0(1)		7007000
1073	07 0(28) = 0(1) - 0(1) - 0(1) - 0(1) - 0(1)		7007000
1074	07 0(29) = 0(1) - 0(1) - 0(1) - 0(1) - 0(1)		7007000
1075	07 0(30) = 0(1) - 0(1) - 0(1) - 0(1) - 0(1)		7007000
1076	07 0(31) = 0(1) - 0(1) - 0(1) - 0(1) - 0(1)		70070

047079	INPUT LISTING	AUTOPLOT SHORT KEY - SHEET	FIRST PUEBLA PERMAN
CARD NO	----	CONTENTS	-----
1135	GO EV(1) = S(10)		70071800
1137	EZ(1) = S(12)*EV(1)/(S(1) - S(12)*E2**0.5)		70071830
1139	GO TO 76		70071840
1139	C LOAD IS ALONG RADIALS		70071800
1140	GO S(17) = S(2)*E + S(3)*E		70071800
1141	S(10) = S(11)		70071870
1142	IF(S(17)) 76,76,76		70071800
1143	70 S(17) = S(17)**.5		70071800
1144	S(20) = S(2)/S(17)		70071800
1145	IF(S(20)) .07, 0.00001 S(20) = 1.0		70071800
1146	S(10) = ACOS(S(20))		70071300
1147	IF(S(11)) - S(10)) 72,76,74		70071310
1148	72 S(20) = S(17)/S(14)*SIN(S(10) - S(11))		70071300
1149	IF(S(20)) .07, 0.00001 S(20) = 1.0		70071300
1150	S(10) = S(11) - ABSIN(S(20))		70071330
1151	GO TO 76		70071340
1152	74 S(20) = S(17)/S(14)*SIN(S(10) - S(11))		70071300
1153	IF(S(20)) .07, 0.00001 S(20) = 1.0		70071300
1154	S(10) = S(11) + ABSIN(S(20))		70071300
1155	75 EV(1) = S(3) + S(4)*SIN(S(10))		70071370
1156	EZ(1) = S(2) + S(4)*COS(S(10))		70071300
1157	75 TV(1) = S(1) - EV(1)		70071300
1158	TZ(1) = EZ(1) - (S(1) + EZ(1))		70071400
1159	IF(X) 80,80,70		70071410
1160	70 TZ(1) = EZ(1) - (S(1) - EZ(1))		70071400
1161	TZ(1) = - EZ(1)		70071402
1162	GO CONTINUE		70071430
1163	RETURN		70070000
1164	END		70070000
1165	C		
1166	C !!!		
1167	C SUBROUTINE FOLD		
1168	C !!!		
1169	C		
1170	SUBROUTINE FOLD		70000010
1171	C WRITTEN 4 JAN 1972		70000000
1172	C SUBROUTINE TO DETERMINE INTERNAL FRAME LOADS		70000000
1173	C		70000040
1174	COMMON TCOH(400)		70000000
1175	COMMON /SPRINT/SP(80)		
1176	C		70000000
1177	DIMENSION S(8000),T(8000),JC(100),MD(800)		70000070
1178	DIMENSION S(100),FYL(800),V(0),Z(0),PS(0),VB(0),JB(0),		70000000
1179	I BLS(0),WP(0),JPD(0),VP(0),JPB(0),JLSP(0),J(0),V(0)		70000000
1180	DIMENSION VE(0),ZE(0)		70000100
1181	DIMENSION A(0),BN(0),BDN(0),AA(0),VA(0)		70000110
1182	C		70000100
1183	DO WHILE ((X).GT.TCOH(1)),(TV(1),TCOH(800)),(EZ(1),TCOH(400)),		70000130
1184	(IHD(1),TCOH(800))		70000140
1185	DO WHILE ((TV(1),S(11)),(TZ(0),FYL(0))),((TV(0),JB(0)),		70000100
1186	((TV(100),JLS(1)),(TV(100),JP(1)),(TV(100),JP(1)))		70000100
1187	" , (TV(100),VP(1)),(TV(100),JPB(1)),(TV(100),JLSP(1))		70000170
1188	" , (TV(100),V(1)),(TV(100),Z(1)),(TV(100),PS(1))		70000100
1189	" , (TV(100),B(1)),(TV(100),V(1)),(MD(100),VB(1))		70000100
1190	DO WHILE ((VE(1),T(100)),(ZE(1),T(100)))		70000102
1191	DO WHILE ((MD(100),A(1)),(MD(100),BN(1)),(MD(100),BDN(1)),		70000000
1192	(MD(100),AA(1)),(MD(100),VA(1)))		70000010
1193	DO WHILE ((S(40),PB(1),S(40),AREA), (S(40),Z(1),S(40),JB(1)),		70000000
1194	(S(40),MD(1),S(40),VB(1)))		70000070
1195	C DO NOT USE INDEX REGISTERS 'L' AND 'H'		70000040
1196	C THIS ROUTINE IS IN A DO LOOP WITH THE ABOVE RANGE AND COUNTER		70000000
1197	DO WHILE ((MD(100),I), (MD(100),J), (MD(100),K), (MD(100),LC),		70000000
1198	(MD(100),LPH), (MD(100),MC), (MD(100),LPT),		70000070
1199	(MD(100),ID), (MD(100),IC), (MD(100),IFT))		70000000
1200	C		70000000
1201	C IC = NO OF CUTS IFT = NO OF ELEMENTS MC = NO OF CONDITIONS		70000002
1202	C LPT = NO OF LOAD POINTS		70000004
1203	DO I =-1,0		70000010
1204	S(I) = S(40)		70000000
1205	I CONTINUE		70000000
1206	VP(1) = V(1)		70000040

DATE	INPUT LISTING	AUTOPLOT SHORT SET - DEEP	FIRST PUEBLA OVERLAY
CARD NO	CONTENTS		
1007	2P(1) = Z(1) - PB(12)		7000000
1008	K = 2*10 + 1		7000000
1009	DO 10 I=1,K		7000070
1010	Q(10) = Y(10) - Y(1-1)		7000000
1011	Q(10) = Z(10) - Z(1-1)		7000000
1012	Q(10) = (Q(10)*Q + Q(10)*Q)*.5		7000000
1013	Q(13) = PB(12)/Q(2)		7000010
1014	WP(1) = Y(1) + Q(13)*Q(10)		7000000
1015	2P(1) = Z(1) - Q(13)*Q(10)		7000000
1016	DO CONTINUE		7000000
1017	K = 2*10		7000000
1018	J = 4*10 + 2		7000000
1019	DO 12 I=1,K		7000070
1020	KK = J-1		7000000
1021	WP(KK) = -WP(1)		7000000
1022	2P(KK) = 2P(1)		7000000
1023	DO CONTINUE		7000010
1024	DO 11 I=1,177		7000000
1025	WP(I) = (WP(10) + WP(1))/Q(2)		7000000
1026	2P(I) = (2P(10) + 2P(1))/Q(2)		7000000
1027	QLP(I) = ((WP(10) - WP(1))*Q + (2P(10) - 2P(1))*Q)*.5		7000000
1028	DO CONTINUE		7000000
1029	AREA = Q(4)		7000070
1030	C DETERMINE RING AND SHELL SECTION PROPERTIES		7000000
1031	DO 2 I=1,177		7000000
1032	Q(2) = Q(2) + QLS(I)		7000000
1033	Q(3) = Q(3) + 2Q(I)*QLS(I)		7000010
1034	Q(4) = Q(4) + Q(I)*QLS(I)		7000000
1035	AREA = AREA + ABS(Y(10-1)*Q(2) - Y(1)*Q(10-1)/Q(2))		7000000
1036	Q(5) = Q(5) + QLP(I)		7000000
1037	Q(6) = Q(6) + 2P(I)*QLP(I)		7000000
1038	Q(7) = Q(7) + WP(I)*QLP(I)		7000000
1039	DO CONTINUE		7000070
1040	ZZ5 = Q(3)/Q(2)		7000000
1041	DO 3 I=1,177		7000000
1042	Q(6) = Q(6) + (2P(I) - ZZ5)*QLS(I)		7000000
1043	Q(7) = Q(7) + (2P(I) - ZZ5)*QLP(I)		7000010
1044	DO CONTINUE		7000000
1045	C CALCULATE INTERNAL RING LOAD AND STRESS FOR EACH CONDITION		7000000
1046	DO 100 L=1,100		7000070
1047	C CLEAR SEARCH REGION		7000000
1048	DO 7 I=1,30		7000000
1049	Q(1) = Q(2)		7000000
1050	DO CONTINUE		7000010
1051	DO 11 I=1,10		7000000
1052	Q(1) = Q(2)		7000000
1053	W(1) = Q(2)		7000000
1054	A(1) = Q(2)		7000000
1055	Q(4) = Q(2)		7000000
1056	IF ALN = 1) 9,9,11		7000070
1057	C CLEAR NET LOADS FIRST CONDITION ONLY FOR SITUATION OF NO		7000000
1058	C EXTERNAL LOADS		7000000
1059	Q(2K(1)) = Q(2)		7000000
1060	W(1) = Q(2)		7000010
1061	A(1) = Q(2)		7000000
1062	DO CONTINUE		7000000
1063	C RUN VERTICAL, LATERAL, AND TORQUE DUE TO EXTERNAL FORCES		7000000
1064	DO 14 KK=1,177		7000000
1065	J = LCM(20 + KK*4 - 2)		7000000
1066	Q(10) = Q(10) + PFLN(J-1)		7000070
1067	Q(11) = Q(11) + PFLN(J-2)		7000000
1068	Q(12) = Q(12) + PFLN(J-1)*K(1) + PFLN(J-2)*K(2) - ZZ5		7000000
1069	Q(13) = PFLN(J-3)		7000000
1070	DO CONTINUE		7000010
1071	C TEST ON EXTERNAL LOADS, IF ZERO INITIALIZE FRAME FOR FIRST		7000000
1072	C CONDITION ONLY - OTHERWISE EXIT		7000000
1073	IF Q(10) = Q(11) = Q(12) = 0,10,00		7000000
1074	DO 15 ALN = 1) 970,970,10		7000000
1075	DO 15 ALN = 100,970,970		7000000
1076	C DETERMINE SHEAR FLUX DUE TO VERTICAL AND LATERAL FORCES		7000000
1077	DO 20 I=1,10		7000070

[illegible]

DATA	INPUT LISTING	ASSEMBLY LIST SET - STEP	FIRST PUBLICATION
CARD NO	DATA	CONTENT	DATA
1300	END OF PAGE		
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1429			

DATE	INPUT LISTING	ASDFLEX UNIT SET - 0000	FIRST PUEBLA OVERLAY
DATE	CONTENTS	CONTENTS	CONTENTS
1968	100 0401 = 0401 + 04111		70100000
1968	00 70 000		70100000
1968	100 04101 = 04111 + 0401/04101		70100000
1968	K = 0070/04101		70100000
1968	07001 100,100,100		70100000
1968	100 04101 = 0401/04101		70100000
1968	Y(1) = 0401 + 04101*000004101		70100000
1968	Z(1) = 0401 + 04101*000004101		70100000
1968	0401 = 04111 + 0401		70100000
1968	I = 1+1		70100000
1968	00 70 000		70100000
1968	100 04101 = 0401/04101		70100000
1968	04101 = 04101		70100000
1968	04101 = 0401/04101		70100000
1968	Y(1) = 0401 + 04101*000004101		70100000
1968	Z(1) = 0401 + 04101*000004101		70100000
1968	K = 0+1		70100000
1968	I = 1+1		70100000
1968	00 100 J=1,K		70100000
1968	04101 = 04101 + 04101		70100000
1968	Y(1) = 0401 + 04101*000004101		70100000
1968	Z(1) = 0401 + 04101*000004101		70100000
1968	100 00000000		70100000
1968	I = 0+1		70100000
1968	0401 = 04101/0401 + 04101*04101		70100000
1968	000 0700001 200,200,200		70100000
1968	000 0401 = 0401 + 0401		70100000
1968	04101 = 0401 + 0401/04101		70100000
1968	K = 04101		70100000
1968	07001 200,200,200		70100000
1968	000 Y(1) = 0401 + 04101		70100000
1968	Z(1) = 0401 + 0401		70100000
1968	K = 0+1		70100000
1968	I = 1+1		70100000
1968	00 000 J=1,K		70100000
1968	Y(1) = 0401 + 04101		70100000
1968	Z(1) = 04101 + 0401		70100000
1968	000 00000000		70100000
1968	0401 = 04101		70100000
1968	K = 00 + 1		70100000
1968	Y(1) = 0401 + 04101		70100000
1968	Z(1) = 04101		70100000
1968	001(1) = 04101		70100000
1968	001(1) = 0401/0401		70100000
1968	J = K - 1		70100000
1968	00 000 1-0,J		70100000
1968	0401 = (Y(1)*0401 + Z(1)*0401)*0		70100000
1968	001(1) = 000004101/0401/04101		70100000
1968	000 00000000		70100000
1968	K = 0+00 + 2		70100000
1968	00 000 1-1,00		70100000
1968	K = 0-1		70100000
1968	001(1) = 0401 + 0401		70100000
1968	Y(1) = Y(1)		70100000
1968	Z(1) = -Z(1)		70100000
1968	001 00000000		70100000
1968	K = 0+00 + 1		70100000
1968	00 000 1-1,00		70100000
1968	K = 0-1		70100000
1968	001(1) = 0401 + 0401		70100000
1968	Y(1) = -Y(1)		70100000
1968	Z(1) = -Z(1)		70100000
1968	000 00000000		70100000
1968	K = 0+00 + 2		70100000
1968	00 000 1-1,00		70100000
1968	K = 0-1		70100000
1968	001(1) = 0401 + 0401		70100000
1968	Y(1) = -Y(1)		70100000
1968	Z(1) = Z(1)		70100000
1968	000 00000000		70100000
1968	00 000 1-1,00		70100000

DATE	INPUT LISTING	AMPLER UNIT SET - DEEP	FIRST PULSE RATE
CARD NO	----	CONTENT	----
1401		$YB(1) = (Y(1)) + Y(1) * (1/2)$	70101200
1402		$ZB(1) = (Z(1)) + Z(1) * (1/2)$	70101200
1403		$UB(1) = (U(1)) - Y(1) * 0.2 + (Z(1)) - Z(1) * 0.2 + 0.5$	70101200
1404		END CONTINUE	70101200
1405	C	DELAPOUNT OUTPUT MAXIMUM PRINT CASE	70101200
1406		IF(IP170)GOTO,0001,0002	
1407		END CONTINUE	
1408		WRITE(6,80) PFLB(1)	
1409		GO FORWARD(100,100,100)PULSE STATION = .70.8.200.	
1410		I STOP FROM - IP170: 001	
1411		WRITE(6,81)	70101210
1412		GO FORWARD(100,100,100)PULSE TYPE IS RADIAL RECTANGLE	70101200
1413		WRITE(6,82) S(1),S(2),S(3),S(4)	70101200
1414		GO FORWARD(100,100,100)RIZ PLAT = .77.8.200.RADIUS = .77.8.200.	70101210
1415		IMMERT PLAT = .77.81	70101200
1416		END CONTINUE	
1417		RETURN	70101200
1418		END	70101200
1419	C		
1420	C	*****	
1421	C	SUBROUTINE FUDGE	
1422	C	*****	
1423	C		
1424		SUBROUTINE FUDGE	70100010
1425	C	LOW ROUTINE FOR CAPABILITY OF EVALUATING ELLIPTICAL SHAPES	70100000
1426	C		70100000
1427		COMMON TCN4(400)	70100010
1428	C		70100000
1429		DIMENSION D(2000),Y(2000),ZC(100),XB(200)	70100000
1430	C		70100070
1431		EQUIVALENCE XB(1),TCN4(1),Y(1),TCN4(2001),ZC(1),TCN4(101),	70100000
1432		XB(1),TCN4(201))	70100000
1433	C		70100100
1434		RETURN	70100000
1435		END	70100000
1436	C		
1437	C	*****	
1438	C	SUBROUTINE FELD	
1439	C	*****	
1440	C		
1441		SUBROUTINE FELD	
1442	C		
1443	C	WRITTEN IN OCT 1971	
1444	C		
1445	C	DETERMINE LANDING TYPES AND CENTER	
1446	C		
1447		COMMON TCN4(400)	
1448		COMMON /PFRM/IF(100)	
1449	C		
1450		DIMENSION D(2000),Y(2000),ZC(100),XB(200)	
1451		DIMENSION ZB(100),ZC(200)	
1452		DIMENSION XB(200)	
1453		DIMENSION S(100)	70000111
1454		DIMENSION ZB(200)	
1455		DIMENSION MB(101), VL(10), GL(10)	70000113
1456	C	SPEED PROFILE POINTS SAVED IN DATA NUMBERED FOR USE HERE	70000114
1457		DIMENSION SB(100),AFUB(10),JFC(10)	
1458		DIMENSION PUL(10),PULMB(100)	
1459	C		
1460		EQUIVALENCE XB(1),TCN4(1),Y(1),TCN4(2001),ZC(1),TCN4(101),	
1461		XB(1),TCN4(201))	
1462		EQUIVALENCE XB(201),XB(1),XB(101),ZB(1))	
1463		EQUIVALENCE Y(1),Y(1))	70000110
1464		EQUIVALENCE Y(101),ZB(1),Y(101),ZB(1))	70000100
1465		EQUIVALENCE Y(101),ZB(1),Y(101),ZB(1))	
1466		EQUIVALENCE Y(101),ZB(1),Y(101),ZB(1))	
1467		EQUIVALENCE Y(101),ZB(1),Y(101),ZB(1))	
1468		EQUIVALENCE Y(101),ZB(1),Y(101),ZB(1))	
1469		EQUIVALENCE Y(101),ZB(1),Y(101),ZB(1))	
1470		EQUIVALENCE Y(101),ZB(1),Y(101),ZB(1))	
1471		EQUIVALENCE Y(101),ZB(1),Y(101),ZB(1))	
1472		EQUIVALENCE Y(101),ZB(1),Y(101),ZB(1))	
1473		EQUIVALENCE Y(101),ZB(1),Y(101),ZB(1))	
1474		EQUIVALENCE Y(101),ZB(1),Y(101),ZB(1))	
1475		EQUIVALENCE Y(101),ZB(1),Y(101),ZB(1))	
1476		EQUIVALENCE Y(101),ZB(1),Y(101),ZB(1))	
1477		EQUIVALENCE Y(101),ZB(1),Y(101),ZB(1))	
1478		EQUIVALENCE Y(101),ZB(1),Y(101),ZB(1))	
1479		EQUIVALENCE Y(101),ZB(1),Y(101),ZB(1))	
1480		EQUIVALENCE Y(101),	

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04/05/74      INPUT LISTING      AIRPLAN GANT SET - GANT    FIRST FUELAGE DELAY

CARD NO      ****      COMMENTS      ****

1000          CONTINUE (N0111),JC1
1001          CONTINUE (N0100),PAGE1,N0101,IF11
1002          CONTINUE (N0711),FUEM (N011),N0111,FUEM (N011),
1003          *      N0111,FUEM (N011)
1004          C
1005          C ***** SEARCH LOCATIONS 5421,5471 AND 5481 USED TO GO TO GANT *****
1006          C
1007          CALL READN(1),FUE(1),ST0,20
1008          CALL READN(1),FUEM(11),N00,21
1009          C
1010          C
1011          IF (N0171) F000,0000,0004
1012          0000 CONTINUE
1013          C
1014          WRITE(6,274)
1015          274 FORMAT(10X,2X,20X** FIELD - 5P(71) **/
1016          1      2X,20X** DATA FROM LADS PROGRAM TRANSFERRED TO FUEL
1017          *AGE PROGRAM IN RECORD 20 ***/)
1018          C
1019          WRITE(6,276)
1020          276 FORMAT(12X,CONDITION LET LOC TEMP FAC1 FUE0 FUE1 GANT NO
1021          *GT 5000 5700 5710 5720 5730 5740 5750 5760 5770 5780 5790 5800
1022          * 5810 5820 5830 5840 5850 5860 5870 5880 5890 5900 5910 5920 5930 5940 5950 5960 5970 5980 5990 6000
1023          * 6010 6020 6030 6040 6050 6060 6070 6080 6090 6100 6110 6120 6130 6140 6150 6160 6170 6180 6190 6200
1024          * 6210 6220 6230 6240 6250 6260 6270 6280 6290 6300 6310 6320 6330 6340 6350 6360 6370 6380 6390 6400
1025          * 6410 6420 6430 6440 6450 6460 6470 6480 6490 6500 6510 6520 6530 6540 6550 6560 6570 6580 6590 6600
1026          * 6610 6620 6630 6640 6650 6660 6670 6680 6690 6700 6710 6720 6730 6740 6750 6760 6770 6780 6790 6800
1027          * 6810 6820 6830 6840 6850 6860 6870 6880 6890 6900 6910 6920 6930 6940 6950 6960 6970 6980 6990 7000
1028          * 7010 7020 7030 7040 7050 7060 7070 7080 7090 7100 7110 7120 7130 7140 7150 7160 7170 7180 7190 7200
1029          * 7210 7220 7230 7240 7250 7260 7270 7280 7290 7300 7310 7320 7330 7340 7350 7360 7370 7380 7390 7400
1030          * 7410 7420 7430 7440 7450 7460 7470 7480 7490 7500 7510 7520 7530 7540 7550 7560 7570 7580 7590 7600
1031          * 7610 7620 7630 7640 7650 7660 7670 7680 7690 7700 7710 7720 7730 7740 7750 7760 7770 7780 7790 7800
1032          * 7810 7820 7830 7840 7850 7860 7870 7880 7890 7900 7910 7920 7930 7940 7950 7960 7970 7980 7990 8000
1033          * 8010 8020 8030 8040 8050 8060 8070 8080 8090 8100 8110 8120 8130 8140 8150 8160 8170 8180 8190 8200
1034          * 8210 8220 8230 8240 8250 8260 8270 8280 8290 8300 8310 8320 8330 8340 8350 8360 8370 8380 8390 8400
1035          * 8410 8420 8430 8440 8450 8460 8470 8480 8490 8500 8510 8520 8530 8540 8550 8560 8570 8580 8590 8600
1036          * 8610 8620 8630 8640 8650 8660 8670 8680 8690 8700 8710 8720 8730 8740 8750 8760 8770 8780 8790 8800
1037          * 8810 8820 8830 8840 8850 8860 8870 8880 8890 8900 8910 8920 8930 8940 8950 8960 8970 8980 8990 9000
1038          * 9010 9020 9030 9040 9050 9060 9070 9080 9090 9100 9110 9120 9130 9140 9150 9160 9170 9180 9190 9200
1039          * 9210 9220 9230 9240 9250 9260 9270 9280 9290 9300 9310 9320 9330 9340 9350 9360 9370 9380 9390 9400
1040          * 9410 9420 9430 9440 9450 9460 9470 9480 9490 9500 9510 9520 9530 9540 9550 9560 9570 9580 9590 9600
1041          * 9610 9620 9630 9640 9650 9660 9670 9680 9690 9700 9710 9720 9730 9740 9750 9760 9770 9780 9790 9800
1042          * 9810 9820 9830 9840 9850 9860 9870 9880 9890 9900 9910 9920 9930 9940 9950 9960 9970 9980 9990 10000
1043          * 10010 10020 10030 10040 10050 10060 10070 10080 10090 10100 10110 10120 10130 10140 10150 10160 10170 10180 10190 10200
1044          * 10210 10220 10230 10240 10250 10260 10270 10280 10290 10300 10310 10320 10330 10340 10350 10360 10370 10380 10390 10400
1045          * 10410 10420 10430 10440 10450 10460 10470 10480 10490 10500 10510 10520 10530 10540 10550 10560 10570 10580 10590 10600
1046          * 10610 10620 10630 10640 10650 10660 10670 10680 10690 10700 10710 10720 10730 10740 10750 10760 10770 10780 10790 10800
1047          * 10810 10820 10830 10840 10850 10860 10870 10880 10890 10900 10910 10920 10930 10940 10950 10960 10970 10980 10990 11000
1048          * 11010 11020 11030 11040 11050 11060 11070 11080 11090 11100 11110 11120 11130 11140 11150 11160 11170 11180 11190 11200
1049          * 11210 11220 11230 11240 11250 11260 11270 11280 11290 11300 11310 11320 11330 11340 11350 11360 11370 11380 11390 11400
1050          * 11410 11420 11430 11440 11450 11460 11470 11480 11490 11500 11510 11520 11530 11540 11550 11560 11570 11580 11590 11600
1051          * 11610 11620 11630 11640 11650 11660 11670 11680 11690 11700 11710 11720 11730 11740 11750 11760 11770 11780 11790 11800
1052          * 11810 11820 11830 11840 11850 11860 11870 11880 11890 11900 11910 11920 11930 11940 11950 11960 11970 11980 11990 12000
1053          * 12010 12020 12030 12040 12050 12060 12070 12080 12090 12100 12110 12120 12130 12140 12150 12160 12170 12180 12190 12200
1054          * 12210 12220 12230 12240 12250 12260 12270 12280 12290 12300 12310 12320 12330 12340 12350 12360 12370 12380 12390 12400
1055          * 12410 12420 12430 12440 12450 12460 12470 12480 12490 12500 12510 12520 12530 12540 12550 12560 12570 12580 12590 12600
1056          * 12610 12620 12630 12640 12650 12660 12670 12680 12690 12700 12710 12720 12730 12740 12750 12760 12770 12780 12790 12800
1057          * 12810 12820 12830 12840 12850 12860 12870 12880 12890 12900 12910 12920 12930 12940 12950 12960 12970 12980 12990 13000
1058          * 13010 13020 13030 13040 13050 13060 13070 13080 13090 13100 13110 13120 13130 13140 13150 13160 13170 13180 13190 13200
1059          * 13210 13220 13230 13240 13250 13260 13270 13280 13290 13300 13310 13320 13330 13340 13350 13360 13370 13380 13390 13400
1060          * 13410 13420 13430 13440 13450 13460 13470 13480 13490 13500 13510 13520 13530 13540 13550 13560 13570 13580 13590 13600
1061          * 13610 13620 13630 13640 13650 13660 13670 13680 13690 13700 13710 13720 13730 13740 13750 13760 13770 13780 13790 13800
1062          * 13810 13820 13830 13840 13850 13860 13870 13880 13890 13900 13910 13920 13930 13940 13950 13960 13970 13980 13990 14000
1063          * 14010 14020 14030 14040 14050 14060 14070 14080 14090 14100 14110 14120 14130 14140 14150 14160 14170 14180 14190 14200
1064          * 14210 14220 14230 14240 14250 14260 14270 14280 14290 14300 14310 14320 14330 14340 14350 14360 14370 14380 14390 14400
1065          * 14410 14420 14430 14440 14450 14460 14470 14480 14490 14500 14510 14520 14530 14540 14550 14560 14570 14580 14590 14600
1066          * 14610 14620 14630 14640 14650 14660 14670 14680 14690 14700 14710 14720 14730 14740 14750 14760 14770 14780 14790 14800
1067          * 14810 14820 14830 14840 14850 14860 14870 14880 14890 14900 14910 14920 14930 14940 14950 14960 14970 14980 14990 15000
1068          * 15010 15020 15030 15040 15050 15060 15070 15080 15090 15100 15110 15120 15130 15140 15150 15160 15170 15180 15190 15200
1069          * 15210 15220 15230 15240 15250 15260 15270 15280 15290 15300 15310 15320 15330 15340 15350 15360 15370 15380 15390 15400
1070          * 15410 15420 15430 15440 15450 15460 15470 15480 15490 15500 15510 15520 15530 15540 15550 15560 15570 15580 15590 15600
1071          * 15610 15620 15630 15640 15650 15660 15670 15680 15690 15700 15710 15720 15730 15740 15750 15760 15770 15780 15790 15800
1072          * 15810 15820 15830 15840 15850 15860 15870 15880 15890 15900 15910 15920 15930 15940 15950 15960 15970 15980 15990 16000
1073          * 16010 16020 16030 16040 16050 16060 16070 16080 16090 16100 16110 16120 16130 16140 16150 16160 16170 16180 16190 16200
1074          * 16210 16220 16230 16240 16250 16260 16270 16280 16290 16300 16310 16320 16330 16340 16350 16360 16370 16380 16390 16400
1075          * 16410 16420 16430 16440 16450 16460 16470 16480 16490 16500 16510 16520 16530 16540 16550 16560 16570 16580 16590 16600
1076          * 16610 16620 16630 16640 16650 16660 16670 16680 16690 16700 16710 16720 16730 16740 16750 16760 16770 16780 16790 16800
1077          * 16810 16820 16830 16840 16850 16860 16870 16880 16890 16900 16910 16920 16930 16940 16950 16960 16970 16980 16990 17000
1078          * 17010 17020 17030 17040 17050 17060 17070 17080 17090 17100 17110 17120 17130 17140 17150 17160 17170 17180 17190 17200
1079          * 17210 17220 17230 17240 17250 17260 17270 17280 17290 17300 17310 17320 17330 17340 17350 17360 17370 17380 17390 17400
1080          * 17410 17420 17430 17440 17450 17460 17470 17480 17490 17500 17510 17520 17530 17540 17550 17560 17570 17580 17590 17600
1081          * 17610 17620 17630 17640 17650 17660 17670 17680 17690 17700 17710 17720 17730 17740 17750 17760 17770 17780 17790 17800
1082          * 17810 17820 17830 17840 17850 17860 17870 17880 17890 17900 17910 17920 17930 17940 17950 17960 17970 17980 17990 18000
1083          * 18010 18020 18030 18040 18050 18060 18070 18080 18090 18100 18110 18120 18130 18140 18150 18160 18170 18180 18190 18200
1084          * 18210 18220 18230 18240 18250 18260 18270 18280 18290 18300 18310 18320 18330 18340 18350 18360 18370 18380 18390 18400
1085          * 18410 18420 18430 18440 18450 18460 18470 18480 18490 18500 18510 18520 18530 18540 18550 18560 18570 18580 18590 18600
1086          * 18610 18620 18630 18640 18650 18660 18670 18680 18690 18700 18710 18720 18730 18740 18750 18760 18770 18780 18790 18800
1087          * 18810 18820 18830 18840 18850 18860 18870 18880 18890 18900 18910 18920 18930 18940 18950 18960 18970 18980 18990 19000
1088          * 19010 19020 19030 19040 19050 19060 19070 19080 19090 19100 19110 19120 19130 19140 19150 19160 19170 19180 19190 19200
1089          * 19210 19220 19230 19240 19250 19260 19270 19280 19290 19300 19310 19320 19330 19340 19350 19360 19370 19380 19390 19400
1090          * 19410 19420 19430 19440 19450 19460 19470 19480 19490 19500 19510 19520 19530 19540 19550 19560 19570 19580 19590 19600
1091          * 19610 19620 19630 19640 19650 19660 19670 19680 19690 19700 19710 19720 19730 19740 19750 19760 19770 19780 19790 19800
1092          * 19810 19820 19830 19840 19850 19860 19870 19880 19890 19900 19910 19920 19930 19940 19950 19960 19970 19980 19990 20000
1093          * 20010 20020 20030 20040 20050 20060 20070 20080 20090 20100 20110 20120 20130 20140 20150 20160 20170 20180 20190 20200
1094          * 20210 20220 20230 20240 20250 20260 20270 20280 20290 20300 20310 20320 20330 20340 20350 20360 20370 20380 20390 20400
1095          * 20410 20420 20430 20440 20450 20460 20470 20480 20490 20500 20510 20520 20530 20540 20550 20560 20570 20580 20590 20600
1096          * 20610 20620 20630 20640 20650 20660 20670 20680 20690 20700 20710 20720 20730 20740 20750 20760 20770 20780 20790 20800
1097          * 20810 20820 20830 20840 20850 20860 20870 20880 20890 20900 20910 20920 20930 20940 20950 20960 20970 20980 20990 21000
1098          * 21010 21020 21030 21040 21050 21060 21070 21080 21090 21100 21110 21120 21130 21140 21150 21160 21170 21180 21190 21200
1099          * 21210 21220 21230 21240 21250 21260 21270 21280 21290 21300 21310 21320 21330 21340 21350 21360 21370 21380 21390 21400
1100          * 21410 21420 21430 21440 21450 21460 21470 21480 21490 21500 21510 21520 21530 21540 21550 21560 21570 21580 21590 21600
1101          * 21610 21620 21630 21640 21650 21660 21670 21680 21690 21700 21710 21720 21730 21740 21750 21760 21770 21780 21790 21800
1102          * 21810 21820 21830 21840 21850 21860 21870 21880 21890 21900 21910 21920 21930 21940 21950 21960 21970 21980 21990 22000
1103          * 22010 22020 22030 22040 22050 22060 22070 22080 22090 22100 22110 22120 22130 22140 22150 22160 22170 22180 22190 22200
1104          * 22210 22220 22230 22240 22250 22260 22270 22280 22290 22300 22310 22320 22330 22340 22350 22360 22370 22380 22390 22400
1105          * 22410 22420 22430 22440 22450 22460 22470 22480 22490 22500 22510 22520 22530 22540 22550 22560 22570 22580 22590 22600
1106          * 22610 22620 22630 22640 22650 22660 22670 22680 22690 22700 22710 22720 22730 22740 22750 22760 22770 22780 22790 22800
1107          * 22810 22820 22830 22840 22850 22860 22870 22880 22890 22900 22910 22920 22930 22940 22950 22960 22970 22980 22990 23000
1108          * 23010 23020 23030 23040 23050 23060 23070 23080 23090 23100 23110 23120 23130 23140 23150 23160 23170 23180 23190 23200
1109          * 23210 23220 23230 23240 23250 23260 23270 23280 23290 23300 23310 23320 23330 23340 23350 23360 23370 23380 23390 23400
1110          * 23410 23420 23430 23440 23450 23460 23470 23480 23490 23500 23510 23520 23530 23540 23550 23560 23570 23580 23590 23600
1111          * 23610 23620 23630 23640 23650 23660 23670 23680 23690 23700 23710 23720 23730 23740 23750 23760 23770 23780 23790 23800
1112          * 23810 23820 23830 23840 23850 23860 23870 23880 23890 23900 23910 23920 23930 23940 23950 23960 23970 23980 23990 24000
1113          * 24010 24020 24030 24040 24050 24060 24070 24080 24090 24100 24110 24120 24130 24140 24150 24160 24170 24180 24190 24200
1114          * 24210 24220 24230 24240 24250 24260 24270 24280 24290 24300 24310 24320 24330 24340 24350 24360 24370 24380 24390 24400
1115          * 24410 24420 24430 24440 24450 24460 24470 24480 24490 24500 24510 24520 24530 24540 24550 24560 24570 24580 24590 24600
1116          * 24610 24620 24630 24640 24650 24660 24670 24680 24690 24700 24710 24720 24730 24740 24750 24760 24770 24780 24790 24800
1117          * 24810 24820 24830 24840 24850 24860 24870 24880 24890 24900 24910 24920 24930 24940 24950 24960 24970 24980 24990 25000
1118          * 25010 25020 25030 25040 25050 25060 25070 25080 25090 25100 251
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[illegible]

579

LINE NO	INPUT LISTING	CONTENT	*****
1046	VELT = D(24)		70000070
1047	C		70000080
1048	C STRAIGHT LINE INTERPOLATION		70000090
1049	YOT(10) = D(11)		70000100
1050	YOT(20) = D(11)		70000110
1051	DO IF(ND4-J-2(11))D1,J1,20		70000120
1052	D1 D(11) = (ND4-J - 2(11-1))/((2(11-1)-2(11-1)))		70000130
1053	D1(J) = D(11-1) + D(11)*D(11-1)-D(11-1)		70000140
1054	D2(J) = D(11-1) + D(11)*D(11-1)-D(11-1)		70000150
1055	PER(J) = P(11-1) + D(11)*P(11-1)-P(11-1)		70000160
1056	ND4(J) = 2(11-1) + D(11)*2(11-1)-2(11-1)		70000170
1057	IF(YOT(10) - D1(J)) 31,32,33		70000180
1058	31 YOT(10) = D1(J)		70000190
1059	32 IF(YOT(20) - D2(J)) 33,34,35		70000200
1060	33 YOT(20) = D2(J)		70000210
1061	34 CONTINUE		70000220
1062	J = J+1		70000230
1063	IF(J-ND100,20,100)		70000240
1064	DO 1 = 1+1		70000250
1065	DO TO 20		70000260
1066	C		70000270
1067	C SHAPE FIT		70000280
1068	DO 20 DO J=1,NC		70000290
1069	D(11) = D(11)		70000300
1070	D(2) = (D(2)*D(1,J) + D(2)*D(2,J) - PER(J)/D(2) - D(2)*D(10))		70000310
1071	IF(D(2))101,101,102		70000320
1072	101 D(11) = PER(J)/D(2)*D(1,J) + D(2)*D(1,J)		70000330
1073	D(2) = D(2)		70000340
1074	C		70000350
1075	C ERROR MESSAGE		70000360
1076	WRITE(6,50) J,D(11)		70000370
1077	DO FORMAT(20) WARNING FROM GEOF/1/2M SHAPE IS RECT.,EX.		70000380
1078	(7RECTION,13,EX,13CORRECTION IS,70.5)		70000390
1079	DO TO 110		70000400
1080	102 D(4) = D(4)*D(1,J)+D(1,J)		70000410
1081	D(5) = D(4)*D(1,J)+D(1,J)		70000420
1082	IF(D(5) - D(2)*D(2)/100,100,110)		70000430
1083	103 D(2) = D(5)/D(2)		70000440
1084	D(11) = PER(J)/D(2)*D(1,J)+D(1,J) + D(4)*D(2)		70000450
1085	C		70000460
1086	C ERROR MESSAGE		70000470
1087	WRITE(6,50) J,D(11)		70000480
1088	DO FORMAT(20) WARNING FROM GEOF/2M SHAPE IS NO,JOED RECT.,EX.		70000490
1089	(7RECTION,13,EX,13CORRECTION IS,70.5)		70000500
1090	110 D(5) = (D(2)*D(2)/D(2)*D(11)/D(2)		70000510
1091	D(2) = (D(1,J) - D(2)*D(2)/D(11)/D(2)		70000520
1092	IF(D(5))111,112,112		70000530
1093	111 D(5) = D(2)		70000540
1094	112 IF(D(2))114,115,115		70000550
1095	114 D(2) = D(2)		70000560
1096	115 ND4(J) = D(5)		70000570
1097	ND4(J) = D(2)*D(11)		70000580
1098	ND4(J) = D(2)		70000590
1099	D(1) = D(1)*ND4(J)+D(2)*D(1)*ND4(J)+D(1)*ND4(J)		70000600
1100	D(4) = D(2)*ND4(J) + D(1)*D(2)*ND4(J)		70000610
1101	D(4) = D(2)*ND4(J) + D(1)*D(2)*ND4(J)		70000620
1102	D(4) = D(2)*ND4(J) + D(1)*D(2)*ND4(J)		70000630
1103	IF(D(2)-ND4(J))116,116,200		70000640
1104	116 D(11) = ND4(J)*D(11) - D(2)*D(2)		70000650
1105	D(2) = ND4(J)*D(2)/D(2) + ND4(J)		70000660
1106	D(2) = ND4(J)*D(2)/D(2) + ND4(J)		70000670
1107	ND4(J) = (D(11)*D(2) + D(2)*D(2)/D(2)/D(11)		70000680
1108	ND4(J) = ND4(J)		70000690
1109	ND4(J) = (D(11)*D(2) + D(2)*D(2)/D(2)/D(11)		70000700
1110	C		70000710
1111	C IF D(2.0) ABOVE RADII OF CURVATURE IS INFINITY IE FLAT PANEL		70000720
1112	DO CONTINUE		70000730
1113	C		70000740
1114	C MORE CODE GEOMETRY		70000750
1115	D(11) = P(11)*D(2)/D(1)		70000760
1116	D(2) = PER(J)/D(2)/D(1)		70000770

DATE/NO	INPUT LISTING	AUTOFLEX SHIRT SET - SHARP	FIRST FUELAGE OVERLAY
CARD NO	****	COMMENTS	****
1000	DIMENSION XEAR(20),XELX(20),XOD(20),XO(20),PER(20)		70000100
1000	DIMENSION UHX(20),UHY(20),UIZ(20)		70000100
1000	C		70000140
1001	EQUIVALENCE (S(1),TCOM(1)), (T(1),TCOM(200)), (SC(1),TCOM(401)),		70000100
1002	(H(1),TCOM(401))		70000100
1003	C		70000170
1004	EQUIVALENCE (T(1),S(1))		70000100
1005	EQUIVALENCE (H(1),JC)		70000100
1006	EQUIVALENCE (H(1),J)		70000000
1007	EQUIVALENCE (T(20),XEAR(1)), (T(20),XELX(1)), (T(40),XOD(1)),		70000200
1008	(T(40),XO(1)), (T(40),XO(1)), (T(40),PER(1))		70000200
1009	EQUIVALENCE (T(20),UHX(1)), (T(20),UHY(1)), (T(20),UIZ(1))		70000240
1010	EQUIVALENCE (S(23),P(1))		70000000
1011	EQUIVALENCE (S(20),XO(1))		70000000
1012	C		70000000
1013	C DESCRIPTION OF GEOMETRY ARRAYS (REF SUB. GEDF1)		70000270
1014	C SELX = SEGMENT LENGTH XEAR = SEGMENT COORDINATE		70000000
1015	C PER = PERIMETER AT CUT ODO = FLAT/E VERTICAL		70000000
1016	C HO = FLAT/E HORIZONTAL RO = CORNER RADIUS		70000000
1017	C XI = STATIONS - INPUT GEDH (1) = HOSE (10) = TAIL		70000310
1018	C		70000000
1019	C DESCRIPTION OF INPUT ARRAYS		70000330
1020	C PI = PERIMETER IF O(43) = JC = 2, PI INPUT = PI AND PI		70000340
1021	C HAS BEEN REVISED TO PERIMETER IN SUBROUTINE GEDF1		70000300
1022	C		70000300
1023	C DESCRIPTION OF OUTPUT ARRAYS		70000070
1024	C UHX = UNIT ROLL INERTIA UHY = UNIT PITCH INERTIA		70000000
1025	C UIZ = UNIT YAW INERTIA		70000000
1026	C		70000400
1027	C HOSE CODE		70000410
1028	S(1) = P(1)/O(2)/O(15)		70000400
1029	S(2) = PER(1)/O(2)/O(15)		70000430
1030	S(3) = HO(1) - XEAR(1)		70000440
1031	UHX(1) = O(3)/O(10)*O(11)**2 + S(1)**2*S(2) + S(1)**2*S(2)**2 +		70000400
1032	S(1)*S(2)**2 + S(2)**2/O(11)**2 + S(1)*S(2) + S(2)**2		70000401
1033	UHY(1) = UHX(1)/O(2) + O(3)*O(10)/O(10)*O(10)*O(11)**2		70000400
1034	UIZ(1) = UHY(1)		70000470
1035	DO DOO J=2,JC		70000400
1036	IF SELX(J) = S(2) XEAR(J),XELX(J),XOD(J),XO(J)		70000400
1037	C		70000000
1038	C SHARP DISCONTINUITY IN GEOMETRY		70000010
1039	DO S(4) = S(4)/O(43)*O(204(J)+O(43)) + S(4)/O(43)*O(204(J) +		70000000
1040	O(15)*O(43)**2		70000000
1041	S(5) = S(4)/O(43)*O(43)*O(204(J)+O(43))**2 + S(4)/O(43)*O(43)*		70000040
1042	O(204(J)**2 + O(15)/O(43)*O(43)**2 + S(4)/O(43)*O(204(J)**2		70000000
1043	S(6) = S(4)/O(43)*O(204(J)+O(43)*O(43))**2 + S(4)/O(43)*O(43)*		70000400
1044	O(204(J)**2 + S(15)/O(43)*O(43)**2 + S(15)/O(43)*O(204(J)**2		70000070
1045	DOO UHX(J) = (S(5) + S(6))/O(43)		70000000
1046	UHY(J) = S(5)/S(4) + SELX(J)**2/O(43)		70000000
1047	UIZ(J) = S(6)/S(4) + SELX(J)**2/O(43)		70000000
1048	GO TO DOO		70000210
1049	C		70000000
1050	C NORMAL GEOMETRY TRANSITION		70000000
1051	C USE NORMAL SEGMENT SHAPE		70000040
1052	DOO S(1) = (O(204(J) + O(204(J-1))/O(43)		70000000
1053	S(2) = HO(43) + HO(43-1)/O(43)		70000000
1054	S(3) = HO(43) + HO(43-1)/O(43)		70000070
1055	S(4) = S(4)/O(43)*O(43)*O(11)+O(43)) + S(4)/O(43)*O(11) +		70000000
1056	S(5) = S(4)/O(43)*O(43)*O(11)+O(43))**2 + S(4)/O(43)*O(43)*O(11)**2 +		70000000
1057	O(15)/O(43)*O(43)**2 + S(15)/O(43)*O(43)**2 + S(15)/O(43)*O(11)**2		70000700
1058	S(6) = S(4)/O(43)*O(11)+O(43)*O(43))**2 + S(4)/O(43)*O(43)*O(43)**2 +		70000710
1059	O(15)/O(43)*O(43)**2 + S(15)/O(43)*O(43)**2 + S(15)/O(43)*O(43)**2		70000700
1060	GO TO DOO		70000700
1061	DOO CONTINUE		70000740
1062	C		70000700
1063	C TAIL CODE		70000700
1064	J = JC		70000770
1065	S(1) = PER(J)/O(43)/O(15)		70000700
1066	S(2) = P(1)/O(43)/O(15)		70000700
1067	S(3) = HO(43-1) - HO(43)		70000000
1068	UHX(J) = O(3)/O(10)*O(11)**2 + S(1)**2*S(2) + S(1)**2*S(2)**2 +		70000010

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04/02/74      INPUT LISTING      AUTOFLN SHORT SET - BEEP      FIRST FAILURE OVERLAY

CARD NO      ****      COMMENTS      ****

0000      1 0(11)*0(1)**0 + 0(12)*0(1)/0(11)**0 + 0(11)*0(1) + 0(12)*0(1)      7000011
0001      WTY(J-1) = WTY(J-1)/0(12) + 0(13)*0(1)/0(10)*0(13)**0      7000000
0002      WZ(J-1) = WTY(J-1)      7000000
0003      RETURN      7000000
0004      END      7000000

0005      C
0006      C #####
0007      C SUBROUTINE MERTS
0008      C #####
0009      C
0010      SUBROUTINE MERTS      7000010
0011      C SUBROUTINE FOR UNIT INERTIA FOR ELLIPTICAL SHAPES      7000000
0012      C
0013      GIVEN TCM(4*00)      7000000
0014      C
0015      DIMENSION D(000),T(000),SC(100),JD(000)      7000000
0016      C
0017      EQUIVALENCE (D(1),TCM(1)),(T(1),TCM(000)),(SC(1),TCM(410)),      7000000
0018      (JD(1),TCM(400))      7000000
0019      C
0020      RETURN      7000000
0021      END      7000000

0022      C
0023      C SUBROUTINE MARF
0024      C #####
0025      C
0026      SUBROUTINE MARF      MARF010
0027      C MARL PROP. FIT SUB      MARF000
0028      C
0029      C **REVISION--00-01-00--ADD MARL. PROP. TITLE. **      MARF000
0030      C REVISION -- 01-11-00 -- NEW LOGIC, LANGUAGE, NO PRINT OR NAME      MARF000
0031      C      MARF000
0032      C      MARF000
0033      C      MARF010
0034      C      MARF010
0035      C
0036      GIVEN TCM(4*00)      MARF110
0037      C
0038      DIMENSION D(000),T(000),SC(100),JD(000)      MARF010
0039      DIMENSION TH(000),TW(100),TT(00)      MARF010
0040      C
0041      EQUIVALENCE (D(1),TCM(1)),(T(1),TCM(000)),(SC(1),TCM(410)),      MARF010
0042      (JD(1),TCM(400))      MARF010
0043      EQUIVALENCE (T(100),TH(1)),(T(100),TW(1)),(T(100),TT(1))      MARF010
0044      EQUIVALENCE (JD(101),J), (JD(101),J), (JD(101),J), (JD(101),J), (JD(101),J)      MARF010
0045      C
0046      C      MARF010
0047      C      MARF010
0048      C
0049      100 DO 101 I=1,100      MARF010
0050      TW(I) = D(I)      MARF010
0051      101 CONTINUE      MARF000
0052      C
0053      C      MARF010
0054      C      **SETUP FOR INTERPOLATION**      MARF000
0055      102 DO 103 I=1,04      MARF000
0056      TW(I) = TW(I+10)      MARF000
0057      103 CONTINUE      MARF000
0058      104 IF (TW(100) - TT(1)) 22,100,22      MARF000
0059      22 WRITE(0,00) TT(1),TT(2),TW(100)      MARF000
0060      00 FORMAT(//////1X,00** MARL TEMPERATURE CURVE **//,000L NO, MARF000
0061      07,1,04) THERE IS ONE TEMPERATURE ON FILE, 10X,100000. TDP. =, MARF000
0062      07,1,04,1000000 TDP. =,77,1)      MARF000
0063      TW(1) = TW(100)      MARF000
0064      00 TO 107      MARF000
0065      104 DO 110 I=100,000,00      MARF000
0066      NA = 00 - 00      MARF000
0067      IF (TW(100)) 100,100,107      MARF000
0068      107 IF (TW(100)) - TT(1) 110,100,100      MARF000
0069      110 CONTINUE      MARF000
0070      WRITE(0,01) TT(1),TT(2),TW(100)      MARF000
0071      01 FORMAT(//////1X,00** MARL TEMPERATURE CURVE **//,000L NO.,

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DATE/TIME	INPUT LISTING	AUTOFLEX DWT SET - DEEP	FIRST FUELAGE OVERLAY
CARD NO	CONTENTS		
0130	IFB.1.2M.20TEMPERATURE IS BEYOND RANGE OF TABLE./10K.		
0131	0130END. TDP. =.J7.1.2M.10LAST TDP. =.J7.11		
0132	GO TO 105		
0133	100 KA = KA - 20		
0134	WRITE(6,51) TT(1),TT(2),TND(KA+20)		
0135	100 KB = KA + 20		
0136	GO 121 1=-1.25		
0137	TH(100) = TH(100)		
0138	121 TH(100) = TH(100)		
0139	TT(3) = (TH(100) - TT(2))/(TH(100) - TH(100))		NAF7040
0140	GO 122 1=-1.25		NAF7040
0141	TH(100) = TH(100) + TT(3)*(TH(100) - TH(100))		NAF7040
0142	122 CONTINUE		NAF70510
0143	C		NAF70500
0144	C ***PROCESS BASIC DATA***		NAF70530
0145	120 TH(1) = TT(2)		NAF70540
0146	127 TH(2) = TH(3)		NAF70550
0147	TH(1) = TH(2)		NAF70560
0148	TH(2) = TH(3)		NAF70570
0149	TH(3) = TH(4)		NAF70580
0150	TH(4) = TH(3)/TH(2)		NAF70590
0151	TH(5) = TH(2)		NAF70600
0152	TH(6) = TH(4)/TH(2)		NAF70610
0153	TH(10) = TH(4)		NAF70620
0154	TH(13) = TH(3)		NAF70630
0155	TH(12) = TH(4)		NAF70640
0156	IF (TH(12)) 131,131,132		NAF70650
0157	131 TH(12) = TH(10)		NAF70660
0158	132 TH(10) = TH(47)		NAF70670
0159	IF (TH(10)) 133,133,134		NAF70680
0160	133 TH(10) = TH(12)/TH(2)		NAF70690
0161	134 TH(17) = TH(4)		NAF70700
0162	IF (TH(17)) 135,135,136		NAF70710
0163	135 TH(17) = TH(2)/TH(4)		NAF70720
0164	136 TH(10) = TH(10)		NAF70730
0165	TH(10) = TH(10)		NAF70740
0166	TH(20) = TH(12)		NAF70750
0167	C		NAF70760
0168	C ***FIT DATA N=1 COMP.. N= TDS.		NAF70770
0169	140 N = 1		NAF70780
0170	GO 141 1=-1.7		NAF70810
0171	TT(100) = TH(100)		NAF70820
0172	141 CONTINUE		NAF70830
0173	C		NAF70840
0174	142 TT(6) = TT(6)		NAF70850
0175	TT(16) = (TT(16) - TT(6))/TH(4)		NAF70860
0176	TT(7) = TT(6) + TT(16)		NAF70870
0177	TT(8) = TT(7)+TT(16)		NAF70880
0178	TT(9) = TT(8)+TT(16)		NAF70890
0179	TT(5) = TT(11)/TT(6)		NAF70900
0180	TT(16) = TH(1)/TT(5)		NAF70910
0181	TT(17) = TT(16) - TT(16)*TT(16)		NAF70920
0182	C		NAF70930
0183	C ***DO PT(1.2,3), (1.3,5), (1.4,5)***		NAF70940
0184	143 DO 100 N=1,3		NAF70950
0185	THK(115) = TH(4)		NAF70960
0186	TT(10) = TT(10) - TT(10)*TT(10)		NAF70970
0187	TT(10) = TT(10) - TT(10)		NAF70980
0188	C		NAF70990
0189	144 THK(112) = ALB(TT(17)/TT(16))/TT(16)		NAF71000
0190	THK(100) = EXP(ALB(TT(16)) - TT(10))*THK(112)		NAF71010
0191	C		NAF71020
0192	C		NAF71030
0193	145 TT(20) = TH(1)/TT(16) + THK(100)*THK(112)*EXP(THK(112)*TT(11))		NAF71040
0194	TT(21) = TH(1) - TT(20)*TT(16)		NAF71050
0195	THK(115) = TT(21)/TT(21)		NAF71060
0196	GO 146 1=-1.5		NAF71070
0197	TT(22) = TT(16)*TT(10) + THK(100)*EXP(THK(112)*TT(10))		NAF71080
0198	TT(23) = TH(1) - TT(22)/TT(16)		NAF71090
0199	THK(115) = THK(115) + TT(23)*TT(23)		NAF71100
0200	146 CONTINUE		NAF71110

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04/08/74      INPUT LISTING      AUTOFLEX Gantt SET - SHEEP      FIRST FUELAGE OVERLAY
040 10      ****      COMMENTS      ****
0001      C
0002      C      **TEST CURVE **
0003      147 0F42 = 01 140,140,140
0004      140 0F (THK=110) - TT(4) 140,100,100
0005      140 TT(3) = THK+110
0006      TT(3) = THK+110
0007      TT(4) = THK+110
0008      100 CONTINUE
0009      C
0010      C      **TEST FOR TENSION OR COMPRESSION FIT**
0011      0F00 = 11 101,101,103
0012      104 N = 2
0013      TH(3) = TT(3)
0014      TH(4) = TT(4)
0015      00 102 1=1,7
0016      TT(10) = TH(1+20)
0017      100 CONTINUE
0018      00 TO 142
0019      C
0020      C      **TENSION. HMC BEFORE EXIT**
0021      153 TH(7) = TT(3)
0022      TH(8) = TT(4)
0023      C
0024      C
0025      C
0026      C      EXIT
0027      100 RETURN
0028      000
0029      C
0030      C
0031      C      SUBROUTINE HARP1
0032      C
0033      C
0034      C      SUBROUTINE HARP1
0035      C      HARP PROP. PRINT SUB
0036      C      **REVISION--00-01-00--ADD HARP PROP TITLE PRINT **
0037      C      01-00-00 -- NEW SUB--AA-014 FORME
0038      C
0039      C
0040      C
0041      C      GIVEN TCM(400)
0042      C
0043      C      DIMENSION B(2000),T(2000),SC(100),JD(200)
0044      C      DIMENSION TH(200),TH(100),RH(10)
0045      C
0046      C      EQUIVALENCE (B(1),TCM(1)),(T(1),TCM(2001)),(SC(1),TCM(4101)), HARP(000)
0047      C      (JDM(1),TCM(4001))
0048      C      EQUIVALENCE (T(1001),TH(1)),(T(1001),TH(1)),(TH(400),RH(1)) HARP(000)
0049      C      EQUIVALENCE (H(10),JPAKE),(H(100),JPAKE)
0050      C      EQUIVALENCE (H(101),J),(H(102),J),(H(103),J),(H(104),J) HARP(000)
0051      C      EQUIVALENCE (H(114),LOH)
0052      C
0053      C
0054      C      **PRINT TITLES**
0055      100 0F4J = 11 101,101,104
0056      101 WRITE(6,100) LOH,HARP1
0057      00 TO 100
0058      100 FORMATTED,EX,WEAK,N,21X,2H--OVER MATERIAL DATA. HARP NO.,
0059      C      1 12,4H--,,12,2H-- HARP1 - 0F4J **
0060      100 FORMATTED,EX,WEAK,N,21X,2H-- UNDER MATERIAL DATA. HARP
0061      C      NO.,12,4H--,,EX,2H-- HARP1 - 0F4J **
0062      00 FORMATTED,EX,WEAK,N,21X,2H-- MAJOR FIVE MATERIAL DATA. HARP
0063      C      1 NO.,12,4H--,,EX, 2H-- HARP1 - 0F4J **
0064      01 FORMATTED,EX,WEAK,N,21X,2H-- MINOR FIVE MATERIAL DATA. HARP
0065      C      1 NO.,12,4H--,,EX,2H-- HARP1 - 0F4J **
0066      104 0F4J = 01 70,70,71
0067      70 WRITE(6,100) LOH,HARP1
0068      00 TO 100
0069      71 0F4J = 01 70,70,70
0070      70 WRITE(6,00) LOH,HARP1
0071      00 TO 100

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04/08/74      MPPI LISTING      AUTOPLOT CHART SET - SHEET      FIRST PUBLAGE OVERLAY
CARD NO      ****      COMMENTS      ****
0070      TO WRITE(0,01) LEN,MAR,1
0071      C
0072      100 WRITE (0,100)M
0073      100 FORMAT (100,01,0100/100,0100)
0074      C
0075      107 WRITE (0,110)TM(1),TM(11),TM(2)
0076      C
0077      110 FORMAT(1000      TEMP-70.0,100      DENSITY-77.4,01      MU-77.4,1/100      HARL000
0078      1      A      B      C      HARL000
0079      2      (007)      0007)      )      HARL007
0080      111 FORMAT (100      COMPRESSION      IN,0E10.0,0F14.1,1/100      TENSION      100ARL000
0081      1,0E10.0,0F14.1)
0082      C
0083      WRITE (0,111)TM(2),TM(3),TM(5),TM(14),TM(15),TM(7),TM(8),TM(9)      HARL010
0084      C
0085      C
0086      112 FORMAT (10000      EPS(0)      EPS(1)      FIP)      HARL030
0087      1      F(2)      F(3)      F(4)      F(7)      )      HARL000
0088      113 FORMAT (100      COMPRESSION      IN,0F10.0,0F12.1,1/100      TENSION      100ARL000
0089      1,0F10.0,0F12.1)
0090      C
0091      120 WRITE (0,120)
0092      121 WRITE (0,121)TM(1001),101,14)
0093      C
0094      WRITE (0,120)TM(12),TM(16),TM(17)
0095      122 FORMAT (2000      FTU-70.1,01      FTU-70.1,01      FEMU-70.1)HARL040
0096      C
0097      C
0098      C      **TEMP PRIME**
0099      200 FORMAT (000      TM
0100      201 FORMAT (000      TM
0101      202 FORMAT (100      IN      2K,12,0E10.0)
0102      203 WRITE (0,200)
0103      DO 204 N=1,20,5
0104      K = N + 4
0105      WRITE (0,200)N,(TM(1),1-N,K,1)
0106      204 CONTINUE
0107      C
0108      200 WRITE (0,201)
0109      200 FORMAT (100      IN      2K,12,10F5.4)
0110      DO 207 N=10,21,10
0111      K = N + 5
0112      WRITE (0,200)N,(TM(1),1-N,K,1)
0113      207 CONTINUE
0114      C
0115      C      **EXIT**
0116      100 RETURN
0117      END
0118      C
0119      C      SUBROUTINE MPCHL
0120      C      WRITTEN 7 JANUARY 1972
0121      C      TO DEVELOP AND STORE MATERIAL PROPERTIES IN RECORDS 04-100
0122      C
0123      C      OPEN TOWN*00?
0124      C      OPEN /PRINT/SP*00?
0125      C      OPEN /WTC/ WTC*100?
0126      C
0127      DIMENSION D(1000),T(1000),SC(100),J0(100)
0128      DIMENSION C(100*100)
0129      DIMENSION      SD(100),TM(100),TH(100),TT(100)
0130      DIMENSION TW(100)
0131      C
0132      C      COW*VALUE (0(1),TOW*100),TT(10),TOW*000(1),SC(10),TOW*10(1),
0133      100(1),TOW*00(1)
0134      C
0135      C      COW*VALUE (0(041),COW*10)
0136      C      COW*VALUE      (T(100),00(1),TT(100),TM(10),      000070

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04/05/74      INPUT LISTING      APULEN CHART SET - SHEET      FIRST FUELAGE OVERLAY

C000 10      ****      CONTENTS      ****

0003      1(71000),70(1),1(1000),77(1)
0004      CONTINUE 001001,70(1)
0005      CONTINUE 001001,77(1),001001,77(1)
0006      CONTINUE 001001,001001,001001,001001
0007      CONTINUE 001001,11,001001,00,001001,00,001001,00
0008      CONTINUE 001001,0001
0009      C
0010      0001 = 0000(1)
0011      C
0012      00 100 J=1,4
0013      0013 - 1) 10,10,10
0014      10 0001 - 1) 11,11,11
0015      11 77(1) = 0001(0)
0016      77(2) = 0010(0)
0017      110 0001 = 77(1)
0018      00 0001(1) 114,114,113
0019      113 00 0001 - 0001(1) 114,110,110
0020      114 0001 = 1
0021      C
0022      ****0001 NO ERROR. PRINT ERROR MESSAGE****
0023      WRITE 00,1100001,77(1),77(2)
0024      110 FORM 000- ****0001 INPUT ERROR. ASSIGNED 0001 NO. 1,000,000000,1
0025      13,70,1,70,1)
0026      C
0027      C
0028      ****READ MATERIAL PROPERTIES IN RECORDS 01-00****
0029      110 00 = 0001
0030      00 = 00 + 00
0031      CALL READ0(1,70(1),000,00)
0032      C
0033      C
0034      TEST TEMPERATURE FOR VALID VALUE.
0035      10 00 77(2) 100,100,107
0036      100 WRITE 00,1000001,77(2),70(1)
0037      100 FORM 100- ****0001 TEMPERATURE ERROR. 0001 NO.70,1,00 READ.77,1
0038      1,000 000. ASSIGNED TEMP=77,1,00 000. 1
0039      C
0040      C
0041      **USE FIRST TEMPERATURE**
0042      77(2) = 70(1)
0043      C
0044      C
0045      **INTERPOLATE, FIT AND PRINT**
0046      107 CALL 0001
0047      C
0048      00 10 00
0049      10 0001(0) - 77(1) 10,20,10
0050      10 77(1) = 0001(0)
0051      00 10 112
0052      14 0001(0) - 77(2) 1001,000,001
0053      001 0001(0) - 77(1) 1111,000,11
0054      000 77(2) = 0010(0)
0055      00 10 104
0056      00 K = 20+J - 20
0057      00 01 1-1,30
0058      00 = K + 1
0059      70(1) = 70(1)
0060      01 CONTINUE
0061      0001 - 1) 20,20,100
0062      20 0010(0) 0001,0001,0000
0063      0001 CONTINUE
0064      CALL 0001
0065      0000 CONTINUE
0066      100 CONTINUE
0067      000 00 = 0001
0068      00 = 00 + 00
0069      CALL WRITE(1,70(1),100,00)
0070      C
0071      BREAKPOINT OUTPUT MAXIMUM PRINT CASE
0072      0010(0) 0000,0000,0000
0073      0000 CONTINUE
0074      WRITE(0,00) 0001
0075      00 FORM 100,00,1000000 0001 00,10,000,
0076      1 0000 0001 - 0010(0)
0077      00 00 1-1,100,0
0078      00 = 0 + 0
0079      WRITE(0,00) 00,70(1),1-0,0,1)

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04/05/74	INPUT LISTING	AVIATION CHART SET - 0400	FIRST PUBLICATION
04/05	***	CONTENTS	***
0401	00 FORM 10 IN 10,10,10,01		
0402	04 CONTINUE		
0403	000 CONTINUE		
0404	RETURN		
0405	00		
0406	C		
0407	C *****		
0408			
0409	C *****		
0410			
0411	C *****		
0412			
0413	C *****		
0414			
0415	C *****		
0416			
0417	C *****		
0418			
0419	C *****		
0420			
0421	C *****		
0422			
0423	C *****		
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0425	C *****		
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0435	C *****		
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0437	C *****		
0438			
0439	C *****		
0440			
0441	C *****		
0442			
0443	C *****		
0444			
0445	C *****		
0446			
0447	C *****		
0448			
0449	C *****		
0450			
0451	C *****		
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0492			
0493	C *****		
0494			
0495	C *****		
0496			
0497	C *****		
0498			
0499	C *****		
0500			

PROGRAM TABLE OF CONTENTS AND REFERENCES
OF
SECOND FUSELAGE OVERLAY

FORTRAN MODULE SECOND FUSELAGE OVERLAY

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - PROCEDURES

(000002)	2.04	10	(000020)	2.03	(000020)	2.03
(000070)	2.10	20	(000037)	2.00	(000037)	2.00

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE BLANKS

(000047)	5.01	BLINDS	(001400)	20.21-X
(000004)	5.03	10		
(000005)	5.04	12	(000003)	5.02
(000000)	5.05	20	(000005)	5.03
(000114)	5.06	150	(000004)	5.07
(000117)	5.10	151		
(000110)	5.11	152	(000110)	5.00
(000101)	5.13	200	(000115)	5.09
(000123)	5.15	153	(000120)	7.01
(000124)	5.16	154	(000121)	5.12
(000000)	5.01	110	(000004)	5.07
(000101)	5.02	110	(000100)	7.00
(000102)	5.03	111		
(000103)	5.04	112		
(000105)	5.05	112	(000101)	5.02
(000120)	5.07	114	(000102)	5.03
(000100)	5.08	115	(000107)	5.05
(000111)	5.10	117		
(000120)	5.11	150	(000121)	5.12
(000127)	5.12	157	(000125)	5.10
(000120)	5.14	150		
(000120)	5.15	150	(000120)	5.13
(000133)	5.16	161		
(000120)	5.19	170	(000123)	5.15
(000142)	5.21	175	(000127)	5.20
(000143)	5.22	177	(000141)	7.02
(000145)	5.24	178		
(000140)	5.25	180	(000144)	5.23
(000140)	5.26	181		
(000130)	7.01	173	(000137)	5.20
(000140)	7.02	174		
(000152)	7.03	180	(000004)	5.07
(000150)	7.05	181		
(000157)	7.06	185	(000154)	7.04
(000100)	8.01	210	(000104)	5.14
(000100)	8.02	212	(000373)	10.00
(000170)	8.04	214		
(000173)	8.05	215	(000171)	9.03
(000175)	8.07	217		
(000220)	8.08	400	(000174)	9.05
(000027)	8.09	410	(000203)	10.01
(000000)	8.10	420		
(000170)	9.01	250	(000205)	9.00
(000101)	9.03	251	(000104)	9.14
(000103)	9.04	252	(000100)	9.02
(000107)	9.05	253	(000210)	10.04
(000100)	9.07	254	(000000)	10.05
(000100)	9.08	255		
(000101)	9.09	257	(000105)	9.05
(000100)	9.11	258	(000100)	9.07
(000104)	9.12	260		
(000107)	9.15	261	(000102)	9.10
(000100)	9.16	270	(000107)	9.05
(000200)	9.18	275	(000100)	9.14
			(000201)	9.17

04/10/74 TABLE OF CONTENTS AND REFERENCES

AUTOFLOW CHART SET - SHEEP
REFERENCES (SOURCE SEQUENCE NO. AND PAGE/BOX)

PAGE 2

CARD ID	PAGE/BOX	NAME	REFERENCES
(000207)	9.10 277		(000209) 10.02
(000209)	9.21 278		
(000210)	9.32 280		(000208) 9.20
(000213)	9.25 281		
(000203)	10.01 273		(000201) 9.17
(000204)	10.02 274		
(000216)	10.03 290		(000104) 5.14
(000219)	10.05 291		
(000221)	10.06 295		(000210) 10.04
(000231)	10.07 430		(000235) 8.08
(000233)	10.08 500		(000230) 8.09

CHART TITLE - HIGH-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE CUTOUT

(000243)	13.01 CUTOUT	(001300)	56.08-X
(000263)	13.02	(000206)	13.03
(000205)	13.03 10		
(000209)	13.06	(000376)	15.35
(000270)	13.07 101		
(000270)	13.09 102		
(000273)	13.10 104	(000271)	13.08
(000274)	13.11 105		
(000275)	13.12 120	(000268)	13.05
(000280)	13.13 122		
(000281)	13.14 124		
(000275)	13.15 108	(000273)	13.10
(000276)	13.16 110		
(000277)	13.17 112	(000275)	13.15
(000294)	13.18 120	(000260)	13.13
(000287)	13.19 150	(000279)	13.12
(000288)	13.20 151	(000203)	13.14
(000289)	13.21 152		
(000290)	13.22 153	(000288)	13.20
(000291)	13.23 155		
(000293)	13.25 157		
(000294)	13.26 159	(000282)	13.24
(000295)	13.27 161		
(000296)	13.28 163	(000294)	13.26
(000297)	13.29 165		
(000298)	13.30 167	(000295)	13.28
(000300)	13.32 168		
(000302)	13.34 171		
(000303)	13.35 173	(000301)	13.33
(000305)	14.01 180	(000298)	13.32
(000306)	14.02 181		
(000307)	14.03 182		
(000308)	14.04 183	(000305)	14.02
(000309)	14.05 185		
(000311)	14.07 187		
(000312)	14.08 188	(000310)	14.06
(000313)	14.09 191		
(000314)	14.10 193	(000312)	14.08
(000315)	14.11 195		
(000316)	14.12 196	(000314)	14.10
(000318)	14.14 197		
(000320)	14.16 198		
(000321)	14.17 199	(000316)	14.16
(000323)	14.18 200	(000270) 13.17	(000207) 13.19
(000324)	14.19 201	(000305) 14.01	(000307) 14.03
(000325)	14.21 202	(000299) 13.21	(000299) 13.21
(000326)	14.22 202	(000300) 14.04	(000299) 13.31
(000327)	14.23 204	(000317) 14.13	(000304) 13.35
(000328)	14.24 202		
(000327)	14.25 204	(000325)	14.20
(000328)	14.26 206		
(000329)	14.27 208	(000327)	14.25
(000330)	14.28 210		

04/10/74	TABLE OF CONTENTS AND REFERENCES		AUTOFLOW CHART SET - SHEEP		PAGE 3
CARD ID	PAGE/BOX	NAME	REFERENCES (SOURCE SEQUENCE NO. AND PAGE/BOX)		
(000331)	14.20	212	(000320)	14.27	
(000330)	15.01	220	(000334)	14.22	
(000341)	15.02	250	(000333)	14.21	(000337) 14.23
(000342)	15.03	251			
(000343)	15.04	252			
(000344)	15.05	253	(000342)	15.03	
(000345)	15.06	255			
(000347)	15.08	257			
(000348)	15.09	259	(000348)	15.07	
(000349)	15.10	261			
(000350)	15.11	263	(000348)	15.09	
(000351)	15.12	265			
(000352)	15.13	267	(000350)	15.11	
(000354)	15.15	269			
(000356)	15.17	271			
(000357)	15.18	273	(000355)	15.16	
(000359)	15.19	280	(000344)	15.05	
(000360)	15.20	281			
(000361)	15.21	282			
(000362)	15.22	283	(000360)	15.20	
(000363)	15.23	285			
(000365)	15.25	287			
(000366)	15.26	289	(000364)	15.24	
(000367)	15.27	291			
(000368)	15.28	293	(000366)	15.26	
(000369)	15.29	295			
(000370)	15.30	296	(000368)	15.28	
(000372)	15.32	297			
(000374)	15.34	298			
(000375)	15.35	299	(000373)	15.33	
(000376)	15.36	300	(000332) 14.29	(000341) 15.02	(000343) 15.04
			(000359) 15.19	(000361) 15.21	(000362) 15.22
					(000353) 15.14
					(000371) 15.31
					(000398) 15.18

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE CVPRES

(000472)	18.01	300	(000420)	18.07	
(000485)	18.02	CVPRES	(001120)	43.11-X	
(000417)	18.05		(000418)	18.06	
(000418)	18.06	10			
(000422)	18.08	100	(000420)	18.07	
(000424)	18.09	102	(000430)	18.03	
(000427)	18.11	110	(000425)	18.10	
(000428)	18.12	115	(000425)	18.10	
(000431)	18.15		(000430)	18.13	
(000435)	19.01	200	(000420)	18.07	
(000436)	19.02	202			
(000441)	19.04	210	(000472)	18.01	(000435) 19.01
(000446)	19.06	212	(000444)	19.05	
(000447)	19.07	214	(000444)	19.05	
(000449)	19.08	216	(000447)	19.07	
(000450)	19.09	218	(000447)	19.07	
(000452)	20.01	220	(000450)	19.09	
(000451)	20.04	230	(000450)	19.09	
(000458)	20.07	252			
(000472)	20.08	400	(000433)	18.15	(000450) 20.03
(000475)	20.09	402			(000457) 20.06
(000480)	20.11	404			(000470) 20.07
(000482)	20.14		(000481)	20.12	
(000483)	20.14	420	(000475)	20.08	(000470) 20.10
(000484)	20.15	422			
(000488)	21.02	424			
(000489)	21.05		(000489)	21.03	
(000491)	21.05	440	(000483)	20.14	(000457) 21.01
(000492)	21.06	442			
(000495)	21.08	444			
(000498)	21.11		(000487)	21.08	
(000499)	21.11	500	(000491)	21.05	(000455) 21.07
(000501)	21.12	501	(000490)	21.11	

(000507)	21.13	000	(000400)	21.11
(000508)	21.14	002		
(000511)	21.17		(000510)	21.19
(000513)	21.20		(000512)	21.10
(000514)	21.20	020	(000507)	21.13
(000515)	21.21	022		
(000516)	22.03		(000517)	22.01
(000520)	22.06		(000518)	22.04
(000521)	22.06	040	(000514)	21.20
(000522)	22.07	042		
(000525)	22.10		(000524)	22.08
(000527)	22.13		(000526)	22.11
(000528)	22.13	1000	(000478)	10.01
			(000504)	21.12
			(000521)	22.06

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE DELAID

(000550)	25.01	00100	(000100)	0.00-X	(000131)	0.10-X	(000147)	0.20-X	(000173)	0.05-X	(000195)	9.13-X
			(000211)	0.23-X	(000209)	120.07-X						
(000553)	25.03	10										
(000556)	25.01	11	(000552)	25.02								
(000560)	25.03	12	(000555)	25.03								
(000563)	25.05	14										
(000564)	25.05	15	(000562)	25.04								
(000570)	25.09	20	(000513)	27.07	(000530)	27.15						
(000575)	25.12	21										
(000576)	25.13	22	(000574)	25.11								
(000577)	25.14	200										
(000578)	25.15	202	(000570)	25.13								
(000581)	25.17	310										
(000582)	25.18	315	(000580)	25.16								
(000589)	25.22	200										
(000592)	25.23	205	(000588)	25.21								
(000594)	25.25	208										
(000598)	25.28	217	(000591)	25.22	(000593)	25.24						
(000599)	25.28	210										
(000601)	25.29	215	(000597)	25.27								
(000603)	25.31	220										
(000605)	27.01	230	(000602)	25.30								
(000607)	27.02	235	(000600)	25.29	(000604)	25.31						
(000608)	27.03	300										
(000609)	27.04	305	(000607)	27.02								
(000611)	27.06	23	(000610)	27.05	(000610)	27.05						
(000612)	27.07	45	(000625)	27.13								
(000614)	27.08	24	(000610)	27.05								
(000616)	27.10	40	(000615)	27.09								
(000621)	27.12	41										
(000624)	27.13	42	(000620)	27.11								
(000626)	27.14	50	(000615)	27.09								
(000628)	27.15	30	(000615)	27.09	(000623)	27.12						
(000631)	27.16	00	(000610)	27.05								

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE FEED

(000641)	30.01	FEED	(001225)	53.03-X
(000688)	30.03	000	(000688)	30.02
(000703)	30.10	020		
(000705)	30.12	021	(000702)	30.09
(000709)	30.15		(000700)	30.13
(000711)	30.16	030	(000709)	30.08
(000719)	30.19	031		
(000720)	30.20	032	(000710)	30.10
(000721)	31.01	040	(000710)	30.10
(000722)	31.02	041		

04/10/74		TABLE OF CONTENTS AND REFERENCES		AUTOFLOW CHART SET - SHEEP				
CAPO ID	PAGE/BOX	NAME	REFERENCES	SOURCE	SEQUENCE NO.	AND PAGE/BOX		
(000723)	31.03	700	(000721)	31.01				
(000727)	31.05	710						
(000729)	31.06	800	(000606)	30.02	(000726)	31.04		
(000734)	31.09	71						
(000737)	31.12	72						
(000740)	31.13	74	(000736)	31.11				
(000742)	31.14	75	(000733)	31.08	(000739)	31.12		
(000743)	31.15	76						
(000745)	31.17	77						
(000748)	31.18	79	(000744)	31.16				
(000750)	31.19	80	(000742)	31.14	(000747)	31.17		
(000753)	31.22	90						
(000757)	32.01	95	(000752)	31.21				
(000760)	32.02	98	(000756)	31.22				
(000767)	32.06	101						
(000768)	32.07	102	(000766)	32.05				
(000762)	32.12	121						
(000764)	32.15		(000763)	32.13				
(000765)	32.16	130						
(000766)	32.17	131						
(000769)	32.20		(000768)	32.18				
(000780)	32.20	150	(000761)	32.11	(000764)	32.15	(000765)	32.16
(000794)	32.22	171						
(000796)	33.01	180	(000793)	32.21				
(000798)	33.02	185	(000795)	32.22				
(000802)	33.04	186						
(000804)	33.05	240	(000801)	33.03				
(000810)	33.09	241						
(000811)	33.10	250	(000809)	33.08				
(000813)	33.12	251						
(000816)	33.13	260	(000812)	33.11				
(000819)	33.15	261						
(000822)	33.17	265	(000820)	33.16				
(000825)	33.19	266						
(000826)	33.20	280	(000820)	33.16	(000824)	33.18		
(000827)	33.22		(000826)	33.20				
(000829)	33.23	290						
(000829)	33.24	291						
(000833)	33.27		(000831)	33.25				
(000834)	33.27	300	(000818)	33.14	(000827)	33.22	(000828)	33.23
(000838)	33.30	301						
(000840)	33.31	302	(000837)	33.29				
(000849)	33.34	311						
(000851)	34.01	312	(000848)	33.33				
(000854)	34.02	315	(000850)	33.34				
(000857)	34.04	316						
(000858)	34.05	320	(000856)	34.03				
(000865)	34.08	321						
(000866)	34.10	330	(000864)	34.08				
(000868)	34.12	331						
(000871)	34.13	340	(000867)	34.11				
(000874)	34.15	341						
(000876)	34.17	345						
(000878)	34.19	346						
(000880)	34.20	360	(000875)	34.16	(000878)	34.18		
(000881)	34.22		(000880)	34.20				
(000882)	34.23	361						
(000883)	34.24	363						
(000886)	34.27		(000885)	34.25				
(000887)	34.27	400	(000873)	34.14	(000881)	34.22	(000882)	34.23
(000894)	34.30	421						
(000896)	35.03		(000895)	35.01				
(000897)	35.04	423						
(000898)	35.05	425						
(000902)	35.08		(000900)	35.06				
(000903)	35.08	500	(000893)	34.28	(000896)	35.03	(000897)	35.04
(000908)	35.09	505						
(000910)	35.10	507	(000873)	37.17	(000876)	37.18		
(000917)	35.13	510	(000915)	35.12				
(000921)	35.01	520	(000919)	35.13				
(000923)	35.02	530						
(000926)	35.04	530						

CARD ID	PAGE/BOX	NAME	REFERENCES	(SOURCE SEQUENCE NO. AND PAGE/BOX)
(000970)	36.05	900	(000925)	36.03
(000970)	36.06	940	(000926)	36.04
(000980)	36.08	901	(000970)	36.05
(000931)	36.09	942	(000929)	36.07
(000936)	37.01	944	(000929)	36.07
(000937)	37.02	945		
(000940)	37.03	946	(000936)	37.01
(000942)	37.04	947	(000939)	37.02
(000943)	37.05	948		
(000945)	37.06	949	(000942)	37.04
(000949)	37.07	950	(000926)	36.04
(000955)	37.10	955	(000935)	36.10
(000956)	37.11	956	(000934)	37.09
(000961)	37.12	970	(000957)	37.10
(000964)	37.14	971		
(000969)	37.16	972		
(000974)	37.18	974	(000960)	37.15
(000985)	38.01	950	(000970)	36.05
(000987)	38.03	953		
(000988)	38.04	955	(000986)	38.02
(000989)	38.05	956		
(000990)	38.06	957	(000988)	38.04
(000991)	38.07	958		
(000992)	38.08	960	(000986)	38.02
(000994)	38.10	963	(000990)	38.06
(000995)	38.11	965	(000993)	38.09
(000996)	38.12	966		
(000997)	38.13	967	(000995)	38.11
(000998)	38.14	968		
(000999)	38.15	970	(000993)	38.09
(001004)	38.18	1000	(000997)	38.13
			(000992)	38.08

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE FCOVER

(001013)	41.01	FCOVER	(001320)	52.07-X
(001040)	41.03	20	(001047)	41.02
(001052)	41.04	30	(001047)	41.02
(001056)	41.05	40	(001050)	41.03
(001058)	41.07	41		
(001060)	41.08	50	(001094)	41.04
(001060)	41.11	70	(001086)	41.10
(001075)	42.01	75	(001086)	41.10
(001080)	42.02	80	(001073)	41.12
(001087)	42.05	85	(001085)	42.04
(001090)	42.06	90	(001085)	42.04
(001092)	42.08	91		
(001094)	42.10	92		
(001095)	42.11	94		
(001097)	42.12	96	(001094)	42.10
(001100)	42.13	100	(001091)	42.07
(001100)	42.17	150	(001093)	42.09
(001114)	43.01	151	(001096)	42.11
(001121)	43.04	180	(001105)	42.16
(001123)	43.06	181	(001112)	42.19
(001124)	43.07	182		
(001125)	43.08	185	(001122)	43.05
(001127)	43.09	200	(001124)	43.07
(001128)	43.10	201		
(001129)	43.11	250	(001127)	43.09
(001132)	43.13	251		
(001133)	43.14	252	(001131)	43.12
(001134)	43.15	253		
(001135)	43.16	260	(001133)	43.14
(001136)	43.17	261		
(001137)	43.18	262	(001135)	43.16
(001138)	43.19	263		
(001139)	43.20	270	(001137)	43.18

04/10/74		TABLE OF CONTENTS AND REFERENCES		AUTOFLOW CHART SET - SHEEP		PAGE 7						
CARD ID	PAGE/BOX	NAME	REFERENCES	(SOURCE SEQUENCE NO. AND PAGE/BOX)								
(001140)	43.21	271										
(001141)	43.22	272	(001139)	43.20								
(001142)	43.23	273										
(001144)	43.24	400	(001120)	43.10	(001141)	43.22						
(001146)	43.26	401										
(001149)	44.01	411	(001147)	43.27								
(001151)	44.02	412	(001147)	43.27								
(001163)	44.06	421										
(001164)	44.07	422	(001162)	44.05								
(001165)	44.08	423										
(001166)	44.09	430	(001164)	44.07								
(001167)	44.10	431										
(001168)	44.11	432	(001166)	44.09								
(001169)	44.12	433										
(001170)	44.13	440	(001168)	44.11								
(001171)	44.14	441										
(001172)	44.15	442	(001170)	44.13								
(001173)	44.16	443										
(001175)	44.17	500	(001145)	43.25	(001172)	44.15						
(001177)	44.18	501	(001175)	44.17								
(001180)	44.21	502										
(001190)	44.22	504	(001187)	44.20								
(001193)	44.23	510	(001189)	44.21								
(001195)	44.25	512										
(001198)	44.26	515	(001194)	44.24								
(001200)	44.28	517										
(001203)	44.29	520	(001199)	44.27								
(001205)	45.01	522										
(001208)	45.02	525	(001204)	44.30								
(001217)	45.05	550										
(001218)	45.07		(001217)	45.05								
(001219)	45.09		(001218)	45.07								
(001220)	45.11		(001219)	45.09								
(001221)	45.13		(001220)	45.11								
(001222)	45.15		(001221)	45.13								
(001223)	45.17		(001222)	45.15								
(001224)	45.17	700	(001175)	44.17								
(001226)	45.19	720										
(001232)	45.21	740	(001227)	45.18								
CHART TITLE - NON-PROCEDURAL STATEMENTS												
CHART TITLE - INTRODUCTORY COMMENTS												
CHART TITLE - SUBROUTINE FICMB												
(001250)	48.01	FICMB	(001323)	53.01-X								
CHART TITLE - NON-PROCEDURAL STATEMENTS												
CHART TITLE - INTRODUCTORY COMMENTS												
CHART TITLE - SUBROUTINE FPANEL												
(001267)	51.01	FPANEL	(002494)	95.12-X								
(001267)	51.03	100										
(001301)	51.04	200	(001266)	51.02								
(001269)	51.05	101	(001267)	51.03								
(001293)	51.07	150	(001267)	51.03								
(001303)	51.08	201	(001301)	51.04								
(001295)	51.09	151	(001293)	51.07								
(001298)	52.01	152	(001293)	51.07								
(001306)	52.02	250	(001301)	51.04								
(001310)	52.03	300	(001304)	51.08	(001296)	51.09	(001332)	53.07	(001337)	53.12	(001340)	53.13
(001313)	52.05	301	(001311)	52.04								
(001310)	52.06	400	(001308)	52.01	(001300)	52.02	(001311)	52.04	(001315)	52.05		
(001320)	52.07	410	(001310)	52.06								
(001323)	53.01	420	(001310)	52.06								
(001324)	53.02	500	(001321)	52.08								
(001327)	53.05	050										
(001328)	53.06	051										

CARD 10 PAGE/BOX NAME REFERENCES (SOURCE SEQUENCE NO. AND PAGE/BOX)

(001371)	93.00	1000	(001375)	93.04	(001374)	93.11
(001333)	93.10	092	(001377)	93.05		
(001375)	93.12	093				
(001330)	93.13	094	(001374)	93.11		

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE PUSH4L

(001371)	95.01	PUSH4L	(000000)	2.04-X
(001373)	95.02		(001374)	95.03
(001374)	95.03	2		
(001370)	95.06		(001370)	95.07
(001370)	95.07	5		
(001303)	95.10		(001304)	95.11
(001304)	95.11	10		
(001305)	95.13		(001415)	97.05
(001303)	95.16	40	(001301)	96.15
(001305)	95.18	50	(001301)	96.15
(001300)	95.19	70	(001304)	96.17
(001400)	96.21	90		
(001401)	96.22	91	(001300)	96.20
(001404)	96.24	9001		
(001410)	96.20		(001413)	97.03
(001413)	97.03	00		
(001414)	97.04	9002	(001403)	96.23
(001415)	97.05	100		

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE PUE10H

(001401)	00.01	PUE10H	(001417)	97.00-X
(001510)	00.00	10	(001500)	00.00
(001514)	00.11	15	(001512)	00.10
(001510)	00.12	20	(001512)	00.10
(001542)	01.07	30		
(001543)	01.08	40	(001541)	01.00
(001540)	01.11	100	(001500)	00.00
(001504)	01.12		(001744)	00.27
(001502)	01.13	101	(001500)	01.12
(001500)	01.16	103	(001507)	01.15
(001502)	01.17	110	(001507)	01.15
(001577)	02.01	200	(001550)	01.12
(001500)	02.03	201		
(001503)	02.04	210	(001570)	02.02
(001504)	02.05	211		
(001505)	02.06	212	(001503)	02.04
(001506)	02.07	213		
(001507)	02.08	215	(001505)	02.00
(001500)	02.09	216		
(001500)	02.10	220	(001507)	02.00
(001500)	02.11	202		
(001501)	02.12	204	(001500)	02.10
(001502)	02.13	205		
(001503)	02.14	230	(001502)	02.03
(001500)	02.16	235	(001507)	02.00
(001501)	02.17	240	(001501)	02.12
(001000)	02.20		(001507)	02.10
(001007)	02.22		(001005)	02.10
(001000)	03.01		(001006)	02.20
(001000)	03.03		(001007)	02.22
(001010)	03.07	245	(001000)	03.01
(001017)	03.08	250	(001015)	03.06
(001000)	03.11	251		
(001025)	03.12	253	(001021)	03.10
(001030)	03.15	201		

04/10/74	TABLE OF CONTENTS AND REFERENCES		AUTOFLOW CHART SET - SHEEP	
CARD ID	PAGE/BOX	NAME	REFERENCES	SOURCE SEQUENCE NO. AND PAGE/BOX
(001633)	03.16	310	(001629)	03.14
(001634)	03.17	316		
(001635)	03.18	330	(001632)	03.15
(001642)	03.21	335	(001633)	03.16
(001647)	03.22	340	(001641)	03.20
(001652)	04.01		(001651)	03.23
(001653)	04.03		(001652)	04.01
(001654)	04.05		(001653)	04.03
(001655)	04.07		(001654)	04.05
(001667)	04.13	360		
(001668)	04.14	400	(001666)	04.12
(001672)	04.16	401		
(001675)	04.17	410	(001671)	04.15
(001676)	04.18	411		
(001677)	04.19	412	(001675)	04.17
(001678)	04.20	414		
(001679)	04.21	415	(001677)	04.19
(001680)	04.22	416		
(001681)	04.23	420	(001679)	04.21
(001682)	04.24	422		
(001683)	04.25	424	(001681)	04.23
(001684)	04.26	426		
(001685)	04.27	430	(001674)	04.16
(001690)	04.29	435	(001679)	04.21
(001693)	04.30	440	(001683)	04.25
(001698)	04.33		(001689)	04.28
(001699)	04.35		(001697)	04.31
(001700)	05.01		(001698)	04.33
(001701)	05.03		(001699)	04.35
(001702)	05.07	445	(001700)	05.01
(001709)	05.08	450		
(001714)	05.11	451	(001707)	05.06
(001715)	05.12	452	(001713)	05.10
(001721)	05.16	452		
(001723)	05.17	454	(001720)	05.15
(001726)	05.19	456		
(001728)	05.20	458	(001725)	05.18
(001744)	05.27	500	(001574)	01.22
(001746)	05.29	600	(001746)	05.29
(001755)	06.01	615	(001753)	05.31
(001756)	06.02	620	(001753)	05.31
(001765)	06.16	630		
(001766)	06.17	640	(001764)	06.15
(001768)	06.19	700	(001746)	05.29
(001768)	06.22		(001814)	06.31
(001768)	06.24	702		
(001800)	06.25	704	(001768)	06.23
(001814)	06.31	710		

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE GJ10C0

(001823)	09.01	GJ10C0	(001393)	56	16-X			
(001895)	09.10	2						
(001896)	09.11	10						
(001897)	09.12	20	(001898)	09.22	(002062)	71.10	(002072)	72.07
(001898)	09.13	40						
(001899)	09.14	50						
(001900)	09.15	55						
(001901)	09.16	70	(001900)	09.13				
(001902)	09.17	100	(001907)	09.12	(001909)	09.14	(001900)	09.15
(001903)	09.18	110						
(001904)	09.19	120	(001912)	09.27	(001913)	09.28		
(001906)	09.22		(001907)	09.20				
(001940)	09.23	300	(001900)	09.15	(001991)	09.16		
(001943)	09.25	303						
(001911)	09.26	300	(001902)	09.17				
(001912)	09.27	310						

04/10/74	TABLE OF CONTENTS AND REFERENCES		AUTOFLOW CHART SET - SHEEP				PAGE 10	
CARD ID	PAGE/BOX	NAME	REFERENCES	SOURCE	SEQUENCE NO.	AND PAGE/BOX		
(001013)	00.20	020						
(001000)	70.01	130	(001003)	00.10				
(001004)	70.04		(001003)	70.02				
(001005)	70.05	130						
(001014)	70.07	250	(001011)	00.20				
(001047)	70.00	301	(001013)	00.20	(001014)	70.07		
(001050)	70.10	305						
(001054)	70.11	310	(001042)	00.24	(001045)	00.25	(001040)	70.00
(001056)	70.13	311						
(001057)	70.14	312						
(001058)	70.15	314	(001055)	70.12				
(001060)	70.16	316	(001056)	70.13				
(001061)	70.17	317						
(001064)	70.18	320	(001055)	70.12	(001060)	70.16		
(001067)	70.20	321						
(001068)	70.21	322						
(001062)	70.23	331	(001066)	70.10				
(001073)	70.24	330	(001067)	70.20				
(001075)	70.25	332	(001064)	70.23				
(001017)	71.01	400	(001068)	00.11				
(001024)	71.04	409	(001065)	00.10				
(001025)	71.05	500						
(001026)	71.06	510						
(001027)	71.07	520						
(001028)	71.08	530						
(001034)	71.09	600	(001028)	71.00	(001031)	71.13		
(001029)	71.11	550	(001027)	71.07				
(001030)	71.12	560						
(001031)	71.13	570						
(001005)	71.14	335	(001001)	70.20				
(001000)	71.15	340	(001072)	70.22	(001001)	70.20	(002016)	70.10
			(002003)	74.10			(002021)	70.20
(002075)	71.17	000	(001009)	71.16				
(001002)	72.01	400	(001000)	70.15				
(001006)	72.03	401						
(002005)	72.04	700	(001005)	72.02	(002002)	72.10	(002027)	73.02
(002071)	72.07	710					(002032)	73.05
(001000)	72.08	402	(001000)	72.03			(002044)	74.00
(002002)	72.10	403	(001006)	72.03				
(002003)	72.11	406						
(002005)	72.12	407	(002003)	72.11				
(002007)	72.14	408	(002003)	72.11				
(002000)	72.15	410						
(002017)	72.19	420	(002007)	72.14				
(002024)	73.01	450	(001000)	70.15				
(002000)	73.03	451						
(002031)	73.04	452	(002020)	73.03				
(002032)	73.05	453	(002020)	73.03				
(002033)	73.07	454						
(002036)	74.01	455	(002033)	73.07				
(002037)	74.03	456	(002033)	73.07				
(002038)	74.04	457						
(002039)	74.05	458						
(002040)	74.06	459						
(002045)	74.09	460						
(002046)	74.10	461						
(002049)	74.12	465	(002037)	74.03	(002030)	74.04	(002030)	74.05
							(002040)	74.00
(002050)	74.13	466						
(002050)	74.17	460	(002040)	74.12				
(002005)	74.19	050	(001000)	71.16				
(002002)	74.21	1000	(001004)	70.04	(001010)	70.05	(001014)	70.07
			(001005)	71.00	(001037)	71.10	(001024)	71.04
					(001070)	71.11	(001030)	71.12
							(001025)	71.05
							(001031)	71.13

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE 0,0000

(002101) 77.01 0,0000 (041005) 90.10-X

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE I1LON6

(002110)	00.01	I1LON6	(002401)	00.00-X
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(002157)	00.12	100	(002195)	00.11
(002104)	00.15	101		
(002100)	00.16	110	(002163)	00.14
(002100)	00.17	111		
(002175)	01.01	115	(002100)	00.16
(002170)	01.02	200	(002155)	00.11
(002101)	01.03	202	(002170)	01.02
(002103)	01.04	203	(002170)	01.02
(002107)	01.06		(002100)	01.07
(002100)	01.07	204		
(002100)	01.10	250	(002102)	01.03
(002100)	01.12	251	(002107)	01.11
(002201)	02.01	252	(002107)	01.11
(000000)	02.04		(002211)	02.06
(000011)	02.06	253		
(000210)	02.08	300	(002200)	01.12
(000210)	02.10	301	(002217)	02.00
(000021)	02.11	302	(002217)	02.00
(000000)	02.14		(002231)	02.16
(000231)	02.16	303		
(000230)	02.18	350	(002220)	02.10
(000230)	02.20	351	(002237)	02.10
(000243)	02.22		(002246)	02.23
(000246)	02.23	352		
(000251)	02.25	400	(002237)	02.10
(000257)	02.27	1000	(002107)	00.15

(002174) 00.10 (002170) 01.01

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE I2LON6

(000000) 00.01 I2LON6 (002403) 00.11-X

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE LOCK

(000000)	00.01	LOCK	(001307)	00.13-X
(000200)	00.03		(002310)	00.04
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(002310)	00.07		(002370)	00.03
(002304)	00.12	10		
(002327)	00.13	20	(002323)	00.11
(002330)	00.15	30	(002300)	00.14
(002331)	00.16	31		
(002330)	00.01	40	(002300)	00.14
(002330)	00.02	41		
(002341)	00.04	50	(002320)	00.14
(002343)	00.05	51	(002330)	00.15
(002344)	00.06	52	(002344)	00.16
(002352)	00.08	70	(002371)	00.04
(002353)	00.09	71		
(002300)	00.11	500	(002341)	00.04
(002351)	00.12	502	(002343)	00.05
(002357)	00.15	501	(002350)	00.07
(002300)	00.16	510	(002352)	00.08
(002300)	00.17	511		
(002370)	00.10	520	(002300)	00.10
(002371)	00.10	521		

04/10/74
TABLE OF CONTENTS AND REFERENCES

AUTOFLOW CHART SET - SHEEP
REFERENCES (SOURCE SEQUENCE NO. AND PAGE/07.1)

PAGE 12

CARD ID	PAGE/00H	NAME	REFERENCES
(002372)	04.20	530	(002370) 04.10
(002373)	04.21	531	
(002374)	00.01	940	(002372) 00.20
(002375)	00.02	941	
(002376)	00.03	800	(002370) 00.11 (002374) 00.01
(002383)	00.07		(002380) 00.00
(002386)	00.08	100	
(002393)	00.13		(002390) 00.14
(002396)	00.14	110	
(002403)	00.18		(002400) 00.10
(002406)	00.19	120	

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE L0406

(002415)	03.01	L0406	(001380) 56.10-X
(002430)	03.02	100	(002435) 03.01
(002442)	03.04	101	
(002472)	03.05	150	(002441) 03.03
(002474)	03.06	151	(002472) 03.05
(002476)	03.08	152	(002472) 03.05
(002483)	04.01	110	(002444) 04.03
(002444)	04.03	103	(002441) 03.03
(002445)	04.04	104	
(002447)	04.05	105	(002443) 03.04 (002450) 04.02
(002463)	04.06	120	(002444) 04.03
(002464)	04.07	121	(002471) 04.10
(002466)	04.08	107	(002447) 04.05
(002467)	04.09	122	(002463) 04.06
(002468)	05.01	109	(002447) 04.05
(002470)	05.02	200	(002436) 03.01
(002481)	05.03	210	(002470) 05.02
(002483)	05.04	211	(002500) 05.15 (002505) 05.10 (002506) 06.01 (002511) 05.02
(002485)	05.06	220	
(002488)	05.07	230	(002477) 03.00 (002485) 04.07 (002490) 04.08 (002481) 05.01 (002484) 05.05
(002481)	05.09	231	
(002483)	05.11	232	(002480) 05.00
(002484)	05.12	240	(002482) 05.10
(002486)	05.14	250	
(002487)	05.15	251	
(002512)	05.16	1000	(002486) 05.13 (002502) 05.10
(002511)	05.17	252	(002486) 05.14
(002513)	05.19	253	
(002506)	06.01	294	(002502) 05.10
(002509)	06.02	300	(002470) 05.02

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE MINFR

(002520)	00.01	MINFR	(001324) 53.02-X
(002596)	00.04	11	
(002597)	00.05	12	(002595) 00.03
(002598)	00.06	10	
(002560)	00.08	14	
(002562)	00.09	20	(002567) 00.05 (002598) 00.07
(002570)	00.13	21	
(002578)	00.14	22	(002560) 00.12
(002575)	00.16	21	
(002582)	100.02		(002581) 00.10
(002589)	100.05	232	(002585) 100.03
(002594)	100.08	234	(002580) 100.06
(002590)	100.11	235	(002595) 100.09
(002603)	100.14		(002602) 100.12
(002604)	100.16		(002603) 100.14
(002605)	100.18	20	(002574) 00.10

CARD NO PAGE/BOX NAME REFERENCES (SOURCE SEQUENCE NO. AND PAGE/BOX)

(002606)	100.10		(002604)	100.10
(002610)	100.20 30		(002608)	100.10
(002611)	100.21 31			
(002613)	100.22 32		(002610)	100.20
(002615)	100.24 401			
(002616)	100.25 403		(002614)	100.23
(002617)	100.27		(002616)	100.25
(002618)	100.28 33		(002612)	100.21
(002625)	101.01 36		(002623)	100.31
(002631)	101.04 37		(002623)	100.31
(002632)	101.05 34			
(002636)	101.07 35		(002631)	101.04
(002641)	101.08 38		(002629)	101.03
(002648)	102.01 40			
(002650)	102.02 41		(002647)	101.12
(002652)	102.04 42			
(002654)	102.07 44		(002651)	102.03
(002656)	102.07		(002653)	102.05
(002658)	102.08 50			
(002662)	102.11 50		(002702)	103.13
(002663)	102.12		(002664)	103.03
(002676)	102.17 94			
(002678)	102.18 95		(002676)	102.17
(002681)	103.01 98		(002676)	102.17
(002682)	103.02 97		(002676)	102.16
(002684)	103.03 100		(002676)	102.18
(002686)	103.06 110		(002689)	103.10
(002690)	103.09 111			
(002698)	103.10 112		(002687)	103.08
(002700)	103.11 150		(002697)	103.08
(002701)	103.12 151			
(002704)	103.14 160		(002700)	103.11
(002705)	103.15 161		(002702)	103.13
(002706)	103.16 162		(002704)	103.14
(002711)	103.17 300		(002680)	100.19
(002718)	103.19 5001			
(002723)	103.22		(002706)	103.25
(002726)	103.25 63			
(002727)	103.26 5002		(002717)	103.18

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE MINPLAN

(002728)	105.01 20		(002750)	105.05
(002746)	105.02 MINPLAN		(000614)	27.00-X
(002750)	105.07 30			
(002753)	105.09 31			
(002755)	105.10 50		(002754)	105.01
(002770)	105.11 100		(002750)	105.05
(002771)	105.12 1000		(002752)	105.08
(002785)	105.14 50		(002757)	105.14
			(002753)	105.09

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE MISCHT

(002788)	109.01 MISCHT		(001410)	57.00-X
(002810)	109.04 10			
(002820)	110.01 20		(002817)	100.03
(002821)	110.02 30		(002810)	100.04
(002824)	110.04 41			
(002825)	110.05 45		(002823)	110.03
(002826)	110.06 46			
(002827)	110.07 47		(002825)	110.05
(002828)	110.12 50		(002826)	110.11
(002844)	110.14 51			

CARD NO	PAGE/BOX	NAME	REFERENCES	SOURCE	SEQUENCE NO.	AND PAGE/BOX
(002040)	110.15	100	(002040)	110.11	(002043)	110.13
(002050)	110.16	102				
(002063)	110.18	104				
(002095)	111.01	110	(002092)	110.17		
(002096)	111.02	112				
(002098)	111.03	120	(002094)	110.18	(002095)	111.01
(002099)	111.04	122	(002081)	111.06		
(002060)	111.05	124				
(002052)	111.07	130	(002050)	111.04		
(002067)	111.09	150	(002049)	110.15		
(002068)	111.10	152				
(002071)	111.12	154				
(002072)	111.13	160	(002070)	111.11		
(002074)	111.14	162				
(002075)	111.15	170	(002072)	111.12	(002073)	111.13
(002076)	111.16	172	(002078)	111.18		
(002077)	111.17	174				
(002079)	111.19	180	(002076)	111.16		
(002083)	111.21	200	(002047)	110.14	(002067)	111.09

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE PART 11

(002093)	114.01	PART 11	(001410)	57.07-X
(002013)	114.03		(002014)	114.04
(002014)	114.04	100		

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE SECOST

(002023)	117.01	SECOST	(001420)	57.08-X
(002051)	117.02		(002052)	117.03
(002052)	117.03	10		
(002056)	117.05	110	(002054)	117.04
(002057)	117.06	111		
(002060)	117.08	112	(002058)	117.07
(002062)	117.10	113		
(002063)	117.11	114		
(002065)	117.12	115	(002062)	117.10
(002067)	117.13	120	(002050)	117.07
(002068)	117.14	121	(002061)	117.09
(002071)	118.01	122	(002060)	117.15
(002072)	118.03	123		
(002074)	118.04	124		
(002076)	118.05	125	(002073)	118.03
(002078)	118.06	130	(002094)	117.04
			(002075)	118.04
(002079)	118.07	131		
(002081)	118.09	132		
(002082)	118.10	133		
(002085)	118.11	135	(002070)	118.06
(002083)	118.12	136	(002081)	118.08
(002087)	118.13	138	(002080)	118.15
			(002089)	119.07
(002088)	118.15	137	(002085)	118.11
(002089)	118.16	138		
(002093)	118.17	146	(002093)	118.12
(002095)	119.01	140	(002093)	118.12
(002098)	119.02	143	(002095)	118.17
(002099)	119.03	141		
(002090)	119.04	142	(002098)	119.02
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(002099)	119.07	151		
(002010)	119.08	152		
(002013)	119.10	153	(002012)	119.08
			(002012)	119.08
(002015)	119.11	154	(002012)	119.08
			(002012)	119.09

09/10/74		TABLE OF CONTENTS AND REFERENCES		AUTOFLOW CHART SET - SHEEP				PAGE 15
CARD NO	PAGE/BOOK	NAME	REFERENCES	SOURCE SEQUENCE NO. AND PAGE/BOOK				
(003017)	120.01	155	(003012)	119.00				
(003020)	120.02	160	(003020)	119.00	(003020)	119.10	(003021)	119.04
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(003024)	120.05	162	(003022)	120.04				
(003025)	120.06	163	(003024)	120.05	(003020)	121.01		
(003026)	121.01	164	(003024)	120.05				
(003031)	121.02	165						
(003034)	121.04	166						
(003035)	121.05	167	(003033)	121.03				
(003037)	121.06	170	(003020)	120.02	(003022)	120.04	(003020)	120.05
(003038)	121.07	171						
(003040)	121.09	172						
(003040)	121.10	173	(003040)	121.09				
(003042)	121.11	180	(003037)	121.06	(003030)	121.00	(003043)	121.17
(003043)	121.12	181					(003049)	121.22
(003045)	121.14	182						
(003046)	121.15	183						
(003041)	121.16	173						
(003042)	121.17	174						
(003046)	121.18	184	(003025)	121.14				
(003044)	121.19	175	(003041)	121.10				
(003047)	121.21	176						
(003048)	121.22	177	(003046)	121.20				
(003048)	121.23	185	(003048)	121.18				
(003043)	122.01	189	(003048)	121.18				
(003048)	122.02	190	(003042)	121.11	(003049)	121.13	(003047)	121.15
(003047)	122.03	191					(003041)	121.23
(003048)	122.05	192						
(003071)	122.06	193	(003069)	122.05				
(003074)	123.01	195	(003069)	122.05				
(003076)	123.03	196						
(003077)	123.04	197	(003075)	123.02				
(003079)	123.05	200	(003068)	122.02	(003068)	122.04	(003072)	122.08
(003080)	123.06	201						
(003082)	123.08	202						
(003084)	123.09	203	(003082)	123.08				
(003085)	123.10	204						
(003087)	123.11	205	(003084)	123.09				
(003090)	124.01	206	(003082)	123.08				
(003091)	124.02	207						
(003093)	124.03	208	(003090)	124.01				
(003095)	124.04	210	(003079)	123.05	(003081)	123.07	(003088)	123.10
(003098)	124.05	211					(003088)	123.11
(003098)	124.07	212					(003082)	124.02
(003100)	124.08	213	(003098)	124.07				
(003101)	124.09	214						
(003103)	124.10	215	(003100)	124.08				
(003106)	125.01	216	(003098)	124.07				
(003107)	125.02	217						
(003108)	125.03	218	(003106)	125.01				
(003111)	125.04	220	(003098)	124.04	(003097)	124.06	(003102)	124.09
(003112)	125.05	221					(003104)	124.10
(003114)	125.07	222					(003100)	125.02
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(003117)	125.09	231						
(003119)	125.11	232						
(003127)	125.12	237	(003119)	125.11				
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(003129)	125.14	240						
(003130)	125.15	233						
(003121)	125.16	234						
(003122)	125.17	235						
(003125)	125.18	236	(003121)	125.16				
(003131)	126.01	239	(003127)	125.12				
(003132)	126.02	241						
(003133)	126.03	245	(003130)	125.14	(003124)	125.17	(003126)	125.18
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(003138)	126.05	251					(003120)	125.15
(003140)	126.06	260	(003137)	126.04				
(003141)	126.07	261						
(003143)	126.09	262						

04/10/74	TABLE OF CONTENTS AND REFERENCES		AUTOFLOW CHART SET - SHEEP		PAGE 10	
CARD NO	PAGE/BOOK	NAME	REFERENCES (SOURCE SEQUENCE NO. AND PAGE/BOOK)			
(003145)	126.11	270	(003145)	126.05	(003142)	126.00
(003146)	126.12	271				
(003148)	126.14	272				
(003150)	126.15	280	(003145)	126.11	(003147)	126.13
(003151)	126.16	281				
(003153)	126.18	282				
(003155)	126.19	290	(003150)	126.15	(003152)	126.17
(003156)	126.20	291				
(003158)	126.22	292				
(003160)	126.23	300	(003155)	126.19	(003157)	126.21
(003161)	126.24	301				
(003163)	126.26	302				
(003164)	126.27	303				
(003166)	126.28	304	(003163)	126.26		
(003168)	126.29	310	(003162)	126.25	(003165)	126.27
(003169)	126.30	311				
(003171)	126.32	313				
(003173)	126.33	320	(003168)	126.23	(003169)	126.29
(003174)	126.34	321			(003170)	126.31
(003176)	126.36	322				
(003177)	126.37	323				
(003179)	127.01	324	(003176)	126.36		
(003181)	127.02	330	(003175)	126.35	(003178)	126.37
(003182)	127.03	331				
(003184)	127.05	332				
(003185)	127.06	340	(003173)	126.33	(003181)	127.02
(003187)	127.07	341			(003183)	127.04
(003189)	127.09	342				
(003194)	127.10	346	(003189)	127.09		
(003195)	127.11	347	(003197)	128.01		
(003199)	127.12	343				
(003191)	127.13	344				
(003192)	127.14	345				
(003197)	128.01	348	(003194)	127.10		
(003198)	128.02	349	(003193)	127.14		
(003200)	128.05	357				
(003207)	128.06	360	(003205)	128.04		
(003212)	128.08	350	(003185)	127.05	(003188)	127.08
(003213)	128.10	351			(003195)	127.11
(003215)	128.12	352			(003199)	127.12
(003217)	128.14	353			(003191)	127.13
(003219)	128.15	354				
(003221)	128.01	365	(003216)	128.13		
(003223)	128.02	366	(003216)	128.13		
(003224)	128.03	361	(003212)	128.09	(003214)	128.11
(003225)	128.04	362			(003218)	128.14
(003226)	128.05	370			(003220)	128.15
(003227)	128.06	371	(003223)	128.02	(003225)	128.04
(003231)	128.09	372				
(003233)	128.11	380	(003226)	128.05	(003230)	128.08
(003235)	128.12	381	(003233)	128.11		
(003236)	128.13	382				
(003237)	128.14	383				
(003239)	128.16	384				
(003240)	128.17	385				
(003242)	128.18	386	(003238)	128.16		
(003245)	128.01	388	(003233)	128.11		
(003246)	128.02	391				
(003248)	128.04	392				
(003249)	128.05	393				
(003250)	128.06	394	(003248)	128.04		
(003251)	128.07	395				
(003253)	128.08	396	(003250)	128.06		
(003255)	128.09	400	(003235)	128.13	(003236)	128.15
(003256)	128.10	401	(003255)	128.07	(003249)	128.01
(003257)	128.11	402			(003247)	128.03
(003259)	128.13	403				
(003260)	128.14	404				
(003261)	128.15	405	(003259)	128.13		
(003262)	128.16	406				
(003264)	128.17	407	(003261)	128.15		

04/10/74	TABLE OF CONTENTS AND REFERENCES		AUTOFLOW CHART SET - SHEEP				PAGE 17
CARD 10	PAGE/BOX	NAME	REFERENCES (SOURCE SEQUENCE NO. AND PAGE/BOX)				
(003266)	130.10	410	(003271) 130.17	(003273) 130.10	(003295) 130.08	(003296) 130.10	(003298) 130.12
			(003263) 130.16				
(003267)	130.10	411					
(003268)	130.21	412					
(003270)	130.22	413					
(003271)	130.23	414	(003270) 130.21				
(003272)	130.24	415					
(003274)	131.01	417	(003271) 130.23				
(003276)	131.02	420	(003268) 130.20	(003273) 130.24			
(003277)	131.03	421					
(003278)	131.05	422					
(003280)	131.06	423					
(003281)	131.07	424	(003278) 131.05				
(003283)	131.08	430	(003266) 130.16	(003278) 131.02	(003278) 131.04		
(003284)	131.09	431					
(003285)	131.11	432					
(003287)	131.12	433					
(003288)	131.13	434	(003285) 131.11				
(003289)	131.14	435					
(003291)	131.15	436	(003288) 131.13				
(003293)	131.16	440	(003283) 131.08	(003295) 131.10	(003298) 131.14		
(003294)	131.17	441					
(003296)	131.19	442					
(003298)	131.20	443	(003296) 131.19				
(003300)	131.22	444					
(003311)	132.01	454	(003300) 132.06				
(003303)	132.02	445	(003296) 131.19				
(003305)	132.03	450	(003293) 131.16	(003295) 131.10	(003298) 131.21	(003301) 131.22	
(003306)	132.04	451					
(003308)	132.06	452					
(003309)	132.07	453					
(003313)	132.08	455	(003300) 132.06				
(003315)	132.09	460	(003312) 132.01	(003305) 132.03	(003307) 132.05	(003310) 132.07	
(003316)	132.10	461					
(003318)	132.12	462					
(003319)	132.13	463					
(003321)	132.14	464	(003318) 132.12				
(003323)	132.15	470	(003315) 132.09	(003317) 132.11	(003320) 132.13		
(003324)	132.16	471					
(003326)	132.18	472					
(003327)	132.19	473					
(003330)	132.21	474					
(003331)	132.22	475	(003329) 132.20				
(003332)	132.23	478	(003326) 132.18				
(003334)	133.01	480	(003323) 132.15	(003325) 132.17			
(003335)	133.02	481					
(003337)	133.04	482					
(003338)	133.05	483					
(003339)	133.06	485	(003337) 133.04				
(003341)	133.07	490	(003334) 133.01	(003336) 133.03			
(003342)	133.08	491					
(003344)	133.10	492					
(003345)	133.11	493					
(003347)	133.12	500	(003341) 133.07	(003343) 133.09	(003344) 133.10		
(003348)	133.13	501					
(003350)	133.15	502					
(003351)	133.16	503					
(003353)	133.17	510	(003347) 133.12	(003349) 133.14	(003350) 133.15		
(003354)	133.18	511					
(003356)	133.20	512					
(003357)	133.21	513					
(003358)	133.22	515	(003356) 133.20				
(003361)	133.23	520	(003353) 133.17	(003359) 133.19	(003358) 133.21		
(003362)	133.24	521					
(003364)	133.26	522					
(003365)	133.27	523					
(003367)	133.28	530	(003361) 133.23	(003363) 133.25	(003364) 133.26		
(003368)	133.29	531					
(003370)	134.01	532					
(003371)	134.02	533					
(003372)	134.03	534					
(003373)	134.04	535	(003371) 134.02				

TABLE OF CONTENTS AND REFERENCES			AUTOFLOW CHART SET - SHEEP			PAGE 10
CARD ID	PAGE/BOX	NAME	REFERENCES (SOURCE SEQUENCE NO. AND PAGE/BOX)			
(003375)	134.05	040	(003380)	133.30	(003370)	134.01
(003376)	134.06	041				
(003378)	134.08	042				
(003379)	134.09	043				
(003381)	134.11	050	(003367)	133.20	(003375)	134.05
(003382)	134.12	051			(003377)	134.07
(003384)	134.14	052			(003378)	134.08
(003385)	134.15	050	(003381)	134.11	(003383)	134.13
(003387)	134.16	051				
(003389)	134.18	052				
(003389)	134.19	070	(003388)	134.15	(003388)	134.17
(003393)	134.20	070				
(003394)	134.21	071				
(003395)	134.23	072				
(003398)	134.25	073				
(003400)	134.26	074	(003388)	134.24		
(003402)	134.27	075	(003400)	134.26	(003400)	134.28
(003405)	134.28	076	(003400)	134.26	(003400)	134.28
(003408)	134.29	077	(003400)	134.26	(003400)	134.28
(003409)	134.30	1000	(003382)	134.10	(003383)	134.20
					(003395)	134.22
					(003403)	134.27
					(003408)	134.28

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE SPRINT

(003410)	137.01	SPRINT	(001424)	57.13-X
(003505)	137.02	0001		
(003507)	137.10	135		
(003508)	137.20	137	(003506)	137.17
(003513)	138.10		(003510)	138.02
(003516)	138.22	174		
(003520)	138.25		(003522)	138.28
(003522)	138.28	170		
(003763)	139.24	0002	(003504)	137.01
(003770)	139.30		(003772)	139.30
(003772)	139.30	205		
(003774)	139.32		(003776)	139.35
(003775)	139.33	300		
(003778)	139.35	310	(003774)	139.32
(003810)	140.10	502		
(003800)	140.21	504	(003817)	140.10
(003800)	140.28	507		
(003800)	140.28	510	(003825)	140.25
(003834)	140.33	514		
(003835)	140.35	516	(003833)	140.32
(003837)	140.35	518		
(003839)	140.38	520	(003838)	140.35
(003840)	140.38	522		
(003842)	140.41	524	(003839)	140.38
(003845)	140.44	526		
(003847)	140.46	528	(003844)	140.43
(003851)	141.01	604		
(003853)	141.03	606	(003850)	140.53
(003854)	141.04	608		
(003855)	141.05	610	(003853)	141.03
(003857)	141.07	612		
(003858)	141.08	614	(003855)	141.05
(003870)	141.10	616		
(003872)	141.12	618	(003859)	141.08
(003873)	141.13	620		
(003875)	141.15	622	(003876)	141.12
(003876)	141.16	624		
(003877)	141.18	626	(003875)	141.15
(003878)	141.19	628		
(003880)	141.21	630	(003877)	141.18
(003880)	141.31	630		
(003882)	141.34	640	(003880)	141.30
(003883)	141.35	642		
(003885)	141.38	644	(003882)	141.34

CARD ID PAGE/BOX NAME REFERENCES (SOURCE SEQUENCE NO. AND PAGE/BOX)

(003902)	141.44	048	
(003904)	141.46	050	(003901) 141.43
(003905)	141.47	052	
(003907)	141.49	054	(003904) 141.46
(003908)	142.01	060	
(003910)	142.03	055	(003907) 141.49
(003911)	142.04	056	
(003913)	142.06	058	(003910) 142.03
(003916)	142.08	062	
(003918)	142.10	064	(003915) 142.07
(003919)	142.11	066	
(003921)	142.13	068	(003918) 142.10
(003922)	142.14	070	
(003924)	142.16	072	(003921) 142.13
(003925)	142.17	074	
(003927)	142.19	076	(003924) 142.16
(003930)	142.22	078	
(003932)	142.24	080	(003929) 142.21

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE SUPPLY

(003998)	151.01	SUPPLY	(001422) 57.11-X
(004041)	151.02		(004042) 151.03
(004042)	151.03	20	
(004045)	151.06		(004069) 151.14
(004069)	151.14	100	
(004073)	151.17		(004075) 151.18
(004075)	151.18	110	
(004078)	151.21		(004080) 151.22
(004080)	151.22	120	
(004087)	151.26	122	
(004088)	151.27	124	(004085) 151.25
(004091)	151.30	131	
(004092)	151.31	132	(004090) 151.28
(004100)	151.35	134	
(004101)	151.36	135	(004098) 151.34
(004103)	151.38	138	
(004104)	151.39	139	(004102) 151.37
(004105)	151.41		(004100) 151.42
(004109)	151.42	150	
(004112)	152.03		(004114) 152.04
(004114)	152.04	200	
(004116)	152.06		(004118) 152.07
(004118)	152.07	300	
(004120)	152.12	401	(004126) 152.11
(004124)	152.14	410	(004128) 152.11
(004142)	152.16	420	(004132) 152.13

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE MTDIST

(004152)	156.01	MTDIST	(001421) 57.10-X

CHART TITLE - NON-PROCEDURAL STATEMENTS

04/10/74

TABLE OF DIAGNOSTICS

AUTOFLOW CHART SET - SLEEP

PAGE 1

LOCATION		DIAGNOSTIC
CARD ID	PAGE/BOX	
(000010)	2.02	UNRECOGNIZED SYNTAX
(000035)	2.08	UNRECOGNIZED SYNTAX
(002310)	00.00	UNDEFINED - 'READY5' EXTERNAL REFERENCE
(002319)	00.09	UNDEFINED - 'READY5' EXTERNAL REFERENCE
(002301)	00.05	UNDEFINED - 'READY5' EXTERNAL REFERENCE
(002301)	00.10	UNDEFINED - 'READY5' EXTERNAL REFERENCE
(002401)	00.10	UNDEFINED - 'READY5' EXTERNAL REFERENCE

PROGRAM FLOW CHARTS
OF
SECOND FUSELAGE OVERLAY

09/10/79

AUTOFLOW CHART SET - SHEEP SECOND FUELAGE OVERLAY

PAGE 01

CHART TITLE - INTRODUCTORY COMMENTS

.....
PROGRAM FUELAGE
.....

CHART TITLE - PROCEDURES

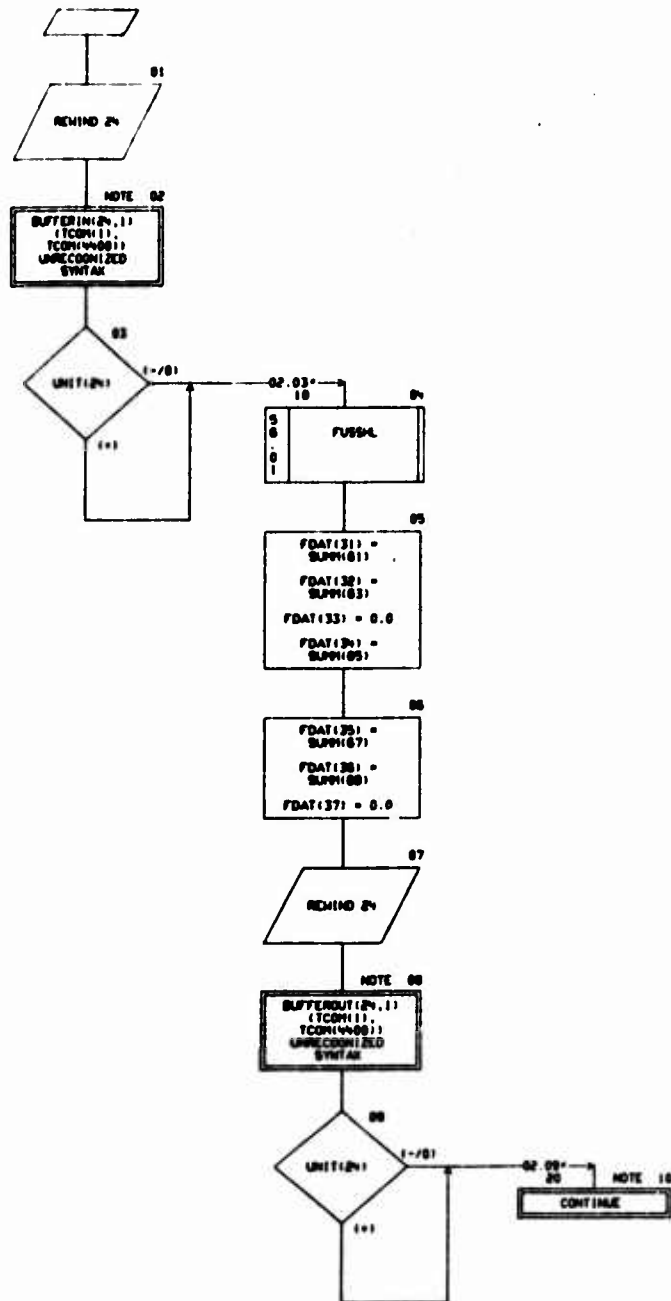


CHART TITLE - NON-PROCEDURAL STATEMENTS

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PROGRAM FUSE2  
COMMON TCON(400)  
COMMON /FBATT/ FBAT(60)  
DIMENSION SUPP(100)  
EQUIVALENCE (SUPP(1),TCON(400))
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CHART TITLE - INTRODUCTORY COMMENTS

.....
SUBROUTINE BLANKS
.....

CHART TITLE - SUBROUTINE BLOCKS

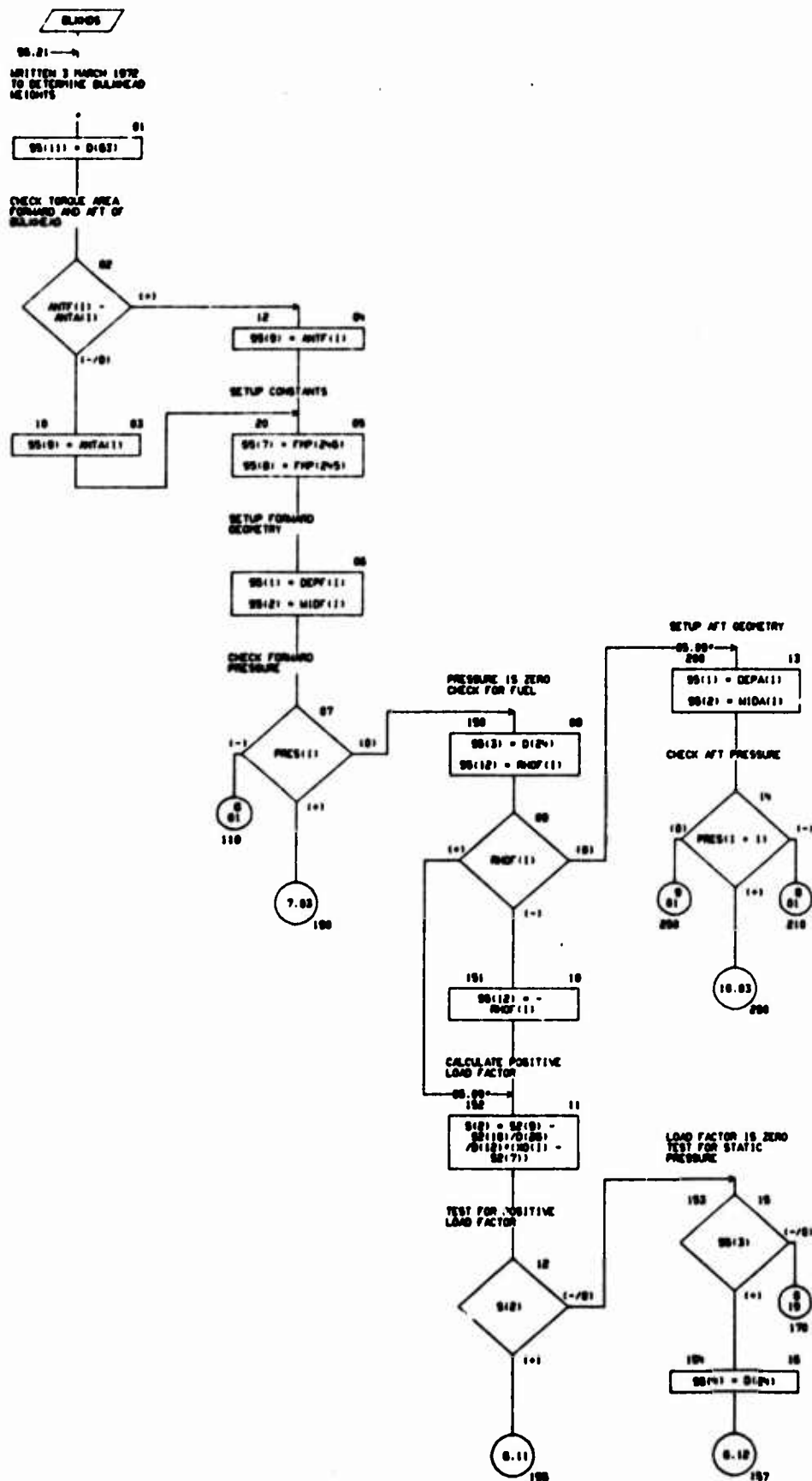


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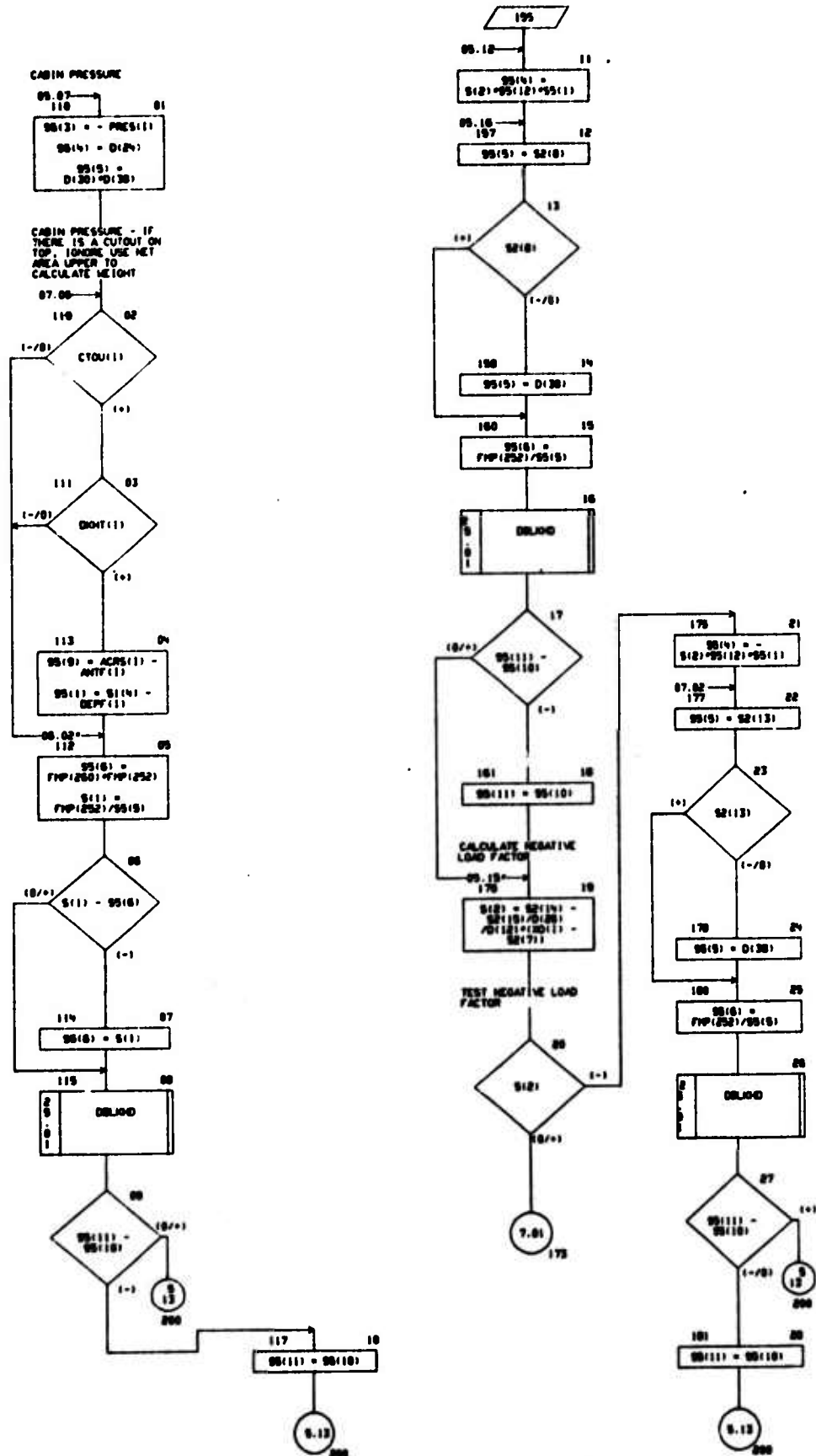
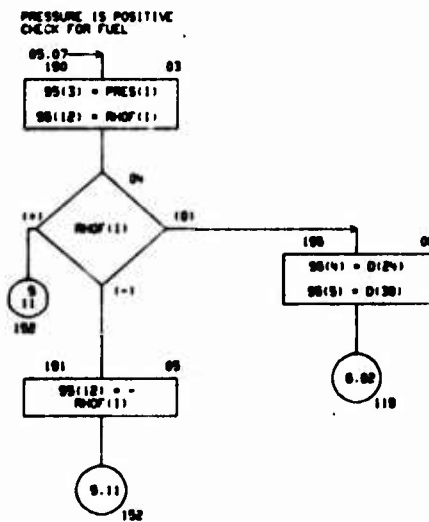
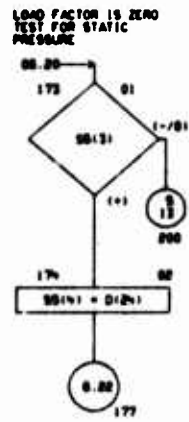


CHART TITLE - SUBROUTINE BLK005



CABIN PRESSURE

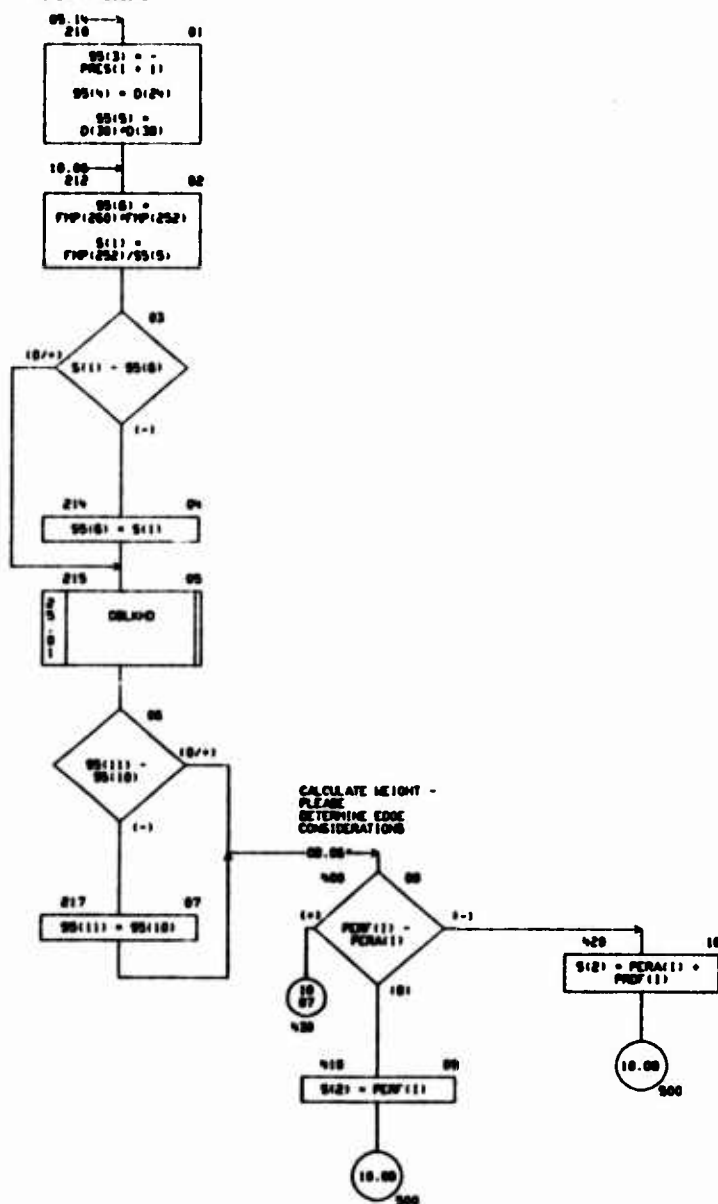


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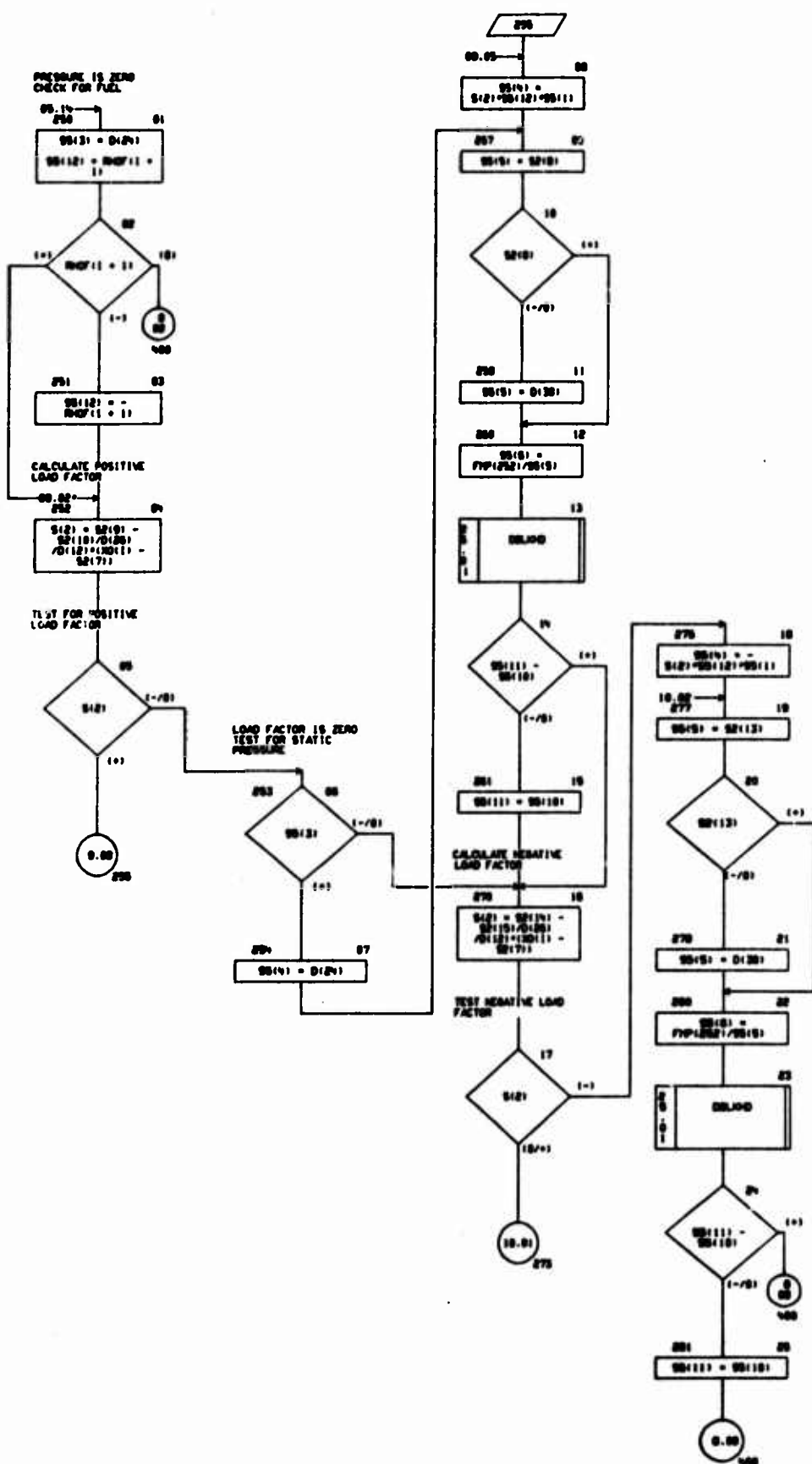


CHART TITLE - SUBROUTINE BLK405

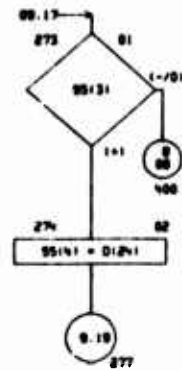
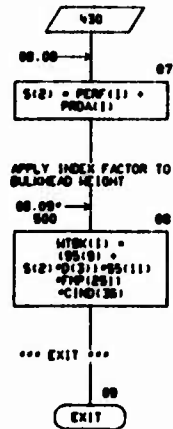
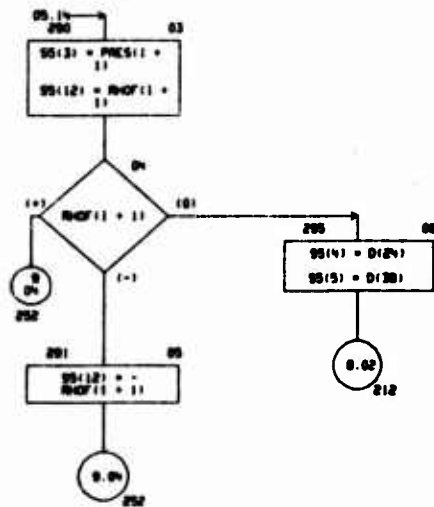
LOAD FACTOR IS ZERO
TEST FOR STATIC
PRESSUREPRESSURE IS POSITIVE
CHECK FOR FUEL

CHART TITLE - NON-PROCEDURAL STATEMENTS

```

COMMON TCOM(400)
DIMENSION CIND(50)
DIMENSION D(2000),T(2000),DC(100),ND(200)
DIMENSION NO(20)
DIMENSION DONT(20),CTOU(20)
DIMENSION PRES(20),RNOF(20)
DIMENSION S(100),S1(20),S2(20),S3(20)
DIMENSION FFP(300)
DIMENSION ACRS(20),ANTF(20),ANTA(20),PERF(20),PERA(20),PROF(20),
PRDA(20)
DIMENSION DEPF(20),DEPA(20),MIDF(20),MIDA(20)
DIMENSION MTBK(20)
EQUIVALENCE (D(1),TCOM(1)),(T(1),TCOM(2001)),(DC(1),TCOM(4101)),
(ND(1),TCOM(4201))
EQUIVALENCE (D(24),CIND(1))
EQUIVALENCE (D(36),NO(1))
EQUIVALENCE (D(44),DONT(1)),(D(46),CTOU(1))
EQUIVALENCE (D(60),PRES(1)),(D(62),RNOF(1))
EQUIVALENCE (T(1),S(1)),(T(10),S(11)),(T(12),S2(1)),
(T(18),S3(1))
EQUIVALENCE (T(120),FFP(1))
EQUIVALENCE (D(110),ACRS(1)),(D(120),ANTF(1)),
(D(114),ANTA(1)),(D(116),PERF(1)),(D(118),PERA(1)),
(D(120),PROF(1)),(D(122),PRDA(1))
EQUIVALENCE (D(124),DEPF(1)),(D(126),DEPA(1)),
(D(128),MIDF(1)),(D(130),MIDA(1))
EQUIVALENCE (T(193),MTBK(1))
EQUIVALENCE (ND(10),1)

```

04/10/76

AUTOFLOW CHART SET - SHEET

SECOND FUSELAGE OVERLAY

PAGE 12

CHART TITLE - INTRODUCTORY COMMENTS

.....
SUBROUTINE CUTOUT
.....

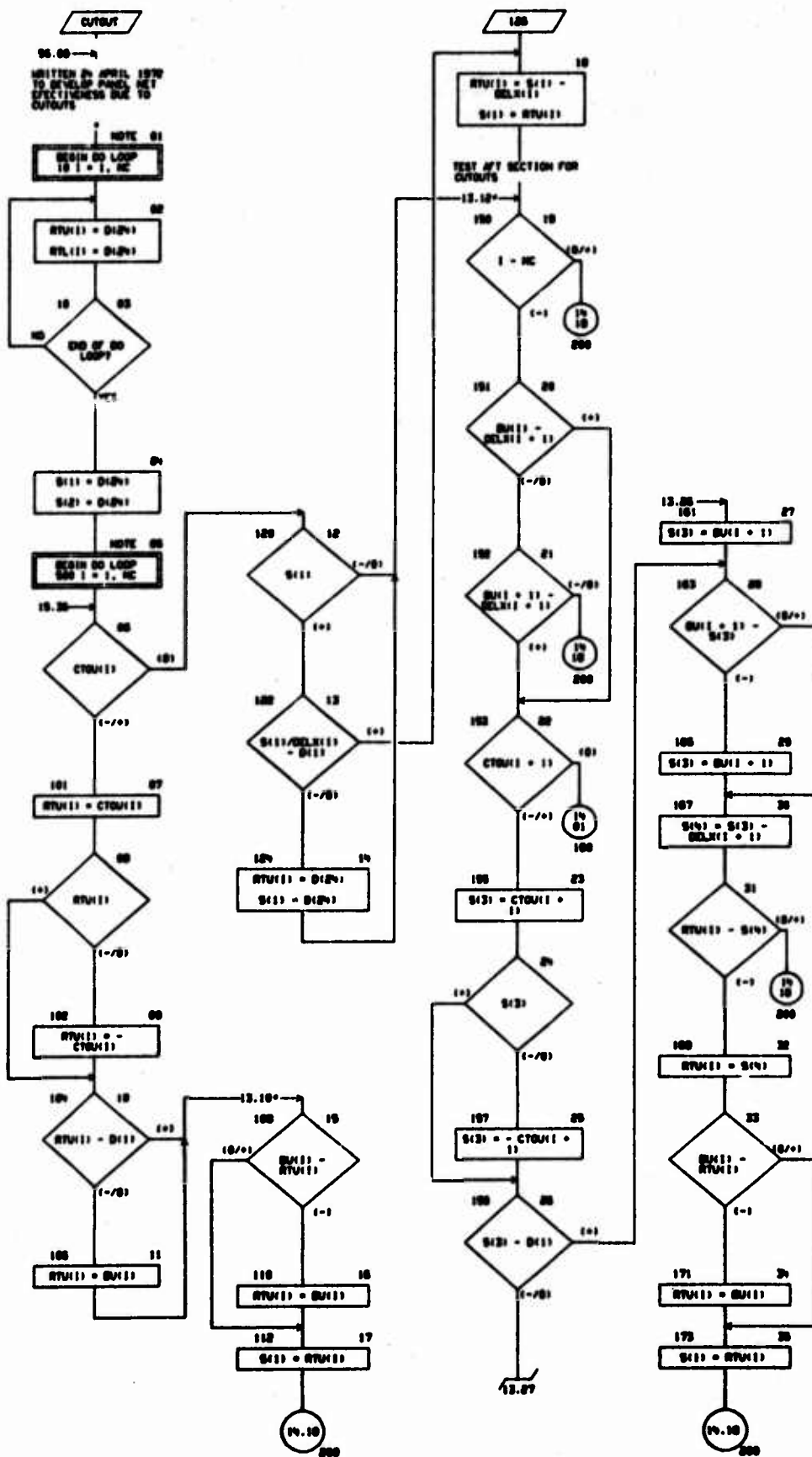


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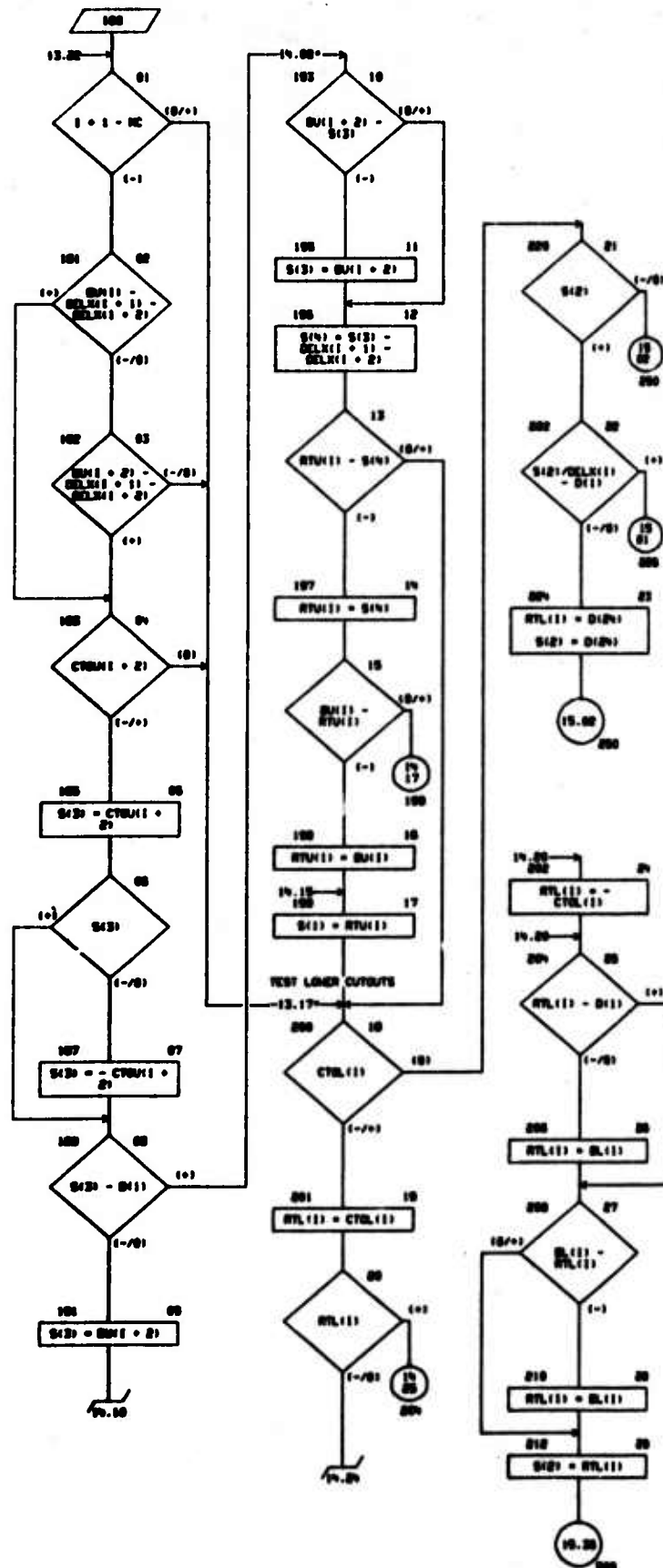


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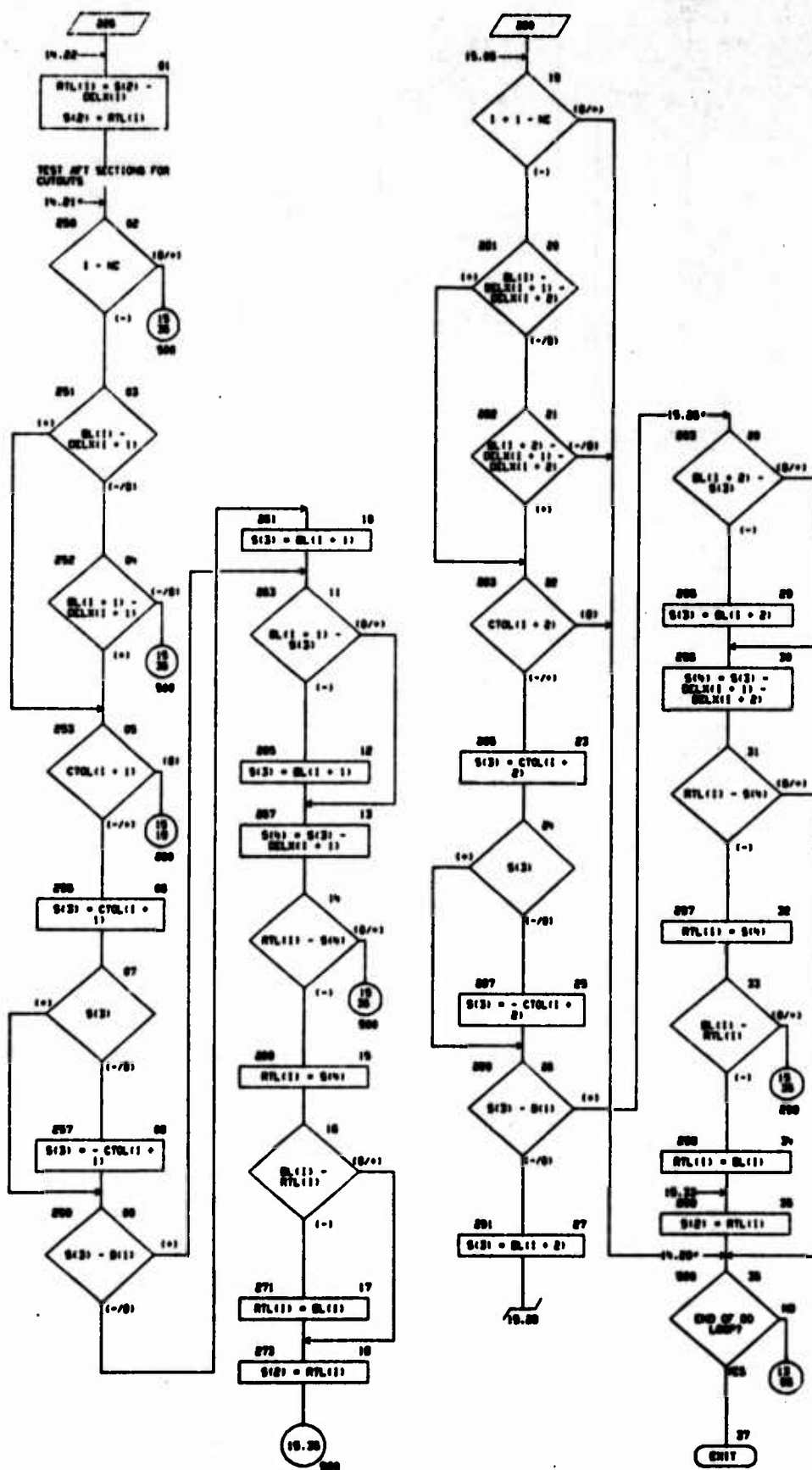


CHART TITLE - NON-PROCEDURAL STATEMENTS

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COMMON TCON(400)
DIMENSION D(2000),T(2000),DC(100),ND(200)
DIMENSION BU(20),BL(20)
DIMENSION CTOL(20),CTOL(20),DELX(20)
DIMENSION RTU(20),RTL(20)
EQUIVALENCE (D(1),TCON(1)),(T(1),TCON(200)),(DC(1),TCON(401)),
(ND(1),TCON(420))
EQUIVALENCE (D(151),RTU(1)),(D(153),RTL(1))
EQUIVALENCE (T(1),S(1))
EQUIVALENCE (T(30),BU(1)),(T(32),BL(1)),(T(30),DELX(1))
EQUIVALENCE (D(40),CTOL(1)),(D(40),CTOL(1))
EQUIVALENCE (ND(10),1), (ND(11),NC)
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04/18/79

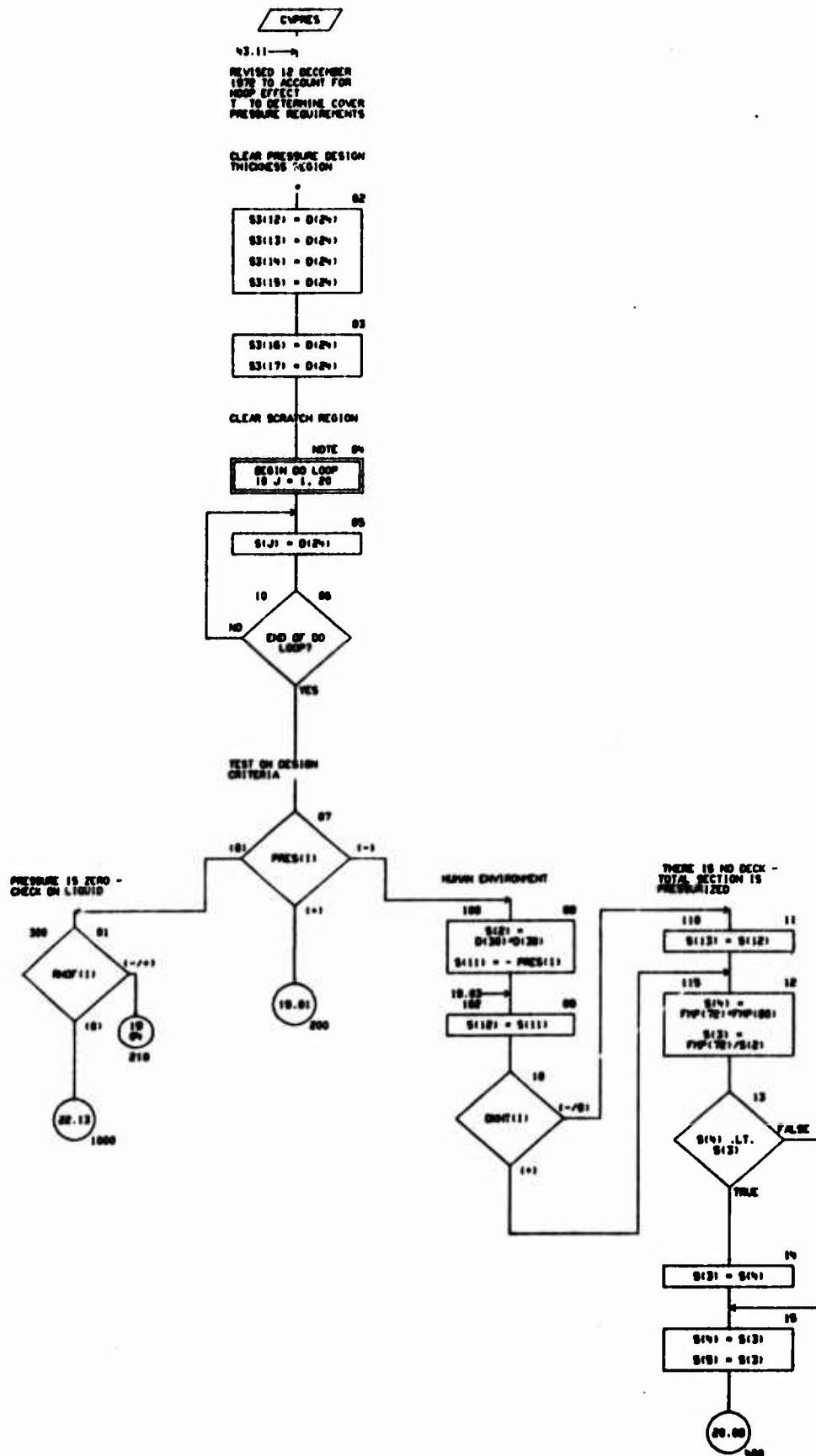
AUTOFLON CHART SET - SHEEP SECOND FUELAGE OVERLAY

PAGE 17

CHART TITLE - INTRODUCTORY COMMENTS

.....
SUBROUTINE CUPRES
.....

CHART TITLE - SUBROUTINE CUPRES



POSITIVE PRESSURE -
TEST FOR LIQUID





CHART TITLE - SUBROUTINE CYPRES

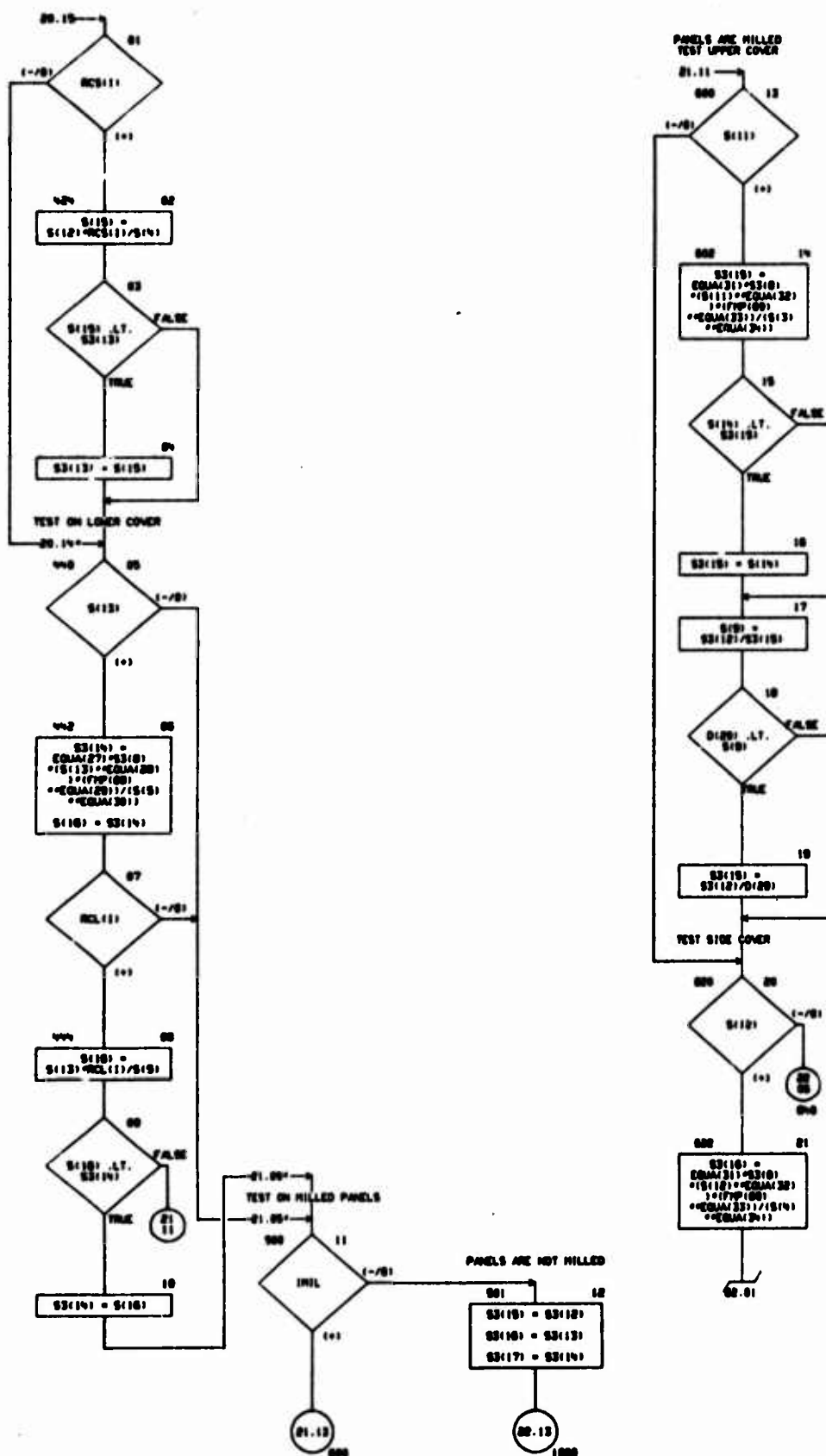


CHART TITLE - SUBROUTINE CUPRES

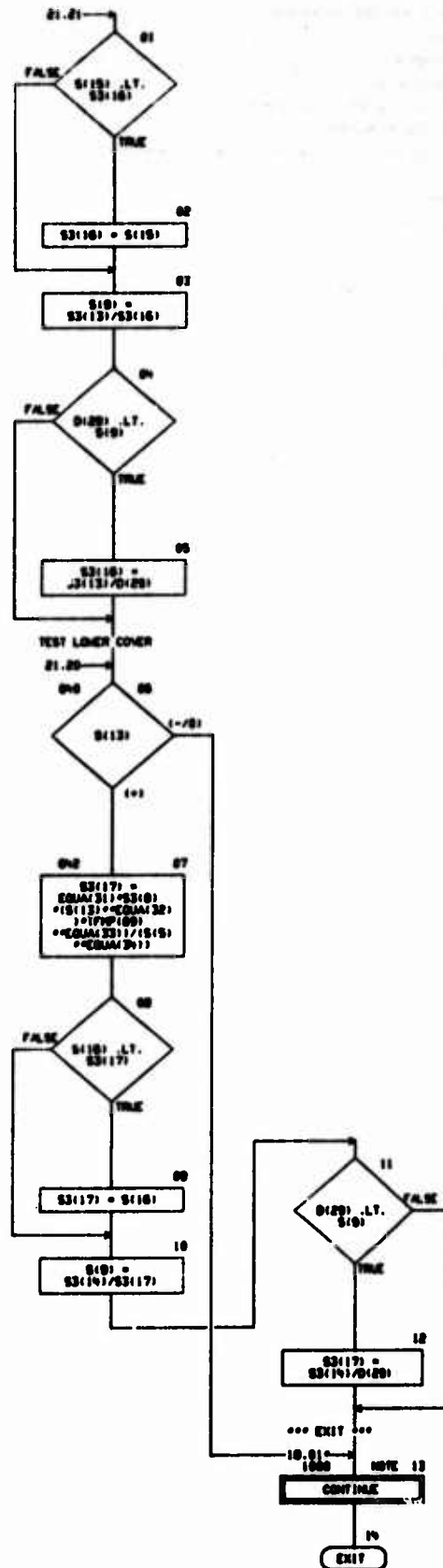


CHART TITLE - NON-PROCEDURAL STATEMENTS

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DIMENSION S(200),T(200),DC(100),ND(200)
DIMENSION EQU(100)
DIMENSION NO(20),SHNT(20)
DIMENSION PRES(20),RND(20)
DIMENSION S(100),S(120),S2(20),S3(20),PYP(300)
DIMENSION RCU(20),RCL(20),RCS(20)
EQUIVALENCE (D(1),TCON(1)),(T(1),TCON(200)),(DC(1),TCON(401)),
  (ND(1),TCON(401))
EQUIVALENCE (D(01),EQU(1))
EQUIVALENCE (D(20),ND(1))
EQUIVALENCE (D(40),SHNT(1))
EQUIVALENCE (D(60),PRES(1)),(D(80),RND(1))
EQUIVALENCE (T(1),S(1)),(T(10),S(1)),(T(120),S2(1)),
  (T(140),S3(1)),(T(120),PYP(1))
EQUIVALENCE (T(20),RCU(1)),(T(80),RCL(1)),(T(80),RCS(1))
EQUIVALENCE (ND(10),J), (ND(10),J), (ND(120),PIL)
```

04/10/74

AUTOFLOW CHART SET - SHEEP SECOND FUSELAGE OVERLAY

PAGE 24

CHART TITLE - INTRODUCTORY COMMENTS

SUBROUTINE DELIAD

04/10/74

AUTOFLIGHT CHART SET - SHEEP SECOND FUELAGE OVERLAY

PAGE 05

CHART TITLE - SUBROUTINE DELAND

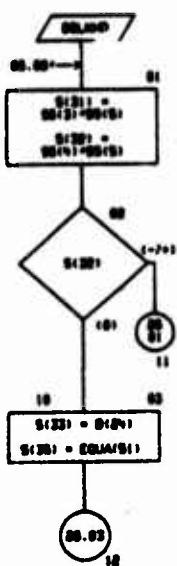


CHART TITLE - SUBROUTINE DOLAND

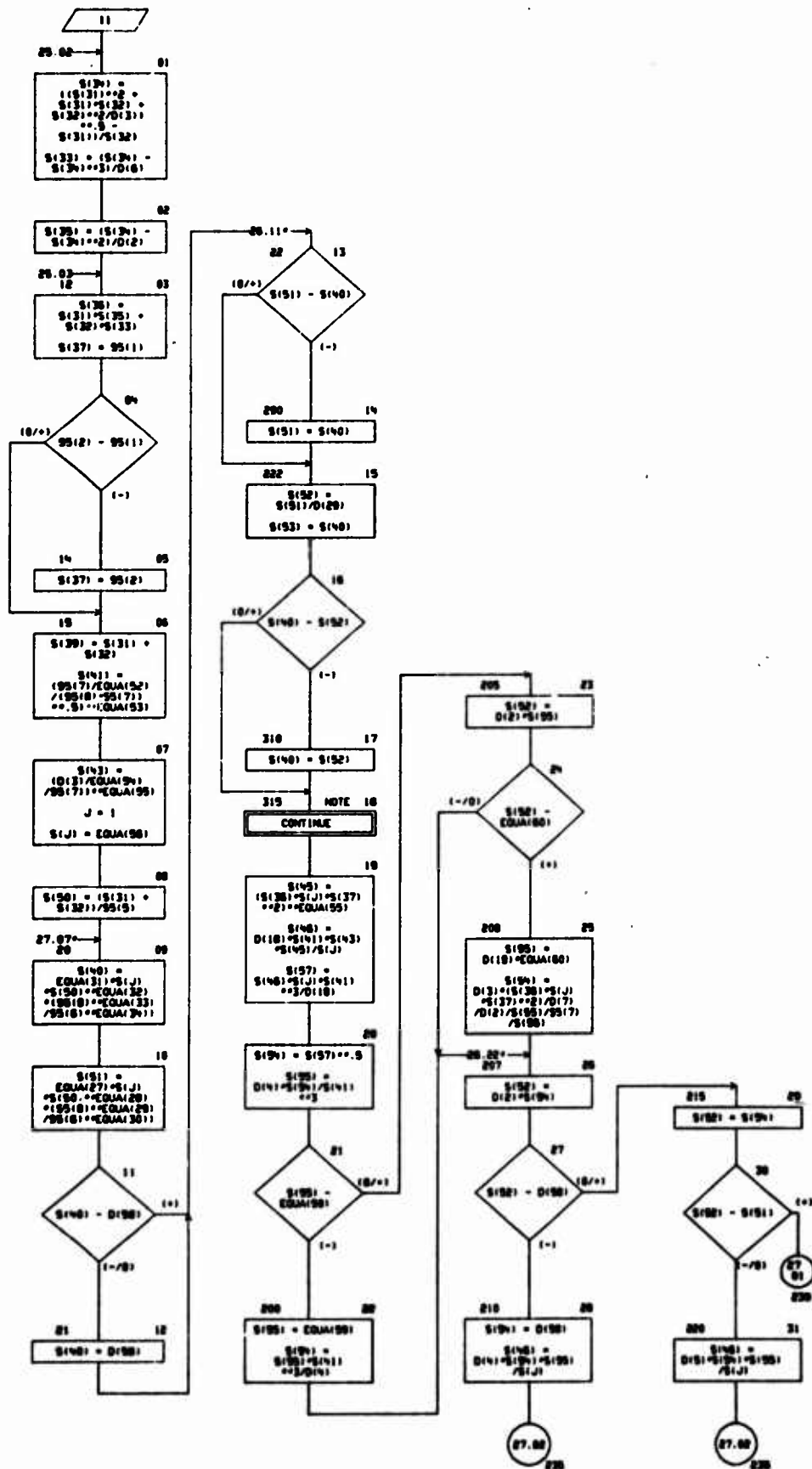


CHART TITLE - NON-PROCEDURAL STATEMENTS

```
COMMON TCOM(400)
DIMENSION D(2000),T(2000),DC(100),ND(200)
DIMENSION EQUA(100)
DIMENSION S(100),SS(20)
EQUIVALENCE (D(1),TCOM(1)),(T(1),TCOM(2001)),(DC(1),TCOM(4101)),
(ND(1),TCOM(4201))
EQUIVALENCE (D(10),EQUA(1))
EQUIVALENCE (T(1),S(1)),(T(10),SS(1))
EQUIVALENCE (ND(102),J),(ND(103),K)
```

CHART TITLE - INTRODUCTORY COMMENTS

.....
SUBROUTINE FEEDS
.....

CHART TITLE - SUBROUTINE FBEND

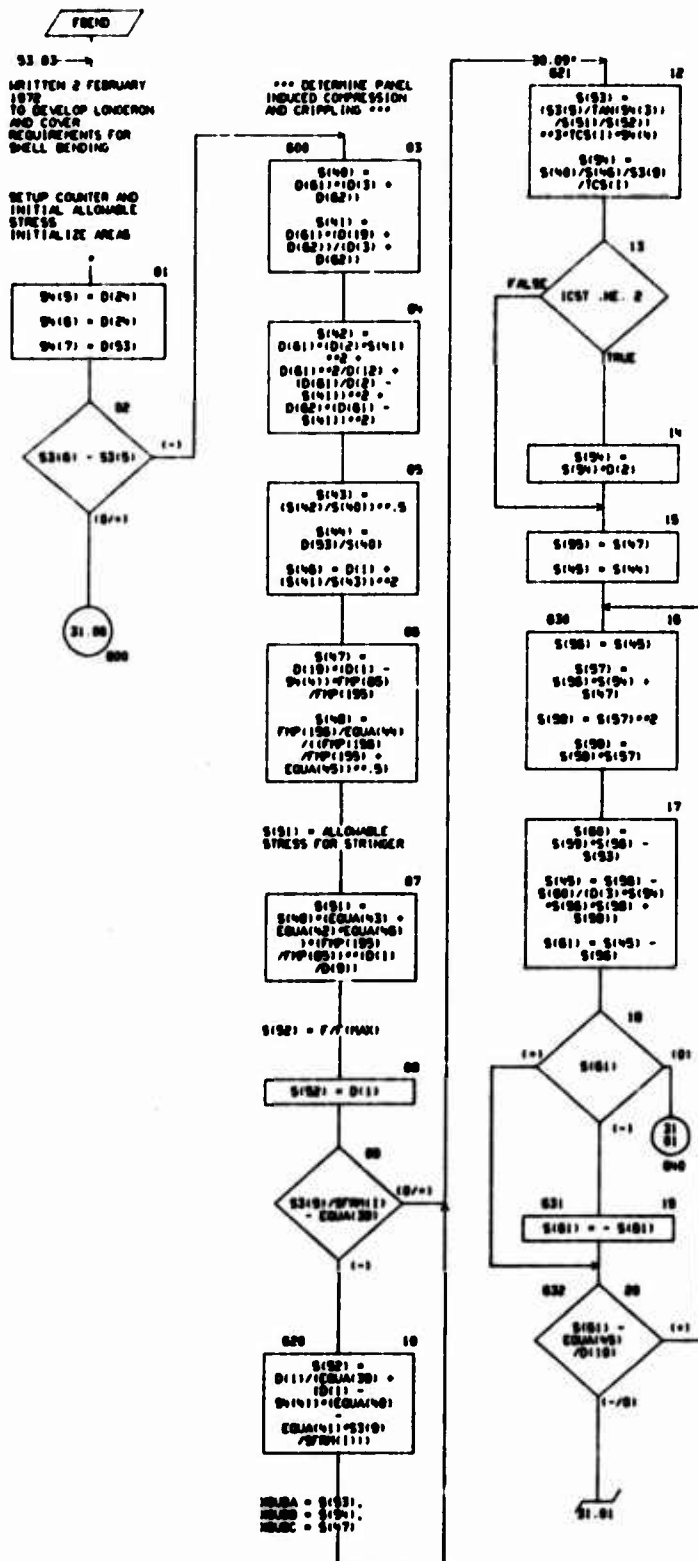


CHART TITLE - SUBROUTINE FEED

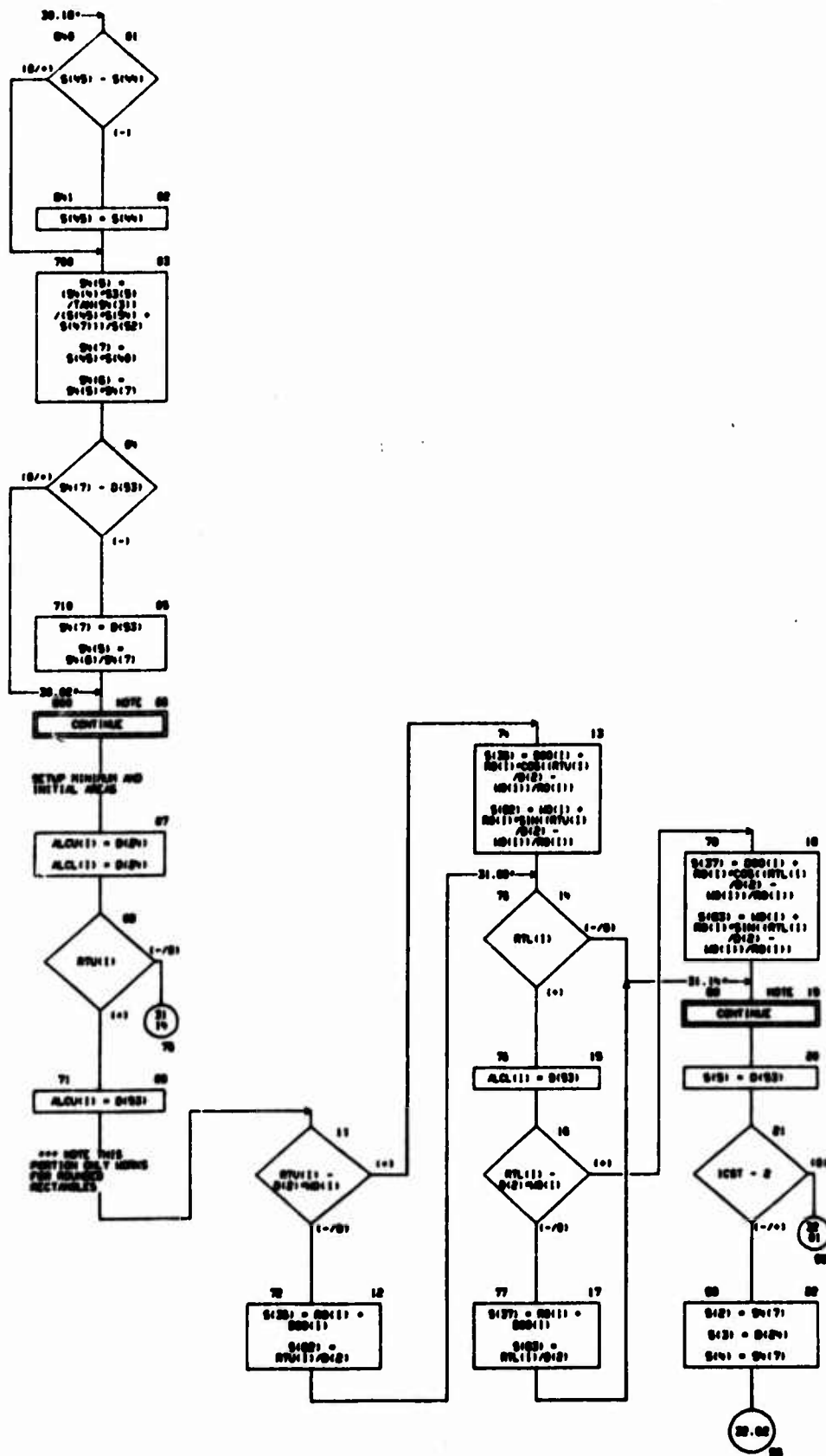


CHART TITLE - SUBROUTINE PRIMO

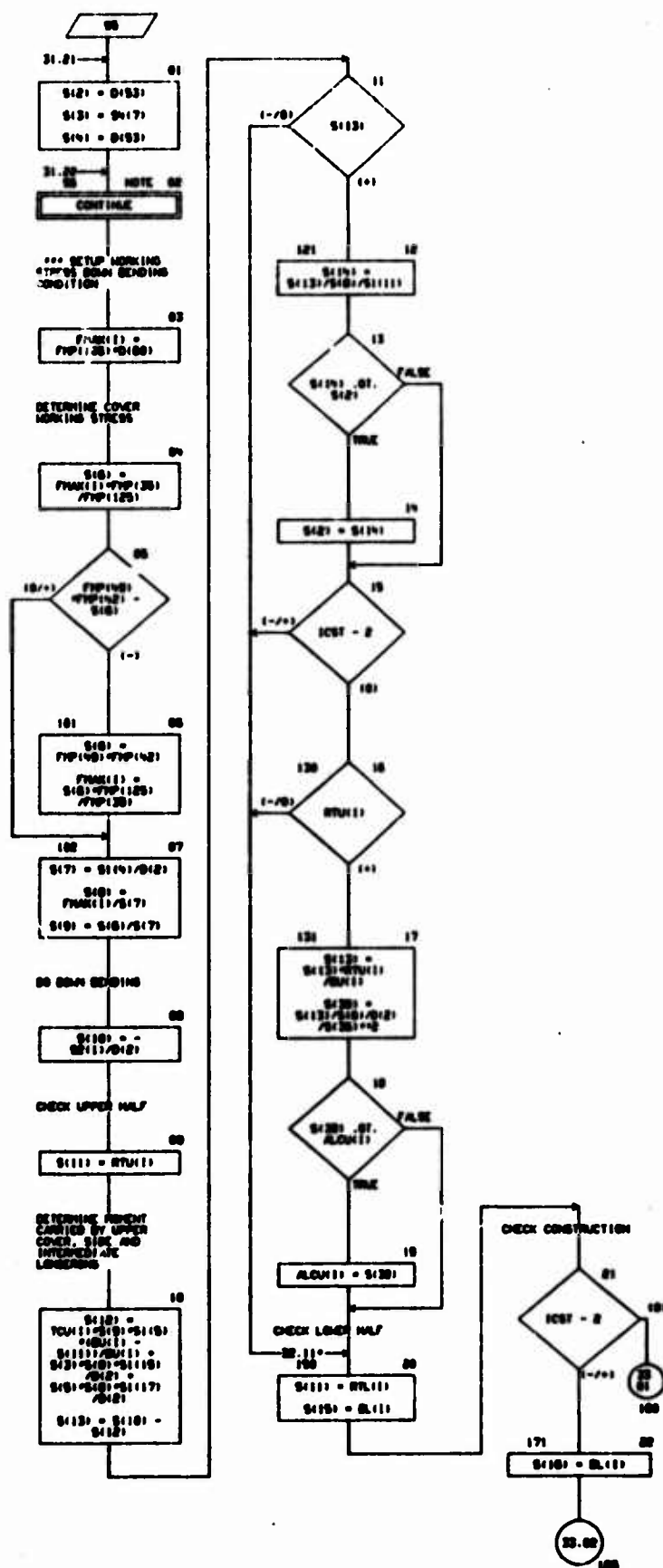
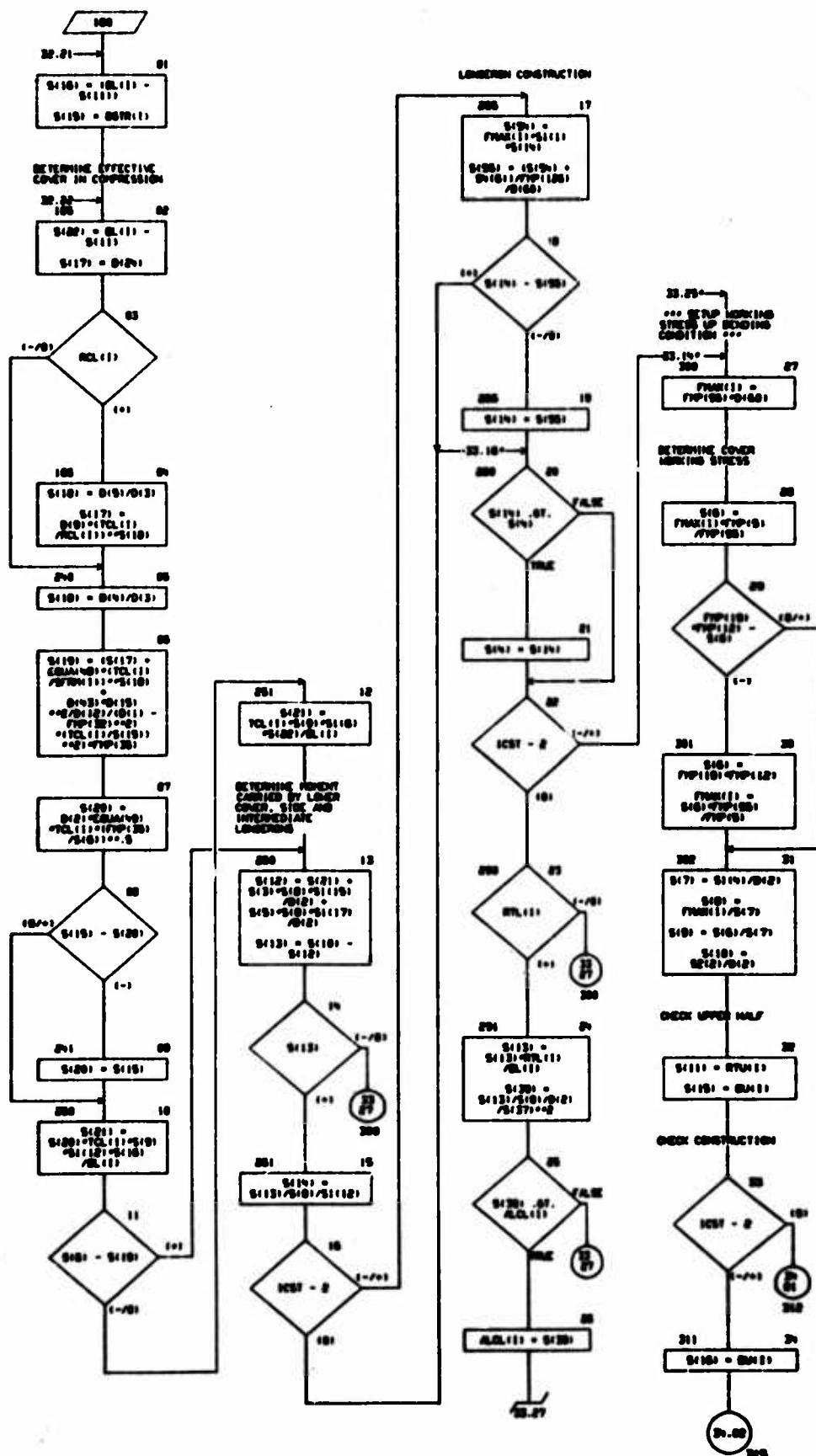


CHART TITLE - SUBROUTINE FEND



```

graph TD
    1000((1000)) --> 12[12]
    12[12] --> 13[13]
    13[13] --> 14{14}
    14{14} -- "1-YES" --> 15[15]
    14{14} -- "1-NO" --> 16((16))
    15[15] --> 18{18}
    18{18} -- "1-YES" --> 19[19]
    18{18} -- "1-NO" --> 20((20))
    19[19] --> 17[17]
    17[17] --> 19[19]
    19[19] --> 21{21}
    21{21} -- "FALSE" --> 22[22]
    21{21} -- "TRUE" --> 23[23]
    22[22] --> 24[24]
    23[23] --> 25[25]
    25[25] --> 26{26}
    26{26} -- "1-YES" --> 27[27]
    26{26} -- "1-NO" --> 28((28))
    27[27] --> 29[29]
    28((28)) --> 30[30]
    30[30] --> 31[31]
    31[31] --> 32[32]
    32[32] --> 33[33]
    33[33] --> 34[34]
    34[34] --> 35[35]
    35[35] --> 36[36]
    36[36] --> 37[37]
    37[37] --> 38[38]
    38[38] --> 39[39]
    39[39] --> 40[40]
    40[40] --> 41[41]
    41[41] --> 42[42]
    42[42] --> 43[43]
    43[43] --> 44[44]
    44[44] --> 45[45]
    45[45] --> 46[46]
    46[46] --> 47[47]
    47[47] --> 48[48]
    48[48] --> 49[49]
    49[49] --> 50[50]
    50[50] --> 51[51]
    51[51] --> 52[52]
    52[52] --> 53[53]
    53[53] --> 54[54]
    54[54] --> 55[55]
    55[55] --> 56[56]
    56[56] --> 57[57]
    57[57] --> 58[58]
    58[58] --> 59[59]
    59[59] --> 60[60]
    60[60] --> 61[61]
    61[61] --> 62[62]
    62[62] --> 63[63]
    63[63] --> 64[64]
    64[64] --> 65[65]
    65[65] --> 66[66]
    66[66] --> 67[67]
    67[67] --> 68[68]
    68[68] --> 69[69]
    69[69] --> 70[70]
    70[70] --> 71[71]
    71[71] --> 72[72]
    72[72] --> 73[73]
    73[73] --> 74[74]
    74[74] --> 75[75]
    75[75] --> 76[76]
    76[76] --> 77[77]
    77[77] --> 78[78]
    78[78] --> 79[79]
    79[79] --> 80[80]
    80[80] --> 81[81]
    81[81] --> 82[82]
    82[82] --> 83[83]
    83[83] --> 84[84]
    84[84] --> 85[85]
    85[85] --> 86[86]
    86[86] --> 87[87]
    87[87] --> 88[88]
    88[88] --> 89[89]
    89[89] --> 90[90]
    90[90] --> 91[91]
    91[91] --> 92[92]
    92[92] --> 93[93]
    93[93] --> 94[94]
    94[94] --> 95[95]
    95[95] --> 96[96]
    96[96] --> 97[97]
    97[97] --> 98[98]
    98[98] --> 99[99]
    99[99] --> 1000
  
```

Flowchart 1000 illustrates the method for determining the moment carried by upper cover, side and intermediate longitudinal members. The process begins with step 12, where $S(12) = TOL(1) * S(10) * S(10) / S(12) / S(11)$. This is followed by step 13, where $S(12) = S(12) * S(13) * S(13) / S(12) * S(13) * S(13) / S(12)$ and $S(13) = S(10) - S(12)$. A decision diamond 14 checks if $S(13) > 0$. If YES, it proceeds to step 15, where $S(14) = S(13) * S(10) / S(11)$. If NO, it proceeds to step 16. Step 18 checks if $ICST = 2$. If YES, it proceeds to step 19, where $S(16) = TOL(1) * S(11) * S(14)$. If NO, it proceeds to step 20. Step 21 checks if $S(16) > 0$. If FALSE, it proceeds to step 22, where $S(16) = S(16) * S(11) / S(11)$. If TRUE, it proceeds to step 23, where $S(16) = S(16) * S(11) / S(11)$. Step 24 checks if $S(16) > 0$. If YES, it proceeds to step 25, where $S(16) = S(16) * S(11) / S(11)$. If NO, it proceeds to step 26, where $S(16) = S(16) * S(11) / S(11)$. Step 27 checks if $S(16) > 0$. If YES, it proceeds to step 28, where $S(16) = S(16) * S(11) / S(11)$. If NO, it proceeds to step 29, where $S(16) = S(16) * S(11) / S(11)$. Step 30 checks if $S(16) > 0$. If YES, it proceeds to step 31, where $S(16) = S(16) * S(11) / S(11)$. If NO, it proceeds to step 32, where $S(16) = S(16) * S(11) / S(11)$. Step 33 checks if $S(16) > 0$. If YES, it proceeds to step 34, where $S(16) = S(16) * S(11) / S(11)$. If NO, it proceeds to step 35, where $S(16) = S(16) * S(11) / S(11)$. Step 36 checks if $S(16) > 0$. If YES, it proceeds to step 37, where $S(16) = S(16) * S(11) / S(11)$. If NO, it proceeds to step 38, where $S(16) = S(16) * S(11) / S(11)$. Step 39 checks if $S(16) > 0$. If YES, it proceeds to step 40, where $S(16) = S(16) * S(11) / S(11)$. If NO, it proceeds to step 41, where $S(16) = S(16) * S(11) / S(11)$. Step 42 checks if $S(16) > 0$. If YES, it proceeds to step 43, where $S(16) = S(16) * S(11) / S(11)$. If NO, it proceeds to step 44, where $S(16) = S(16) * S(11) / S(11)$. Step 45 checks if $S(16) > 0$. If YES, it proceeds to step 46, where $S(16) = S(16) * S(11) / S(11)$. If NO, it proceeds to step 47, where $S(16) = S(16) * S(11) / S(11)$. Step 48 checks if $S(16) > 0$. If YES, it proceeds to step 49, where $S(16) = S(16) * S(11) / S(11)$. If NO, it proceeds to step 50, where $S(16) = S(16) * S(11) / S(11)$. Step 51 checks if $S(16) > 0$. If YES, it proceeds to step 52, where $S(16) = S(16) * S(11) / S(11)$. If NO, it proceeds to step 53, where $S(16) = S(16) * S(11) / S(11)$. Step 54 checks if $S(16) > 0$. If YES, it proceeds to step 55, where $S(16) = S(16) * S(11) / S(11)$. If NO, it proceeds to step 56, where $S(16) = S(16) * S(11) / S(11)$. Step 57 checks if $S(16) > 0$. If YES, it proceeds to step 58, where $S(16) = S(16) * S(11) / S(11)$. If NO, it proceeds to step 59, where $S(16) = S(16) * S(11) / S(11)$. Step 60 checks if $S(16) > 0$. If YES, it proceeds to step 61, where $S(16) = S(16) * S(11) / S(11)$. If NO, it proceeds to step 62, where $S(16) = S(16) * S(11) / S(11)$. Step 63 checks if $S(16) > 0$. If YES, it proceeds to step 64, where $S(16) = S(16) * S(11) / S(11)$. If NO, it proceeds to step 65, where $S(16) = S(16) * S(11) / S(11)$. Step 66 checks if $S(16) > 0$. If YES, it proceeds to step 67, where $S(16) = S(16) * S(11) / S(11)$. If NO, it proceeds to step 68, where $S(16) = S(16) * S(11) / S(11)$. Step 69 checks if $S(16) > 0$. If YES, it proceeds to step 70, where $S(16) = S(16) * S(11) / S(11)$. If NO, it proceeds to step 71, where $S(16) = S(16) * S(11) / S(11)$. Step 72 checks if $S(16) > 0$. If YES, it proceeds to step 73, where $S(16) = S(16) * S(11) / S(11)$. If NO, it proceeds to step 74, where $S(16) = S(16) * S(11) / S(11)$. Step 75 checks if $S(16) > 0$. If YES, it proceeds to step 76, where $S(16) = S(16) * S(11) / S(11)$. If NO, it proceeds to step 77, where $S(16) = S(16) * S(11) / S(11)$. Step 78 checks if $S(16) > 0$. If YES, it proceeds to step

CHART TITLE - SUBROUTINE FOR 2

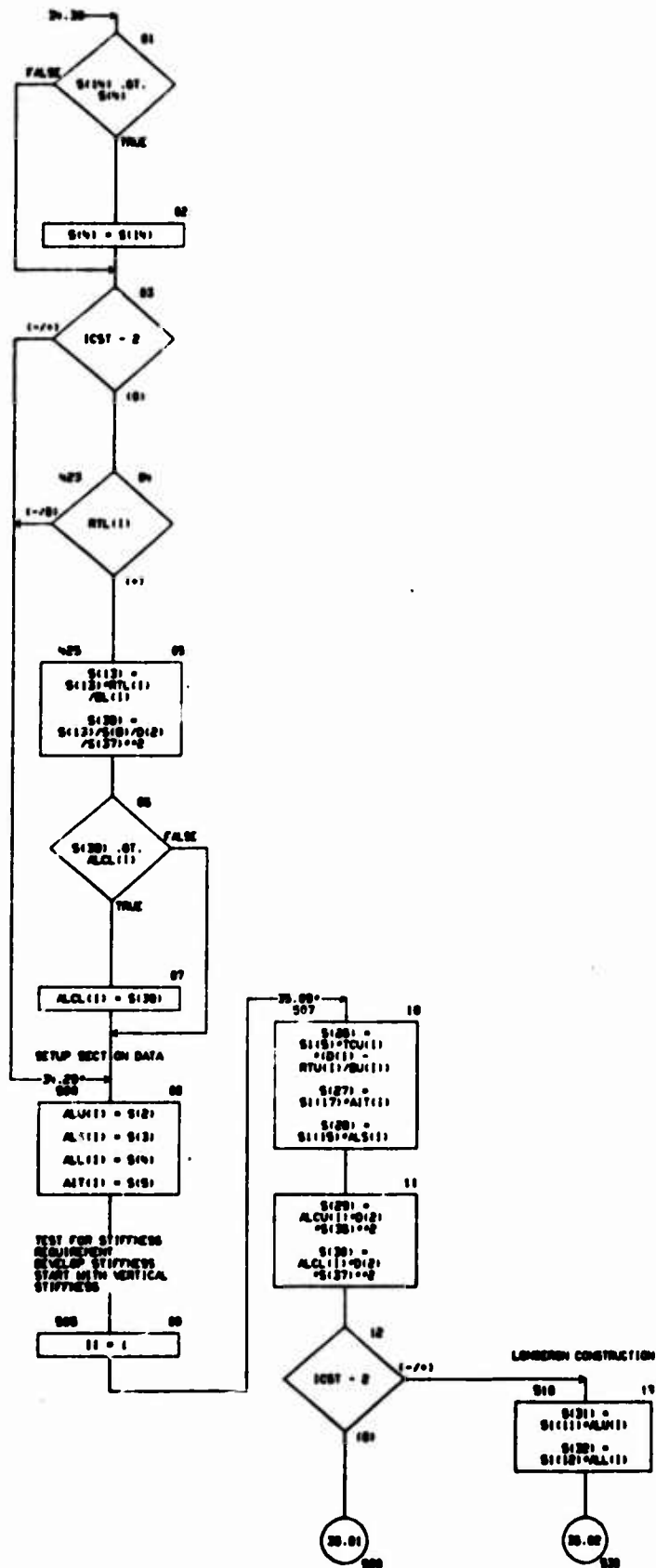


CHART TITLE - SUB-ROUTINE FBEND

STRINGER CONSTRUCTION

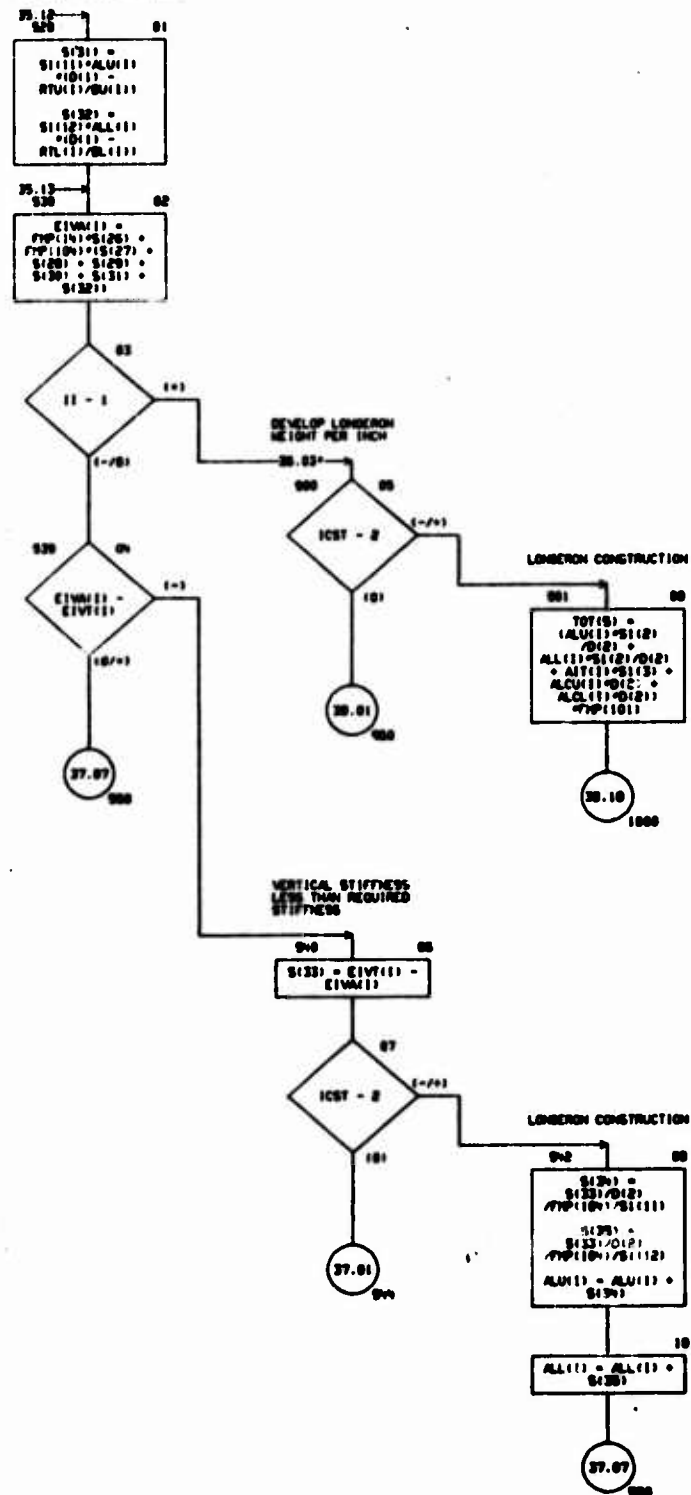


CHART TITLE - SUBROUTINE FEND

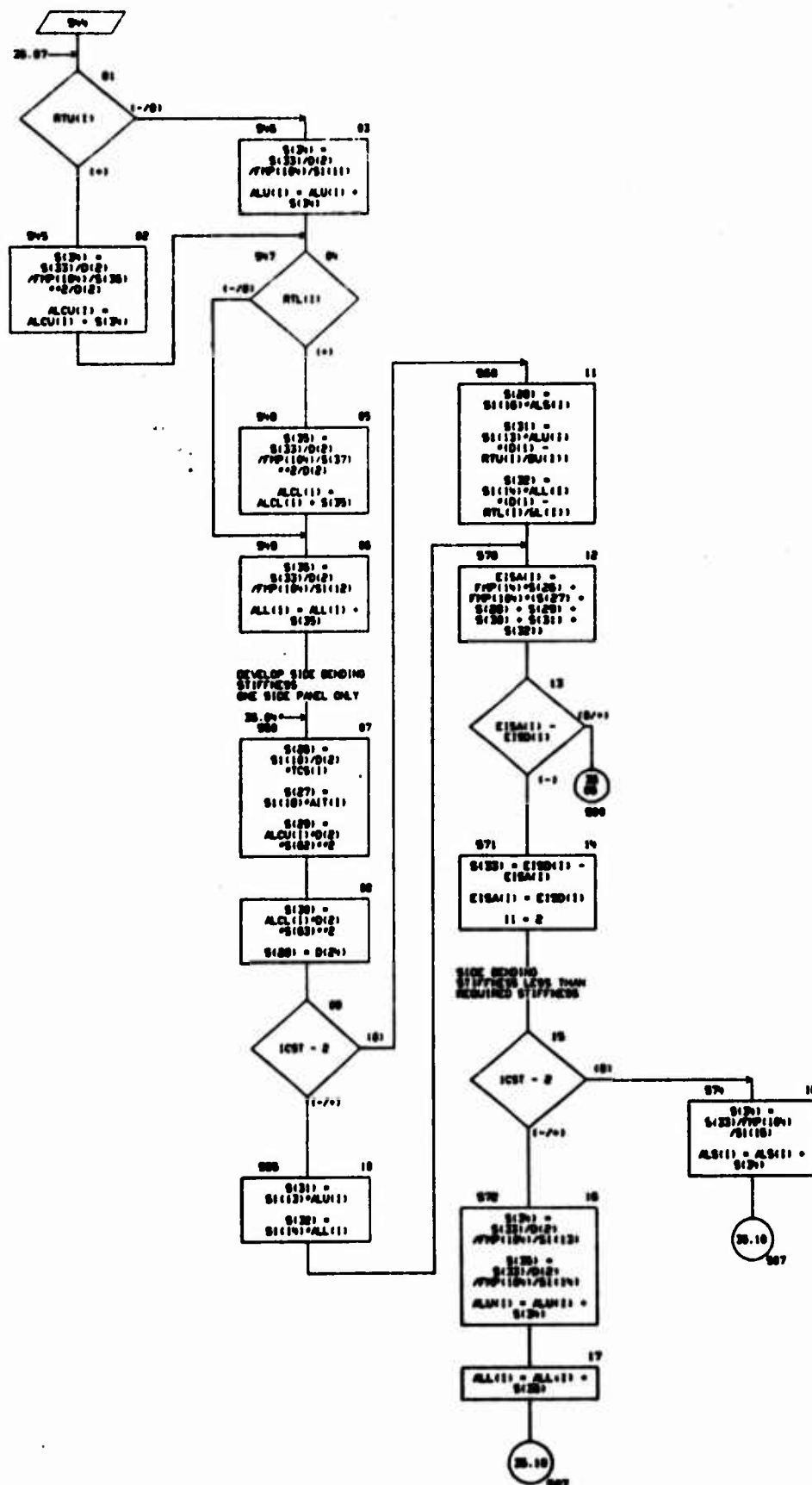


CHART TITLE - SUBROUTINE FBEND

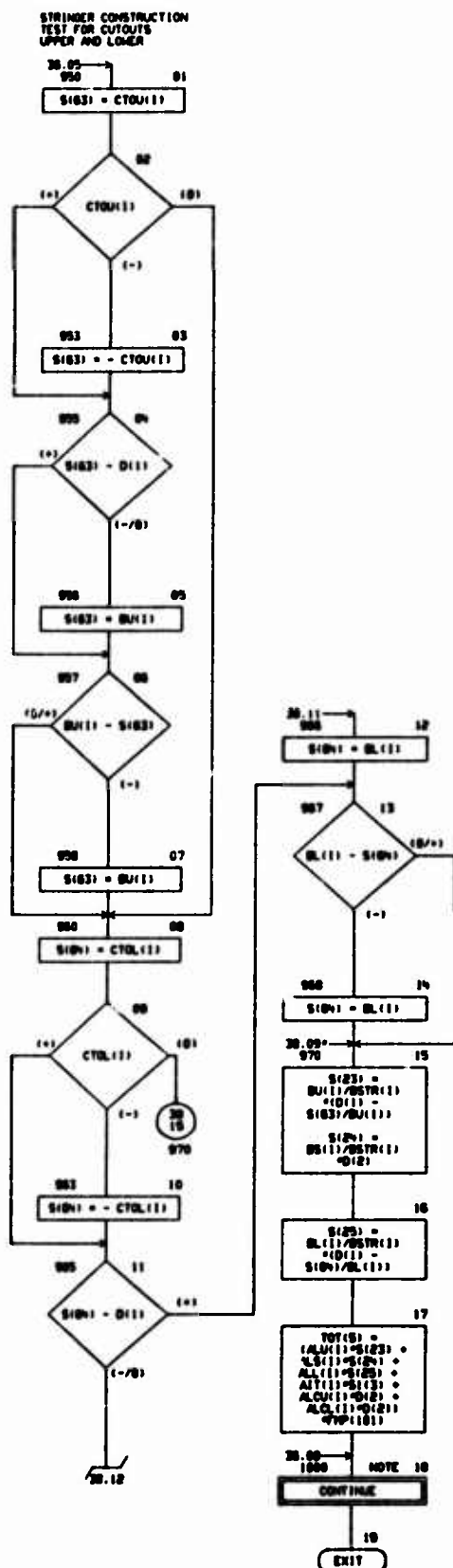


CHART TITLE - NON-PROCEDURAL STATEMENTS

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COMMON TCOM(400)
DIMENSION D(2000),T(2000),DC(100),ND(200)
DIMENSION EQUA(100)
DIMENSION CTOL(20),CTOL(20)
DIMENSION ALCU(20),ALCL(20)
DIMENSION RTU(20),RTL(20)
DIMENSION EIVT(20),EISD(20)
DIMENSION EIVM(20),EISA(20)
DIMENSION S(100),S(120),S(20),S(30),S(40)
DIMENSION RCU(20),RCL(20),BU(20),BL(20),BS(20)
DIMENSION DOO(20),ND(20),RD(20)
DIMENSION TCU(20),TCS(20),TCL(20),ALU(20),ALL(20),ALS(20),AIT(20)
DIMENSION SFRH(20),BSTR(20),PYAK(20),PYP(100)
DIMENSION TOT(20)
EQUIVALENCE (D(1),TCOM(1)),(T(1),TCOM(2001)),(DC(1),TCOM(401)),
  (ND(1),TCOM(401))
EQUIVALENCE (D(81),EQUA(1))
EQUIVALENCE (D(140),CTOL(1)),(D(140),CTOL(1))
EQUIVALENCE (D(100),EIVT(1)),(D(100),EISD(1))
EQUIVALENCE (D(101),RTU(1)),(D(101),RTL(1))
EQUIVALENCE (D(100),EIVM(1)),(D(101),EISA(1))
EQUIVALENCE (D(100),ALCU(1)),(D(101),ALCL(1))
EQUIVALENCE (ND(107),1)
EQUIVALENCE (T(1),S(1)),(T(101),S(1)),(T(102),S(1)),
  (T(103),S(1)),(T(104),S(1))
EQUIVALENCE (T(104),RCU(1)),(T(104),RCL(1)),
  (T(104),BU(1)),(T(104),BL(1)),(T(104),BS(1))
EQUIVALENCE (T(104),DOO(1)),(T(104),ND(1)),(T(104),RD(1))
EQUIVALENCE (T(104),TCU(1)),(T(104),TCS(1)),(T(104),TCL(1)),
  (T(104),ALU(1)),(T(104),ALL(1)),(T(104),ALS(1)),(T(104),AIT(1))
EQUIVALENCE (T(104),SFRH(1)),(T(104),BSTR(1)),(T(104),PYAK(1)),
  (T(104),PYP(1))
EQUIVALENCE (T(20),TOT(1))
EQUIVALENCE (ND(101),1),ND(102),TCS(1)

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04/10/74

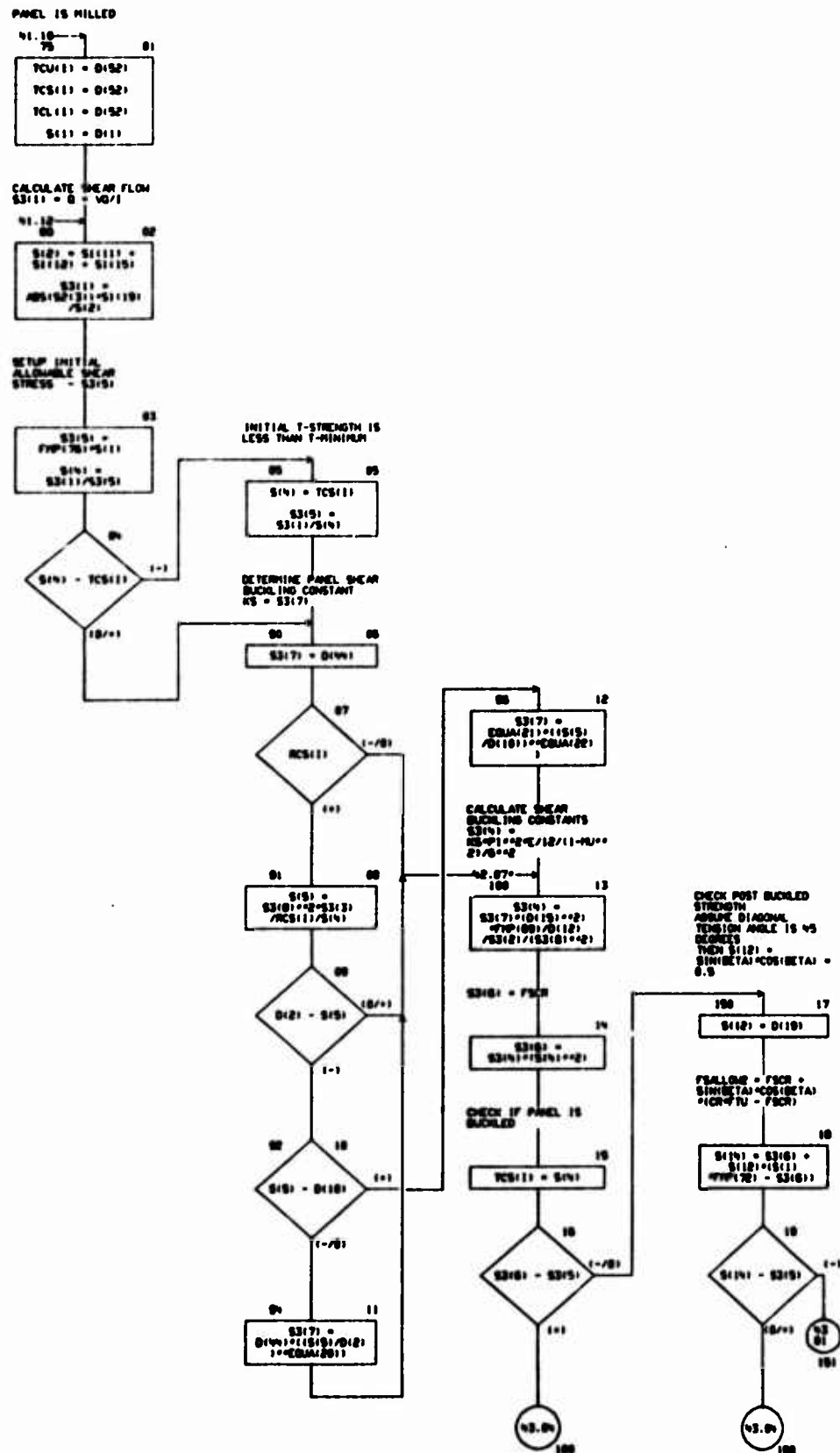
AUTOFLON CHART SET - SHEEP SECOND FUSELAGE OVERLAY

PAGE 40

CHART TITLE - INTRODUCTORY COMMENTS

.....
SUBROUTINE COVER
.....

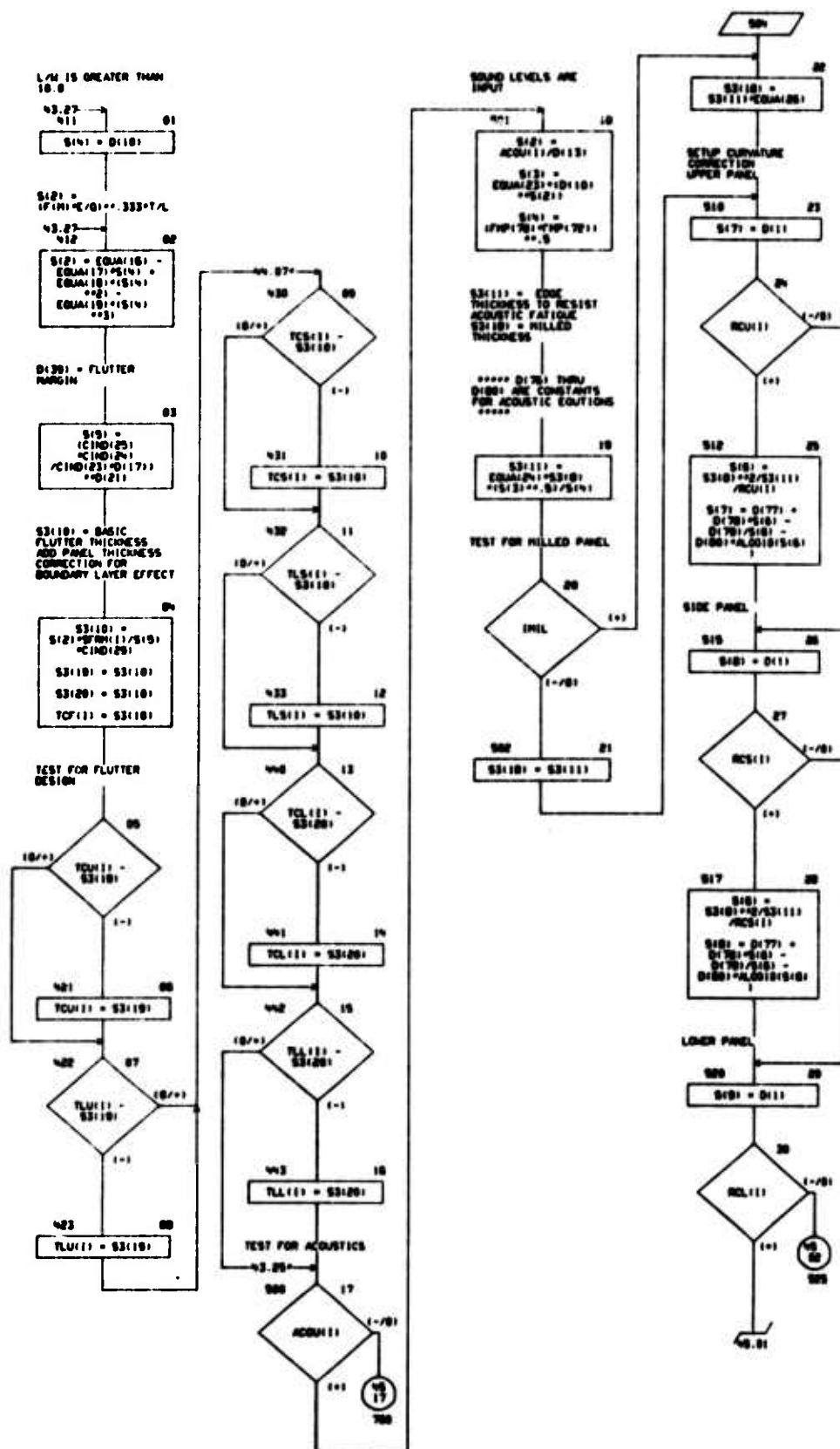
CHART TITLE - SUBROUTINE FCOVER



SOLVE SIMULTANEOUS
EQUATION FOR PANEL
THICKNESS



CHART TITLE - SUBROUTINE FCOVER



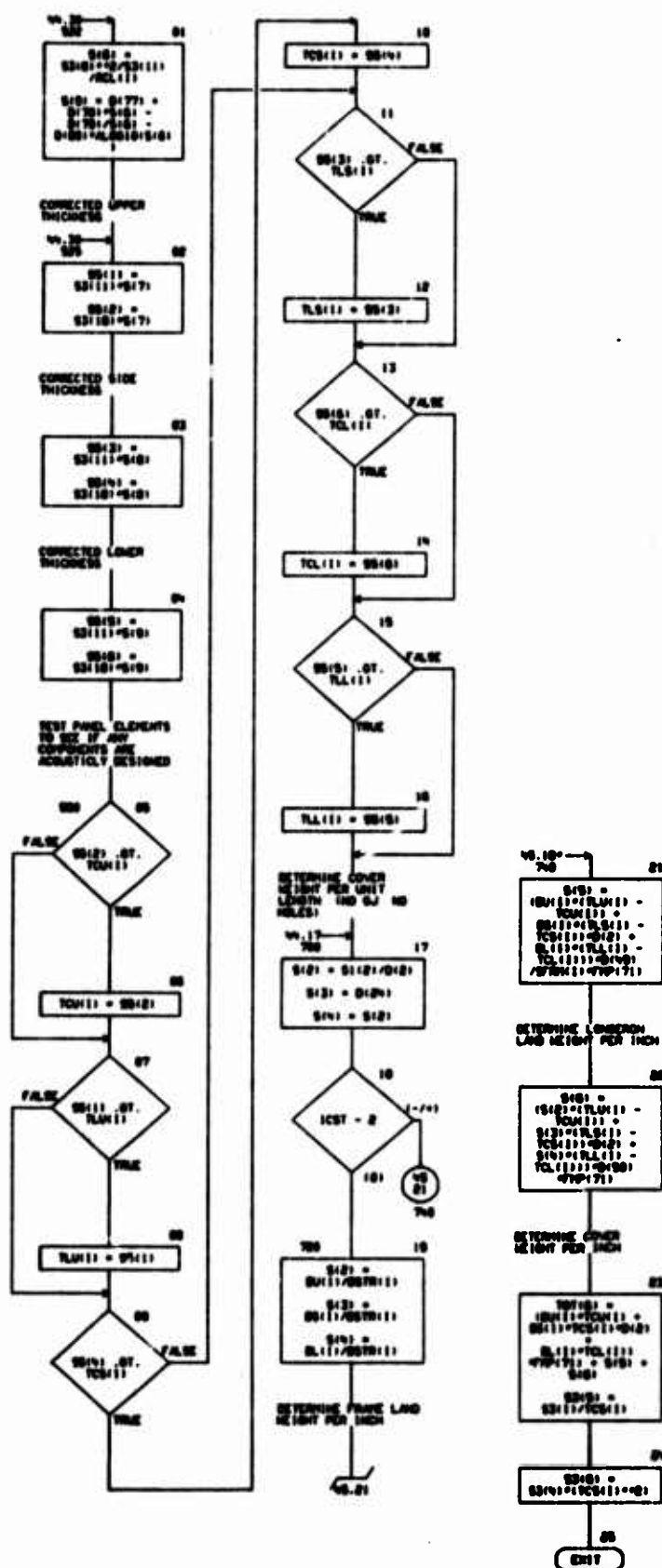


CHART TITLE - NON-PROCEDURAL STATEMENTS

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COMMON TCOM(400)
DIMENSION D(200),T(200),DC(100),ND(200)
DIMENSION EQUA(100)
DIMENSION CIND(50)
DIMENSION PRES(20),RHO(20),ACOU(20)
DIMENSION S(100),S1(20),S2(20),S3(20),S5(20)
DIMENSION ACU(20),ACL(20)
DIMENSION RCS(20),BU(20),BL(20),BS(20),TCU(20),TCS(20),TCL(20),
TLU(20),TLS(20),TLL(20),TCF(20),SFM(20),BSTR(20),FMP(300)
DIMENSION TOT(20)
EQUIVALENCE (D(1),TCOM(1)),(T(1),TCOM(201)),(DC(1),TCOM(401)),
(ND(1),TCOM(401))
EQUIVALENCE (D(61),EQUA(1))
EQUIVALENCE (D(241),CIND(1))
EQUIVALENCE (D(601),PRES(1)),(D(621),RHO(1)),(D(641),ACOU(1))
EQUIVALENCE (T(1),S(1)),(T(101),S(11)),(T(121),S2(1)),
(T(141),S3(1)),(T(161),S5(1))
EQUIVALENCE (T(201),TOT(1))
EQUIVALENCE (T(241),ACU(1)),(T(261),ACL(1))
EQUIVALENCE (T(281),RCS(1)),(T(301),BU(1)),(T(321),BL(1)),
(T(341),BS(1)),(T(361),TCU(1)),(T(381),TCS(1)),(T(401),TCL(1)),
(T(421),TLU(1)),(T(441),TLS(1)),(T(461),TLL(1)),(T(481),TCF(1)),
(T(501),SFM(1)),(T(521),BSTR(1)),(T(541),FMP(1))
EQUIVALENCE (ND(101),1), (ND(112),K1), (ND(122),IC1),
(ND(125),IMIL)

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04/10/74

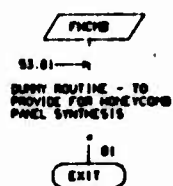
AUTOFLOW CHART SET - SHEEP SECOND FUSELAGE OVERLAY

PAGE 47

CHART TITLE - INTRODUCTORY COMMENTS

.....
SUBROUTINE PUNCH
.....

CHART TITLE - SUBROUTINE FNCMB



04/10/74

AUTOFLIGHT CHART SET - SHEEP SECOND FUELAGE OVERLAY

PAGE 40

CHART TITLE - NON-PROCEDURAL STATEMENTS

COMMON TCOM(400)

DIMENSION D(2000),Y(2000),DC(100),ND(200)

EQUIVALENCE (D(1),TCOM(1)),(Y(1),TCOM(200)),(DC(1),TCOM(400)),

(ND(1),TCOM(200))

04/10/74

AUTOFLW CHART SET - SHEEP SECOND FUSELAGE OVERLAY

PAGE 50

CHART TITLE - INTRODUCTORY COMMENTS

SUBROUTINE PPANEL
#####

CHART TITLE - SUBROUTINE PANEL

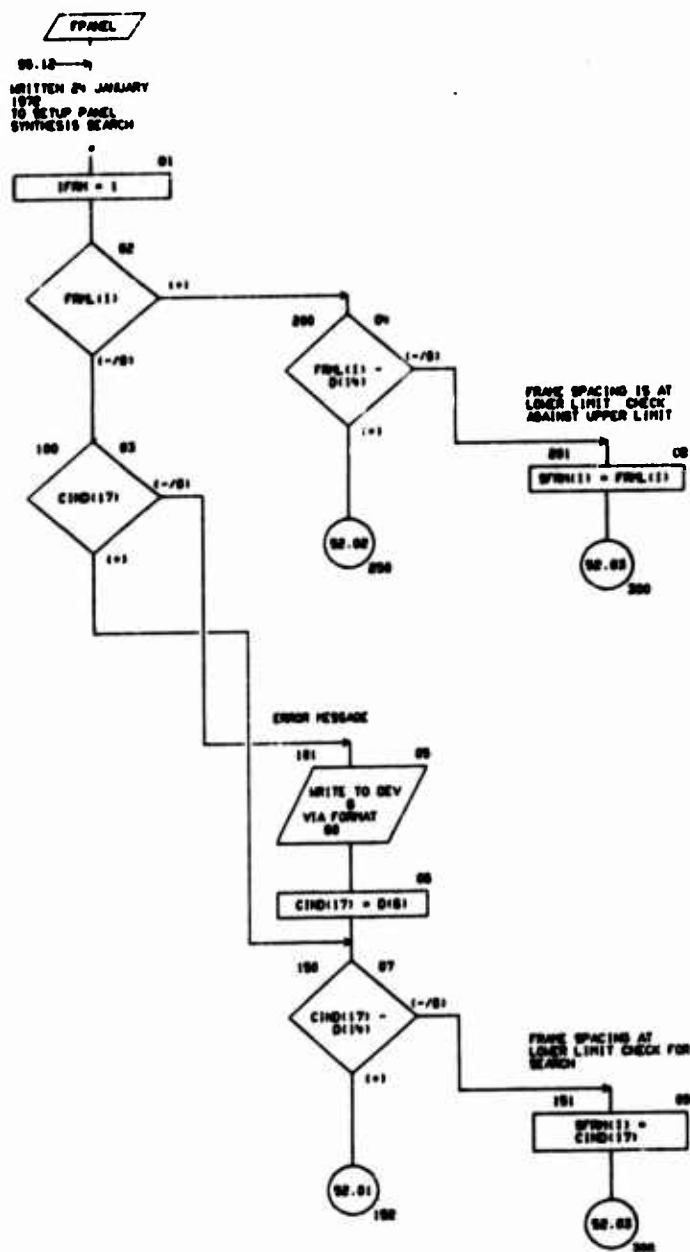


CHART TITLE - SUBROUTINE FPAEL

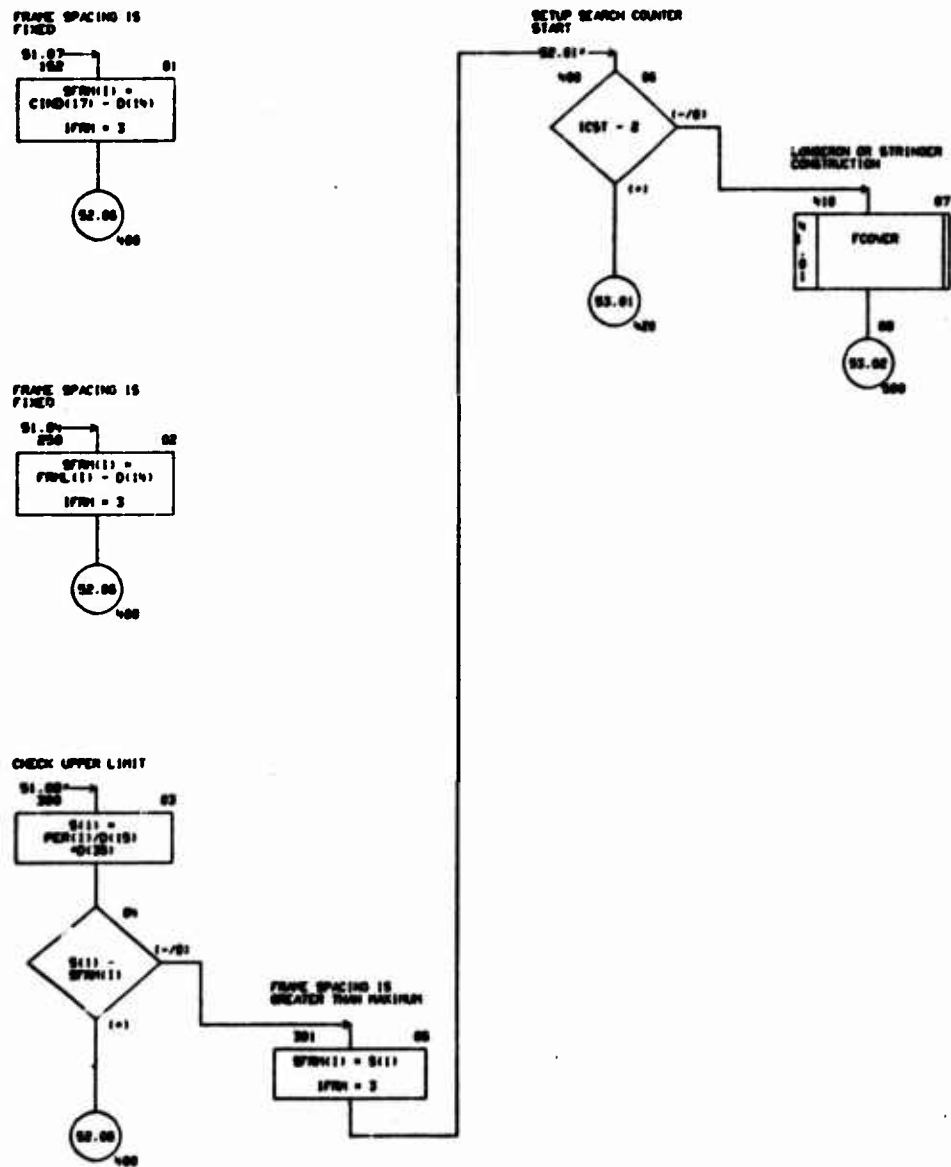


CHART TITLE - SUBROUTINE FPANEL

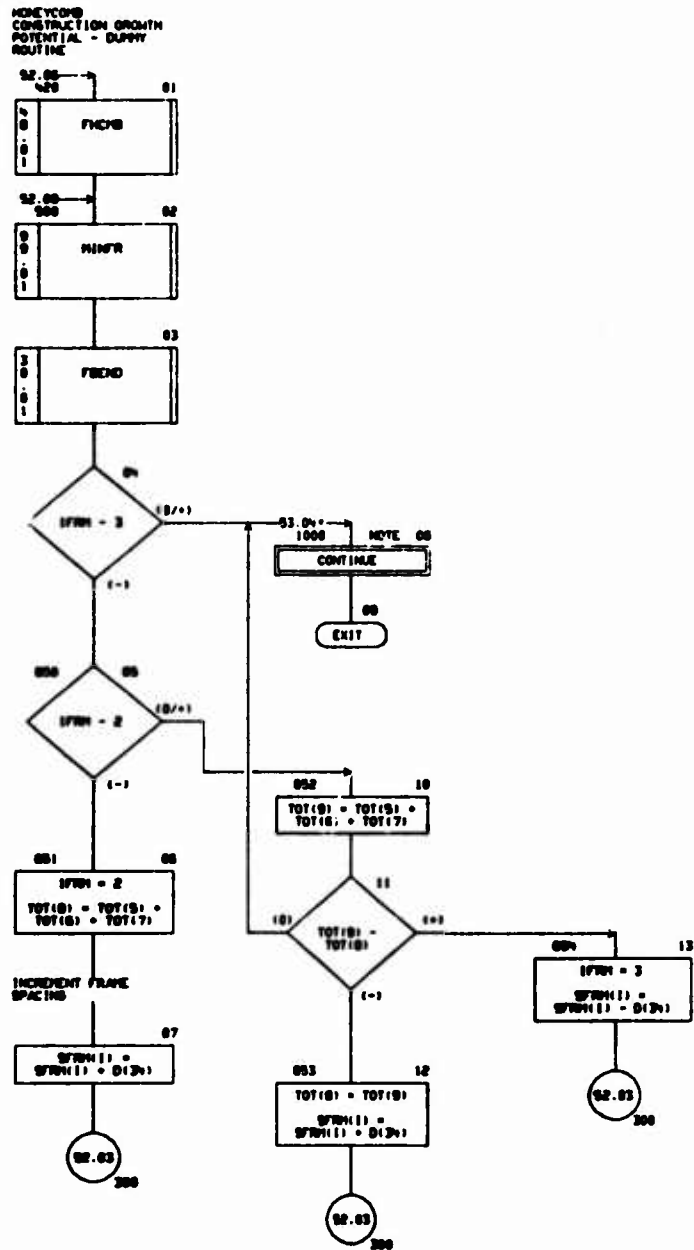


CHART TITLE - NON-PROCEDURAL STATEMENTS

```
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DIMENSION D(2000),T(2000),DC(100),ND(200)
DIMENSION CIND(50)
DIMENSION FRML(20)
DIMENSION S(100),TOT(20),PER(20),SFRM(20)
EQUIVALENCE (D(1),TCON(1)),(T(1),TCON(200)),(DC(1),TCON(410)),
  (ND(1),TCON(420))
EQUIVALENCE (D(24),CIND(1))
EQUIVALENCE (D(30),FRML(1))
EQUIVALENCE (T(1),S(1)),(T(20),TOT(1)),(T(94),PER(1)),
  (T(98),SFRM(1))
EQUIVALENCE (ND(10),I),(ND(102),J),(ND(122),ICST),(ND(124),IFRM)
80 FORMATING,10X,30H*** FRAME SPACE DEFINITION ERROR ***
//5X,40HGENERAL FRAME SPACING HASBEEN SET AT 6 INCHES)
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04/10/74

AUTOFLOW CHART SET - SHEEP

SECOND FUSELAGE OVERLAY

PAGE 95

CHART TITLE - INTRODUCTORY COMMENTS

.....
SUBROUTINE FUSBL
.....

CHART TITLE - SUBROUTINE FUSHA

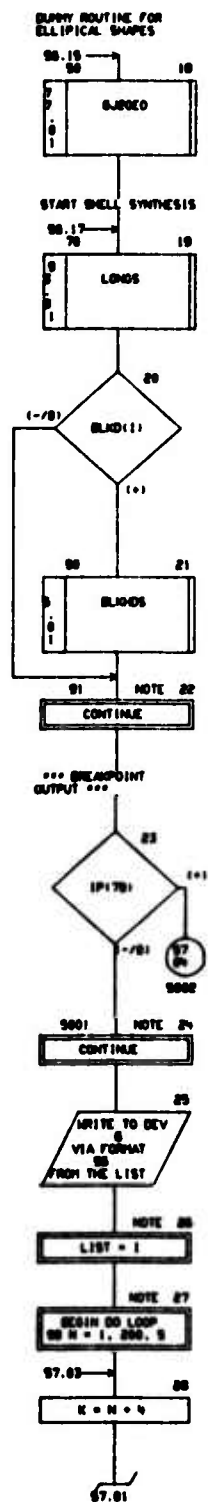
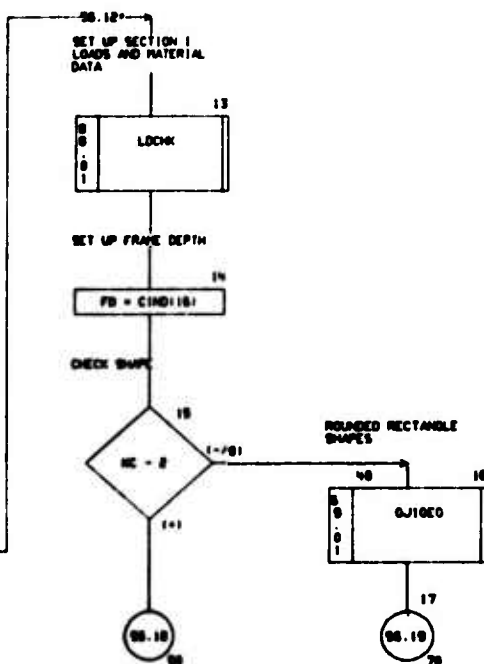
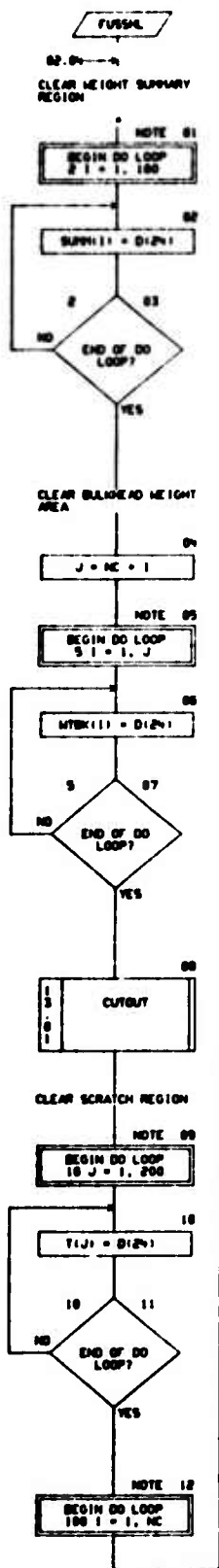


CHART TITLE - SUBROUTINE FUSBL

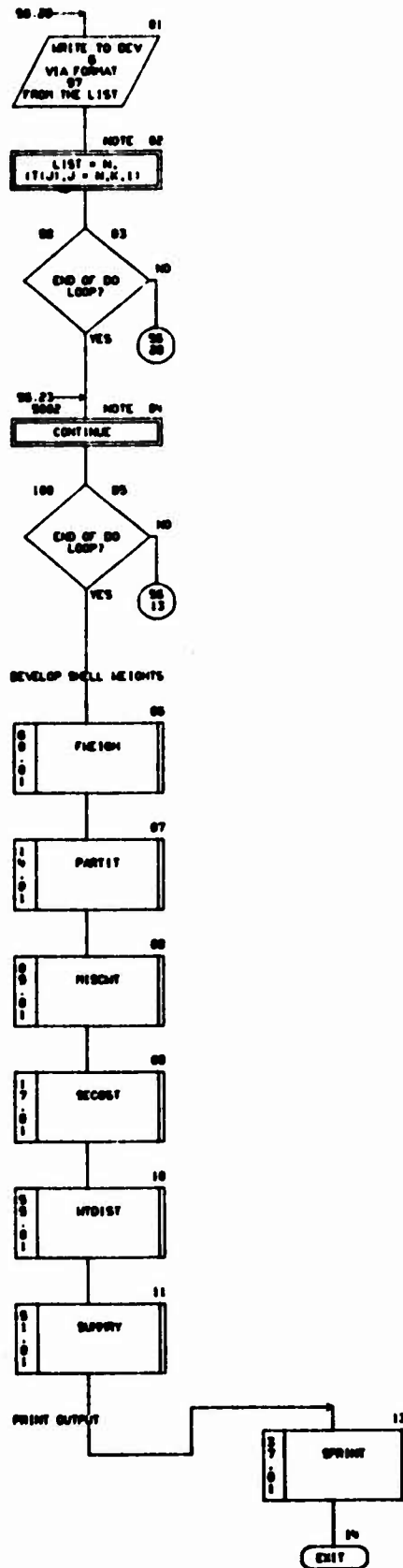


CHART TITLE - NON-PROCEDURAL STATEMENTS

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COMMON TCOM(400)
COMMON/PRINT/ IP(80)
DIMENSION D(2000),T(2000),DC(100),ND(200)
DIMENSION CIND(50)
DIMENSION BLKD(20)
DIMENSION MTBK(20)
DIMENSION SH(20)
DIMENSION SUPN(100)
EQUIVALENCE (D(1),TCOM(1)),(T(1),TCOM(2001)),(DC(1),TCOM(401)),
  (ND(1),TCOM(4201))
EQUIVALENCE (D(2),CIND(1))
EQUIVALENCE (D(56),BLKD(1))
EQUIVALENCE (T(16),SH(1)),(SH(1),FD)
EQUIVALENCE (T(103),MTBK(1))
EQUIVALENCE (TCOM(400),SUPN(1))
EQUIVALENCE (ND(10),J), (ND(102),J), (ND(103),K), (ND(105),N)
EQUIVALENCE (ND(11),NC), (ND(112),KC)
96 FORMAT(1H1,20X,4SH*** BREAKPOINT OUTPUT - SUBROUTINE FUSSEL ***
  20X,21H** FUSSEL - IP(70) ****
  20X,7HSECTION,13/ 5X,BHT-REGION)
97 FORMAT(1X,13,5/10.4)

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CHART TITLE - INTRODUCTORY COMMENTS

.....
SUBROUTINE PUNCH
.....

CHART TITLE - SUBROUTINE FINEION

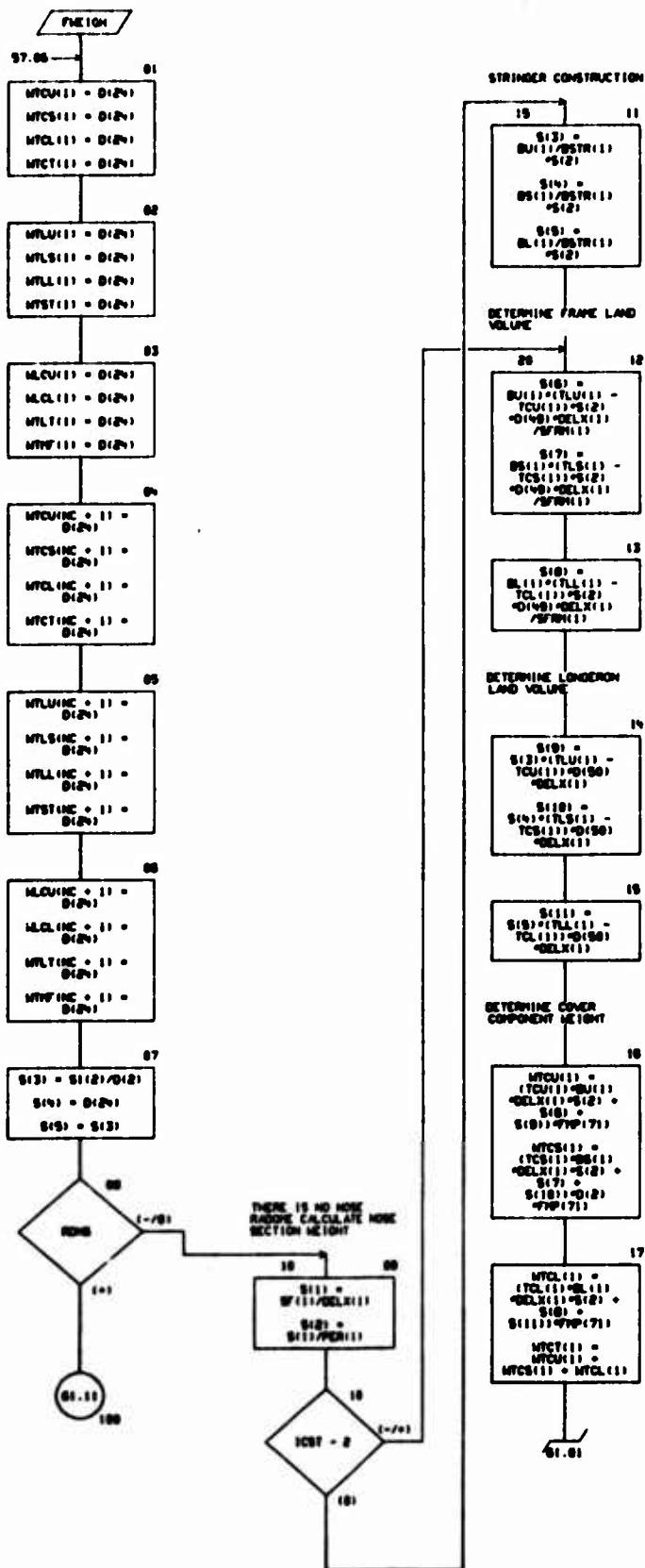
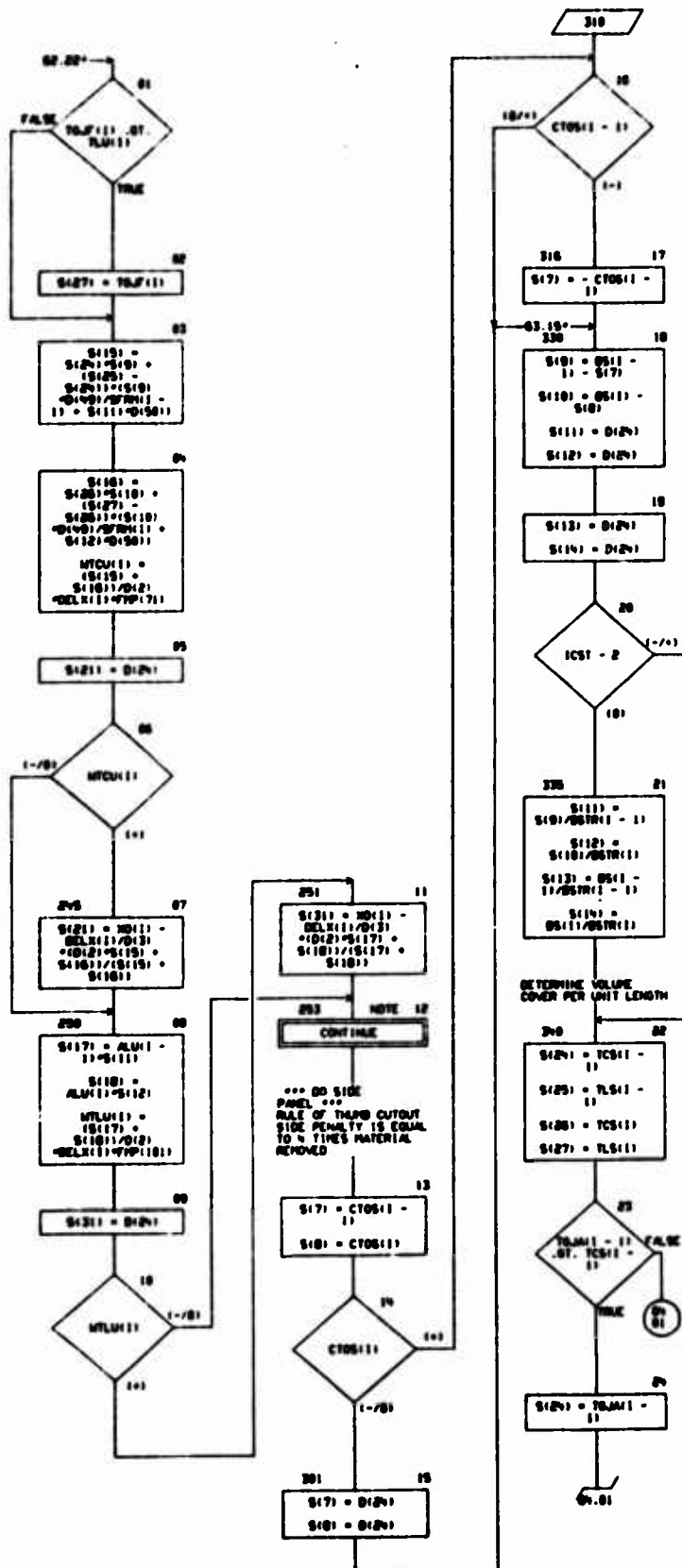


CHART TITLE - SUBROUTINE FUNCTION



CHART TITLE - SUBROUTINE FINECH



677

CHART TITLE - SUBROUTINE FWEIGH

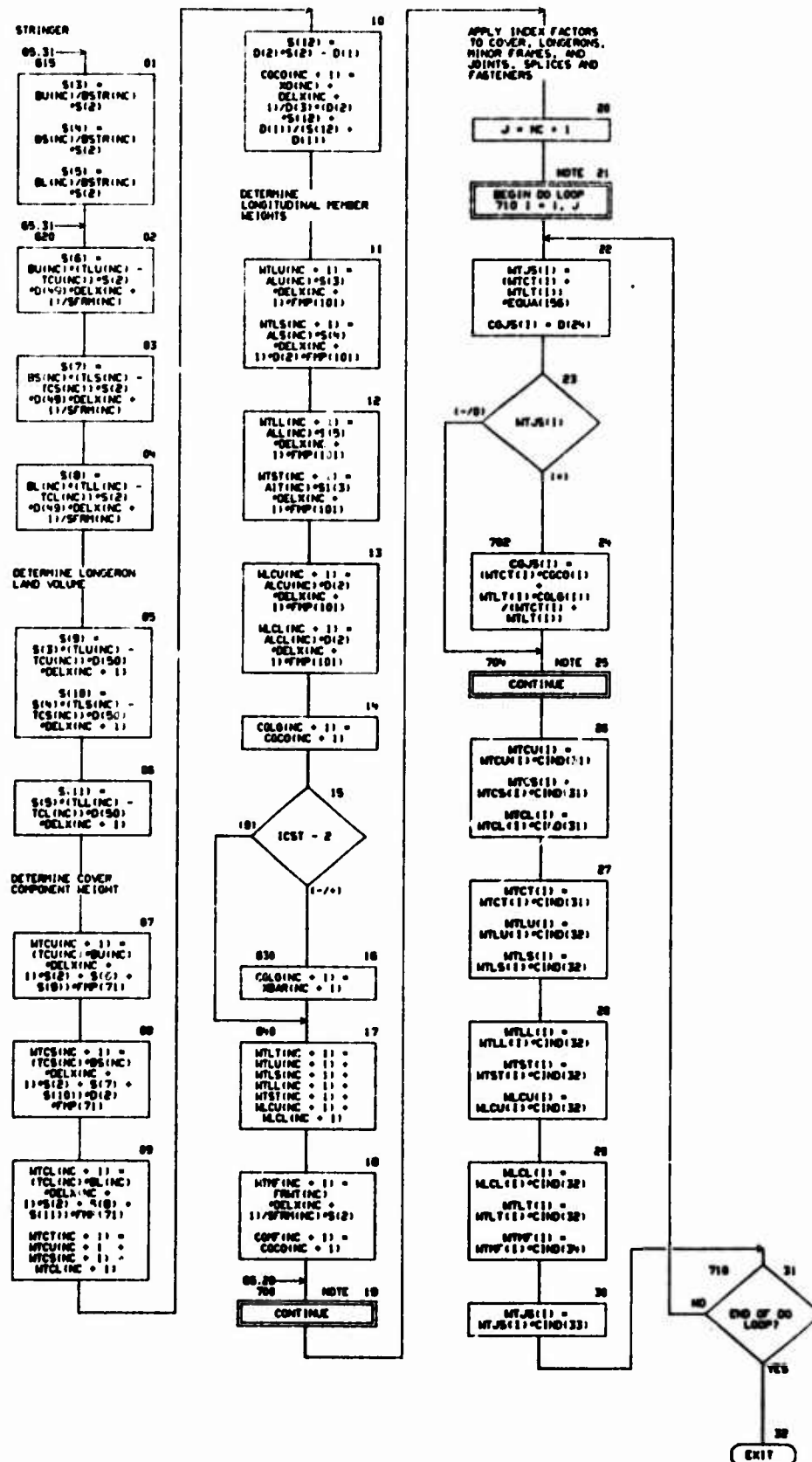


CHART TITLE - NON-PROCEDURAL STATEMENTS

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COMMON TCOM(400)
DIMENSION D(2000),T(2000),DC(100),ND(200)
DIMENSION C(1015),EQUA(160)
DIMENSION NO(20),CTOU(20),CTOL(20),CTOS(20)
DIMENSION SCST(100)
DIMENSION ALCU(20),ALCL(20)
DIMENSION ALCU(20),ALCL(20)
DIMENSION S(100),SI(20)
DIMENSION BU(20),BL(20),BS(20),NBAR(20),DELX(20),SF(20),PER(20)
DIMENSION TCU(20),TCS(20),TCL(20),TLU(20),TLS(20),TLL(20)
DIMENSION TGJ(20),TGJA(20)
DIMENSION ALU(20),ALS(20),ALL(20),AIT(20)
DIMENSION SFRH(20),BSTR(20),FRHT(20),FPH(300)
DIMENSION MTCU(20),MTCS(20),MTCL(20),MTCT(20)
DIMENSION MTLU(20),MTLS(20),MTLL(20),MTST(20),MTLT(20)
DIMENSION MTHF(20),MTJS(20)
DIMENSION COCO(20),COLO(20),COMP(20),COJS(20)
EQUIVALENCE (D(1),TCOM(1)),(T(1),TCOM(2001)),(DC(1),TCOM(4101)),
  (ND(1),TCOM(4201))
EQUIVALENCE (D(81),EQUA(1)),(D(241),CIND(1))
EQUIVALENCE (D(361),NO(1)),(D(461),CTOU(1)),(D(481),CTOL(1)),
  (D(501),CTOS(1))
EQUIVALENCE (D(821),SCST(1)),(SCST(8),ND(8)),(SCST(8),NDCT)
EQUIVALENCE (D(1581),ALCU(1)),(D(1611),ALCL(1))
EQUIVALENCE (D(1631),ALCU(1)),(D(1651),ALCL(1))
EQUIVALENCE (T(1),S(1)),(T(101),SI(1))
EQUIVALENCE (T(301),BU(1)),(T(321),BL(1)),(T(341),BS(1)),
  (T(361),NBAR(1)),(T(381),DELX(1)),(T(401),SF(1)),(T(441),PER(1))
EQUIVALENCE (T(621),TCU(1)),(T(641),TCS(1)),(T(661),TCL(1)),
  (T(681),TLU(1)),(T(701),TLS(1)),(T(721),TLL(1))
EQUIVALENCE (T(761),TGJ(1)),(T(781),TGJA(1))
EQUIVALENCE (T(801),ALU(1)),(T(821),ALL(1)),(T(841),ALS(1)),
  (T(351),AIT(1))
EQUIVALENCE (T(881),SFRH(1)),(T(921),BSTR(1)),(T(941),FRHT(1)),
  (T(1201),FPH(1))
EQUIVALENCE (T(1501),MTCU(1)),(T(1521),MTCS(1)),(T(1541),MTCL(1)),
  (T(1561),MTCT(1))
EQUIVALENCE (T(1581),MTLU(1)),(T(1601),MTLS(1)),(T(1621),MTLL(1)),
  (T(1641),MTST(1)),(T(1661),MTLT(1))
EQUIVALENCE (T(1681),MTHF(1)),(T(1701),MTJS(1))
EQUIVALENCE (T(1721),COCO(1)),(T(1741),COLO(1)),
  (T(1761),COMP(1)),(T(1781),COJS(1))
EQUIVALENCE (ND(101),J), (ND(102),J)
EQUIVALENCE (ND(111),NC), (ND(102),ICST)

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04/10/74

AUTOFLOW CHART SET - SHEEP SECOND FUSELAGE OVERLAY

PAGE 60

CHART TITLE - INTRODUCTORY COMMENTS

.....
SUBROUTINE GJ020
.....

6190

36.10-4
WRITTEN 31 JANUARY
1972
TO DETERMINE GJ
REQUIREMENTS FOR
SHELL COVERS AND
PARTITIONS

NOTE FD = FRAME
DEPTH CIND(14) = NO
OF RADII SHOULD
SET UP NO CUTOFF DATA

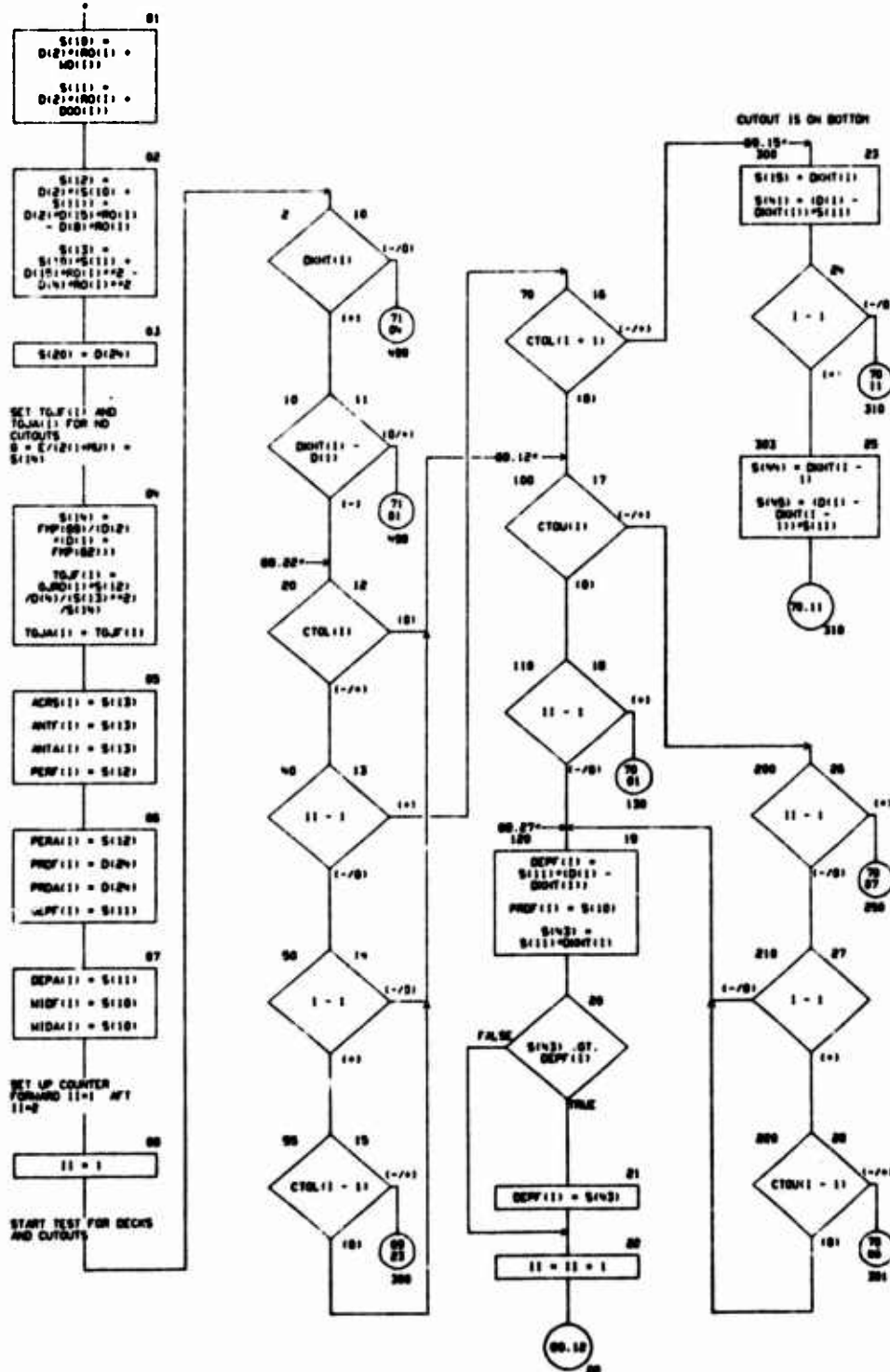


CHART TITLE - SUBROUTINE GJGEO

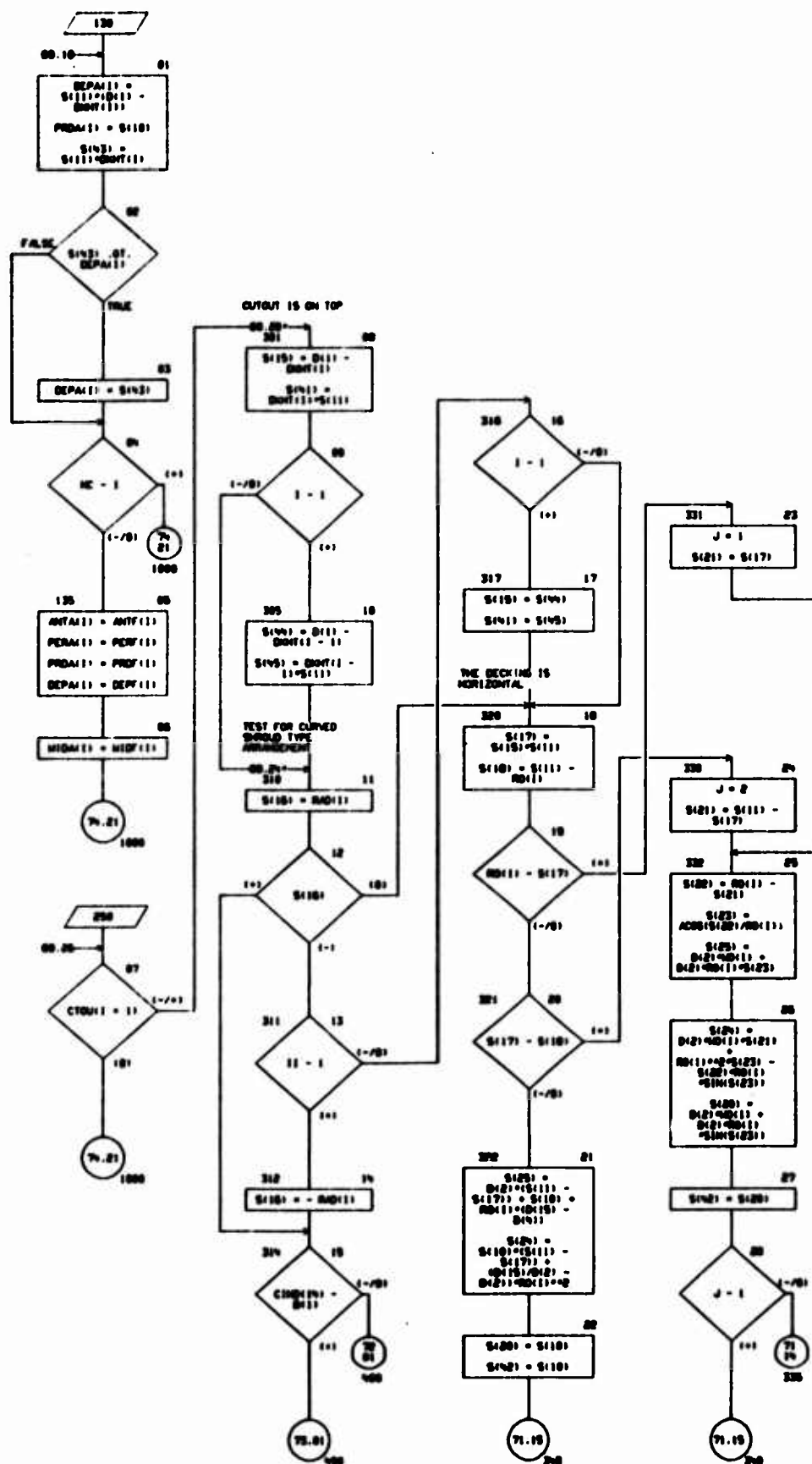
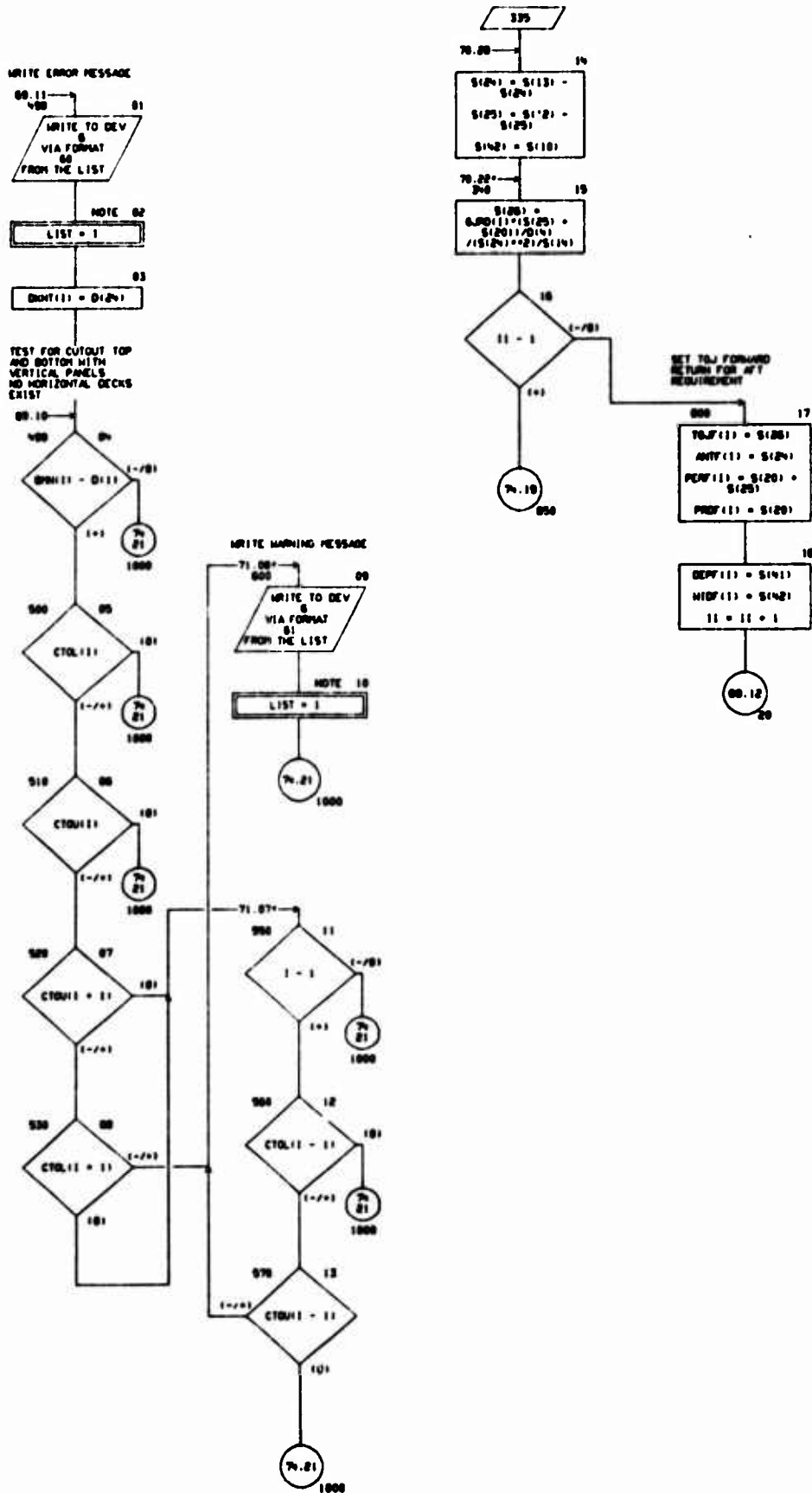


CHART TITLE - SUBROUTINE GJGED



SINGLE RADIUS SPREAD

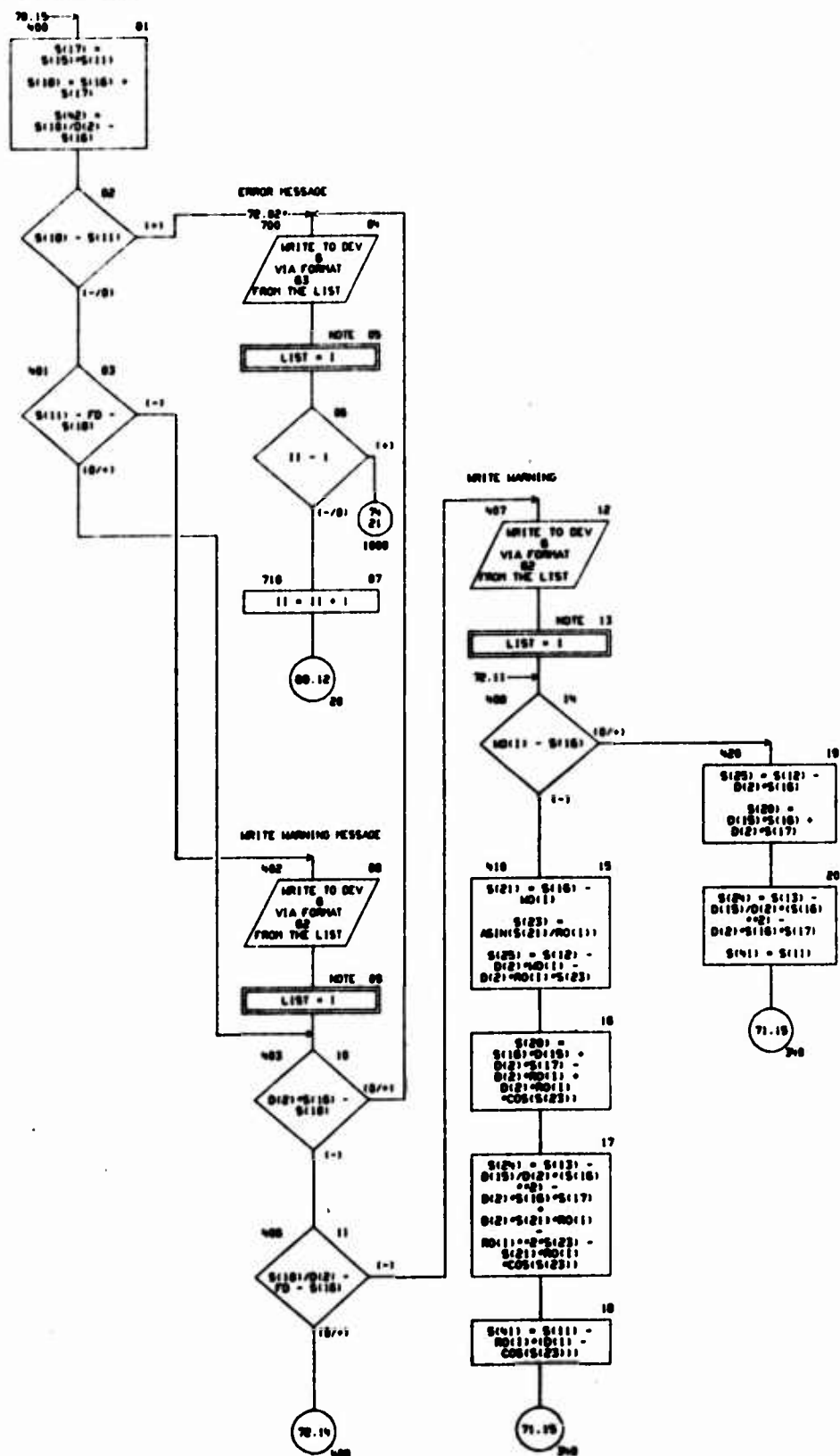


CHART TITLE - SUBROUTINE GJ1000

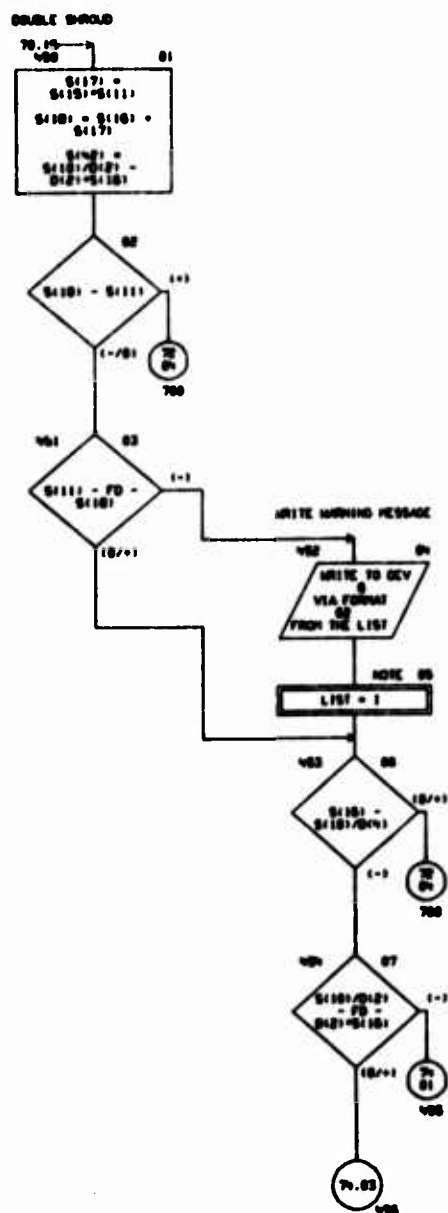


CHART TITLE - SUBROUTINE GJ10E0

WRITE WARNING MESSAGE

73.07
455
WRITE TO DEV
VIA FORMAT
02
FROM THE LIST

NOTE 02

LIST = 1

73.07
456

456
03
D(1) = S(16)

1-1

457
04
S(11)/D(2) = S(17)

1-1

458
05
D(2) = S(11)/D(2) - S(17)

1-1

459
06
S(30) = S(16) - D(1)

S(31) = S(17) - S(11)/D(2) - D(2)

S(32) = D(2) - S(16)

07

S(33) = (S(30)*2 + S(31)*2)*.5

08

S(33) = S(33)

1-1

460
09
S(32) = 70 - S(33)

1-1

461
10
S(21) = S(12) - D(1)*S(16)

S(22) = S(13) - D(1)*S(17)

S(23) = S(14) - D(1)*S(18)

17

462
11
S(24) = S(15) - D(1)*S(19)

S(25) = S(16) - D(1)*S(20)

S(26) = S(17) - D(1)*S(21)

18

463
12
S(27) = S(18) - D(1)*S(22)

S(28) = S(19) - D(1)*S(23)

S(29) = S(20) - D(1)*S(24)

19

464
13
S(30) = S(21) - D(1)*S(25)

S(31) = S(22) - D(1)*S(26)

S(32) = S(23) - D(1)*S(27)

20

465
14
S(33) = S(30) - D(1)*S(31)

S(34) = S(31) - D(1)*S(32)

S(35) = S(32) - D(1)*S(33)

21

466
15
S(36) = S(33) - D(1)*S(34)

S(37) = S(34) - D(1)*S(35)

S(38) = S(35) - D(1)*S(36)

22

467
16
S(39) = S(36) - D(1)*S(37)

S(40) = S(37) - D(1)*S(38)

S(41) = S(38) - D(1)*S(39)

23

468
17
S(42) = S(39) - D(1)*S(40)

S(43) = S(40) - D(1)*S(41)

S(44) = S(41) - D(1)*S(42)

24

469
18
S(45) = S(42) - D(1)*S(43)

S(46) = S(43) - D(1)*S(44)

S(47) = S(44) - D(1)*S(45)

25

470
19
S(48) = S(45) - D(1)*S(46)

S(49) = S(46) - D(1)*S(47)

S(50) = S(47) - D(1)*S(48)

26

471
20
S(51) = S(48) - D(1)*S(49)

S(52) = S(49) - D(1)*S(50)

S(53) = S(50) - D(1)*S(51)

27

472
21
S(54) = S(51) - D(1)*S(52)

S(55) = S(52) - D(1)*S(53)

S(56) = S(53) - D(1)*S(54)

28

473
22
S(57) = S(54) - D(1)*S(55)

S(58) = S(55) - D(1)*S(56)

S(59) = S(56) - D(1)*S(57)

29

474
23
S(60) = S(57) - D(1)*S(58)

S(61) = S(58) - D(1)*S(59)

S(62) = S(59) - D(1)*S(60)

30

475
24
S(63) = S(60) - D(1)*S(61)

S(64) = S(61) - D(1)*S(62)

S(65) = S(62) - D(1)*S(63)

31

476
25
S(66) = S(63) - D(1)*S(64)

S(67) = S(64) - D(1)*S(65)

S(68) = S(65) - D(1)*S(66)

32

477
26
S(69) = S(66) - D(1)*S(67)

S(70) = S(67) - D(1)*S(68)

S(71) = S(68) - D(1)*S(69)

33

478
27
S(72) = S(69) - D(1)*S(70)

S(73) = S(70) - D(1)*S(71)

S(74) = S(71) - D(1)*S(72)

34

479
28
S(75) = S(72) - D(1)*S(73)

S(76) = S(73) - D(1)*S(74)

S(77) = S(74) - D(1)*S(75)

35

480
29
S(78) = S(75) - D(1)*S(76)

S(79) = S(76) - D(1)*S(77)

S(80) = S(77) - D(1)*S(78)

36

481
30
S(81) = S(78) - D(1)*S(79)

S(82) = S(79) - D(1)*S(80)

S(83) = S(80) - D(1)*S(81)

37

482
31
S(84) = S(81) - D(1)*S(82)

S(85) = S(82) - D(1)*S(83)

S(86) = S(83) - D(1)*S(84)

38

483
32
S(87) = S(84) - D(1)*S(85)

S(88) = S(85) - D(1)*S(86)

S(89) = S(86) - D(1)*S(87)

39

484
33
S(90) = S(87) - D(1)*S(88)

S(91) = S(88) - D(1)*S(89)

S(92) = S(89) - D(1)*S(90)

40

485
34
S(93) = S(90) - D(1)*S(91)

S(94) = S(91) - D(1)*S(92)

S(95) = S(92) - D(1)*S(93)

41

486
35
S(96) = S(93) - D(1)*S(94)

S(97) = S(94) - D(1)*S(95)

S(98) = S(95) - D(1)*S(96)

42

487
36
S(99) = S(96) - D(1)*S(97)

S(100) = S(97) - D(1)*S(98)

S(101) = S(98) - D(1)*S(99)

43

488
37
S(102) = S(99) - D(1)*S(100)

S(103) = S(100) - D(1)*S(101)

S(104) = S(101) - D(1)*S(102)

44

489
38
S(105) = S(102) - D(1)*S(103)

S(106) = S(103) - D(1)*S(104)

S(107) = S(104) - D(1)*S(105)

45

490
39
S(108) = S(105) - D(1)*S(106)

S(109) = S(106) - D(1)*S(107)

S(110) = S(107) - D(1)*S(108)

46

491
40
S(111) = S(108) - D(1)*S(109)

S(112) = S(109) - D(1)*S(110)

S(113) = S(110) - D(1)*S(111)

47

492
41
S(114) = S(111) - D(1)*S(112)

S(115) = S(112) - D(1)*S(113)

S(116) = S(113) - D(1)*S(114)

48

493
42
S(117) = S(114) - D(1)*S(115)

S(118) = S(115) - D(1)*S(116)

S(119) = S(116) - D(1)*S(117)

49

494
43
S(120) = S(117) - D(1)*S(118)

S(121) = S(118) - D(1)*S(119)

S(122) = S(119) - D(1)*S(120)

50

495
44
S(123) = S(120) - D(1)*S(121)

S(124) = S(121) - D(1)*S(122)

S(125) = S(122) - D(1)*S(123)

51

496
45
S(126) = S(123) - D(1)*S(124)

S(127) = S(124) - D(1)*S(125)

S(128) = S(125) - D(1)*S(126)

52

497
46
S(129) = S(126) - D(1)*S(127)

S(130) = S(127) - D(1)*S(128)

S(131) = S(128) - D(1)*S(129)

53

498
47
S(132) = S(129) - D(1)*S(130)

S(133) = S(130) - D(1)*S(131)

S(134) = S(131) - D(1)*S(132)

54

499
48
S(135) = S(132) - D(1)*S(133)

S(136) = S(133) - D(1)*S(134)

S(137) = S(134) - D(1)*S(135)

55

500
49
S(138) = S(135) - D(1)*S(136)

S(139) = S(136) - D(1)*S(137)

S(140) = S(137) - D(1)*S(138)

56

501
50
S(141) = S(138) - D(1)*S(139)

S(142) = S(139) - D(1)*S(140)

S(143) = S(140) - D(1)*S(141)

57

502
51
S(144) = S(141) - D(1)*S(142)

S(145) = S(142) - D(1)*S(143)

S(146) = S(143) - D(1)*S(144)

58

503
52
S(147) = S(144) - D(1)*S(145)

S(148) = S(145) - D(1)*S(146)

S(149) = S(146) - D(1)*S(147)

59

504
53
S(150) = S(147) - D(1)*S(148)

S(151) = S(148) - D(1)*S(149)

S(152) = S(149) - D(1)*S(150)

60

505
54
S(153) = S(150) - D(1)*S(151)

S(154) = S(151) - D(1)*S(152)

S(155) = S(152) - D(1)*S(153)

61

506
55
S(156) = S(153) - D(1)*S(154)

S(157) = S(154) - D(1)*S(155)

S(158) = S(155) - D(1)*S(156)

62

507
56
S(159) = S(156) - D(1)*S(157)

S(160) = S(157) - D(1)*S(158)

S(161) = S(158) - D(1)*S(159)

63

508
57
S(162) = S(159) - D(1)*S(160)

S(163) = S(160) - D(1)*S(161)

S(164) = S(161) - D(1)*S(162)

64

509
58
S(165) = S(162) - D(1)*S(163)

S(166) = S(163) - D(1)*S(164)

S(167) = S(164) - D(1)*S(165)

65

510

```

COMMON TCON(400)
DIMENSION D(200),T(200),DC(100),ND(200)
DIMENSION DMT(20),CTOU(20),CTOL(20),SPH(20),RAD(20),GJRD(20)
DIMENSION CIND(50)
DIMENSION ACRS(20),ANTF(20),ANTA(20),PERF(20),PERA(20),PROF(20),
PRDA(20)
DIMENSION DEFF(20),DEPA(20),MIDF(20),MIDA(20)
DIMENSION S(100),DOO(20),MD(20),RD(20),TOLF(20),TOLAJ(20),TYP(200)
DIMENSION SN(20)
EQUIVALENCE (D(1),TCON(1)),(T(1),TCON(200)),(DC(1),TCON(401)),
(ND(1),TCON(420))
EQUIVALENCE (D(24),CIND(1))
EQUIVALENCE (D(44),DMT(1))
EQUIVALENCE (D(46),CTOU(1),D(48),CTOL(1))
EQUIVALENCE (D(52),RAD(1),D(54),SPH(1))
EQUIVALENCE (D(70),GJRD(1))
EQUIVALENCE (D(110),ACRS(1),D(112),ANTF(1),
D(114),ANTA(1),D(116),PERF(1),D(118),PERA(1),
D(120),PROF(1),D(122),PRDA(1))
EQUIVALENCE (D(124),DEFF(1),D(126),DEPA(1),
D(128),MIDF(1),D(130),MIDA(1))
EQUIVALENCE (T(1),S(1)),(T(44),DOO(1)),(T(46),MD(1)),
(T(48),RD(1)),(T(70),TOLF(1)),(T(72),TOLAJ(1)),
(T(201),TYP(1))
EQUIVALENCE (T(16),SN(1))
EQUIVALENCE (SN(1),TD)
EQUIVALENCE (ND(10),1),(ND(100),J),(ND(107),1)
EQUIVALENCE (ND(11),NC)
80 FORMAT(1H,10X,21H*** ERROR MESSAGE ***,//5X,
$CHECK INPUT DATA SET SECTION,13,2X,17HDECK HEIGHT ERROR)
81 FORMAT(1H,21H** WARNING MESSAGE **,//5X,7HSECTION,13,2X,
$THCUTOUT TOP AND BOTTON IS BEYOND THE SCOPE OF THIS PROGRAM)
82 FORMAT(1H,10X,21H** WARNING MESSAGE **,//5X,7HSECTION,13,2X,
$BROWARD DATA - CUTOUT - FRAME DEPTH IS LESS THAN NOTED)
83 FORMAT(1H,10X,21H*** ERROR MESSAGE ***,//5X,
$CHECK INPUT DATA SET SECTION,13,2X,
$THDECK HEIGHT OR RADIUS ERROR)

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04/10/76

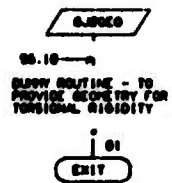
AUTOFLOW CHART SET - SHEEP

SECOND FUSELAGE OVERLAY

PAGE 70

CHART TITLE - INTRODUCTORY COMMENTS

.....
SUBROUTINE GJ200
.....



04/10/74

AUTOFLOW CHART SET - SHEEP SECOND FUSELAGE OVERLAY

PAGE 78

CHART TITLE - NON-PROCEDURAL STATEMENTS

COMMON TCON(4400)

DIMENSION D(2000),T(2000),DC(100),IND(200)

EQUIVALENCE (D(1),TCON(1)),(T(1),TCON(200)),(DC(1),TCON(101)),
(IND(1),TCON(4201))

04/10/74

AUTOFLOW CHART SET - SHEEP SECOND FUSELAGE OVERLAY

PAGE 79

CHART TITLE - INTRODUCTORY COMMENTS

SUBROUTINE EILONG
#####

CHART TITLE - SUBROUTINE IILONG

IILONG

93.00
 WRITTEN 24 JANUARY
 1972
 TO DEVELOP UNIT
 INERTIAS FOR ROUNDED
 RECTANGLE SHAPES

CALCULATE UNIT COVER
 INERTIAS

01
 $S1(4) = D(2) * (RO(1) + DOO(1))$

02
 $S1(5) = D(2) * (MO(1) + RO(1))$
 $+ DOO(1) * 2 + RO(1) * (RO(1) + 2 * D(8) * (D(15) + D(2)) + RO(1) * DOO(1) + D(25) + DOO(1) * 2 * D(15) / D(4))$

03
 $S1(6) = S1(5)$

04
 $S1(7) = D(2) * (MO(1) + 5 * D(3) + RO(1) * (RO(1) + 2 * D(8) * (D(15) + D(2)) + RO(1) * DOO(1) + D(25) + DOO(1) * 2 * D(15) / D(4))$

05
 $S1(8) = S1(7)$

06
 $S1(9) = D(4) * (DOO(1) + 5 * D(3) + RO(1) * (RO(1) + 2 * D(8) * (D(15) + D(2)) + RO(1) * DOO(1) + D(25) + DOO(1) * 2 * D(15) / D(4))$

07
 $S1(10) = D(4) * (DOO(1) + RO(1) + MO(1) * 2 + RO(1) * (RO(1) + 2 * D(8) * (D(15) + D(2)) + RO(1) * DOO(1) + D(25) + DOO(1) * 2 * D(15) / D(4))$

CLEAR BENDING ELEMENT
 SECTION PROPERTIES

NOTE 08
 BEGIN DO LOOP
 IS J = 11, 20

09
 $S1(J) = D(24)$

10
 END OF DO
 LOOP?

YES

ICST = CONSTRUCTION
 INDICATOR
 $S1(11) = \text{STRINGER}$
 $S1(12) = \text{SPACING}$
 $S1(13) = \text{NUMBER OF}$
 SECONDARY LONGS

11
 $ICST = 2$

12
 $S1(11) = \text{STRINGER}$
 $S1(12) = \text{SPACING}$
 $S1(13) = \text{NUMBER OF}$
 SECONDARY LONGS

13
 $S1(14) = S1(13)$

14
 $S1(15) = S1(14)$

15
 $S1(16) = S1(15)$

16
 $S1(17) = S1(16)$

17
 $S1(18) = S1(17)$

18
 $S1(19) = S1(18)$

19
 $S1(20) = S1(19)$

20
 $S1(21) = S1(20)$

21
 $S1(22) = S1(21)$

22
 $S1(23) = S1(22)$

$S1(1) = \text{LONGERON}$
 DEPTH TO
 $\text{SECTION-HEIGHT RATIO}$

100
 $S1(1) = S1(1) * (RO(1) + DOO(1))$

101
 $S1(11) = S1(1) * (RO(1) + DOO(1))$

102
 $S1(12) = S1(11)$

103
 $S1(13) = S1(12)$

104
 $S1(14) = S1(13)$

105
 $S1(15) = S1(14)$

106
 $S1(16) = S1(15)$

107
 $S1(17) = S1(16)$

108
 $S1(18) = S1(17)$

109
 $S1(19) = S1(18)$

110
 $S1(20) = S1(19)$

111
 $S1(21) = S1(20)$

112
 $S1(22) = S1(21)$

113
 $S1(23) = S1(22)$

114
 $S1(24) = S1(23)$

115
 $S1(25) = S1(24)$

116
 $S1(26) = S1(25)$

117
 $S1(27) = S1(26)$

118
 $S1(28) = S1(27)$

119
 $S1(29) = S1(28)$

120
 $S1(30) = S1(29)$

CHART TITLE - SUBROUTINE 11LONG

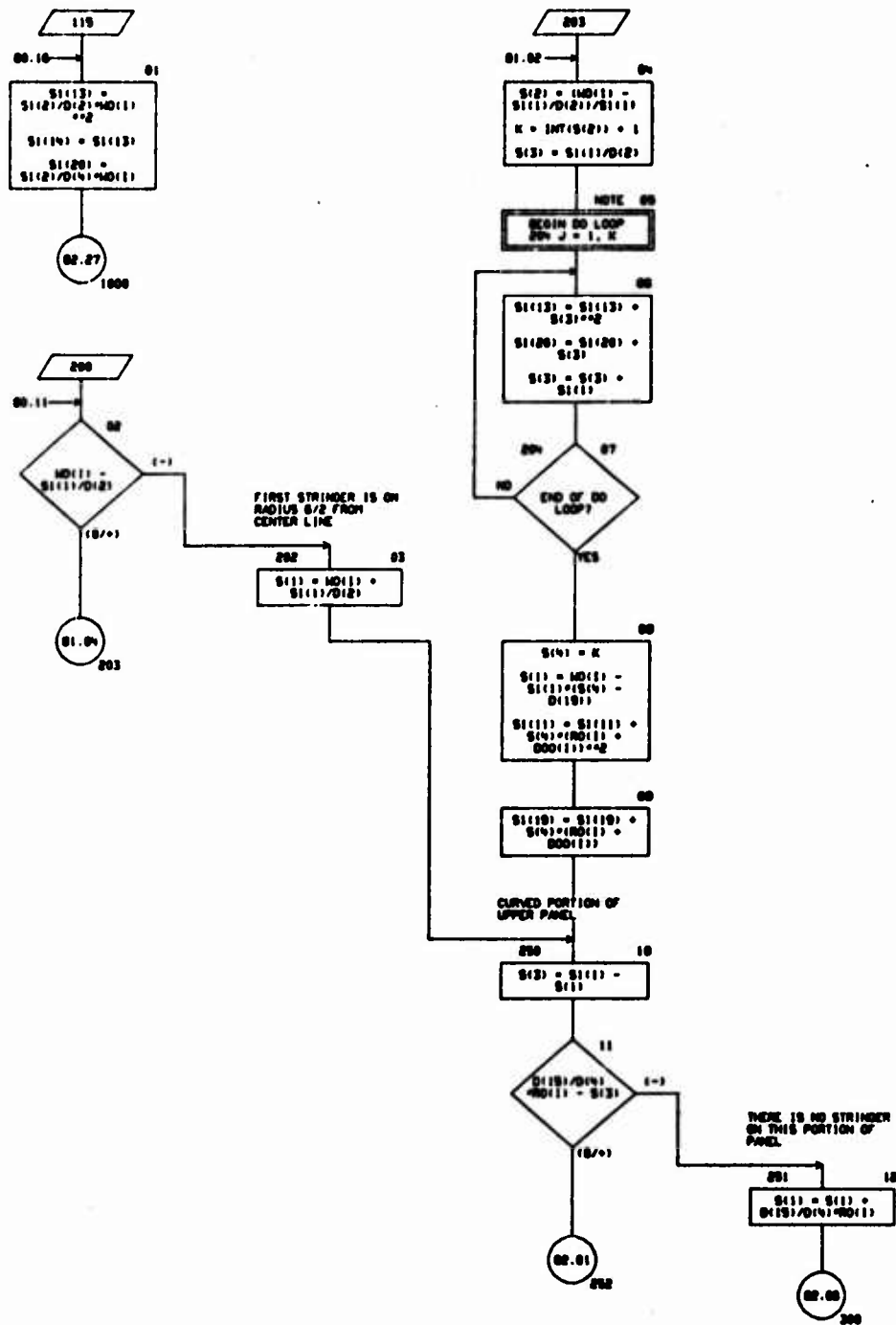


CHART TITLE - SUBROUTINE TILONG

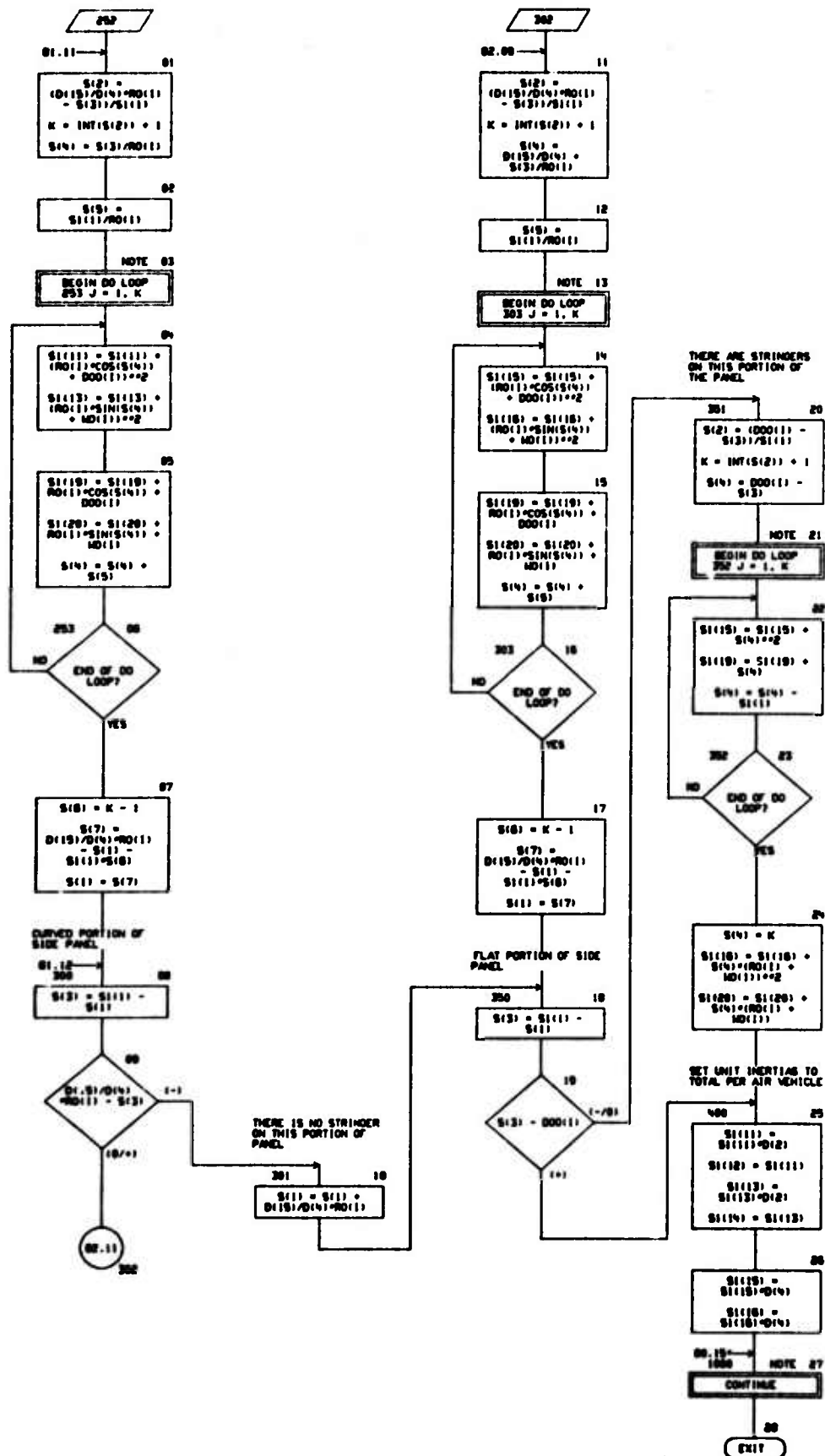


CHART TITLE - NON-PROCEDURAL STATEMENTS

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COMMON TCON(400)
DIMENSION O(200),T(200),DC(100),ND(200)
DIMENSION S(100),S(20)
DIMENSION DOO(20),MO(20),RO(20)
EQUIVALENCE (O(1),TCON(1)),(T(1),TCON(200)),(DC(1),TCON(401)),
(ND(1),TCON(401))
EQUIVALENCE (T(1),S(1)),(T(101),S(1))
EQUIVALENCE (T(401),DOO(1)),(T(401),MO(1)),(T(401),RO(1))
EQUIVALENCE (ND(101),J),(ND(102),J),(ND(103),K)
EQUIVALENCE (ND(102),ICST)
    
```

04/18/74

AUTOFLW CHART SET - SHEEP SECOND FUSELAGE OVERLAY

PAGE 04

CHART TITLE - INTRODUCTORY COMMENTS

SUBROUTINE IZLOND

04/10/74

AUTOFLON CHART SET - SHEEP SECOND FUSELAGE OVERLAY

PAGE 00

PRINT TITLE FOR TOPGRAPHY STATEMENT

COMMON TCON(4400)

DIMENSION D(2000),T(2000),DC(100),ND(200)

EQUIVALENCE (D(1),TCON(1)),(T(1),TCON(200)),(DC(1),TCON(410)),

(ND(1),TCON(430))

04/10/74

AUTOFLOW CHART SET - SHEEP SECOND FUSELAGE OVERLAY

PAGE 07

CHART TITLE - INTRODUCTORY COMMENTS

SUBROUTINE LOCK#
#####

CHART TITLE - SUBROUTINE LOCKX

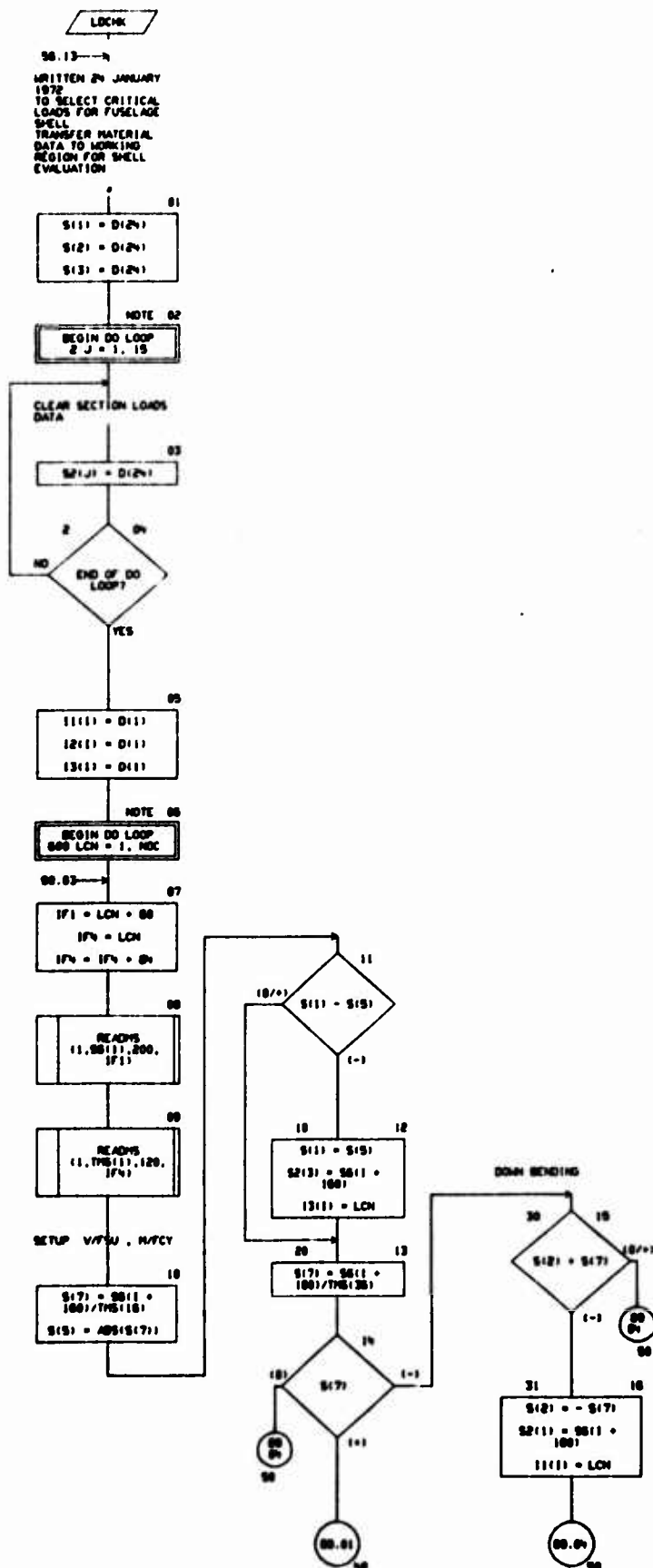


CHART TITLE - SUBROUTINE LOCK

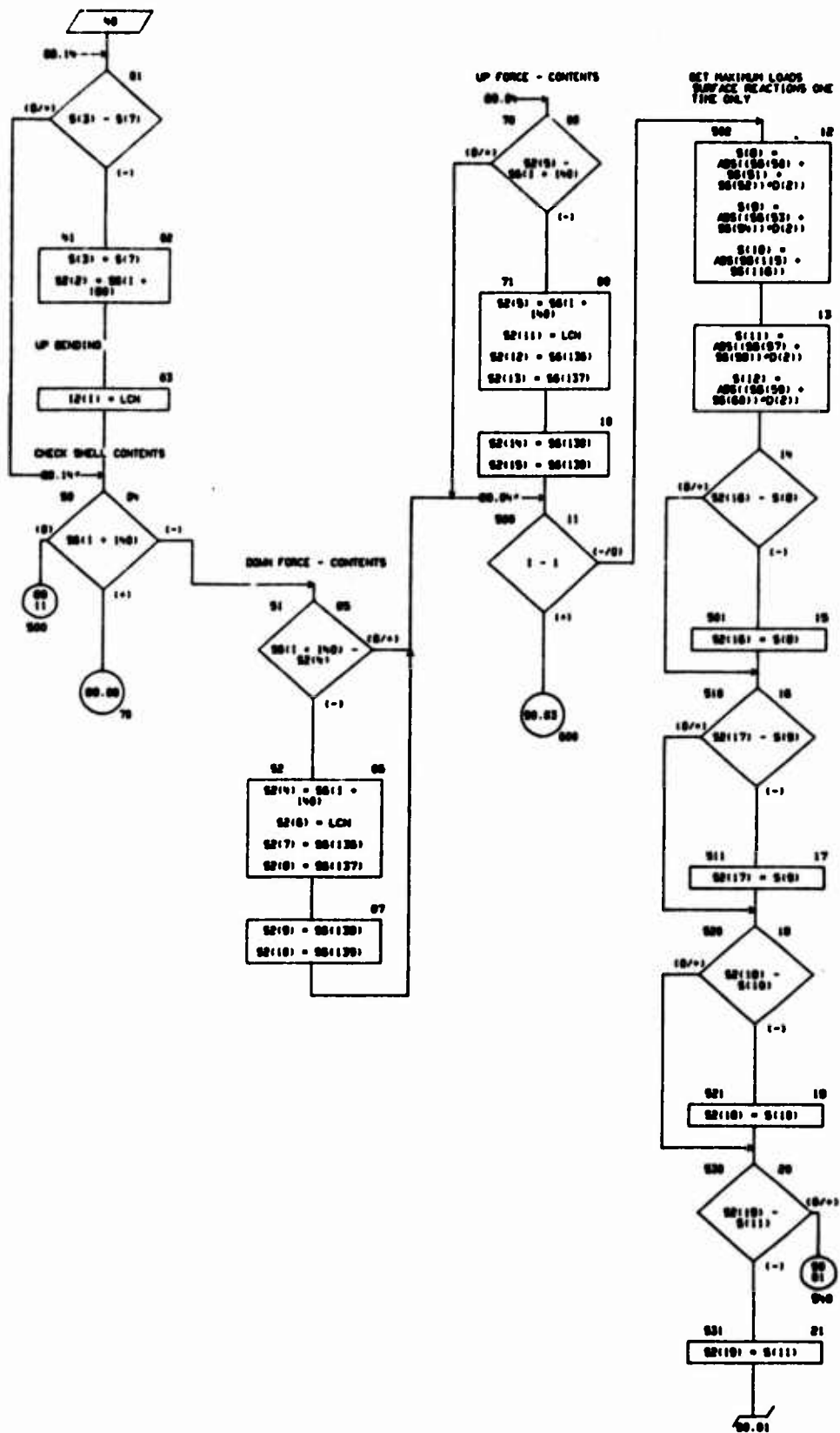
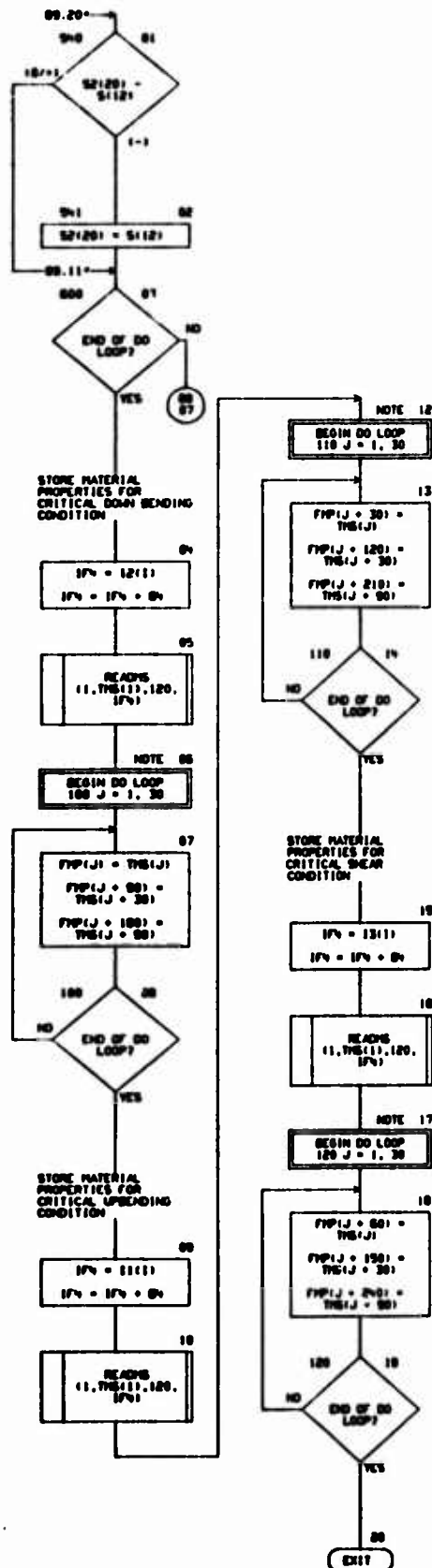


CHART TITLE - SUBROUTINE LDCM:



1.0000 1.0000 1.0000 1.0000 1.0000

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COMMON TCON(400)
DIMENSION S(200),T(200),DC(100),ND(200)
DIMENSION THS(120)
DIMENSION S(100),S2(20),FYP(200),SS(200)
DIMENSION I1(20),I2(20),I3(20)
EQUIVALENCE (S(1),TCON(1)),(T(1),TCON(200)),(DC(1),TCON(100)),
(ND(1),TCON(400))
EQUIVALENCE (S(120),THS(1))
EQUIVALENCE (T(1),S(1)),(T(120),S2(1)),(T(120),FYP(1))
EQUIVALENCE (T(100),SS(1))
EQUIVALENCE (ND(10),I1(1),ND(10),I1(2),ND(10),I1(3),ND(10),I1(4),
ND(11),I2(1),ND(11),I2(2),ND(11),I2(3),ND(11),I2(4),
ND(12),I3(1),ND(12),I3(2),ND(12),I3(3),ND(12),I3(4))
EQUIVALENCE (ND(14),LCH),ND(115),NDC)
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04/10/74

AUTOFLOW CHART SET - SHEEP SECOND FUSELAGE OVERLAY

PAGE 02

CHART TITLE - INTRODUCTORY COMMENTS

SUBROUTINE LONGS
#####

CHART TITLE - SUBROUTINE LONGS

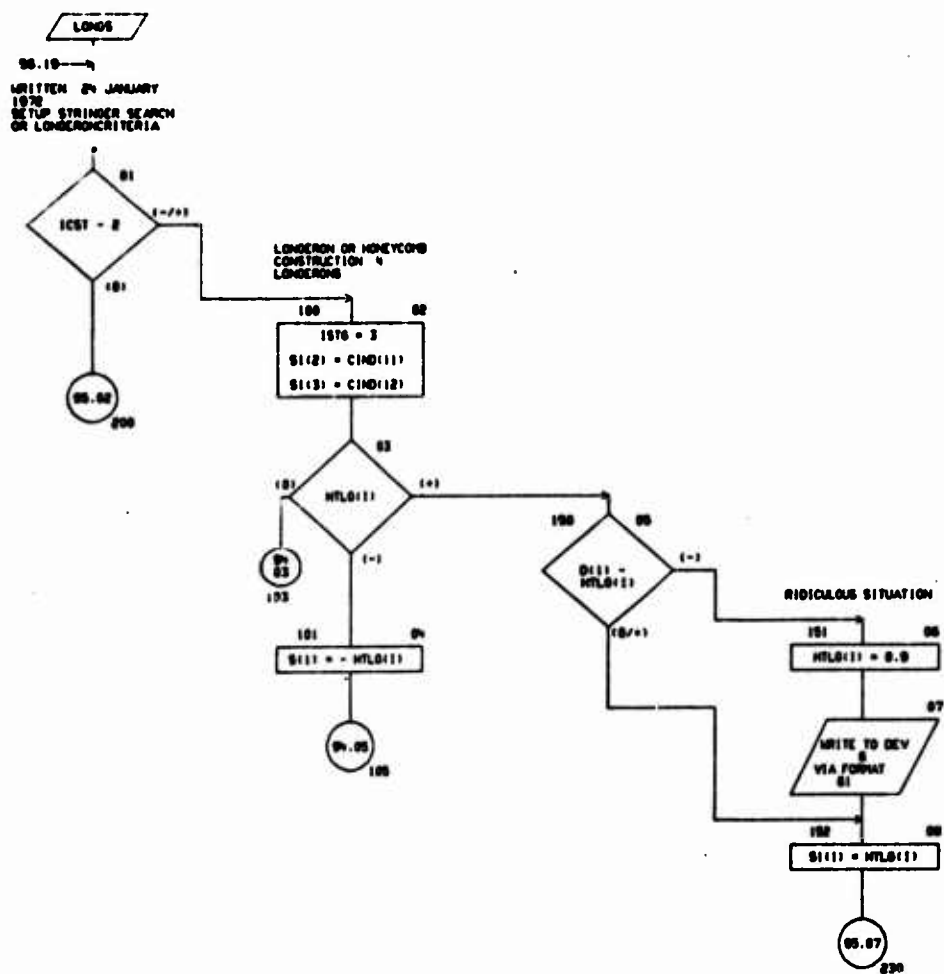
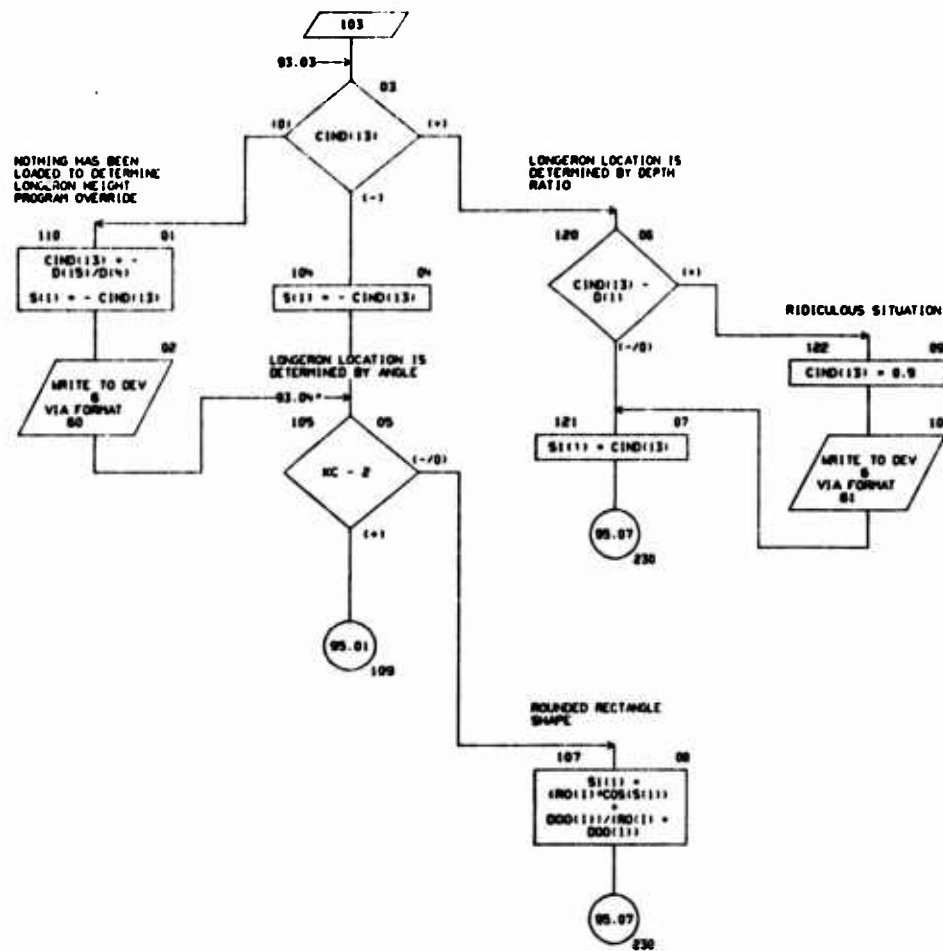
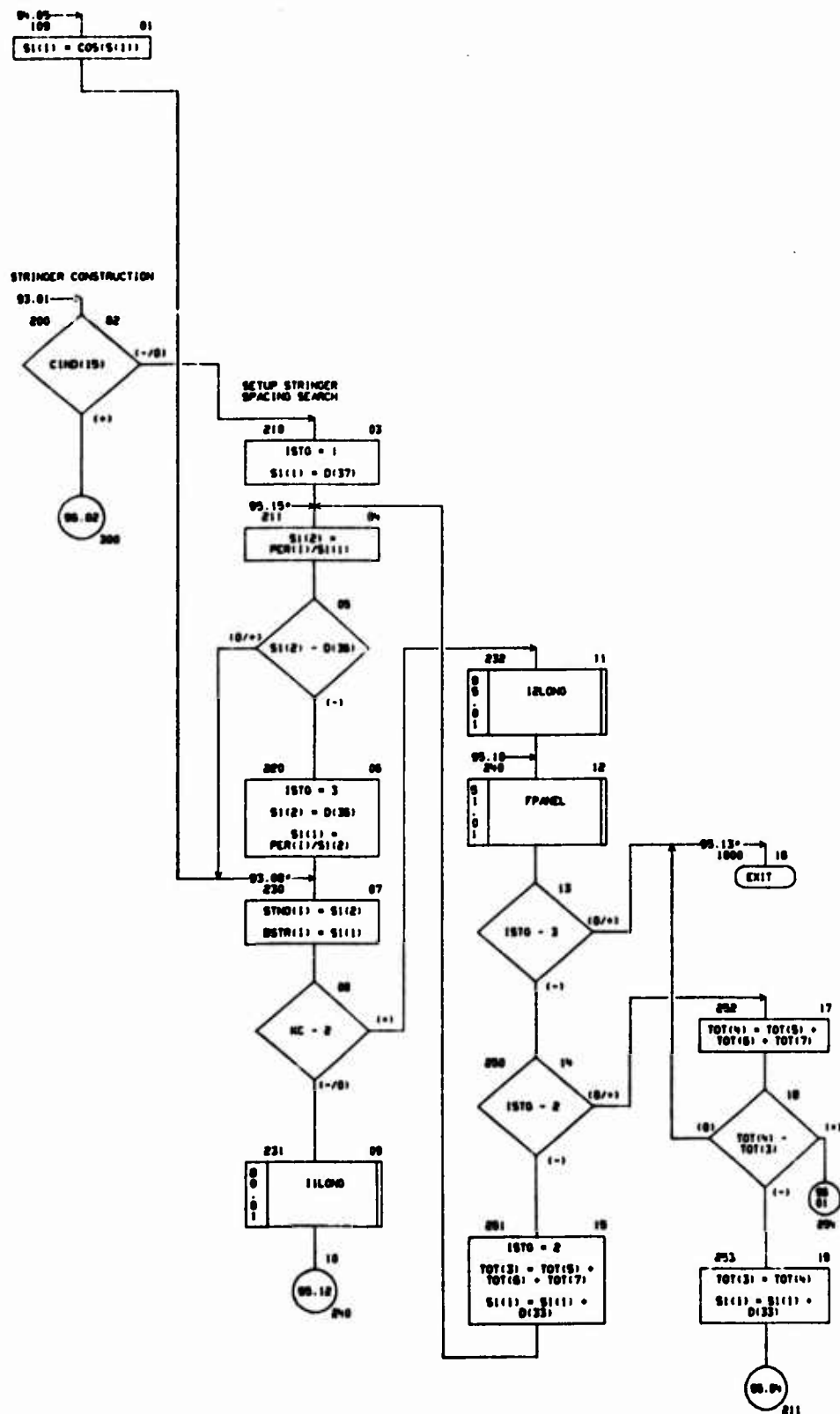


CHART TITLE - SUBROUTINE LOGS



ELLIPTICAL SHAPE IS
NOT INCLUDED IN
CURRENT PROGRAM



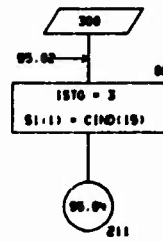


CHART TITLE: NO. 10-1170-01-01 STATEMENT:

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COMMON TCOM(400)
DIMENSION D(200),T(200),DC(100),MD(200)
DIMENSION CIND(50)
DIMENSION MTLG(20)
DIMENSION S(100),S1(20),TOT(20),DOO(20),MO(20),RO(20),PER(20)
DIMENSION STND(20),BSTR(20)
EQUIVALENCE (D(1),TCOM(1)),(T(1),TCOM(200)),(DC(1),TCOM(401)),
              (MD(1),TCOM(402))
EQUIVALENCE (D(24),CIND(1))
EQUIVALENCE (D(48),MTLG(1))
EQUIVALENCE (T(1),S(1)),(T(10),S(10)),(T(20),TOT(1)),
              (T(44),DOO(1)),(T(48),MD(1)),(T(48),RO(1)),(T(54),PER(1))
EQUIVALENCE (T(90),STND(1)),(T(92),BSTR(1))
EQUIVALENCE (MD(10),I), (MD(11),NC), (MD(12),ICST),
              (MD(13),ISTG)
00  FORMAT(1H0,10X,20H*** LONGERON DEPTH ERROR ***,
          //5X,30HPROGRAM OVERRIDE ALPHA = P/4)
01  FORMAT(1H0,10X,20H*** LONGERON DEPTH ERROR ***,
          //7X,30HPROGRAM OVERRIDE HEIGHT RATIO = 0.0)

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CHART TITLE - INTRODUCTORY COMMENTS

.....
SUBROUTINE MINFR
.....

CHART TITLE - SUBROUTINE MINFR

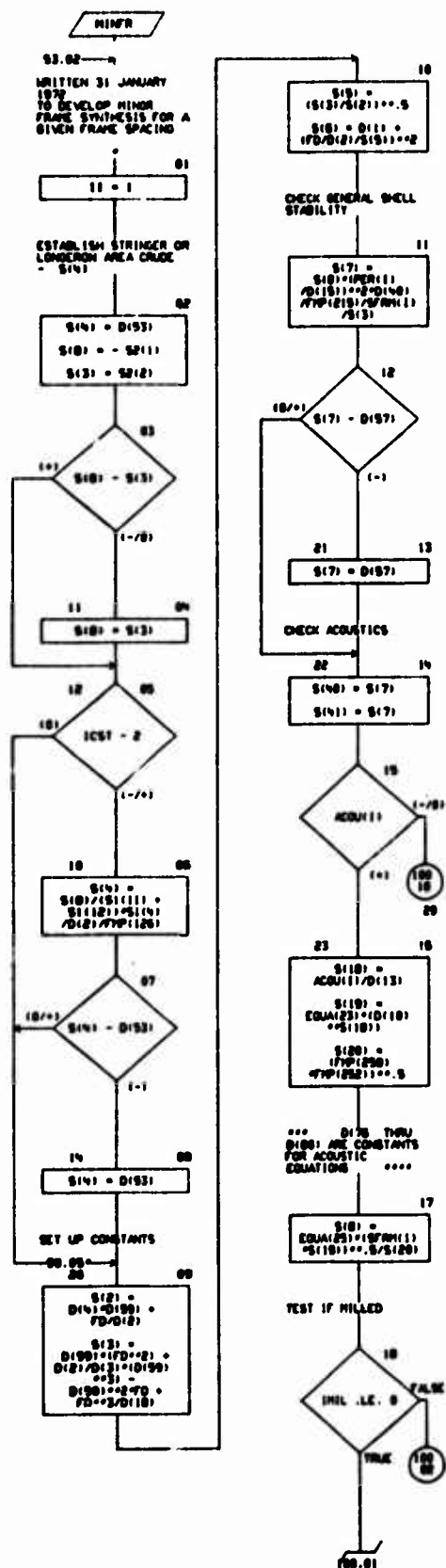
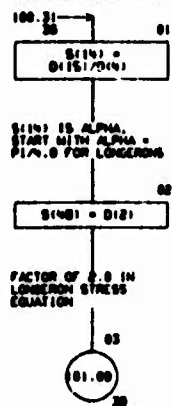




CHART TITLE - SUBROUTINE MINFR

LONGERON CONSTRUCTION



STRINGER CONSTRUCTION

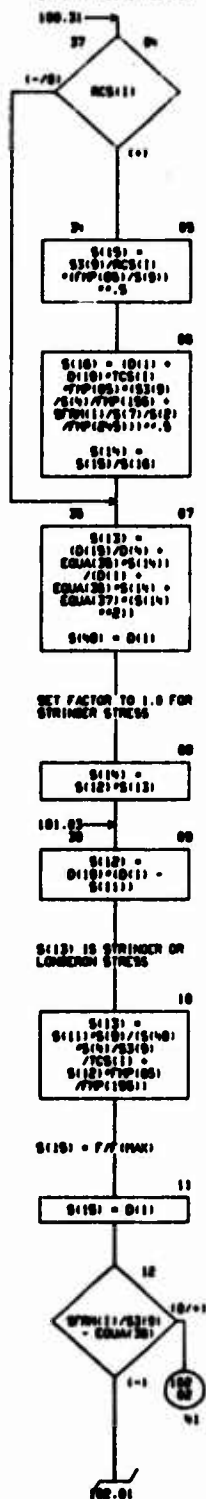


CHART TITLE - SUBROUTINE MINFR

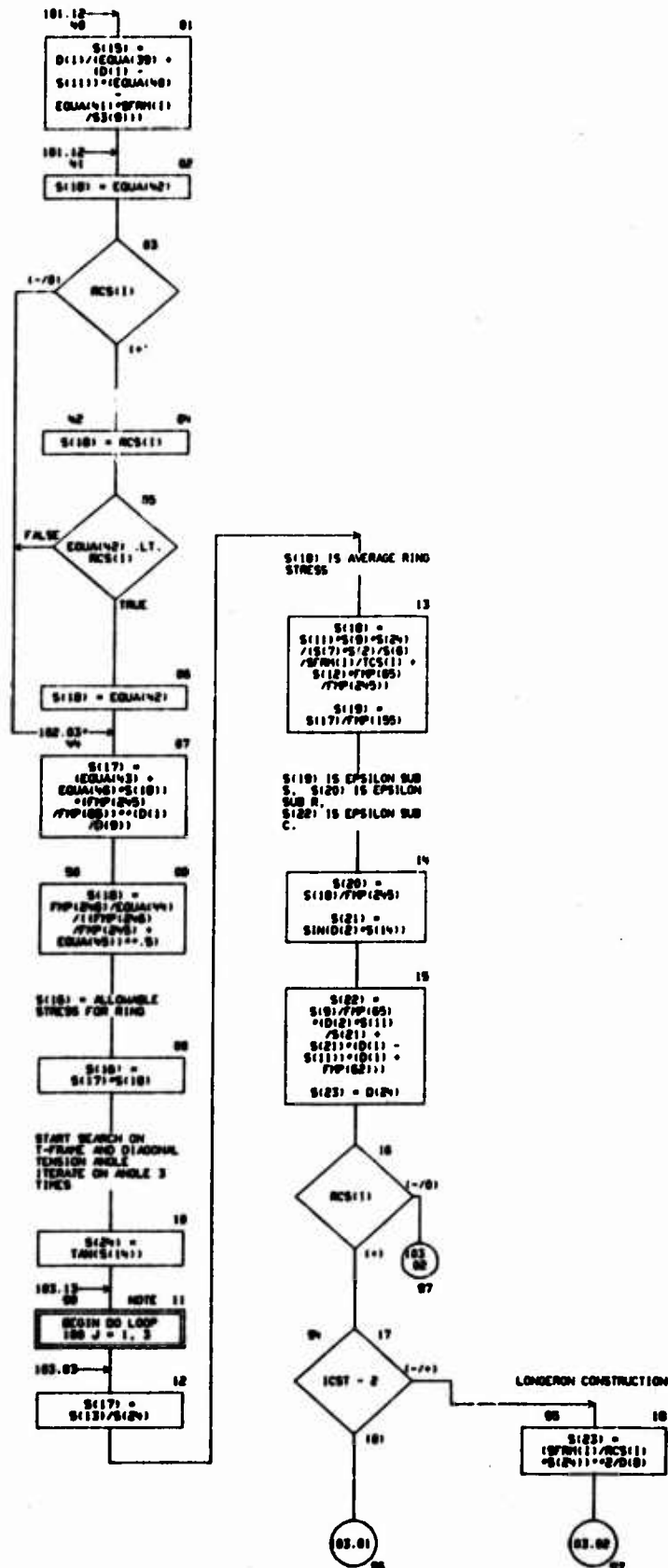


CHART TITLE: ADMIRALTY MINOR

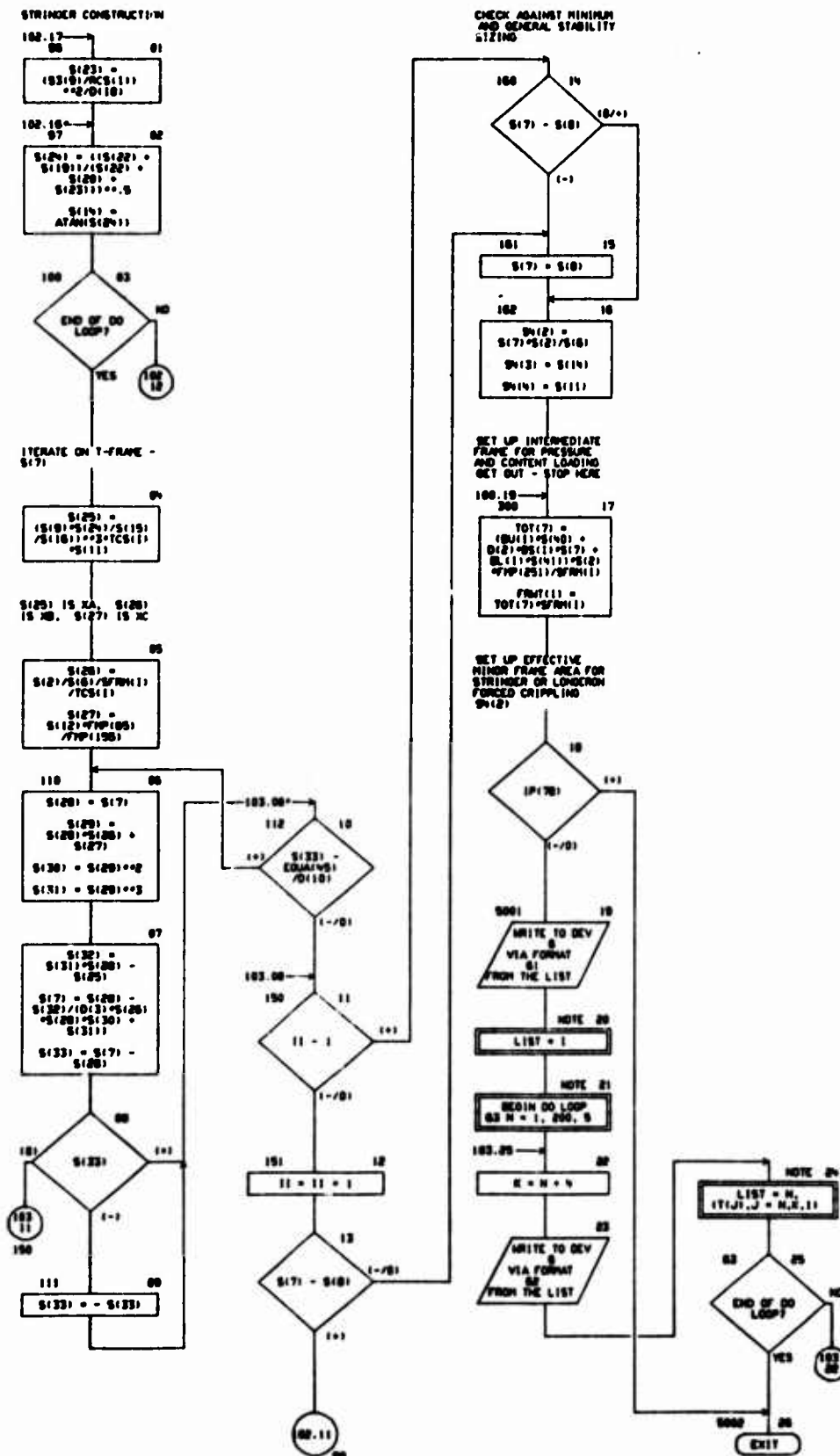


CHART TITLE - NON-PROCEDURAL STATEMENT

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COMMON TCOM(400)
COMMON /PRINT/ IP(80)
DIMENSION D(200), T(200), DC(100), NO(200)
DIMENSION EQUA(100)
DIMENSION ACQU(20)
DIMENSION S(100), S1(20), S2(20), S3(20), RCU(20), RCL(20),
RCS(20), PER(20), TCS(20), SFRM(20), FMP(300)
DIMENSION TOT(20), BU(20), BL(20), BS(20)
DIMENSION SW(20)
DIMENSION FRNT(20)
EQUIVALENCE (D(1),TCOM(1)),(T(1),TCOM(200)),(DC(1),TCOM(401)),
(ND(1),TCOM(420))
EQUIVALENCE (D(8),EQUA(1))
EQUIVALENCE (D(84),ACQU(1))
EQUIVALENCE (T(1),S(1)),(T(10),S(11)),(T(12),S(13)),
(T(14),S(15)),(T(24),RCU(1)),(T(26),RCL(1)),(T(28),RCS(1))
EQUIVALENCE (T(54),PER(1)),(T(64),TCS(1)),(T(66),SFRM(1)),
(T(120),FMP(1))
EQUIVALENCE (T(20),TOT(1)),(T(30),BU(1)),(T(32),BL(1)),
(T(34),BS(1))
EQUIVALENCE (T(16),SW(1)),(SW(1),FD)
EQUIVALENCE (T(94),FRNT(1))
EQUIVALENCE (ND(10),J), (ND(102),J1), (ND(107),J11), (ND(122),ICST)
EQUIVALENCE (IMIL,ND(125))
61  FORMAT(1H,20X,45H*** BREAKPOINT OUTPUT - SUBROUTINE MINFR ***
      24X,20H** MINFR - IP(78) ****
      20X,7HSECTION,13/ 5X,BHT-REGION)
62  FORMAT(4X,13,5F10.4)

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CHART TITLE - INTRODUCTORY COMMENTS

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*****
SUBROUTINE MINIMUM
*****
    
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CHART TITLE - SUBROUTINE WINPLAN

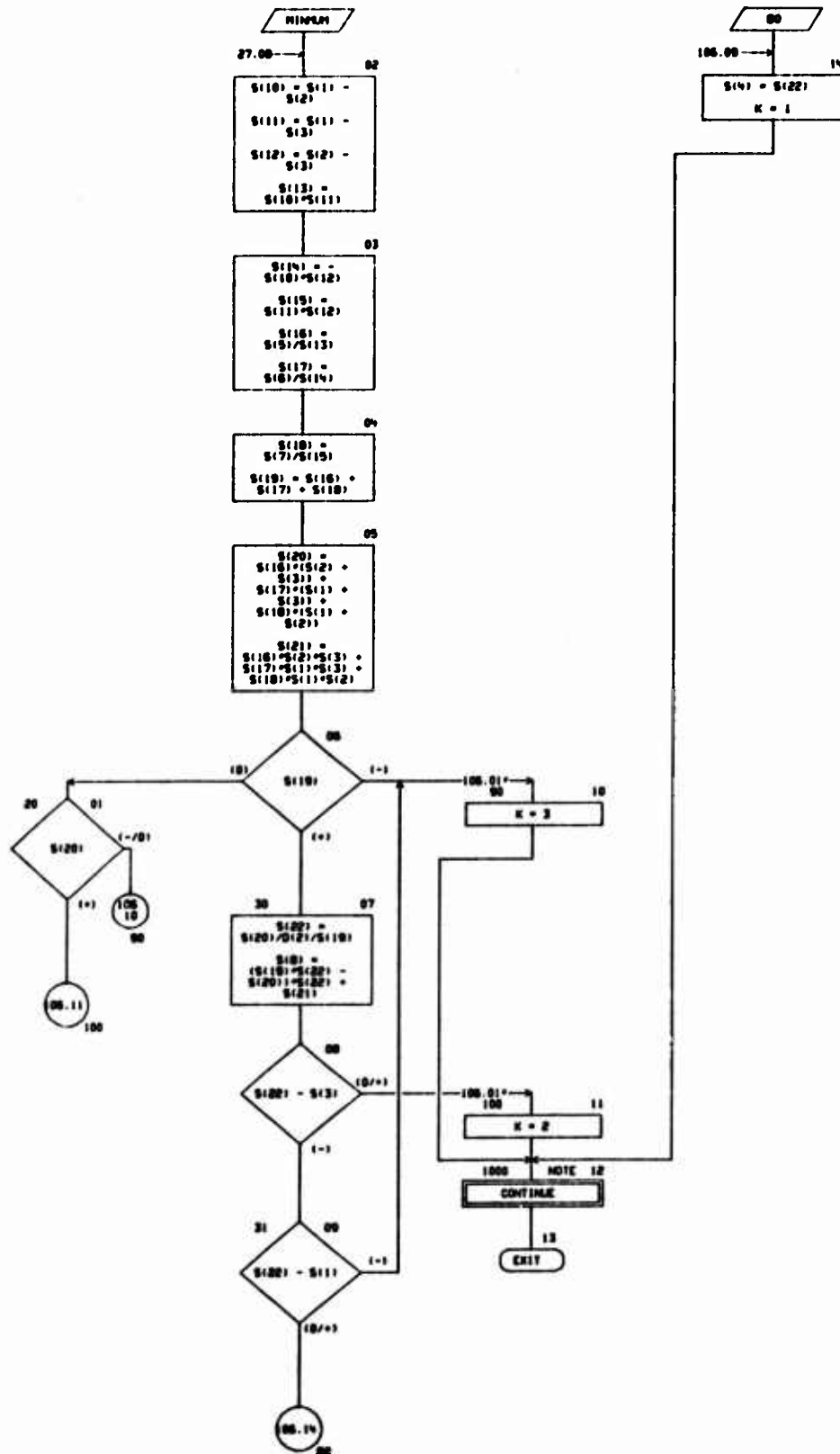


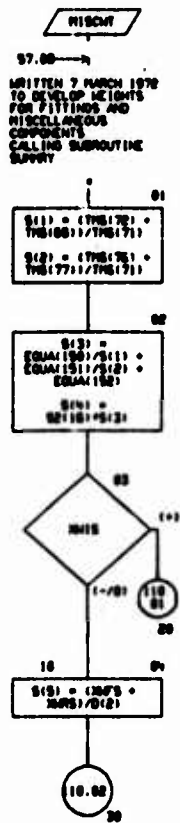
CHART TITLE - NON-PROCEDURAL STATEMENTS

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DIMENSION S(100)  
EQUIVALENCE (D(1),TCON(1)),(T(1),TCON(200)),(DC(1),TCON(400)),  
(MD(1),TCON(400))  
EQUIVALENCE (T(1),S(1))  
EQUIVALENCE (MD(100),K)
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CHART TITLE - INTRODUCTORY COMMENTS

.....
SUBROUTINE MISCHT
.....

CHART TITLE - SUBROUTINE MISCMT





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CHART TITLE - NON-PROCEDURAL STATEMENTS

```

COMMON TCOM(400)
DIMENSION D(2000),T(2000),DC(100),ND(200)
DIMENSION EQUA(100)
DIMENSION NO(20),SCST(100),SCDT(80)
DIMENSION PER(20)
DIMENSION S2(100)
DIMENSION TMS(120)
DIMENSION FMT(9)
DIMENSION SUPP(100)
DIMENSION S(100),S2(20)
EQUIVALENCE (D(1),TCOM(1)),(T(1),TCOM(200)),(DC(1),TCOM(401)),
(ND(1),TCOM(801))
EQUIVALENCE (D(81),EQUA(1))
EQUIVALENCE (D(181),NO(1)),(D(82),SCST(1)),(D(92),SCDT(1))
EQUIVALENCE (D(100),S2(1))
EQUIVALENCE (D(120),TMS(1))
EQUIVALENCE (D(19),FMT(1))
EQUIVALENCE (T(9),PER(1))
EQUIVALENCE (TCOM(401),SUPP(1))
EQUIVALENCE (T(1),S(1)),(T(12),S2(1))
EQUIVALENCE (S2(12),XVFS),(S2(13),XVRS),(S2(14),XVLS),
(S2(15),XVFS),(S2(16),XVRS),(S2(17),XVFS),(S2(18),XVRS),
(S2(19),XVFS),(S2(20),XVRS),(S2(21),XVFS),(S2(22),XVFS),(S2(23),XVRS)
EQUIVALENCE (ND(10),J),(ND(102),J)
EQUIVALENCE (ND(11),NC),(ND(12),IYP)

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CHART TITLE - INTRODUCTORY COMMENTS

SUBROUTINE PART 11

CHART TITLE - SUBROUTINE PART11

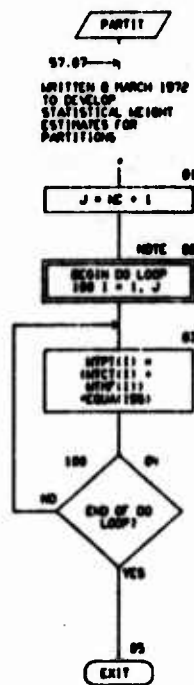


CHART TITLE - NON-PROCEDURAL STATEMENTS

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COMMON TCOM(400)
DIMENSION D(2000),T(2000),DC(100),ND(200)
DIMENSION MTCT(20),MTPF(20)
DIMENSION MPT(20)
DIMENSION EQUA(100)
EQUIVALENCE (D(1),TCOM(1)),(T(1),TCLM(200)),(DC(1),TCOM(401)),
(ND(1),TCOM(401))
EQUIVALENCE (D(1),EQUA(1))
EQUIVALENCE (T(100),MTCT(1)),(T(100),MTPF(1))
EQUIVALENCE (T(100),MPT(1))
EQUIVALENCE (ND(10),1)
EQUIVALENCE (ND(11),NE)
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04/18/74

AUTOFLOW CHART SET - SHEEP SECOND FUSELAGE OVERLAY

PAGE 116

CHART TITLE - INTRODUCTORY COMMENTS

SUBROUTINE SECOST

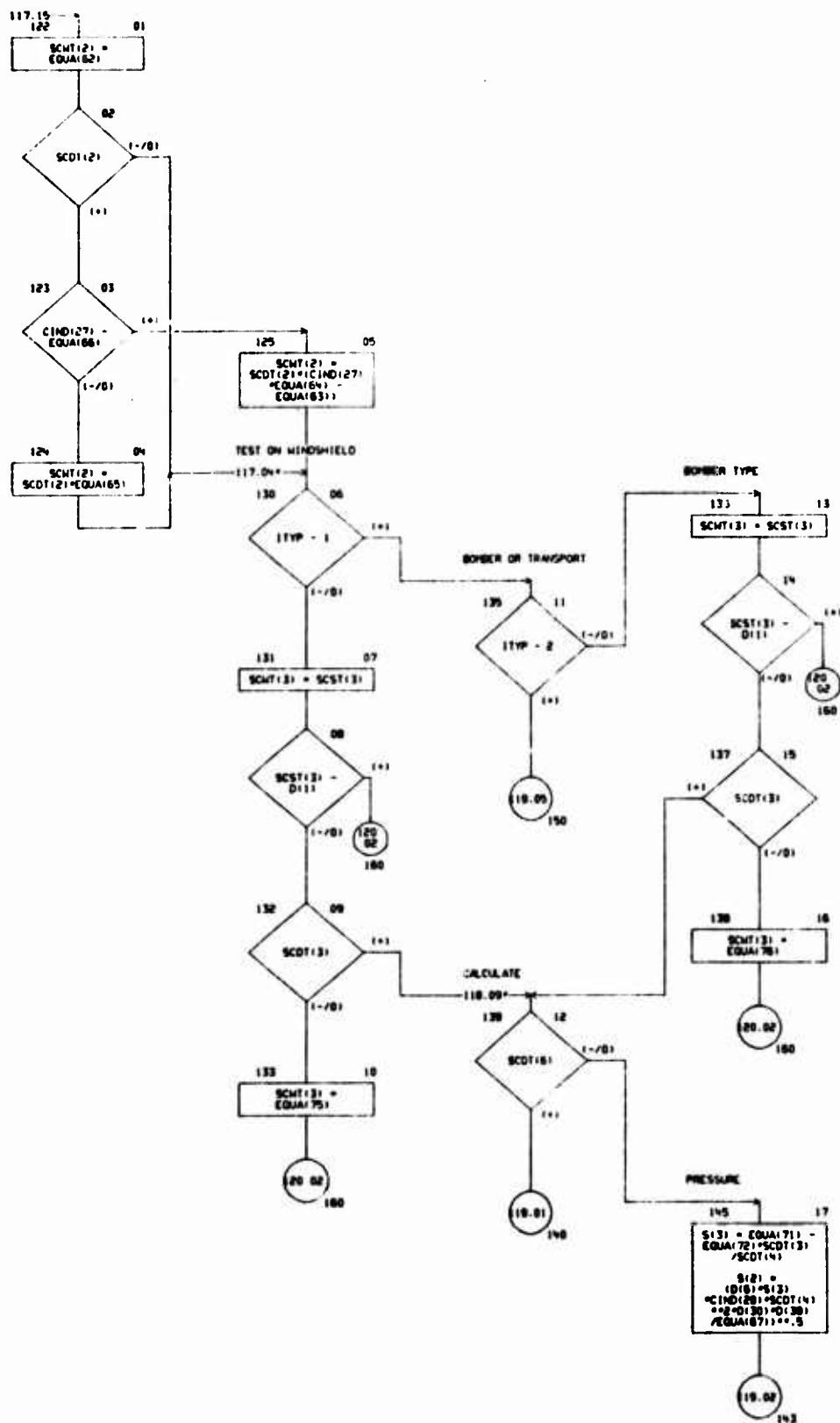
NAVIGATOR'S COPY
NOT INPUT COMPUTE

CHART TITLE - SUBROUTINE SECOST

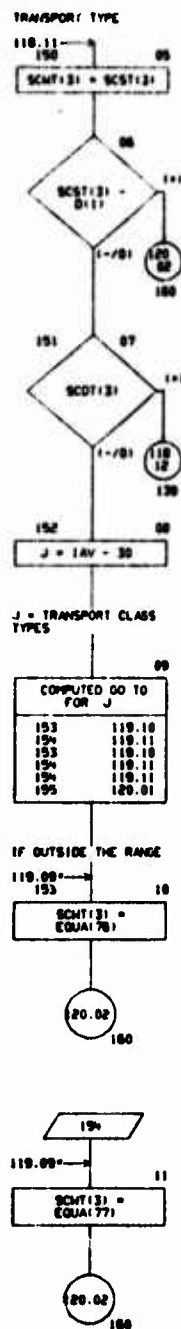
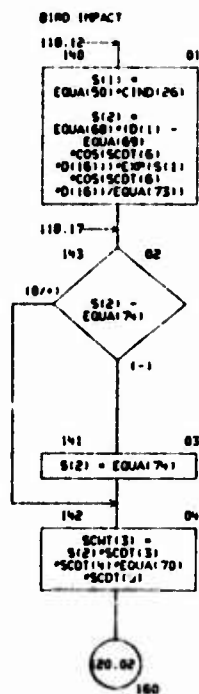


CHART TITLE - SUBROUTINE SECOST

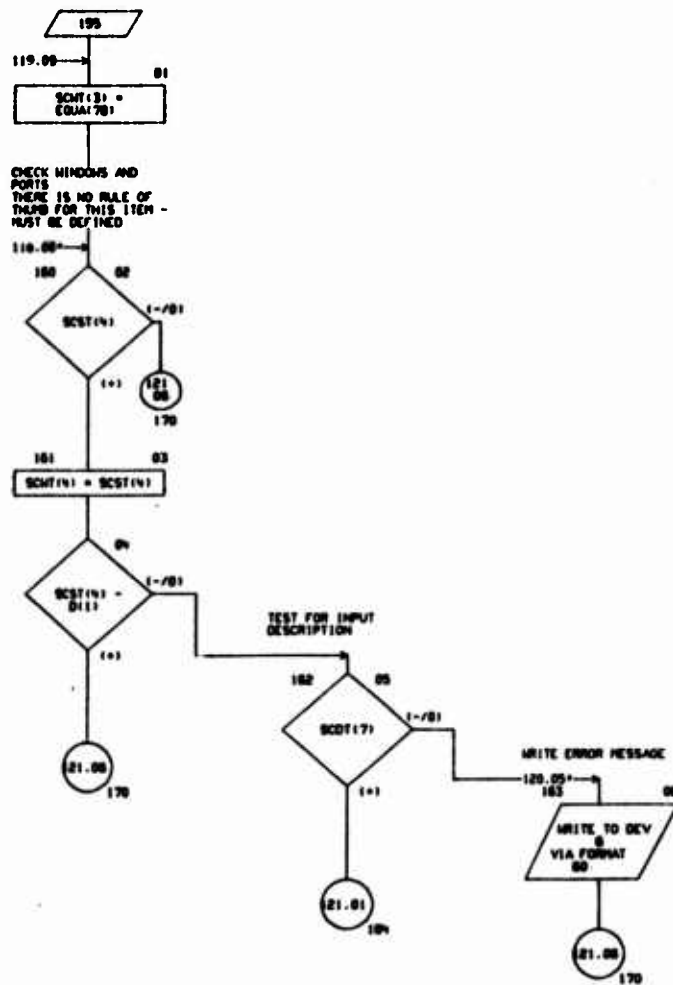


CHART TITLE - SUBROUTINE SECOST

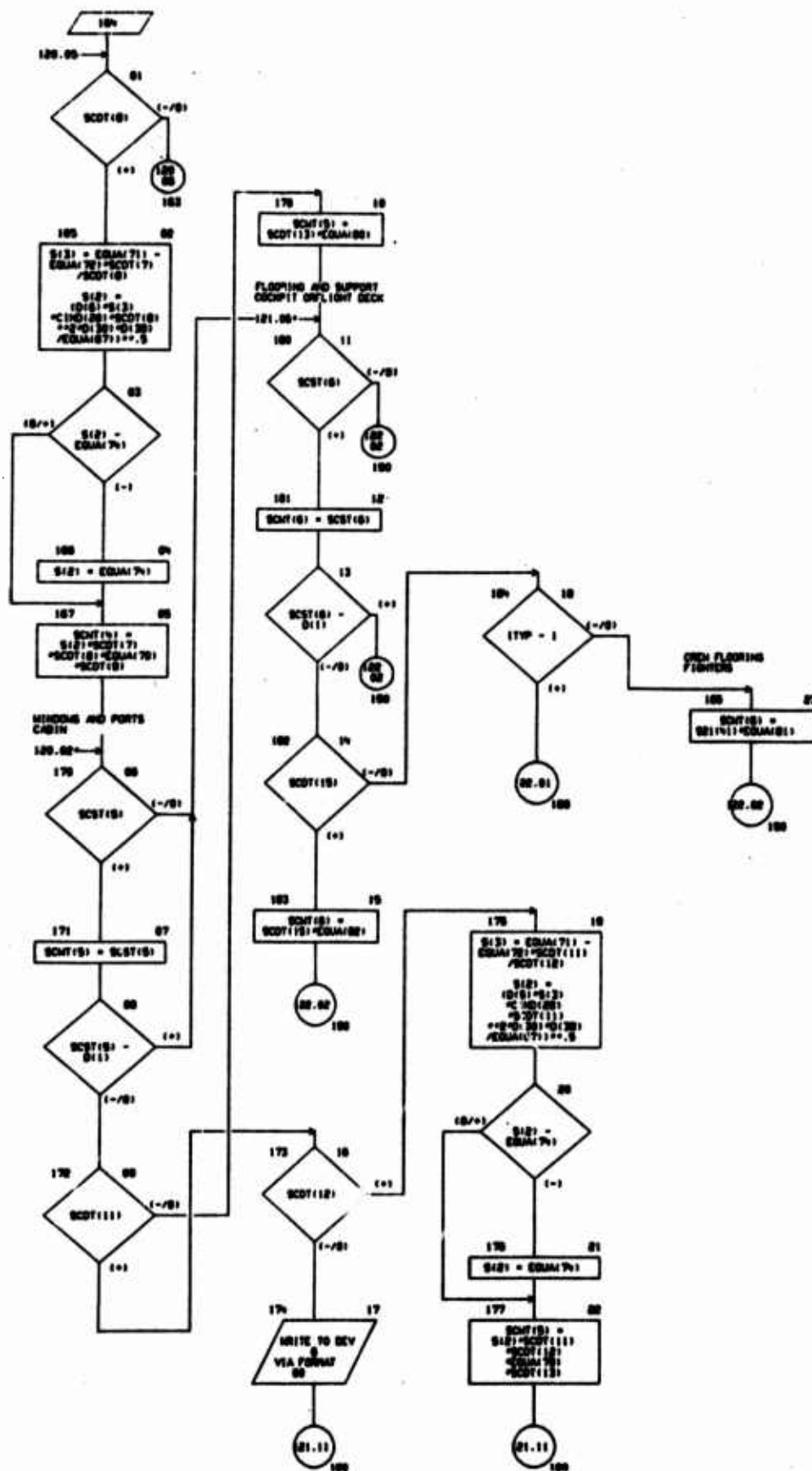


CHART TITLE - SUBROUTINE SECOST

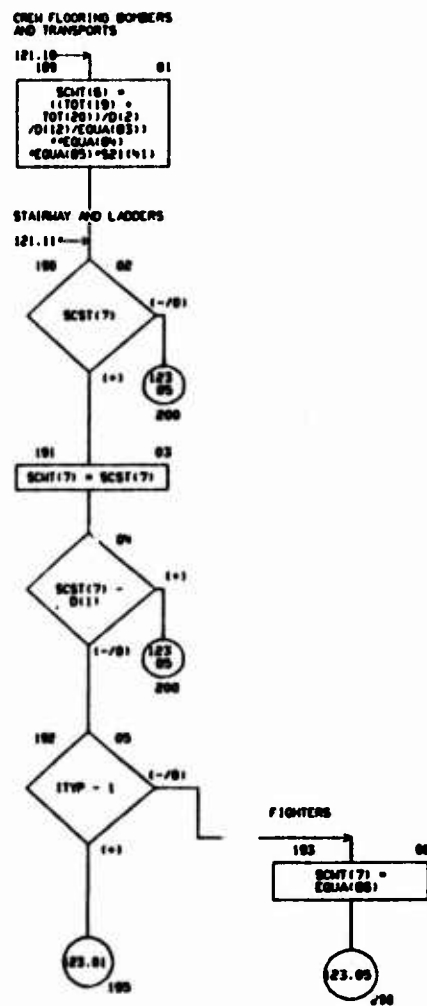
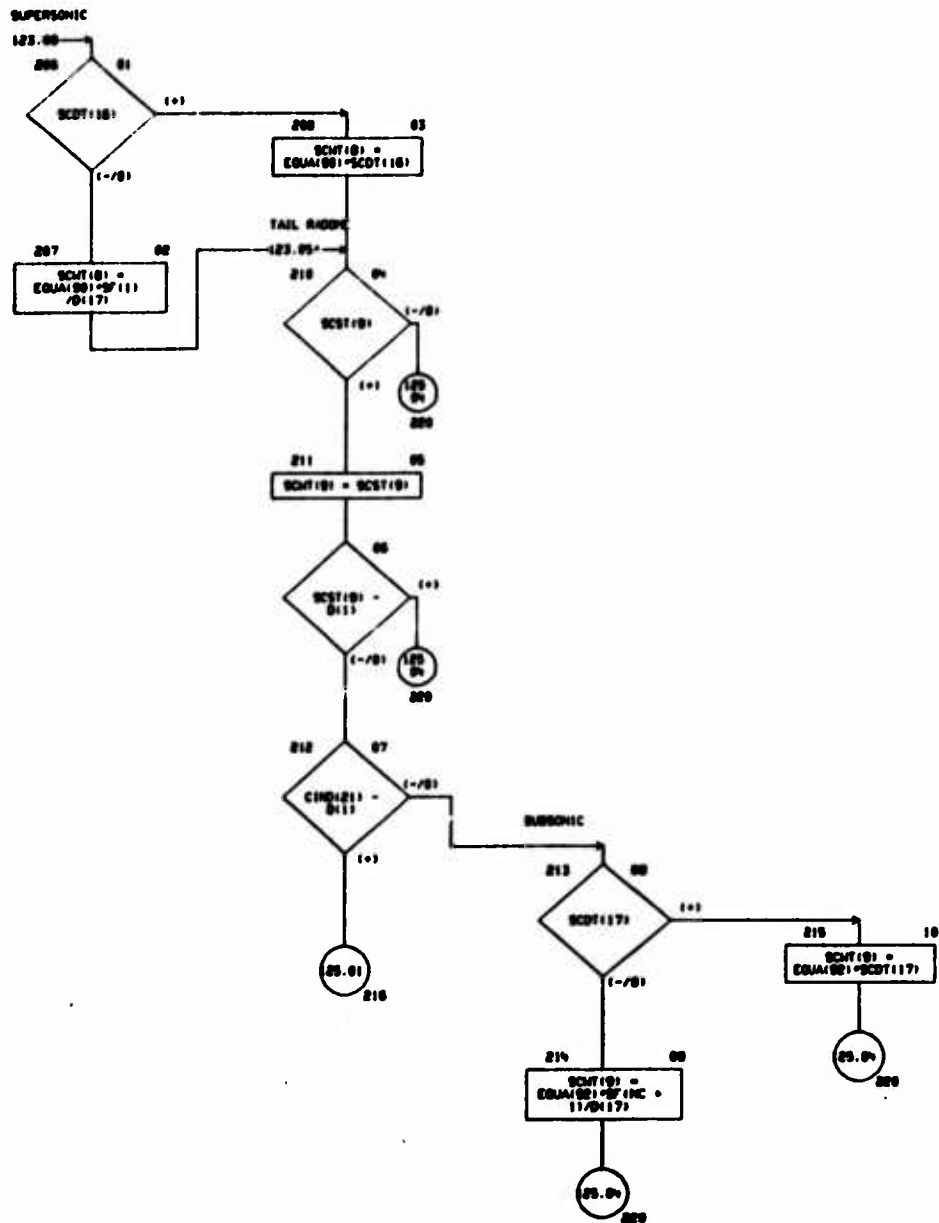


CHART TITLE - SUBROUTINE SECOST



738

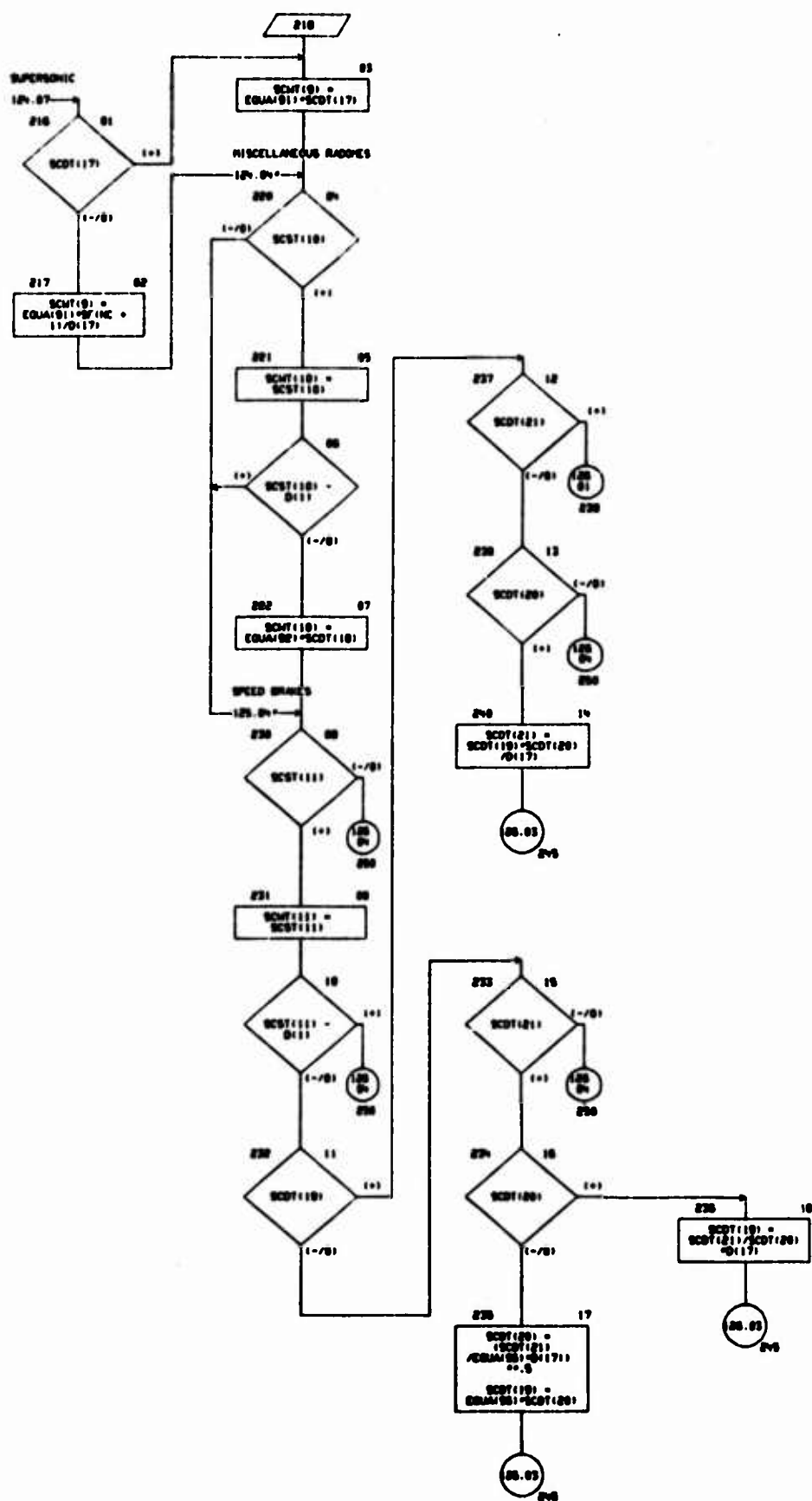


CHART TITLE - SUBROUTINE SECOST

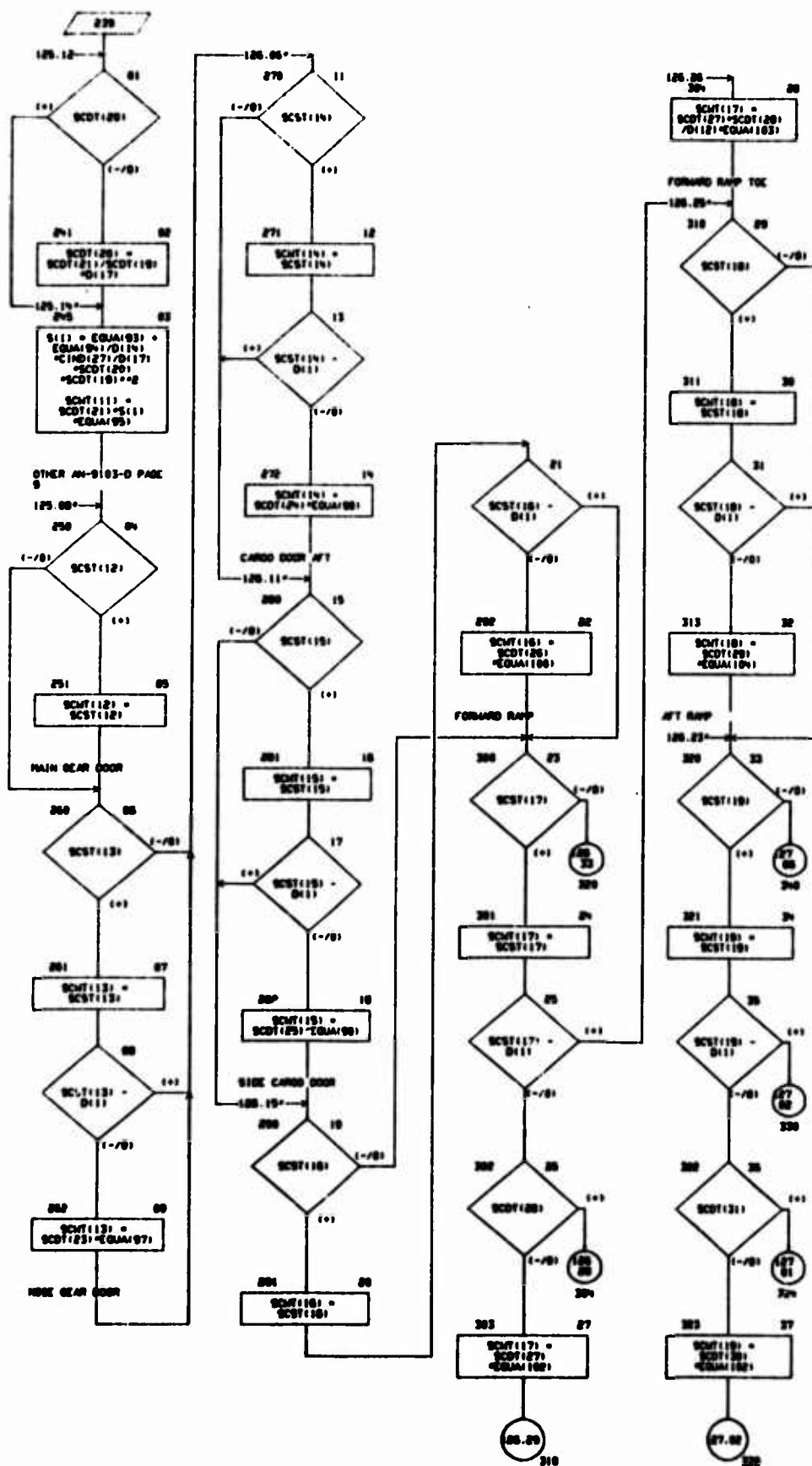
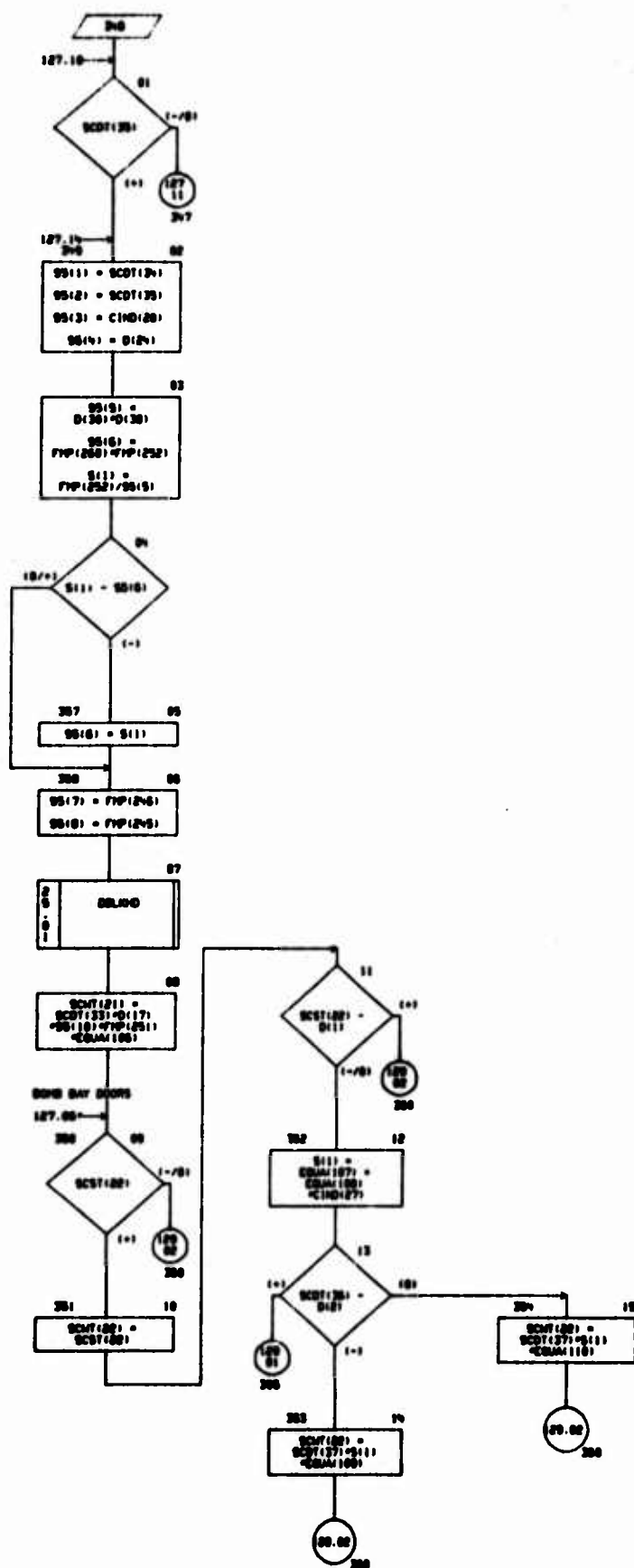


CHART TITLE - SUBROUTINE SECOST

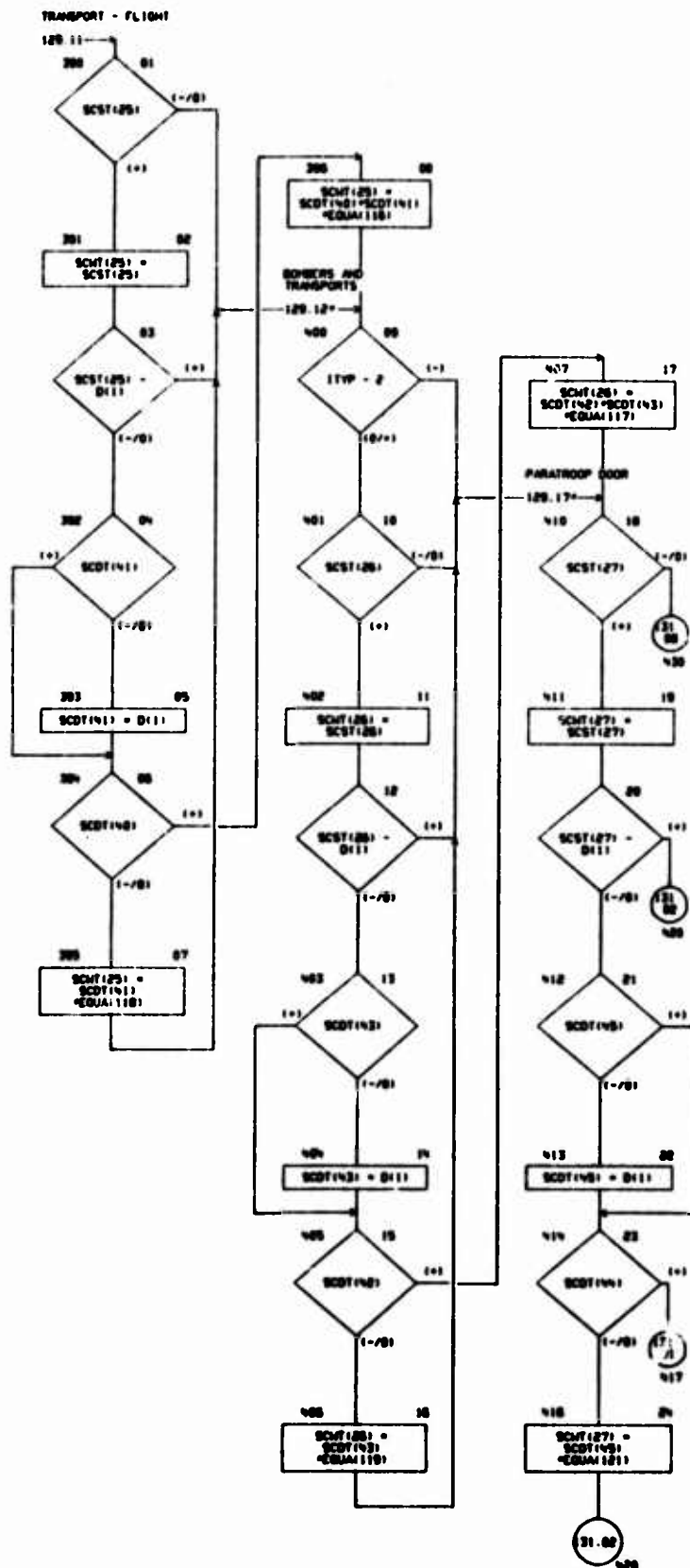



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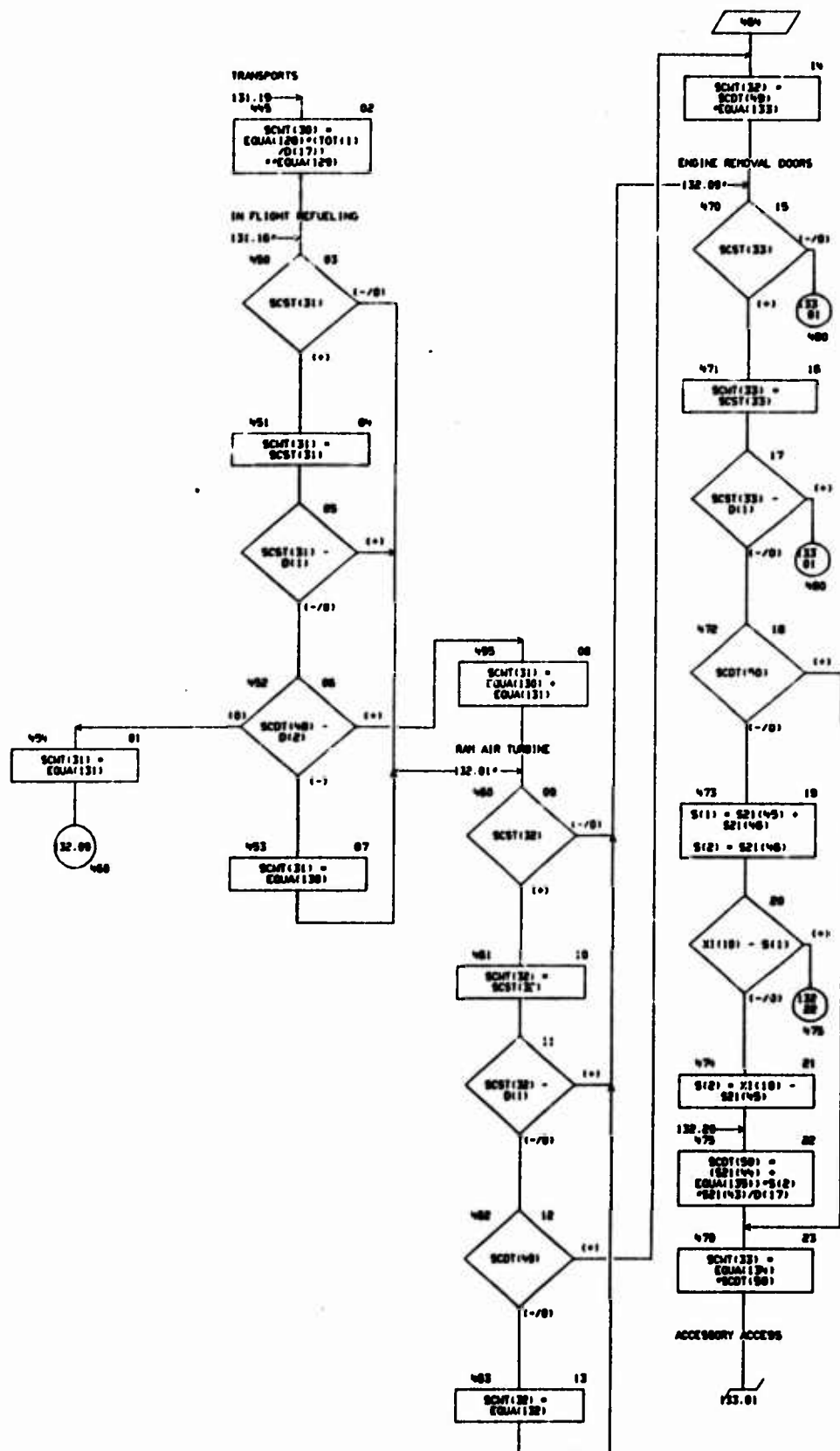
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    301 -- "Y=1" --> 302{302  
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    302 -- "Y=0" --> 300
    302 -- "Y=1" --> 303[303  
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SCSF(20)]
    303 --> 304{304  
SCSF(20) =  
0(1)}
    304 -- "Y=0" --> 300
    304 -- "Y=1" --> 305{305  
SCSF(40)}
    305 -- "Y=0" --> 306[306  
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SCSF(40) + SCSF(41)  
- SCAM(10)]
    306 --> 307((30.10  
410))
    305 -- "Y=1" --> 308[308  
SCSF(20) =  
SCF(41) - SCAM(10)]
    308 --> 309((30.10  
410))
    309 --> End(( ))
  
```

The flowchart, titled "FIGHTERS AND BOMBERS", illustrates a loop for calculating scores. It begins with a decision diamond (301) labeled "SCSF(1)". If the value is 0, it proceeds to a circle (300) containing "30.00" and "400". If the value is 1, it proceeds to another decision diamond (302) labeled "SCSF(2)". If this value is 0, it also proceeds to circle (300). If the value is 1, it proceeds to a rectangle (303) labeled "SCSF(20) = SCSF(20)". This is followed by a decision diamond (304) labeled "SCSF(20) = 0(1)". If the value is 0, it proceeds to circle (300). If the value is 1, it proceeds to a decision diamond (305) labeled "SCSF(40)". From diamond (305), if the value is 0, it proceeds to a rectangle (306) labeled "SCSF(20) = SCSF(40) + SCSF(41) - SCAM(10)", which then leads to a circle (307) containing "30.10" and "410". If the value from diamond (305) is 1, it proceeds to a rectangle (308) labeled "SCSF(20) = SCF(41) - SCAM(10)", which then leads to a circle (309) containing "30.10" and "410". Both circles (307) and (309) lead to the final output circle (410). A line from the top of the flowchart connects to the start of the loop, and a line from the bottom of circle (309) connects to the final output circle (410).

CHART TITLE - SUBROUTINE SECOST



CHAR' TITLE - SUBROUTINE SECOSI



747

CHART TITLE - NON-PROCEDURAL STATEMENTS

```

COMMON TCOM(400)
DIMENSION D(2000),T(2000),DC(100),ND(200)
DIMENSION EQ(4100),C(ND(50))
DIMENSION XI(10)
DIMENSION S(100),SCD(100)
DIMENSION S2(100)
DIMENSION S(100),S5(20),TOT(20),SF(20)
DIMENSION FHP(300)
DIMENSION SCHT(50)
EQUIVALENCE (D(1),TCOM(1)),(T(1),TCOM(2001)),(DC(1),TCOM(101)),
(ND(1),TCOM(401))
EQUIVALENCE (D(81),EQ(41)),(D(241),C(ND(1)))
EQUIVALENCE (D(241),XI(1))
EQUIVALENCE (D(821),SCS(1)),(D(221),SCD(1))
EQUIVALENCE (D(1001),S2(1))
EQUIVALENCE (T(1),S(1)),(T(101),S5(1)),(T(201),TOT(1)),
(T(401),SF(1))
EQUIVALENCE (T(1201),FHP(1))
EQUIVALENCE (T(1951),SCHT(1))
EQUIVALENCE (ND(102),J)
EQUIVALENCE (ND(111),NC), (ND(117),IAV), (ND(127),ITYP)
00  FORMAT(1H1,20X,23H*** WARNING MESSAGE ***10X,
      6HWINDOWS AND PORTS RULE OF THUMB IS NOT WITHIN PROGRAM CAPACITY)

```

04/10/74

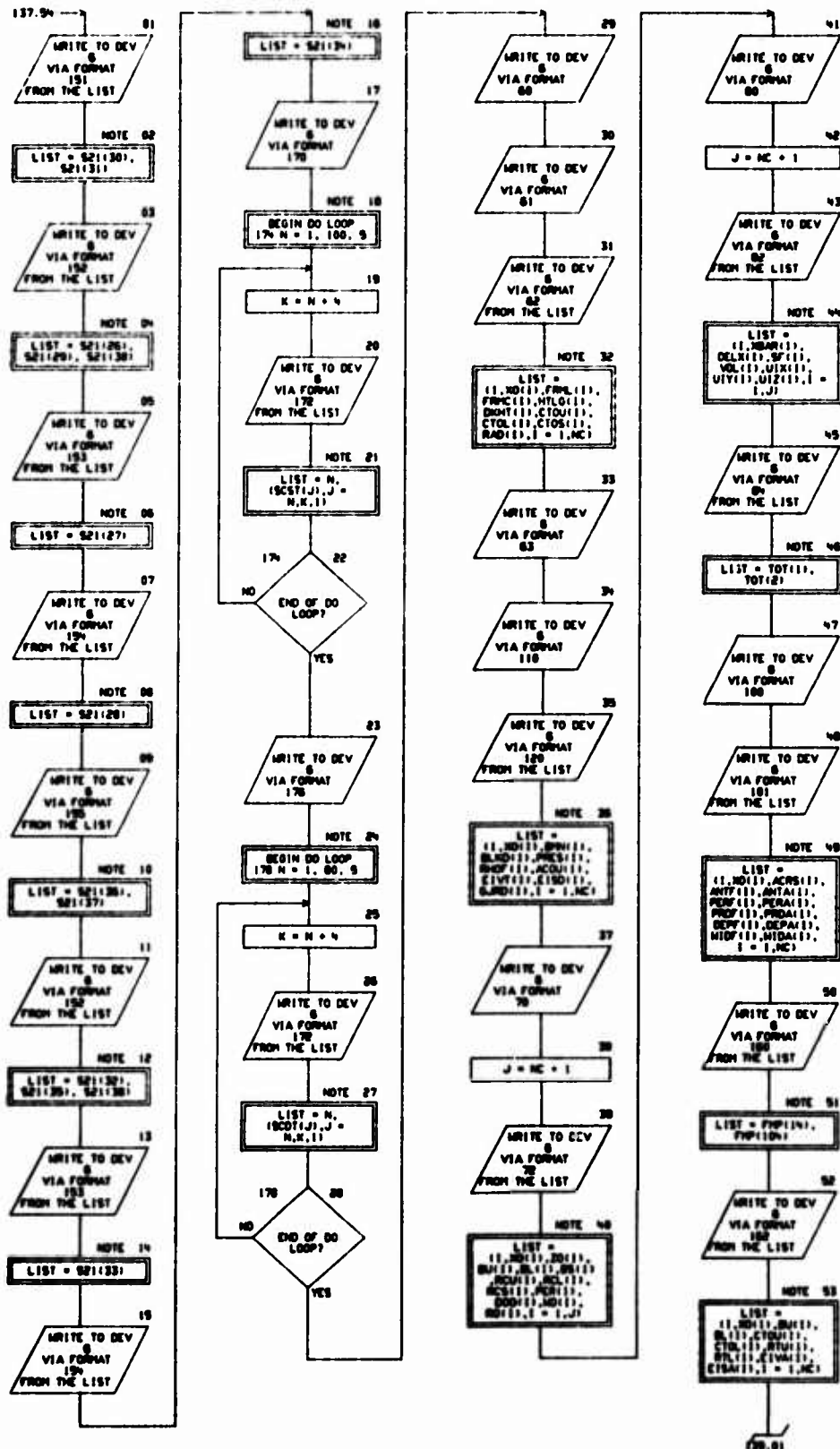
AUTOFLOW CHART SET - SHEEP SECOND FUSELAGE OVERLAY

PAGE 136

CHART TITLE - INTRODUCTORY COMMENTS

SUBROUTINE SPRINT
#####

CHART TITLE - SUBROUTINE SPRINT



```

graph TD
    130-55[130-55] --> 01[01]
    01[01] --> 02[02]
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CHART TITLE - SUBROUTINE SPRINT

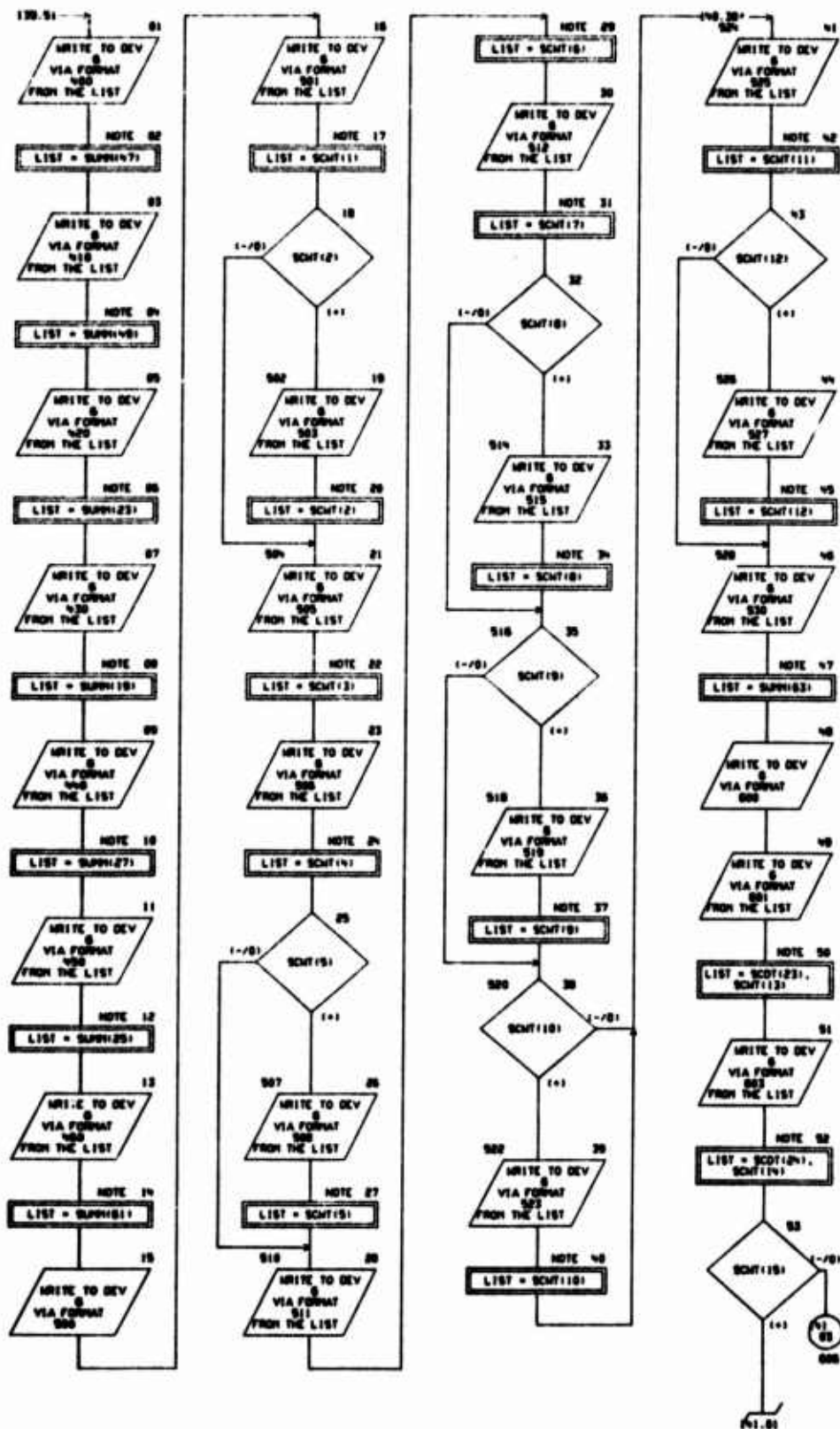


CHART TITLE - SUBROUTINE SPRINT

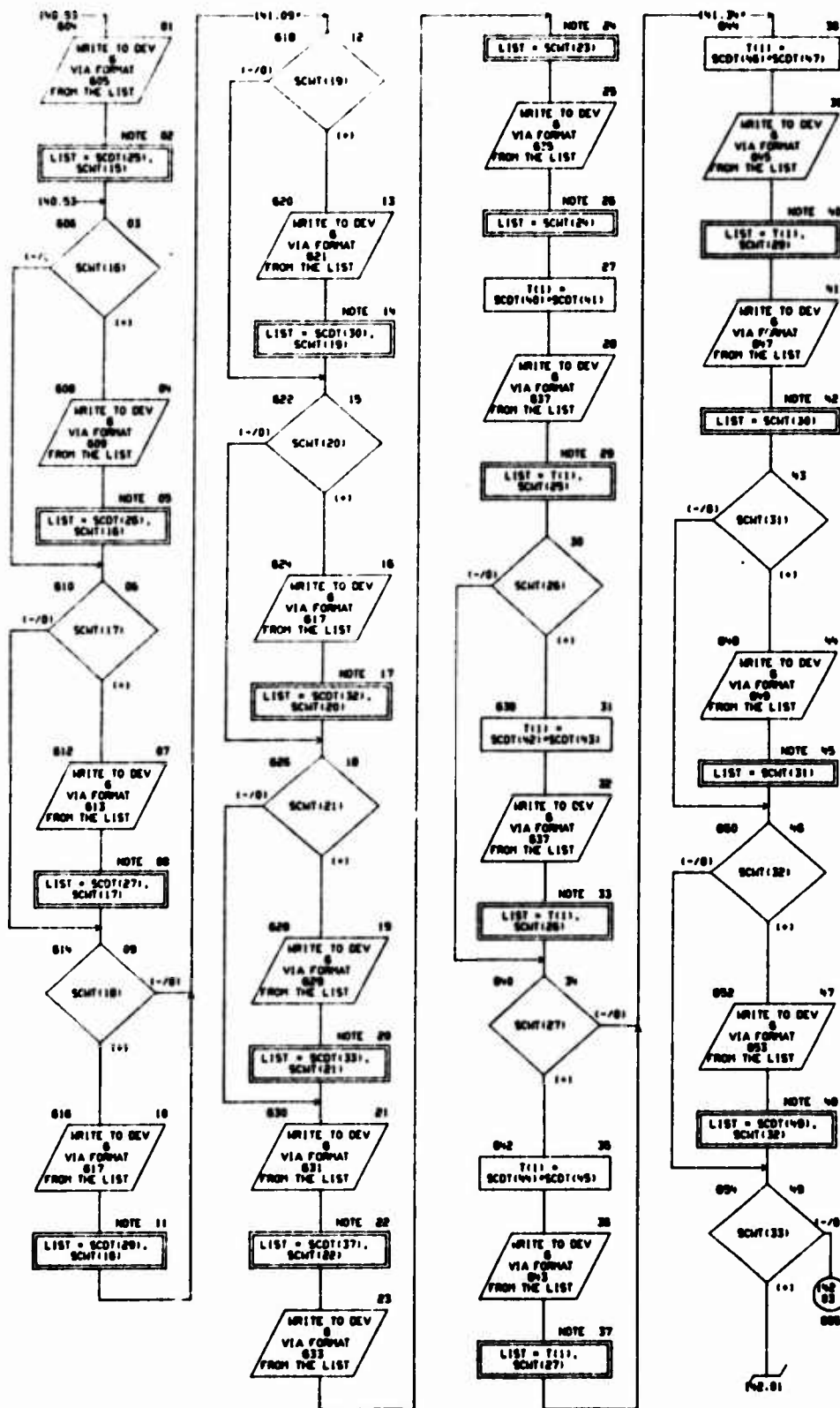


CHART TITLE - SUBROUTINE SPRINT

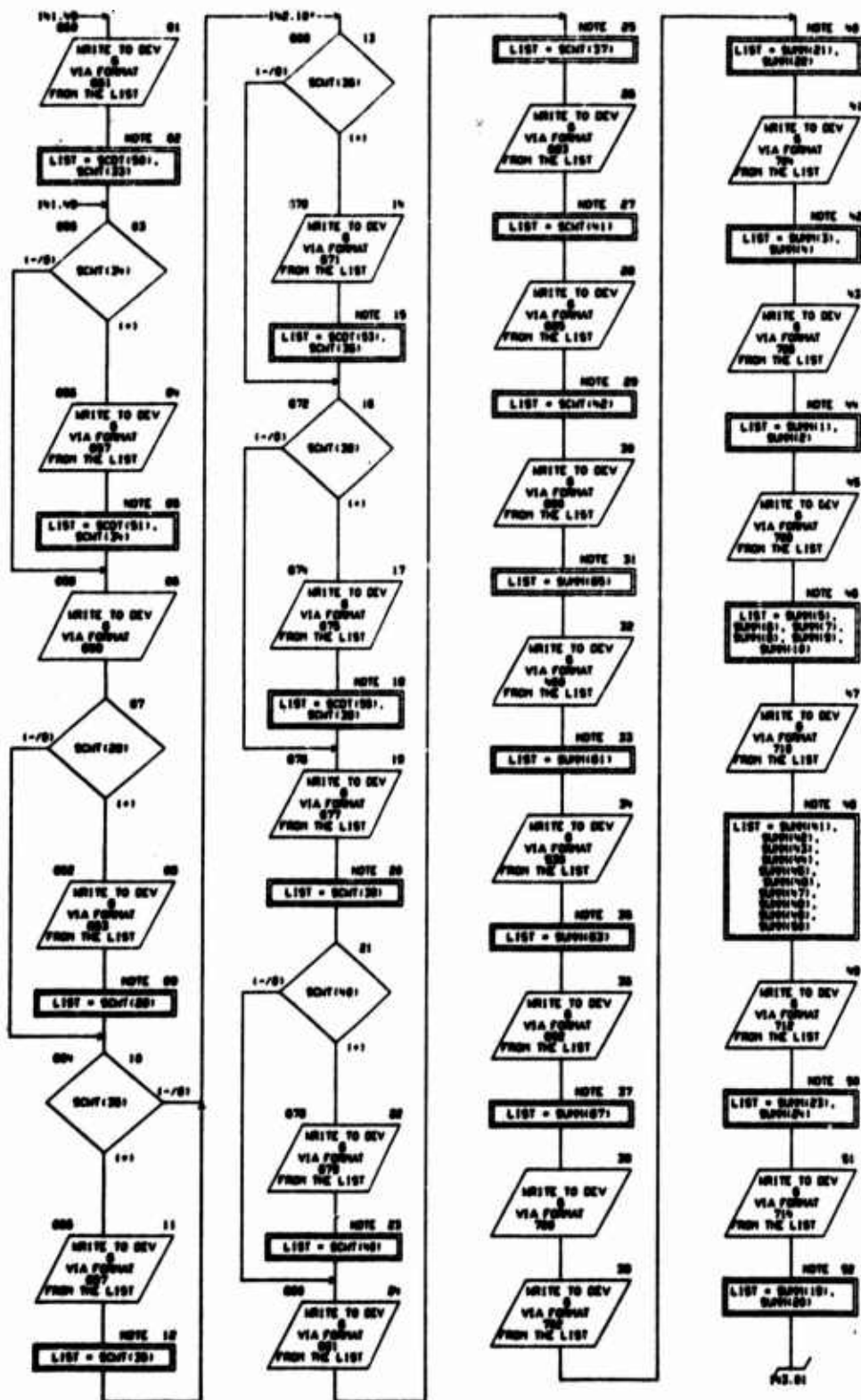


CHART TITLE - SUBROUTINE SPRINT

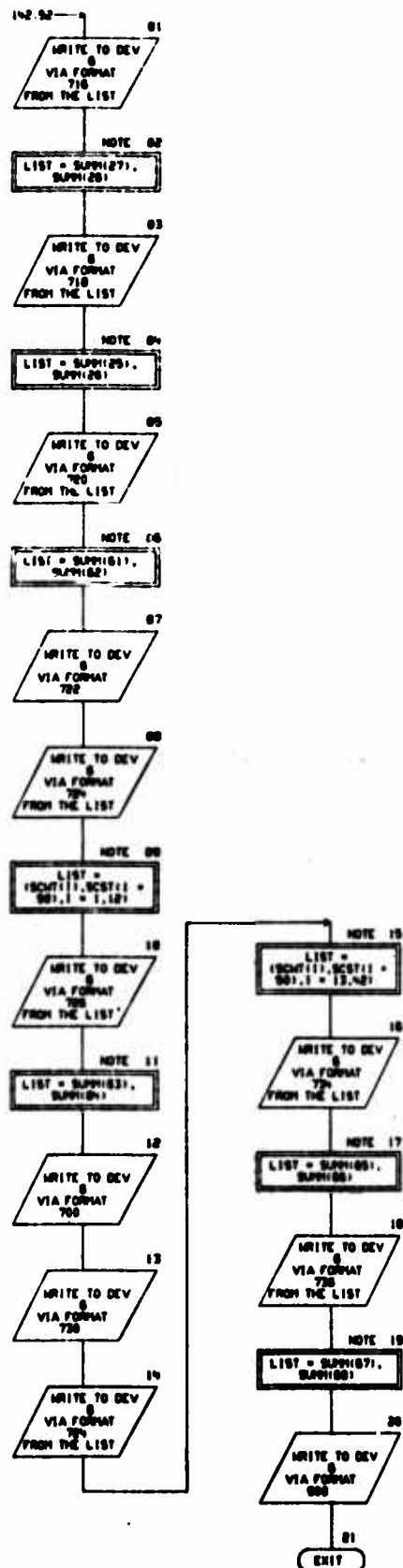


CHART TITLE - NON-PROCEDURAL STATEMENTS

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COMMON TCON(400)
COMMON /IPRINT/IP(00)
DIMENSION D(2000),T(2000),DC(100),ND(200)
DIMENSION CIND(50)
DIMENSION MD(20),FRPL(20),FRPC(20),MTL0(20),DMNT(20),CTOU(20),
CTL(20),CTOS(20),RAD(20)
DIMENSION BPH(20),BLKD(20)
DIMENSION PRES(20),RHSF(20),ACQU(20)
DIMENSION CIVT(20),EISD(20),GJRD(20)
DIMENSION SCST(100),SCDT(00)
DIMENSION SZ(100)
DIMENSION RTU(20),RTL(20),E1VA(20),E1SA(20),ALCU(20),ALCL(20),
ALCU(20),ALCL(20)
DIMENSION TOT(20)
DIMENSION ACRS(20),ANTF(20),ANTA(20),PERF(20),PERA(20),PROF(20),
PRDA(20)
DIMENSION DEPF(20),DEPA(20),MIDF(20),MIDA(20)
DIMENSION FWT(01)
DIMENSION ZD(20),ZCU(20),ZCL(20),ZCS(20),ZBU(20),ZBL(20),ZBS(20),
ZBAR(20),ZDLX(20),ZF(20),ZVL(20),ZDO(20),ZMD(20),ZRD(20),ZPER(20),
ZUX(20),ZUY(20),ZUZ(20)
DIMENSION TCU(20),TCS(20),TCL(20),TLU(20),TLS(20),TLL(20),
TCF(20),TOJF(20),TOLJA(20),ALU(20),ALL(20),ALS(20),ALT(20),
STRH(20),STHD(20),BSTR(20)
DIMENSION FWP(200)
DIMENSION MTCU(20),MTC5(20),MTC(20),MCT(20)
DIMENSION MTLU(20),MTLS(20),MTLL(20),MTST(20),MTLT(20)
DIMENSION MTHV(20),MTJS(20)
DIMENSION MTK(20),MTP(20)
DIMENSION SUPP(00)
DIMENSION SCHT(50)
DIMENSION I1(20),I2(20),I3(20)
EQUIVALENCE (D(1),TCON(1)),(T(1),TCON(2001)),(DC(1),TCON(401)),
(ND(1),TCON(401))
EQUIVALENCE (D(24),CIND(1))
EQUIVALENCE (D(30),MD(1))
EQUIVALENCE (D(30),FRPL(1)),(D(40),FRPC(1))
EQUIVALENCE (D(42),MTL0(1)),(D(44),DMNT(1))
EQUIVALENCE (D(46),CTOU(1)),(D(48),CTL(1)),(D(50),CTOS(1))
EQUIVALENCE (D(52),RAD(1))
EQUIVALENCE (D(54),BPH(1)),(D(56),BLKD(1))
EQUIVALENCE (D(60),PRES(1)),(D(62),RHSF(1)),(D(64),ACQU(1))
EQUIVALENCE (D(66),CIVT(1)),(D(68),EISD(1)),(D(70),GJRD(1))
EQUIVALENCE (D(82),SCST(1)),(D(84),SCDT(1))
EQUIVALENCE (D(100),SZ(1))
EQUIVALENCE (D(110),ACRS(1)),(D(112),ANTF(1)),
(D(114),ANTA(1)),(D(116),PERF(1)),(D(118),PERA(1)),
(D(120),PROF(1)),(D(122),PRDA(1))
EQUIVALENCE (D(124),DEPF(1)),(D(126),DEPA(1)),
(D(128),MIDF(1)),(D(130),MIDA(1))
EQUIVALENCE (D(150),RTU(1)),(D(153),RTL(1)),
(D(155),E1VA(1)),(D(157),E1SA(1)),
(D(159),ALCU(1)),(D(161),ALCL(1)),
(D(163),ALCU(1)),(D(165),ALCL(1))
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EQUIVALENCE (T(20),TOT(1))
EQUIVALENCE (T(20),ZD(1)),(T(24),ZCU(1)),(T(26),ZCL(1)),
(T(30),ZCS(1)),(T(32),ZBU(1)),(T(34),ZBL(1)),(T(36),ZBS(1)),
(T(38),ZBAR(1)),(T(40),ZDLX(1)),(T(42),ZF(1)),
(T(44),ZVL(1)),(T(46),ZDO(1)),(T(48),ZMD(1)),(T(50),ZRD(1)),
(T(54),ZPER(1)),(T(56),ZUX(1)),(T(58),ZUY(1)),(T(60),ZUZ(1))
EQUIVALENCE (T(62),TCU(1)),(T(64),TCS(1)),(T(66),TCL(1)),
(T(68),TLU(1)),(T(70),TLS(1)),(T(72),TLL(1)),

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CHART TITLE - NON-PROCEDURAL STATEMENTS

```

(1741),TCF(1), (1751),TCU(1), (1761),TOJAI(1),
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EQUIVALENCE (11501),MTCU(1), (11521),MTCB(1),
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EQUIVALENCE (11681),MTWF(1), (11701),MTJS(1)
EQUIVALENCE (11831),MTBK(1), (11851),MTPF(1)
EQUIVALENCE (11951),SCHT(1)
EQUIVALENCE (1204001),SUPP(1)
EQUIVALENCE (ND150),NPAGE)
EQUIVALENCE (ND101),I), (ND102),J), (ND103),K)
EQUIVALENCE (ND103),K), (ND106),N)
EQUIVALENCE (ND141),I(1), (ND161),I(2), (ND181),I(3))
05 FORMAT(1H,35X,3BH*** GENERAL CONSTRUCTION INDICATORS ***.14X,
      21H** SPRINT - (P100) **)
06 FORMAT(1H0/.20X,12HVEHICLE TYPE.10X.FB.1/20X,
      14HNUMBER OF CUTS.10X.FB.1/20X,
      16HSHAPE CODE.20X.FB.1/20X,
      17HCONSTRUCTION TYPE.13X.FB.1/20X,
      20HCOVER DESIGN INDICATOR.0X.FB.1/20X,
      21HCOVER MATERIAL NUMBER.0X.FB.1/20X,
      24HLONGERON MATERIAL NUMBER.0X.FB.1/20X,
      27HMAJOR FRAME MATERIAL NUMBER.3X.FB.1/20X,
      27HMINOR FRAME MATERIAL NUMBER.3X.FB.1/20X,
      10HPRINT CODE.20X.FB.1/20X,
      27HNUMBER OF PRIMARY LONGERONS.3X.FB.1/20X,
      27HNUMBER OF SECONDARY LONGERONS.1X.FB.1/20X,
      27HGENERAL DEPTH RATIO - LONDS.3X.FB.1/20X,
      28HNUMBER OF SHJJD RADII.0X.FB.1/20X,
      10HSTRINGER SPACING.14X.FB.1/20X,
      18HGENERAL FRAME DEPTH.11X.FB.1/20X,
      21HGENERAL FRAME SPACING.0X.FB.1)
08 FORMAT(20X,18HCOVER INDEX FACTOR.12X.F12.4/20X,
      21HLONGERON INDEX FACTOR.0X.F12.4/20X,
      10HJF INDEX FACTOR.14X.F12.4/20X,
      27HMINOR FRAME INDEX FACTOR.0X.F12.4/20X,
      27HMAJOR FRAME INDEX FACTOR.0X.F12.4/20X,
      21HRAHEAD INDEX FACTOR.0X.F12.4)
07 FORMAT(20X,24HLOCAL PANEL FLUTTER DATA/20X,
      11HPACH NUMBER.10X.F10.2/20X,
      04H1TITUDE.02X.FB.1/20X,
      10HDYNAMIC PRESSURE.14X.FB.1/20X,
      27HCOVER MODULUS OF ELASTICITY.7X.F12.4/20X,
      27HFUNCTION OF HACH NUMBER.0X.F11.4)
08 FORMAT(20X,27HADDITIONAL DESIGN DATA/20X,
      27HMAXIMUM SEA LEVEL SPEED.7X.F10.2/20X,
      27HMAXIMUM DYNAMIC PRESSURE.0X.FB.1/20X,
      20HLIMIT CABIN PRESSURE.10X.F10.2)
130 FORMAT(1H1,40X,20H*** BASIC VEHICLE DATA ***.22X,
      21H** SPRINT - (P100) **)
132 FORMAT(1//20X,20HNUMBER OF CREW MEMBERS.0X.FB.1)
134 FORMAT(20X,17HNUMBER OF ENGINES.13X.FB.1)
136 FORMAT(20X,15HENGINE DIAMETER.15X.FB.1/20X,
      17HENGINE FRONT FACE.13X.FB.1/20X,
      13HENGINE LENGTH.17X.FB.1)
138 FORMAT(20X,27HWING CHORD - SIDE OF FUSELAGE.F10.1/20X,
      06H1NG APEX.21X.FB.1)
140 FORMAT(1//35X,04H1 DICATOR.3X,12HX-COORDINATE.3X,10HY-SIDE FUS,
      3X,10HZ-SIDE FUS)

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CHART TITLE - NON-PROCEDURAL STATEMENTS

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141 FORMAT (15X,SHING DATA,10X,F7.1,10X,F9.1,4X,F9.1)
142 FORMAT (10X,10MFRONT SPAR,10X,F9.1)
143 FORMAT (10X,10REAR SPAR,10X,F9.1)
144 FORMAT (10X,10INT. SPAR,10X,F9.1)
145 FORMAT (15X,20HORIZTAL TAIL DATA,F9.1,10X,F9.1,4X,F9.1)
146 FORMAT (15X,10VERTICAL TAIL DATA,F9.1,10X,F9.1,4X,F9.1)
147 FORMAT (15X,10WACELLE DATA,33X,F9.1,4X,F9.1)
148 FORMAT (10X,15HFORWARD SUPPORT,13X,F9.1)
149 FORMAT (10X,11HAFT SUPPORT,17X,F9.1)
150 FORMAT (15X,17HSTORES AND OTHERS,20X,F9.1,4X,F9.1)
151 FORMAT (15X,14HROSE GEAR DATA,31X,F9.1,4X,F9.1)
152 FORMAT (10X,15HROUND LOCATION,13X,F9.1,5X,F9.1,4X,F9.1)
153 FORMAT (10X,10HROUND,20X,F9.1)
154 FORMAT (10X,10HROG STRUT,10X,F9.1)
155 FORMAT (15X,14HMAIN GEAR DATA,31X,F9.1,4X,F9.1)
170 FORMAT(1M1,32X,4H*** SECONDARY STRUCTURE - INPUT DATA SET ***,
      12X,21H** SPRINT - (P100) **
      //20X,37HINDICATORS AND C.G. DATA, SCST REGION)
172 FORMAT(4X,13,5F10.4)
176 FORMAT(//20X,3HGEOMETRIC DEFINITIONS, SCOT REGION)
80 FORMAT(1M1,34X,32H*** SHELL GEOMETRY - INPUT DATA SET ***,15X,
      21H** SPRINT - (P100) **)
81 FORMAT(10X,20X,3HFRAME,4X,3HFRAME,4X,3HLONGERON,4X,4HDOCK,7X,
      3HCUTOUT,4X,3HCUTOUT,4X,3HCUTOUT,4X,3HSHROUD/3X,3HCUT,4X,
      7HSTATION,4X,7HPACING,3X,3HDEPTH,3X,11HDEPTH RATIO,2X,3HDEPTH,
      3X,3HUPPER,3X,3HLOWER,3X,4HWSIDE,5X,3HRAADIUS)
82 FORMAT(7X,13,2F11.1,F9.1,2F11.4,4F10.1)
83 FORMAT(10X,3HNOTES,710X,31HFRAME SPACING = 1000 INDICATES ,
      20HFIXED FRAME SPACING,710X,20HNEGATIVE VALUE FOR LONGERON ,
      23HDEPTH INDICATES ANGULAR/10X,20HLOCATION OF LONGERONS ,
      11HIN RADIANS,710X,37HVALUE OF 1 DESIGNATES THE REMOVAL OF ,
      7HSECTOR,710X,30HNEGATIVE VALUE FOR CUTOUTS AND SHROUD ,
      31HRAADIUS DESIGNATES FORWARD EDGE.)
110 FORMAT(1M1,87X,36H*** SHELL CRITERIA AND INDICATORS - ,
      10HINPUT DATA SET ***,7X,21H** SPRINT - (P100) ****21X,
      3HNUMBER,2X,3HINDICATOR,12X,7HSENSITIVITY,2X,3HACOUSTIC,3X,
      22HSTIFFNESS REQUIREMENTS/3X,3HCUT,2X,7HSTATION,3X,3HOCAMS,3X,
      3HSHLHEAD,3X,3HMPRESSURE,3X,4HWEEL,4X,3HLEVEL-DB,5X,
      7H1-VERT,3X,7H1-SIDE,3X,2H0J)
120 FORMAT(10,F9.1,F9.1,F10.1,F12.1,F9.4,F10.1,3F13.1)
70 FORMAT(1M1,35X,37H*** SHELL GEOMETRY - SECTION DATA ***,
      16X,21H** SPRINT - (P100) ****
      5X,3HCUT,3X,4HSTA.,3X,3H20,3X,3H0J,3X,3HBL,3X,3HBS,
      3X,3HRCU,3X,3HCL,3X,3HCS,4X,3HPERI.,3X,3H00,3X,3H40,3X,3HRO)
72 FORMAT(17,12F8.1)
80 FORMAT(1M1,30X,46H*** SEGMENT DATA - GEOMETRY AND UNIT INERTIAS ,
      3H***, 3X,21H** SPRINT - (P100) ****
      5X,3HSEC,3X,4HIDAR,3X,4HDELTA,3X,4HAREA,7X,
      3HOLUME,7X,4HIOX,7X,4HIOY,7X,4HIOZZ)
82 FORMAT(17,2F10.1,2F12.1,3F11.1)
84 FORMAT(10X,3HTOTAL,12X,2F12.1)
180 FORMAT(1M1,35X,37H*** SHELL GEOMETRY - SECTION DATA ***,16X,
      21H** SPRINT - (P100) ****
      17X,25HCROSS SECTION AREA-TORQUE,3X,
      3HPERIMETER,3X,14HPERIMETER-DECK,2X,13HDEPTH-EFFECT,3X,
      13HWIDTH-EFFECT,7X,3HCUT,1X,7HSTATION,2X,3HTOTAL,2X,7HNET FWD,
      2X,7HNET AFT,3X,7HFORWARD,2X,3HHAFT,4X,7HFORWARD,3X,3HHAFT,2X,
      7HFORWARD,4X,3HHAFT,2X,7HFORWARD,4X,3HHAFT)
181 FORMAT(17,F9.1,3F9.1,8F8.1)
188 FORMAT(1M1,20X,32H*** MISCELLANEOUS SHELL DATA ***,10X,
      21H** SPRINT - (P100) ****
      35X,20HYOUNG'S MODULUS - COVER,4X,F12.1/52X,
      3HLONGERONS,F12.1//24X,10HPANEL SIZE,3X,11HCUTOUT DATA,7X,

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CHART TITLE - NON-PROCEDURAL STATEMENTS

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15SHAPPARENT CUTOUT,10X,17BENDING STIFFNESS/5X.
3CUT,3X,7STATION,4X,5SHAPPER,5X,5ALONG,5X,5SHAPPER,5X.
5ALONG,5X,5SHAPPER,5X,5ALONG,7X,5VERTICAL,10X,4WSIDE)
162 FORMAT(17,F10.2,2E17.7)
90 FORMAT(1N1,35X,37H*** SECTION DATA - SHELL ELEMENTS ***.10X.
21H** SPRINT - (P100) **)
92 FORMAT(1N2//17X,5CUT,1X,5SHAPPER,5X,5SHAPPER THICKNESS,5X.
17X,5ALONG REQUIREMENTS,5X,5SHAPPER,5X,5TORSION/5X,5CUT,5X,5STATION,
5X,5COND,5X,5SPACING,5X,5UPPER,4X,4WSIDE,5X,5ALONG,5X,5SHAPPER,
4X,4WSIDE,5X,5ALONG,2X,5FLUTTER,2X,5FORWARD,2X,5HAFT)
94 FORMAT(17,F8.1,10,F8.2,5F8.4)
95 FORMAT(17X,17X,5VERTICAL COND.,2X,15ALONG/STRING.,14X.
25X,5AREA - LONG/STRINGER,5X,15X,5AREA - LONG C/O/5X.
5CUT,2X,5STATION,5X,5ALONG,4X,5SHAP,5X,15X,5DEPTH/SPACE,1X.
5SHAPPER,4X,5SHAPPER,5X,4WSIDE,5X,5ALONG,5X,15X,5LONG STIFF,2X.
5SHAPPER,5X,5ALONG)
96 FORMAT(17,F8.1,217,F11.2,F8.1,5F10.3)
200 FORMAT(1N1,30X,31H*** SHELL COMPONENT HEIGHTS ***.10X.
21H** SPRINT - (P100) **)
202 FORMAT(1N2//40X,15X,5COVER ELEMENTS,15X,5MINOR,5X,5JOINTS,5X.
15X,5LONGITUDINAL/15X,5SHAP,4X,5STA,5X,5LENGTH,5X,5SHAPPER,5X.
4WSIDE,4X,5ALONG,4X,5TOTAL,4X,5SHAPPER,2X,5SPLICES,5X.
15X,5PARTITIONS)
204 FORMAT(10X,17,F8.1)
206 FORMAT(20X,5TOTAL,10X,7F8.1)
210 FORMAT(1N2,20X,5LONGITUDINAL MEMBERS//70X,5CUTOUT/15X,5SHAP,4X.
5STA,5X,5LENGTH,5X,5SHAPPER,5X,4WSIDE,4X,5ALONG,4X.
5SHAPPER,4X,5ALONG,4X,5SHAP,5X,5TOTAL)
212 FORMAT(10X,17,F8.1)
214 FORMAT(20X,5TOTAL,10X,7F8.1)
200 FORMAT(1N1,45X,10H*** BODY GROUP ***.24X.
12H** SPRINT ***)
202 FORMAT(40X,7F8.2,24X,F10.1)
320 FORMAT(20X,15X,5MINOR FRAMES,40X,F10.1)
330 FORMAT(20X,5JOINTS, 5SPLICES AND FASTENERS,23X,F10.1)
340 FORMAT(20X,5COVERING - UPPER BETWEEN LONGERONS,10X,F10.1)
350 FORMAT(20X,5H- SIDE BETWEEN LONGERONS,10X,F10.1)
360 FORMAT(20X,5H- LOWER BETWEEN LONGERONS,10X,F10.1)
370 FORMAT(20X,5COVERING LONGITUDINAL STIFFENERS - UPPER BETW..
5X,5LONG.,F10.1)
380 FORMAT(5X,10H- SIC BETW. LONG.,F11.1)
390 FORMAT(5X,10H- LOWER BETW. LONG.,F10.1)
400 FORMAT(20X,17X,5LONGERONS - UPPER,35X,F10.1)
410 FORMAT(5X,7H- LOWER,35X,F10.1)
420 FORMAT(20X,11X,5ENGINE GRAB,41X,F10.1)
430 FORMAT(20X,15X,5LONGITUDINAL PARTITIONS - (STRUCTURAL),14X,F10.1)
440 FORMAT(20X,41X,5FLOORING AND SUPPORTS - (BASIC STRUCTURE),11X.
F10.1)
450 FORMAT(20X,5FITTINGS,44X,F10.1)
460 FORMAT(20X,5TOTAL - BASIC STRUCTURE,30X,F10.1)
500 FORMAT(1N1,40X,10H*** BODY GROUP ***.35X,10H** SPRINT **
40X,10H,5SECONDARY STRUCTURE//20X.
40X,5ENCLOSURES (EXCLUDING TURRET ENCLOSURES))
901 FORMAT(23X,15X,5COPY - PILOT,35X,F10.1)
903 FORMAT(23X,15X,5COPY - NAVIGATOR,31X,F10.1)
905 FORMAT(20X,40X,5WINDSHIELD (EXCLUDING BULLET PROTECTION),12X.
F10.1)
908 FORMAT(20X,15X,5WINDOWS AND PORTS INCL. FRAMES,20X,F10.1)
909 FORMAT(20X,15X,5WINDOWS AND PORTS - CABIN,27X,F10.1)
911 FORMAT(20X,43X,5FLOORING AND SUPPORTS (SECONDARY STRUCTURE),5X.
F10.1)
912 FORMAT(20X,25X,5STAIRWAYS AND LADDERS (FIXED),23X,F10.1)

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CHART TITLE - NON-PROCEDURAL STATEMENTS

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515 FORMAT(//20X,11HMOSE RADOME,4X,F10.1)
519 FORMAT(20X,11HTAIL RADOME,4X,F10.1)
523 FORMAT(20X,12HISC. RADOME,4X,F10.1)
525 FORMAT(//20X,37HSPEED BRAKES - STRUCTURE AND SUPPORTS,15X,F10.1)
527 FORMAT(//20X,3HOTHER,4X,F10.1)
530 FORMAT(20X,25HTOTAL SECONDARY STRUCTURE,37X,F10.1)
600 FORMAT(1H1,46X,18H*** BODY GROUP ***,33X,12H** SPRINT **
      46X,18HSECONDARY STRUCTURE/39X,
      33HDOORS, PANELS AND MISCELLANEOUS//60X,11HAREA-50.FT./20X,
      18HDOORS AND FRAMES)
601 FORMAT(20X,11H- MAIN GEAR,23X,F0.1,4X,F10.1)
603 FORMAT(20X,11H- NOSE GEAR,23X,F0.1,4X,F10.1)
605 FORMAT(20X,11H- AFT CARGO,23X,F0.1,4X,F10.1)
609 FORMAT(20X,12H- SIDE CARGO,23X,F0.1,4X,F10.1)
613 FORMAT(20X,10H- FWD RAMP,24X,F0.1,4X,F10.1)
617 FORMAT(20X,9H- TGE,29X,F0.1,4X,F10.1)
621 FORMAT(20X,10H- AFT RAMP,24X,F0.1,4X,F10.1)
629 FORMAT(20X,10H- PRESSURE,24X,F0.1,4X,F10.1)
631 FORMAT(20X,8H- BOOM,26X,F0.1,4X,F10.1)
633 FORMAT(20X,9H- GUN,4X,F10.1)
635 FORMAT(20X,8H- ARM,40X,F10.1)
637 FORMAT(20X,8H- ESCAPE,26X,F0.1,4X,F10.1)
643 FORMAT(20X,11H- PARATROOP,23X,F0.1,4X,F10.1)
645 FORMAT(20X,10H- ENTRANCE,24X,F0.1,4X,F10.1)
647 FORMAT(20X,8H- ACCESS,30X,F10.1)
649 FORMAT(20X,8H- I.F.R.,30X,F10.1)
653 FORMAT(20X,8H- R.A.T.,26X,F0.1,4X,F10.1)
661 FORMAT(20X,8H- ENGINE,26X,F0.1,4X,F10.1)
667 FORMAT(20X,11H- ACCESSORY,23X,F0.1,4X,F10.1)
669 FORMAT(20X,23HPANELS (NON STRUCTURAL))
683 FORMAT(20X,10H- SPOILER DEFLECTOR,27X,F10.1)
687 FORMAT(20X,13H- HEAT SHIELD,33X,F10.1)
671 FORMAT(20X,15H- MAIN GEAR POD,19X,F0.1,4X,F10.1)
675 FORMAT(20X,8H- DORSAL,26X,F0.1,4X,F10.1)
677 FORMAT(20X,28HALIGNAITS, STEPS, GRIPS,30X,F10.1)
679 FORMAT(20X,20HANTI-SKID PROTECTION,32X,F10.1)
681 FORMAT(20X,18HFAIRING AND FILLETS,33X,F10.1)
683 FORMAT(20X,15HINTERIOR FINISH,37X,F10.1)
685 FORMAT(20X,15HINTERIOR FINISH,37X,F10.1)
690 FORMAT(20X,48HTOTAL SECONDARY STRUCTURE (DOORS, PANELS, MISC.),
      14X,F10.1)
692 FORMAT(//20X,18HTOTAL - BODY GROUP,44X,F10.1)
700 FORMAT(1H1,46X,18H*** BODY GROUP ***,33X,12H** SPRINT **/46X,
      12HBALANCE DATA//73X,8HHEIGHT,5X,18HORIZ. ARM)
702 FORMAT(20X,20HJUNCTIONS AND FRAMES,20X,F12.2)
704 FORMAT(20X,20HJOINTS, SPLICES AND FASTENERS,11X,F12.2)
706 FORMAT(20X,12HMINOR FRAMES,26X,F12.2)
708 FORMAT(20X,18HCOVERING - UPPER,4X,F12.2/39X,4HSIDE,25X,F12.2/
      30X,5HLOWER,24X,F12.2)
710 FORMAT(20X,37HLONGERONS AND LONGITUDINAL STIFFENERS,3X,F12.2/
      60X,F12.2/60X,F12.2/60X,F12.2/60X,F12.2)
712 FORMAT(20X,11HENGINE DRAG,26X,F12.2)
714 FORMAT(20X,23HLONGITUDINAL PARTITIONS,17X,F12.2)
716 FORMAT(20X,21HFLOORING AND SUPPORTS,18X,F12.2)
718 FORMAT(20X,8HFITTINGS,32X,F12.2)
720 FORMAT(18X,21HTOTAL BASIC STRUCTURE,26X,F12.2)
722 FORMAT(//60X,18HSECONDARY STRUCTURE)
724 FORMAT(60X,F12.2)
726 FORMAT(18X,25HTOTAL S:CONDARY STRUCTURE,25X,F12.2)
730 FORMAT( 60X,31HDOORS, PANELS AND MISCELLANEOUS)
734 FORMAT(18X,48HTOTAL S:CONDARY STRUCTURE (DOORS, PANELS, MISC.),
      2X,F12.2)
736 FORMAT(//18X,18HTOTAL - BODY GROUP,32X,F12.2)

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04/10/74

AUTOFLOW CHART SET - SHEEP SECOND FUSELAGE OVERLAY

PAGE 149

CHART TITLE - NON-PROCEDURAL STATEMENTS

000 FORMATTING (END FUSELAGE)

04/10/74

AUTOFLON CHART SET - SHEEP SECOND FUSELAGE OVERLAY

PAGE 190

CHART TITLE - INTRODUCTORY COMMENTS

.....
SUBROUTINE SUPPLY
.....

CHART TITLE - SUBROUTINE SUPPLY

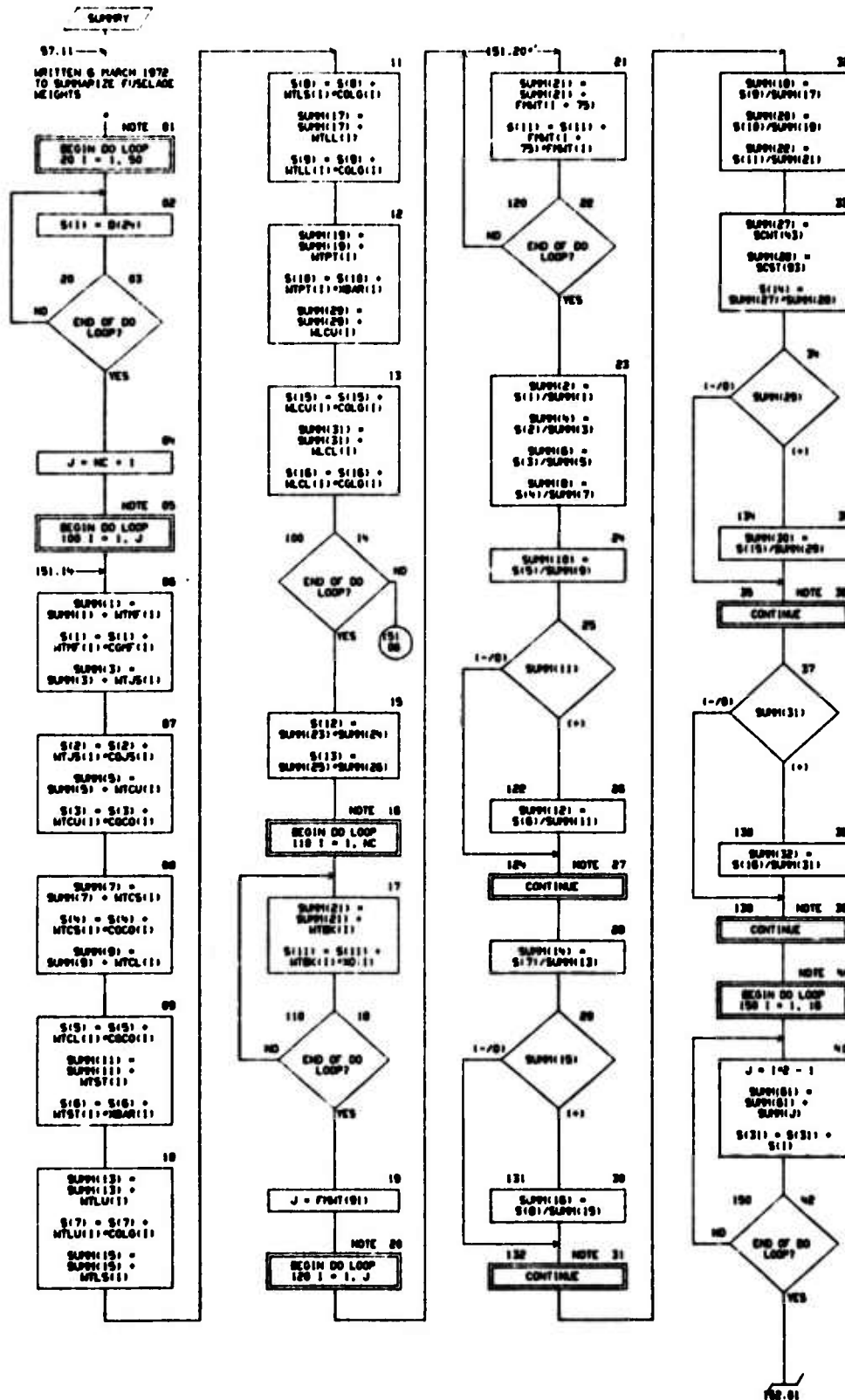


CHART TITLE - SUBROUTINE SUPPLY

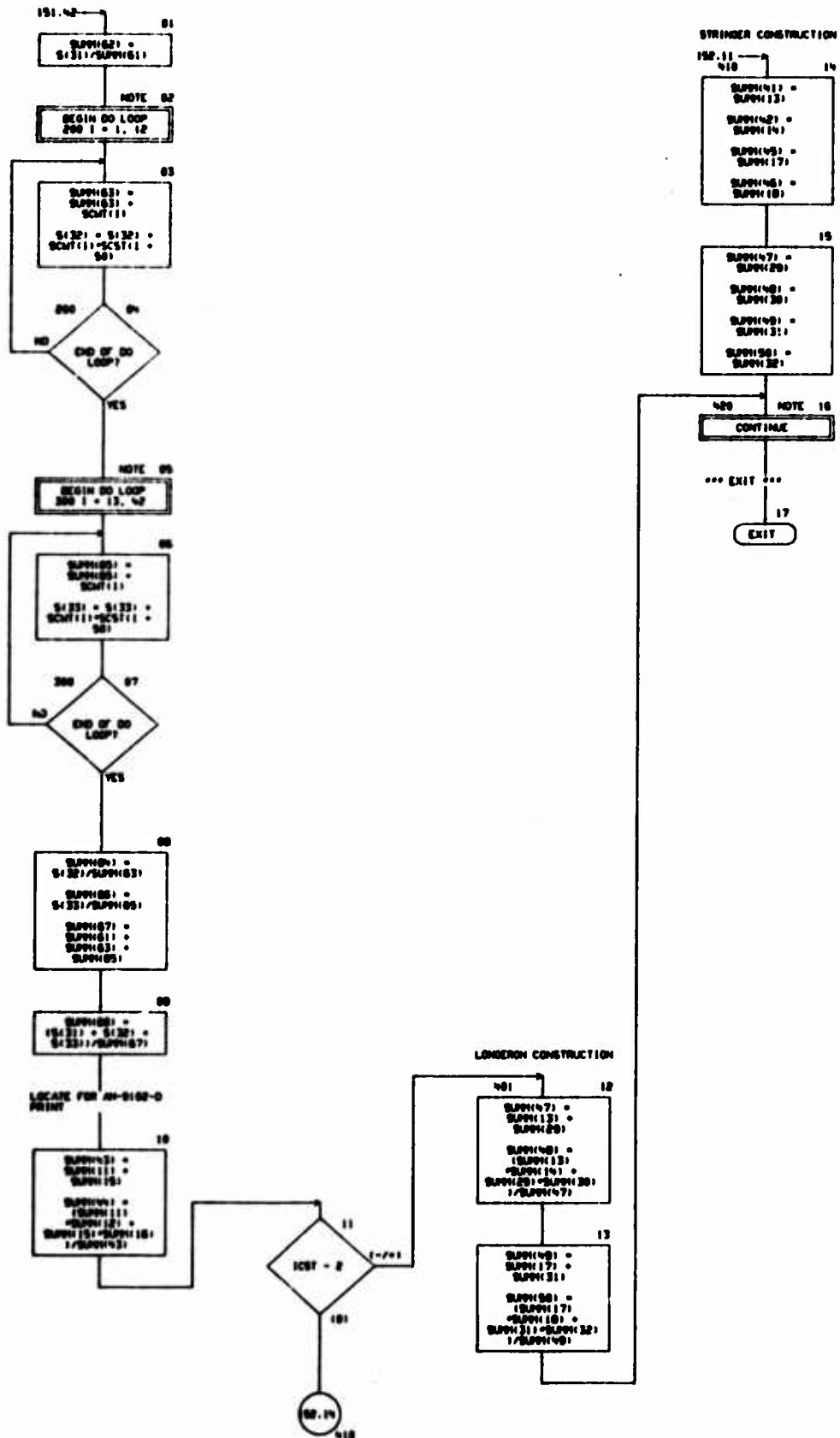


CHART TITLE - NON-PROCEDURAL STATEMENTS

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COMMON TCON(400)
DIMENSION D(200),T(200),DC(100),ND(200)
DIMENSION ND(20)
DIMENSION SCST(100)
DIMENSION MLCU(20),MLCL(20)
DIMENSION FPM(10)
DIMENSION S(100)
DIMENSION HBAR(20)
DIMENSION MTCU(20),MTC5(20),MTCL(20),MTCT(20)
DIMENSION MTLU(20),MTLS(20),MTLL(20),MTST(20),MTLT(20)
DIMENSION MTHW(20),MTJS(20)
DIMENSION COCO(20),COLG(20),CONF(20),COJS(20)
DIMENSION MTK(20),MTP(20)
DIMENSION SCMT(50)
DIMENSION SUPH(100)
EQUIVALENCE (D(1),TCON(1)),(T(1),TCON(200)),(DC(1),TCON(101)),
(ND(1),TCON(401))
EQUIVALENCE (D(30),ND(1))
EQUIVALENCE (D(82),SCST(1))
EQUIVALENCE (D(103),MLCU(1)),(D(105),MLCL(1))
EQUIVALENCE (D(1010),FPM(1))
EQUIVALENCE (T(1),S(1))
EQUIVALENCE (T(30),HBAR(1))
EQUIVALENCE (T(150),MTCU(1)),(T(152),MTC5(1)),
(T(154),MTCL(1)),(T(156),MTCT(1))
EQUIVALENCE (T(158),MTLU(1)),(T(160),MTLS(1)),
(T(162),MTLL(1)),(T(164),MTST(1)),(T(166),MTLT(1))
EQUIVALENCE (T(168),MTHW(1)),(T(170),MTJS(1))
EQUIVALENCE (T(172),COCO(1)),(T(174),COLG(1)),
(T(176),CONF(1)),(T(178),COJS(1))
EQUIVALENCE (T(180),MTK(1)),(T(182),MTP(1))
EQUIVALENCE (T(195),SCMT(1))
EQUIVALENCE (TCON(401),SUPH(1))
EQUIVALENCE (ND(101),1),(ND(102),J)
EQUIVALENCE (ND(111),NC),(ND(122),ICST)

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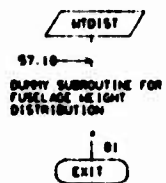
04/10/74

AUTOFLW CHART SET - SHEEP SECOND FUSELAGE OVERLAY PAGE 154

CHART TITLE - INTRODUCTORY COMMENTS

SUBROUTINE HTD1ST
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CHART TITLE - SUBROUTINE WTDIST



04/10/79

AUTOFLOW CHART SET - SHEEP SECOND FUSELAGE OVERLAY

PAGE 136

CHART TITLE - NON-PROCEDURAL STATEMENTS

COMMON TCON(400)

DIMENSION D(2000),T(2000),DC(100),ND(200)

EQUIVALENCE (D(1),TCON(1)),(T(1),TCON(2001)),(DC(1),TCON(401)),
(ND(1),TCON(4201))

PROGRAM LISTING
OF
SECOND FUSELAGE OVERLAY

FORTRAN MODULE (LIST,AUTOSEQ)

CARD NO	CONTENTS	****
1	C	
2	C	
3	C	PROGRAM FUS02
4	C	
5	C	
6	C	PROGRAM FUS02
7	C	
8	C	COMMON TCON(400)
9	C	
10	C	COMMON /FDAT/ FDAT(80)
11	C	
12	C	DIMENSION SUPH(100)
13	C	
14	C	EQUIVALENCE (SUPH(1),TCON(400(1)))
15	C	
16	C	REWIND 24
17	C	
18	C	BUFFER IN(24,1)(TCON(1),TCON(400(1)))
19	C	
20	C	IF(UNIT(24))10,10,10
21	C	
22	C	10 CALL FUS04
23	C	
24	C	FDAT(31) = SUPH(1)
25	C	FDAT(32) = SUPH(3)
26	C	FDAT(33) = 0.0
27	C	FDAT(34) = SUPH(5)
28	C	FDAT(35) = SUPH(7)
29	C	FDAT(36) = SUPH(9)
30	C	FDAT(37) = 0.0
31	C	
32	C	
33	C	REWIND 24
34	C	
35	C	BUFFER OUT(24,1)(TCON(1),TCON(400(1)))
36	C	
37	C	IF(UNIT(24))20,20,20
38	C	
39	C	20 CONTINUE
40	C	END
41	C	
42	C	
43	C	SUBROUTINE BLJ005
44	C	
45	C	
46	C	SUBROUTINE BLJ005 7030010
47	C	WRITTEN 3 MARCH 1972 7030020
48	C	TO DETERMINE BLAKEHEAD HEIGHTS 7030030
49	C	7030040
50	C	COMMON TCON(400) 7030050
51	C	7030060
52	C	DIMENSION CIND(10) 7030071
53	C	DIMENSION S(2000),T(2000),DC(100),ND(200) 7030070
54	C	DIMENSION MD(20) 7030072
55	C	DIMENSION SHOT(20),CTOU(20) 7030074
56	C	DIMENSION PRES(20),RDEF(20) 7030080
57	C	DIMENSION S1(20),S1(20),S2(20),S2(20) 7030090
58	C	DIMENSION FYP(200) 7030100
59	C	DIMENSION ACTS(20),ANT(20),ANT(20),PERF(20),PERF(20),PROF(20), 7030110
60	C	IPRDA(20) 7030120
61	C	DIMENSION DEFF(20),DEPA(20),MID(20),MID(20) 7030130
62	C	DIMENSION MTK(20) 7030140
63	C	7030150
64	C	EQUIVALENCE (S(1),TCON(1)),(T(1),TCON(200(1))),DC(1),TCON(400(1)), 7030160
65	C	(ND(1),TCON(400(1))) 7030170
66	C	EQUIVALENCE (S(2),CIND(1)) 7030171
67	C	EQUIVALENCE (S(3),MD(1)) 7030172
68	C	EQUIVALENCE (S(4),SHOT(1)),(S(5),CTOU(1)) 7030174
69	C	EQUIVALENCE (S(6),PRES(1)),(S(7),RDEF(1)) 7030180
70	C	EQUIVALENCE (T(1),S1(1)),(T(10),S1(10)),(T(20),S2(1)), 7030190

04/10/74	INPUT LISTING	AUTOFLOW CHART SET - SHEEP	SECOND FUELAGE OVERLAY
CARD NO	****	CONTENTS	****
71		1 (1101),00(11)	70300100
72		EQUIVALENCE (11001),FHP(11)	70300200
73		EQUIVALENCE (01101),ACRS(11), (01101),ANTF(11),	70300300
74		(01101),ANTAI(11), (01101),PERF(11), (01101),PERAI(11),	70300400
75		(01101),PROF(11), (01101),PROAI(11)	70300500
76		EQUIVALENCE (01101),DEPF(11), (01101),DEPAI(11),	70300600
77		(01101),MIDF(11), (01101),MIDAI(11)	70300700
78		EQUIVALENCE (11001),MTK(11)	70300800
79		EQUIVALENCE (01101),1)	70300900
80	C		70301000
81		00(11) = 0(01)	70301100
82	C	CHECK TORQUE AREA FORWARD AND AFT OF BALANCE	70301200
83		IF (ANTF(11) - ANTAI(11)) 10,10,12	70301300
84		10 00(0) = ANTAI(1)	70301400
85		GO TO 20	70301500
86		12 00(0) = ANTF(11)	70301600
87	C	SETUP CONSTANTS	70301700
88		00 00(1) = FHP(20)	70301800
89		00(0) = FHP(25)	70301900
90	C	SETUP FORWARD GEOMETRY	70302000
91		00(1) = DEPF(1)	70302100
92		00(2) = MIDF(1)	70302200
93	C	CHECK FORWARD PRESSURE	70302300
94		IF (PRES(11)) 110,100,100	70302400
95	C	CABIN PRESSURE	70302500
96		110 00(3) = - PRES(1)	70302600
97		00(4) = 0(20)	70302700
98		00(5) = 0(30)+0(30)	70302800
99	C	CABIN PRESSURE - IF THERE IS A CUTOUT ON TOP, IGNORE USE NET	70302900
100	C	AREA UPPER TO CALCULATE HEIGHT	70303000
101		110 IF (FACTOU(11)) 112,112,111	70303100
102		111 IF (IDMT(11)) 112,112,113	70303200
103		113 00(0) = ACRS(1) - ANTF(1)	70303300
104		00(1) = 0(4) - DEPF(1)	70303400
105		112 00(0) = FHP(200)+FHP(252)	70303500
106		0(1) = FHP(252)/00(5)	70303600
107		IF (0(1) - 00(0)) 114,115,115	70303700
108		114 00(0) = 0(1)	70303800
109		115 CALL DELNO	70303900
110		IF (00(11) - 00(10)) 117,200,200	70304000
111		117 00(11) = 00(10)	70304100
112		GO TO 200	70304200
113	C	PRESSURE IS ZERO CHECK FOR FUEL	70304300
114		100 00(3) = 0(20)	70304400
115		00(0) = MIDF(1)	70304500
116		IF (00(0)) 101,200,102	70304600
117		101 00(0) = - MIDF(1)	70304700
118	C	CALCULATE POSITIVE LOAD FACTOR	70304800
119		102 0(2) = 00(0) - 00(10)/0(20)/0(12)+ (00(1) - 00(7))	70304900
120	C	TEST FOR POSITIVE LOAD FACTOR	70305000
121		IF (0(2)) 103,103,100	70305100
122	C	LOAD FACTOR IS ZERO TEST FOR STATIC PRESSURE	70305200
123		103 IF (00(3)) 170,170,104	70305300
124		104 00(4) = 0(20)	70305400
125		GO TO 107	70305500
126		100 00(4) = 0(2)+00(12)+00(1)	70305600
127		107 00(5) = 00(0)	70305700
128		IF (00(0)) 100,100,100	70305800
129		100 00(5) = 0(30)	70305900
130		100 00(6) = FHP(252)/00(5)	70306000
131		CALL DELNO	70306100
132		IF (00(11) - 00(10)) 101,170,170	70306200
133		101 00(11) = 00(10)	70306300
134	C	CALCULATE NEGATIVE LOAD FACTOR	70306400
135		170 0(2) = 00(4) - 00(10)/0(20)/0(12)+ (00(1) - 00(7))	70306500
136	C	TEST NEGATIVE LOAD FACTOR	70306600
137		IF (0(2)) 170,170,170	70306700
138	C	LOAD FACTOR IS ZERO TEST FOR STATIC PRESSURE	70306800
139		170 IF (00(3)) 200,200,170	70306900
140		170 00(4) = 0(20)	70307000
141		GO TO 177	70307100

04/10/74	INPUT LISTING	AUTOFLOW CHART SET - SHEEP	SECOND FUELAGE OVERLAY
CARD NO	****	CONTENTS	****
142	170 00(4) = - 5(2)*00(12)*00(11)		70300070
143	177 00(0) = 02(13)		70300080
144	17(02(13)) 170,170,100		70300090
145	170 00(0) = 0(20)		70300100
146	100 00(0) = FVP(052)/00(0)		70300110
147	CALL 00L000		70300120
148	17(00(11)) - 00(10)) 101,101,200		70300130
149	101 00(11) = 00(10)		70300140
150	00 TO 200		70300150
151	C PRESSURE IS POSITIVE CHECK FOR FUEL		70300160
152	100 00(3) = PRES(1)		70300170
153	00(12) = R00F(1)		70300180
154	17(R00F(1)) 101,100,102		70300190
155	101 00(12) = - R00F(1)		70300200
156	00 TO 152		70300210
157	100 00(4) = 0(24)		70300220
158	00(0) = 0(20)		70300230
159	00 TO 110		
160	C SETUP AFT GEOMETRY		70300240
161	200 00(1) = DEPA(1)		70300250
162	00(2) = MIDM(1)		70300260
163	C CHECK AFT PRESSURE		70300270
164	17(PRES(1)) 210,250,200		70300280
165	C CABIN PRESSURE		70300290
166	210 00(3) = - PRES(1)		70300300
167	00(4) = 0(24)		70300310
168	00(0) = 0(20)*0(20)		70300320
169	212 00(0) = FVP(200)*FVP(252)		70300330
170	0(1) = FVP(252)/00(0)		70300340
171	17(0(1) - 00(0)) 214,210,210		70300350
172	214 00(0) = 0(1)		70300360
173	210 CALL 00L000		70300370
174	17(00(11)) - 00(10)) 217,400,400		70300380
175	217 00(11) = 00(10)		70300390
176	00 TO 400		70300400
177	C PRESSURE IS ZERO CHECK FOR FUEL		70300410
178	200 00(3) = 0(24)		70300420
179	00(12) = R00F(1)		70300430
180	17(R00F(1)) 201,400,202		70300440
181	201 00(12) = - R00F(1)		70300450
182	C CALCULATE POSITIVE LOAD FACTOR		70300460
183	202 0(2) = 00(0) - 00(10)/0(00)/0(12)*0(10(1) - 02(7))		70300470
184	C TEST FOR POSITIVE LOAD FACTOR		70300480
185	17(0(2)) 203,203,200		70300490
186	C LOAD FACTOR IS ZERO TEST FOR STATIC PRESSURE		70300500
187	203 17(00(3)) 270,270,200		70300510
188	204 00(4) = 0(24)		70300520
189	00 TO 257		70300530
190	205 00(4) = 0(2)*00(12)*00(11)		70300540
191	257 00(0) = 0(20)		70300550
192	17(00(0)) 200,200,200		70300560
193	200 00(0) = 0(20)		70300570
194	200 00(0) = FVP(202)/00(0)		70300580
195	CALL 00L000		70300590
196	17(00(11)) - 00(10)) 201,201,270		70300600
197	201 00(11) = 00(10)		70300610
198	C CALCULATE NEGATIVE LOAD FACTOR		70300620
199	270 0(2) = 00(4) - 00(10)/0(00)/0(12)*0(10(1) - 02(7))		70300630
200	C TEST NEGATIVE LOAD FACTOR		70300640
201	17(0(2)) 270,270,270		70300650
202	C LOAD FACTOR IS ZERO TEST FOR STATIC PRESSURE		70300660
203	270 17(00(3)) 400,400,270		70300670
204	274 00(4) = 0(24)		70300680
205	00 TO 277		70300690
206	275 00(4) = - 0(2)*00(12)*00(11)		70300700
207	277 00(0) = 02(13)		70300710
208	17(02(13)) 270,270,200		70300720
209	270 00(0) = 0(20)		70300730
210	200 00(0) = FVP(202)/00(0)		70300740
211	CALL 00L000		70300750
212	17(00(11)) - 00(10)) 201,201,400		70300760

CARD NO	INPUT LISTING	AUTOFLOW CHART SET - WEEP	SECOND FUELAGE OVERLAY
213	201 SS(11) = SS(10)		70351570
214	GO TO 400		70351580
215	C PRESURE IS POSITIVE CHECK FOR FUEL		70351590
216	200 SS(13) = PRES(11+1)		70351600
217	SS(12) = PROF(11+1)		70351610
218	IF (PROF(11+1) - 201,205,252		70351620
219	201 SS(12) = - PROF(11+1)		70351630
220	GO TO 252		70351640
221	200 SS(14) = S(24)		70351650
222	SS(15) = S(25)		70351660
223	GO TO 212		70351670
224	C CALCULATE HEIGHT - PLEASE		70351680
225	C DETERMINE EDGE CONSIDERATIONS		70351690
226	400 IF (PERF(11) - PERA(11) * 20,410,430		70351700
227	410 S(2) = PERF(11)		70351710
228	GO TO 500		70351720
229	420 S(2) = PERA(11) + PROF(11)		
230	GO TO 500		
231	430 S(2) = PERF(11) + PERA(11)		
232	C APPLY INDEX FACTOR TO BULKHEAD HEIGHT		70351800
233	500 NTH(11) = (SS(15) + S(2)*D(13))*SS(11)*77*(251)*C(IND(13))		70351810
234	C *** EXIT ***		7035
235	RETURN		70350000
236	END		70350000
237	C		
238	C		
239	C SUBROUTINE CUTOUT		
240	C		
241	C		
242	C SUBROUTINE CUTOUT		
243	C WRITTEN 24 APRIL 1972		
244	C TO DEVELOP PANEL NET EFFECTIVENESS DUE TO CUTOUTS		
245	DIMENSION S(100)		
246	C		
247	COMMON TCON(400)		
248	C		
249	DIMENSION D(2000),T(2000),DC(100),ND(200)		
250	DIMENSION BU(20),BL(20)		
251	DIMENSION CTOL(20),CTOL(20),DELX(20)		
252	DIMENSION RTU(20),RTL(20)		
253	C		
254	EQUIVALENCE (D(1),TCON(1)),(T(1),TCON(2001)),(DC(1),TCON(4101)),		
255	(ND(1),TCON(4201))		
256	EQUIVALENCE (D(151),RTU(1)),(D(153),RTL(1))		
257	EQUIVALENCE (T(1),S(1))		
258	EQUIVALENCE (T(20),BU(1)),(T(201),BL(1)),(T(201),DELX(1))		
259	EQUIVALENCE (D(401),CTOL(1)),(D(401),CTOL(1))		
260	EQUIVALENCE (ND(101),1),ND(111),NC)		
261	C		
262	DO 10 I=1,NC		
263	RTU(I) = S(24)		
264	RTL(I) = S(24)		
265	10 CONTINUE		
266	S(1) = S(24)		
267	S(2) = S(24)		
268	DO 200 I=1,NC		
269	IF (CTOL(I)) 101,102,101		
270	101 RTU(I) = CTOL(I)		
271	IF (RTU(I)) 100,100,104		
272	100 RTU(I) = - CTOL(I)		
273	104 IF (RTU(I) - S(1)) 100,100,106		
274	100 RTU(I) = BU(I)		
275	100 IF (BL(I) - RTU(I)) 110,112,112		
276	110 RTU(I) = BL(I)		
277	112 S(1) = RTU(I)		
278	GO TO 200		
279	200 IF (S(1)) 150,150,152		
280	152 IF (S(1)/DELX(I) - S(1)) 124,124,120		
281	124 RTU(I) = S(24)		
282	S(1) = S(24)		
283	GO TO 150		

04/10/74

INPUT LISTING

AUTOFLON CHART SET - SHEEP

SECOND FUSELAGE OVERLAY

CARD NO

CONTENTS

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204      126 RTU(1) = S(1) - DELX(1)
205      S(1) = RTU(1)
206      C      TEST AFT SECTION FOR CUTOUTS
207      150 IF(1 - NC) 151,200,200
208      151 IF(BU(1) - DELX(1+1)) 152,152,153
209      152 IF(BU(1+1) - DELX(1+1)) 200,150,153
210      153 IF(CTOU(1+1)) 155,100,155
211      155 S(2) = CTOU(1+1)
212      IF(S(2)) 157,157,150
213      157 S(2) = - CTOU(1+1)
214      150 IF(S(2) - D(1)) 161,161,163
215      161 S(2) = BU(1+1)
216      163 IF(BU(1+1) - S(2)) 165,167,167
217      165 S(2) = BU(1+1)
218      167 S(4) = S(2) - DELX(1+1)
219      IF(RTU(1) - S(4)) 180,200,200
220      180 RTU(1) = S(4)
221      IF(BU(1) - RTU(1)) 171,173,173
222      171 RTU(1) = BU(1)
223      173 S(1) = RTU(1)
224      GO TO 200
225      180 IF(1 - NC) 181,200,200
226      181 IF(BU(1) - DELX(1+1) - DELX(1+2)) 182,182,183
227      182 IF(BU(1+2) - DELX(1+1) - DELX(1+2)) 200,200,183
228      183 IF(CTOU(1+2)) 185,200,185
229      185 S(3) = CTOU(1+2)
230      IF(S(3)) 187,187,100
231      187 S(3) = - CTOU(1+2)
232      100 IF(S(3) - D(1)) 191,191,193
233      191 S(3) = BU(1+2)
234      193 IF(BU(1+2) - S(3)) 195,195,195
235      195 S(3) = BU(1+2)
236      195 S(4) = S(3) - DELX(1+1) - DELX(1+2)
237      IF(RTU(1) - S(4)) 197,200,200
238      197 RTU(1) = S(4)
239      IF(BU(1) - RTU(1)) 199,199,199
240      199 RTU(1) = BU(1)
241      199 S(1) = RTU(1)
242      C      TEST LOWER CUTOUTS
243      200 IF(CTOL(1)) 201,200,201
244      201 RTL(1) = CTOL(1)
245      IF(RTL(1)) 202,202,204
246      202 RTL(1) = - CTOL(1)
247      204 IF(RTL(1) - D(1)) 206,206,200
248      206 RTL(1) = BL(1)
249      200 IF(BL(1) - RTL(1)) 210,212,212
250      210 RTL(1) = BL(1)
251      212 S(2) = RTL(1)
252      GO TO 200
253      200 IF(S(2)) 208,200,202
254      202 IF(S(2)/DELX(1) - D(1)) 224,224,205
255      224 RTL(1) = S(2)
256      S(2) = S(2)
257      GO TO 200
258      205 RTL(1) = S(2) - DELX(1)
259      S(2) = RTL(1)
260      C      TEST AFT SECTION FOR CUTOUTS
261      250 IF(1 - NC) 251,300,300
262      251 IF(BL(1) - DELX(1+1)) 252,252,253
263      252 IF(BL(1+1) - DELX(1+1)) 300,300,253
264      253 IF(CTOL(1+1)) 255,300,255
265      255 S(3) = CTOL(1+1)
266      IF(S(3)) 257,257,200
267      257 S(3) = - CTOL(1+1)
268      250 IF(S(3) - D(1)) 261,261,263
269      261 S(3) = BL(1+1)
270      263 IF(BL(1+1) - S(3)) 265,267,267
271      265 S(3) = BL(1+1)
272      267 S(4) = S(3) - DELX(1+1)
273      IF(RTL(1) - S(4)) 280,300,300
274      280 RTL(1) = S(4)

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04/10/74

INPUT LISTING

AUTOFLAN CHART SET - SHEEP

SECOND FUSELAGE OVERLAY

CARD NO	CONTENTS	*****
355	IF(BL(1) - RTL(1)) 271,273,275	
356	271 RTL(1) = BL(1)	
357	273 S(2) = RTL(1)	
358	GO TO 500	
359	280 IF(1 - NC) 291,500,500	
360	281 IF(BL(1) - DELX(1+1) - DELX(1+2)) 282,282,283	
361	282 IF(BL(1+2) - DELX(1+1) - DELX(1+2)) 500,500,283	
362	283 IF(C7OL(1+2)) 295,500,295	
363	295 S(3) = C7OL(1+2)	
364	IF(S(3)) 297,297,299	
365	297 S(3) = - C7OL(1+2)	
366	299 IF(S(3) - 0(1)) 291,291,293	
367	291 S(3) = BL(1+2)	
368	293 IF(BL(1+2) - S(3)) 295,295,295	
369	295 S(3) = BL(1+2)	
370	296 S(4) = S(3) - DELX(1+1) - DELX(1+2)	
371	IF(RTL(1) - S(4)) 297,500,500	
372	297 RTL(1) = S(4)	
373	IF(BL(1) - RTL(1)) 298,298,298	
374	298 RTL(1) = BL(1)	
375	298 S(2) = RTL(1)	
376	500 CONTINUE	
377	RETURN	
378	END	
379	C	
380	C (*****)	
381	C SUBROUTINE CVPRES	
382	C (*****)	
383	C	
384	SUBROUTINE CVPRES	70320010
385	REVISED 12 DECEMBER 1972 TO ACCOUNT FOR HOOP EFFECT	70320030
386	1 TO DETERMINE COVER PRESSURE REQUIREMENTS	70320040
387	C	70320050
388	COMMON TCON(400)	70320060
389	C	70320070
390	DIMENSION D(2000),T(2000),DC(100),ND(200)	70320080
391	DIMENSION EQJA(100)	70320090
392	DIMENSION ND(20),DOHT(20)	70320100
393	DIMENSION PRES(20),R4OF(20)	70320110
394	DIMENSION S(100),S(20),S2(20),S3(20),FYP(300)	70320120
395	DIMENSION RCJ(20),ACL(20),ACS(20)	70320130
396	C	70320140
397	EQUIVALENCE (D(1),TCON(1),(T(1),TCON(200)),DC(1),TCON(401)),	70320150
398	(ND(1),TCON(401))	70320160
399	EQUIVALENCE (D(81),EQJA(1))	70320170
400	EQUIVALENCE (D(361),ND(1))	70320180
401	EQUIVALENCE (D(441),DOHT(1))	70320190
402	EQUIVALENCE (D(601),PRES(1),(D(621),R4OF(1))	70320200
403	EQUIVALENCE (T(1),S(1),(T(101),S(11),(T(121),S2(1)),	70320210
404	(T(141),S3(1),(T(161),FYP(1))	70320220
405	EQUIVALENCE (T(241),RCJ(1),(T(261),ACL(1),(T(281),ACS(1))	70320230
406	EQUIVALENCE (ND(101),J),ND(102),J),ND(125),IMIL)	70320240
407	C	70320250
408	C CLEAR PRESSURE DESIGN THICKNESS REGION	70320260
409	S3(12) = S(24)	70320270
410	S3(13) = S(24)	70320280
411	S3(14) = S(24)	70320290
412	S3(15) = S(24)	70320300
413	S3(16) = S(24)	70320310
414	S3(17) = S(24)	70320320
415	C CLEAR SEPARON REGION	70320330
416	GO TO J-1,20	70320340
417	S(J) = S(24)	70320350
418	10 CONTINUE	70320360
419	C TEST ON DESIGN CRITERIA	70320370
420	IF(PRES(1)) 100,200,200	70320380
421	C HUMAN ENVIRONMENT	70320390
422	100 S(2) = S(20)*S(20)	70320400
423	S(11) = - PRES(1)	70320410
424	102 S(12) = S(11)	70320420
425	IF(DOHT(1)) 110,110,115	70320430

04/10/74	INPUT LISTING	AUTOFLOW CHART SET - SHEEP	SECOND FUSELAGE OVERLAY
CARD NO	**** CONTENTS ****		
406	C THERE IS NO DECK - TOTAL SECTION IS PRESSURIZED		70320440
407	110 S(13) = S(12)		70320450
408	115 S(14) = FWP(70)/FWP(00)		70320460
409	S(3) = FWP(70)/S(2)		70320470
410	1R(S(14) .LT. S(3)) S(3) = S(14)		70320480
411	S(14) = S(3)		70320490
412	S(5) = S(3)		70320500
413	GO TO 400		70320510
414	C POSITIVE PRESSURE - TEST FOR LIQUID		70320520
415	200 IF(RDZF(1)) 210,202,210		70320530
416	202 S(2) = 0.301		70320540
417	C COMPARTMENT IS PRESSURIZED FOR EQUIPMENT ENVIRONMENT		70320550
418	S(11) = PRES(1)		70320560
419	GO TO 102		70320570
420	C LIQUID IN COMPARTMENT SETUP CONSTANTS		70320580
421	210 S(8) = S2(8) - S2(10)/D(20)/D(12)*IND(1) - S2(7)		70320590
422	S(7) = S2(14) - S2(15)/D(20)/D(12)*IND(1) - S2(12)		70320600
423	C TEST ON LOAD FACTOR CONDITION		70320610
424	IF(S2(8)) 212,212,214		70320620
425	C THERE IS NO POSITIVE LOAD FACTOR CONDITION		70320630
426	212 S(8) = 0.301		70320640
427	214 IF(S2(13)) 210,210,210		70320650
428	C THERE IS NO NEGATIVE LOAD FACTOR CONDITION		70320660
429	210 S2(13) = 0.301		70320670
430	210 IF(RDZF(1)) 220,220,250		70320680
431	C RDZF IS NOT ZERO - LIQUID IS BELOW DECK		70320690
432	220 S(8) = S(14)*RDZF(1)		70320700
433	C S(3) = 0.0		70320710
434	S(4) = FWP(70)/S2(13)		70320720
435	S(5) = FWP(70)/S2(8)		70320730
436	C S(11) = 0.0		70320740
437	S(12) = PRES(1) + RDZF(1)*S(7)*S(8)		70320750
438	S(13) = PRES(1) + RDZF(1)*S(5)*S(8)		70320760
439	GO TO 400		70320770
440	C LIQUID IS ABOVE DECK OR THERE IS NO DECK AT ALL		70320780
441	250 S(8) = S(14)*D(1) - RDZF(1)		70320790
442	S(3) = FWP(70)/S2(13)		70320800
443	S(4) = FWP(70)/S2(8)		70320810
444	S(11) = PRES(1) + RDZF(1)*S(7)*S(8)		70320820
445	S(12) = PRES(1) + RDZF(1)*S(5)*S(8)		70320830
446	C S(13) = 0.0		70320840
447	IF(RDZF(1)) 252,252,400		70320850
448	252 S(13) = S(12)		70320860
449	S(5) = S(4)		70320870
450	GO TO 400		70320880
451	C PRESSURE IS ZERO - CHECK ON LIQUID		70320890
452	300 IF(RDZF(1)) 210,1000,210		70320900
453	C SYNTHESIZE COVER FOR PRESSURE		70320910
454	C TEST ON UPPER COVER		70320920
455	400 IF(S(11)) 400,400,400		70320930
456	402 S3(12) = EQUA(27)*S3(8)*S(11)*EQUA(20)/(FWP(00)*EQUA(20))		70320940
457	1 (S(3)*EQUA(20))		70320950
458	S(14) = S3(12)		70320960
459	IF(RCU(1)) 420,420,420		70320970
460	420 S(14) = S(11)*RCU(1)/S(3)		70320980
461	IF(S(14) .LT. S3(12)) S3(12) = S(14)		70320990
462	C TEST ON SIDE COVER		70321000
463	420 IF(S(12)) 440,440,420		70321010
464	422 S3(13) = EQUA(27)*S3(8)*S(12)*EQUA(20)/(FWP(00)*EQUA(20))		70321020
465	1 (S(4)*EQUA(20))		70321030
466	S(15) = S3(13)		70321040
467	IF(RCS(1)) 440,440,420		70321050
468	420 S(15) = S(12)*RCS(1)/S(4)		70321060
469	IF(S(15) .LT. S3(13)) S3(13) = S(15)		70321070
470	C TEST ON LOWER COVER		70321080
471	440 IF(S(13)) 500,500,440		70321090
472	442 S3(14) = EQUA(27)*S3(8)*S(13)*EQUA(20)/(FWP(00)*EQUA(20))		70321100
473	1 (S(5)*EQUA(20))		70321110
474	S(16) = S3(14)		70321120
475	IF(RCL(1)) 500,500,440		70321130
476	440 S(16) = S(13)*RCL(1)/S(5)		70321140

779

04/10/74	INPUT LISTING	AUTOFLOW CHART SET - SHEEP	SECOND FUSELAGE OVERLAY
CARD NO	****	CONTENTS	****
030	C		
040		SUBROUTINE FREQD	70340010
041	C	WRITTEN 2 FEBRUARY 1970	70340020
042	C	TO DEVELOP LONGERON AND COVER REQUIREMENTS FOR SHELL BENDING	70340030
043	C		70340040
044		COMMON TCOM(400)	70340050
045	C		70340060
046		DIMENSION D(2000),T(2000),DC(100),MD(200)	70340070
047		DIMENSION EQUA(100)	70340080
048		DIMENSION CTOU(20),CTOL(20)	70340090
049		DIMENSION ALCU(20),ALCL(20)	70340100
050		DIMENSION RTU(20),RTL(20)	70340110
051		DIMENSION EIVT(20),EISD(20)	70340120
052		DIMENSION EIVM(20),EISA(20)	70340130
053		DIMENSION S(100),S1(20),S2(20),S3(20),S4(20)	70340140
054		DIMENSION RO(120),RCL(20),BU(20),BL(20),BS(20)	70340150
055		DIMENSION OOD(20),MO(20),RO(20)	70340160
056		DIMENSION TCU(20),TCS(20),TCL(20),ALU(20),ALL(20),ALS(20),ALT(20)	70340170
057		DIMENSION SFRH(20),BSTR(20),PMAX(20),FYP(300)	70340180
058		DIMENSION TOT(20)	70340190
059	C		70340200
060		EQUIVALENCE (D(1),TCOM(1)),(T(1),TCOM(200)),(DC(1),TCOM(401)),	70340210
061		(MO(1),TCOM(402))	70340220
062		EQUIVALENCE (D(61),EQUA(1))	70340230
063		EQUIVALENCE (D(461),CTOU(1)),(D(461),CTOL(1))	70340240
064		EQUIVALENCE (D(1061),EIVT(1)),(D(1061),EISD(1))	70340250
065		EQUIVALENCE (D(1561),RTU(1)),(D(1561),RTL(1))	70340260
066		EQUIVALENCE (D(1951),EIVM(1)),(D(1951),EISA(1))	70340270
067		EQUIVALENCE (D(1991),ALCU(1)),(D(1991),ALCL(1))	70340280
068		EQUIVALENCE (MO(107),1)	70340290
069		EQUIVALENCE (T(1),S(1)),(T(101),S1(1)),(T(121),S2(1)),	70340300
070		(T(141),S3(1)),(T(161),S4(1))	70340310
071		EQUIVALENCE (T(241),ROU(1)),(T(261),RCL(1)),	70340320
072		(T(321),BU(1)),(T(321),BL(1)),(T(341),BS(1))	70340330
073		EQUIVALENCE (T(441),OOD(1)),(T(461),MO(1)),(T(481),RO(1))	70340340
074		EQUIVALENCE (T(621),TCU(1)),(T(641),TCS(1)),(T(661),TCL(1)),	70340350
075		(T(681),ALU(1)),(T(701),ALL(1)),(T(721),ALS(1)),(T(741),ALT(1))	70340360
076		EQUIVALENCE (T(801),SFRH(1)),(T(821),BSTR(1)),(T(841),PMAX(1)),	70340370
077		(T(1201),FYP(1))	70340380
078		EQUIVALENCE (T(201),TOT(1))	70340390
079		EQUIVALENCE (MO(101),1), (MO(102),1), (MO(103),1), (MO(104),1),	70340400
080	C		70340410
081	C	SETUP COUNTER AND INITIAL ALLOWABLE STRESS	70340420
082	C	INITIALIZE AREAS	70340430
083		S(4) = D(24)	70340440
084		S(6) = D(24)	70340450
085		S(7) = D(53)	70340460
086		I/(S(6) - S(5)) 600,000,000	70340470
087	C	*** DETERMINE PANEL INDUCED COMPRESSION AND CRIPPLING ***	70340480
088		S(40) = D(61)*D(13) + D(62)	70340490
089		S(41) = D(61)*D(19) + D(621)/D(13) + D(62)	70340500
090		S(42) = D(61)*D(21)*S(41)**2 + D(61)**2/D(12) +	70340510
091		(D(61)/D(2) - S(41)**2 + D(621)*D(61) - S(41)**2)	70340520
092		S(43) = (S(42)/S(40))**.5	70340530
093		S(44) = D(53)/S(40)	70340540
094		S(45) = D(1) + (S(41)/S(43))**2	70340550
095		S(47) = D(10)*D(11) - S(45)*FYP(105)/FYP(105)	70340560
096		S(48) = FYP(105)/EQUA(45)/(FYP(105)/FYP(105) + EQUA(45))**.5	70340570
097	C	S(51) = ALLOWABLE STRESS FOR STRINGER	70340580
098		S(51) = S(48)/(EQUA(45) + EQUA(42)*EQUA(45))	70340590
099		+ (FYP(105)/FYP(105))**D(11)/D(10)	70340600
100	C	S(52) = F/FPMAX	70340610
101		S(52) = D(1)	70340620
102		I/(S(51)/SFRH(1) - EQUA(30)) 620,621,621	70340630
103		S(52) = D(1)/(EQUA(30) + D(1) - S(45)/(EQUA(40) -	70340640
104		(EQUA(45)*S(51)/SFRH(1)))	70340650
105	C	HEABA = S(53), HEABD = S(54), HEABE = S(57)	70340660
106		S(53) = (S(51)/TAN(54/3))/S(51)/S(52)**3*TCS(1)*D(14)	70340670
107		S(54) = S(48)/S(45)/S(51)/TCS(1)	70340680
108		I/(ICST *E. D) S(54) = S(54)*D(2)	70340690
109		S(55) = S(47)	70340700

04/10/74	INPUT LISTING	AUTOFLOW CHART SET - SHEEP	SECOND FUSELAGE OVERLAY
CARD NO	****	CONTENTS	****
710	$S(45) = S(44)$		70340620
711	$030 \ S(56) = S(45)$		70340630
712	$S(57) = S(56) * S(54) + S(47)$		70340640
713	$S(58) = S(57) * 2$		70340650
714	$S(59) = S(58) * S(57)$		70340660
715	$S(60) = S(59) * S(56) - S(53)$		70340670
716	$S(45) = S(56) - S(60) / (D(13) * S(54) * S(56) * S(58) + S(59))$		70340680
717	$S(61) = S(45) - S(56)$		70340690
718	$IF(S(61)) \ 031,040,632$		70340700
719	$031 \ S(61) = - S(61)$		70340710
720	$032 \ IF(S(61) - EQU(45) / D(10)) \ 040,040,630$		70340720
721	$040 \ IF(S(45) - S(44)) \ 041,700,700$		70340730
722	$041 \ S(45) = S(44)$		70340740
723	$700 \ S(45) = (S(44) * S(51) / TAN(S(43)) / (S(45) * S(54) + S(47))) / S(52)$		70340750
724	$S(47) = S(45) * S(48)$		70340760
725	$S(48) = S(45) * S(47)$		70340770
726	$IF(S(47) - D(53)) \ 710,000,000$		70340780
727	$710 \ S(47) = D(53)$		70340790
728	$S(45) = S(48) / S(47)$		70340800
729	000 CONTINUE		70340802
730	C SETUP MINIMUM AND INITIAL AREAS		70340804
731	$ALCL(1) = D(24)$		70340806
732	$ALCL(1) = D(24)$		70340808
733	$IF(RTU(1)) \ 75,75,71$		70340810
734	$71 \ ALCL(1) = D(53)$		70340812
735	C *** NOTE THIS PORTION ONLY WORKS FOR ROUNDED RECTANGLES		70340814
736	$IF(RTU(1) - D(2) * MD(1)) \ 72,72,74$		70340816
737	$72 \ S(36) = RO(1) + DOO(1)$		70340818
738	$S(62) = RTU(1) / D(2)$		70340820
739	00 TO 75		70340822
740	$74 \ S(36) = DOO(1) + RO(1) * COS((RTU(1) / D(2) - MD(1)) / RO(1))$		70340824
741	$S(62) = MD(1) + RO(1) * SIN((RTU(1) / D(2) - MD(1)) / RO(1))$		70340826
742	$75 \ IF(RTL(1)) \ 00,00,76$		70340828
743	$76 \ ALCL(1) = D(53)$		70340830
744	$IF(RTL(1) - D(2) * MD(1)) \ 77,77,78$		70340832
745	$77 \ S(37) = RO(1) + DOO(1)$		70340834
746	$S(63) = RTL(1) / D(2)$		70340836
747	00 TO 80		70340838
748	$78 \ S(37) = DOO(1) + RO(1) * COS((RTL(1) / D(2) - MD(1)) / RO(1))$		70340840
749	$S(63) = MD(1) + RO(1) * SIN((RTL(1) / D(2) - MD(1)) / RO(1))$		70340842
750	00 CONTINUE		70340844
751	$S(5) = D(53)$		70340846
752	$IF(1CST - 2) \ 00,05,00$		70340850
753	$00 \ S(2) = S(47)$		70340852
754	$S(3) = D(24)$		70340854
755	$S(4) = S(47)$		70340856
756	00 TO 95		70340860
757	$95 \ S(2) = D(53)$		70340862
758	$S(3) = S(47)$		70340864
759	$S(4) = D(53)$		70340866
760	95 CONTINUE		70340868
761	C		70340870
762	C *** SETUP WORKING STRESS DOWN BENDING CONDITION		70340872
763	$FMAX(1) = FWP(126) * D(80)$		70340874
764	C DETERMINE COVER WORKING STRESS		70340876
765	$S(6) = FMAX(1) * FWP(35) / FWP(125)$		70340878
766	$IF(FWP(48) * FWP(42) - S(6)) \ 101,102,102$		70340880
767	$101 \ S(6) = FWP(48) * FWP(42)$		70340882
768	$FMAX(1) = S(6) * FWP(125) / FWP(35)$		70340884
769	$102 \ S(7) = S(4) / D(2)$		70340886
770	$S(8) = FMAX(1) / S(7)$		70340888
771	$S(9) = S(6) / S(7)$		70340890
772	C 00 DOWN BENDING		70340892
773	$S(10) = - S(2) / D(2)$		70340894
774	C CHECK UPPER HALF		70340896
775	$S(11) = R(11)$		70340898
776	C DETERMINE MOMENT CARRIED BY UPPER COVER, SIDE AND INTERMEDIATE		70340900
777	C LONGERONS		70340902
778	$S(12) = TCU(1) * S(8) * S(9) * (BU(1) - S(11)) / BU(1) +$		70340904
779	$IS(3) * S(8) * S(15) / D(2) - S(5) * S(8) * S(17) / D(2)$		70340906
780	$S(13) = S(10) - S(12)$		70340908

04/10/74	INPUT LISTING	AUTOFLOW CHART SET - SHEEP	SECOND FUELAGE OVERLAY
CARD NO	****	CONTENTS	****
701		IF(S13) 150,150,121	7031170
702		121 S(14) = S(13)/S(8)/S(11)	7031180
703		IF(S14) .GT. S(2) S(2) = S(14)	7031182
704		IF(1CST - 2) 150,130,150	7031184
705		130 IF(RTU(1)) 150,150,131	7031186
706		131 S(13) = S(13)*RTU(1)/BU(1)	7031188
707		S(30) = S(13)/S(8)/D(2)/S(36)**2	7031190
708		IF(S(30) .GT. ALCU(1)) ALCU(1) = S(30)	7031192
709	C	CHECK LOWER HALF	7031194
710		150 S(11) = RTU(1)	7031196
711		S(15) = BL(1)	7031198
712	C	CHECK CONSTRUCTION	7031200
713		IF(1CST - 2) 171,100,171	7031202
714		171 S(10) = BL(1)	7031204
715		GO TO 105	7031206
716		100 S(10) = (BL(1) - S(11))	7031208
717		S(15) = BSTR(1)	7031210
718	C	DETERMINE EFFECTIVE COVER IN COMPRESSION	7031212
719		105 S(22) = BL(1) - S(11)	7031214
800		S(17) = D(24)	7031216
801		IF(RCL(1)) 240,240,105	7031218
802		105 S(10) = D(5)/D(3)	7031220
803		S(17) = D(8)*(TCL(1)/RCL(1))**S(10)	7031222
804		240 S(10) = D(4)/D(3)	7031224
805		S(10) = (S(17) + EQUA(40)*(TCL(1)/BPM(1))**S(10) +	7031226
806		10(43)*D(15)**2/D(12)/D(11) - FWP(32)**2*(TCL(1)/S(15))**2)*	7031228
807		BWP(35)	7031230
808		S(20) = D(12)*EQUA(40)*(TCL(1)/(FWP(35)/S(6))**.5	7031232
809		IF(S(15) - S(20)) 241,250,250	7031234
810		241 S(20) = S(15)	7031236
811		250 S(21) = S(20)*TCL(1)*S(9)*S(112)*S(10)/BL(1)	7031238
812		IF(S(10) - S(11)) 251,251,250	7031240
813		251 S(21) = TCL(1)*S(9)*S(10)*S(122)/BL(1)	7031242
814	C	DETERMINE MOMENT CARRIED BY LOWER COVER, SIDE AND INTERMEDIATE	7031244
815	C	LOADERONS	7031246
816		260 S(12) = S(21) + S(3)*S(8)*S(15)/D(2) + S(5)*S(8)*S(17)/D(2)	7031248
817		S(13) = S(10) - S(12)	7031250
818		IF(S(13)) 300,300,261	7031252
819		261 S(14) = S(13)/S(8)/S(112)	7031254
820		IF(1CST - 2) 265,200,205	7031256
821	C	LOADERON CONSTRUCTION	7031258
822		205 S(9) = PMAX(1)*S(11)*S(14)	7031260
823		S(95) = (S(9) + S(10))/FWP(120)/D(60)	7031262
824		IF(S(14) - S(95)) 266,200,200	7031264
825		200 S(14) = S(95)	7031266
826		200 IF(S(14) .GT. S(4)) S(4) = S(14)	7031268
827		IF(1CST - 2) 300,200,300	7031270
828		200 IF(RTU(1)) 300,300,291	7031272
829		291 S(13) = S(13)*RTU(1)/BL(1)	7031274
830		S(30) = S(13)/S(8)/D(2)/S(37)**2	7031276
831		IF(S(30) .GT. ALCL(1)) ALCL(1) = S(30)	7031278
832	C		7031280
833	C	*** SETUP WORKING STRESS UP BENDING CONDITION ***	7031282
834		300 PMAX(1) = FWP(85)/D(60)	7031284
835	C	DETERMINE COVER WORKING STRESS	7031286
836		S(6) = PMAX(1)*FWP(15)/FWP(95)	7031288
837		IF(FWP(10)*FWP(12) - S(6)) 301,302,302	7031290
838		301 S(6) = FWP(10)*FWP(12)	7031292
839		PMAX(1) = S(6)*FWP(95)/FWP(15)	7031294
840		302 S(7) = S(14)/D(2)	7031296
841		S(8) = PMAX(1)/S(7)	7031298
842		S(9) = S(8)/S(7)	7031300
843		S(10) = S(2)/D(2)	7031302
844	C	CHECK UPPER HALF	7031304
845		S(11) = RTU(1)	7031306
846		S(15) = BU(1)	7031308
847	C	CHECK CONSTRUCTION	7031310
848		IF(1CST - 2) 311,312,311	7031312
849		311 S(10) = BU(1)	7031314
850		GO TO 315	7031316
851		312 S(10) = (BU(1) - S(11))	7031318

04/10/74	INPUT LISTING	AUTOFLOW CHART SET - SHEEP	SECOND FUSELAGE OVERLAY
CARD NO	****	CONTENTS	****
052		S(15) = BSTR(1)	70341000
053	C	DETERMINE EFFECTIVE COVER IN COMPRESSION	70341000
054		315 S(22) = BU(1) - S(11)	70341000
055		S(17) = D(2)	70341010
056		IF(RCU(1)) 320,320,315	70341020
057		315 S(10) = D(3)/D(3)	70341030
058		S(17) = D(3)*(TCU(1)/RCU(1))*S(10)	70341040
059		320 S(10) = D(4)/D(3)	70341050
060		A(10) = (S(17) + EQUA(40)*(TCU(1)/BPM(1))*S(10) +	70341060
061		10(43)*D(15)*2/D(12)/D(1) - BPM(2)*2*(TCU(1)/S(15))*2)*	70341070
062		BPM(5)	70341080
063		S(20) = EQUA(40)*(TCU(1)/BPM(5)/S(6))*5	70341090
064		IF(S(15) - S(20)) 321,330,330	70342000
065		321 S(20) = S(15)	70342010
066		330 S(21) = S(20)*(TCU(1)*S(9)*S(11)*S(15)/BU(1)	70342020
067		IF(S(6) - S(10)) 331,331,340	70342030
068		331 S(21) = TCU(1)*S(9)*S(15)*S(22)/BU(1)	70342040
069	C	DETERMINE MOMENT CARRIED BY UPPER COVER, SIDE AND INTERMEDIATE	70342050
070	C	LONGERONS	70342060
071		340 S(12) = S(21) + S(3)*S(8)*S(15)/D(2) + S(5)*S(8)*S(17)/D(2)	70342070
072		S(13) = S(10) - S(12)	70342080
073		IF(S(13)) 400,400,341	70342090
074		341 S(14) = S(13)/S(8)/S(11)	70342100
075		IF(ICST - 2) 345,350,345	70342110
076		345 S(50) = FMAX(1)*S(11)*S(14)	70342120
077		S(57) = (S(50) + S(48))/BPM(50)/D(50)	70342130
078		IF(S(14) - S(57)) 346,346,350	70342140
079		346 S(14) = S(57)	70342150
080		350 IF(S(14) .GT. S(2)) S(2) = S(14)	70342152
081		IF(ICST - 2) 400,351,400	70342154
082		351 IF(RTU(1)) 400,400,353	70342156
083		353 S(13) = S(13)*RTU(1)/BU(1)	70342158
084		S(30) = S(13)/S(8)/D(2)/S(35)**2	70342160
085		IF(S(30) .GT. ALCU(1)) ALCU(1) = S(30)	70342162
086	C	CHECK LOWER HALF	70342160
087		400 S(11) = RTL(1)	70342160
088	C	DETERMINE MOMENT CARRIED BY LOWER COVER, SIDE AND INTERMEDIATE	70342240
089	C	LONGERONS	70342250
090		S(12) = TCU(1)*S(8)*S(10)*BL(1) - S(11)/BL(1) +	70342260
091		15(3)*S(8)*S(11)/D(2) + S(5)*S(8)*S(17)/D(2)	70342270
092		S(13) = S(10) - S(12)	70342280
093		IF(S(13)) 500,500,421	70342290
094		421 S(14) = S(13)/S(8)/S(11)	70342300
095		IF(S(14) .GT. S(4)) S(4) = S(14)	70342310
096		IF(ICST - 2) 500,423,500	70342320
097		423 IF(RTL(1)) 500,500,425	70342330
098		425 S(13) = S(13)*RTL(1)/BL(1)	70342340
099		S(30) = S(13)/S(8)/D(2)/S(37)**2	70342350
100		IF(S(30) .GT. ALCL(1)) ALCL(1) = S(30)	70342360
101	C		70342370
102	C	SETUP SECTION DATA	70342380
103		500 ALU(1) = S(2)	70342390
104		ALS(1) = S(3)	70342400
105		ALL(1) = S(4)	70342410
106		AUT(1) = S(5)	70342420
107	C	TEST FOR STIFFNESS REQUIREMENT	70342430
108	C	DEVELOP STIFFNESS START WITH VERTICAL STIFFNESS	70342440
109		500 I = 1	70342450
110		507 S(26) = S(5)*(TCU(1)*D(1) - RTU(1)/BU(1)	70342460
111		S(27) = S(17)*AUT(1)	70342470
112		S(28) = S(15)*ALS(1)	70342480
113		S(30) = ALCU(1)*D(2)*S(28)**2	70342490
114		S(30) = ALCL(1)*D(2)*S(27)**2	70342500
115		IF(ICST - 2) 510,520,510	70342510
116	C	LONGERON CONSTRUCTION	70342520
117		510 S(31) = S(11)*ALU(1)	70342530
118		S(32) = S(12)*ALL(1)	70342540
119		GO TO 530	70342550
120	C	STRINGER CONSTRUCTION	70342560
121		520 S(31) = S(11)*ALU(1)*D(1) - RTU(1)/BU(1)	70342570
122		S(32) = S(12)*ALL(1)*D(1) - RTL(1)/BL(1)	70342580

04/10/74	INPUT LISTING	AUTOFLEX CHART SET - SHEEP	SECOND FUSELAGE OVERLAY
CARD NO	CONTENTS		
003	$S(0) = F(14) * S(20) + F(104) * S(27) + S(20) + S(20) +$		70340000
004	$1 * S(30) + S(31) + S(32)$		70340000
005	$W(11) - 1) 000,000,000$		70340010
006	$S(0) * F(14) - E(17) 040,000,000$		70340020
007	C VERTICAL STIFFNESS LESS THAN REQUIRED STIFFNESS		70340030
008	$S(0) * S(3) = E(17) - E(14)$		70340040
009	$W(103) - 2) 040,044,042$		70340050
010	C LONGERON CONSTRUCTION		70340060
011	$S(2) * S(3) = S(33) * S(2) * F(1104) / S(111)$		70340070
012	$S(30) = S(33) * S(2) * F(1104) / S(112)$		70340080
013	$ALU(1) = ALU(1) + S(3)$		70340090
014	$ALL(1) = ALL(1) + S(30)$		70340100
015	GO TO 000		70340110
016	$S(4) * F(174) 040,040,040$		70340120
017	$S(3) * S(33) * S(2) * F(1104) / S(36) * 2 * S(2)$		70340130
018	$ALU(1) = ALU(1) + S(3)$		70340140
019	GO TO 047		70340150
040	$S(4) * S(3) = S(33) * S(2) * F(1104) / S(111)$		70340160
041	$ALU(1) = ALU(1) + S(3)$		70340170
042	$S(4) * F(174) 040,040,040$		70340180
043	$S(4) * S(3) = S(33) * S(2) * F(1104) / S(37) * 2 * S(2)$		70340190
044	$ALU(1) = ALU(1) + S(3)$		70340200
045	$S(4) * S(3) = S(33) * S(2) * F(1104) / S(112)$		70340210
046	$ALL(1) = ALL(1) + S(3)$		70340220
047	C DEVELOP SIDE BENDING STIFFNESS		70340230
048	C ONE SIDE PANEL ONLY		70340240
049	$S(0) * S(2) = S(110) * S(2) * TCS(1)$		70340250
050	$S(27) = S(110) * AT(1)$		70340260
051	$S(20) = ALU(1) * S(2) * S(62) * 2$		70340270
052	$S(30) = ALU(1) * S(2) * S(63) * 2$		70340280
053	$S(20) = S(24)$		70340290
054	$W(103) - 2) 000,000,000$		70340300
055	$S(3) = S(113) * ALU(1)$		70340310
056	$S(20) = S(114) * ALL(1)$		70340320
057	GO TO 070		70340330
058	$S(20) = S(110) * ALU(1)$		70340340
059	$S(3) = S(113) * ALU(1) * (D(1) - RTU(1) / BU(1))$		70340350
060	$S(20) = S(114) * ALL(1) * (D(1) - RTU(1) / BU(1))$		70340360
061	$S(3) * S(3) = F(14) * S(20) + F(104) * S(27) + S(20) + S(20) +$		70340370
062	$1 * S(30) + S(31) + S(32)$		70340380
063	$W(11) - 1) 071,000,000$		70340390
064	$S(3) * S(3) = E(104) - E(154)$		70340400
065	$E(154) = E(104)$		70340410
066	$II = 2$		70340420
067	C SIDE BENDING STIFFNESS LESS THAN REQUIRED STIFFNESS		70340430
068	$W(103) - 2) 070,074,070$		70340440
069	$S(2) * S(3) = S(33) * S(2) * F(1104) / S(113)$		70340450
070	$S(30) = S(33) * S(2) * F(1104) / S(114)$		70340460
071	$ALU(1) = ALU(1) + S(3)$		70340470
072	$ALL(1) = ALL(1) + S(30)$		70340480
073	GO TO 007		70340490
074	$S(3) * S(3) = S(33) * F(1104) / S(110)$		70340500
075	$ALU(1) = ALU(1) + S(3)$		70340510
076	GO TO 007		70340520
077	C DEVELOP LONGERON HEIGHT PER INCH		70340530
078	$W(103) - 2) 001,000,001$		70340540
079	C LONGERON CONSTRUCTION		70340550
080	$001 * T(15) = (ALU(1) * S(12) * S(2) + ALL(1) * S(12) * S(2) + AT(1) * S(13) +$		70340560
081	$1 * ALU(1) * S(2) + ALU(1) * S(2) * F(1104))$		70340570
082	GO TO 1000		70340580
083	C STRINGER CONSTRUCTION		70340590
084	C TEST FOR CUTOUTS UPPER AND LOWER		70340600
085	$S(0) * S(3) = CT(1)$		70340610
086	$W(103) 003,000,000$		70340620
087	$S(0) * S(3) = - CT(1)$		70340630
088	$W(1543) - 0(1) 000,000,007$		70340640
089	$S(0) * S(3) = 0(1)$		70340650
090	$007 * W(15) - S(03) 000,000,000$		70340660
091	$S(0) * S(3) = 0(1)$		70340670
092	$S(0) * S(4) = CT(1)$		70340680
093	$W(103) 003,070,000$		70340690

04/10/74

INPUT LISTING

AUTOFLOW CHART SET - SHEEP

SECOND FURLEAVE OVERLAY

CARD NO	CONTENTS
1005	TL1(1) = D(51)
1006	IF (MUL) 70,70,70
1007	C BASIC - PANEL NOT FILLED
1008	70 TCU(1) = D(51)
1009	TCS(1) = D(51)
1070	TCL(1) = D(51)
1071	C S(1) = PANEL RIVET FACTOR
1072	S(1) = D(47)
1073	GO TO 80
1074	C PANEL IS FILLED
1075	75 TCU(1) = D(52)
1076	TCS(1) = D(52)
1077	TCL(1) = D(52)
1078	S(1) = D(1)
1079	C CALCULATE SHEAR FLOW S3(1) = 0 + V0/I
1080	80 S(2) = S(111) + S(112) + S(115)
1081	S3(1) = ABS(S2(3)) * S(110) / S(2)
1082	C SETUP INITIAL ALLOWABLE SHEAR STRESS - S3(5)
1083	S3(5) = FWP(70) * S(1)
1084	S(4) = S3(1) / S3(5)
1085	IF (S(4) - TCS(1)) 85,80,80
1086	C INITIAL T-STRENGTH IS LESS THAN T-MINIMUM
1087	85 S(4) = TCS(1)
1088	S3(5) = S3(1) / S(4)
1089	C DETERMINE PANEL SHEAR BUCKLING CONSTANT KS = S3(7)
1090	88 S3(7) = D(44)
1091	IF (RCS(1)) 100,100,81
1092	91 S(5) = S3(8) * 2 * S3(3) * TCU(1) / S(4)
1093	IF (D(2) - S(5)) 92,100,100
1094	92 IF (S(5) - D(10)) 94,94,86
1095	94 S3(7) = D(44) * ((S(5) / D(2)) * EQUA(20))
1096	GO TO 100
1097	95 S3(7) = EQUA(21) * ((S(5) / D(10)) * EQUA(22))
1098	C CALCULATE SHEAR BUCKLING CONSTANTS
1099	C S3(4) = KS * 2 * E * I / (12 * (1 + NU) * 2) / S * 2
1100	100 S3(4) = S3(7) * (D(15) * 2) * FWP(80) / D(12) / S3(2) / (S3(8) * 2)
1101	C S3(6) = FSCR
1102	S3(6) = S3(4) * (S(4) * 2)
1103	C CHECK IF PANEL IS BUCKLED
1104	TCS(1) = S(4)
1105	IF (S3(6) - S3(5)) 150,150,100
1106	C CHECK POST BUCKLED STRENGTH
1107	C ASSUME DIAGONAL TENSION ANGLE IS 45 DEGREES
1108	C THEN S(12) = SIN(BETA) * COS(BETA) = 0.5
1109	150 S(12) = D(10)
1110	C FALLOW = FSCR + SIN(BETA) * COS(BETA) * (CR * TU - FSCR)
1111	S(4) = S3(6) + S(12) * (S(11) * FWP(70) - S3(6))
1112	IF (S(4) - S3(5)) 151,100,100
1113	C SOLVE SIMULTANEOUS EQUATION FOR PANEL THICKNESS
1114	151 S(15) = S3(1) / D(2) / D(1) - S(12) / S3(4)
1115	S(16) = S(11) * FWP(70) * S(12) / D(3) / D(1) - S(12) / S3(4)
1116	S(17) = (S(15) * 2 + S(16) * 3) * 0.5
1117	S(18) = (S(15) + S(17)) * D(21)
1118	S(19) = (S(17) - S(15)) * D(21)
1119	TCS(1) = S(18) - S(19)
1120	C TEST LAB FOR EDGE NET SECTION EFFECT
1121	160 S(20) = S3(1) / D(47) / FWP(70)
1122	IF (S(20) - TCS(1)) 101,102,102
1123	101 S(20) = TCS(1)
1124	102 IF (TLS(1) - S(20)) 100,200,200
1125	100 TLS(1) = S(20)
1126	C CHECK SECTION FOR PRESSURE LOADING
1127	200 IF (PRES(1)) 250,201,250
1128	201 IF (IMP(1)) 250,400,250
1129	250 CALL CURVES
1130	C TEST PANEL ELEMENTS TO SEE IF ANY COMPONENTS ARE PRESSURE DESIGNED
1131	IF (TCU(1) - S3(19)) 251,252,252
1132	251 TCU(1) = S3(19)
1133	252 IF (TLU(1) - S3(12)) 253,254,254
1134	253 TLU(1) = S3(12)
1135	254 IF (TCS(1) - S3(18)) 261,262,262

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04/10/74	INPUT LISTING	AUTOFLOW CHART SET - SHEEP	SECOND FUSELAGE OVERLAY
CARD NO	CONTENTS		
1136	001 TCS(1) = S3(16)		70311240
1137	002 IF(TLS(1) - S3(13)) 263,263,270		70311250
1138	003 TLS(1) = S3(13)		70311260
1139	270 IF(TCL(1) - S3(17)) 271,272,272		70311270
1140	271 TCL(1) = S3(17)		70311280
1141	270 IF(TLL(1) - S3(14)) 273,400,400		70311290
1142	273 TLL(1) = S3(14)		70311300
1143	C CHECK FOR LOCAL PANEL FLUTTER		70311310
1144	400 TCF(1) = D(24)		70311320
1145	IF(D(1) - CIND(21)) 401,401,500		70311325
1146	401 S(4) = DFRN(1)/S3(9)		70311330
1147	IF(D(10) - S(4)) 411,412,412		70311340
1148	C L/W IS GREATER THAN 10.0		70311350
1149	411 S(4) = D(10)		70311360
1150	C S(2) = IF(M)E/Q1**333*7/L		70311370
1151	412 S(2) = EQUA(16) - EQUA(17)*S(4) + EQUA(18)*S(4)**2 -		70311380
1152	1EQUA(19)*S(4)**3		70311390
1153	C D(30) = FLUTTER MARGIN		70311400
1154	S(5) = (CIND(25)*CIND(24)/CIND(23)*D(17)**D(21)		70311410
1155	C S3(10) = BASIC FLUTTER THICKNESS		70311420
1156	C ADD PANEL THICKNESS CORRECTION FOR BOUNDARY LAYER EFFECT		70311422
1157	S3(10) = S(2)*DFRN(1)/S(5)*CIND(20)		70311430
1158	S3(10) = S3(10)		70311435
1159	S3(20) = S3(10)		70311440
1160	TCF(1) = S3(10)		70311450
1161	C TEST FOR FLUTTER DESIGN		70311460
1162	IF(TOU(1) - S3(10)) 421,422,422		70311470
1163	421 TOU(1) = S3(10)		70311480
1164	420 IF(TLU(1) - S3(10)) 423,430,430		70311490
1165	423 TLU(1) = S3(10)		70311500
1166	430 IF(TCS(1) - S3(10)) 431,432,432		70311510
1167	431 TCS(1) = S3(10)		70311520
1168	432 IF(TLS(1) - S3(10)) 433,440,440		70311530
1169	433 TLS(1) = S3(10)		70311540
1170	440 IF(TCL(1) - S3(20)) 441,442,442		70311550
1171	441 TCL(1) = S3(20)		70311560
1172	442 IF(TLL(1) - S3(20)) 443,500,500		70311570
1173	443 TLL(1) = S3(20)		70311580
1174	C TEST FOR ACOUSTICS		70311590
1175	000 IF(ACOU(1)) 700,700,801		70311600
1176	C SOUND LEVELS ARE INPUT		70311610
1177	001 S(2) = ACOU(1)/D(13)		70311620
1178	S(3) = EQUA(23)*D(10)**S(2)		70311630
1179	S(4) = (77P(70)*77P(70))**.5		70311640
1180	C S3(11) = EDGE THICKNESS TO RESIST ACOUSTIC FATIGUE		70311650
1181	C S3(10) = MILLED THICKNESS		70311663
1182	C		70311665
1183	C ***** D(70) THRU D(80) ARE CONSTANTS FOR ACOUSTIC EQUATIONS *****		70311666
1184	C		70311667
1185	S3(11) = EQUA(24)*S3(10)*S(3)**.5/S(4)		70311670
1186	C TEST FOR MILLED PANEL		70311673
1187	IF(MIL) 900,900,904		70311675
1188	900 S3(10) = S3(11)		70311683
1189	GO TO 910		70311685
1190	904 S3(10) = S3(11)*EQUA(26)		70311690
1191	C SETUP CURVATURE CORRECTION		70311693
1192	C UPPER PANEL		70311695
1193	S(6 S(7) = D(1)		70311698
1194	IF(RCU(1)) 915,915,912		70311703
1195	S(2 S(6) = S3(10)**2/S3(11)/RCU(1)		70311705
1196	S(7) = D(77)*D(70)*S(6)-D(70)/S(6)-D(80)*ALOG10(S(6))		70311710
1197	C SIDE PANEL		70311713
1198	S(6 S(6) = D(1)		70311715
1199	IF(RCS(1)) 920,920,917		70311720
1200	S(7 S(6) = S3(10)**2/S3(11)/RCS(1)		70311723
1201	S(6) = D(77)*D(70)*S(6)-D(70)/S(6)-D(80)*ALOG10(S(6))		70311728
1202	C LOWER PANEL		70311730
1203	920 S(6) = D(1)		70311733
1204	IF(RCL(1)) 925,925,922		70311735
1205	922 S(6) = S3(10)**2/S3(11)/RCL(1)		70311743
1206	S(6) = D(77)*D(70)*S(6)-D(70)/S(6)-D(80)*ALOG10(S(6))		70311745

04/10/74	INPUT LISTING	AUTOFLOW CHART SET - SHEEP	SECOND FUSELAGE OVERLAY
CARD NO	****	CONTENTS	****
1270		1 (IND(1),TCOH(4201))	70200130
1270		EQUIVALENCE (D(24),CIND(1))	70200140
1280		EQUIVALENCE (D(30),FWL(1))	70200150
1281		EQUIVALENCE (T(1),S(1),T(20),TOT(1),T(24),PER(1))	70200160
1282		1 (T(80),SFRH(1))	70200170
1283		EQUIVALENCE (ND(101),1), (ND(102),J), (ND(102),ICST), (ND(124),IFRM)	70200180
1284	C		70200190
1285		IFRM = 1	70200200
1286		IF (FWL(1)) 100,100,200	70200210
1287		100 IF (CIND(17)) 101,101,150	70200220
1288	C	ERROR MESSAGE	70200230
1289		101 WRITE(6,60)	70200240
1290		60 FORMAT(1H0,10X,3H*** FRAME SPACE DEFINITION ERROR ***	70200250
1291		1//5X,4HGENERAL FRAME SPACING HAS BEEN SET AT 6 INCHES)	70200260
1292		CIND(17) = D(6)	70200270
1293		150 IF (CIND(17) - D(14)) 151,151,152	70200280
1294	C	FRAME SPACING AT LOWER LIMIT CHECK FOR SEARCH	70200290
1295		151 SFRH(1) = CIND(17)	70200300
1296		GO TO 300	70200310
1297	C	FRAME SPACING IS FIXED	70200320
1298		152 SFRH(1) = CIND(17) - D(14)	70200330
1299		IFRM = 3	70200340
1300		GO TO 400	70200350
1301		200 IF (FWL(1) - D(14)) 201,201,250	70200360
1302	C	FRAME SPACING IS AT LOWER LIMIT CHECK AGAINST UPPER LIMIT	70200370
1303		201 SFRH(1) = FWL(1)	70200380
1304		GO TO 300	70200390
1305	C	FRAME SPACING IS FIXED	70200400
1306		250 SFRH(1) = FWL(1) - D(14)	70200410
1307		IFRM = 3	70200420
1308		GO TO 400	70200430
1309	C	CHECK UPPER LIMIT	70200440
1310		300 S(1) = PER(1)/D(15)+D(35)	70200450
1311		IF (S(1) - SFRH(1)) 301,301,400	70200460
1312	C	FRAME SPACING IS GREATER THAN MAXIMUM	70200470
1313		301 SFRH(1) = S(1)	70200480
1314		IFRM = 3	70200490
1315		GO TO 400	70200500
1316	C	SETUP SEARCH COUNTER	70200510
1317	C	START	70200520
1318		400 IF (ICST - 2) 410,410,420	70200530
1319	C	LONGERON OR STRINGER CONSTRUCTION	70200540
1320		410 CALL FCOVER	70200550
1321		GO TO 500	70200560
1322	C	MONKEYPOD CONSTRUCTION GROWTH POTENTIAL - BURN ROUTINE	70200570
1323		420 CALL FCHMB	70200580
1324		500 CALL MINFR	70200590
1325		CALL FREQD	70200600
1326		IF (IFRM - 3) 050,1000,1000	70200610
1327		050 IF (IFRM - 2) 051,052,052	70200620
1328		051 IFRM = 2	70200630
1329		TOT(8) = TOT(5) + TOT(6) + TOT(7)	70200640
1330	C	INCREMENT FRAME SPACING	70200650
1331		SFRH(1) = SFRH(1) + D(34)	70200660
1332		GO TO 300	70200670
1333		052 TOT(8) = TOT(5) + TOT(6) + TOT(7)	70200680
1334		IF (TOT(8) - TOT(8)) 053,1000,054	70200690
1335		053 TOT(8) = TOT(8)	70200700
1336		SFRH(1) = SFRH(1) + D(34)	70200710
1337		GO TO 300	70200720
1338		054 IFRM = 3	70200730
1339		SFRH(1) = SFRH(1) + D(34)	70200740
1340		GO TO 300	70200750
1341		1000 CONTINUE	70200760
1342		RETURN	70200770
1343		END	70200780
1344	C		
1345	C	*****	
1346	C	SUBROUTINE FUSBL	
1347	C	*****	
1348	C		

04/10/74	INPUT LISTING	AUTOFLON CHART SET - SHEEP	SECOND FUSELAGE OVERLAY
CARD NO	****	CONTENTS	****
1349		SUBROUTINE FUSHL	70000010
1350	C		70000020
1351		CONVON TCON(400)	70000030
1352		CONVON IPRINT/ IP(00)	
1353	C		70000040
1354		DIMENSION D(2000),T(2000),DC(100),ND(200)	70000050
1355		DIMENSION CIND(50)	70000060
1356		DIMENSION BLND(20)	70000070
1357		DIMENSION MTK(20)	70000080
1358		DIMENSION SH(20)	70000090
1359		DIMENSION SUPH(100)	70000100
1360	C		70000110
1361		EQUIVALENCE (D(1),TCON(1)),(T(1),TCON(200)),(DC(1),TCON(410)),	70000120
1362		(IND(1),TCON(420))	70000130
1363		EQUIVALENCE (D(2),CIND(1))	70000140
1364		EQUIVALENCE (D(30),BLND(1))	70000150
1365		EQUIVALENCE (T(10),SH(1)),(SH(1),FD)	70000160
1366		EQUIVALENCE (T(103),MTK(1))	70000170
1367		EQUIVALENCE (TCON(400),SUPH(1))	70000180
1368		EQUIVALENCE (ND(10),I),(ND(102),J),(ND(103),K),(ND(106),N)	70000190
1369		EQUIVALENCE (ND(111),NC),(ND(112),NC)	70000200
1370	C		70000210
1371	C	CLEAR HEIGHT SUMMARY REGION	70000220
1372		DO 2 I=1,100	70000230
1373		SUPH(I) = D(24)	70000240
1374		2 CONTINUE	70000250
1375	C	CLEAR BALLHEAD HEIGHT AREA	70000260
1376		J = NC + 1	70000270
1377		DO 5 I=1,J	70000280
1378		MTK(I) = D(24)	70000290
1379		5 CONTINUE	70000300
1380		CALL CUTOBT	
1381	C	CLEAR SCRATCH REGION	70000310
1382		DO 10 J=1,200	70000320
1383		T(J) = D(24)	70000330
1384		10 CONTINUE	70000340
1385		DO 100 I=1,NC	70000350
1386	C	SET UP SECTION 1 LOADS AND MATERIAL DATA	70000360
1387		CALL LOCK	70000370
1388	C	SET UP FRAME DEPTH	70000380
1389		FD = CIND(10)	70000390
1390	C	CHECK SHAPE	70000400
1391		IF (NC - 2) 40,40,50	70000410
1392	C	ROUNDED RECTANGLE SHAPES	70000420
1393		40 CALL GJGED	70000430
1394		GO TO 70	70000440
1395	C	SUPPLY ROUTINE FOR ELLIPTICAL SHAPES	70000450
1396		50 CALL GJGED	70000460
1397	C	START SHELL SYNTHESIS	70000470
1398		70 CALL LENS	70000480
1399		IF (BLND(1)) 91,91,90	70000490
1400		90 CALL BLANDS	70000500
1401		91 CONTINUE	70000510
1402	C	*** BREAKPOINT OUTPUT ***	70000520
1403		IF (IP(70) 70001,0001,0002	
1404		0001 CONTINUE	
1405		WRITE(6,50) I	70000530
1406		50 FORMAT(1H1,2X,4H*** BREAKPOINT OUTPUT - SUBROUTINE FUSHL ***,	70000540
1407		I 2X,21H** FUSHL - IP(70) ****	
1408		I 2X,70SECTION,13/ SH,ENT-REGION)	
1409		DO 90 N=1,200,5	70000550
1410		K = N*4	70000560
1411		WRITE(6,57) N, T(J), J=N, K, I	70000570
1412		57 FORMAT(4X,13,6F10.4)	70000580
1413		90 CONTINUE	70000590
1414		0002 CONTINUE	
1415		100 CONTINUE	70000600
1416	C	DEVELOP SHELL HEIGHTS	70000610
1417		CALL PHEIGH	70000620
1418		CALL PART17	70000630
1419		CALL MISCNT	70000640

04/10/74	INPUT LISTING	AUTOFLOW CHART SET - SHEEP	SECOND FUSILADE OVERLAY
CARD NO	****	CONTENTS	****
1420	CALL SECOST		70320670
1421	CALL MTDIST		70320680
1422	CALL SUPPLY		70320690
1423	C PRINT OUTPUT		70320700
1424	CALL SPRINT		70320710
1425	RETURN		70320720
1426	END		70320730
1427	C		
1428	C	*****	
1429	C	SUBROUTINE FME10H	
1430	C	*****	
1431	C		
1432		SUBROUTINE FME10H	70320730
1433	C		70320740
1434		COMMON TCOM(4400)	70320750
1435	C		70320760
1436		DIMENSION D(2000),T(2000),DC(100),ND(200)	70320770
1437		DIMENSION C(ND(50),EQUA(160)	70320780
1438		DIMENSION ND(20),CTOU(20),CTOL(20),CTOS(20)	70320790
1439		DIMENSION SC,T(100)	70320800
1440		DIMENSION MLCU(20),MLCL(20)	70320810
1441		DIMENSION ALCU(20),ALCL(20)	70320820
1442		DIMENSION S(100),S(120)	70320830
1443		DIMENSION BU(20),BL(20),BS(20),NBAR(20),DELX(20),SF(20),PER(20)	70320840
1444		DIMENSION TCU(20),TCS(20),TCL(20),TLU(20),TLS(20),TLL(20)	70320850
1445		DIMENSION TOLJ(20),TOJA(20)	70320860
1446		DIMENSION ALU(20),ALS(20),ALL(20),AIT(20)	70320870
1447		DIMENSION SFRH(20),BSTR(20),FRMT(20),FHP(300)	70320880
1448		DIMENSION MTCU(20),MTC(20),MTCL(20),MTCT(20)	70320890
1449		DIMENSION MTLU(20),MTLS(20),MTLL(20),MTST(20),MTLT(20)	70320900
1450		DIMENSION MTHF(20),MTJS(20)	70320910
1451		DIMENSION COCO(20),COLO(20),CONF(20),COJS(20)	70320920
1452	C		70320930
1453		EQUIVALENCE (D(1),TCOM(1)),(T(1),TCOM(200)),(DC(1),TCOM(410)),	70320940
1454		(ND(1),TCOM(420))	70320950
1455		EQUIVALENCE (D(81),EQUA(1)),(D(24),C(ND(1))	70320960
1456		EQUIVALENCE (D(36),ND(1)),(D(46),CTOU(1)),(D(48),CTOL(1)),	70320970
1457		(D(50),CTOS(1))	70320980
1458		EQUIVALENCE (D(82),SCST(1)),(SCST(8),RONS), (SCST(9),ROTC)	70320990
1459		EQUIVALENCE (D(158),ALCU(1)),(D(161),ALCL(1))	70321000
1460		EQUIVALENCE (D(163),MLCU(1)),(D(165),MLCL(1))	70321010
1461		EQUIVALENCE (T(1),S(1)),(T(10),S(1))	70321020
1462		EQUIVALENCE (T(30),BU(1)),(T(32),BL(1)),(T(34),BS(1)),	70321030
1463		(T(36),NBAR(1)),(T(38),DELX(1)),(T(40),SF(1)),(T(42),PER(1))	70321040
1464		EQUIVALENCE (T(62),TCU(1)),(T(64),TCS(1)),(T(66),TCL(1)),	70321050
1465		(T(68),TLU(1)),(T(70),TLS(1)),(T(72),TLL(1))	70321060
1466		EQUIVALENCE (T(76),TOLJ(1)),(T(78),TOJA(1))	70321070
1467		EQUIVALENCE (T(80),ALU(1)),(T(82),ALL(1)),(T(84),ALS(1)),	70321080
1468		(T(86),AIT(1))	70321090
1469		EQUIVALENCE (T(88),SFRH(1)),(T(92),BSTR(1)),(T(94),FRMT(1)),	70321100
1470		(T(120),FHP(1))	70321110
1471		EQUIVALENCE (T(158),MTCU(1)),(T(162),MTC(1)),(T(164),MTCL(1)),	70321120
1472		(T(166),MTCT(1))	70321130
1473		EQUIVALENCE (T(168),MTLU(1)),(T(170),MTLS(1)),(T(172),MTLL(1)),	70321140
1474		(T(174),MTST(1)),(T(176),MTLT(1))	70321150
1475		EQUIVALENCE (T(180),MTHF(1)),(T(170),MTJS(1))	70321160
1476		EQUIVALENCE (T(172),COCO(1)),(T(174),COLO(1)),	70321170
1477		(T(176),CONF(1)),(T(178),COJS(1))	70321180
1478		EQUIVALENCE (ND(10),J), (ND(102),J)	70321190
1479		EQUIVALENCE (ND(11),NC), (ND(122),ICST)	70321200
1480	C		70321210
1481		MTCU(1) = D(24)	70321220
1482		MTC(1) = D(24)	70321230
1483		MTCL(1) = D(24)	70321240
1484		MTCT(1) = D(24)	70321250
1485		MTLU(1) = D(24)	70321260
1486		MTLS(1) = D(24)	70321270
1487		MTLL(1) = D(24)	70321280
1488		MTST(1) = D(24)	70321290
1489		ALCU(1) = D(24)	70321300
1490		MLCL(1) = D(24)	70321310

04/10/74

INPUT LISTING

AUTOFLOW CHART SET - SHEEP

SECOND FURLEAGE OVERLAY

CARD NO	CONTENTS	70300000
1401	MTL7(1) = 0(24)	70300010
1402	MTW(1) = 0(24)	70300020
1403	MTOUNC(1) = 0(24)	70300030
1404	MTCS(1) = 0(24)	70300040
1405	MTCL(1) = 0(24)	70300050
1406	MTCT(1) = 0(24)	70300060
1407	MTLJ(1) = 0(24)	70300070
1408	MTLS(1) = 0(24)	70300080
1409	MTLL(1) = 0(24)	70300090
1500	MTST(1) = 0(24)	70300100
1501	ALOUNC(1) = 0(24)	70300110
1502	ALCL(1) = 0(24)	70300120
1503	MTL7(1) = 0(24)	70300130
1504	MTW(1) = 0(24)	70300140
1505	S(2) = S(12)/0(2)	70300150
1506	S(4) = 0(24)	70300160
1507	S(5) = S(3)	70300170
1508	IF(100) 10,10,100	70300180
1509	C THERE IS NO MORE RADOME CALCULATE MORE SECTION HEIGHT	70300190
1510	10 S(1) = 0(11)/DELX(1)	70300200
1511	S(2) = S(11)/PER(1)	70300210
1512	IF(100) 2) 20,10,20	70300220
1513	C STRUTTER CONSTRUCTION	70300230
1514	15 S(3) = 0(11)/BSTR(1)*S(2)	70300240
1515	S(4) = 0(11)/BSTR(1)*S(2)	70300250
1516	S(5) = 0(11)/BSTR(1)*S(2)	70300260
1517	C DETERMINE FRAME LAND VOLUME	70300270
1518	20 S(6) = 0(11)*TLU(1) - TCU(1)*S(2)*0(40)*DELX(1)/BTRN(1)	70300280
1519	S(7) = 0(11)*TLB(1) - TCS(1)*S(2)*0(40)*DELX(1)/BTRN(1)	70300290
1520	S(8) = 0(11)*TLL(1) - TCL(1)*S(2)*0(40)*DELX(1)/BTRN(1)	70300300
1521	C DETERMINE LONGERON LAND VOLUME	70300310
1522	S(9) = S(3)*TLU(1) - TCU(1)*0(50)*DELX(1)	70300320
1523	S(10) = S(4)*TLB(1) - TCS(1)*0(50)*DELX(1)	70300330
1524	S(11) = S(5)*TLL(1) - TCL(1)*0(50)*DELX(1)	70300340
1525	C DETERMINE COVER COMPONENT HEIGHT	70300350
1526	MTOUN(1) = (TCU(1)*0(11)*DELX(1)*S(2) + S(6) + S(9))*77P(7)	70300360
1527	MTCS(1) = (TCS(1)*0(11)*DELX(1)*S(2) + S(7) + S(10))*77P(7)	70300370
1528	MTCL(1) = (TCL(1)*0(11)*DELX(1)*S(2) + S(8) + S(11))*77P(7)	70300380
1529	MTCT(1) = MTOUN(1) + MTCS(1) + MTCL(1)	70300390
1530	S(12) = 0(12)*S(2) - 0(1)	70300400
1531	COCD(1) = 0(11) - DELX(1)/0(3)*0(12)*S(12) + 0(11)/0(12) + 0(1)	70300410
1532	C DETERMINE LONGITUDINAL MEMBER HEIGHTS	70300420
1533	MTLJ(1) = ALJ(1)*S(3)*DELX(1)*77P(10)	70300430
1534	MTLS(1) = ALS(1)*S(4)*DELX(1)*77P(10)	70300440
1535	MTLL(1) = ALL(1)*S(5)*DELX(1)*77P(10)	70300450
1536	C DETERMINE STIFFENER HEIGHTS	70300460
1537	MTST(1) = AST(1)*S(3)*DELX(1)*77P(10)	70300470
1538	ALOUN(1) = ALJ(1)*0(2)*DELX(1)*77P(10)	70300480
1539	ALCL(1) = ALS(1)*0(2)*DELX(1)*77P(10)	70300490
1540	COCD(1) = COCD(1)	70300500
1541	IF(100) 2) 20,40,20	70300510
1542	20 COCD(1) = 0(11) - DELX(1)/0(2)	70300520
1543	40 MTL7(1) = MTLJ(1) + MTLB(1) + MTL(1) + MTST(1) + ALOUN(1) +	70300530
1544	1 MCL(1)	70300540
1545	C DETERMINE RIB FRAME HEIGHT	70300550
1546	MTW(1) = FRM(1)*DELX(1)/BTRN(1)*S(2)	70300560
1547	COCD(1) = COCD(1)	70300570
1548	C 20 SUBSEQUENT SECTION	70300580
1549	100 20 200 1-0,AC	70300590
1550	IF(DELX(1) - 0(12)) 101,101,200	70300600
1551	C SHARP DISCONTINUITY - REFLECT LAND AND CUTOUT EFFECTS	70300610
1552	101 MTOUN(1) = TCU(1)*0(11)*DELX(1)*77P(7)	70300620
1553	MTCS(1) = TCS(1)*0(11)*DELX(1)*77P(7)	70300630
1554	MTCL(1) = TCL(1)*0(11)*DELX(1)*77P(7)	70300640
1555	MTCT(1) = MTOUN(1) + MTCS(1) + MTCL(1)	70300650
1556	COCD(1) = 0(11)	70300660
1557	IF(100) 2) 110,105,110	70300670
1558	C STRUTTERS	70300680
1559	105 S(3) = 0(11)/BSTR(1)	70300690
1560	S(4) = 0(11)/BSTR(1)	70300700
1561	S(5) = 0(11)/BSTR(1)	70300710

04/10/74	INPUT LISTING	AUTOFLOW CHART SET - SHEEP	SECOND FUSELAGE OVERLAY
CARD NO	***	CONTENTS	***
1062	110 MTLU(1) = ALU(1)*S(1)*DELX(1)*WTP(101)		70301330
1063	MTLS(1) = ALS(1)*S(1)*DELX(1)*D(2)*WTP(101)		70301340
1064	MTLL(1) = ALL(1)*S(1)*DELX(1)*WTP(101)		70301350
1065	MTST(1) = ATF(1)*S(1)*DELX(1)*WTP(101)		70301360
1066	MTLY(1) = MTLU(1) + MTLS(1) + MTLL(1) + MTST(1)		70301370
1067	MLCU(1) = ALCU(1)*D(2)*DELX(1)*WTP(101)		70301380
1068	MLCL(1) = ALCL(1)*D(2)*DELX(1)*WTP(101)		70301390
1069	COL0(1) = REAR(1)		70301400
1070	MTLY(1) = MTLU(1) + MTLS(1) + MTLL(1) + MTST(1) + MLCU(1) +		70301410
1071	MLCL(1)		70301420
1072	WTP(1) = FMT(1)*DELX(1)/SFPH(1)		70301430
1073	COMP(1) = REAR(1)		70301440
1074	GO TO 500		70301450
1075	C GENERAL GEOMETRIC TRANSITION		70301460
1076	C *** DO UPPER PANEL ***		70301470
1077	200 S(7) = CTQU(1-1)		70301480
1078	S(8) = CTQU(1)		70301490
1079	IF(CTQU(1)) 201,201,210		70301500
1080	201 S(7) = D(24)		70301510
1081	S(8) = D(24)		70301520
1082	GO TO 230		70301530
1083	210 IF(S(8) - D(1)) 211,211,212		70301540
1084	211 S(8) = BU(1)		70301550
1085	212 IF(BU(1) - S(8)) 213,213,215		70301560
1086	213 S(8) = BU(1)		70301570
1087	215 IF(CTQU(1-1)) 216,230,220		70301580
1088	216 S(7) = - CTQU(1-1)		70301590
1089	220 IF(S(7) - D(1)) 222,222,224		70301600
1090	222 S(7) = BU(1-1)		70301610
1091	224 IF(BU(1-1) - S(7)) 226,230,230		70301620
1092	226 S(7) = BU(1-1)		70301630
1093	230 S(8) = BU(1-1) - S(7)		70301640
1094	S(10) = BU(1) - S(8)		70301650
1095	S(11) = S(12)/D(2)		70301660
1096	S(12) = S(11)		70301670
1097	IF(1CST - 2) 240,235,240		70301680
1098	235 S(11) = S(8)/BSTR(1-1)		70301690
1099	S(12) = S(10)/BSTR(1)		70301700
1000	C DETERMINE VOLUME COVER PER UNITLENGTH		70301710
1001	240 S(24) = TCU(1-1)		70301720
1002	S(25) = TLU(1-1)		70301730
1003	S(26) = TCU(1)		70301740
1004	S(27) = TLU(1)		70301750
1005	IF(TQJAI(1-1) .GT. TCU(1-1)) S(24) = TQJAI(1-1)		70301760
1006	IF(TQJAI(1-1) .GT. TLU(1-1)) S(25) = TQJAI(1-1)		70301770
1007	IF(TQJF(1) .GT. TCU(1)) S(26) = TQJF(1)		70301780
1008	IF(TQJF(1) .GT. TLU(1)) S(27) = TQJF(1)		70301790
1009	S(15) = S(24)*S(8) + (S(25) - S(24))*(S(8)*D(4B)/SFPH(1-1) +		70301800
1010	S(11)*D(50))		70301810
1011	S(16) = S(26)*S(10) + (S(27) - S(26))*(S(10)*D(4B)/SFPH(1) +		70301820
1012	S(12)*D(50))		70301830
1013	MTCU(1) = (S(15) + S(16))/D(2)*DELX(1)*WTP(71)		70301840
1014	S(21) = D(24)		70301850
1015	IF(MTCU(1)) 250,250,245		70301860
1016	245 S(21) = MD(1) - DELX(1)/D(3)*D(2)*S(15) + S(16)/(S(15) + S(16))		70301870
1017	250 S(17) = ALU(1-1)*S(11)		70301880
1018	S(18) = ALU(1)*S(12)		70301890
1019	MTLU(1) = (S(17) + S(18))/D(2)*DELX(1)*WTP(101)		70301900
1020	S(31) = D(24)		70301910
1021	IF(MTLU(1)) 253,253,251		70301920
1022	251 S(31) = MD(1) - DELX(1)/D(3)*D(2)*S(17) + S(18)/(S(17) + S(18))		70301930
1023	253 CONTINUE		70301940
1024	C *** DO SIDE PANEL ***		70301950
1025	C RALE OF TRAP CUTOUT SIDE PENALTY IS EQUAL TO 4 TIMES MATERIAL		70301960
1026	C REMOVED		70301970
1027	S(7) = CTOS(1-1)		70301980
1028	S(8) = CTOS(1)		70301990
1029	IF(CTOS(1)) 301,301,310		70302000
1030	301 S(7) = D(24)		70302010
1031	S(8) = D(24)		70302020
1032	GO TO 330		70302030

04/10/74	INPUT LISTING	AUTOFLOW CHART SET - SHEEP	SECOND FUELBASE OVERLAY
CARD NO	****	CONTENTS	****
1033	310 B(CT001-1) 310,330,330		7030040
1034	310 S(7) = - CT001-1		7030000
1035	330 S(0) = S(1-1) - S(7)		7030000
1036	S(10) = S(1) - S(0)		7030070
1037	S(11) = S(2)		7030000
1038	S(12) = S(2)		7030000
1039	S(13) = S(2)		7030100
1040	S(14) = S(2)		7030110
1041	B(1007 - 2) 340,330,340		7030210
1042	330 S(11) = S(0)/BSTR(1-1)		7030210
1043	S(12) = S(10)/BSTR(1)		7030214
1044	S(13) = S(1-1)/BSTR(1-1)		7030210
1045	S(14) = S(1)/BSTR(1)		7030210
1046	C DETERMINE VOLUME COVER PER UNIT LENGTH		7030210
1047	340 S(24) = TCS(1-1)		7030210
1048	S(25) = TLS(1-1)		7030210
1049	S(26) = TCS(1)		7030000
1050	S(27) = TLS(1)		7030010
1051	B(TLSJ1-1) .07, TCS(1-1) S(24) = TLSJ1-1		7030000
1052	B(TLSJ1-1) .07, TLS(1-1) S(25) = TLSJ1-1		7030070
1053	B(TLSJ1) .07, TCS(1) S(26) = TLSJ1		7030070
1054	B(TLSJ1) .07, TLS(1) S(27) = TLSJ1		7030070
1055	S(15) = S(24)*S(1-1) + (S(25) - S(24))*S(1-1)*S(14)/BTR(1-1)		7030000
1056	I S(11)*S(15)		7030070
1057	S(16) = S(26)*S(1) + (S(27) - S(26))*S(1)*S(14)/BTR(1)		7030000
1058	I S(12)*S(16)		7030070
1059	MCS(1) = (S(15) + S(16))/S(2)*DELX(1)*S(2)*77P(7)		7030200
1060	I (S(15)*S(7)/S(1-1) + S(16)*S(1)/S(1-1)*S(2)*DELX(1)*S(2)*77P(7))/7030210		
1061	S(28) = MD(1) - DELX(1)/S(3)*S(2)*S(15) + S(16)/S(15) + S(16)		7030200
1062	S(17) = ALS(1-1)*S(13)		7030230
1063	S(18) = ALS(1)*S(14)		7030240
1064	MLS(1) = (S(17) + S(18))*DELX(1)*77P(10)		7030200
1065	S(29) = S(24)		7030270
1066	B(MLS(1)) 400,400,300		7030270
1067	300 S(28) = MD(1) - DELX(1)/S(3)*S(2)*S(17) + S(18)/S(17) + S(18)		7030200
1068	C *** DO LOWER PANEL ***		7030200
1069	400 S(7) = CTOL(1-1)		7030240
1070	S(0) = CTOL(1)		7030240
1071	B(CTOL(1)) 401,401,410		7030240
1072	401 S(7) = S(24)		7030240
1073	S(0) = S(24)		7030240
1074	00 TO 430		7030240
1075	410 B(1040) - S(1) 411,411,412		7030240
1076	411 S(0) = EL(1)		7030240
1077	412 B(EL(1) - S(0)) 414,415,415		7030240
1078	414 S(0) = EL(1)		7030240
1079	415 B(CTOL(1-1)) 416,430,430		7030200
1080	416 S(7) = - CTOL(1-1)		7030210
1081	400 B(1047) - S(1) 402,402,404		7030200
1082	402 S(7) = EL(1-1)		7030230
1083	404 B(EL(1-1) - S(7)) 406,430,430		7030240
1084	406 S(7) = EL(1-1)		7030200
1085	430 S(0) = EL(1-1) - S(7)		7030000
1086	S(10) = EL(1) - S(0)		7030070
1087	S(11) = S(12)/S(2)		7030000
1088	S(12) = S(11)		7030000
1089	B(1007 - 2) 440,430,440		7030000
1090	430 S(11) = S(0)/BSTR(1-1)		7030010
1091	S(12) = S(10)/BSTR(1)		7030000
1092	C DETERMINE VOLUME COVER PER UNIT LENGTH		7030000
1093	440 S(24) = TCS(1-1)		7030040
1094	S(25) = TLL(1-1)		7030000
1095	S(26) = TCS(1)		7030000
1096	S(27) = TLL(1)		7030070
1097	B(TLLJ1-1) .07, TCS(1-1) S(24) = TLLJ1-1		7030000
1098	B(TLLJ1-1) .07, TLL(1-1) S(25) = TLLJ1-1		7030000
1099	B(TLLJ1) .07, TCS(1) S(26) = TLLJ1		7030200
1700	B(TLLJ1) .07, TLL(1) S(27) = TLLJ1		7030210
1701	S(15) = S(24)*S(1) + (S(25) - S(24))*S(1)*S(14)/BTR(1-1)		7030200
1702	I S(11)*S(15)		7030270
1703	S(16) = S(26)*S(1) + (S(27) - S(26))*S(1)*S(14)/BTR(1)		7030270

09/10/74	INPUT LISTING	AUTOFLOW CHART SET - SHEEP	SECOND FUSELAGE OVERLAY
CARD NO	****	CONTENTS	****
1704		$S(12) * D(10)$	70302750
1705		$MTCL(1) = (S(15) + S(16) / D(2) * DELX(1) * P(7))$	70302760
1706		$S(23) = D(2)$	70302770
1707		$IF(MTCL(1)) 450,450,445$	70302780
1708		$445 S(23) = X(1) - DELX(1) / D(3) * D(2) * S(15) + S(16) / (S(15) + S(16))$	70302790
1709		$450 S(17) = ALL(1) * S(11)$	70302800
1710		$S(18) = ALL(1) * S(12)$	70302810
1711		$MTLL(1) = (S(17) + S(18) / D(2) * DELX(1) * P(10))$	70302820
1712		$S(33) = D(2)$	70302830
1713		$IF(MTLL(1)) 453,453,451$	70302840
1714		$451 S(33) = X(1) - DELX(1) / D(3) * D(2) * S(17) + S(18) / (S(17) + S(18))$	70302850
1715		453 CONTINUE	70302860
1716		$MTST(1) = ALL(1) * S(13) * DELX(1) * P(10)$	70302870
1717		$S(34) = XBAR(1)$	70302880
1718		$MLCU(1) = (ALCU(1) - 1) + ALCU(1) * DELX(1) * P(10)$	70302890
1719		$S(35) = D(2)$	70302900
1720		$IF(MLCU(1)) 454,454,452$	70302910
1721		$452 S(35) = X(1) - DELX(1) / D(3) * D(2) * ALCU(1) - 1 + ALCU(1) /$	70302920
1722		$1 ALCU(1) - 1 + ALCU(1)$	70302930
1723		$454 S(35) = D(2)$	70302940
1724		$MLCL(1) = (ALCL(1) - 1) + ALCL(1) * DELX(1) * P(10)$	70302950
1725		$IF(MLCL(1)) 456,456,456$	70302960
1726		$456 S(35) = X(1) - DELX(1) / D(3) * D(2) * ALCL(1) - 1 + ALCL(1) /$	70302970
1727		$1 ALCL(1) - 1 + ALCL(1)$	70302980
1728		456 CONTINUE	70302990
1729	C	SUM PIECES	70303000
1730		$MTCT(1) = MTCU(1) + MTC(1) + MTCL(1)$	70303010
1731		$S(40) = MTCU(1) * S(21) + MTC(1) * S(22) + MTCL(1) * S(23)$	70303020
1732		$COCO(1) = S(40) / MTCT(1)$	70303030
1733		$MTLT(1) = MTLU(1) + MTL(1) + MTLL(1) + MTST(1) + MLCU(1) +$	70303040
1734		$1 MLCL(1)$	70303050
1735		$S(41) = MTLU(1) * S(31) + MTL(1) * S(32) + MTLL(1) * S(33) +$	70303060
1736		$1 MTST(1) * S(34) + MLCU(1) * S(35) + MLCL(1) * S(36)$	70303070
1737		$CCLG(1) = S(41) / MTLT(1)$	70303080
1738	C	CALCULATE MINDR FRAMES	70303090
1739		$S(10) = FRMT(1) / SFRM(1)$	70303100
1740		$S(20) = FRMT(1) / SFRM(1)$	70303110
1741		$MTWF(1) = (S(10) + S(20) / D(2) * DELX(1))$	70303120
1742		$CWF(1) = X(1) - DELX(1) / D(3) * D(2) * S(10) + S(20) /$	70303130
1743		$1 S(10) + S(20)$	70303140
1744		500 CONTINUE	70303150
1745	C	CHECK FOR TAIL CONE	70303160
1746		$IF(NDTC) 600,600,700$	70303170
1747	C	THERE IS NO TAIL PADOME CALCULATE TAIL CONE HEIGHT	70303180
1748		$600 S(1) = S(1) * DELX(1)$	70303190
1749		$S(2) = S(1) / PER(1)$	70303200
1750		$S(3) = S(2) / D(2)$	70303210
1751		$S(4) = D(2)$	70303220
1752		$S(5) = S(3)$	70303230
1753		$IF(10ST - 2) 620,615,620$	70303240
1754	C	STRINGER	70303250
1755		$615 S(3) = BU(1) * BSTR(1) * S(2)$	70303260
1756		$S(4) = BS(1) * BSTR(1) * S(2)$	70303270
1757		$S(5) = BL(1) * BSTR(1) * S(2)$	70303280
1758		$620 S(6) = BU(1) * (TLU(1) - TCU(1)) * S(2) * D(4) * DELX(1) / SFRM(1)$	70303290
1759		$S(7) = BS(1) * (TLS(1) - TCS(1)) * S(2) * D(4) * DELX(1) / SFRM(1)$	70303300
1760		$S(8) = BL(1) * (TLL(1) - TCL(1)) * S(2) * D(4) * DELX(1) / SFRM(1)$	70303310
1761	C	DETERMINE LONGERON LAMB VOLUME	70303320
1762		$S(9) = S(3) * (TLU(1) - TCU(1)) * D(5) * DELX(1)$	70303330
1763		$S(10) = S(4) * (TLS(1) - TCS(1)) * D(5) * DELX(1)$	70303340
1764		$S(11) = S(5) * (TLL(1) - TCL(1)) * D(5) * DELX(1)$	70303350
1765	C	DETERMINE COVER COMPONENT HEIGHT	70303360
1766		$MTCU(1) = (TCU(1) * BU(1) * DELX(1) * S(2) + S(6) + S(9)) *$	70303370
1767		$IF(P(7))$	70303380
1768		$MTC(1) = (TCS(1) * BS(1) * DELX(1) * S(2) + S(7) + S(10)) *$	70303390
1769		$IF(P(7))$	70303400
1770		$MTCL(1) = (TCL(1) * BL(1) * DELX(1) * S(2) + S(8) + S(11)) *$	70303410
1771		$IF(P(7))$	70303420
1772		$MTCT(1) = MTCU(1) + MTC(1) + MTCL(1)$	70303430
1773		$S(12) = D(2) * S(2) - D(1)$	70303440
1774		$COCO(1) = X(1) - DELX(1) / D(3) * D(2) * S(12) + D(1) /$	70303450

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CARD NO      ****      CONTENTS      ****

1775          (1510) = 0(11)          70305400
1776          C      DETERMINE LONGITUDINAL MEMBER HEIGHTS          70305470
1777          MFLINE(1) = ALUINE(1513)*DELXINE(11)*77P(101)          70305480
1778          MFLSINE(1) = ALSINE(1514)*DELXINE(11)*77P(101)          70305490
1779          MFLLINE(1) = ALLINE(1515)*DELXINE(11)*77P(101)          70305500
1780          MSTINE(1) = AITINE(1513)*DELXINE(11)*77P(101)          70305510
1781          MLCUINE(1) = ALCUINE(1512)*DELXINE(11)*77P(101)          70305520
1782          MLCLINE(1) = ALCINE(1512)*DELXINE(11)*77P(101)          70305530
1783          COLXINE(1) = CCOXINE(1)          70305540
1784          IF (ICST - 2) 030,040,030          70305550
1785          030 COLXINE(1) = XBARINE(1)          70305560
1786          040 MFLINE(1) = MFLINE(1) + MFLSINE(1) + MFLLINE(1) + MSTINE(1) +          70305570
1787          1 MLCUINE(1) + MLCLINE(1)          70305580
1788          MWTINE(1) = FWTINE(1)*DELXINE(11)/STWINE(1512)          70305590
1789          COFFINE(1) = CCOXINE(1)          70305600
1790          700 CONTINUE          70305610
1791          C          70305630
1792          C      APPLY INDEX FACTORS TO COVER, LONGERONS, RINDER FRAMES, AND          70305640
1793          C      JOINTS, SPLICES AND FASTENERS          70305650
1794          J = NC + 1          70305660
1795          DO 710 I=1,J          70305670
1796          MTS(1) = IMCT(1) + MTLT(11)*EJAM(15)          70305675
1797          COLS(1) = 0(12)          70305674
1798          IF (MTS(1)) 704,704,702          70305675
1799          700 COLS(1) = IMCT(1)*CCO(1) + MTLT(11)*COLS(11)/IMCT(1) + MTLT(11)          70305676
1800          704 CONTINUE          70305679
1801          MTCM(1) = MTCM(1)*CIND(31)          70305680
1802          MTCB(1) = MTCB(1)*CIND(31)          70305685
1803          MTCU(1) = MTCU(1)*CIND(31)          70305690
1804          MCT(1) = MCT(1)*CIND(31)          70305710
1805          MTLAM(1) = MTLAM(1)*CIND(32)          70305700
1806          MTLB(1) = MTLB(1)*CIND(32)          70305720
1807          MTL(1) = MTL(1)*CIND(32)          70305740
1808          MST(1) = MST(1)*CIND(32)          70305750
1809          MLCM(1) = MLCM(1)*CIND(32)          70305760
1810          MLC(1) = MLC(1)*CIND(32)          70305770
1811          MTLT(1) = MTLT(1)*CIND(32)          70305780
1812          MWT(1) = MWT(1)*CIND(34)          70305790
1813          MTS(1) = MTS(1)*CIND(33)          70305800
1814          710 CONTINUE          70305810
1815          RETURN          70305820
1816          END          70305830
1817          C
1818          C      C
1819          C      SUBROUTINE GJ1000
1820          C      C
1821          C
1822          SUBROUTINE GJ1000          70340010
1823          C      WRITTEN 31 JANUARY 1972          70340020
1824          C      TO DETERMINE GJ REQUIREMENTS FOR SHELL COVERS AND PARTITIONS          70340030
1825          C          70340040
1826          C          70340050
1827          COMMON TCON(400)          70340060
1828          C          70340070
1829          DIMENSION D(2000),T(2000),DC(100),MD(200)          70340080
1830          DIMENSION BMT(20),CTOU(20),CTOL(20),BPH(20),RAD(20),AJRD(20)          70340090
1831          DIMENSION CIND(50)          70340100
1832          DIMENSION ACRS(20),ANTY(20),ANTAI(20),PCRF(20),PERAI(20),PRF(20),          70340110
1833          IPRAI(20)          70340120
1834          DIMENSION DEFF(20),DEPA(20),M10F(20),M10A(20)          70340130
1835          DIMENSION S(100),S00(20),MD(20),RD(20),TGJF(20),TGJAM(20),77P(300)          70340140
1836          DIMENSION D(100)          70340150
1837          C          70340160
1838          EQUIVALENCE (D(1),TCON(1)),(T(1),TCON(2001)),(DC(1),TCON(4101)),          70340170
1839          (MD(1),TCON(4201))          70340180
1840          EQUIVALENCE (D(24),CIND(1))          70340190
1841          EQUIVALENCE (D(44),BMT(1))          70340200
1842          EQUIVALENCE (D(48),CTOU(1)),(D(48),CTOL(1))          70340210
1843          EQUIVALENCE (D(52),RAD(1)),(D(54),BPH(1))          70340220
1844          EQUIVALENCE (D(70),AJRD(1))          70340230
1845          EQUIVALENCE (D(110),ACRS(1)),(D(112),ANTY(1)),          70340240

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04/10/74	INPUT LISTING	AUTOFLOW CHART SET - SHEEP	SECOND FUSELAGE OVERLAY
CARD NO	****	CONTENTS	****
1046		1(D(114)),ANTA(1),D(116),PERF(1),D(118),PERA(1),	70240250
1047		2(D(120)),PROF(1),D(122),PRDA(1)	70240260
1048		EQUIVALENCE (D(124)),DEPF(1),D(126),DEPA(1),	70240270
1049		1(D(128)),MIDF(1),D(130),MIDA(1)	70240280
1050		EQUIVALENCE (T(1),S(1)),T(144),DOO(1),T(146),MO(1),	70240290
1051		1(T(148)),RO(1),T(170),TGJF(1),T(172),TGJA(1),	70240300
1052		2(T(120)),FMP(1)	70240310
1053		EQUIVALENCE (T(16),SA(1))	70240320
1054		EQUIVALENCE (04(1),FD)	70240330
1055		EQUIVALENCE (ND(10),1),ND(102),J1,ND(107),1)	70240340
1056		EQUIVALENCE (ND(11),NC)	40240345
1057	C		70240350
1058	C	NOTE FD = FRAME DEPTH CIND(14) = NO OF RADII SHROUD	70240360
1059	C	SET UP NO CUTOUT DATA	70240370
1060		S(10) = D(2)*RO(1) + MO(1)	70240380
1061		S(11) = D(2)*RO(1) + DOO(1)	70240390
1062		S(12) = D(2)*S(10) + S(11) + D(2)*D(15)*RO(1) - D(8)*RO(1)	70240400
1063		S(13) = S(10)*S(11) + D(15)*RO(1)**2 - D(4)*RO(1)**2	70240410
1064		S(20) = D(2)	70240420
1065	C	SET TGJF(1) AND TGJA(1) FOR NO CUTOUTS	70240430
1066	C	G = E/(2*(1+MU)) = S(14)	70240440
1067		S(14) = FMP(60)/(D(2)*(D(1) + FMP(62)))	70240450
1068		TGJF(1) = G*RO(1)*S(12)/D(4)/(S(13)**2/S(14))	70240460
1069		TGJA(1) = TGJF(1)	70240470
1070		ACRS(1) = S(13)	70240480
1071		ANTA(1) = S(13)	70240490
1072		PERA(1) = S(13)	70240500
1073		PERF(1) = S(12)	70240510
1074		PRDA(1) = S(12)	70240520
1075		PROF(1) = D(2)	70240530
1076		PRDA(1) = D(2)	70240540
1077		DEPF(1) = S(11)	70240550
1078		DEPA(1) = S(11)	70240560
1079		MIDF(1) = S(10)	70240570
1080		MIDA(1) = S(10)	70240580
1081	C		70240590
1082	C	SET UP COUNTER FORWARD 11=1 AFT 11=2	70240600
1083		11 = 1	70240610
1084	C	START TEST FOR DECKS AND CUTOUTS	70240620
1085		2 IF(DOHT(1)) 400,400,10	70240630
1086		10 IF(DOHT(1) - D(1)) 20,400,400	70240640
1087		20 IF(CTOL(1)) 40,100,40	70240650
1088		40 IF(1-1) 50,50,70	70240660
1089		50 IF(1-1) 100,100,95	70240670
1090		95 IF(CTOL(1-1)) 300,100,300	70240680
1091		70 IF(CTOL(1-1)) 300,100,300	70240690
1092		100 IF(CTOL(1)) 200,110,200	70240700
1093		110 IF(1-1) 120,120,130	70240710
1094		120 DEPF(1) = S(11)*D(1) - DOHT(1)	70240720
1095		PROF(1) = S(10)	70240730
1096		S(43) = S(11)*DOHT(1)	
1097		IF(S(43) .GT. DEPF(1)) DEPF(1) = S(43)	
1098		11 = 11+1	70240740
1099		GO TO 20	70240750
1100		130 DEPA(1) = S(11)*D(1) - DOHT(1)	70240760
1101		PRDA(1) = S(10)	70240770
1102		S(43) = S(11)*DOHT(1)	70240771
1103		IF(S(43) .GT. DEPA(1)) DEPA(1) = S(43)	70240772
1104		IF(NC - 1) 135,130,1000	70240773
1105		130 ANTA(1) = ANTF(1)	70240774
1106		PERA(1) = PERF(1)	70240775
1107		PRDA(1) = PROF(1)	70240776
1108		DEPA(1) = DEPF(1)	70240777
1109		MIDA(1) = MIDF(1)	70240778
1110		GO TO 1000	70240780
1111		200 IF(1-1) 210,210,200	70240790
1112		210 IF(1-1) 100,100,200	70240800
1113		200 IF(CTOL(1-1)) 301,120,301	70240810
1114		200 IF(CTOL(1-1)) 301,1000,301	70240820
1115	C		70240830
1116	C	WRITE ERROR MESSAGE	70240840

04/10/76	INPUT LISTING	AUTOFLEX CHART SET - SHEEP	SECOND FUELBASE OVERLAY
CARD NO	****	CONTENTS	****
1017	400 WRITE(6,00) I		70240000
1018	60 FORMAT(10H,10H,21H*** ERROR MESSAGE ***,//5X,		70240000
1019	100CHECK INPUT DATA SET SECTION,13,3X,17CHECK HEIGHT ERROR)		70240070
1020	DOIT(1) = 0(24)		70240000
1021	C		70240000
1022	C TEST FOR CUTOUT TOP AND BOTTOM WITH VERTICAL PANELS		70240000
1023	C NO HORIZONTAL DECKIS EXIST		70240010
1024	400 IF(00H(1) - 0(1)) 1000,1000,500		70240020
1025	500 IF(CTOL(1)) 510,1000,510		70240030
1026	510 IF(CTOL(1)) 520,1000,520		70240040
1027	520 IF(CTOL(1)) 530,950,530		70240050
1028	530 IF(CTOL(1)) 540,950,540		70240060
1029	550 IF(1-1) 1000,1000,500		70240070
1030	560 IF(CTOL(1)) 570,1000,570		70240080
1031	570 IF(CTOL(1)) 580,1000,580		70240090
1032	C		70241000
1033	C WRITE WARNING MESSAGE		70241010
1034	600 WRITE(6,01) I		70241020
1035	61 FORMAT(10H,21H*** WARNING MESSAGE **,//5X,7HSECTION,13,3X,		70241030
1036	15THCUTOUT TOP AND BOTTOM IS BEYOND THE SCOPE OF THIS PROGRAM)		70241040
1037	GO TO 1000		70241050
1038	C		70241060
1039	C CUTOUT IS ON BOTTOM		70241070
1040	300 S(15) = DOIT(1)		70241080
1041	S(4) = 0(1) - DOIT(1)*S(11)		70241090
1042	IF(1 - 1) 310,310,305		70241002
1043	305 S(44) = DOIT(1-1)		70241004
1044	S(45) = 0(1) - DOIT(1-1)*S(11)		70241005
1045	GO TO 310		70241100
1046	C CUTOUT IS ON TOP		70241110
1047	301 S(15) = 0(1) - DOIT(1)		70241120
1048	S(4) = DOIT(1)*S(11)		70241130
1049	IF(1 - 1) 310,310,305		70241132
1050	305 S(44) = 0(1) - DOIT(1-1)		70241134
1051	S(45) = DOIT(1-1)*S(11)		70241135
1052	C		70241140
1053	C TEST FOR CURVED S-HOUD TYPE ARRANGEMENT		70241150
1054	310 S(16) = RAD(1)		70241160
1055	IF(S(16)) 311,320,314		70241170
1056	311 IF(1) - 1) 310,310,312		70241180
1057	312 S(16) = - RAD(1)		70241190
1058	314 IF(CIND(14) - 0(1)) 400,400,450		70241200
1059	C		70241210
1060	316 IF(1 - 1) 320,320,317		70241212
1061	317 S(15) = S(44)		70241214
1062	S(4) = S(45)		70241216
1063	C THE DECKING IS HORIZONTAL		70241220
1064	320 S(17) = S(15)*S(11)		70241230
1065	S(18) = S(11) - RO(1)		70241240
1066	IF(RO(1) - S(17)) 321,321,331		70241250
1067	321 IF(S(17) - S(18)) 322,322,330		70241260
1068	322 S(25) = 0(2)*S(11) - S(17) + S(18) + RO(1)*0(15) - 0(4)		70241270
1069	S(24) = S(18)*S(11) - S(17) + 0(15)*0(2) - 0(2)*RO(1)*2		70241280
1070	S(20) = S(18)		70241290
1071	S(42) = S(18)		70241300
1072	GO TO 340		70241300
1073	330 J = 2		70241330
1074	S(21) = S(11) - S(17)		70241340
1075	332 S(22) = RO(1) - S(21)		70241350
1076	S(23) = ACOS(S(22)/RO(1))		70241360
1077	S(25) = 0(2)*RO(1) + 0(2)*RO(1)*S(23)		70241370
1078	S(24) = 0(2)*RO(1)*S(21) + RO(1)*2*S(23) - S(22)*RO(1)*SIN(S(23))		70241380
1079	S(20) = 0(2)*RO(1) + 0(2)*RO(1)*SIN(S(23))		70241390
1080	S(42) = S(20)		70241400
1081	IF(J-1) 330,330,340		70241400
1082	331 J = 1		70241410
1083	S(21) = S(17)		70241420
1084	GO TO 332		70241430
1085	335 S(24) = S(13) - S(24)		70241440
1086	S(25) = S(12) - S(25)		70241450
1087	S(42) = S(10)		70241460

04/10/74	INPUT LISTING	AUTOFLOW CHART SET - SHEEP	SECOND FUSELAGE OVERLAY
CARD NO	****	CONTENTS	****
1000	340 S(20) = 0.500(1)*(S(25) + S(20)/D(4)/(S(24)**2)/S(14))		70241460
1000	IF(111-1) 000,000,050		70241470
1000	C		70241480
1001	C SINGLE RADIUS SHROUD		70241490
1002	400 S(17) = S(13)*S(11)		70241500
1003	S(10) = S(10) + S(17)		70241510
1004	S(42) = S(10)/D(2) - S(10)		70241520
1005	IF(S(10) - S(11)) 401,401,700		70241530
1005	401 IF(S(11) - FD - S(10)) 402,403,403		70241540
1007	C		70241550
1008	C WRITE WARNING MESSAGE		70241560
1008	402 WRITE(6,62) I		70241570
2000	62 FORMAT(1H0,10X,21H** WARNING MESSAGE **//5X,7SECTION,13,3X,		70241580
2001	153HSHROUD DATA - CUTOFF - FRAME DEPTH IS LESS THAN NOTED)		70241590
2002	403 IF(D(2)*S(10) - S(10)) 406,700,700		70241600
2003	406 IF(S(10)/D(2) - FD - S(10)) 407,408,408		70241610
2004	C		70241620
2005	C WRITE WARNING		70241630
2005	407 WRITE(6,62) I		70241640
2007	408 IF(10(1) - S(10)) 410,420,420		70241650
2008	410 S(21) = S(10) - 10(1)		70241660
2009	S(23) = ASIN(S(21)/RO(1))		70241670
2010	S(25) = S(12) - D(2)*RO(1) - D(2)*RO(1)*S(23)		70241680
2011	S(20) = S(10)*D(15) + D(2)*S(17) - D(2)*RO(1) +		70241690
2012	10(2)*RO(1)*COS(S(23))		70241700
2013	S(24) = S(13) - D(15)/D(2)*(S(10)**2) - D(2)*S(10)*S(17) +		70241710
2014	10(2)*S(21)*RO(1) - RO(1)**2*S(23) - S(21)*RO(1)*COS(S(23))		70241720
2015	S(41) = S(11) - RO(1)*D(1) - COS(S(23))		70241730
2016	00 TO 340		70241740
2017	420 S(25) = S(12) - D(2)*S(10)		70241750
2018	S(20) = D(15)*S(10) + D(2)*S(17)		70241760
2019	S(24) = S(13) - D(15)/D(2)*(S(10)**2) - D(2)*S(10)*S(17)		70241770
2020	S(41) = S(11)		70241780
2021	00 TO 340		70241790
2022	C		70241800
2023	C DOUBLE SHROUD		70241810
2024	450 S(17) = S(15)*S(11)		70241820
2025	S(10) = S(10) + S(17)		70241830
2026	S(42) = S(10)/D(2) - D(2)*S(10)		70241840
2027	IF(S(10) - S(11)) 451,401,700		70241850
2028	451 IF(S(11) - FD - S(10)) 452,453,453		70241860
2029	C		70241870
2030	C WRITE WARNING MESSAGE		70241880
2031	452 WRITE(6,62) I		70241890
2032	453 IF(S(10) - S(10)/D(4)) 454,700,700		70241900
2033	454 IF(S(10)/D(2) - FD - D(2)*S(10)) 455,456,456		70241910
2034	C		70241920
2035	C WRITE WARNING MESSAGE		70241930
2036	455 WRITE(6,62) I		70241940
2037	456 IF(10(1) - S(10)) 457,405,405		70241950
2038	457 IF(S(11)/D(2) - S(17)) 458,405,405		70241960
2039	458 IF(100(1) + S(11)/D(2) - S(17)) 459,405,405		70241970
2040	459 S(30) = S(10) - 10(1)		70241980
2041	S(31) = S(17) - S(11)/D(2) - 000(1)		70241990
2042	S(32) = RO(1) - S(10)		70242000
2043	S(33) = (S(30)**2 + S(31)**2)**.5		70242010
2044	IF(S(33) - S(32)) 460,460,700		70242020
2045	460 IF(S(32) - FD - S(33)) 461,405,405		70242030
2046	461 WRITE(6,62) I		70242040
2047	C		70242050
2048	C ALL TESTS SATISFIED CALCULATE GJ		70242060
2049	466 IF(10(1) - D(2)*S(10)) 468,400,400		70242070
2050	468 S(21) = D(2)*S(10) - 10(1)		70242080
2051	S(23) = ASIN(S(21)/RO(1))		
2052	S(25) = S(12) - D(2)*RO(1) - D(2)*RO(1)*S(23)		70242100
2053	S(20) = D(2)*S(10)*D(15) + D(4)*S(17) - D(2)*RO(1) +		70242110
2054	10(2)*RO(1)*COS(S(23))		70242120
2055	S(24) = S(13) - D(15)*S(10)**2 - D(4)*S(10)*S(17) +		70242130
2056	10(2)*S(21)*RO(1) - RO(1)**2*S(23) - S(21)*RO(1)*COS(S(23))		70242140
2057	S(41) = S(11) - RO(1)*D(1) - COS(S(23))		70242150
2058	00 TO 340		70242160

04/10/74	INPUT LISTING	AUTOFLOW CHART SET - SHEEP	SECOND FUELAGE OVERLAY
CARD NO	****	CONTENTS	****
2000	400 S(25) = S(12) - 0(4)*S(16)		70242170
2001	S(20) = 0(2)*0(15)*S(16) + 0(4)*S(17)		70242180
2002	S(24) = S(13) - 0(15)*S(16)**2 - 0(4)*S(16)*S(17)		70242190
2003	S(4) = S(11)		70242200
2004	GO TO 340		70242210
2005	C		70242220
2006	C ERROR MESSAGE		70242230
2007	700 WRITE(6,33) I		70242240
2008	63 FORMAT(10H,21H*** ERROR MESSAGE ***,,/3X,		70242250
2009	10H)CHECK INPUT DATA SET SECTION,13,3X,		70242260
2010	20H)CHECK HEIGHT OR RADIUS ERROR)		70242270
2011	IF(11 - 1) 710,710,1000		70242270
2012	710 11 = 11 + 1		70242280
2013	GO TO 20		70242290
2014	C		70242300
2015	C SET TOL FORWARD RETURN FOR AFT REQUIREMENT		70242310
2016	000 TOL(F(1) = S(26)		70242320
2017	ANT(F(1) = S(24)		70242330
2018	PER(F(1) = S(20) + S(25)		70242340
2019	PRO(F(1) = S(20)		70242350
2020	DEP(F(1) = S(4)		70242360
2021	MID(F(1) = S(42)		70242370
2022	11 = 11 + 1		70242380
2023	GO TO 20		70242390
2024	C		70242400
2025	C SET TOL AFT		70242410
2026	000 TOL(A(1) = S(26)		70242420
2027	ANT(A(1) = S(24)		70242430
2028	PER(A(1) = S(20) + S(25)		70242440
2029	PRO(A(1) = S(20)		70242450
2030	DEP(A(1) = S(4)		70242460
2031	MID(A(1) = S(42)		70242470
2032	C EXIT		70242480
2033	1000 CONTINUE		70242490
2034	RETURN		70242500
2035	END		70242510
2036	C		70242520
2037	C SUBROUTINE SUBROD		70242530
2038	C		70242540
2039	C		70242550
2040	C		70242560
2041	C		70242570
2042	C		70242580
2043	C		70242590
2044	C		70242600
2045	C		70242610
2046	C		70242620
2047	C		70242630
2048	C		70242640
2049	C		70242650
2050	C		70242660
2051	C		70242670
2052	C		70242680
2053	C		70242690
2054	C		70242700
2055	C		70242710
2056	C		70242720
2057	C		70242730
2058	C		70242740
2059	C		70242750
2060	C		70242760
2061	C		70242770
2062	C		70242780
2063	C		70242790
2064	C		70242800
2065	C		70242810
2066	C		70242820
2067	C		70242830
2068	C		70242840
2069	C		70242850
2070	C		70242860
2071	C		70242870
2072	C		70242880
2073	C		70242890
2074	C		70242900
2075	C		70242910
2076	C		70242920
2077	C		70242930
2078	C		70242940
2079	C		70242950
2080	C		70242960
2081	C		70242970
2082	C		70242980
2083	C		70242990
2084	C		70243000
2085	C		70243010
2086	C		70243020
2087	C		70243030
2088	C		70243040
2089	C		70243050
2090	C		70243060
2091	C		70243070
2092	C		70243080
2093	C		70243090
2094	C		70243100
2095	C		70243110
2096	C		70243120
2097	C		70243130
2098	C		70243140
2099	C		70243150
2100	C		70243160
2101	C		70243170
2102	C		70243180
2103	C		70243190
2104	C		70243200
2105	C		70243210
2106	C		70243220
2107	C		70243230
2108	C		70243240
2109	C		70243250
2110	C		70243260
2111	C		70243270
2112	C		70243280
2113	C		70243290
2114	C		70243300
2115	C		70243310
2116	C		70243320
2117	C		70243330
2118	C		70243340
2119	C		70243350
2120	C		70243360
2121	C		70243370
2122	C		70243380
2123	C		70243390
2124	C		70243400
2125	C		70243410
2126	C		70243420
2127	C		70243430
2128	C		70243440
2129	C		70243450

04/10/74	INPUT LISTING	AUTOFLOW CHART SET - SHEEP	SECOND FUSELAGE OVERLAY
CARD NO	****	CONTENTS	****
2130		EQUIVALENCE (T(1),S(1),T(10),S(1))	70270140
2131		EQUIVALENCE (T(44),DOO(1),T(16),MD(1),T(48),RO(1))	70270150
2132		EQUIVALENCE (MD(10),J,(MD(10),J),(MD(10),K)	70270160
2133		EQUIVALENCE (MD(12),ICST)	70270170
2134	C		70270180
2135	C	CALCULATE UNIT COVER INERTIA	70270190
2136		$S(4) = D(2) * (RO(1) + DOO(1))$	70270200
2137		$S(5) = D(2) * (MD(1) * RO(1) + DOO(1)) * 2 + RO(1) * (RO(1) * 2 / D(8))$	70270210
2138		$I(15) = D(2) * RO(1) * DOO(1) * D(25) + DOO(1) * 2 * D(15) / D(4)$	70270220
2139		$S(6) = S(5)$	70270230
2140		$S(17) = D(2) * (MD(1) * 3 / D(3) + RO(1) * (RO(1) * 2 / D(8) * D(15) - D(2)))$	70270240
2141		$MD(1) * MD(1) * D(2) - D(25) + MD(1) * 2 * D(15) / D(4)$	70270250
2142		$S(8) = S(7)$	70270260
2143		$S(9) = D(4) * (DOO(1) * 3 / D(3) + RO(1) * (RO(1) * 2 / D(8))$	70270270
2144		$I(15) - D(2) + RO(1) * DOO(1) * D(2) - D(25) + DOO(1) * 2$	70270280
2145		$MD(15) / D(4)$	70270290
2146		$S(18) = D(4) * (DOO(1) * RO(1) + MD(1)) * 2 + RO(1) * (RO(1) * 2 / D(8))$	70270300
2147		$I(15) + D(2) + RO(1) * MD(1) * D(25) + MD(1) * 2 * D(15) / D(4)$	70270310
2148	C	CLEAR BENDING ELEMENT SECTION PROPERTIES	70270340
2149		DO 10 J=1,20	70270350
2150		$S(1) = D(24)$	70270360
2151		10 CONTINUE	70270370
2152	C	ICST = CONSTRUCTION INDICATOR	70270380
2153	C	$S(1) = \text{STRINGER SPACING}$ $S(2) = \text{NUMBER OF STRINGERS (LMD)}$	70270390
2154	C	$S(3) = \text{NUMBER OF SECONDARY LONDS}$	70270400
2155		IF (ICST - 2) 100,200,100	70270410
2156	C	$S(1) = \text{LONDERON DEPTH TO SECTION HEIGHT RATIO}$	70270420
2157		100 $S(1) = S(1) * (RO(1) + DOO(1))$	70270430
2158		$S(11) = S(12) / D(2) * S(1) * 2$	70270440
2159		$S(12) = S(11)$	70270450
2160		$S(19) = S(1)$	70270460
2161		$S(17) = (S(1) / D(2) * DOO(1) + RO(1)) * 2 * S(3)$	70270470
2162		$S(18) = (S(1) / D(2) * MD(1) + RO(1)) * 2 * S(3)$	70270480
2163		IF (S(1) - DOO(1)) 101,101,110	70270490
2164		101 $S(13) = S(2) / D(2) * (RO(1) + MD(1)) * 2$	70270500
2165		$S(14) = S(13)$	70270510
2166		$S(20) = S(2) / D(4) * (RO(1) + MD(1))$	70270520
2167		GO TO 1000	70270530
2168		110 IF (S(1) - DOO(1) - RO(1)) 111,115,115	70270540
2169		111 $S(2) = S(1) - DOO(1)$	70270550
2170		$S(3) = \text{ACOS}(S(2) / RO(1))$	70270560
2171		$S(13) = S(2) / D(2) * (RO(1) * \text{SIN}(S(3)) + MD(1)) * 2$	70270570
2172		$S(14) = S(13)$	70270580
2173		$S(20) = S(2) / D(4) * (RO(1) * \text{SIN}(S(3)) + MD(1))$	70270590
2174		GO TO 1000	70270600
2175		115 $S(13) = S(2) / D(2) * MD(1) * 2$	70270610
2176		$S(14) = S(13)$	70270620
2177		$S(20) = S(2) / D(4) * MD(1)$	70270630
2178		GO TO 1000	70270640
2179		200 IF (MD(1) - S(1) / D(2)) 202,203,203	70270650
2180	C	FIRST STRINGER IS ON RADIUS 0/2 FROM CENTER LINE	70270660
2181		202 $S(1) = MD(1) + S(1) / D(2)$	70270670
2182		GO TO 250	70270680
2183		203 $S(2) = (MD(1) - S(1) / D(2)) / S(1)$	70270690
2184		$K = \text{INT}(S(2)) + 1$	70270700
2185		$S(3) = S(1) / D(2)$	70270710
2186		DO 204 J=1,K	70270720
2187		$S(13) = S(13) + S(3) * 2$	70270730
2188		$S(20) = S(20) + S(3)$	70270740
2189		$S(3) = S(3) + S(1)$	70270750
2190		204 CONTINUE	70270760
2191		$S(4) = K$	70270770
2192		$S(1) = MD(1) - S(1) * (S(4) - D(10))$	70270780
2193		$S(11) = S(11) + S(4) * (RO(1) + DOO(1)) * 2$	70270790
2194		$S(19) = S(19) + S(4) * (RO(1) + DOO(1))$	70270800
2195	C	CURVED PORTION OF UPPER PANEL	70270810
2196		250 $S(3) = S(1) - S(1)$	70270820
2197		IF (D(15) / D(4) * RO(1) - S(3)) 251,252,252	70270830
2198	C	THERE IS NO STRINGER ON THIS PORTION OF PANEL	70270840
2199		251 $S(1) = S(1) + D(15) / D(4) * RO(1)$	70270850
2200		GO TO 300	70270860

CARD NO	****	CONTENTS	*****
0272	C		70200080
0273		EQUIVALENCE (D(1),TCOH(1)), (T(1),TCOH(200)), (DC(1),TCOH(410)),	70200090
0274		(IND(1),TCOH(420))	70200100
0275	C		70200110
0276		RETURN	70200990
0277		END	70209990
0278	C		
0279	C	!!	
0280	C	SUBROUTINE LDMK	
0281	C	!!	
0282	C		
0283		SUBROUTINE LDMK	7020010
0284	C	WRITTEN 24 JANUARY 1972	7020020
0285	C	TO SELECT CRITICAL LOADS FOR FUELAGE SHELL	7020030
0286	C	TRANSFER MATERIAL DATA TO WORKING REGION FOR SHELL EVALUATION	7020040
0287	C		7020050
0288		COMMON TCOH(400)	7020060
0289	C		7020070
0290		DIMENSION D(2000), T(2000), DC(100), ND(200)	7020080
0291		DIMENSION THB(120)	7020090
0292		DIMENSION S(100), S2(20), PYP(300), SB(200)	7020100
0293		DIMENSION I1(20), I2(20), I3(20)	7020110
0294	C		7020120
0295		EQUIVALENCE (D(1),TCOH(1)), (T(1),TCOH(200)), (DC(1),TCOH(410)),	7020130
0296		(IND(1),TCOH(420))	7020140
0297		EQUIVALENCE (D(130),THB(1))	7020150
0298		EQUIVALENCE (T(1),S(1)), (T(12),S2(1)), (T(120),PYP(1))	7020160
0299		EQUIVALENCE (T(100),SB(1))	7020170
0300		EQUIVALENCE (ND(91),IF(1),IND(94),IF4), (ND(101),I1), (ND(102),J),	7020180
0301		(IND(114),LCN), (IND(115),MOC)	7020190
0302		EQUIVALENCE (IND(141),I1(1)), (IND(161),I2(1)), (IND(181),I3(1))	7020200
0303	C		7020210
0304		S(1) = D(24)	7020220
0305		S(2) = D(24)	7020230
0306		S(3) = D(24)	7020240
0307		DO 2 J=1,15	7020250
0308	C	CLEAR SECTION LOADS DATA	7020260
0309		S2(J) = D(24)	7020270
0310	Z	CONTINUE	7020280
0311		I1(1) = D(1)	7020290
0312		I2(1) = D(1)	7020300
0313		I3(1) = D(1)	7020310
0314		DO 600 LCN=1,MOC	7020320
0315		IF1 = LCN + 90	
0316		IF4 = LCN	7020340
0317		IF4 = IF4 + 94	
0318		CALL READPS(I,SB(1),200,IF1)	
0319		CALL READPS(I,THB(1),120,IF4)	
0320	C	SETUP V/F/S , R/P/CY	7020370
0321		S(7) = SB(1+100)/THB(10)	7020380
0322		S(9) = ABS(S(7))	7020390
0323		IF(S(1) - S(9)) 10,20,20	7020400
0324	10	S(1) = S(9)	7020410
0325		S2(3) = S6(1+100)	7020420
0326		I3(1) = LCN	7020430
0327	20	S(7) = SB(1+100)/THB(10)	7020440
0328		IF(S(7)) 30,50,40	7020450
0329	C	BOMN BONDING	7020460
0330	30	IF(S(2) + S(7)) 31,50,50	7020470
0331	31	S(2) = - S(7)	7020480
0332		S2(1) = S6(1+100)	7020490
0333		I1(1) = LCN	7020500
0334		GO TO 50	7020510
0335	40	IF(S(3) - S(7)) 41,50,50	7020520
0336	41	S(3) = S(7)	7020530
0337		S2(2) = S6(1+100)	7020540
0338	C	UP BONDING	7020550
0339		I2(1) = LCN	7020560
0340	C	CHECK SHELL CONTENTS	7020570
0341	50	IF(S6(1+140)) 51,500,70	7020580
0342	C	BOMN FORCE - CONTENTS	7020590

04/10/74	INPUT LISTING	AUTOFLOW CHART SET - SHEEP	SECOND FUELAGE OVERLAY
CARD NO	****	CONTENTS	****
2343	S1 IF(05(1)+(40) - 52(4)) 52,500,500		70230500
2344	S2 52(4) = 55(1)+(40)		70230510
2345	S2(5) = LCM		70230520
2346	S2(7) = 55(130)		70230530
2347	S2(9) = 55(137)		70230540
2348	S2(9) = 55(138)		70230550
2349	S2(10) = 55(139)		70230560
2350	GO TO 500		70230570
2351	C UP FORCE - . CONTENTS		70230580
2352	70 IF(52(5) - 55(1)+(40)) 71,500,500		70230590
2353	71 52(5) = 55(1)+(40)		70230600
2354	S2(11) = LCM		70230710
2355	S2(12) = 55(130)		70230720
2356	S2(13) = 55(137)		70230730
2357	S2(14) = 55(138)		70230740
2358	S2(15) = 55(139)		70230750
2359	500 IF(1 - 1) 502,502,500		70230760
2360	C SET MAXIMUM LOADS SURFACE REACTIONS ONE TIME ONLY		70230770
2361	502 S(0) = ABS(55(50) + 55(51) + 55(52))*D(2)		70230780
2362	S(0) = ABS(55(53) + 55(54))*D(2)		70230790
2363	S(10) = ABS(55(115) + 55(116))		70230800
2364	S(11) = ABS(55(57) + 55(58))*D(2)		70230810
2365	S(12) = ABS(55(90) + 55(91))*D(2)		70230820
2366	IF(52(16) - S(0)) 501,510,510		70230830
2367	501 S2(16) = S(0)		70230840
2368	S10 IF(52(17) - S(0)) 511,520,520		70230850
2369	S11 S2(17) = S(0)		70230860
2370	S20 IF(52(18) - S(10)) 521,530,530		70230870
2371	S21 S2(18) = S(10)		70230880
2372	S30 IF(52(19) - S(11)) 531,540,540		70230890
2373	S31 S2(19) = S(11)		70230900
2374	540 IF(52(20) - S(12)) 541,550,550		70230910
2375	541 S2(20) = S(12)		70230920
2376	600 CONTINUE		70230930
2377	C		70230940
2378	C STORE MATERIAL PROPERTIES FOR CRITICAL BOW BENDING CONDITION		70230950
2379	IF4 = 12(1)		70230960
2380	IF4 = IF4 + 54		
2381	CALL READP(1,TYB(1),120,IF4)		
2382	DO 100 J=1,30		70230980
2383	FYP(J) = TYB(J)		70230990
2384	FYP(J+50) = TYB(J+30)		70231000
2385	FYP(J+100) = TYB(J+60)		70231010
2386	100 CONTINUE		70231020
2387	C		70231030
2388	C STORE MATERIAL PROPERTIES FOR CRITICAL UPBENDING CONDITION		70231040
2389	IF4 = 11(1)		70231050
2390	IF4 = IF4 + 54		
2391	CALL READP(1,TYB(1),120,IF4)		
2392	DO 110 J=1,30		70231070
2393	FYP(J+30) = TYB(J)		70231080
2394	FYP(J+100) = TYB(J+30)		70231090
2395	FYP(J+210) = TYB(J+60)		70231100
2396	110 CONTINUE		70231110
2397	C		70231120
2398	C STORE MATERIAL PROPERTIES FOR CRITICAL SHEAR CONDITION		70231130
2399	IF4 = 13(1)		70231140
2400	IF4 = IF4 + 54		
2401	CALL READP(1,TYB(1),120,IF4)		
2402	DO 120 J=1,30		70231160
2403	FYP(J+60) = TYB(J)		70231170
2404	FYP(J+180) = TYB(J+30)		70231180
2405	FYP(J+240) = TYB(J+60)		70231190
2406	120 CONTINUE		70231200
2407	RETURN		70230000
2408	END		70230000
2409	C		
2410	C		
2411	C SUBROUTINE LONDS		
2412	C		
2413	C		

04/10/74	INPUT LISTING	AUTOFLOW CHART SET - SHEEP	SECOND FUSELAGE OVERLAY
CARD NO	****	CONTENTS	****
2414		SUBROUTINE LONDS	70260010
2415	C	WRITTEN 24 JANUARY 1972	70260020
2416	C	SETUP STRINGER SEARCH OR LONGERON CRITERIA	70260030
2417	C		70260040
2418		COMMON TCOM(400)	70260050
2419	C		70260060
2420		DIMENSION D(2000),T(2000),DC(100),ND(200)	70260070
2421		DIMENSION CIND(50)	70260080
2422		DIMENSION MTLG(20)	70260090
2423		DIMENSION S(100),S1(20),TOT(20),DOO(20),MO(20),RO(20),PER(20)	70260100
2424		DIMENSION STND(20),BSTR(20)	70260110
2425	C		70260120
2426		EQUIVALENCE (D(1),TCOM(1)),(T(1),TCOM(200)),(DC(1),TCOM(410)),	70260130
2427		(ND(1),TCOM(420))	70260140
2428		EQUIVALENCE (D(2),CIND(1))	70260150
2429		EQUIVALENCE (D(42),MTLG(1))	70260160
2430		EQUIVALENCE (T(1),S(1)),(T(10),S(1)),(T(20),TOT(1)),	70260170
2431		(T(44),DOO(1)),(T(46),MO(1)),(T(48),RO(1)),(T(54),PER(1))	70260180
2432		EQUIVALENCE (T(90),STND(1)),(T(92),BSTR(1))	70260190
2433		EQUIVALENCE (ND(10),1),(ND(12),KC),(ND(122),ICST),	70260200
2434		(ND(123),ISTG)	70260210
2435	C		70260220
2436		IF(ICST - 2) 100,200,100	70260230
2437	C	LONGERON OR HONEYCOMB CONSTRUCTION 4 LONGERONS	70260240
2438		100 ISTG = 3	70260250
2439		S(12) = CIND(11)	70260260
2440		S(13) = CIND(12)	70260270
2441		IF(MTLG(1)) 101,103,150	70260272
2442		101 S(1) = - MTLG(1)	70260280
2443		GO TO 105	70260282
2444		103 IF(CIND(13)) 104,110,120	70260294
2445		104 S(1) = - CIND(13)	70260296
2446	C	LONGERON LOCATION IS DETERMINED BY ANGLE	70260300
2447		105 IF(KC - 2) 107,107,109	70260310
2448	C	ROUNDED RECTANGLE SHAPE	70260320
2449		107 S(1) = (ND(1)*COS(S(1)) + DOO(1))/RO(1) + DOO(1)	70260340
2450		GO TO 230	70260350
2451	C	NOTHING HAS BEEN LOADED TO DETERMINE LONGERON HEIGHT	70260360
2452	C	PROGRAM OVERRIDE	70260370
2453		110 CIND(13) = - D(15)/D(4)	70260380
2454		S(1) = - CIND(13)	70260382
2455		WRITE(6,60)	70260390
2456		60 FORMAT(1H0,10X,20H*** LONGERON DEPTH ERROR ***,	70260400
2457		1//7X,30HPROGRAM OVERRIDE ALPHA = P(4)	70260410
2458		GO TO 105	70260420
2459	C	ELLIPTICAL SHAPE IS NOT INCLUDED IN CURRENT PROGRAM	70260430
2460		109 S(1) = COS(S(1))	70260440
2461		GO TO 230	70260450
2462	C	LONGERON LOCATION IS DETERMINED BY DEPTH RATIO	70260470
2463		120 IF(CIND(13) - D(1)) 121,121,122	70260480
2464		121 S(1) = CIND(13)	70260490
2465		GO TO 230	70260500
2466	C	RIDICULOUS SITUATION	70260510
2467		122 CIND(13) = 0.9	70260520
2468		WRITE(6,61)	70260530
2469		61 FORMAT(1H0,10X,20H*** LONGERON DEPTH ERROR ***,	70260540
2470		1//7X,30HPROGRAM OVERRIDE HEIGHT RATIO = 0.9)	70260550
2471		GO TO 121	70260560
2472		150 IF(D(1) - MTLG(1)) 151,152,152	70260570
2473	C	RIDICULOUS SITUATION	70260580
2474		151 MTLG(1) = 0.9	70260590
2475		WRITE(6,61)	70260600
2476		152 S(1) = MTLG(1)	70260610
2477		GO TO 230	70260620
2478	C	STRINGER CONSTRUCTION	70260630
2479		200 IF(CIND(15)) 210,210,300	70260640
2480	C	SETUP STRINGER SPACING SEARCH	70260650
2481		210 ISTG = 1	70260660
2482		S(1) = D(37)	70260670
2483		211 S(12) = PER(1)/S(1)	70260680
2484		IF(S(12) - D(38)) 220,230,230	70260690

04/10/74	INPUT LISTING	AUTOFLOW CHART SET - SHEEP	SECOND FUSELAGE OVERLAY
CARD NO	****	CONTENTS	****
2506	11 S(8) = S(3)		70330360
2507	12 IF(1CST - 2) 10,20,10		70330362
2508	10 S(4) = S(8)/(S(11) + S(12))*S(14)/(D(2)*W(125)		70330370
2509	17 S(4) = D(53) 14,20,20		70330380
2510	14 S(4) = D(53)		70330380
2511	C SET UP CONSTANTS		70330400
2512	20 S(2) = D(4)*D(50) + D(2)		70330410
2513	S(3) = D(50)*(D(2)*2 + D(2)/D(3)*D(50)**3) - D(50)**2*D(2)		70330420
2514	17D**3/D(10)		70330430
2515	S(5) = S(3)/S(2)**.5		70330440
2516	S(6) = D(1) + 17D/D(2)/S(5)**2		70330450
2517	C CHECK GENERAL SHELL STABILITY		70330460
2518	S(7) = S(8)*W(11)/D(15)**2*D(40)/W(215)/W(11)/S(3)		70330470
2519	17 S(7) = D(57) 21,22,22		70330480
2520	21 S(7) = D(57)		70330490
2521	C CHECK ACOUSTICS		70330500
2522	22 S(40) = S(7)		70330501
2523	S(41) = S(7)		70330502
2524	17(ACOU(1)) 20,20,23		70330510
2525	23 S(10) = ACOU(1)/D(13)		70330520
2526	S(10) = EQUA(23)*D(10)**S(10)		70330530
2527	S(20) = 17W(250)*W(252)**.5		70330540
2528	C**** D(70 THRU D(80) ARE CONSTANTS FOR ACOUSTIC EQUATIONS	****	70330550
2529	S(8) = EQUA(25)*W(11)*S(10)**.5 /S(20)		70330562
2530	C TEST IF FILLED		70330563
2531	17(FIL .LE. 0) S(8) = S(8)*D(70)		70330564
2532	C SET UP CURVATURE CORRECTION		70330566
2533	C UPPER		70330567
2534	S(44) = D(1)		70330568
2535	17(RCU(1)) .LE. 0.0) GO TO 232		70330569
2536	S(43) = W(11)**2/S(8)/RCU(1)		70330560
2537	S(44) = D(77)*D(70)*S(43)*D(70)/S(43)*D(80)*ALOG10(S(43))		70330561
2538	C LOWER		70330562
2539	232 S(45) = D(1)		70330563
2540	17(RCL(1)) .LE. 0.0) GO TO 234		70330564
2541	S(43) = W(11)**2/S(8)/RCL(1)		70330565
2542	S(45) = D(77)*D(70)*S(43)*D(70)/S(43)*D(80)*ALOG10(S(43))		70330566
2543	C SIDE		70330567
2544	234 S(46) = D(1)		70330568
2545	17(RCS(1)) .LE. 0.0) GO TO 236		70330569
2546	S(43) = W(11)**2/S(8)/RCS(1)		70330570
2547	S(46) = D(77)*D(70)*S(43)*D(70)/S(43)*D(80)*ALOG10(S(43))		70330571
2548	C		70330572
2549	236 S(48) = S(44)*S(8)		70330573
2550	S(41) = S(45)*S(8)		70330574
2551	S(8) = S(46)*S(8)		70330576
2552	17(S(48)) .LT. S(7)) S(48)=S(7)		70330577
2553	17(S(41)) .LT. S(7)) S(41)=S(7)		70330578
2554	17(S(7)) .LT. S(8)) S(7)=S(8)		70330579
2555	20 S(8) = S(7)		70330580
2556	S(8) = S(5)		70330580
2557	S(10) = S(5)		70330580
2558	17(S(10) - S(8)) 20,200,200		703305810
2559	C DETERMINE RING FORCED CRIPPLING REQUIREMENT		703305820
2560	20 17(RCS(1)) 31,31,32		703305830
2561	31 S(12) = D(24)		703305840
2562	GO TO 33		703305850
2563	32 S(47) = W(11)/S(10)		703305860
2564	17(S(47) - D(1)) 401,403,403		703305872
2565	401 S(47) = S(50)/W(11)		703305884
2566	403 17(D(2)) .LT. S(47)) S(47) = D(2)		703305896
2567	S(12) = D(5)*D(8)*D(10)*C(51)*S(47)/RCS(1)		703305908
2568	33 S(11) = TANH(D(10) + S(12))*ALOG10(S(8)/S(10))		703305920
2569	C S(11) IS DIAGONAL TENSION FACTOR, K		703305931
2570	S(12) = S(11)*D(23)		703305940
2571	C FIRST APPROXIMATION OF DIAGONAL TENSION ANGLE		703305950
2572	S(14) = D(24)		703305960
2573	17(1CST - 2) 25,27,28		703305970
2574	C LONGERON CONSTRUCTION		703305980
2575	25 S(14) = D(15)/D(4)		703305990
2576	C S(14) IS ALPHA, START WITH ALPHA = PI/4.0 FOR LONGERON		703306001

04/10/74	INPUT LISTING	AUTOFLON CHART SET - SHEEP	SECOND PUNCH OVERLAY
CARD NO	CONTENTS		
0027	S(40) = S(2)		70330774
0028	C FACTOR OF 2.0 IN LONGERON STRESS EQUATION		70330775
0029	00 TO 20		70330776
0030	C STRINGER CONSTRUCTION		70330778
0031	27 W(ACS(1)) 20,20,24		70330780
0032	24 S(10) = S(10)/ACS(1)**2/W(100)/S(10)**.5		70330779
0033	S(10) = (S(1) + S(10)*TCS(1)*W(100)/(S(10)/S(14)/W(100) +		70330780
0034	107W(11)/S(17)/S(12)/W(1245))**.5		70330780
0035	S(14) = S(10)/S(10)		70330800
0036	20 S(13) = (S(10)/S(14) + EQUA(20)*S(14))/(S(1) + EQUA(20)*S(14) +		70330810
0037	10EQUA(27)*S(14)**2)		70330800
0038	S(40) = S(1)		70330800
0039	C SET FACTOR TO 1.0 FOR STRINGER STRESS		70330820
0040	S(14) = S(12)*S(13)		70330830
0041	20 S(12) = S(10)/(S(1) - S(11))		70330840
0042	C S(13) IS STRINGER ON LONGERON STRESS		70330840
0043	S(13) = S(11)*S(10)/(S(140)*S(14)/S(10)/TCS(1) +		70330850
0044	1 S(12)*W(100)/W(100))		70330851
0045	C S(10) = F/F(MAN)		70330850
0046	S(10) = S(1)		70330850
0047	W(17W(11)/S(10) - EQUA(20)) 40,41,41		70330870
0048	40 S(10) = S(11)/(EQUA(20) + (S(1) - S(11))*(EQUA(40) -		70330880
0049	1 EQUA(41)*W(17W(11)/S(10)))		70330880
0050	41 S(10) = EQUA(42)		70330890
0051	W(ACS(1)) 44,44,42		70330910
0052	42 S(10) = ACS(1)		70330900
0053	W(EQUA(42)) . LT. ACS(1) S(10) = EQUA(42)		70330930
0054	44 S(17) = (EQUA(43) + EQUA(40)*S(10))*W(1245)/W(100)		70330940
0055	1 **((S(11)/S(10)))		70330941
0056	00 S(10) = W(1245)/EQUA(44)/(W(1245)/W(1245) + EQUA(45)**.5)		70330950
0057	C S(10) = ALLOWABLE STRESS FOR RING		70330950
0058	S(10) = S(17)*S(10)		70330970
0059	C START SEARCH ON T-FRAME AND DIAGONAL TENSION ANGLE		70330980
0060	C ITERATE ON ANGLE 3 TIMES		70330980
0061	S(24) = TAN(S(14))		70330990
0062	00 00 100 J=1,3		70331000
0063	S(17) = S(13)/S(24)		70331010
0064	C S(10) IS AVERAGE RING STRESS		70331020
0065	S(10) = S(11)*S(10)*S(24)/(S(17)*S(12)/S(10)/W(11)/TCS(1) +		70331025
0066	1 S(12)*W(100)/W(1245))		70331030
0067	S(10) = S(17)/W(100)		70331040
0068	C S(10) IS EPSILON SUB B. S(20) IS EPSILON SUB R.		70331041
0069	C S(20) IS EPSILON SUB C.		70331042
0070	S(20) = S(10)/W(1245)		70331050
0071	S(21) = SIN(S(2)*S(14))		70331050
0072	S(22) = S(10)/W(100)*(S(21)*S(11)/S(12) + S(21)*S(11) - S(11))		70331070
0073	(S(11) + W(100)))		70331080
0074	S(23) = S(24)		70331090
0075	W(ACS(1)) 07,07,04		70331100
0076	04 W(100) = 2) 00,00,00		70331110
0077	C LONGERON CONSTRUCTION		70331120
0078	00 S(20) = (W(11)/ACS(1))*S(24)**2/S(10)		70331130
0079	00 TO 07		70331140
0080	C STRINGER CONSTRUCTION		70331150
0081	00 S(20) = (S(10)/ACS(1))**2/S(10)		70331160
0082	07 S(24) = ((S(20) + S(10))/(S(20) + S(20) + S(23))**.5		70331170
0083	S(14) = ATAN(S(24))		70331180
0084	100 CONTINUE		70331190
0085	C ITERATE ON T-FRAME - S(7)		70331200
0086	S(25) = (S(10)*S(24)/S(15)/S(10))**.3 + TCS(1)*S(11)		70331210
0087	C S(25) IS HA. S(26) IS HB. S(27) IS HC		70331215
0088	S(26) = S(10)/S(10)/W(11)/TCS(1)		70331220
0089	S(27) = S(10)*W(100)/W(115)		70331230
0090	110 S(20) = S(7)		70331240
0091	S(20) = S(20)*S(25) + S(27)		70331250
0092	S(20) = S(20)**2		70331260
0093	S(20) = S(20)**3		70331270
0094	S(27) = S(21)*S(20) - S(20)		70331280
0095	S(7) = S(20) - S(22)/(S(13)*S(20)*S(20)*S(20) + S(11))		70331290
0096	S(20) = S(7) - S(20)		70331300
0097	W(S(20)) 111,100,112		70331310

09/10/74	INPUT LISTING	AUTOFLOW CHART SET - SHEEP	SECOND FUELAGE OVERLAY
CARD NO	CONTENTS		
2600	111 S(33) = - S(33)		70331200
2600	112 IF(S(33) - EQU(45)/S(10)) 150,150,110		70331330
2700	150 IF(11-1) 151,151,100		70331340
2701	151 11 = 11 + 1		70331350
2702	IF(S(7) - S(8)) 161,161,00		70331360
2703	C CHECK AGAINST MINIMUM AND GENERAL STABILITY SIZING		70331380
2704	160 IF(S(7) - S(8)) 161,162,162		70331400
2705	161 S(7) = S(8)		70331410
2706	162 S(2) = S(7)*S(2)/S(8)		70331412
2707	S(3) = S(14)		70331414
2708	S(4) = S(11)		70331416
2709	C SET UP INTERMEDIATE FRAME FOR PRESSURE AND CONTENT LOADING		70331420
2710	C GET OUT - STOP HERE		70331430
2711	200 TOT(7) = (BX(1)*S(40) + D(2)*S(11)*S(7) + BL(1)*S(41))		70331440
2712	I S(2)*WIP(251)/WIP(1)		70331450
2713	FRMT(1) = TOT(7)*FRMT(1)		70331460
2714	C SET UP EFFECTIVE MINOR FRAME AREA FOR STRINGER OR LONG-RON		70331470
2715	C FORCED CRIPPLING S(2)		70331480
2716	C		
2717	IF(IP(70))5001,5001,5002		
2718	5001 WRITE(6,61) I		
2719	61 FORMAT(1H1,20X,40H*** BREAKPOINT OUTPUT - SUBROUTINE MINFR ***,		70220614
2720	I 24X,20H** MINFR - IP(70) ***		
2721	I 20X,70SECTION,13/ 5H,ENT-REGION)		
2722	DO 63 N=1,200,5		
2723	K = N*4		
2724	WRITE(6,62) N,(T(I),J=N,K,1)		
2725	62 FORMAT(4X,13,2F10.4)		
2726	63 CONTINUE		
2727	5002 RETURN		70330000
2728	END		70330000
2729	C		
2730	C		
2731	C SUBROUTINE MINFR		
2732	C		
2733	C		
2734	SUBROUTINE MINFR		7030
2735	C		7030
2736	COMMON TCON(400)		7030
2737	C		7030
2738	DIMENSION S(2000),T(2000),DC(100),ND(200)		7030
2739	DIMENSION S(100)		7030
2740	C		7030
2741	EQUIVALENCE (D(1),TCON(1)),(T(1),TCON(200)),(DC(1),TCON(401)),		7030
2742	(ND(1),TCON(420))		7030
2743	EQUIVALENCE (T(1),S(1))		7030
2744	EQUIVALENCE (ND(103),K)		7030
2745	C		7030
2746	S(10) = S(1) - S(2)		7030
2747	S(11) = S(1) - S(3)		7030
2748	S(12) = S(2) - S(3)		7030
2749	S(13) = S(10)*S(11)		7030
2750	S(14) = - S(10)*S(12)		7030
2751	S(15) = S(11)*S(12)		7030
2752	S(16) = S(5)/S(13)		7030
2753	S(17) = S(6)/S(14)		7030
2754	S(18) = S(7)/S(15)		7030
2755	S(19) = S(16) + S(17) + S(18)		7030
2756	S(20) = S(16)*S(12) + S(17)*S(11) + S(18)*S(13)		7030
2757	S(21) = S(19)*S(13) + S(20)*S(14) + S(18)*S(11)*S(12)		7030
2758	IF(S(19)) 00,20,30		7030
2759	30 S(22) = S(20)/S(21)*S(19)		7030
2760	S(0) = (S(19)*S(22) - S(20))*S(21) + S(21)		7030
2761	IF(S(22) - S(3)) 31,100,100		7030
2762	31 IF(S(22) - S(1)) 00,00,00		7030
2763	00 IF(S(20)) 00,00,100		7030
2764	00 S(4) = S(22)		7030
2765	K = 1		7030
2766	00 TO 1000		7030
2767	00 K = 3		7030

810

04/10/74	INPUT LISTING	AUTOFLOW CHART SET - SHEEP	SECOND FUSELAGE OVERLAY
CARD NO	*****	CONTENTS	*****
2040		IF(I1YF - 2) 50,50,100	7040
2041	C	FIGHTERS AND BOMBERS	7040
2042		50 J = FMT(91)	7040
2043		IF(S2(14)) 100,100,51	7040
2044		51 FMT(J+75) = S2(14)*EQUA(154)	7040
2045		FMT(J+1) = S2(142) + D(13)	7040
2046		FMT(91) = FMT(91) + D(1)	7040
2047		GO TO 200	7040
2048	C	TEST ON FORWARD RAMP (TRANSPORTS)	7040
2049		100 IF(SCST(17)) 150,150,102	7040
2050		102 J = FMT(91)	7040
2051		FMT(J+1) = SCST(67)	7040
2052		IF(SCDT(20)) 110,110,104	7040
2053		104 FMT(J+1) = SCST(67) + SCDT(20)/D(3)	7040
2054		GO TO 120	7040
2055		110 IF(SCDT(27)) 120,120,112	7040
2056		112 FMT(J+1) = SCST(67) + (SCDT(27)*D(17)+D(13))/D(3)	7040
2057	C	DETERMINE FUSELAGE GEOMETRY AT FRAME	7040
2058		120 I = 2	7040
2059		122 IF(XO(I) - FMT(J+1)) 124,130,130	7040
2060		124 I = I+1	7040
2061		IF(I - NC) 122,130,130	7040
2062		130 S(14) = PER(I-1) + (PER(I) - PER(I-1))*(FMT(J+1) - XO(I-1))/	7040
2063		(XO(I) - XO(I-1))	7040
2064		FMT(J+75) = S(14)*EQUA(157)	7040
2065		FMT(91) = FMT(91) + D(1)	7040
2066	C	TEST ON AFT RAMP	7040
2067		150 IF(SCST(19)) 200,200,152	7040
2068		152 J = FMT(91)	7040
2069		FMT(J+1) = SCST(63)	7040
2070		IF(SCDT(31)) 160,160,154	7040
2071		154 FMT(J+1) = SCST(63) + SCDT(31)/D(3)	7040
2072		GO TO 170	7040
2073		160 IF(SCDT(33)) 170,170,162	7040
2074		162 FMT(J+1) = SCST(63) + (SCDT(33)*D(17)+D(13))/D(3)	7040
2075		170 I = 2	7040
2076		172 IF(XO(I) - FMT(J+1)) 174,180,180	7040
2077		174 I = I+1	7040
2078		IF(I - NC) 172,180,180	7040
2079		180 S(14) = PER(I-1) + (PER(I) - PER(I-1))*(FMT(J+1) - XO(I-1))/	7040
2080		(XO(I) - XO(I-1))	7040
2081		FMT(J+75) = S(14)*EQUA(157)	7040
2082		FMT(91) = FMT(91) + D(1)	7040
2083		200 CONTINUE	7040
2084	C	*** EXIT ***	7040
2085		RETURN	7040
2086		END	7040
2087	C		
2088	C	*****	
2089	C	SUBROUTINE PART1	
2090	C	*****	
2091	C		
2092		SUBROUTINE PART1	7035
2093	C	WRITTEN 8 MARCH 1972	7035
2094	C	TO DEVELOP STATISTICAL WEIGHT ESTIMATES FOR PARTITIONS	7035
2095	C		7035
2096		COMMON TCOM(4400)	7035
2097	C		7035
2098		DIMENSION D(2000),T(2000),DC(100),ND(200)	7035
2099		DIMENSION WTCT(20),WTF(20)	7035
2100		DIMENSION WTP(20)	7035
2101		DIMENSION EQUA(160)	7035
2102	C		7035
2103		EQUIVALENCE (D(1),TCOM(1)),(T(1),TCOM(2001)),(DC(1),TCOM(4101)),	7035
2104		(ND(1),TCOM(4201))	7035
2105	C		7035
2106		EQUIVALENCE (D(81),EQUA(1))	7035
2107		EQUIVALENCE (T(1501),WTCT(1)),(T(1601),WTF(1))	7035
2108		EQUIVALENCE (T(1621),WTP(1))	7035
2109		EQUIVALENCE (ND(101),I)	7035
2110		EQUIVALENCE (ND(111),NC)	7035

04/10/74	INPUT LISTING	AUTOFLOW CHART SET - SHEEP	SECOND FUSELAGE OVERLAY
CARD NO	****	CONTENTS	****
2911	J = NC + 1		70410035
2912	DO 100 I=1,J		70410035
2913	WTP1(I) = IMTCT(I) + WTHF(I)*EQUA155		70410035
2914	100 CONTINUE		70410035
2915	RETURN		70410035
2916	END		70410035
2917	C		
2918	C *****		
2919	C SUBROUTINE SECOST		
2920	C *****		
2921	C		
2922	SUBROUTINE SECOST		70410000
2923	C WRITTEN 28 FEBRUARY 1972		70410020
2924	C TO DETERMINE SECONDARY STRUCTURE HEIGHTS		70410030
2925	C		70410040
2926	COMMON TCOM(400)		70410050
2927	C		70410060
2928	DIMENSION D(200),T(200),DC(100),ND(200)		70410070
2929	DIMENSION EQUA1(60),CIND(50)		70410080
2930	DIMENSION X(10)		70410090
2931	DIMENSION SCST(100),SCDT(80)		70410100
2932	DIMENSION S2(100)		70410110
2933	DIMENSION S(100),SS(20),TOT(20),SF(20)		70410120
2934	DIMENSION FHP(300)		70410130
2935	DIMENSION SCHT(50)		70410140
2936	C		70410150
2937	EQUIVALENCE (D(1),TCOM(1)),(T(1),TCOM(200)),(DC(1),TCOM(400)),		70410160
2938	(ND(1),TCOM(400))		70410170
2939	EQUIVALENCE (D(8),EQUA1(1)),(D(24),CIND(1))		70410180
2940	EQUIVALENCE (D(29),X(1))		70410190
2941	EQUIVALENCE (D(82),SCST(1)),(D(92),SCDT(1))		70410200
2942	EQUIVALENCE (D(100),S2(1))		70410210
2943	EQUIVALENCE (T(1),S(1)),(T(18),SS(1)),(T(20),TOT(1)),		70410220
2944	((T(40),SF(1))		70410230
2945	EQUIVALENCE (T(120),FHP(1))		70410240
2946	EQUIVALENCE (T(195),SCHT(1))		70410250
2947	EQUIVALENCE (ND(102),J)		70410260
2948	EQUIVALENCE (ND(111),NC), (ND(117),JAV), (ND(127),ITYP)		70410270
2949	C		70410280
2950	DO 10 J=1,50		70410290
2951	SCHT(J) = D(24)		70410300
2952	10 CONTINUE		70410310
2953	C VEHICLE TYPE HAS BEEN ESTABLISHED DETERMINE HEIGHTS		70410320
2954	IF (ITYP - 2) 110,110,130		70410330
2955	C CHECK CANOPY		70410340
2956	110 IF (SCST(1)) 130,130,111		70410350
2957	111 SCHT(1) = SCST(1)		70410360
2958	IF (SCST(1) - D(1)) 112,112,120		70410370
2959	C PILOTS CANOPY NOT INPUT - COMPUTE		70410380
2960	112 SCHT(1) = EQUA1(61)		70410390
2961	IF (SCDT(1)) 120,120,113		70410400
2962	113 IF (CIND(27) - EQUA1(66)) 114,114,115		70410410
2963	114 SCHT(1) = SCDT(1)*EQUA1(65)		70410420
2964	GO TO 120		70410430
2965	115 SCHT(1) = SCDT(1)*(CIND(27)*EQUA1(64) - EQUA1(63))		70410440
2966	C CHECK NAVIGATOR'S CANOPY		70410450
2967	120 IF (SCST(2)) 130,130,121		70410460
2968	121 SCHT(2) = SCST(2)		70410470
2969	IF (SCST(2) - D(1)) 122,122,130		70410480
2970	C NAVIGATOR'S CANOPY NOT INPUT COMPUTE		70410490
2971	122 SCHT(2) = EQUA1(62)		70410500
2972	IF (SCDT(2)) 130,130,123		70410510
2973	123 IF (CIND(27) - EQUA1(66)) 124,124,125		70410520
2974	124 SCHT(2) = SCDT(2)*EQUA1(65)		70410530
2975	GO TO 130		70410540
2976	125 SCHT(2) = SCDT(2)*(CIND(27)*EQUA1(64) - EQUA1(63))		70410550
2977	C TEST ON WINDSHIELD		70410560
2978	130 IF (ITYP - 1) 131,131,135		70410570
2979	131 SCHT(3) = SCST(3)		70410580
2980	IF (SCST(3) - D(1)) 132,132,180		70410590
2981	132 IF (SCDT(3)) 133,133,139		70410600

04/10/74	INPUT LISTING	AUTOFLOW CHART SET - SHEEP	SECOND FUSELAGE OVERLAY
CARD NO	****	CONTENTS	****
2982	133 SCHT(3) = EQUI(75)		70410610
2983	GO TO 160		70410620
2984	C BOMBER OR TRANSPORT		70410630
2985	135 IF(ITYP - 2) 136,136,150		70410640
2986	C BOMBER TYPE		70410650
2987	136 SCHT(3) = SCST(3)		70410660
2988	IF(SCST(3) - D(1)) 137,137,160		70410670
2989	137 IF(SCDT(3)) 138,138,139		70410680
2990	138 SCHT(3) = EQUI(76)		70410690
2991	GO TO 160		70410700
2992	C CALCULATE		70410710
2993	139 IF(SCDT(6)) 145,145,140		70410720
2994	C BIRD IMPACT		70410730
2995	140 S(1) = EQUI(50)*CIND(126)		70410740
2996	S(2) = EQUI(68)*D(1) + EQUI(69)*COS(SCDT(6)*D(16))		70410750
2997	I EXP(S(1)*COS(SCDT(6)*D(16)) - EQUI(73))		70410760
2998	143 IF(S(2) - EQUI(74)) 141,142,142		70410770
2999	141 S(2) = EQUI(74)		70410780
3000	142 SCHT(3) = S(2)*SCDT(3)*CDT(4)*EQUI(70)*SCDT(5)		70410790
3001	GO TO 160		70410800
3002	C PRESSURE		70410810
3003	145 S(3) = EQUI(71) - EQUI(72)*SCDT(3)/SCDT(4)		70410820
3004	S(2) = (D(6)*S(3)*CIND(28)*SCDT(4)**2*D(30)*D(38)/EQUI(67))**5		70410830
3005	GO TO 143		70410840
3006	C TRANSPORT TYPE		70410850
3007	150 SCHT(3) = SCST(3)		70410860
3008	IF(SCST(3) - D(1)) 151,151,160		70410870
3009	151 IF(SCDT(3)) 152,152,139		70410880
3010	152 J = IAV - 30		70410890
3011	C J = TRANSPORT CLASS TYPES		70410900
3012	GO TO 153,154,153,154,154,155,J		70410910
3013	153 SCHT(3) = EQUI(76)		70410920
3014	GO TO 160		70410930
3015	154 SCHT(3) = EQUI(77)		70410940
3016	GO TO 160		70410950
3017	155 SCHT(3) = EQUI(78)		70410960
3018	C CHECK WINDOWS AND PORTS		70410970
3019	C THERE IS NO RULE OF THUMB FOR THIS ITEM - MUST BE DEFINED		70410980
3020	160 IF(SCST(4)) 170,170,161		70410990
3021	161 SCHT(4) = SCST(4)		70411000
3022	IF(SCST(4) - D(1)) 162,162,170		70411010
3023	C TEST FOR INPUT DESCRIPTION		70411020
3024	162 IF(SCDT(7)) 163,163,164		70411030
3025	C WRITE ERROR MESSAGE		70411040
3026	163 WRITE(6,60)		70411050
3027	60 FORMAT(1H,20X,23H*** WARNING MESSAGE ***10X,		70411060
3028	164WINDOWS AND PORTS RULE OF THUMB IS NOT WITHIN PROGRAM CAPABILITY12,127,		
3029	GO TO 170		70411080
3030	164 IF(SCDT(4)) 163,163,165		70411090
3031	165 S(3) = EQUI(71) - EQUI(72)*SCDT(7)/SCDT(8)		70411100
3032	S(2) = (D(6)*S(3)*CIND(28)*SCDT(8)**2*D(30)*D(38)/EQUI(67))**5		70411110
3033	IF(S(2) - EQUI(74)) 166,167,167		70411120
3034	166 S(2) = EQUI(74)		70411130
3035	167 SCHT(4) = S(2)*SCDT(7)*SCDT(8)*EQUI(70)*SCDT(9)		70411140
3036	C WINDOWS AND PORTS CABIN		70411150
3037	170 IF(SCST(5)) 180,180,171		70411160
3038	171 SCHT(5) = SCST(5)		70411170
3039	IF(SCST(5) - D(1)) 172,172,180		70411180
3040	172 IF(SCDT(11)) 179,179,173		70411190
3041	173 IF(SCDT(12)) 174,174,175		70411200
3042	174 WRITE(6,60)		70411210
3043	GO TO 180		70411220
3044	175 S(3) = EQUI(71) - EQUI(72)*SCDT(11)/SCDT(12)		70411230
3045	S(2) = (D(6)*S(3)*CIND(28)*SCDT(11)**2*D(30)*D(38)/EQUI(67))**5		70411240
3046	IF(S(2) - EQUI(74)) 176,177,177		70411250
3047	176 S(2) = EQUI(74)		70411260
3048	177 SCHT(5) = S(2)*SCDT(11)*SCDT(12)*EQUI(70)*SCDT(13)		70411270
3049	GO TO 180		70411280
3050	179 SCHT(5) = SCST(13)*EQUI(80)		70411290
3051	C FLOORING AND SUPPORT COCKPIT OR FLIGHT DECK		70411300
3052	180 IF(SCST(6)) 190,190,181		70411310

04/18/74	INPUT LISTING	AUTOFLOW CHART SET - SHEEP	SECURE FUELAGE OVERLAY
CARD NO	CONTENTS		
3053	101 SCOT(6) = SCST(6)		70411315
3054	IF(SCST(6) - 0(1)) 102,102,100		70411320
3055	102 IF(SCST(6)) 104,104,103		70411330
3056	103 SCST(6) = SCST(15)*EQUA(82)		70411340
3057	GO TO 100		70411350
3058	104 IF(ITYP - 1) 105,105,109		70411360
3059	C CREW FLOORING CLIMBERS		70411370
3060	105 SCST(6) = SCST(15)*EQUA(81)		70411380
3061	GO TO 100		70411390
3062	C CREW FLOORING BOMBERS AND TRANSPORTS		70411400
3063	106 SCST(6) = ((TOT(19) + TOT(20))/D(2)/D(12)/EQUA(83))*EQUA(84) +		70411410
3064	EQUA(85)*SCST(14)		70411420
3065	C STAIRWAY AND LADDERS		70411430
3066	106 IF(SCST(7)) 200,200,191		70411440
3067	101 SCST(7) = SCST(7)		70411450
3068	IF(SCST(7) - 0(1)) 102,102,200		70411460
3069	102 IF(ITYP - 1) 103,103,105		70411470
3070	C FIGHTERS		70411480
3071	103 SCST(7) = EQUA(86)		70411490
3072	GO TO 200		70411500
3073	C BOMBERS AND TRANSPORTS		70411510
3074	105 S(1) = TOT(19)/D(12) - EQUA(88)		70411520
3075	IF(S(1)) 106,107,107		70411530
3076	106 S(1) = 0(24)		70411540
3077	107 SCST(7) = EQUA(87) + S(1)*EQUA(88)		70411550
3078	C NOSE RADOME		70411560
3079	200 IF(SCST(8)) 210,210,201		70411570
3080	201 SCST(8) = SCST(8)		70411580
3081	IF(SCST(8) - 0(1)) 202,202,210		70411590
3082	202 IF(CIND(21) - 0(1)) 203,206,206		70411600
3083	C SUBSONIC		70411610
3084	203 IF(SCST(16)) 204,204,205		70411620
3085	204 SCST(8) = EQUA(92)*SF(1)/D(17)		70411630
3086	GO TO 210		70411640
3087	205 SCST(8) = EQUA(92)*SCST(16)		70411650
3088	GO TO 210		70411660
3089	C SUPERSONIC		70411670
3090	206 IF(SCST(16)) 207,207,208		70411680
3091	207 SCST(8) = EQUA(90)*SF(1)/D(17)		70411690
3092	GO TO 210		70411700
3093	208 SCST(8) = EQUA(90)*SCST(16)		70411710
3094	C TAIL RADOME		70411720
3095	210 IF(SCST(9)) 220,220,211		70411730
3096	211 SCST(9) = SCST(9)		70411740
3097	IF(SCST(9) - 0(1)) 212,212,220		70411750
3098	212 IF(CIND(21) - 0(1)) 213,213,216		70411760
3099	C SUBSONIC		70411770
3100	213 IF(SCST(17)) 214,214,215		70411780
3101	214 SCST(9) = EQUA(92)*SF(1)/D(17)		70411790
3102	GO TO 220		70411800
3103	215 SCST(9) = EQUA(92)*SCST(17)		70411810
3104	GO TO 220		70411820
3105	C SUPERSONIC		70411830
3106	216 IF(SCST(17)) 217,217,218		70411840
3107	217 SCST(9) = EQUA(91)*SF(1)/D(17)		70411850
3108	GO TO 220		70411860
3109	218 SCST(9) = EQUA(91)*SCST(17)		70411870
3110	C MISCELLANEOUS RADOMES		70411880
3111	220 IF(SCST(10)) 230,230,221		70411890
3112	221 SCST(10) = SCST(10)		70411900
3113	IF(SCST(10) - 0(1)) 222,222,230		70411910
3114	222 SCST(10) = EQUA(92)*SCST(10)		70411920
3115	C SPEED BRAKES		70411930
3116	230 IF(SCST(11)) 250,250,231		70411940
3117	231 SCST(11) = SCST(11)		70411950
3118	IF(SCST(11) - 0(1)) 232,232,250		70411960
3119	232 IF(SCST(10)) 233,233,237		70411970
3120	233 IF(SCST(21)) 250,250,234		70411980
3121	234 IF(SCST(20)) 235,235,236		70411990
3122	235 SCST(20) = (SCST(21)/EQUA(86)*D(17))^*.5		70412000
3123	SCST(10) = EQUA(90)*SCST(20)		70412010

04/10/74	INPUT LISTING	AUTOFLOW CHART SET - SHEEP	SECOND FUSELAGE OVERLAY
CARD NO	****	CONTENTS	****
3124		00 TO 245	70411050
3125		230 SCOT(19) = SCOT(21)/SCOT(20)*D(17)	70411070
3126		00 TO 245	70411080
3127		237 IF(SCST(21)) 230,230,230	70411090
3128		230 IF(SCST(20)) 250,250,240	70411100
3129		240 SCOT(21) = SCOT(19)*SCOT(20)/D(17)	70411110
3130		00 TO 245	70411120
3131		230 IF(SCST(20)) 241,241,245	70411130
3132		241 SCOT(20) = SCOT(21)/SCOT(19)*D(17)	70411140
3133		245 S(1) = EQUA(93) + EQUA(94)/D(14)*CIND(27)/D(17)*SCOT(20)*	70411150
3134		SCOT(19)**2	70411160
3135		SCMT(11) = SCOT(21)*S(1)*EQUA(95)	70411170
3136	C	OTHER AN-8103-D PAGE 9	70411180
3137		250 IF(SCST(12)) 260,260,251	70411190
3138		251 SCMT(12) = SCST(12)	70412000
3139	C	MAIN GEAR DOOR	70412010
3140		260 IF(SCST(13)) 270,270,261	70412020
3141		261 SCMT(13) = SCST(13)	70412030
3142		IF(SCST(13) - D(11)) 262,262,270	70412040
3143		262 SCMT(13) = SCOT(23)*EQUA(97)	70412050
3144	C	NOSE GEAR DOOR	70412060
3145		270 IF(SCST(14)) 280,280,271	70412070
3146		271 SCMT(14) = SCST(14)	70412080
3147		IF(SCST(14) - D(11)) 272,272,280	70412090
3148		272 SCMT(14) = SCOT(24)*EQUA(98)	70412100
3149	C	CARGO DOOR AFT	70412110
3150		280 IF(SCST(15)) 290,290,291	70412120
3151		291 SCMT(15) = SCST(15)	70412130
3152		IF(SCST(15) - D(11)) 292,292,290	70412140
3153		292 SCMT(15) = SCOT(25)*EQUA(99)	70412150
3154	C	SIDE CARGO DOOR	70412160
3155		290 IF(SCST(16)) 300,300,291	70412170
3156		291 SCMT(16) = SCST(16)	70412180
3157		IF(SCST(16) - D(11)) 292,292,300	70412190
3158		292 SCMT(16) = SCOT(26)*EQUA(100)	70412200
3159	C	FORWARD RAMP	70412210
3160		300 IF(SCST(17)) 320,320,301	70412220
3161		301 SCMT(17) = SCST(17)	70412230
3162		IF(SCST(17) - D(11)) 302,302,310	70412240
3163		302 IF(SCOT(20)) 303,303,304	70412250
3164		303 SCMT(17) = SCOT(27)*EQUA(102)	70412260
3165		00 TO 310	70412270
3166		304 SCMT(17) = SCOT(27)*SCOT(28)/D(12)*EQUA(103)	70412280
3167	C	FORWARD RAMP TOE	70412290
3168		310 IF(SCST(18)) 320,320,311	70412300
3169		311 SCMT(18) = SCST(18)	70412310
3170		IF(SCST(18) - D(11)) 313,313,320	70412320
3171		313 SCMT(18) = SCOT(29)*EQUA(104)	70412330
3172	C	AFT RAMP	70412340
3173		320 IF(SCST(19)) 340,340,321	70412350
3174		321 SCMT(19) = SCST(19)	70412360
3175		IF(SCST(19) - D(11)) 322,322,330	70412370
3176		322 IF(SCOT(31)) 323,323,324	70412380
3177		323 SCMT(19) = SCOT(30)*EQUA(102)	70412390
3178		00 TO 330	70412400
3179		324 SCMT(19) = SCOT(30)*SCOT(31)/D(12)*EQUA(103)	70412410
3180	C	AFT RAMP TOE	70412420
3181		330 IF(SCST(20)) 340,340,331	70412430
3182		331 SCMT(20) = SCST(20)	70412440
3183		IF(SCST(20) - D(11)) 332,332,340	70412450
3184		332 SCMT(20) = SCOT(32)*EQUA(104)	70412460
3185	C	PRESSURE DOOR	70412470
3186		340 IF(SCST(21)) 350,350,341	70412480
3187		341 SCMT(21) = SCST(21)	70412490
3188		IF(SCST(21) - D(11)) 342,342,350	70412500
3189		342 IF(SCOT(33)) 343,343,340	70412510
3190		343 IF(SCOT(34)) 350,350,344	70412520
3191		344 IF(SCOT(35)) 350,350,345	70412530
3192		345 SCOT(33) = SCOT(34)*SCOT(35)/D(17)	70412540
3193		00 TO 340	70412550
3194		346 IF(SCOT(36)) 347,347,340	70412560

04/10/74	INPUT LISTING	AUTOFLOW CHART SET - SHEEP	SECOND FUSELAGE OVERLAY
CARD NO	****	CONTENTS	****
3195	347 SCMT(21) = SCOT(33)*EQUA(109)		70412570
3196	GO TO 360		70412580
3197	348 IF(SCOT(35)) 347,347,348		70412590
3198	349 S(1) = SCOT(34)		70412600
3199	95(2) = SCOT(35)		70412610
3200	95(3) = CIND(28)		70412620
3201	S(4) = D(24)		70412630
3202	95(5) = D(30)*D(38)		70412640
3203	95(6) = FWP(266)*FWP(252)		70412650
3204	S(1) = FWP(252)/95(5)		70412660
3205	IF(S(1) - 95(6)) 357,358,359		70412670
3206	357 95(6) = S(1)		70412680
3207	358 95(7) = FWP(246)		70412690
3208	95(8) = FWP(245)		70412700
3209	CALL DELMOD		70412710
3210	SCMT(21) = SCOT(33)*D(17)*95(10)*FWP(251)*EQUA(106)		70412720
3211	C BOMB BAY DOORS		70412730
3212	350 IF(SCST(22)) 360,360,351		70412740
3213	351 SCMT(22) = SCST(22)		70412750
3214	IF(SCST(22) - D(1)) 352,352,360		70412760
3215	352 S(1) = EQUA(107) + EQUA(108)*CIND(27)		70412770
3216	IF(SCOT(36) - D(2)) 353,354,355		70412780
3217	353 SCMT(22) = SCOT(37)*S(1)*EQUA(109)		70412790
3218	GO TO 360		70412800
3219	354 SCMT(22) = SCOT(37)*S(1)*EQUA(110)		70412810
3220	GO TO 360		70412820
3221	355 SCMT(22) = SCOT(37)*S(1)*EQUA(111)		70412830
3222	C GUN ACCESS DOORS		70412840
3223	360 IF(SCST(23)) 370,370,361		70412850
3224	361 SCMT(23) = SCST(23)		70412860
3225	IF(SCST(23) - D(1)) 362,362,370		70412870
3226	362 SCMT(23) = SCOT(38)*EQUA(112)		70412880
3227	C AWD ACCESS DOORS		70412890
3228	370 IF(SCST(24)) 380,380,371		70412900
3229	371 SCMT(24) = SCST(24)		70412910
3230	IF(SCST(24) - D(1)) 372,372,380		70412920
3231	372 SCMT(24) = SCOT(39)*EQUA(113)		70412930
3232	C EMERGENCY EXIT IN FLIGHT		70412940
3233	380 IF(ITYP - 2) 381,381,380		70412950
3234	C FIGHTERS AND BOMBERS		70412960
3235	381 IF(SCST(1)) 382,382,400		70412970
3236	382 IF(SCST(25)) 400,400,383		70412980
3237	383 SCMT(25) = SCST(25)		70412990
3238	IF(SCST(25) - D(1)) 384,384,400		70413000
3239	384 IF(SCOT(40)) 385,385,386		70413010
3240	385 SCMT(25) = S(14)*EQUA(114)		70413020
3241	GO TO 410		70413030
3242	386 SCMT(25) = SCOT(40)*SCOT(41)*EQUA(115)		70413040
3243	GO TO 410		70413050
3244	C TRANSPORT - FLIGHT		70413060
3245	380 IF(SCST(25)) 400,400,391		70413070
3246	391 SCMT(25) = SCST(25)		70413080
3247	IF(SCST(25) - D(1)) 382,382,400		70413090
3248	382 IF(SCOT(41)) 392,392,394		70413100
3249	393 SCOT(41) = D(1)		70413110
3250	394 IF(SCOT(40)) 395,395,396		70413120
3251	395 SCMT(25) = SCOT(41)*EQUA(116)		70413130
3252	GO TO 400		70413140
3253	396 SCMT(25) = SCOT(40)*SCOT(41)*EQUA(116)		70413150
3254	C BOMBERS AND TRANSPORTS		70413160
3255	400 IF(ITYP - 2) 410,401,401		70413170
3256	401 IF(SCST(26)) 410,410,402		70413180
3257	402 SCMT(26) = SCST(26)		70413190
3258	IF(SCST(26) - D(1)) 403,403,410		70413200
3259	403 IF(SCOT(43)) 404,404,405		70413210
3260	404 SCOT(43) = D(1)		70413220
3261	405 IF(SCOT(42)) 406,406,407		70413230
3262	406 SCMT(26) = SCOT(43)*EQUA(118)		70413240
3263	GO TO 410		70413250
3264	407 SCMT(26) = SCOT(40)*SCOT(43)*EQUA(117)		70413260
3265	C PARATROOP DOOR		70413270

04/10/74	INPUT LISTING	AUTOFLOW CHART SET - SWEEP	SECOND FUSELAGE OVERLAY
CARD NO	****	CONTENTS	****
3266	410 IF(SCST(27)) 430,430,411		70413200
3267	411 SCHT(27) = SCST(27)		70413200
3268	IF(SCST(27) - D(1)) 412,412,420		70413300
3269	412 IF(SCOT(45)) 413,413,414		70413310
3270	413 SCOT(45) = D(1)		70413320
3271	414 IF(SCOT(44)) 416,416,417		70413330
3272	416 SCHT(27) = SCOT(45)*EQUA(21)		70413340
3273	GO TO 420		70413350
3274	417 SCHT(27) = SCOT(44)*SCOT(45)*EQUA(122)		70413360
3275	C SPOILER DEFLECTORS		70413370
3276	420 IF(SCST(28)) 430,430,421		70413380
3277	421 SCHT(28) = SCST(28)		70413390
3278	IF(SCST(28) - D(1)) 422,422,430		70413400
3279	422 IF(SCOT(45)) 423,423,424		70413410
3280	423 SCOT(45) = D(1)		70413420
3281	424 SCHT(28) = SCOT(45)*EQUA(123)		70413430
3282	C ENTRANCE DOOR		70413440
3283	430 IF(SCST(29)) 440,440,431		70413450
3284	431 SCHT(29) = SCST(29)		70413460
3285	IF(SCST(29) - D(1)) 432,432,440		70413470
3286	432 IF(SCOT(47)) 433,433,434		70413480
3287	433 SCOT(47) = D(1)		70413490
3288	434 IF(SCOT(48)) 435,435,436		70413500
3289	435 SCHT(29) = SCOT(47)*EQUA(124)		70413510
3290	GO TO 440		70413520
3291	436 SCHT(29) = SCOT(46)*SCOT(47)*EQUA(125)		70413530
3292	C MISCELLANEOUS ACCESS DOORS		70413540
3293	440 IF(SCST(30)) 450,450,441		70413550
3294	441 SCHT(30) = SCST(30)		70413560
3295	IF(SCST(30) - D(1)) 442,442,450		70413570
3296	442 IF(117P - 2) 443,443,445		70413580
3297	C FIGHTERS AND BOMBERS		70413590
3298	443 S(1) = TOT(1)/D(17)		70413600
3299	IF(S(1) - D(13)*D(13)) 450,450,444		70413610
3300	444 SCHT(30) = EQUA(126)*LOG10(S(1)) - EQUA(127)		70413620
3301	GO TO 450		70413630
3302	C TRANSPOPS		70413640
3303	445 SCHT(30) = EQUA(128)*(TOT(1)/D(17))*EQUA(129)		70413650
3304	C IN FLIGHT REFUELING		70413660
3305	450 IF(SCST(31)) 460,460,451		70413670
3306	451 SCHT(31) = SCST(31)		70413680
3307	IF(SCST(31) - D(1)) 462,462,460		70413690
3308	462 IF(SCOT(48) - D(2)) 453,454,455		70413700
3309	453 SCHT(31) = EQUA(130)		70413710
3310	GO TO 460		70413720
3311	454 SCHT(31) = EQUA(131)		70413730
3312	GO TO 460		70413740
3313	455 SCHT(31) = EQUA(130) + EQUA(131)		70413750
3314	C RAM AIR TURBINE		70413760
3315	460 IF(SCST(32)) 470,470,461		70413770
3316	461 SCHT(32) = SCST(32)		70413780
3317	IF(SCST(32) - D(1)) 462,462,470		70413790
3318	462 IF(SCOT(49)) 463,463,464		70413800
3319	463 SCHT(32) = EQUA(132)		70413810
3320	GO TO 470		70413820
3321	464 SCHT(32) = SCOT(48)*EQUA(133)		70413830
3322	C ENGINE REMOVAL DOORS		70413840
3323	470 IF(SCST(33)) 480,480,471		70413850
3324	471 SCHT(33) = SCST(33)		70413860
3325	IF(SCST(33) - D(1)) 472,472,480		70413870
3326	472 IF(SCOT(50)) 473,473,479		70413880
3327	473 S(1) = S2(145) + S2(146)		70413890
3328	S(2) = S2(146)		70413900
3329	IF(X(18) - S(1)) 474,474,475		70413910
3330	474 S(2) = X(18) - S2(145)		70413920
3331	475 SCOT(50) = (S2(144) + EQUA(135))*S(2)*S2(143)/D(17)		70413930
3332	476 SCHT(33) = EQUA(134)*SCOT(50)		70413940
3333	C ACCESSORY ACCESS		70413950
3334	480 IF(SCST(34)) 490,490,481		70413960
3335	481 SCHT(34) = SCST(34)		70413970
3336	IF(SCST(34) - D(1)) 482,482,490		70413980

IN/10/74	INPUT LISTING	AUTOFLOW CHART SET - SHEEP	SECOND FUSELAGE OVERLAY
CARD NO	****	CONTENTS	****
3337	462 IF(SCDT(51)) 463,463,465		70413980
3338	463 SCDT(51) = (521144) + (EQUA(135))**2*(521143)/D(17)		70414000
3339	465 SCMT(34) = SCDT(51)*EQUA(136)		70414010
3340	C THERMAL PROTECTION		70414020
3341	466 IF(SCST(35)) 500,500,461		70414030
3342	461 SCMT(35) = SCST(35)		70414040
3343	IF(SCST(35) - D(1)) 462,462,500		70414050
3344	462 IF(SCDT(62)) 500,500,463		70414060
3345	463 SCMT(35) = SCDT(62)*EQUA(137)		70414070
3346	C MAIN LANDING GEAR POD		70414080
3347	500 IF(SCST(36)) 510,510,501		70414090
3348	501 SCMT(36) = SCST(36)		70414100
3349	IF(SCST(36) - D(1)) 502,502,510		70414110
3350	502 IF(SCDT(53)) 510,510,503		70414120
3351	503 SCMT(36) = (SCDT(53) - SCDT(23))*EQUA(138)		70414130
3352	C MISCELLANEOUS FAIRINGS		70414140
3353	510 IF(SCST(37)) 520,520,511		70414150
3354	511 SCMT(37) = SCST(37)		70414160
3355	IF(SCST(37) - D(1)) 512,512,520		70414170
3356	512 IF(SCDT(94)) 513,513,515		70414180
3357	513 SCMT(37) = 521147)*EQUA(140)		70414190
3358	60 TO 520		70414200
3359	515 SCMT(37) = SCDT(94)*EQUA(139)		70414210
3360	C DORSAL		70414220
3361	520 IF(SCST(38)) 530,530,521		70414230
3362	521 SCMT(38) = SCST(38)		70414240
3363	IF(SCST(38) - D(1)) 522,522,530		70414250
3364	522 IF(SCDT(95)) 530,530,523		70414260
3365	523 SCMT(38) = SCDT(95)*EQUA(139)		70414270
3366	C MAINWAYS STEPS AND GRIPS		70414280
3367	530 IF(SCST(39)) 550,550,531		70414290
3368	531 SCMT(39) = SCST(39)		70414300
3369	IF(SCST(39) - D(1)) 532,532,540		70414310
3370	532 IF(SCDT(96)) 540,540,533		70414320
3371	533 IF(SCDT(57)) 534,534,535		70414330
3372	534 SCDT(57) = D(1)		70414340
3373	535 SCMT(39) = SCDT(56)*SCDT(57)*EQUA(141)		70414350
3374	C ANTI-SKID PROTECTION		70414360
3375	540 IF(SCST(40)) 550,550,541		70414370
3376	541 SCMT(40) = SCST(40)		70414380
3377	IF(SCST(40) - D(1)) 542,542,550		70414390
3378	542 IF(SCDT(96)) 550,550,543		70414400
3379	543 SCMT(40) = SCDT(56)*SCDT(57)*EQUA(142)		70414410
3380	C EXTERIOR FINISH		70414420
3381	550 IF(SCST(41)) 560,560,551		70414430
3382	551 SCMT(41) = SCST(41)		70414440
3383	IF(SCST(41) - D(1)) 562,562,560		70414450
3384	562 SCMT(41) = TOT(1)/D(17)*EQUA(143)		70414460
3385	C INTERIOR FINISH		70414470
3386	560 IF(SCST(42)) 570,570,561		70414480
3387	561 SCMT(42) = SCST(42)		70414490
3388	IF(SCST(42) - D(1)) 562,562,570		70414500
3389	562 SCMT(42) = TOT(1)/D(17)*EQUA(144)		70414510
3390	C END SECONDARY STRUCTURE		70414520
3391	C DO CARGO FLOORS IF ANY		70414530
3392	570 IF(117) - 2) 1000,1000,579		70414540
3393	579 IF(SCST(43)) 1000,1000,571		70414550
3394	571 SCMT(43) = SCST(43)		70414560
3395	IF(SCST(43) - D(1)) 572,572,1000		70414570
3396	572 J = 1AN - 30		70414580
3397	S(1) = TOT(20)/D(12)*EQUA(145)		70414590
3398	IF(S(1) - D(1)) 573,573,574		70414600
3399	573 S(1) = D(1)		70414610
3400	574 60 TO 1575,575,576,576,577,577),J		70414620
3401	C WHEELED VEHICLE FLOOR		70414630
3402	575 SCMT(43) = SCDT(56)*EQUA(146)*S(1)*EQUA(145)		70414640
3403	60 TO 1000		70414650
3404	C BULK CARGO FLOOR		70414660
3405	576 SCMT(43) = SCDT(56)*EQUA(147)*S(1)*EQUA(145)		70414670
3406	60 TO 1000		70414680
3407	C PASSENGER FLOOR		70414690

819

04/10/74	INPUT LISTING	AUTOFLOW CHART SET - SHEEP	SECOND FUSELAGE OVERLAY
CARD NO	****	CONTENTS	****
3470		EQUIVALENCE (T1221),Z0111), (T1241),ACU111), (T1261),ACL111),	70440530
3480		11T1281),ACS111), (T1301),BU111), (T1321),BL111), (T1341),BS111),	70440540
3481		21T1361),HAR111), (T1381),DELX111), (T1401),SF111),	70440550
3482		31T1421),VOL111), (T1441),DOO111), (T1461),MO111), (T1481),RO111),	70440560
3483		41T1541),PER111), (T1561),UIX111), (T1581),UIV111), (T1601),UIZ111),	70440570
3484		EQUIVALENCE (T1621),TCU111), (T1641),TCS111), (T1661),TCL111),	70440580
3485		11T1681),TLU111), (T1701),TLS111), (T1721),TLL111),	70440590
3486		21T1741),TCF111), (T1761),TOJF111), (T1781),TOJAK111),	70440600
3487		31T1801),ALU111), (T1821),ALL111), (T1841),ALS111),	70440610
3488		41T1861),AIT111), (T1881),SRM111), (T1901),STND111),	70440620
3489		51T1921),BSTR111),	70440630
3490		EQUIVALENCE (T1921),FMP111),	70440635
3491		EQUIVALENCE (T1981),MTCU111), (T1991),MTC5111),	70440640
3492		11T1941),MTC111), (T1961),MTC111),	70440650
3493		EQUIVALENCE (T1981),MTLU111), (T1991),MTLS111),	70440660
3494		11T1921),MTLL111), (T1941),MTS111), (T1961),MTLT111),	70440670
3495		EQUIVALENCE (T1981),MTWF111), (T1991),MTJS111),	70440680
3496		EQUIVALENCE (T1991),MTBK111), (T1991),MTP111),	70440690
3497		EQUIVALENCE (T1991),SCHT111),	70440700
3498		EQUIVALENCE (TCON4001),SUPP111),	70440710
3499		EQUIVALENCE (ND150),MPAGE)	70440720
3500		EQUIVALENCE (ND1101),I), (ND1102),J), (ND1111),MC)	70440730
3501		EQUIVALENCE (ND1103),K), (ND1106),N)	70440740
3502		EQUIVALENCE (ND1141),I1111), (ND1181),I2111), (ND1181),I3111),	70440750
3503	C		70440760
3504		IF (IP1001)5001,5001,5002	
3505	5001 CONTINUE		
3506	C		70440770
3507		WRITE(6,05)	70440780
3508		05 FORMAT(1H1,3X,30H*** GENERAL CONSTRUCTION INDICATORS ***.14X,	70440800
3509		1 21H** SPRINT - (P100) **)	
3510		WRITE(6,06) (CIND(J),J=1,17)	70440820
3511		06 FORMAT(1H0,20X,12HVEHICLE TYPE,10X,F0.1/20X,	70440830
3512		11HNUMBER OF CUTS,10X,F0.1/20X,	70440840
3513		21HSHAPE CODE,20X,F0.1/20X,	70440850
3514		31HCONSTRUCTION TYPE,13X,F0.1/20X,	70440860
3515		42HCOVER DESIGN INDICATOR,0X,F0.1/20X,	70440870
3516		52HCOVER MATERIAL NUMBER,0X,F0.1/20X,	70440880
3517		62HLONGERON MATERIAL NUMBER,0X,F0.1/20X,	70440890
3518		72HMAJOR FRAME MATERIAL NUMBER,3X,F0.1/20X,	70440900
3519		82HMINOR FRAME MATERIAL NUMBER,3X,F0.1/20X,	70440910
3520		91HSPRINT CODE,20X,F0.1/20X,	70440920
3521		12HNUMBER OF PRIMARY LONGERONS,3X,F0.1/20X,	70440930
3522		22HNUMBER OF SECONDARY LONGERONS,1X,F0.1/20X,	70440940
3523		32HGENERAL DEPTH RATIO - LONGS,3X,F0.1/20X,	70440950
3524		42HNUMBER OF SHOUL RADII,0X,F0.1/20X,	70440960
3525		51HSTRIDER SPACING,14X,F0.1/20X,	70440970
3526		61HGENERAL FRAME DEPTH,11X,F0.1/20X,	70440980
3527		70HGENERAL FRAME SPACING,0X,F0.1)	70440990
3528		WRITE(6,08) CIND(31),CIND(32),CIND(33),CIND(34),CIND(35),CIND(36)	70440991
3529		08 FORMAT(20X,10HCOVER INDEX FACTOR,12X,F12.4/20X,	70440992
3530		1 21HLONGERON INDEX FACTOR,0X,F12.4/20X,	70440993
3531		2 10HJF INDEX FACTOR,14X,F12.4/20X,	70440994
3532		3 22HMINOR FRAME INDEX FACTOR,0X,F12.4/20X,	70440995
3533		4 22HMAJOR FRAME INDEX FACTOR,0X,F12.4/20X,	70440996
3534		5 21HSHOULDEAD INDEX FACTOR,0X,F12.4)	70440997
3535		WRITE(6,07) CIND(21),CIND(22),CIND(23),CIND(24),CIND(25)	70441000
3536		07 FORMAT(1/20X,24HLOCAL PANEL FLUTTER DATA/20X,	70441010
3537		91HINCH NUMBER,10X,F10.2/20X,	70441020
3538		10HMULTITUDE,0X,F0.1/20X,	70441030
3539		21HDYNAMIC PRESSURE,14X,F0.1/20X,	70441040
3540		32HCOVER MODULUS OF ELASTICITY,7X,F12.4/20X,	70441050
3541		42HSECTION OF HATCH NUMBER,0X,F11.4)	70441060
3542		WRITE(6,09) CIND(26),CIND(27),CIND(28)	70441070
3543		09 FORMAT(1/20X,28HADDITIONAL DESIGN DATA/20X,	70441080
3544		123HMAXIMUM SEA LEVEL SPEED,7X,F10.2/20X,	70441090
3545		22HMINIMUM DYNAMIC PRESSURE,0X,F0.1/20X,	70441100
3546		32HMINUT CABIN PRESSURE,10X,F10.2)	70441110
3547	C		70441120
3548	C		70441130
3549		WRITE(6,130)	70441150

IN/10/74	INPUT LISTING	AUTOFLOW CHART SET - SHEEP	SECOND FUSELAGE OVERLAY
CARD NO	****	CONTENTS	****
3950	130 FORMAT(1M1,40X,25H*** BASIC VEHICLE DATA ***.22X,		70441160
3951	1 21H** SPRINT - (P100) **		
3952	WRITE(6,132) S21(41)		70441170
3953	132 FORMAT(//20X,22HNUMBER OF CREW MEMBERS,8X,F9.1)		70441180
3954	WRITE(6,134) S21(43)		70441190
3955	134 FORMAT(20X,17HNUMBER OF ENGINES,13X,F9.1)		70441200
3956	IF(S21(43)) 137,137,135		70441210
3957	135 WRITE(6,136) S21(44),S21(45),S21(46)		70441220
3958	136 FORMAT(20X,15HENGINE DIAMETER,15X,F9.1/20X,		70441230
3959	11HENGINE FRONT FACE,13X,F9.1/20X,		70441240
3960	21HENGINE LENGTH,17X,F9.1)		70441250
3961	137 WRITE(6,138) S21(47),S21(11)		70441260
3962	138 FORMAT(20X,20HHING CHORD - SIDE OF FUSELAGE,F10.1/20X,		70441270
3963	10HHING APEX,21X,F9.1)		70441280
3964	WRITE(6,140)		70441290
3965	140 FORMAT(//25X,8HINDICATOR,3X,12H--COORDINATE,3X,10H--SIDE FUS,		70441300
3966	13X,10H--SIDE FUS)		70441310
3967	WRITE(6,141) S21(17),S21(15),S21(16)		70441320
3968	141 FORMAT (15X,8HHING DATA,10X,F7.1,10X,F9.1,4X,F9.1)		70441330
3969	WRITE(6,142) S21(2)		70441340
3970	142 FORMAT (10X,10HFRONT SPAR,10X,F9.1)		70441350
3971	WRITE(6,143) S21(3)		70441360
3972	143 FORMAT (10X,10HREAR SPAR,10X,F9.1)		70441370
3973	WRITE(6,144) S21(4)		70441380
3974	144 FORMAT (10X,10HINT. SPAR,10X,F9.1)		70441390
3975	WRITE(6,145) S21(12),S21(10),S21(11)		70441400
3976	145 FORMAT (15X,20H--HORIZONTAL TAIL DATA,F8.1,10X,F9.1,4X,F9.1)		70441410
3977	WRITE(6,142) S21(8)		70441420
3978	WRITE(6,143) S21(9)		70441430
3979	WRITE(6,146) S21(17),S21(15),S21(16)		70441440
3980	146 FORMAT (15X,10HVERTICAL TAIL DATA,F8.1,10X,F9.1,4X,F9.1)		70441450
3981	WRITE(6,142) S21(13)		70441460
3982	WRITE(6,143) S21(14)		70441470
3983	WRITE(6,147) S21(20),S21(21)		70441480
3984	147 FORMAT (15X,12HACELLE DATA,33X,F9.1,4X,F9.1)		70441490
3985	WRITE(6,148) S21(18)		70441500
3986	148 FORMAT (10X,15HFORWARD SUPPORT,13X,F9.1)		70441510
3987	WRITE(6,149) S21(19)		70441520
3988	149 FORMAT (10X,11HWAFT SUPPORT,17X,F9.1)		70441530
3989	WRITE(6,150) S21(24),S21(25)		70441540
3990	150 FORMAT (15X,17HSTORES AND OTHERS,20X,F9.1,4X,F9.1)		70441550
3991	WRITE(6,148) S21(22)		70441560
3992	WRITE(6,149) S21(23)		70441570
3993	WRITE(6,151) S21(30),S21(31)		70441580
3994	151 FORMAT (15X,14HNOSE GEAR DATA,31X,F9.1,4X,F9.1)		70441590
3995	WRITE(6,152) S21(26),S21(29),S21(30)		70441600
3996	152 FORMAT (10X,15HGROUND LOCATION,13X,F9.1,5X,F9.1,4X,F9.1)		70441610
3997	WRITE(6,153) S21(27)		70441620
3998	153 FORMAT (10X,8HTRUNION,20X,F9.1)		70441630
3999	WRITE(6,154) S21(28)		70441640
4000	154 FORMAT (10X,10HBRAG STRUT,10X,F9.1)		70441650
4001	WRITE(6,155) S21(36),S21(37)		70441660
4002	155 FORMAT (15X,14HMAIN GEAR DATA,31X,F9.1,4X,F9.1)		70441670
4003	WRITE(6,152) S21(32),S21(35),S21(36)		70441680
4004	WRITE(6,153) S21(33)		70441690
4005	WRITE(6,154) S21(34)		70441700
4006	C		70441701
4007	C		70441702
4008	WRITE(6,170)		70441703
4009	170 FORMAT(1M1,32X,4H*** SECONDARY STRUCTURE - INPUT DATA SET ***,		70441705
4010	1 12X,21H** SPRINT - (P100) **		
4011	1 //20X,37HINDICATORS AND C.G. DATA, SCOT REGION)		70441706
4012	DO 174 N=1,100,5		70441707
4013	K = N + 4		70441708
4014	WRITE(6,170) N,(SCST(J),J=4,K,1)		70441709
4015	170 FORMAT(4X,13,5F10.4)		70441710
4016	174 CONTINUE		70441711
4017	WRITE(6,170)		70441712
4018	170 FORMAT(//20X,34HGEOMETRIC DEFINITIONS, SCOT REGION)		70441713
4019	DO 176 N=1,80,5		70441714
4020	K = N + 4		70441715

04/10/74	INPUT LISTING	AUTOFLEX CHART SET - SHEEP	SECOND FUSELAGE OVERLAY
CARD NO	****	CONTENTS	****
3021		WRITE(1,70) K,SCOT(1),J,N,K,1)	70441716
3022		170 CONTINUE	70441717
3023	C		70441718
3024	C		70441719
3025		WRITE(1,80)	70441720
3026		80 FORMAT(1H1,3X,3H*** SHELL GEOMETRY - INPUT DATA SET ***,13X,	70441721
3027		1 21H** SPRINT - (P100) ***)	
3028		WRITE(1,91)	70441770
3029		91 FORMAT(1H5,5X,5HFRAME,4X,5HFRAME,4X,5HLONGERON,4X,4HDECK,7X,	70441780
3030		10HCUTOUT,4X,5HCUTOUT,4X,5HCUTOUT,4X,5HSHROUD,5X,5HCUT,4X,	70441790
3031		5HSTATION,4X,5HSPACING,5X,5HDEPTH,5X,11HDEPTH RATIO,2X,5HDEPTH,	70441800
3032		5X,5HSHAPER,5X,5HCHAM,5X,5HIDE,5X,5HRADIUS)	70441810
3033		WRITE(1,92) (1,NO(1),FRM(1),FRM(1),MTLO(1),DMT(1),CTOU(1),	70441820
3034		1CTOL(1),CTOS(1),RAD(1),1=1,NC)	70441830
3035		92 FORMAT(7X,13,2F11.1,F9.1,2F11.4,4F10.1)	70441840
3036		WRITE(1,93)	70441850
3037		93 FORMAT(1H5,15X,5HNOTES,15X,31HFRAME SPACING = 1000 INDICATES ,	70441860
3038		12HFIXED FRAME SPACING,15X,20HNEGATIVE VALUE FOR LONGERON ,	70441870
3039		25HDEPTH INDICATES ANGULAR,15X,25HLOCATION OF LONGERONS ,	70441880
3040		31HIN RADIANS,15X,37HVALUE OF 1 DESIGNATES THE REMOVAL OF ,	70441890
3041		4HRECTOR,15X,20HNEGATIVE VALUE FOR CUTOUTS AND SHROUD ,	70441900
3042		53HIN RADIUS DESIGNATES FORWARD EDGE.)	70441910
3043	C		70441920
3044	C		70441930
3045		WRITE(1,110)	70441980
3046		110 FORMAT(1H1,27X,20H*** SHELL CRITERIA AND INDICATORS - ,	70441990
3047		110HINPUT DATA SET ***,7X,21H** SPRINT - (P100) ***/21X,	
3048		20HSHAPER,2X,5HINDICATOR,12X,7HSENSITIVITY,2X,5HACOUSTIC,5X,	70441990
3049		25HSTIFFNESS REQUIREMENTS,5X,5HCUT,2X,5HSTATION,5X,5HSEAMS,5X,	70441990
3050		40HBLAKEHEAD,5X,5HPRESSURE,5X,4HFUEL,4X,5HLEVEL-08,5X,	70442000
3051		5HWEI-VERT,5X,5HWEI-SIDE,5X,5HJ)	70442010
3052		WRITE(1,120) (1,NO(1),SPN(1),BLKD(1),PRES(1),RHS(1),ACOU(1),	70442020
3053		1EIVT(1),EIBD(1),6JND(1),1=1,NC)	70442030
3054		120 FORMAT(10,F9.1,F9.1,F10.1,F12.1,F9.4,F10.1,3F13.1)	70442040
3055	C		70442050
3056	C		70442060
3057		WRITE(1,70)	70442080
3058		70 FORMAT(1H1,30X,37H*** SHELL GEOMETRY - SECTION DATA ***,	7044 090
3059		1 15X,21H** SPRINT - (P100) ****	
3060		1 5X,5HCUT,5X,4HSTA,5X,5HZO,5X,5HBU,5X,5HBL,5X,5HDS,	70442100
3061		5X,5HRCU,5X,5HCL,5X,5HRS,4X,5HSPER,5X,5HDO,5X,5HSD,5X,5HRO)	70442110
3062		J = NC + 1	70442120
3063		WRITE(1,72) (1,NO(1),ZO(1),BU(1),BL(1),DS(1),RCU(1),CL(1),	70442130
3064		1RCS(1),PER(1),DOO(1),MO(1),RO(1),1=1,J)	70442140
3065		72 FORMAT(17,12F8.1)	70442150
3066	C		70442160
3067	C		70442170
3068		WRITE(1,90)	70442190
3069		90 FORMAT(1H1,30X,40H*** SECTION DATA - GEOMETRY AND UNIT INERTIAS ,	70442200
3070		1 3H***, 5X,21H** SPRINT - (P100) ****	
3071		1 5X,5HDO,5X,4HSEAR,5X,4HDELX,5X,4HAREA,7X,	70442210
3072		5HVVOLUME,7X,4H10X,7X,4H10Y,7X,4H10Z)	70442220
3073		J = NC + 1	70442230
3074		WRITE(1,92) (1,SEAR(1),DELX(1),SF(1),VOL(1),UIX(1),UIY(1),UIZ(1),	70442240
3075		11=1,J)	70442250
3076		92 FORMAT(17,2F10.1,2F12.1,3F11.1)	70442260
3077		WRITE(1,94) TOT(1),TOT(2)	
3078		94 FORMAT(10X,5HTOTAL,12X,2F12.1)	
3079	C		70442270
3080	C		70442280
3081		WRITE(1,100)	70442300
3082		100 FORMAT(1H1,30X,37H*** SHELL GEOMETRY - SECTION DATA ***,16X,	7044 310
3083		1 21H** SPRINT - (P100) ****	
3084		1 17X,20HSECTION AREA-TORQUE,5X,	70442320
3085		5HPERIMETER,5X,10HPERIMETER-DECK,5X,15HDEPTH-EFFECT,5X,	70442330
3086		31HDEPTH-EFFECT,5X,5HCUT,1X,5HSTATION,5X,5HTOTAL,5X,5HCT F10,	70442340
3087		4X,5HCT F11,5X,5HFORWARD,5X,5HIFT,4X,5HFORWARD,5X,5HIFT,5X,	70442350
3088		5HFORWARD,4X,5HIFT,5X,5HFORWARD,4X,5HIFT)	70442360
3089		WRITE(1,101) (1,NO(1),ACRS(1),ANFT(1),ANTAI(1),PERF(1),PERAI(1),	70442370
3090		1PERF(1),PERAI(1),DEPF(1),DEPAI(1),MIDF(1),MIDAI(1),1=1,NC)	70442380
3091		101 FORMAT(17,F9.1,F9.1,2F8.1,2F8.1)	70442390

CARD NO	CONTENTS	70442391
3692	C	70442391
3693	C	70442392
3694	WRITE(6,100) FMP(14),FMP(104)	70442393
3695	100 FORMAT(1M1,30X,32H*** MISCELLANEOUS SHELL DATA ***.10X,	7044 395
3696	1 21H** SPRINT - (P(80) **)	
3697	1 35X,22H YOUNG'S MODULUS - COVER,4X,F12.1/52X,	70442397
3698	2 54LONERONS,F12.1//24X,10HPANEL SIZE,9X,11HCUTOUT DATA,7X,	70442398
3699	3 15H APPARENT CUTOUT,10X,17HBENDING STIFFNESS/5X,	70442399
3700	4 3HCUT,3X,7HSTATION,4X,5HUPPER,5X,5HLOWER,5X,5HUPPER,5X,	70442400
3701	5 5HLOWER,5X,5HUPPER,5X,5HLOWER,7X,5HVERTICAL,10X,4H5IDE)	70442401
3702	WRITE(6,102) (1,XO(1),BU(1),BL(1),CTOU(1),CTOL(1),RTU(1),	70442402
3703	1 RTL(1),E1VA(1),E1SA(1),I=1,NC)	70442403
3704	102 FORMAT(17,F10.2,2E17.7)	70442404
3705	C	70442405
3706	C	70442410
3707	WRITE(6,90)	70442430
3708	90 FORMAT(1M1,35X,37H*** SECTION DATA - SHELL ELEMENTS ***.10X,	70442440
3709	1 21H** SPRINT - (P(80) **)	
3710	WRITE(6,92)	70442480
3711	92 FORMAT(1M0,17X,5HCUT,3X,5HFRAME,5X,15HBASIC THICKNESS,8X,	70442470
3712	117H AND REQUIREMENTS,5X,5HBASIC,5X,7HTORSION/5X,3HCUT,8H STATION,	70442480
3713	26H COND.,8H SPACING,8H UPPER,4X,4H5IDE,3X,5HLOWER,3X,5HUPPER,	70442490
3714	3X,4H5IDE,3X,5HLOWER,2X,7HFLUTTER,2X,7HFORWARD,2X,3HIFT)	70442500
3715	WRITE(6,94) (1,XO(1),13(1),5HFR(1),TCU(1),TCS(1),TCL(1),TLU(1),	70442510
3716	1TLS(1),TLL(1),TCF(1),TGF(1),TGJA(1),I=1,NC)	70442520
3717	94 FORMAT(17,F8.1,16,F9.2,8F8.4)	70442530
3718	C	70442540
3719	C	70442550
3720	WRITE(6,90)	70442570
3721	WRITE(6,95)	70442580
3722	95 FORMAT(//10X,14HCRTICAL COND.,2X,13H LONG./STRING.,14X,	70442581
3723	1 2HAREA - LONGERON/STRINGER,5X,15HAREA - LONG C/O/5X,	70442582
3724	2 3HCUT,2X,7HSTATION,3X,4HDOWN,4X,2HUP,3X,11HDEPTH/SPACE,1X,	70442583
3725	3 5HUPPER,4X,5HUPPER,5X,4H5IDE,6X,5HLOWER,3X,10H LONG STIFF,2X,	70442584
3726	4 5HUPPER,5X,5HLOWER)	70442585
3727	WRITE(6,96) (1,XO(1),11(1),12(1),8HSTR(1),STNO(1),ALU(1),ALS(1),	70442586
3728	1 ALL(1),AIT(1),ALCU(1),ALCL(1),I=1,NC)	70442587
3729	96 FORMAT(17,F9.1,217,F11.2,F8.1,8F10.3)	70442588
3730	C	70442600
3731	J = NC + 1	
3732	C	70442670
3733	WRITE(6,200)	70442690
3734	200 FORMAT(1M1,30X,31H*** SHELL COMPONENT HEIGHTS ***.10X,	7044 69
3735	1 21H** SPRINT - (P(80) **)	
3736	WRITE(6,202)	70442694
3737	202 FORMAT(//40X,14HCOVER ELEMENTS,13X,5HMINOR,3X,5HJOINTS,3X,	70442695
3738	1 12H LONGITUDINAL/15X,3HSEQ,4X,3HSTA,5X,5HLENGTH,3X,5HUPPER,5X,	70442698
3739	2 4H5IDE,4X,5HLOWER,4X,5HTOTAL,4X,5HFRAMES,2X,7HSPICES,3X,	70442700
3740	3 15H PARTITIONS)	70442702
3741	WRITE(6,204) (1,HBAR(1),DELX(1),MTCU(1),MTC(1),MTCI(1),MTCY(1),	70442704
3742	1 MTHF(1),MTJB(1),MTPT(1),I=1,J)	70442708
3743	204 FORMAT(10X,17,F9.1)	70442708
3744	T(1) = SUPP(5) + SUPP(7) + SUPP(9)	70442710
3745	WRITE(6,206) SUPP(5),SUPP(7),SUPP(9),T(1),SUPP(1),SUPP(3),SUPP(9)	70442712
3746	206 FORMAT(20X,5HTOTAL,10X,7F9.1)	70442714
3747	C	70442716
3748	C	70442718
3749	WRITE(6,200)	70442724
3750	WRITE(6,210)	70442726
3751	210 FORMAT(4X,20H LONGITUDINAL MEMBERS//70X,6HCUTOUT/15X,3HSEQ,4X,	70442728
3752	1 3HSTA,5X,5HLENGTH,3X,5HUPPER,5X,4H5IDE,4X,5HLOWER,4X,	70442730
3753	2 5HUPPER,4X,5HLOWER,4X,4H5ISC,5X,5HTOTAL)	70442732
3754	WRITE(6,212) (1,HBAR(1),DELX(1),MTLU(1),MTLS(1),MTLL(1),	70442734
3755	1 MLCU(1),MLCL(1),MTST(1),MTLY(1),I=1,J)	70442736
3756	212 FORMAT(10X,17,F9.1)	70442738
3757	T(1) = SUPP(4) + SUPP(13) + SUPP(15) + SUPP(17) + SUPP(19)	70442740
3758	WRITE(6,214) SUPP(4),SUPP(13),SUPP(15),SUPP(17),SUPP(19),SUPP(31),	70442742
3759	1 SUPP(11),T(1)	70442744
3760	214 FORMAT(20X,5HTOTAL,10X,7F9.1)	70442746
3761	C	70443000
3762	C	70443010

04/10/74	INPUT LISTING	AUTOFLOW CHART SET - SHEEP	SECOND FUSELAGE OVERLAY
CARD NO	****	CONTENTS	****
3763	5062 CONTINUE		
3764	WRITE(6,300)		70443030
3765	300 FORMAT(1H1,4X,10H*** BODY GROUP ***,2X,		70443040
3766	1 10H** SPRINT ****		
3767	1 20X,20H,BULHEADS AND FRAMES)		70443050
3768	K = FPM(10)		70443060
3769	DO 310 I=1,K		70443070
3770	WRITE(6,302) FPM(1),FPM(1+75)		70443080
3771	302 FORMAT(40X,F0.2,2X,F10.1)		70443090
3772	305 CONTINUE		70443100
3773	DO 310 I=1,K		70443110
3774	IF(MTBK(1)) 310,310,320		70443120
3775	308 WRITE(6,302) MD(1),MTBK(1)		70443130
3776	310 CONTINUE		70443140
3777	WRITE(6,320) SUPP(1)		70443150
3778	320 FORMAT(20X,10HMINOR FRAMES,40X,F10.1)		70443160
3779	WRITE(6,330) SUPP(3)		70443170
3780	330 FORMAT(20X,20HJOINTS, SPLICES AND FASTENERS,20X,F10.1)		70443180
3781	WRITE(6,340) SUPP(5)		70443190
3782	340 FORMAT(20X,2HCOVERING - UPPER BETWEEN LONGERONS,10X,F10.1)		70443200
3783	WRITE(6,350) SUPP(7)		70443210
3784	350 FORMAT(20X,2H- SIDE BETWEEN LONGERONS,10X,F10.1)		70443220
3785	WRITE(6,360) SUPP(9)		70443230
3786	360 FORMAT(20X,2H- LOWER BETWEEN LONGERONS,10X,F10.1)		70443240
3787	WRITE(6,370) SUPP(11)		70443250
3788	370 FORMAT(20X,4HCOVERING LONGITUDINAL STIFFENERS - UPPER BETH.,		70443260
3789	10X LONG.,F10.1)		70443270
3790	WRITE(6,380) SUPP(13)		70443280
3791	380 FORMAT(20X,10H- SIDE BETH. LONG.,F11.1)		70443290
3792	WRITE(6,390) SUPP(15)		70443300
3793	390 FORMAT(20X,10H- LOWER BETH. LONG.,F10.1)		70443310
3794	WRITE(6,400) SUPP(17)		70443320
3795	400 FORMAT(20X,17HLONGERONS - UPPER,20X,F10.1)		70443330
3796	WRITE(6,410) SUPP(19)		70443340
3797	410 FORMAT(20X,2H- LOWER,20X,F10.1)		70443350
3798	WRITE(6,420) SUPP(21)		70443360
3799	420 FORMAT(20X,11HENGINE DRAG,40X,F10.1)		70443370
3800	WRITE(6,430) SUPP(19)		70443380
3801	430 FORMAT(20X,20HLONGITUDINAL PARTITIONS - (STRUCTURAL),10X,F10.1)		70443390
3802	WRITE(6,440) SUPP(27)		70443400
3803	440 FORMAT(20X,41HFLOORING AND SUPPORTS - (BASIC STRUCTURE),11X,		70443410
3804	IF10.1)		70443420
3805	WRITE(6,450) SUPP(25)		70443430
3806	450 FORMAT(20X,8HFITTINGS,44X,F10.1)		70443440
3807	WRITE(6,460) SUPP(1)		70443450
3808	460 FORMAT(20X,20HTOTAL - BASIC STRUCTURE,20X,F10.1)		70443460
3809	C		70443470
3810	C		70443480
3811	WRITE(6,500)		70443500
3812	500 FORMAT(1H1,4X,10H*** BODY GROUP ***,32X,10H** SPRINT **		
3813	1 40X,10HSECONDARY STRUCTURE//20X,		
3814	20HENCLOSURES (EXCLUDING TURRET ENCLOSURES))		70443530
3815	WRITE(6,501) SCHT(1)		70443540
3816	501 FORMAT(20X,14HCANOPY - PILOT,20X,F10.1)		70443560
3817	IF(SCHT(2)) 504,504,502		70443580
3818	502 WRITE(6,503) SCHT(2)		70443570
3819	503 FORMAT(20X,10HCANOPY - NAVIGATOR,31X,F10.1)		70443590
3820	504 WRITE(6,505) SCHT(3)		70443600
3821	505 FORMAT(20X,40HWINDOWFIELD (EXCLUDING BULLET PROTECTION),12X,		70443610
3822	IF10.1)		70443610
3823	WRITE(6,506) SCHT(4)		70443620
3824	506 FORMAT(20X,20HWINDOWS AND PORTS INCL. FRAMES,20X,F10.1)		70443630
3825	IF(SCHT(5)) 510,510,507		70443640
3826	507 WRITE(6,509) SCHT(5)		70443650
3827	509 FORMAT(20X,20HWINDOWS AND PORTS - CABIN,27X,F10.1)		70443660
3828	510 WRITE(6,511) SCHT(6)		70443670
3829	511 FORMAT(20X,40HFLOORING AND SUPPORTS (SECONDARY STRUCTURE),5X,		70443680
3830	IF10.1)		70443680
3831	WRITE(6,512) SCHT(7)		70443700
3832	512 FORMAT(20X,20HSTAIRWAYS AND LADDERS (FIXED),23X,F10.1)		70443710
3833	IF(SCHT(8)) 516,516,514		70443720

04/10/74	INPUT LISTING	AUTOFLOW CHART SET - SKEEP	SECOND FUSELAGE OVERLAY
CARD NO	****	CONTENTS	****
3034	514 WRITE(6,515) SCMT(0)		70443750
3035	515 FORMAT(//20X,11HNOSE RADOME,41X,F10.1)		70443760
3036	516 IF(SCMT(0)) 520,520,518		70443750
3037	518 WRITE(6,519) SCMT(0)		70443760
3038	519 FORMAT(20X,11HTAIL RADOME,41X,F10.1)		70443770
3039	520 IF(SCMT(10)) 524,524,522		70443780
3040	522 WRITE(6,523) SCMT(10)		70443790
3041	523 FORMAT(20X,12H15C. RADOME,40X,F10.1)		70443800
3042	524 WRITE(6,525) SCMT(11)		70443810
3043	525 FORMAT(//20X,37HSPEED BRAKES - STRUCTURE AND SUPPORTS,15X,F10.1)		70443820
3044	IF(SCMT(12)) 528,528,526		70443830
3045	526 WRITE(6,527) SCMT(12)		70443840
3046	527 FORMAT(//20X,34HOTHER,47X,F10.1)		70443850
3047	528 WRITE(6,530) SUPP(63)		70443860
3048	530 FORMAT(//20X,25HOTAL SECONDARY STRUCTURE,37X,F10.1)		70443870
3049	C		70443880
3050	C		70443890
3051	WRITE(6,600)		70443910
3052	600 FORMAT(11H,46X,18H*** BODY GROUP ***33X,12H** SPRINT **		
3053	1 46X,18HSECONDARY STRUCTURE/30X,		
3054	233HDOORS, PANELS AND MISCELLANEOUS//60X,11HAREA=50.FT./20X,	70443940	
3055	318HDOORS AND FRAMES)	70443950	
3056	WRITE(6,601) SCOT(23),SCMT(13)	70443980	
3057	601 FORMAT(26X,11H- MAIN GEAR,23X,F8.1,4X,F10.1)	70443970	
3058	WRITE(6,603) SCOT(24),SCMT(14)	70443980	
3059	603 FORMAT(26X,11H- NOSE GEAR,23X,F8.1,4X,F10.1)	70443990	
3060	IF(SCMT(15)) 606,606,604	70444000	
3061	604 WRITE(6,605) SCOT(25),SCMT(15)	70444010	
3062	605 FORMAT(//26X,11H- AFT CARGO,23X,F8.1,4X,F10.1)	70444020	
3063	606 IF(SCMT(16)) 610,610,608	70444030	
3064	608 WRITE(6,609) SCOT(26),SCMT(16)	70444040	
3065	609 FORMAT(//26X,12H- SIDE CARGO,22X,F8.1,4X,F10.1)	70444050	
3066	610 IF(SCMT(17)) 614,614,612	70444060	
3067	612 WRITE(6,613) SCOT(27),SCMT(17)	70444070	
3068	613 FORMAT(26X,10H- FWD RAMP,24X,F8.1,4X,F10.1)	70444080	
3069	614 IF(SCMT(18)) 618,618,616	70444090	
3070	616 WRITE(6,617) SCOT(28),SCMT(18)	70444100	
3071	617 FORMAT(26X,9H- TOW,25X,F8.1,4X,F10.1)	70444110	
3072	618 IF(SCMT(19)) 622,622,620	70444120	
3073	620 WRITE(6,621) SCOT(30),SCMT(19)	70444130	
3174	621 FORMAT(26X,10H- AFT RAMP,24X,F8.1,4X,F10.1)	70444140	
3175	622 IF(SCMT(20)) 626,626,624	70444150	
3076	624 WRITE(6,617) SCOT(32),SCMT(20)	70444160	
3077	625 IF(SCMT(21)) 630,630,628	70444170	
3078	628 WRITE(6,629) SCOT(33),SCMT(21)	70444180	
3079	629 FORMAT(26X,10H- PRESSURE,24X,F8.1,4X,F10.1)	70444190	
3080	630 WRITE(6,631) SCOT(37),SCMT(22)	70444200	
3081	631 FORMAT(//26X,8H- BOMB,28X,F8.1,4X,F10.1)	70444210	
3082	WRITE(6,633) SCMT(23)	70444220	
3083	633 FORMAT(//26X,9H- GUN,41X,F10.1)	70444230	
3084	WRITE(6,635) SCMT(24)	70444240	
3085	635 FORMAT(26X,8H- APPO,40X,F10.1)	70444250	
3086	T(1) = SCOT(48)*SCOT(41)	70444260	
3087	WRITE(6,637) T(1),SCMT(25)	70444285	
3088	637 FORMAT(26X,8H- ESCAPE,28X,F8.1,4X,F10.1)	70444270	
3089	IF(SCMT(26)) 640,640,638	70444280	
3090	638 T(1) = SCOT(42)*SCOT(43)	70444290	
3091	WRITE(6,637) T(1),SCMT(26)	70444295	
3092	640 IF(SCMT(27)) 644,644,642	70444300	
3093	642 T(1) = SCOT(44)*SCOT(45)	70444310	
3094	WRITE(6,643) T(1),SCMT(27)	70444315	
3095	643 FORMAT(26X,11H- PARATROOP,23X,F8.1,4X,F10.1)	70444320	
3096	644 T(1) = SCOT(46)*SCOT(47)	70444330	
3097	WRITE(6,645) T(1),SCMT(28)	70444335	
3098	645 FORMAT(//26X,10H- ENTRANCE,24X,F8.1,4X,F10.1)	70444340	
3099	WRITE(6,647) SCMT(38)	70444350	
3100	647 FORMAT(//26X,8H- ACCESS,30X,F10.1)	70444360	
3101	IF(SCMT(31)) 650,650,648	70444370	
3102	648 WRITE(6,649) SCMT(31)	70444380	
3103	649 FORMAT(26X,8H- I.F.R.,38X,F10.1)	70444390	
3104	650 IF(SCMT(32)) 654,654,652	70444400	

04/10/74	INPUT LISTING	AUTOFLOW CHART SET - SHEEP	SECOND FUSELAGE OVERLAY
CARD NO	****	CONTENTS	****
3005	052 WRITE(5,053) SCOT(40),SCMT(32)		7044410
3006	053 FORMAT(26X,04- R.A.T.,26X,F0.1,4X,F10.1)		7044420
3007	054 IF(SCMT(33)) 055,055,060		7044430
3008	055 WRITE(5,061) SCOT(50),SCMT(33)		7044440
3009	061 FORMAT(26X,04- ENGINE,26X,F0.1,4X,F10.1)		7044450
3010	055 IF(SCMT(34)) 056,056,056		7044460
3011	056 WRITE(5,057) SCOT(51),SCMT(34)		7044470
3012	057 FORMAT(26X,11M- ACCESSORY,23X,F0.1,4X,F10.1)		7044480
3013	056 WRITE(5,058)		7044490
3014	059 FORMAT(20X,23PANELS (NON STRUCTURAL))		7044500
3015	IF(SCMT(20)) 064,064,062		7044510
3016	062 WRITE(5,063) SCMT(20)		7044520
3017	063 FORMAT(26X,10M- SPOILER DEFLECTOR,27X,F10.1)		7044530
3018	064 IF(SCMT(35)) 065,065,066		7044540
3019	065 WRITE(5,067) SCMT(35)		7044550
3020	067 FORMAT(26X,13M- HEAT SHIELD,33X,F10.1)		7044560
3021	066 IF(SCMT(36)) 072,072,070		7044570
3022	070 WRITE(5,071) SCOT(53),SCMT(36)		7044580
3023	071 FORMAT(26X,15M- MAIN GEAR POD,19X,F0.1,4X,F10.1)		7044590
3024	072 IF(SCMT(38)) 076,076,074		7044600
3025	074 WRITE(5,075) SCOT(55),SCMT(38)		7044610
3026	075 FORMAT(26X,04- DORSAL,26X,F0.1,4X,F10.1)		7044620
3027	076 WRITE(5,077) SCMT(38)		7044630
3028	077 FORMAT(20X,20MALIGNWAYS, STEPS, GRIPS,30X,F10.1)		7044640
3029	IF(SCMT(40)) 080,080,078		7044650
3030	078 WRITE(5,079) SCMT(40)		7044660
3031	079 FORMAT(20X,20MANTI-SKID PROTECTION,32X,F10.1)		7044670
3032	080 WRITE(5,081) SCMT(37)		7044680
3033	081 FORMAT(20X,19MFAIRING AND FILLETS,33X,F10.1)		7044690
3034	WRITE(5,083) SCMT(41)		7044700
3035	083 FORMAT(20X,15MEXTERIOR FINISH,37X,F10.1)		7044710
3036	WRITE(5,085) SCMT(42)		7044720
3037	085 FORMAT(20X,15MINTERIOR FINISH,37X,F10.1)		7044730
3038	WRITE(5,086) SUPP(05)		7044740
3039	086 FORMAT(20X,40MTOTAL SECONDARY STRUCTURE (DOORS, PANELS, MISC.),		7044750
3040	1 14X,F10.1)		7044760
3041	WRITE(5,460) SUPP(61)		7044770
3042	WRITE(5,530) SUPP(63)		7044780
3043	WRITE(5,682) SUPP(67)		7044790
3044	082 FORMAT(20X,18MTOTAL - BODY GROUP,44X,F10.1)		7044800
3045	C		7044810
3046	WRITE(5,700)		7044820
3047	700 FORMAT(11M,46X,18M*** BODY GROUP *** 33X,12M** SPRINT **/6X,		
3048	1 12MBALANCE DATA//73X,04MHEIGHT,5X,10MHORIZ. ARM)		7044870
3049	WRITE(5,702) SUPP(21),SUPP(22)		7044880
3050	702 FORMAT(26X,20MBULLEADS AND FRAMES,20X,F12.2)		7044890
3051	WRITE(5,704) SUPP(3),SUPP(4)		7044900
3052	704 FORMAT(26X,20MJOINTS, SPLICES AND FASTENERS,11X,F12.2)		7044910
3053	WRITE(5,706) SUPP(1),SUPP(2)		7044920
3054	706 FORMAT(26X,12MINNER FRAMES,20X,F12.2)		7044930
3055	WRITE(5,708) SUPP(5),SUPP(6),SUPP(7),SUPP(8),SUPP(9),SUPP(10)		7044940
3056	708 FORMAT(26X,10MCOVERING - UPPER,24X,F12.2/36X,4MSIDE,25X,F12.2/		7044950
3057	1 36X,5MLOWER,24X,F12.2)		7044960
3058	WRITE(5,710) SUPP(41),SUPP(42),SUPP(43),SUPP(44),SUPP(45),		7044970
3059	1 SUPP(46),SUPP(47),SUPP(48),SUPP(49),SUPP(50)		7044980
3060	710 FORMAT(26X,37MLONGERONS AND LONGITUDINAL STIFFENERS,3X,F12.2/		7044990
3061	1 68X,F12.2/68X,F12.2/68X,F12.2/68X,F12.2/68X,F12.2)		7045010
3062	WRITE(5,712) SUPP(23),SUPP(24)		7045020
3063	712 FORMAT(26X,11MENGINE CRAD,25X,F12.2)		7045030
3064	WRITE(5,714) SUPP(19),SUPP(20)		7045040
3065	714 FORMAT(26X,23MLONGITUDINAL PARTITIONS,17X,F12.2)		7045050
3066	WRITE(5,716) SUPP(27),SUPP(28)		7045060
3067	716 FORMAT(26X,21MFLOORING AND SUPPORTS,18X,F12.2)		7045070
3068	WRITE(5,718) SUPP(25),SUPP(26)		8045080
3069	718 FORMAT(26X,04MFITTINGS,32X,F12.2)		7045090
3070	WRITE(5,720) SUPP(51),SUPP(52)		7045100
3071	720 FORMAT(10X,21MTOTAL BASIC STRUCTURE,29X,F12.2)		7045110
3072	WRITE(5,702)		7045120
3073	702 FORMAT(20X,10MSECONDARY STRUCTURE)		7045130
3074	WRITE(5,704) (SCMT(1),SCMT(1-50),1-1,12)		7045140
3075	704 FORMAT(6X,F12.2)		7045150

04/10/74	INPUT LISTING	AUTOFLOW CHART SET - SHEEP	SECOND FUELAGE OVERLAY
CARD NO	****	CONTENTS	****
4047	SUPH(3) = SUPH(3) + MTJ5(1)		70430510
4048	S(2) = S(2) + MTJ5(1)*COJ5(1)		70430520
4049	SUPH(5) = SUPH(5) + MTCU(1)		70430530
4050	S(3) = S(3) + MTCU(1)*COCO(1)		70430540
4051	SUPH(7) = SUPH(7) + MTC5(1)		70430550
4052	S(4) = S(4) + MTC5(1)*COCO(1)		70430560
4053	SUPH(9) = SUPH(9) + MTCL(1)		70430570
4054	S(5) = S(5) + MTCL(1)*COCO(1)		70430580
4055	SUPH(11) = SUPH(11) + MTST(1)		70430590
4056	S(6) = S(6) + MTST(1)*H2AR(1)		70430600
4057	SUPH(13) = SUPH(13) + MTLU(1)		70430610
4058	S(7) = S(7) + MTLU(1)*COLO(1)		70430620
4059	SUPH(15) = SUPH(15) + MTL5(1)		70430630
4060	S(8) = S(8) + MTL5(1)*COLO(1)		70430640
4061	SUPH(17) = SUPH(17) + MTL1(1)		70430650
4062	S(9) = S(9) + MTL1(1)*COLO(1)		70430660
4063	SUPH(19) = SUPH(19) + MTP7(1)		70430670
4064	S(10) = S(10) + MTP7(1)*H2AR(1)		70430680
4065	SUPH(20) = SUPH(20) + MLCU(1)		70430682
4066	S(15) = S(15) + MLCU(1)*COLO(1)		70430684
4067	SUPH(31) = SUPH(31) + MLC1(1)		70430686
4068	S(18) = S(18) + MLC1(1)*COLO(1)		70430688
4069	100 CONTINUE		70430690
4070	S(12) = SUPH(23)*SUPH(24)		70430698
4071	S(13) = SUPH(25)*SUPH(26)		70430702
4072	DO 110 I=1,NC		70430704
4073	SUPH(21) = SUPH(21) + MTBK(1)		70430706
4074	S(11) = S(11) + MTBK(1)*XD(1)		70430708
4075	110 CONTINUE		70430710
4076	J = FPM7(9)		70430720
4077	DO 120 I=1,J		70430720
4078	SUPH(21) = SUPH(21) + FPM7(1)*75		70430740
4079	S(11) = S(11) + FPM7(1)*75)*FPM7(1)		70430750
4080	120 CONTINUE		70430760
4081	SUPH(2) = S(1)/SUPH(1)		70430770
4082	SUPH(4) = S(2)/SUPH(3)		70430780
4083	SUPH(6) = S(3)/SUPH(5)		70430790
4084	SUPH(8) = S(4)/SUPH(7)		70430800
4085	SUPH(10) = S(5)/SUPH(9)		70430810
4086	IF(SUPH(11)) 124,124,122		70430812
4087	122 SUPH(12) = S(6)/SUPH(11)		70430814
4088	124 CONTINUE		70430816
4089	SUPH(14) = S(7)/SUPH(13)		70430820
4090	IF(SUPH(15)) 132,132,131		70430830
4091	131 SUPH(16) = S(8)/SUPH(15)		70430870
4092	132 CONTINUE		70430880
4093	SUPH(18) = S(9)/SUPH(17)		70430890
4094	SUPH(20) = S(10)/SUPH(19)		70430900
4095	SUPH(22) = S(11)/SUPH(21)		70430910
4096	SUPH(27) = SCHT(43)		70430920
4097	SUPH(28) = SCST(93)		70430930
4098	S(14) = SUPH(27)*SUPH(28)		70430932
4099	IF(SUPH(29)) 135,135,134		70430934
4100	134 SUPH(30) = S(15)/SUPH(29)		70430936
4101	135 CONTINUE		70430938
4102	IF(SUPH(31)) 139,139,138		70430940
4103	138 SUPH(32) = S(16)/SUPH(31)		70430942
4104	139 CONTINUE		70430944
4105	DO 150 I=1,16		70430946
4106	J = 1*2 - 1		70430948
4107	SUPH(61) = SUPH(61) + SUPH(J)		70430950
4108	S(31) = S(31) + S(1)		70430952
4109	150 CONTINUE		70430958
4110	SUPH(62) = S(31)/SUPH(61)		70430960
4111	DO 200 I=1,12		70431000
4112	SUPH(63) = SUPH(63) + SCHT(1)		70431010
4113	S(32) = S(32) + SCHT(1)*SCST(1)*90		70431020
4114	200 CONTINUE		70431030
4115	DO 300 I=13,42		70431040
4116	SUPH(66) = SUPH(66) + SCHT(1)		70431050
4117	S(33) = S(33) + SCHT(1)*SCST(1)*90		70431060

829

APPENDIX B

FUSELAGE MODULE SAMPLE OUTPUT

Sample fuselage module outputs are shown in
Figures B-1 through B-32.

*** DATA FROM LOADS PROGRAM TRANSFERRED TO FUSELAGE PROGRAM IN RECORD 33 ***

CONDITION	LDY	LDC	TEMP	FAC1	FN70	FMYN	ONOT	QVEL	SSPD	STPK	MACH	ALT	P7N	XCPN	P7R4	XCP4
1	2.	1.	95.3	1.50	2.50	0.00	0.000	0.000	0.00	0.00	.6000	0.	17625.	319.57	73848.	791.95
2	0.	0.	0.0	0.00	0.00	0.00	0.000	0.000	0.00	0.00	0.0000	0.	0.	0.00	0.	0.00
3	2.	1.	90.0	1.50	2.50	0.00	0.000	0.000	0.00	0.00	.A700	22500.	14613.	319.57	75673.	828.57
4	0.	0.	0.0	0.00	0.00	0.00	0.000	0.000	0.00	0.00	0.0000	0.	0.	0.00	0.	0.00
5	0.	0.	0.0	0.00	0.00	0.00	0.000	0.000	0.00	0.00	0.0000	0.	0.	0.00	0.	0.00
6	2.	1.	92.7	1.50	-1.00	0.00	0.000	0.000	0.00	0.00	.5740	0.	-7150.	319.57	-29517.	790.91
7	0.	0.	0.0	0.00	0.00	0.00	0.000	0.000	0.00	0.00	0.0000	0.	0.	0.00	0.	0.00
8	2.	2.	90.0	1.50	2.00	0.00	0.000	0.000	0.00	0.00	.3334	0.	-2894.	319.57	59624.	822.90
9	2.	3.	90.0	1.50	1.00	0.00	0.000	0.000	10.00	28.00	.1869	0.	768.	319.57	26299.	814.27
10	2.	4.	92.7	1.50	2.47	0.00	-910	0.000	0.00	0.00	.5740	0.	19151.	319.57	66904.	790.91
11	2.	4.	90.0	1.50	2.90	0.00	-1.257	0.000	0.00	0.00	.A140	20000.	17541.	319.57	75635.	809.73
12	0.	0.	0.0	0.00	0.00	0.00	0.000	0.000	0.00	0.00	0.0000	0.	0.	0.00	0.	0.00
13	2.	0.	0.0	0.00	0.00	0.00	0.000	0.000	0.00	0.00	0.0000	0.	0.	0.00	0.	0.00
14	2.	4.	92.7	1.50	-47	0.00	.910	0.000	0.00	0.00	.5740	0.	-4851.	319.57	-7849.	790.91
15	2.	4.	90.0	1.50	-80	0.00	1.257	0.000	0.00	0.00	.A140	20000.	-5543.	319.57	-15796.	809.73
16	0.	0.	0.0	0.00	0.00	0.00	0.000	0.000	0.00	0.00	0.0000	0.	0.	0.00	0.	0.00
17	0.	0.	0.0	0.00	0.00	0.00	0.000	0.000	0.00	0.00	0.0000	0.	0.	0.00	0.	0.00
18	2.	5.	92.7	1.50	1.00	.20	0.000	-207	0.00	0.00	.5740	0.	7150.	319.57	29517.	790.91
19	2.	5.	90.0	1.50	1.00	.20	0.000	-225	0.00	0.00	.A140	20000.	5999.	319.57	29919.	809.73
20	2.	6.	95.3	1.50	1.25	0.00	.500	0.000	0.00	0.00	.6000	0.	9549.	319.57	40021.	791.95
21	2.	6.	90.0	1.50	1.25	0.00	.500	0.000	0.00	0.00	.A700	22500.	7913.	319.57	40979.	828.57
22	0.	0.	0.0	0.00	0.00	0.00	0.000	0.000	0.00	0.00	0.0000	0.	0.	0.00	0.	0.00
23	0.	0.	0.0	0.00	0.00	0.00	0.000	0.000	0.00	0.00	0.0000	0.	0.	0.00	0.	0.00
24	2.	8.	90.0	1.50	2.00	0.00	0.000	0.000	0.00	0.00	0.0000	0.	0.	0.00	0.	0.00

Figure B-1. Sample output from FUSLD of input loads data (IP71)).

CONDITION	P7WR	YCPW	YCPN	P7M	XCPM	YCPM	PV	XCPV	ZCPV	WING	APEX
1	709740.	975.16	467.05	-10982.	1821.66	137.22	0.	1704.	0.00	648.76	
2	0.	0.00	0.00	0.	0.00	0.00	0.	0.	0.00	0.00	
3	740902.	1003.74	455.27	-40938.	1827.35	135.30	0.	1712.	0.00	648.76	
4	0.	0.00	0.00	0.	0.00	0.00	0.	0.	0.00	0.00	
5	0.	0.00	0.00	0.	0.00	0.00	0.	0.	0.00	0.00	
6	-283445.	974.34	467.34	-4013.	1821.53	137.25	0.	1704.	0.00	648.76	
7	0.	0.00	0.00	0.	0.00	0.00	0.	0.	0.00	0.00	
8	598165.	967.80	386.32	-19095.	1821.30	137.15	0.	1704.	0.00	648.76	
9	240696.	969.07	406.38	-8264.	1821.54	137.00	0.	1704.	0.00	648.76	
10	642457.	974.34	467.34	53042.	1821.53	137.25	0.	1704.	0.00	648.76	
11	734101.	988.33	462.24	58633.	1823.96	136.52	0.	1707.	0.00	648.76	
12	0.	0.00	0.00	0.	0.00	0.00	0.	0.	0.00	0.00	
13	0.	0.00	0.00	0.	0.00	0.00	0.	0.	0.00	0.00	
14	-75567.	974.34	467.34	-61067.	1821.53	137.25	0.	1704.	0.00	648.76	
15	-153318.	988.33	462.24	-79053.	1823.96	136.52	0.	1707.	0.00	648.76	
16	0.	0.00	0.00	0.	0.00	0.00	0.	0.	0.00	0.00	
17	0.	0.00	0.00	0.	0.00	0.00	0.	0.	0.00	0.00	
18	283445.	974.34	467.34	-4013.	1821.53	137.25	49063.	1704.	422.03	648.76	
19	290391.	988.33	462.24	-10210.	1823.96	136.52	52875.	1707.	419.47	648.76	
20	384534.	975.16	467.05	-38979.	1821.66	137.22	0.	1704.	0.00	648.76	
21	401221.	1003.74	456.27	-54988.	1827.35	135.30	0.	1712.	0.00	648.76	
22	0.	0.00	0.00	0.	0.00	0.00	0.	0.	0.00	0.00	
23	0.	0.00	0.00	0.	0.00	0.00	0.	0.	0.00	0.00	
24	0.	0.00	0.00	0.	0.00	0.00	0.	0.	0.00	0.00	

Figure B-1. Sample output from FUSLD of input loads data (IP(71)) (concl).

*** FUSFLAGE INERTIA AND WEIGHT DISTRIBUTION DATA IN RECORD 34 ***

	DESIGN WEIGHT WING AFT	DESIGN WEIGHT WING FWD	MANEUVER WEIGHT	LANDING WEIGHT	TAXI WEIGHT
	CONDITIONS 1,2,3,4,6, 10,11,14,15, 18,19,20,21, 22 AND 23	CONDITIONS 5,7,12,13, 16 AND 17	CONDITION 8	CONDITION 9	CONDITION 24
DGW	316100.0	316100.0	318000.0	257500.0	318000.0
XCG	931.7	931.7	931.5	925.2	931.5
YCG	0.0	0.0	0.0	0.0	0.0
ZCG	249.4	249.4	249.6	241.5	249.6
TIXX	0.0	0.0	0.0	0.0	0.0
TIYY	22698979270.4	22698979270.4	22718643671.9	21813300366.4	22718643671.9
TIZZ	58349433314.7	58349433314.7	55127068408.7	45204722855.2	55127068408.7
WWT	186454.3	186454.3	188354.3	127854.3	188354.3
XWCG	929.5	929.5	929.3	915.4	929.3
YWCG	387.2	387.2	386.2	382.2	386.2
ZWCG	267.5	267.5	267.7	259.9	267.7
WIOX	0.0	0.0	0.0	0.0	0.0
WIOY	3406602196.6	3406602196.6	3424365211.3	2561897132.6	3424365211.3
WIOZ	39795144607.5	39795144607.5	40017623620.1	26628390966.4	40017623620.1
HWT	4677.5	4677.5	4677.5	4677.5	4677.5
XHCG	1842.6	1842.6	1842.6	1842.6	1842.6
YHCG	100.7	100.7	100.7	100.7	100.7
ZHCG	558.7	558.7	558.7	558.7	558.7
HIOX	0.0	0.0	0.0	0.0	0.0
HIOY	7340897.9	7340897.9	7340897.9	7340897.9	7340897.9
HIOZ	78479871.9	78479871.9	78479871.9	78479871.9	78479871.9

Figure B-2. Sample output from FUSLD of input inertia data (IP(71)).

VWT	2645.2	2645.2	2645.2	2645.2	2645.2
XVCG	1742.2	1742.2	1742.2	1742.2	1742.2
YVCG	0.0	0.0	0.0	0.0	0.0
ZVCG	376.9	376.9	376.9	376.9	376.9
VIOX	0.0	0.0	0.0	0.0	0.0
VIOY	218A5513.9	218A5513.9	218A5513.9	218A5513.9	218A5513.9
VIOZ	10960898.1	10960898.1	10960898.1	10960898.1	10960898.1
AIWT	0.0	0.0	0.0	0.0	0.0
XACG	0.0	0.0	0.0	0.0	0.0
YACG	0.0	0.0	0.0	0.0	0.0
ZACG	0.0	0.0	0.0	0.0	0.0
AIOX	0.0	0.0	0.0	0.0	0.0
AIOY	0.0	0.0	0.0	0.0	0.0
AIOZ	0.0	0.0	0.0	0.0	0.0
STWT	0.0	0.0	0.0	0.0	0.0
XST	0.0	0.0	0.0	0.0	0.0
YST	0.0	0.0	0.0	0.0	0.0
ZST	0.0	0.0	0.0	0.0	0.0
SIOX	0.0	0.0	0.0	0.0	0.0
SIOY	0.0	0.0	0.0	0.0	0.0
SIOZ	0.0	0.0	0.0	0.0	0.0

Figure B-2. Sample output from FUSLD of input inertia data (IP(71)) (concl).

*** FUSFLAGE INERTIA AND WEIGHT DISTRIBUTION DATA IN RECORD 34 ***

	DESIGN WEIGHT WING AFT	DESIGN WEIGHT WING FWD	MANEUVER WEIGHT	LANDING WEIGHT	TAXI WEIGHT
	CONDITIONS	CONDITIONS	CONDITION 8	CONDITION 9	CONDITION 24
	1.2,3.4.6, 10.11.14,15, 18.19.20.21, 22 AND 23	5.7.12.13, 16 AND 17			
WFC(1)	1349.9	1349.9	1349.9	1349.9	1349.9
WFC(2)	2557.7	2557.7	2557.7	2557.7	2557.7
WFC(3)	127.5	127.5	127.5	127.5	127.5
WFC(4)	8145.5	8145.5	8145.5	8145.5	8145.5
WFC(5)	9726.1	9726.1	9726.1	9726.1	9726.1
WFC(6)	9703.7	9703.7	9703.7	9703.7	9703.7
WFC(7)	309.3	309.3	309.3	309.3	309.3
WFC(8)	9241.8	9241.8	9241.8	9241.8	9241.8
WFC(9)	16192.2	16192.2	16192.2	16192.2	16192.2
WFC(10)	582.1	582.1	582.1	582.1	582.1
WFC(11)	5202.5	5202.5	5202.5	5202.5	5202.5
WFC(12)	366.2	366.2	366.2	366.2	366.2
WFC(13)	13574.5	13574.5	13574.5	13574.5	13574.5
WFC(14)	15640.1	15640.1	15640.1	15640.1	15640.1
WFC(15)	232.2	232.2	232.2	232.2	232.2
WFC(16)	334.1	334.1	334.1	334.1	334.1
WFC(17)	3.5	3.5	3.5	3.5	3.5
WFC(18)	267.7	267.7	267.7	267.7	267.7
WFC(19)	10.9	10.9	10.9	10.9	10.9
WFC(20)	201.6	201.6	201.6	201.6	201.6

Figure B-3. Sample output from FUSLD of input inertia and speed-altitude profile data (IP(71)).

WFUS(1)	183.0	183.0	183.0	183.0	183.0
WFUS(2)	746.4	746.4	746.4	746.4	746.4
WFUS(3)	48.6	48.6	48.6	48.6	48.6
WFUS(4)	1367.6	1367.6	1367.6	1367.6	1367.6
WFUS(5)	2521.0	2521.0	2521.0	2521.0	2521.0
WFUS(6)	2647.7	2647.7	2647.7	2647.7	2647.7
WFUS(7)	86.1	86.1	86.1	86.1	86.1
WFUS(8)	2503.5	2503.5	2503.5	2503.5	2503.5
WFUS(9)	2764.9	2764.9	2764.9	2764.9	2764.9
WFUS(10)	105.5	105.5	105.5	105.5	105.5
WFUS(11)	964.8	964.8	964.8	964.8	964.8
WFUS(12)	108.9	108.9	108.9	108.9	108.9
WFUS(13)	4090.9	4090.9	4090.9	4090.9	4090.9
WFUS(14)	3567.4	3567.4	3567.4	3567.4	3567.4
WFUS(15)	2206.1	2206.1	2206.1	2206.1	2206.1
WFUS(16)	3587.6	3587.6	3587.6	3587.6	3587.6
WFUS(17)	40.8	40.8	40.8	40.8	40.8
WFUS(18)	670.9	670.9	670.9	670.9	670.9
WFUS(19)	23.6	23.6	23.6	23.6	23.6
WFUS(20)	318.7	318.7	318.7	318.7	318.7

ALTITUDE	MACH NO.	Q
0.0	.6000	533.3
5000.0	.6499	520.5
10000.0	.7060	507.8
15000.0	.7638	494.1
20000.0	.8400	480.3
21250.0	.8548	471.9
22500.0	.8700	463.5
36250.0	.8700	248.5
50000.0	.8700	128.3
0.0	0.0000	64.4

Figure B-3. Sample output from FUSLD of input inertia and speed-altitude profile data (IP(71)) (concl).

COVER MATERIAL DATA. MATL NO. 4--

7075-T6 AL CLAN SHEET 0.040 TO 0.062 IN. MTL-WORK-5 R DATA EST.
REF. TABLE 3.2.7.0(C) PAGE 336 A-00-72

```
TFMP.= 90.00  NFENSITY= .1010  MU= .3305
```

	A	B	E	E' (RT)	G (RT)
COMPRESSION	.21026216E-10	.2A262543F-03	10500010.5	10700000.0	4022560.0
TENSION	.21026216E-10	.2A262543F-03	10500010.5		
	EPS (P)	EPS (Y)	F (2)	F (3)	F (4)
COMPRESSION	.003A10	.00A190	51200.0	59000.0	62900.0
TENSION	.003A10	.00A190	51200.0	59000.0	62900.0
					F (Y)
					65000.0
					65000.0

FT11= 73000.0 FS11= 44000.0 FARI1= 139000.0

[illegible]

Tm	.0500	.0400	.0400	.0600	.1000	.0300	.0640	.0800	.1560
10	.0590	.0400	.0400	.0600	.1000	.0300	.0640	.0800	.1560
20	.0800	.1560	.1560	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

*** MATL TEMPERATURE ERROR ***

MATL NO. 5.0 THERE IS ONE TEMPERATURE ON FILE
 RECD. TEMP. = 95.3 ASSUMED TEMP. = 80.0

Figure B-4. Sample output from MATLPI of cover material data (IP(72)).

CASE 1
- - - - LONGERON MATERIAL DATA. MATL NO. 5- - - -
7075-T6 AL RARE PLATE 0.25 TO 0.50 IN. MIL-HDBK-5 A DATA FST.
REF. TABLE 3.2.7.0 (M) PAGE 334 4-06-72

TEMP.= 90.00 DENSITY= .1010 MUZ .3300

COMPRESSION	A	R	E	F (PT)	G (RT)
	.13136662E-08	.20050470E-03	1050000.0	1050000.0	3900000.0
TENSION	.13136662E-08	.20050470E-03	1050000.0		

COMPRESSION	EPS (P)	EPS (Y)	F (P)	F (2)	F (3)	F (4)	F (Y)
	.005000	.008762	52500.0	59700.0	65000.0	6A750.0	71000.0
TENSION	.005000	.008762	52500.0	59700.0	65000.0	6A750.0	71000.0

FTII= 79000.0 FSI= 47000.0 FARU= 142000.0

[illegible]

Time	0.400	0.600	1.000	0.300	0.640	0.900	1.560
10	0.0500	0.0400	0.0600	0.1000	0.0640	0.0900	0.1560
20	0.0800	0.1560	0.0000	0.0000	0.0000	0.0000	0.0000

Figure B-5. Sample output from MATLP1 of longeron material data (IP(72)).

CASE 1

MATERIAL PROPERTY DATA. MATI NO. 5

PAGE 3

7075-T6 AL RARE PLATE 0.25 TO 0.50 IN. MIL-MORAK-5 R DATA FST.
REF. TABLE 3.2.7.0(R) PAGE 334 4-AK-72

TEMP.= 80.00 DENSITY= .1010 WUE= .3300

	A	R	E	F(1)	G(1)
COMPRESSION	.13136662E-08	.20050470E-03	10500000.0	10500000.0	3900000.0
TENSION	.13136662E-08	.20050470E-03	10500000.0		
	EPS(D)	EPS(Y)	F(D)	F(2)	F(3)
COMPRESSION	.005000	.004760	52500.0	59700.0	65000.0
TENSION	.005000	.004760	52500.0	59700.0	65000.0
				F(4)	F(5)
				68750.0	71000.0
				68750.0	71000.0

FTUE= 75000.0 FSUE= 47000.0 FRUE= 142000.0

TM

1	.00000000E+02	.33000000E+00	.13136662E-08	.20050470E-03	.10500000E+08
6	.71000000E+05	.13136662E-08	.20050470E-03	.10500000E+08	.71000000E+05
11	.10100000E+00	.79000000E+05	.52500000E+05	.10500000E+08	.39000000E+07
16	.47000000E+05	.14200000E+08	.22500000E+00	.75000000E+00	.50000000E+00
21	0.	0.	0.	0.	0.
26	0.	0.	0.	0.	0.

TMO

10	.0500	.0400	.0600	.1000	.0640	.0800	.1560
20	.0800	.1560	0.0000	0.0000	0.0000	0.0000	0.0000

*** MATERIAL TEMPERATURE PROPERTIES ***

MATI NO. 4.0 THERE IS ONE TEMPERATURE ON FILE
DEFN. TEMP. = 95.0 ASSUMED TEMP. = 80.0

Figure B-6. Sample output from MATPL1 of major frame material data (IP(72)).

---MATERIAL DATA. MATI NO. 4-44-

3075-14 AL CLAD SHEET 0.040 TO 0.062 IN. MIL-HRAK-5 R DATA EST.
DEF. TABLE 3.2.7.0(C) PAGE 336 A-00-72

TFWR = 90.00 DENSITY = .1010 MW = .3305

	A	B	E	F (PT)	G (RT)
COMPRESSION	.21026216F-10	.28262543F-03	10500010.5	10700000.0	4022560.0
TENSION	.21026216F-10	.28262543F-03	10500010.5		

	F (P)	EPS (Y)	F (P)	F (2)	F (3)	F (4)	F (Y)
COMPRESSION	.003210	.004190	40000.0	51200.0	59000.0	62900.0	65000.0
TENSION	.003310	.004190	40000.0	51200.0	59000.0	62900.0	65000.0

FTYJ= 73000.0 FSU= 44000.0 FARI= 139000.0

1	.90000000F+02	.33050000E+00	.21026216E-10	.28262543E-03	.10500011E+08
6	.65000000E+05	.21026216E-10	.28262543E-03	.10500011E+08	.65000000F+05
11	.10100000F+00	.73000000E+05	.40000000E+05	.10700000E+08	.40225600E+07
16	.44000000F+05	.13900000E+06	.29447180E+00	.76000000E+00	.28740965E+00
21	0.	0.	0.	0.	0.
26	0.	0.	0.	0.	0.

	.9590	.0400	.0600	.1000	.0300	.0640	.0800	.1560
10	.0400	.0400	.0000	.0000	.0000	.0000	.0000	.0000
20	.0800	.1560	.0000	.0000	.0000	.0000	.0000	.0000

Figure B-7. Sample output from SPRINT of shell geometry data (IP(72)).

TMS	REGION	LCN = 14							
1		.80000000E+02	.33050000E+00	.21026216E-10	.28262543E-03	.28262543E-03	.10500011E+08	.10500011E+08	
6		.65000000E+05	.21026216E-10	.28262543E-03	.28262543E-03	.10500011E+08	.65000000E+05	.65000000E+05	
11		.10100000E+00	.73000000E+05	.40000000E+05	.40000000E+05	.10700000E+08	.40225600E+07	.40225600E+07	
16		.44000000E+05	.13900000E+06	.29447180E+00	.29447180E+00	.76000000E+00	.28740965E+00	.28740965E+00	
21		0.	0.	0.	0.	0.	0.	0.	
26		0.	0.	0.	0.	0.	0.	0.	
31		.80000000E+02	.33000000E+00	.13136662E-08	.20050470E-03	.20050470E-03	.10500000E+08	.10500000E+08	
36		.71000000E+05	.13136662E-08	.20050470E-03	.20050470E-03	.10500000E+08	.71000000E+05	.71000000E+05	
41		.10100000E+00	.79000000E+05	.52500000E+05	.52500000E+05	.10500000E+08	.39000000E+07	.39000000E+07	
46		.47000000E+05	.14200000E+06	.22500000E+00	.22500000E+00	.76000000E+00	.50000000E+00	.50000000E+00	
51		0.	0.	0.	0.	0.	0.	0.	
56		0.	0.	0.	0.	0.	0.	0.	
61		.80000000E+02	.33000000E+00	.13136662E-08	.20050470E-03	.20050470E-03	.10500000E+08	.10500000E+08	
66		.71000000E+05	.13136662E-08	.20050470E-03	.20050470E-03	.10500000E+08	.71000000E+05	.71000000E+05	
71		.10100000E+00	.79000000E+05	.52500000E+05	.52500000E+05	.10500000E+08	.39000000E+07	.39000000E+07	
76		.47000000E+05	.14200000E+06	.22500000E+00	.22500000E+00	.76000000E+00	.50000000E+00	.50000000E+00	
81		0.	0.	0.	0.	0.	0.	0.	
86		0.	0.	0.	0.	0.	0.	0.	
91		.80000000E+02	.33050000E+00	.21026216E-10	.28262543E-03	.28262543E-03	.10500011E+08	.10500011E+08	
96		.65000000E+05	.21026216E-10	.28262543E-03	.28262543E-03	.10500011E+08	.65000000E+05	.65000000E+05	
101		.10100000E+00	.73000000E+05	.40000000E+05	.40000000E+05	.10700000E+08	.40225600E+07	.40225600E+07	
106		.44000000E+05	.13900000E+06	.29447180E+00	.29447180E+00	.76000000E+00	.28740965E+00	.28740965E+00	
111		0.	0.	0.	0.	0.	0.	0.	
116		0.	0.	0.	0.	0.	0.	0.	

Figure B-8. Sample output from MFCNTL of component material data (IP(73)).

*** LOADS ARRAY ***

CASE NO 14 LOAD TYPE A DATA TYPE 2
 NGW = 318000.0 C.G. = 931.5 N7 = 2.0 QDOT = 0.000 MN = 0.00 ALT. = 0.0 TEMP = 80.0

STATION	SFGMENT	THETA	V7-RH	V7-LH	VY-RH	VY-LH	MX-RH	MX-LH	MY-COUPLF
351.0	3.0	2.761	45101.8	45101.8	0.0	0.0	0.0	0.0	-338263.7
0.0	0.0	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
998.0	12.0	2.279	476743.6	476743.6	0.0	0.0	17472043.0	-17472043.0	0.0
1058.0	13.0	2.279	-44845.4	-44845.4	0.0	0.0	0.0	0.0	0.0
734.0	7.0	.744	-36202.9	-36202.9	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
958.0	10.0	.744	-246328.6	-246328.6	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1641.0	17.0	.701	9892.0	9892.0	0.0	0.0	0.0	0.0	0.0
1728.0	19.0	.810	-20876.0	-20876.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0

CUT/SEG	STATION	WT FUS	WT CONT.	VZ-CONT.	AIRLOAD	SHEAR-VZ	MOMENT-MY
1	272.0	183.0	1349.0	-4049.8	0.0	-4592.6	-63767.8
2	349.0	746.4	2557.7	-7673.0	0.0	-14510.9	-799483.7
3	353.0	48.6	127.5	-382.4	0.0	75164.6	-1016439.9
4	452.0	1367.6	8145.5	-24436.5	0.0	46625.3	5012159.4
5	600.0	2521.0	9726.1	-29178.4	0.0	983.9	9193841.2
6	732.0	2647.7	9703.7	-29111.1	0.0	-27170.3	8052942.5
7	736.0	86.1	309.3	-927.8	0.0	-100762.2	7797077.6
8	846.0	2503.5	9241.8	-27725.4	0.0	-135998.1	-5224737.3
9	956.0	2764.9	16192.2	-48576.7	0.0	-192869.7	-27312466.5
10	960.0	105.5	582.1	-1746.2	0.0	-687589.5	-25073384.9
11	996.0	964.8	5202.5	-15607.4	0.0	-706091.3	-50159638.5
12	1000.0	108.9	366.2	-1098.6	0.0	245970.6	-51079880.0
13	1142.0	4090.9	13574.5	-40723.4	0.0	103283.7	-27448808.9
14	1292.0	3567.4	15640.1	-46920.4	0.0	45661.2	-16277943.3
15	1398.0	2206.1	232.2	-696.5	0.0	38346.5	-11825539.3
16	1639.0	3587.6	334.1	-1002.3	0.0	26581.2	-4001752.2
17	1643.0	40.8	3.5	-10.5	0.0	46232.4	-3856125.0
18	1726.0	670.9	267.7	-803.0	0.0	43416.6	-135691.1
19	1730.0	23.6	10.9	-32.7	0.0	1561.0	-45735.9
20	1817.9	318.7	201.6	0.0	0.0	0.0	0.0

Figure B-9. Sample output from FUSLD of ultimate shell loads data (IP(74)).

LOAD CONDITION NO. 14

DGW.	POUNDS	INPUT	CORRECTED
XCG.	INCHES	318000.00	318000.00
ZCG.	INCHES	931.54	931.54
TIYY.	LR-IN**4	249.58	249.58
ODOT.	RAD/SEC SQ	22718643671.91	22718643671.91
PZWR.	POUNDS	0.00	0.00
XCPW.	INCHES	0.00	0.00
		0.00	0.00

Figure B-10. Sample output from DUMV1 of vehicle balance corrections (IP(74)).

```

FUSELAGE STATION = 1724.00

GEOMETRY TYPE IS ROUNDED RECTANGLE

HOR17 FLAT = .07  RADIUS = 24.41  VERT FLAT = .07

LOAD SETS = 14  LOAD PNTS = 2

LOAD SET 1  TEMPERATURE = 95.3
LOAD PT.    THETA  VERTICAL FORCE  HOR17. FORCE  MOMENT
1           46.42  -.43198554E+05  0.          0.
2           313.58  -.43198554E+05  0.          0.

LOAD SET 2  TEMPERATURE = 80.0
LOAD PT.    THETA  VERTICAL FORCE  HOR17. FORCE  MOMENT
1           46.42  -.91861066E+05  0.          0.
2           313.58  -.91861066E+05  0.          0.

LOAD SET 3  TEMPERATURE = 92.7
LOAD PT.    THETA  VERTICAL FORCE  HOR17. FORCE  MOMENT
1           46.42  .16683016E+05  0.          0.
2           313.58  .16683016E+05  0.          0.

LOAD SET 4  TEMPERATURE = 80.0
LOAD PT.    THETA  VERTICAL FORCE  HOR17. FORCE  MOMENT
1           46.42  -.50556935E+05  0.          0.
2           313.58  -.50556935E+05  0.          0.

```

Figure B-11. Sample output from FRMND1 and FRFME of frame shape parameters and external loads data (IP(75)).

LOAD SET 5	TEMPERATURE = 80.0				
LOAD PT.	THETA	VERTICAL FORCE	HOR17. FORCE	MOMENT	
1	46.42	-.37621726E+05	0.	0.	
2	313.52	-.37621726E+05	0.	0.	
LOAD SET 6	TEMPERATURE = 92.7				
LOAD PT.	THETA	VERTICAL FORCE	HOR17. FORCE	MOMENT	
1	46.42	.24323490E+05	0.	0.	
2	313.52	.24323490E+05	0.	0.	
LOAD SET 7	TEMPERATURE = 80.0				
LOAD PT.	THETA	VERTICAL FORCE	HOR17. FORCE	MOMENT	
1	46.42	.18441204E+05	0.	0.	
2	313.52	.18441204E+05	0.	0.	
LOAD SET 8	TEMPERATURE = 92.7				
LOAD PT.	THETA	VERTICAL FORCE	HOR17. FORCE	MOMENT	
1	46.42	-.57689522E+05	0.	0.	
2	313.52	-.57689522E+05	0.	0.	
LOAD SET 9	TEMPERATURE = 80.0				
LOAD PT.	THETA	VERTICAL FORCE	HOR17. FORCE	MOMENT	
1	46.42	-.71523926E+05	0.	0.	
2	313.52	-.71523926E+05	0.	0.	

Figure B-11. Sample output from FRMND1 and FFRME of frame shape parameters and external loads data (IP(75)) (cont).

LOAD SFT 10						TEMPERATURE = 92.7		
LOAD PT.		THETA	VERTICAL FORCE	HOR17. FORCE	MOMENT			
1		46.42	-.16683016E+05	-.27208668E+05	-.27675314E+07			
2		313.58	-.16683016E+05	-.27208668E+05	-.27675314E+07			
LOAD SFT 11						TEMPERATURE = 80.0		
LOAD PT.		THETA	VERTICAL FORCE	HOR17. FORCE	MOMENT			
1		46.42	-.26541361E+05	-.30285791E+05	-.29030895E+07			
2		313.58	-.26541361E+05	-.30285791E+05	-.29030895E+07			
LOAD SFT 12						TEMPERATURE = 95.3		
LOAD PT.		THETA	VERTICAL FORCE	HOR17. FORCE	MOMENT			
1		46.42	-.55937786E+05	0.	0.			
2		313.58	-.55937786E+05	0.	0.			
LOAD SFT 13						TEMPERATURE = 80.0		
LOAD PT.		THETA	VERTICAL FORCE	HOR17. FORCE	MOMENT			
1		46.42	-.83568975E+05	0.	0.			
2		313.58	-.83568975E+05	0.	0.			
LOAD SFT 14						TEMPERATURE = 80.0		
LOAD PT.		THETA	VERTICAL FORCE	HOR17. FORCE	MOMENT			
1		46.42	-.20876049E+05	0.	0.			
2		313.58	-.20876049E+05	0.	0.			

Figure B-11. Sample output from FRMD1 and FRFME of frame shape parameters and external loads data (IP(75)) (concl).

LOAD SFT = 1							
CUT	VRAR	ZRAR	DELS	MOMENT	AXIAL	SHEAR	
1	3.817	24.079	6.792	-.1242291E+05	-.1411616E+05	.2303989E+04	
2	11.077	21.734	6.784	.9113448E+04	-.1106601E+05	.6348015E+04	
3	17.252	17.252	6.784	.5207119E+05	.6722544E+04	-.6722543E+04	
4	21.734	11.077	6.784	.2871536E+05	.2800045E+05	-.1155286E+05	
5	24.079	3.817	6.792	-.4251417E+05	.2525297E+05	-.2358767E+04	
6	24.079	-3.817	6.792	-.6119250E+05	.1742869E+05	.4303915E+04	
7	21.734	-11.077	6.784	-.4344738E+05	.1051168E+05	.8015752E+04	
8	17.252	-17.252	6.784	-.7709821E+04	.8550452E+04	.8550452E+04	
9	11.077	-21.734	6.784	.2796591E+05	.1106601E+05	.6348015E+04	
10	3.817	-24.079	6.792	.4950227E+05	.1411616E+05	.2303989E+04	
11	-3.817	-24.079	6.792	.4950227E+05	.1411616E+05	-.2303989E+04	
12	-11.077	-21.734	6.784	.2796591E+05	.1106601E+05	-.6348015E+04	
13	-17.252	-17.252	6.784	-.7709821E+04	.8550452E+04	-.8550452E+04	
14	-21.734	-11.077	6.784	-.4344738E+05	.1051168E+05	-.8015752E+04	
15	-24.079	-3.817	6.792	-.6119250E+05	.1742869E+05	-.4303915E+04	
16	-24.079	3.817	6.792	-.4251417E+05	.2525297E+05	.2358767E+04	
17	-21.734	11.077	6.784	.2871536E+05	.2800045E+05	.1155286E+05	
18	-17.252	17.252	6.784	.5207119E+05	.6722544E+04	-.6722543E+04	
19	-11.077	21.734	6.784	.2871536E+05	.2800045E+05	-.1155286E+05	
20	-3.817	24.079	6.792	-.4251417E+05	.2525297E+05	.2358767E+04	

Figure B-12. Sample output from FRMLD of frame coordinates and internal loads (IP(76)).

LOAD SET = 2

CUT	YBAP	ZRAR	NELS	MOMENT	AXIAL	SHFAR
1	3.817	24.079	6.792	-.2641714E+05	-.3001780E+05	.4899397E+04
2	11.077	21.734	6.784	.1937961E+05	-.2353170E+05	.1349896E+05
3	17.252	17.252	6.784	.1107286E+06	.1429539E+05	-.1429539E+05
4	21.734	11.077	6.784	.6106278E+05	.5954253E+05	-.2456698E+05
5	24.079	3.817	6.792	-.9040574E+05	.5370005E+05	-.5015883E+04
6	24.079	-3.817	6.792	-.1301249E+06	.3706184E+05	.9152209E+04
7	21.734	-11.077	6.784	-.9239020E+05	.2235293E+05	.1704537E+05
8	17.252	-17.252	6.784	-.1639482E+05	.1818240E+05	.1818240E+05
9	11.077	-21.734	6.784	.5946908E+05	.2353170E+05	.1349896E+05
10	3.817	-24.079	6.792	.1052658E+06	.3001780E+05	.4899397E+04
11	-3.817	-24.079	6.792	.1052658E+06	.3001780E+05	-.4899397E+04
12	-11.077	-21.734	6.784	.5946908E+05	.2353170E+05	-.1349896E+05
13	-17.252	-17.252	6.784	-.1639482E+05	.1818240E+05	-.1818240E+05
14	-21.734	-11.077	6.784	-.9239020E+05	.2235293E+05	-.1704537E+05
15	-24.079	-3.817	6.792	-.1301249E+06	.3706184E+05	-.9152209E+04
16	-24.079	3.817	6.792	-.9040574E+05	.5370005E+05	.5015883E+04
17	-21.734	11.077	6.784	.6106278E+05	.5954253E+05	.2456698E+05
18	-17.252	17.252	6.784	.1107286E+06	.1429539E+05	.1429539E+05
19	-11.077	21.734	6.784	.1937961E+05	-.2353170E+05	-.1349896E+05
20	-3.817	24.079	6.792	-.2641714E+05	-.3001780E+05	-.4899397E+04

Figure B-12. Sample output from FRM.D of frame coordinates and internal loads (IP(76)) (cont).

LOAD SFT = 3						
CHIT	YRAP	ZRAP	DELS	MOMENT	AXIAL	SHFAR
1	3.817	24.079	6.792	.4797653F+04	.5451574E+04	-.8897864E+03
2	11.077	21.734	6.784	-.3519558F+04	.4273626F+04	-.2451564E+04
3	17.252	17.252	6.784	-.2010958F+05	-.2596205E+04	.2596205E+04
4	21.734	11.077	6.784	-.1108970F+05	-.1081360E+05	.4461644E+04
5	24.079	3.817	6.792	.1641871F+05	-.9752541F+04	.9109415E+03
6	24.079	-3.817	6.792	.2363217F+05	-.6730852E+04	-.1662145E+04
7	21.734	-11.077	6.784	.1677911F+05	-.4059547E+04	-.3095634E+04
8	17.252	-17.252	6.784	.2977486F+04	-.3302132F+04	-.3302132E+04
9	11.077	-21.734	6.784	-.1080026E+05	-.4273626F+04	-.2451564F+04
10	3.817	-24.079	6.792	-.1911747E+05	-.5451574E+04	-.8897864E+03
11	-3.817	-24.079	6.792	-.1911747E+05	-.5451574F+04	.8897864E+03
12	-11.077	-21.734	6.784	-.1080026E+05	-.4273626F+04	.2451564F+04
13	-17.252	-17.252	6.784	.2977486F+04	-.3302132F+04	.3302132F+04
14	-21.734	-11.077	6.784	.1677911F+05	-.4059547F+04	.3095634E+04
15	-24.079	-3.817	6.792	.2363217E+05	-.6730852F+04	.1662145E+04
16	-24.079	3.817	6.792	.1641871E+05	-.9752541E+04	-.9109415E+03
17	-21.734	11.077	6.784	-.1108970F+05	-.1081360E+05	-.4461644E+04
18	-17.252	17.252	6.784	-.2010958F+05	-.2596205E+04	-.2596205E+04
19	-11.077	21.734	6.784	-.3519558F+04	.4273626E+04	.2451564E+04
20	-3.817	24.079	6.792	.4797653F+04	.5451574E+04	.8897864E+03

Figure B-12. Sample output from FRMLD of frame coordinates and internal loads (IP(76) (cont)).

LOAD SET = 4

CUT	YRPR	ZRPR	DELS	MOMENT	AXIAL	SHFAP
1	3.817	24.079	6.792	-.1453901E+05	-.1652069E+05	.2696447E+04
2	11.077	21.734	6.784	.1066582E+05	-.1295099E+05	.7429326E+04
3	17.252	17.252	6.784	.6094093E+05	.7867653E+04	-.7867652E+04
4	21.734	11.077	6.784	.3360670E+05	.3277001E+05	-.1352076E+05
5	24.079	3.817	6.792	-.4975598E+05	.2955452E+05	-.2760557E+04
6	24.079	-3.817	6.792	-.7161594E+05	.2039747E+05	.5037038E+04
7	21.734	-11.077	6.784	-.5084815E+05	.1230223E+05	.9381143E+04
8	17.252	-17.252	6.784	-.9023101E+04	.1000692E+05	.1000692E+05
9	11.077	-21.734	6.784	.3272959E+05	.1295099E+05	.7429326E+04
10	3.817	-24.079	6.792	.5793442E+05	.1652069E+05	.2696447E+04
11	-3.817	-24.079	6.792	.5793442E+05	.1652069E+05	-.2696447E+04
12	-11.077	-21.734	6.784	.3272959E+05	.1295099E+05	-.7429326E+04
13	-17.252	-17.252	6.784	-.9023101E+04	.1000692E+05	-.1000692E+05
14	-21.734	-11.077	6.784	-.5084815E+05	.1230223E+05	-.9381143E+04
15	-24.079	-3.817	6.792	-.7161594E+05	.2039747E+05	-.5037038E+04
16	-24.079	3.817	6.792	-.4975598E+05	.2955452E+05	.2760557E+04
17	-21.734	11.077	6.784	.3360670E+05	.3277001E+05	.1352076E+05
18	-17.252	17.252	6.784	.6094093E+05	.7867653E+04	.7867652E+04
19	-11.077	21.734	6.784	.1066582E+05	-.1295099E+05	-.7429326E+04
20	-3.817	24.079	6.792	-.1453901E+05	-.1652069E+05	-.2696447E+04

Figure B-12. | Sample output from FRMLD of frame coordinates and internal loads (IP(76)) (cont).

LOAD SET = 5

CHIT	YRAP	ZRAP	NELS	MOMENT	AXIAL	SHFAP
1	3.817	24.079	6.792	-.1081915E+05	-.1229380E+05	.2006550E+04
2	11.077	21.734	6.784	.7936924E+04	-.9637417E+04	.5528501E+04
3	17.252	17.252	6.784	.4534893E+05	.5854680E+04	-.5854680E+04
4	21.734	11.077	6.784	.2500828E+05	.2438566E+05	-.1006142E+05
5	24.079	3.817	6.792	-.3702570E+05	.2199287E+05	-.2054256E+04
6	24.079	-3.817	6.792	-.5329270E+05	.1517869E+05	.3748290E+04
7	21.734	-11.077	6.784	-.3783843E+05	.9154650E+04	.6980938E+04
8	17.252	-17.252	6.784	-.6714502E+04	.7446609E+04	.7446609E+04
9	11.077	-21.734	6.784	.2435558E+05	.9637417E+04	.5528501E+04
10	3.817	-24.079	6.792	.4311165E+05	.1229380E+05	.2006550E+04
11	-3.817	-24.079	6.792	.4311165E+05	.1229380E+05	-.2006550E+04
12	-11.077	-21.734	6.784	.2435558E+05	.9637417E+04	-.5528501E+04
13	-17.252	-17.252	6.784	-.6714502E+04	.7446609E+04	-.7446609E+04
14	-21.734	-11.077	6.784	-.3783843E+05	.9154650E+04	-.6980938E+04
15	-24.079	-3.817	6.792	-.5329270E+05	.1517869E+05	-.3748290E+04
16	-24.079	3.817	6.792	-.3702570E+05	.2199287E+05	.2054256E+04
17	-21.734	11.077	6.784	.2500828E+05	.2438566E+05	.1006142E+05
18	-17.252	17.252	6.784	.4534893E+05	.5854680E+04	.5854680E+04
19	-11.077	21.734	6.784	.7936924E+04	-.9637417E+04	-.5528501E+04
20	-3.817	24.079	6.792	-.1081915E+05	-.1229380E+05	-.2006550E+04

Figure B-12. Sample output from FRMLD of frame coordinates and internal loads (IP(76) (cont)).

LOAD SET = 6

CUT	YBAR	ZBAR	NELS	MOMENT	AXIAL	SHFAR
1	3.817	24.079	6.792	.6994878E+04	.7948281E+04	-.1297290E+04
2	11.077	21.734	6.784	-.5131442E+04	.6230357E+04	-.3574329E+04
3	17.252	17.252	6.784	-.2931934E+05	-.3785213E+04	.3785213E+04
4	21.734	11.077	6.784	-.1614855E+05	-.1576601E+05	.6504994E+04
5	24.079	3.817	6.792	.2393814E+05	-.1421900E+05	.1328134E+04
6	24.079	-3.817	6.792	.3445521E+05	-.9813442E+04	-.2423373E+04
7	21.734	-11.077	6.784	.2446360E+05	-.5918735E+04	-.4513370E+04
8	17.252	-17.252	6.784	.4341112E+04	-.4814439E+04	-.4814439E+04
9	11.077	-21.734	6.784	-.1574656E+05	-.6230857E+04	-.3574329E+04
10	3.817	-24.079	6.792	-.2787288E+05	-.7948281E+04	-.1297290E+04
11	-3.817	-24.079	6.792	-.2787288E+05	-.7948281E+04	.1297290E+04
12	-11.077	-21.734	6.784	-.1574656E+05	-.6230857E+04	.3574329E+04
13	-17.252	-17.252	6.784	.4341112E+04	-.4814439E+04	.4814439E+04
14	-21.734	-11.077	6.784	.2446360E+05	-.5918735E+04	.4513370E+04
15	-24.079	-3.817	6.792	.3445521E+05	-.9813442E+04	.2423373E+04
16	-24.079	3.817	6.792	.2393814E+05	-.1421900E+05	-.1328134E+04
17	-21.734	11.077	6.784	-.1616855E+05	-.1576601E+05	-.6504984E+04
18	-17.252	17.252	6.784	-.2931934E+05	-.3785213E+04	-.3785213E+04
19	-11.077	21.734	6.784	-.5131442E+04	.6230857E+04	.3574329E+04
20	-3.817	24.079	6.792	.6994878E+04	.7948281E+04	.1297290E+04

Figure B-12. Sample output from FRMLD of frame coordinates and internal loads (IP(76)) (cont).

LOAD SET = 7		YRAB	ZRAB	DELS	MOMENT	AXIAL	SHFAR
CUT							
1	3.817	24.079	6.792	.5303267E+04	.6026104E+04	-.9935590E+03	
2	11.077	21.734	6.784	-.3890476E+04	.4724014E+04	-.2709929E+04	
3	17.252	17.252	6.784	-.2222884E+05	-.2869814E+04	.2869814E+04	
4	21.734	11.077	6.784	-.1225842E+05	-.1195323E+05	.4931847E+04	
5	24.079	3.817	6.792	.1814905E+05	-.1078034E+05	.1006944E+04	
6	24.079	-3.817	6.792	.2612271E+05	-.7440202E+04	-.1837315E+04	
7	21.734	-11.077	6.784	.1854743E+05	-.4487374E+04	-.3421876E+04	
8	17.252	-17.252	6.784	.3291277E+04	-.3650137E+04	-.3650137E+04	
9	11.077	-21.734	6.784	-.1193848E+05	-.4724014E+04	-.2709929E+04	
10	3.817	-24.079	6.792	-.2113222E+05	-.6026104E+04	-.9835590E+03	
11	-3.817	-24.079	6.792	-.2113222E+05	-.6026104E+04	.9835590E+03	
12	-11.077	-21.734	6.784	-.1193848E+05	-.4724014E+04	.2709929E+04	
13	-17.252	-17.252	6.784	.3291277E+04	-.3650137E+04	.3650137E+04	
14	-21.734	-11.077	6.784	.1854743E+05	-.4487374E+04	.3421876E+04	
15	-24.079	-3.817	6.792	.2612271E+05	-.7440202E+04	.1837315E+04	
16	-24.079	3.817	6.792	.1814905E+05	-.1078034E+05	-.1006944E+04	
17	-21.734	11.077	6.784	-.1225842E+05	-.1195323E+05	-.4931847E+04	
18	-17.252	17.252	6.784	-.2222884E+05	-.2869814E+04	-.2869814E+04	
19	-11.077	21.734	6.784	-.3890476E+04	.4724014E+04	.2709929E+04	
20	-3.817	24.079	6.792	.5303267E+04	.6026104E+04	.9835590E+03	

Figure B-12. Sample output from FRMLD of frame coordinates and internal loads (IP(76)) (cont).

LOAD SET = 8									
CUT	YRPR	ZRPR	DELS	MOMENT	AXIAL	SHEAR			
1	3.817	24.079	6.792	-.1659018E+05	-.1885143E+05	.3076863E+04			
2	11.077	21.734	6.784	.1217056E+05	-.1477811E+05	.8477458E+04			
3	17.252	17.252	6.784	.6953849E+05	.8977623E+04	-.8977623E+04			
4	21.734	11.077	6.784	.3834794E+05	.3739321E+05	-.1542827E+05			
5	24.079	3.817	6.792	-.5677557E+05	.3372408E+05	-.3150017E+04			
6	24.079	-3.817	6.792	-.8171954E+05	.2327515E+05	.5747664E+04			
7	21.734	-11.077	6.784	-.5802182E+05	.1403783E+05	.1070464E+05			
8	17.252	-17.252	6.784	-.1029608E+05	.1141870E+05	.1141870E+05			
9	11.077	-21.734	6.784	.3734708E+05	.1477811E+05	.8477458E+04			
10	3.817	-24.079	6.792	.6610783E+05	.1885143E+05	.3076863E+04			
11	-3.817	-24.079	6.792	.6610783E+05	.1885143E+05	-.3076863E+04			
12	-11.077	-21.734	6.784	.3734708E+05	.1477811E+05	-.8477458E+04			
13	-17.252	-17.252	6.784	-.1029608E+05	.1141870E+05	-.1141870E+05			
14	-21.734	-11.077	6.784	-.5802182E+05	.1403783E+05	-.1070464E+05			
15	-24.079	-3.817	6.792	-.8171954E+05	.2327515E+05	-.5747664E+04			
16	-24.079	3.817	6.792	-.5677557E+05	.3372408E+05	.3150017E+04			
17	-21.734	11.077	6.784	.3834794E+05	.3739321E+05	.1542827E+05			
18	-17.252	17.252	6.784	.6953849E+05	.8977623E+04	.8977623E+04			
19	-11.077	21.734	6.784	.1217056E+05	-.1477811E+05	-.8477458E+04			
20	-3.817	24.079	6.792	-.1659018E+05	-.1885143E+05	-.3076863E+04			

Figure B-12. Sample output from FRMLD of frame coordinates and internal loads (IP(76)) (cont).

LOAD SET = 9

CUT	YRAP	ZRAP	DELS	MOMENT	AXIAL	SHEAR
1	3.817	24.079	6.792	-.2056864F+05	-.2337215E+05	.3814719E+04
2	11.077	21.734	6.784	.1508915F+05	-.1832202F+05	.1051042F+05
3	17.252	17.252	6.784	.8621437F+05	.1113053E+05	-.1113053F+05
4	21.734	11.077	6.784	.4754408E+05	.4636040F+05	-.1912809E+05
5	24.079	3.817	6.792	-.7039080F+05	.4181139E+05	-.3905416F+04
6	24.079	-3.817	6.792	-.1013165F+06	.2885671F+05	.7126000E+04
7	21.734	-11.077	6.784	-.7193591E+05	.1740421E+05	.1327169E+05
8	17.252	-17.252	6.784	-.1276517E+05	.1415700E+05	.1415700E+05
9	11.077	-21.734	6.784	.4630321E+05	.1832202E+05	.1051042E+05
10	3.817	-24.079	6.792	.8196100F+05	.2337215E+05	.3814719E+04
11	-3.817	-24.079	6.792	.8196100F+05	.2337215E+05	-.3914719F+04
12	-11.077	-21.734	6.784	.4630321E+05	.1832202E+05	-.1051042F+05
13	-17.252	-17.252	6.784	-.1276517E+05	.1415700E+05	-.1415700E+05
14	-21.734	-11.077	6.784	-.7193591F+05	.1740421F+05	-.1327169E+05
15	-24.079	-3.817	6.792	-.1013165E+06	.2885671F+05	-.7126000E+04
16	-24.079	3.817	6.792	-.7039080F+05	.4181139F+05	.3905416E+04
17	-21.734	11.077	6.784	.4754408F+05	.4636040F+05	.1912809E+05
18	-17.252	17.252	6.784	.8621437F+05	.1113053E+05	.1113053E+05
19	-11.077	21.734	6.784	.1508915E+05	-.1832202E+05	-.1051042E+05
20	-3.817	24.079	6.792	-.2056864F+05	-.2337215E+05	-.3814719E+04

Figure B-12. Sample output from FRMLD of frame coordinates and internal loads (IP(76)) (cont).

LOAD SET = 10

CUT	YBAR	ZRAP	DELS	MOMENT	AXIAL	SHEAR
1	3.817	24.079	6.792	-.3641323E+06	.1866516E+05	-.9679277E+05
2	11.077	21.734	6.784	-.1060509E+07	.6094903E+05	-.9146281F+05
3	17.252	17.252	6.794	-.2660957E+06	.7947595E+05	-.7947595E+05
4	21.734	11.077	6.784	.6497548E+06	.8246831E+05	-.5606301E+05
5	24.079	3.817	6.792	.2817340E+06	.6808807E+05	-.3664116E+05
6	24.079	-3.817	6.792	.4261853E+05	.4359407E+05	-.1933389E+05
7	21.734	-11.077	6.784	-.8264890E+05	.2040889E+05	-.4703047E+04
8	17.252	-17.252	6.784	-.1156051E+06	.6128155E+04	.6128154E+04
9	11.077	-21.734	6.784	-.8381607E+05	.1865595E+04	.1270898E+05
10	3.817	-24.079	6.792	-.1701539E+05	.3899493E+04	.1496299E+05
11	-3.817	-24.079	6.792	.5525033E+05	.7003655E+04	.1318342E+05
12	-11.077	-21.734	6.784	.1054166E+06	.6681657E+04	.7805847E+04
13	-17.252	-17.252	6.784	.1096502E+06	.4761091E+03	-.4761098E+03
14	-21.734	-11.077	6.784	.4909067E+05	-.1228980E+05	-.1089432E+05
15	-24.079	-3.817	6.792	-.8988287E+05	-.3013236E+05	-.2265818E+05
16	-24.079	3.817	6.792	-.3145714E+06	-.4858299E+05	-.3481927E+05
17	-21.734	11.077	6.784	-.6275754E+06	-.6084111E+05	-.4713972E+05
18	-17.252	17.252	6.784	.3063149E+06	-.7428354E+05	-.7428354E+05
19	-11.077	21.734	6.784	.1067548E+07	-.6949629E+05	-.9636594E+05
20	-3.817	24.079	6.792	.3545370E+06	-.2956831E+05	-.9857234E+05

Figure B-12. Sample output from FRMLD of frame coordinates and internal loads (IP(76)) (cont).

LOAD SET = 11

CUT	YRPR	ZRPR	NELS	MOMENT	AXIAL	SHFAR
1	3.817	24.079	6.792	-.3864343F+06	.1690264E+05	-.1013961E+06
2	11.077	21.734	6.784	-.1116475F+07	.6228618E+05	-.9507077E+05
3	17.252	17.252	6.784	-.2749630F+06	.8481805E+05	-.8481805E+05
4	21.734	11.077	6.784	.6840114F+06	.9183533E+05	-.6058372E+05
5	24.079	3.817	6.792	.2864549F+06	.7611311E+05	-.3836892E+05
6	21.079	-3.817	6.792	.3450914E+05	.4880762E+05	-.1900940E+05
7	21.734	-11.077	6.784	-.9157266F+05	.2322528E+05	-.3136499E+04
8	17.252	-17.252	6.784	-.1184846F+06	.8084106E+04	.8084106E+04
9	11.077	-21.734	6.784	-.7881123F+05	.4300074F+04	.1432403E+05
10	3.817	-24.079	6.792	-.6292348F+04	.7079365E+04	.1573039F+05
11	-3.817	-24.079	6.792	.6712113E+05	.1026668E+05	.1289923F+05
12	-11.077	-21.734	6.784	.1131760F+06	.9297928E+04	.6523543F+04
13	-17.252	-17.252	6.784	.1090107E+06	.2422755E+04	-.2422756E+04
14	-21.734	-11.077	6.784	.3818417F+05	-.1030844E+05	-.1298632F+05
15	-24.079	-3.817	6.792	-.1097030F+06	-.2739111E+05	-.2429808E+05
16	-24.079	3.817	6.792	-.3386967E+06	-.4508206E+05	-.3547045E+05
17	-21.734	11.077	6.784	-.6487258F+06	-.5742815E+05	-.4638748F+05
18	-17.252	17.252	6.784	.3389485E+06	-.7655734E+05	-.7655733E+05
19	-11.077	21.734	6.784	.1127673F+07	-.7588419E+05	-.1028713E+06
20	-3.817	24.079	6.792	.3711689E+06	-.3424868F+05	-.1042272E+06

Figure B-12. Sample output from FRMLD of frame coordinates and internal loads (IP(76)) (cont).

LOAD SET = 12

CUT	YBAR	ZBAR	DELTA	MOMENT	AXIAL	SHFAR
1	3.817	24.079	6.792	-1608642F+05	-1827901F+05	.2983434F+04
2	11.077	21.734	6.784	.1180100F+05	-1432937F+05	.8220041E+04
3	17.252	17.252	6.784	.6742696F+05	.8705019E+04	-.8705018E+04
4	21.734	11.077	6.784	.3718351F+05	.3625777F+05	-.1495979E+05
5	24.079	3.817	6.792	-.5505158F+05	.3270006E+05	-.3054367E+04
6	24.079	-3.817	6.792	-.7923814E+05	.2256840E+05	.5573137E+04
7	21.734	-11.077	6.784	-.5625999F+05	.1361157E+05	.1037959E+05
8	17.252	-17.252	6.784	-.9983444F+04	.1107198E+05	.1107198E+05
9	11.077	-21.734	6.784	.3621304F+05	.1432937E+05	.8220041E+04
10	3.817	-24.079	6.792	.6410047F+05	.1827901E+05	.2983434F+04
11	-3.817	-24.079	6.792	.6410047F+05	.1827901E+05	-.2983434F+04
12	-11.077	-21.734	6.784	.3621304F+05	.1432937E+05	-.8220041E+04
13	-17.252	-17.252	6.784	-.9983444F+04	.1107198E+05	-.1107198E+05
14	-21.734	-11.077	6.784	-.5625999F+05	.1361157E+05	-.1037959F+05
15	-24.079	-3.817	6.792	-.7923814E+05	.2256840E+05	-.5573137E+04
16	-24.079	3.817	6.792	-.5505158E+05	.3270006E+05	.3054367E+04
17	-21.734	11.077	6.784	.3718351F+05	.3625777E+05	.1495979E+05
18	-17.252	17.252	6.784	.6742696F+05	.8705019E+04	.8705018E+04
19	-11.077	21.734	6.784	.1180100F+05	-1432937F+05	-.8220041E+04
20	-3.817	24.079	6.792	-1608642F+05	-1827901E+05	-.2983434F+04

Figure B-12. Sample output from FRMLD of frame coordinates and internal loads (IP(76)) (cont).

LOAD SET = 13

CUT	YRAO	ZPAR	NELS	MOMENT	AXIAL	SHFAR
1	3.817	24.079	6.792	-.2403252E+05	-.2730816E+05	.4457140E+04
2	11.077	21.734	6.784	.1763026E+05	-.2140755E+05	.1228044E+05
3	17.252	17.252	6.784	.1007334E+06	.1300497E+05	-.1300497E+05
4	21.734	11.077	6.784	.5555078E+05	.5416776E+05	-.2234938E+05
5	24.079	3.817	6.792	-.8224502E+05	.4885267E+05	-.4563111E+04
6	24.079	-3.817	6.792	-.1183788E+06	.3371635E+05	.8326060E+04
7	21.734	-11.077	6.784	-.8405034E+05	.2033518E+05	.1550673E+05
8	17.252	-17.252	6.784	-.1491489E+05	.1654112E+05	.1654112E+05
9	11.077	-21.734	6.784	.5410094E+05	.2140755E+05	.1228044E+05
10	3.817	-24.079	6.792	.9576372E+05	.2730816E+05	.4457140E+04
11	-3.817	-24.079	6.792	.9576372E+05	.2730816E+05	-.4457140E+04
12	-11.077	-21.734	6.784	.5410094E+05	.2140755E+05	-.1228044E+05
13	-17.252	-17.252	6.784	-.1491489E+05	.1654112E+05	-.1654112E+05
14	-21.734	-11.077	6.784	-.8405034E+05	.2033518E+05	-.1550673E+05
15	-24.079	-3.817	6.792	-.1183788E+06	.3371635E+05	-.8326060E+04
16	-24.079	3.817	6.792	-.8224502E+05	.4885267E+05	.4563111E+04
17	-21.734	11.077	6.784	.5555078E+05	.5416776E+05	.2234938E+05
18	-17.252	17.252	6.784	.1007334E+06	.1300497E+05	.1300497E+05
19	-11.077	21.734	6.784	.1763026E+05	-.2140755E+05	-.1228044E+05
20	-3.817	24.079	6.792	-.2403252E+05	-.2730816E+05	-.4457140E+04

Figure B-12. Sample output from FRMLD of frame coordinates and internal loads (IP(76)) (cont).

CUT	YEAR	ZRAR	NELS	MOMENT	AXIAL	SHFAR
1	3.817	24.079	6.792	-.6003473F+04	-.6821748E+04	.1113421E+04
2	11.077	21.734	6.784	.4404147F+04	-.5347739E+04	.3067729F+04
3	17.252	17.252	6.784	.2516382F+05	.3248724F+04	-.3248723F+04
4	21.734	11.077	6.784	.1387693F+05	.1353144F+05	-.5583013E+04
5	24.079	3.817	6.792	-.2054532F+05	.1220370E+05	-.1139893E+04
6	24.079	-3.817	6.792	-.2957177F+05	.8422553E+04	.2079902E+04
7	21.734	-11.077	6.784	-.2099630E+05	.5079855E+04	.3873677E+04
8	17.252	-17.252	6.784	-.3725833F+04	.4132075E+04	.4132075E+04
9	11.077	-21.734	6.784	.1351475F+05	.5347739F+04	.3067729E+04
10	3.817	-24.079	6.792	.2392237F+05	.6821748E+04	.1113421F+04
11	-3.817	-24.079	6.792	.2392237F+05	.6821748E+04	-.1113421F+04
12	-11.077	-21.734	6.784	.1351475F+05	.5347739F+04	-.3067729E+04
13	-17.252	-17.252	6.784	-.3725833E+04	.4132075E+04	-.4132075E+04
14	-21.734	-11.077	6.784	-.2099630F+05	.5079855E+04	-.3873677E+04
15	-24.079	-3.817	6.792	-.2957177F+05	.8422553E+04	-.2079902E+04
16	-24.079	3.817	6.792	-.2054532F+05	.1220370E+05	.1139893F+04
17	-21.734	11.077	6.784	.1387693F+05	.1353144E+05	.5583013E+04
18	-17.252	17.252	6.784	.2516382E+05	.3248724F+04	.3248723F+04
19	-11.077	21.734	6.784	.4404147E+04	-.5347739E+04	-.3067729E+04
20	-3.817	24.079	6.792	-.6003473F+04	-.6821748E+04	-.1113421E+04

860

CUT	T-WFR	T-CAP	R-CAP
1	.360	.266	4.281
2	.337	.567	6.000
3	.301	.293	4.712
4	.215	.417	6.000
5	.147	.289	4.646
6	.117	.128	3.181
7	.112	.162	2.600
8	.114	.152	2.446
9	.106	.145	2.335
10	.109	.178	2.862
11	.103	.178	2.862
12	.104	.151	2.432
13	.114	.137	2.208
14	.112	.161	2.586
15	.126	.198	3.181
16	.143	.277	4.458
17	.182	.365	5.867
18	.271	.304	4.883
19	.365	.589	6.000
20	.370	.277	4.458

Figure B-13. Sample output from SFOAWE of frame sizing details (IP(76)).


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*** MAJOR FRAMES ***

SEGMENT   STATION   WT CAP   WT WEA   WT STIFF   FRAME WT
3.0       351.0      101.5    38.9      27.3      167.6
12.0      998.0      1017.2   256.5     258.1     1531.8
13.0      1058.0      53.5     31.3      15.6      100.4
7.0       734.0      238.4    67.1      61.9      367.5
10.0      958.0      549.4    145.8     143.3     838.5
17.0      1641.0      54.5     22.3      15.3       92.2
19.0      1728.0      36.0     17.2      13.0       66.2

```

Figure B-14. Sample output from FFRME of major frame detail weights (IP(77)).

T-REGION

*** BREAKPOINT OUTPUT - SUBROUTINE FUSSEL ***SECTION 19

1	.7500	.1450	.1450	.1450
6	55480.0000	24.1264	2299.5664	2299.5664
11	37.9264	247543.6345	-206539.0387	3945888.9515
16	37.9264	.0000	1.3333	6425.5926
21	196949.7268	37.9264	6.3211	12.6421
26	994.4712	0.0000	794.2524	0.0000
31	82.3601	0.0000	.0000	0.0000
36	2.1500	17.0746	.9772	.3235
41	.0500	48.2524	17.3709	.3600
46	1.4514	.2213	128947.6381	0.0000
51	38828.3202	.7243	.0468	4.7179
56	.1116	.7247	.5606	.4197
61	.0001	42.7107	0.0000	37.9264
66	0.0000	0.0000	0.0000	0.0000
71	0.0000	0.0000	0.0000	0.0000
76	0.0000	0.0000	0.0000	0.0000
81	0.0000	0.0000	0.0000	0.0000
86	0.0000	0.0000	0.0000	0.0000
91	0.0000	0.0000	0.0000	0.0000
96	0.0000	0.0000	0.0000	0.0000
101	6.0000	25.2243	0.0000	0.0000
106	18089.4241	4020.3286	4020.3286	48.2526
111	2929.7047	2929.7047	558.0004	8040.6573
116	5512.0854	0.0000	0.0000	568.0004
121	-127745.1255	82009.2016	4290.2860	96.7521
126	7.0000	931.6500	1.5000	-88.2069
131	9.0000	931.6500	1.5000	2.8026
136	555062.9042	0.0000	5345335.1961	-8.8026
141	56.5100	.8308	.9438	0.0000
146	10382.0404	15.4206	6.0000	4152816.1448
151	0.0000	.0325	.0325	6.0000
156	.0325	0.0000	0.0000	0.0000
161	6.0000	.1352	3945888.9515	0.0000
166	0.0000	.1450	0.0000	48.2526
171	0.0000	0.0000	0.0000	0.0000
176	0.0000	0.0000	0.0000	0.0000
181	64.2694	155.8117	0.0000	0.0000
186	20980.9045	65000.0000	10500010.5000	0.0000
191	.1477	0.0000	0.0000	7513.5952
196	7.0000	0.0000	0.0000	0.0000

Figure B-16. Sample output from FUSSEL of scratch region (IP(79)).

VEHICLE TYPE	32.0
NUMBER OF CUTS	19.0
SHAPE CODE	1.0
CONSTRUCTION TYPE	2.0
COVER DESIGN INDICATOR	0.0
COVER MATERIAL NUMBER	4.0
LONGERON MATERIAL NUMBER	5.0
MAJOR FRAME MATERIAL NUMBER	5.0
MINOR FRAME MATERIAL NUMBER	4.0
JOINT CODE	10.0
NUMBER OF PRIMARY LONGERONS	0.0
NUMBER OF SECONDARY LONGERONS	4.0
GENERAL DEPTH RATIO - LONGS	0.0
NUMBER OF SHROUD RAILS	0.0
STRINGER SPACING	6.0
GENERAL FRAME DEPTH	6.0
GENERAL FRAME SPACING	1020.0
COVER INDEX FACTOR	1.2200
LONGERON INDEX FACTOR	1.1800
JIF INDEX FACTOR	1.0000
MINOR FRAME INDEX FACTOR	1.2500
MAJOR FRAME INDEX FACTOR	1.1000
BULKHEAD INDEX FACTOR	1.1000
LOCAL PANEL FLUTTER DATA	
MACH NUMBER	0.00
ALTITUDE	0.0
DYNAMIC PRESSURE	0.0
COVER MODULUS OF ELASTICITY	0.
FUNCTION OF MACH NUMBER	0.0000
ADDITIONAL DESIGN DATA	
MAXIMUM SEA LEVEL SPEED	531.3
MAXIMUM DYNAMIC PRESSURE	8.60
LIMIT CARIN PRESSURE	

Figure B-17. Sample output from SPRINT of construction indicators (IP(80)).

*** BASIC VEHICLE DATA ***

NUMBER OF CREW MEMBERS 4.0
 NUMBER OF ENGINES 0.0
 WING CHORD - SIDE OF FUSELAGE 302.9
 WING APEX 648.8

	INDICATOR	X-COORDINATE	Y-SIDE FUS	Z-SIDE FUS
WING DATA	0.0		77.7	284.0
FRONT SPAR		734.0		
REAR SPAR		958.0		
INT. SPAR		0.0		
HORIZONTAL TAIL DATA	0.0		0.0	0.0
FRONT SPAR		0.0		
REAR SPAR		0.0		
VERTICAL TAIL DATA	1.0		0.0	286.0
FRONT SPAR		1641.0		
REAR SPAR		1728.0		
NACFLIF DATA			0.0	0.0
FORWARD SUPPORT		0.0		
AFT SUPPORT		0.0		
STORES AND OTHERS			0.0	0.0
FORWARD SUPPORT		0.0		
AFT SUPPORT		0.0		
NOSF GEAR DATA			28.0	130.0
GROUND LOCATION		354.7	28.0	96.0
TRUNNION		351.0		
DRAG STRUT		0.0		
MAIN GEAR DATA			64.5	144.7
GROUND LOCATION		991.8	105.0	96.0
TRUNNION		998.0		
DRAG STRUT		1058.0		

Figure B-18. Sample output from SPRINT of basic vehicle geometry data (IP(80)).

*** SECONDARY STRUCTURE - INPUT DATA SET ***

INDICATORS AND C.G. DATA, SCOT REGION		
1	0.0000	1.0000
6	1.0000	0.0000
11	0.0000	1.0000
16	0.0000	0.0000
21	1.0000	0.0000
26	1.0000	1.0000
31	0.0000	0.0000
36	1.0000	1.0000
41	0.0000	0.0000
46	0.0000	0.0000
51	0.0000	0.0000
56	0.0000	0.0000
61	0.0000	0.0000
66	0.0000	0.0000
71	0.0000	0.0000
76	0.0000	0.0000
81	0.0000	0.0000
86	0.0000	0.0000
91	0.0000	0.0000
96	0.0000	0.0000

GEOMETRIC DEFINITIONS, SCOT REGION		
1	0.0000	3.0000
6	51.0000	0.0000
11	6.0000	183.0000
16	0.0000	0.0000
21	0.0000	395.3000
26	0.0000	108.5000
31	127.0000	122.0000
36	0.0000	6.0500
41	4.0000	2.0000
46	12.2000	0.0000
51	0.0000	0.0000
56	2.0000	0.0000
61	0.0000	0.0000
66	0.0000	0.0000
71	0.0000	0.0000
76	0.0000	0.0000

Figure B-19. Sample output from SPRINT of secondary structure indicator and geometry data (IP(80)).

*** SHELL GEOMETRY - INPUT DATA SET ***

CUT	STATION	FRAME SPACING	FRAME DEPTH	LONGERON DEPTH RATIO	DECK DEPTH	CUTOUT UPPER	CUTOUT LOWER	CUTOUT SIDE	SHROUD RADIUS
1	272.0	0.0	0.0	0.0000	.5000	0.0	-56.0	0.0	0.0
2	349.0	0.0	0.0	0.0000	.5000	0.0	56.0	0.0	0.0
3	353.0	0.0	0.0	0.0000	.5000	0.0	0.0	0.0	0.0
4	452.0	0.0	0.0	0.0000	.5000	0.0	0.0	0.0	0.0
5	600.0	0.0	0.0	0.0000	0.0000	0.0	0.0	0.0	0.0
6	732.0	0.0	0.0	0.0000	0.0000	0.0	0.0	0.0	0.0
7	736.0	0.0	0.0	0.0000	.8235	-1.0	0.0	0.0	0.0
8	846.0	0.0	0.0	0.0000	.8235	1.0	0.0	0.0	0.0
9	956.0	0.0	0.0	0.0000	.8235	1.0	0.0	0.0	0.0
10	960.0	0.0	0.0	0.0000	0.0000	0.0	0.0	0.0	0.0
11	996.0	0.0	0.0	0.0000	0.0000	0.0	0.0	0.0	0.0
12	1000.0	0.0	0.0	0.0000	0.0000	0.0	0.0	0.0	0.0
13	1142.0	0.0	0.0	0.0000	0.0000	0.0	0.0	0.0	0.0
14	1202.0	0.0	0.0	0.0000	.6840	0.0	-1.0	0.0	0.0
15	1398.0	0.0	0.0	0.0000	.5950	0.0	1.0	0.0	0.0
16	1639.0	0.0	0.0	0.0000	.4460	0.0	1.0	0.0	0.0
17	1643.0	0.0	0.0	0.0000	.4460	0.0	1.0	0.0	0.0
18	1726.0	0.0	0.0	0.0000	.3600	0.0	1.0	0.0	0.0
19	1730.0	0.0	0.0	0.0000	.3600	0.0	1.0	0.0	0.0

NOTES:

FRAME SPACING * 1000 INDICATES FIXED FRAME SPACING.
 NEGATIVE VALUE FOR LONGERON DEPTH INDICATES ANGULAR
 LOCATION OF LONGERONS IN RADIAN.
 VALUE OF 1 DESIGNATES THE REMOVAL OF SECTOR.
 NEGATIVE VALUE FOR CUTOUTS AND SHROUD RADIUS DESIGNATES FORWARD EDGE.

Figure B-20. Sample output from SPRINT of shell geometry data (IP(80)).

CUT	STATION	NUMBER RFAMS	INDICATOR BULKHEAD	PRESSURE	DENSITY FUEL	ACOUSTIC LEVEL-DR	STIFFNESS REQUIREMENTS FI-VFPT	EI-SIDE	GJ
1	272.0	0.0	1.0	-8.6	0.0000	0.0	0.0	0.0	0.0
2	249.0	0.0	0.0	-8.6	0.0000	0.0	0.0	0.0	0.0
3	353.0	0.0	0.0	-8.6	0.0000	0.0	0.0	0.0	0.0
4	452.0	0.0	1.0	-8.6	0.0000	0.0	0.0	0.0	0.0
5	600.0	0.0	0.0	-8.6	0.0000	0.0	0.0	0.0	0.0
6	732.0	0.0	0.0	-8.6	0.0000	0.0	0.0	0.0	0.0
7	736.0	0.0	0.0	-8.6	0.0000	0.0	0.0	0.0	0.0
8	946.0	0.0	0.0	-8.6	0.0000	0.0	0.0	0.0	0.0
9	956.0	0.0	0.0	-8.6	0.0000	0.0	0.0	0.0	0.0
10	960.0	0.0	0.0	-8.6	0.0000	0.0	0.0	0.0	0.0
11	996.0	0.0	0.0	-8.6	0.0000	0.0	0.0	0.0	0.0
12	1000.0	0.0	0.0	-8.6	0.0000	0.0	0.0	0.0	0.0
13	1142.0	0.0	0.0	-8.6	0.0000	0.0	0.0	0.0	0.0
14	1202.0	0.0	0.0	-8.6	0.0000	0.0	0.0	0.0	0.0
15	1398.0	0.0	0.0	-8.6	0.0000	0.0	0.0	0.0	0.0
16	1639.0	0.0	1.0	0.0	0.0000	0.0	0.0	0.0	0.0
17	1643.0	0.0	0.0	0.0	0.0000	0.0	0.0	0.0	0.0
18	1726.0	0.0	0.0	0.0	0.0000	0.0	0.0	0.0	0.0
19	1730.0	0.0	0.0	0.0	0.0000	0.0	0.0	0.0	0.0

Figure B-21. Sample output from SPRINT of local shell criteria data (IP(80)).

*** SHELL GEOMETRY - SECTION DATA ***

CUT	STA.	70	RII	RI	RS	RCU	RCL	RCS	PEPT.	NO	WO	RO
1	272.0	200.0	66.7	66.7	66.7	42.5	42.5	42.5	266.7	.0	.0	42.4
2	240.0	200.0	117.4	117.4	117.4	74.9	74.9	74.9	469.8	.1	.1	74.7
3	252.0	200.0	114.5	114.5	114.5	75.5	75.5	75.5	474.1	.1	.1	75.4
4	252.0	200.0	133.5	133.5	133.5	85.0	85.0	85.0	534.0	0.0	0.0	85.0
5	600.0	200.0	133.5	133.5	133.5	85.0	85.0	85.0	534.0	0.0	0.0	85.0
6	732.0	200.0	133.5	133.5	133.5	85.0	85.0	85.0	534.0	0.0	0.0	85.0
7	736.0	200.0	133.5	133.5	133.5	85.0	85.0	85.0	534.0	0.0	0.0	85.0
8	846.0	200.0	133.5	133.5	133.5	85.0	85.0	85.0	534.0	0.0	0.0	85.0
9	956.0	200.0	133.5	133.5	133.5	85.0	85.0	85.0	534.0	0.0	0.0	85.0
10	960.0	200.0	133.5	133.5	133.5	85.0	85.0	85.0	534.0	0.0	0.0	85.0
11	994.0	200.0	133.5	133.5	133.5	85.0	85.0	85.0	534.0	0.0	0.0	85.0
12	1000.0	200.0	133.5	133.5	133.5	85.0	85.0	85.0	534.0	0.0	0.0	85.0
13	1142.0	200.0	133.5	133.5	133.5	85.0	85.0	85.0	534.0	0.0	0.0	85.0
14	1202.0	223.0	132.1	132.1	132.1	84.2	84.2	84.2	528.5	.1	.1	84.0
15	1398.0	239.7	124.6	124.6	124.6	79.4	79.4	79.4	498.6	.0	.0	79.3
16	1630.0	259.4	71.2	71.2	71.2	45.4	45.4	45.4	284.6	.1	.1	45.2
17	1642.0	259.7	70.0	70.0	70.0	44.7	44.7	44.7	280.1	.1	.1	44.5
18	1726.0	264.7	39.7	39.7	39.7	25.3	25.3	25.3	158.6	.1	.1	25.2
19	1730.0	264.9	37.9	37.9	37.9	24.2	24.2	24.2	151.7	.1	.1	24.1
20	1817.9	270.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Figure B-22. Sample output from SPRINT of shell geometry data (IP(80)).

*** SEGMENT DATA - GEOMETRY AND UNIT INERTIAS ***

SFC	XHAP	DLX	AREA	VOLUME	IOXX	IOYY	IOZZ
1	258.1	41.6	7925.2	72404.6	540.6	225.2	1807.1
2	310.5	77.0	10752.6	852016.2	1712.9	1350.1	1350.1
3	351.0	4.0	1914.7	70894.8	2811.3	1407.0	1407.0
4	402.5	90.0	50130.4	2002403.7	3212.6	2423.0	2423.0
5	526.0	144.0	72032.0	3359415.0	3611.5	3631.1	3631.1
6	666.0	132.0	70688.0	2995343.1	3611.5	3257.8	3257.8
7	734.0	4.0	2136.0	90768.0	3611.5	1807.1	1807.1
8	791.0	110.0	58740.0	2496119.2	3611.5	2214.1	2214.1
9	901.0	110.0	58740.0	2496119.2	3611.5	2214.1	2214.1
10	958.0	4.0	2136.0	90768.0	3611.5	1807.1	1807.1
11	978.0	34.0	19224.0	816911.8	3611.5	1913.8	1913.8
12	998.0	4.0	2136.0	90768.0	3611.5	1807.1	1807.1
13	1071.0	142.0	75828.0	3222263.0	3611.5	3486.1	3486.1
14	1217.0	150.0	70687.4	3368733.9	3566.4	3658.2	3658.2
15	1345.0	104.0	54490.0	2225189.9	3330.0	2601.3	2601.3
16	1518.5	241.0	95317.6	3014428.4	1936.6	5808.4	5808.4
17	1641.0	4.0	1147.8	25378.9	1004.0	503.4	503.4
18	1684.5	82.0	18693.3	325909.4	605.0	476.6	476.6
19	1728.0	4.0	643.6	7664.2	302.0	152.4	152.4
20	1759.0	87.0	6914.4	53661.3	174.0	377.2	377.2
TOTAL			716077.7	27683649.6			

Figure B-23. Sample output from SPRINT of shell geometry and unit inertia data (IP(80)).

*** SHELL GEOMETRY - SECTION DATA ***

CUT	STATION	CROSS SECTION: AREA-TOPGUS				DEFINITION				DEFINITION-DECK				DEFINITION-EFFECT				DEFINITION-EFFECT			
		TOTAL	NET FWD	NET AFT	NET	FORWARD	AFT	FORWARD	AFT	FORWARD	AFT	FORWARD	AFT	FORWARD	AFT	FORWARD	AFT	FORWARD	AFT	FORWARD	AFT
1	272.0	5660.7	5660.7	2530.3	2530.3	266.7	218.2	36.5	36.5	84.9	84.9	42.4	42.4	84.9	84.9	42.4	42.4	84.9	84.9	42.4	42.4
2	349.0	17563.7	4781.8	17563.7	17563.7	346.6	460.8	149.5	149.5	149.5	149.5	74.7	74.7	149.5	149.5	74.7	74.7	149.5	149.5	74.7	74.7
3	353.0	17484.2	17484.2	17484.2	17484.2	474.1	474.1	150.0	150.0	150.0	150.0	75.4	75.4	150.0	150.0	75.4	75.4	150.0	150.0	75.4	75.4
4	452.0	22692.1	22692.0	22692.0	22692.0	534.0	534.0	170.0	170.0	170.0	170.0	85.0	85.0	170.0	170.0	85.0	85.0	170.0	170.0	85.0	85.0
5	600.0	22692.0	22692.0	22692.0	22692.0	534.0	534.0	0.0	0.0	0.0	0.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0
6	732.0	22692.0	22692.0	22692.0	22692.0	534.0	534.0	0.0	0.0	0.0	0.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0
7	736.0	22692.0	22692.0	22692.0	22692.0	534.0	534.0	170.0	170.0	170.0	170.0	140.0	140.0	170.0	170.0	140.0	140.0	170.0	170.0	140.0	140.0
8	846.0	22692.0	19492.5	19492.5	19492.5	516.2	516.2	129.6	129.6	129.6	129.6	140.0	140.0	170.0	170.0	140.0	140.0	170.0	170.0	140.0	140.0
9	956.0	22692.0	19492.5	22692.0	22692.0	516.2	534.0	129.6	129.6	0.0	0.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0
10	966.0	22692.0	22692.0	22692.0	22692.0	534.0	534.0	0.0	0.0	0.0	0.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0
11	996.0	22692.0	22692.0	22692.0	22692.0	534.0	534.0	0.0	0.0	0.0	0.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0
12	1000.0	22692.0	22692.0	22692.0	22692.0	534.0	534.0	0.0	0.0	0.0	0.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0
13	1142.0	22692.0	22692.0	22692.0	22692.0	534.0	534.0	0.0	0.0	0.0	0.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0
14	1292.0	22225.3	22225.3	6024.4	6024.4	522.5	357.3	164.2	164.2	156.4	156.4	115.0	115.0	168.2	168.2	53.1	53.1	168.2	168.2	53.1	53.1
15	1392.1	12782.1	7513.6	7513.6	7513.6	374.9	374.9	155.3	155.3	155.9	155.9	64.3	64.3	155.9	155.9	64.3	64.3	155.9	155.9	64.3	64.3
16	1633.0	6447.2	3665.7	3665.7	3665.7	242.2	242.2	90.0	90.0	90.0	90.0	50.2	50.2	90.0	90.0	50.2	50.2	90.0	90.0	50.2	50.2
17	1642.0	6242.4	3549.4	3549.4	3549.4	238.3	238.3	88.6	88.6	88.6	88.6	49.4	49.4	89.1	89.1	49.4	49.4	89.1	89.1	49.4	49.4
18	1726.0	2101.9	1352.7	1352.7	1352.7	142.1	142.1	48.5	48.5	48.5	48.5	32.3	32.3	50.4	50.4	32.3	32.3	50.4	50.4	32.3	32.3
19	1730.0	1831.4	1237.5	1237.5	1237.5	135.9	135.9	46.4	46.4	46.4	46.4	30.9	30.9	48.3	48.3	30.9	30.9	48.3	48.3	30.9	30.9

Figure B-24. Sample output from SPRINT of shell geometry data (IP(80)).

*** MISCELLANEOUS SHELL DATA ***

YOUNG'S MODULUS - COVER 10700000.0
LONGERONS 10500000.0

CUT	STATION	PANEL SIZE		CUTOFF DATA		APPARENT CUTOFF		BENDING STIFFNESS	
		UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	VERTICAL	SIDE
1	272.00	66.68	66.68	0.00	-56.00	0.00	56.00	.9506187F+11	.1196996F+12
2	349.00	117.45	117.45	0.00	56.00	0.00	56.00	.5641325F+12	.6225611F+12
3	353.00	114.52	114.52	0.00	0.00	0.00	52.00	.5407377F+12	.6346165F+12
4	452.00	133.50	133.50	0.00	0.00	0.00	0.00	.9115351F+12	.9005311F+12
5	600.00	133.50	133.50	0.00	0.00	0.00	0.00	.9115351F+12	.9005311F+12
6	732.00	133.50	133.50	0.00	0.00	129.50	0.00	.4628906F+12	.9087805F+12
7	736.00	133.50	133.50	-1.00	0.00	133.50	0.00	.4890404F+12	.1207392F+13
8	846.00	133.50	133.50	1.00	0.00	133.50	0.00	.1032555F+13	.1587693F+13
9	956.00	133.50	133.50	1.00	0.00	133.50	0.00	.1810295F+13	.2124194F+13
10	960.00	133.50	133.50	0.00	0.00	129.50	0.00	.1816726F+13	.2339146F+13
11	996.00	133.50	133.50	0.00	0.00	93.50	0.00	.1669104F+13	.1A07212F+13
12	1000.00	133.50	133.50	0.00	0.00	89.50	0.00	.1653275F+13	.1177887F+13
13	1142.00	133.50	133.50	0.00	0.00	0.00	0.00	.1201051F+13	.963025F+12
14	1202.00	132.12	132.12	0.00	-1.00	0.00	132.12	.1069401F+13	.1221212F+13
15	1398.00	124.65	124.65	0.00	1.00	0.00	124.65	.8516378F+12	.9874437F+12
16	1630.00	71.16	71.16	0.00	1.00	0.00	71.16	.1719001F+12	.1976057F+12
17	1643.00	70.02	70.02	0.00	1.00	0.00	70.02	.1656226F+12	.2095331F+12
18	1726.00	39.65	39.65	0.00	1.00	0.00	39.65	.2342122F+11	.4587255F+11
19	1730.00	37.93	37.93	0.00	1.00	0.00	37.93	.1728719F+11	.1982304F+11

Figure B-25. Sample output from SPRINT of geometry and stiffness data (IP(80)).

*** SECTION DATA - SHELL ELEMENTS ***

CUT	STATION	CONC.	CPIT.	FRAME SPACING	BASIC IDPEP	THICKNESS SIDE	LOWER	LAND REINFORCEMENTS IDPEP	SIDE	LOWER	BASIC FLUTTER	TORSION FORWARD	AFT
1	272.0	4		20.00	.0500	.0500	.0500	.0500	.0500	.0500	0.0000	0.0000	0.0000
2	349.0	4		20.00	.0500	.0500	.0500	.0500	.0500	.0500	0.0000	0.0000	0.0000
3	353.0	14		20.00	.0500	.0500	.0500	.0500	.0500	.0500	0.0000	0.0000	0.0000
4	452.0	4		20.00	.0500	.0500	.0500	.0500	.0500	.0500	0.0000	0.0000	0.0000
5	600.0	4		20.00	.0500	.0500	.0500	.0500	.0500	.0500	0.0000	0.0000	0.0000
6	732.0	4		20.00	.0500	.0500	.0500	.0500	.0500	.0500	0.0000	0.0000	0.0000
7	736.0	2		20.00	.0500	.0515	.0500	.0500	.0515	.0500	0.0000	0.0000	0.0000
8	846.0	2		20.00	.0500	.0515	.0500	.0500	.0515	.0500	0.0000	0.0000	0.0000
9	956.0	2		20.00	.0500	.0555	.0500	.0500	.0555	.0500	0.0000	0.0000	0.0000
10	960.0	14		20.00	.0500	.0780	.0500	.0500	.0780	.0500	0.0000	0.0000	0.0000
11	996.0	14		20.00	.0500	.0801	.0500	.0500	.0801	.0500	0.0000	0.0000	0.0000
12	1000.0	2		20.00	.0500	.0500	.0500	.0500	.0500	.0500	0.0000	0.0000	0.0000
13	1142.0	2		20.00	.0500	.0500	.0500	.0500	.0500	.0500	0.0000	0.0000	0.0000
14	1292.0	2		20.00	.0500	.0500	.0500	.0500	.0500	.0500	0.0000	0.0000	0.0000
15	1398.0	2		20.00	.0500	.0500	.0500	.0500	.0500	.0500	0.0000	0.0000	0.0000
16	1639.0	2		20.00	.0500	.0500	.0500	.0500	.0500	.0500	0.0000	0.0000	0.0000
17	1643.0	2		20.00	.0500	.0500	.0500	.0500	.0500	.0500	0.0000	0.0000	0.0000
18	1726.0	2		20.00	.0500	.0500	.0500	.0500	.0500	.0500	0.0000	0.0000	0.0000
19	1730.0	7		20.00	.0500	.0708	.0500	.0500	.0708	.0500	0.0000	0.0000	0.0000

Figure B-26. Sample output from SPRINT of cover sizing data (IP(80)).

*** SECTION DATA - SHELL ELEMENTS ***

CUT	STATION	CRITICAL COND.		LONG. STRING.		UPPER	APFA - LONGERON/STRINGER		LONG STIFF		APFA - LONG C/O	
		DOWN	UP	DEPTH/S-ARE	NUMBER		LOWER	SIDE	LOWER	UPPER	LOWER	UPPER
1	272.0	9	7	6.00	64.5	.145	.145	.145	.145	0.000	.145	.145
2	349.0	4	7	6.00	78.3	.145	.145	.145	.145	0.000	.145	.145
3	353.0	4	7	6.00	79.0	.145	.145	.145	.145	0.000	.145	.145
4	452.0	4	14	6.00	89.0	.145	.145	.145	.145	0.000	0.000	.145
5	600.0	4	14	6.00	89.0	.145	.145	.145	.145	0.000	0.000	.145
6	732.0	4	14	6.00	89.0	.145	.145	.145	.145	1.937	0.000	.145
7	736.0	4	3	6.00	89.0	.145	.145	.212	.145	2.044	0.000	.145
8	846.0	2	3	6.00	89.0	.357	.298	.212	.145	6.451	0.000	.145
9	966.0	2	3	6.00	89.0	.637	.568	.235	.145	11.525	0.000	.145
10	960.0	2	3	6.00	89.0	.618	.514	.240	.145	10.353	0.000	.145
11	996.0	2	3	6.00	89.0	.681	.539	.291	.145	4.196	0.000	.145
12	1000.0	2	3	6.00	89.0	.498	.356	.145	.145	4.039	0.000	.145
13	1142.0	2	3	6.00	89.0	.145	.285	.145	.145	0.000	0.000	.145
14	1232.0	2	3	6.00	88.1	.145	.245	.145	.145	0.000	5.123	.145
15	1308.0	2	3	6.00	83.1	.145	.306	.145	.145	0.000	4.069	.145
16	1639.0	2	6	6.00	47.4	.145	.294	.145	.145	0.000	2.996	.145
17	1643.0	2	6	6.00	46.7	.145	.145	.135	.145	0.000	2.854	.145
18	1726.0	2	3	6.00	26.4	.145	.145	.325	.145	0.000	.145	.145
19	1730.0	7	4	6.00	25.3	.145	.145	.145	.145	0.000	.145	.145

Figure B-27. Sample output from SPRINT of longeron/stringer sizing data (IP(80)).

*** SHELL COMPONENT WEIGHTS ***										PAGE 31	
SFC	STA	LENGTH	UPPER	COVER FILAMENTS		TOTAL	MINOR FRAMES	JOINTS SPLICES	LONGITUDINAL PARTITIONS		
1	253.1	41.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
2	310.5	77.0	43.7	87.3	17.1	149.1	63.0	18.2	42.2		
3	351.0	4.0	2.0	5.8	2.0	11.6	4.2	1.4	3.2		
4	402.5	90.0	75.9	152.7	76.9	307.4	111.0	37.5	83.7		
5	526.0	144.0	121.7	243.5	121.7	484.9	175.7	59.2	132.5		
6	646.0	132.0	102.6	217.1	108.6	434.3	156.7	55.4	118.2		
7	734.0	4.0	3.3	6.7	3.3	12.3	6.8	1.8	4.0		
8	791.0	110.0	6.0	186.4	90.5	276.9	244.6	48.1	104.3		
9	901.0	110.0	0.0	192.7	90.5	284.2	251.1	64.9	107.1		
10	958.0	4.0	3.3	8.9	3.3	15.4	10.3	3.7	5.1		
11	978.0	36.0	29.6	93.7	29.6	152.9	101.3	31.2	50.8		
12	998.0	4.0	3.3	3.6	3.3	15.1	8.0	2.9	4.6		
13	1071.0	142.0	106.9	233.6	116.9	467.2	168.9	77.9	127.2		
14	1217.0	150.0	122.7	245.5	122.7	490.9	177.2	73.3	133.6		
15	1345.0	106.0	83.8	167.7	0.0	251.5	121.0	40.4	74.5		
16	1518.5	241.0	145.4	290.7	0.0	436.1	209.9	70.2	129.2		
17	1641.0	4.0	1.7	3.5	0.0	5.2	3.6	.9	1.8		
18	1684.5	83.0	28.0	64.5	0.0	92.6	93.3	14.9	37.2		
19	1728.0	4.0	1.0	2.3	0.0	3.3	2.8	.4	1.2		
20	1759.3	87.9	10.6	21.3	10.6	42.6	15.4	5.4	11.6		
TOTAL			903.3	2234.4	797.8	3035.5	1924.9	607.9	1172.1		

Figure B-28. Sample output from SPRINT of shell detail weights (IP(80)).

SEC	STA	LENGTH	UPPER	STDF	LOWER	UPPER	LOWER	MISC	TOTAL
1	254.1	41.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	310.5	77.0	0.0	41.1	8.1	0.0	2.7	0.0	72.4
3	351.0	4.0	1.4	2.7	1.6	0.0	.1	0.0	5.6
4	402.5	90.0	26.2	72.3	36.2	0.0	1.7	0.0	146.4
5	526.0	144.0	67.3	114.6	57.3	0.0	0.0	0.0	229.2
6	665.0	132.0	61.1	102.2	51.1	30.7	0.0	0.0	235.1
7	734.0	4.0	1.5	3.8	1.5	1.9	0.0	0.0	8.8
8	791.0	110.0	0.0	124.8	65.1	112.1	0.0	0.0	302.0
9	901.0	110.0	0.0	128.6	128.8	237.3	0.0	0.0	494.6
10	958.0	4.0	6.7	5.4	6.1	10.5	0.0	0.0	28.7
11	978.0	36.0	52.8	54.0	52.0	62.8	0.0	0.0	221.6
12	998.0	4.0	5.2	4.6	5.6	4.0	0.0	0.0	19.4
13	1071.0	142.0	121.9	109.9	169.7	64.8	0.0	0.0	470.3
14	1217.0	150.0	57.8	115.5	127.7	0.0	0.0	0.0	393.2
15	1345.0	106.0	39.5	78.9	0.0	0.0	116.9	0.0	235.3
16	1518.5	241.0	64.4	136.8	0.0	0.0	204.3	0.0	409.6
17	1641.0	4.0	.8	1.9	0.0	0.0	2.8	0.0	5.5
18	1684.5	83.0	13.2	44.1	0.0	0.0	29.9	0.0	87.2
19	1724.0	4.0	.4	1.5	0.0	0.0	.1	0.0	2.1
20	1759.3	87.9	5.0	10.0	5.0	0.0	3.1	0.0	23.1
TOTAL			529.8	1152.8	715.5	524.1	453.9	0.0	3390.1

Figure B-29. Sample output from SPRINT of longeron/stringer detail weights (IP(80)).

*** BODY GROUP ***
BASIC STRUCTURE

PULKHEADS AND FRAMES	351.00	167.6
	998.00	1531.8
	1058.00	100.4
	734.00	367.5
	958.00	838.5
	1641.00	92.2
	1728.00	66.2
	1314.47	402.1
	272.00	42.6
	452.00	526.9
	1398.00	141.7
MINOR FRAMES		1924.9
JOINTS, SPLICES AND FASTENERS		607.9
COVERING - UPPER BETWEEN LONGERONS		903.3
- SIDE BETWEEN LONGERONS		2234.4
- LOWER BETWEEN LONGERONS		797.8
COVERING LONGITUDINAL STIFFENERS - UPPER RETW. LONG.		539.8
- SIDE RETW. LONG.		1152.8
- LOWER RETW. LONG.		715.5
LONGERONS - UPPER		528.1
- LOWER		453.9
ENGINE DRAG		0.0
LONGITUDINAL PARTITIONS - (STRUCTURAL)		1172.1
FLOORING AND SUPPORTS - (BASIC STRUCTURE)		3421.1
FITTINGS		130.8
TOTAL - BASIC STRUCTURE		18859.8

Figure B-30. Sample output from SPRINT of basic structure weight summary.

*** BODY GROUP ***
SECONDARY STRUCTURE

ENCLOSURES (EXCLUDING TURBOJET ENCLOSURES) CANOPY - PILOT	0.0
WINDSHIELD (EXCLUDING BULLET PROTECTION)	292.6
WINDOWS AND PORTS INCL. FRAMES	300.5
WINDOWS AND PORTS - CABIN	6.3
FLOORING AND SUPPORTS (SECONDARY STRUCTURE)	404.4
STAIRWAYS AND LADDERS (FIXED)	32.4
NOSE PADOME	96.3
SPEED BRAKES - STRUCTURE AND SUPPORTS	0.0
TOTAL SECONDARY STRUCTURE	1138.6

Figure B-31. Sample output from SPRINT of secondary structure weight summary.

*** BODY GROUP ***
SECONDARY STRUCTURE
(DOORS, PANELS AND MISCELLANEOUS)

	AREA-SQ.FT.	
DOORS AND FRAMES		
- MAIN GEAR	167.0	863.9
- NOSE GEAR	12.9	164.5
- AFT CARGO	385.3	1117.4
- AFT RAMP	108.5	1071.4
- PRESSURE	65.7	427.8
- HUMP	0.0	0.0
- GUN		0.0
- AMMO		0.0
- ESCAPE	24.2	471.9
- ESCAPE	14.5	185.0
- PARATROOP	42.4	466.4
- ENTRANCE	12.2	122.0
- ACCESS		113.3
PANELS (NON STRUCTURAL)		
- SPOILER DEFLECTOR		20.0
- MAIN GEAR PON	700.0	1181.4
WALKWAYS, STEPS, GRIPS		168.2
ANTI-SKID PROTECTION		58.9
FAIRING AND FILLETS		0.0
EXTERIOR FINISH		0.0
INTERIOR FINISH		248.6
TOTAL SECONDARY STRUCTURE (DOORS, PANELS, MISC.)		6680.6
TOTAL - BASIC STRUCTURE		18859.8
TOTAL SECONDARY STRUCTURE		1138.6
TOTAL - BODY GROUP		26679.0

Figure B-31. Sample output from SPRINT of secondary structure weight summary (concl).

*** BODY GROUP ***
BALANCE DATA

PAGE 36

	WEIGHT	HOP17. ARM
BULKHEADS AND FRAMES	4277.47	937.20
JOINTS, SPLICES AND FASTENERS	607.94	977.38
WING FRAMES	1924.90	974.21
COVERING - UPPER	903.35	992.60
SIDE	2234.36	970.36
LOWER	797.78	824.63
LONGERONS AND LONGITUDINAL STIFFENERS	539.80	999.91
	1152.80	972.12
	715.47	920.73
	528.11	898.41
	453.87	1410.72
ENGINE DRAG	0.00	0.00
LONGITUDINAL PARTITIONS	1172.08	956.25
FLOORING AND SUPPORTS	3421.06	872.00
FITTINGS	130.76	1095.78
TOTAL BASIC STRUCTURE	18859.75	948.16

SECONDARY STRUCTURE

0.00	0.00
0.00	0.00
298.64	309.40
300.50	309.40
6.30	1020.00
404.43	385.30
32.45	442.80
96.32	319.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00

TOTAL SECONDARY STRUCTURE

1138.64 344.90

Figure B-32. Sample output from SPRINT of body balance data.

*** BODY GROUP ***
BALANCE DATA

PAGE 37

DOORS, PANELS AND MISCELLANEOUS	WEIGHT	HORIZ. ARM
	963.90	968.60
	164.50	353.80
	1117.37	1560.80
	0.00	0.00
	0.00	0.00
	0.00	0.00
	1071.36	1356.80
	0.00	0.00
	427.77	1411.00
	0.00	0.00
	0.00	0.00
	0.00	0.00
	471.90	810.90
	195.01	842.50
	466.40	1218.00
	20.00	1200.00
	122.00	468.00
	113.28	850.00
	0.00	0.00
	0.00	0.00
	0.00	0.00
	0.00	0.00
	0.00	0.00
	1191.40	971.80
	0.00	0.00
	0.00	0.00
	168.20	872.00
	58.87	872.00
	0.00	0.00
	248.64	882.40
TOTAL SECONDARY STRUCTURE (DOORS, PANELS, MISC.)	6680.60	1129.49
TOTAL - BODY GROUP	26678.99	967.82

END FUSELAGE

Figure B-32. Sample output from SPRINT of body balance data (concl).