

APOLLO II

LM TIMELINE BOOK

PART NO

S/N

SKB32100080-388

1001

UNDOCKED TO SEP

+30 USE ACTIVATION & C.O.
C/L TO 5 MIN BEFORE UNDOCK
V77E
V62E
V48 21102
P47
404,405,406-COPY, LOAD ZEROES
470 R-ZERO

+35 **UNDOCK (100:15)**
NULL 470
POO
D/B-MIN
YAW LT 60° (ATT CONT P&R - MODE CONT)
PITCH UP 110° (ATT CONT R&Y - MODE CONT)
FDAI (0,305,0)
V83 SET ORDEAL
VERIFY TRACKING LT-ON, THEN OFF

+40 ✓ S BD P 123 Y -40
VERIFY COMM, AUTO TRACK
PCM-HI
BIOMED-RIGHT
YAW 360° FOR INSPECTION ATT CONT P&R
MODE CONT

+45 V76E
GUID CONT - PGNS
LM ACTIVE STATION KEEP (CAMERAS)
HELMETS & GLOVES - OFF (OPT)

+50

AOS
100
016

+50 POO, UPDATA LINK - DATA
(S.V., TARGETING, PIPA BIAS,
& PADS FOR DOI, PDI,
PDI +12)
UPDATA LINK - OFF

+55 232+00600;233+00250 224+(60267)
404 (-13495)
405 (-00032)
406 (-77455)
464+00500,465+00195 225+(58148)
616+0 226+(70312)
623+0 227+(-50031)
231+(56919)

+0 **CSM SEP (100:40)**

SOURCE
DATE

JUNE 19, 1969-BASIC
REV "K" JULY 9, 1969

LM TIMELINE BOOK

SOURCE
DATE JUNE 19, 1969 REV "N" JULY 12, 1969

APOLLO 11
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PAGE 7

SEP TO DOI

+0 ~~SEP 11 00:00~~ TTCA (CDR)-DISABLE
CB LR-CLOSE, CK TEMP (50°-70°)
RATE ERR MON-LDG RDR/CMPTR
X-PNTRS-HI MULT, TM SW-H/H
LDG ANT-DES, MODE SEL-LR
RDR TEST - LDG
TEST MON-ALT/VEL XMTR (2.1-5.0), AGC
RECORD TM H/H
V63E, N12 OPT CODE, V22E, 2E, PRO
N66 SLANT RANGE, ANT POSIT, PRO
+5 N67 V_x V_y V_z ✓
V34E, LDG ANT - AUTO, V60E ✓
V63E, N12 OPT CODE, V22E, 2E, PRO ✓
LDG ANT-DES (V522 ALARM), THEN AUTO ✓
V34E, RDR TEST OFF ✓
CB LR - OPEN ✓
UPDATA LINK-DATA (CSM S.V.), OFF ✓
V47E, 414+1, 414R+0, 400+3, 400R+0
V83, SET ORDEAL, 317R, 440R, 277R
+10 DEADBAND - MIN, 400+2, 507+0
SS AGS-AUTO, ✓ ERROR NEEDLE, ATT HOLD
100 P-30 TARGET PGNS FOR DOI, N33 TIG,
+54 N81 ΔVX, ΔVY, ΔVZ: N42 HA, HP, ΔVT:
N45 M, TFI, MGA: RESET ET UP
PRO, P00
V76
CB RR(2) CLOSE, CHECK TEMP (10°-50)
V63, TM-R/R
RR-SLEW. MANUAL LOCK-ON
RR-LGC
+15 VHF A XMTR - VOICE/RNG
B XMTR - OFF
COMPARE LGC, TM, CSM VHF, CMC-RECORD
V34E, 400+0
V41N72E (+00000 TRUN, +28300 SHFT)
CB RR (2) - OPEN, V44

+20 P52 OPT3
CB(11) AC BUS A-AOT LAMP CLOSE
AOT - DETENT F/O.0°
1st STAR 35
2nd STAR 33
N05 ANG DIFF 00003
PRO
N93 TORQUING ANG
X -00292
Y -00299
Z -00094

+25 PRO
N25
PRO TO PICAPAIR N15
3rd STAR _____

+30 DETENT CL (5)
CB(11) AC BUS A-AOT LAMP-OPEN LOS
V34E
INSTALL AOT SUN FILTER
PGNS MODE CONT - ATT HOLD
P00, V77

+35 CHECK DPS, APS, RCS, EPS,
CYCLE CWEA CB
THROT CONT-MAN/CDR
TTCA(BOTH) - THROTTLE (MIN)
DEADBAND - MIN
PRPLNT QTY - DES 1
DON HELMETS & GLOVES

+40

+45 P40, N18(0,294,0), N86 AUTO MNVR

+50

CB (11) EPS: INV 1-CLOSE
TM SW-R/RDOT, MODE SEL-PGNS
V47, 414+1, 414R+0
S-BD 90,0 SLEW. THEN P+213 Y+27
OMNI-AFT, PCM-LO
VHF A XMTR-VOICE
B XMTR-DATA
V83, 317R, 440R

+53

+54 N20E, V40E, 400+3, 400R+0, -277R
400+1

+55

PRO
410+5, LOAD ΔV
411R+0, 407R+0.

-4:00 ✓ DPS CONFIG CARD
V77E

-1:00 MASTER ARM-ON

-:35 ENG ARM - DES
500P

-0:00 DOI (101:39:48) +15s THROTTLE UP 400
ENG ARM, MASTER ARM - OFF
TTCA (CDR) - ENABL/JETS, NULL VGX

DOI TO PDI

SR
101
+41

+0 PDI (101:38:48) +15s THROTTLE UP 40%
ENG ARM. MASTER ARM - OFF
TTCA (CDR)-JETS & ENABLE, NULL VGX, VGZ
POO MODE CONT (PGNS)-ATT HOLD
PITCHDOWN, P=195, POINT AT CSM
410+0, 407+0
V82E
PRPLNT QTY MON - OFF
IF AGS Δ VGX >2.0:
CB RR(2) - CLOSE, RR MODE - LGC
V95, TTCA(CDR) - DISABLE

+5 MAN LOCK-ON, P20
400+2
MODE CONT (PGNS) - ATT HOLD
V76, AGS AUTO, ERROR NEEDLES, ATT HOLD
POO, V63
VHF A XMTR - VOICE/RNG
B XMTR - OFF
COMPARE RANGE WITH CSM

+10 V34, CB RR(2) - OPEN
400+0
V25 N07E, 110E, 40E, E
TRACK LIGHT-OFF

+15 P30 TGT PGNS FOR PDI+12 ABORT:
N33 TIG
N81 Δ VX, Δ VY, Δ VZ
N42, HA, HP, Δ VT
N45 M, TFI, MGA
PRO
PITCH DWN TO 125° (P52 PITCH)

+20

16 MM/HCEX
SET CAMERA (4,500, INF) 6FPS

SOURCE
DATE JUNE 19, 1969 REV "N" JULY 12, 1969

+20 YAW LEFT 180°, FACE RETRO
V77E
V83E SET ORDEAL
COAS TO OVHD WINDOW

P52 OPT 3
F 50 25, E
F 01 70, V21E, 00546E
PRO, F 50 18, PRO (AUTO MNVR)
V76E

+25 V06N20E, ENTER ON MARK
RECORD R2
N22E, RECORD R2
V34E PITCH TO FDAI 180, 285, 0

+30 SELECT INV 1, \sqrt INV 1
CB AELD(2) - CLOSE
CB ABORT STAGE (2) - CLOSE
CYCLE CWEA CB
RESET ENG STOP PB
SET WINDOW BARS
THROT CONT-AUTO
ACA/4 JET (CDR) - ENABLE
TTCA (CDR)-ENABLE
BOTH TTCA-THROTTLE, MIN

+35 BATS 5&6 NORM FEED - ON
CB RR(2) - CLOSE
CHECK DPS, APS, RCS, ECS, EPS
P20 MODE II LOCK-ON
N18, R, P, Y, ENTR, MAIN LOBE
RR-AUTO TRACK, V56E, POO

P63
N61 TGO, TFI, CR
N33 TIG
RESET ET UP
N25 00014 FINE ALIGN
ENTR-BYPASS ALIGN
N18 R, P, Y (180, 287, 0)

+40 PRPLNT QTY MON - DES 1

+40 S-BD OMNI-AFT, ACQUIRE MSFN
 \sqrt SB P +219 Y +30
AOS VERIFY COMM, AUTO TRACK
102 PCM - HI
+45 UPDATA LINK - VOICE BU
BIOMED LEFT
DOI POST BURN REPORT
HELMETS AND GLOVES ON
SUIT GAS DIVERTER - EGRESS
CABIN REGS A&B - EGRESS

+45 MODE CONT (PGNS) - AUTO
AUTO MNVR
ALT, ATT, POS CHECKS

+50 V47, 414+1, 414R+0
240+(231 RLS)
262-00150
254+0767.2 (TLAND)
V83E, 317R, 440R
+52 OHW \sqrt 34°

+54 N20E, V40E, 400+3, 400R+0
CONFIRM NO CDU TRANSIENTS
400+1, 433R VI
PRO

+55 CB LR - CLOSE
+56 PRO-FINAL TRIM
ENTR, N62 VI, TFI, Δ VM, \sqrt DET
 \sqrt DPS CONFIG CARD,
GO/NO GO

+57 ALT, ATT CHECK
SEQ CAMR - ON
V77E
--:35 ENG ARM - DES:
--:07.5 ULLAGE

-0:00 PDI (102:35:13)
+0:05 DES ENG CMD OVRD - ON

SOURCE DATE JUNE 19, 1969 REV G JULY 1, 1969

PDI THRU TD +3 MIN

(DES O2 ≈ 91)

ENG ARM - DES
IGNITION

DES ENG CMD OVRD - ON
TTCA - UP @ 25 SEC
V21 N01 E
1252 E
2462 E
WAIT 3 SEC
TTCA - 10%

LPD ALT CHK 12.9
-10.7
TM - W/H DOT 8.4

LPD POS CHK
YAW RT 174°
SBD P -14 Y +12
✓ ED BATTS
V16 N68 E
V57E - ENABLE LR

THROTTLE DOWN

EWAL MAN CONT

(CH-W)	TFI	VI	(HMAX) -HDOT	(ΔH) H	DPS
(7)	-0:35				
285	0:00	5560.0	4.3	48800	95
	0:05				
285	0:30	5500.0	4.8	48700	95
(10)					
279	1:00	5200.0	14.0	48400	89
	1:30	4900.0	21.0	47900	84
(16)					
271	2:00	4600.0	30.0	47100	79
268	2:30	4300.0	40.0	46100	74
(19)					
267	3:00	4000.0	53.0	44700	68
264	3:30	3600.0	67.0	42900	63
				(17500)	
82	4:00	3300.0	80.0	40700	58
80	4:30	2900.0	95.0	38000	53
				(17500)	
78	5:00	2600.0	109.0	34800	47
76	5:30	2200.0	122.0	31200	42
				(17500)	
72	6:00	1800.0	123.0	27500	37
				(14000)	
68	6:30	1400.0	114.0	24300	32
				(10500)	
63	7:00	1200.0	143.0	20200	29
				(427.0)	
				(368.0)	(8750)
60	7:30	1000.0	157.0	16200	25

V16 N68 E

P64

LDG AVT - HOVER

P64 + 15 SEC:
NO THROTTLE DN-ABORT

SBD P +17 Y -14

223+00020 @ 2 K

PGNS MODE CONT-
ATT HOLD

P65

P66

X-PNTR-LO MULT

TOUCHDOWN

ENG STOP - PUSH
ACA - OUT OF DETENT
MODE CONTROL (BOTH) - AUTO
DES ENG CMD OVRD - OFF
ENG ARM - OFF

413+1
223+00007 414+2
ASC FEED 2 (2) - CLOSE

NO STAY

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

Θ	TFI	VI	(HMAX) -HDOT	H	HOR	DPS
57	8:00	700.0	157.0	11500	60	22
47	8:30	500.0	139.0	7000	49	19
			(186.0)			
43	8:44	99 60	112.0	5000	45	18
			(163.0)			
40	8:54	99 56	95.0	4000	42	17
			(136.0)			
36	9:06	98 52	76.0	3000	38	16
			(104.0)			
31	9:22	82 47	55.0	2000	33	15
			(63.0)			
24	9:44	61 39	32.0	1000	25	13
			(35.0)			
18	10:06	40 33	16.0	500	18	12
			(29.0)			
16	10:14	32 31	12.0	400	16	11
			(21.0)			
13	10:26	20 31	7.0	300	13	10
			(12.0)			
9	10:48	0 43	3.0	200	9	9
2	11:26		3.0	100	2	7
2	11:42		3.0	50	2	6

PDI-TD+3MIN
TD+3-T2ABORT

SEP-DOI
DOI-PDI

UNDOCK TO
SEP

TD +3 THRU T2 ABORT

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THRUSTER PAIR ISOL VLV(8) - OPEN
MAIN SOV (2) - OPEN
CRSFD - CLOSE SBD PITCH 49 YAW -35
ASC FEED 1 (2) - OPEN
MASTER ARM - ON
DES VENT - FIRE
MASTER ARM - OFF
OXID VENT - OPEN

14:00

NOMINAL T 1, ABORT TIME
CB(11) PGNS: LDG RDR - OPEN
AOT - FWD
SLEW RR TO +X AXIS
AOT - CL
CB(11) PGNS: RNDZ RDR - OPEN
AC BUS A: RNDZ RDR - OPEN

15:00

V37E68E
N43 LAT, LONG , ALT
PRO
ENG STOP-RESET
V37E12E
N33 TIG (PDI + 23 MIN)
N76 V HOR, V VERT, CROSS RNG
N74 TFI, YAW, PITCH RESET DET

16:00

V47E 414+1, 414R+0
V40 H20E, 400+3, 400R+0
400 + 1
225 + K
226=225
410 + 0

MODE SEL - PGNS

REV "N" JULY 12, 1969
DATE JUNE 16, 1969

STAY/NO STAY

19:30

NO STAY

-2:00 BAT 1,3 - OFF
DES H2O - CLOSE
SELECT ASC H2O TANK
DES O2 - CLOSE
ASC 1 O2 - OPEN
CABIN REPRESS - CLOSE
ASC HE SEL - BOTH
MASTER ARM - ON
ASC HE PRESS - FIRE
ASC HF REGS 1,2 - OPEN
ASC FEED 2 (2) - OPEN
MAIN SOV(2)-CLOSE
CRSFD - OPEN
CB RR (2) - CLOSE, RR-LGC

400 + 1

-1:00 BAT 2,4 - OFF
CB ASC ECA CONT-CLOSE
DES BAT - DEADFACE
VOLTMETER - 5,6, LMP, CDR
- :05 ABORT STAGE - PUSH
PRO
ENG ARM - ASC
+ :01 ENG START - PUSH

STAY

V37E00E GO TO LUNAR SURFACE C/L

APOLLO 11 FLIGHT DATA FILE

LM TIMELINE BOOK

SOURCE DATE

JUNE 26, 1969-CHG "C"

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CDR

LMP

CSM

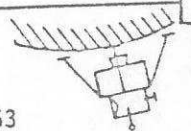
1730 EDT
104:00

CDR

REPORT: LMP

CSM

TOUCHDOWN 102:47:11



102:53

PERFORM LUNAR CONTACT CHECKLIST
STAY/NO STAY FOR PDI+13 MINUTES
PDI + 13 MINUTES CHECKLIST
STAY/NO STAY FOR PDI + 23 MINUTES

104:15

10906

P57 - GRAVITY AND ONE
CELESTIAL BODY (T-ALIGN)

N04: _____

N71: _____

N93: _____

X _____

Y _____

Z _____

GET _____ : _____ : _____

1630 EDT
103:00

INITIATE DPS VENTING
V76 RCS MIN IMPULSE
RR TO STANDBY
MAKE ESTIMATE OF LANDED
LOCATION
CLOSE SHADES, DOFF HELMET
AND GLOVES

ASCERT BATTERIES OFF
REPORT 047, 053
AGS LUNAR SURFACE GYRO
CALIBRATION
LOAD AGS ASCENT TARGET
H=6000 FT, H DOT=32 FPS
CLOSE SHADES, DOFF
HELMET AND GLOVES

STAY/NO STAY FOR LUNAR SURFACE OPERATIONS

BEGIN SIMULATED COUNTDOWN

P57-IMU ALIGN (REFSMAT)
GRAVITY MEASUREMENT
N04: _____

P12 - ASCENT PROGRAM

AGS LUNAR ALIGN
BIOMED SWITCH-RIGHT

REPORT ESTIMATE OF LANDED
LOCATION

AGS LUNAR ALIGNMENT

104:30

M
S
T
N

P57-IMU ALIGN (REFSMAT)
2 CELESTIAL BODIES

END SIMULATED COUNTDOWN AT TIG -1 MINUTE
AGS POWER DOWN
(AGS STATUS SW - OFF)

V47 - INITIALIZE AGS
AGS GUIDANCE STEERING

103:29
103:30

N04: _____
N05: _____
N71: _____
N93: _____

104:45

1st REV L0:104:42:05

DOFF HELMET & GLOVES

DOFF HELMET & GLOVES

103:39

PHOTOGRAPH LUNAR
SURFACE

X _____
Y _____
Z _____

104:51

EAT PERIOD
(40 MIN)

EAT PERIOD
(40 MIN)

103:45

N89: _____
LAT _____
LONG/2 _____
ALT _____

105:00

REV 15

GET _____ : _____ : _____
ALIGN AGS TO PGNC
REPORT 057, 053
COPY AND LOAD
ASCENT PAD DATA
VERIFY AGS ASCENT PROGRAM

TIME	DAY/REV
103:00 - 105:00	5/14-15

104:00

CDH-TPI

INSERTION-CSI
CSI-CDH

ASCENT
POSITION

LUNAR SURFACE
FLIGHT PLAN

RELATIVE TRAJECTORY
O < POSIT < S

LM/CM XFER LIST

POST
DOCKING

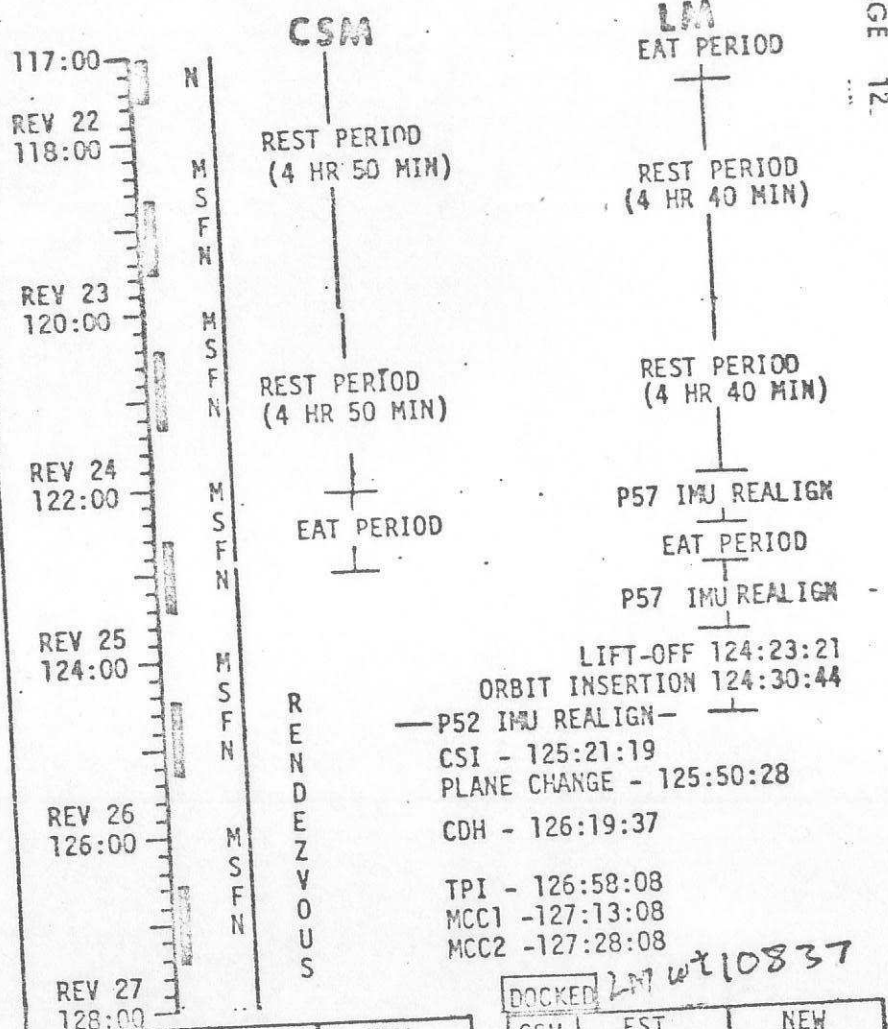
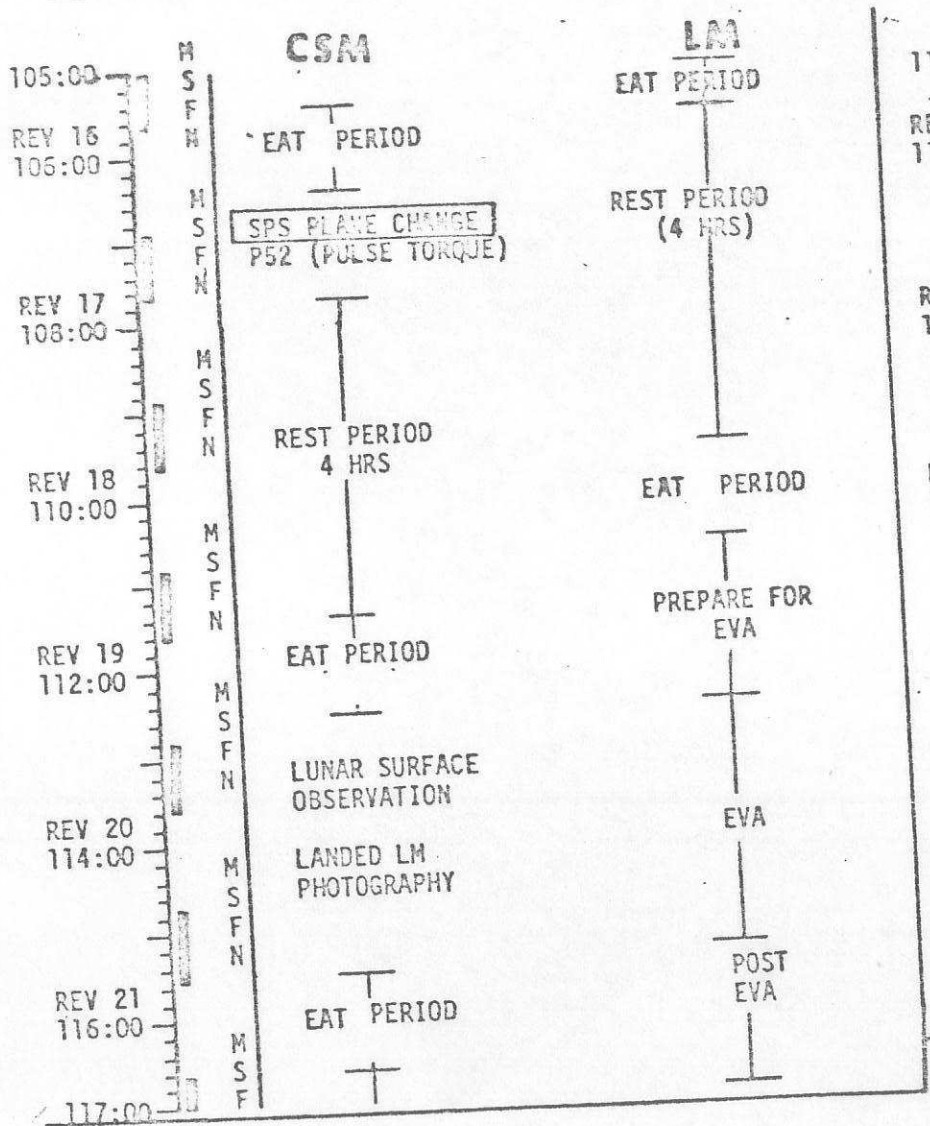
LUNAR SURFACE
FLIGHT PLAN

PDI-TD+3MIN
TD+3-T2ABORT

SEP-DOI
DOI-PDI

UNDOCK TO
SEP

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LIFT-OFF 124:23:21
ORBIT INSERTION 124:30:44
— P52 IMU REALIGN —
CSI - 125:21:19
PLANE CHANGE - 125:50:28
CDH - 126:19:37
TPI - 126:58:08
MCC1 - 127:13:08
MCC2 - 127:28:08

DOCKED LM w/ 10837

CSM REV	EST TIG	NEW TIG	CSM REV	EST TIG	NEW TIG
T4 16	106:40:13	106:37:05	T9 21	116:30:51	116:29:10
T5 17	108:08:20	108:05:15	T10 22	118:28:58	118:27:23
T6 18	110:36:28	110:34:50	T11 23	120:27:05	120:25:55
T7 19	112:34:35	112:32:55	T12 24	122:25:14	122:23:59
T8 20	114:32:43	114:30:57	T13 25	124:23:21	124:22:02

105:00 --- 128:00

SOURCE
DATE

JUNE 26, 1969-CHG FC

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SOURCE
DATE

REV "N" JULY 12, 1969
JUNE 27, 1969-CHG "D"

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ASCENT

PITCH	CH	TFI	VI	H DOT	H
		-0:05			
		0:00	15.0	0	0
		0:10	50.0	55.0	300
308	39	0:30	200.0	90.0	1800
305	37	1:00	400.0	125.0	5000
302	35	1:30	700.0	150.0	9200
299	33	2:00	1000.0	170.0	14000
296	31	2:30	1400.0	185.0	19300
292	29	3:00	1700.0	190.0	24900
289	27	3:30	2100.0	190.0	30600
285	24	4:00	2400.0	185.0	36300
281	22	4:30	2900.0	175.0	41600
277	19	5:00	3300.0	155.0	46700
273	16	5:30	3700.0	135.0	51000
269	13	6:00	4200.0	110.0	54800
265	10	6:30	4700.0	80.0	57500
260	7	7:00	5300.0	50.0	59500
		7:14	5540.0	32.0	60150

ABORT STAGE-PUSH
PRO
ENG ARM-ASC
ENG START-PUSH
N63, YAW
PITCH
BAL CPL-OFF

SBD P 134 Y -32

CHANGE 16mm.
FRAME RATE
TO 6 fps.

N76E VH VV AR
V16 N77 E

N85 E, 500R
TM-R, R DOT

200 FPS MAIN SOV(2)-OPEN
ASC FEED2(2) - CLOSE

50 FPS ENG ARM - OFF
0 FPS ABORT STAGE-RESET
ENG STOP RESET

MODE CONT (2)-ATT HOLD

END APS CARD
BAL CPL-ON
ATT TRANS - 2 JETS
AVX NULL, KEY REL
VI, HDOT, H
PRO AV'S
VEZE, 315R, 403R, 313R
END PRO
AUTO-TRACK
CLOSE-CLOSE

MANUAL ASCENT

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 DN TO 300°
3:15 285
5:15 270
7:00 255

CHW 4-STEP

:15 PITCH DN TO 37
1:14 32
3:26 25
5:24 11

ASC QTY LITE-MAIN SOV(2)-OPEN
ASC FEED2(2) - CLOSE
BURN TO PROP DEPLETION

MONITOR	
PGNS	AGS
06 63 VI, H, H	500 VGX
16 77 TGO, VY	367 H
16 85 VGX, VGY, VGZ	433 VI

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CSI-TTE

UNDERMANT-CSI
CSI-COM

ASCENT

ADDITIONAL TRACK

RELATIVE TRACK

LM/CM XFER LIST

POST BOOKING

INSERTION THRU CSI

TIME	RANGE	RDOT
INS	262.4	-448.7
1+00	257.9	-444.8
2+00	253.6	-440.5
3+00	249.2	-435.5
4+00	245.0	-430.0
5+00	240.8	-424.0
6+00	236.6	-417.4
7+00	232.5	-410.4
8+00	228.5	-402.9
9+00	224.6	-394.9
10+00	220.7	-386.5

162

INSERTION (124:30:39)

POO, RECORD RDOT/R
V48, 1 (2) 1002, V63, RR-LGC, V34

ATT TRANSL-2JETS (4JETS)

V41N72 (+00000,+28300)

CB RR(2)-OPEN, V44

TTCA (BOTH)-DISABLE, 417+1

ACA 4JET (BOTH)-DISABLE RDOT

INV 2, CB INV 1-OPEN

EXT LTG-TRACK

P52 OPT3 STOP 16MM CAMERA

CB AOT LAMP CLOSE

AOT-DETENT F/0.0°, V76 RDOT }R

1st STAR _____

2nd STAR _____

410+1 TGT CSI

373 TIG CSI

275 TIG TPI

605 COTAN θ + 00777 RDOT

416+1 1/2 PERIOD

623+0 ZERO YAW

451+0 Y DOT

616+00007 RDOT }R

40 N05 ANG DIFF
PRO
N93 TORQUING ANG
X _____
Y _____
Z _____

PRO, GET
37 N25 RDOT
PRO TO PICAPAIR N15
3rd STAR
DETENT CL
VHF ANT-FWD

35 CB AOT LAMP-OPEN RDOT }R
V34E
V48 1(2) 1012
CB RR (2)-CLOSE

V95
V67 (+10000,+00100,+00015)
P20, AUTO MNVR
32 V80, M=1, V67 RDOT
P32, TARGET CSI

30 CHART RDOT RDOT }R
V47, 414+1, 414R+0
400+3, 400R+0
V83, SET ORDEAL, 317R

440R, 277R
27 310 Δ T CSI RDOT
SET ET
400+2

25 _____ RDOT }R

22 M=10, V32 RDOT

20 CHART RDOT RDOT }R

RDOT }R 20 CHART RDOT RDOT }R

17 CHECK SYSTEMS RDOT

15 V90 OBTAIN CSM YDOT RDOT }R

12 PRO-FINAL COMP RDOT
N81-LOAD CSM YDOT
LOS
125 S BD 90, 0; SLEW
+10 THEN P-13 Y +17

OMNI-AFT
10 CHART RDOT/R RDOT }R

PCM-HI
V47, 414+1, 414R+0
400+3, 400R+0
V83, SET ORDEAL, 317R
440R, 277R

PCM-LO
P41, N86
410+5, LOAD Δ V
407+0
407+0
 Δ V'S TO CSM
502R
TTCA (CDR)-ENABLE

DB MIN
DEFLECT ACA
MODE CONT(AGS)-
ATT HOLD
ATT CONT(3)-
MODE CONT
400+0

:30 V77, MODE CONT-ATT HOLD

:05 407+1, 502R

:00 CSI (125:21:20)

NULL RESIDUALS
TTCA (CDR)-DISABLE

INSERTION-CSI
CSI-CDH

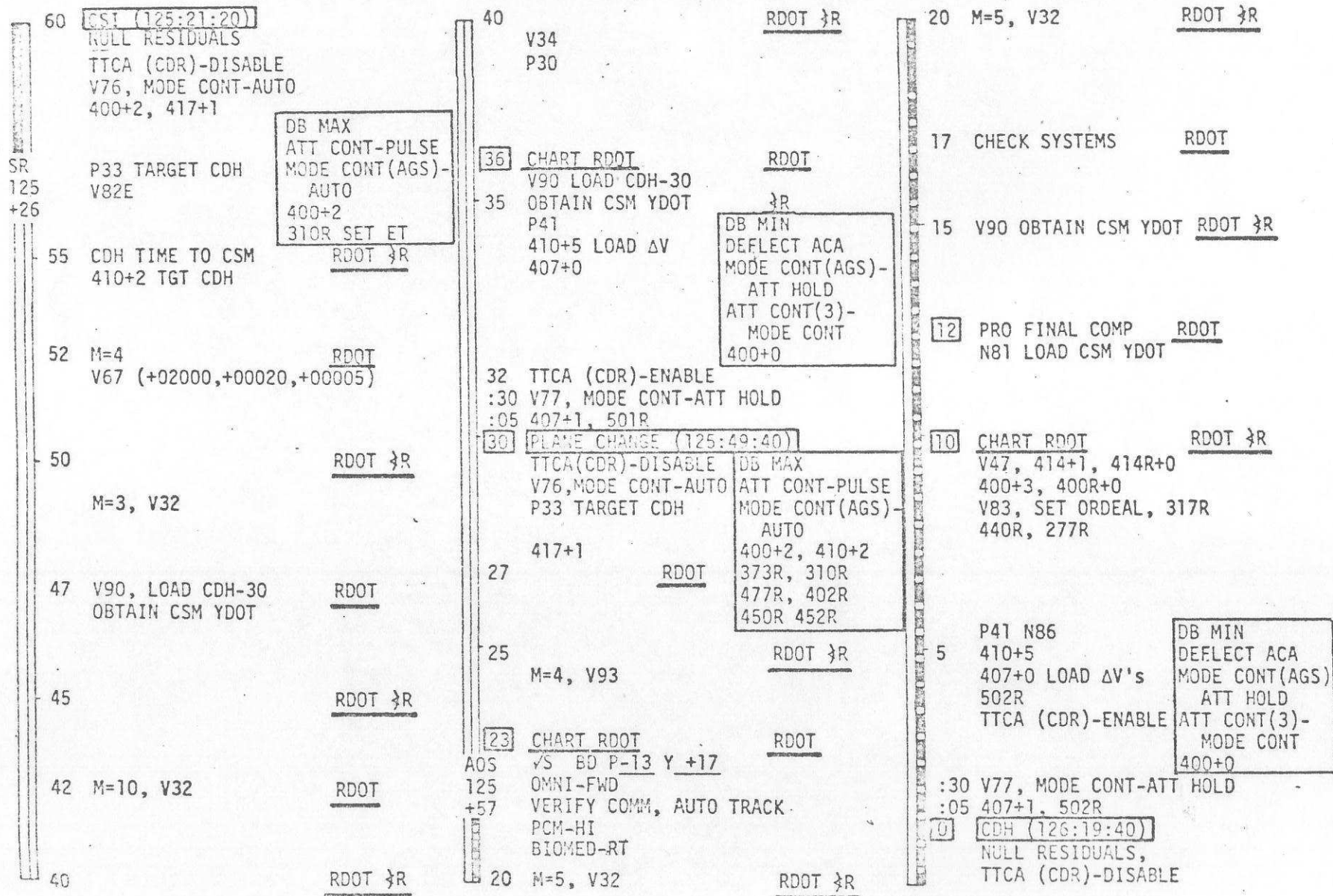
ROLIKON
ASCENT

LUNAR SURFACE
FLIGHT PLAN
CSI THRU CDH

PDI-TD+3MIN
TD+3-T2ABORT

SEP-DOI
DOI-PDI

UNDOCK TO
SEP



SOURCE

DATE JUNE 19, 1969
REV "I" July 3, 1969

SOURCE
DATE

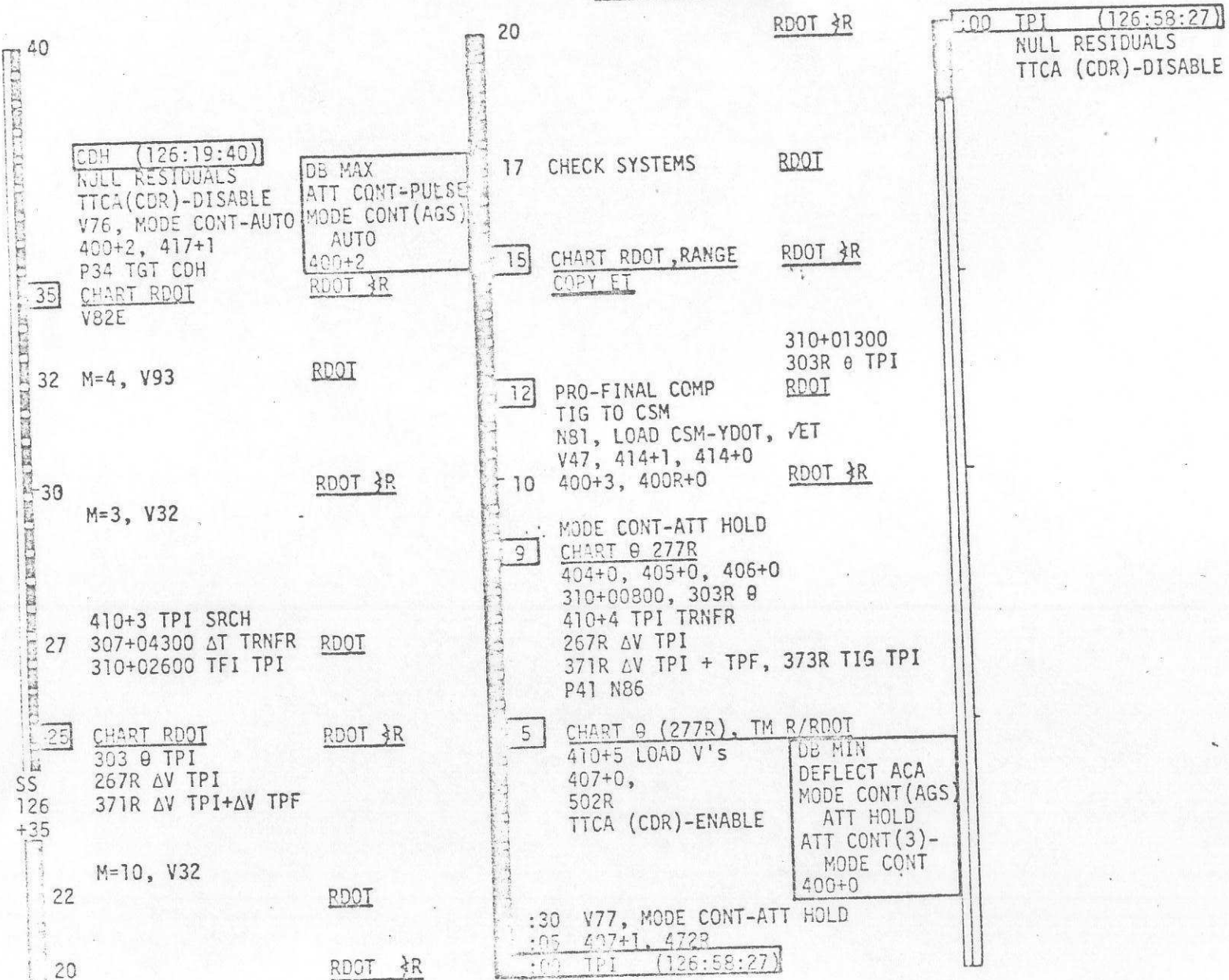
June 27, 1969-CHG "D"

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CDH THRU TPI

APOLLO 11 FLIGHT DATA FILE

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CDH-TPI

RELATIVE TIME

RELATIVE TIME

RELATIVE TIME

RELATIVE TIME

LM/CM XFER LIST

POST
BOOKING

CDH-TPI
TPI-DOCKING

INSERTION-CSI
CSI-CDH

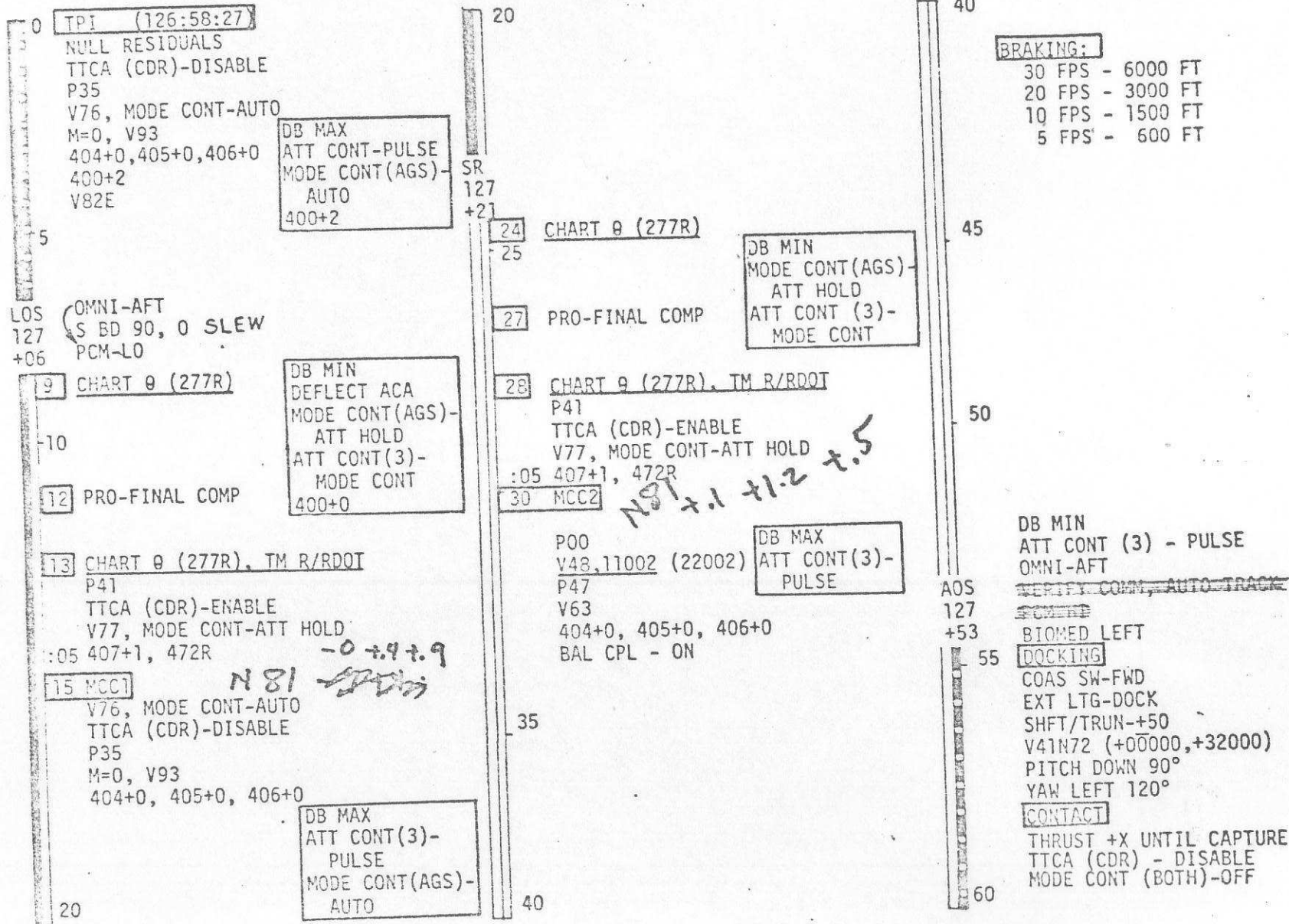
ROLLINCH
ASCENT

LUNAR SURFACE
FLIGHT PLAN
TPI THRU DOCKING

PDI-TD+3MIN
TD+3-T2ABORT

SEP-DOI
DOI-PDI

UNDOCK TO
SEP



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APOLLO 11
FLIGHT DATA FILE

SOURCE
DATE

REV "N" July 12, 1969

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