FLIGHT PLAN

INITIATE BATT A CHARGE
EXT DOCKING PROBE
SIVB MNVR TO T&D ATT

THRUSTR MONITOR - P47
CSM/SIVB SEP - .5 FPS
TERM, P47
HI GAIN ANTENNA ACTIVATION
(HGA PWR SW-ON HGA TRACK SW-MAN)
DOCKING PHOTOGRAPHY

DOCKING
V66 - TRANS CSM STATE VECTOR TO LM SLOT
CMP-INITIATE CM/LM-PRESS EQUALIZATION

CONFIGURE FOR EXTRACTION
TUNNEL PRESS INTEGRITY CK
REMOVE & TEMP STOW FWD HATCH
CHECK DOCKING LATCHES
VENT DOCKING PROBE
CONNECT UMBILICALS
VERIFY PWR TO LM
REINSTALL HATCH
LM/CM ΔP VALVE - LM PRESS
LEAVE TUNNEL EQUALIZATION VALVE - CLOSED

MCC-H
12:30 PM EDT

03:00

03:30

04:00

P27 UPDATE:
TGT LOAD

NOTES

T&D MNVR
+X 0.8 FPS
COAST 15 SEC
+X 0.3 FPS
V49 MAN @ 2°/SEC
PITCH UP 180° & ROLL
LEFT 60°
DAP AUTO MNVR
TO DOCKING ATT
+X NULL RELATIVE VELOCITY

MISSION | EDITION | DATE | TIME | DAY/REV | PAGE
------- | -------- | ---- | ----- | ------- | ----
APOLLO 11 | PRELIMINARY | APRIL 15, 1969 | 03:00-04:00 | 1/TLC | 3-4

MSC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH
## Evasive Maneuver Burn Chart

<table>
<thead>
<tr>
<th></th>
<th>P or Y Rates</th>
<th>Att Deviation</th>
<th>Shutdown Time</th>
<th>Residuals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evasive MNVR</td>
<td>10°/sec Takeover</td>
<td>+10° Takeover</td>
<td>B/T + 1 sec</td>
<td>No Trim</td>
</tr>
</tbody>
</table>
FLIGHT PLAN

04:00
 RECORD EVAStIVE MNVR PAD
 LOGIC BUS ARM
 THRUST MONITOR - P47
 LM EJECrION
 EXT AV - P30
 SPS THRUST - P40
 PITCH DOWN 75° WRT LOCAL HORIZ
 ROLL TO VISUALLY ACQ S-IVB
 SM RCS CK
 GDC ALIGN TO IMU

EVASIVE MNVR
 SM RCS CK
 SPS MONITOR CK
 BURN STATUS REPORT
 V66 - TRANS CSM STATE VECTOR TO LM SLOT
 WASTE VENT VALVE - OPEN

DOFF PGA'S (ALL)

04:30

05:00

NOTES

FOR LM EJECTION
RELATIVE AV FROM
SPRINGS 51 FP5

BURN STATUS REPORT

∆Tig
BT
Vgxm
TRIM
R
P
Vgx
Vgy
Vgz
ΔVc
FUEl
OX
UNBAL

REPORTS

MISSION | EDITION | DATE | TIME | DAY/REV | PAGE
--------|---------|------|------|---------|-----
APOLLO 11 | PRELIMINARY | APRIL 15, 1969 | 04:00-05:00 | 1/TLC | 3-5

MSC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH
FLIGHT PLAN

S-BAND HI-GAIN ANTENNA CK

STOW HELMET, GLOVES, & PGA's

IMU REALIGN - PS2
OPTION 3 - REFSMMAT

GDC ALIGN TO IMU

MNVR TO SIGHTING ATT
RECORD BLOCK DATA
(P37 - TLI + 11 HRS ABORT)

<table>
<thead>
<tr>
<th>MISSION</th>
<th>EDITION</th>
<th>DATE</th>
<th>TIME</th>
<th>DAY/REV</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>APOLLO 11</td>
<td>PRELIMINARY</td>
<td>APRIL 15, 1969</td>
<td>05:00-06:00</td>
<td>1/TLC</td>
<td>3-6</td>
</tr>
</tbody>
</table>

MSC Form 29 OT (Mar. 69)
FLIGHT PLAN

CISLUNAR NAVIGATION - P23
OPTICS CALIBRATION

1. STAR ___ E ___ H (R3 = 001 0)

2. STAR ___ E ___ H (R3 = 001 0)

3. STAR ___ E ___ H (R3 = 001 0)

4. STAR ___ E ___ H (R3 = 001 0)

5. STAR ___ E ___ H (R3 = 001 0)

NOTES

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

TRN BIAS CALIBRATION
REPEATED UNTIL 2 CKS AGREE TO WITHIN 0.003°.
REPEAT CKS EVERY 30 MIN DURING P23.

MISSION       EDITION       DATE          TIME        DAY/REV  PAGE
APOLLO 11      PRELIMINARY  APRIL 15, 1969  05:00-06:00  1/TLC    3-7

MSC Form 29 CT (Mar. 69)

FLIGHT PLANNING BRANCH
FLIGHT PLAN

DEACTIVATE PRIMARY & SECONDARY EVAPORATORS

RECORD PTC GIMBAL ANGLES
R __
P __
Y __

PTC ESTABLISHED IN G&N
P, Y +20° DB,
R RATE OF 0.1°/sec

EAT PERIOD

MISSION | EDITION | DATE       | TIME      | DAY/REV | PAGE
---------|---------|------------|-----------|---------|-----
APOLLO 11 | PRELIMINARY | APRIL 15, 1969 | 07:00-08:00 | 1/TLC | 3-8

MSC Form 20 OT (Mar. 69)

FLIGHT PLANNING BRANCH
FLIGHT PLAN

OPEN COOLANT CONTROL ATTENT PANEL
EVAP WATER CONTR SEC VLV - OFF
CLOSE PANEL
VENT BATTs UNTIL SYSTEMS TEST METER (4A) = 0
FLIGHT PLAN

MCC-H
6:30 PM EDT

09:00

09:30

10:00

MSFN

PTC

P27 UPDATE:
EARTH HORIZON BIAS (ΔH)
(IF REQUIRED)

THE EARTH HORIZON BIAS (ΔH) WILL BE UPDATED TO THE CMC IF THE DIFFERENCE BETWEEN THE SIGHTING ΔH & THE E-MEMORY ΔH IS ≥ 4.5 NM

<table>
<thead>
<tr>
<th>MISSION</th>
<th>EDITION</th>
<th>DATE</th>
<th>TIME</th>
<th>DAY/REV</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>APOLLO 11</td>
<td>PRELIMINARY</td>
<td>APRIL 15, 1969</td>
<td>09:00 - 10:00</td>
<td>1/TLC</td>
<td>3-10</td>
</tr>
</tbody>
</table>

MCC FORM 706 (Mar. 69)

FLIGHT PLANNING BRANCH
FLIGHT PLAN

P27 UPDATE:
STATE VECTOR (CSM & LM)
TGT LOAD

VOICE UPDATE:
MNVR PAD

10:00

10:30

MiS

LiOH CANISTER CHANGE NO. 1
(3 INTO A, STORE 1 IN B5)
RECORD MCC1, MNVR PAD

11:00

IMU REALIGN - P52
OPTION 3 - REFSMMAT
(OPTIONAL)

<table>
<thead>
<tr>
<th>MISSION</th>
<th>EDITION</th>
<th>DATE</th>
<th>TIME</th>
<th>DAY/REV</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>APOLLO 11</td>
<td>PRELIMINARY</td>
<td>APRIL 15, 1969</td>
<td>10:00 - 11:00</td>
<td>1/TLC</td>
<td>3-11</td>
</tr>
</tbody>
</table>

PTC

P52 (PAD REFSMMAT)
N71: _______________________
N05: _______________________
N93: _______________________
X: _______________________
Y: _______________________
Z: _______________________
<table>
<thead>
<tr>
<th>MCC</th>
<th>P OR Y RATES</th>
<th>ATT DEVIATION</th>
<th>SHUTDOWN TIME</th>
<th>RESIDUALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCC</td>
<td>$10^\circ$/SEC TAKEOVER</td>
<td>$+10^\circ$ TAKEOVER</td>
<td>BT + 1 SEC</td>
<td>NO TRIM</td>
</tr>
</tbody>
</table>
FLIGHT PLAN

EXT ΔV - P30
SPS/RCS THRUST - P40/41
MNVR TO BURN ATT
SXT STAR CK
EMS ΔV TEST
SM RCS CK

GDC ALIGN TO IMU

MCC1 ΔV = NOMINALLY ZERO DO NOT TRIM
SM RCS CK
SPS MONITOR CK
MCC1 BURN STATUS REPORT
V66 - TRANS CSM STATE VECTOR TO LM SLOT
INITIATE BATT B CHARGE

RECORD BLOCK DATA
(P37 - TLI +25, 35, 44, AND 53 HR ABORTS)

MISSION EDITION DATE TIME DAY/REV PAGE
APOLLO 11 PRELIMINARY APRIL 15, 1969 11:00 - 12:00 1/TLC 3-12

MCC WILL BE PERFORMED IF THE ΔV > 3 FPS OR ΔV WOULD EXCEED 25 FPS IF DELAYED
TO MCC3 (LOI - 22 HRS)

MSC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH
FLIGHT PLAN

IMU REALIGN - P52
(OPTION 1 - PREFERRED)
& STAR CHECK

CREW STATUS REPORT
CYCLE H₂ & O₂ FANS

ESTABLISH PTC

PTC

CHLORINATE POTABLE WATER

REST PERIOD
(9 HOURS)

NOTES

P52 - PULSE TORQUE TO PTC REFSMMAT
PLATFORM ALIGN CHECKED WITH OPTICS
PTC ESTABLISHED IN G&N P,Y + 20° DB,
R RATE OF 0.1°/SEC

DURING REST PERIOD
2 CREWMEN IN REST STATION, 1 IN LEFT COUCH

<table>
<thead>
<tr>
<th>MISSION</th>
<th>EDITION</th>
<th>DATE</th>
<th>TIME</th>
<th>DAY/REV</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>APOLLO 11</td>
<td>PRELIMINARY</td>
<td>APRIL 15, 1969</td>
<td>12:00 - 14:00</td>
<td>1/TLC</td>
<td>3-13</td>
</tr>
</tbody>
</table>

MSC Form 29 OT (Mar. 69)
## FLIGHT PLAN

### MISSION
APOLLO 11

### EDITION
PRELIMINARY

### DATE
APRIL 15, 1969

### TIME
14:00 - 16:00

### DAY/REV
1/TLC

### PAGE
3-14

MCC Form 20-CF (Mar. 69)

FLIGHT PLANNING BRANCH

---

<table>
<thead>
<tr>
<th>MISSION</th>
<th>EDITION</th>
<th>DATE</th>
<th>TIME</th>
<th>DAY/REV</th>
<th>PAGE</th>
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</thead>
<tbody>
<tr>
<td>APOLLO 11</td>
<td>PRELIMINARY</td>
<td>APRIL 15, 1969</td>
<td>14:00 - 16:00</td>
<td>1/TLC</td>
<td>3-14</td>
</tr>
</tbody>
</table>

MCC-H
11:30 PM EDT

14:00

15:00 REST PERIOD (9 HOURS)

(TLI+11 HRS)

16:00
<table>
<thead>
<tr>
<th>MISSION</th>
<th>EDITION</th>
<th>DATE</th>
<th>TIME</th>
<th>DAY/REV</th>
<th>PAGE</th>
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</thead>
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<tr>
<td>APOLLO 11</td>
<td>PRELIMINARY</td>
<td>APRIL 15, 1969</td>
<td>16:00 - 18:00</td>
<td>1/TLC</td>
<td>3-15</td>
</tr>
</tbody>
</table>

MSC Form 20 OT (Mar. 69)

FLIGHT PLANNING BRANCH
## FLIGHT PLAN

### MISSION | EDITION | DATE        | TIME       | DAY/REV | PAGE
---|---|---|---|---|---
APOLLO 11 | PRELIMINARY | APRIL 15, 1969 | 18:00 - 20:00 | 1/TLC | 3-16

MCC Form 20 OT (Mar. 69)
FLIGHT PLAN

CISLUNAR NAVIGATION - P23
OPTICS CALIBRATION

1. STAR ___ E ___ H (R3 = 001 0)

2. STAR ___ E ___ H (R3 = 001 0)

3. STAR ___ E ___ H (R3 = 001 0)

4. STAR ___ E ___ H (R3 = 001 0)

5. STAR ___ E ___ H (R3 = 001 0)

NOTES

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

TRN BIAS CALIBRATION
REPEATED UNTIL 2
CKS. AGREE TO WITHIN
0.003°. REPEAT CKS
EVERY 30 MIN. DURING
P23.
FLIGHT PLAN

ECS REDUNDANT COMPONENT CK

P27 UPDATE
STATE VECTOR
(CSM & LM)
TGT LOAD

VOICE UPDATE
PAD DATA

25:30
REC
ORD MCC2 PAD DATA

IMU REALIGN - P52
(OPTION - 3 REFSSMAT)

26:00

MISSION | EDITION | DATE | TIME | DAY/REV | PAGE
---------|---------|------|------|---------|------
APOLLO 11 | PRELIMINARY | APRIL 15, 1969 | 25:00-26:00 | 2/TLC | 3-20

MSC Form 20 OT (Mar. 69)

FLIGHT PLANNING BRANCH
## MCC Burn Chart

<table>
<thead>
<tr>
<th></th>
<th>P or Y Rates</th>
<th>Att Deviation</th>
<th>Shutdown Time</th>
<th>Residuals</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCC₂</td>
<td>10°/sec Takeover</td>
<td>+10° Takeover</td>
<td>BT + 1 sec</td>
<td>NO TRIM</td>
</tr>
</tbody>
</table>
FLIGHT PLAN

EXT ΔV - P30
SPS/RCS THRUST - P40/41
MINVR TO BURN ATT
SXT STAR CK.
EMS ΔV TEST
SM RCS CK
GDC ALIGN TO IMU

MCC2 ΔV NOMINALLY ZERO DO NOT TRIM
SM RCS CK
SPS MONITOR CK
MCC2 BURN STATUS REPORT
V66 - TRANS CSM STATE VECTOR TO LM SLOT

NOTES

BURN STATUS REPORT

ΔTIG
BT

Vgx

TRIM

R
P

Vgx

Vgy

Vgz

ΔVc

FUEL
OX

UNBAL

REMARKS:

MCC2 WILL BE PERFORMED IF ΔV > 3FPS OR ΔV WOULD EXCEED 25FPS IF DELAYED TO MCC3 (LOI - 22 HRS)

<table>
<thead>
<tr>
<th>MISSION</th>
<th>EDITION</th>
<th>DATE</th>
<th>TIME</th>
<th>DAY/REV</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>APOLLO 11</td>
<td>PRELIMINARY</td>
<td>APRIL 15, 1969</td>
<td>26:00 - 27:00</td>
<td>2/TLC</td>
<td>3-21</td>
</tr>
</tbody>
</table>

MSC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH
FLIGHT PLAN

P27 UPDATE
EARTH HORIZON BIAS (ΔH)
(IF REQUIRED)

27:00

28:00
MSFN

29:00

EAT PERIOD

REINITIALIZE PTC

PTC

NOTES

THE EARTH HORIZON BIAS WILL BE UPDATED TO THE CMC IF THE DIFFERENCE BETWEEN THE SIGHTING ΔH & THE E-MEMORY ΔH IS ≥ 4.5 NM

<table>
<thead>
<tr>
<th>MISSION</th>
<th>EDITION</th>
<th>DATE</th>
<th>TIME</th>
<th>DAY/REV</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>APOLLO 11</td>
<td>PRELIMINARY</td>
<td>APRIL 15, 1969</td>
<td>27:00 - 29:00</td>
<td>2/TLC</td>
<td>3-22</td>
</tr>
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</table>

MCC Form 25-0T (Rev. 01)

FLIGHT PLANNING BRANCH
## FLIGHT PLAN

<table>
<thead>
<tr>
<th>MISSION</th>
<th>EDITION</th>
<th>DATE</th>
<th>TIME</th>
<th>DAY/REV</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>APOLLO 11</td>
<td>PRELIMINARY</td>
<td>APRIL 15, 1969</td>
<td>29:00 - 31:00</td>
<td>2/TLC</td>
<td>3-23</td>
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</table>

MCC Form 20 OT (Mar. 69)  

FLIGHT PLANNING BRANCH
### FLIGHT PLAN

<table>
<thead>
<tr>
<th>MISSION</th>
<th>EDITION</th>
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<th>TIME</th>
<th>DAY/REV</th>
<th>PAGE</th>
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<tr>
<td>APOLLO 11</td>
<td>PRELIMINARY</td>
<td>APRIL 15, 1969</td>
<td>33:00 - 35:00</td>
<td>2/TLC</td>
<td>3-25</td>
</tr>
</tbody>
</table>

MCC Form 29 OT (Mar. 69)

**FLIGHT PLANNING BRANCH**
FLIGHT PLAN

LiOH CANISTER CHANGE NO. 3)  (5 INTO A, STORE 3 INTO B5)

35:00

EAT PERIOD

36:00

CYCLE O₂ & H₂ FANS
CREW STATUS REPORT
CHLORINATE POTABLE WATER

37:00
<table>
<thead>
<tr>
<th>MISSION</th>
<th>EDITION</th>
<th>DATE</th>
<th>TIME</th>
<th>DAY/REV</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>APOLLO 11</td>
<td>PRELIMINARY</td>
<td>APRIL 15, 1969</td>
<td>41:00 - 43:00</td>
<td>2/TLC</td>
<td>3-29</td>
</tr>
</tbody>
</table>

MCC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH

FLIGHT PLAN

REST PERIOD (10 HOURS)
<table>
<thead>
<tr>
<th>MISSION</th>
<th>EDITION</th>
<th>DATE</th>
<th>TIME</th>
<th>DAY/REV</th>
<th>PAGE</th>
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</thead>
<tbody>
<tr>
<td>APOLLO 11</td>
<td>RELIMINARY</td>
<td>APRIL 15, 1969</td>
<td>45:00-47:00</td>
<td>2/TLC</td>
<td>3-31</td>
</tr>
</tbody>
</table>

MCC-H
6:30 AM EDT

FLIGHT PLAN

MCC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH

NOTES
FLIGHT PLAN

GDC ALIGN TO IMU
CREW STATUS REPORT
CYCLE O₂ & H₂ FANS
H₂ PURGE LINE HTR - ON

EAT PERIOD

LiOH CANISTER CHANGE NO. 4
(6 INTO B, STORE 4 IN 35)

ECS REDUNDANT COMPONENT CK

O₂ FUEL CELL PURGE
H₂ FUEL CELL PURGE

MCC-H
8:30 AM EDT

47:00

48:00

49:00

NOTES

CONSUMABLES UPDATE
(Δ FROM NOMINAL)

GET: _______________

RCS TOT ___________
   A ___________
   B ___________
   C ___________
   D ___________

H₂ TOT ___________
O₂ TOT ___________

MISSION   EDITION   DATE       TIME       DAY/REV   PAGE
----------   --------   ---------   --------   --------   -----
APOLLO 11   PRELIMINARY APRIL 15, 1969  47:00-49:00  3/TLC     3-32

MSC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH
### MCC BURN CHART

<table>
<thead>
<tr>
<th></th>
<th>P OR Y RATES</th>
<th>ATT DEVIATION</th>
<th>SHUTDOWN TIME</th>
<th>RESIDUALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCC3</td>
<td>10°/SEC TAKEOVER</td>
<td>+10° TAKEOVER</td>
<td>BT + 1 SEC</td>
<td>TRIM TO 0.5 FPS</td>
</tr>
</tbody>
</table>
**FLIGHT PLAN**

**IMU REALIGN - P52**
**OPTION 3 - REFSSMAT**

**EXT ΔV - P30**

**SPS/RCS THRUST - P40/41**

**MNVR TO BURN ATT**

**SXT STAR CK**

**EMS ΔV TEST**

**SM RCS CK**

**GDC ALIGN TO IMU**

|MCC 3 ΔV NOMINALLY ZERO| TRIM TO 0.5 FPS|

**REMARKS:**

**MCC 3 WILL BE PERFORMED WITH THE SPS IF ΔV > 3 FPS, OR WITH THE RCS IF ΔV < 3 FPS. MCC 3 WILL NOT BE PERFORMED IF THE ΔV < 3 FPS AND CAN BE CORRECTED DURING LOI, WITHOUT EXCEEDING 45° IN APSIDAL ROTATION***

<table>
<thead>
<tr>
<th>MISSION</th>
<th>EDITION</th>
<th>DATE</th>
<th>TIME</th>
<th>DAY/REV</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>APOLLO 11</td>
<td>PRELIMINARY</td>
<td>APRIL 15, 1969</td>
<td>53:00 - 54:00</td>
<td>3/TLC</td>
<td>3-35</td>
</tr>
</tbody>
</table>

*MSC Form 29 GT (Mar. 69)*

**NOTES**

P52 (PTC REFSSMAT)
N71: 
N05: 
N93: 

X 
Y 
Z
FLIGHT PLAN

SM RCS CK
SPS MONITOR CK
MCC₃ BURN STATUS REPORT
V66-TRANS CSM STATE VECTOR
TO LM SLOT

LMP - PREPARE FOR LM INGRESS

<table>
<thead>
<tr>
<th>MISSION</th>
<th>EDITION</th>
<th>DATE</th>
<th>TIME</th>
<th>DAY/REV</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>APOLLO 11</td>
<td>PRELIMINARY</td>
<td>APRIL 15, 1969</td>
<td>54:00 - 56:00</td>
<td>3/TLC</td>
<td>3-36</td>
</tr>
</tbody>
</table>

MCC-H

3:30 PM EDT

MSC Form 29 OT (Mar. 69)
FLIGHT PLAN

CSM

5:30 PM EDT

STOW CM HATCH, PROBE,
DRAGUE

RECORD ROLL CAL ANGLE

LM

56:00

CDR

LMP

CLEAR TUNNEL OF CM HATCH
INSPECT TUNNEL & DOCKING
LATCHES
REMOVE PROBE & DRAGUE

OPEN LM HATCH
RELAY ROLL CAL ANGLE
INT TO LM

TRANSFER THE FOLLOWING
EQUIPMENT TO THE LM:

RECEIVE & STOW EQUIPMENT
FROM CSM

TBD

MCC-H

PTC

56:30

M S F N

57:00

MISSION

APOLLO 11

EDITION

PRELIMINARY

DATE

APRIL 15, 1969

TIME

56:00 - 57:00

DAY/REV

3/TLC

PAGE

3-37

FLIGHT PLANNING BRANCH
FLIGHT PLAN

CSM

LMP

MCC-H

CMP

PTC

CDR

LMP

IVT TO LM

ASSIST CDR

IVT TO CSM

CLOSE LM HATCH

LM FAMILIARIZATION

LM FAMILIARIZATION

MISSION | EDITION | DATE       | TIME       | DAY/REV | PAGE
--------|---------|------------|------------|---------|-----
APOLLO 11 | PRELIMINARY | APRIL 15, 1969 | 57:00-58:00 | 3/TLC   | 3-38

FLIGHT PLANNING BRANCH
FLIGHT PLAN

MCC-H
7:30 PM EDT

58:00
INSTALL PROBE & DROGUE
INSTALL CM HATCH

59:00
RECORD BLOCK DATA
(LOI-5:00 HRS FLY BY
TO PRIME CLA)
LOIH CANISTER CHANGE NO. 5
(7 INTO A, STORE 5 IN B6)

60:00
EAT PERIOD
CYCLE O₂ & H₂ FANS
CREW STATUS REPORT
CHLORINATE POTABLE WATER

NOTES
180,000 NM FROM EARTH

VOICE UPDATE:
BLOCK DATA

MISSION | EDITION  | DATE          | TIME     | DAY/REV | PAGE
---------|----------|---------------|----------|---------|------
APOLLO 11| PRELIMINARY | APRIL 15, 1969 | 58:00 - 60:00 | 3/TLC   | 3-39

MSC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH
FLIGHT PLAN

MISSION | EDITION | DATE       | TIME       | DAY/REV | PAGE
--------|---------|------------|------------|--------|------
APOLLO 11 | PRELIMINARY | APRIL 15, 1969 | 60:00 - 62:00 | 3/TLC  | 3-40

MCC-H
9:30 PM EDT

FLIGHT PLANNING BRANCH
### FLIGHT PLAN

<table>
<thead>
<tr>
<th>MISSION</th>
<th>EDITION</th>
<th>DATE</th>
<th>TIME</th>
<th>DAY/REV</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>APOLLO 11</td>
<td>PRELIMINARY</td>
<td>APRIL 15, 1969</td>
<td>64:00 - 66:00</td>
<td>3/TLC</td>
<td>3-42</td>
</tr>
</tbody>
</table>

MCC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH
### MCC
#### BURN CHART

<table>
<thead>
<tr>
<th></th>
<th>P OR Y RATES</th>
<th>ATT DEVIATION</th>
<th>SHUTDOWN TIME</th>
<th>RESIDUALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCC4</td>
<td>10°/SEC TAKEOVER</td>
<td>+10° TAKEOVER</td>
<td>BT + 1 SEC</td>
<td>TRIM TO 1 FPS</td>
</tr>
</tbody>
</table>
### FLIGHT PLAN

**DATE:** APRIL 15, 1969  
**TIME:** 70:00 - 71:00  
**DAY/REV:** 4/TLC  
**PAGE:** 3-45

#### MISSION
APOLLO 11

---

**FLIGHT PLANNING BRANCH**

---

**NOTES**

P52 LG SITE REFRESH  
N71:    
N05:    
N93:    

---

**IMU REALIGN - P52**  
**(OPTION - 1 PREFERRED)**

---

**EXT ΔV - P30**

---

**SPS/RCS THRUST - P40/41**

---

**MNVR TO BURN ATT**

---

**SXT STAR CK**

---

**EMS ΔV TEST**

---

**SM RCS CK**

---

**GDC ALIGN TO IMU**

---

**MCC₄ ΔV NOMINALLY ZERO**  
**TRIM TO 1 FPS**

---

**REMARKS:**

---

**BURN STATUS REPORT**

- ΔTIG
- BT
- Vₓ
- Vᵧ
- Vᵣ
- Vᵧ
- Vᵧ
- ΔVᵧ
- FUEL
- OX
- UNBAL

---

**MCC₄ WILL BE PERFORMED WITH THE SPS IF ΔV > 3 FPS, OR WITH THE RCS IF ΔV < 3 FPS. MCC₄ WILL NOT BE PERFORMED IF THE ΔV < 3 FPS AND CAN BE CORRECTED DURING THE LOI₁ BURN.**
FLIGHT PLAN

SM RCS CK.
SPS MONITOR CK.
MCC₄ BURN STATUS REPORT
V66 - TRANS CSM STATE VECTOR
TO LM SLOT
LI0H CANISTER CHANGE NO. 6
(8 INTO B, STORE 6 INTO B6)
PRE LOI ECS REDUNDANT COMPONENT CK.
ACTIVATE PRIMARY EVAPORATOR
EVAPORATOR WATER CONTROL SEC VLV - OPEN

O₂ FUEL CELL PURGE

IMU REALIGN - P52
OPTION 3 - REFSMMAT

MISSION  EDITION  DATE  TIME  DAY/REV  PAGE
APOLLO 11  PRELIMINARY  APRIL 15, 1969  71:00 - 73:00  4/TLC  3-46

MCC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH
FLIGHT PLAN

GO/NO-GO FOR LOI₁

RECORD LOI₁ MNVR PAD

EXT ΔV - P30
SPS THRUST - P40
MNVR TO BURN ATT.

SXT STAR CK

RECORD BLOCK DATA
(TEI₁ & TEI₄)

EMS ΔV TEST

IMU REALIGN - P52
AND DRIFT CK
OPTION 3 - REFSEMAT

S-BAND SQUELCH - OFF

TEI₁ BLOCK DATA ASSUMES
LOI₁ ACCOMPLISHED,
TEI₄ ASSUMES LOI₁
ACCOMPLISHED BUT NO
LOI₂

P52 (LDG SITE REFSEMAT)

W71: __ __ __

W5: __ __ __ __

W9: __ __ __ __

X __ __ __ __

Y __ __ __ __

Z __ __ __ __

MISSION | EDITION | DATE | TIME | DAY/REV | PAGE
-------- | -------- |------ |------ |--------- |------
APOLLO 11 | PRELIMINARY | APRIL 15, 1969 | 73:00 - 75:00 | 4/TLC | 3-47

MSC Form 200-07 (Mar. 71)
## LOI_1
### BURN CHART

<table>
<thead>
<tr>
<th>LOI_1</th>
<th>P OR Y RATES</th>
<th>ATT DEVIATION</th>
<th>SHUTDOWN TIME</th>
<th>RESIDUALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOI_1</td>
<td>10°/SEC TAKEOVER</td>
<td>+10° TAKEOVER</td>
<td>B/T + 10 SEC</td>
<td>NO TRIM</td>
</tr>
</tbody>
</table>

### LOI_1 ABORT MODES

<table>
<thead>
<tr>
<th>LOI_1 V_{GO}</th>
<th>B/T</th>
<th>TRAJECTORY</th>
<th>ABORT MODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2924.0 - 2204.0</td>
<td>0 - 104</td>
<td>HYPERBOLIC</td>
<td>MODE I - COAST 2 HR - DPS - P37</td>
</tr>
<tr>
<td>2204.0 - 1668.0</td>
<td>104 - 170</td>
<td>UNSTABLE</td>
<td>MODE II - COAST 2 HR - 2 DPS BURNS FOR STABILIZATION AND WATER or CLA LANDING</td>
</tr>
<tr>
<td>1668.0 - 0</td>
<td>170 - 365</td>
<td>LUNAR ORBIT</td>
<td>MODE III - DPS BURN AFTER ONE REV</td>
</tr>
</tbody>
</table>
FLIGHT PLAN

CMP - PRE LOI SYSTEMS CKS
C&W CK
CM RCS CK
SM RCS CK
SPS PERIODIC MON
EPS PERIODIC MON
ECS PERIODIC MON

EXT ΔV - PJ30 (RELOAD N81 WITH PAD VALUES)
SPS THRUST - P-40
MNVR TO BURN ATT

SXT STAR CK

GDC ALIGN TO IMU

GETI: 75:55:03
NO ULLAGE
BT: 6:05
ΔV: 2924.4 FPS
60 X 170

<table>
<thead>
<tr>
<th>MISSION</th>
<th>EDITION</th>
<th>DATE</th>
<th>TIME</th>
<th>DAY/REV</th>
<th>PAGE</th>
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</thead>
<tbody>
<tr>
<td>APOLLO 11</td>
<td>PRELIMINARY</td>
<td>APRIL 15, 1969</td>
<td>75:00 - 76:00</td>
<td>4/1</td>
<td>3-48</td>
</tr>
</tbody>
</table>

MSC Form 79 OT (Mar. 66)
FLIGHT PLAN

78:28
78:30
V64 REACQUIRE MSFN

79:00

P27 UPDATE:
STATE VECTOR
(CSM & LM)
TGT LOAD

VOICE UPDATE:
MNVR PAD
BLOCK DATA

RECORD LOI₂ PAD AND
BLOCK DATA (TEI₅)

TEI₅ BLOCK DATA
ASSUMES LOI₁ & LOI₂
ACCOMPLISHED

<table>
<thead>
<tr>
<th>MISSION</th>
<th>EDITION</th>
<th>DATE</th>
<th>TIME</th>
<th>DAY/REV</th>
<th>PAGE</th>
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</thead>
<tbody>
<tr>
<td>APOLLO 11</td>
<td>PRELIMINARY</td>
<td>APRIL 15, 1969</td>
<td>78:00 - 79:00</td>
<td>4/2</td>
<td>3-50</td>
</tr>
</tbody>
</table>

MSC Form 29 OT (Mar. 69)
FLIGHT PLAN

MP - PRE LOI SYSTEMS CK
C&W CK
CM RCS CK
SPS PERIODIC MON
EPS PERIODIC MON
ECS PERIODIC MON

IMU REALIGN P52
AND DRIFT CK
OPTION 3 - REFSMMAT

EXT ΔV - P30
SPS THRUST - P40
SXT STAR CK (STOW OPTICS)
EMS ΔV TEST
SM RCS CK

NOTES

P52 (LNG SITE REFSMMAT)
N71: __________
N05: __________
N93:
X ____________
Y ____________
Z ____________
<table>
<thead>
<tr>
<th>LOI₂</th>
<th>P OR Y RATES</th>
<th>ATT DEVIATION</th>
<th>SHUTDOWN TIME</th>
<th>RESIDUALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOI₂</td>
<td>10°/SEC TAKEOVER</td>
<td>+10° TAKEOVER</td>
<td>BT + 1 SEC</td>
<td>NO TRIM</td>
</tr>
</tbody>
</table>
**FLIGHT PLAN**

**GDC ALIGN TO IMU**

- **GETI:** 80:12:01
- **ULLAGE:** 2 JET, 20 SEC
- **LOI<sub>2</sub>**
  - **BT:** 00:14
  - **ΔV:** 138.5
  - 60 x 60

**SM RCS CK**
**SPS MON CK**

V66 - TRANS CSM STATE VECTOR TO LM SLOT

**V64 ACQUIRE MSFN**

**BURN STATUS REPORT**
- **X X :** \( ΔTIG \)
- **X X :** \( BT \)
- **V_x\)**

---

**MISSION** | **EDITION** | **DATE** | **TIME** | **DAY/REV** | **PAGE**
--- | --- | --- | --- | --- | ---
APOLLO 11 | PRELIMINARY | APRIL 15, 1969 | 80:00-81:00 | 4/3 | 3-52

MSC Form 29 OT (Mar. 69)

**FLIGHT PLANNING BRANCH**
## FLIGHT PLAN

### CMP

<table>
<thead>
<tr>
<th>Time</th>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>05:00</td>
<td>RECORD UPDATE (SEE GET 82:40)</td>
</tr>
</tbody>
</table>

### CDR

<table>
<thead>
<tr>
<th>Time</th>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>STOW CM HATCH, PROBE &amp; DROGUE</td>
</tr>
<tr>
<td></td>
<td>CSM POWER TO LM - OFF (UPON REQUEST OF LMP)</td>
</tr>
<tr>
<td></td>
<td>PREPARE FOR LM INGRESS</td>
</tr>
</tbody>
</table>

### LMP

<table>
<thead>
<tr>
<th>Time</th>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CLEAR TUNNEL OF CM HATCH</td>
</tr>
<tr>
<td></td>
<td>INSPECT TUNNEL &amp; DOCKING LATCHES</td>
</tr>
<tr>
<td></td>
<td>REMOVE PROBE &amp; DROGUE</td>
</tr>
<tr>
<td></td>
<td>OPEN LM HATCH</td>
</tr>
<tr>
<td></td>
<td>IVT TO LM</td>
</tr>
<tr>
<td></td>
<td>LM ENTRY STATUS CHECKS</td>
</tr>
<tr>
<td></td>
<td>XFER TO LM POWER</td>
</tr>
<tr>
<td></td>
<td>ACT VHF B FOR DATA XMIT</td>
</tr>
</tbody>
</table>

### MCC-H

<table>
<thead>
<tr>
<th>Time</th>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CLEAR TUNNEL OF CM HATCH</td>
</tr>
<tr>
<td></td>
<td>INSPECT TUNNEL &amp; DOCKING LATCHES</td>
</tr>
<tr>
<td></td>
<td>REMOVE PROBE &amp; DROGUE</td>
</tr>
<tr>
<td></td>
<td>OPEN LM HATCH</td>
</tr>
<tr>
<td></td>
<td>IVT TO LM</td>
</tr>
<tr>
<td></td>
<td>LM ENTRY STATUS CHECKS</td>
</tr>
<tr>
<td></td>
<td>XFER TO LM POWER</td>
</tr>
<tr>
<td></td>
<td>ACT VHF B FOR DATA XMIT</td>
</tr>
</tbody>
</table>

### Notes

- **Voice Update:** P22 AUTO OPTICS

### Table

<table>
<thead>
<tr>
<th>MISSION</th>
<th>EDITION</th>
<th>DATE</th>
<th>TIME</th>
<th>DAY/REV</th>
<th>PAGE</th>
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</thead>
<tbody>
<tr>
<td>APOLLO 11</td>
<td>PRELIMINARY</td>
<td>APRIL 15, 1969</td>
<td>81:00 - 82:00</td>
<td>4/3</td>
<td>3-53</td>
</tr>
</tbody>
</table>

MSC Form 845B (Jan 69)

FLIGHT PLANNING BRANCH
FLIGHT PLAN

**7:30 PM EST**

- **CMP**
  - RECORD LM DATA
  - CSM POWER TO LM - ON (UPON REQUEST OF LMP)
  - SELECT OMNI B.
  - MNVR TO TRACT ATT
  - R  P  Y
  - P22 ORBITAL NAVIGATION
  - TRACK LANDMARK
    - (5 MARKS ON PSEUDO LMK F1)
    - DO NOT INCORPORATE MARKS
  - STOP 0.3°/SEC PITCH AT
    - SLEEP ATTITUDE
    - INERTIAL  R  P  Y
    - LOCAL HORIZON  R  P  Y
  - AID LMP AS REQUIRED

- **CDR**
  - TRANSFER EQPT TO LM

- **LMP**
  - DEACTIVATE VHF B DATA
  - XMIT
  - XFER TO CSM POWER
  - RECEIVE EQUIPMENT FROM
    - CSM AND STOW
  - PERFORM GENERAL
    - HOUSEKEEPING CHORES
    - AND OPS CHECK

- **MCC-H**
  - VOICE UPDATE:
    - P22 AUTO OPTICS
    - LMK ID
    - T1  :  :  : (HOR)
    - T2  :  :  : (LMK)
    - NM (N OR S)
    - N 99
    - LAT  + 0 1.6 0 0°
    - LONG/2  + 4 3.4 4 0°
    - ALTITUDE +0 0.0 0.0 NM

**MISSION** | **EDITION** | **DATE** | **TIME** | **DAY/REV** | **PAGE**
--- | --- | --- | --- | --- | ---
APOLLO 11 | PRELIMINARY | APRIL 15, 1969 | 82:00 - 83:00 | 4/4 | 3-54
## Flight Plan

**Rest Period (8 Hours)**

### Mission Details

<table>
<thead>
<tr>
<th>Mission</th>
<th>Edition</th>
<th>Date</th>
<th>Time</th>
<th>Day/Rev</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apollo 11</td>
<td>Preliminary</td>
<td>April 15, 1969</td>
<td>85:00 - 86:00</td>
<td>4/5</td>
<td>3-57</td>
</tr>
</tbody>
</table>

**MCC-H**

10:30 PM EDT
85:00
85:01
85:08
85:30
85:47
86:00

**Notes**

- Dump DSE
<table>
<thead>
<tr>
<th>MISSION</th>
<th>EDITION</th>
<th>DATE</th>
<th>TIME</th>
<th>DAY/REV</th>
<th>PAGE</th>
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</thead>
<tbody>
<tr>
<td>APOLLO 11</td>
<td>PRELIMINARY</td>
<td>APRIL 15, 1969</td>
<td>86:00 - 88:00</td>
<td>4/6</td>
<td>3-58</td>
</tr>
</tbody>
</table>

MCC Form 20-GT (Mar. 64)

FLIGHT PLANNING BRANCH
FLIGHT PLAN

5:30 AM EDT

16:00

92:00

REV 9

92:25

92:30

92:55

93:00

93:02

ALIGN GDC TO IMU

CYCLE H₂, O₂ FANS

REST PERIOD

93:30

93:40

93:45

93:55

94:00

C) CONSUMABLES UPDATE

Δ FROM NOMINAL

GET:

RCS TOT

A

B

C

D

H₂ TOTAL

O₂ TOTAL

MISSION | EDITION | DATE | TIME | DAY/REV |
------- | ------- | ---- | ---- | ------- |
APOLLO 11 | PRELIMINARY | APRIL 15, 1969 | 92:00 - 94:00 | 5/9 |

FLIGHT PLANNING BRANCH
### FLIGHT PLAN

#### CSM

- **CMP**
  - IMU REALIGN P52
  - OPT 3 REF SMMAT
  - (LOG SITE REF SMMAT)
  - N71: ___
  - N5: ____
  - N93: ___
  - X: ___
  - Y: ___
  - Z: ___
  - N71: ___
- VHF SIMPLEX B,A CK
- GDC ALIGN TO IMU
- RELAY TO LM CSM
- TIME AND MARK

- RECORD LM VHF DATA

- INSTALL DROGUE, PROBE AND CSM HATCH

#### CDR

- SUIT FAN/H-0 SEP CK
- GLYCOL PUMP CK
- VHF B ACTIVATION
- E MEMORY DUMP (2)
- VHF B SIMPLEX CK
- VHF A CHECK
- LDC/CMC CLOCK SET & TEPHEM UPDATE
- LM DOCKED
- MANUAL IMU ALIGN
- REPORT IMU GIMBAL ANGLES

#### LM

- SEC S-BAND T/R & PWR AMP CK
- S-BAND STEerable ANTENNA CK
- VHF B ACTIVATION
- E MEMORY DUMP (2)
- VHF B SIMPLEX CK
- VHF A CHECK
- LDC/CMC CLOCK SET & TEPHEM UPDATE
- LM DOCKED
- MANUAL IMU ALIGN
- REPORT IMU GIMBAL ANGLES

#### MCC-H

- IVT TO CSM
- DON LCG & PGA WITHOUT HELMET AND GLOVES
- IVT TO LM
- CONNECT TO LM ECS AND VHF
- ASC BAT ACT & C/0

---

<table>
<thead>
<tr>
<th>MISSION</th>
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<th>DATE</th>
<th>TIME</th>
<th>DAY/REV</th>
<th>PAGE</th>
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</thead>
<tbody>
<tr>
<td>APOLLO 11</td>
<td>PRELIMINARY</td>
<td>APRIL 15, 1969</td>
<td>95:00 - 96:00</td>
<td>5/10</td>
<td>3-63</td>
</tr>
</tbody>
</table>

_MCC Page 3-63 (Rev 11)  FLIGHT PLANNING BRANCH_
## FLIGHT PLAN

<table>
<thead>
<tr>
<th>CSM</th>
<th>CMP</th>
<th>9:30 AM EDT</th>
<th>96:00</th>
<th>LMP</th>
<th>DON HELMET &amp; GLOVES</th>
</tr>
</thead>
<tbody>
<tr>
<td>LION CANISTER CHANGE</td>
<td>NO 8 (10 INTO B, STORE 8 IN B6)</td>
<td>O₂ &amp; H₂ FUEL CELL PURGE</td>
<td>CDR</td>
<td>96:24</td>
<td>ARS/PGA PRESSURE INTEGRITY CK</td>
</tr>
<tr>
<td>SELECT OMNI B</td>
<td>MVVR TO TRACK ATT R P Y</td>
<td>P22 ORBITAL NAVIGATION</td>
<td>CDR</td>
<td>96:30</td>
<td>ARS/PGA PRESSURE INTEGRITY CK</td>
</tr>
<tr>
<td>TRACK L. S. LANDMARK</td>
<td>(5 MARKS ON LDMK 130)</td>
<td>DO NOT INCORPORATE MARKS</td>
<td>LMP</td>
<td>96:52</td>
<td>CABIN REGULATOR CK</td>
</tr>
<tr>
<td>INERTIAL R P Y</td>
<td>LOCAL HOR R P Y</td>
<td>V64 ACQ MSFN</td>
<td>LMP</td>
<td>96:59</td>
<td>CABIN REGULATOR CK</td>
</tr>
<tr>
<td>97:00</td>
<td>96:59</td>
<td>96:59</td>
<td>96:52</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### BIO MED SW - RIGHT

- P22 AUTO OPTICS
  - LMK ID 130
  - T1 ___ ___ ___ ___ (HOR)
  - T2 ___ ___ ___ ___ (LMK)
  - N 89°
  - LAT + 1 2 2 6
  - LONG/2 + 1 8 3 9
  - ALTITUDE- 0 1 6 1 NM

- RATE GYRO CK
- COPY GYRO TORQUING ANGLES & FINE ALIGN IMU
- AGS ACT AND SELF TEST
  - SWT TO S-BAND STEerable ANTENNA
  - V64 ACQ MSFN
- VOICE UPDATE LM: GYRO TORQUE ANGLES

### MISSION EDITION DATE TIME DAY/REV PAGE

<table>
<thead>
<tr>
<th>MISSION</th>
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<th>TIME</th>
<th>DAY/REV</th>
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<tbody>
<tr>
<td>APOLLO 11</td>
<td>PRELIMINARY</td>
<td>APRIL 15, 1969</td>
<td>96:00 - 97:00</td>
<td>5/10</td>
<td>3-64</td>
</tr>
</tbody>
</table>

**FLIGHT PLANNING BRANCH**
**FLIGHT PLAN**

**CSM**
- CMP 21:00
- STOW FLIGHT PLAN
- UNSTOW SOLO BOOK
- COPY PADS
- DON HELMET & GLOVES
- VERIFY PGA INTEGRITY
- GO/NO GO FOR UNDOCKING
- VERIFY CSM TO LM COMM CONFIG (PANEL 9 MODE - VOX)
- MNVR TO UNDOCK ATT

<table>
<thead>
<tr>
<th>MISSION</th>
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<th>DATE</th>
<th>TIME</th>
<th>DAY/REV</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>APOLLO 11</td>
<td>PRELIMINARY</td>
<td>APRIL 15, 1969</td>
<td>97:00 - 98:00</td>
<td>5/11</td>
<td>3-65</td>
</tr>
</tbody>
</table>

**LM**
- CDR
- DEPLOY LANDING GEAR
- ORDEAL INITIALIZATION
- DAP DATA LOAD
- DPS GIMBAL DRIVE & THRUST TESTS
- RCS PRESSURIZATION
- RCS CHECKOUT
- RR ACT & SELF TEST
- DPS PRESS & CHECKOUT
- AGS ACCEL & GYRO CALIBRATION

**LMP**
- LMP
- COPY PADS
- AGS INITIALIZATION
- ORDEAL INITIALIZATION
- RCS PRESSURIZATION
- RCS CHECKOUT

**MCC-H**
- DUMP DSE
- P27 UPDATE LM:
  - LGC/CMC CLOCK Sync
  - AGS Abort Const
  - State Vectors
  - LDG RefSMMAT
- VOICE UPDATE LM:
  - AGS K FACTOR
  - AGS Abort Const
  - P27 UPDATE CSM:
    - TARGET LOAD (SEP)
    - VOICE UPDATE CSM:
      - SC WEIGHS
      - MNVR PAD (SEP)
      - LM PIPA RIAS
      - GO/NO GO
FLIGHT PLAN

CSM

CMP

24:00

1:30 PM EDT

100:00

CDR

LM

LMP

MCC-H

MNVR TO PDI ATTITUDE
MODE II RR LOCK-ON

P63 BRAKING PHASE

SYSTEMS CHECK

ALTITUDE, ATTITUDE,
POSITION CHECKS

V64 ACQUIRE MSFN

P20 AUTO MNVR
TO SXT TRACK

100:00

100:20

100:30

100:50

100:56

101:00

V47 UPDATE AGS
AGS ALIGN
CONFIGURE AGS

LM

LPD ALTITUDE CHECK

SYSTEMS MONITOR

YAW RT 180°
EVALUATE MAN CONTROL
PITCH OVER AT P64
MANUAL ATTITUDE CONTROL

[TOUCHDOWN] [100:50:50]

ATT HOLD-RTC OUT DETENT AGS ALT SET TO 100 FT
GO/NO GO FOR 7 MINUTES

TOUCHDOWN PLUS TWO MINUTE CHECK

GO/NO GO

MISSION | EDITION | DATE | TIME | DAY/REV | PAGE
------- | ------- | ---- | ---- | ------- | ----
APOLLO 11 | PRELIMINARY | APRIL 15, 1969 | 100:00-101:00 | 5/13 | 3-68

MCC Form 2185 (OT) (Rev 04)

FLIGHT PLANNING BRANCH
FLIGHT PLAN

CSM
CMP

LM
CDR
LM
LMP

MCC-H

MONITOR ALIGNMENT
DATA FOR DRIFT TEST
VOICE UPDATE LM & CSM:

P27 UPDATE CSM:
CSM STATE VECTOR (TD + 1:40) RLS

P27 UPDATE CSM:
DESIRED ORIENT (PLANE CHANGE)

STOP PITCH AT:
INERTIAL: R P Y
LOCAL: R P Y

V64 REACQUIRE MSFN
V45 RESET LUNAR SURFACE FLAG

MISSION | EDITION | DATE | TIME | DAY/REV | PAGE
---------|---------|------|------|---------|-----
APOLLO 11 | PRELIMINARY | APRIL 15, 1969 | 102:00-103:00 | 5/14 | 3-70

FLIGHT PLANNING BRANCH
FLIGHT PLAN

CSM

CMP

27:00

P52 IMU REALIGN
OPTION 1 PREFERRED
PLANE CHANGE REFSMMAT
N71: _ _ _ _
N05: _ _ _ _ _ _
N93: _ _ _ _ _ _
X: _ _ _ _ _ _
Y: _ _ _ _ _ _
Z: _ _ _ _ _ _
N71: _ _
GDC ALIGN TO IMU

EAT PERIOD

CDR

LM

EAT PERIOD
(35 MIN)

EAT PERIOD
(35 MIN)

103:00

103:30

103:31

103:41

103:47

104:00

REST PERIOD
(4 HOURS)

REST PERIOD
(4 HOURS)

APOLLO 11 PRELIMINARY APRIL 15, 1969 103:00-104:00 5/14-15 3-71

FLIGHT PLANNING BRANCH
FLIGHT PLAN

CSM

LM

MCC-H

28:00
104:00
104:17
104:30
104:47
104:53
105:00

V64 REACQUIRE MSFN
COPY PLANE CHANGE PAD

REST PERIOD
REST PERIOD

P30 EXT ΔV
P40 SPS THRUST

VOICE UPDATE CSM:
MANEUVER PAD FOR
PLANE CHANGE
P27 UPDATE CSM:
TARGET LOAD
CSM STATE VECTOR

MISSION | EDITION | DATE       | TIME       | DAY/REV | PAGE
--------|---------|------------|------------|---------|------
APOLLO 11 | PRELIMINARY | APRIL 15, 1969 | 104:00-105:00 | 5/15   | 3-72
FLIGHT PLAN

CSM  |  7:30 PM EDT  |  LM  |  MCC-H

CMP   |  106:00     |  CDR  |  LMP

REST PERIOD  |  106:16

MSFN

REST PERIOD  |  107:00

MSFN

MISSION   |  EDITION   |  DATE    |  TIME       |  DAY/REV | PAGE
APOLLO 11 |  PRELIMINARY | APRIL 15, 1969 | 106:00-107:00 | 5/16     | 3-74

FLIGHT PLANNING BRANCH
FLIGHT PLAN

CSM
CIR
CMP

10:30 PM EDT

LM
LMF

CDR
LMP

MCC-H

REST PERIOD

LIOH CANISTER CHANGE
NO, 9(11 INTO A, STORE
9 IN A3)

O₂, H₂ FUEL CELL PURGE

EAT PERIOD

PLSS/OPS DONNING

PLSS/EXTRA VEHICULAR COMM SYSTEM ELECTRICAL CHECKOUT

FINAL EVA EQUIPMENT PREP FOR EGRESS

FINAL SYSTEMS PREP FOR EGRESS

<table>
<thead>
<tr>
<th>MISSION</th>
<th>EDITION</th>
<th>DATE</th>
<th>TIME</th>
<th>DAY/REV</th>
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<tbody>
<tr>
<td>APOLLO 11</td>
<td>PRELIMINARY</td>
<td>APRIL 15, 1969</td>
<td>109:00 - 110:00</td>
<td>5/17-18</td>
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</table>

FLIGHT PLANNING BRANCH
FLIGHT PLAN

MISSION | EDITION | DATE | TIME | DAY/REV | PAGE
--- | --- | --- | --- | --- | ---
APOLLO 11 | PRELIMINARY | APRIL 15, 1969 | 110:00 - 111:00 | 5/18 | 3-78

START EVA

PREP FOR CABIN DEPRESS

PRESSURE INTEGRITY CHECK

DEPRESS CABIN OPEN HATCH

ASSIST AND MONITOR CDR SEQ CAMERA TV

ENVIRONMENTAL FAMILIARIZATION

CONTINGENCY SAMPLE COLLECTION

MONITOR AND OPERATE SEQ CAMERA
FLIGHT PLAN

MISSION | EDITION | DATE       | TIME       | DAY/REV | PAGE
--------|---------|------------|------------|---------|-----
APOLLO 11 | PRELIMINARY | APRIL 15, 1969 | 112:00 - 113:00 | 5/20 | 3/80

FLIGHT PLANNING BRANCH
FLIGHT PLAN

CSM
CMP

2:30 AM EDT

37:00

LM
LMP

MCC-H

TERMINATE EVA
SECURE HATCH
REPRESS CABIN

POST EVA SYSTEMS CONFIGURATION

PLSS/OPS DOFFING

FINAL SYSTEMS CONFIGURATION

PREP FOR EQUIPMENT JETTISON

<table>
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<td>APRIL 15, 1969</td>
<td>113:00 - 114:00</td>
<td>5/19-20</td>
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</table>
FLIGHT PLAN

CSM

CMP

38:00

114:00

3:30 AM EDT

LM

CDR

LMP

MCC-H

PRESSURE INTEGRITY CHECK

CABIN JEPRESS

HATCH OPENING

EQUIPMENT JETTISON

CABIN REPRESSURIZATION

POST EVA SYSTEMS CONFIGURATION

FINAL SYSTEMS CONFIGURATION

POST EVA CABIN CONFIGURATIONS

EAT PERIOD

EAT PERIOD

MNVR TO SLEEP ATTITUDE

X

R ______________

P ______________

Y ______________

REST PERIOD (4 HRS)

114:08

114:30

114:40

114:46

115:00

MISSION | EDITION | DATE | TIME | DAY/REV | PAGE
---------|---------|------|------|---------|------
APOLLO 11 | PRELIMINARY | APRIL 15, 1969 | 114:00 - 115:00 | 5/20 | 3-82

FLIGHT PLANNING BRANCH
FLIGHT PLAN

CSM

CMP

39:00

115:00

115:20

115:30

115:32

REV 21

4:30 AM EDT

LM

CDR

EAT PERIOD

RR OPERATE HEATERS ON

LMP

EAT PERIOD

BIO MED SW - LEFT

REST PERIOD

REST PERIOD (4 HR 40 MIN)

REST PERIOD (4 HR 40 MIN)

MCC-H

MISSION    EDITION    DATE       TIME         DAY/REV    PAGE
APOLLO 11   PRELIMINARY   APRIL 15, 1969  115:00 - 116:00  5/20-21     3-83
## FLIGHT PLAN

<table>
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<th>MISSION</th>
<th>EDITION</th>
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<th>TIME</th>
<th>DAY/REV</th>
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<td>APOLLO 11</td>
<td>PRELIMINARY</td>
<td>APRIL 15, 1969</td>
<td>116:00 - 118:00</td>
<td>5/21-22</td>
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**CSM**

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<td>116:37</td>
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<td>117:00</td>
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<td>117:18</td>
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<td>118:00</td>
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**LM**

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**MCC-H**

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*FLIGHT PLANNING BRANCH*
FLIGHT PLAN

CSM
CMP

LM
LMP

MCC-H

1:30 PM EDT

GO/NO GO

FINAL COMP: CDH - 12 MIN

V32 - 4 MARKS
V93
V32 - 5 MARKS

FINAL COMP: TPI - 12 MIN

LOAD NEG CSM Y DOT

V47 AGS UPDATE
AGS ALIGN
LOAD EXTERNAL ΔV'S

P41 RCS THRUST
COPY Y DOT & LOAD LNG
TARGET ΔV'S TO CSM

P41 RCS THRUST
COPY CSM TPI SOLUTION
SYNC CONTDOWN

GO/NO GO

COPY LM TPI SOLUTION
TRANSMIT Y DOT
P40 AUTO MNVR

P33, FINAL COMP
P41
BACKUP CDH
TIG: 124:27:25
P76 TARGET ΔV

COPY Y DOT
GO/NO GO FOR CDH

124:00
124:02
124:30
124:32
124:39
125:00

RCS, CDH

TIG: 124:24:25
BT: 2.0 SEC
ΔV: 6 FPS

V76
V34 TARGETING

V32 - 4 MARKS
V93
V32 - 9 MARKS

MISSION | EDITION | DATE | TIME | DAY/REV | PAGE
--- | --- | --- | --- | --- | ---
APOLLO 11 | PRELIMINARY | APRIL 15, 1969 | 124:00 - 125:00 | 6/25 | 3-90

FLIGHT PLANNING BRANCH
FLIGHT PLAN

127:00 | 127:10 | 127:24 | 127:30 | REV 27

51:00 LMP IVT TO CSM

EQUIPMENT STOWAGE

UNSTOW AND INSTALL FORWARD HATCH

HATCH INTEGRITY CHECK

MNVR TO LM JETTISON ATT
P _
R _
Y _

GO/NO GO FOR PYRO ARM
PYRO LOGIC ARM THRUST
MONITOR P47

128:00

CDR & LMP WILL STOW EQUIPMENT & SRC TRANSFERRED FROM THE LM

CDR WILL INSTALL HATCH WITH LMP ASSISTANCE

CDR WILL PERFORM INTEGRITY CHECK

GO/NO GO FOR PYRO ARM

MISSION | EDITION | DATE | TIME | DAY/REV | PAGE
----------|---------|------|------|---------|-------
APOLLO 11 | PRELIMINARY | APRIL 15, 1969 | 127:00-128:00 | 6/26-27 | 3-93

FLIGHT PLANNING BRANCH
FLIGHT PLAN

GETI: 128:00
ΔV: 1 FPS RETROGRADE

BURN STATUS REPORT

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<thead>
<tr>
<th>X</th>
<th>X</th>
<th>φ</th>
<th>ΔTIG</th>
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TRIM

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<td>X</td>
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IMU REALIGN - P52

OPTION 3 - REFSSMAT

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<tr>
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<td>X</td>
<td>OX</td>
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</tbody>
</table>

REMARKS:

NOTES

P27 UPDATE:
STATE VECTOR (CSM & LM)

MISSION | EDITION       | DATE       | TIME       | DAY/REV | PAGE
---------|---------------|------------|------------|---------|-----
APOLLO 11 | PRELIMINARY  | APRIL 15, 1969 | 128:00 - 129:00 | 6/27    | 3-94
**FLIGHT PLAN**

**VOICE UPDATE:**
- MNVR PAD
- BLOCK DATA
- GO/NO-GO

**P.27 UPDATE:**
- STATE VECTOR (CSM & LM)
- TGT LOAD

**PRE TEI SYSTEMS CKS:**
- C & W CK
- CM RCS CK
- SM RCS CK
- EPS MONITOR CK
- ECS REDUNDANT COMPONENTS CK
- RECORD MNVR PAD AND BLOCK DATA (TEI29)
- GO/NO-GO FOR TEI

**IMU REALIGN - P52**
**OPTION 3 - REFSSMMA**

**EXT ΔV - P30**
**SPS THRUST - P40**
**MNVR TO BURN ATT**

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<tr>
<td>APOLLO 11</td>
<td>PRELIMINARY</td>
<td>APRIL 15, 1969</td>
<td>130:00 - 131:00</td>
<td>6/28</td>
<td>3-96</td>
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</table>

**NOTES**

P52 - (LDG SITL REFSSMMA)
N71: ___ , ___
N05: ___ ___ , ___
N93:
- X ___ , ___
- Y ___ , ___
- Z ___ , ___