

# **Apollo 13 Real Time Simulation Flight hand notes**



**from a Real Time Simulation performed by Iván Turrado on his YouTube  
channel**

**from april 11th 2025 to april 17th 2025  
(55th anniversary)**

## FD1

Insertion  
+25566  
+00003  
+01028

16 44  
103,8  
102,1  
-59 59

### SM RCS:

	TK	QTY
SM A	53	100
SM B	51	100
SM C	57	100
SM D	56	100

ECS, EPS checkout (00:31:30 GET)

H2 Qty: 99%

O2 Qty: 99%

FC1: 24A

MNA: 29,5V

FC2: 24A

MNB: 29V

FC3: 25A

SPS Oxid, Fuel: 99,4%, no unbal

P52 (00:48:00 GET)

06 05            06 93  
00000            +00165  
                  +00063  
                  +00085

Attitude Reference Comparison Check:

DSKY	ASCP
+17926	179,1
+34119	341,25
+00086	000,8

Post TLI:

DSKY

EMS -11,4

+35197 VI

+06872 HDOT

+02700 HPAD

P52 (05:36:00 GET) Stars 35 and 44

06 05            06 93  
00000            -00225  
                  +00030  
                  +00006

0,9 PSI, CM/LM differential pressure (11:53:00 GET)

Onboard readouts:

12:44:05 GET

Battery C: 36V

RCS A: 95 B: 97 C: 94 D: 96

Pyro battery A: 37V

Pyro battery B: 37V

## FD2

23:09:15 GET; Crew status report: Healthy, Rested (8,5 hours)

Consumables update:

GET 23:06:00

RCS:

A: 94% B: 97% C: 94% D: 96% Total: 95,25%

A: 380 B: 390 C: 380 D: 390 Total: 1540

H2: 93% O2: 93%

0,8 LM/CM Differential pressure 24:00:00 GET

P52 (24:09:00 GET) Stars 41 (1) and 13

06 05

06 93

00003

-00089

+00840

-00072

P52 (29:09:00 GET) Stars 3 and 20

06 05

06 93

00002

+00011

+00007

+00030

MCC-2 PAD in picture on respective PAD folder.

MCC-2 resids:

+00002, +00001, -00003; EMS -4,0

98,5% SPS Oxid

98,5% SPS Fuel

No unbal

0,8 LM/CM Differential pressure 36:05:00 GET

Onboard readouts:

GET 036:16:50

Batt C: 36V

Pyro Batt A: 37V

Pyro Batt B: 37V

RCS:

A: 365 B: 380 C: 363 D: 379 Total = 1487

### FD3

Consumables update:

GET 47:00:00

RCS:

A: 370 B: 380 C: 375 D: 380 Total: 1505

H2: 82% O2: - (85%)

Crew status report:

Sleep: 9h; Healthy, rested.

0,9 LM/CM Differential pressure 47:40:00 GET

P52 (49:39:00 GET) Stars 22 and 27 (32)

06 05

06 93

00001

+00006

-00014

+00012

Transfer to LM power: 54:46:41

54:50:00 SHe press: 854

54:58:55 LM power off

-----  
LM fine align:

**LM**

**CM**

**Equals**

+22658

+07341

-

+28496

+10500

-

+01200

+34802

-

**FD5**

TLM CSM Powerup: 101:50:40

Batt C voltage: 36,5

Pyro Batt A voltage: 37

Pyro Batt C voltage: 37

SPS Helium pressure: 3800

CM RCS Injector temps:

5C = 5V                      6A = 4,6V

5D = 4,5V                      6B = 5V

6C = 5V

6D = 5V

4A = 0V

-----  
122:26:00

Changes to TLM procedure:

PWR Ampl – Low

No 275 CB Main B Batt B

-----  
TLM CSM Powerup: 123:06:30

Batt C voltage: 36,5

Pyro Batt A voltage: 37

Pyro Batt C voltage: 37

SPS Helium pressure: 3600

CM RCS Injector temps:

5C = 5V                      6A = 5V

5D = 4,6V                      6B = 5V

6C = 5V

6D = 5V

4A = 0V

225 Panel + panel for bus

24.1

Close Panel Transmitter / BSC Feeder bus

S Belt & Charge CE closed  
Belt B Charge CE closed

EPS Sens Stop MVA // MVB CE  
closed

250 CB Belt A Power Entry / Protection closed  
CB Belt B Power Entry / Protection closed

275 CB MVA Belt Bus A - closed  
CB MVB Belt Bus B - closed

S MVA Belt Tie A/C on  
✓ MVA Volts  
✓ Belt A amps

MV Beltie B/C on  
✓ MVB Volts ✓ Belt B amps

Reconfiguration:

275 - Open CB MVA, Bot Bus A  
CB WUB Bot bus B

250 - Open CB Bot A  
Open CB Bot B

5 - Open GE Source Trip  
Bot change - Open

4-6E → E-4E

~~HM to CM Power Transfer~~

Transfer of CM Power to Main B  
Add CB EPS Sens Stry M II