FLIGHT PLAN

0222 CST

02 FUEL CELL PURGE
WASTE WATER DUMP
LIOH CANISTER CHANGE NO 16
(18 INTO B, STOW 16 IN A4)

EAT PERIOD

POSTSLEEP CHECKLIST:
CREW STATUS REPORT
CONSUMABLES UPDATE
CYCLE H2 & O2 FANS
FLIGHT PLAN UPDATE
NORMAL LUNAR COMM EXCEPT:
S-BD AUX TAPE - OFF
TAPE RDR FWD - OFF
OMNI OPS
S-BD ANT - OMNI
S-BD ANT OMNI - B
HGA OPS
S-BD ANT - HI GAIN
CREW MANAGES ANT
OPS

PTC
P 270, Y 0

CREW STATUS REPORT
CDR CMP LMP
SLEEP _____ _____
PRD _____ _____

CTM CONSUMABLES UPDATE
GET: _____ _____
RCS TOTAL ________ %
QUAD A ____ B ____ %
C ____ D ____ %
H2 TOTAL ________ %
O2 TOTAL ________ %

MISSION | EDITION | DATE | TIME | DAY/REV | PAGE
---------|---------|------|------|---------|------
APOLLO 12 | Final (Nov 14) | October 15, 1969 | 208:00 - 210:00 | 9/TEC | 3-180

MSC Form 29 (May 69)
FLIGHT PLAN

0422 CST
210:00
P52-IMU REALIGN
OPTION 3 REFSMMAT
(OPTIONAL)
REPORT GYRO TORQUING ANGLES

MCC-H

211:00
MSFN

212:00

NOTES

P52 (PTC ORIENT)
N71:
N05:
N93:
X
Y
Z
GET

PTC
P 270, Y 0

<table>
<thead>
<tr>
<th>MISSION</th>
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<th>DAY/REV</th>
<th>PAGE</th>
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<td>APOLLO 12</td>
<td>FINAL (NOV 14)</td>
<td>OCTOBER 15, 1969</td>
<td>210:00 - 212:00</td>
<td>9/TEC</td>
<td>3-181</td>
</tr>
</tbody>
</table>
FLIGHT PLAN

FOV 3°
GET 213:00

STOP PTC AT ROLL 235°

MISSION | EDITION | DATE | TIME | DAY/REV | PAGE
--------|---------|------|------|---------|------
APOLLO 12 | FINAL (NOV 14) | OCTOBER 15, 1969 | 212:00 - 213:00 | 9/TEC | 3-182

MCC Form 29 (May 69)

FLIGHT PLANNING BRANCH

NASA — MSC
# FLIGHT PLAN

<table>
<thead>
<tr>
<th>MNVR TO OPTICS CALIBRATION ATT</th>
<th>R 235</th>
</tr>
</thead>
<tbody>
<tr>
<td>P23 - CISLUNAR NAVIGATION</td>
<td>P 272</td>
</tr>
<tr>
<td>OPTICS CALIBRATION</td>
<td>Y 0</td>
</tr>
<tr>
<td>STAR 12</td>
<td></td>
</tr>
<tr>
<td>P00</td>
<td></td>
</tr>
<tr>
<td>V49 - MNVR TO SIGHTING ATT</td>
<td>R 90</td>
</tr>
<tr>
<td>STAR/EARTH HORIZON</td>
<td>P 159</td>
</tr>
<tr>
<td>P23 - CISLUNAR NAVIGATION</td>
<td>Y 328</td>
</tr>
<tr>
<td>LOAD W MATRIX (R1 +4 5 0 0 0)(R2 +0 0 0 0 6)</td>
<td></td>
</tr>
<tr>
<td>1. VENUS ENH (R3 = 0 0 1 1 0)</td>
<td></td>
</tr>
<tr>
<td>N88: (R1 = 6 9 2 0 2)(R2 = -6 7 0 1 8)(R3 = -2 6 8 3 2)</td>
<td></td>
</tr>
<tr>
<td>2. STAR 204 ENH (R3 = 0 0 1 1 0)</td>
<td></td>
</tr>
<tr>
<td>N88: (R1 = -2 1 3 8 9)(R2 = -9 3 8 6 8)(R3 = -2 7 0 4 2)</td>
<td></td>
</tr>
<tr>
<td>3. STAR 26 EFH (R3 = 0 0 1 2 0)</td>
<td></td>
</tr>
<tr>
<td>4. STAR 160 EFH (R3 = 0 0 1 2 0)</td>
<td></td>
</tr>
<tr>
<td>N88: (R1 = 9 4 7 0 3)(R2 = -2 5 6 7 8)(R3 = 1 9 2 8 6)</td>
<td></td>
</tr>
<tr>
<td>5. STAR 165 ENH (R3 = 0 0 1 1 0)</td>
<td></td>
</tr>
<tr>
<td>N88: (R1 = -5 8 2 1 6)(R2 = -4 6 1 3 9)(R3 = -6 6 9 4 8)</td>
<td></td>
</tr>
<tr>
<td>6. STAR 31 EFH (R3 = 0 0 1 2 0)</td>
<td></td>
</tr>
</tbody>
</table>

**NOTES**
- 3 MARKS ON EACH STAR
- INCORPORATE P23
- MARK DATA AND UPDATE ONBOARD STATE VECTOR

---

**MISSION** | **EDITION** | **DATE** | **TIME** | **DAY/REV** | **PAGE**
---|---|---|---|---|---
APOLLO 12 | FINAL (NOV 14) | OCTOBER 15, 1969 | 213:00 - 214:00 | 8/TEC | 3-183

**FLIGHT PLANNING BRANCH**

**MSC Form 29 (May 69)**

**NASA — MSC**
FLIGHT PLAN

0822 CST

214:00
START PTC

215:00
M SF N

216:00
EAT PERIOD

PTC
P 270, Y 0

MISSION | EDITION | DATE         | TIME        | DAY/REV | PAGE
--------|---------|--------------|-------------|---------|------
APOLLO 12 | FINAL (NOV. 14) | OCTOBER 15, 1969 | 214:00 - 216:00 | 9/TEC   | 3-184
FLIGHT PLAN

FOV 4°
GET 217:00

STOP PTC AT ROLL 235°

MISSION | EDITION | DATE | TIME | DAY/REV | PAGE
------- | ------- | ---- | ---- | ------- | ----
APOLLO 12 | FINAL (NOV 14) | OCTOBER 15, 1969 | 216:00 - 217:00 | 9/TEC | 3-185
FLIGHT PLAN

1122 CST

217:00

MNVR TO OPTICS CALIBRATION ATT R 235
P23 - CISLUNAR NAVIGATION P 272
OPTICS CALIBRATION Y 0

STAR 1 2

P00
V49 - MNVR TO SIGHTING ATT R 90
STAR/EARTH HORIZON P 135
P23 - CISLUNAR NAVIGATION Y 329

1. STAR 1 7 2 ENH (R3 = 0 0 1 1 0)
   N88: (R1 = -6 4 9 4 7)(R2 = -7 4 3 1 2)(R3 = -1 6 1 1 4)

2. STAR 2 4 EFH (R3 = 0 0 1 2 0)

3. STAR 2 0 4 ENH (R3 = 0 0 1 1 0)
   N88: (R1 = -2 1 3 8 9)(R2 = -9 3 8 6 8)(R3 = -2 7 0 4 2)

4. JUPITER EFH (R3 = 0 0 1 2 0)
   N88: (R1 = -8 9 9 7 6)(R2 = -4 0 7 8 2)(R3 = -1 5 5 3 8)

5. STAR 3 1 EFH (R3 = 0 0 1 2 0)

6. STAR 1 6 6 ENH (R3 = 0 0 1 1 0)
   N88: (R1 = -5 2 0 0 3)(R2 = -4 3 6 0 7)(R3 = -7 3 4 4 5)

3 MARKS ON EACH STAR

INCORPORATE P23
MARK DATA AND
UPDATE ONBOARD
STATE VECTOR

MISSION | EDITION | DATE | TIME | DAY/REV | PAGE
--------|---------|------|------|---------|-------
APOLLO 12 | FINAL (NOV 14) | OCTOBER 15, 1969 | 217:00 - 218:00 | 9/TEC | 3-186

MSC Form 29 (May 69) FLIGHT PLANNING BRANCH

NASA — MSC
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<td>FINAL (NOV 14)</td>
<td>OCTOBER 15, 1969</td>
<td>218:00 - 219:00</td>
<td>9/TEC</td>
<td>3-186A</td>
</tr>
</tbody>
</table>
FLIGHT PLAN

MNVR TO OPTICS CALIBRATION ATT  R 235
P23 - CILSN LUNAR NAVIGATION  P 272
OPTICS CALIBRATION Y 0
START... 2

POO
V49 - MNVR TO SIGHTING ATT  R 90
STAR/Earth HORIZON  P 118
P23 - CILSN LUNAR NAVIGATION  Y 330

1. STAR 1 6 1 EFH (R3 = 0 0 1 2 0)
   N88: (R1 = -7 5 6 1 5) (R2 = -2 7 1 1 3) (R3 = -5 9 5 5 9)

2. STAR 1 7 4 ENH (R3 = 0 0 1 1 0)
   N88: (R1 = -5 5 9 9 2) (R2 = -8 2 0 7 3) (R3 = 1 1 3 5 3)

3. STAR 2 6 EFH (R3 = 0 0 1 2 0)

4. STAR 1 5 6 EFH (R3 = 0 0 1 2 0)
   N88: (R1 = -9 8 4 4 6) (R2 = -1 7 4 2 0) (R3 = -0 2 2 4 3)

5. JUPITER EFH (R3 = 0 0 1 2 0)
   N88: (R1 = -8 9 9 7 6) (R2 = -4 0 7 8 2) (R3 = -1 5 5 3 8)

6. STAR 1 2 5 ENH (R3 = 0 0 1 1 0)
   N88: (R1 = -2 5 4 7 2) (R2 = -7 8 6 4 7) (R3 = -5 6 2 6 6)

---

MISSION |
---
APOLLO 12 |
EDITION |
FINAL (NOV 14) |
DATE |
OCTOBER 15, 1969 |
TIME |
220:00 - 221:00 |
DAY/REV |
9/TEC |
PAGE |
3-188 |

---

FLIGHT PLANNING BRANCH

NASA — MSC
FLIGHT PLAN

LiOH CANISTER CHANGE NO. 17
(19 INTO A, STOW 17 IN A6)

WIPE EXCESSIVE MOISTURE FROM TUNNEL HATCH AREA
CONTAMINATION CONTROL

P52 - IMU REALIGN
OPTION 3 - REFSMUT

REPORT GYRO TORQUING ANGLES

P30 EXTERNAL ΔV
H₂ PURGE LINE HTRS - ON

NOTES

P52 (PTC ORIENT)
N71: __ __ __ __
N05: __ __ __ __
N93:
X __ __ __ __
Y __ __ __ __
Z __ __ __ __
GET __ __ __: __ __

MISSION | EDITION | DATE | TIME | DAY/REV | PAGE
---|---|---|---|---|---
APOLLO 12 | FINAL (NOV 14) | OCTOBER 15, 1969 | 221:00 - 222:00 | 9/TEC | 3-189

MSC Form 29 (May 69)

FLIGHT PLANNING BRANCH

NASA — MSC
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# FLIGHT PLAN

## MCC-6

**BURN TABLE**

<table>
<thead>
<tr>
<th>P or Y Rates</th>
<th>ATT Deviation</th>
<th>SHUTDOWN Time</th>
<th>RESIDUALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>10°/SEC Takeover</td>
<td>+10° Takeover</td>
<td>BT + 1 SEC</td>
<td>TRIM X AXIS ONLY TO 0.2</td>
</tr>
</tbody>
</table>

---

**TABLE 3-13**

3-190
FLIGHT PLAN

1622 CST
222:00

V49 - MNVR TO BURN ATT
SXT STAR CHECK
H2 & O2 FUEL CELL PURGE
WASTE WATER DUMP
P40/41 - SPS/RCS THRUST
GDC ALIGN TO IMU

MCC-6
V66 - TRANSFER CSM SV TO LM SLOT
MCC-6 BURN STATUS REPORT
MNVR TO TV ATTITUDE BY 223:15

R
HGA

P
P

Y
Y

223:00

MSFN

TV (GDS) 223:15-223:45
CM 4/TV-IN (f5.6/f22)

EAT PERIOD

MNVR TO PTC ATTITUDE
WIPE EXCESSIVE MOISTURE FROM TUNNEL HATCH AREA

224:00

NOTES

BURN STATUS REPORT

TIG: 222:21:47.5
ΔV: NOMINALLY ZERO

ΔTIG
BT
V gx

R
P

V gx
V gy
V gz
ΔV c

FUEL
OX
UNBAL

*ITEMS TO BE REPORTED TO MSFN

MISSION | EDITION | DATE | TIME | DAY/REV | PAGE
---|---|---|---|---|---
APOLLO 12 | FINAL (NOV 14) | OCTOBER 15, 1969 | 222:00 - 224:00 | 9/TEC | 3-191
**FLIGHT PLAN**

**UPDATE TO CSM**
QUADS TO DISABLE FOR PTC (LOWEST QUANTITY PRPLNT)

**NOTES**

<table>
<thead>
<tr>
<th>CM RCS INJECTOR TEMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>5C</td>
</tr>
<tr>
<td>6A</td>
</tr>
<tr>
<td>6C</td>
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</table>

**ONBOARD READOUT**

<table>
<thead>
<tr>
<th>BAT C</th>
</tr>
</thead>
<tbody>
<tr>
<td>PYRO BAT A</td>
</tr>
<tr>
<td>PYRO BAT B</td>
</tr>
<tr>
<td>RCS A</td>
</tr>
<tr>
<td>B</td>
</tr>
<tr>
<td>C</td>
</tr>
<tr>
<td>D</td>
</tr>
<tr>
<td>DC IND SEL - MNA OR B</td>
</tr>
</tbody>
</table>

**PRE-FLIGHT CHECKLIST:**
- CREW STATUS REPORT (MED)
- ONBOARD READOUTS
- CYCLE O2 & H2 FANS
- CHLORINATE POTABLE WATER
- VERIFY:
  - WASTE MGT OVB DRAIN - OFF
  - WASTE STOW VENT VLV - CLOSED
  - EMER CABIN PRESS VLV - BOTH
  - SURGE TK O2 VLV - ON
  - REPRESS O2 VLV - OFF
  - LM TUNNEL VENT - OFF
  - "E" MEMORY DUMP

**NORMAL LUNAR COMM EXCEPT:**
- S-BD NORMAL MODE VOICE - OFF
- S-BD SQUELCH - ENABLE
- S-BD AUX TAPE - OFF
- S-BD ANT - OMNI
- S-BD ANT OMNI - B
- TAPE RCDR FWD - OFF

---

**MISSION** | **EDITION** | **DATE** | **TIME** | **DAY/REV** | **PAGE**
---|---|---|---|---|---
APOLLO 12 | FINAL (NOV 14) | OCTOBER 15, 1969 | 224:00 - 226:00 | 9/TEC | 3-192

**FLIGHT PLANNING BRANCH**
FLIGHT PLAN

MCC-H

2222 CST

228:00

:30

229:00

M S F N

REST PERIOD
(10 HOURS)

230:00

:30

PTC P 270 Y O

<table>
<thead>
<tr>
<th>MISSION</th>
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<th>DATE</th>
<th>TIME</th>
<th>DAY/REV</th>
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<td>228:00 - 230:00</td>
<td>9/TEC</td>
<td>3-194</td>
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MSC Form 29 (May 69)

FLIGHT PLANNING BRANCH
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<th>DAY/REV</th>
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<td>APOLLO 12</td>
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<td>230:00 - 232:00</td>
<td>9/TEC</td>
<td>3-195</td>
</tr>
</tbody>
</table>

MCC-H 0022 CST

FLIGHT PLAN

230:00

231:00 M S F N

REST PERIOD (10 HOURS)

232:00

NOTES

PTC P 270 Y 0