APOLLO 13	
CSM ENTRY CHECKLIST	
PART NO.	S / N
SKB32100082– 305	1001

APOLLO 13

CSM ENTRY CHECKLIST

March 27, 1970

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APOLLO FLIGHT DATA FILE

CSM ENTRY CHECKLIST

Basic Date 3/9/70 Change Date 3/27/70

LIST OF EFFECTIVE PAGES

* INDICATES CURRENT CHANGE

PAGE NUMBER	ISSUE
Title	Basic
E/TC-1	Basic
E/1-1 and E/1-2	Basic
*E/1-3	3/27/70
E/1-4	Basic
*E/1-5	3/27/70
E/1-6 thru E/1-8	Basic
E/2-1	Basic
*E/2-2	3/27/70
E/2-3 thru E/2-5	Basic
*E/2-6 and E/2-7	3/27/70
E/3-1	Basic
*E/3-2	3/27/70
E/3-3 and E/3-4	Basic

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ENTRY TABLE OF CONTENTS

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Changed

LUNAR RETURN VEHICLE PREPARATION

1		INITIAL STOWAGE COMPLETED
2		CMC & ISS START 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	-04:30h	P27 (SV,REFSMMAT), MNVR & ENTRY PAD UPDATES
12	-04:15h (__:__:___)	P52 - IMU REALIGN pg G/6-2 (OPTION 1)
13		P37 (NO COMM ONLY)
14		ECS CKS 02 SUPPLY REFILL pg S/1-7 PGA verification, (if suited) S/1-11 ECS Monitor Ck pg S/1-5 (382) EVAP H20 CONT PRI vlv - AUTO EVAP H20 CONT SEC vlv - AUTO SUIT HEAT EXCH SEC GLY - FLOW
15		EPS CKS #1, 3, 4 (5 if req'd) pg S/1-2

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

17 RCS CKS
SM RCS Monit Ck pg S/1-1
CM RCS Monit Ck pg S/1-1

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

19 CMC SELF CK pg G/2-3

20 DSKY COND LT TEST pg G/1-23

21 -03:45h MIDCOURSE MANEUVER
P30 - EXT ΔV
-03:15h P40/41 - SPS/RCS THRUSTING
-03:00h MIDCOURSE (#7) BURN
Key V66E

-02:00h LOGIC SEQUENCE CK
(8) cb SECS LOGIC (2) - close (verify)
cb SECS ARM (2) - close
cb ELS (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 (2) - open

22 NO COMM NAV SIGHTINGS

23 MNVR TO SUPERCIRCULAR ENTRY ATT _____° PITCH
V62E

24 V49E

25 F 06 22 DESIRED FINAL GMBL ANGLES (.01°)
LOAD ENTRY ATT PAD ANGLES
PRO

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26 F 50 18 REQ MNVR TO FDAI RPY ANGLES (.01°)
(AUTO) SC CONT - CMC
BMAG MODE (3) - RATE 2
CMC MODE - AUTO
PRO
(MAN) SC CONT - SCS
MNVR to 28

27 06 18 AUTO MNVR TO FDAI RPY ANGLES (.01°)

28 F 50 18 REQUEST TRIM (.01°)
(TRIM) Go to 26
(BYPASS) ENTR

S BD Omni Ant - B

29 BORESIGHT & SXT STAR CHECK
OPT MODE - CMC
OPT ZERO - OFF

V41 N91E

F 21 92 SHAFT, TRUN (.01°,.001°)
Load SXTS angles

41 OPTICS DRIVE

CHECK SXT STAR
OPT ZERO - ZERO
CHECK BORESIGHT STAR (If avail)

30 -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
Drive Optics to 90° shaft angle
OPTICS PWR - OFF

31(__:__:__) GDC ALIGN
If drift >10°/hr, change rate source

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32 -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
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

33 **PRIMARY WATER EVAP ACTIVATION**

GLY EVAP H2O FLOW - AUTO
GLY EVAP STM PRESS - AUTO
PRI ECS GLY PUMP - AC1 (verify)

33A **SET UP CAMERA**

CM4/DAC/18/CIN - BRKT, MIR
(f16,250,7) 6 fps, 8 min, MAG K

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34 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

35 (-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)
(8) 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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36 FINAL STOWAGE

OPTICS
ORDEAL
(377) GLY TO RAD SEC vlv - BYPASS (verify)
Verify EVA COUCH STRUT disengaged
(382) Cool pnl installed
Y-Y struts (2) extended
WASTE MGMT vlv - OFF
Stow Data Box R-12
Remove & Stow URA, urine transfer hose and urine filter
Attach both strut unlock lanyards
Check for water in tunnel area
Stow gas separator & C1 injector (A1)

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37 (-00:50m) TERM. CM RCS PREHEAT

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

38 SYSTEMS TEST PANEL CONFIGURATION

SYS TEST METER - 4B (BAT RLY BUS 3.4-4.1 vdc)
(101) CM RCS HTRS - OFF (verify)
WASTE H2O DUMP HTR - OFF

(101) URINE DUMP HTR - OFF

(100) LEB FLOOD & INTGL LIGHTING - OFF

39 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 *
(250) *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
PNL 8 - All cb's closed except:
EDS BAT (3) - open (verify)
PL VENT - open (verify)
FLOAT BAG (3) - open (verify)
SPS P&Y (4) - open
CM RCS HTRS (2) - open (verify)
DOCKING PROBE (2) - open (verify)
DIRECT ULLAGE (2) - open

40 (__:__:__) FINAL GDC DRIFT CK (if req'd)
If drift >10°/hr, Suspect GDC, Do not use RSI & FDAI #2

41 CM RCS ACTIVATION

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

42 -00:45m P27 & ENTRY PAD UPDATE

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													AREA
	X	X	X				X	X	X				R 0.05 G
	X	X	X				X	X	X				P 0.05 G
	X	X	X				X	X	X				Y 0.05 G
													GET HOR
	X	X	X				X	X	X				P CK
		0						0					LAT N61
													LONG
	X	X	X				X	X	X				MAX G
	+						+						V_{400K} N60
	-	0	0				-	0	0				γ_{400K}
	+						+						RTGO EMS
	+						+						VIO
													RRT
	X	X					X	X					RET 0.05 G
	+	0	0				+	0	0				D_L MAX N69
	+	0	0				+	0	0				D_L MIN
	+						+						V_L MAX
	+						+						V_L MIN
	X	X	X				X	X	X				D_O
	X	X					X	X					RET V_{CIRC}
	X	X					X	X					RETBBO
	X	X					X	X					RETEBO
	X	X					X	X					RETDRO
	X	X	X	X			X	X	X	X			SXTS
	+					0	+					0	SFT
	+				0	0	+				0	0	TRN
	X	X	X				X	X	X				BSS
	X	X					X	X					SPA
	X	X	X				X	X	X				SXP
	X	X	X	X			X	X	X	X			LIFT VECTOR

LUNAR ENTRY PAD

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LUNAR ENTRY PAD

													AREA
	X	X	X				X	X	X				R 0.05 G
	X	X	X				X	X	X				P 0.05 G
	X	X	X				X	X	X				Y 0.05 G
													GET HOR
	X	X	X				X	X	X				P CK
		0						0					LAT N61
													LONG
	X	X	X				X	X	X				MAX G
	+						+						V_{400K} N60
	-	0	0				-	0	0				γ_{400K}
	+						+						RTGO EMS
	+						+						VIO
													RRT
	X	X					X	X					RET 0.05 G
	+	0	0				+	0	0				D_L MAX N69
	+	0	0				+	0	0				D_L MIN
	+						+						V_L MAX
	+						+						V_L MIN
	X	X	X				X	X	X				D_O
	X	X					X	X					RET V_{CIRC}
	X	X					X	X					RETBBO
	X	X					X	X					RETEBO
	X	X					X	X					RETDRO
	X	X	X	X			X	X	X	X			SXTS
	+					0	+					0	SFT
	+				0	0	+				0	0	TRN
	X	X	X				X	X	X				BSS
	X	X					X	X					SPA
	X	X	X				X	X	X				SXP
	X	X	X	X			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 FUNCT - TEST 5
Slew scroll to 37K

EMS FUNCT - 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 TRANSFER - CM
AUTO RCS SEL (RING 1) - MNA
AUTO RCS SEL (RING 2) - MNB
cb SCS B/D ROLL, P&Y MNA (3) - open
TEST RING 2 THRUSTERS
cb SCS B/D ROLL, P&Y MNA (3) - close
cb SCS B/D ROLL, P&Y MNB (3) - open
TEST RING 1 THRUSTERS
cb SCS B/D ROLL, P&Y MNB (3) - close
RCS TRANS - SM
MAN ATT (3) - RATE CMD
SC CONT - CMC/AUTO

5 30:00m MN BUS TIE (2) - ON
(-30:00) TAPE RCDR - REWIND

6 35:00m SEPARATION CK LIST
(-25:00)
cb ELS BAT (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) - ON
VHF AM A&B - off (ctr)
HI GAIN ANT PWR - OFF
FC PUMPS (3) - OFF
FC 2 MNA - OFF
Verify Loads Balanced
S BD PWR AMP - LOW
cb ECS RAD CONT/HTR (2) - open
cb WASTE H2O/URINE DUMP HTR (2) - open
cb RAD HTRS OVLD (2) - open
POT H2O HTR - OFF
GLY EVAP TEMP IN - MAN

7 MNVR TO HORIZON CHECK ATT

MNVR TO PAD ATT
R _____(0°)
P _____(265°)
Y _____(0°)

S BD Omni Ant - C

P61 - ENTRY PREP

1 V37E 61E (AVE G ON)

05 09 01427 - ROLL REVERSED
*05 09 01426 - IMU UNSAT *

SUPERCIRCULAR ENTRY

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

3 F 06 60 GMAX,V400K,GAMMA EI (.01G,fps,.01°)
Record
GMAX _____
V400K _____
GAMMA EI _____
PRO

4 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 3

P62 - CM/SM SEP & PRE-ENTRY MNVR

5 F 50 25 00041 REQUEST CM/SM SEP
43:00m COMPARE PITCH ATT WITH PAD DATA _____
(-17:00) If not ±5°, G&N NO GO
YAW - 45° OUT-OF-PLANE (LEFT) (315°)
RATE - HIGH
ATT DB - MIN
MAN ATT(3) - RATE CMD
SC CONT - SCS/FREE
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) - on (up)

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

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MAN ATT (3) - MIN IMP
BMAG MODE (3) - RATE 2
C&W MODE - CM
(258°P) RCS TRNFR - CM
CM RCS MANF PRESS - 287-302 psia
CM RCS LOGIC - OFF
SECS PYRO ARM (2)-SAFE
Monitor VMA/B:
If <25 vdc go to EMERG
POWERDOWN pg
50:00m AUTO RCS SEL A/C ROLL (4) - OFF (verify)
(-10:00) cb SCS B/D ROLL, P & Y MNB (3) - open
(236°P) AUTO RCS SEL CM 1(6)-MNA (verify)
YAW back to 0°
(__:__:__) PITCH TO HORIZ TRACK ATT
ROLL - 0° (LIFT UP)
PITCH - 400K Horiz Mark (31.7°)
YAW - 0°
Dark Horiz ATT DB - MAX
EMS DATA - Verify
EMS FUNC - ENTRY (verify)
EMS MODE - NORMAL
MAINT HORIZ TRK
(__:__:__) MAN ATT (3) - RATE CMD
PRO (Act ENTRY DAP Att Hold)

6 F 06 61 IMPACT LAT,LONG,HDS/DN (.01°,.01°,-00001)
PRO (CMC Guidance)
MAN ATT (3) - MIN IMP (if desired)

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

P63 - ENTRY INIT

8 06 64 G,VI,RTOGO (.01G,fps,.1nm)
FDAI SCALE - 5/5
ROT CONTR PWR DIR (2) - MNA/MNB
TAPE RCDR - HBR/RCD/FWD

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58:00m
(-02:00)
(177°P)

HORIZ CHECK
Pitch error needle goes toward zero approaching .05G time
If CMC is GO:
MAN ATT (3) - RATE CMD (verify)
SC CONT - CMC/AUTO

*If DAP NO GO: *
* SC CONT - SCS*
* FLY BETA *
*If CMC NO GO: *
* SC CONT - SCS*
* FLY EMS *

P64 - ENTRY POST .05G
(If no P64 at .05G ±5 sec & .05G Lt - on, GNCS NO GO)

Start DAC

9 (158°P at 400K)
(RRT=0:00)

RTOGO AT .05G AGREES WITH EMS-verify
HORIZ CHECK
.05G lt - on (EMS START)

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

* No EMS START within 3 sec: *
* EMS MODE - BACKUP/VHF RNG *

.05G sw - on (up)
EMS ROLL - on (up)

06 74 BETA, VI, G (.01°,fps,.01G)

NOTE: To monitor N68, (BETA,VI,HDOT) Key V16 N68E
Compare RSI & FDAI
If CMC or PAD cmds Lift DN, MNVR Lift DN (Lift UP at 1.5 G)
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 13 (P67) or continue

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

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

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

PRO

11 06 74 BETA,VI,G (.01°,fps,.01G)
(V<VL+500 fps & RDOT Neg) Go to 13

P66 - ENTRY - BALLISTIC (D<DL)

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

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

13 06 66 BETA,CRSRNG ERR,DNRNG ERR
(.01°,.1nm,.1nm)
BETA will be ±15° until R3 > −45nm
Monitor lift vector on RSI & FDAI
CM RCS: change rings when HE PRESS <1150 psia

F 16 67 RTOGO,LAT,LONG (Vrel=1000fps)
(.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
DAC - f11

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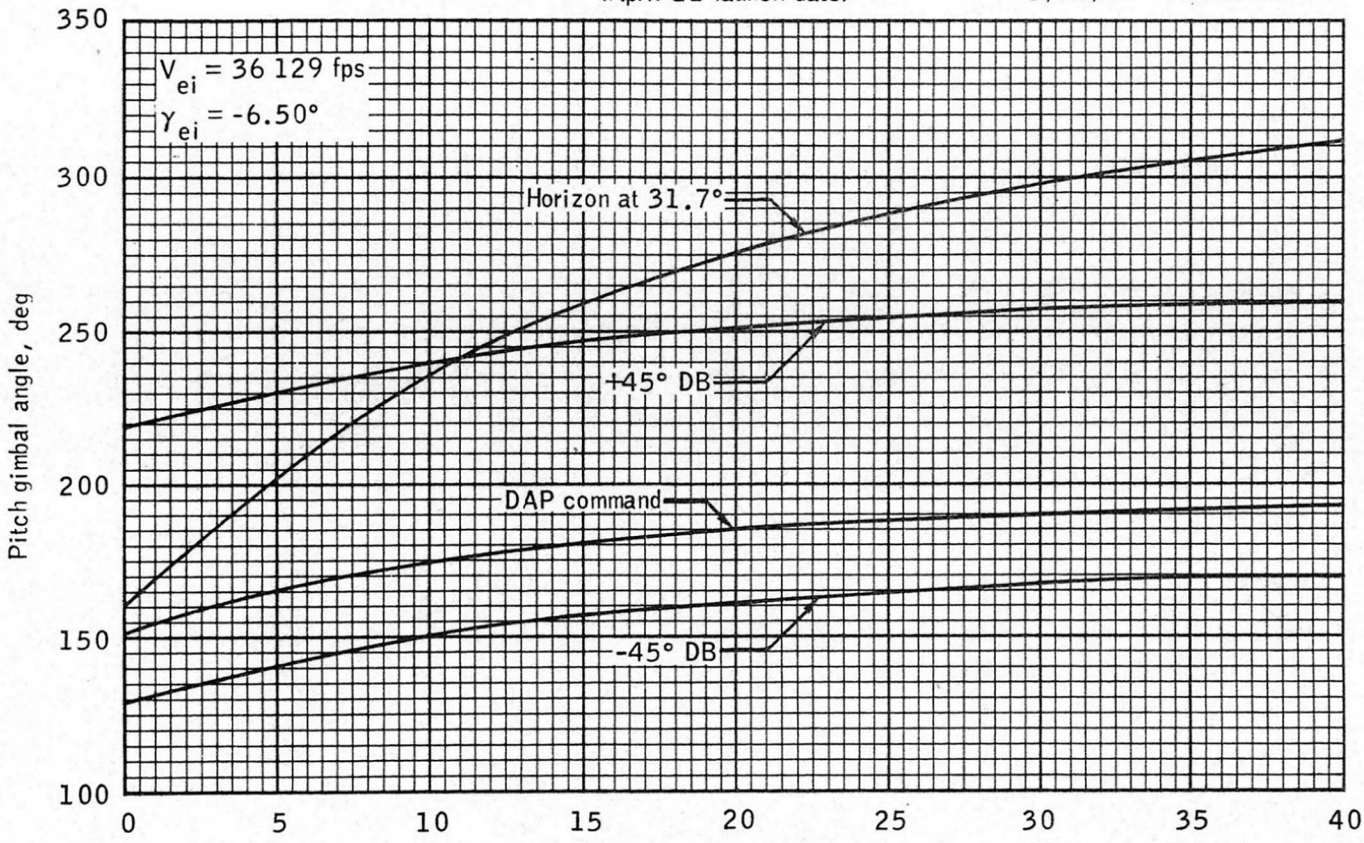
(April 11 launch date)

3/17/70 Amendment 3



Pre-entry attitude timeline.

PRE-ENTRY ATTITUDE TIMELINE

EARTH/POST LANDING

		Start Watch
RRT (06:30)	STEAM PRESS - pegged at 90K	(00:00)
50K' (07:24)	CABIN PRESS REL v1v (2) - BOOST/ENTRY	(00:54)
	SECS PYRO ARM (2) - ARM	
	Check Altimeter	
40K' (07:38)	* CM UNSTABLE *	(01:08)
	*RCS CMD - OFF *	
	* 40K' APEX COVER JETT PB-PUSH *	
	DROGUE DEPLOY PB - PUSH (2 sec	
	*after apex cover jett) *	
30K'	ELS LOGIC - on (up)	(01:26)
	ELS - AUTO	
24K' (08:10)	RCS disable (auto)	(01:40)
	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 v1v (RH) - DUMP	
10K' (09:01)	Main parachutes deployed (Drogues +49s)	(02:31)
	MAIN DEPLOY PB - PUSH (within 1 sec)	
	SURGE TK 02 v1v -OFF (if unsuited)	
	REPRESS PKG v1v -OFF (if unsuited)	
	DIRECT 02 v1v -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
*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
cb FLT & PL BAT BUS A,B,&BAT C (3)-close
cb FLT & PL MNA & B (2) - open
cb RAD HTR OVLD (2) - open (verify)
cb SPS P&Y (4) - open (verify)
cb BAT RELAY BUS (2) - open

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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

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1 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 *
cb PL VENT - close
cb FLOAT BAG (3) - close
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
PL VENT vlv - UNLOCK (Pull)
Remove PL VENT Exh Cover
PL VENT - HIGH or LOW
If req'd:
PL DYE MARKER - ON
*Deploy auxiliary dye marker *
Release restraints
cb MNA BAT BUS A & BAT C (2) - open
cb MNB BAT BUS B & BAT C (2) - open
cb FLT & PL BAT C - open
cb PYRO A SEQ A - open
cb PYRO B SEQ B - open
*EACH HR - CHECK DC VOLTS $\geq$ 27.5 V *
*If Not: *
* 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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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
Remove raft from kit No. 2
Put raft overboard & pull inflation lanyard
Pass kits to raft
Egress, inflate life vest, board raft
If no ventilation - CM 02 supply ∿1 hr

STABLE II

cb CREW STA AUDIO (3) open
PWR (3) - OFF
SUIT PWR (3) - OFF
PRESS EQUAL v1v - OPEN
Remove & stow hatch
Put survival rucksacks 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 - CM 02 supply ∿1 hr

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)
COUCH LIGHTS - OFF
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

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