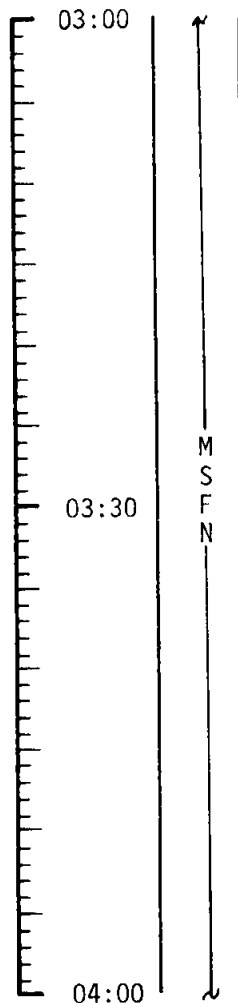


MCC-H
12:30 PM EDT

FLIGHT PLAN

NOTES



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

THRUST MONITOR - P47
CSM/SIVB SEP - .5 FPS

START CAMERA

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

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

P27 UPDATE:
TGT LOAD

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

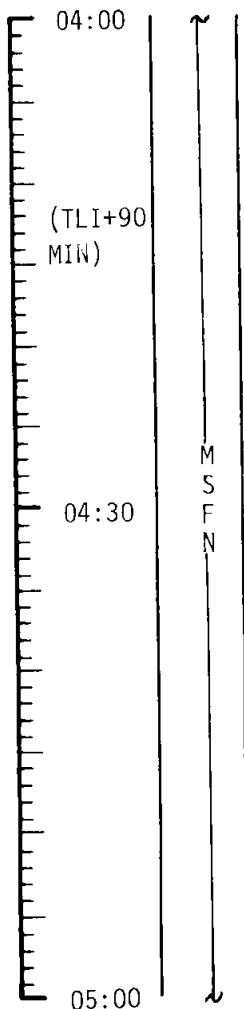
	P OR Y RATES	ATT DEVIATION	SHUTDOWN TIME	RESIDUALS
EVASIVE MNVR	10°/SEC TAKEOVER	+10° TAKEOVER	B/T + 1 SEC	NO TRIM

3-4a

FLIGHT PLAN

MCC-H

1:30 PM EDT
 VOICE UPDATE:
 MNVR PAD
 GO/NO-GO
 FOR PYRO ARM
 & LM EXTRACTION



RECORD EVASIVE MNVR PAD

LOGIC BUS ARM
 THRUST MONITOR - P47

GETI: 04:10:00
 BT: 3 SEC
 ΔV:

LM EJECTION

EXT ΔV - P30

SPS THRUST - P40

PITCH DOWN 75° WRT LOCAL HORIZ
 ROLL TO VISUALLY ACQ S-IVB
 SM RCS CK

GDC ALIGN TO IMU

GETI: 04:39:37
 NO ULLAGE
 BT: 3 SEC
 ΔV: 20 FPS

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)

NOTES

FOR LM EJECTION
 RELATIVE ΔV FROM
 SPRINGS ≈ 1 FPS

BURN STATUS REPORT

X	X	:	ΔTIG
X	X	:	BT
		.	V _{gx}

TRIM

X	X	X	R
X	X	X	P
X	X	X	Y

<input type="checkbox"/>	.	V _{gx}
<input type="checkbox"/>	.	V _{gy}
<input type="checkbox"/>	.	V _{gz}
<input type="checkbox"/>	.	ΔV _c

X	X	X	FUEL
X	X	X	OX
X	X	X	UNBAL

REMARKS:

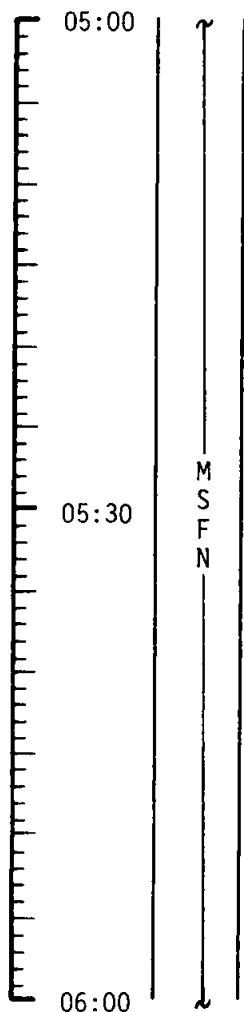
MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	04:00-05:00	1/TLC	3-5

FLIGHT PLANNING BRANCH

MCC-H
 2:30 PM EDT
 S-BAND CK

FLIGHT PLAN

NOTES



S-BAND HI-GAIN ANTENNA CK

STOW HELMET, GLOVES, & PGA's

IMU REALIGN - P52
 OPTION 3 - REFSMMAT

GDC ALIGN TO IMU

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

P52 : PAD REFSMMAT
 N71 : _____
 N05 : _____
 N93 : _____
 X _____
 Y _____
 Z _____

VOICE UPDATE:
 BLOCK DATA

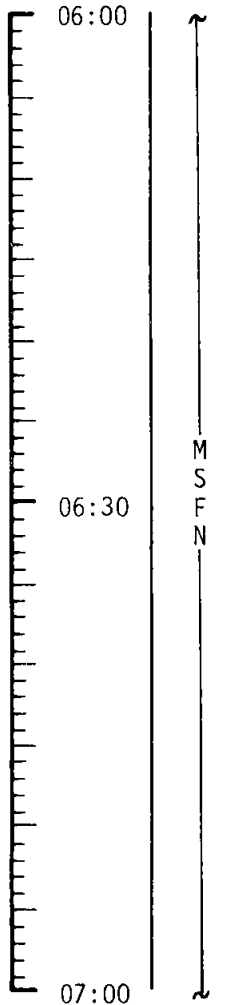
MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	05:00-06:00	1/TLC	3-6

MCC-H

3:30 PM EDT

FLIGHT PLAN

NOTES



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)

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

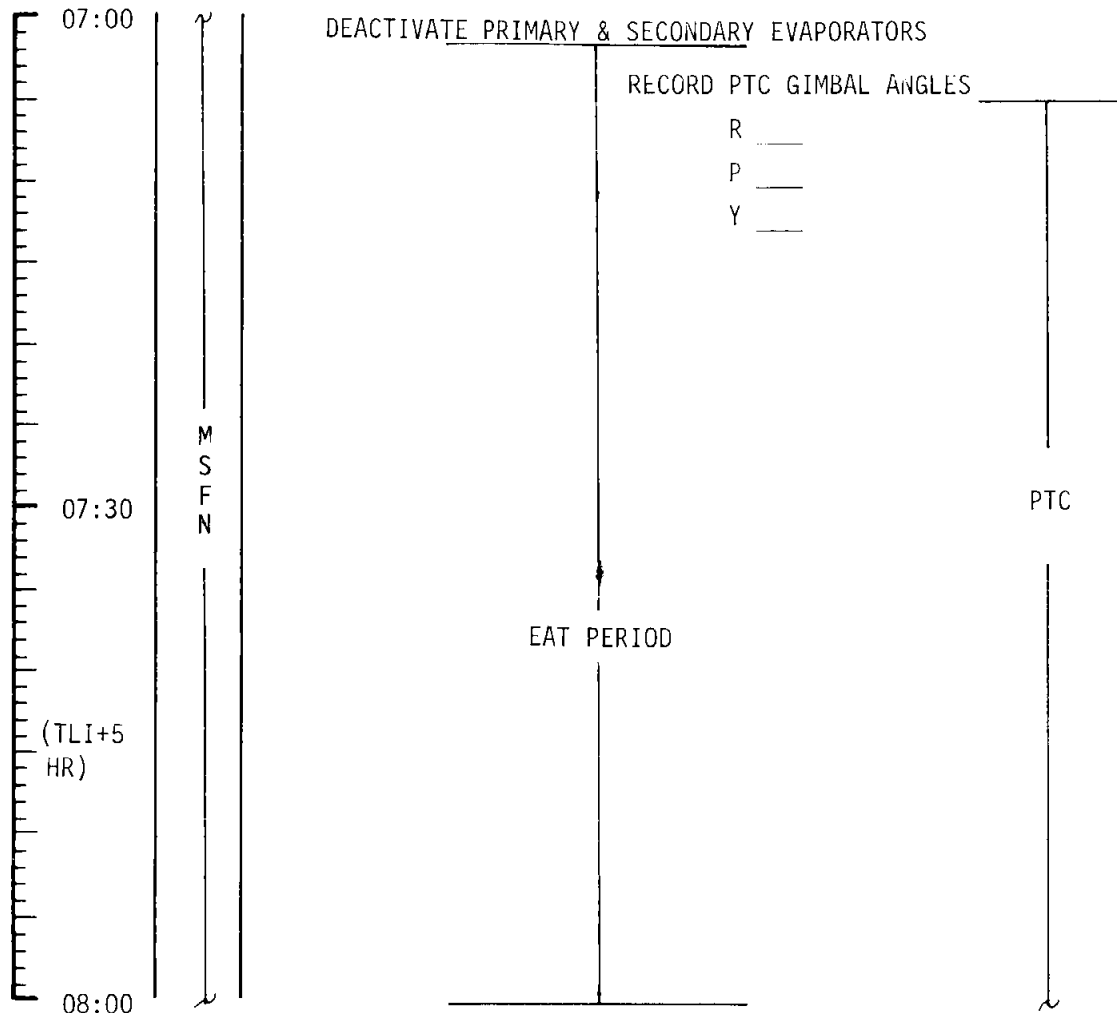
MSC Form 29 OF (Mar. 69)

FLIGHT PLANNING BRANCH

MCC-H
 4:30 PM EDT
 VOICE UPDATE:
 PTC GIMBAL
 ANGLES

FLIGHT PLAN

NOTES



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

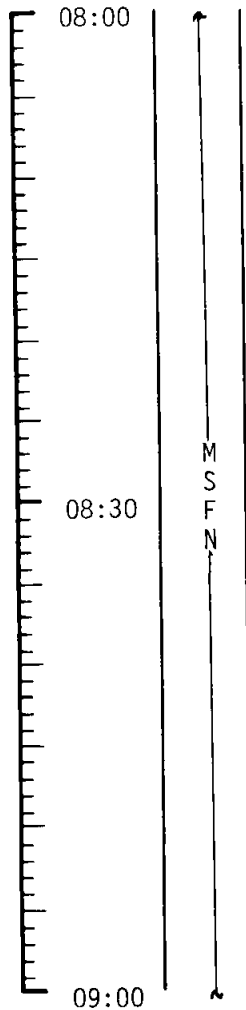
MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	07:00-08:00	1/TLC	3-8

MCC-H

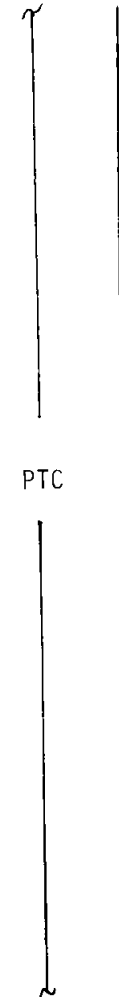
5:30 PM EDT

FLIGHT PLAN

NOTES



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



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	08:00-09:00	1/TLC	3-9

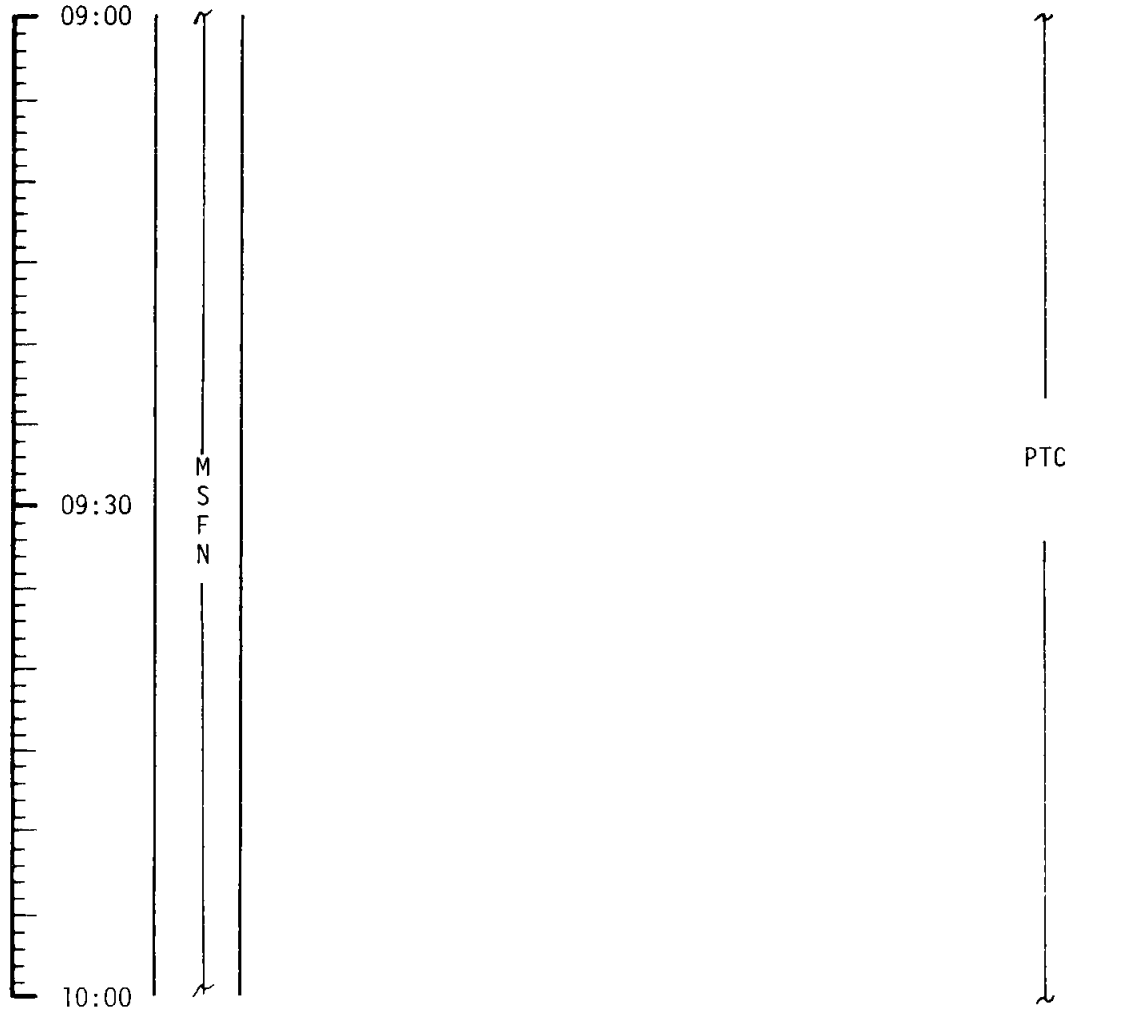
MSC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH

MCC-H
6:30 PM EDT

FLIGHT PLAN

NOTES



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

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

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	09:00 - 10:00	1/TLC	3-10

MSC Form 29 OP (Mar. 69)

FLIGHT PLANNING BRANCH

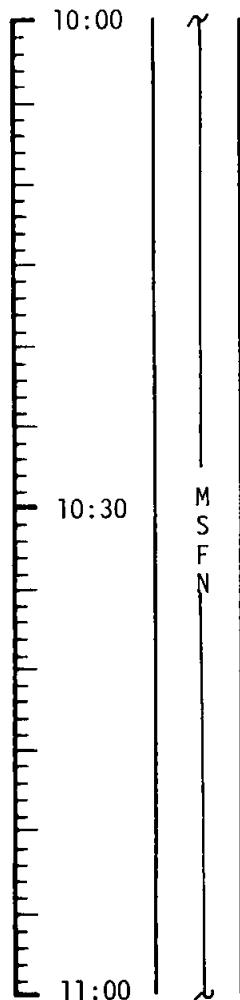
MCC-H
7:30 PM EDT

FLIGHT PLAN

NOTES

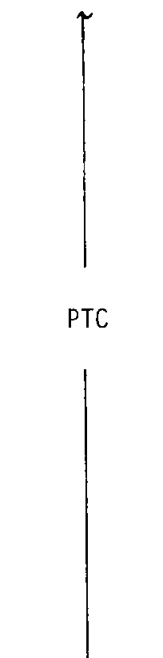
P27 UPDATE:
STATE VECTOR
(CSM & LM)
TGT LOAD

VOICE UPDATE:
MNVN PAD



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

IMU REALIGN - P52
OPTION 3 - REFSMMAT
(OPTIONAL)



P52 (PAD REFSMMAT)
N71: _____
N05: _____
N93: _____
X _____
Y _____
Z _____

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	10:00 - 11:00	1/TLC	3-11

MCC
BURN CHART

	P OR Y RATES	ATT DEVIATION	SHUTDOWN TIME	RESIDUALS
MCC ₁	10°/SEC TAKEOVER	+10° TAKEOVER	BT + 1 SEC	NO TRIM

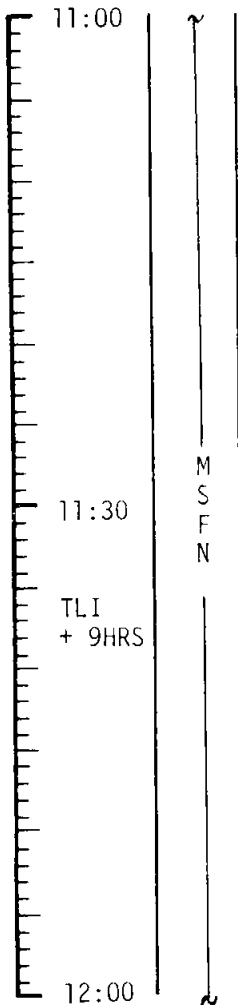
3-11a

MCC-H

8:30 PM EDT

FLIGHT PLAN

NOTES



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)

BURN STATUS REPORT			
X	X	:	ΔTIG
X	X	:	BT
		.	V _{gx}
TRIM			
X	X	X	R
X	X	X	P
X	X	X	Y
		.	V _{gx}
		.	V _{gy}
		.	V _{gz}
		.	ΔV _c
X	X	X	FUEL
X	X	X	OX
X	X	X	UNBAL
REMARKS:			

MCC₁ WILL BE PERFORMED IF THE ΔV > 3 FPS OR ΔV WOULD EXCEED 25 FPS IF DELAYED TO MCC₃ (LOI - 22 HRS)

P27 UPDATE:
DESIRED ORIENTATION (PTC)

VOICE UPDATE:
BLOCK DATA

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

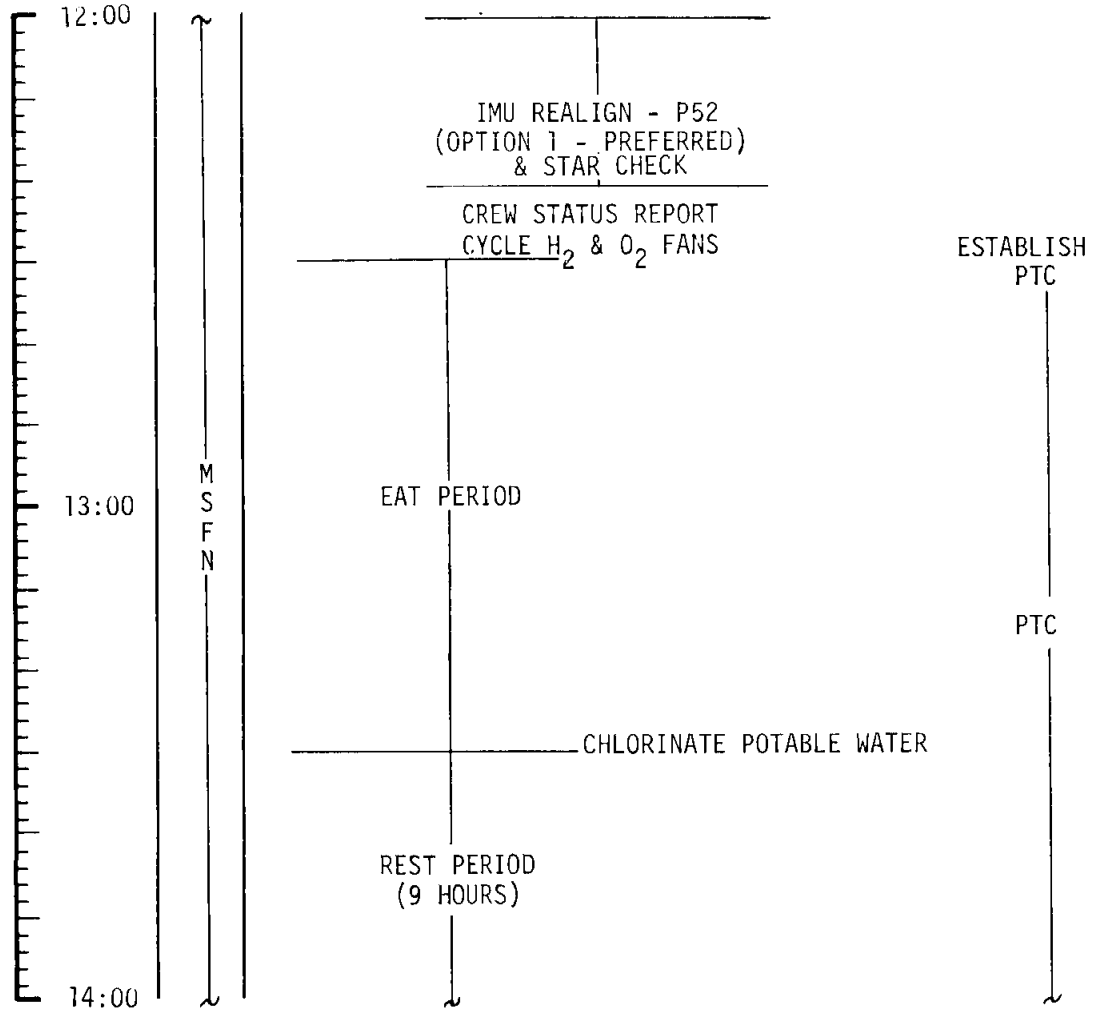
FLIGHT PLANNING BRANCH

MSC Form 29 OT (Mar. 69)

9:30 PM EDT **MCC-H**

FLIGHT PLAN

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

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	12:00 - 14:00	1/TLC	3-13

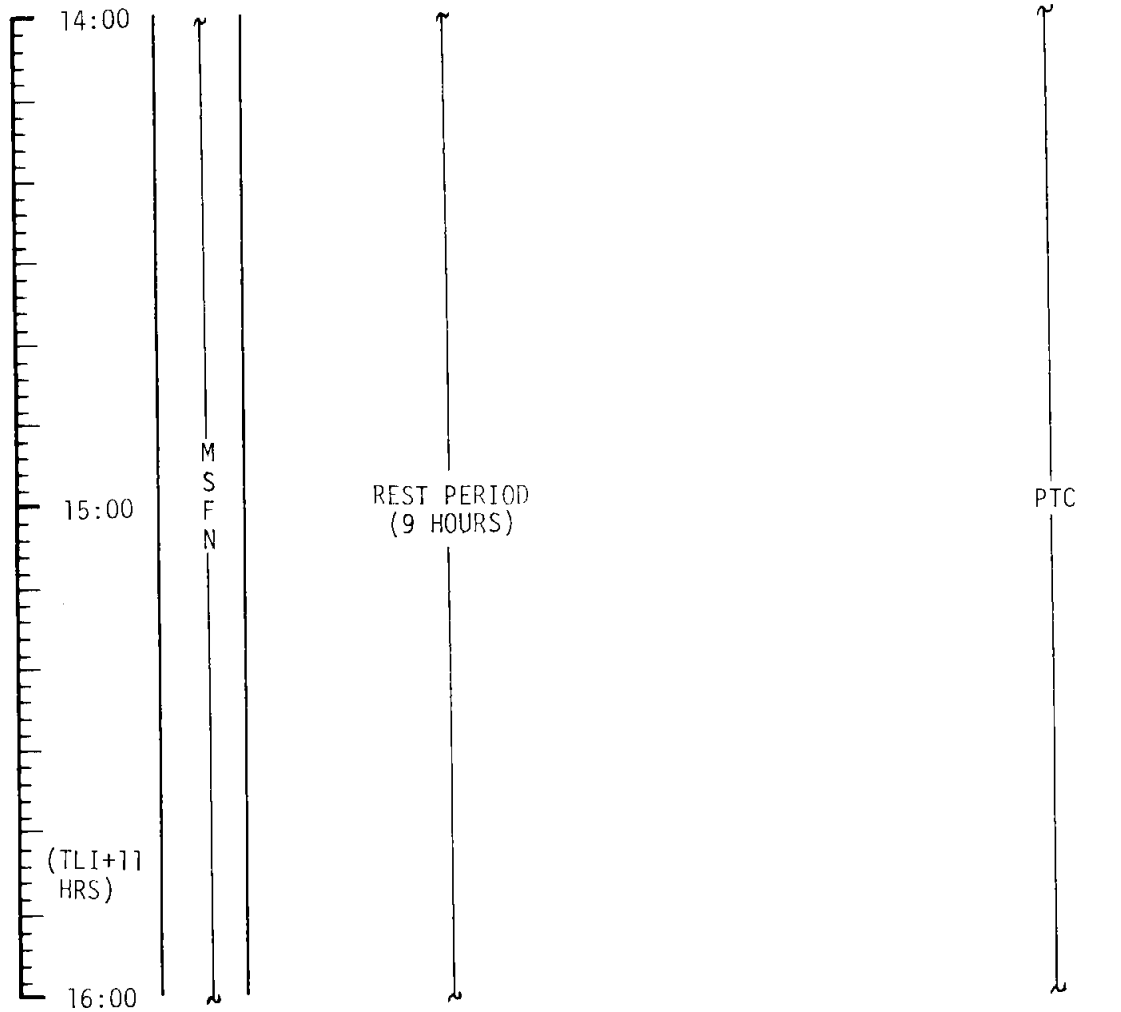
FLIGHT PLANNING BRANCH

MSC Form 29 OT (Mar. 69)

MCC-H
11:30 PM EDT

FLIGHT PLAN

NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	14:00 - 16:00	1/TLC	3-14

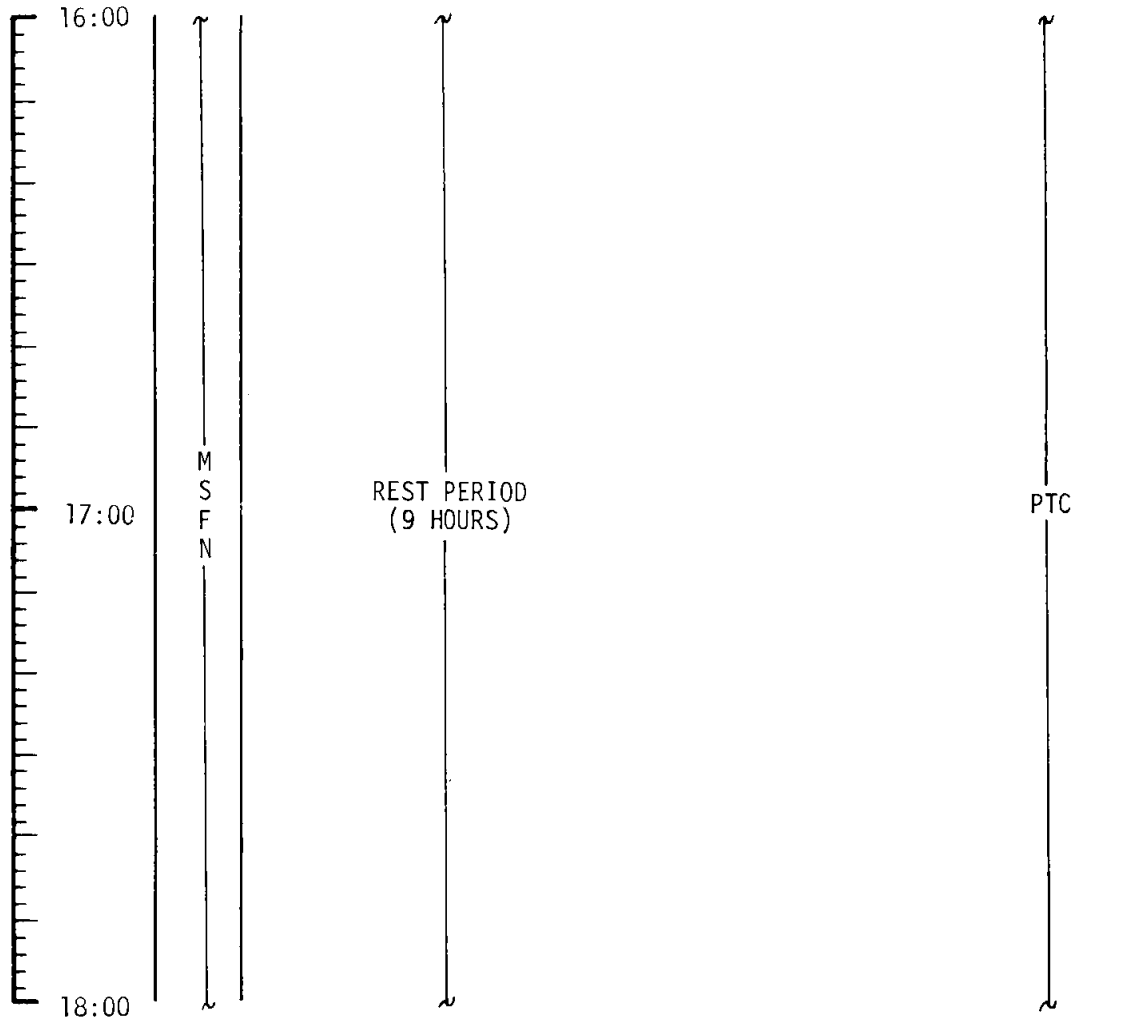
MCC Form 29-0T (Mar. 69)

FLIGHT PLANNING BRANCH

MCC-H
1:30 AM EDT

FLIGHT PLAN

NOTES



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

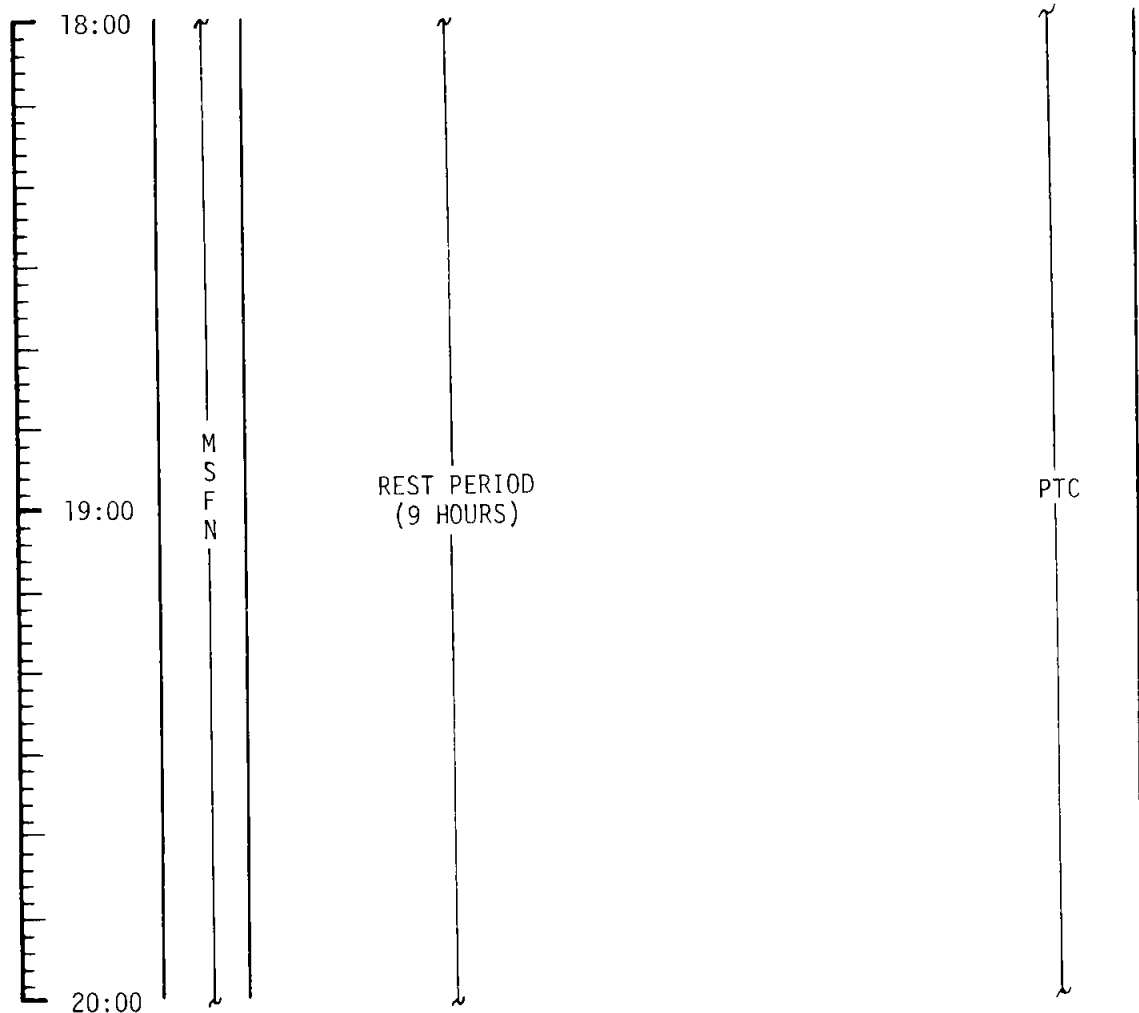
MSC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH

MCC-H
3:30 AM EDT

FLIGHT PLAN

NOTES



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

MSC Form 29 OT (Mar. 69)

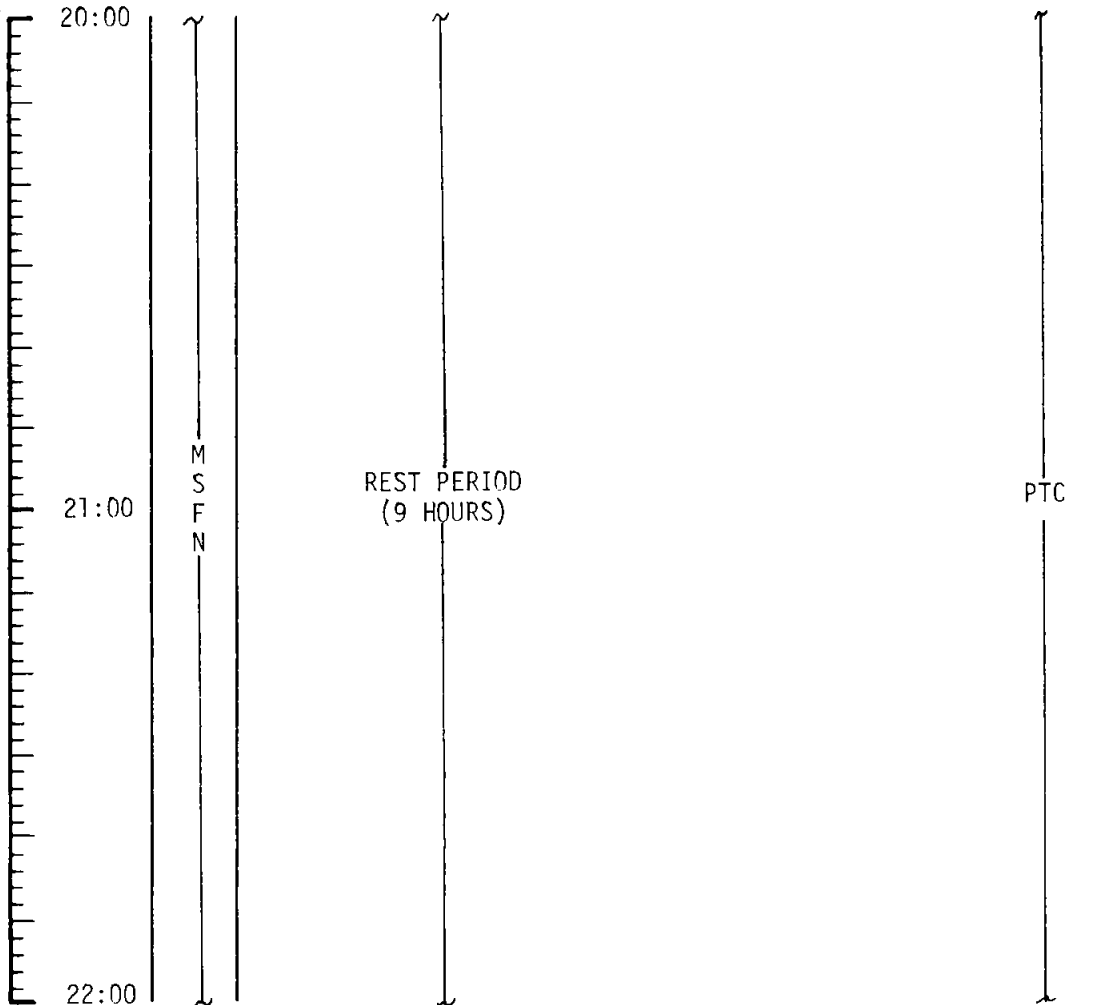
FLIGHT PLANNING BRANCH

MCC-H

5:30 AM EDT

FLIGHT PLAN

NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	20:00-22:00	1/TLC	3-17

MSC Form 29 OT (Mar. 69)

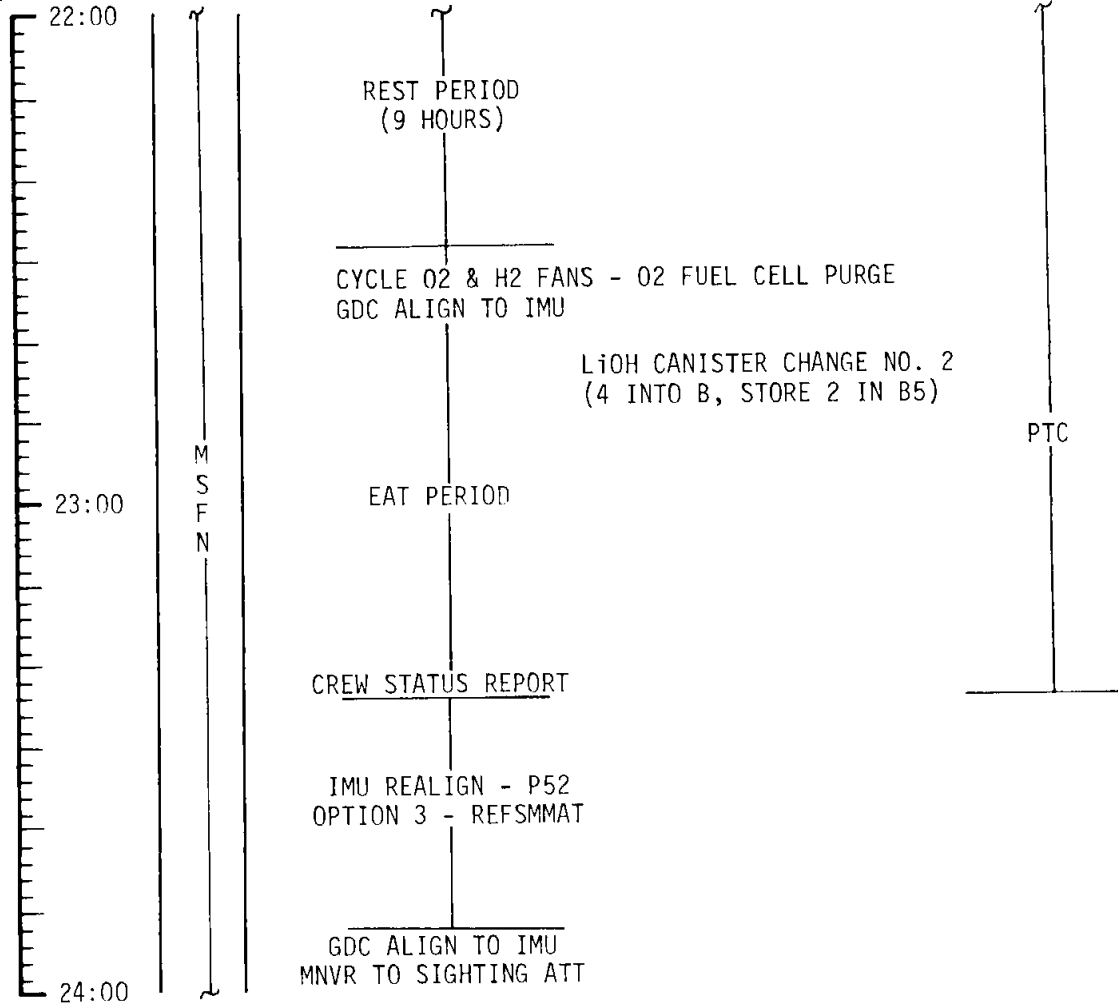
FLIGHT PLANNING BRANCH

MCC-H

7:30 AM EDT

FLIGHT PLAN

NOTES



CONSUMABLE UPDATE
(Δ FROM NOMINAL)

GET: _____

RCS TOT _____

A _____

B _____

C _____

D _____

H₂ TOT _____

O₂ TOT _____

P52 - (PTC REFSMMAT)

N71: _____

N05: _____

N93: _____

X _____

Y _____

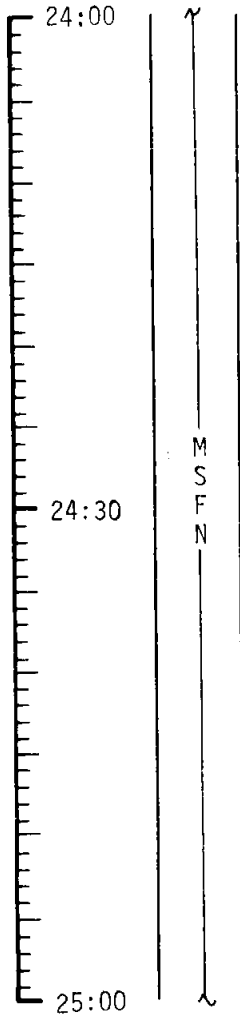
Z _____

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	22:00-24:00	1/TLC	3-18

FLIGHT PLANNING BRANCH

MCC-H

9:30 AM EDT



FLIGHT PLAN

NOTES

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)

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	24:00-25:00	2/TLC	3-19

MSC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH

FLIGHT PLAN

NOTES

MCC-H
10:30 AM EDT

25:00

ECS REDUNDANT COMPONENT CK

P27 UPDATE
STATE VECTOR
(CSM & LM)
TGT LOAD

VOICE UPDATE
PAD DATA

25:30

RECORD MCC₂ PAD DATA

M
S
F
N

IMU REALIGN - P52
(OPTION - 3 REFSMMAT)

26:00

P52 - (PTC REFSMMAT)

N71: _____

N05: _____

N93: _____

X _____

Y _____

Z _____

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

FLIGHT PLANNING BRANCH

MSC Form 29 OT (Mar. 69)

MCC
BURN CHART

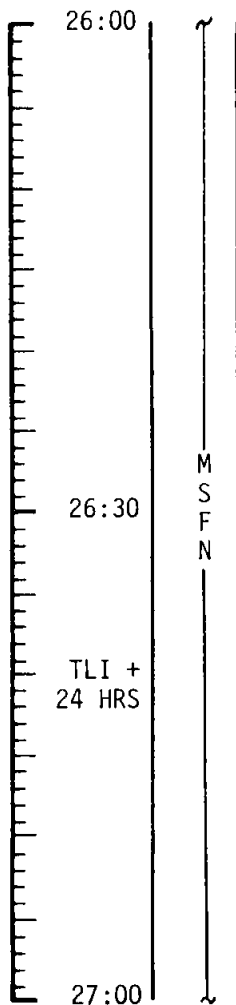
	P OR Y RATES	ATT DEVIATION	SHUTDOWN TIME	RESIDUALS
MCC ₂	10°/SEC TAKEOVER	+10° TAKEOVER	BT + 1 SEC	NO TRIM

3-20a

MCC-H
11:30 AM EDT

FLIGHT PLAN

NOTES



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

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

BURN STATUS REPORT

X	X	:		ΔTIG
X	X	:		BT
			•	V _{gx}
----- TRIM -----				
X	X	X		R
X	X	X		P
X	X	X		Y
			•	V _{gx}
			•	V _{gy}
			•	V _{gz}
			•	ΔV _c
X	X	X		FUEL
X	X	X		OX
X	X	X		UNBAL

REMARKS:

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

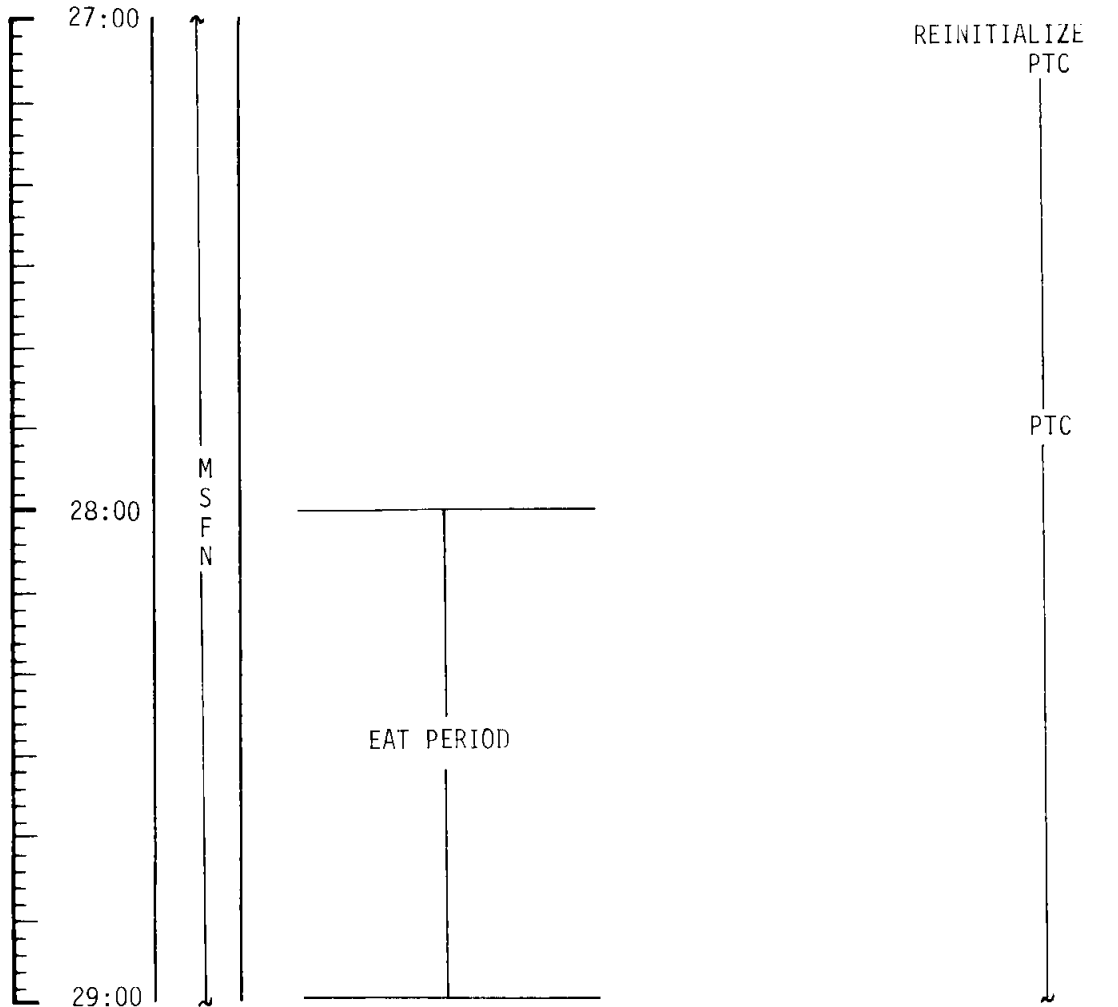
MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	26:00 - 27:00	2/TLC	3-21

FLIGHT PLANNING BRANCH

FLIGHT PLAN

12:30 PM EDT **MCC-H**

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



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

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	27:00 - 29:00	2/TLC	3-22

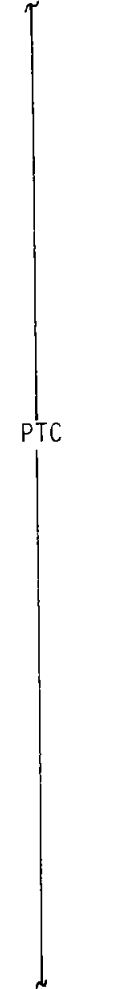
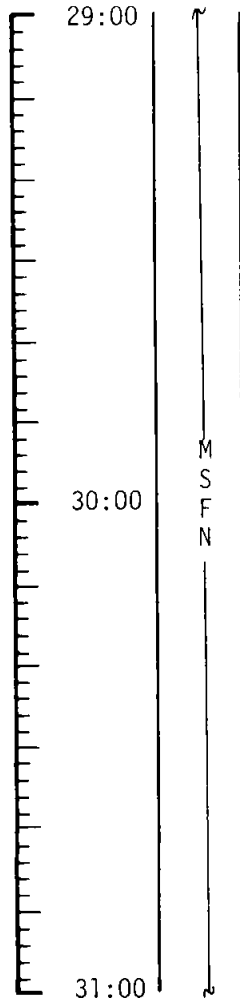
MSC Form 29-OT (Mar. 64)

FLIGHT PLANNING BRANCH

2:30 PM EDT **MCC-H**

FLIGHT PLAN

NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	29:00 - 31:00	2/TLC	3-23

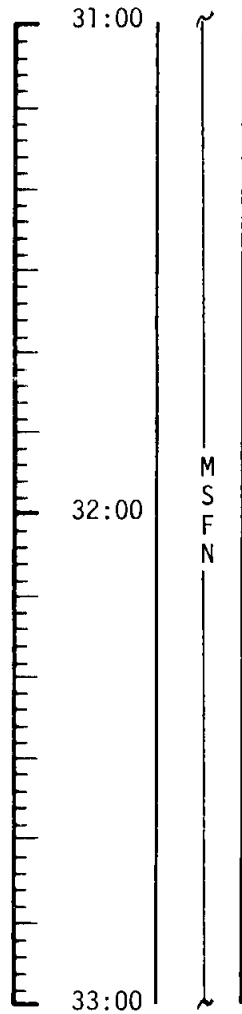
MSC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH

MCC-H
4:30 PM EDT

FLIGHT PLAN

NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	31:00 - 33:00	2/TLC	3-24

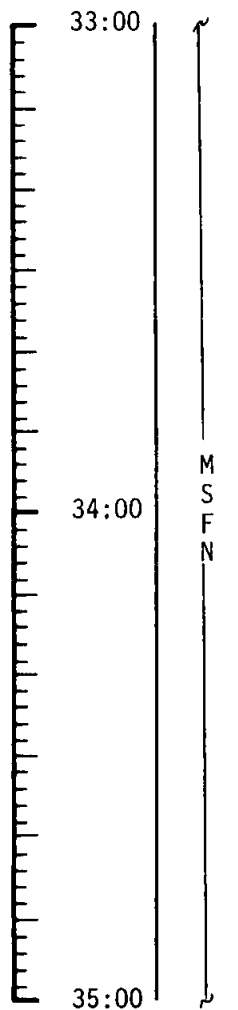
MSC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH

6:30 PM EDT **MCC-N**

FLIGHT PLAN

NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	33:00 - 35:00	2/TLC	3-25

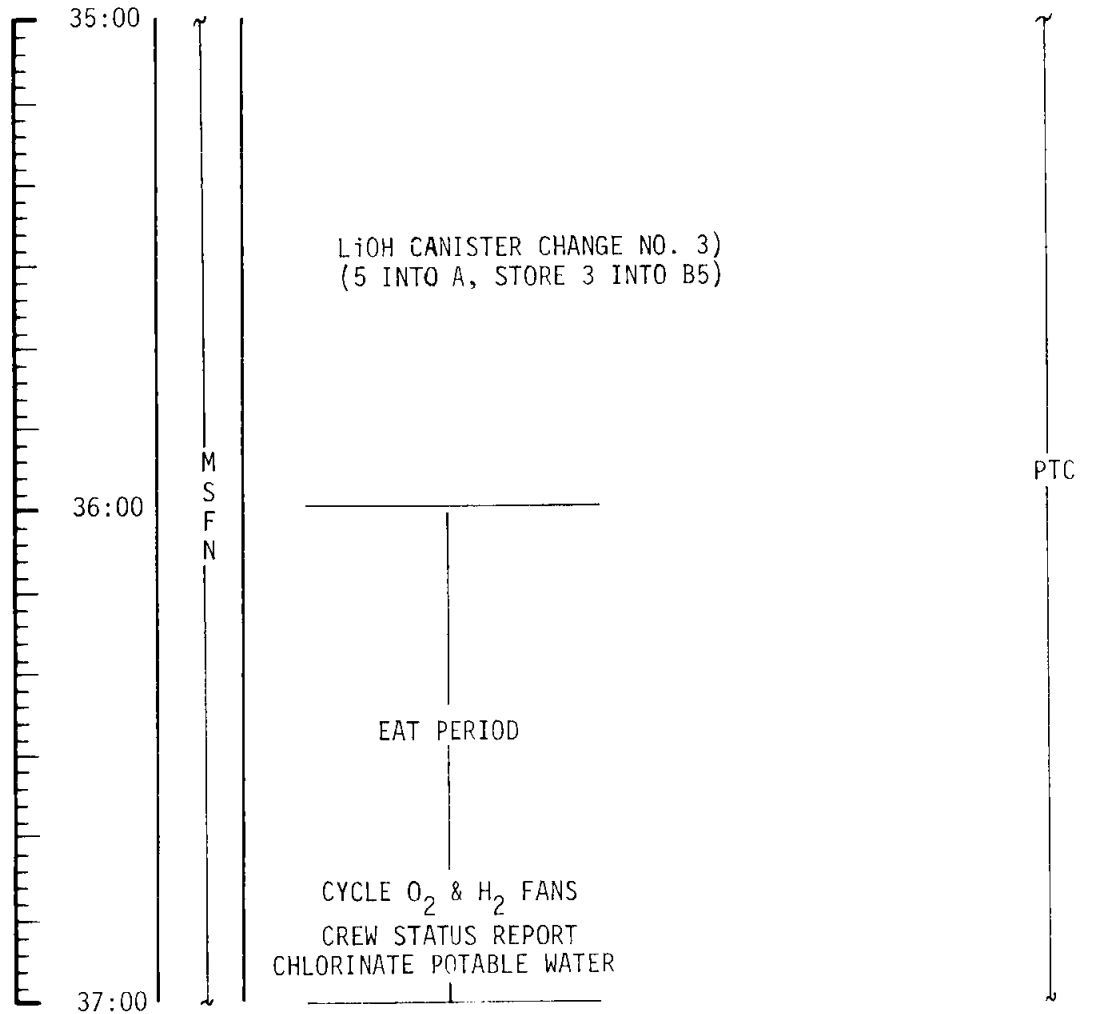
MSC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH

MCC-H
8:30 PM EDT

FLIGHT PLAN

NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	35:00 - 37:00	2/TLC	3-26

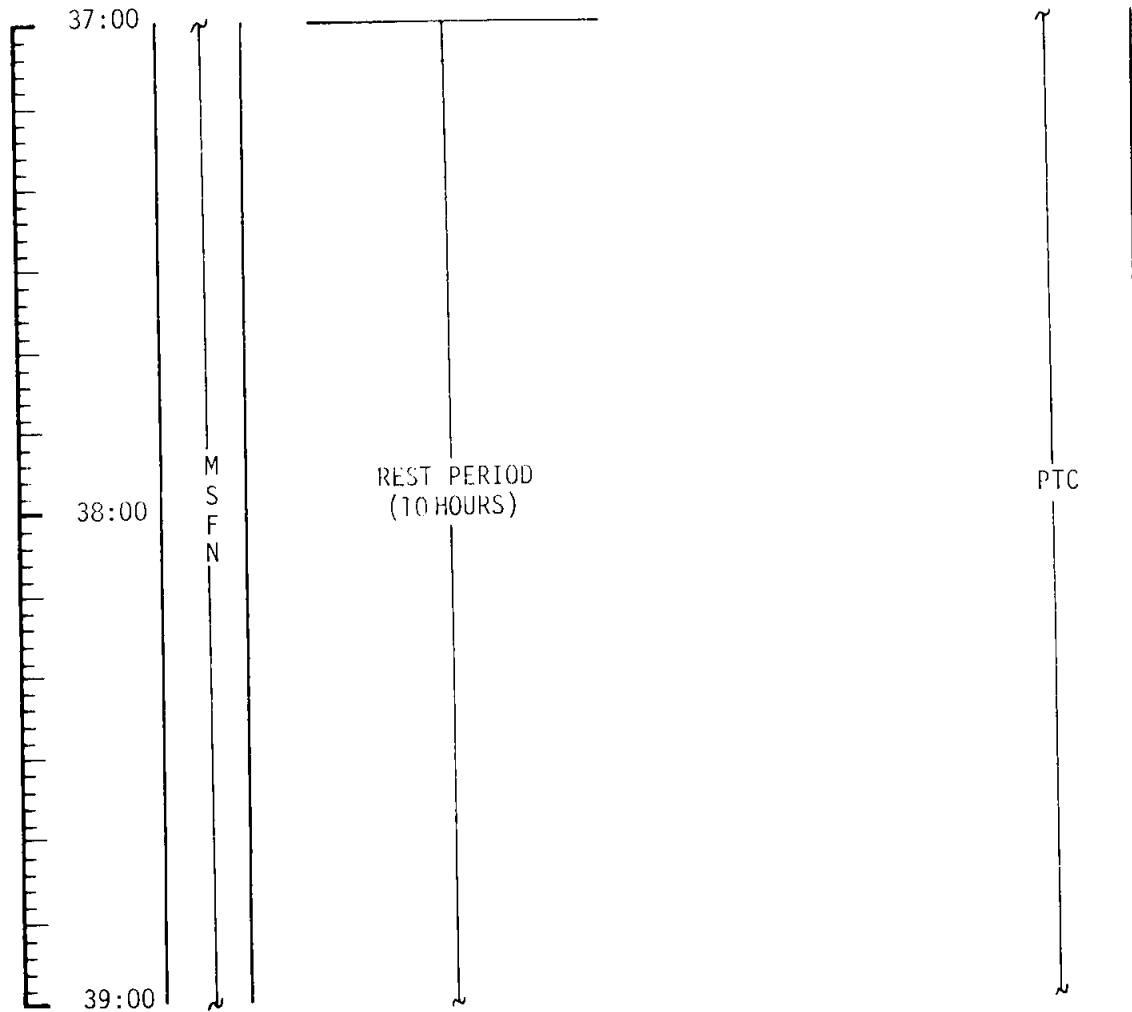
MSC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH

MCC-H
10:30 PM EDT

FLIGHT PLAN

NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	37:00 - 39:00	2/TLC	3-27

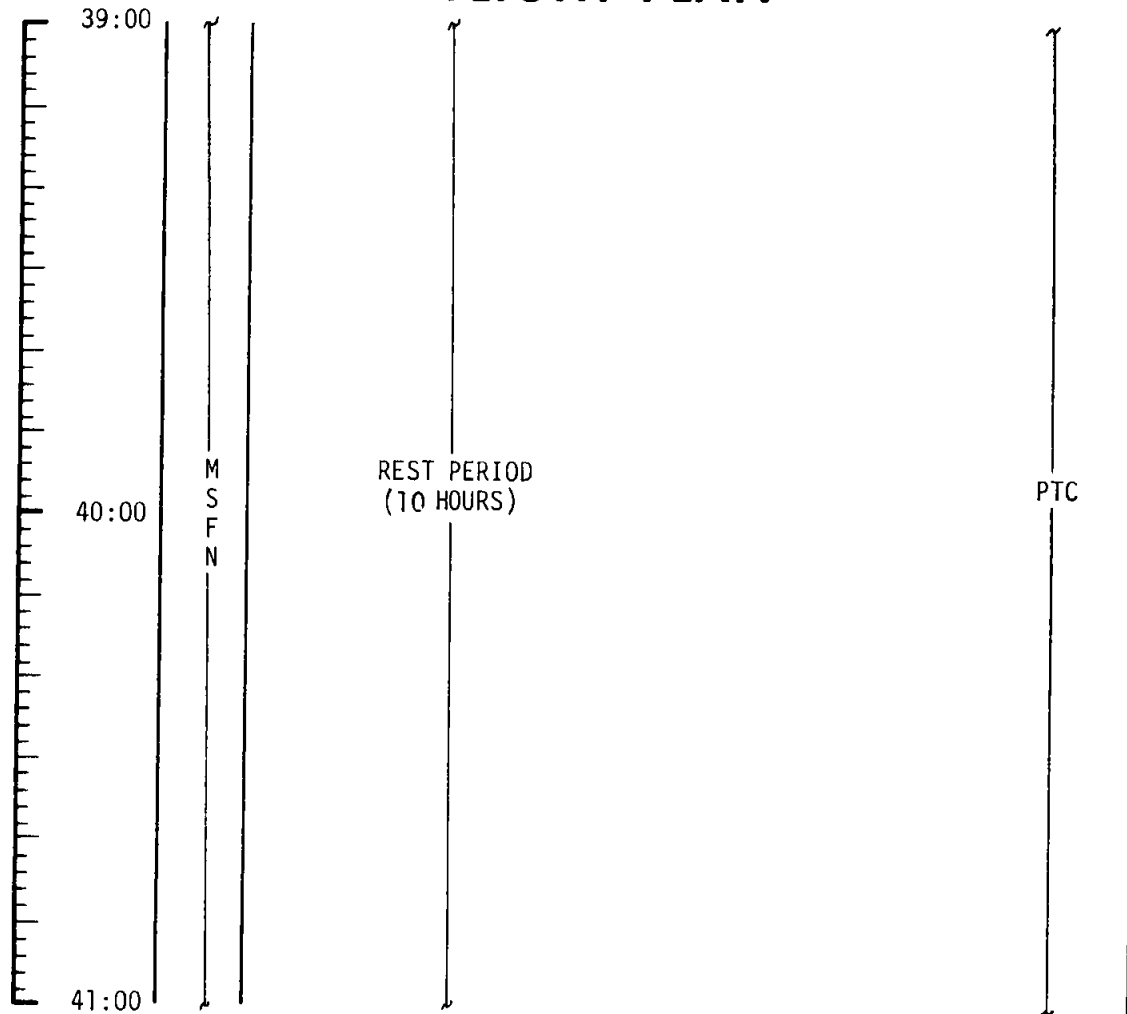
FLIGHT PLANNING BRANCH

MSC Form 29 OT (Mar. 69)

MCC-H
12:30 PM EDT

FLIGHT PLAN

NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	39:00 - 41:00	2/TLC	3-28

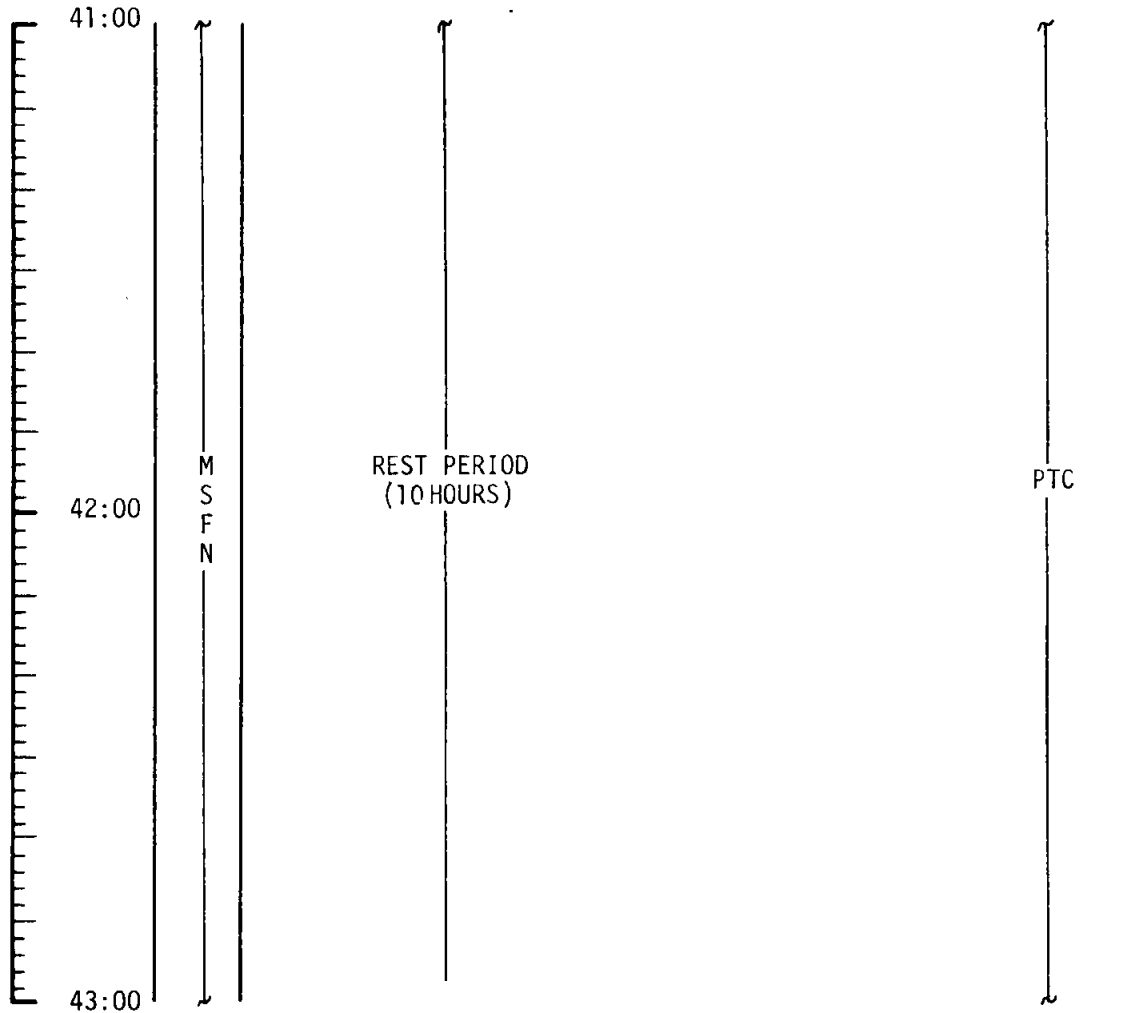
MSC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH

2:30 AM **MCC-H** EDT

FLIGHT PLAN

NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	41:00 - 43:00	2/TLC	3-29

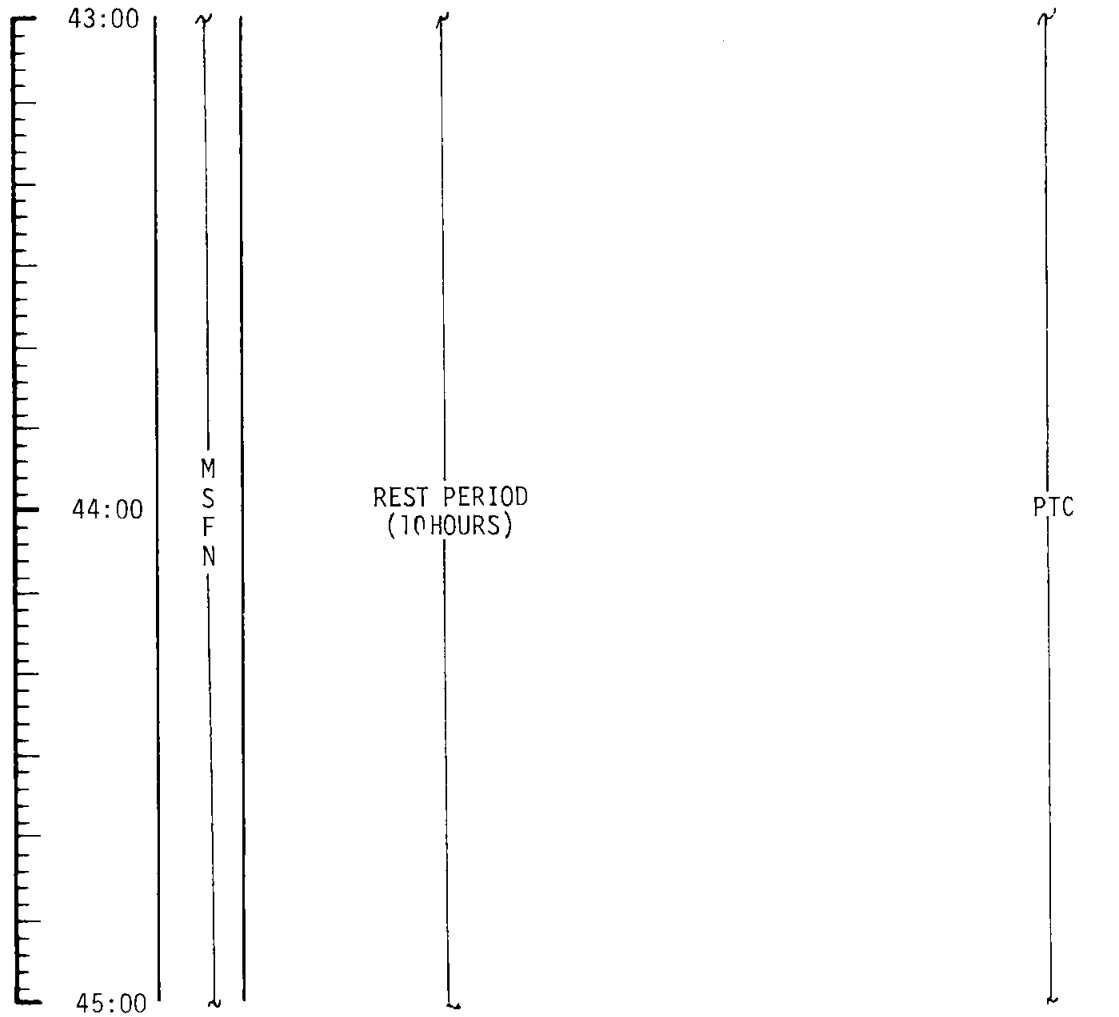
MSC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH

MCC-H
4:30 AM EDT

FLIGHT PLAN

NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	43:00-45:00	2/TLC	3-30

MSC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH

FLIGHT PLAN

NOTES

MCC-H

6:30 AM EDT

45:00

46:00

47:00

M
S
F
N

REST PERIOD
(10 HOURS)

PTC

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	RELIMINARY	APRIL 15, 1969	45:00-47:00	2/TLC	3-31

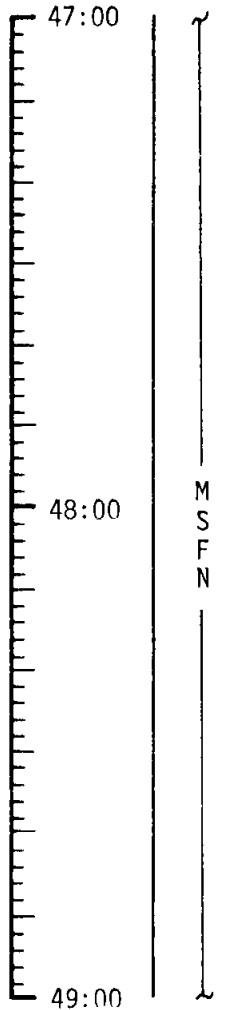
FLIGHT PLANNING BRANCH

MSC Form 29 OT (Mar. 69)

MCC-H
8:30 AM EDT

FLIGHT PLAN

NOTES



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 B5)

ECS REDUNDANT COMPONENT CK

O₂ FUEL CELL PURGE

H₂ FUEL CELL PURGE

PTC

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

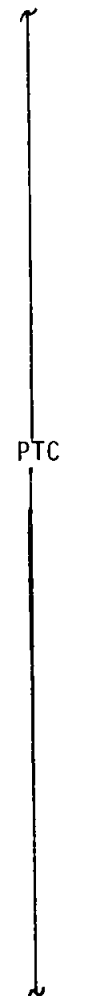
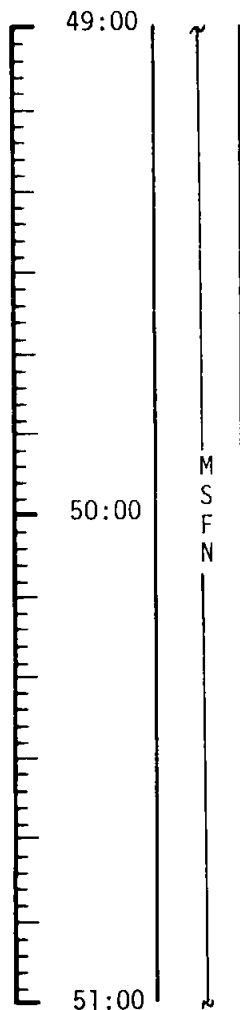
FLIGHT PLANNING BRANCH

MSC Form 29 OT (Mar. 69)

MCC-H
10:30 AM EDT

FLIGHT PLAN

NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	49:00 - 51:00	3/TLC	3-33

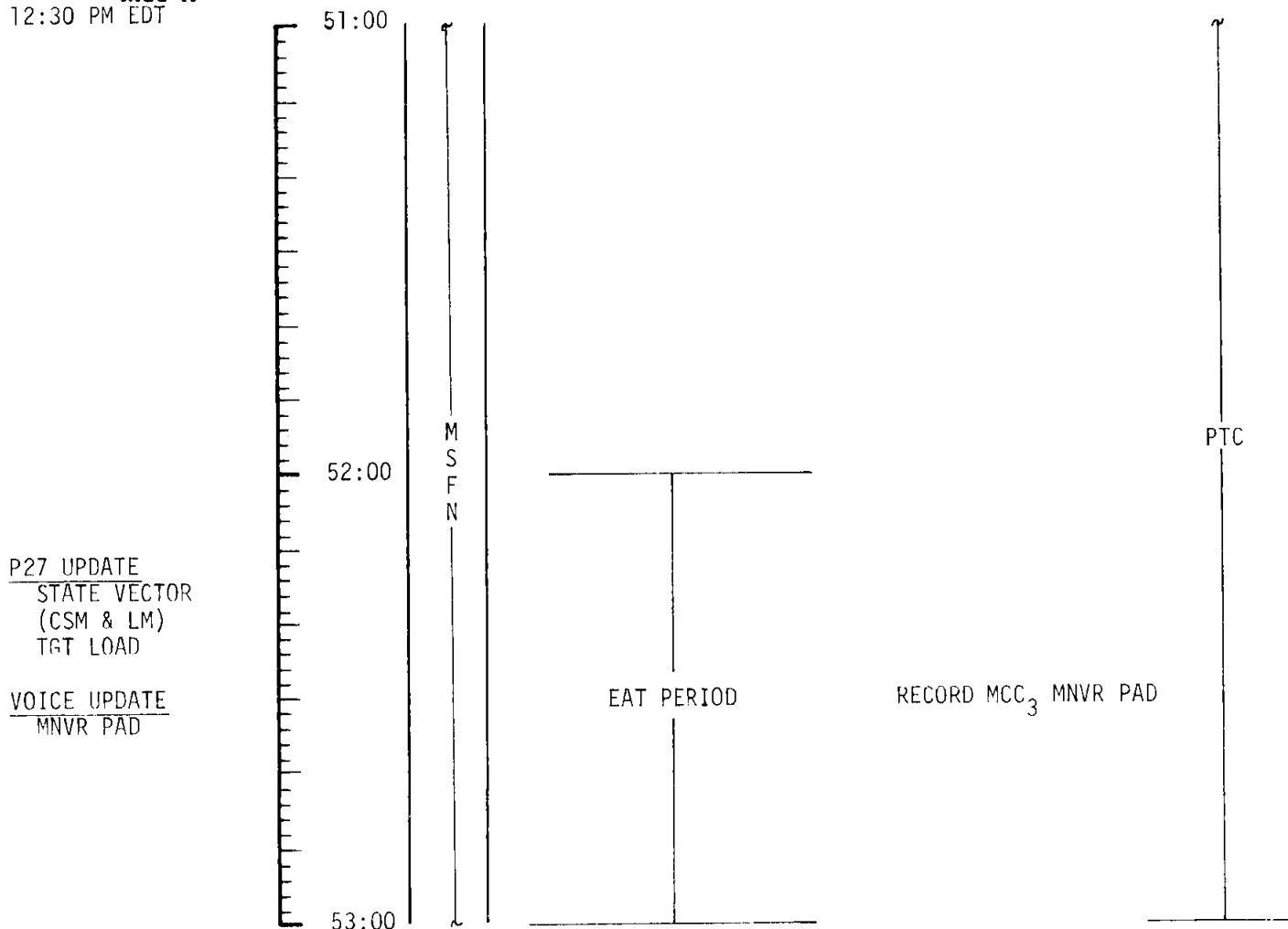
MSC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH

FLIGHT PLAN

NOTES

12:30 PM EDT **MCC-H**



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	51:00 - 53:00	3/TLC	3-34

FLIGHT PLANNING BRANCH

MSC Form PD OT (Mar. 69)

MCC
BURN CHART

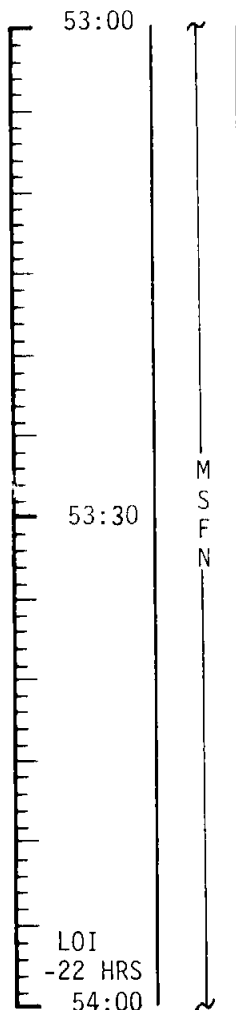
	P OR Y RATES	ATT DEVIATION	SHUTDOWN TIME	RESIDUALS
MCC ₃	10°/SEC TAKEOVER	+10° TAKEOVER	BT + 1 SEC	TRIM TO 0.5 FPS

3-31a

MCC-H
2:30 PM EDT

FLIGHT PLAN

NOTES



IMU REALIGN - P52
OPTION 3 - REFSMMAT

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

MCC₃ ΔV NOMINALLY ZERO TRIM TO 0.5 FPS

BURN STATUS REPORT			
X	X	:	ΔTIG
X	X	:	BT
		.	V _{gx}
TRIM			
X	X	X	R
X	X	X	P
X	X	X	Y
<input type="checkbox"/>			V _{gx}
<input type="checkbox"/>			V _{gy}
<input type="checkbox"/>			V _{gz}
<input type="checkbox"/>			ΔV _c
X	X	X	FUEL
X	X	X	OX
X	X	X	UNBAL
REMARKS:			

P52 (PTC REFSMMAT)

N71: _____

N05: _____

N93: _____

X _____

Y _____

Z _____

MCC₃ WILL BE PERFORMED WITH THE SPS IF ΔV > 3 FPS, OR WITH THE RCS IF ΔV < 3 FPS. MCC₃ WILL NOT BE PERFORMED IF THE ΔV < 3 FPS AND CAN BE CORRECTED DURING LOI, WITHOUT EXCEEDING 45° IN APSIDAL ROTATION

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	53:00 - 54:00	3/TLC	3-35

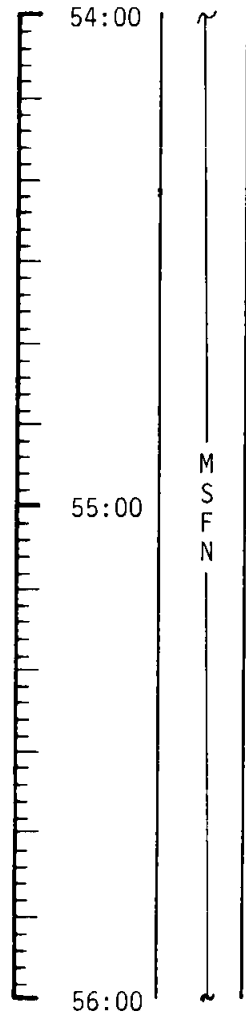
FLIGHT PLANNING BRANCH

MSC Form 29 OT (Mar. 69)

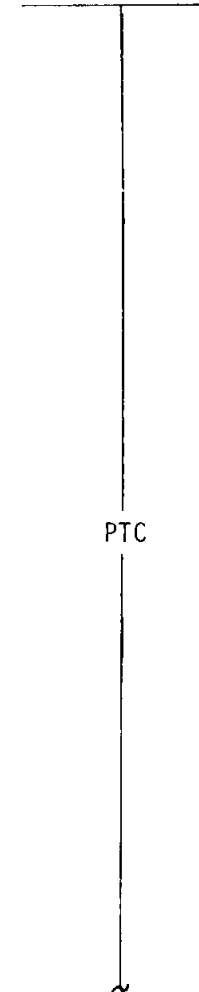
3:30 PM EDT **MCC-H**

FLIGHT PLAN

NOTES



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



LMP - PREPARE FOR LM INGRESS

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	54:00 - 56:00	3/TLC	3-36

MSC Form 29 OT (Mar. 69)

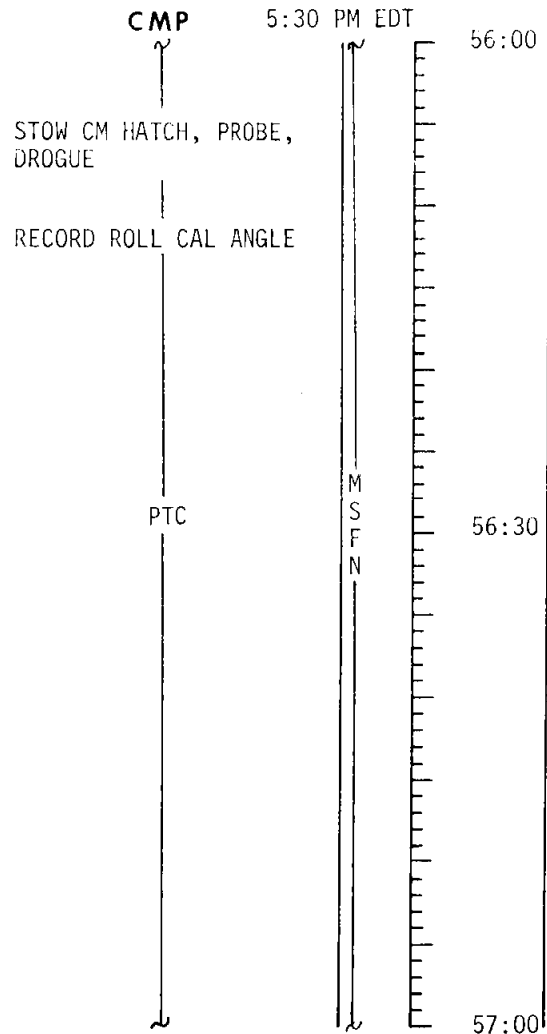
FLIGHT PLANNING BRANCH

FLIGHT PLAN

CSM

LM

MCC-H



CDR	LMP
	CLEAR TUNNEL OF CM HATCH INSPECT TUNNEL & DOCKING LATCHES REMOVE PROBE & DROGUE
	OPEN LM HATCH RELAY ROLL CAL ANGLE IVT TO LM
TRANSFER THE FOLLOWING EQUIPMENT TO THE LM: TBD	RECEIVE & STOW EQUIPMENT FROM CSM

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	56:00 - 57:00	3/TLC	3=37

FLIGHT PLAN

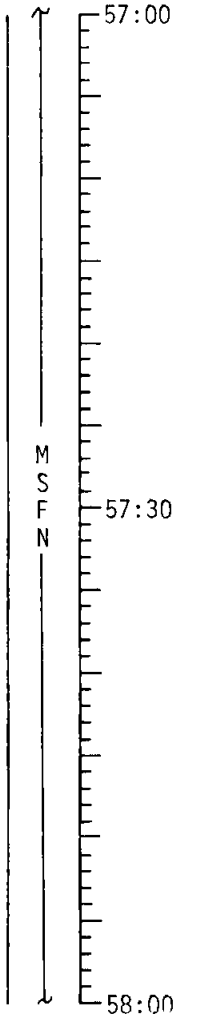
CSM

LM

MCC-H

CMP

PTC



CDR		LMP	
IVT TO LM		ASSIST CDR	
LM FAMILIARIZATION		LM FAMILIARIZATION	
IVT TO CSM		IVT TO CSM	
CLOSE LM HATCH			

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

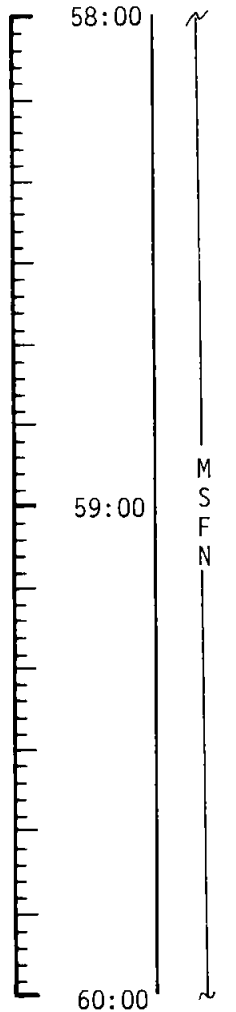
FLIGHT PLAN

NOTES

MCC-H
7:30 PM EDT

180,000 NM FROM EARTH

VOICE UPDATE:
BLOCK DATA



INSTALL PROBE & DROGUE
INSTALL CM HATCH

RECORD BLOCK DATA
(LOI-5:00 HRS FLY BY
TO PRIME CLA)

LiOH CANISTER CHANGE NO. 5
(7 INTO A, STORE 5 IN B6)

EAT PERIOD

CYCLE O₂ & H₂ FANS
CREW STATUS REPORT
CHLORINATE POTABLE WATER

PTC

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

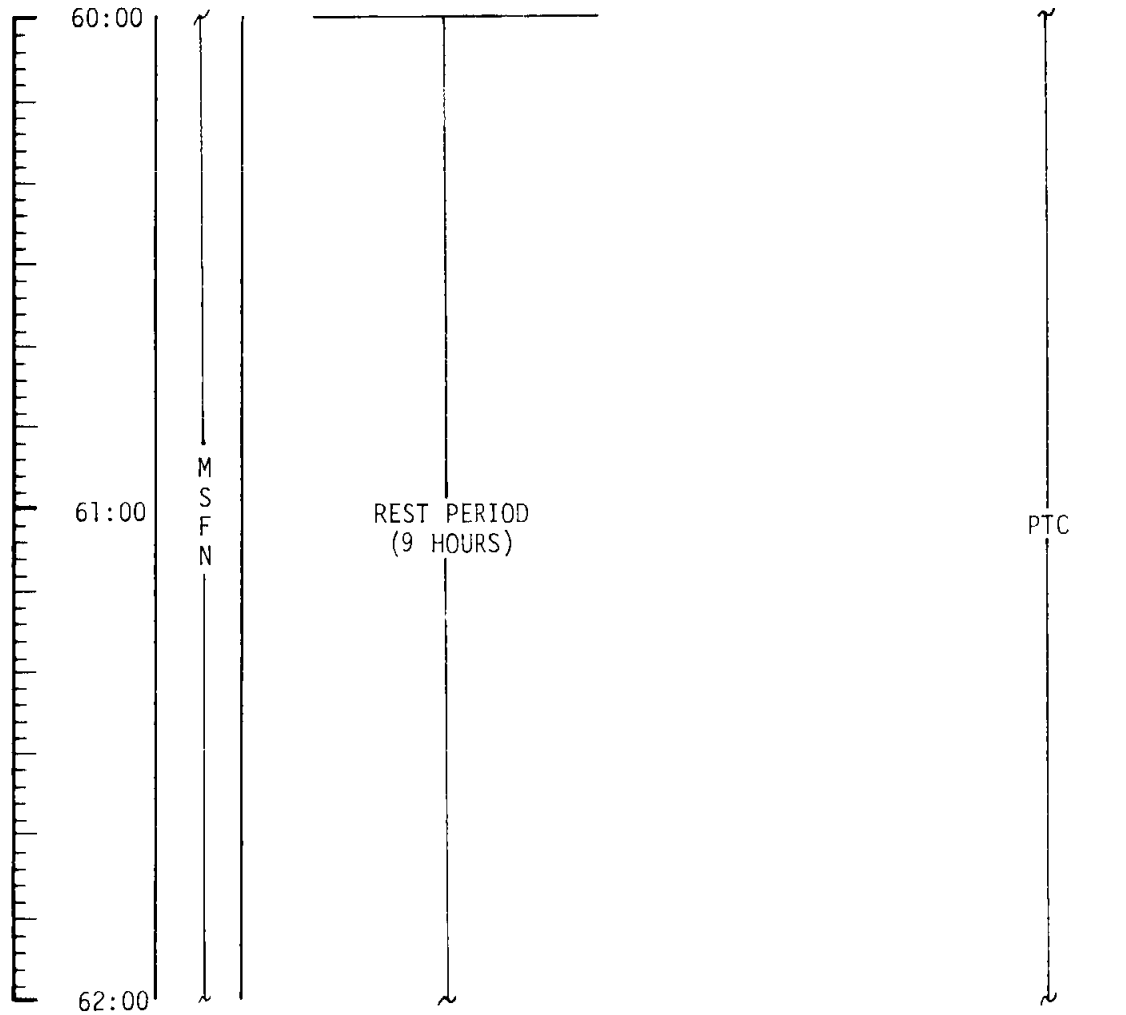
FLIGHT PLANNING BRANCH

MSC Form 29 OT (Mar. 69)

9:30 PM EDT **MCC-H**

FLIGHT PLAN

NOTES



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

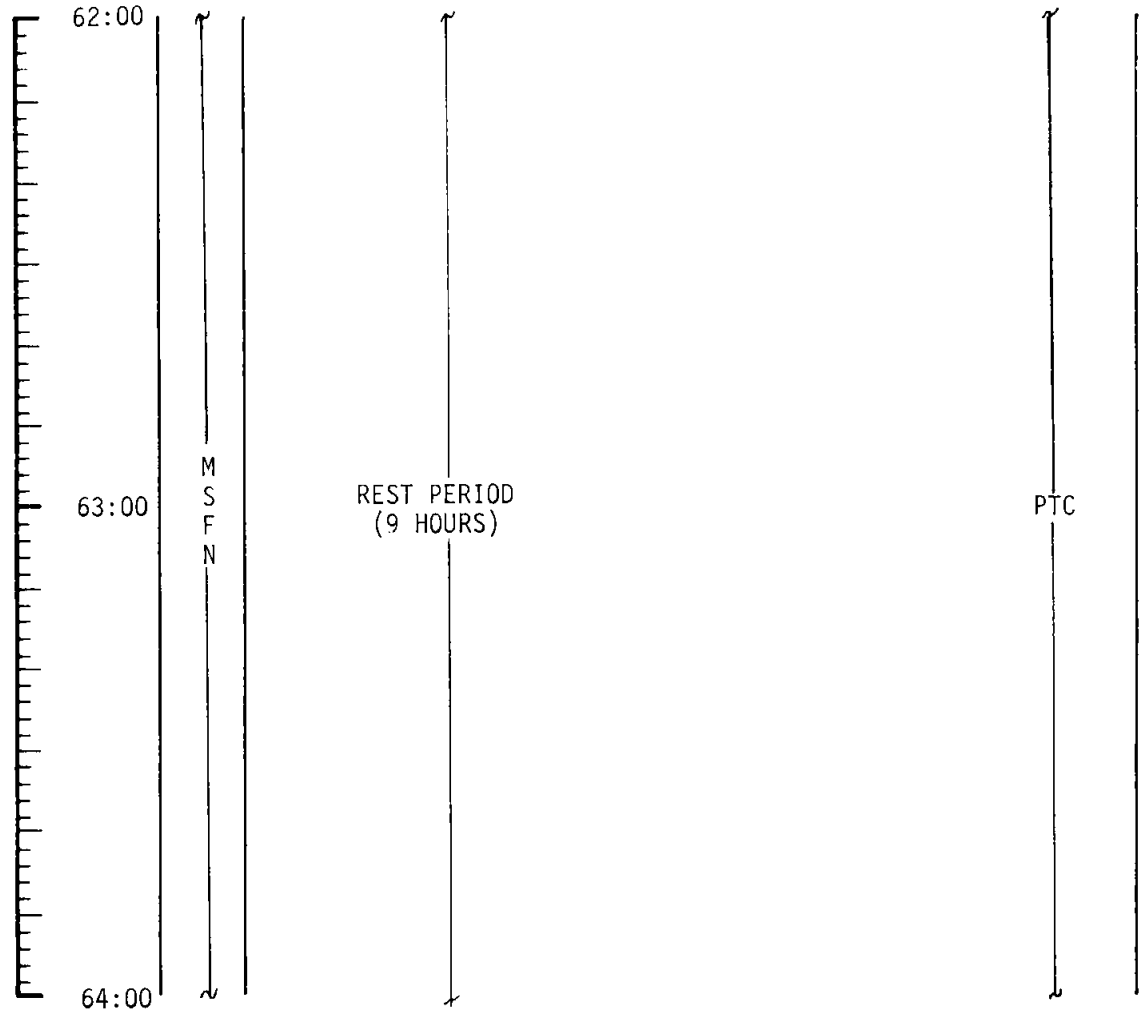
MSC Form 29-01 (Mar. 69)

FLIGHT PLANNING BRANCH

11:30 PM EDT **MCC-H**

FLIGHT PLAN

NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	62:00 - 64:00	3/TLC	3-41

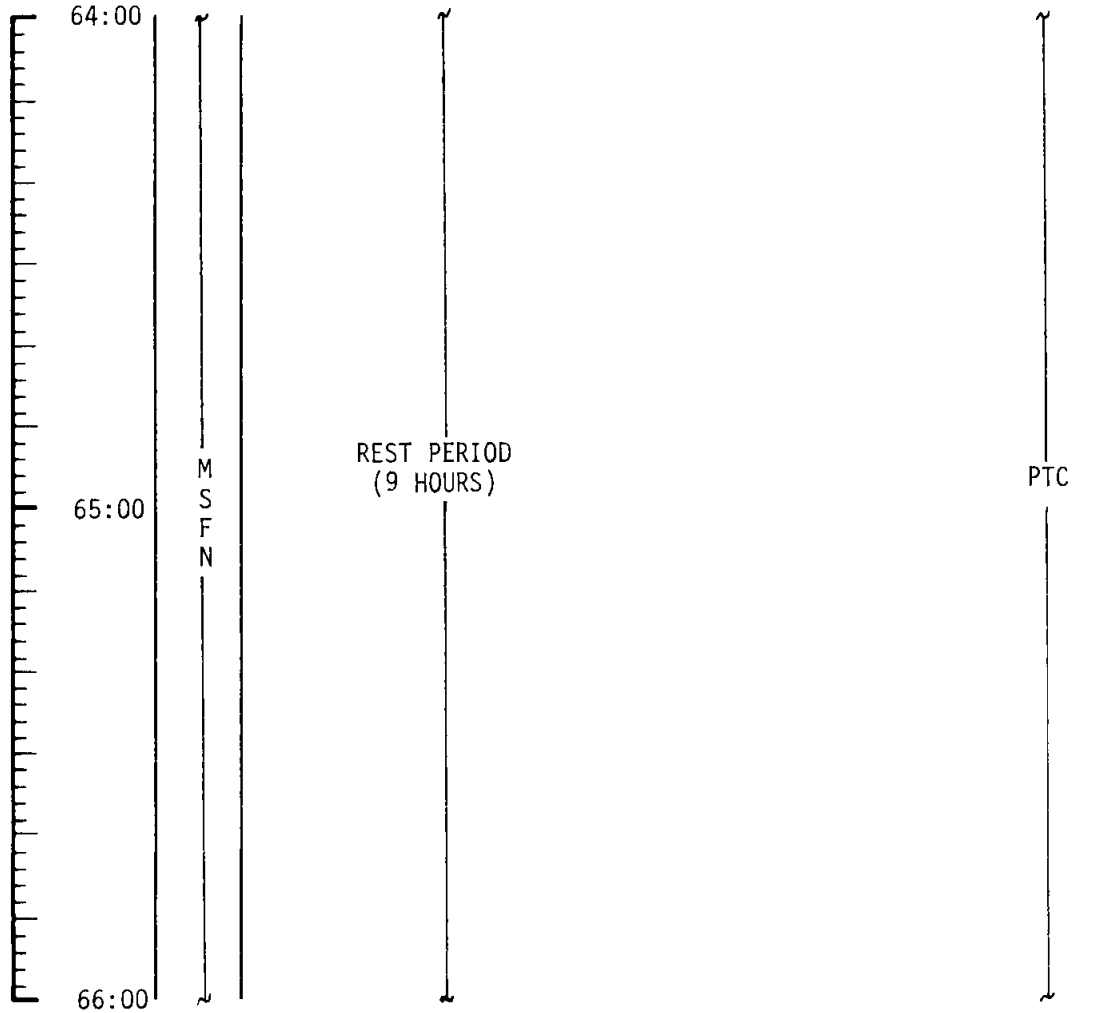
MSC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH

MCC-H
1:30 AM EDT

FLIGHT PLAN

NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	64:00 - 66:00	3/TLC	3-42

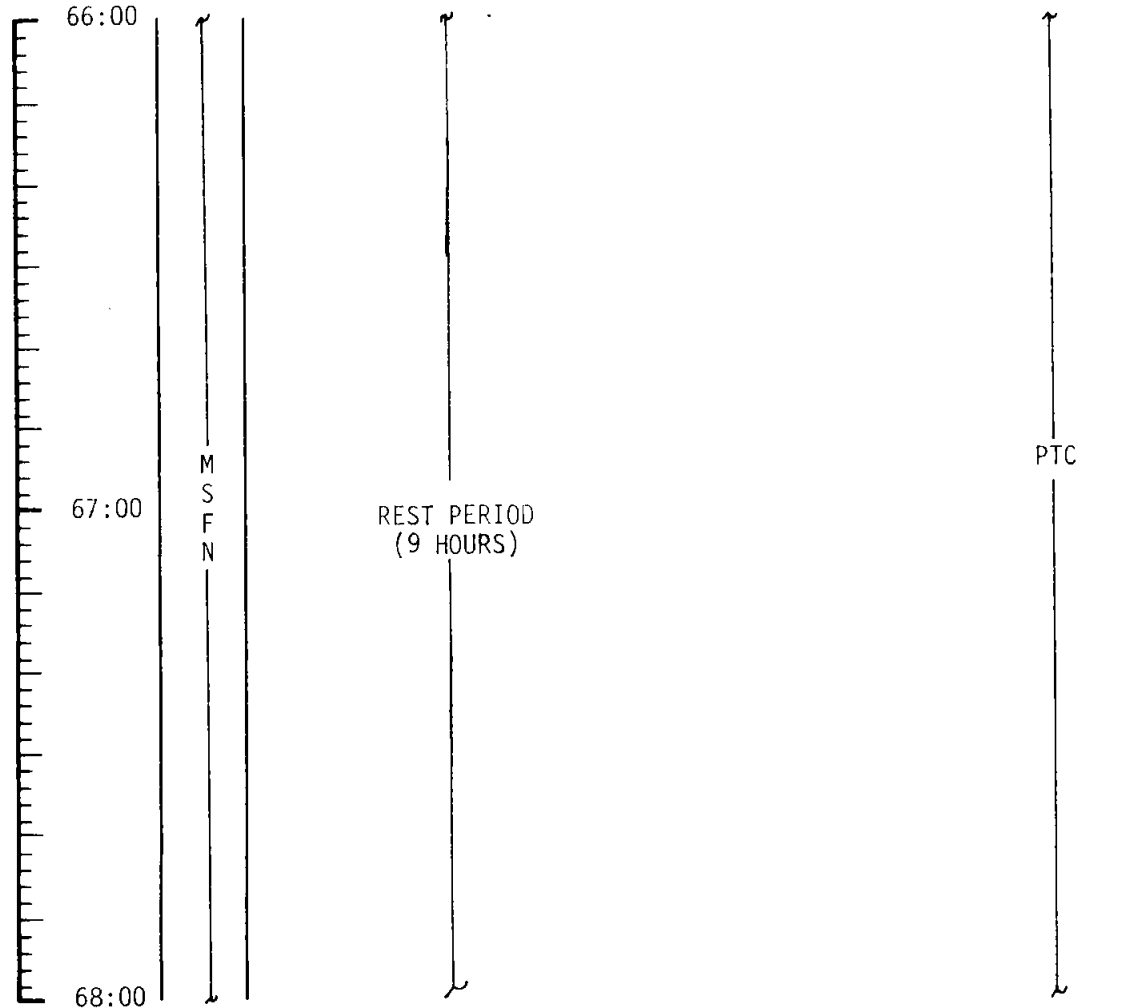
MSC Form 29 OF (Mar. 69)

FLIGHT PLANNING BRANCH

3:30 AM EDT **MCC-H**

FLIGHT PLAN

NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	66:00 - 68:00	3/TLC	3-43

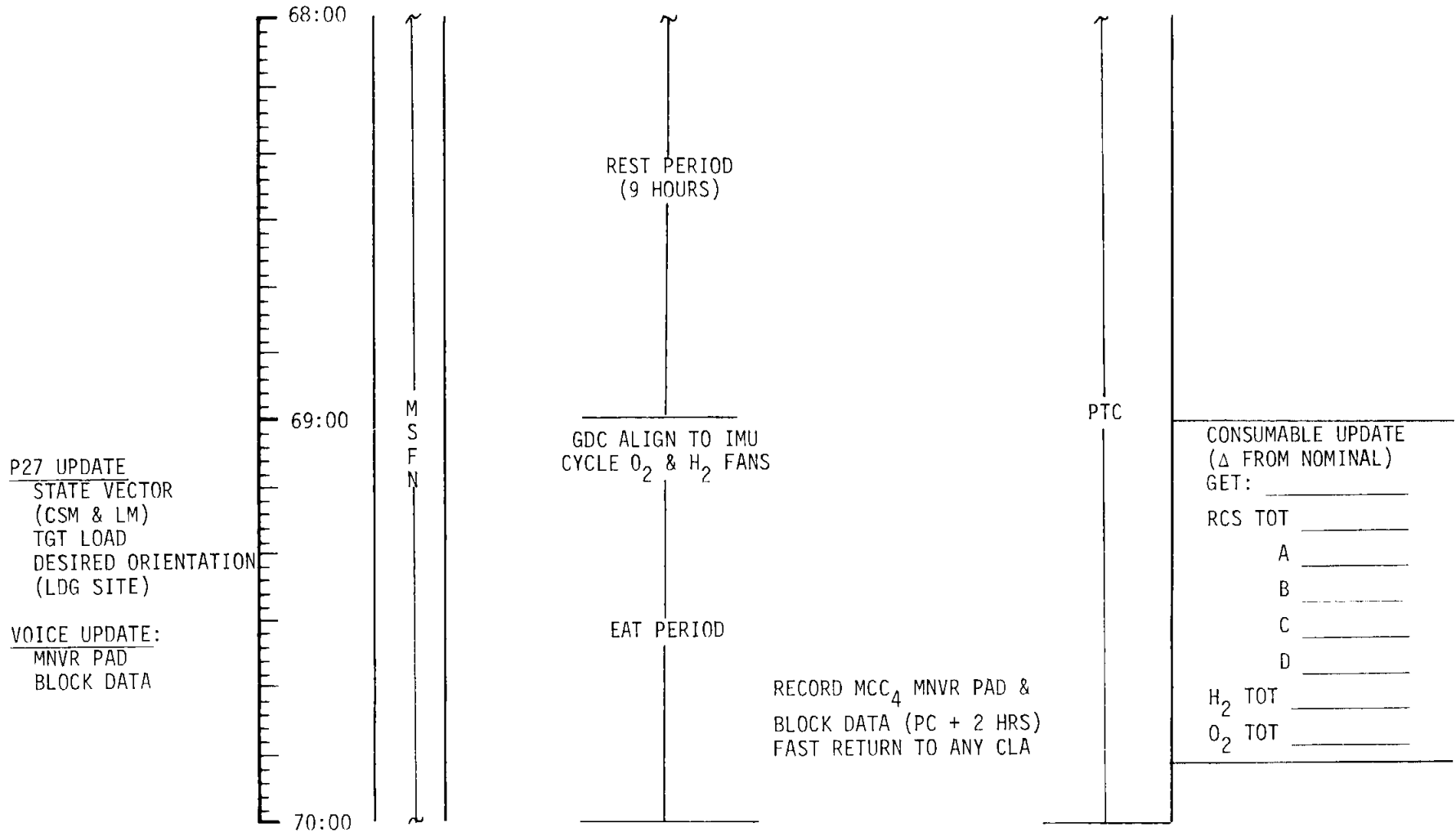
MSC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH

MCC-H

FLIGHT PLAN

NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	68:00-70:00	4/TLC	3-44

FLIGHT PLANNING BRANCH

MCC Form 29 OT (Mar. 69)

MCC
BURN CHART

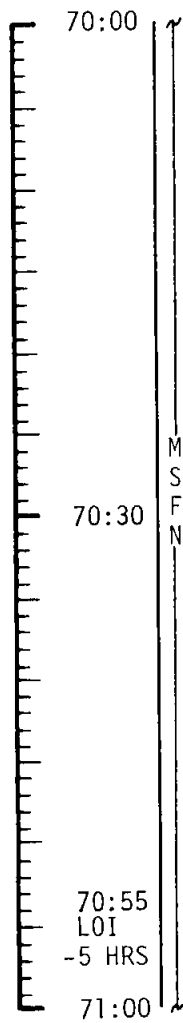
	P OR Y RATES	ATT DEVIATION	SHUTDOWN TIME	RESIDUALS
MCC ₄	10°/SEC TAKEOVER	+10° TAKEOVER	BT + 1 SEC	TRIM TO 1 FPS

3-44a

7:30 AM EDT **MCC-H**

FLIGHT PLAN

NOTES



200,000 NM FROM EARTH

IMU REALIGN - P52
(OPTION - 1 PREFERRED)

BURN STATUS REPORT

X	X	:		ΔTIG
X	X	:		BT
			•	V _{gx}

TRIM

X	X	X		R
X	X	X		P
X	X	X		Y
			•	V _{gx}
			•	V _{gy}
			•	V _{gz}
			•	ΔV _c
X	X	X		FUEL
X	X	X		OX
X	X	X		UNBAL

REMARKS:

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

P52 LDG SITE REFSMMAT

N71: _____

N05: _____

N93:

X _____

Y _____

Z _____

MCC₄ WILL BE PERFORMED

WITH THE SPS IF ΔV > 3 FPS, OR WITH THE RCS IF ΔV < 3 FPS

MCC₄ WILL NOT BE PER-

FORMED IF THE ΔV < 3 FPS AND CAN BE CORRECTED DURING THE LOI₁ BURN

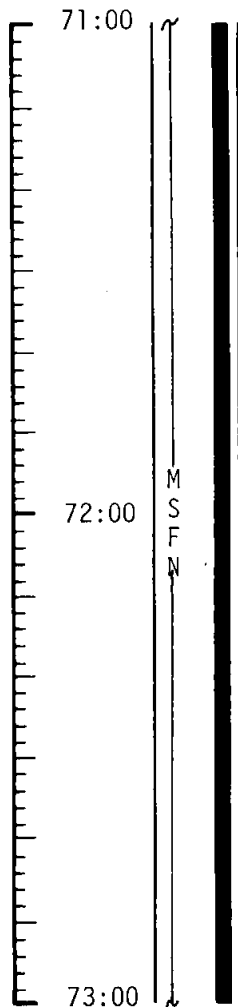
MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	70:00 - 71:00	4/TLC	3-45

FLIGHT PLANNING BRANCH

8:30 AM EDT **MCC-H**

FLIGHT PLAN

NOTES



SM RCS CK.
 SPS MONITOR CK.
 MCC₄ BURN STATUS REPORT
 V66 - TRANS CSM STATE VECTOR
 TO LM SLUT
 LiOH 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

P52 LDG SITE REFSMMAT
 N71: _____
 N05: _____
 N93: _____
 X _____
 Y _____
 Z _____

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

FLIGHT PLAN

NOTES

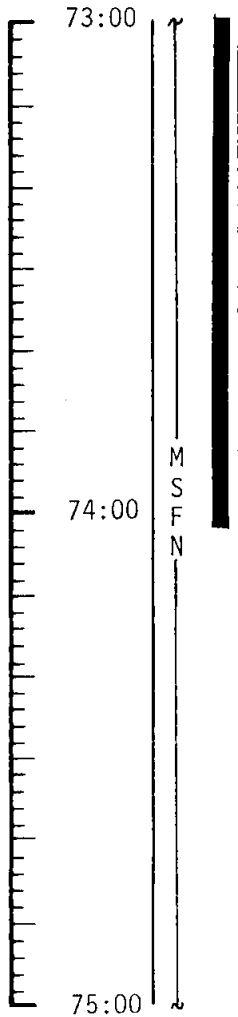
MCC-H

10:30 AM EDT
GO/NO-GO

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

VOICE UPDATE:
MNVR PAD

VOICE UPDATE:
BLOCK DATA



GO/NO-GO FOR LOI₁

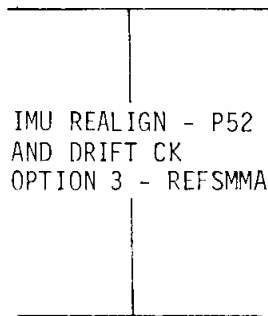
RECORD LOI₁ MNVR PAD

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 - REFSMMAT

S-BAND SQUELCH - OFF

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

P52 (LDG SITE REFSMMAT)

N71: _____, _____

N05: _____, _____

N93: _____

X _____

Y _____

Z _____

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

FLIGHT PLANNING BRANCH

LOI₁
BURN CHART

	P OR Y RATES	ATT DEVIATION	SHUTDOWN TIME	RESIDUALS
LOI ₁	10°/SEC TAKEOVER	+10° TAKEOVER	B/T + 10 SEC	NO TRIM
LOI ₁ ABORT MODES				
LOI ₁ V _{GO}	B/T	TRAJECTORY	ABORT MODE	
2924.0 - 2204.0	0 - 104	HYPERBOLIC	MODE I - COAST 2 HR - DPS - P37	
2204.0 - 1668.0	104 - 170	UNSTABLE	MODE II - COAST 2 HR - 2 DPS BURNS FOR STABLIZATION AND WATER or CLA LANDING	
1668.0 - 0	170 - 365	LUNAR ORBIT	MODE III - DPS BURN AFTER ONE REV	

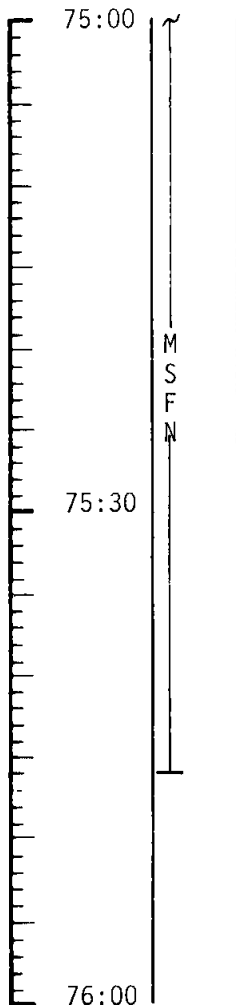
3-47a

MCC-H

12:30 PM EDT

FLIGHT PLAN

NOTES



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 - P30 (RELOAD N81 WITH PAD VALUES)

SPS THRUST - P-40

MNVR TO BURN ATT

SXT STAR CK

GDC ALIGN TO IMU

LOI₁

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

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	75:00 - 76:00	4/1	3-48

FLIGHT PLANNING BRANCH

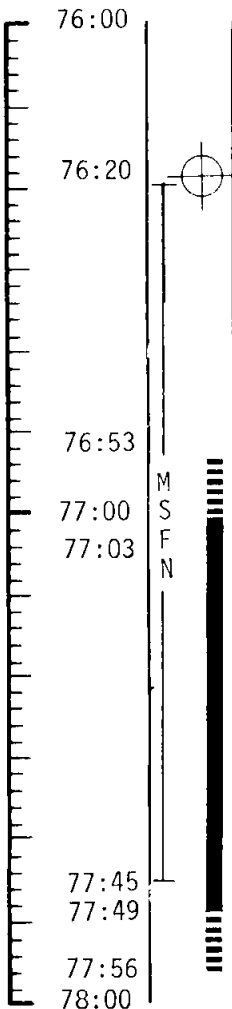
FLIGHT PLAN

NOTES

MCC-H

1:30 PM EDT

00:00
ET FROM
LOI₁ C.O



SM RCS MON CK
SPS MON CK
V66 - TRANS CSM STATE VECTOR
TO LM SLOT

V64 REACQUIRE MSFN

LOI₁ BURN STATUS REPORT

EAT PERIOD

IMU REALIGN - P52
OPTION 3 - REFSMMAT

BURN STATUS REPORT			
X	X	•	ΔTIG
X	X	•	BT
		•	V _{gx}
TRIM			
X	X	X	R
X	X	X	P
X	X	X	Y
<input type="checkbox"/>			V _{gx}
<input type="checkbox"/>			V _{gy}
<input type="checkbox"/>			V _{gz}
<input type="checkbox"/>			ΔV _c
X	X	X	FUEL
X	X	X	OX
X	X	X	UNBAL
REMARKS:			

P52 (LDG SITE REFSMMAT)

N71: _____

N05: _____

N93: _____

X _____

Y _____

Z _____

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	76:00 - 78:00	4/1	3-49

FLIGHT PLANNING BRANCH

FLIGHT PLAN

NOTES

3:30 PM EDT **MCC-H**

02:00

78:00
REV 2

78:28
78:30

M
S
F
N

V64 REACQUIRE MSFN

RECORD LOI₂ PAD AND
BLOCK DATA (TEI₅)

79:00

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

VOICE UPDATE:
MNVR PAD
BLOCK DATA

TEI₅ BLOCK DATA
ASSUMES LOI₁ & LOI₂
ACCOMPLISHED

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	78:00 - 79:00	4/2	3-50

FLIGHT PLANNING BRANCH

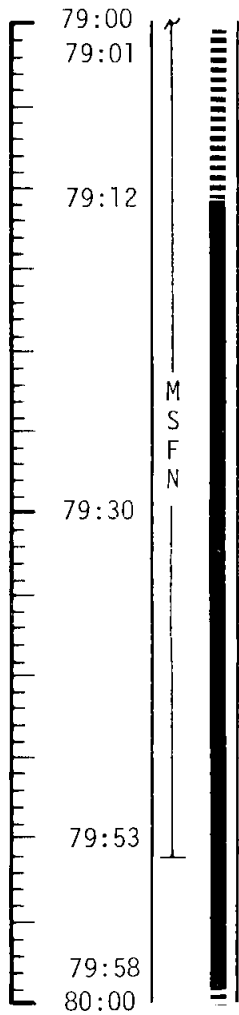
MSC Form 29 OT (Mar. 69)

4:30 PM EDT **MCC-H**

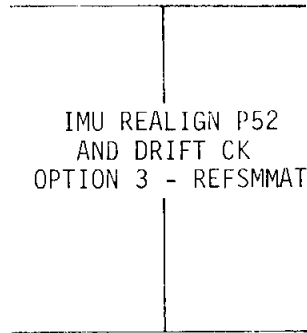
03:00

FLIGHT PLAN

NOTES



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



P52 (LDG SITE REFSMMAT)

N71: _____

N05: _____

N93:

X _____

Y _____

Z _____

PIPA BIAS CK

EXT ΔV - P30

SPS THRUST - P40

SXT STAR CK (STOW OPTICS)

EMS ΔV TEST

SM RCS CK

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	79:00 - 80:00	4/2	3-51

FLIGHT PLANNING BRANCH

MSC Form 29 OT (Mar. 69)

LOI₂
BURN CHART

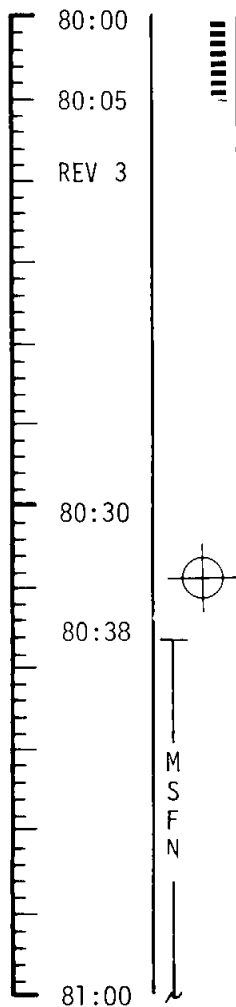
	P OR Y RATES	ATT DEVIATION	SHUTDOWN TIME	RESIDUALS
LOI ₂	10°/SEC TAKEOVER	+10° TAKEOVER	BT + 1 SEC	NO TRIM

3-51a

MCC-H
5:30 PM EDT

FLIGHT PLAN

NOTES



GDC ALIGN TO IMU

GETI: 80:12:01
ULLAGE: 2 JET, 20 SEC
BT:00:14
ΔV :138.5
60 x 60

LOI₂

SM RCS CK
SPS MON CK
V66 - TRANS CSM STATE VECTOR TO LM SLOT

V64 ACQUIRE MSFN
BURN STATUS REPORT

BURN STATUS REPORT			
X	X	:	ΔTIG
X	X	:	BT
		.	V_{gx}
TRIM			
X	X	X	R
X	X	X	P
X	X	X	Y
<input type="checkbox"/>			V_{gx}
<input type="checkbox"/>			V_{gy}
<input type="checkbox"/>			V_{gz}
<input type="checkbox"/>			ΔV_c
X	X	X	FUEL
X	X	X	OX
X	X	X	UNBAL
REMARKS:			

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

FLIGHT PLAN

	CMP	CDR	LMP	MCC-H
81:00 81:04 81:10 81:30 81:50 82:00	6:30 PM EDT 05:00 RECORD UPDATE (SEE GET 82:40) STOW CM HATCH, PROBE & DROGUE CSM POWER TO LM - OFF (UPON REQUEST OF LMP)		PREPARE FOR LM INGRESS CLEAR TUNNEL OF CM HATCH INSPECT TUNNEL & DOCKING LATCHES REMOVE PROBE & DROGUE OPEN LM HATCH IVT TO LM LM ENTRY STATUS CHECKS XFER TO LM POWER ACT VHF B FOR DATA XMIT	VOICE UPDATE: P22 AUTO OPTICS

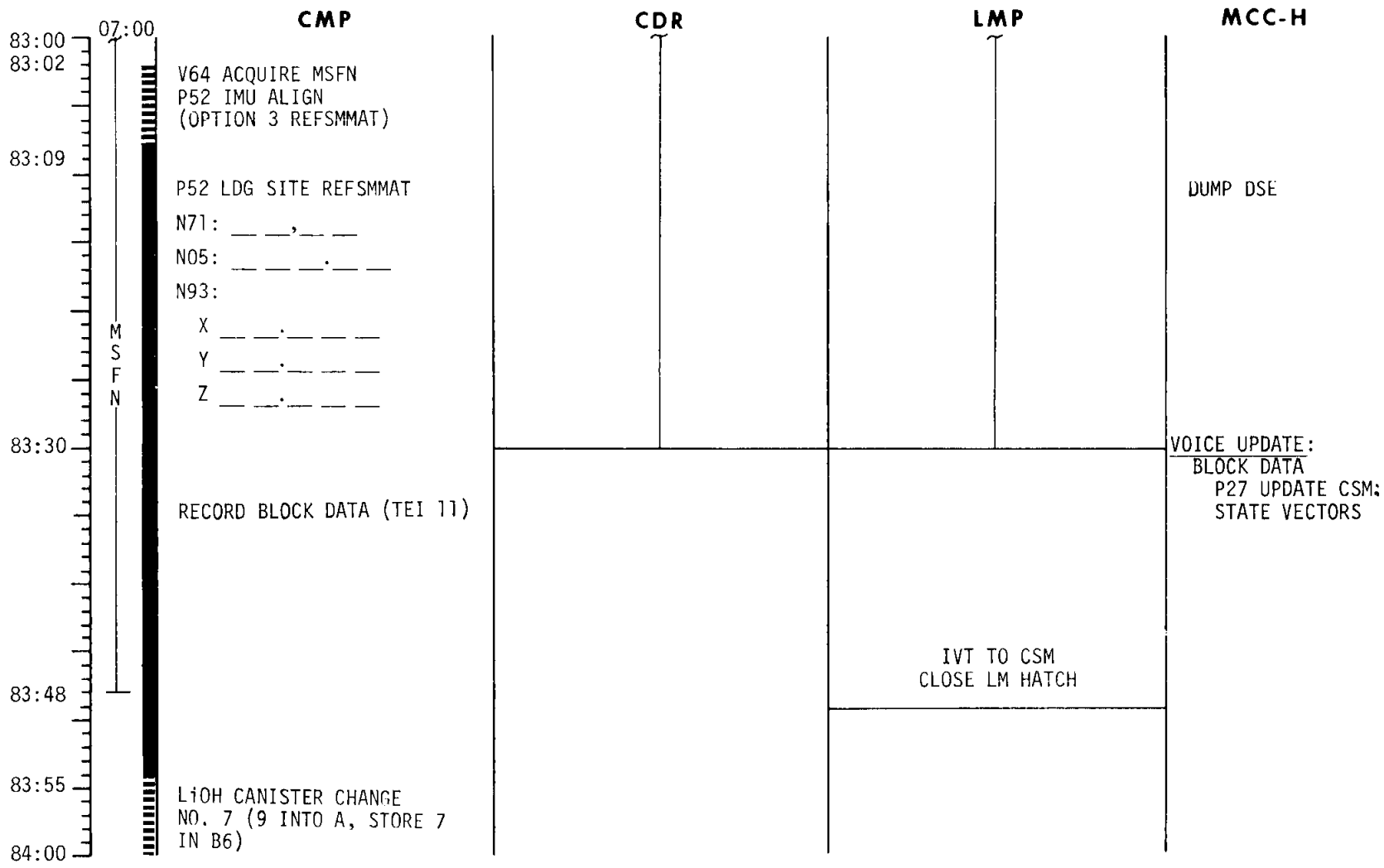
MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	81:00 - 82:00	4/3	3-53

FLIGHT PLAN

	CMP	CDR	LMP	MCC-H
<p>7:30 PM EST 06:00</p> <p>82:00</p> <p>82:03</p> <p>REV 4</p> <p>82:30</p> <p>82:36</p> <p>83:00</p> <p style="text-align: center;">M S F N</p>	<p>RECORD LM DATA</p> <p>CSM POWER TO LM - ON (UPON REQUEST OF LMP)</p> <p>SELECT OMNI B. MNVR TO TRACT ATT R ___ P ___ Y ___ P22 ORBITAL NAVIGATION</p> <div style="border: 1px solid black; padding: 2px; margin: 5px 0;"> <p>TRACK LANDMARK (5 MARKS ON PSEUDO LMK F1)</p> </div> <p>DO NOT INCORPORATE MARKS</p> <p>STOP 0.3°/SEC PITCH AT SLEEP ATTITUDE INERTIAL R ___ P ___ Y ___ LOCAL HOR R ___ P ___ Y ___</p>	<p>TRANSFER EQPT TO LM</p> <p style="text-align: center; margin-top: 100px;">AID LMP AS REQUIRED</p>	<p>DEACTIVATE VHF B DATA XMIT XFER TO CSM POWER</p> <p>RECEIVE EQUIPMENT FROM CSM AND STOW</p> <p>PERFORM GENERAL HOUSEKEEPING CHORES AND OPS CHECK</p>	<p>VOICE UPDATE:</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>P22 AUTO OPTICS LMK ID <u> F1 </u></p> <p>T1 <u> </u>:<u> </u>:<u> </u> (HOR)</p> <p>T2 <u> </u>:<u> </u>:<u> </u> (LMK)</p> <p><u> </u> NM (N OR S)</p> <p>N 89</p> <p>LAT + <u> 0 </u> <u> 1 </u> <u> 6 </u> <u> 0 </u> <u> 0 </u> °</p> <p>LONG/2 + <u> 4 </u> <u> 3 </u> <u> 4 </u> <u> 4 </u> <u> 0 </u> °</p> <p>ALTITUDE +<u> 0 </u> <u> 0 </u> <u> 0 </u> <u> 0 </u> <u> 0 </u> NM</p> </div>

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

FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	83:00 - 84:00	4/4	3-55

FLIGHT PLAN

NOTES

MCC-H

9:30 PM EDT

08:00

84:00

84:02

REV 5

84:30

84:33

DSE DUMP

V64 ACQ MSFN

EAT
PERIOD

M
S
F
N

CREW STATUS REPORT

85:00

CYCLE H₂ & O₂ FANS

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	84:00 - 85:00	4/5	3-56

FLIGHT PLANNING BRANCH

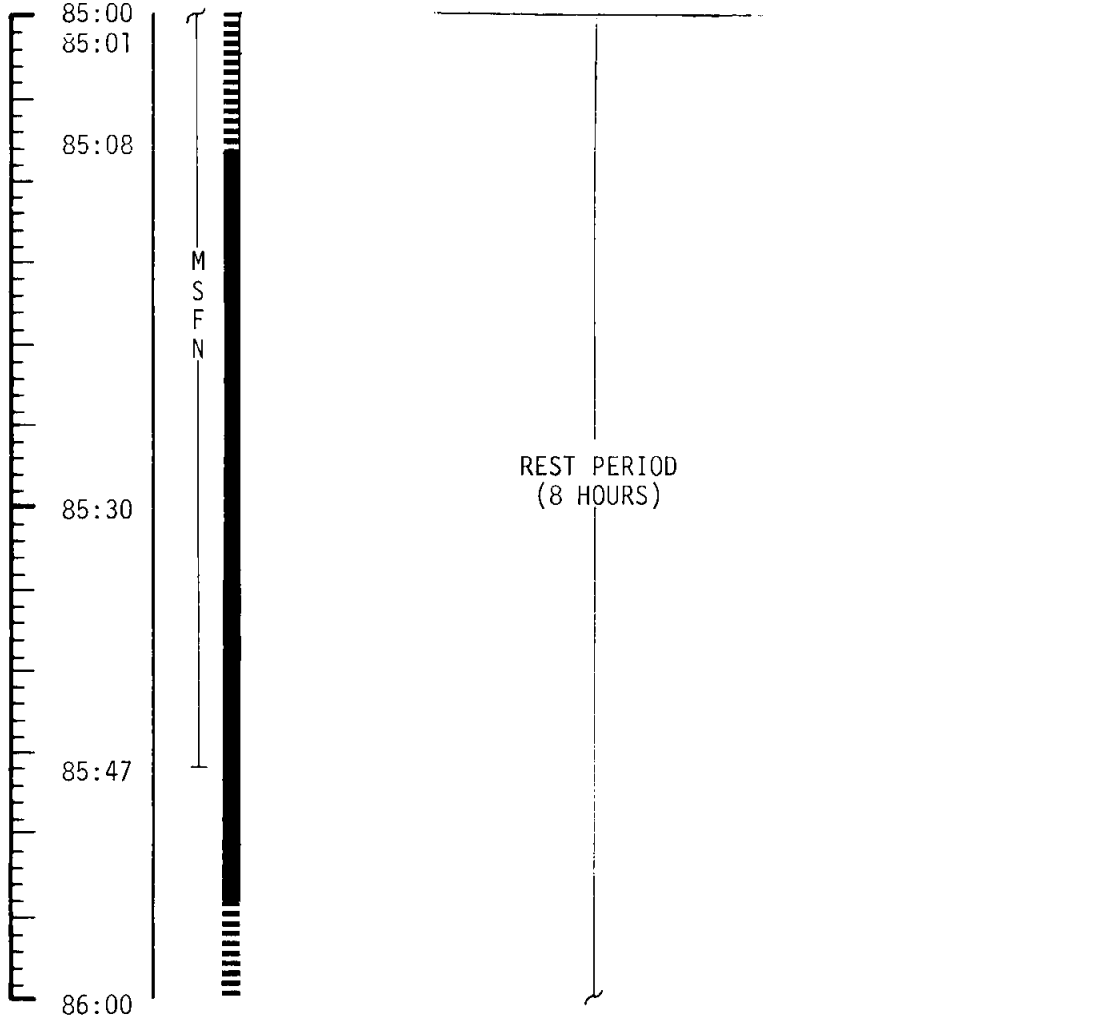
MSC Form 29 OT (Mar. 69)

MCC-H

10:30 PM EDT

FLIGHT PLAN

NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	85:00 - 86:00	4/5	3-57

MSC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH

MCC-H

11:30 PM EDT

FLIGHT PLAN

NOTES

10:00



86:00

86:01

REV 6

86:30

86:33

86:59

87:00

87:06

87:30

87:45

87:53

87:59

88:00



REST PERIOD

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	86:00 - 88:00	4/6	3-58

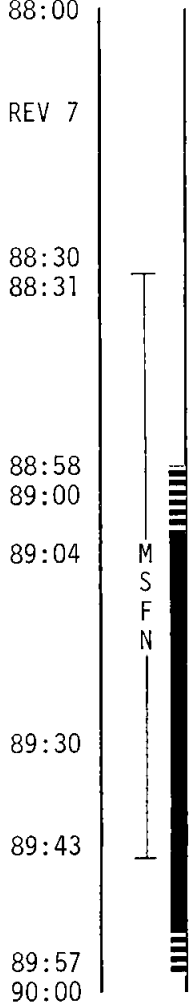
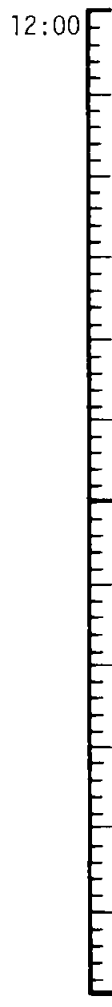
FLIGHT PLANNING BRANCH

MCC-H

1:30 AM EDT

FLIGHT PLAN

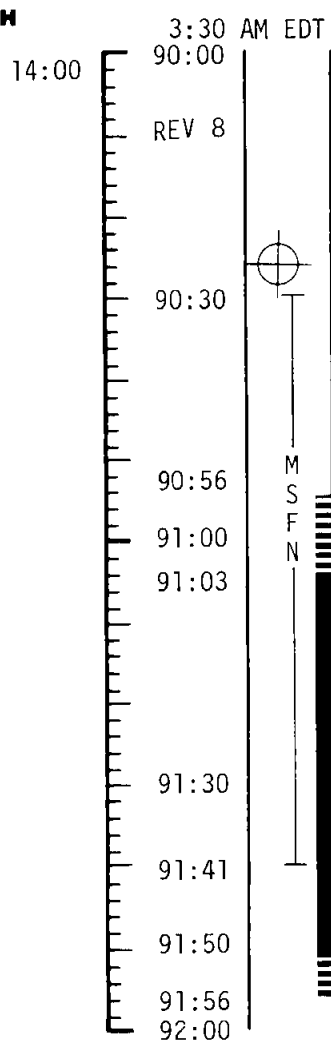
NOTES



REST PERIOD

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	88:00 - 90:00	4/7	3-59

MCC-H



FLIGHT PLAN

NOTES

REST PERIOD

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	90:00 - 92:00	4/8	3-60

FLIGHT PLANNING BRANCH

MCC-H

5:30 AM EDT

FLIGHT PLAN

NOTES

16:00

92:00

REV 9

92:25

92:30

92:55

93:00

93:02

93:30

93:40

93:45

93:55

94:00

M
S
F
N

REST PERIOD

ALIGN GDC TO IMU

CYCLE H₂, O₂ FANS

EAT
PERIOD

CONSUMABLES UPDATE
Δ FROM NOMINAL

GET: _____

RCS TOT _____

A _____

B _____

C _____

D _____

H₂ TOTAL _____

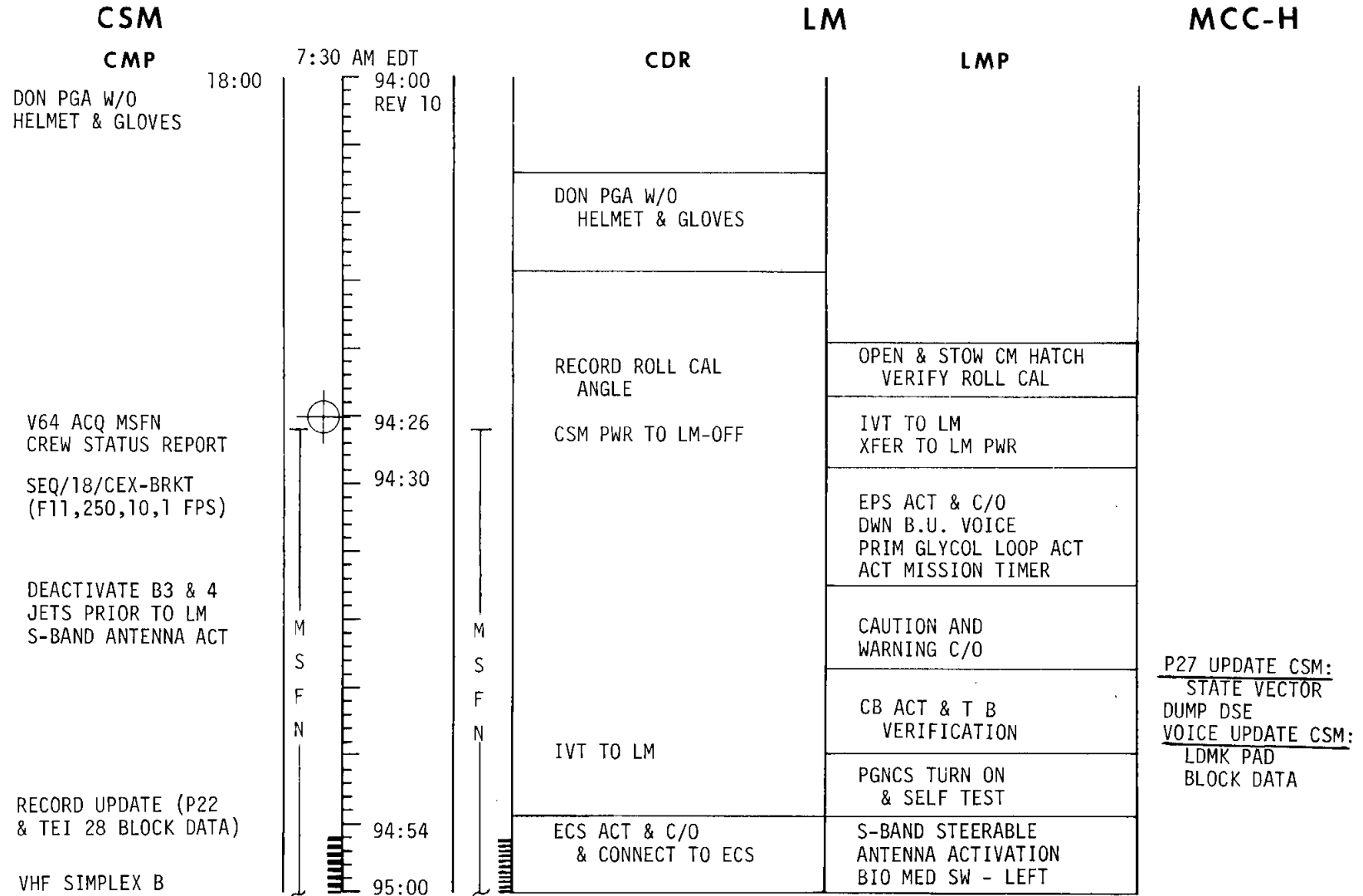
O₂ TOTAL _____

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	92:00 - 94:00	5/9	3-61

MSC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH

FLIGHT PLAN



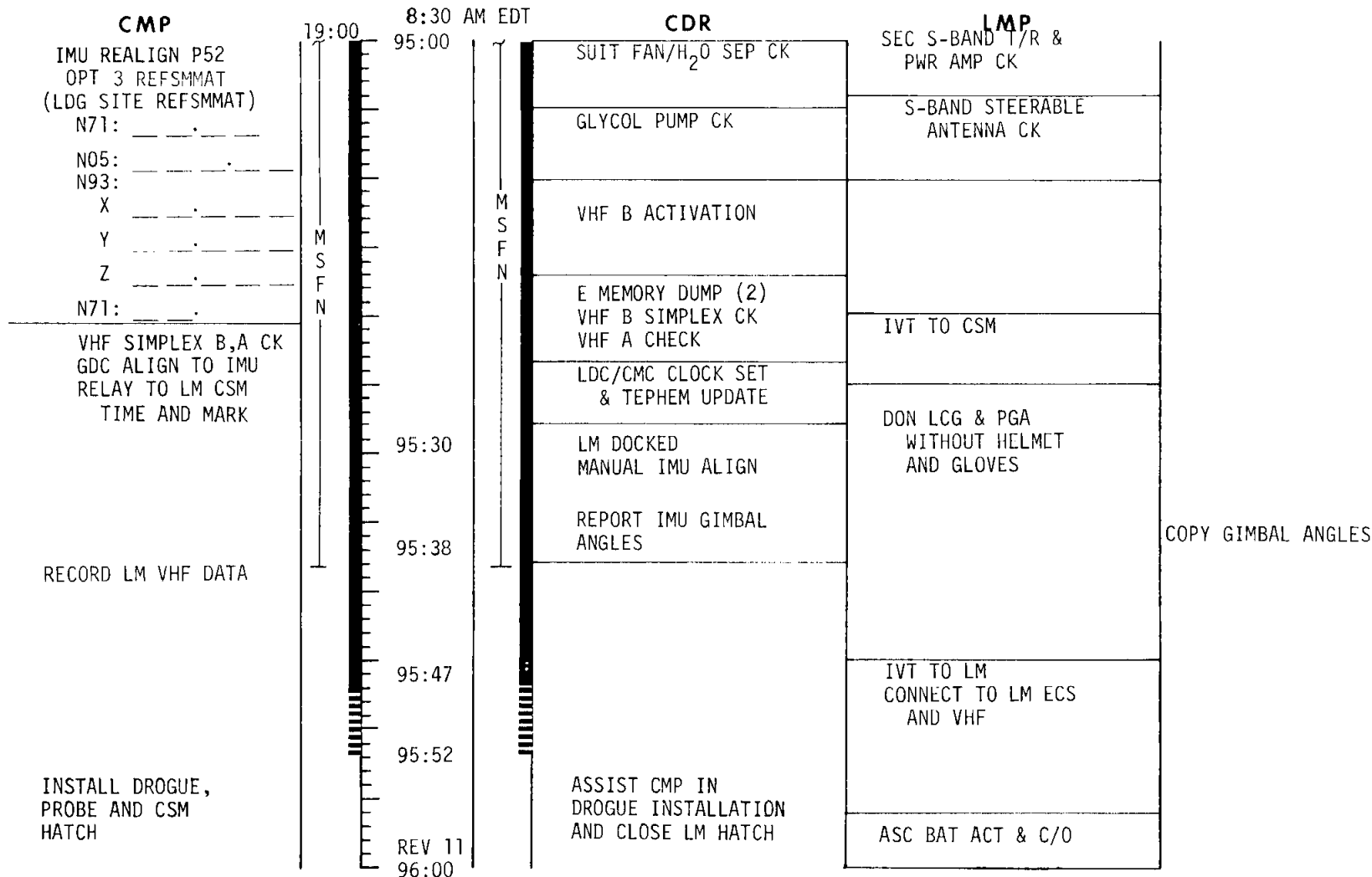
MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	94:00 - 95:00	5/10	3-62

FLIGHT PLAN

CSM

LM

MCC-H



COPY GIMBAL ANGLES

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	95:00 - 96:00	5/10	3-63

FLIGHT PLAN

CSM

LM

MCC-H

CMP

20:00

9:30 AM EDT

96:00

CDR

LMP

LiOH CANISTER CHANGE
NO 8 (10 INTO B, STORE
8 IN B6)

O₂ & H₂ FUEL CELL PURGE

SELECT OMNI B
MNVR TO TRACK ATT

R

P

Y

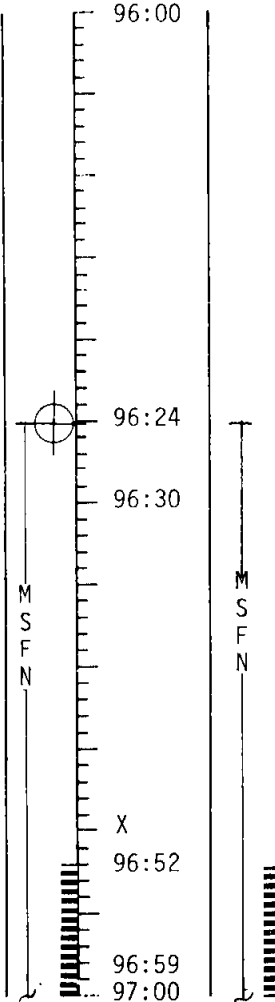
P22 ORBITAL
NAVIGATION

TRACK L. S. LANDMARK
(5 MARKS ON LDMK 130)

DO NOT INCORPORATE MARKS
STOP PITCH AT:

INERTIAL R P Y
LOCAL HOR R P Y

V64 ACQ MSFN



DON HELMET & GLOVES	DON HELMET & GLOVES
ARS/PGA PRESSURE INTEGRITY CK	ARS/PGA PRESSURE INTEGRITY CK
CABIN REGULATOR CK	CABIN REGULATOR CK
RATE GYRO CK	BIO MED SW - RIGHT
COPY GYRO TORQUING ANGLES & FINE ALIGN IMU	AGS ACT AND SELF TEST

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

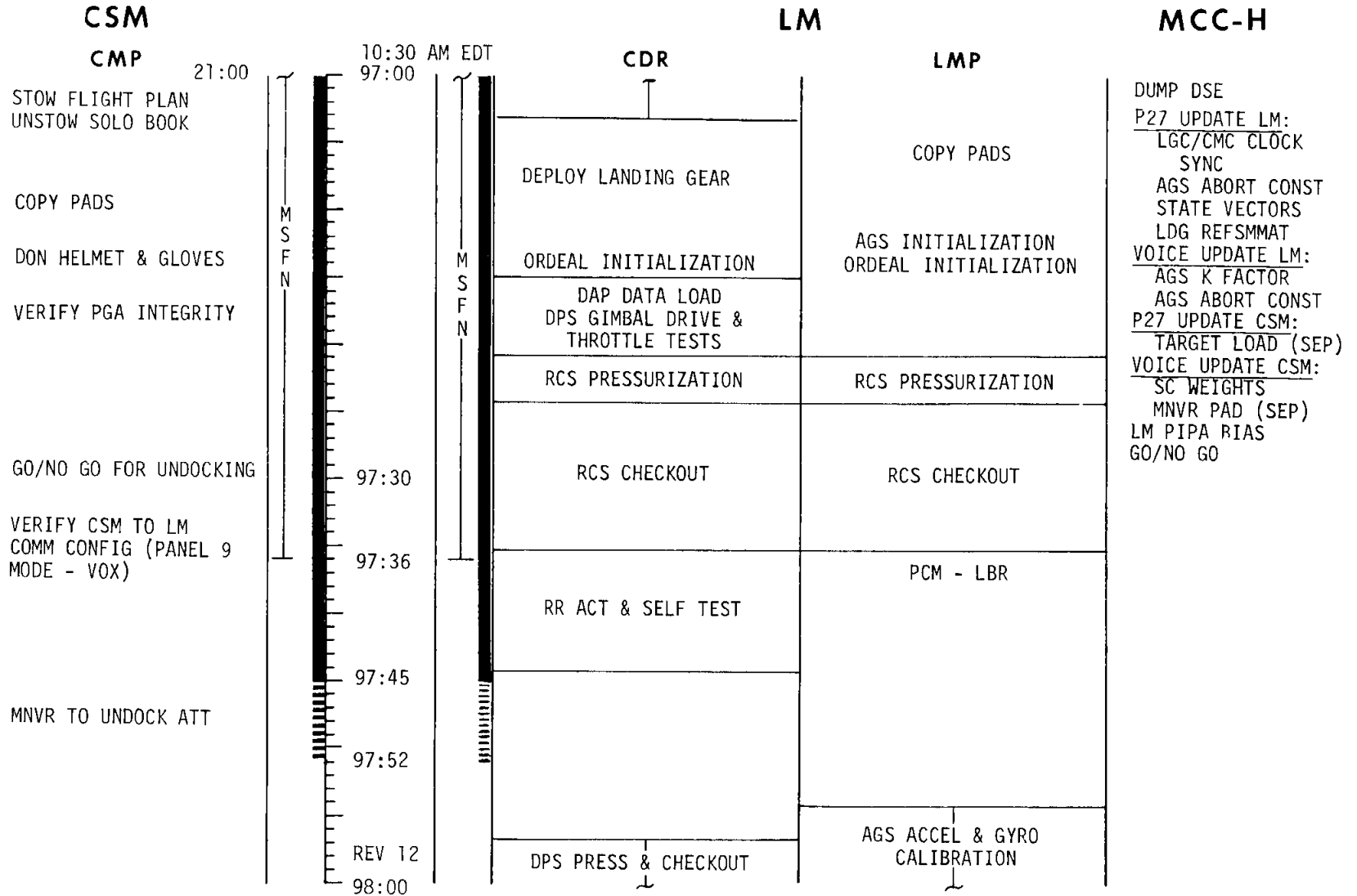
VOICE UPDATE LM:
GYRO TORQUE
ANGLES

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	96:00 - 97:00	5/10	3-64

Form 2189 (OT) (Rev 69)

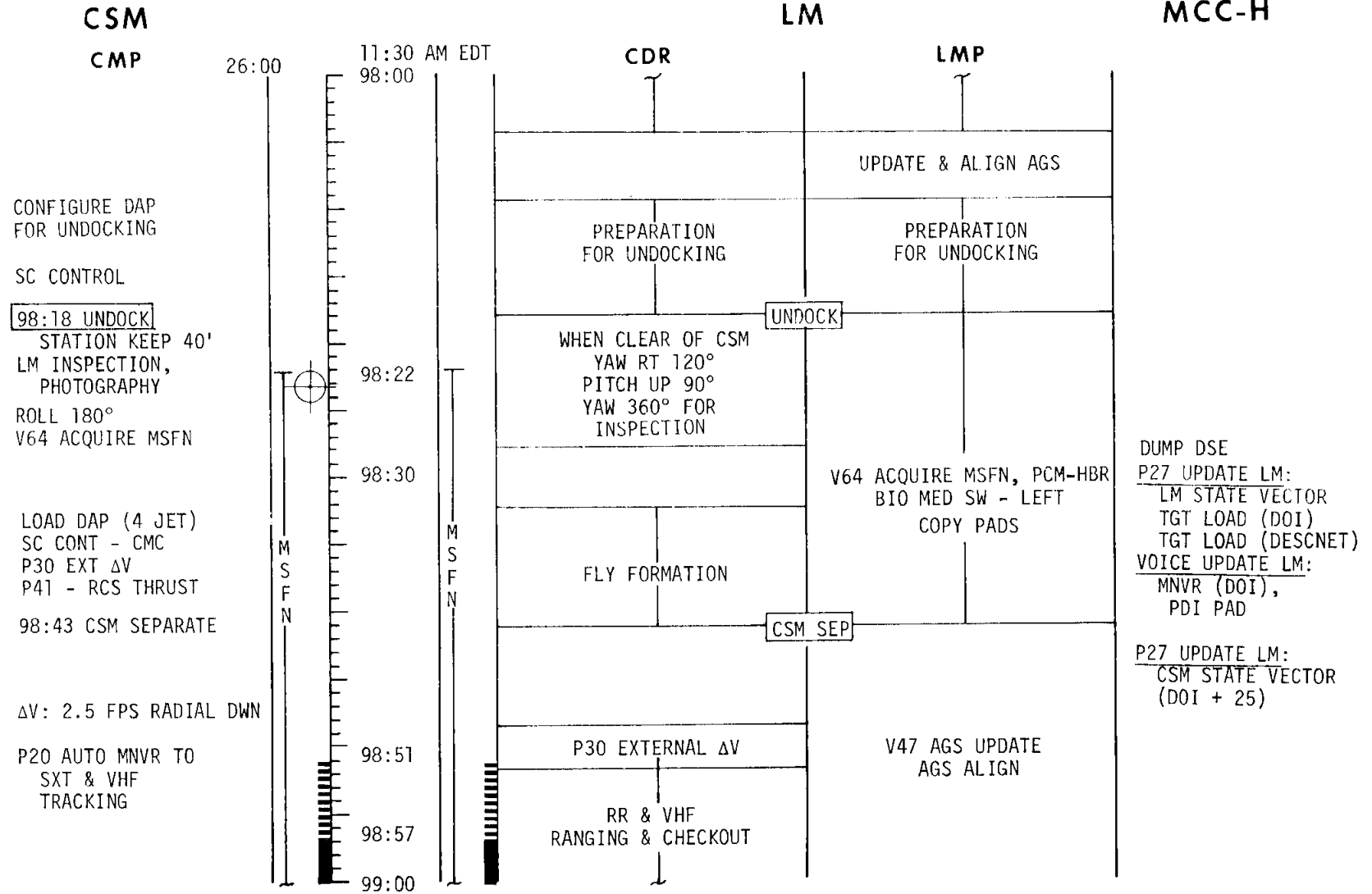
FLIGHT PLANNING BRANCH

FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	97:00 - 98:00	5/11	3-65

FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	98:00-99:00	5/12	3-66

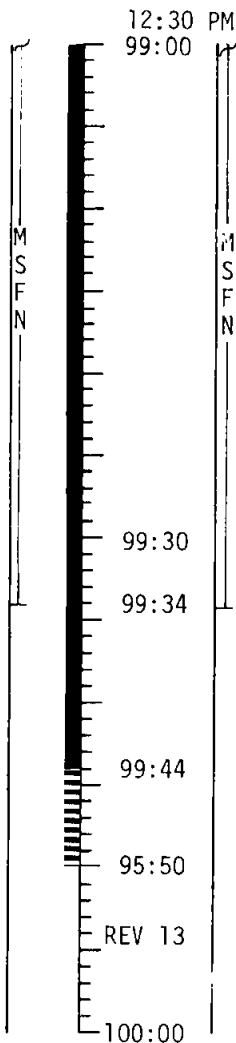
FLIGHT PLAN

CSM

LM

MCC-H

CMP 23:00
 P52 IMU REALIGN
 OPTION 3 REFSMMAT
 LDG SITE REFSMMAT
 N71: _____
 N05: _____
 N93: _____
 X _____
 Y _____
 Z _____
 N71: _____
 GDC ALIGN TO IMU
 VERIFY ORDEAL



CDR

P52 IMU REALIGN
 OPTION 3 REFSMMAT
 GO/NO GO FOR DOI

LR SELF TEST

P40 DPS THRUST

TRIM V_x RESIDUALS
 PITCH DOWN 90°
 VERIFY ΔV_x WITH RR

CONFIRM ΔV

LMP

SYSTEMS CHECKS

RECORD LUNAR SURFACE PAD

PCM-LBR
 V47 AGS UPDATE
 AGS ALIGN
 LOADS AGS EXT ΔV

DOI TIG: 99:42:27
 BT: 35 SEC
 ΔV : 72 FPS

2 JET, 7.5 SEC ULLAGE

SYSTEMS CLEANUP

GO/NO GO
 VOICE UPDATE LM:
 LUNAR SURFACE PAD

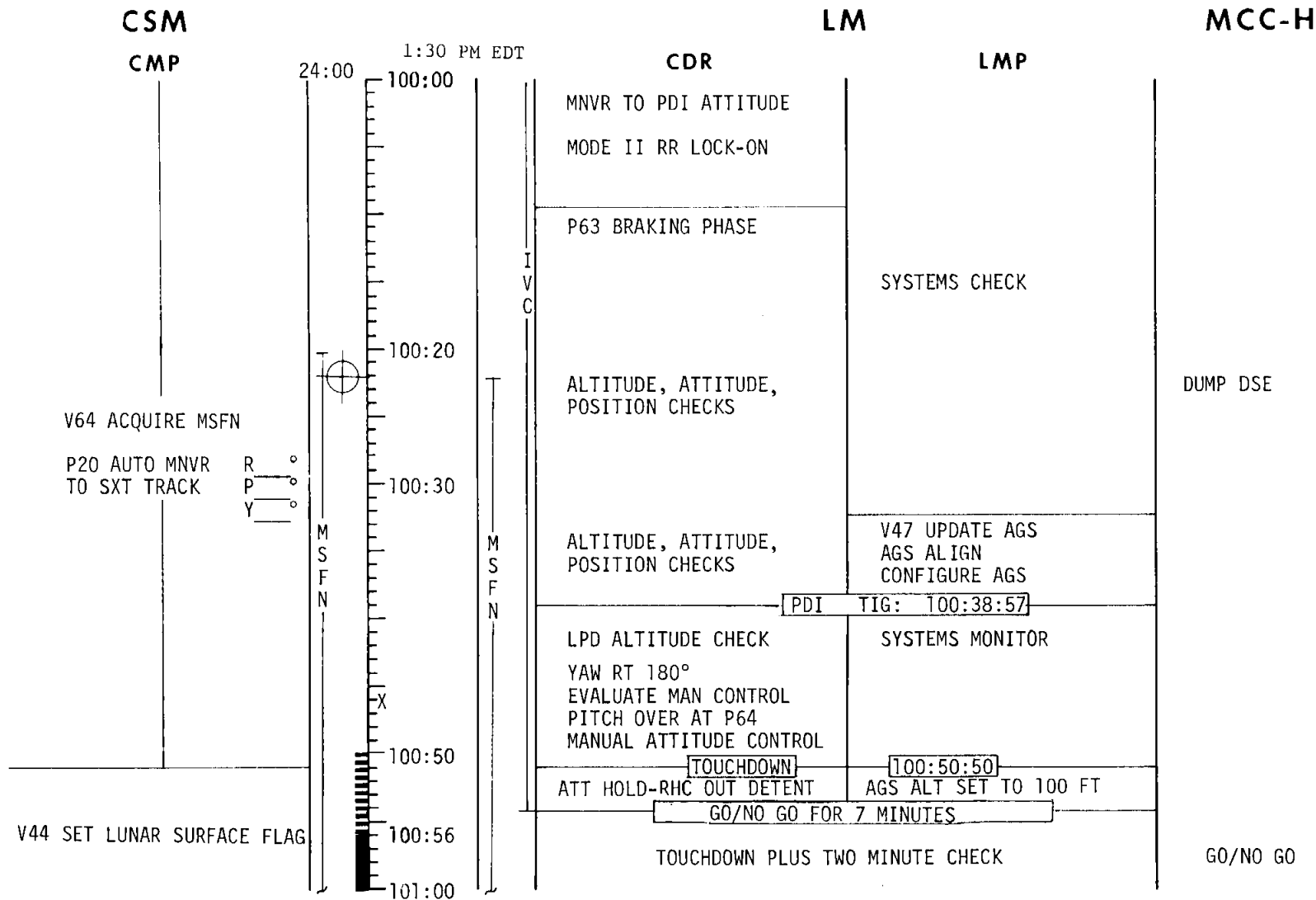
P20 AUTO, MNVR
 TO SXT TRACK

CONFIRM DOI,
 INCORP P76

CONFIRM ΔV

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	99:00-100:00	5/12	3-67

FLIGHT PLAN



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

FLIGHT PLAN

CSM

2:30 PM EDT

LM

MCC-H

CMP

P52 IMU REALIGN
OPTION 3 REFSMMAT

N71: _____

N05: _____

N93: _____

X _____

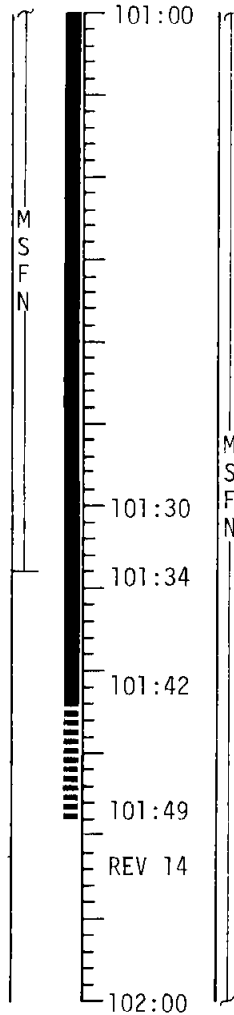
Y _____

Z _____

N71: _____

GDC ALIGN TO IMU
VERIFY ORDEAL

RECORD PAD
DOFF HELMET & GLOVES



CDR

LMP

GO/NO GO FOR ONE CSM REV

SIMULATED COUNTDOWN
ASCENT POWER - OFF

INITIATE DPS VENTING

VOICE REPORT ON
LUNAR LOCATION

CALIBRATE AGS GYROS

LOAD AGS ASCENT TARGETING

P57 GRAVITY MEASURE

AGS LUNAR ALIGN

P57 IMU REALIGN
REFSMMAT OPTION-
2 CELESTIAL BODIES-
UPDATE RLS

ALIGN AGS TO PGNC
STORE AGS AZIMUTH

P27 UPDATE

COPY PAD

GO/NO GO

RECEIVE VOICE REPORT

VOICE UPDATE CSM:
LM TRACKING PAD

P27 UPDATE LM:
CSM SV
RLS

VOICE UPDATE LM:
ASCENT PAD (REV 1)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINRY	APRIL 15, 1969	101:00-102:00	5/13	3-69

FLIGHT PLAN

CSM

3:30 PM EDT

LM

MCC-H

CMP

CDR

LMP

26:00

MNVR TO TRACKING ATT

R ___ P ___ Y ___

P22 ORBITAL NAVIGATION

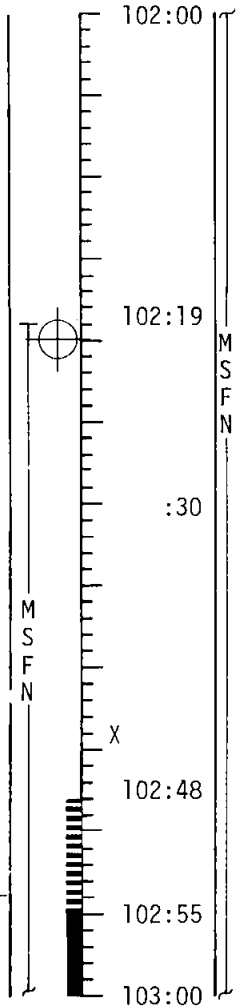
LM TRACKING
5 MARKS ON LM

STOP PITCH AT:

INERTIAL R ___ P ___ Y ___

LOCAL FOR R ___ P ___ Y ___

V64 REACQUIRE MSFN
V45 RESET LUNAR
SURFACE FLAG



PGNS DRIFT TEST

GO/NO GO FOR LUNAR STAY

SELECT P12 ASCENT

END SIMULATED COUNTDOWN - TIG = 1 MINUTE

RR - OFF RR OPERATE HEATERS - OFF

P57 IMU REALIGN
T-ALIGN, GRAVITY &
ONE CELESTIAL BODY
PGNS DRIFT TEST

INITIALIZE AGS
CSM & LM SV
ALIGN AGS TO PGNC
STORE UPDATED AZIMUTH
BIO MED SW -RIGHT

AGS-POWER DOWN
(WARM UP)

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

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

P22 AUTO OPTICS
LUNAR MODULE

T1 : :
(HOR)

T2 : :
(LM)

___ NM (N OR S)

N89
LAT +00.714°
LONG/2 +11.839°
ALTITUDE -0 0 1 .6 1 NM
REMARKS:

P27 UPDATE CSM:
DESIRED ORIENT
(PLANE CHANGE)

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

FLIGHT PLAN

CSM

4:30 PM EDT

LM

MCC-H

CMP

27:00

P52 IMU REALIGN
OPTION 1 PREFERRED
PLANE CHANGE REFSMMAT

N71: _____

N05: _____

N93: _____

X _____

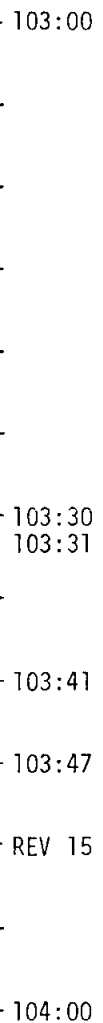
Y _____

Z _____

N71: _____

GDC ALIGN TO IMU

M
S
F
N



EAT PERIOD

CDR

LMP

EAT PERIOD
(35 MIN)

EAT PERIOD
(35 MIN)

REST PERIOD
(4 HOURS)

REST PERIOD
(4 HOURS)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	103:00-104:00	5/14-15	3-71

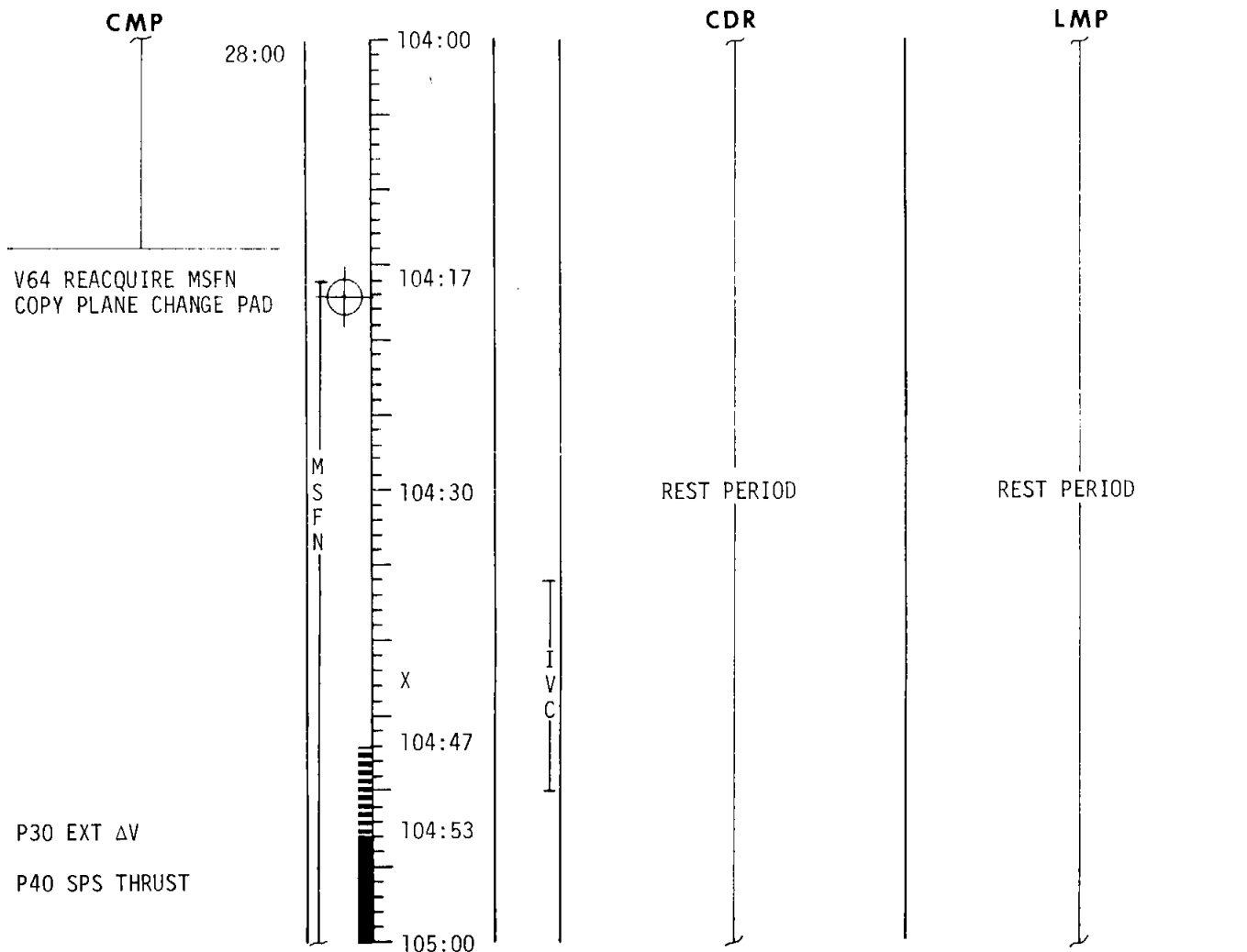
FLIGHT PLAN

5:30 PM EDT

CSM

LM

MCC-H



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

6:30 PM EDT

LM

MCC-H

CMP

29:00

SPS, PLANE CHANGE
TIG: 105:09:17
BT: 1 SEC
 ΔV 16.5 FPS

P52 IMU REALIGN
OPTION 1 PREFERRED
LDG SITE REFSMMAT
GYRO TORQUING

MNVR TO SLEEP ATT

M
S
F
N

105:00

CDR

LMP

105:29

REST PERIOD

REST PERIOD

105:30

REST PERIOD
(4 HOURS)

105:40

105:46

REV 16

106:00

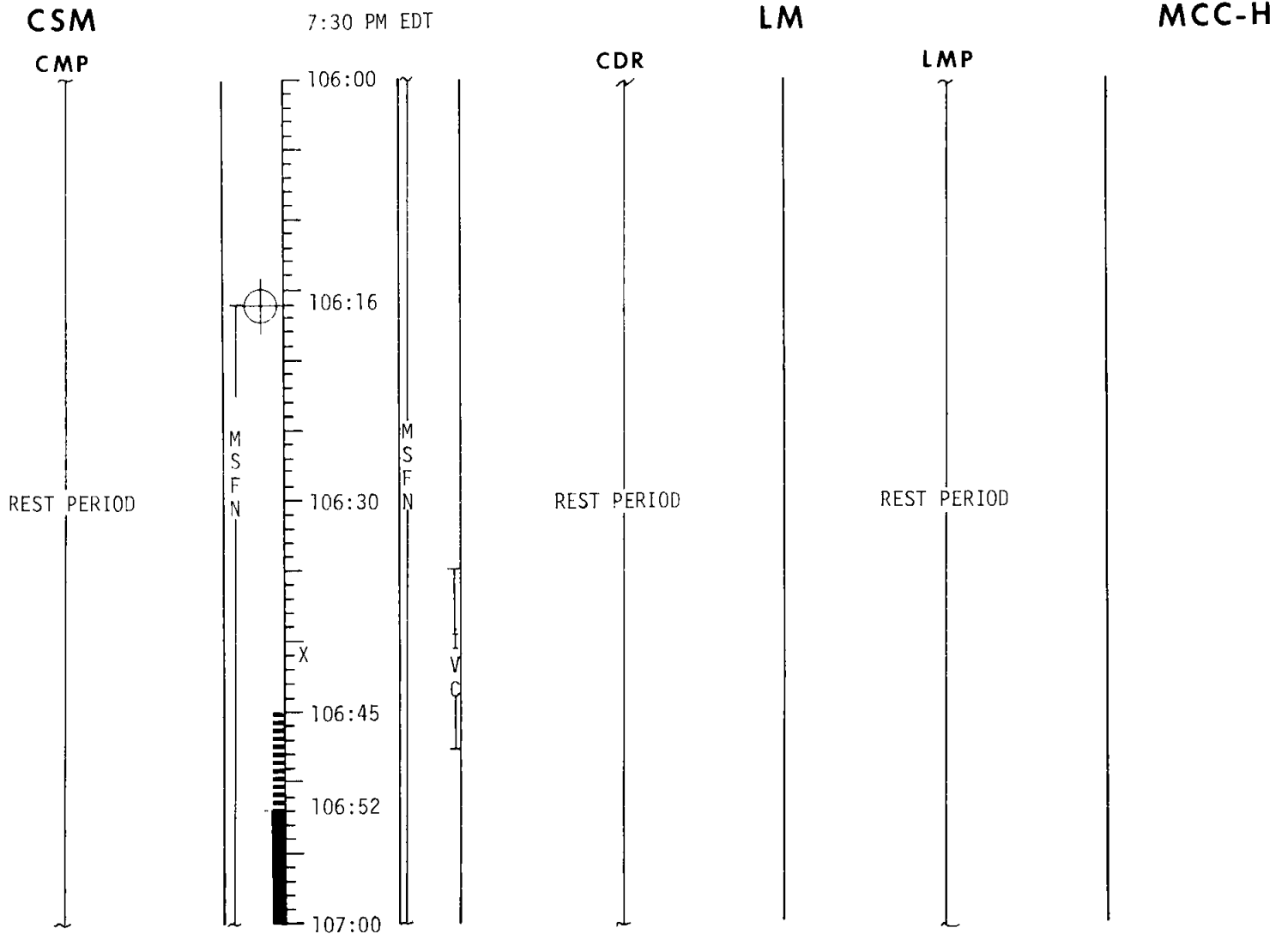
P27 UPDATE CSM:
DESIRED ORIENT
(LIFT OFF)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	105:00-106:00	5/15-16	3-73

3000 Form 11-6 (7P) (Rev 6-68)

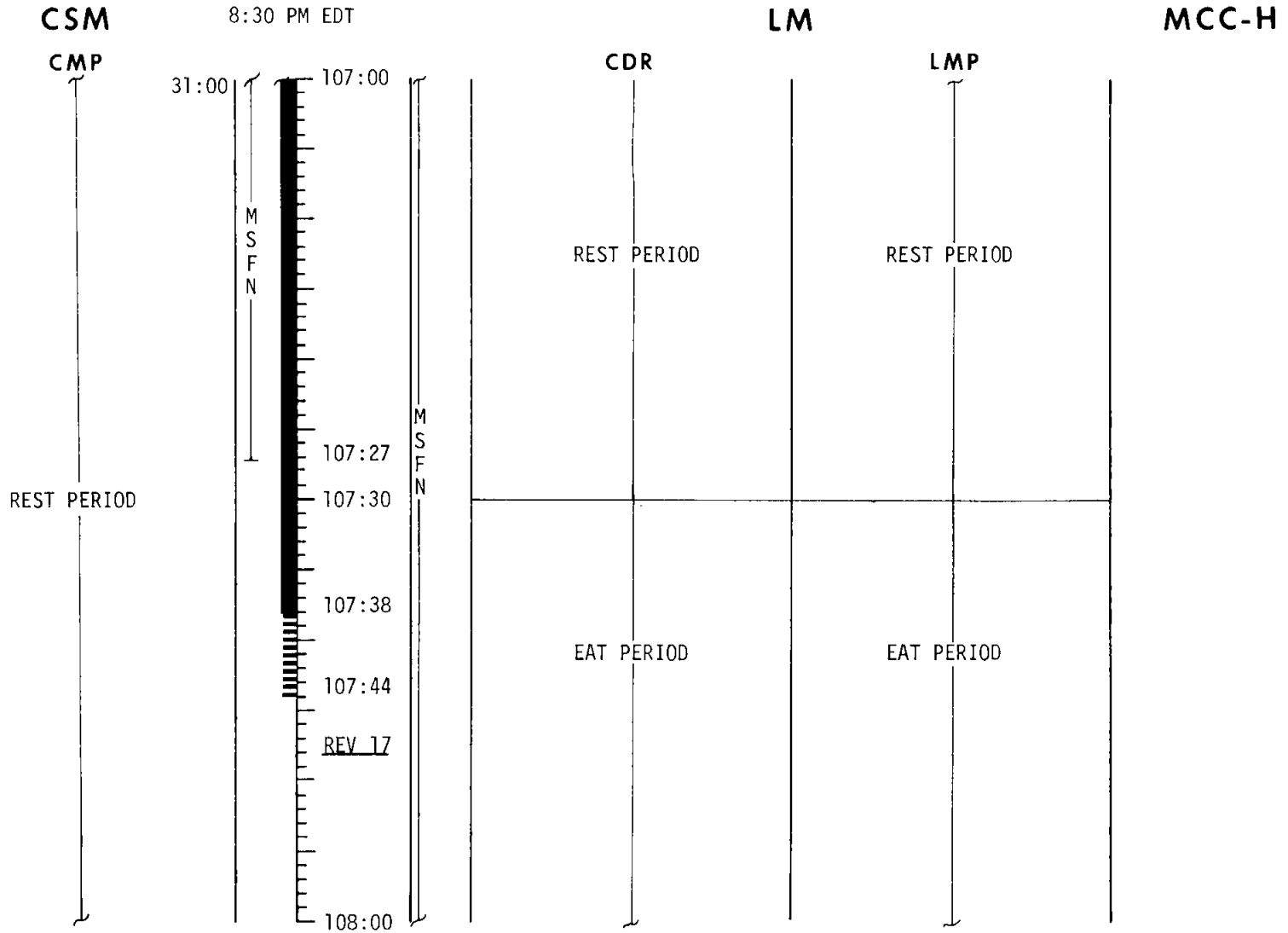
FLIGHT PLANNING BRANCH

FLIGHT PLAN



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

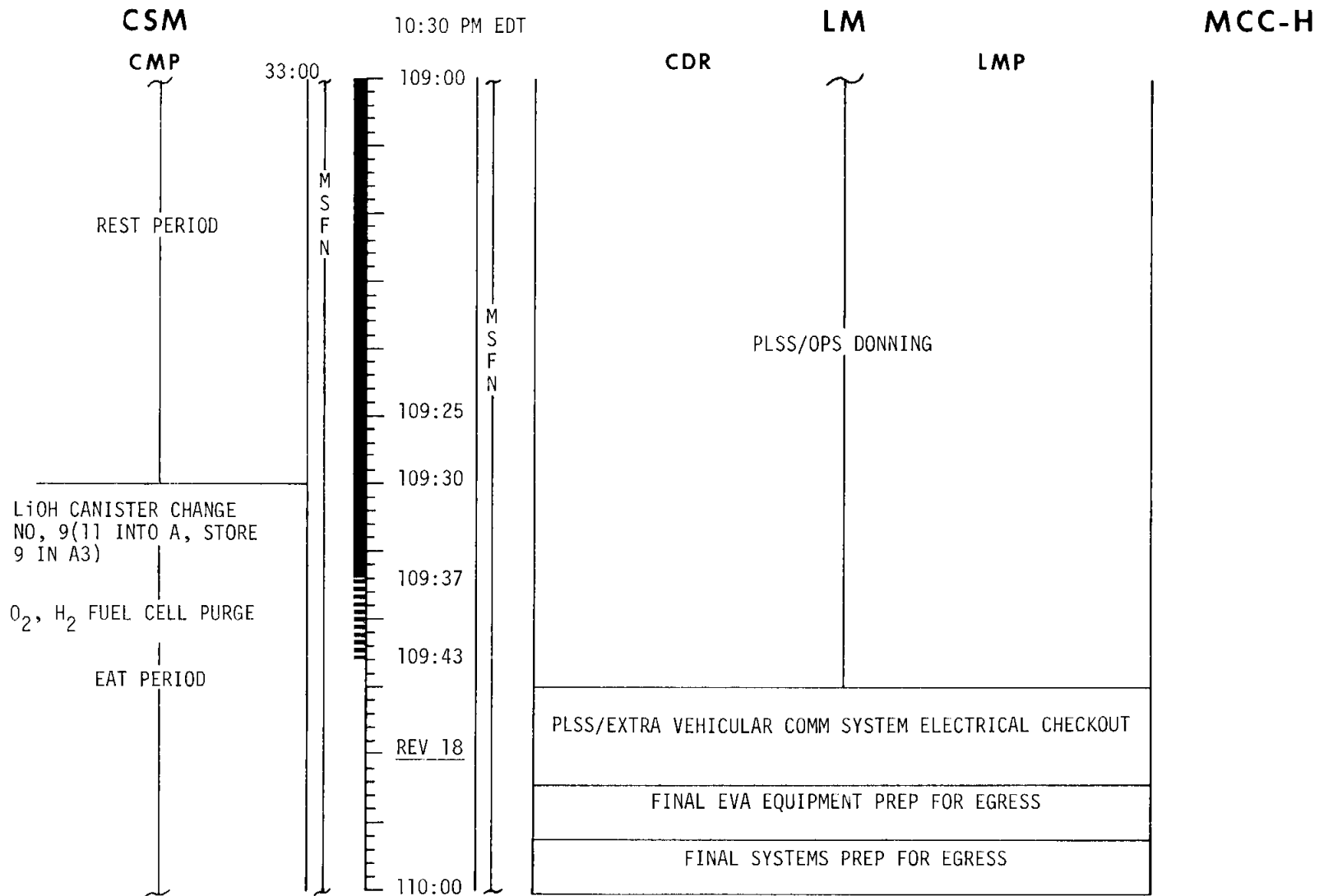
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	107:00-108:00	5/16-17	3-75

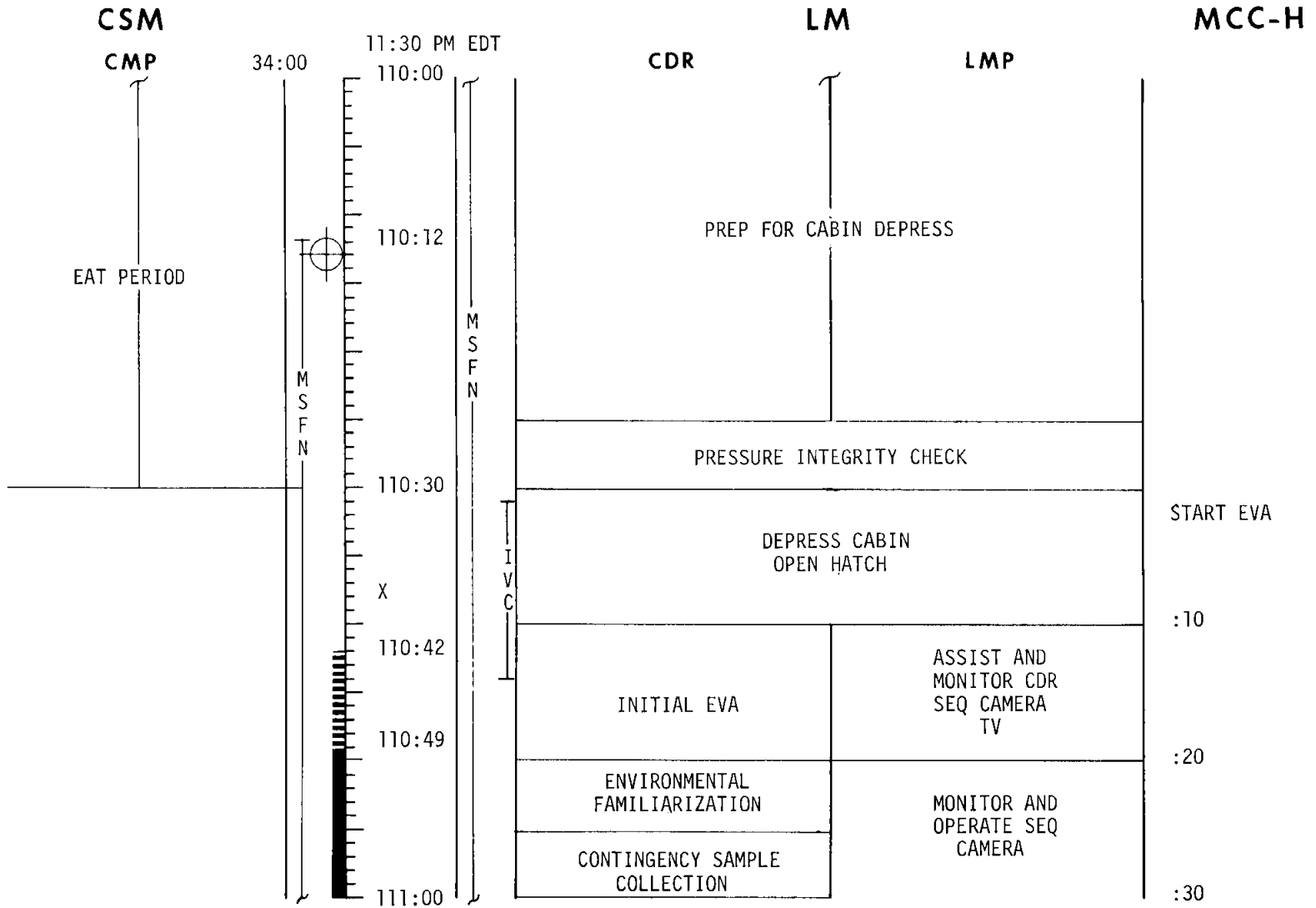
FLIGHT PLANNING BRANCH

FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	109:00 - 110:00	5/17-18	3-77

FLIGHT PLAN



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

FLIGHT PLAN

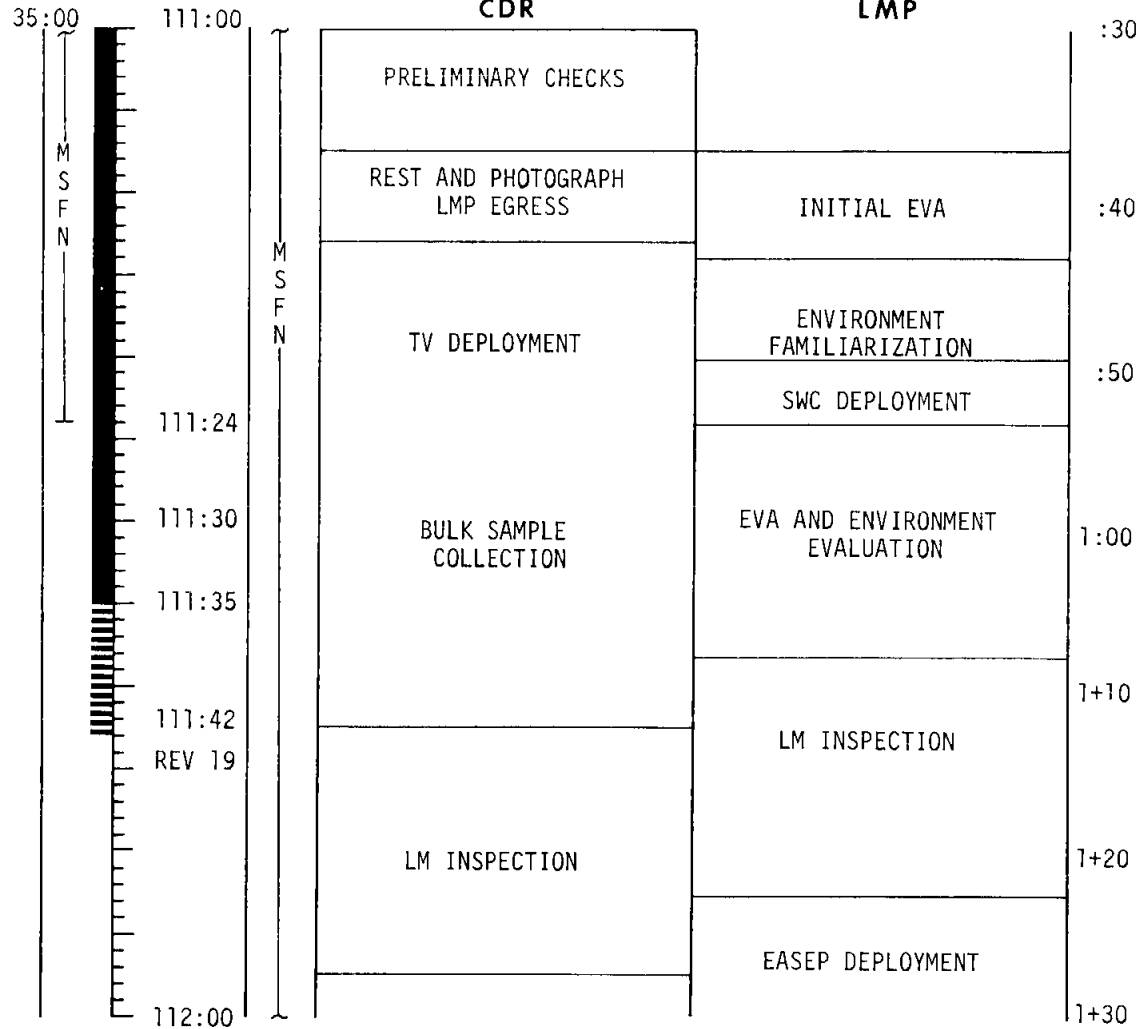
CSM

00:30 AM EDT

LM

MCC-H

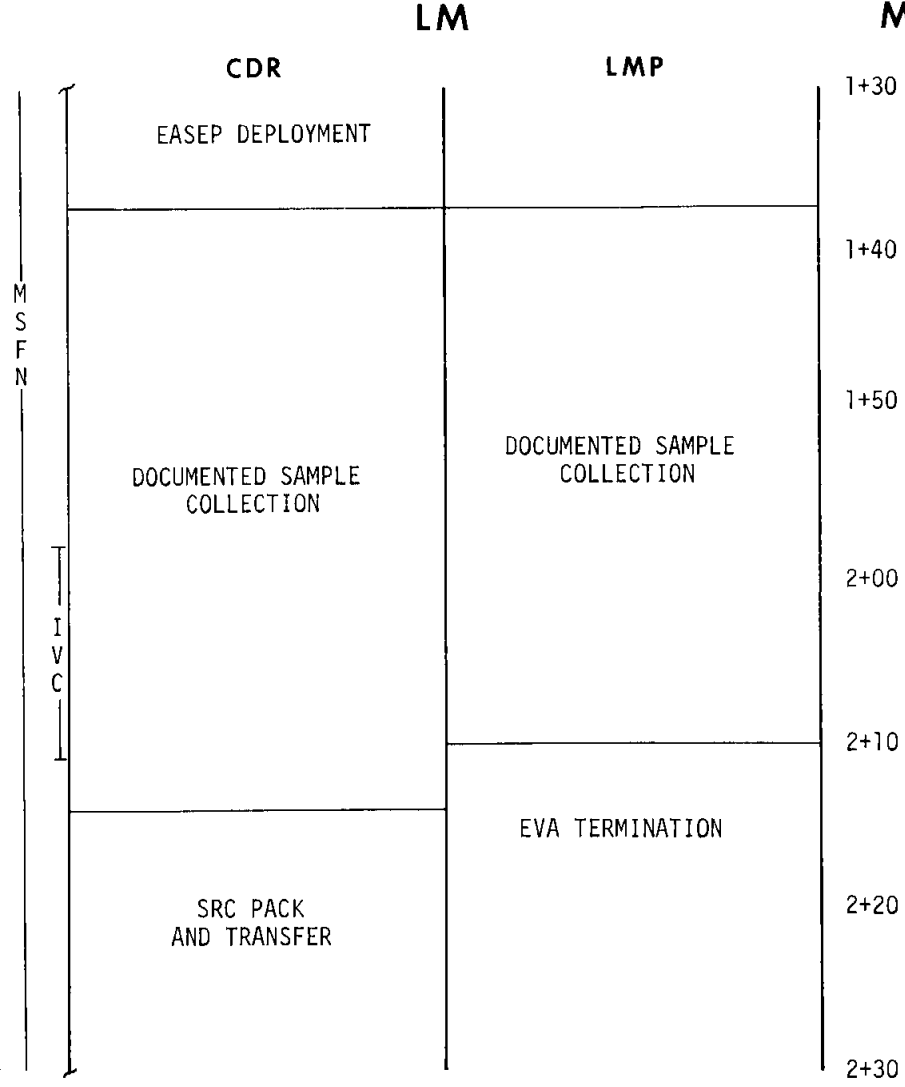
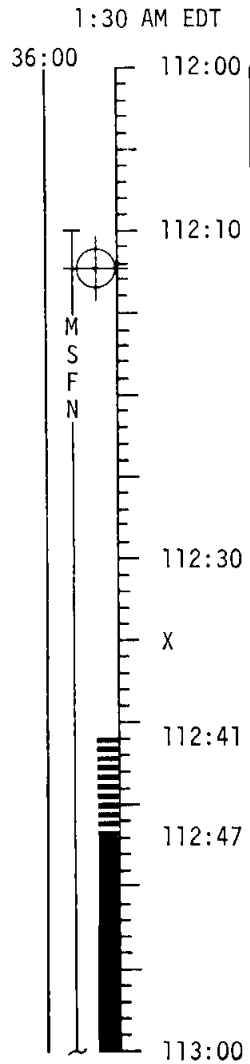
CMP



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	111:00 - 112:00	5/18-19	3-79

FLIGHT PLAN

CSM
CMP



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

FLIGHT PLANNING BRANCH

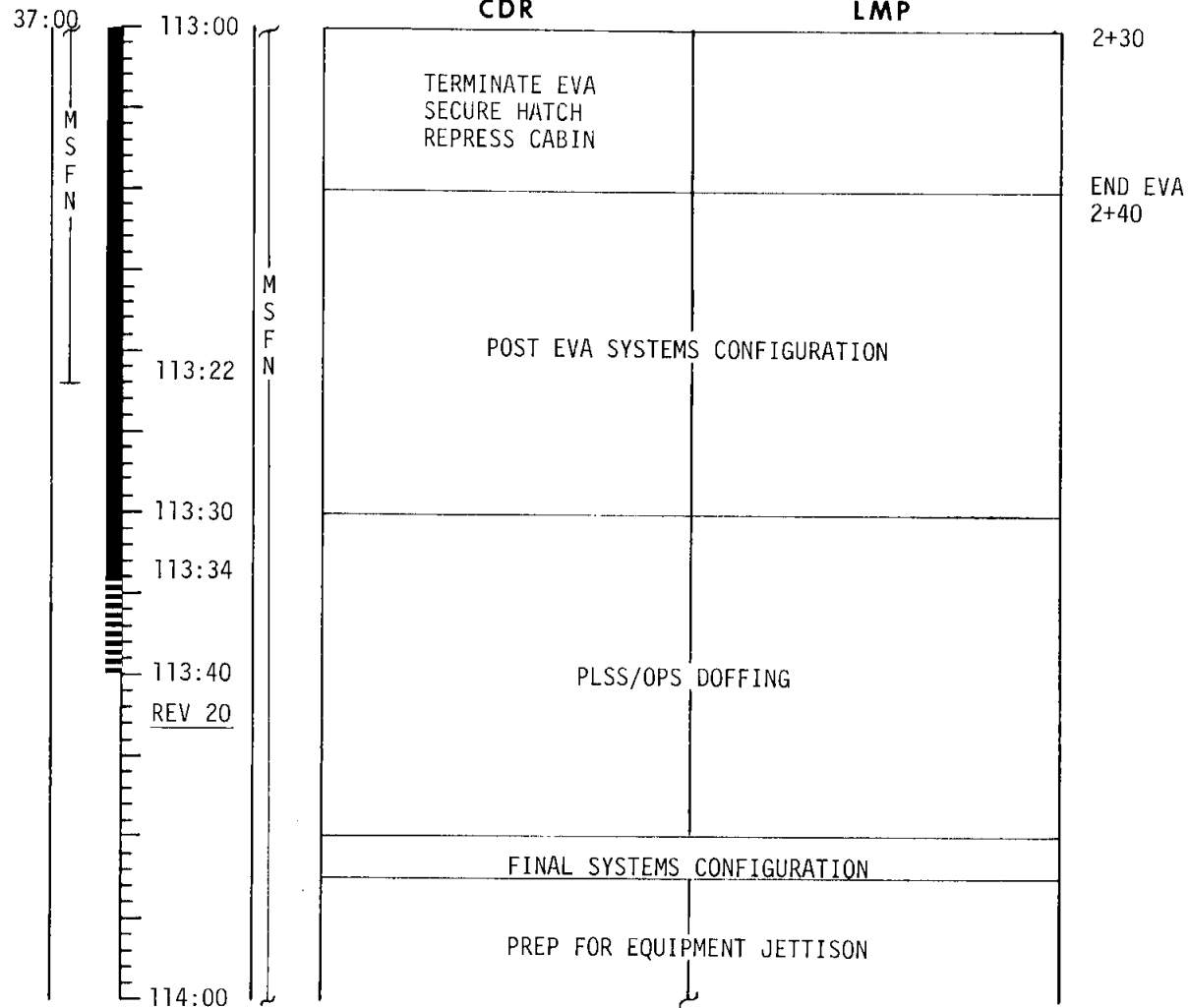
FLIGHT PLAN

CSM
CMP

2:30 AM EDT

LM

MCC-H



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	113:00 - 114:00	5/19-20	3-81

FLIGHT PLAN

CSM
CMP

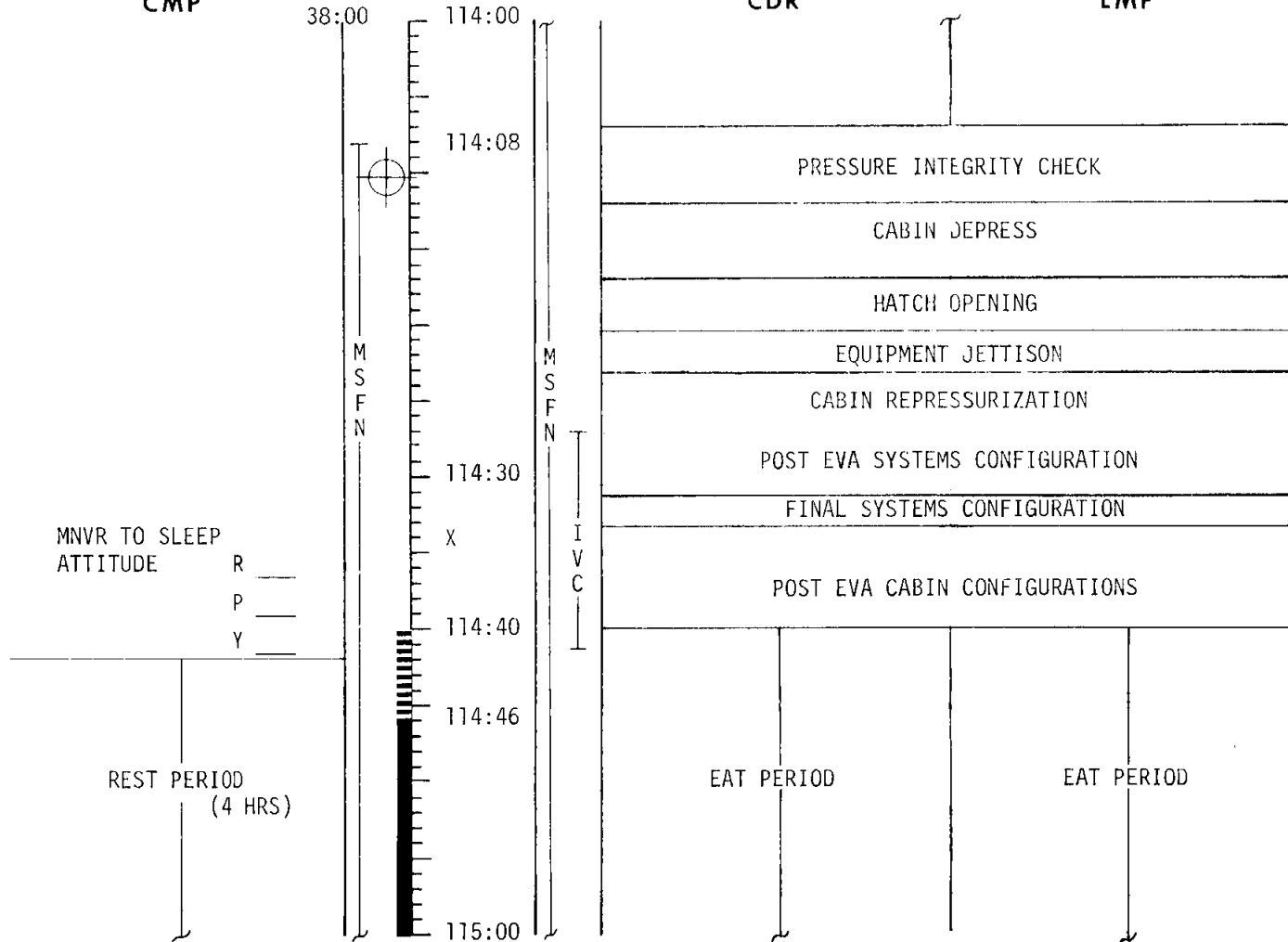
3:30 AM EDT

LM

MCC-H

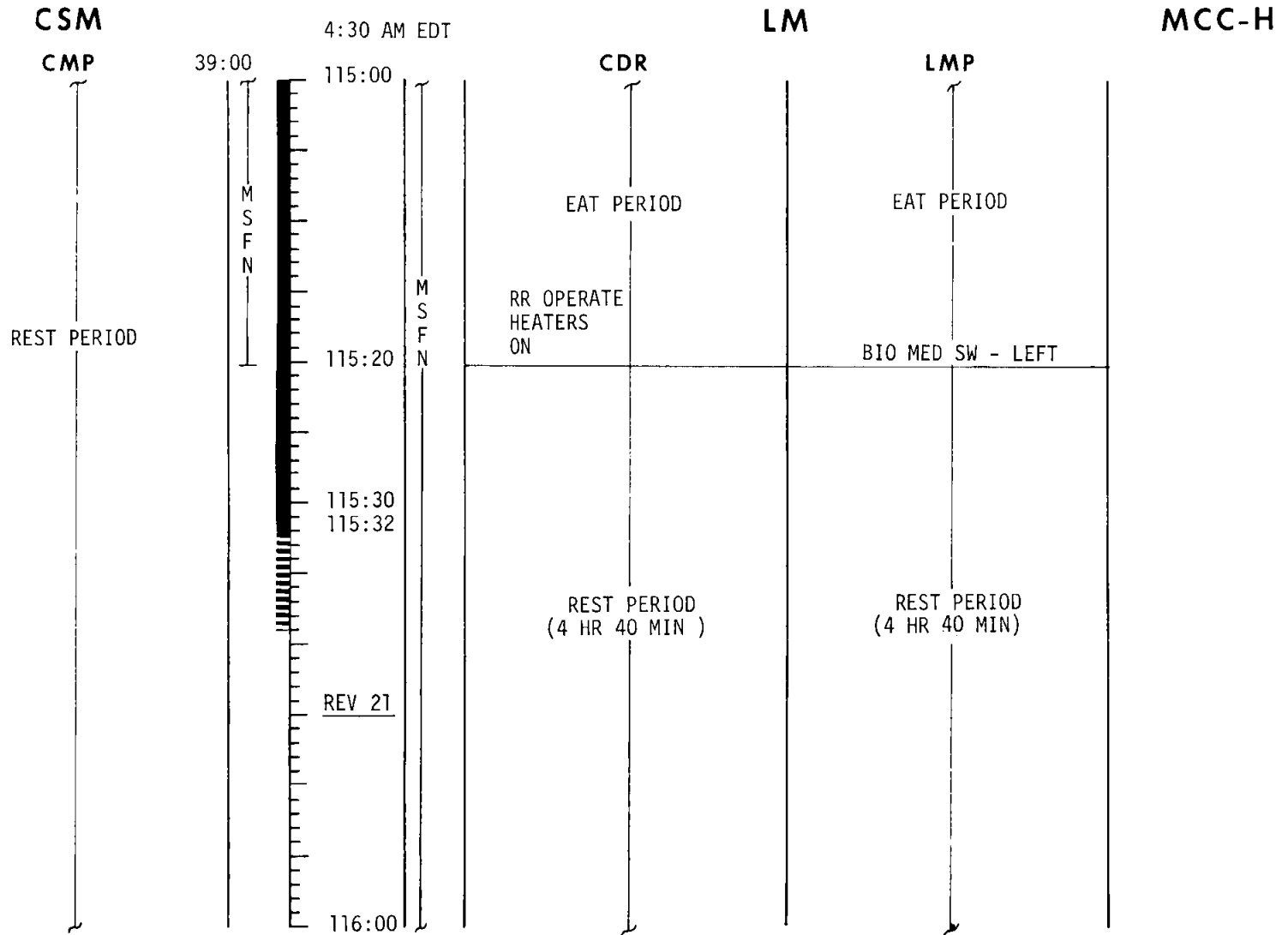
CDR

LMP



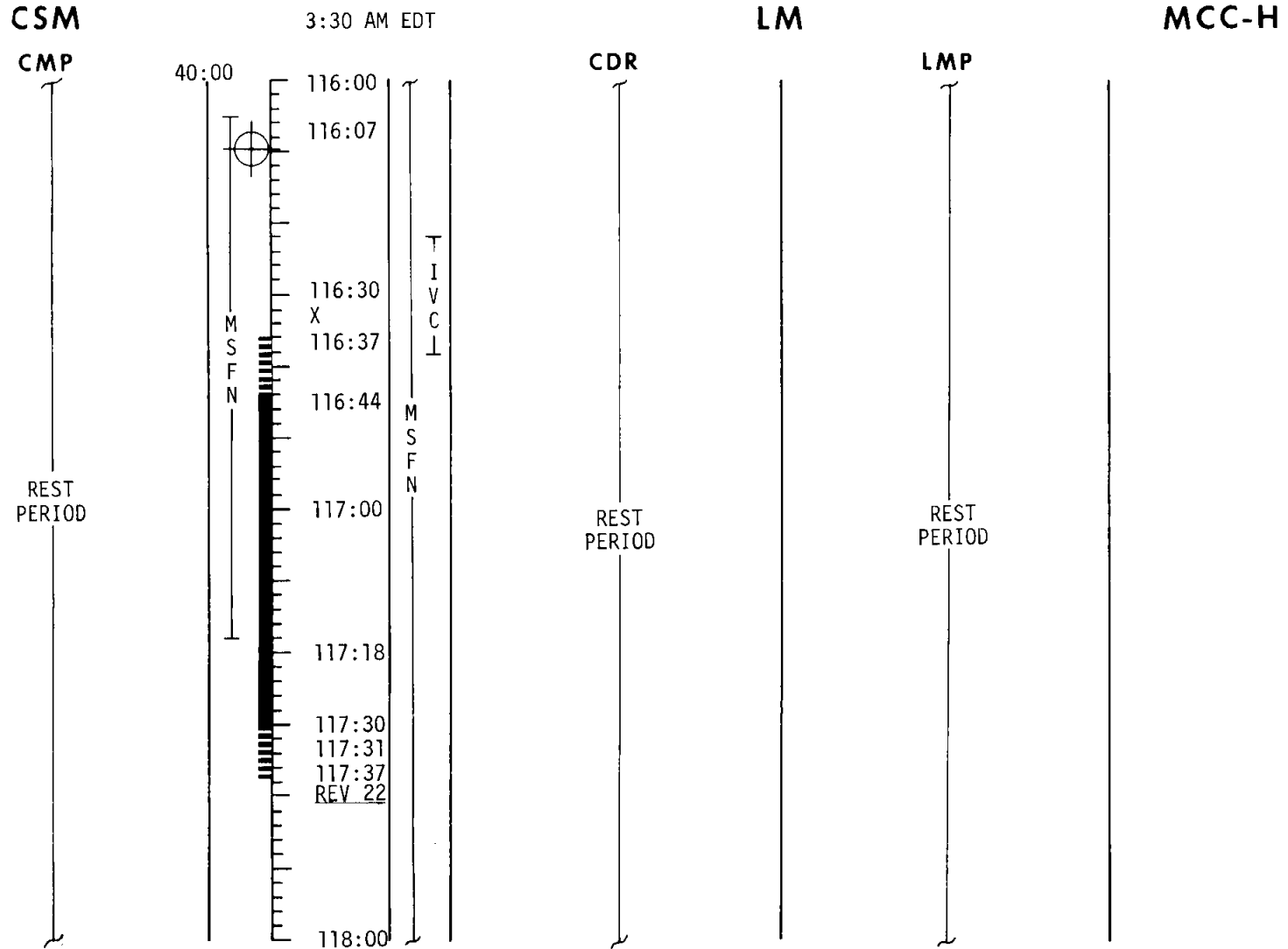
MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	114:00 - 115:00	5/20	3-82

FLIGHT PLAN



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

FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	116:00 - 118:00	5/21-22	3-84

FLIGHT PLAN

CSM

7:30 AM EDT

LM

MCC-H

CMP

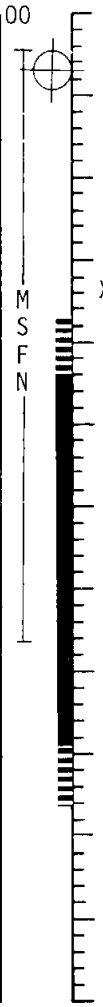
42:00

118:00

118:05

CDR

LMP



118:30

118:37

118:43

119:00

119:17

119:29

119:30

119:36

REV 23

120:00

REST PERIOD

REST PERIOD

P27 UPDATE CSM:
CSM STATE VECTOR

VOICE UPDATE:
LM TRACKING PAD

CONSUMABLES UPDATE
Δ FROM NOMINAL
GET _____

RCS TOT _____

A _____

B _____

C _____

D _____

H₂ TOTAL _____

O₂ TOTAL _____

RECORD PAD

P52 IMU REALIGN
OPTION 3, REFSMMAT

N71: _____

N05: _____

N93:

X _____

Y _____

Z _____

N71: _____

GDC ALIGN TO IMU

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	118:00 - 120:00	5/22-23	3-85

FLIGHT PLAN

CSM

9:30 AM EDT

LM

MCC-H

CMP

MNVR TO TRACK ATT

R:

P:

Y:

P22 ORBITAL NAVIGATION
AUTO OPTICS

LAT = +00.714

LONG/2 = +11.839

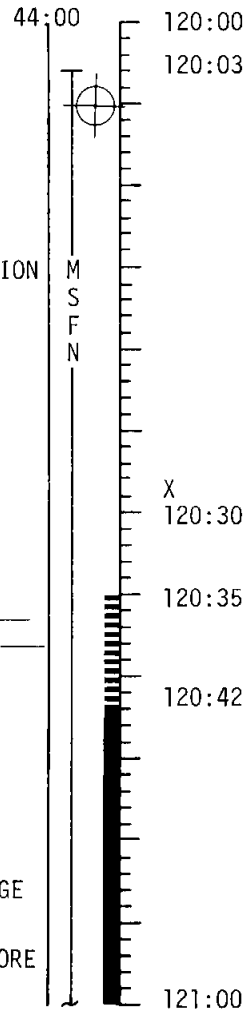
ALT = -001.61

LM TRACKING
5 MARKS ON LM

STOP PITCH AT:

INERTIAL R P Y
LOCAL HOR R P Y

O₂, H₂ FUEL CELL PURGE
LiOH CANISTER CHANGE
NO 10 (12 INTO B, STORE
10 IN A3)



CDR

LGC SELF TEST

TURN ON RR

RR SELF TEST

P22 LUNAR SURFACE
NAVIGATION

TURN OFF RR

EAT PERIOD

LMP

AGS TURN ON, SELF TEST
& SYSTEMS TEST

P57 IMU REALIGN
REFSMAT - GRAVITY
VECTOR AND CELESTIAL
BODY

INITIALIZE TIME BIAS
ALIGN AGS TO PGNC3

AGS LUNAR ALIGN

EAT PERIOD

P27 UPDATE LM:
CSM STATE VECTOR

P22 AUTO OPTICS
LUNAR MODULE

T1 : :
(HOR)

T2 : :
(LM)

 NM (N OR S)

N89

LAT + 0 0 7 1 4°

LONG/2 + 1 1 8 3 9°

ALTITUDE - 0 0 1 6 1 NM

P27 UPDATE CSM
AND LM:

CSM STATE VECTOR
(INS + 18 MIN)

P27 UPDATE CSM:
NOM LM INSERTION
VECTOR (INS + 18
MIN)

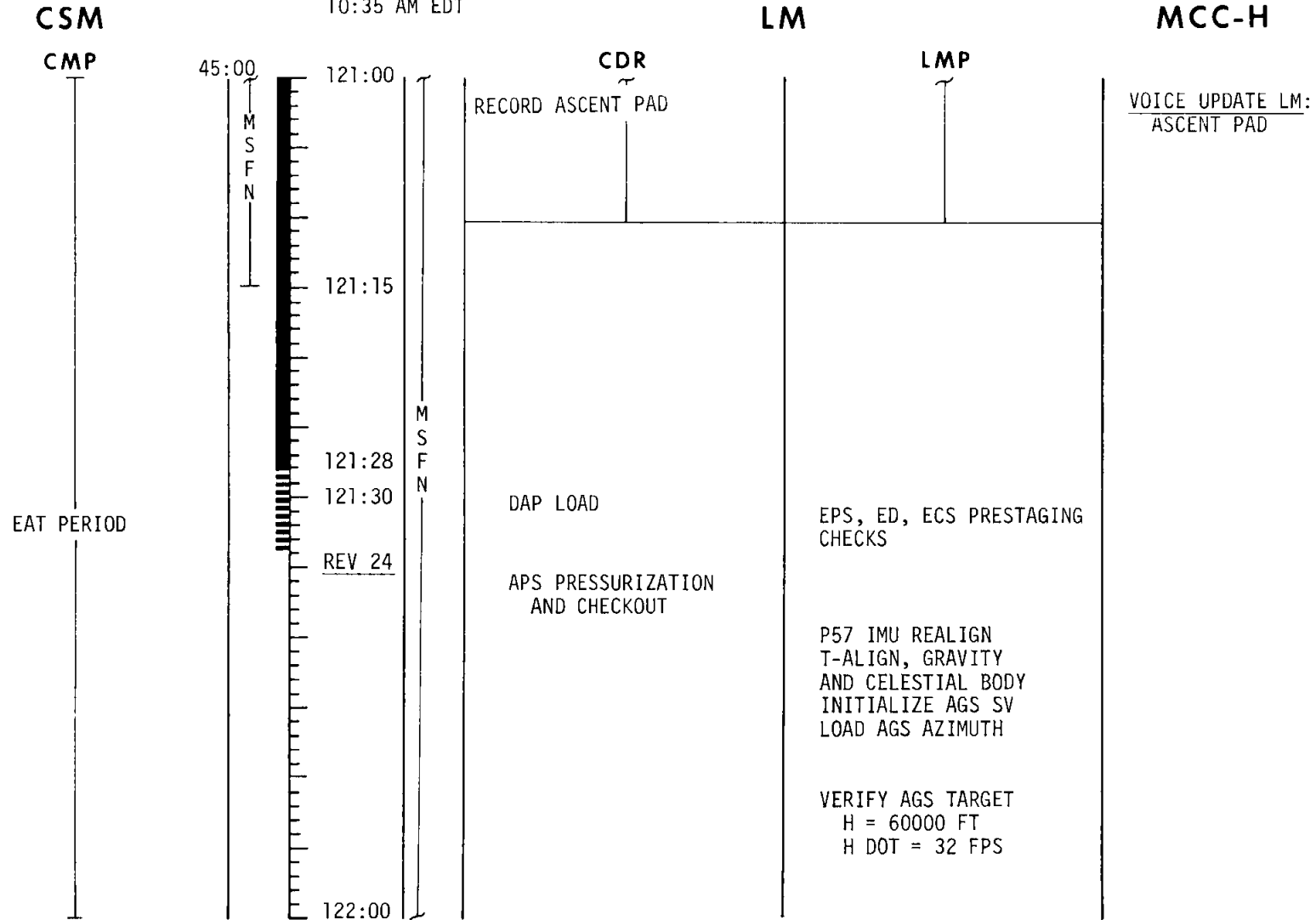
MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	120:00 - 121:00	6/23	3-86

Form 112 (OT) (Rev 6-68)

FLIGHT PLANNING BRANCH

FLIGHT PLAN

10:35 AM EDT



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	121:00 - 122:00	6/23-24	3-87

FLIGHT PLAN

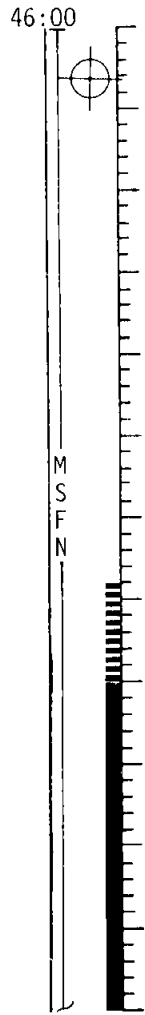
CSM
CMP

11:30 AM EDT

LM

MCC-H

MANEUVER TO SUPPORT
LIFT OFF



122:00
122:01
122:30
122:34
122:40
122:41
123:00

M I S V C
F N C
O N T I N U O U S

CDR
DON HELMET & GLOVES

ENTER P12 - ASCENT
RR TO OPERATE

PRELAUNCH SW CK/ASC
POWER

VERIFY RESTRAINTS

LMP
DON HELMET & GLOVES
VERIFY ORBIT
INSERTION MODE
PRELAUNCH SYSTEMS CHECK
RECEIVE RECOMMEND
PRELAUNCH SW CK/ASC
POWER

VERIFY RESTRAINTS

VOICE UPDATE LM:
RECOMMEND L/O
GUIDANCE SYSTEM

APS, LIFT-OFF

TIG: 122:28:11
BT: 400 SEC
ΔV:

ORBIT INSERTION

122:35:25

RR SELF TEST - V63
VERIFY INSERTION
VELOCITY

RANGE = 264.2 NM
RANGE RATE = -425.1 FPS

INITIALIZE AGS

P52 IMU REALIGN
OPTION 3 - REFSMMAT

V93 (BEFORE 1st MARK)
P20 RENDEZVOUS
NAVIGATION

P32 - CSI PRETHRUST

DOWNLINK:
LM STATE VECTOR

P27 UPDATE CSM:
LM STATE VECTOR

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	112:00 - 123:00	6/24	3-88

FLIGHT PLAN

CSM

12:30 PM EDT

LM

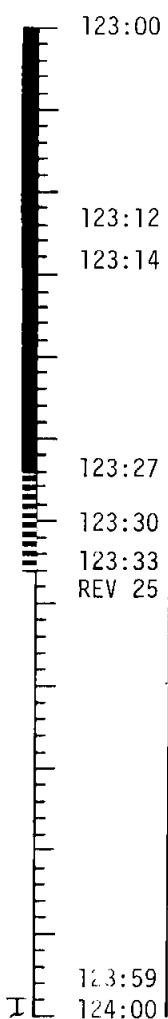
MCC-H

CMP

V90 VOICE LM Y DOT
TO LM

BACKUP CSI
TIG: 123:29:27
P76 TARGET ΔV

47:00



CDR
MAINTAIN RR
TRACK ATTITUDE

GO/NO GO FOR CSI

P41 RCS THRUSTING

RCS CSI

MNVR & MAINTAIN
RR TRACK ATT

P41 RCS THRUST

RCS, PLANE CHANGE

P20 RENDEZVOUS
NAVIGATION

LMP

V32 - 5 MARKS
V32 - 10 MARKS

COPY Y DOT FROM CSM

FINAL COMP: CSI - 12 MIN
PCM - LO

V47 AGS UPDATE
AGS ALIGN
LOAD AGS ΔV's

TIG: 123:26:27
BT: 46 SEC
ΔV: 50.1 FPS

VERIFY AGS RESIDUALS
P33 CDH PRE THRUST
V32 - 5 MARKS
V93
V32 - 5 MARKS

P30 EXTERNAL ΔV.

LOAD AGS EXT ΔV's

TIG: 123:55:25
BT: 0
ΔV: 0

P33 CDH PRETHRUST

GO/NO GO

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	123:00 - 124:00	6/24-25	3-89

FLIGHT PLANNING BRANCH

FLIGHT PLAN

CSM

1:30 PM EDT

LM

MCC-H

CMP

CDR

LMP

TRANSMIT Y DOT
COPY TARGET ΔV'S

P33, FINAL COMP
P41

BACKUP CDH
TIG: 124:27:25
P76 TARGET ΔV

COPY LM TPI SOLUTION
TRANSMIT Y DOT
P40 AUTO MNVR

48:00

124:00
124:02

M
S
F
N

124:30
124:32

124:39

125:00

M
S
F
N

GO/NO GO FOR CDH

COPY Y DOT & LOAD LGC
TARGET Δ'S TO CSM

P41 RCS THRUST

RCS, CDH

MAINTAIN RR
TRACK ATTITUDE

P41 RCS THRUST
COPY CSM TPI SOLUTION
SYNC CONTDOWN

V32 - 4 MARKS
V93
V32 - 5 MARKS

FINAL COMP: CDH - 12 MIN

V47 AGS UPDATE
AGS ALIGN
LOAD AGS EXT ΔV'S

TIG: 124:24:25
BT: 2.8 SEC
ΔV: 6 FPS

V76
V34 TARGETING

V32 - 4 MARKS
V93
V32 - 9 MARKS

FINAL COMP: TPI - 12
MIN
LOAD NEG CSM Y DOT

V47 AGS UPDATE
AGS ALIGN
LOAD EXTERNAL ΔV'S

GO/NO GO

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

FORM 887-1 (Rev. 6-69) (Continued)

FLIGHT PLANNING BRANCH

FLIGHT PLAN

CSM

2:30 PM EDT

LM

MCC-H

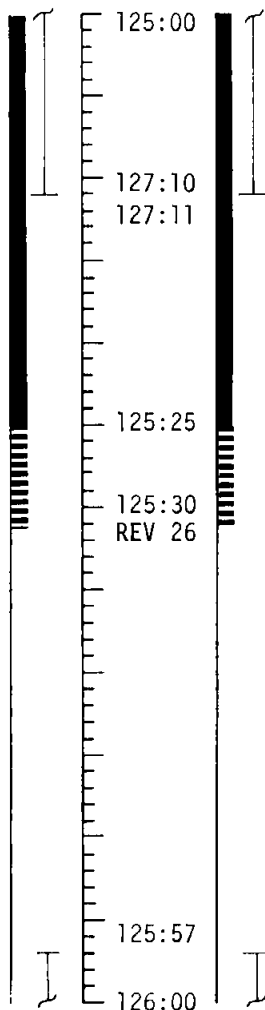
CMP
 TPI, TIG:
 P 76 TARGET ΔV
 P 35 TPM PRE THRUST

SXT/VHF TRACK

P41
 MCC 1, TIG:
 P76 TARGET ΔV
 P35 TPM PRE THRUST

SXT/VHF TRACK

P41
 MCC 2, TIG:
 P76 TARGET ΔV
 V89 MNVR TO COAS
 TRACKING ATT



CDR	LMP
RCS, TPI	TIG: 125:02:46 BT: 23.3 SEC ΔV: 25.7 FPS P35 TMP PRE-THRUST LOAD AGS EXT ΔV
MAINTAIN LOS P41 RCS THRUST	
RCS, MCC 1 TIG: 125:17:46	
V93 BEFORE 1st MARK MAINTAIN LOS P41 RCS THRUST	P35 TPM PRE-THRUST LOAD AGS EXT ΔV
RCS, MCC 2 TIG: 125:32:46	
RR SELF TEST P47 THRUST MONITOR	

RCS BRAKING

	ΔT FROM		ΔV	RANGE	RANGE RATE
GET	TPI	BT SEC	FT/SEC	NM	FT/SEC
125:42:22	39:36	1.5	1.7	1.0	30
125:44:05	41:19	9.6	10.6	0.5	20
125:45:14	42:28	9.0	9.9	0.2	10
125:47:02	44:16	4.3	4.8	0.08	5
125:48:03	45:17	4.2	4.7	0.03	0

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	125:00 - 126:00	6/25-26	3-91

FLIGHT PLAN

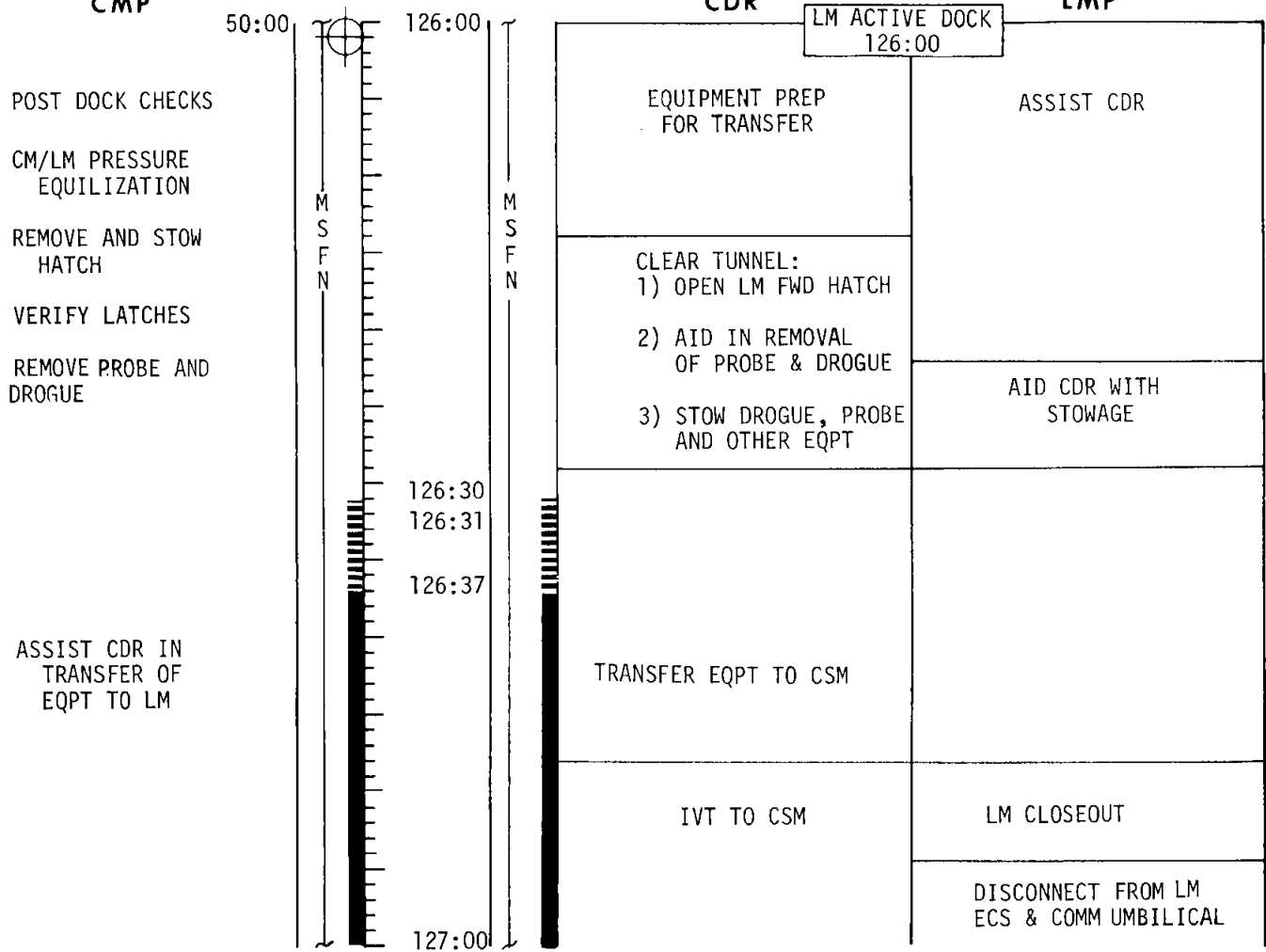
CSM

3:30 PM EDT

LM

MCC-H

CMP

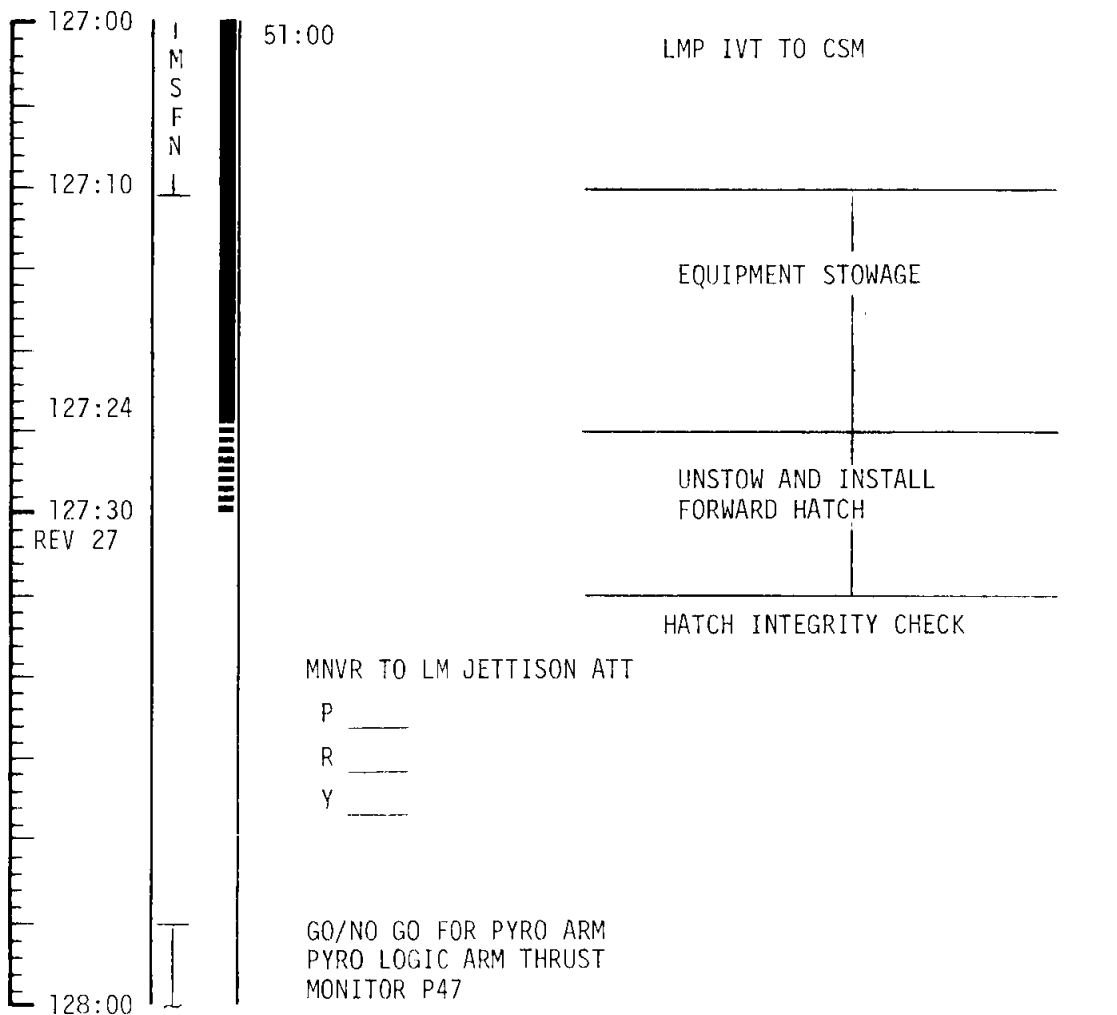


MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	126:00 - 127:00	6/26	3-92

MCC-H

FLIGHT PLAN

NOTES



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

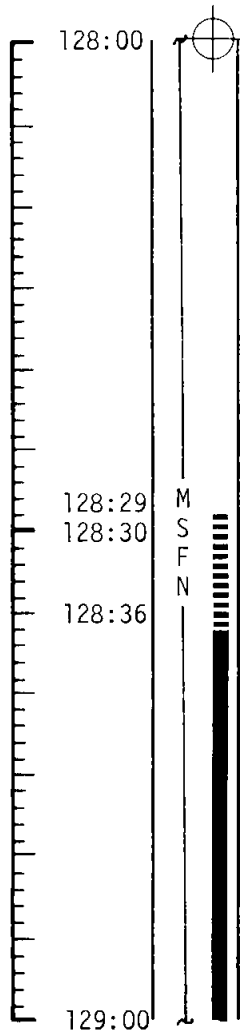
MCC Form 13-OT (Mar. 69)

FLIGHT PLANNING BRANCH

5:30 PM EDT **MCC-H**

FLIGHT PLAN

NOTES



LM JETTISON -

TERM P47
SM RCS CK
SPS MON CK
V₆₆ - TRANS CSM STATE
VECTOR TO LM SLOT

BURN STATUS REPORT

DOFF & STOW PGA'S, HELMET,
GLOVES

IMU REALIGN - P52
OPTION 3 - REFSMMAT

GETI: 128:00
 ΔV : 1 FPS RETROGRADE

BURN STATUS REPORT			
X	X	:	Δ TIG
X	X	:	BT
		.	V _{gx}
TRIM			
X	X	X	R
X	X	X	P
X	X	X	Y
		.	V _{gx}
		.	V _{gy}
		.	V _{gz}
		.	ΔV_c
X	X	X	FUEL
X	X	X	OX
X	X	X	UNBAL
REMARKS:			

P27 UPDATE:
STATE VECTOR
(CSM & LM)

P52 - (LDG SITE REFSMMAT)
N71: _____
N05: _____
N93: _____
X _____
Y _____
Z _____

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

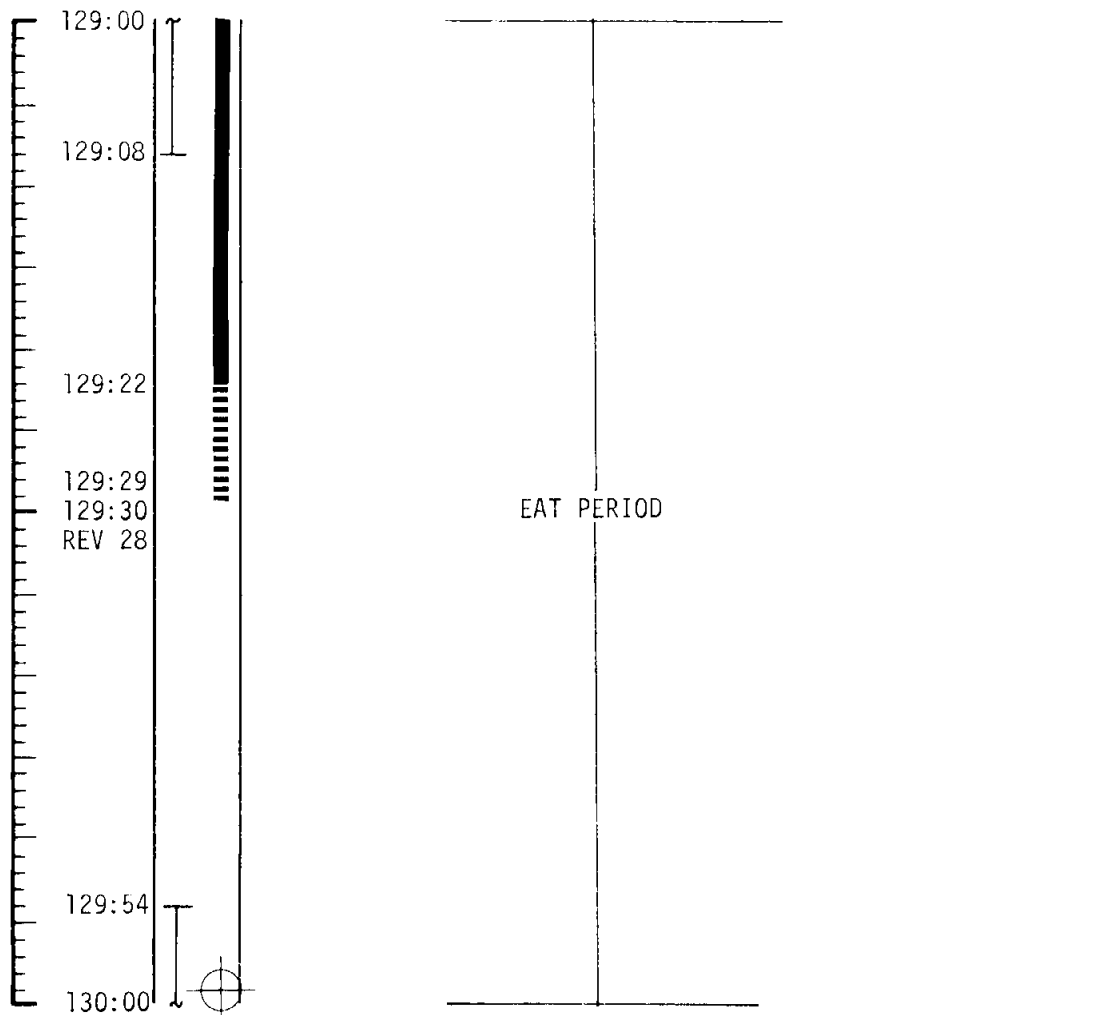
MSC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH

6:30 PM EDT **MCC-H**

FLIGHT PLAN

NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	129:00 - 130:00	6/27-28	3-95

MSC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH

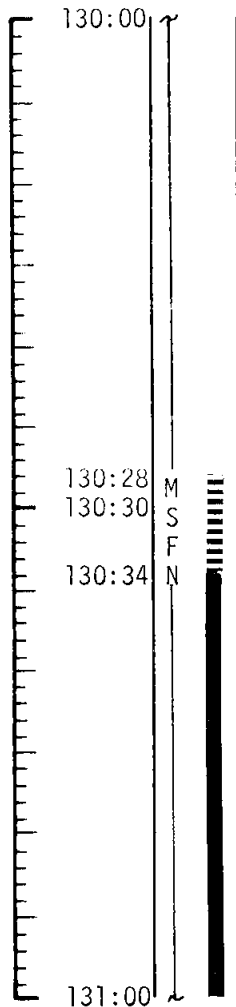
MCC-H
7:30 PM EDT

FLIGHT PLAN

NOTES

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

P27 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 - REFSMMAT

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

P52 - (LDG SITE REFSMMAT)

N71: _____

N05: _____

N93:

X _____

Y _____

Z _____

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	130:00 - 131:00	6/28	3-96

FLIGHT PLANNING BRANCH

MSC Form 29 OT (Mar. 69)