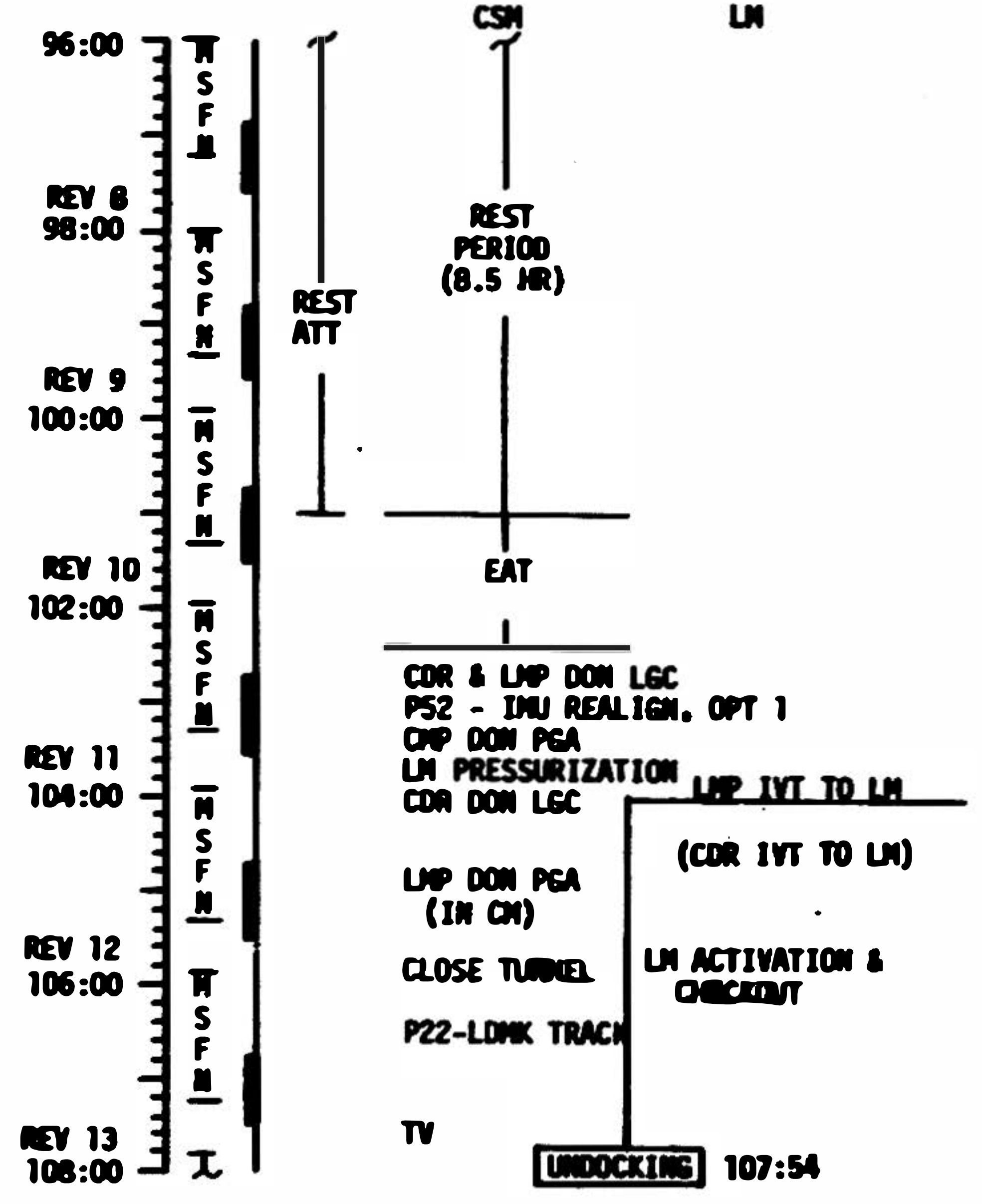
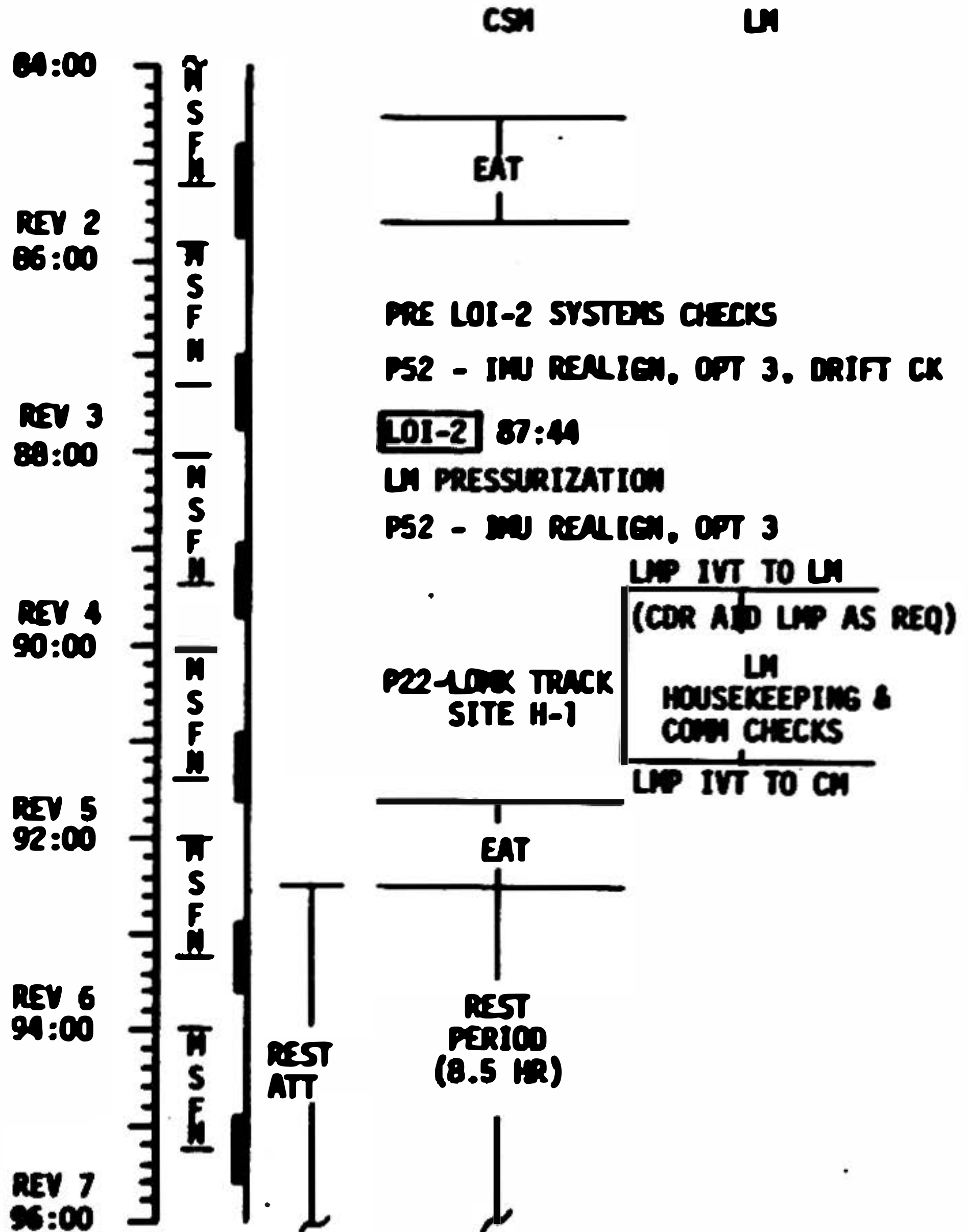


**FAO**

<b>APOLLO 12</b>	
<b>LM TIMELINE BOOK</b>	
<b>PART NO</b>	<b>S/N</b>
<b>SKB32100081-388</b>	<b>1002</b>



UNDOCKED TO SEP

-5 CHECK ATT (180,285,300)  
 V76  
 GUID CONT - PGNS  
 ATT CONT(3) - MODE CONT  
 V95  
 V62  
 V48 21002  
 P47  
 RCDR-ON  
 MODE-ICS/PTT  
 -00 \*ZERO, 404, 405, 406 \*  
 \*470R \*  
 UNDOCK (107:54:22)  
 V77  
 DEADBAND - MIN  
 Null NB3 < .2FPS  
 POO  
 YAW LT 60°  
 PITCH UP 90°  
 FLAI (180,105/195,0)  
 RESET DET COUNT DOWN TO SEP  
 \*VHF ANT-FWD \*  
 \*PHOTO CM (DC/HCEX/F11,\*  
 \* FOCUS),10 \*  
 CB LR - CLOSE. CK TEMP (50°-70°)  
 RATE ERR MON-LDG RDR/CMPTTR  
 X-PNTRS-HI MULT, TH SW-H/R  
 LDG ANT AUTO, MODE SEL-LR  
 RDR TEST - LDG  
 TEST MON-ALT/VEL XMTB (2.1-5.0),AGC  
 TH (8000±100)/A (-480±2):  
 V63E, N12 OPT 2, PRO  
 N66, 8286±10, 00001, PRO  
 N67 V<sub>x</sub> (-00495±2), V<sub>y</sub>(+01062±2),  
 V<sub>z</sub> (+01331±2): V34E,  
 RDR TEST OFF  
 CB LR - OPEN

-20 V83 SET ORDEAL, 277R  
 \*VERIFY TRACKING LT-ON,  
 THEN OFF \*  
 V76E  
 HELMETS & GLOVES - OFF  
 -15 \*POO, UPDATA LINK-DATA \*  
 \*(LM SV, DOI TARGET \*  
 \*LOAD, PIPA BIAS) OFF \*  
 \*COPY DOI,POI,POI ABORT \*  
 \*T-2 AND T-3 ABORT PADS \*  
 \*PHOTO SEP MAN (DAC/HCEX/\*  
 \* F11, 7) 6FPS, 4 MIN \*  
 +0 CSM SEP (108:24:22)

PDI THRU TD+3 MIN

θ	TF:	VI	(R MAX) H DOT	(ΔH MAX) H	DPS	SBD P/Y
	-0:35					
109	0:00	5562.4	-3.7	49423	95	11/0
109	0:05					
109	0:30	5492	-5	49326	95	16/ -4
103	1:00	5201	-24	48879	92	
98	1:30	4901	-38	47934	86	23/ -10
94	2:00	4593	-49	46614	81	
90	2:30	4276	-58	45002	76	29/ -15
86	3:00	3950	-66	43147	70	
83	3:30	3615	-73	41071 (+17500)	65	33/ -18
81	4:00	3270	-81	38763	59	
79	4:30	2914	-89	36029 (+17500)	54	36/ -20
77	5:00	2545	-96	32913	49	
76	5:30	2162	-104	29793 (+17500)	43	40/ -23
72	6:00	1766	-105	26815 (+14000)	38	
69	6:30	1393	-99 (-419)	23964 (+10500)	33	47/ -27
65	7:00	1153	-135 (-364)	20467 (+8750)	29	
62	7:30	911	-153 (-298)	15860 (+7100)	26	51/ -29
61	8:00	666	-162	11117	23	

-1:00 RESET WATCH  
 - :35 ENG ARM-DES  
 - :07 ULLAGE  
 - :05 PRO  
 :00 **PDI**  
 :05 DES ENG OVRO  
 -ON  
 :26 THROTTLE UP  
 /T/W > 1.6

N69

V57E - (+) LR HIGHER  
 THAN LGC PRO TO  
 PERMIT LR DATA  
 MODE SEL - PGMS  
 / EC BATTS

SEQ CAMR - ON  
 V16 N68  
 223+00060 (DO  
 NOT ENTR)

EVAL MAN CONT

**P64**

223E @ 6K  
 413+10000(DO NOT  
 ENTR)

**P64 + 15 SEC:  
 NO THROTTLE DN  
 - ABORT**

**523 ALARM  
 V58  
 PRO  
 RESET  
 LDG ANT-HOVER**

PGMS MODE CONT-  
 ATT HOLD

**P65**

**P66**

X-PRTR-LO MULT

**BINGO FUEL  
 DES QTY LT+34**

**TOUCHDOWN**

ENG STOP - PUSH  
 PRO  
 MODE CONTROL (BOTH) - AUTO  
 DES ENG CMD OVRO - OFF  
 ENG ARM - OFF  
 413 + 1

RECYCLE PARKER VALVE

H	(R MAX) H DOT	DPS
7000	(-230) -107	20
5000	(-196) -132	19
4000	(-163) -109	18
3000	(-136) -85	17
2000	(-104) -59	16
1000	(-63) -28	14
500	(-35) -15	12
400	(-29) -13	11
300	(-21) -12	11
200	(-12) -9	10

**ABORT STAGE - PUSH  
 ENG ARM - ASC  
 ENG STOP - RESET  
 ENG START - PUSH  
 MODE CONTROL(2) - AUTO**

**PDI-TD+3 MIN  
 TD+3-T2 ABORT**



ID +3 THRU T2 ABORT

THRUSTER PAID ISOL VLV(8) - OPEN  
MAIN SOV (2) - OPEN  
CRSFD - CLOSE  
ASC FEED 1 (2) - OPEN, 2 (2)-CLOSE  
DES HE REG 1-CLOSE tb(2)-GP  
OXID AND FUEL VENT-OPEI: tb(2)-GREY  
MASTER ARM - ON  
DES VENT - FIRE  
MASTER ARM - OFF  
PRPLNT QTY MON - OFF  
PRPLNT TEMP PRESS MON - ASC, THEN DES  
ASC HE MON - CYCLE  
O2/H2O QTY MON - ASC 1,2, THEN DES  
WHEN DES PRESS = 20-40 PSI, CLOSE VENTS(2)

16:20

NO STAY

ABORT STAGE-PUSH  
ENG ARM-ASC  
ENG STOP-RESET  
ENG START-PUSH  
MODE CONT(2)-AUTO

STAY

\*414+2  
\*400+4

POB  
PRO  
RCDR-GFF  
ENG STOP-RESET

PRO  
P12  
N33 T-2 (110:44:51.80)  
..75 5513.5 V HOR  
11.5 V VERT  
0.0 CROSS RIS  
..74 TFI, YAW, PITCH  
DET-SET/UP

\*IF AGS ALIGNMENT NO GO  
\*V47E, 414+1,  
\*V40N20E, 400+3

DATE NOVEMBER 3, 1969

\*411+1  
\*410+0  
\*225R (58163)

SET 226 EQUAL TO 225 (58163)

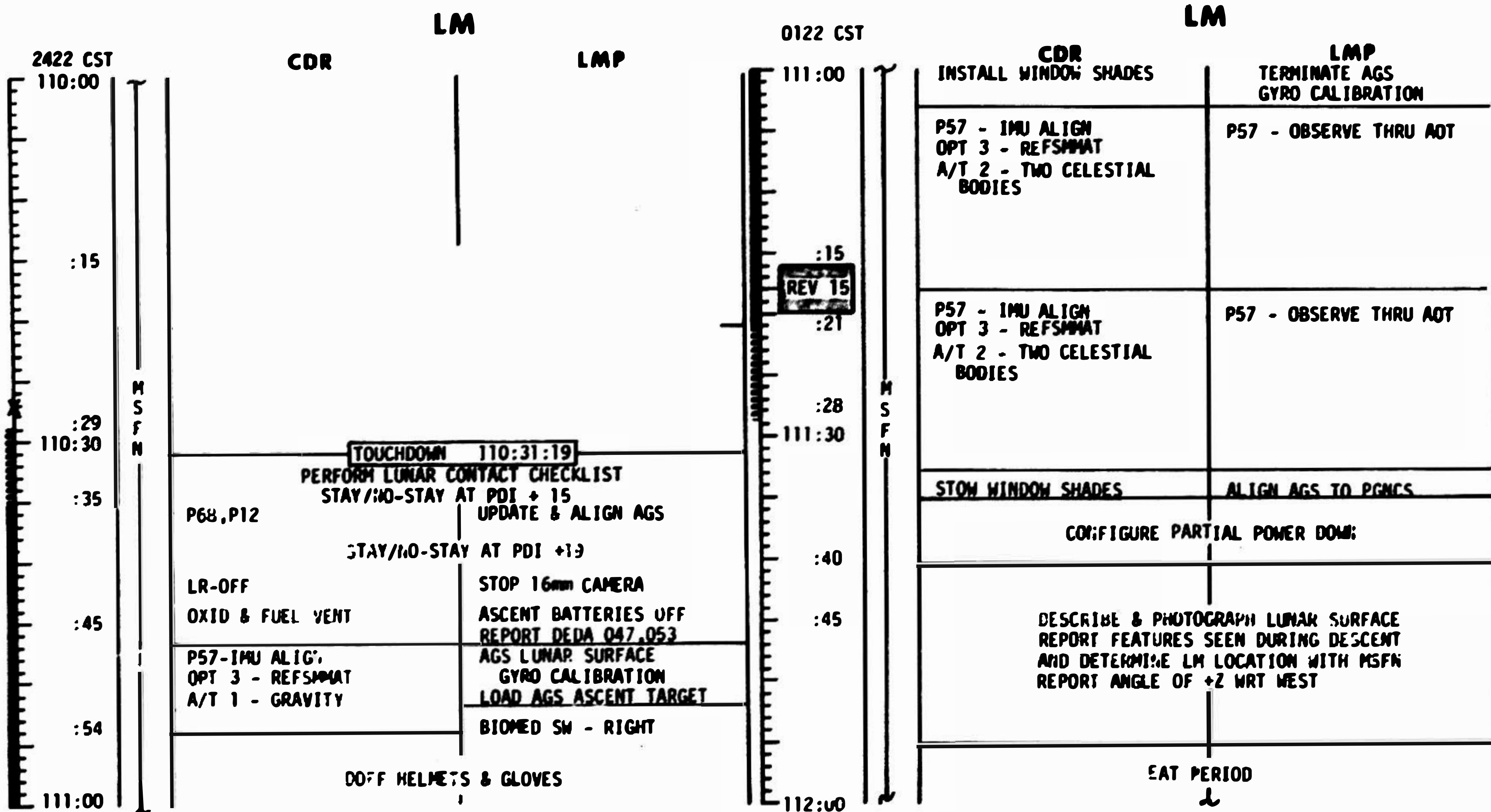
19:22

NO STAY

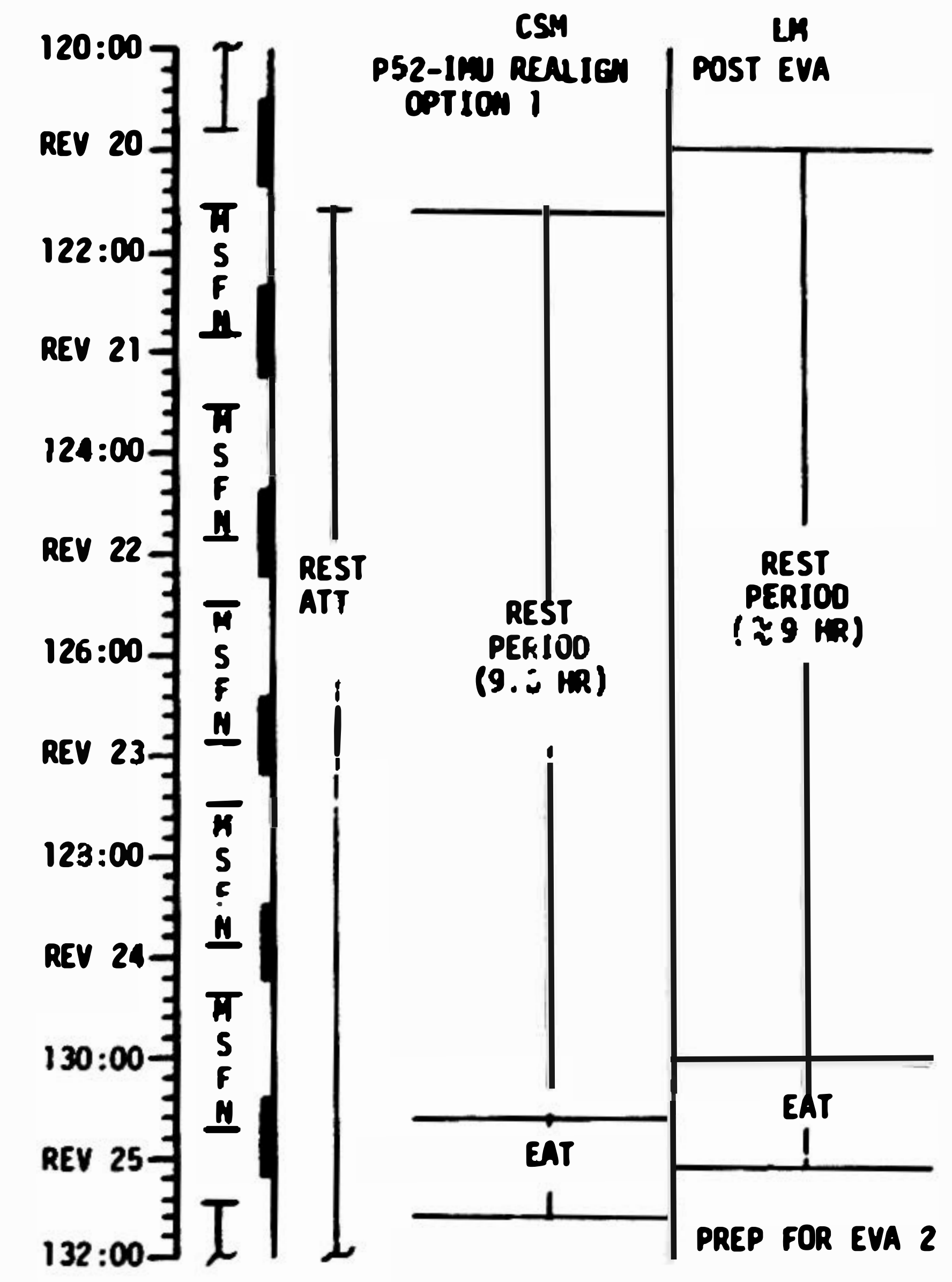
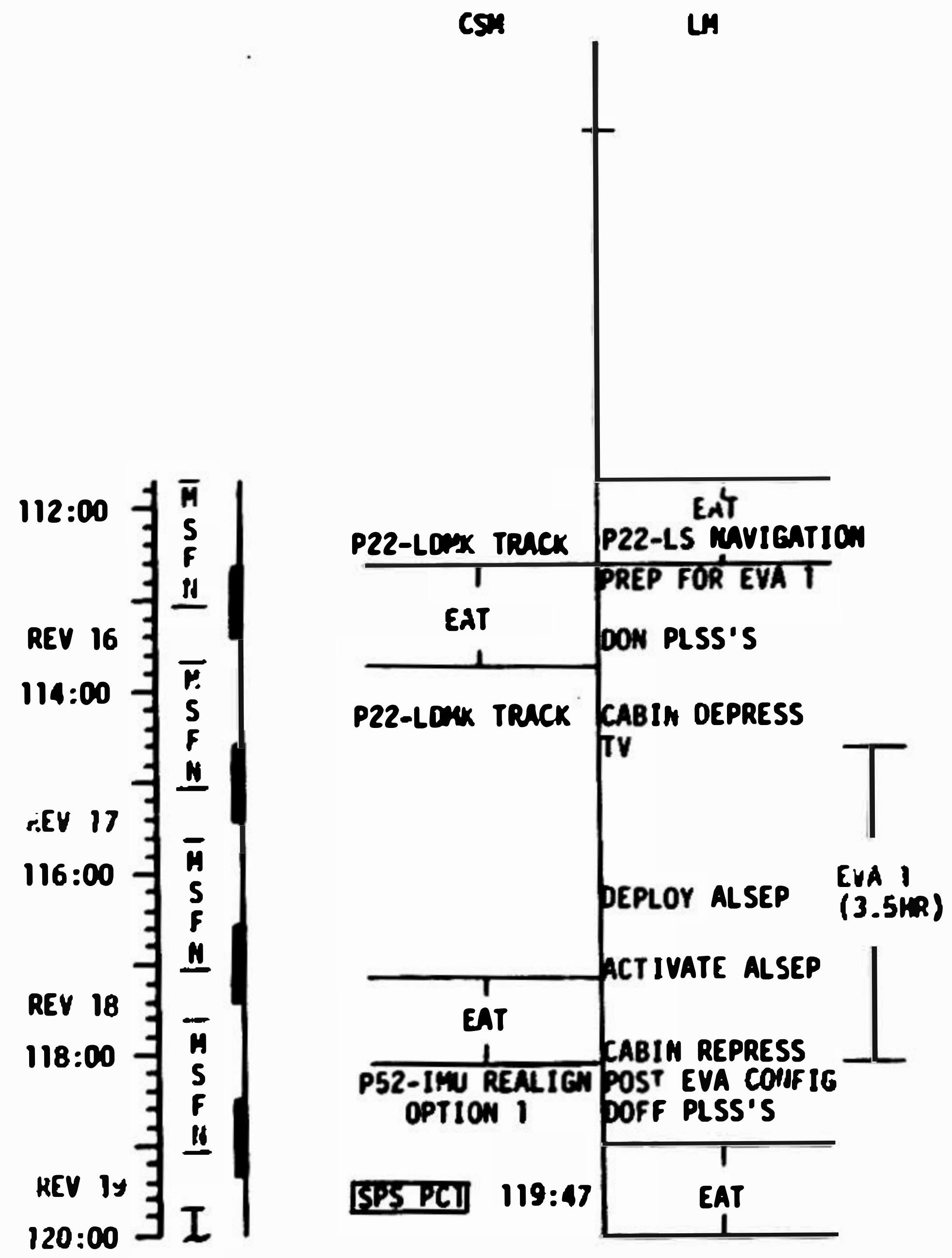
-2:00 ASC HE SEL - BOTH  
MASTER ARM - ON  
ASC HE PRESS - FIRE  
ASC HE REGS 1,2 - OPEN  
ASC FEED 2 (2) - OPEN  
MAIN SOV(2)-CLOSE  
CRSFD - OPEN  
BAT 1,3 - OFF  
SELECT ASC H2O TANK  
DES O2 - CLOSE  
ASC 1 O2 - OPEN  
DES H2O - CLOSE  
ASC H2O - OPEN  
  
-1:00 \*400+1  
\*BAT 2,4 - OFF  
CE:ASC ECA CONT-CLOSE  
DES BAT - DEADFACE  
  
- :30 ABOFT STAGE-PUSH(AT T=0  
ENG ARM-ASC FOR AGS)  
  
- :05 PRO  
  
+ :01 ENG START - PUSH

STAY

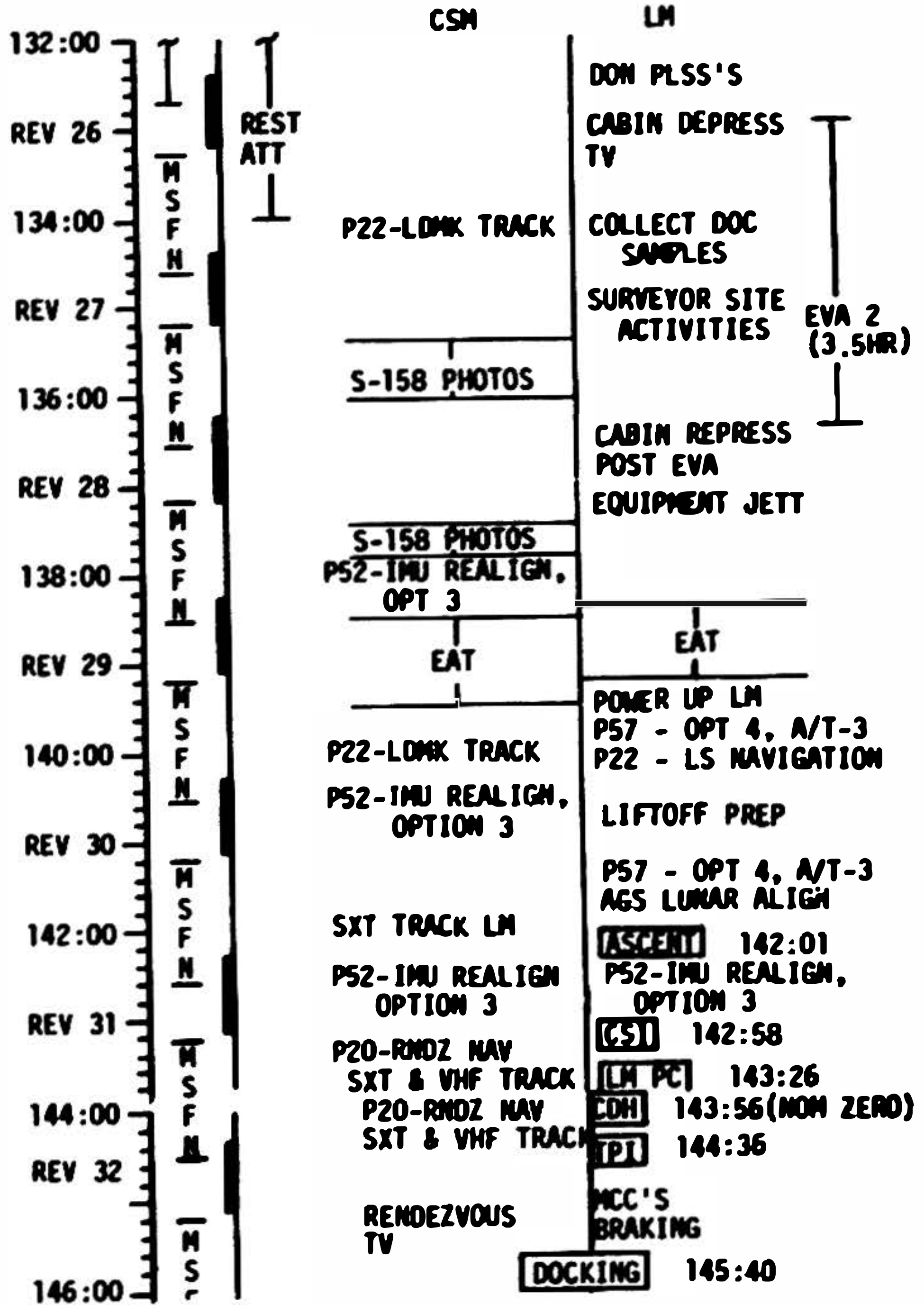
POO



LUNAR SURFACE  
FLT PLAN







LIFT OFF TABLE		
TIME	NEW TIG	EST TIG
T3		112:27:12
T4	114 + 26 + 06	114:25:28
T5	116 + 24 + 28	116:23:45
T6	118 + 22 + 46	118:22:01
T7	120 + 21 + 09	120:20:18
T8	122 19 32	122:18:34
T9	124 17 54	124:16:51
T10	126 16 13	126:15:07
T11	128 14 34	128:13:23
T12	130 12 59	130:11:40
T13	132:11:35	132:09:56
T14	134:09:59	134:08:12
T15	136:08:25	136:06:29
T16	138:06:50	138:04:45
T17	140:	140:03:01
T18	142:	142:01:18



**FLIGHT PLAN  
ASCENT MONITOR**

TIG-2 400+1E GUID STEERING  
RESET WATCH  
START CAMERA  
TIG-1 MASTER ARM - ON  
367R  
-:30 ABORT STAGE-PUSH(AT T=0 FOR  
ENG ARM-ASC AGS)  
-:05 PRO  
+:01 ENG START-PUSH  
BAL CPL-OFF (AGS ONLY)  
CHECK S-BD ANT (168,-47)  
+1:00 YAW RIGHT 20°  
623+1

N76E (VH Vv ΔR)  
V16 N77E (Tgo, VV)

200 fps N85 E, 500R  
MAIN SOV(2)-OPEN+  
ASC FEED 2(2)-CLOSE+  
CROSS FEED-CLOSE+  
COPY GET

100 fps ENG ARM-OFF

0 fps ABORT STAGE-RESET  
ENG STOP-PUSH  
KEY RELEASE  
PRO NULL X RESIDUAL  
PRO  
ENG STOP RESET  
POO

**GROUND TWEAK**  
PGNS, AGS DIFFER > 10fps  
MCC FOR TRIM OR TWEAK  
(10° IN OHW)

V82

**ASCENT**

PITCH	OHW	TFI	VI	H DOT	H	SBD
		0:00	15.1	0.0	15	124/-33
		0:10	56	54	285	
308	39	0:30	170	93	1881	
305	38	1:00	436	127	5192	156/13
302	35	1:30	728	153	9405	
299	33	2:00	1039	172	14307	160/17
296	31	2:30	1369	185	19693	
292	29	3:00	1719	191	25361	165/23
289	27	3:30	2090	191	31118	
285	24	4:00	2481	185	36780	171/28
281	22	4:30	2896	173	42170	
277	19	5:00	3333	156	47121	178/33
273	16	5:30	3795	133	51473	
269	13	6:00	4283	106	55084	185/39
264	10	6:30	4799	77	57857	
260	7	7:00	5344	46	59730	194/44
		7:10	5534	34	60137	198/46

**IF NO IGNITION (WITHIN 90 SEC)**  
1. CHECK CB(11)-AELD, CB(16)-  
ENG ARM, AELD, ATCA  
2. IF CB'S CLOSED-SELECT AGS  
3. NO IGNITION-SELECT PGNS  
  
4. ENG START-PUSH

MANUAL ASCENT (Will Nominally Be  
Targeted 9 Min Late)  
CONFIGURATION NOMINAL EXCEPT:  
MODE CONT-ATT HOLD  
PROFILE NOMINAL EXCEPT:  
4-STEP FOR DIRECT MODE  
(BAL CPL-OFF AFTER PITCH)

**8-BALL 4-STEP**  
:20 PITCH ON TO 300°  
3:15 285  
5:15 270  
7:00 255

**OHW 4-STEP**  
:15 PITCH ON TO 37  
1:14 32  
3:26 25  
5:24 11

MSFN Will Call 2° PITCH And ROLL  
BIAS Commands From Ground Tracking  
At About 7 Min

ASC QTY LITE-MAIN SOV(2)-OPEN,  
ASC FEED 2 (2)-CLOSE  
CROSS FEED - CLOSE  
SHUTDOWN  
ENGINE ARM OFF  
STANDBY TO RESET ABORT STAGE Pb  
AND DEPRESS ENGINE STOP Pb ON  
CALL FROM MSFN.

INSERTION THRU CSI

TIME	RANGE	RDOT
INS	260.2	-454.9
1+00	255.7	-451.3
2+00	251.3	-447.1
3+00	246.9	-442.3
4+00	242.6	-436.9
5+00	238.3	-431.0
6+00	234.0	-424.6
7+00	229.9	-417.6
8+00	225.8	-410.3
9+00	221.8	-402.4
10+00	217.9	-394.1

SS 45  
142  
+15

42

39

N05 ANG DIFF  
PRO  
N93 TORQUING ANG

X \_\_\_\_\_  
Y \_\_\_\_\_  
Z \_\_\_\_\_

PRO GET  
N25  
PRO TO PICAPAIR N15

\*DETENT CL  
\*CB AOT LAMP-OPEN

36

V34  
V48, 11012  
CB RR(2)-CLOSE  
RATE/ERR MON-RNDZ RDR  
V95  
V93  
P20, AUTO MNVR  
V80, MAX N49(2.0,12.0)  
P32, TGT CSI

\*616+00007 ULLAGE

\*411+0

\*V47, 414+1, 400+3

\*400+2

\*417+1

\*AHT-AFT, PCM-LO

\*S-80 P \_\_\_\_\_ (-9)

\* Y \_\_\_\_\_ (+19)

\*SLEW, SET ANGLES

V83 SET OPDEAL (35NM)  
\*317P, 440P, 277P

33

LR

LOS 30  
142  
+27

30 CHART RDOT

RDOT LR

RDOT LR

27

RDOT LR

RDOT LR

24

M=10, V32

RDOT LR

21

RDOT LR

20 CHART RDOT

18

RDOT LR

\*CHECK RCS, EPS, ECS

15

RDOT LR

V90 OBTAIN CSM YDOT

12

RDOT LR

10 CHART RDOT/R

PRO-FINAL COMP

N81 LOAD CSM YDOT(IF>2fps)

9

RDOT LR

\*Copy Ags Data

V83 SET OPDEAL

\*317R, 440R, 277R

P41 N86

\*410+5 LOAD ΔV

\*507+1

\*407+0

\*267R

\*ΔV's TO CSM

\*502R

:30 V77, MODE CONT-ATT HOLD

:05 \*407+1, 502P

GO CSI (142:58:05)

NULL RESTRICTIONS

INSERTION (142:08:28)

MODE CONT(2)-ATT HOLD

ATT/TRANSL-2 JETS

\*BAL CPL-ON

\*VHF ANT-FWD

\*STOP CAMERA

\*EXT LTG-TRACK

\*400+2

\*410+1 TGT CSI

\*623+0

\*310R SET DET

\*COPY AGS DATA(450R)

\*RATE/ERR MON-RNDZ RDR

INV 2, CB INV 1-OPEN

SHFT/TPUN: ±5

RNG/ALT MON-RNG/RNG RT

RATE/ERR MON-LOG ROR/CMPTR

CB(11) & (16) EO: LOGIC PWR-OPEN

V48, 11002

CB RR(2)-CLOSE

V41N72 (+000, +283)

CB RR(2)-OPEN, V44

P52 OPT 3

\*CB AOT LAMP-CLOSE

\*AOT DETENT F/O°

V76

1st STAR 12-RIGEL

2nd STAR 13-CAPELLA

ATT CONT-  
PULSE  
MODE CONT-  
AUTO

RR-AUTO  
TRACK

417-1



CSI THRU CDH

- \*ANT-FWD, VERIFY COMM \*
- \*SLEW (>3.0) AUTO TRACK \*
- \*PCM-HI, BIOMEQ-RT \*

60 CSI (142:58:05)

V76, MODE CONT-AUTO  
V67, (+02000, +00020, +00005)  
P33 TGT CDH

AOS  
143  
+16

ATT CONT-PULSE  
MODE CONT-AUTO

- \*417+1 \*
- \*507+0 \*
- \*410+2 TGT CDH \*
- \*373R TH CDH \*
- \*310R SET DET \*
- \*COPY AGS DATA \*

V82  
CDH TIME TO CSM

V83 SET ORDEAL (45NM)  
\*317R, 440R, 277R

39 V34, P30

RDOT }R

CSI BURN REPORT  
TIG, ΔV'S, RESIDUALS

36 CHART RDOT

RDOT }R

V90 LOAD CDH-30  
OBTAIN CSM YDOT

P41

- \*410+5 LOAD ΔV
- \*407+0
- \*270R
- \*501R

ATT CONT  
MODE CONT

21

M=7, V32

RDOT }R

18

RDOT }R

\*CHECK RCS, EPS, ECS \*

15

RDOT }R

V90 OBTAIN CSM YDOT

12

RDOT }R

10 CHART RDOT

PRO-FINA COMP

N81 LOAD CSM YDOT

9

RDOT }R

\*COPY AGS DATA \*

V83, SET ORDEAL

\*317R, 440R, 277R \*

P41 N86

5

- \*410+5 LOAD ΔV
- \*407+0
- \*267R
- \*502R

ATT CONT-  
MODE CONT

:30 V77, MODE CONT-ATT HOLD

:05 \*407+1, 502R

:00 CDH (143:56:28)

NULL RESIDUALS

\*A/H

:30 V77, MODE CONT-ATT HOLD

:05 \*407+1, 270 (YDOT NOW) \*A/H

30 PLANE CHANGE (143:26:28)

V76, MODE CONT-AUTO

V93  
P33 TGT CDH

ATT CONT-PULSE  
MODE CONT-AUTO

- \*417+1 (ONLY IF PC) \*
- \*410+2 \*
- \*451+0 \*
- \*COPY AGS DATA \*

27

}R

24

RDOT }R

23 CHART RDOT

:30 V77, MODE CONT-ATT HOLD

:05 \*407+1, 502R

:00 CDH (143:56:28)

NULL RESIDUALS

SR  
143  
+03

M=7, V32

54

}R

51

RDOT }R

48

RDOT }R

V90, LOAD CDH-30  
OBTAIN CSM YDOT

45

RDOT }R

M=15, V32

42

RDOT }R

CDH THRU TPI

CDH (143:56:28)

39 V76, MODE CONT-AUTO

V93

P34 TGT TPI

ATT CONT-PULSE  
MODE CONT-AUTO

\*417+1  
\*SET DET

V82

\*410+3 TPI SRCH  
\*307+043.00 ΔT TRNFR  
\*310+TIME TO TPI  
\*303R @ TPI  
\*410+4 (When 303=26.6)  
\*POLAR PLOT @ 75 NM

310R

33

M=7, V32

30

RDOT }R

27

RDOT }R

24

RDOT }R

SS

144

+13

21

M=15, V32

RDOT }R

18

\*CHECK RCS, EPS, ECS

RDOT }R

15

\*MONITOR 303R @ TPI AND  
\*RETARGET IF REQ  
\*COPY AGS DATA

RDOT }R

12

\*ANT-AFT, PCM-LO  
\*S-BD P \_\_\_\_\_ (+175)  
\* Y \_\_\_\_\_ (+60)  
\*SLEW, SET ANGLES

RDOT }R

LOS 10 PRO-FINAL COMP

144 TIG TO CSM

+25 \*SET DET

9 CHART @ RDOT }R

\*410+3  
\*310+TIME TO TPI  
\*303R @ TPI  
\*410+4 (WHEN 303=26.6)  
\*310R SET DET  
\*404+0, 405+0, 406+0  
\*COPY AGS DATA

5 CHART 9/R/RDOT

P41 N86

\*410+5 LOAD ΔV  
\*507+1  
\*407+0  
\*502R

ATT CONT-  
MODE CONT

:30 V77, MODE CONT-ATT HOLD

:05 \*407+1, 472R/502R

:00 TPI (144:36:26)

NULL RESIDUALS



TPI THRU DOCKING

MISSION APOLLO 12, OCTOBER 6, 1969

0 TPI (144:36:26)  
V76, MODE CONT-AUTO  
V93  
P35 TGT MCC 1

ATT CONT-PULSE  
MODE CONT-AUTO

\*417+1 \*  
\*507+0 \*

2 }R

\*404+0, 405+0, 406+0 \*  
\*410+4 \*  
\*373+TPI TIME +15 MIN \*  
\*307+028.00 \*

4 RDOT }R

6 RDOT }R

8 RDOT }R

9 CHART 0

10 RDOT }R

12 PRO FINAL COMP RDOT }R

13 CHART 0/R/RDOT

\*267R TOTAL VEL MCC1 \*  
\*371R ΔV MCC1 + ΔV TPF \*

P41

\*410+5 LOAD ΔV  
\*407+0  
\*502R

ATT CONT-  
MODE CONT

:30 V77, MODE CONT-ATT HOLD

:05 \*407+1, 472R/502R

15 MCC1

A/H

V76, MODE CONT-AUTO  
V93  
P35 TGT MCC 2

ATT CONT-PULSE  
MODE CONT-AUTO

\*417+1 \*

17 }R

\*404+0, 405+0, 406+0 \*  
\*410+4 \*  
\*373+TPI TIME +30 MIN \*  
\*307+013.00 \*

19 RDOT }R

21 RDOT }R

23 RDOT }R

24 CHART 0

25 RDOT }R

27 PRO-FINAL COMP RDOT }R

28 CHART 0/R/RDOT

\*267R TOTAL VEL MCC2 \*  
\*371R ΔV MCC2 + ΔV TPF \*

F41

\*410+5 LOAD ΔV  
\*407+0  
\*502R

ATT CONT-  
MODE CONT

:30 V77, MODE CONT-ATT HOLD

:05 \*407+1, 472R/502R

30 MCC2

A/R

PGO  
V48, 11002  
P47  
V53

\*404+0, 405+0, 406+0 \*

AOS

145

+11

\*ANT-AFT, VERIFY COMM \*  
\*SLEW (>3.0), AUTO TRACK \*  
\*PCM-HI, BIOMED-RT \*

35 BRAKING

30 FPS - 6000 FT  
20 FPS - 3000 FT  
10 FPS - 1500 FT  
5 FPS - 600 FT

\*SETUP CAMERA FOR \*  
\* DOCKING: \*  
\*LM/DC/60/HCEX \*  
\* (F11,250,40) 5 \*

43 RENDEZVOUS

\*EXTERIOR LTG-OFF \*  
\*OMNI-AFT \*  
\*BIOMED-LEFT \*

55 DOCKING

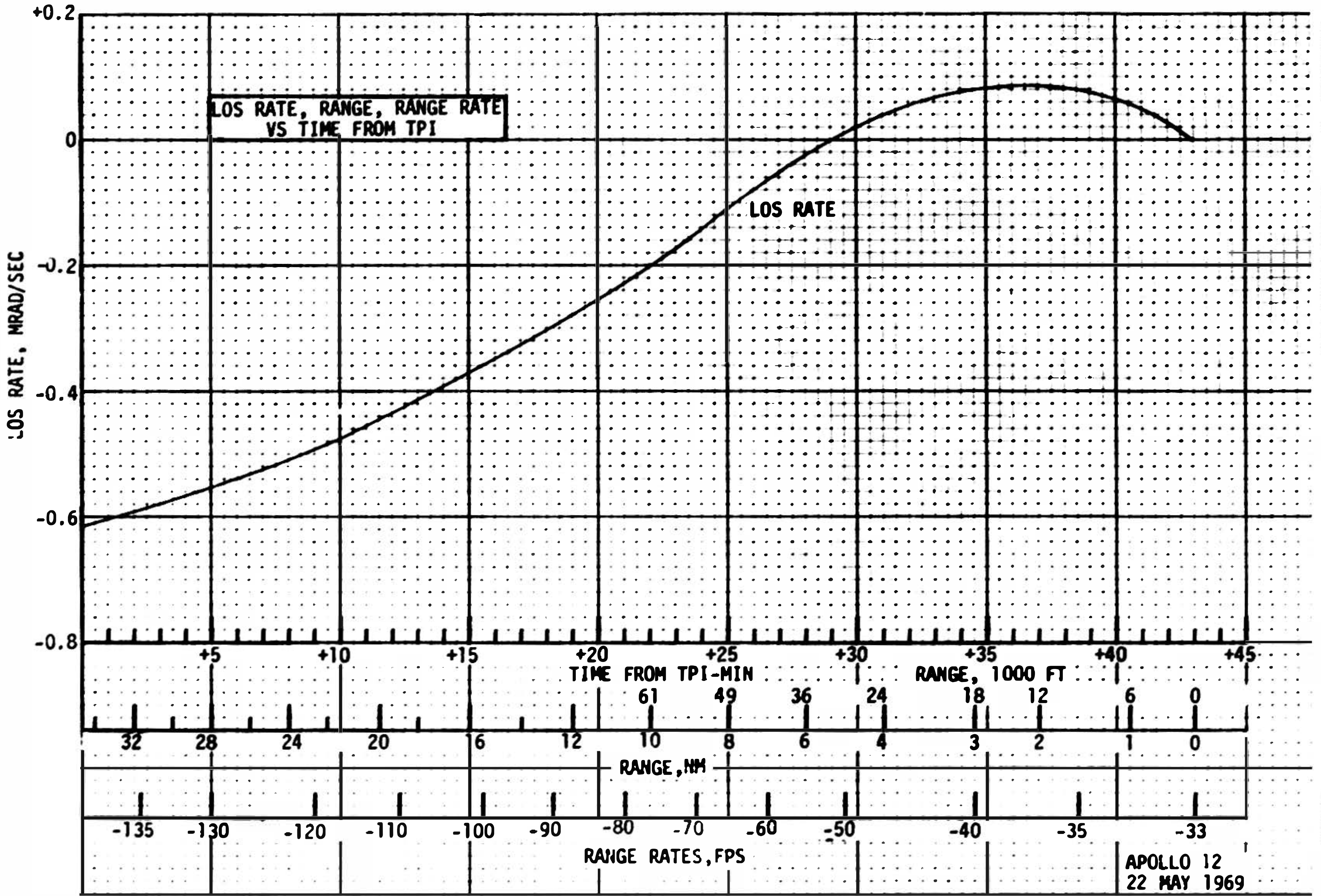
V34, P05  
V76  
COAS TO OVHD WINDOW  
\*EXT LTG-DOCK \*  
SHFT/TRUN +50  
V41N72 (+000,+320)  
CB RR(2)-OPEN, V44  
PITCH DOWN 90°, YAW LEFT 120°  
V77

ATT CONT-PULSE

ATT CONT-  
MODE CONT

60 CONTACT

AFTER HARD DOCKING  
MODE CONT (BOTH)-OFF



APOLLO 12  
22 MAY 1969

LOS RATE  
POST DOCKING



145:40

CONFIGURE PGNS And AGS

- 1 MODE CONT (AGS) - ATT HOLD  
ATT CONT (3) - PULSE  
GUID CONT - AGS  
DEADBAND - MAX  
BAL CPL - ON
- 2 Verify FWD DUMP VLV - AUTO
- 3 V48, 12021, PRO  
N47 \_\_\_\_\_ LM WT  
          \_\_\_\_\_ CSM WT  
PRO \_\_\_\_\_
- 4 V37E00E

145:45

PREP FOR TRANSFER

- 1 Verify Tunnel Pressurized From CSM  
OVHD DUMP VLV - OPEN
- 2 Doff Helmets and Gloves  
Place HSB'S on Deck, Right Side-Forward  
Unstow CSRC And CSC Cassette from Upper Lunar  
Boot Comp And Place in TSB
- 3 When Pressures Equal, OVHD DUMP VLV - AUTO  
Verify Press Regs A And B - Egress
- 4 Open Hatch, Remove Drogue, Pass To LMP  
Receive Probe From CMP  
Stow: Probe On Left Hand Side Using  
          Outboard (Double) Restraint Cable  
      : Drogue Over Probe Using Inboard  
          (Single) Restraining Cables Through  
          Drogue Handles

POST DOCKING

- 5 Receive Bags And Vacuum Brush From CSM  
And Stow In TSB
- 6 Verify: CABIN GAS RETURN VLV - EGRESS  
          SUIT GAS DIVERTER VLV - EGRESS  
          SUIT CKT RELIEF VLV - CLOSE  
          COR'S SUIT ISOL - SUIT DISC  
          UPDATA LINK - DATA  
          MSFN Uplinks CSM And LM State Vectors (TIG-10)  
          AND P30 EXT ΔV Load, Copy Burn Pad
- 7 Disconnect CDR O2 Red Hose From PGA And  
Attach Vacuum Brush  
  
          CDR SUIT ISOL VLV - SUIT FLOW
- 8 Unstow SRC's, Vacuum And Bag  
Transfer To CSM
- 9 LMP Hold The Following For CDR To  
Vacuum, Bag, Then Transfer  
          CSRC  
          CSC Cassett  
          70MM Magazine Bag(2)  
          Gloves (4)  
          Helmets (2)  
          Lunar Boots  
          Surveyor Tools And Hardware  
          Large Beta Bag With Extra Rocks, Etc.  
          (Place In Surveyor Back-Cont Bag)
- 10 Vacuum PGA's
- 11 Stow Vacuum Brush and 3 Foot Hose in RHSCC  
Receive B5 & B6 From CMP And Stow
- 12 Cut Flags/Flames From Ops Covers

146:30

POST DOCKING

146:48 146:51

13 CSM Mvvr to LM Jett Att

147:00

CDR IVT TO CSM

- 1 CB(11) COMM: CDR AUDIO - Open  
CDR SUIT ISOL - SUIT DISC
- 2 Disconnect LM Hoses And Stow  
Transfer To CSM

147:10

CONFIGURE S-BAND

- 1 Verify Jettison Attitude CSM In Narrow Dead-Band, Attitude Hold
- 2 S-BAND - PH, PRIM, PRIM, VOICE, PCM, OFF/RESET, OFF, HI  
Y F A: XMTR - VOICE/RANGE  
          : RCVR - OFF  
V F 8: XMTR - OFF  
          : RCVR - ON  
ANT FWD, VERIFY COMM  
S BD P \_\_\_\_\_ (+201)  
      Y \_\_\_\_\_ (+73 )  
SLEW (>3.0)
- 3 V47E, 414+1
- 4 400+3

TARGET PGNS

- 1 P30 Target Impact Burn  
N45 VOICE TFI TO CSM  
PRO, P00

TARGET AGS

- 1 400+1  
41 +5  
450 \_\_\_\_\_ E  
451 \_\_\_\_\_ E  
452 \_\_\_\_\_ E  
407+0
- 2 500R

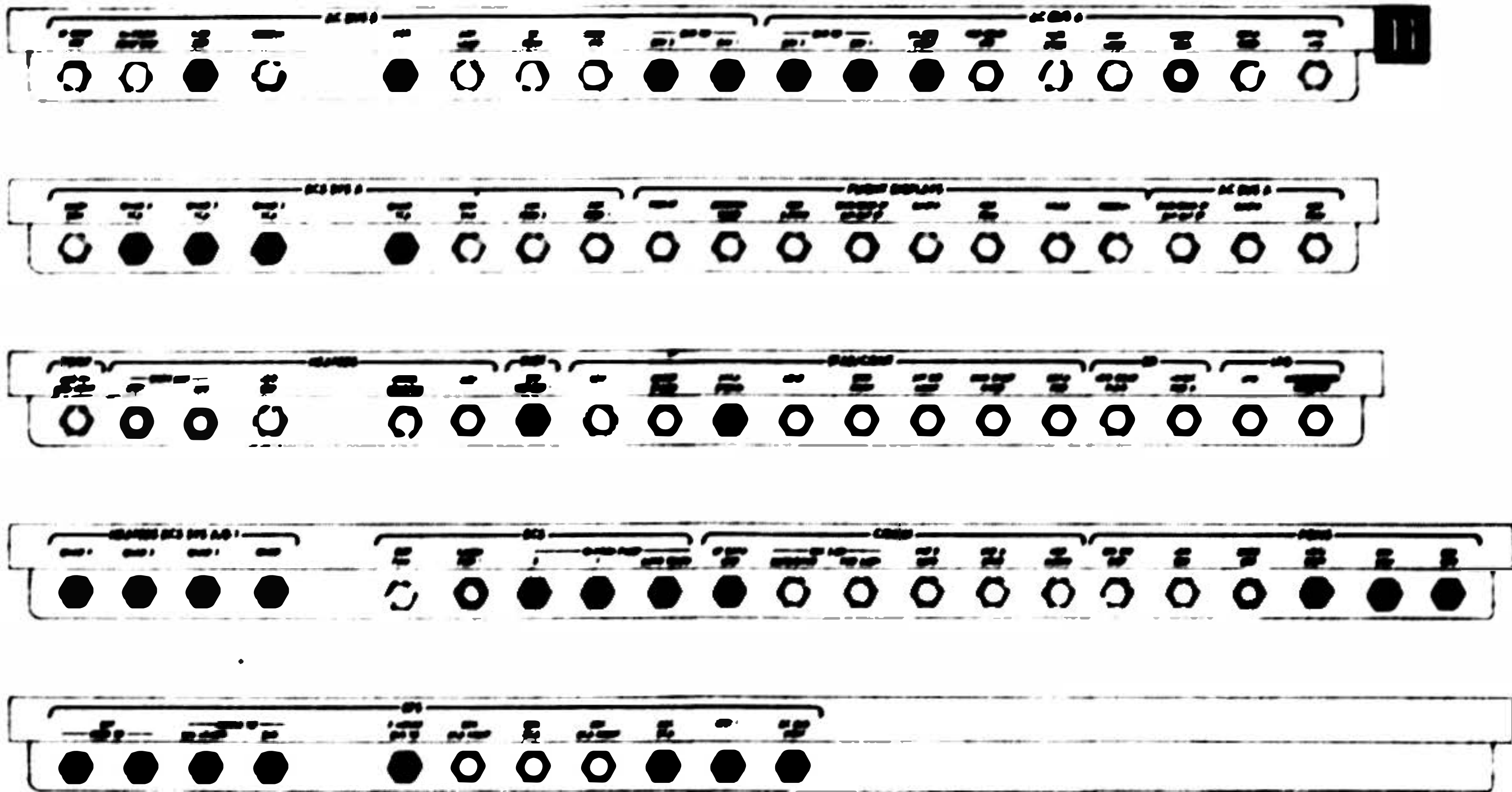
147:15

CONFIGURE LM FOR JETTISON

- 1 VERIFY CSM MIN DB/ATT HOLD  
GUID CONT - PGNS  
MODE CONT: (Both) - AUTO  
ATT CONT (3): MODE CONT  
Verify INV - 1
- 2 ASC FEED (4) - tb-bp  
SYS A&B QUADS (8) - tb-gray  
CRSFD - tb-bp  
SYS A&B MAIN SOV (2) tb-gray
- 3 SUIT CIRCUIT RELIEF - AUTO
- 4 Configure CB's Per Chart
- 5 Window Shades Up (3)  
Install Crash Bars
- 6 S-BAND VOICE OFF



POST DOCKING



POST DOCKING

16	

147:25

LMP IVT TO CSM

- 1 Stow HSB's On Floor  
LMP SUIT ISOL - SUIT DISC  
Disconnect LM Hoses And Stow
  
- 2 EXTERIOR LTG - TRACK  
BAT 5&6 BACK UP FEED-ON,  
tb(2) gray  
FLOOD Lt - OFF  
Verify OvrD Dump Vlv-Auto

- 3 Transfer To CSM

LM TO CM TRANSFER LIST

Suits and Ancillary Eqpt:

- IV Gloves
  - Helmet
  - Comm Cap
  - Matches (2)
  - Monocular
  - Sunglasses In Pouch
  - Pens & Pencil
  - Penlights
  - Scissors
  - Box of Kleenex
  - 16mm Magazines (6)
  - 70mm Magazines (5)
- All Documents In Flight Data File
- PPK's (2)
  - DSEA
  - CSRC
  - CSC Cassette
  - SRC (2)
  - Surveyor Bag
  - Lunar Boots, Etc.
  - Unopened Food Bags
  - Used Urine Bags
  - Used Fecal Bags