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.

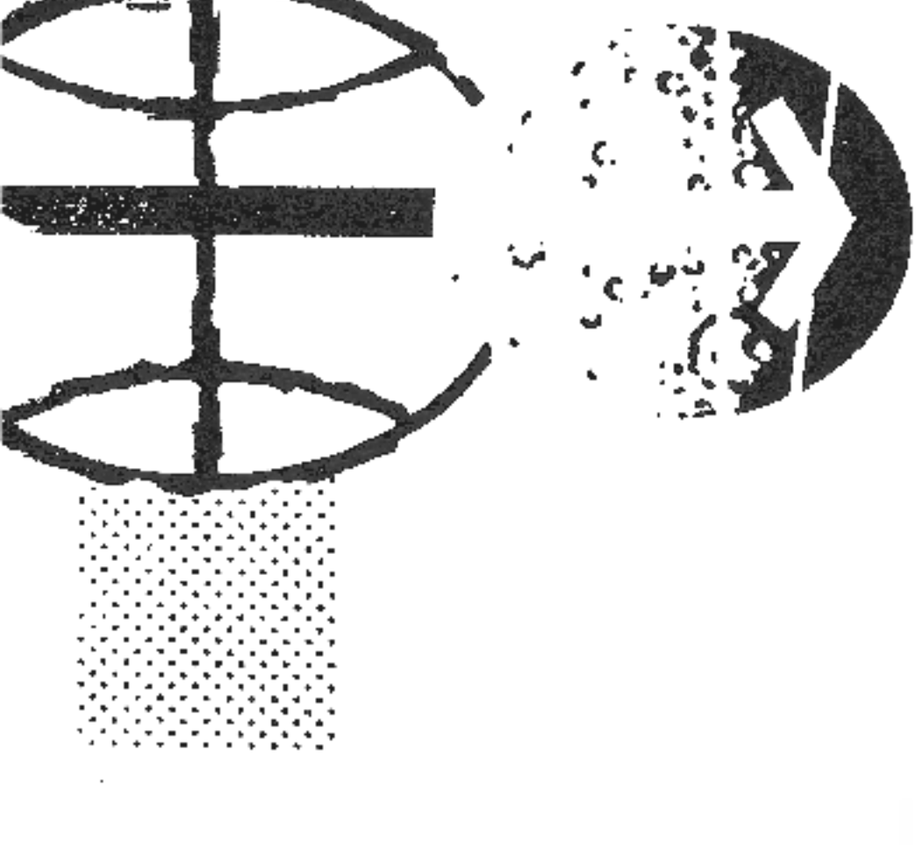
David Woods – Editor: Apollo Flight Journal

(~~JULY 26 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

CSM ENTRY CHECKLIST

JUNE 11, 1971

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CSM ENTRY CHECKLIST

LIST OF EFFECTIVE PAGES

Basic 3/22/71
Revision A 6/11/71
change A 9/13/71 P+I

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*Current Change

DATE 3/22/71

CONTENTS

LUNAR RETURN 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
6	-06:00h ✓		LAST MCC DECISION
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)
11			PERFORM UV PHOTOGRAPHY (Flight Plan)
12	-04:30h ✓		P27 (SV,REFSMMAT), MNVR & ENTRY PAD UPDATES
13	-04:15h (__:__:__)		P52 - IMU REALIGN pg G/6-2 (OPTION 3, then OPTION 1)
14			P37 (NO COMM ONLY)
15			ECS CKS O2 SUPPLY REFILL pg S/1-7 PGA verification, (if suited)S/1-10 ECS Monitor Ck pg S/1-5 EVAP H2O CONT PRI v1v - AUTO EVAP H2O CONT SEC v1v - 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°, recycle P52 *
If confirmed, use SCS for EMS entry

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26(__:__:__) GDC ALIGN
If drift >10°/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 nm±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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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 MODE - STBY

30 PRIMARY WATER EVAP ACTIVATION
GLY EVAP H2O FLOW - AUTO
GLY EVAP STM PRESS - AUTO
PRI ECS GLY PUMP - AC1 (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. SYS

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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E
1-5

34 FINAL STOWAGE

Stow Optics
Install Optics Covers
Stow ORDEAL
(377) GLY TO RAD SEC v1v - 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 Cl injector (R6)
WASTE MGMT DRAIN v1v - OFF
Remove & stow URA, urine transfer hose and urine filter

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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E
1-6

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 PLOT VLV A, MN A+B, MN B - OPEN (VERIFY) ck @ 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:

NOM EXIT EMS pattern

RET 90K 6:06

RET MINS 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	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	γ_{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 N69
+	0	0				DL MIN
+			N/A			V_L MAX
+						VL MIN
X	X	X	4	0	0	D_O
X	X	0	2	1	3	RET V_{CIRC}
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																															
R 0.05 G	X	X																													
P 0.05 G	X	X																													
Y 0.05 G	X	X																													
GET 40R																															
P CK	X	X																													
LAT N61	0																														
LONG																															
MAX G	X	X																													
V_{400K} N60 γ_{400K}	0	0																													
RTGO EMS																															
VIO																															
RRT																															
RET 0.05 G	X																														
DL MAX	0	0																													
DL MIN N69	0	0																													
VL MAX																															
VL MIN																															
DO	X	X																													
RET VCIRC	X																														
RETBBO	X																														
RETEBO	X																														
RETDRO	X																														
SXTS	X	X	X																												
SFT				0																											
TRN				0	0																										
BSS	X	X																													
SPA	X																														
SXP	X	X																													
LIFT VECTOR	X	X																													

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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_{400K} N60
	-	0	0				γ_{400K}
	+						RTGO EMS
	+						VIO
							RRT
	X	X					RET 0.05
	+	0	0				D_L MAX .N69
	+	0	0				D_L MIN
	+						V_L MAX
	+						VL MIN
	X	X	X				DO
	X	X					RET V_{CIRC}
	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				D_L MAX .N69
+	0	0				D_L MIN
+						V_L MAX
+						VL MIN
X	X	X				DO
X	X					RET V_{CIRC}
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

E
2-2

5 30:00m (-30:00) ✓ MN BUS TIE (2) - ON
TAPE RCDR - REWIND
(IWC: will advise when type of test)

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
O2 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 _____
V400K _____
GAMMA EI _____
PRO

11	F 16 63	RTOGO (.1nm) _____	PAD _____
		VIO (fps) _____	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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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)

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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
58:00m Pitch error needle goes toward
(-02:00) zero approaching .05G time

P64 - ENTRY POST .05G
(If no P64 at .05G ±5 sec & .05G lt - 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 lt - 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 T'ings when HE PRESS <1150 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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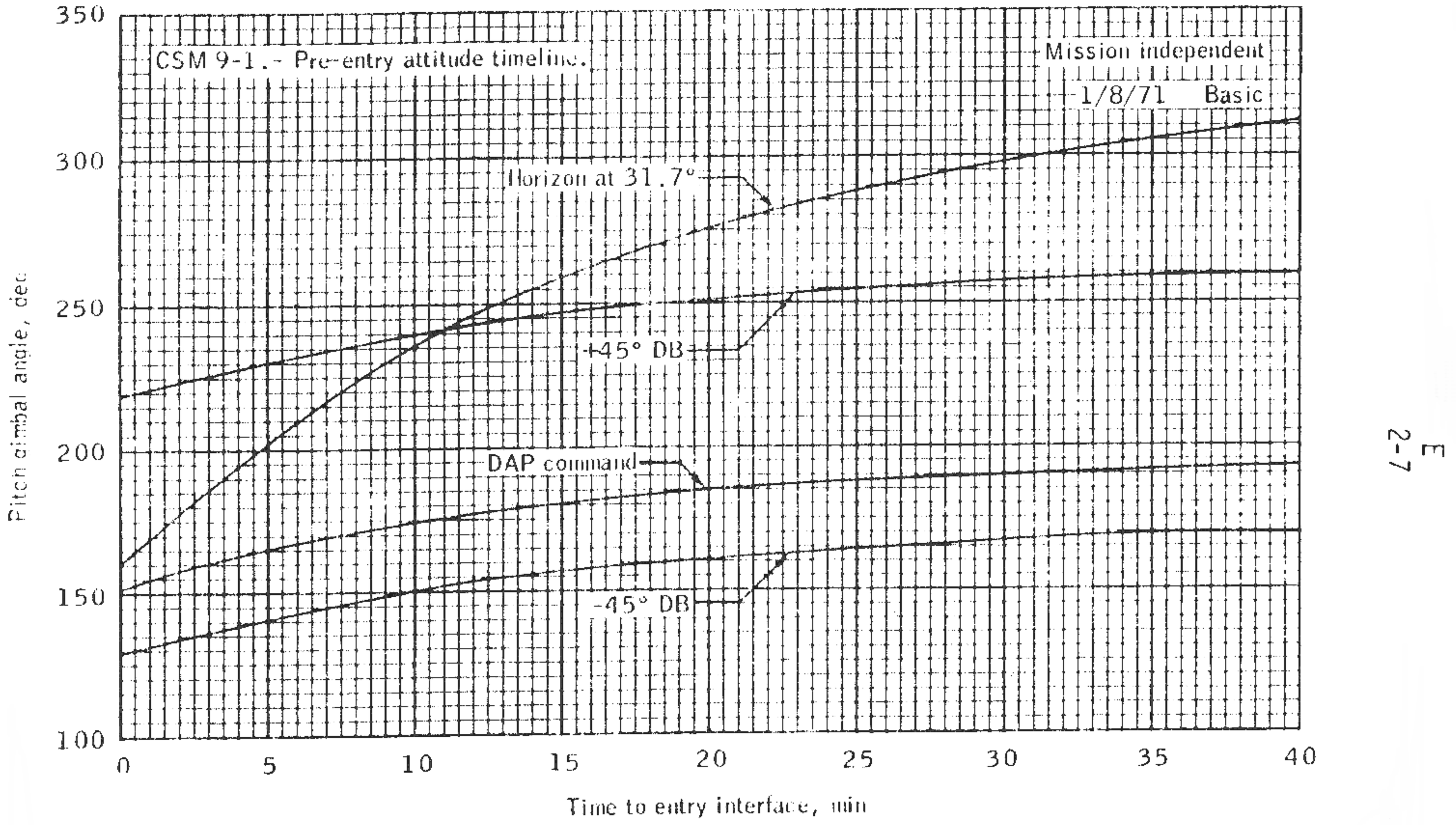

Pre-entry attitude timeline.

EARTH/POST LANDING

	RRT		Start Watch
90K'(06:08)	STEAM PRESS - pegged at ~ 90K		(00:00)
60K'(07:00)	CABIN PRESS REL vlv (2) - BOOST/ENTRY		(00:52)
	SECS PYRO ARM (2) - ARM		
	Check Altimeter		
40K'(07:14)	* CM UNSTABLE *		*(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

0836
10K'(~~08:41~~) Main parachutes deployed (Drogues ~~+115~~ 48)(02:~~33~~ 27)
(Cab Press = 10 psia)
MAIN DEPLOY PB - PUSH (within 1 sec)
SURGE TK O2 vlv -OFF (if unsuited)
REPRESS PKG vlv -OFF (if unsuited)
DIRECT O2 vlv -OPEN
VHF ANT - RECY
VHF AM A - SIMPLEX
VHF BCN - ON

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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

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POSTLANDING
STABILIZATION, VENTILATION, COMMUNICATIONS

1 Stabilization after landing
(229) 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 *

(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

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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

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 Pnl 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 02 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 02 supply,
* initiate egress within 2-1/2 hrs*

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

EMER
1-1

NASA — MSC

EMERGENCY PROCEDURES
(Flight copies only)

see CSM SYSTEMS CHECKLIST

EMERGENCY PROCEDURES

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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