

MCC-H

1623 CST

## FLIGHT PLAN

## NOTES

UPDATE TO CSM  
CONSUMABLES  
FLIGHT PLAN

26:00

:10

:20

26:30

:40

:50

27:00

M  
S  
F  
N

## CSM SYSTEMS CHECKLIST

## POST-SLEEP CHECKLIST

PAGE S 1-26

L10H CANISTER CHANGE ✓  
(4 INTO B, STOW 2 IN B5)

CHARGE BATTERY A ✓

EAT PERIOD

REPORT: *early*  
LM/CM ΔP

0.3 ✓

DAP LOAD STATUS  
(21101)(X1111)

## CSM CONSUMABLES UPDATE

GET: \_\_\_\_\_:\_\_\_\_ ✓

RCS TOTAL \_\_\_\_\_

QUAD A \_\_\_\_\_ B \_\_\_\_\_

C \_\_\_\_\_ D \_\_\_\_\_

H<sub>2</sub> TANK 1 \_\_\_\_\_ 2 \_\_\_\_\_O<sub>2</sub> TANK 1 \_\_\_\_\_ 2 \_\_\_\_\_

3 \_\_\_\_\_

PTC

EARTH DISTANCE  
≈ 106 014 NM

| MISSION   | EDITION     | DATE             | TIME          | DAY/REV | PAGE |
|-----------|-------------|------------------|---------------|---------|------|
| APOLLO 14 | FINAL (JAN) | DECEMBER 2, 1970 | 26:00 - 27:00 | 2/TLC   | 3-27 |

MCC-N

1723 CST

# FLIGHT PLAN

NOTES

LAUNCH VEHICLE  
DEBRIEFINGDAP LOAD STATUS  
(21101)(X1111)LAUNCH VEHICLE SYSTEMS  
PERFORMANCE DEBRIEFING *28+00*

1. WERE THERE ANY SIGNIFICANT CHANGES IN NOISE LEVEL BETWEEN STAGES OF POWERED FLIGHT?
2. WERE THERE ANY SIGNIFICANT CHANGES IN NOISE/VIBRATION LEVEL DURING A SINGLE STAGE OF POWERED FLIGHT?
3. WERE THERE ANY UNEXPECTED ACCELERATION TRANSIENTS EXPERIENCED AT INITIATION OF IGN, SII

PTC

27:00

:10

:20

27:30

:40

:50

28:00

M  
S  
F  
N

*- 10*  
QUESTION: YOU ANNOUNCED YOU THOUGHT THE BOOSTER WAS MANEUVERING  
A LITTLE DURING THE DOCKING ATTEMPTS. COULD YOU EXPAND ON:

- (1) The direction of maneuver
- (2) Type of maneuver (lateral, oscillating, etc.)
- (3) Approximate time maneuver was first observed (prior to 1st docking attempt, between 1st and 2nd docking attempt, etc).
- (4) Any observed vents from the launch vehicle. *during this maneuver*
- (5) Any unusual or unexpected observations.

| MISSION   | EDITION     | DATE             | TIME          | DAY/REV | PAGE |
|-----------|-------------|------------------|---------------|---------|------|
| APOLLO 14 | FINAL (JAN) | DECEMBER 2, 1970 | 27:00 - 28:00 | 2/TLC   | 3-28 |

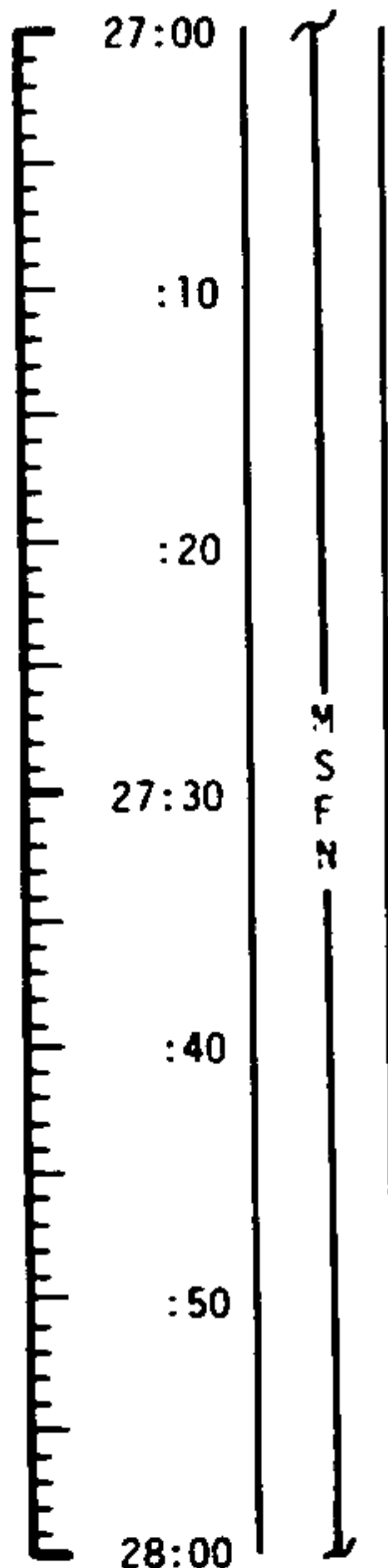
MCC-M  
LAUNCH VEHICLE  
DEBRIEFING

1723 CST

# FLIGHT PLAN

## NOTES

DAP LOAD STATUS  
(21101)(X1111)



LAUNCH VEHICLE SYSTEMS *28+00*  
PERFORMANCE DEBRIEFING

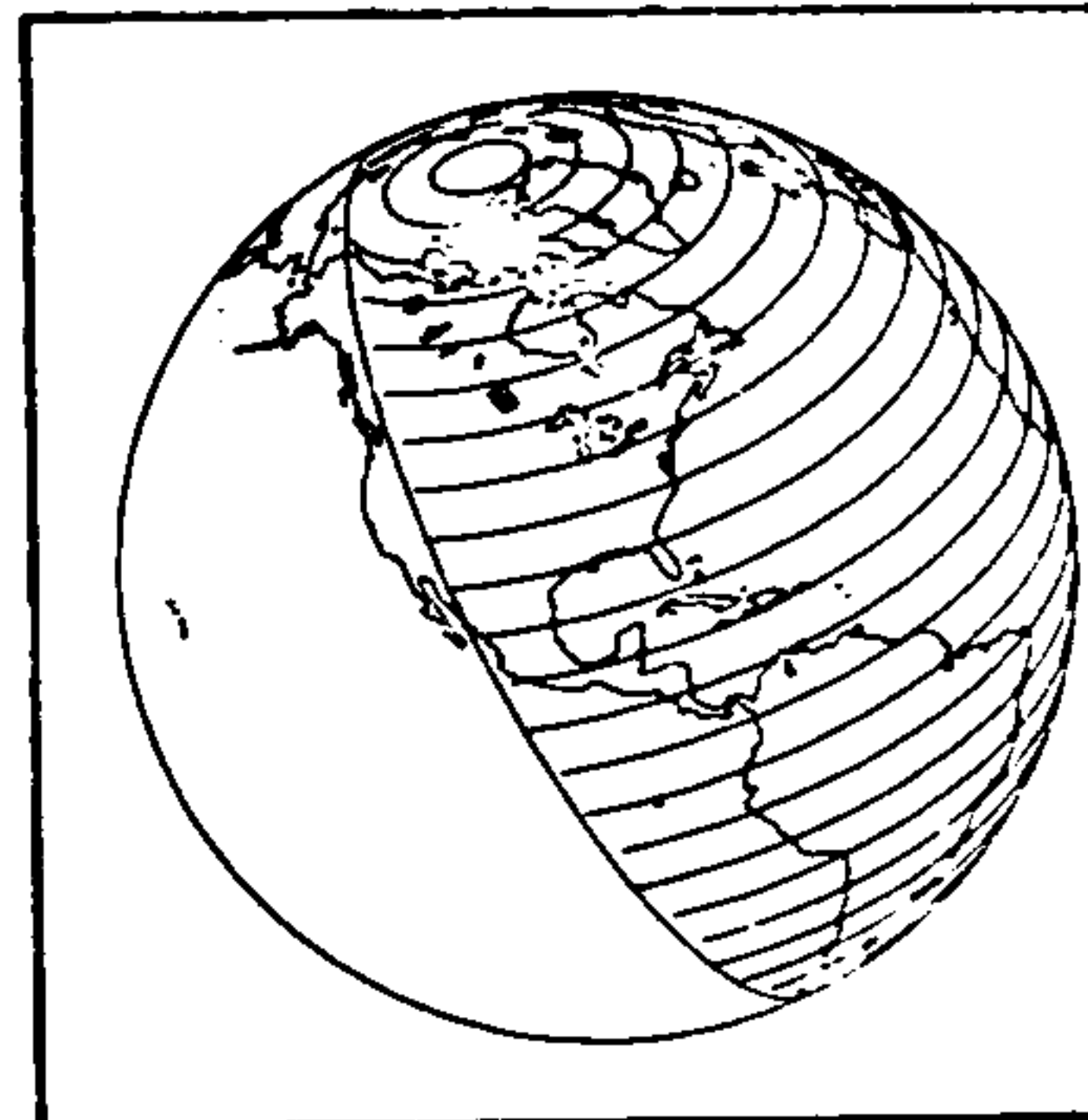
1. WERE THERE ANY SIGNIFICANT CHANGES IN NOISE LEVEL BETWEEN STAGES OF POWERED FLIGHT?
2. WERE THERE ANY SIGNIFICANT CHANGES IN NOISE/ VIBRATION LEVEL DURING A SINGLE STAGE OF POWERED FLIGHT?
3. WERE THERE ANY UNEXPECTED ACCELERATION TRANS- IENTS EXPERIENCED AT INITIATION OF IGN, SII SECO, MAX Q OR M/R SHIFT FOR BOTH SII AND S-IVB?
4. AFTER SC SEPARATION, DESCRIBE THE CONDITIONS OF THE IU THERMAL SHROUD. WAS THERE ANY LOOSENESS?
5. HOW WAS GROUND/SC COMM AT IGNITION/ LIFT-OFF TIME REGION RELATIVE TO VIBRATION AND ACOUSTIC ENVIRONMENTS?
6. DESCRIBE ANY VISIBLE VENTING OR SUSPECTED LEAK AFTER SEPARATION.
7. WHEN, AND AT WHAT DISTANCE, WAS THE S-IVB SEEN FOR THE LAST TIME?
8. ARE THERE ANY COMMENTS RELATIVE TO S-IVB/IU TLI GUIDANCE CUTOFF CONDITIONS (PREDICTED VS ACTUAL SC DISPLAY)?
9. WHAT DID THE ORDEAL BALL LOOK LIKE DURING TLI?

*10.*

PTC

GET: 28:30

F.O.V. 4



| MISSION   | EDITION     | DATE             | TIME          | DAY/REV | PAGE |
|-----------|-------------|------------------|---------------|---------|------|
| APOLLO 14 | FINAL (JAN) | DECEMBER 2, 1970 | 27:00 - 28:00 | 2/TLC   | 3-28 |

MCC-H

1823 CST

# FLIGHT PLAN

28:00

:10

:20

(21101)  
(X1111)

28:30

:40

:50

29:00

M  
S  
F  
N

## CSM G&C CHECKLIST

ΔV TEST & NULL BIAS CHECK  
REPORT: BIAS

PAGE G 2-5

*DELAY 'TIL  
29:10*

~~P52 IMU REALIGN  
OPTION 3 REFSMAT  
(PTC ORIENT)~~

REPORT: GYRO TORQUING ANGLES~~EXIT G&N PTC~~~~PAGE G 8-9~~

V49 MNVR TO OPTICS CALIBRATION ATTITUDE  
(151,227,333)

OMNI A

P23 CISELUNAR NAVIGATION

OPTICS CALIBRATION STAR N70 (00034)

P00

V49 MNVR TO SIGHTING ATTITUDE

(155,265,310) OMNI B

V67 (+45000) (+00000) (+00003)

P23 CISELUNAR NAVIGATION

5 MARKS ON EACH STAR, UPDATE STATE VECTOR

1. N70 (00000)(00000)(00110)

N88 (-55412)(-91724)(-18240)

2. N70 (00000)(00000)(00120)

N88 (-58200)(-46152)(-60254)

*DELETE*

## NOTES

DAP LOAD STATUS  
(21101)(X1111)

P52 IMU REALIGN

N71: \_ \_ . \_ \_

N05: \_ \_ . \_ \_

N93: \_ \_ . \_ \_

X \_ \_ . \_ \_

Y \_ \_ . \_ \_

Z \_ \_ . \_ \_

GET \_ \_ . \_ \_

PTC

EARTH DISTANCE  
≈ 114 188 NM

LOAD W MATRIX

202 ZETA  
OPHIUCHI (ENH)

165 ETA  
CENTAURI (EFH)

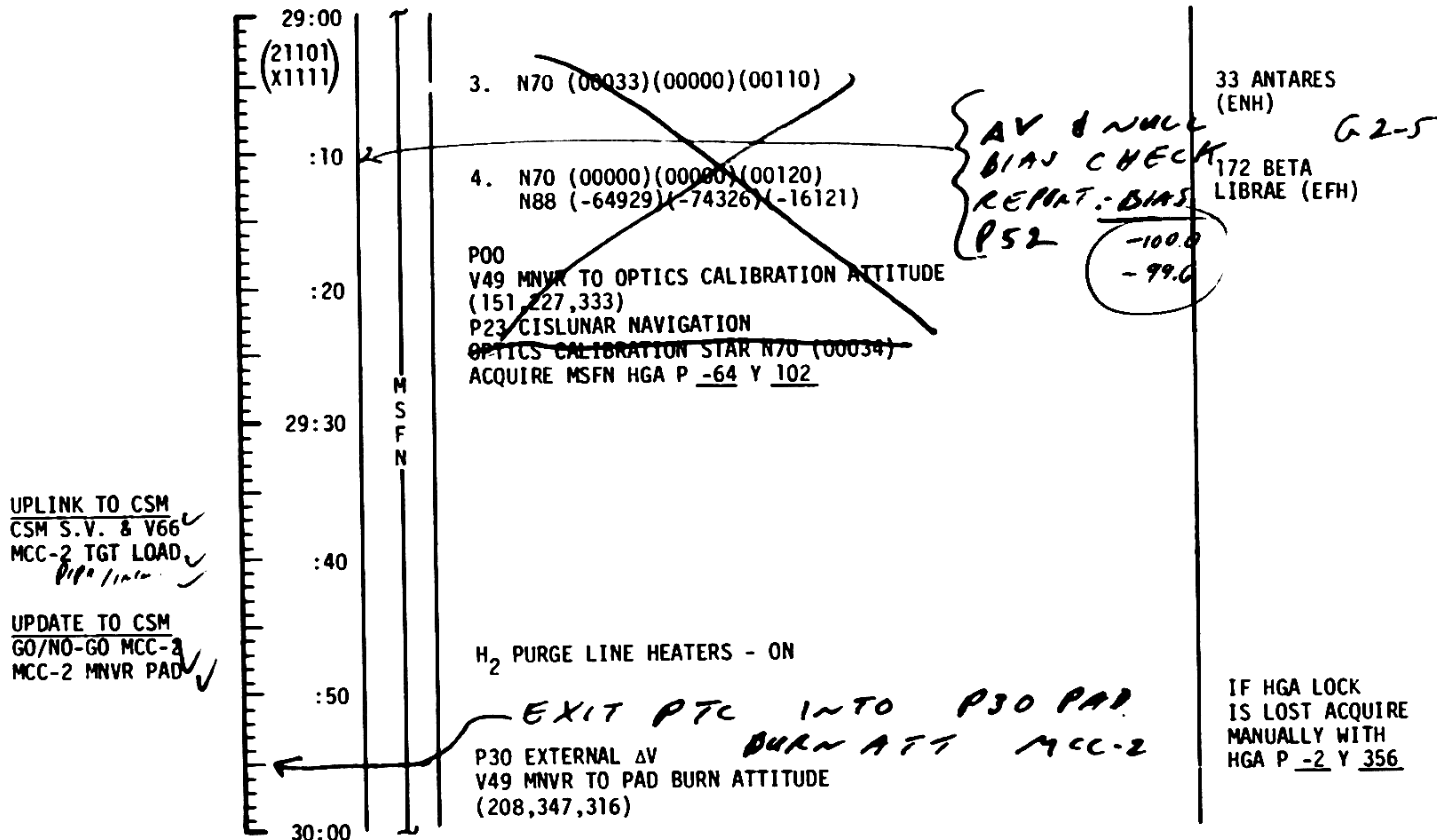
| MISSION   | EDITION     | DATE             | TIME          | DAY/REV | PAGE |
|-----------|-------------|------------------|---------------|---------|------|
| APOLLO 14 | FINAL (JAN) | DECEMBER 2, 1970 | 28:00 - 29:00 | 2/TLC   | 3-29 |

MCC-H

1923 CST

## FLIGHT PLAN

NOTES



| MISSION   | EDITION     | DATE             | TIME          | DAY/REV | PAGE |
|-----------|-------------|------------------|---------------|---------|------|
| APOLLO 14 | FINAL (JAN) | DECEMBER 2, 1970 | 29:00 - 30:00 | 2/TLC   | 3-30 |

# FLIGHT PLAN

MCC-2  
BURN CHART

| P OR Y<br>RATES      | ATT<br>DEVIATION  | SHUTDOWN<br>TIME | RESIDUALS   |
|----------------------|-------------------|------------------|---|
| 10°/SEC<br>TERMINATE | +10°<br>TERMINATE | BT + 1 SEC       | IF <2FPS, TRIM<br>X AXIS TO 0.2FPS<br>IF >2FPS, NO TRIM |

# EARTH DARKSIDE DIM LIGHT PHOTOGRAPHY

## CONFIGURE CAMERA

CM/DAC/SXT/VHBW, (EXP 1/500) 24 fps (2.5% MAG)

MAG (J) \_\_\_\_\_ MAG % \_\_\_\_\_

UTILITY POWER - ON

V49 MNVR TO EARTH DARKSIDE PHOTO ATTITUDE (30:55)

(156,269,310) OMNI B

SECURE HGA, HGA TRACK-MAN, HGA P -52, Y 270

DAMP VEHICLE RATES PER PTC PROCEDURE STEP 5

AFTER 20 MIN DISABLE ALL JETS

P22 ORBIT NAVIGATION (NO MARKS)

LDMK: LAT + 15.000 SA +314.00

~~- 47.500~~ LONG/2 ~~- 42.500~~ TA + 04.000

ALT +000.00

VERIFY THRU SXT THAT OPTICS BORESIGHTED ON EARTH DARKSIDE

MOUNT DAC ON SXT, DAC-ON AT 24 fps FOR 2 SEC

CHANGE DAC TO TIME & 1/60

1 FRAME, EXP TIME 60 SEC

1 FRAME, EXP TIME 20 SEC

1 FRAME, EXP TIME 5 SEC

CHANGE DAC TO 24 fps & 1/500; DAC ON AT 24 fps FOR 2 SEC

CYCLE CMC MODE - FREE AUTO

ENABLE JETS

RECORD MAG % \_\_\_\_\_

REMOVE AND STOW DAC

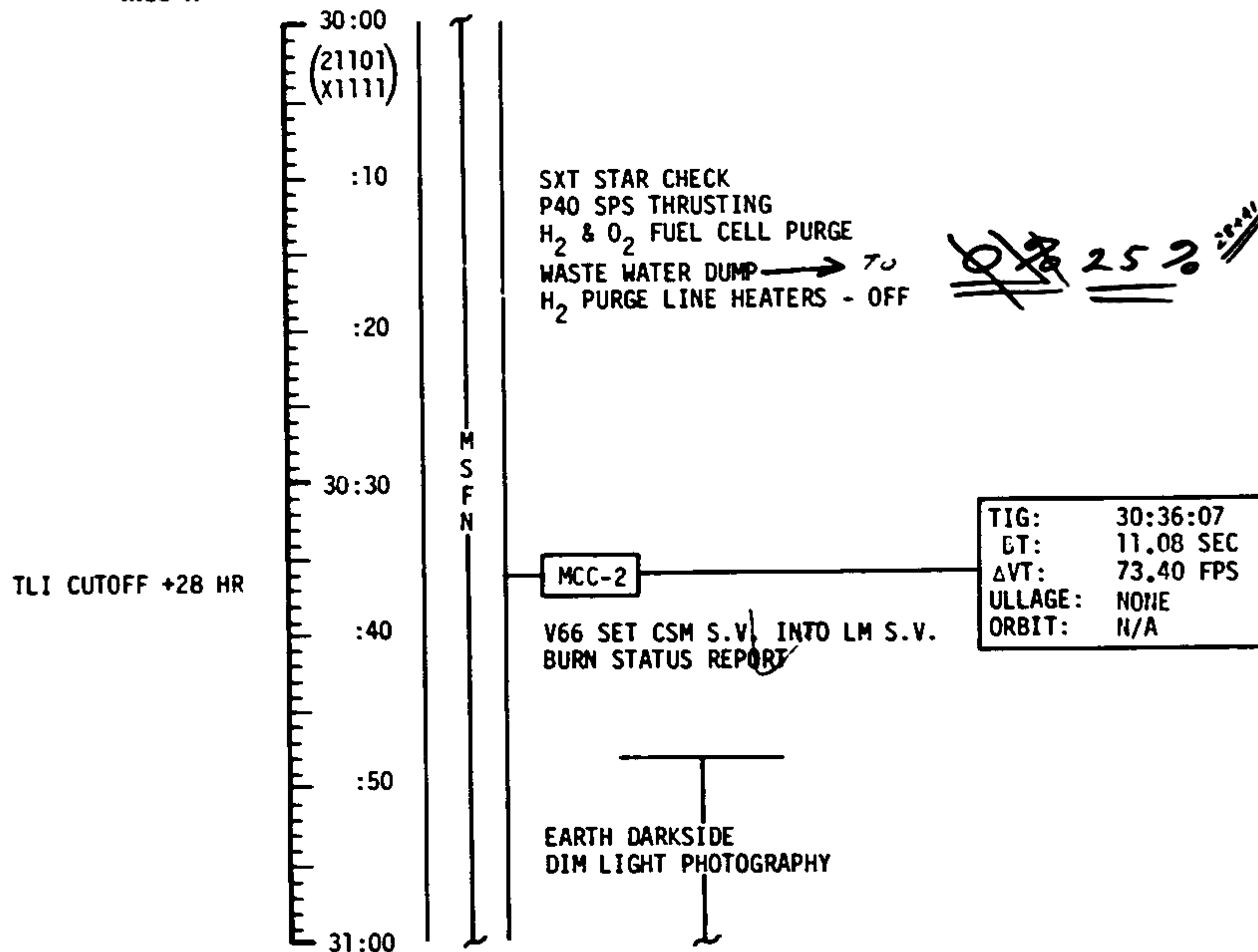
| MISSION   | EDITION        | DATE              | TIME          | DAY/REV | PAGE |
|-----------|----------------|-------------------|---------------|---------|------|
| APOLLO 14 | CHANGE A (JAN) | DECEMBER 23, 1970 | 30:50 - 31:30 | 2/TLC   | 3-32 |

MCC-H

2023 CST

## FLIGHT PLAN

NOTES



| BURN STATUS REPORT |   |   |     |  |  |  |  |   |                 |
|--------------------|---|---|-----|--|--|--|--|---|-----------------|
| X                  | X |   |     |  |  |  |  |   | ΔTIG            |
| X                  | X |   |     |  |  |  |  |   | BT              |
|                    |   |   |     |  |  |  |  |   | V <sub>gx</sub> |
| TRIM               |   |   |     |  |  |  |  |   |                 |
| X                  | X | X |     |  |  |  |  |   | R               |
| X                  | X | X |     |  |  |  |  |   | P               |
| X                  | X | X |     |  |  |  |  |   | Y               |
| +                  |   |   |     |  |  |  |  | 2 | V <sub>gx</sub> |
|                    |   |   |     |  |  |  |  | 0 | V <sub>gy</sub> |
|                    |   |   |     |  |  |  |  | 1 | V <sub>gz</sub> |
|                    |   |   |     |  |  |  |  | 4 | ΔV <sub>c</sub> |
| X                  | X | X | 100 |  |  |  |  |   | FUEL*           |
| X                  | X | X | 989 |  |  |  |  |   | OX              |
| X                  | X | X | 300 |  |  |  |  |   | UNBAL           |

\*ITEMS TO BE  
REPORTED TO MSFN

| MISSION   | EDITION     | DATE             | TIME          | DAY/REV | PAGE |
|-----------|-------------|------------------|---------------|---------|------|
| APOLLO 14 | FINAL (JAN) | DECEMBER 2, 1970 | 30:00 - 31:00 | 2/TLC   | 3-33 |



MCC-H

2123 CST

## FLIGHT PLAN

NOTES

GET: 31:00

F.O.V. 4°

UPDATE TO CSM  
QUADS TO ENABLE  
FOR PTC SPINUP

(A, B)

31:00  
(21101)  
(X1111)

:10

:20

31:30

:40

:50

32:00

M  
S  
F  
N

EARTH DARKSIDE  
DIM LIGHT PHOTOGRAPHY

## CSM G&amp;C CHECKLIST

PASSIVE THERMAL CONTROL (G&amp;N)

PAGE G 8-2

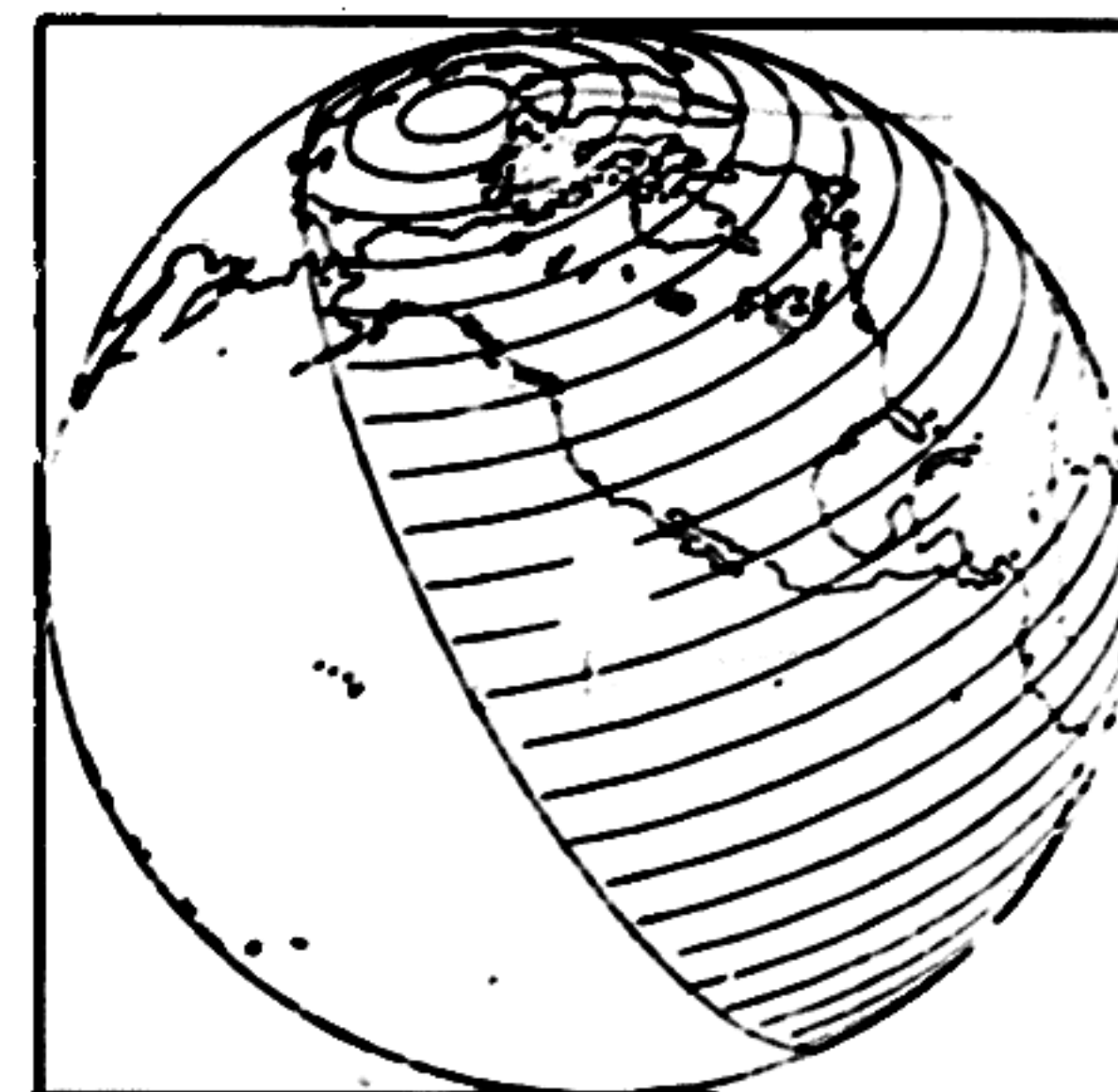
V49 MNVR TO PTC ATTITUDE

(N20,090,000)

V79 (-0.3750)

(+030.00)

(+00000)



DAP LOAD STATUS  
(21101)(X1111)

PTC

| MISSION   | EDITION     | DATE             | TIME          | DAY/REV | PAGE |
|-----------|-------------|------------------|---------------|---------|------|
| APOLLO 14 | FINAL (JAN) | DECEMBER 2, 1970 | 31:00 - 32:00 | 2/TLC   | 3-34 |

2223 CST

# FLIGHT PLAN

## NOTES

**DAP LOAD STATUS**  
**(21101)(X1111)**

VENT BATTERIES UNTIL SYSTEM TEST METER 4A=0  
CREW EXERCISE PERIOD

CHARGE BATTERY A 32 + 94 -

**MSFN**

**PTC**

| MISSION   | EDITION     | DATE             | TIME          | DAY/REV | PAGE |
|-----------|-------------|------------------|---------------|---------|------|
| APOLLO 14 | FINAL (JAN) | DECEMBER 2, 197L | 32:00 - 33:00 | 2/TLC   | 3-35 |

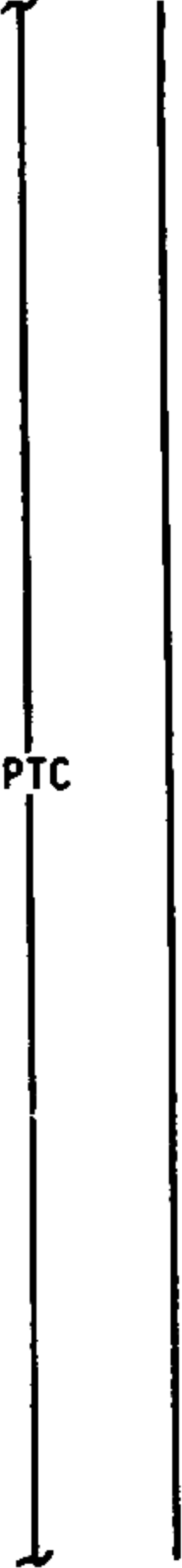
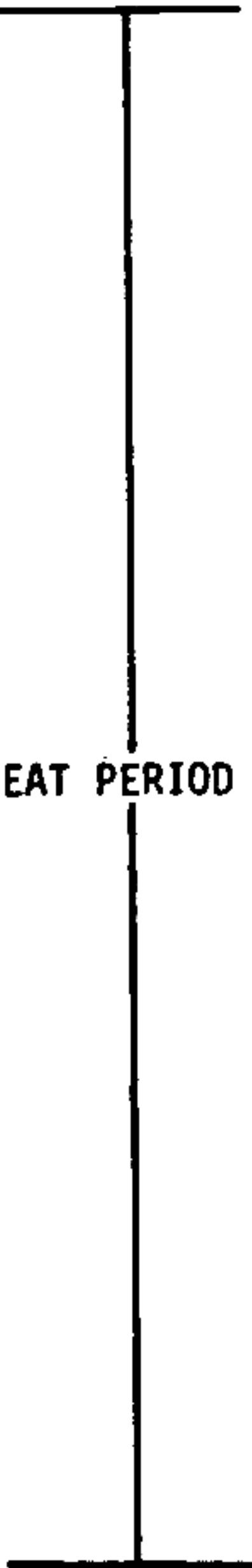
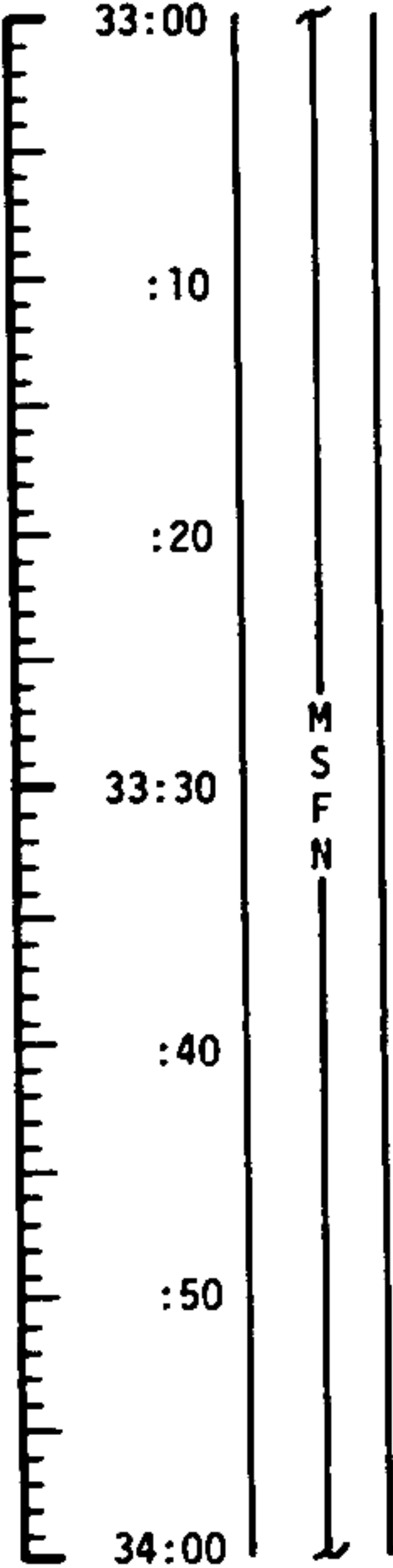
MCC-H

2323 CST

# FLIGHT PLAN

NOTES

DAP LOAD STATUS  
(21101)(X1111)



| MISSION   | EDITION     | DATE             | TIME          | DAY/REV | PAGE |
|-----------|-------------|------------------|---------------|---------|------|
| APOLLO 14 | FINAL (JAN) | DECEMBER 2, 1970 | 33:00 - 34:00 | 2/TLC   | 3-36 |

MCC-H

0023 CST

## FLIGHT PLAN

## NOTES

DAP LOAD STATUS  
(21101)(X1111)

## LTC CHECKOUT

UNSTOW LTC

CM3/LTC/MBW/BEF - (SHUT 1/100, RNG 10.0, INT 8) (12 FR)

MAG (V) \_\_\_\_\_, FR # ~~0~~ → 9

LTC INSTALLATION (DECAL)

RECORD LTC CLOCK TIME

RECORD TIME ~~34:26:42~~ DAY 7-64 (LTC CLOCK)

AT GET \_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_-

LTC CHECKOUT (DECAL)

LTC FILM MAGAZINE CHANGE (DECAL)

ADVANCE 4 FRAMES, RECORD FR # \_\_\_\_\_

PUT MAG (W) ON LTC

RESET FRAME COUNTER

LTC REMOVAL (DECAL) &amp; STOW

M  
S  
F  
N

PTC

UPDATE TO CSM  
LOI MINUS 5 HR  
FLYBYLOI MINUS 5 HR  
FLYBY IS A  
CIRCUMLUNAR  
TRAJECTORY TO THE  
PRIME MPL AND WITH  
A PERICYNTHION  
BETWEEN 60 AND  
1500 NM

| MISSION   | EDITION        | DATE              | TIME          | DAY/REV | PAGE |
|-----------|----------------|-------------------|---------------|---------|------|
| APOLLO 14 | CHANGE A (JAN) | DECEMBER 23, 1970 | 34:00 - 35:00 | 2/TLC   | 3-37 |

0123 CST

# FLIGHT PLAN

## NOTES

DAP LOAD STATUS  
(21101)(X1111)

PTC

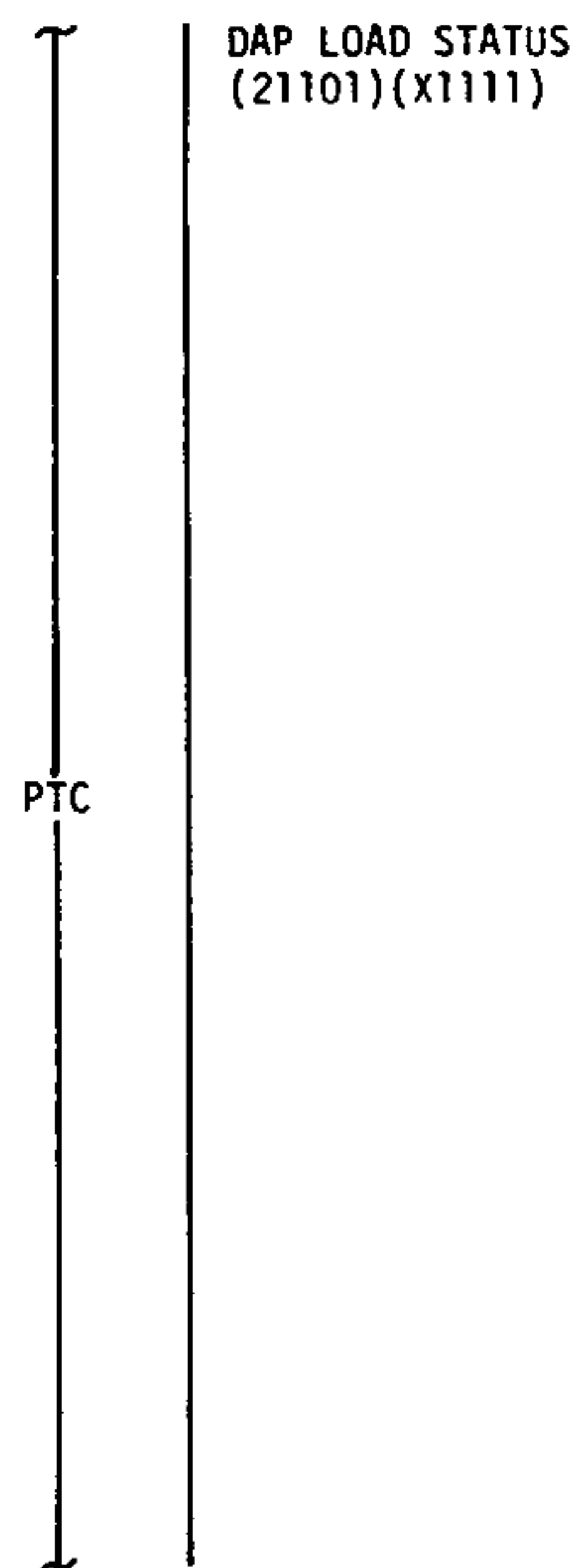
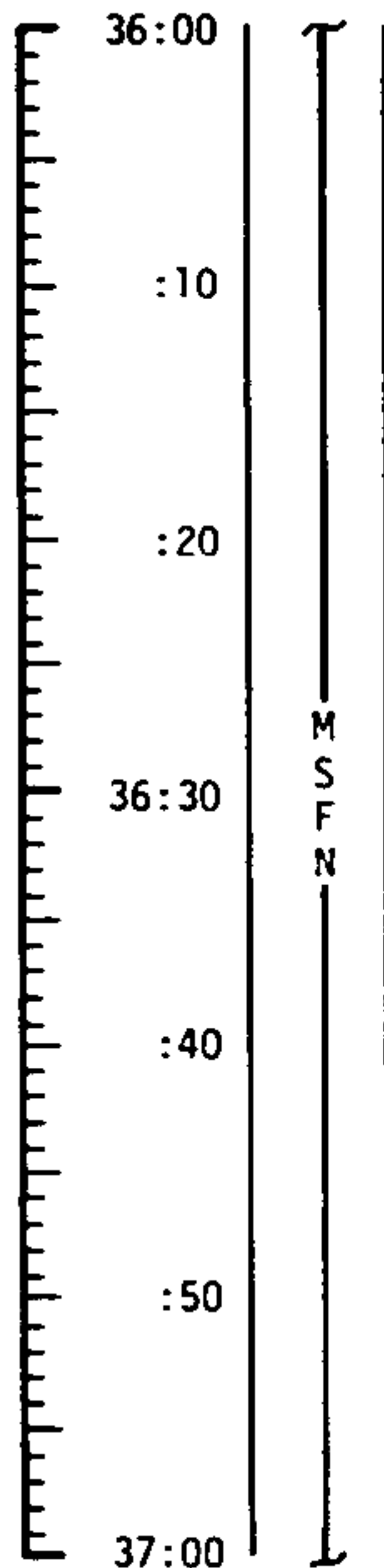
| MISSION   | EDITION     | DATE             | TIME          | DAY/REV | PAGE |
|-----------|-------------|------------------|---------------|---------|------|
| APOLLO 14 | FINAL (JAN) | DECEMBER 2, 1970 | 35:00 - 36:00 | 2/TLC   | 3-38 |

MCC-H

0223 CST

# FLIGHT PLAN

## NOTES



DAP LOAD STATUS  
(21101)(X1111)

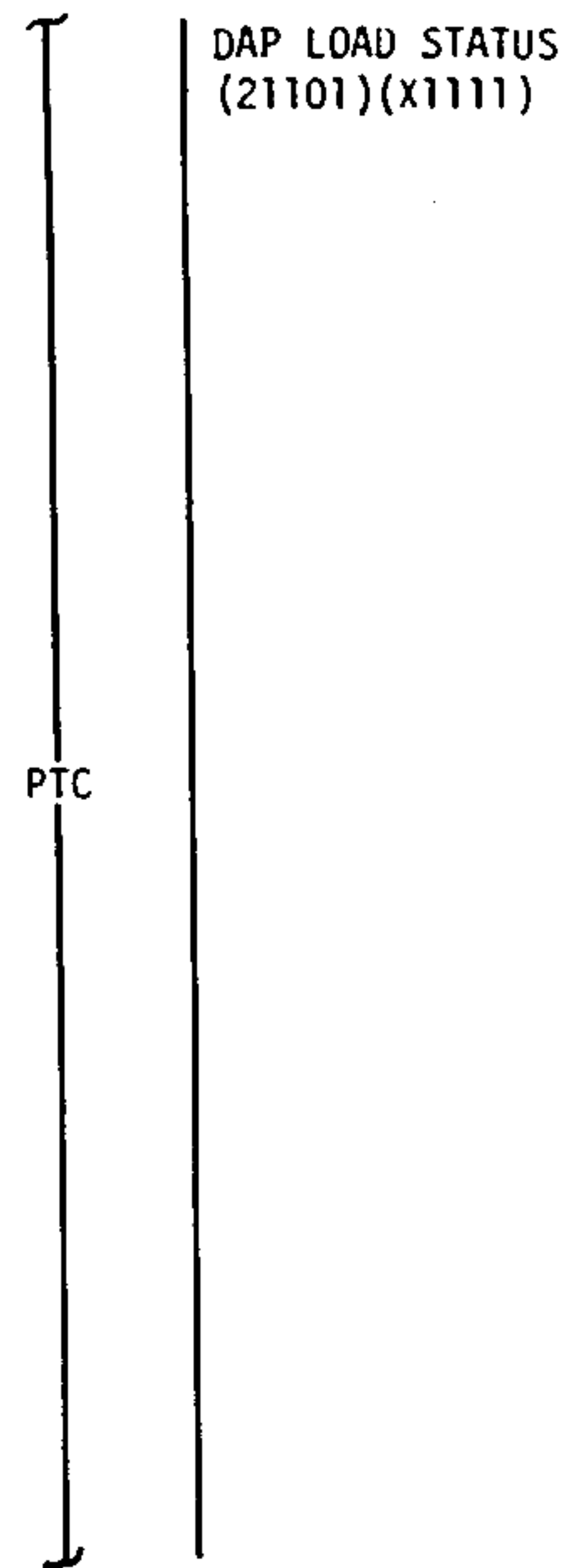
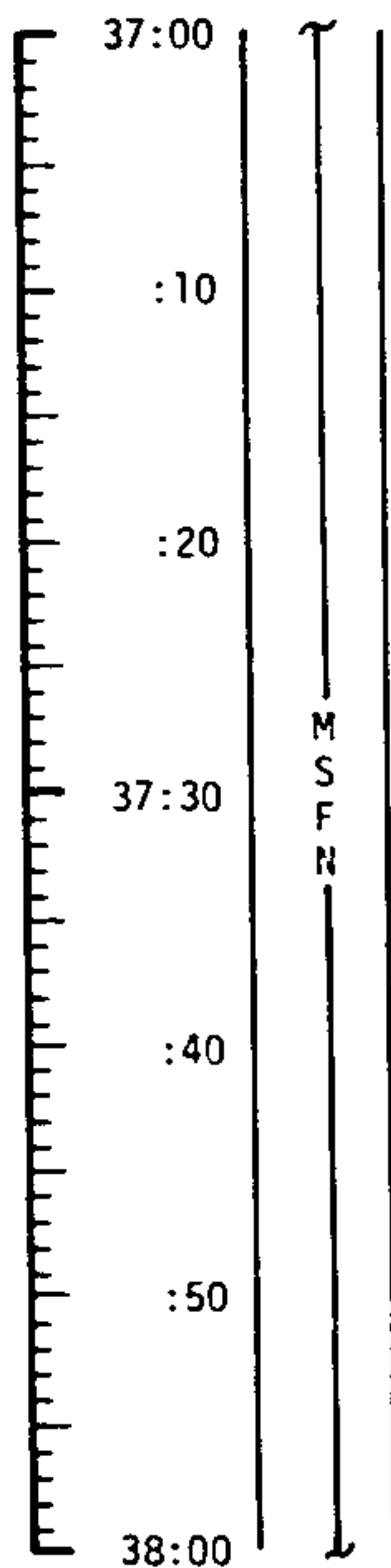
| MISSION   | EDITION     | DATE             | TIME          | DAY/REV | PAGE |
|-----------|-------------|------------------|---------------|---------|------|
| APOLLO 14 | FINAL (JAN) | DECEMBER 2, 1970 | 36:00 - 37:00 | 2/TLC   | 3-39 |

MCC-H

0323 CST

# FLIGHT PLAN

## NOTES



| MISSION   | EDITION     | DATE             | TIME          | DAY/REV | PAGE |
|-----------|-------------|------------------|---------------|---------|------|
| APOLLO 14 | FINAL (JAN) | DECEMBER 2, 1970 | 37:00 - 38:00 | 2/TLC   | 3-40 |

0423 CST

# FLIGHT PLAN

## NOTES

38:00

**L10H CANISTER CHANGE  
(5 INTO A, STOW 3 IN B5)**

DAP LOAD STATUS  
(21101)(X1111)

**: 10**

**:20**

**38:30**

**:40**

: 50

**39:00**

# MSFN

**PTC**

REPORT: LM/CM AP

0.75

| MISSION   | EDITION     | DATE             | TIME          | DAY/REV | PAGE |
|-----------|-------------|------------------|---------------|---------|------|
| APOLLO 14 | FINAL (JAN) | DECEMBER 2, 1970 | 38:00 - 39:00 | 2/TLC   | 3-41 |

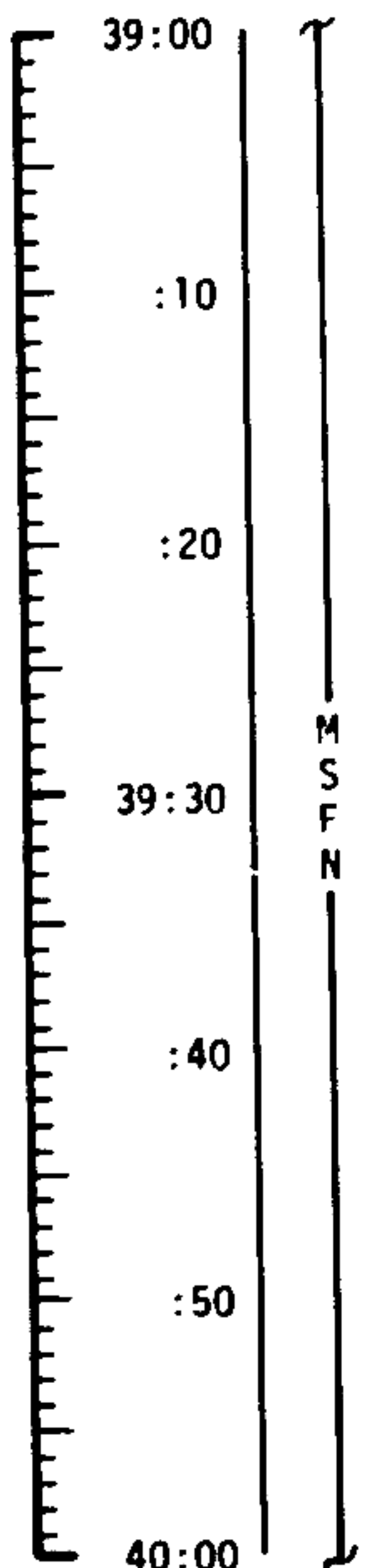


MCC-H

0523 CST

## FLIGHT PLAN

## NOTES

DAP LOAD STATUS  
(21101)(X1111)~~DELETE~~  
~~UP LINK TO CSM~~  
~~CSM S.V. & V66~~

P52 IMU REALIGN  
OPTION 3 REFSMMAT  
(PTC ORIENT)

REPORT: GYRO TORQUING ANGLES

N05 +000000  
N93 -00039  
-00222  
+00046  
40:11:00

PTC

## P52 IMU REALIGN

N71: \_\_\_\_\_

N05: \_\_\_\_\_

N93: \_\_\_\_\_

X \_\_\_\_\_

Y \_\_\_\_\_

Z \_\_\_\_\_

GET \_\_\_\_\_

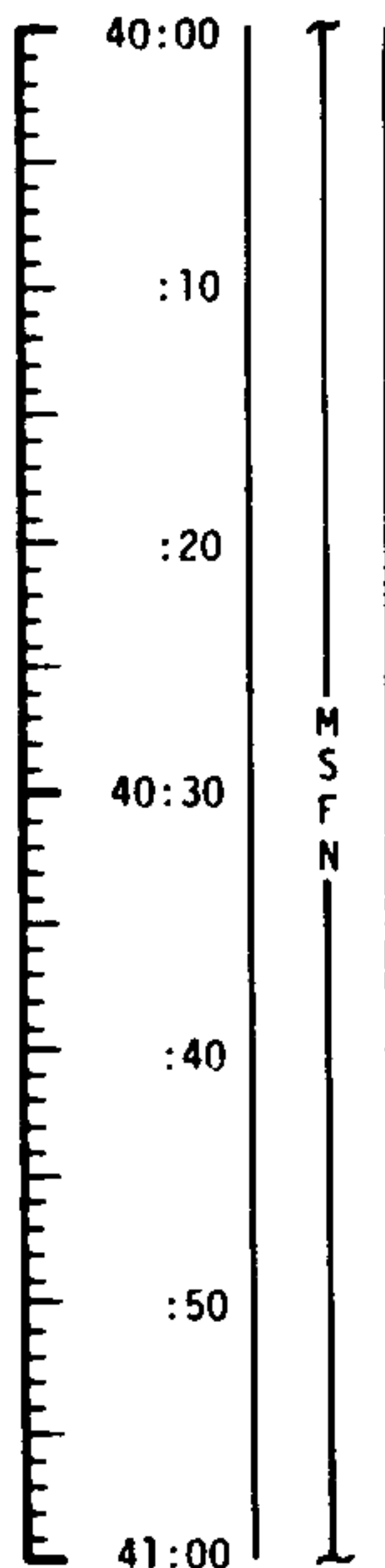
| MISSION   | EDITION     | DATE             | TIME          | DAY/REV | PAGE |
|-----------|-------------|------------------|---------------|---------|------|
| APOLLO 14 | FINAL (JAN) | DECEMBER 2, 1970 | 39:00 - 40:00 | 2/TLC   | 3-42 |

MCC-M

0623 CST

## FLIGHT PLAN

## NOTES



EAT PERIOD

CSM SYSTEMS CHECKLIST  
PRE-SLEEP CHECKLIST PAGE S 1-26

DAP LOAD STATUS  
(21101)(X1111)

## ONBOARD READOUT

BAT C 37.0  
PYRO BAT A 37.2  
PYRO BAT B 37.2  
RCS A 87  
B 89  
C 86  
D 88

DC IND SEL - MNA OR B

PTC

04/2000

EARTH DISTANCE  
≈ 141 981 NM

| MISSION   | EDITION     | DATE             | TIME          | DAY/REV | PAGE |
|-----------|-------------|------------------|---------------|---------|------|
| APOLLO 14 | FINAL (JAN) | DECEMBER 2, 1970 | 40:00 - 41:00 | 2/TLC   | 3-43 |

MCC-H

0723 CST

# FLIGHT PLAN

## NOTES

41:00  
:20  
:40  
42:00  
:20  
:40  
43:00

M  
S  
F  
N

REST PERIOD  
(10 HOURS)

PTC

DAP LOAD STATUS  
(21101)(X1111)  
DURING REST PERIOD,  
TWO CREWMEN IN  
REST STATIONS AND  
ONE IN COUCH

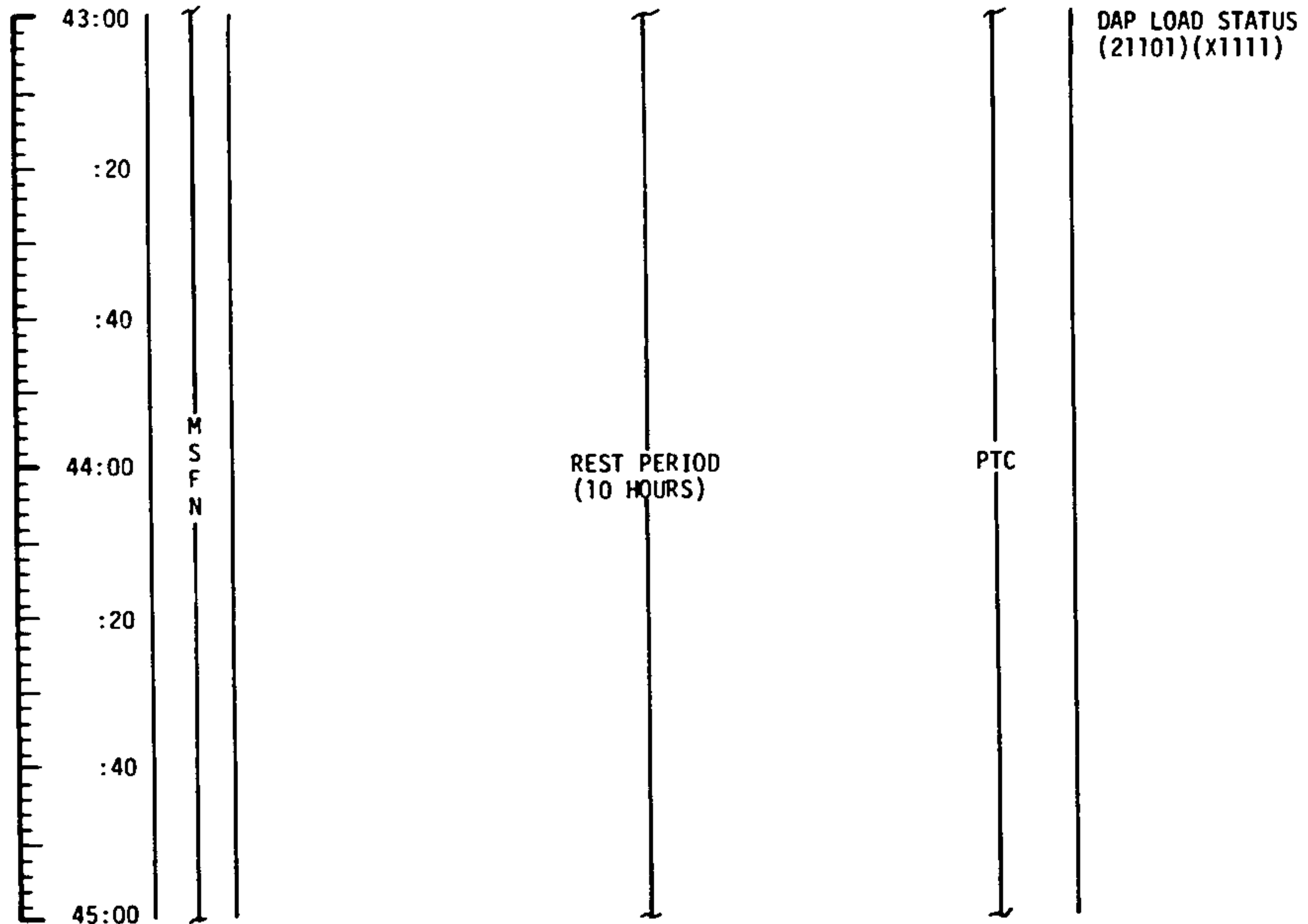
| MISSION   | EDITION     | DATE             | TIME          | DAY/REV | PAGE |
|-----------|-------------|------------------|---------------|---------|------|
| APOLLO 14 | FINAL (JAN) | DECEMBER 2, 1970 | 41:00 - 43:00 | 2/TLC   | 3-44 |

MCC-M

0923 CST

## FLIGHT PLAN

## NOTES



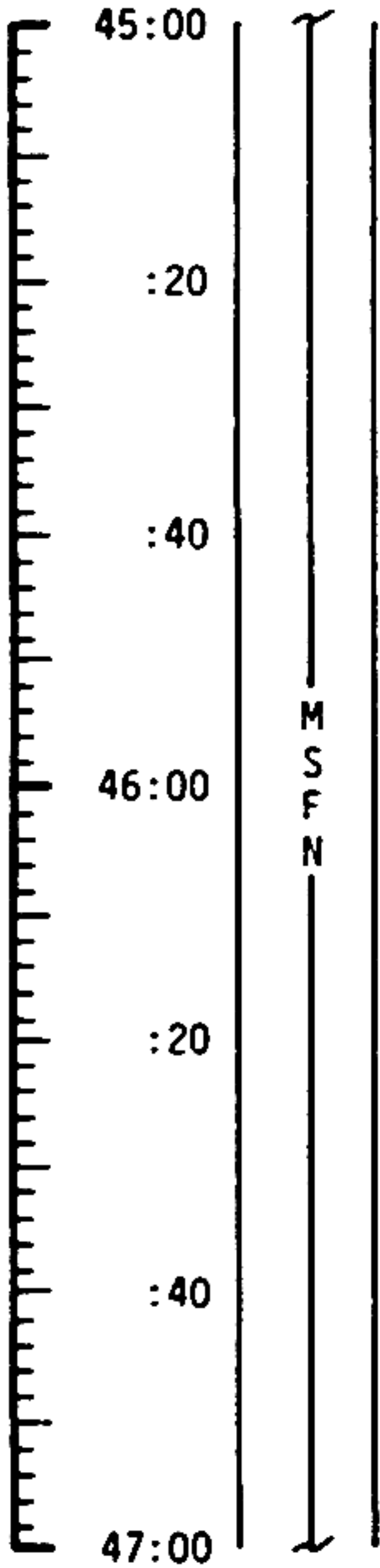
| MISSION   | EDITION     | DATE             | TIME          | DAY/REV | PAGE |
|-----------|-------------|------------------|---------------|---------|------|
| APOLLO 14 | FINAL (JAN) | DECEMBER 2, 1970 | 43:00 - 45:00 | 2/TLC   | 3-45 |

MCC-H

1123 CST

FLIGHT PLAN

NOTES



REST PERIOD  
(10 HOURS)

PTC

DAP LOAD STATUS  
(21101)(X1111)

| MISSION   | EDITION     | DATE             | TIME          | DAY/REV | PAGE |
|-----------|-------------|------------------|---------------|---------|------|
| APOLLO 14 | FINAL (JAN) | DECEMBER 2, 1970 | 45:00 - 47:00 | 2/TLC   | 3-46 |

MCC-H

1323 CST

# FLIGHT PLAN

## NOTES

DAP LOAD STATUS  
(21101)(X1111)

47:00  
:20  
:40  
48:00  
:20  
:40  
49:00

M  
S  
T

REST PERIOD  
(10 HOURS)

PTC

| MISSION   | EDITION     | DATE             | TIME          | DAY/REV | PAGE |
|-----------|-------------|------------------|---------------|---------|------|
| APOLLO 14 | FINAL (JAN) | DECEMBER 2, 1970 | 47:00 - 49:00 | 2/TLC   | 3-47 |

MCC-H

1523 CST

# FLIGHT PLAN

## NOTES

49:00  
:20  
:40  
50:00  
:20  
:40  
51:00

M  
S  
T  
N

REST PERIOD  
(10 HOURS)

PTC

DAP LOAD STATUS  
(21101)(X1111)

| MISSION   | EDITION     | DATE             | TIME          | DAY/REV | PAGE |
|-----------|-------------|------------------|---------------|---------|------|
| APOLLO 14 | FINAL (JAN) | DECEMBER 2, 1970 | 49:00 - 51:00 | 2/TLC   | 3-48 |