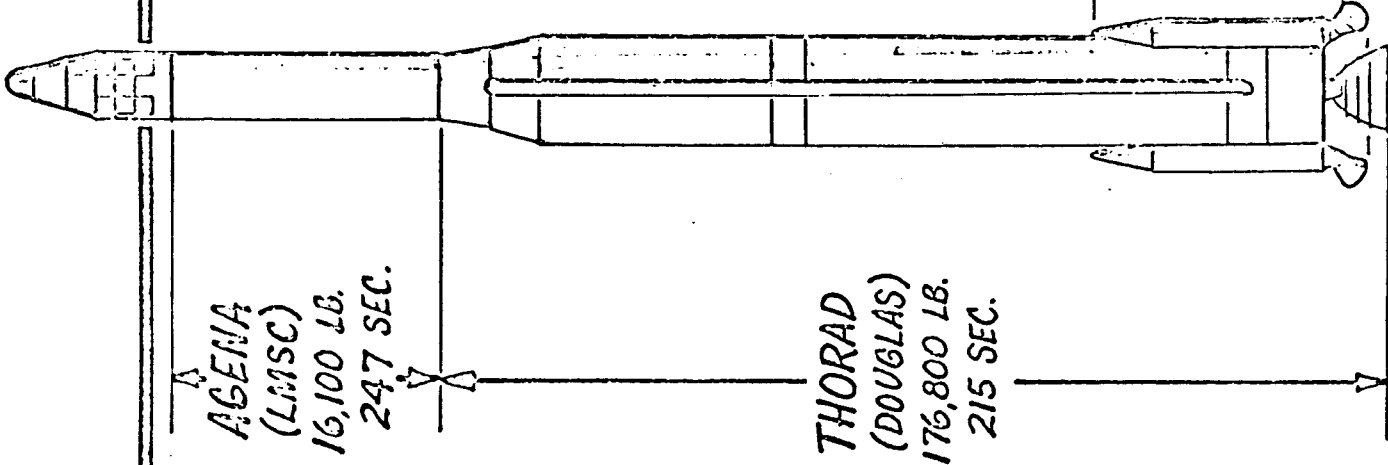


14-00000

~~TOP SECRET~~

LAUNCH CONFIGURATION



WEIGHT TO ORBIT — 4200 LB.
 (INCL. EMPTY AGENA)

TOTAL LENGTH — 103 FT.

GROSS LIFTOFF WEIGHT-201,800 LB.

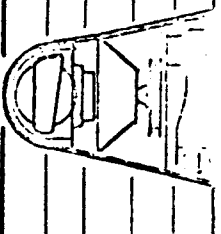
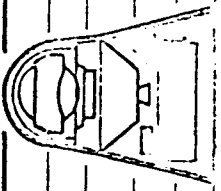
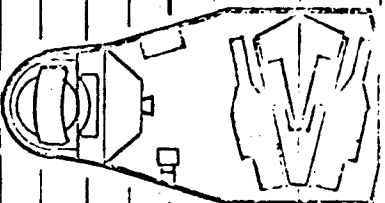
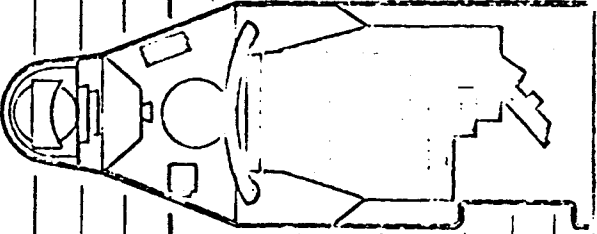
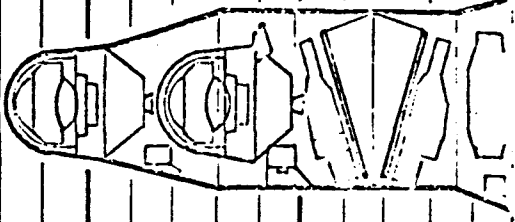
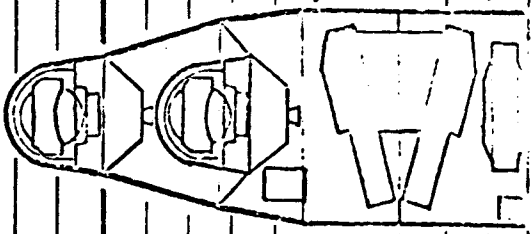
Declassified and Released by the NRO

In Accordance with E. O. 12958

on **NOV 26 1997**

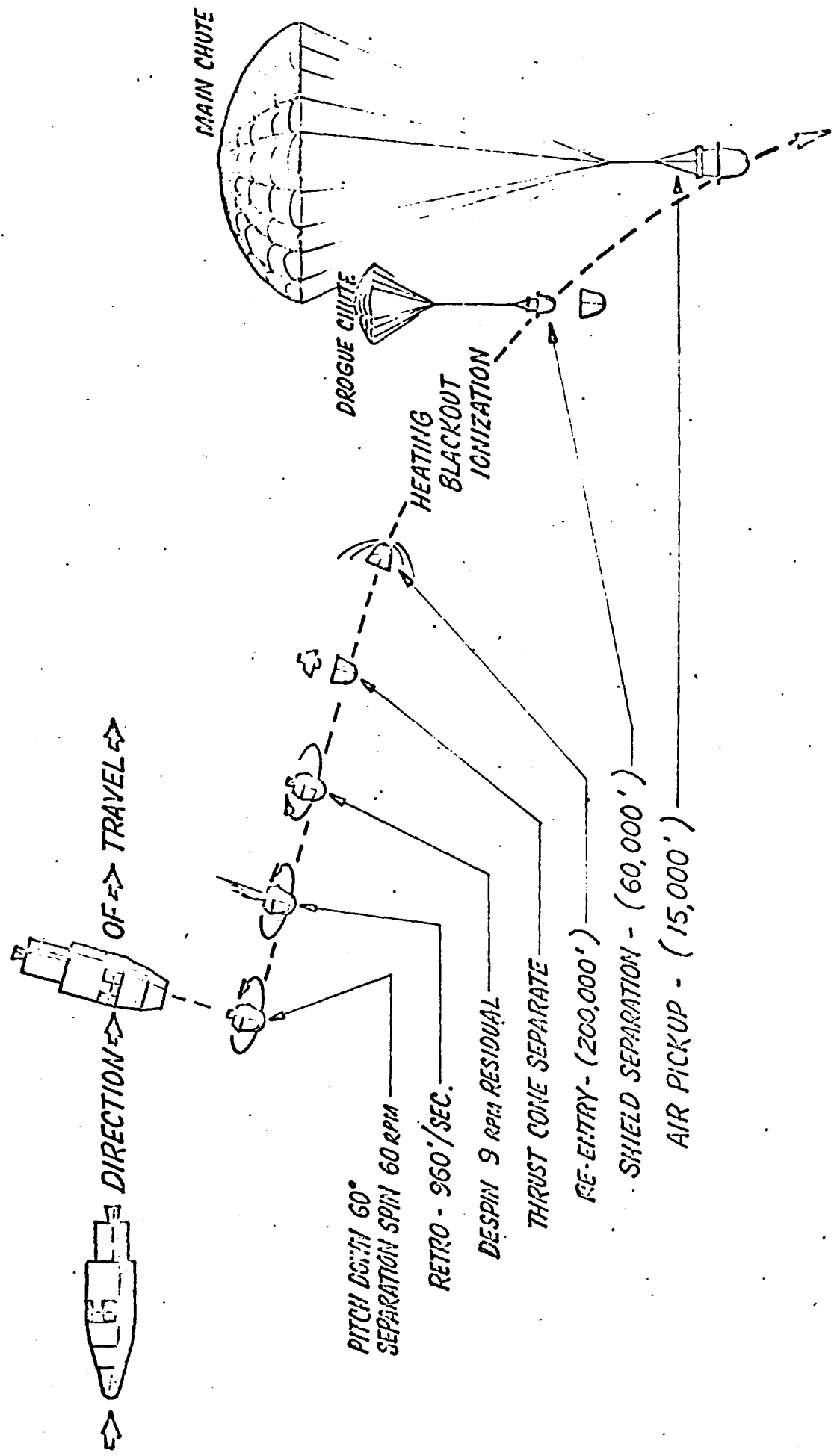
FOR REVIEW

CORONA PAYLOAD HISTORY

					
C	A	M	L	J1	J3
CORONA	ARGON	MURAL	LANYARD		
40 LB P/L	40 LB P/L	80 LB P/L	80 LB P/L	160 LB P/L	160 LB P/L



RECOVERY SEQUENCE OF EVENTS



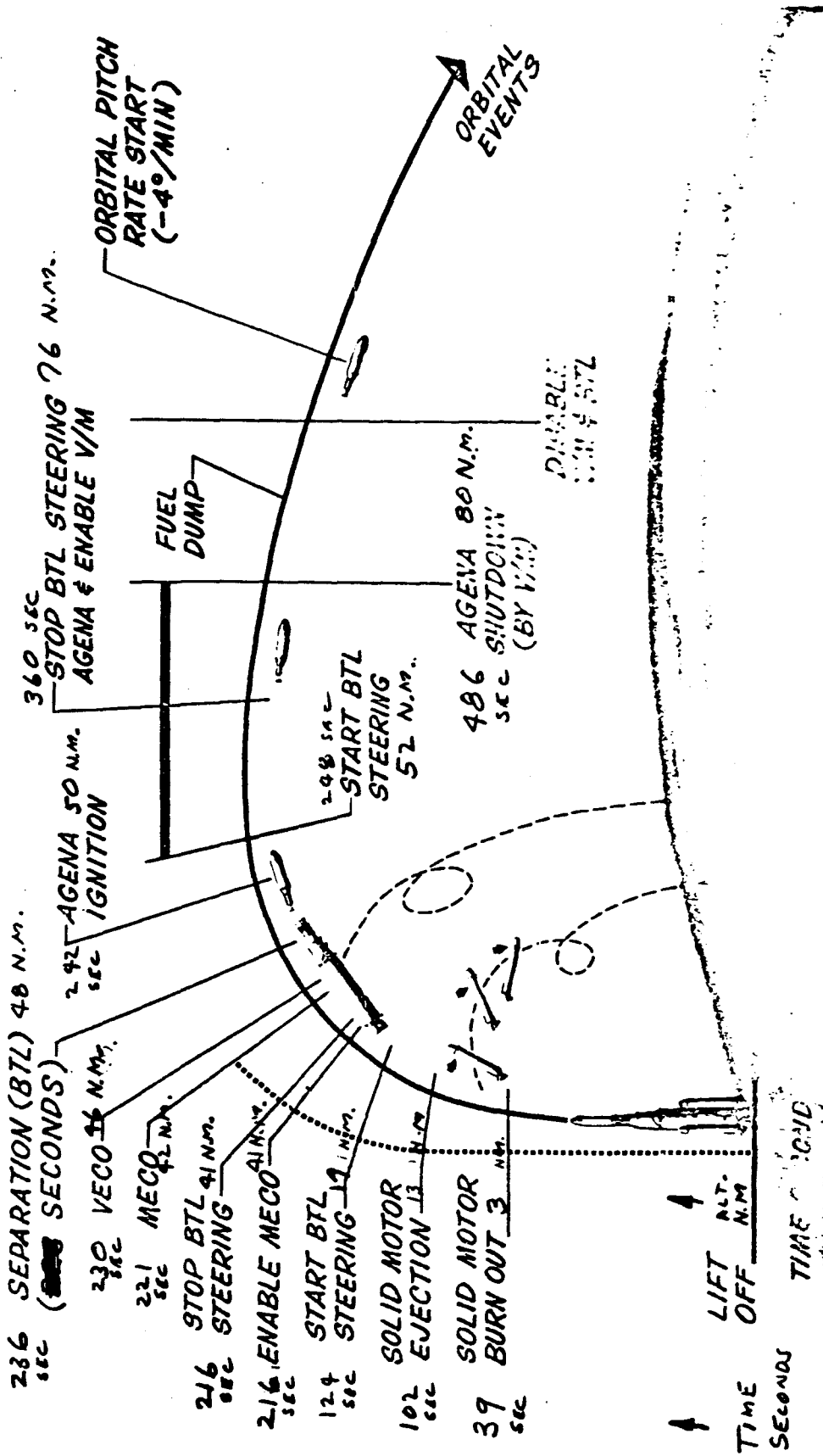
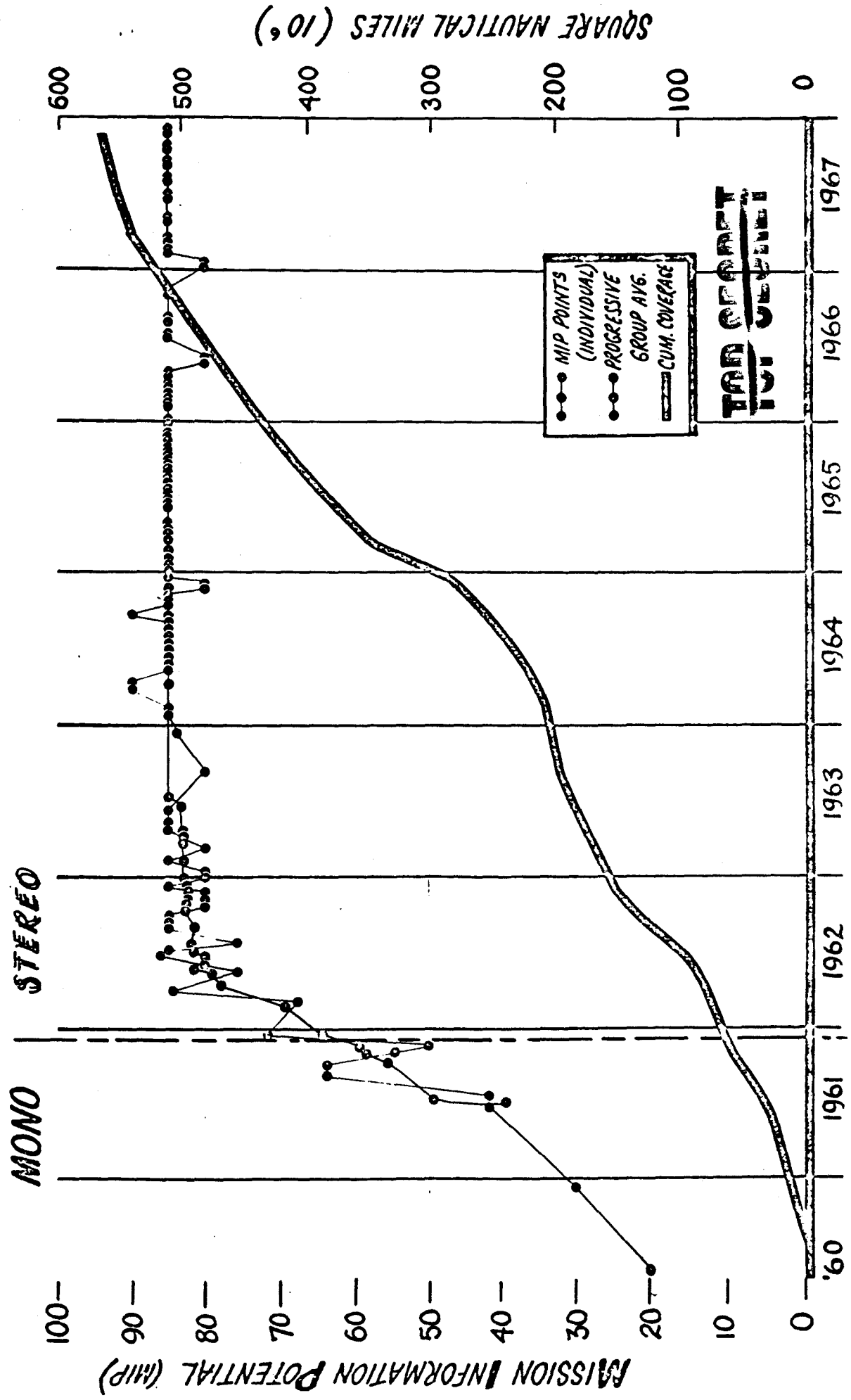


Figure B-1 Ascent Sequence of Events

QUALITY OF PRODUCT

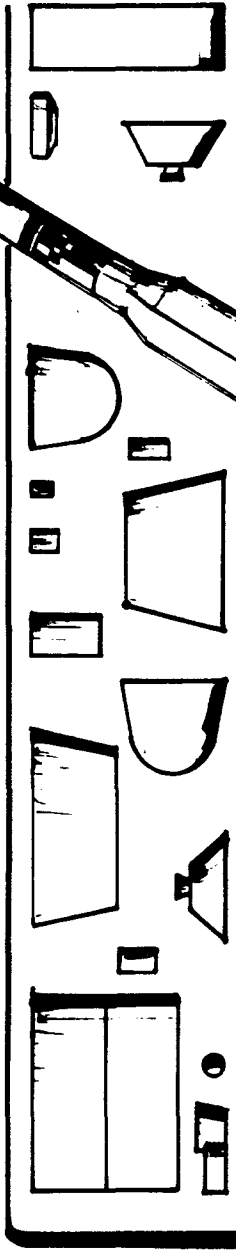


TOP SECRET

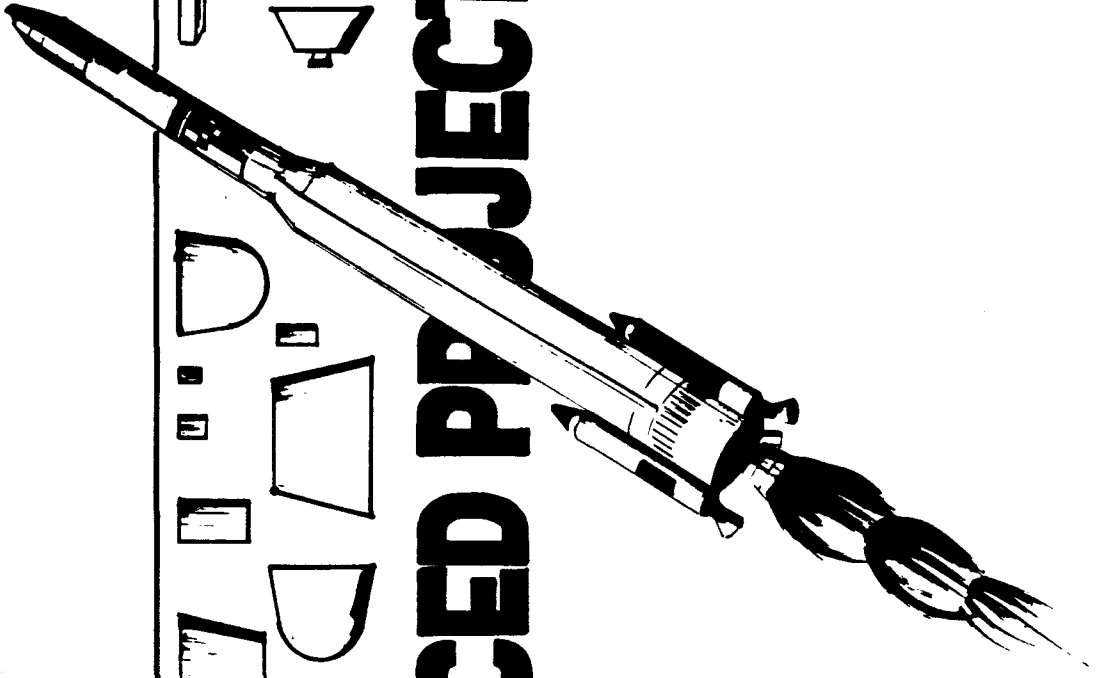
MISSION

1. PAYLOAD DESIGN, MANUFACTURING, INTEGRATION AND TEST
2. MISSION FLIGHT PLANNING
3. ON-ORBIT FLIGHT FOLLOWING AND CONTROL
4. POST MISSION REPORTING AND EVALUATION

~~TOP SECRET~~
~~TOP SECRET~~

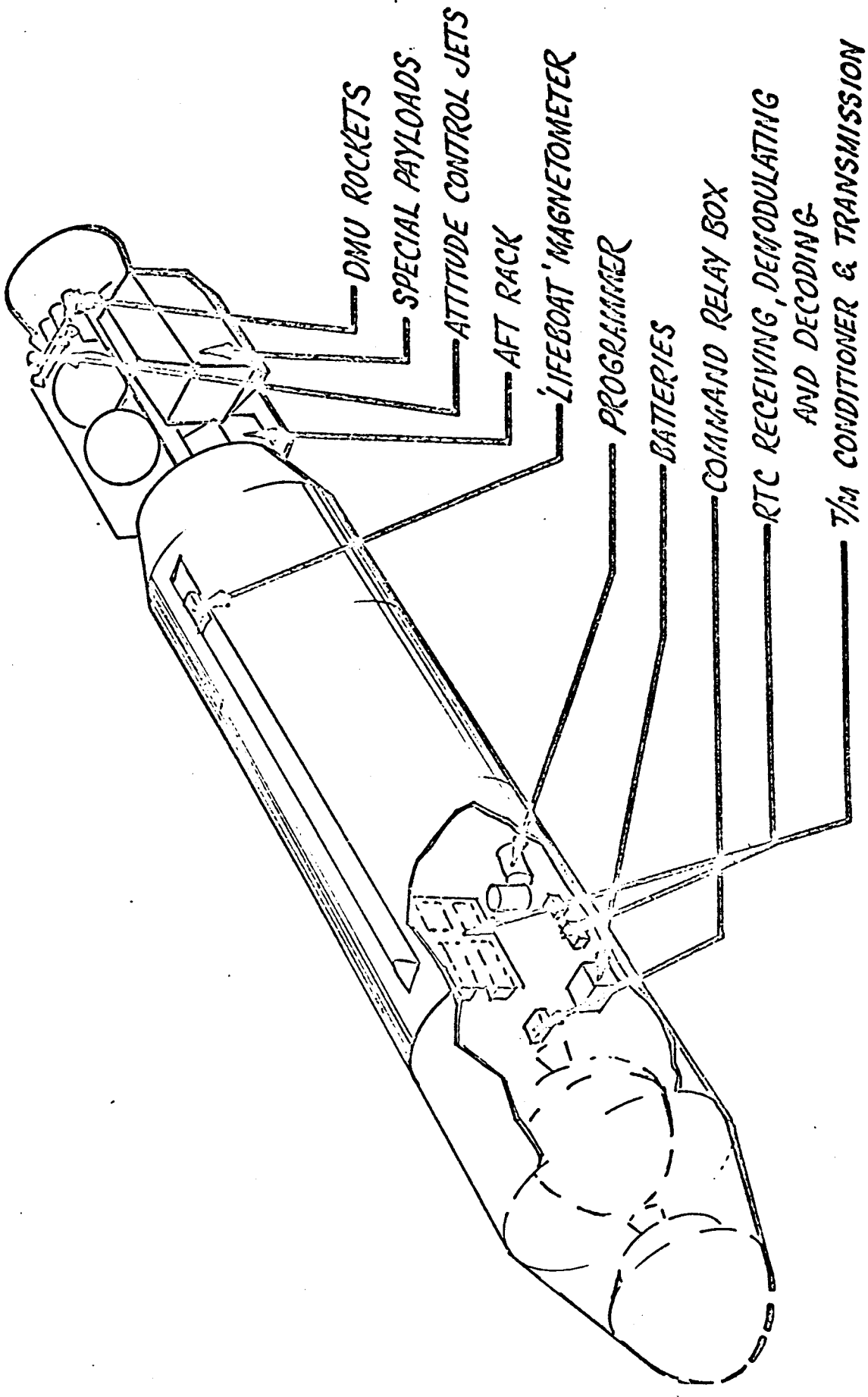


ADVANCED PROJECTS



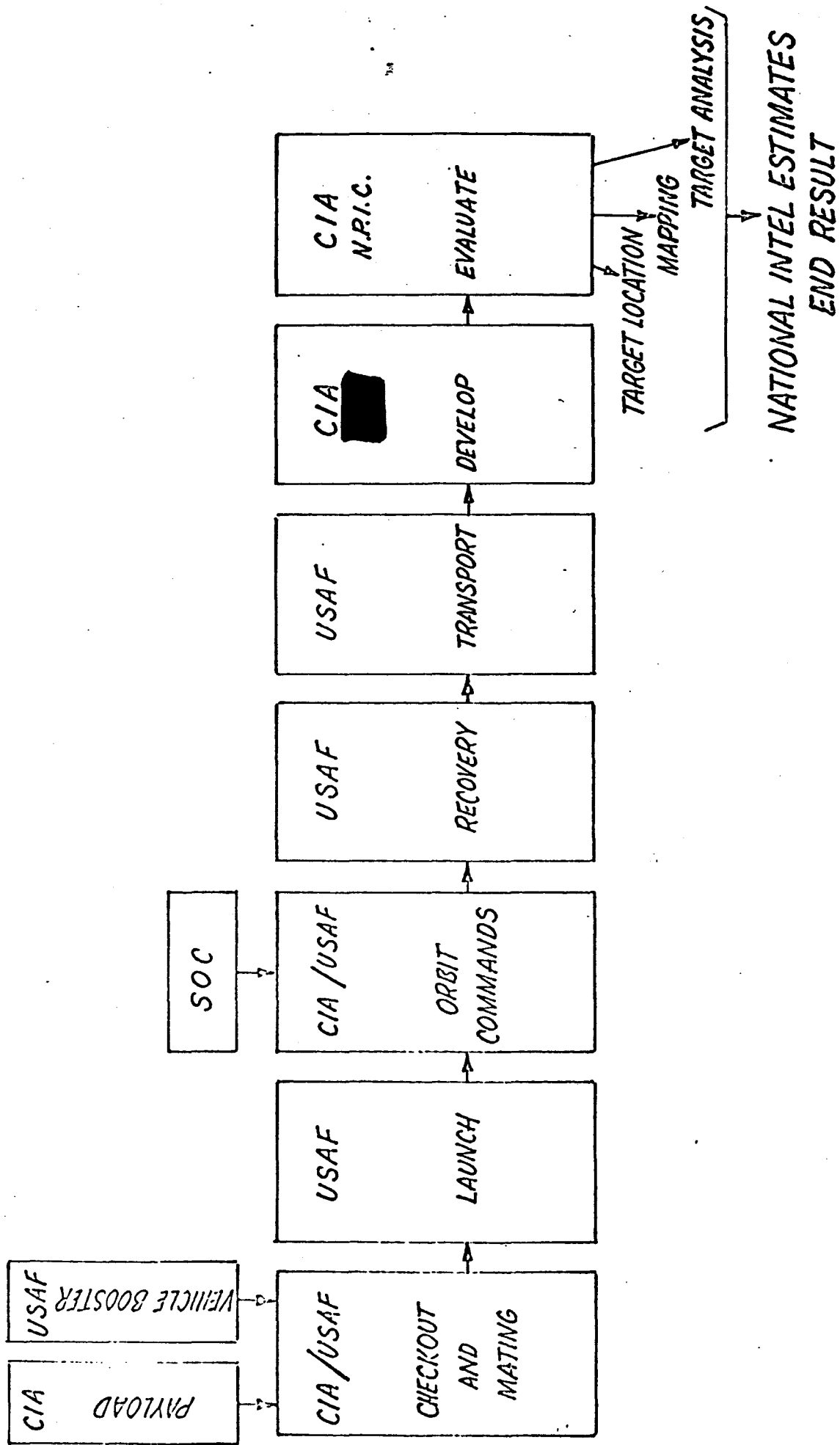
~~TOP SECRET~~
~~TOP SECRET~~

AGENA CONFIGURATION



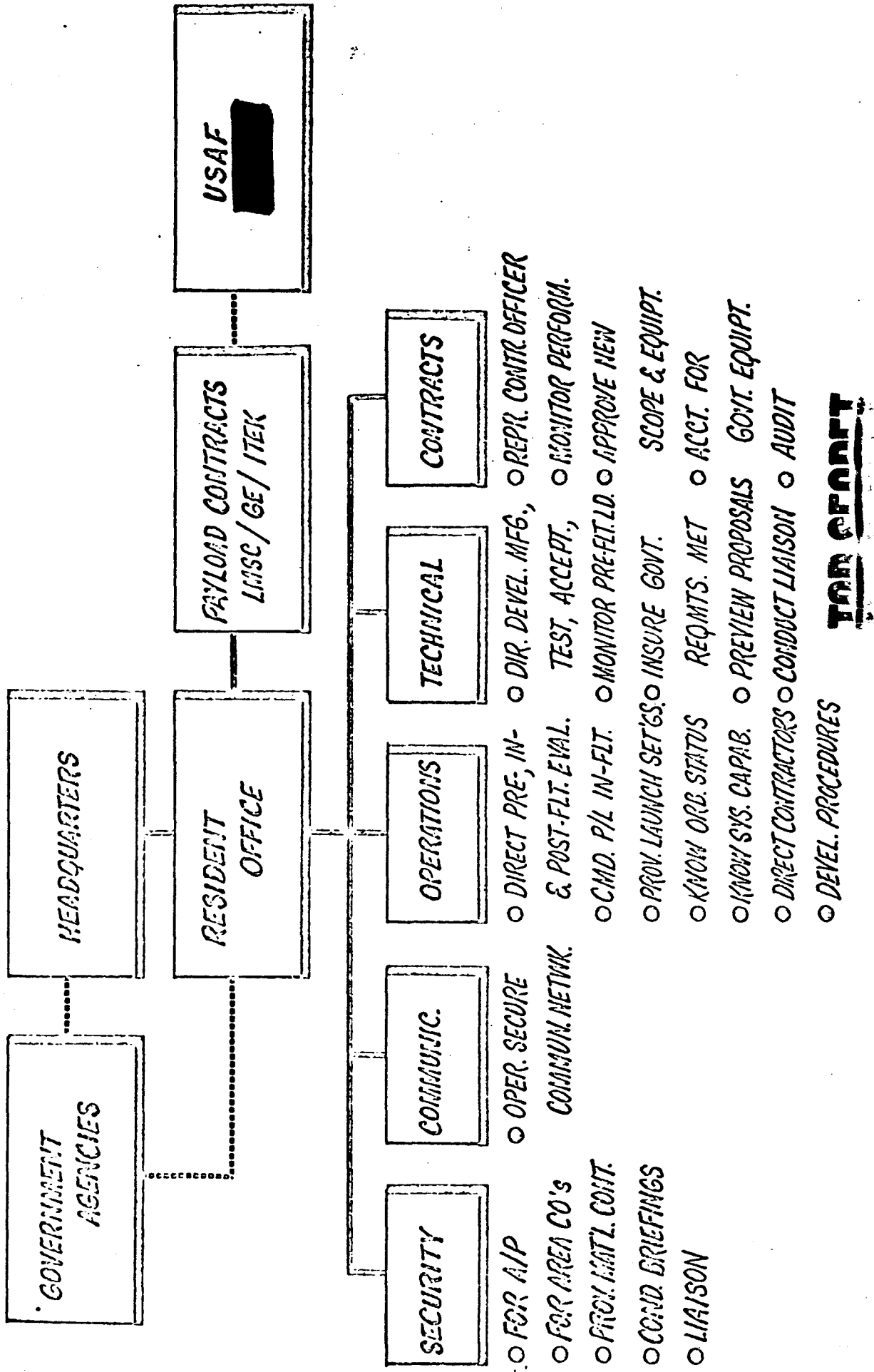
TOP SECRET

CORONA INTEL CYCLE



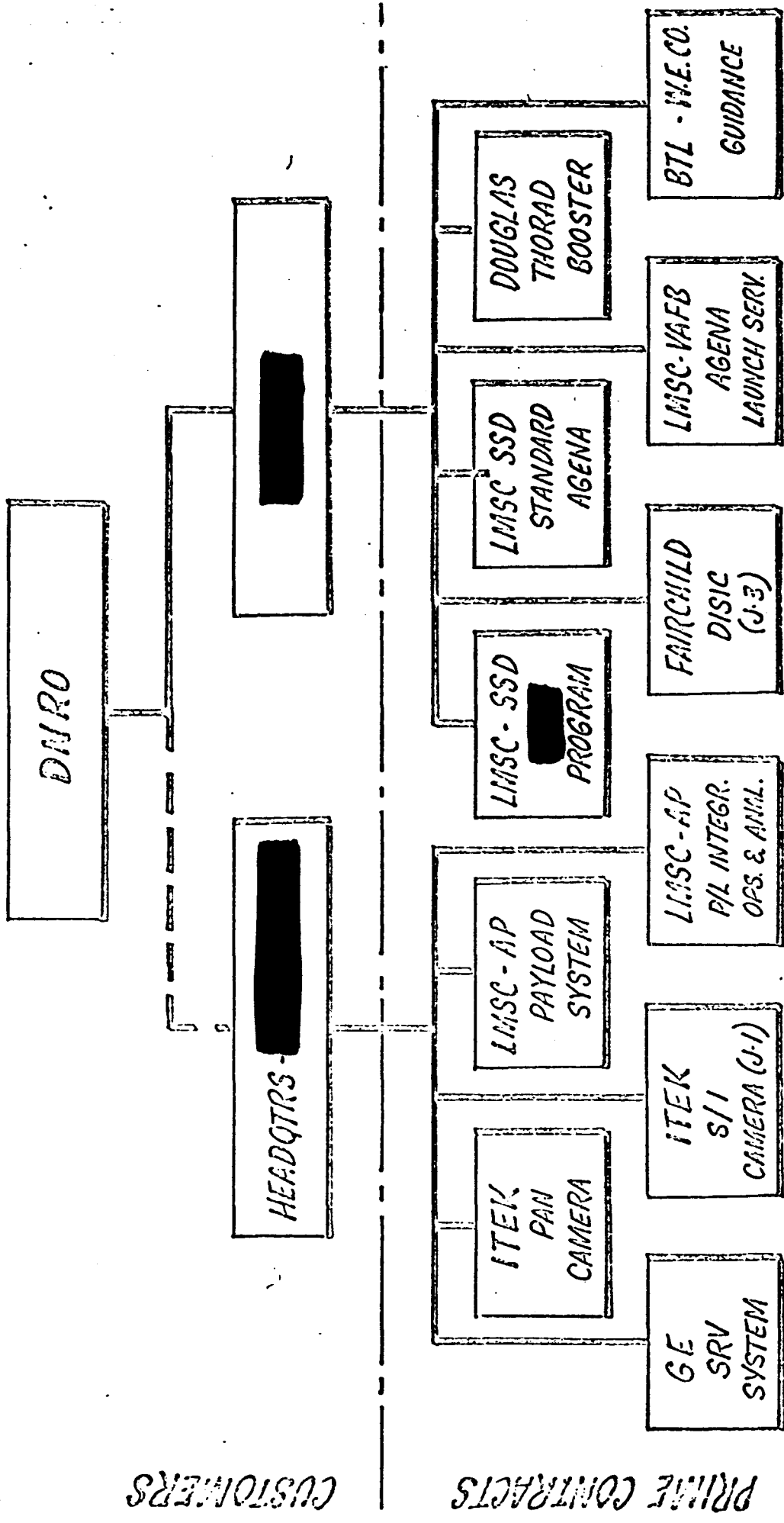
~~TOP SECRET~~

PAYLOAD ORGANIZATION & FUNCTIONS



TOP SECRET

CUSTOMER / CONTRACTOR RELATION



CUSTOMERS

PRIME CONTRACTS

TOP SECRET

CORONA PROGRAM - A/P SECURITY

SPECIAL ACCESS REQUIREMENT -

- ALL PERSONNEL CLEARED / BRIEFED PHASE 2 OR 3
- MAXIMUM SECURITY RESPONSIBILITY WITH THE INDIVIDUAL
- FACILITY LOCATION; PRESENCE OF LMSC/GE/ITEK / GOVERNMENT PERSONNEL IS CLASSIFIED
- ALL VISITS CONTROLLED BY HEADQUARTERS

COVER STORY - [REDACTED] / ADVANCED RESEARCH -

- SPECULATIONS - 'NO COMMENT' RESPONSE

PHYSICAL SECURITY -

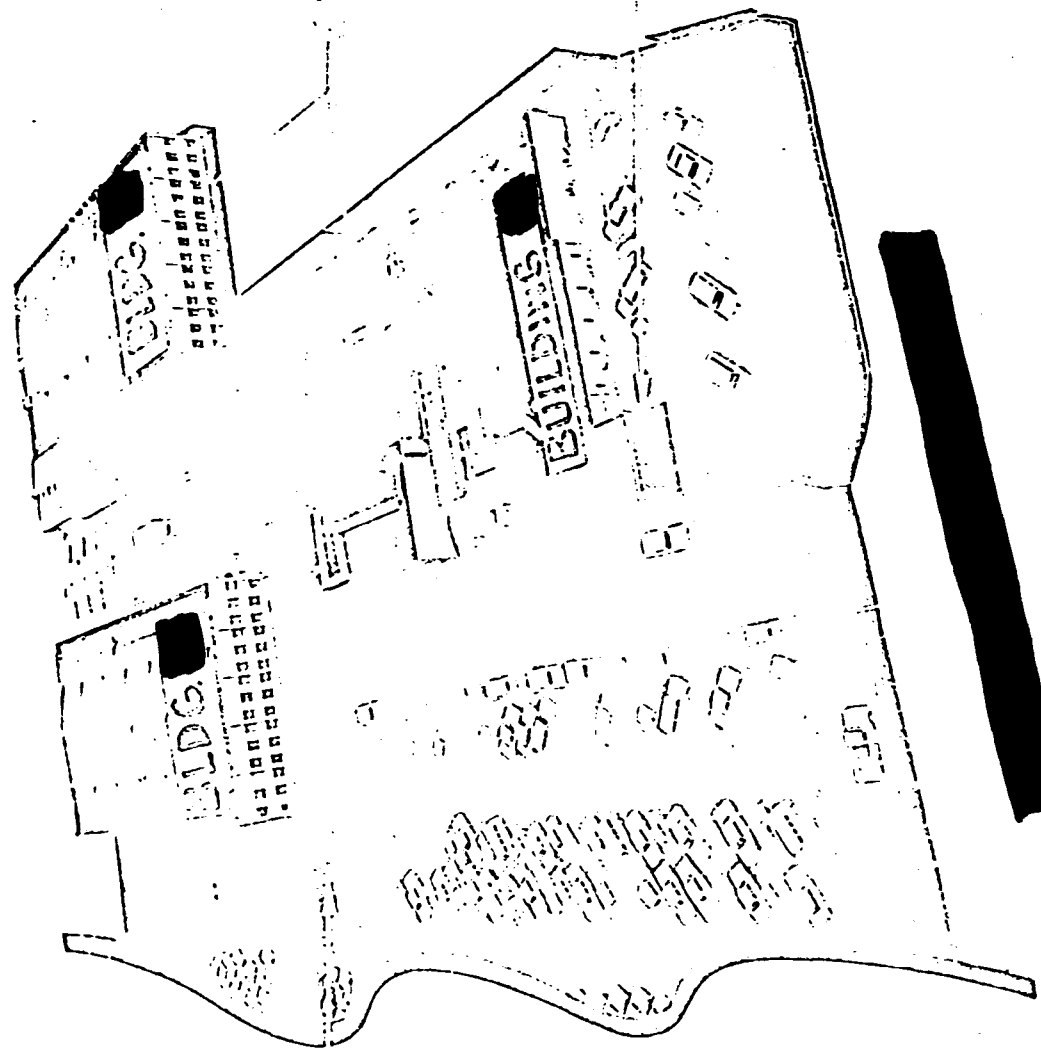
- DOD PHILOSOPHY PARALLELED OR EXCEEDED
- CIVIL DISTURBANCE / DISASTER CONSIDERATIONS

COVERT OPERATION -

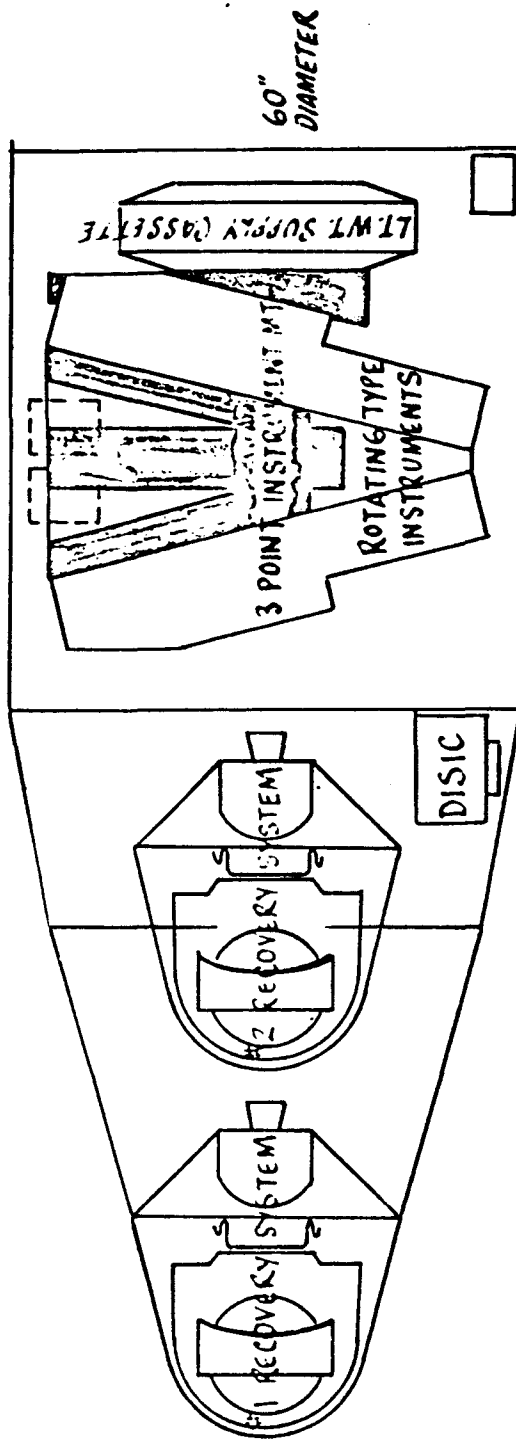
- PURCHASING, PROCUREMENT, SHIPPING
- COMMUNICATIONS

~~TOP SECRET~~

SECURITY - A/P FACILITY



J3 INBOARD PROFILE

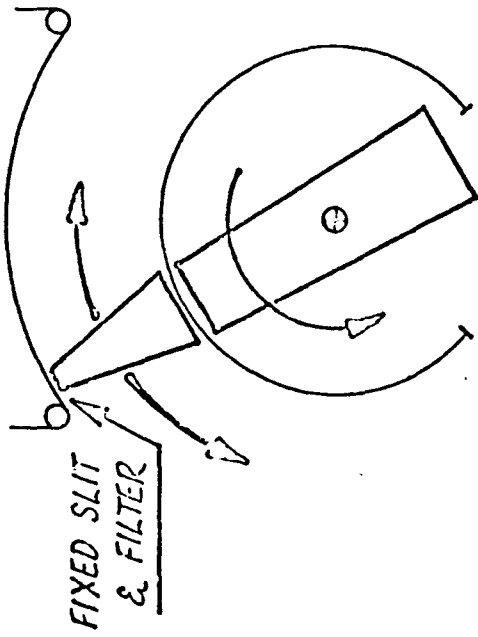


PERFORMANCE AT 85 NM

- 3404 140 L/MM 6.75'
- COVERAGE - STD. BASE 7.0 M NM²/FLIGHT
- U.T.B 10.5 M NM²/FLIGHT
- STEREO -
- PAYLOAD WEIGHT - 1772#

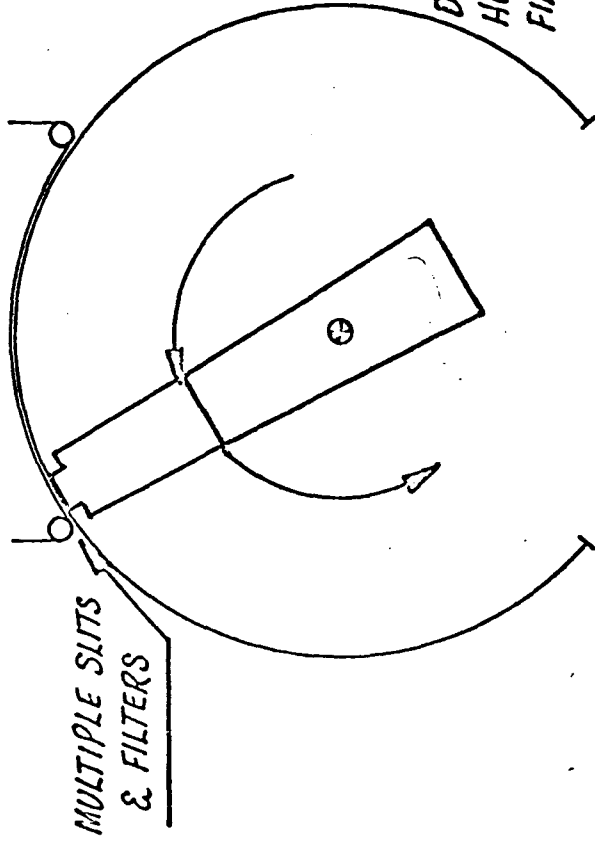
J1/J3 COMPARISON

RECIPROCATING TAIL CONE



95 MILE MIN. PERIGEE
5% V/H MATCH
TRANSLATING FMC
CAMERAS SEPARATE -
EACH HAS 24 BOLTS TO VEH.
NON-MODULAR ELECTRONICS

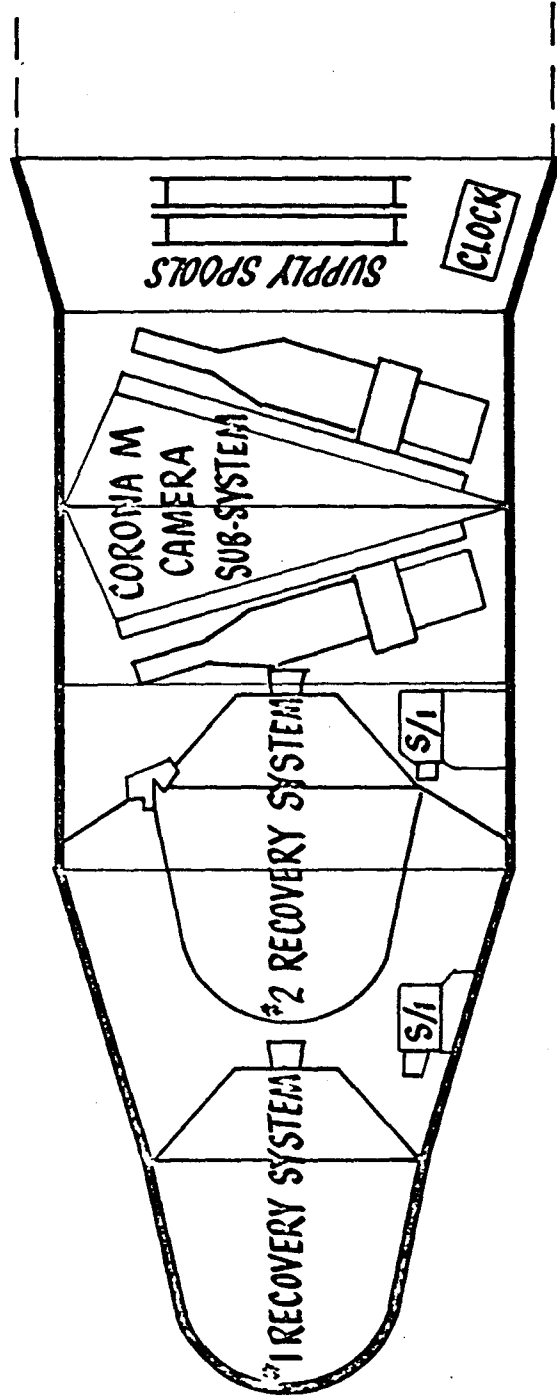
CONSTANT ROTATER



80 MILE MIN. PERIGEE
2% V/H MATCH PLUS OBLATENESS FUNCTION
NODDING FMC; IMPROVED PAN GEOMETRY
CAMERAS TIED TOGETHER - 3 FT. TIE TO VEH.
MODULAR ELECTRONICS ON DELTA
BETTER LENS QUALITY

~~TOP SECRET~~

J1 INBOARD PROFILE

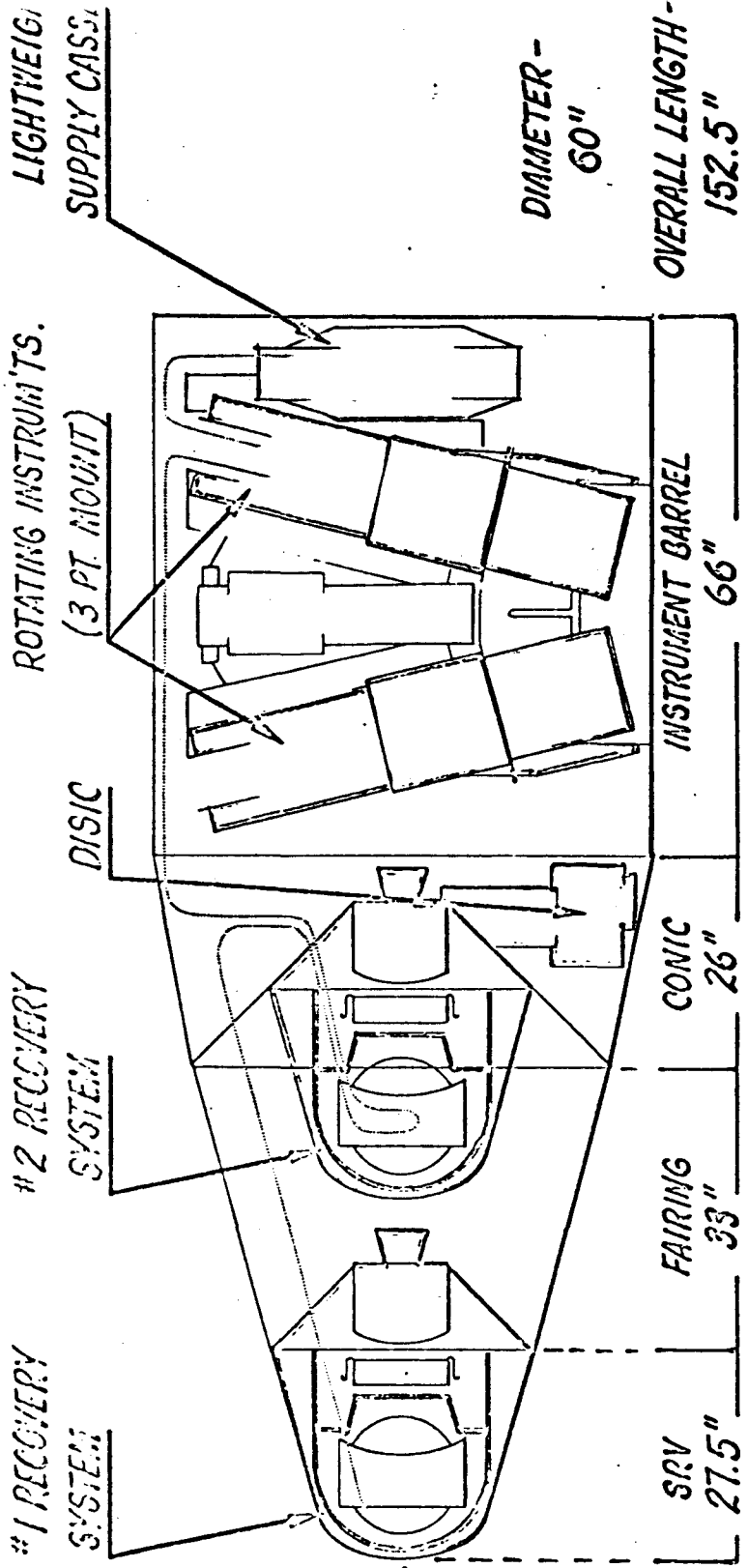


PERFORMANCE AT 110 NM

- 3404 124 L/MM 8'
 - COVERAGE 9.3M NM²/FLIGHT
 - STEREO
 - PAYLOAD WEIGHT - 1440 #
- ~~TOP SECRET~~

TOP SECRET

J3 INBOARD PROFILE



PERFORMANCE
(25 NM)

○ 3404 MAT'L. -
150 100 L/MM
300 GPH
6.75' 4.5 RESOL.

○ COVERAGE -

STD. BASE,
70 M NM²/FLT.

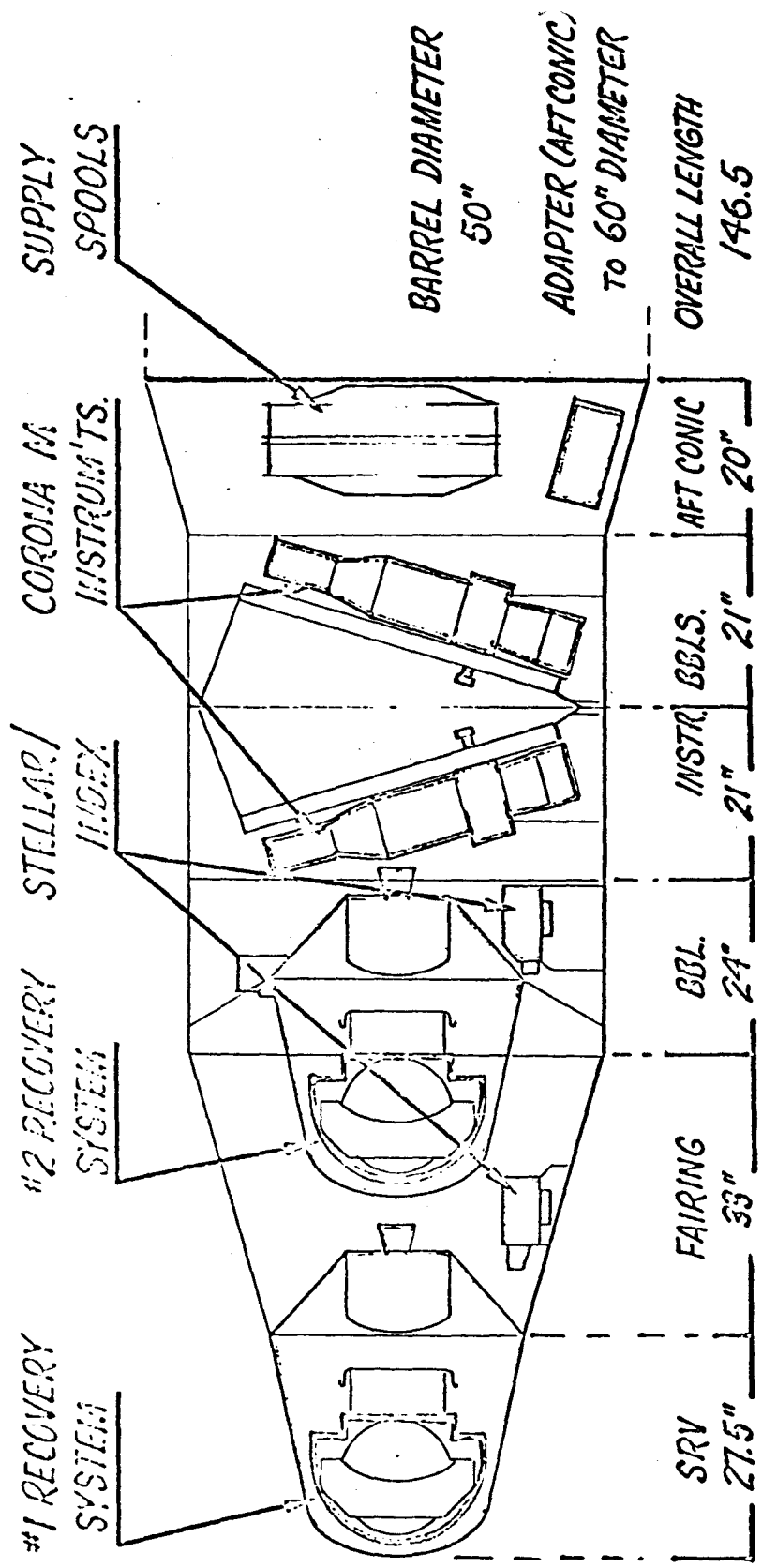
U.I.B.,
10.5M NM²/FLT.

○ STEREO MODE

ESTIMATED PAYLOAD WEIGHT - 1772 LB.

TOP SECRET

J1 INBOARD PROFILE



PERFORMANCE
(100 mi)

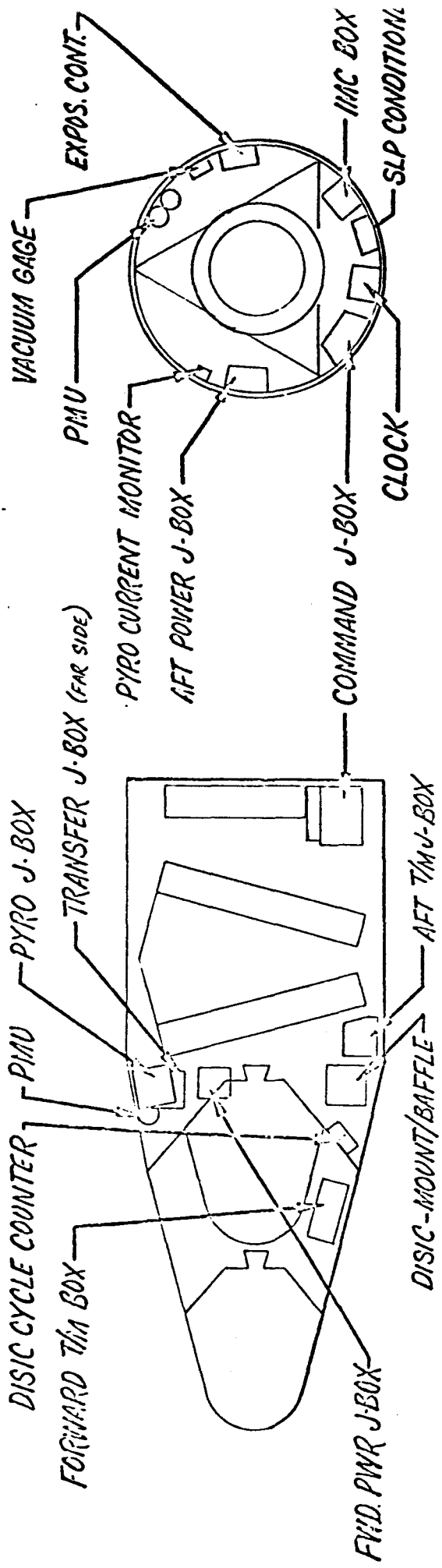
○ 3404 INST'L
124 L/MIN
8' RES.

○ COVERAGE
9.5 mi²/FLT.

○ STEREO MODE

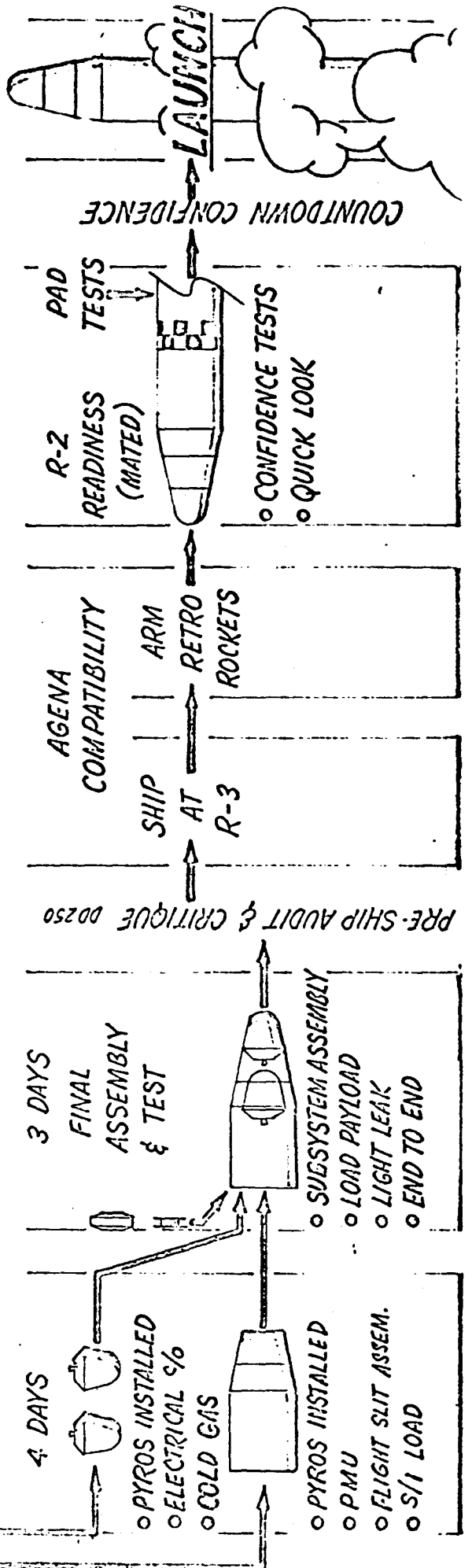
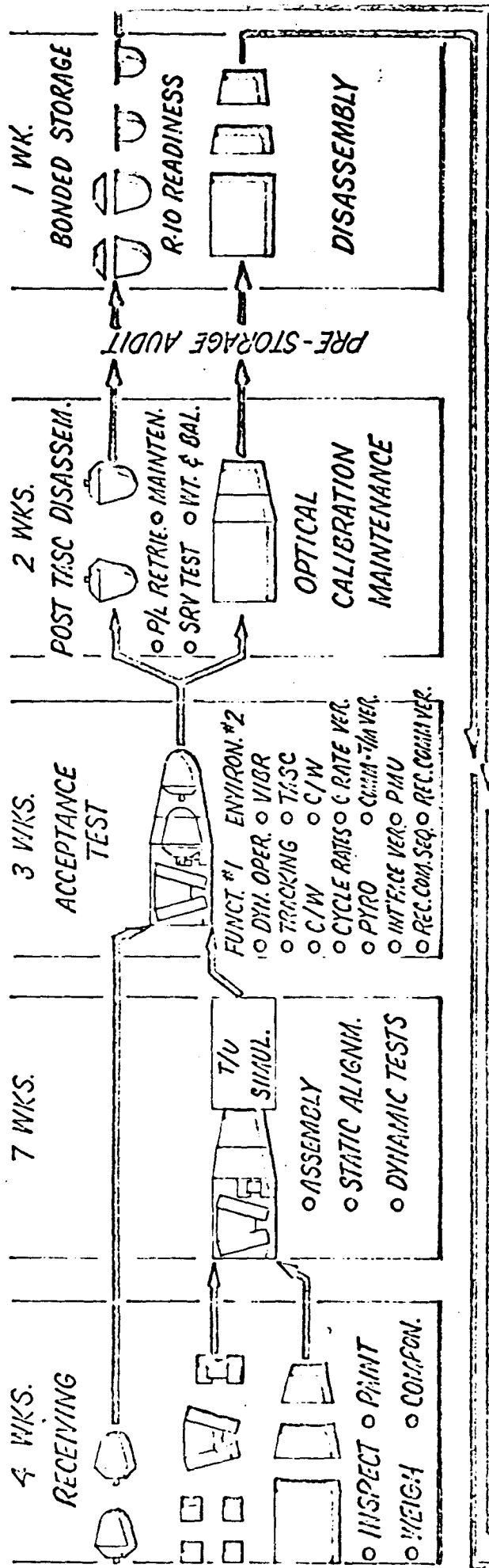
ESTIMATED PAYLOAD WEIGHT - 1440 LB.

J3 FLIGHT STRUCTURE SUBSYSTEM



- SUPPORT FOR SUBSYSTEMS
- AERODYNAMIC GEOMETRY FOR LAUNCH
- LIGHT SEALING
- ORBITAL THERMAL CONTROL
- POWER DISTRIBUTION & TELEMETRY
- OPERATIONAL COMMAND & CONTROL
- CORONA DISCHARGE CONTROL

A/P FACTORY TO LAUNCH



PROGRAM FLIGHT SCHEDULE

		1969											
		J	F	M	A	M	J	J	A	S	O	N	D
FLIGHT SYSTEM	CR6J43						J44	CR8	J46	CR7			
DSR COMM'D. SYSTEM													
80 NM ALTITUDE													
RECOV. TAPE RECORDER													
UTB													
SUPPLY SERVO													
BOBBLER													

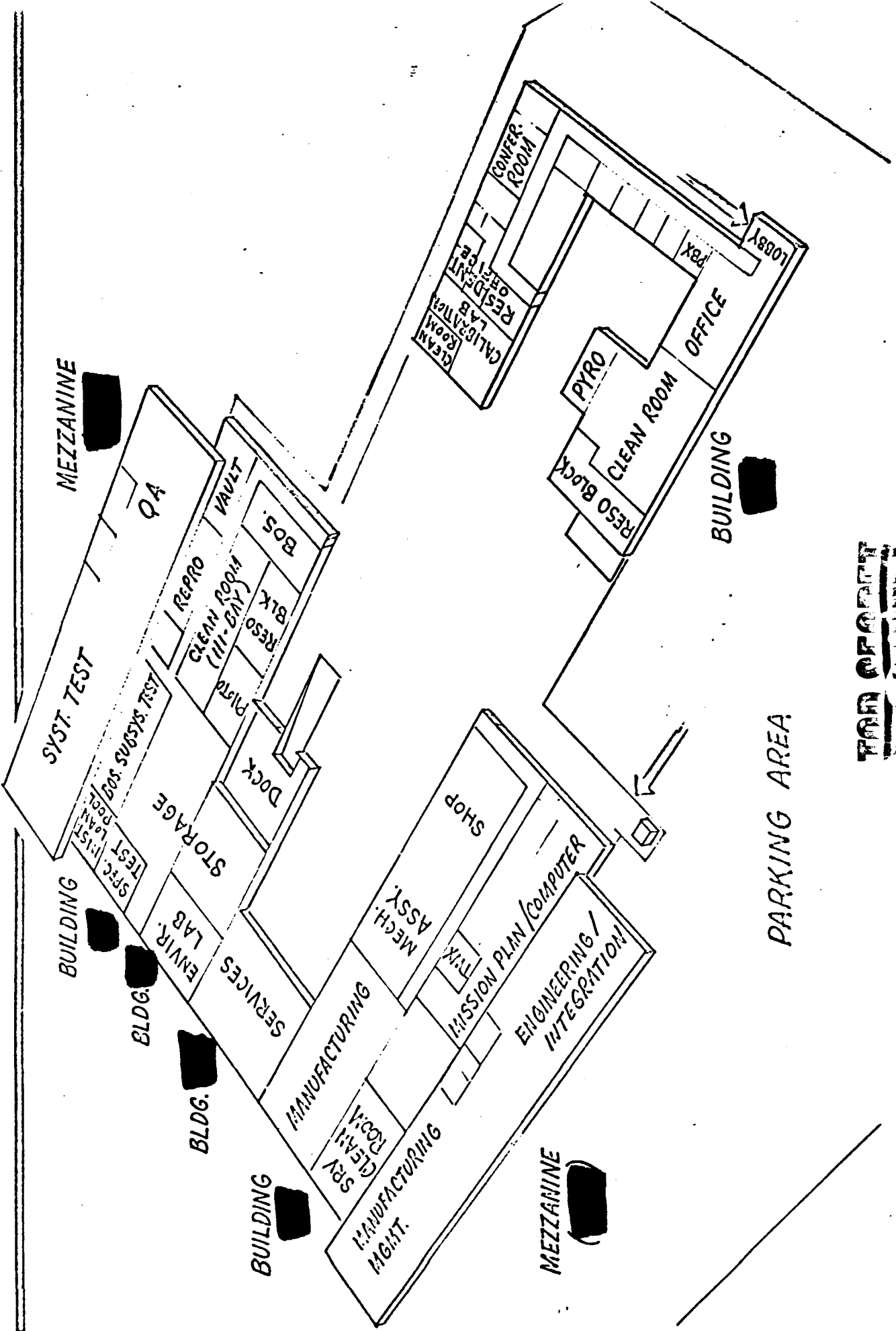
(LAST 31 VEH.)

SOLAR ARRAY

		1970												1971											
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
FLIGHT SYSTEM	CR9													CR11	CR12	CR13	CR14	CR15	CR16	QR2					
DSR COMM'D. SYSTEM																									
85 NM ALTITUDE																									
RECOV. TAPE RECORDER																									
UTB																									
SOLAR ARRAY																									
FLEX. DMU FIRING																									

TOP SECRET

A/P FACILITY



TOP SECRET

12/10/68

AND CRITICAL ROLLER DIAMETERS

Note

- A. Roller numbers are ref. to enclosed sketch.
- B. All measurements taken from center of format (rail holes) except those noted.

OUTPUT (C.F. to T.U.)

<u>Position/Roller No.</u>	<u>Roll Dia. (in.)</u>	<u>Inst. #1</u>	<u>Inst. #2</u>
1. Serial No./S.O.P.		6.50	
2. Roller #1	.955	7.90	
3. A.O. Format Center (out)	2.02	16.13	
4. Roller #3 (meter out)		20.01	
5. Roller #4	.955	21.50	
6. Roller #5	.990	24.13	
7. S.L.P.		27.50	
8. Roller #6	.990	31.00	
9. Dancer Roll (Shuttle Center)	.990	36.20	
10. Roller #8 _{up}	.990		
11. Roller #9 _{up}	.626	(7.75)	Roller to roller
12. Roller #10 _{up}	.990	(17.13)	Distance CR8 & up
13. Roller #10 (Dancer Center)		*68.80	CR8 and up

Note

- A. Maximum excursion of shuttle/payload path = 6.10 in.
- B. Shuttle in center position to exit roller #10 = 32.50 in.
- C. Shuttle in output position to exit roller = 30.00 in.
- D. Shuttle in input position to exit roller = 36.10 in.

14. Roller #10 to BBL center = 26.60 in.			90.40
15. Roller #10 to guide idler on Inst. #1 = 36.50 in.			105.30
16. Barrel conic interface		72.80	117.20
17. First I.R. roller #32	.990	86.50	127.30
18. Second I.R. roller #33	.990	92.30	133.05
19. "B" cutter in		104.80	147.40
20. First hub roller "B" T.U.		116.80	169.40
21. Exit hub "B" T.U.		118.30	170.90
22. "B" cutter out		133.80	176.40
23. Last I.R. roller #36	.990	157.30	202.70
24. Felt seal		163.50	211.10
25. Fairing/conic		172.40	220.00
26. "A" forebody fairing		203.40	251.00
27. SRV cover		211.20	258.75
28. "A" cutter		212.00	259.50

* A. Items 13 thru 28 reflect the 7" increase in payload path as a result of extending roller #9. (CR8 & up). To extrapolate lengths from CR1 to CR3 subtract 7" from measurements 13 thru 28.

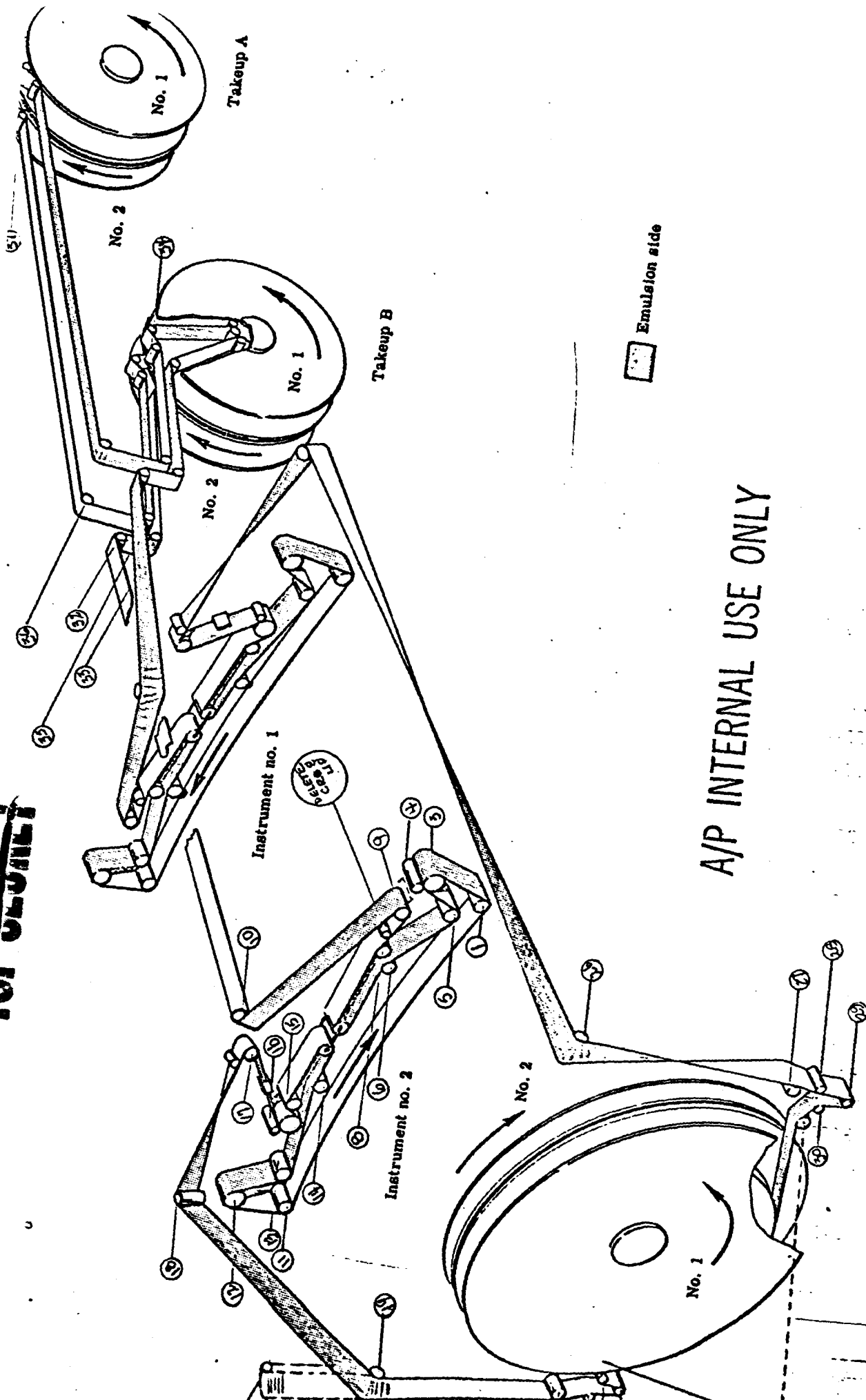
A/P INTERNAL USE ONLY

<u>INPUT (C.F. to SUPPLY)</u>		<u>Aft. Look</u>	<u>Fwd. Look</u>
<u>Position/Roller No.</u>	<u>Roll Dia. (in.)</u>	<u>Inst. #1</u>	<u>Inst. #2</u>
1. Roller #11	.955	14.80	
2. A.O..Format Center (in)		16.10	
3. Roller #12	.990	19.00	
4. Roller #13	.990	22.70	
5. Roller #14	.990	29.70	
6. Roller #15 (Dancer Center)	.990	42.00	
7. Roller #16 (Pressure)	.955	47.80	
8. Roller #17	.990	55.10	
9. Roller #18	.990	70.30	
10. Roller #19	.990		82.80
11. Roller #20 (CR8 & up)	.990		*88.10
12. Roller #21 (Last Roll C.T.)	.990		109.00
13. Roller #22 (operating)	.500		110.10
14. Roller #23 (Bobbler)	.500		112.60
15. Roller #24	.500		113.30
16. Roller #25 (first roll C.T.)	.990		115.50
17. Roller #26 (last roll S.C.)	.990	124.80	
18. Roller #27 (last roll C.T.)		147.00	
19. Roller #28		148.10	
20. Roller #29 (Bobbler)		150.70	
21. Roller #30		151.90	
22. Roller #31 (first roll C.T.)		154.10	

* A. Items 11 thru 16 reflect the 10 in. increase in payload path due to installation of roller #20 and CR8 and up. This pertains to Instrument #2 only. For measurements on System CRI thru CR7 subtract 10 in. from items 11 thru 16.

A/P INTERNAL USE ONLY

TAN CROFT
FOR CLEAN



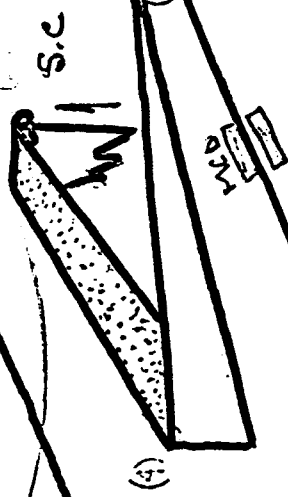
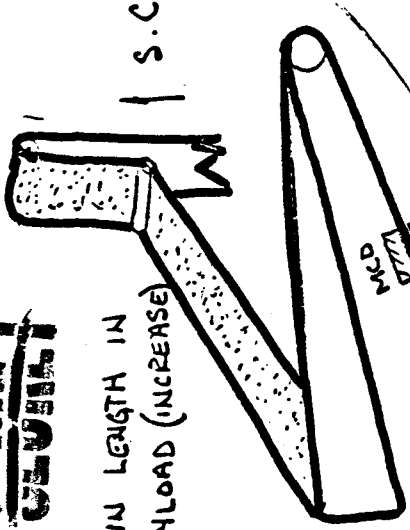
A/P INTERNAL USE ONLY

Fig. 5-1 — Film threading diagram

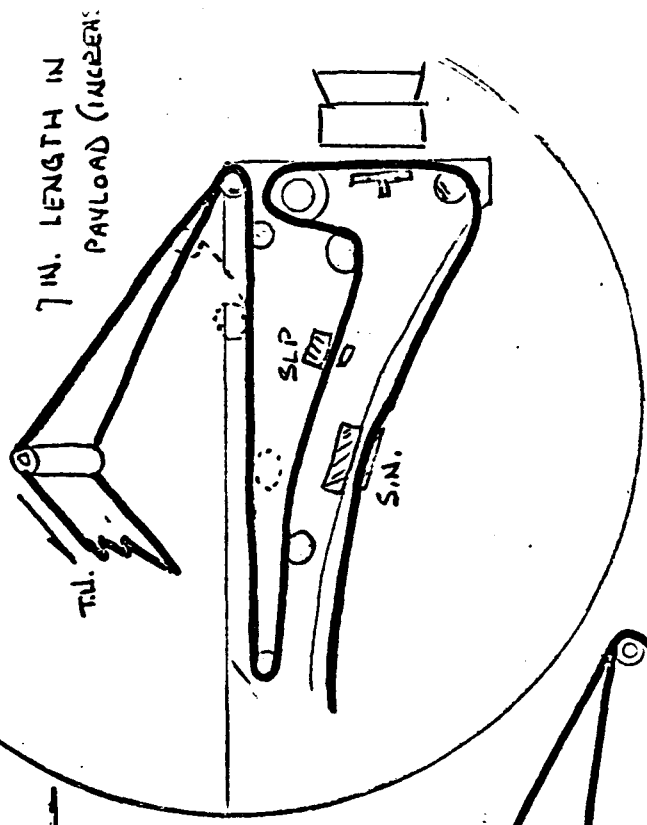
TAN CROFT
FOR CLEAN

**ARMY AIRCRAFT
TECHNICAL DRAWING**

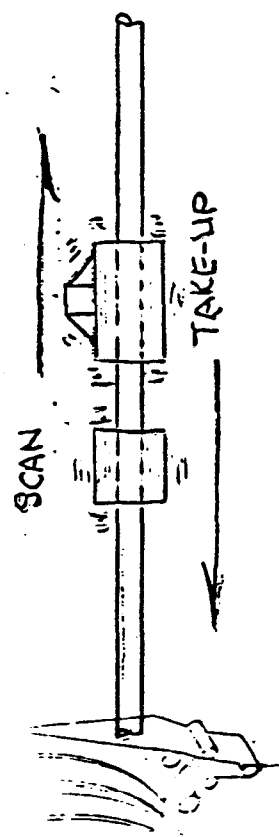
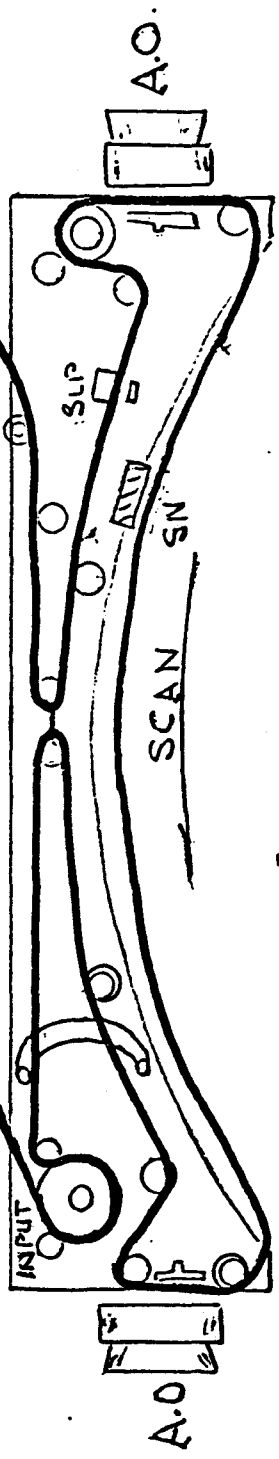
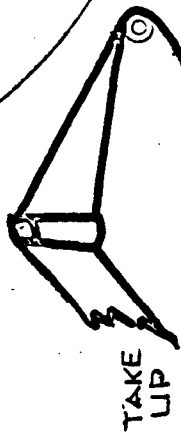
10.5 IN LENGTH IN
PAYLOAD (INCREASE)



CR 8 & UP



7 IN. LENGTH IN
PAYLOAD (INCREASE)

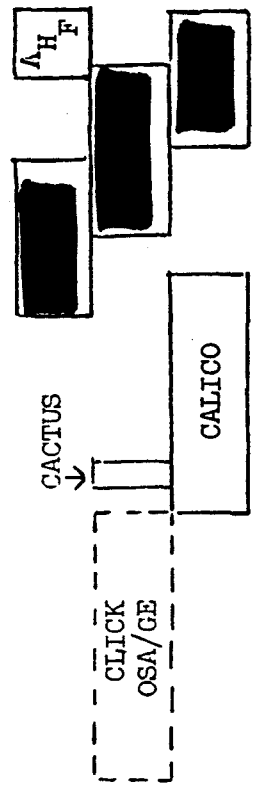
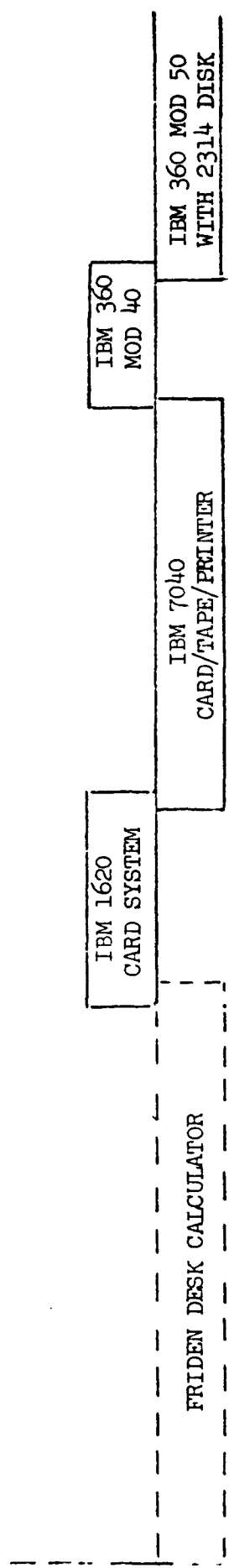


CR 1-7

A/P INTERNAL USE ONLY

**ARMY AIRCRAFT
TECHNICAL DRAWING**

A/P OPERATIONS & ANALYSIS DEVELOPMENT



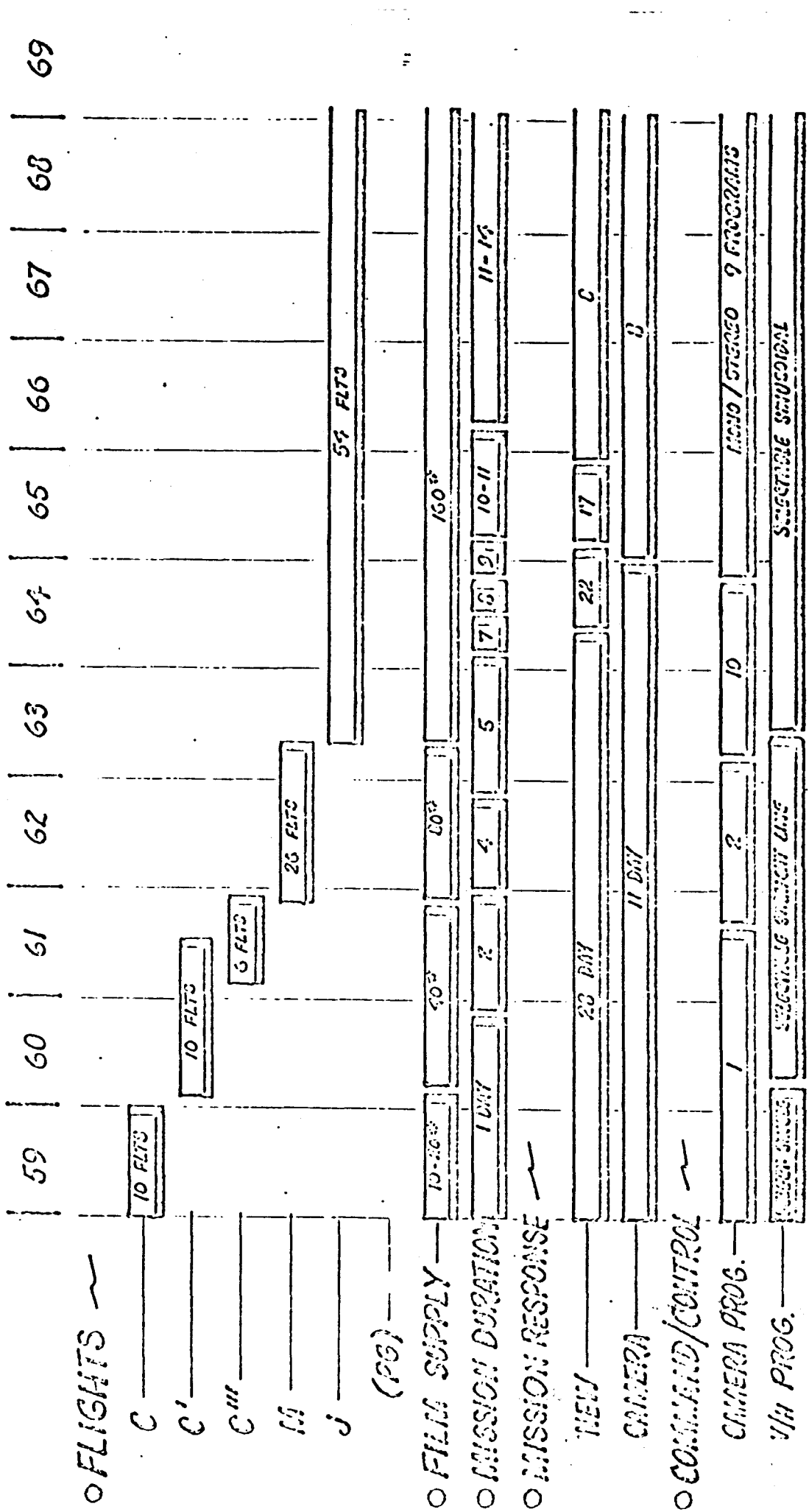
ORIG. H-TIMER DEVELOPMENT	C' 1.1	J1 9 PROGRAMS REV SELECT/SINE V/h	J3 1 THRU 5	J3/DBR
C 1.1 PROG. ON/OFF/RATE	C' 1.1	J1 OPS SELECTION	15 DAY TIMER	20 DAYS
C' 1.1 PROG.	CM 2 PROGS. LINEAR V/h			

-A-
PRE-PROGRAMMED ON/OFFS

L-ROLL-
BINARY

1958	1960	1962	1964	1966	1968
------	------	------	------	------	------

CORONA PROGRAM EVOLUTION



TOP SECRET
TOP SECRET

TOTAL DAYS ON ORBIT WITH

6	14	55	93	106	87	93	116
---	----	----	----	-----	----	----	-----

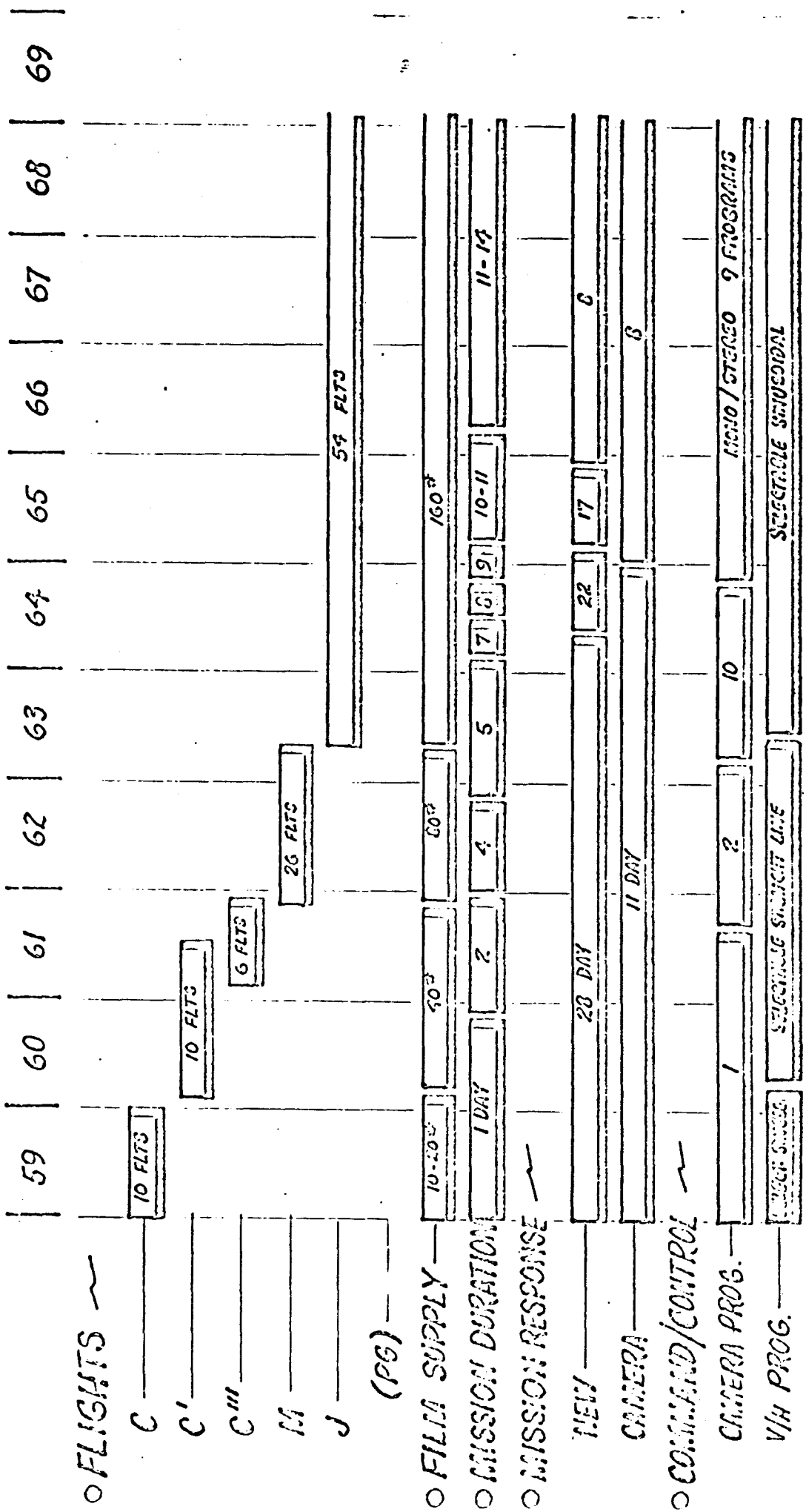
IN-FLY LOAD C

CORONA PROGRAM EVOLUTION

	1959	1960	1961	1962	1963	1964	1965	1966	1967
FLIGHTS									
C	10 FLTS.								
C'		10 FLTS.							
C'''			6 FLTS.						
M				26 FLTS.					
J						45 FLTS.			
(PO)									
FILM SUPPLY									
	10 - 20 LBS.	40 LBS.	80 LBS.	160 LBS.					
MISSION DURATION									
	1 DAY	2 DAYS	4 DA.	5 DA.	7 DA.	9 DA.	10-11 DA.		11-14 P.
MISSION RESPONSE									
NEW		28 DAYS			22 DA.	17 DA.	10 DA.	8 DA.	
CAMERA			11 DAYS						
COMMAND & CONTROL									
CAMERA PROG.	1	2	10						
V/A PROG.	SELECTABLE SINGLE	SELECTABLE STRAIGHT LINE	SELECTABLE SINGULAR						
YAW PROG.									

TOT CORONA
TOT CORONA

CORONA PROGRAM EVOLUTION



IN-FLY LOAD'G.

CORONA PROGRAM EVOLUTION

	1959	1960	1961	1962	1963	1964	1965	1966	1967
FLIGHTS									
C	10 FLTS.								
C'		10 FLTS.							
C''			6 FLTS.						
M				26 FLTS.					
J						45 FLTS.			
(P6)									
FILM SUPPLY	10 - 20 LBS.	40 LBS.	80 LBS.	160 LBS.					
MISSION DURATION	1 DAY	2 DAYS	4 DA.	5 DA.	7	9	10-11 DA.	11-14	
MISSION RESPONSE									
NECV			28 DAYS			22 DA.	17 DA.	8 DA.	
CAMERA			11 DAYS				10 DAYS		
COMMAND & CONTROL									
CAMERA PROG.		1		2	10				MONO/STEREO W/5 PROG.
V/H PROG.									SELECTABLE SINGRIDAL
YASJ PROG.									

TOP SECRET
TUT ULEHET

PROGRAM FLIGHT SCHEDULE

		1969											
		J	F	M	A	M	J	J	A	S	O	N	D
FLIGHT SYSTEM	CR6J-43					J-44	CR8	J-46	CR-7				
DSR COMM'D. SYSTEM													
80 NM ALTITUDE													
RECOV. TAPE RECORDER													
UTB													
SUPPLY SERVO													
BOBBLER													

(LAST 31 VEH.)

△ SOLAR ARRAY

		1970												1971				
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M
FLIGHT SYSTEM	CR9					CR10	CR11	CR12	CR13	CR14	CR15	CR16	QR-2					
DSR COMM'D. SYSTEM																		
85 NM ALTITUDE																		
RECOV. TAPE RECORDER																		
UTB																		
SOLAR ARRAY																		
FLEX. DMU FIRING																		

1970 1971

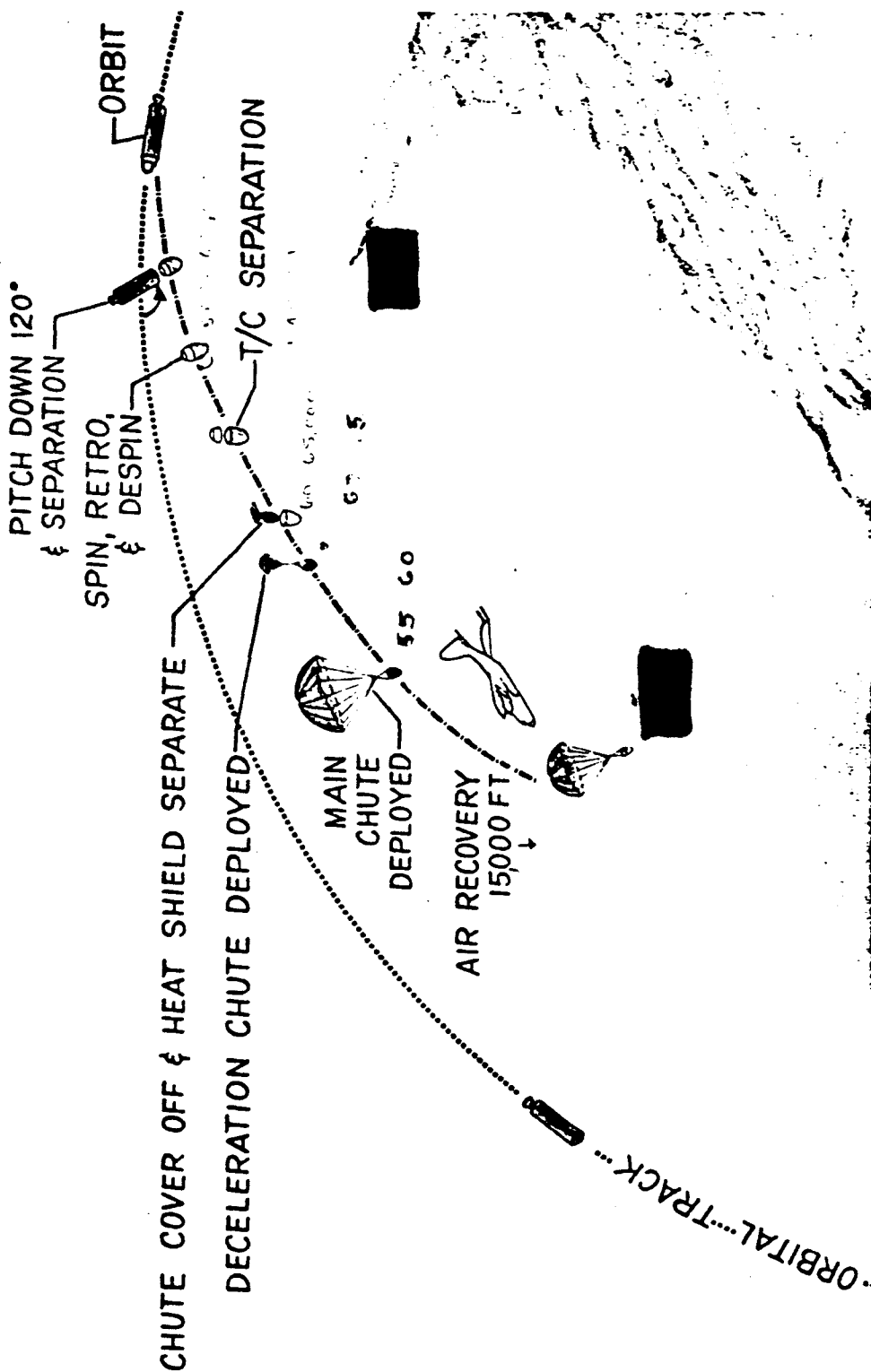


Figure R-4 Recovery Sequence of Events

[Redacted]

Remain