

JUGAT

# "INTEGRATED"

## CSM ENTRY PROCEDURES

- STARTS WITH THE BASELINE SW & CB CONFIGURATION
- INTEGRATES "NEW" PROCEDURES & CHECKLIST PROCEDURES WITH REVISIONS
- INCLUDES SM PHOTO & STOWAGE PROCEDURES
- SHOULD REFLECT WHAT WAS READ UP TO THE CREW ~ GET 127

O'Neil FCSD

Master



EI-6+30

ASSUMES LM PWR TO MN B

LM PADS

SM JETT ATTITUDE  
MOON VIEWING ATTITUDE  
SUN VIEWING ATTITUDE  
LM JETT ATTITUDE

CM PADS

COARSE ALIGN ANGLES FOR LM ATTITUDES DURING MOON (AND SUN) *NO SUN*  
SIGHTINGS

COARSE ALIGN ANGLES FOR ENTRY REFSMMAT

CMC ANGLES ON ENTRY REFSMMAT

FOR:

1. LM JETT
2. MOON VIEWING
3. ENTRY

*Available  
300 plans  
to send up.*

INSTALL LIQH CANNISTERS, STOW ORDEAL

PNL 8 - FLOOD LIGHTS - ~~FIXED~~  
*0*

PNL 5 - INTERIOR LIGHTS RHED/STAT TO FLOOD, LEB 100 FLOOD - FIXED

PNL 8

cb EMS MNA & MNB - OPEN

PNL 250

cb BAT A PWR ENTRY/POST LANDING - CLOSED  
cb BAT B PWR ENTRY/POST LANDING - CLOSED  
cb BAT C PWR ENTRY/POST LANDING - CLOSED

PNL 5

cb BAT CHG BAT A CHG - CLOSED  
cb BAT CHG BAT B CHG - CLOSED  
MAIN BUS TIES (2) - ON (UP) VERIFY  
cb EPS SENSOR SIGNAL MNA & MNB - CLOSED  
cb BAT RELAY BUS BATA & B - CLOSED

PNL 275

~~cb MNB BAT BUS B~~ ~~CLOSED~~  
cb MNA BAT C - CLOSED

PNL 276

cb INST PWR CNTRL 3 & 4 - OPEN



PNL 5

cb ESS INST PWR ~~MNB~~ MNB - CLOSED

PRIM EVAP H2O CNTL VLV - AUTO (CW)

SEC EVAP H2O CNTL VLV AUTO (CW)

PERFORM CSM RCS PREHEAT, PAGE E1-5, STEP 35  $\frac{1}{2}$  37-6:30  
35 (~~-01:10h~~)CM RCS PREHEATNote: 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)

37 (-6:10)

TERM. CM RCS PREHEAT

(101) CM RCS HTRS - OFF

CM RCS LOGIC - OFF

(8) cb CM RCS HTR (2) - open

PNL 5

cb C&amp;W MNB - CLOSED

PNL 2

C&amp;W PWR - 1

*M C & W  
C W RES 1 & 2*

PNL 5

cb EPS SENSOR UNIT DC BUS A&amp;B - CLOSED

PNL 3

MAIN BUS A &amp; B - RESET/CENTER

EI-5+05

EARTH TERMINATOR AGS ALIGN

EI-5+00

MCC 7

MANEUVER TO SEP ATTITUDE

EI-4+40PERFORM PYRO BATT CHECK ~~PER INSTR 3-11111-01~~ PAGE E1-6, STEP 39



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 - MNA~~

PNL 8 - All cb's closed except:

cb SM RCS HTRS C MNB - OPEN EDS BAT (3) - open (verify)  
 cb SM RCS HTRS D MNA - OPEN PL VENT - open (verify)  
 cb EMS (2) - OPEN FLOAT BAG (3) - open (verify)  
 cb SPS GAUGING (4) - OPEN SPS P&Y (4) - open  
 CM RCS HTRS (2) - open (verify)  
 DOCKING PROBE (2) - open (verify)  
 DIRECT ULLAGE (2) - open

PNL 8  
 ALL cb's CLOSED EXCEPT:

DIRECT ULL MNA & MNB	- OPEN
CM RCS HTR MNA & MNB	- OPEN
SM RCS HTRS C MNB	- OPEN
SM RCS HTRS D MNA	- OPEN
EMS MNA & MNB	- OPEN
SPS GAUGING (4)	- OPEN
SPS PITCH & YAW (4)	- OPEN
FLOAT BAG (3)	- OPEN
EDS (3)	- OPEN
PL VENT/FLT/PL	- OPEN

CM RCS ACTIVATION E 1-6, STEP 41

41 (-4:40) 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 - CML, then 2  
 He PRESS stabilizes at 3300 - 3500  
 psia after 15 minutes  
 MANF PRESS 287-302 psia  
 SECS PYRO ARM (2) - SAFE





~~PNL 8~~~~SECS LOGIC (2)~~~~OFF (DOWN)~~EI-4+30

VERIFY LM CONFIGURED FOR RCS HOT FIRE

PNL 5

cb G/N IMU HTR MNB - CLOSED

PNL ~~8~~ 1

ROT CNTL PWR NORMAL (2) - AC/DC

PNL 7

SCS LOGIC PWR 2/3 - ON 

PNL 2

RCS CMD - ON

CM RCS HTR  
SW - OFF

CM RCS CHECK E 2-1, Step 4

4 (-4:30) 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~~ ACCEL CMD

RCS TRANSFER - CM

AUTO RCS SEL (RING 1) - MNA

AUTO RCS SEL (RING 2) - MNB

cb SCS B/D ROLL, P&amp;Y MNA (3) - open

TEST RING 2 THRUSTERS

cb SCS B/D ROLL, P&amp;Y MNA (3) - close

cb SCS B/D ROLL, P&amp;Y MNB (3) - open

TEST RING 1 THRUSTERS

cb SCS B/D ROLL, P&amp;Y MNB (3) - close

~~RCS TRANS - SM~~~~MAN ATT (3) - RATE CMD~~~~SC CONT - CMC/AUTO~~

LOCK RHC'S

PNL 8

SECS PYRO ARM (2) - ARM

IM +X 0.5 FT/SEC



PNL 2

CM/SM SEP (2) - ON (UP)

LM -X 0.5 FT/SEC

PNL 8

SECS PYRO ARM (2) - SAFE (DOWN)  
SECS LOGIC (2) - OFF

LM PITCH UP TO ACQUIRE SM AND PHOTOGRAPH

(LM USE ACA FOR ALL ROTATIONS)

EI-3+00

MOON VIEW

LM START MANEUVER TO ~~CM ALIGN~~ ATTITUDE

PNL 5

cb G/N COMPUTER ~~MNA~~ MNB - CLOSED37E06E PRO (HOLD TIL DSKY BLANKS) ~~STANDBY~~ ✓EI-2+30

PNL 5

cb ESS INST MNA - CLOSED

cb G/N IMU HTR MNA - CLOSED

cb LM PWR 1 - OPEN

cb LM PWR 2 - OPEN

G/N COMPUTER MNA - CLOSED

PNL 275

cb MNB BAT BUS B - CLOSED

cb INVERTER PWR 1, 2, 3 - CLOSED

PNL 5

cb BATT RLY BUS BAT A &amp; B - CLOSED

cb INV CONTROL 1-2 &amp; 3 - CLOSED

PNL 3

AC INVERTER 1 - MNA

AC INV 1 AC BUS 1 - ON (UP)

AC INV 1 AC BUS 2 - ON (UP)

PNL 5

cb EPS SENSOR SIG AC 1 &amp; 2 - CLOSED

cb EPS SENSOR UNIT AC 1 &amp; 2 - CLOSED

cb C&amp;W MNA - CLOSED



PNL 3

~~cb~~ AC INV AC BUS 1 & 2 - RESET (CNTR)

PNL 225

cb FLT BUS MNA & MNB - CLOSED

cb CTE MNA & MNB - CLOSED

PNL 4

TELECOM GROUP 1 - AC 1

TELECOM GROUP 2 - AC 2

PNL 3

S-BAND NORM XPONDER - PRIM  
PWR SCE - NORM  
PWR PMP - NORM  
UPTLM CMD RESET - RESET THEN NORM

PNL 2

UPTLM CM - ACCEPT

PNL 275

cb FLT/POST LANDING MNA & MNB - CLOSED

CONFIGURE FOR COMM ON PNL 6, 9 & 10

PNL 5

cb IMU MNA & MNB - CLOSED

cb OPTICS MNA & MNB - CLOSED

cb G&N PWR AC 1 - CLOSED

cb G&N PWR AC 2 - CLOSED

G&N PWR SW - AC-2

PERFORM CMC POWER UP PER CSM G&C CHECKLIST G 2-2

~~EXCEPT SELECT VOLT ON PL 37~~

CMC POWER UP PROCEDURE

PRO, push until STBY lt - out  
(repeat, if necessary)

\*CMC warning, RESTART, PROG ALARM\*

\*RSET and continue \*

} See next Pg.

F 37

~~001~~ V96E



PERFORM EMS CHECK STEP 32, E 1-4

(-2:30)

E  
1-4

IF NECESSARY  
MOVE TO EI-55

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

DO NOT INITIALIZE RTG

EMS MODE - STBY

cb EMS (2) - OPEN

V74E - EMOD

EI - 2+15

CLOCK INCREMENT UPDATE

P27 UPDATES: STATE VECTOR, V66  
ACTUAL & PREFERRED REF SMMATS  
ENTRY TARGET

PERFORM IMU POWER UP - G 2-1

IMU POWER UP PROCEDURE

- LOGIC POWER 2/3-on
- FDAI POWER - BOTH 1
- FDAI SELECT - 1/2
- CMC MODE - FREE

1

- G/N IMU PWR - on (up)
- NO ATT lt - on (90 sec)
- NO ATT lt - out





2

V37E XXE

- \*If CMC not available: \*
- \* G/N IMU PWR - on(up) \*
- \* Wait 90 sec \*
- \* IMU CAGE - on(up) 5 sec,\*
- \* then release \*

PERFORM OPTICS POWER UP - G 2-3

OPTICS POWER UP PROCEDURE

Verify optics manual drive disengaged |

G/N PWR OPTICS - on (up)

OPT ZERO - OFF

OPT ZERO - ZERO (15 sec)

PNL 229

cb TIMERS MNA - CLOSED  
SET MISSION TIMER

CSM

V41 N20

R \_\_\_\_\_ P \_\_\_\_\_ Y \_\_\_\_\_ (PAD CSM COARSE ALIGN ANGLES)

MOON VIEW PRESENT REFSMMAT  
V40 N20 E WHEN AT LM FDAI ANGLES, SET REFSMMAT

AND DRIFT FLAGS PG 47-1, STEPS 344

V37E 52E OPTION 1

*Docked*

COARSE ALIGN 10 2m Jett Attitude

~~MARK ON MOON~~

~~LM MANEUVER TO SUN~~ ~~VIEW~~ ~~ATTITUDE~~

~~MARK ON SUN~~

~~RELEASE TORQUE~~ N43

Perform P-52

LM MANEUVER TO JETTISON ATTITUDE (WATCH GIMBAL LOCK)

MAX

LM ~~DB~~ DB, ATT HOLD

PNL 275

cb MNA BAT BUS A - CLOSED

cb ~~MNB~~ BAT C - CLOSED

^  
MNB

*MCC Provide 3 Coarse Align  $\angle$ 's then into K40020*

*1-2HR*  
*CHECK CM RES TEMPS*



EI-1+30

PROCEED WITH CLOSEOUT AND HATCH INSTALLATION; CLOSE LM HATCH, DUMP  
VLV - OPEN

PERFORM HATCH DECAL

12 HATCH INTEGRITY CHECK (Decal)

Verify LM Hatch Closed, DUMP vlv - AUTO (CDR)

Verify CABIN PRESS ind - 4.7-5.3 psi

TUNL VENT vlv - TUNL VENT ~~for 30 sec~~ UNTIL

- LM/CM ΔP, check ΔP = 3.0

~~Recycle to TUNL VENT until ΔP > 3.5~~

~~(0.8 1/2 min)~~

*tunnel -  
1.5 to 2.0*

- \*Cannot vent tunnel: \*
- \* If O2 FLOW ind increases, open hatch,\*
- \* wipe seal surfaces, close hatch \*
- \* If O2 FLOW ind does not increase, dump\*
- \* tunnel through LM during reg check \*
- \* Monitor LM/CM ΔP & flow to check \*
- \* integrity \*

Verify LM/CM ΔP ind constant (±.2) at last value  
for 2 min

Verify O2 FLOW ind - no increase

Before Undocking only:

TUNL VENT vlv - LM TUNL VENT  
for 10 min, then LM/CM ΔP  
Verify LM/CM ΔP > 4.0 (pegged)

TUNL VENT vlv - OFF  
TUNNEL LIGHTS - OFF

Before Jettison only:

TUNL VENT vlv - TUNL VENT (at least 10 min)  
TUNNEL LIGHTS - OFF (VERIFY)



LM TUNNEL VENT VLV - CM/LMΔP

SURGE TK OZ VLV	-ON
MAIN REG VLV (2)	-OPEN
H2O/GLY TK PRESS REG VLV	- BOTH
H2O/GLY TK PRESS RLV VLV	- BOTH
EMER CAB PRESS VLV	-BOTH
SUIT DEMAND REGS	-BOTH

PNL 5

cb ECS TRANSDUCERS PRESS GROUP 1 & 2 MNA & MNB (4) - CLOSED

~~PNL 5~~

cb ECS TRANSDUCERS TEMP MNA & MNB (2) - CLOSED

PNL 4

PRI ECS GLYCOL PUMPS 1 - AC1

~~SURGE TANK~~

INCREASE CABIN PRESS TO 5.5 PSIA (DIRECT O<sub>2</sub>) ~~CROSS~~

VERIFY LM-CM ΔP ~~-----~~ - POSITIVE AND NOT DECREASING FOR 10 MIN

EI-1+20

PNL 7

~~SCS LOGIC 0/2 PWR - 0/2~~  
BMAG #1 PWR - WARMUP

MC&W Expected

EI-1+10

PERFORM SCS POWER UP PAGE 4 2-4



PNL 1  
SUIT COMP #2

- AC1

S/C CONTROL

- SCS

MAN ATT SWITCHES (AS DESIRED)

PERFORM GDC ALIGN

PNL 8

ROT CNTL PWR DIRECT 1 & 2

- MNA/MNB

EI-1+00

V37E47E

PNL 8

SECS PYRO ARM (2)

- UP/ON

GO FROM MSFN

PNL 2

CSM IM FINAL SEP (2)

- UP/ON

PNL 8

SECS PYRO ARM (2)

- SAFE

PRO OOE

CONFIGURE FOR SINGLE RING

MANEUVER TO ENTRY ATTITUDE

EI-55 MINS

SEXTANT STAR CHECK

PARK OPTICS 90° SHAFT

OPTICS POWER OFF

STOW OPTICS

~~PNL 8~~

~~CB EMS MAIN A 3~~

~~CLOSE~~

INITIALIZE EMS, PAGE E 2-1, STEP 2

2 (-00:55) EMS INITIALIZATION

cb EMS (2) - CLOSE

\*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

Alt  
Ems  
Init  
Time.





EI-45 MINS

ENTRY PAD & STATE VECTOR

MANEUVER TO MOON <sup>CHECK</sup> ATTITUDE (36° WINDOW MARK)

EI-40

PNL 7.

BMAG #2 PWR - WARMUP

MC & W  
Expected

VERIFY SURGE TANK & REPRESS PKG ON

PNL 5

cb ENV CONT SYS WASTE WATER/URINE DUCT HTR (2) - CLOSED

SUIT COMP #2 - OFF

EI-30

SECS LOGIC (2) - ON (UP)

PNL 7

BMAG #2 PWR - ON  
FDAI PWR - BOTH

~~PNL 275~~

~~cb MNA BATT BUS A~~ ~~CLOSED~~

~~cb MNB BATT C~~ ~~CLOSED~~ ✓

ACTIVATE PRIMARY EVAPORATOR

EI-19 MIN

GO TO ENTRY CHECKLIST E 2-2



~~5 30:00 MN BUS LIT (2) ON  
(-30:00) TAPE RCDR REWIND~~

~~6 35:00 SEPARATION EX 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 WCK - 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 (cts)  
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  
CLY EVAP TEMP IN - MAN~~

SUPERCIRCULAR ENTRY

7 MNVR TO HORIZON CHECK ATT

MNVR TO PAD ATT  
R \_\_\_\_\_ (0°)  
P \_\_\_\_\_ (265°) 2  
Y \_\_\_\_\_ (0°)

START HERE

~~S BD OMNI ANT - C  
P61 - ENTRY PREP~~

1 EI-M:00 V37E 61E (AVE G ON)

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

Basic Date 1/70  
Changed 3/27/70

CSM 1C



- 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

Basic Date 3/9/70  
Changed \_\_\_\_\_

- 5 F 50 25 00041 REQUEST CM/SM SEP  
~~42:00~~ ~~CONDARE DITCH ATT HIGH 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)

CSM 109



E  
2-4

~~258°D~~

~~MAN ATT (3) - MIN IMP  
 BMAG MODE (3) - RATE 2  
 C&W MODE - CM  
 RCS TRNFR - CM  
 CM RCS MANE 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  
 (-10:00)  
 (236°P)  
 ( : : )  
 ↑  
 Dark  
 Horiz  
 ↓  
 ( : : )

AUTO RCS SEL A/C ROLL (4) - OFF (verify)  
 cb SCS B/D ROLL, P & Y MNB (3) - open  
 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°  
 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

Basic Date 3/9/70  
 Changed           

CSM 10y





57137 MEAN SET 2-5  
50:00m CHECK  
(-02:00)23  
(177°P)

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 \*

BEGIN BLACKOUT  
PNL 3

~~PWR SCE - OFF~~  
~~PWR PMP - OFF~~

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

Start DAC

3/9/70  
Basic Date  
Changed

9 (158°P at 400K) RTOGO AT .05G AGREES WITH EMS-verify  
(RRT=0:00) HORIZ CHECK  
.05G lt - on (EMS START)

.05G time  
(+0 : ) \* No EMS START within 3 sec: \*  
( : : ) \* EMS MODE - BACKUP/VHF RNG \*  
(152°P at .05G)

8 BAUD P/A - High

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,  
MNVN 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

CSM 109

