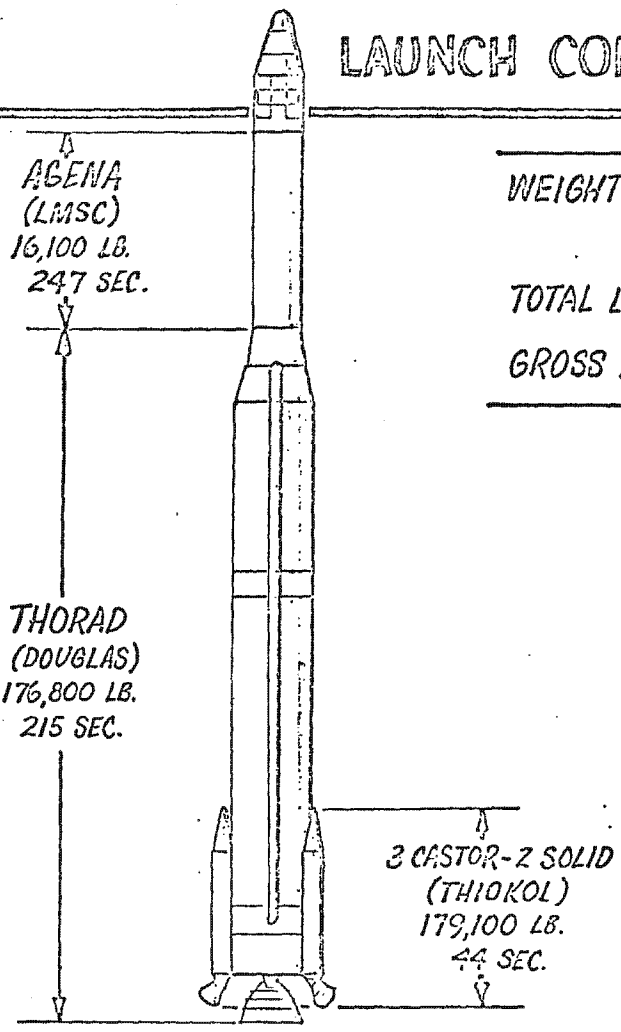
LAUNCH CONFIGURATION

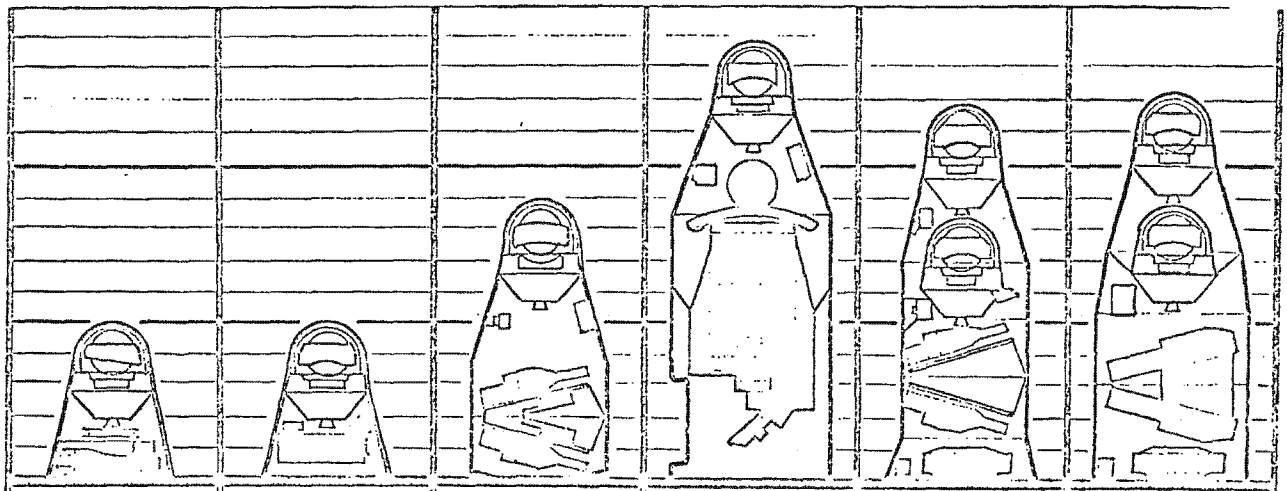


WEIGHT TO ORBIT —— 4200 LB.
(INCL. EMPTY AGENA)

TOTAL LENGTH ——— 103 FT.

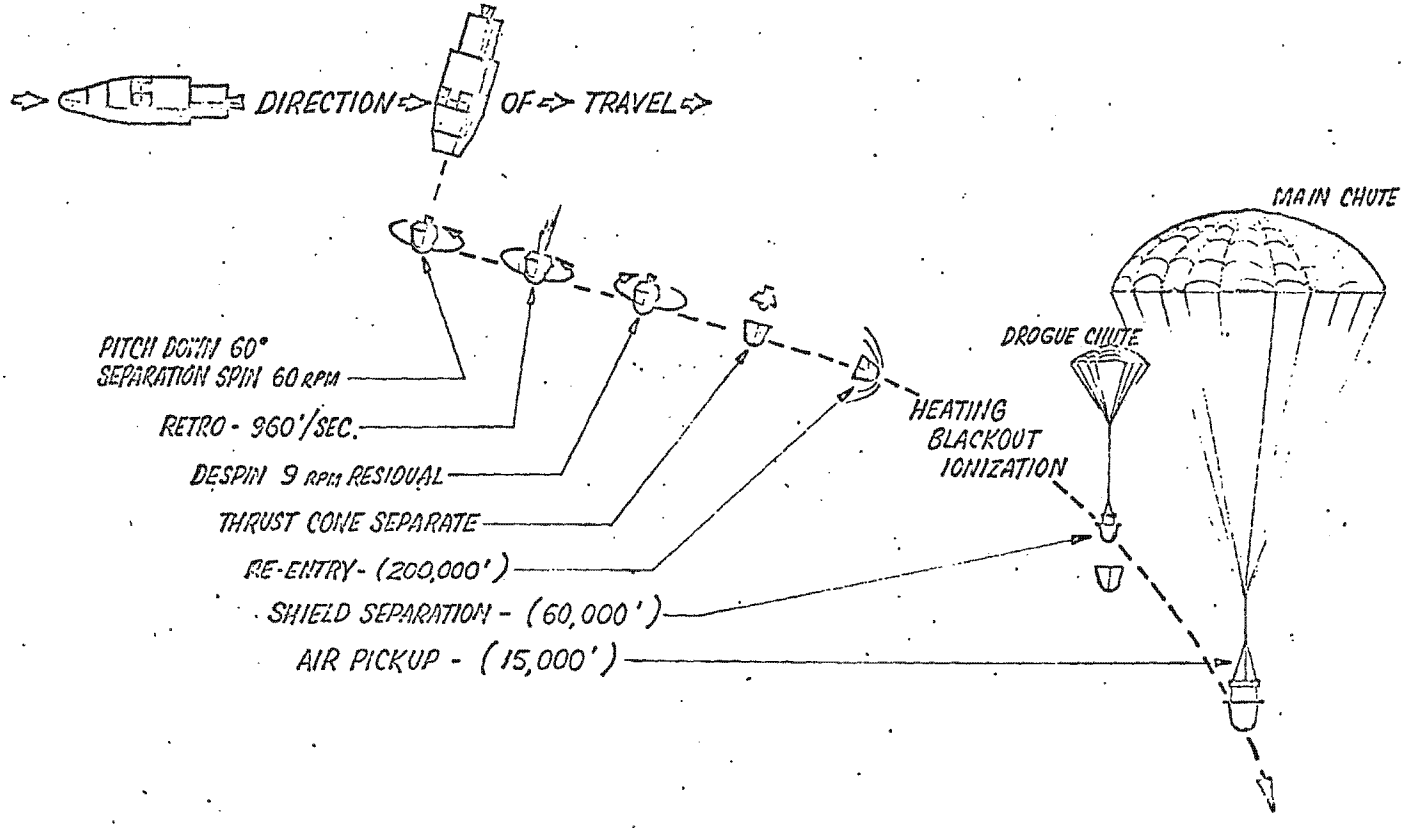
GROSS LIFTOFF WEIGHT-201,800 LB.

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



TOP SECRET C/SPECIAL HANDLING

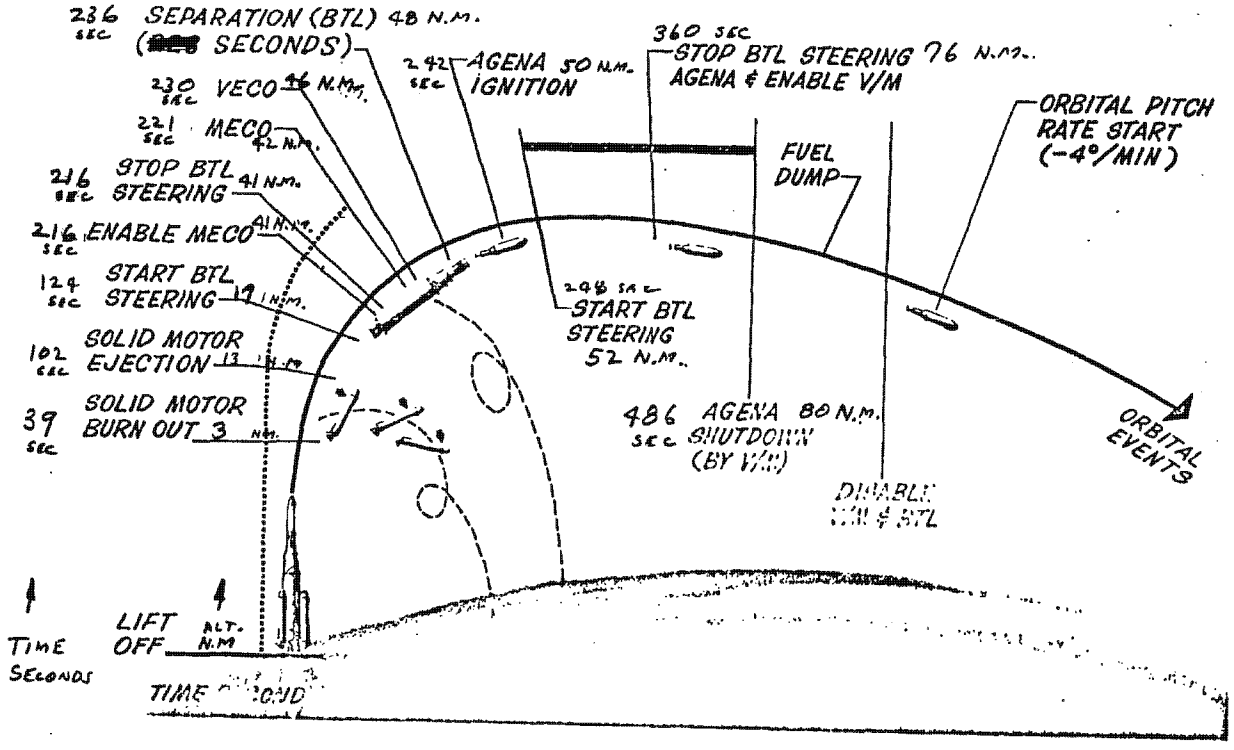
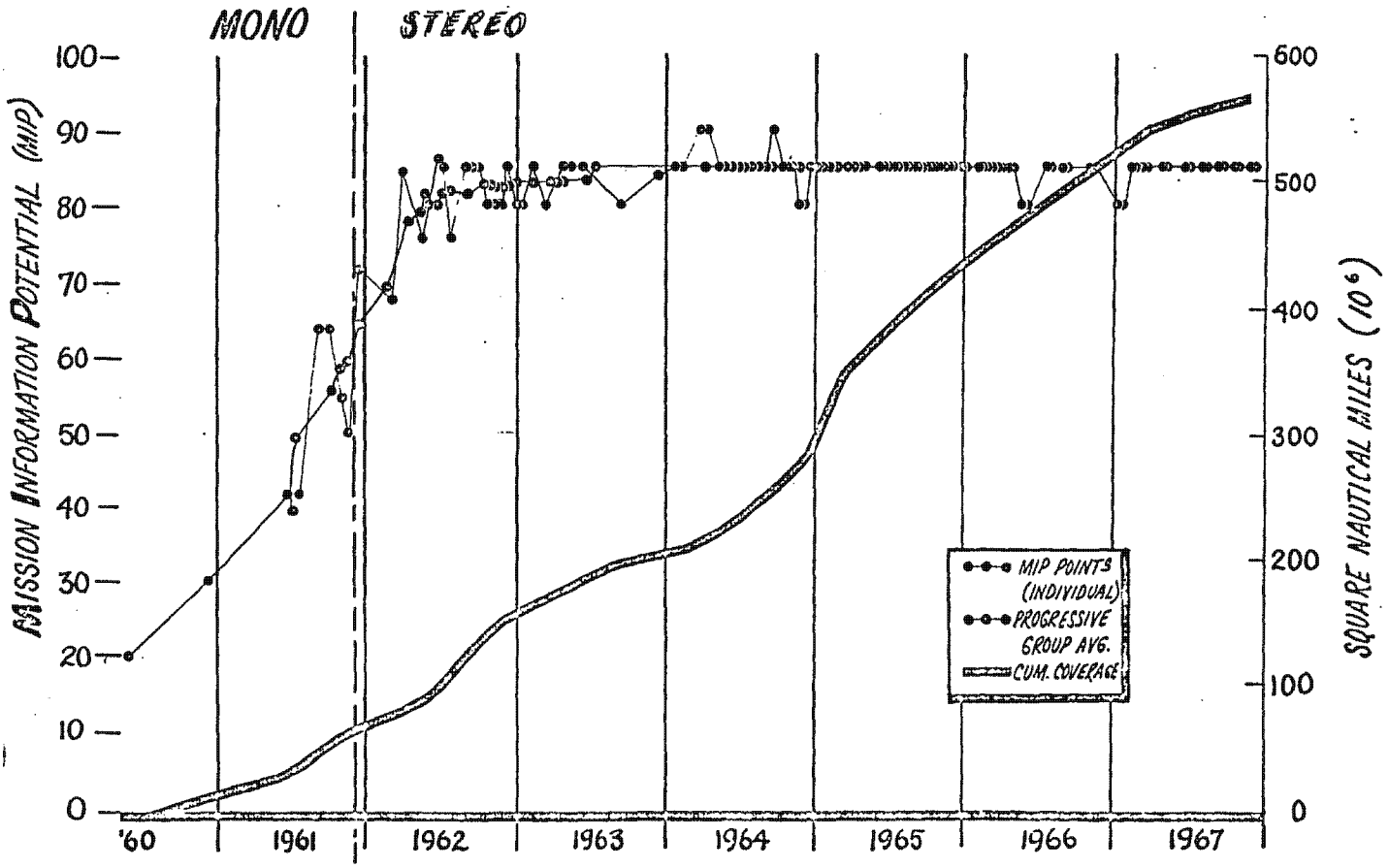


Figure B-1 Ascent Sequence of Events

QUALITY OF PRODUCT



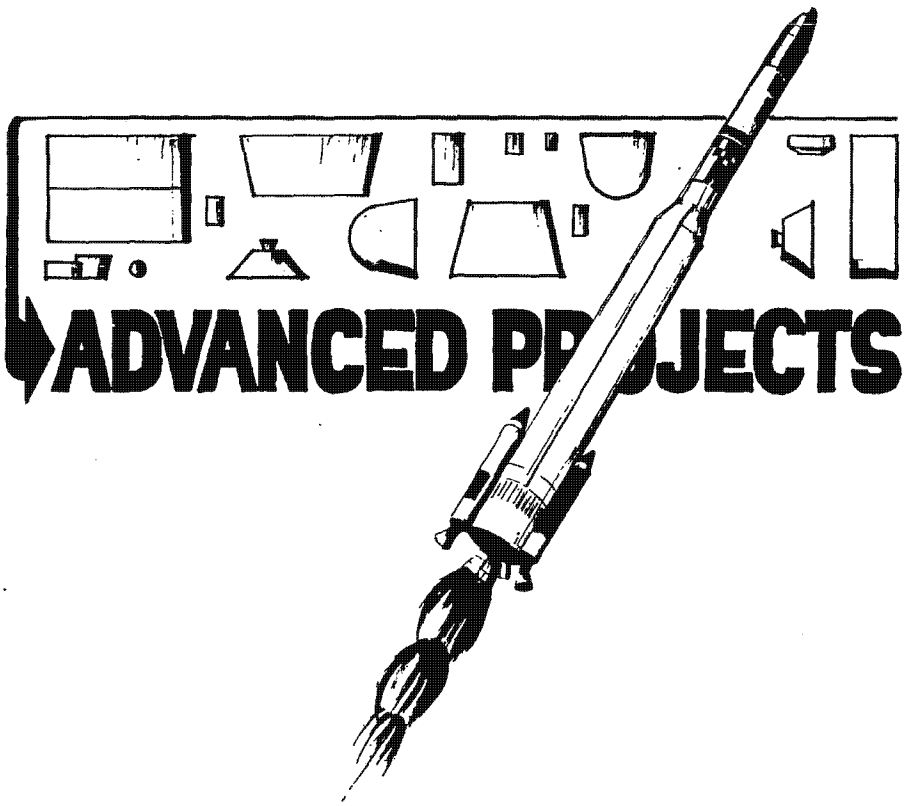
MISSION

1. PAYLOAD DESIGN, MANUFACTURING, INTEGRATION AND TEST

2. MISSION FLIGHT PLANNING

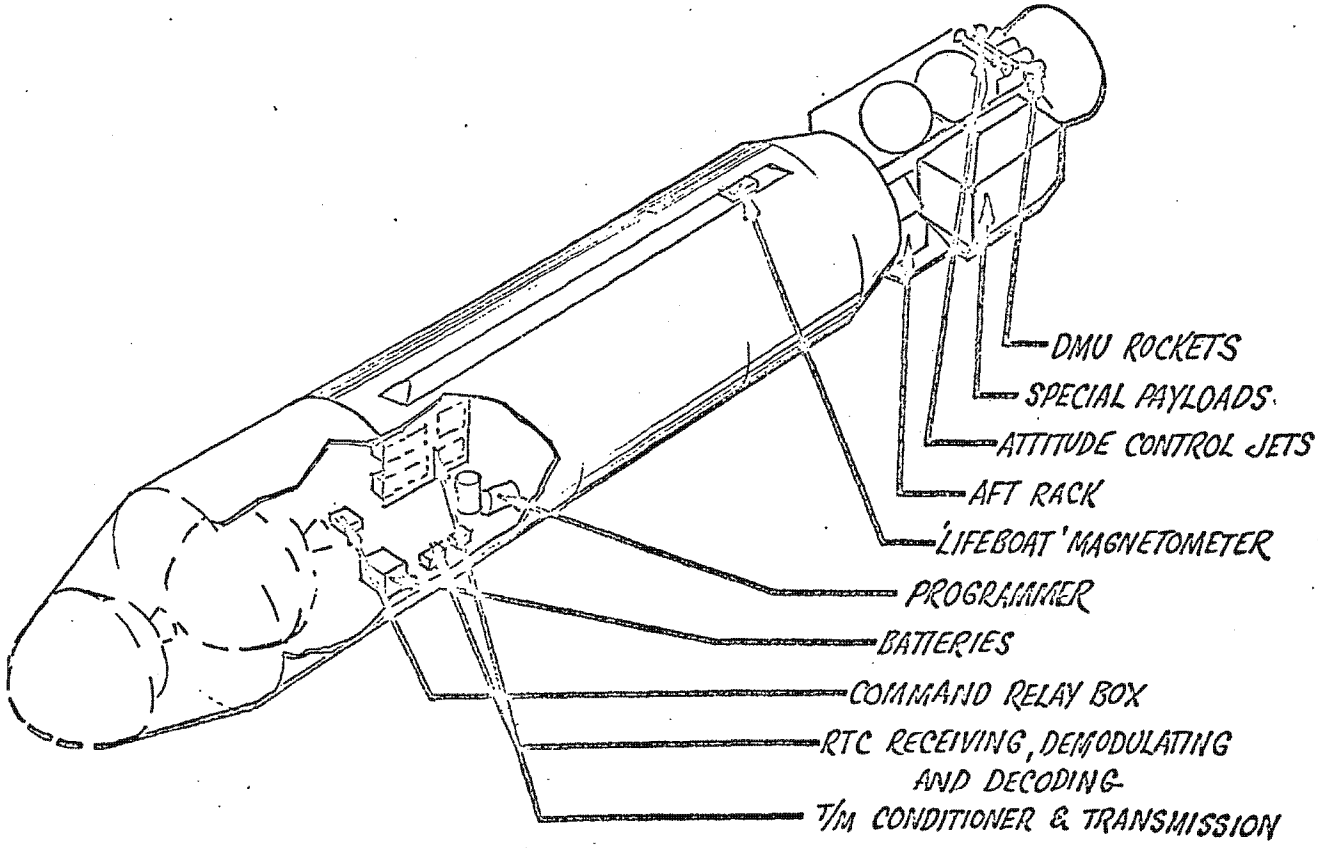
3. ON-ORBIT FLIGHT FOLLOWING AND CONTROL

4. POST MISSION REPORTING AND EVALUATION

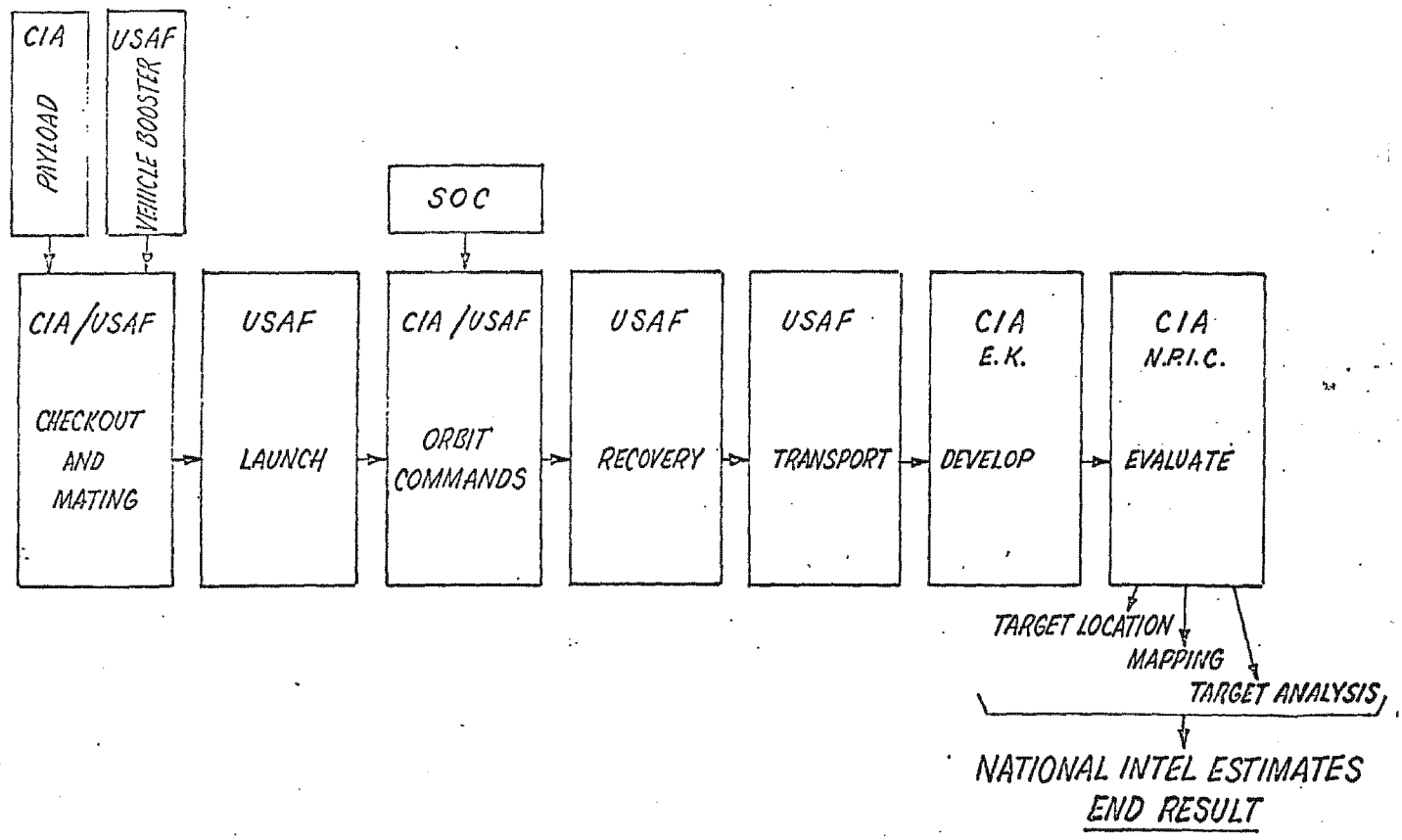


Approved for Release: 2017/01/25 C05096694

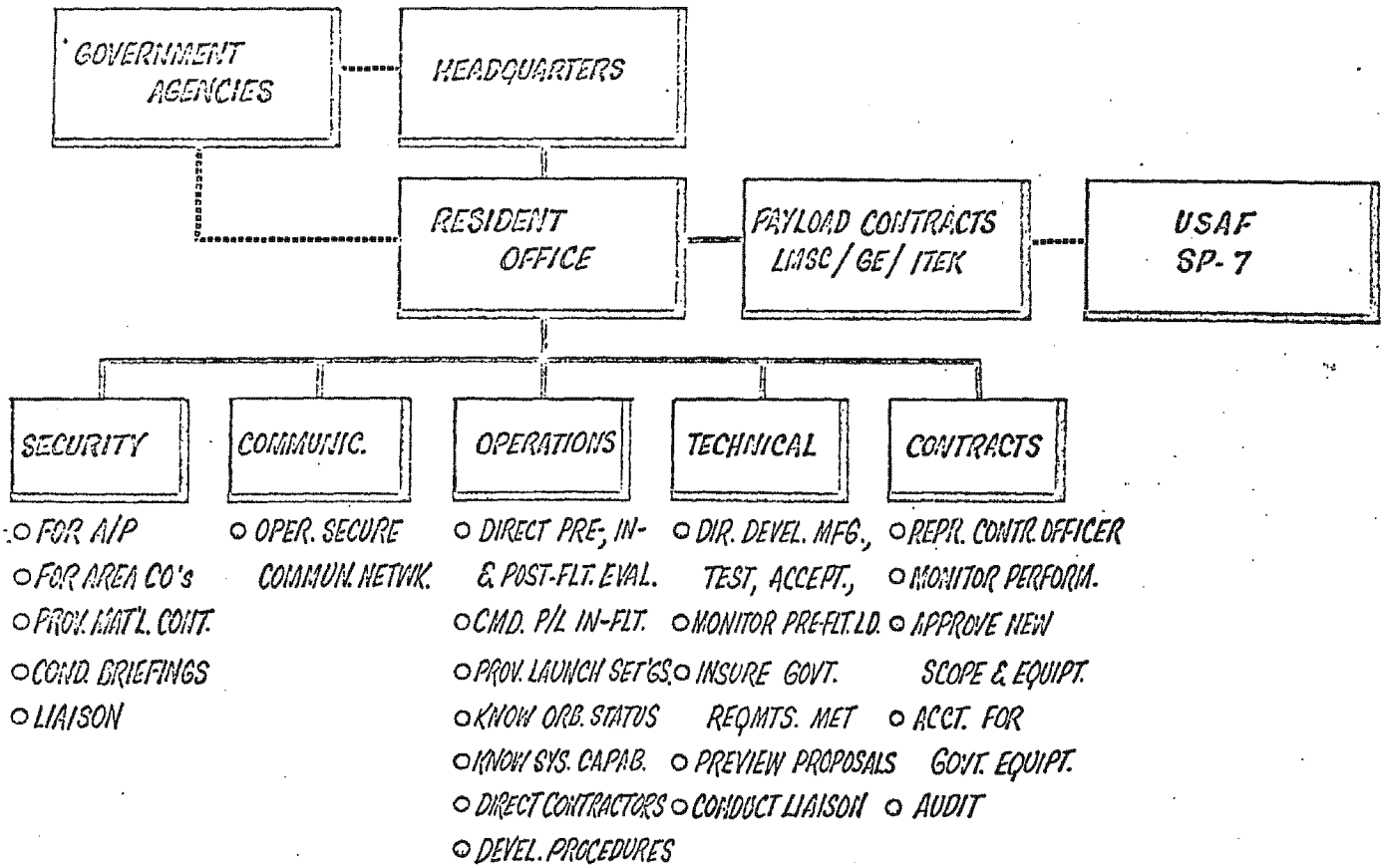
— P-75/AGENA CONFIGURATION



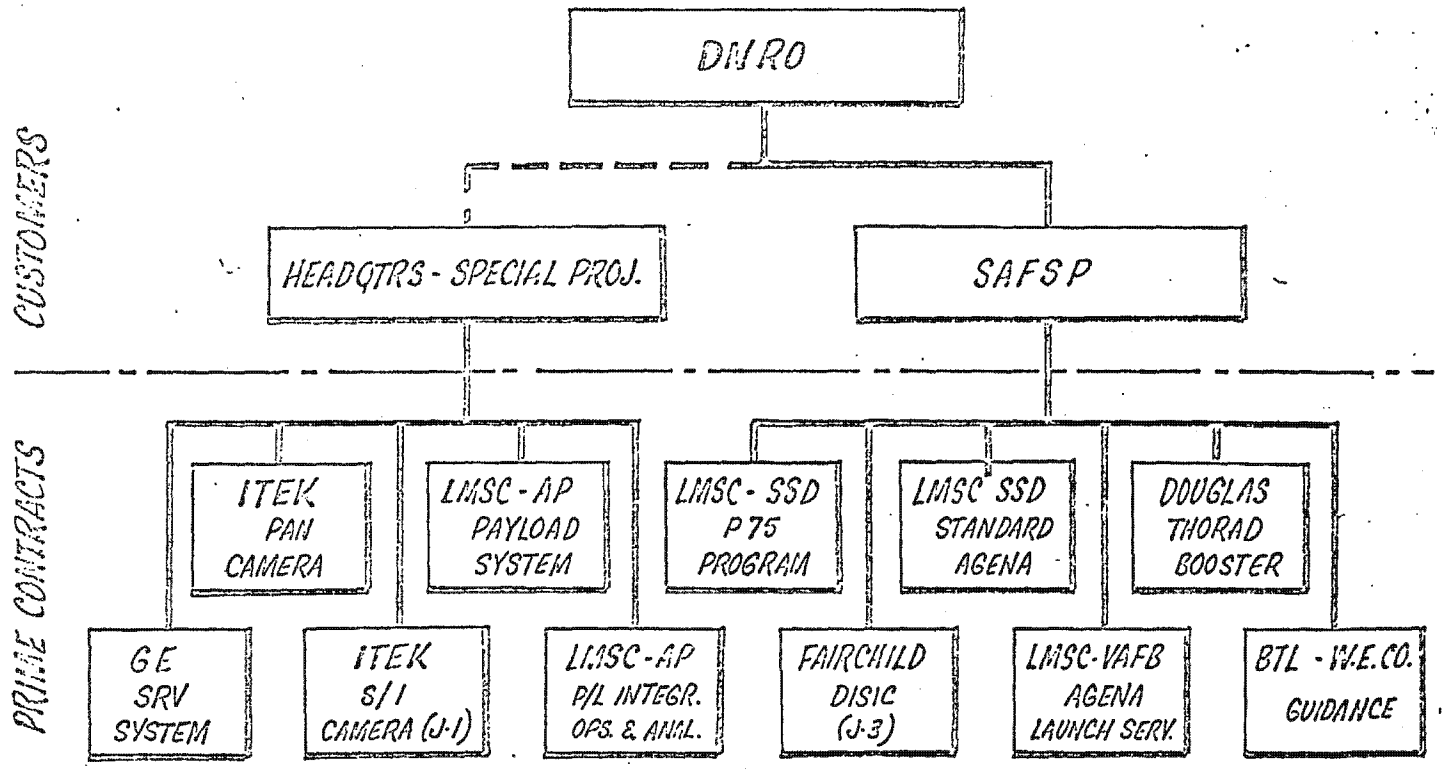
CORONA INTEL CYCLE



PAYLOAD ORGANIZATION & FUNCTIONS



CUSTOMER / CONTRACTOR RELATION



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 – HILLER AIRCRAFT/ADVANCED RESEARCH –

- SPECULATIONS – 'NO COMMENT' RESPONSE

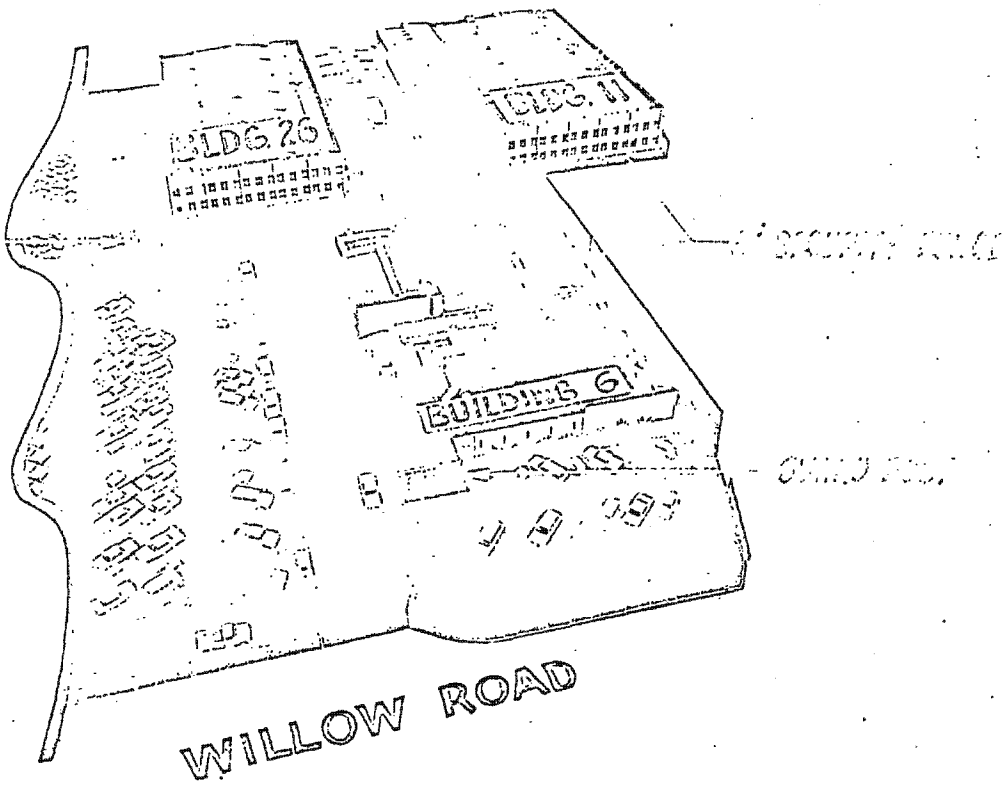
PHYSICAL SECURITY –

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

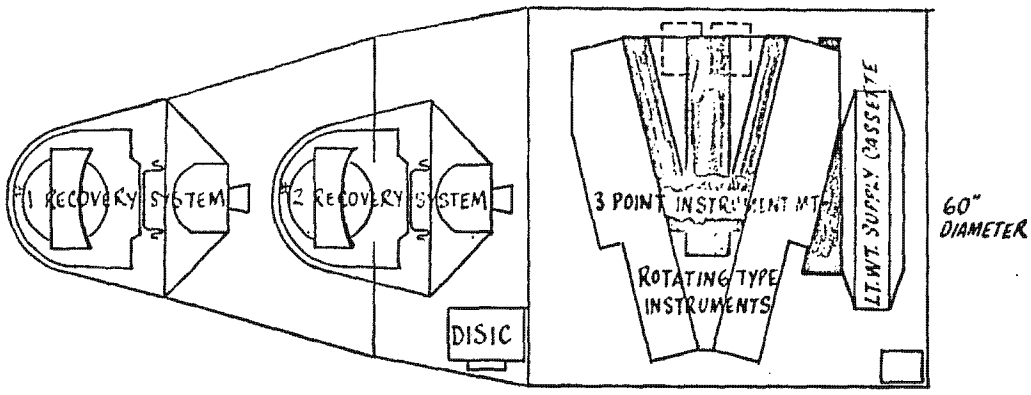
COVERT OPERATION –

- PURCHASING, PROCUREMENT, SHIPPING
- COMMUNICATIONS

SECURITY - A/P FACILITY



J3 INBOARD PROFILE

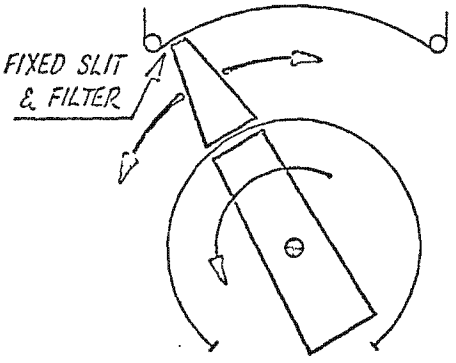


PERFORMANCE AT 85 NM

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

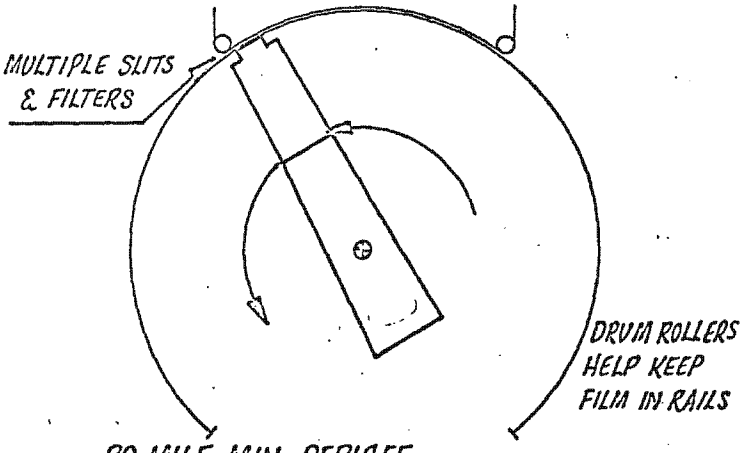
J1/J3 COMPARISON

RECIPROCATING TAIL CONE



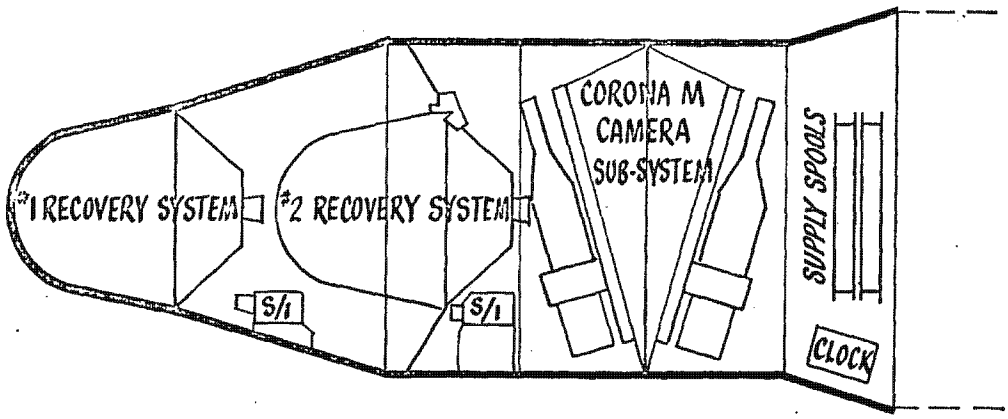
95 MILE MIN. PERIGEE
5% V/H MATCH
TRANSLATING FMC
CAMERAS SEPARATE-
EACH HAS 24 BOLTS TO VEH.
NON-MODULAR ELECTRONICS

CONSTANT ROTATER



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

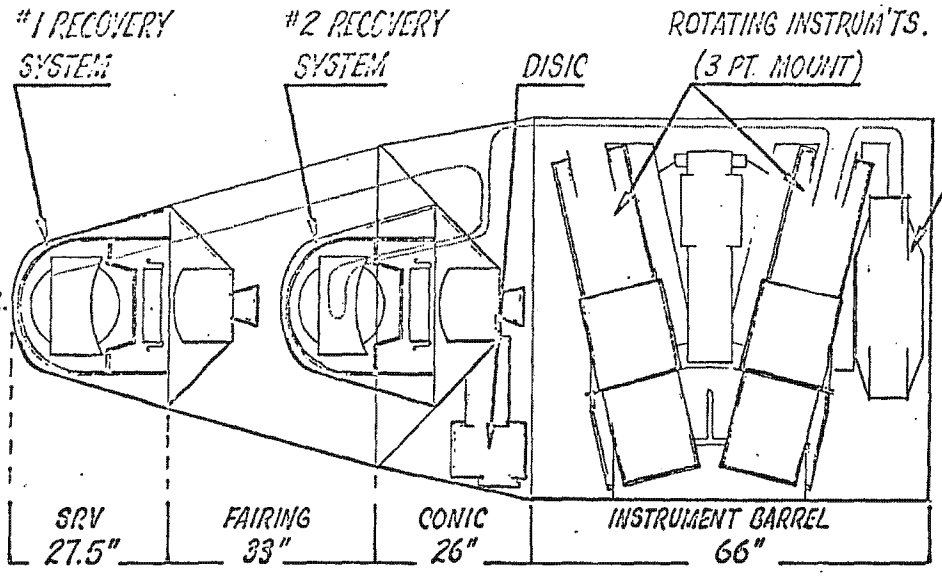
J1 INBOARD PROFILE



PERFORMANCE AT 110 NM

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

J3 INBOARD PROFILE



PERFORMANCE (85 NM)

- 3404 MAT'L. —
  - 2ND GEN. 140 6.75'
  - 3RD GEN. 180 L/MM 4.5 RESOL.
- COVERAGE —
  - STD. BASE, 70 M NM²/FLT.
  - U.I.B, 10.5M NM²/FLT.
- STEREO MODE

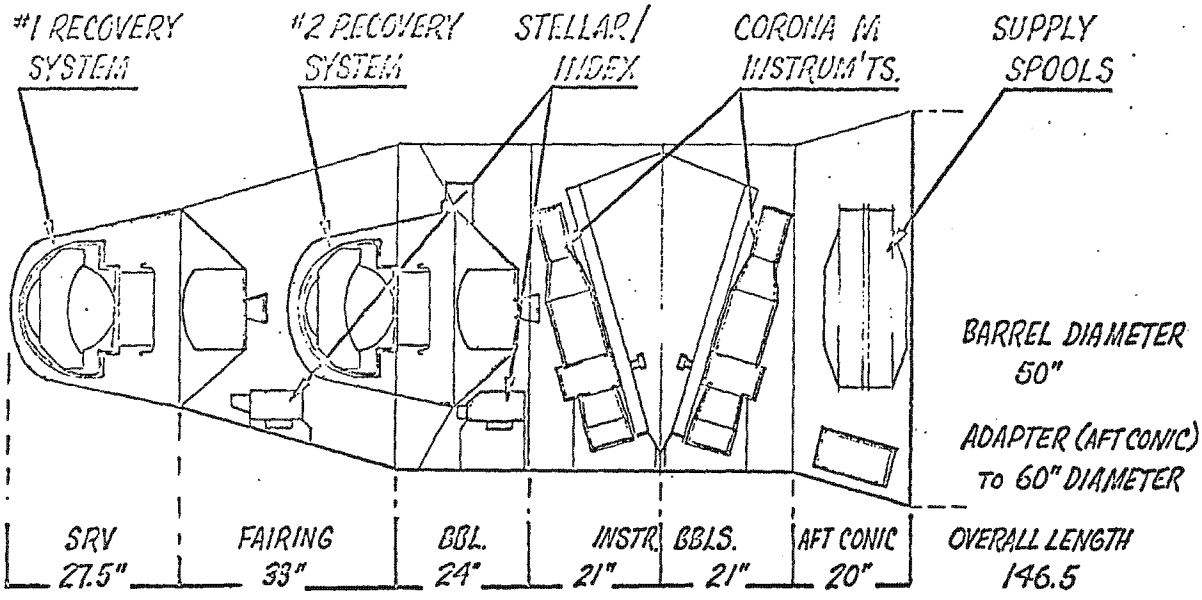
ESTIMATED PAYLOAD WEIGHT - 1772 LB.

4

J1 INBOARD PROFILE

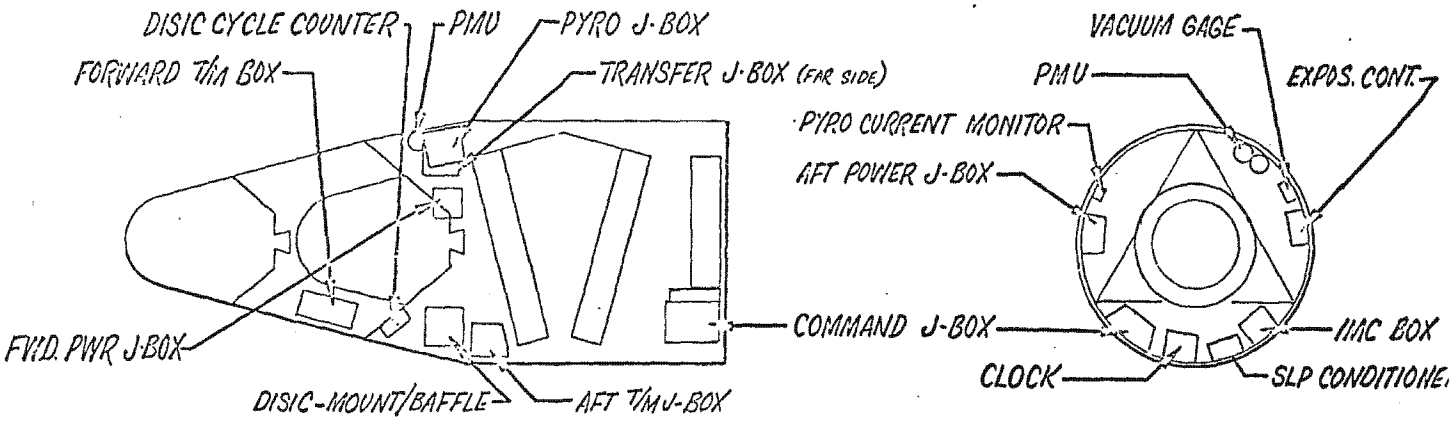
PERFORMANCE (100 nm)

- 3404 MAT'L 124 L/mm 8" RES.
- COVERAGE 9.3M nm²/FLT.
- STEREO MODE



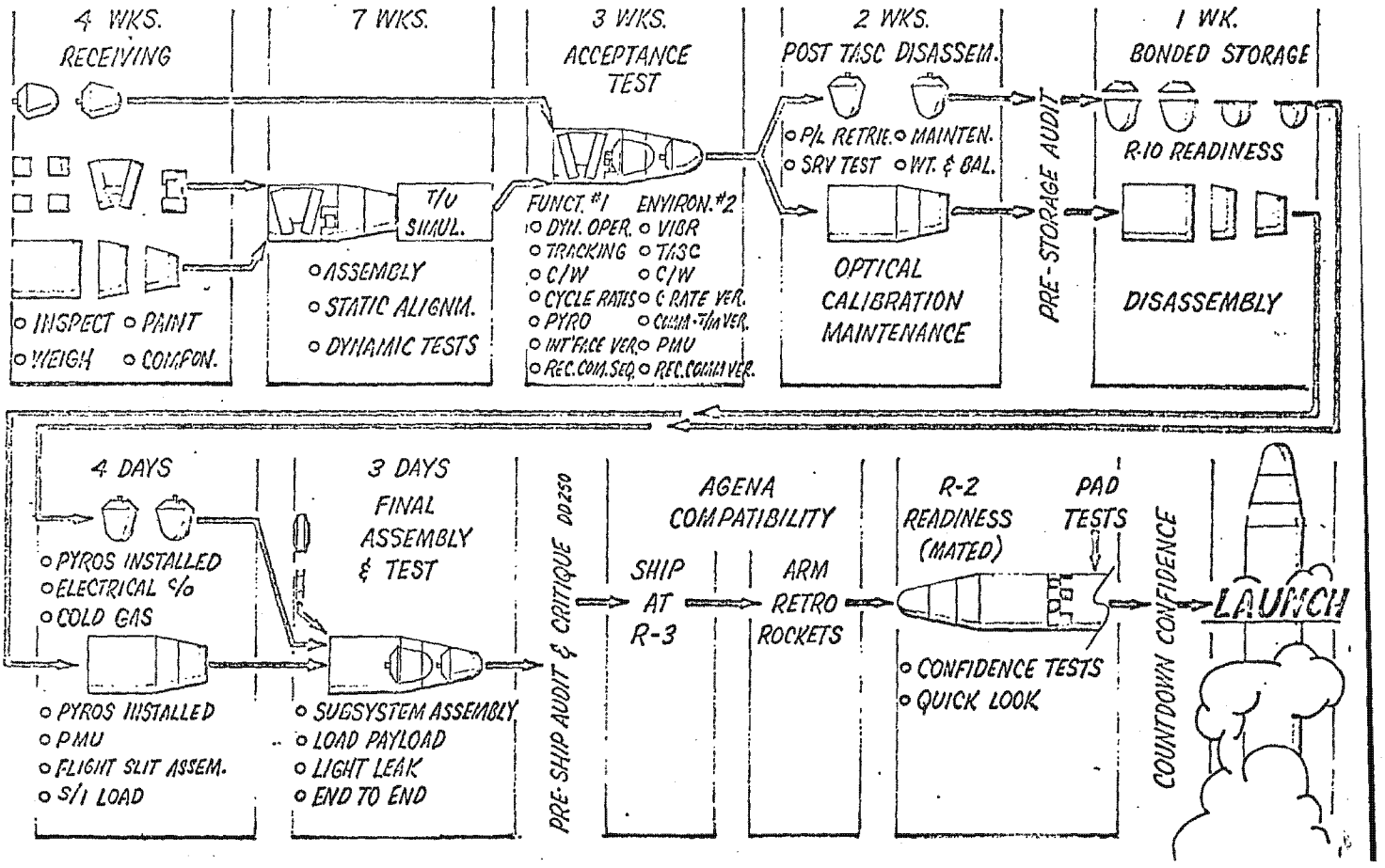
ESTIMATED PAYLOAD WEIGHT – 1440 LB.

J3 FLIGHT STRUCTURE SUBSYSTEM

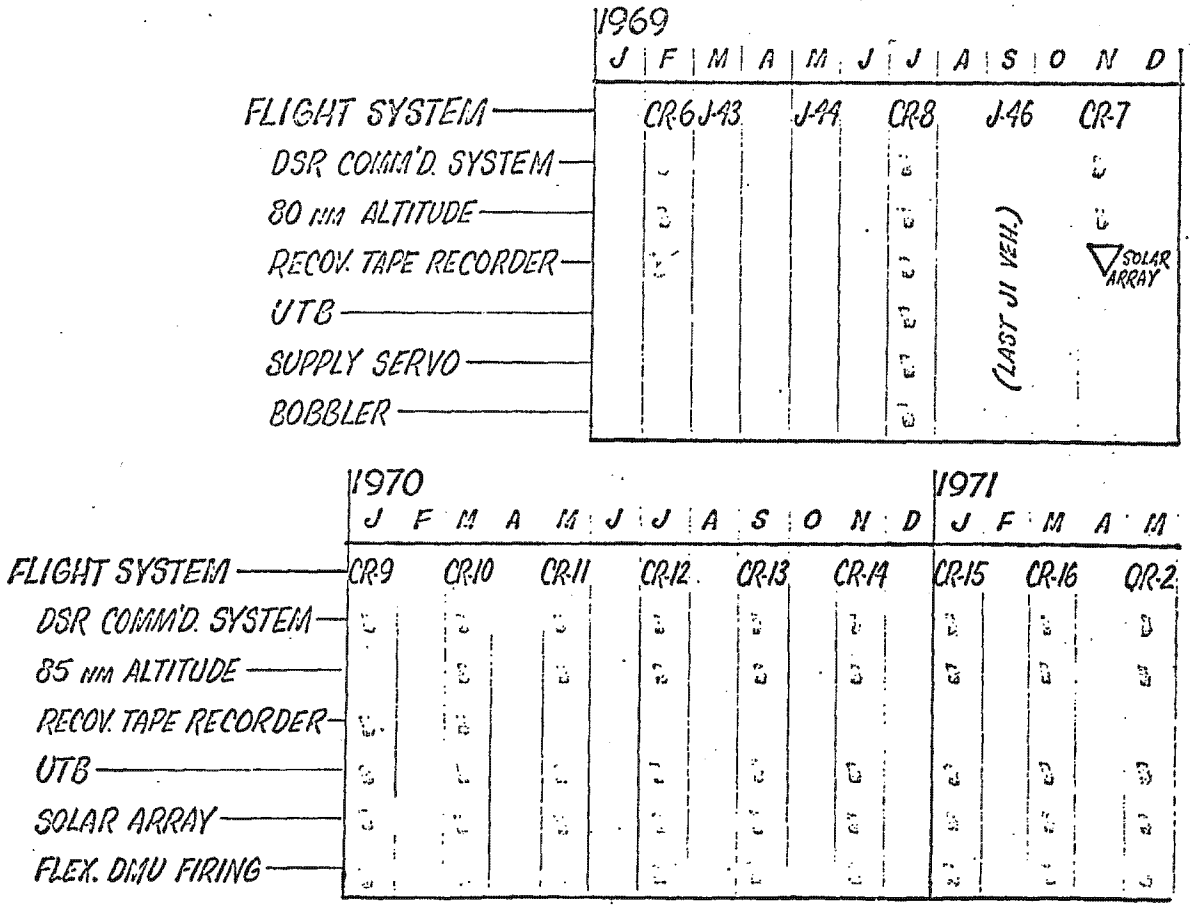


- SUPPORT FOR SUBSYSTEMS
- AERODYNAMIC GEOMETRY FOR LAUNCH
- LIGHT SEALING
- ORBITAL THERMAL CONTROL
- POWER DISTRIBUTION & TELEMETRY
- OPERATIONAL COMMAND & CONTROL
- CORONA DISCHARGE CONTROL

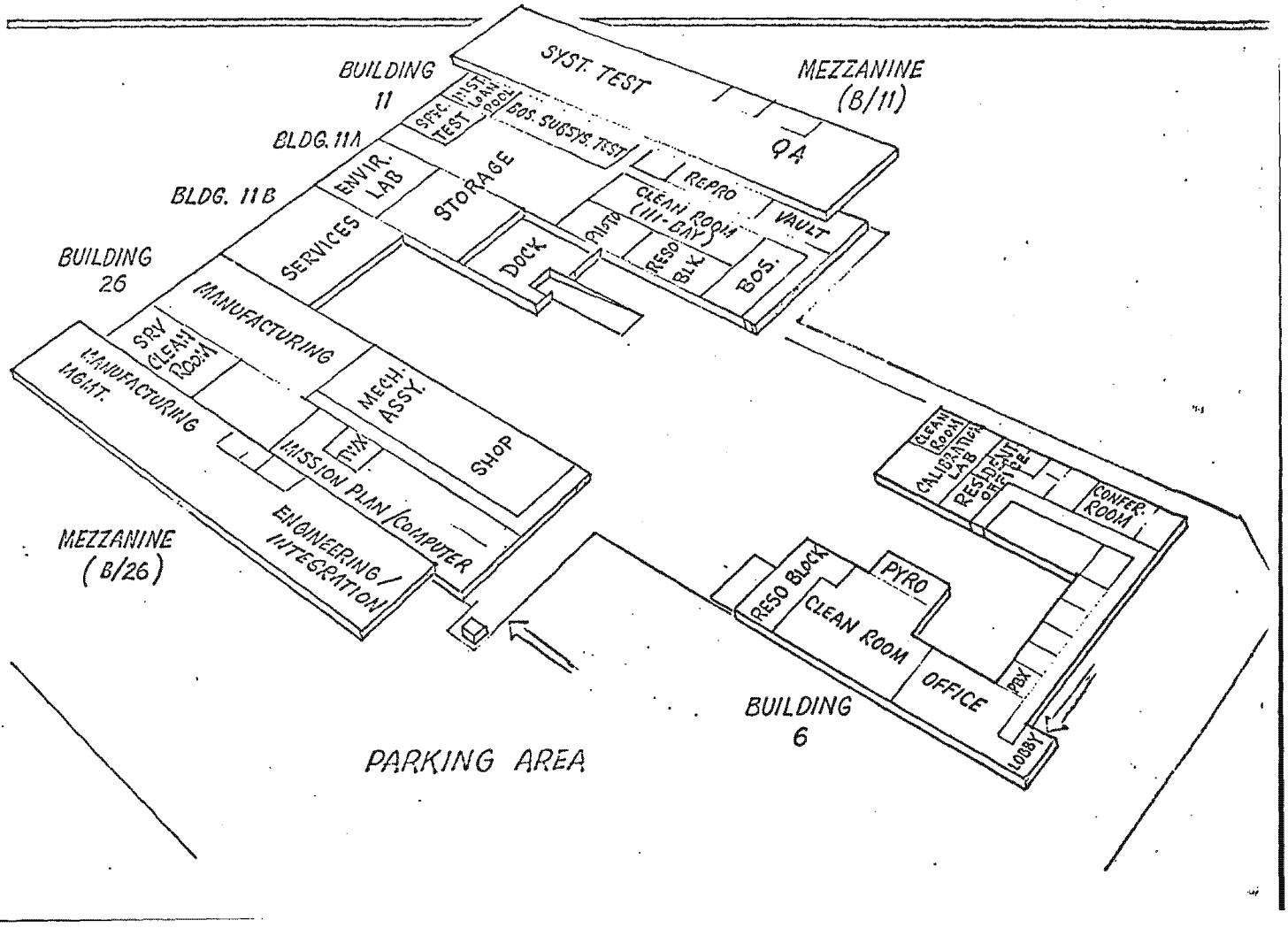
A/P FACTORY TO LAUNCH



PROGRAM FLIGHT SCHEDULE



— A/P FACILITY



Steve Herman
12/10/68

CR SYSTEM FILM PATH MEASUREMENTS 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.)

Position/Roller No.	Roll Dia. (in.)	Inst. #1	Inst. #2
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	.990		
11. Roller #9	.626	(7.75)	Roller to roller
12. Roller #10	.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

INPUT (C.F. to SUPPLY) Position/Roller No.	Roll Dia. (in.)	Aft. Look Inst. #1	Fwd. Look Inst. #2
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 CR1 thru CR7 subtract 10 in. from items 11 thru 16.

A/P INTERNAL USE ONLY

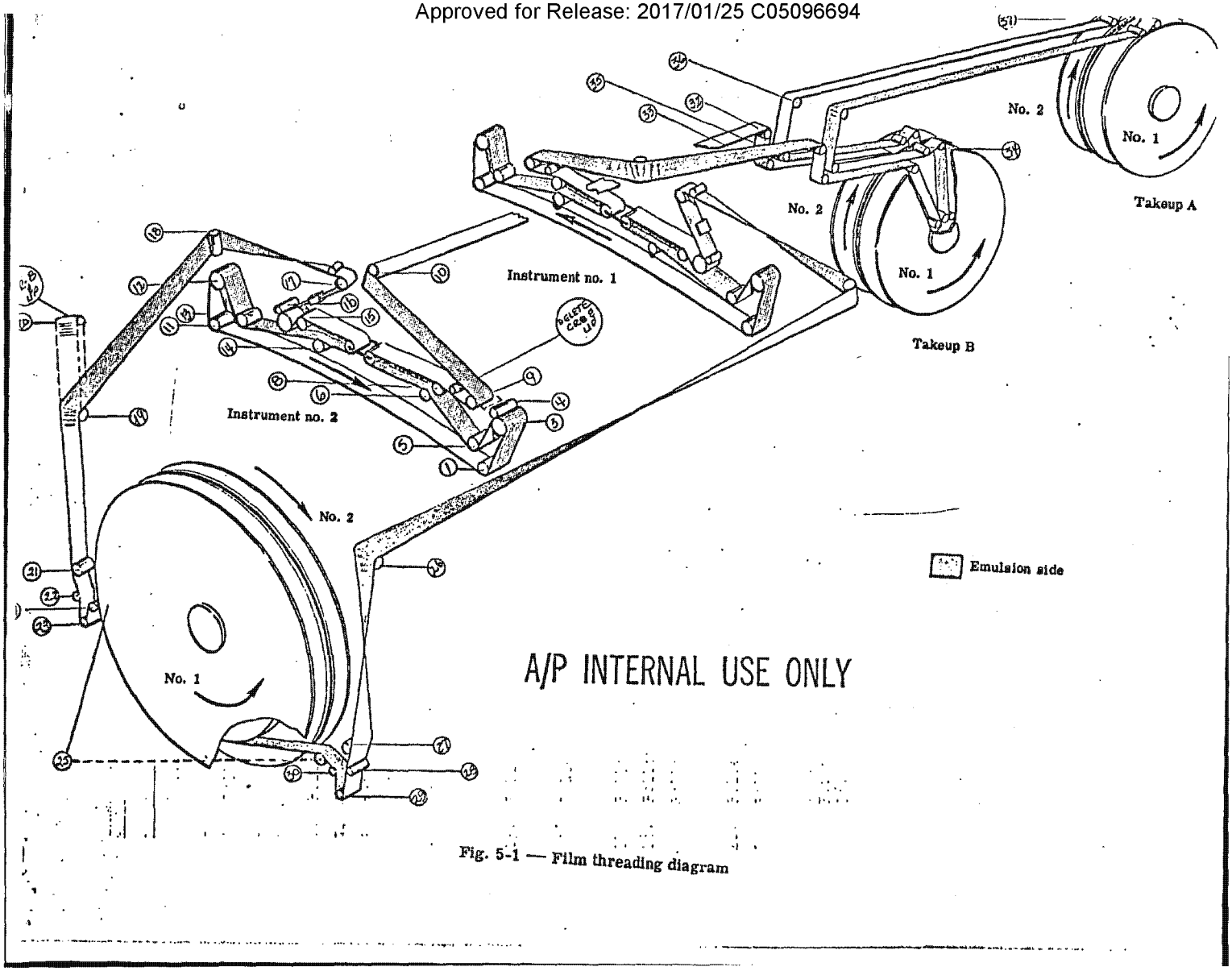
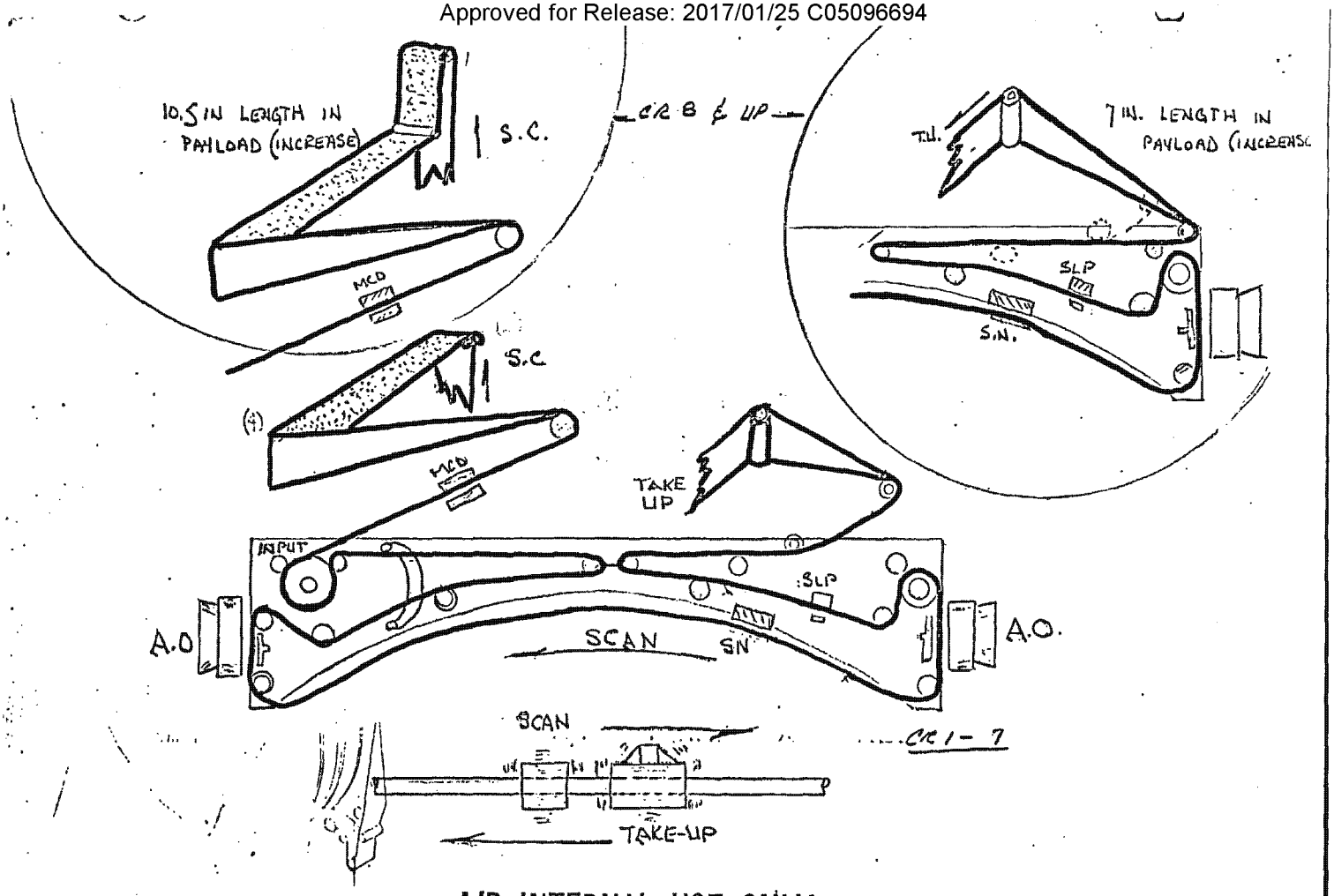
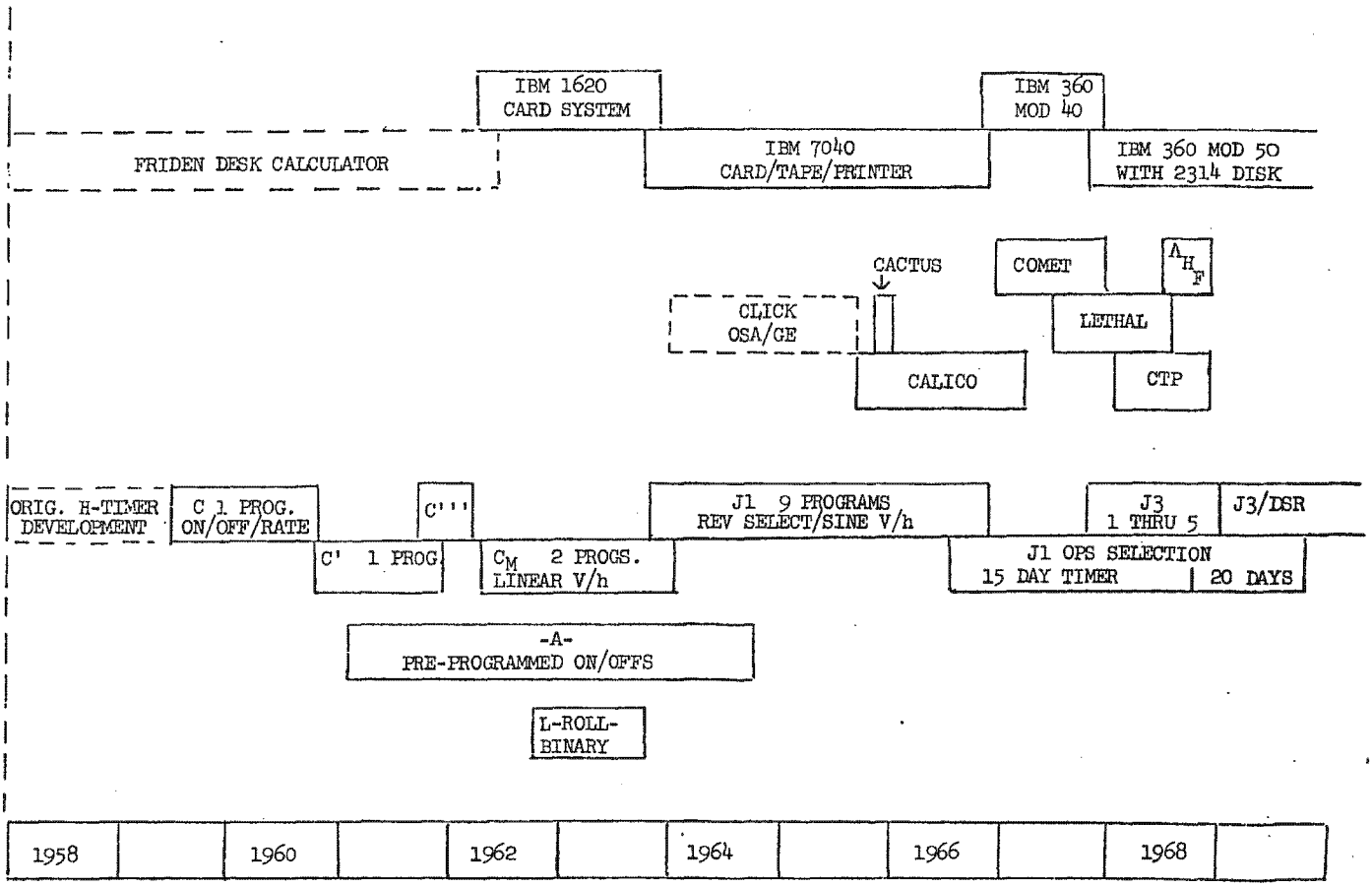


Fig. 5-1 — Film threading diagram

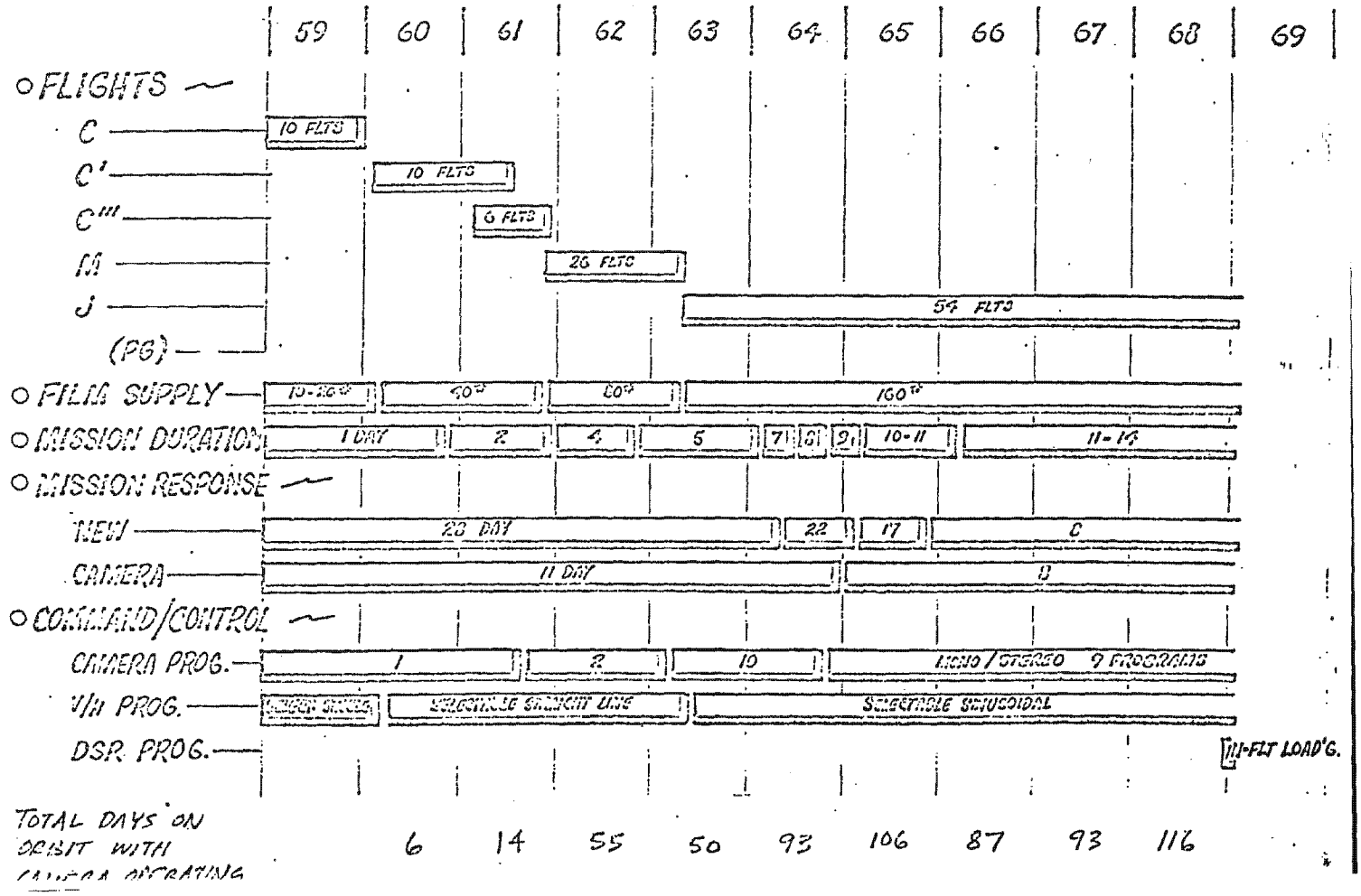


A/P INTERNAL USE ONLY

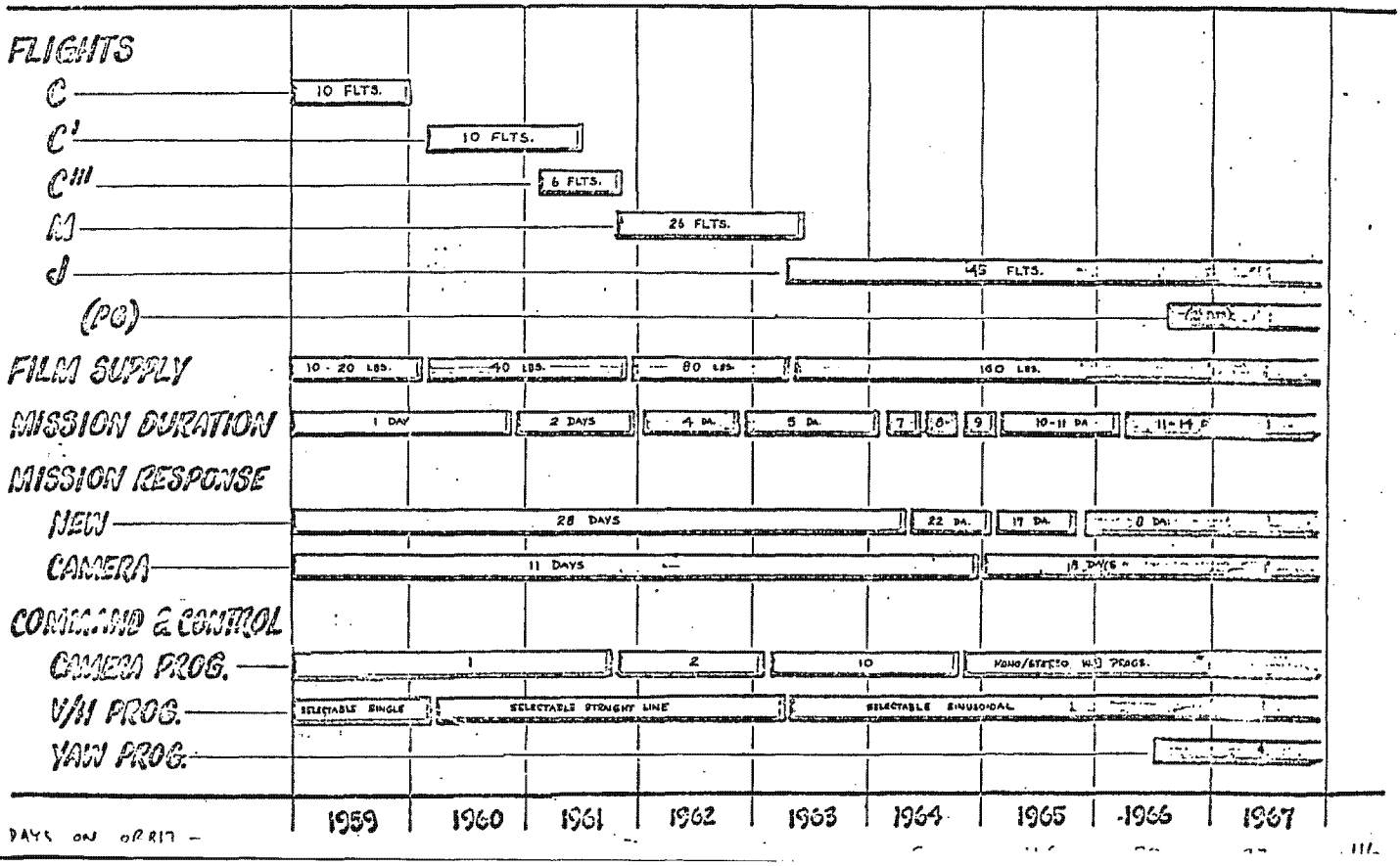
A/P OPERATIONS & ANALYSIS DEVELOPMENT



CORONA PROGRAM EVOLUTION

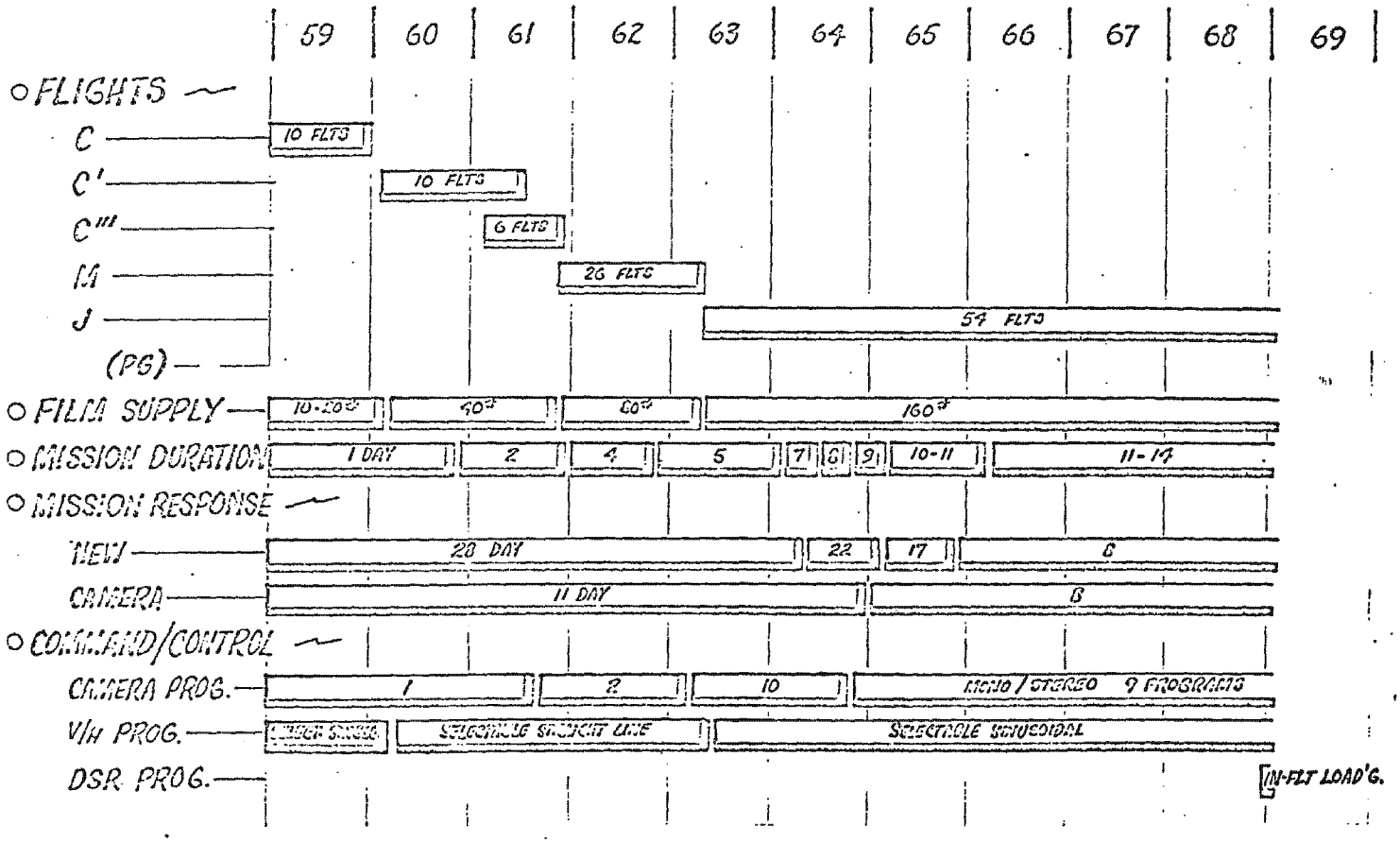


CORONA PROGRAM EVOLUTION

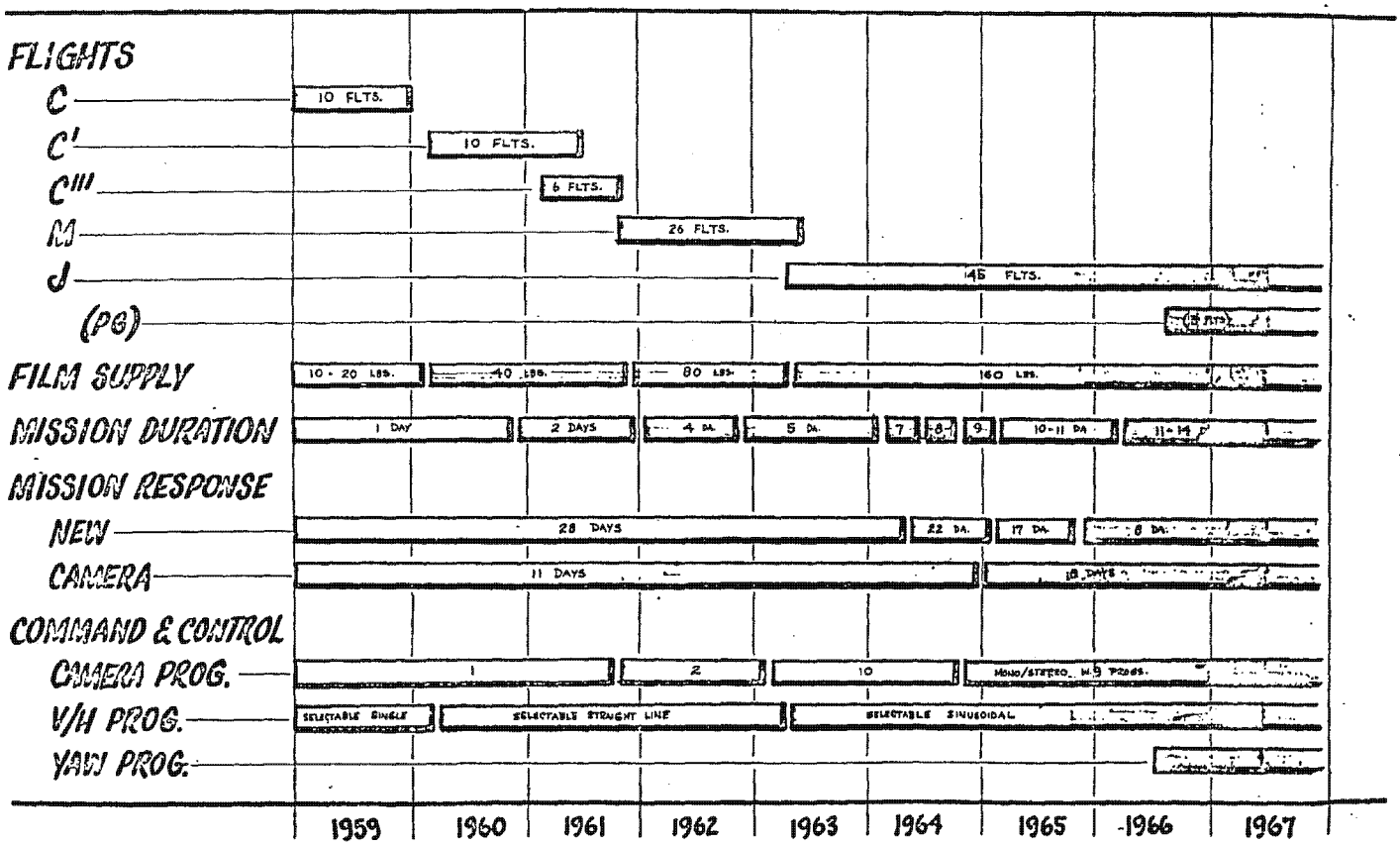


~~TOP SECRET~~ C/SPECIAL HANDLING

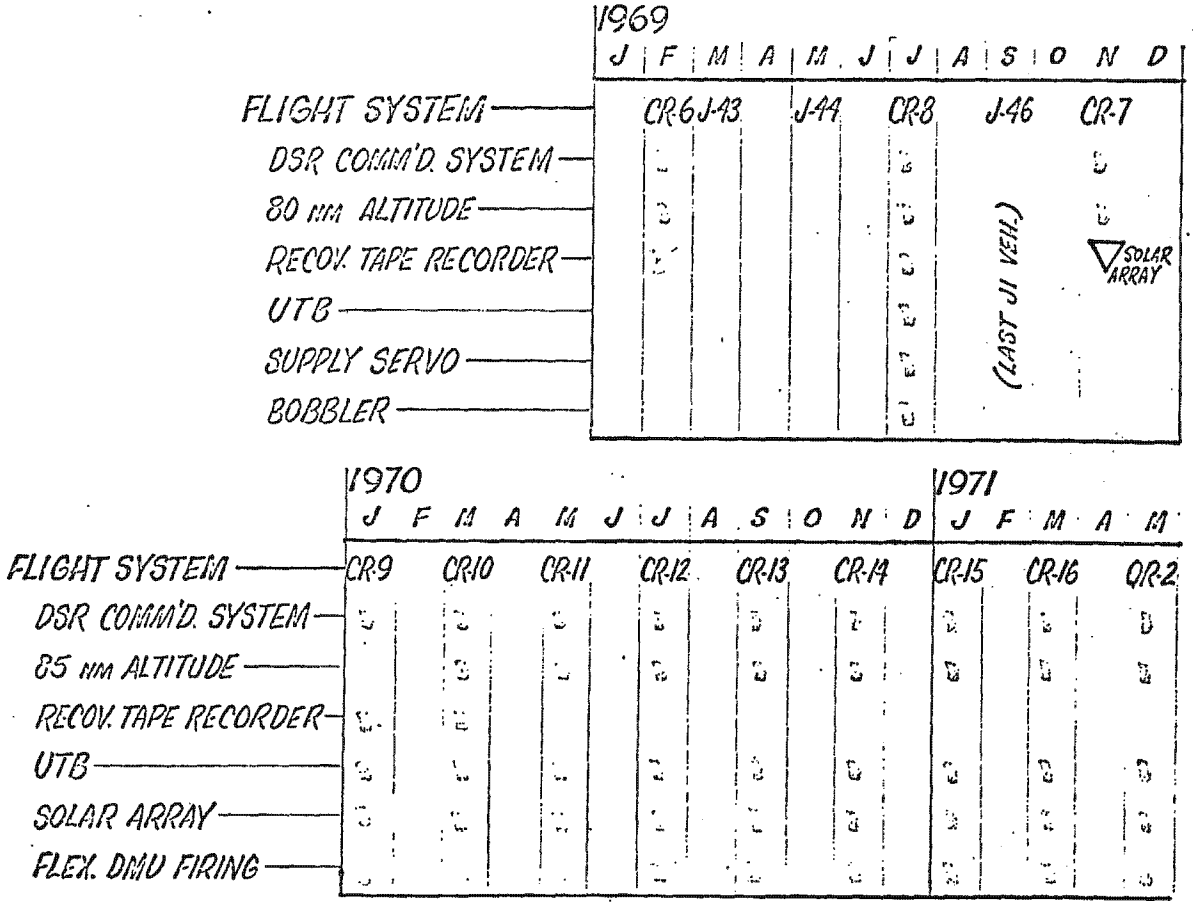
CORONA PROGRAM EVOLUTION



CORONA PROGRAM EVOLUTION



PROGRAM FLIGHT SCHEDULE



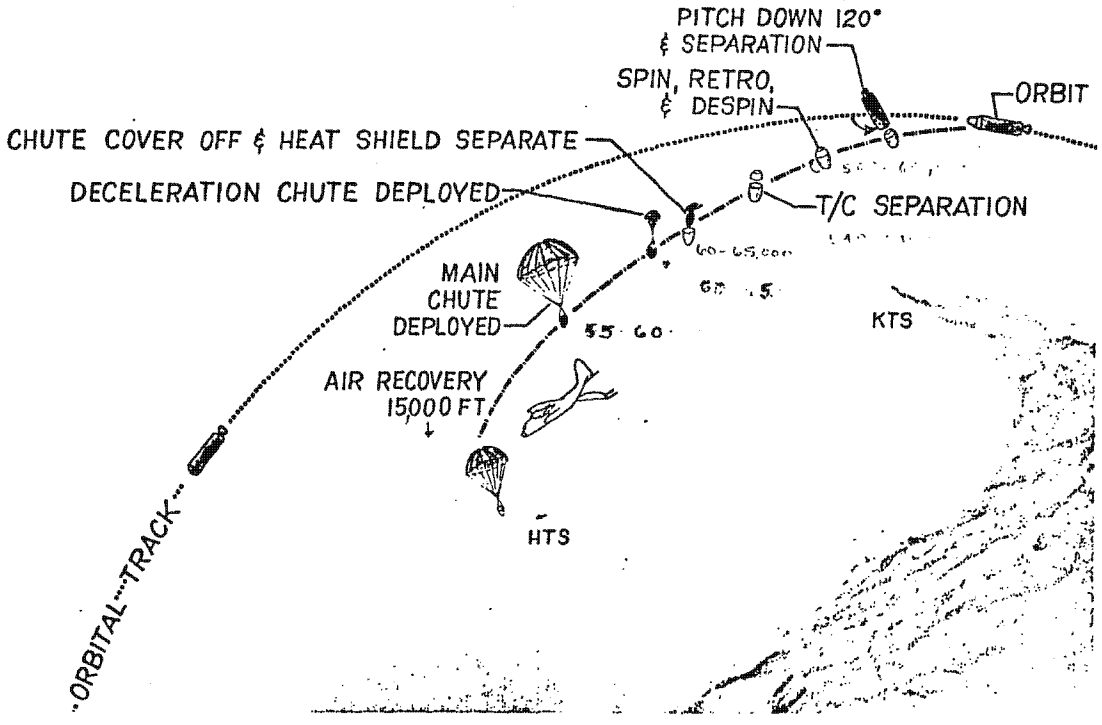


Figure R-4 Recovery Sequence of Events

TOP SECRET
SPECIAL HANDLING

RETURN TO L. McMILLION