

Apollo 15 Entry Checklist

Please note that most of the hand-written additions to this document were added during the compilation of the Apollo 15 Flight Journal in 1998 to 2000. To a large extent, they reflect changes read up to the crews during the course of the mission.

David Woods – Editor: Apollo Flight Journal

~~(JULY 20 LAUNCH)~~

* APOLLO 15
CSM 112

REVISION A

CSM ENTRY CHECKLIST

PREPARED BY
GUIDANCE & CONTROL PROCEDURES SECTION
SYSTEMS PROCEDURES BRANCH
CREW PROCEDURES DIVISION

MANNED SPACECRAFT CENTER
HOUSTON, TEXAS
JUNE 11, 1971

INDEXING DATA

DATE 6/11/71 MSC 00
T PGM R APO #
SUBJECT
SIGNATURE

6/11/71 MSC 00 R APO #
Bardle



CSM ENTRY CHECKLIST

JUNE 11, 1971

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CSM ENTRY CHECKLIST

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LUNAR RETURN VEHICLE PREPARATION

VEHICLE PREPARATION

- 1 INITIAL STOWAGE COMPLETED
- 2 CMC & IMU POWER UP pg G/2-1 & 2
- 3 SCS POWER UP pg G/2-4
- 4 P51 - IMU ORIENTATION pg G/6-1
- 5 LOAD DAP
V48E 11102, 01111, PRO, PRO, PRO
- 238 45 6 -06:00h ✓ LAST MCC DECISION
- 287 7 -05:35h ✓ NO COMM - P52 & NAV SIGHTINGS
- 8 DON MAE WESTS & FOOT RESTRAINTS
- 9 ACTIVATE VHF FOR COMM CHECKS
- 10 VERIFY DSE POWERED
cb S BD FM XMTR/DSE (2) - close (verify)
- 295 11 PERFORM UV PHOTOGRAPHY (Flight Plan)
- 12 -04:30h ✓ P27 (SV, REFSMMAT), MNVR
& ENTRY PAD UPDATES
- DATE 291 13 -04:15h (: :) P52 - IMU REALIGN pg G/6-2
(OPTION 3, then OPTION 1)
- 14 P37 (NO COMM ONLY)
- 15 ECS CKS
02 SUPPLY REFILL pg S/1-7
PGA verification, (if suited) S/1-10
ECS Monitor Ck pg S/1-5
(382) EVAP H2O CONT PRI vlv - AUTO
EVAP H2O CONT SEC vlv - AUTO
SUIT HEAT EXCH SEC GLY - FLOW

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16 EPS CKS #1, 3, 4 (5 if req'd) pg S/1-2

17 SPS CK (If req'd) pg S/1-1

18 RCS CKS

SM RCS Monit Ck pg S/1-1

CM RCS Monit Ck pg S/1-1

19 C&W SYS CK pg S/1-17

20 CMC SELF CK pg G/2-3

21 ~~DSKY COND LT TEST pg G/1-23~~

deleted 289:32:24

22 -03:45h MIDCOURSE MANEUVER

P30 - EXT ΔV

-03:15h P40/41 - SPS/RCS THRUSTING

-03:00h MIDCOURSE (#7) BURN

23 -02:55h NO COMM NAV SIGHTINGS

24 -02:00h LOGIC SEQUENCE CK

(8) cb SECS LOGIC (2) - close (verify)

cb SECS ARM (2) - close

cb ELS/CM-SM SEP (2) - close

ELS LOGIC - on (up)

ELS - AUTO

Coordinate next 3 steps with MSFN

SECS LOGIC (2) - on (up)

MSFN confirm GO for PYRO ARM as req'd

SECS LOGIC (2) - OFF

cb SECS ARM (2) - open

ELS LOGIC - OFF

ELS - MAN

cb ELS/CM-SM SEP (2) - open

25 -01:35h P52 - IMU REALIGN pg G/6-2 (OPTION 3)

Record gyro torquing angles

R _____

P _____

Y _____

*If $>1^\circ$, recycle P52

If confirmed, use SCS for EMS entry

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26(__:__:__) GDC ALIGN
If drift $>10^{\circ}/\text{hr}$, change rate source

27 MNVR TO 0° , 265° , 0°
(Horizon Check at EI-17:00)
V49E

S-BD OMNI ANT - C

28 PERFORM BORESIGHT & SXT STAR CHECK
V41 N91E

Drive Optics to 90° shaft angle
OPTICS PWR - OFF

29 -01:15h ✓ EMS ENTRY CHECK
EMS FUNC - OFF
(8) cb EMS (2) - close
EMS MODE - STBY
EMS FUNC - EMS TEST 1 (wait 5 sec)
EMS MODE - NORMAL (wait 10 sec)
Check ind lts - off
RANGE ind - 0.0
Slew hairline over notch
in self-test pattern
EMS FUNC - EMS TEST 2 (wait 10 sec)
.05G lt - on (all others out)
EMS FUNC - EMS TEST 3
.05G lt - on
RSI lower lt - on (10 sec later)
Set RANGE counter to $58 \text{ nm} \pm 0.0$
EMS FUNC - EMS TEST 4
.05G lt - on (all others out)
G-V trace within pattern to lwr rt
corner @9G
RANGE ind counts down to 0 ± 0.2
EMS FUNC - EMS TEST 5
.05G lt - on
RSI upper lt - on (10 sec later)
RANGE ind - 0.0
Scribe traces vertical line 9g to
 0.28 ± 0.1

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E
1-4

ALIGN SCROLL TO ENTRY PATTERN (on
37K ft/sec line)
EMS FUNC - RNG SET
G-V scroll assy traces vert. line
0.28g to 0+0.1
EMS MCDE - STBY

30

PRIMARY WATER EVAP ACTIVATION

GLY EVAP H2O FLOW - AUTO
GLY EVAP STM PRESS - AUTO
PRI ECS GLY PUMP - ACT (verify)

31

SEC WATER EVAP ACTIVATION

ECS IND sel - SEC
SEC COOL LOOP PUMP - AC2
GLY DISCH SEC PRESS - 39-51 psig
SEC COOL LOOP EVAP - EVAP
SEC GLY EVAP OUT TEMP - 38-50.5°F
SUIT CKT HT EXCH. - BYPASS 20 sec, OFF
ECS IND sel - PRIM ^{PRI. 515}

32

SET UP CAMERA

CM4/DAC/18/CIN - BRKT, MIR
(T16,250,7) 12 fps, MAG K

33 (-01:10h)

CM RCS PREHEAT

Note: If sys test mtr 5c,d,6a,b,c,d
all read 3.9 vdc (28°F) or more,
omit preheat

(8) cb RCS LOGIC (2) - close

CM RCS LOGIC - on (up)

cb CM RCS HTRS (2) - close

(101) CM RCS HTRS - ON (LMP Confirm)
(20 min or til lowest rdg is
3.9 vdc) (Monitor Manf
press for press drop)

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34

FINAL STOWAGE

- Stow Optics
- Install Optics Covers
- Stow ORDEAL
- (377) GLY TO RAD SEC vlv - BYPASS (verify)
- Verify EVA COUCH STRUT disengaged
- (382) Cool pnl installed
- Y-Y struts (2) extended
- Stow Data Box R-12
- Attach both strut unlock lanyards
- Check for water in tunnel area
- Stow gas separator (A8)
- Stow C1 injector (R6)
- WASTE MGMT DRAIN vlv - OFF
- Remove & stow URA, urine transfer hose and urine filter

297

35 (-00:50m)

TERM. CM RCS PREHEAT

- (101) CM RCS HTRS - OFF (LMP confirm)
- CM RCS LOGIC - OFF
- (8) cb CM RCS HTRS (2) - open

36

SYSTEMS TEST PANEL CONFIGURATION

- SYS TEST METER - 5B (BAT RLY BUS 3.4-4.1 vdc)
- (101) CM RCS HTRS - OFF (verify)
- WASTE H2O DUMP HTR - OFF
- URINE DUMP HTR - OFF
- (100) LEB FLOOD & INTGL LIGHTING - OFF

37

PYRO BATT CK

- (250) cb PYRO A SEQ A - close (verify)
- cb PYRO B SEQ B - close (verify)
- DC IND - PYRO BAT A(B)
- *If PYRO BAT A(B) < 35 vdc *
- *cb PYRO A(B) seq A(B) - open *
- *cb PYRO A(B)BAT BUS A(B)TO PYRO*
- * BUS TIE - close*
- (275) cb MNA BAT C - close
- cb MNB BAT C - close
- DC IND - MNB

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CONFIGURE PNL 8

All cb's closed except:

DIRECT ULLAGE (2) - open (verify)

CM RCS HTRS (2) - open (verify)

DOCKING PROBE (2) - open (verify)

SPS P&Y (4) - open

FLOAT BAG (3) - open (verify)

SECS ARM (2) - open (verify)

EDS BAT (3) - open (verify)

ELS/CM-SM SEP (2) - open (verify)

PL VENT - open (verify)

SPS ALLOT VLU A, MW A+B, MW B - OPEN (VERIFY) ch @ 289:32:57

FINAL GDC DRIFT CK (if req'd)

If drift >10°/hr, Suspect GDC, Do not use RSI & FDAI #2

CM RCS ACTIVATION

(8) cb ELS/CM-SM SEP (2) - close

cb SECS ARM (2) - close

Cue MSFN

SECS LOGIC (2) - on(up)

MSFN confirm GO for PYRO ARM

SECS PYRO ARM (2) - ARM

CM RCS PRPLNT 1&2 tb (2) - gray (verify)

CM RCS PRESS - on (up)

RCS IND sw - CM1, then 2

He PRESS stabilizes at 3300-3500

psia after 15 minutes

MANF PRESS 287-302 psia

SECS PYRO ARM (2) - SAFE

00:45m

P27 & ENTRY PAD UPDATE

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E/1-7

LUNAR ENTRY

Entry Pad
272:09:30

Comments:

NON EXIT EMS PATTERN

RET 90K 6:06

RET MAINS 8:32

LANDING 13:29

constant g
roll right

[Moon set time
294:56:20]

M	I	D	P	A	C	AREA
X	X	X	0	0	0	R 0.05 G
X	X	X	1	5	3	P 0.05 G
X	X	X	0	0	0	Y 0.05 G
2	9	4:4	1:3	7		GET HOR
X	X	X	2	6	7	P CK
+	0	2	6	1	2	LAT N61
-	1	5	8	1	0	LONG
X	X	X	0	6	2	MAX G
+	3	6	0	9	7	V _{400K} ^{N60}
-	0	0	6	5	0	Y _{400K}
+	1	0	8	4	8	RTGO EMS
+	3	6	1	7	9	VIO
2	9	4:5	8:3	7		RRT
X	X	0	0	2	9	RET 0.05 G
+	0	0				DL MAX
+	0	0				DL MIN ^{N69}
+			N/A			VL MAX
+			N/A			VL MIN
X	X	X	4	0	0	DO
X	X	0	2	1	3	RET VCIRC
X	X	0	0	1	8	RETBBO
X	X	0	3	3	8	RETEBO
X	X	0	7	4	4	RETDRO
X	X	X	X	0	4	SXTS
+	1	4	0	3	0	SFT
+	3	7	5	0	0	TRN
X	X	X	2	1	3	BSS
X	X	↓	0	9	6	SPA
X	X	X	→			SXP
X	X	X	X	U	P	LIFT VECTOR

						AREA
X	X	X				R 0.05 G
X	X	X				P 0.05 G
X	X	X				Y 0.05 G
		•		•		GET HOR
		•		•		P CK
X	X	X				
	0			•		LAT N61
				•		LONG
X	X	X			•	MAX G
+						V ^{N60} _{400K}
-	0	0		•		Y _{400K}
+					•	RTGO EMS
+						VIO
		•		•		RRT
		•		•		
X	X			•		RET 0.05 G
+	0	0		•		DL MAX
+	0	0		•		DL MIN ^{N69}
+						VL MAX
+						VL MIN
X	X	X		•		DO
X	X			•		RET VCIRC
X	X			•		RETBBO
X	X			•		RETEBO
X	X			•		RETDRO
X	X	X	X			SXTS
+				•	0	SFT
+			•	0	0	TRN
X	X	X				BSS
X	X				•	SPA
X	X	X			•	SXP
X	X	X	X			LIFT VECTOR

E/1-9

LUNAR ENTRY

						AREA
X	X	X				R 0.05 G
X	X	X				P 0.05 G
X	X	X				Y 0.05 G
						GET HOR
X	X	X				P CK
	0					LAT N61
						LONG
X	X	X				MAX G
+						V ^{N60} _{400K}
-	0	0				Y _{400K}
+						RTGO EMS
+						VIO
						RRT
X	X					RET 0.05
+	0	0				DL MAX ^{N69}
+	0	0				DL MIN
+						VL MAX
+						VL MIN
X	X	X				DO
X	X					RET VCIRC
X	X					RETBBO
X	X					RETEBO
X	X					RETDRO
X	X	X	X			SXTS
+					0	SFT
+				0	0	TRN
X	X	X				BSS
X	X					SPA
X	X	X				SXP
X	X	X	X			LIFT VECTO

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						AREA
X	X	X				R 0.05 G
X	X	X				P 0.05 G
X	X	X				Y 0.05 G
		•		•		GET HOR
X	X	X				P CK
	0			•		LAT N61
				•		LONG
X	X	X			•	MAX G
+						V _{400K} ^{N60}
-	0	0		•		γ _{400K}
+					•	RTGO EMS
+						VIO
		•		•		RRT
X	X			•		RET 0.05 G
+	0	0		•		DL MAX
+	0	0		•		DL MIN ^{N69}
+						VL MAX
+						VL MIN
X	X	X		•		DO
X	X			•		RET VCIRC
X	X			•		RETBBO
X	X			•		RETEBO
X	X			•		RETDRO
X	X	X	X			SXTS
+				•	0	SFT
+			•	0	0	TRN
X	X	X				BSS
X	X				•	SPA
X	X	X			•	SXP
X	X	X	X			LIFT VECTOR

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SUPERCIRCULAR ENTRY

1 Set DET (up, to EI)

2 EMS INITIALIZATION

Scroll not on 37K:
*EMS FUNC - TEST 5 *
Slew scroll to 37K

EMS FUNC - RNG SET (verify)
SET RNG TO PAD DATA RNG
EMS FUNC - Vo SET
Slew Scroll to Pad Data VIO
EMS MODE - STBY (verify)
EMS FUNC - ENTRY

3 RSI ALIGNMENT

FDAI SOURCE - ATT SET
ATT SET - GDC
EMS ROLL - on (up)
GDC ALIGN pb - push & hold
YAW THUMBWHEEL - Position RSI thru
45° & back to LIFT UP
GDC ALIGN pb - release
EMS ROLL - OFF
Align GDC to IMU

4 CM RCS CHECK

AUTO RCS A/C ROLL (4) - OFF (verify)
cb RCS LOGIC (2)-close (verify)
SC CONT - SCS
MAN ATT (3) - MIN IMP
RCS TRNFR - CM
AUTO RCS SEL (RING 1) - OFF
AUTO RCS SEL (RING 2) - MNB
TEST RING 2 THRUSTERS
AUTO RCS SEL (RING 2) - OFF
AUTO RCS SEL (RING 1) - MNA
TEST RING 1 THRUSTERS
AUTO RCS SEL (RING 2) - MNB
RCS TRNFR - SM
MAN ATT (3) - RATE CMD
SC CONT - CMC/AUTO

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E
2-2

5 30:00m
(-30:00)

✓ MN BUS TIE (2) - ON
TAPE RCDR - REWIND
(Z1000 will not come on 1/2 type of fuel tank)

6 35:00m
(-25:00)

SEPARATION CK LIST

cb ELS/CM-SM SEP (2) - close (verify)
PRIM GLY TO RAD - BYPASS (pull)
REPRESS PKG vlv - FILL to 865-935,
then ON

02 SM SUPPLY vlv - OFF
SURGE TK - ON (verify)
CAB PRESS REL vlv (2) - NORM
ABORT SYS PRPLNT - RCS CMD (verify)
SM RCS SEC PRPLNT FUEL PRESS (4) - OPEN
VHF AM A&B - off (ctr)
HI GAIN ANT PWR - OFF
FC PUMPS (3) - OFF
FC 2 MNA - OFF

Verify Loads Balanced

(5) cb ECS RAD CONT/HTR (2) - open
cb RAD HTRS OVLD (2) - open
cb WASTE H2O/URINE DUMP HTR (2) - open
POT H2O HTR - OFF
GLY EVAP TEMP IN - MAN

7

VERIFY HORIZON CHECK ATT

R _____ (0°)
P _____ (265°)
Y _____ (0°)

P61 - ENTRY PREP

8

V37E 61E (AVE G ON)

05 09 01427 - ROLL REVERSED

*05 09 01426 - IMU UNSAT *

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9 F 06 61 IMPACT LAT, LONG, HDS UP/DN (+/-)
41:30m (.01°, .01°, +00001)
(-18:30) PRO

10 F 06 60 GMAX, V400K, GAMMA EI (.01G, fps, .01°)
Record
GMAX 1.36
V400K 21.8
GAMMA EI good
PRO

11 F 16 63 RTOGO (.1nm) good PAD _____
VIO (fps) 21.8 PAD _____
TFE(min-sec) _____
If NO COMM, Set RTOGO & VIO in EMS
& initialize
(ACCEPT) PRO
(RECYCLE) V32E to 10

P62 - CM/SM SEP & PRE-ENTRY MNVR

12 F 50 25 00041 REQUEST CM/SM SEP
43:00m COMPARE HORIZON with 31.7° line
(-17:00) If not +5°, G&N NO GO
(265°P) MAN ATT (3) - RATE CMD (verify)
ATT DB - MIN
RATE - HIGH
SC CONT - SCS
YAW 45° OUT-OF-PLANE (LEFT)(315°)
BMAG MODE (3) - ATT1/RATE 2
MN BUS TIE (2) - ON (verify)
PRIM GLY TO RAD - BYPASS (verify)
EMS MODE - STBY (verify)
CM RCS LOGIC - on (up)
SECS LOGIC (2) - on(up)(verify)
SECS PYRO ARM (2) - ARM

45:00m CM/SM SEP (2) - on (up)
(-15:00) If docking ring still on:
CSM/LM FNL SEP (2) - on(up)(verif

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E
2-4

MAN ATT (3) - MIN IMP
BMAG MODE (3) - RATE 2
C&W MODE - CM
RCS TRNFR - CM
CM RCS MANF PRESS - 287-302 psia
CM RCS LOGIC - OFF
SECS PYRO ARM (2) - SAFE
Monitor V MNA/B:

If <25 vdc, go to EMERG POWER DOWN

YAW back to 0°

PITCH TO ENTRY ATT

R _____ (0°)
P _____ (152°)
Y _____ (0°)

*If NO COMM Entry: *

* Track Horizon with 31.7° line*

* to .05G *

EMS DATA - Verify

EMS FUNC - ENTRY (verify)

EMS MODE - NORMAL

Verify .05G lt filter is down

PRO (Act ENTRY DAP Att Hold)

13 F 06 61 IMPACT LAT, LONG, HDS/DN (.01°, .01°, -00001)
PRO (CMC Guidance)

14 POSS 06 22 FINAL ATT DISP, RPY (.01°)
(Only if X-axis beyond 45° of Vel vector)

P63 - ENTRY INIT

15 06 64 G, VI, RTOGO (.01G, fps, .1nm)

FDAI SCALE - 5/5

ROT CONTR PWR DIR (2) - MNA/MNB

TAPE RCDR - HBR/RCD/FWD/CMD RESET

Pitch error needle goes toward

zero approaching .05G time

58:00m
(-02:00)

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P64 - ENTRY POST .05G

(If no P64 at .05G +5 sec & .05G 1t - on
GNCS NO GO)

16 06 74 BETA, VI, G (.01°,fps,.01G)

Start DA

.05G time
(+0 :)
(: :)
(152°P at .05G)

RTOGO AT .05G AGREES WITH EMS-verif
HORIZ CHECK

.05G 1t - on (EMS START)

* No EMS START within 3 sec: *

* EMS MODE - BACKUP/VHF RNG *

If CMC is GO:

MAN ATT (3) - RATE CMD

SC CONT - CMC

*If DAP NO GO: *

* SC CONT - SCS*

* FLY BETA *

*If CMC NO GO: *

* SC CONT - SCS*

* FLY EMS *

.05G sw - on (up)

EMS ROLL - on (up)

NOTE: To monitor N68, (BETA,VI,HDC
Key V16 N68E

Compare RSI & FDAI

If CMC or PAD cmds Lift DN,

* or NO COMM Entry: *

* MNVR Lift DN at .05G *

* (Lift up at 1.5G) *

EMS GO/NO GO

G-V Plot within limits

Monitor G-meter for

convergence with pad data (Do)

CMC is NO GO if commanding

>+90° when G >6.52

Go to 20 (P67) or continue

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P65 - ENTRY - UP CONT (VL>18K fps)

F 16 69 BETA (.01°) _____
DL (.01G) _____ PAD _____
VL (fps) _____ PAD _____

*IF NO AGREEMENT: *
*SC CONT - SCS *
*FLY EMS *

PRO

06 74 BETA, VI, G (.01°, fps, .01G)
(V<VL+500 fps & RDOT Neg) Go to 20

P66 - ENTRY - BALLISTIC (D<DL)

06 22 DESIRED GMBL ANGLES RPY (.01°)
Monitor horiz +12° of 31.7° mark

P67 - ENTRY - FINAL PHASE (AUTO AT .2G)

06 66 BETA, CRSRNG ERR, DNRNG ERR (.01°, .1nm, .1nm)
(+ is north & long)
BETA will be +15° until R3 > ~-24nm
Monitor lift vector on RSI & FDAI
~~CM RCS: change rings when HE PRESS <T150~~
~~psia~~

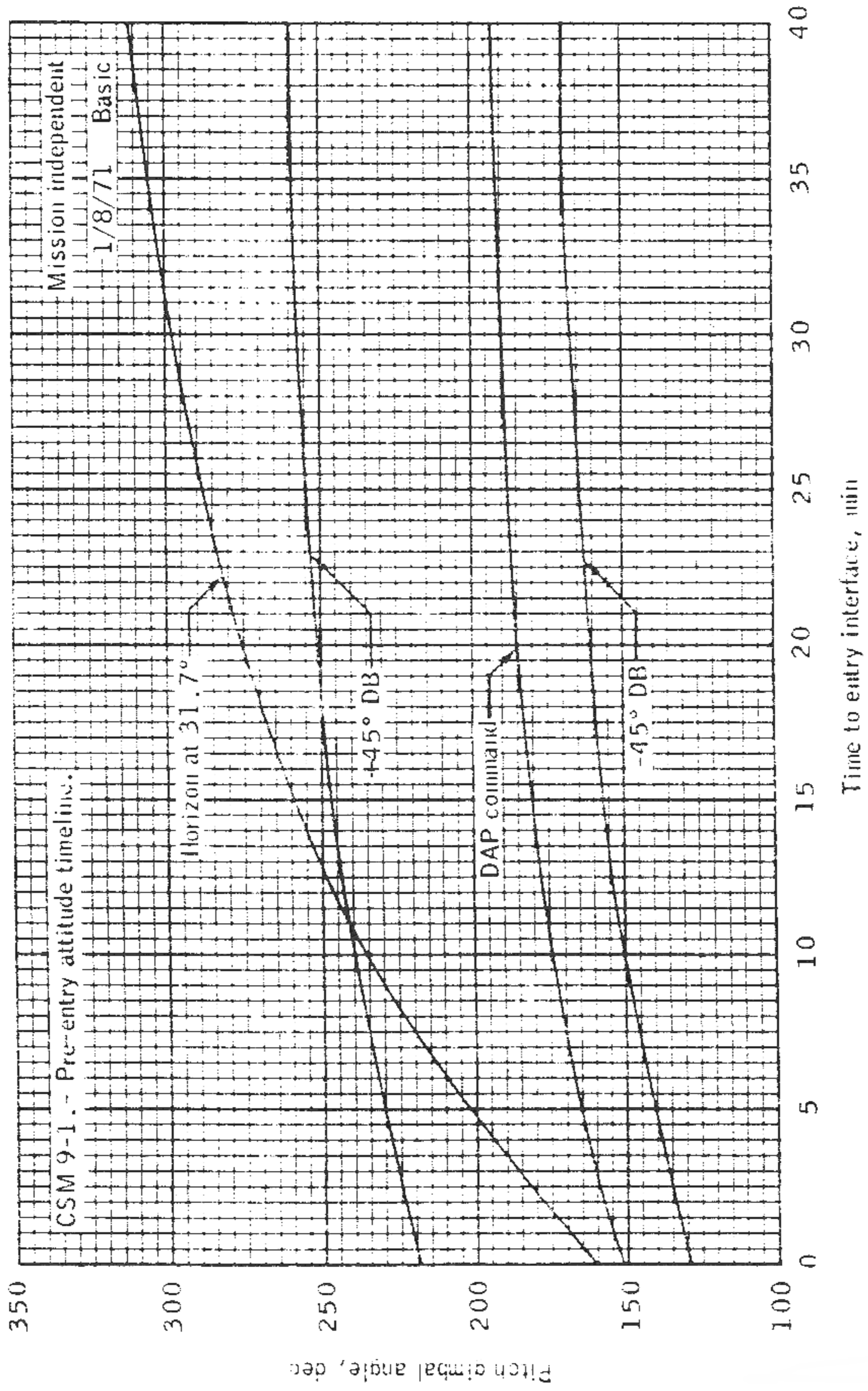
F 16 67 RTOGO, LAT, LONG (Vrel=1000 fps)
(.1nm, .01°, .01°)

SC CONT - SCS
RTOGO NEG - LIFT UP
RTOGO POS - LIFT DOWN
Monitor altimeter
Record LAT, LONG & VOICE TO RECY at 10K'
Record EMS RTGO
EMS MODE - STBY
EMS FUNC - OFF
Stop DAC
DAC - T11

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E
2-7



Time to entry interface, min

Pre-entry attitude timeline.

E
3-1

EARTH/POST LANDING

EARTH/POST LANDING

	<u>RRT</u>		Start Watch
90K' (06:08)	STEAM PRESS - pegged at ~ 90K		(00:00)
50K' (07:00)	CABIN PRESS REL vlv (2) - BOOST/ENTRY		(00:52)
	SECS PYRO ARM (2) - ARM		
	Check Altimeter		

40K' (07:14)	* <u>CM UNSTABLE</u>	*(01:06)
	*RCS CMD - OFF	*
	* 40K' APEX COVER JETT PB-PUSH *	
	DROGUE DEPLOY PB - PUSH (2 sec	
	*after apex cover jett)	*

30K'	ELS LOGIC - on (up)	(01:24)
	ELS - AUTO	Start DAC

24K' (07:45)	RCS disable (auto)	(01:37)
	RCS CMD - OFF	

Apex cover jett (auto)
 APEX COVER JETT PB - PUSH
 (WAIT 2 SECS)
 Drogue parachutes deployed (auto)
 DROGUE DEPLOY PB - PUSH

If Both Drogues Fail:
 *ELS - MAN *

*Stabilize CM *

5K' MAIN DPLY PB - PUSH

*ELS - AUTO *

23.5K'	Cabin Pressure increasing	
	*If not increasing by 17K':	*
	CABIN PRESS REL vlv (RH) - DUMP	

<i>08:35</i>	10K' (08:47)	Main parachutes deployed (Drogues + 48)	(02:22) <i>27</i>
	(Cab Press = 10 psia)	MAIN DEPLOY PB - PUSH (within 1 sec)	
		SURGE TK 02 vlv -OFF (if unsuited)	
		REPRESS PKG vlv -OFF (if unsuited)	
		DIRECT 02 vlv -OPEN	
		VHF ANT - RECY	
		VHF AM A - SIMPLEX	
		VHF BCN - ON	

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E
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CABIN PRESS REL vlv (2) - CLOSE
CM RCS LOGIC - on (up)

If main or pyro bus lost,
* use RHC's for burn, *
* not DUMP sw *

CM PRPLNT - DUMP (burn audible)

Monitor CM RCS 1&2 for He press decrease

If no burn or press decrease,
* use both RHC's *
*DO NOT FIRE PITCH JETS *

CM PRPLNT - PURGE

*CM RCS He DUMP PB - PUSH *
RHC (2) - 30 secs, NO PITCH

Stow DAC

STRUT LOCKS (4) - UNLOCK

If night landing:

cb FLOAT BAG #3, FLT/PL (1 cb) - close

PL BCN LT - LOW

(275) cb FLT & PL BAT BUS A,B,&BAT C (3) - close

cb FLT & PL MNA & B (2) - open

(5) cb BAT RLY BUS (2) - open

cb RAD HTRS OVLD (2) - open (verify)

(8) cb SPS P&Y (4) - open (verify)

3K'
CM RCS PRPLNT (2) - OFF (terminates purge)
CABIN PRESS REL vlv (RH) - DUMP
ELS AUTO (verify)
ELS LOGIC - ON (verify)
FLOOD Lts - POST LDG

800'
CAB PRESS RELF vlv - CLOSE (latch off)
MN BUS TIE (2) - OFF

POSTLANDING

STABILIZATION, VENTILATION, COMMUNICATIONS

1
(229) Stabilization after landing
cb MAIN REL PYRO (2) - close
MAIN RELEASE - on (up)
SECS PYRO ARM (2) - SAFE
SECS LOGIC (2) - OFF
No contact with recovery forces
*VHF AM A&B - off (ctr) *
*VHF AM RCV ONLY - A *

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- (8) cb PL VENT - close
- cb FLOAT BAG (3) - close
- (278) cb UPRIGHT SYS COMPRESS (2) - close
- If Stable II:
 - FLOAT BAG(3) - FILL till 2 min after upright, then - OFF
 - VHF AM A/B & BCN - OFF while inverted
- If Stable I:
 - After 10 Min Cooling Period,
 - FLOAT BAG (3) - FILL 7 min, then OFF

2

Post Stabilization And Ventilation

- PL BCN LT - BCN LT LOW (night landing)
- PL VENT vlv - UNLOCK (Pull into detent)
- Remove PL VENT Exh Cover
- PL VENT - HIGH or LOW
- If req'd:
 - PL DYE MARKER - ON
- Release restraints
- (275) cb MNA BAT BUS A & BAT C (2) - open
- cb MNB BAT BUS B & BAT C (2) - open
- cb FLT & PL BAT C - open
- (250) cb PYRO A SEQ A - open
- cb PYRO B SEQ B - open
- Verify voltage ≥ 27.5 vdc
 - *If < 27.5 vdc: *
 - * cb FLT & PL-BAT BUS A&B (2) -open*
 - * cb FLT & PL BAT C (1) - close *
 - * GO TO LOW POWER CHECKLIST *
- Unstow and install PLV DISTRIB DUCT
- Deploy grappling hook and line if req'd

NOMINAL EGRESS & POWER DOWN

- PL VENT - OFF
- cb Pnl 250 (all) - open
- Charge hatch counterbalance
- Open side hatch (after collar installed)
- ACTR HNDL SEL - N
- GN2 vlv HNDL - VENT (pull)
- GN2 vlv HNDL - PRESS (push)
- Check Pressure Gauge (mid-white)
- *repeat vent/press to obtain mid-white*

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UNAIDED EGRESS PROCEDURES

PREPARATION

Disconnect umbilicals
Neck dams on (if suited)
Configure couch(s) - 270°
Armrests stowed
Unstow survival kits
Connect lanyards, (green to S/C, white to crew)

STABLE I

PL VENT - OFF
cb Pn1 250 (all) - open
Charge hatch counterbalance
Open side hatch
ACTR HNDL SEL - N
GN2 vlv HNDL - VENT (pull)
GN2 vlv HNDL - PRESS (push)
Check Pressure Gauge (mid-white)
repeat vent/press to obtain mid-white
Remove raft from kit No. 2
Put raft overboard & pull inflation lanyard
Pass hardware kit to raft
Egress, inflate life vest, board raft
If no ventilation or CM O2 supply,
* initiate egress within 2-1/2 hrs*

STABLE II

PWR (3) - OFF
SUIT PWR (3) - OFF
PRESS EQUAL vlv - OPEN
Remove & stow hatch
Lower hardware rucksack down tunnel
Exit feet first; when clear of S/C inflate
water wings
Remove life raft from kit No. 2 and inflate
If no ventilation or CM O2 supply,
* initiate egress within 2-1/2 hrs*

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POST LANDING COMMUNICATIONS

VHF ANT - RECY (verify)

VHF BCN - ON (verify)

If no contact with recovery forces
perform VHF BEACON Check

MONITOR VHF BEACON transmission with

VHF AM B Rcvr and/or Survival Transceiver

*VHF Beacon not operating *

*connect Survival Transceiver to ant *

cable conn P112 behind VHF ant access pnl

*and place radio in BCN mode *

LOW POWER CHECKLIST

VHF BCN - OFF

VHF AM (3) - RCV

FLOOD LTS - OFF

VHF AM A&B - off (ctr)

VHF AM RCV ONLY - A (verify)

POSTLANDING VENT SYS: minimize use

SURV RADIO - plug into VHF BCN ANT cable
conn P112 behind VHF ant access pnl & turn
radio on in BCN mode

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EMERGENCY PROCEDURES
(Flight copies only)

see CSM SYSTEMS CHECKLIST

NASA — MSC

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EMERGENCY PROCEDURES

Apollo 15 Entry Checklist

Please note that most of the hand-written additions to this document were added during the compilation of the Apollo 15 Flight Journal in 1998 to 2000. To a large extent, they reflect changes read up to the crews during the course of the mission.

David Woods – Editor: Apollo Flight Journal