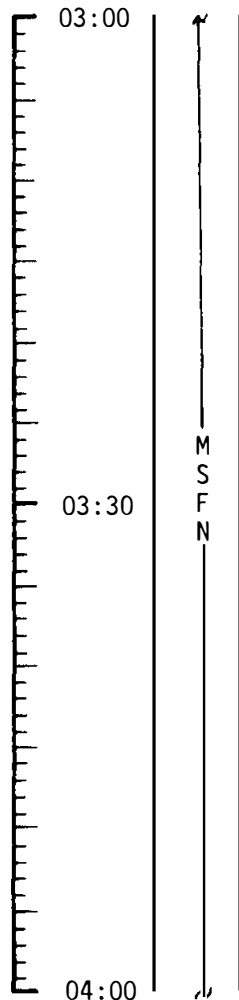


MCC-H
12:30 PM EDT

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

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

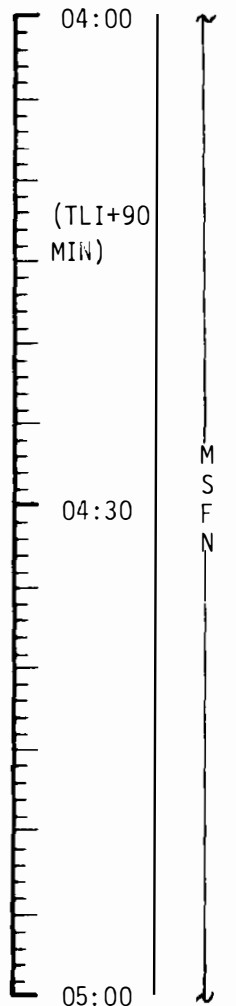
3-4a

MCC-H

1:30 PM EDT

VOICE UPDATE:

MNVR PAD

GO/NO-GO
FOR PYRO ARM
& LM EXTRACTION**FLIGHT PLAN**

RECORD EVASIVE MNVR PAD

LOGIC BUS ARM
THRUST MONITOR - P47GETT: 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)

NOTESFOR 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
		.	V _{gx}
		.	V _{gy}
		.	V _{gz}
		.	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

MSC Form 29 OT (Mar. 69)

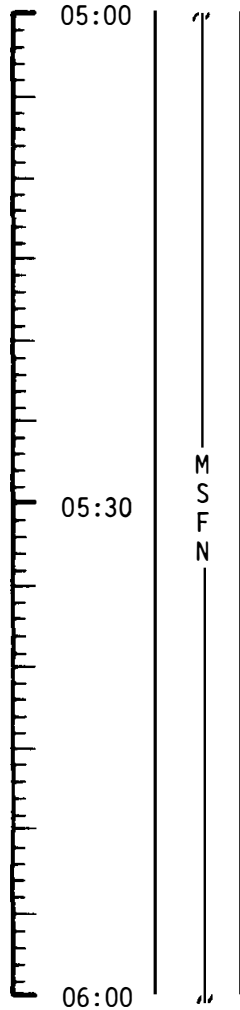
MCC-H

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

FLIGHT PLANNING BRANCH

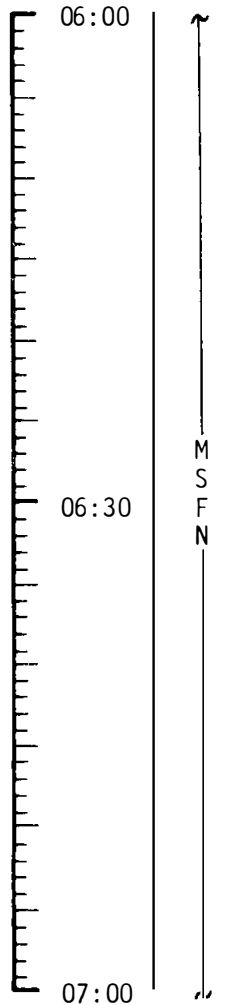
MSC Form 29 OT (Mar. 69)

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

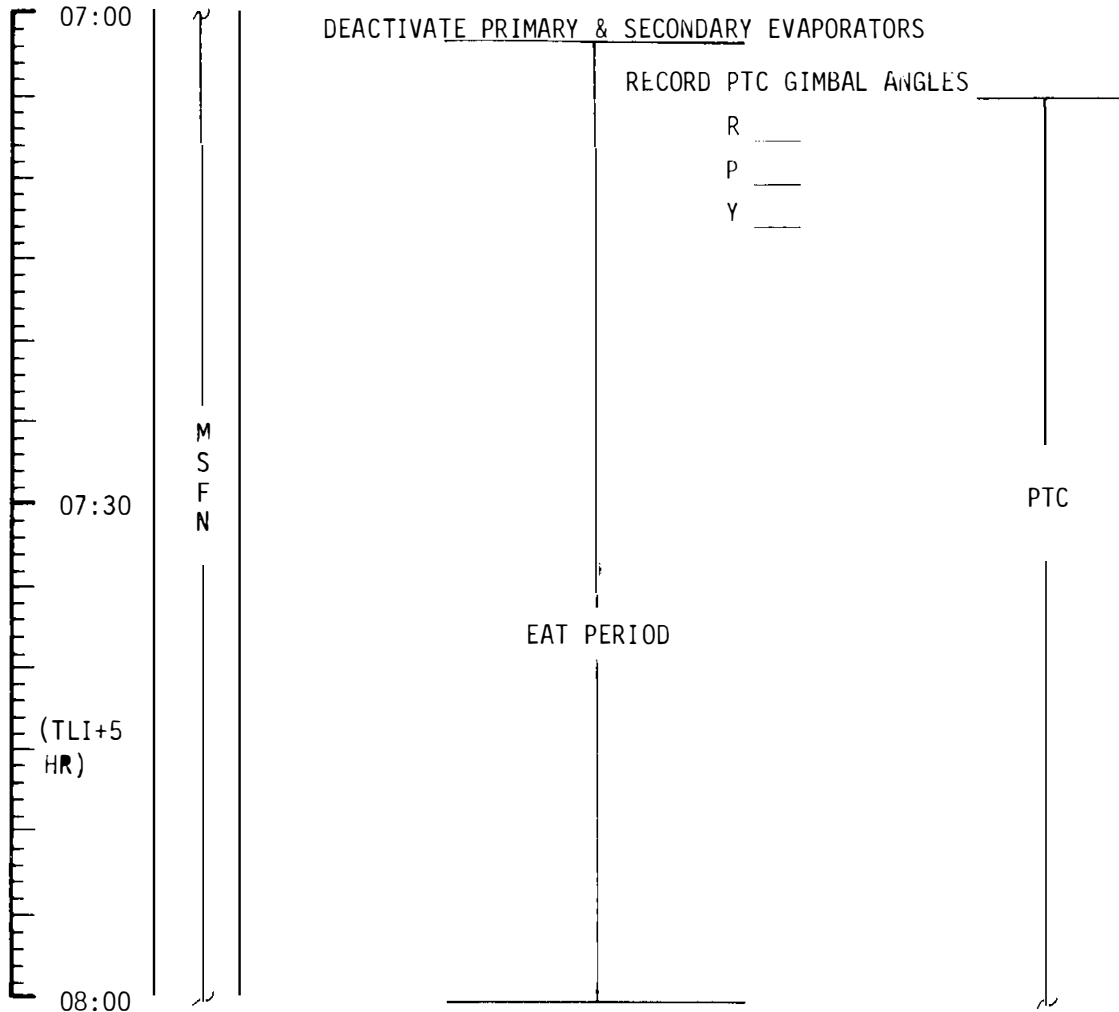
MCC-H

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

MSC Form 29 OT (Mar. 69)

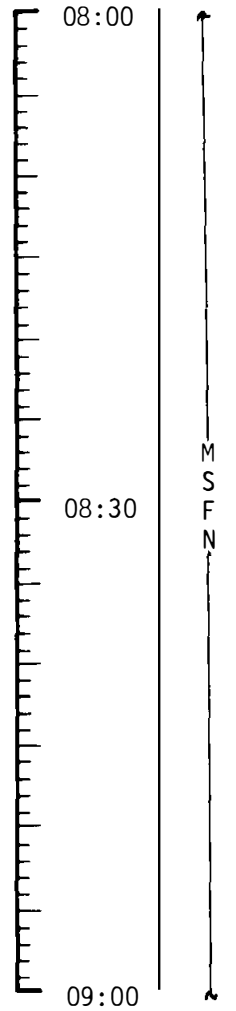
FLIGHT PLANNING BRANCH

MCC-H

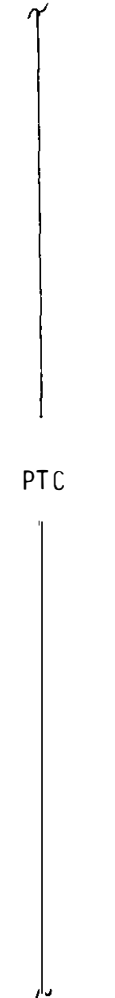
5:30 PM EDT

FLIGHT PLAN

NOTES



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

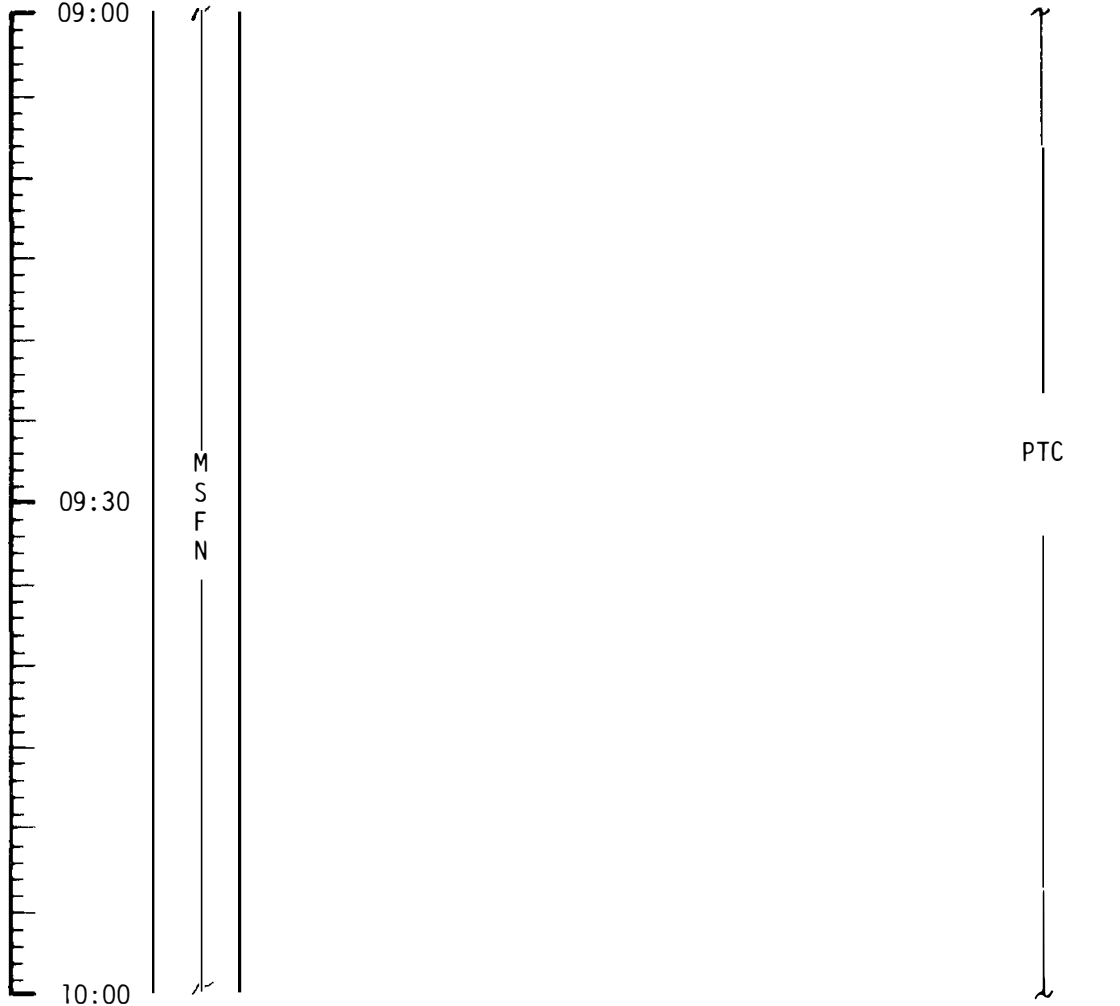


MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	08:00-09:00	1/TLC	3-9

FLIGHT PLAN

MCC-H
6:30 PM EDT

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

FLIGHT PLANNING BRANCH

MSC Form 29 OP (Mar. 69)

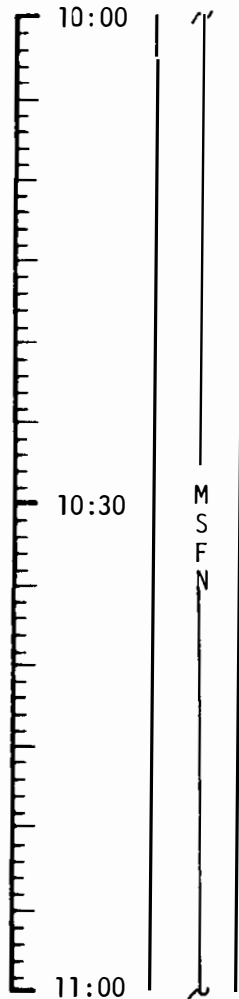
MCC-H
7:30 PM EDT

FLIGHT PLAN

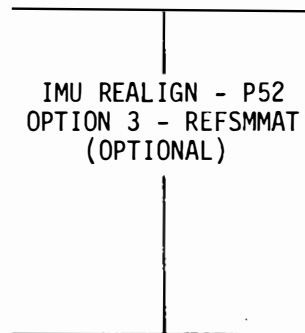
NOTES

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

VOICE UPDATE:
MNVR PAD



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



PTC

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

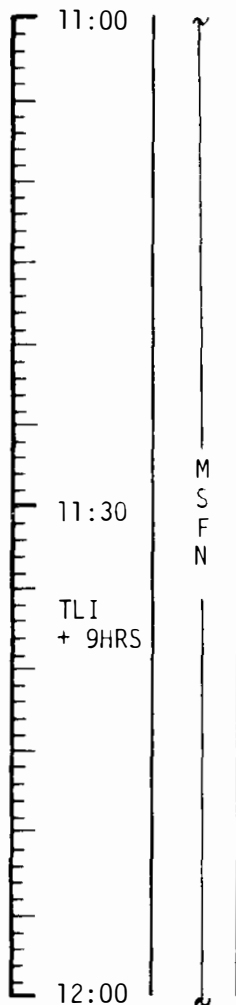
3-11a

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	:		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:

MCC₁ WILL BE PERFORMED IF THE $\Delta V > 3$ 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

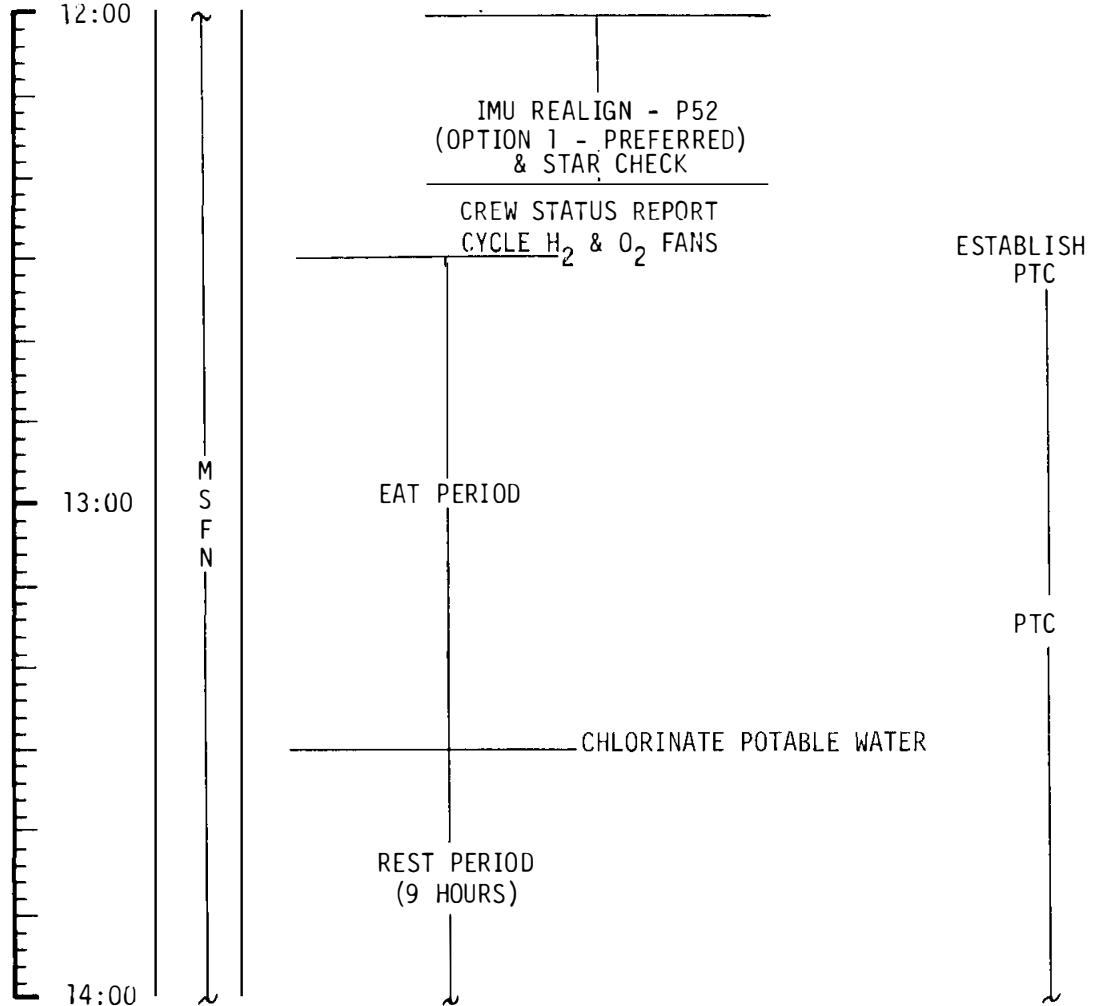
MSC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH

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

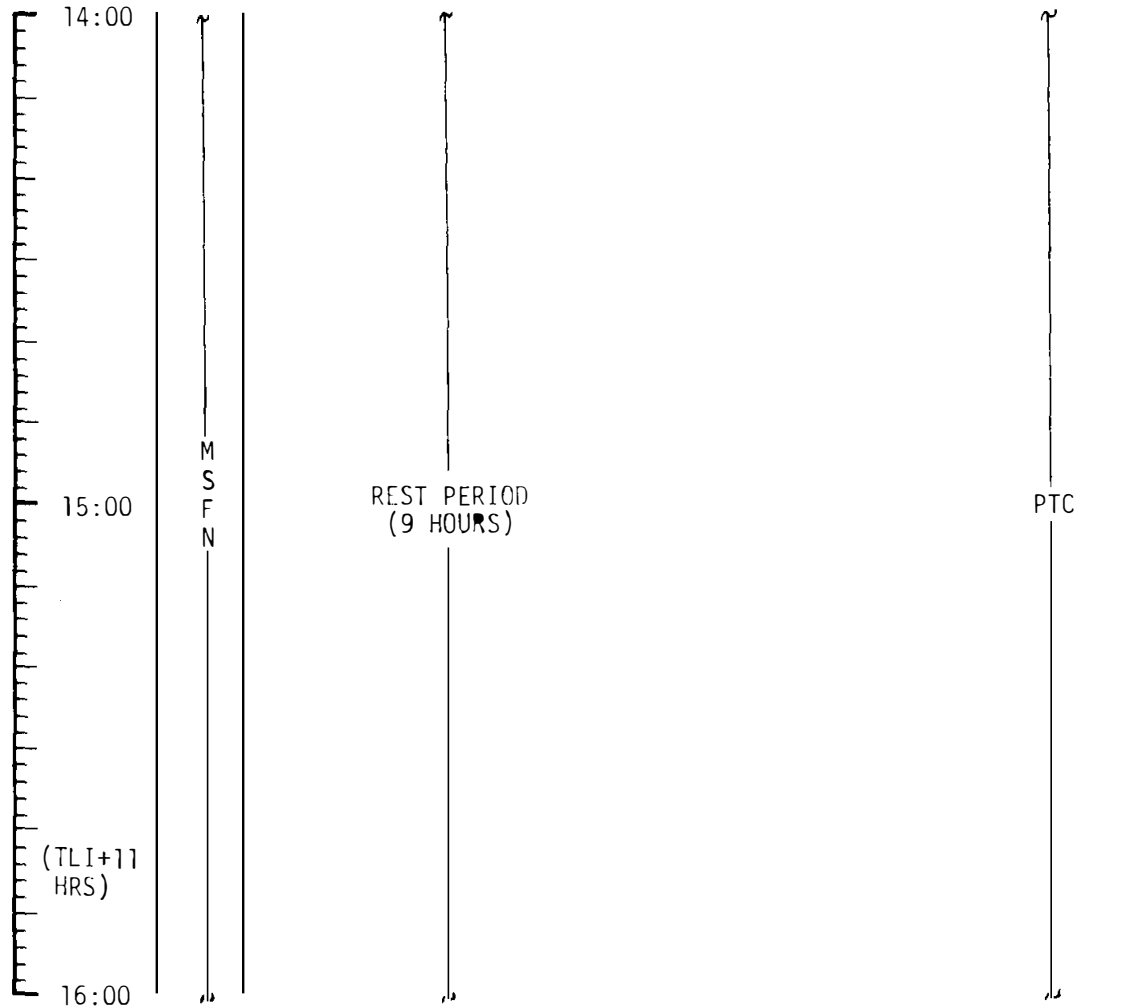
MSC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH

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

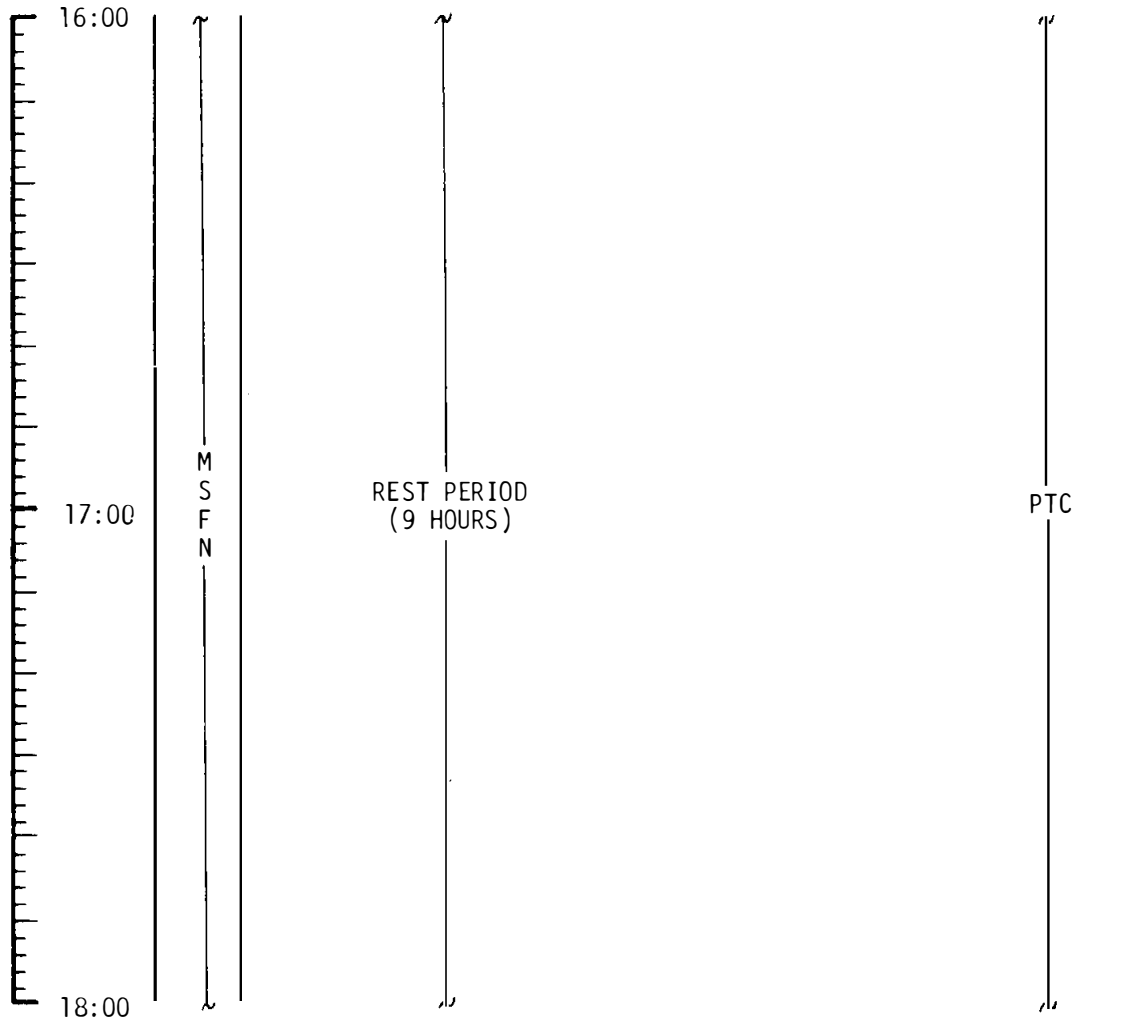
MSC Form 29 GF (Mar. 69)

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

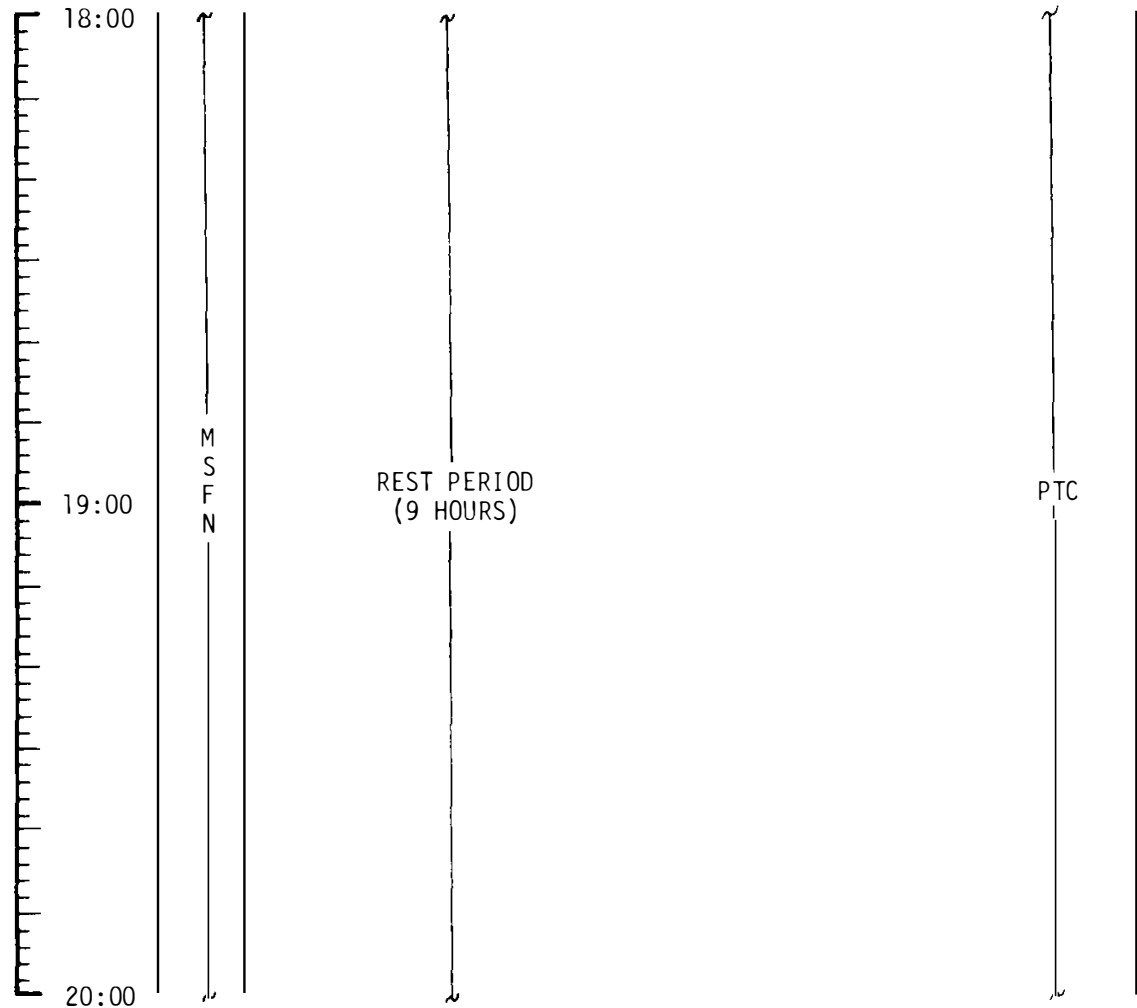
MSC Form 29 OT (Mar. 69)

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)

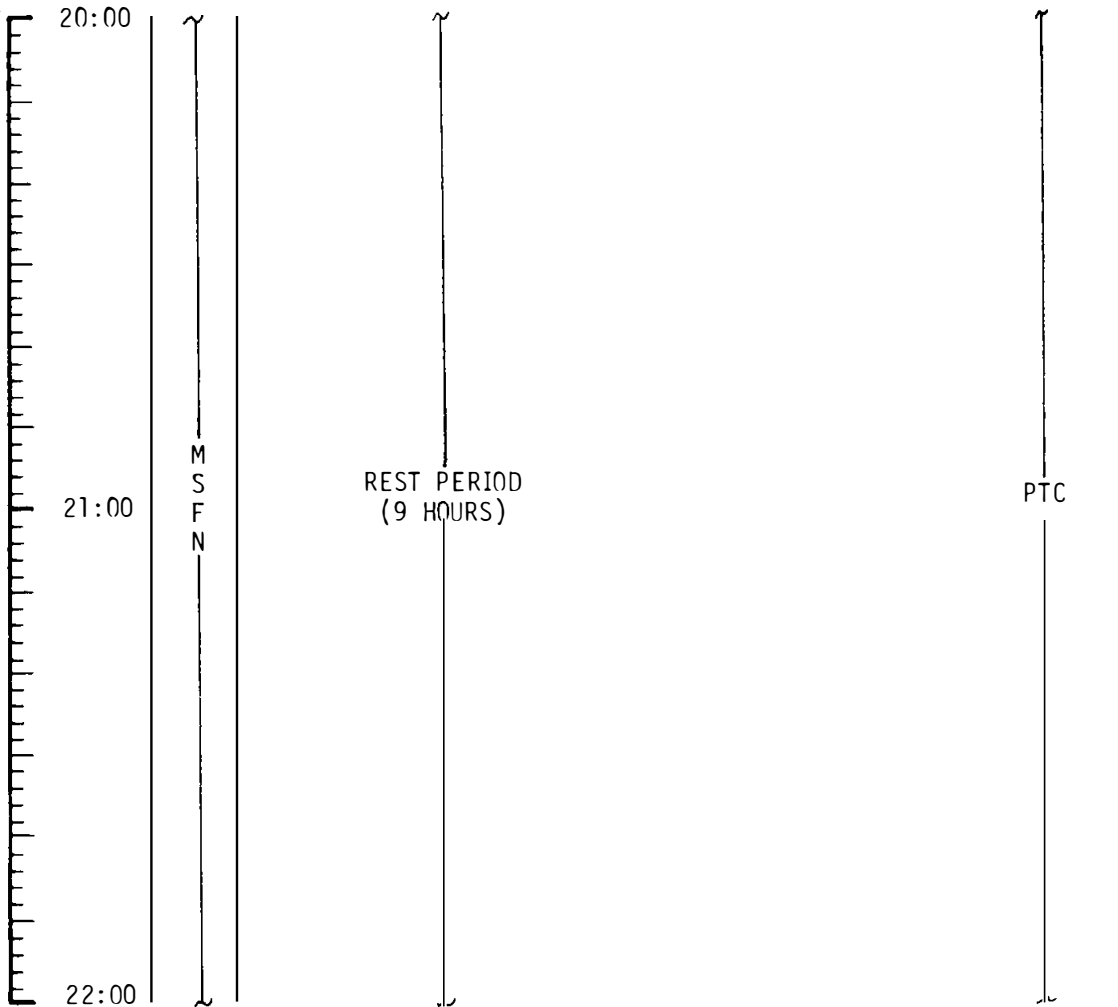
FLIGHT PLANNING BRANCH

MCC-H

5:30 AM EDT

FLIGHT PLAN

NOTES



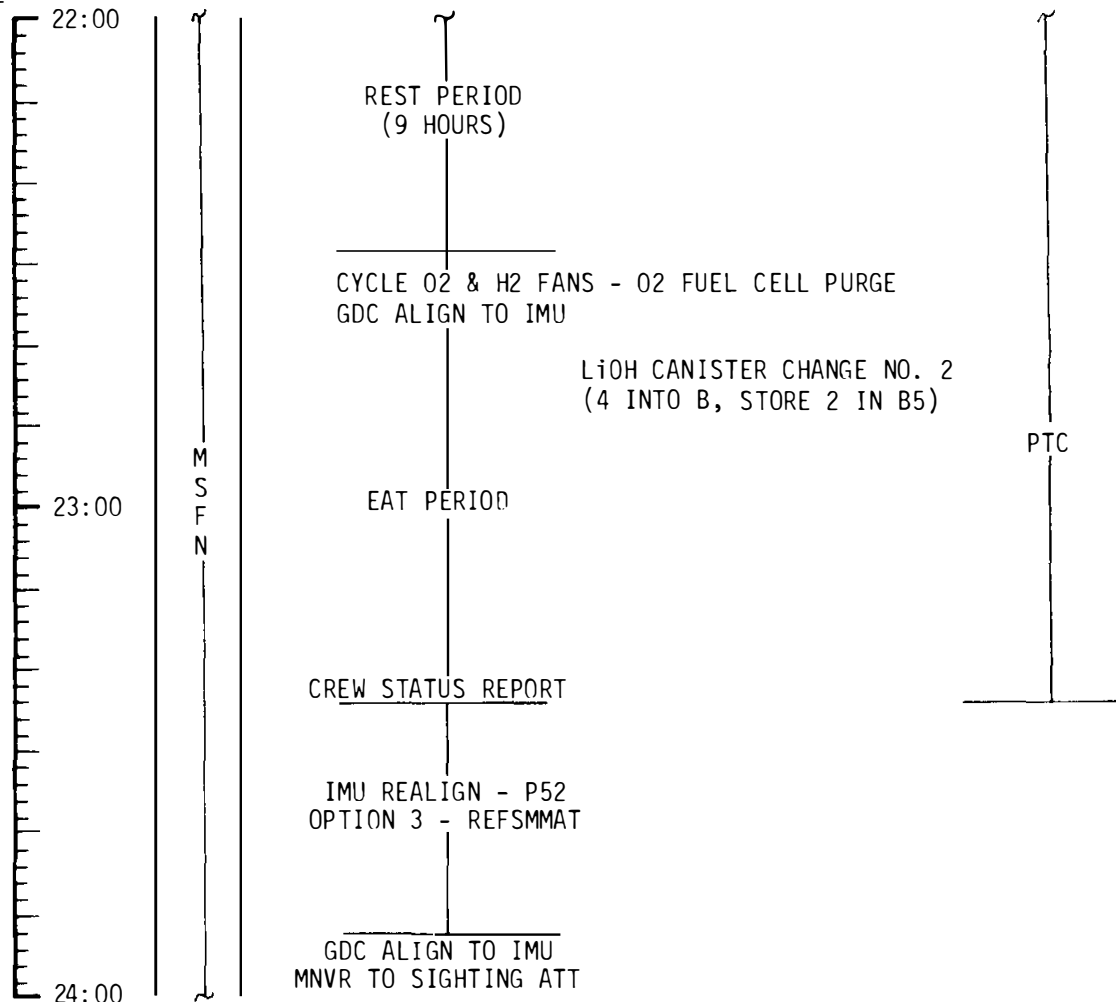
MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	20:00-22:00	1/TLC	3-17

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 _____, _____

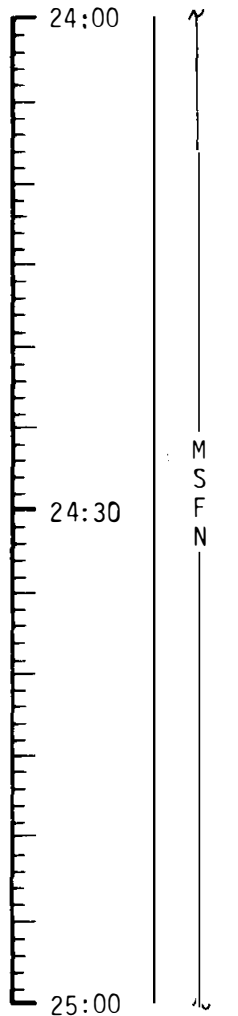
MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	22:00-24:00	1/TLC	3-18

MSC Form 29 OF (Mar. 69)

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

MCC-H

10:30 AM EDT 25:00

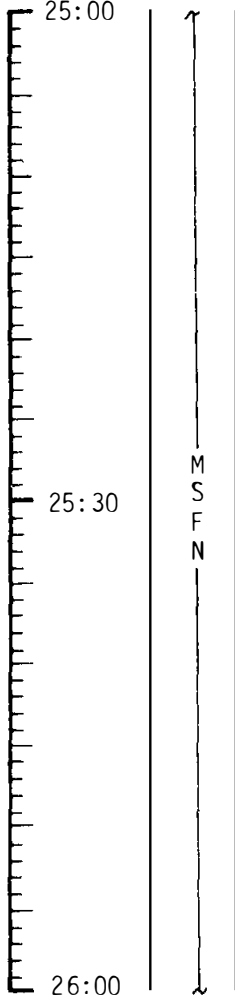
FLIGHT PLAN

NOTES

ECS REDUNDANT COMPONENT CK

P27 UPDATE
STATE VECTOR
(CSM & LM)
TGT LOAD

VOICE UPDATE
PAD DATA



RECORD MCC₂ PAD DATA

IMU REALIGN - P52
(OPTION - 3 REFSMMAT)

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

MCC
BURN CHART

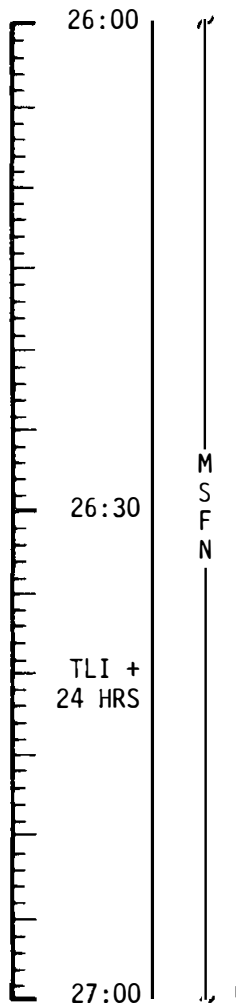
	P OR Y RATES	ATT DEVIATION	SHUTDOWN TIME	RESIDUALS
MCC ₂	10°/SEC TAKEOVER	+10° TAKEOVER	BT + 1 SEC	NO TRIM

3-20a

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

FLIGHT PLAN

NOTES



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

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 $\Delta V > 3FPS$ OR ΔV
 WOULD EXCEED 25FPS
 IF DELAYED TO MCC₃
 (LOI - 22 HRS)

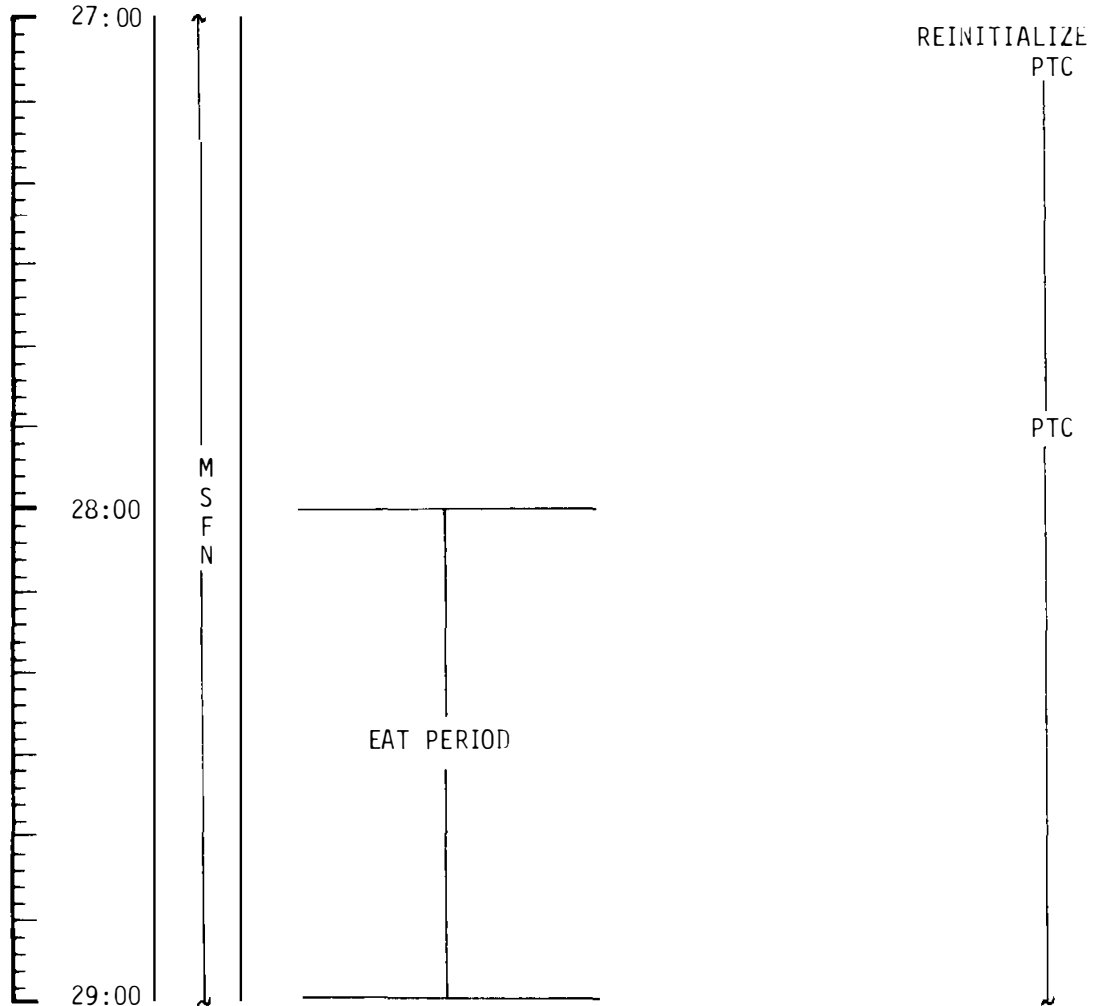
MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	26:00 - 27:00	2/TLC	3-21

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

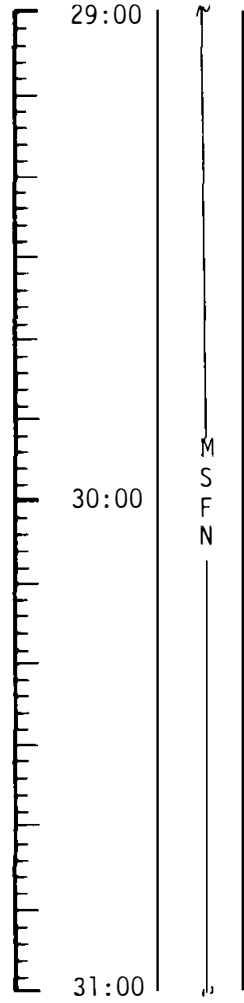
MSC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH

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

FLIGHT PLAN

NOTES



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

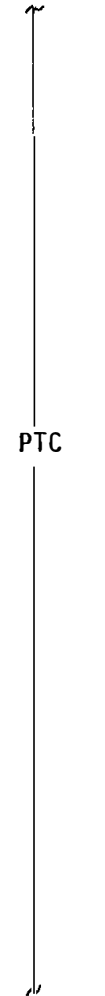
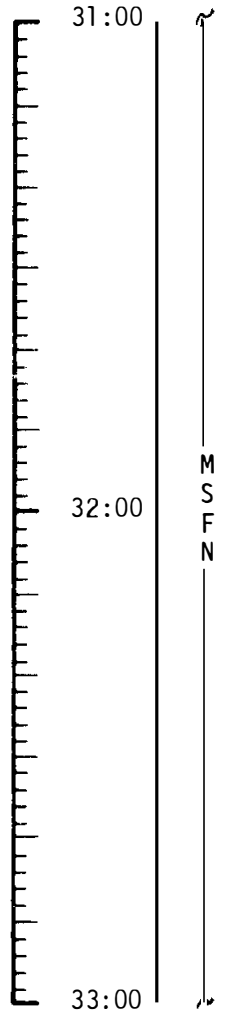
MSC Form 29 OT (Mar. 69)

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

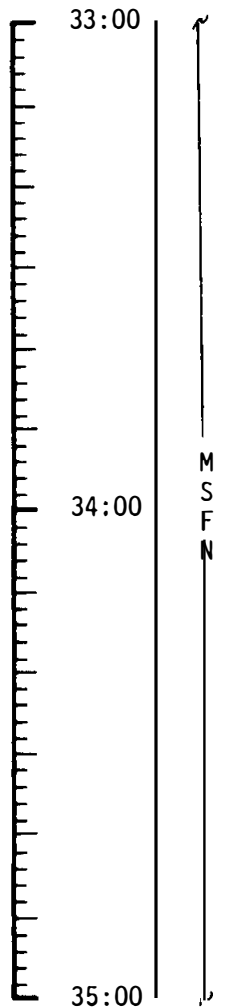
MSC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH

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

FLIGHT PLAN

NOTES



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

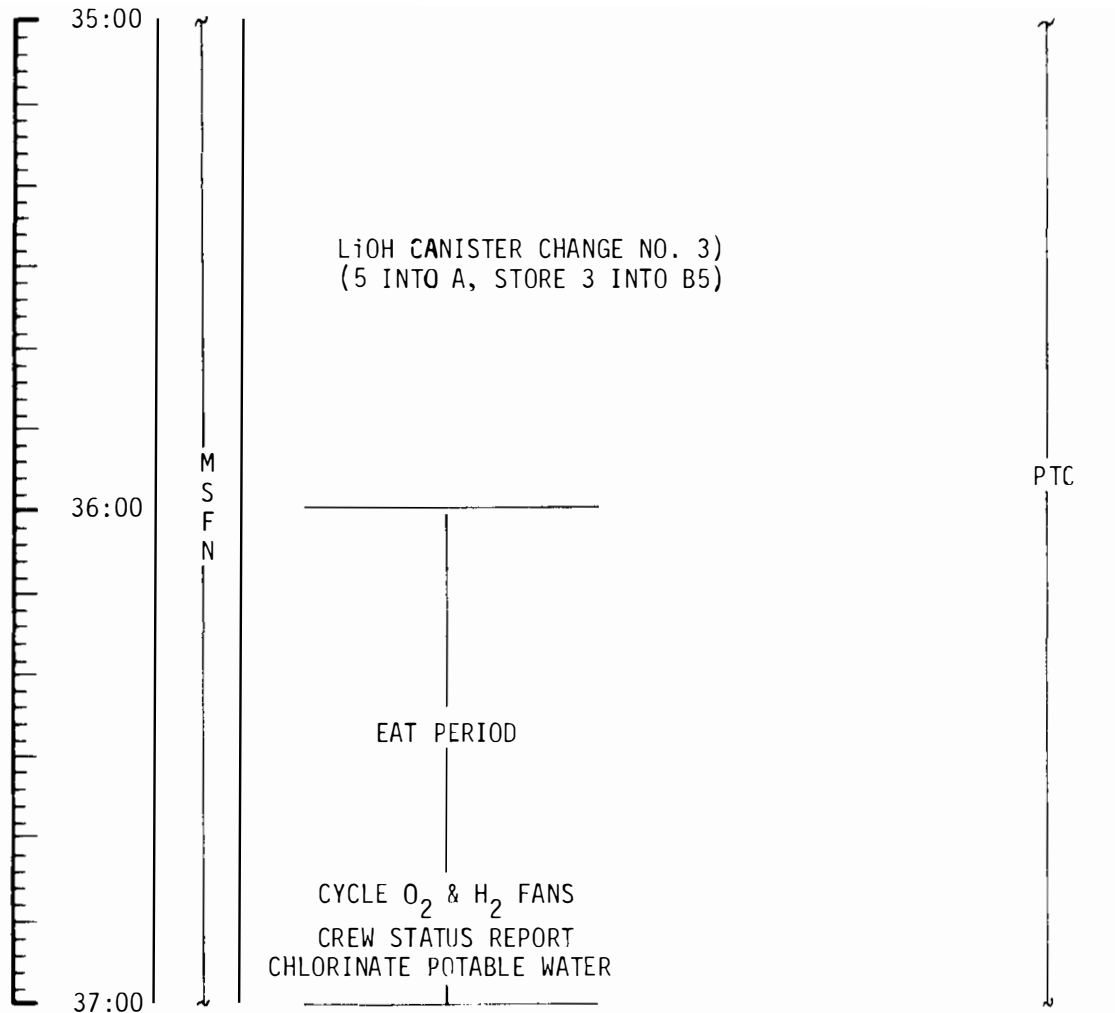
MSC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH

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

FLIGHT PLAN

NOTES



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

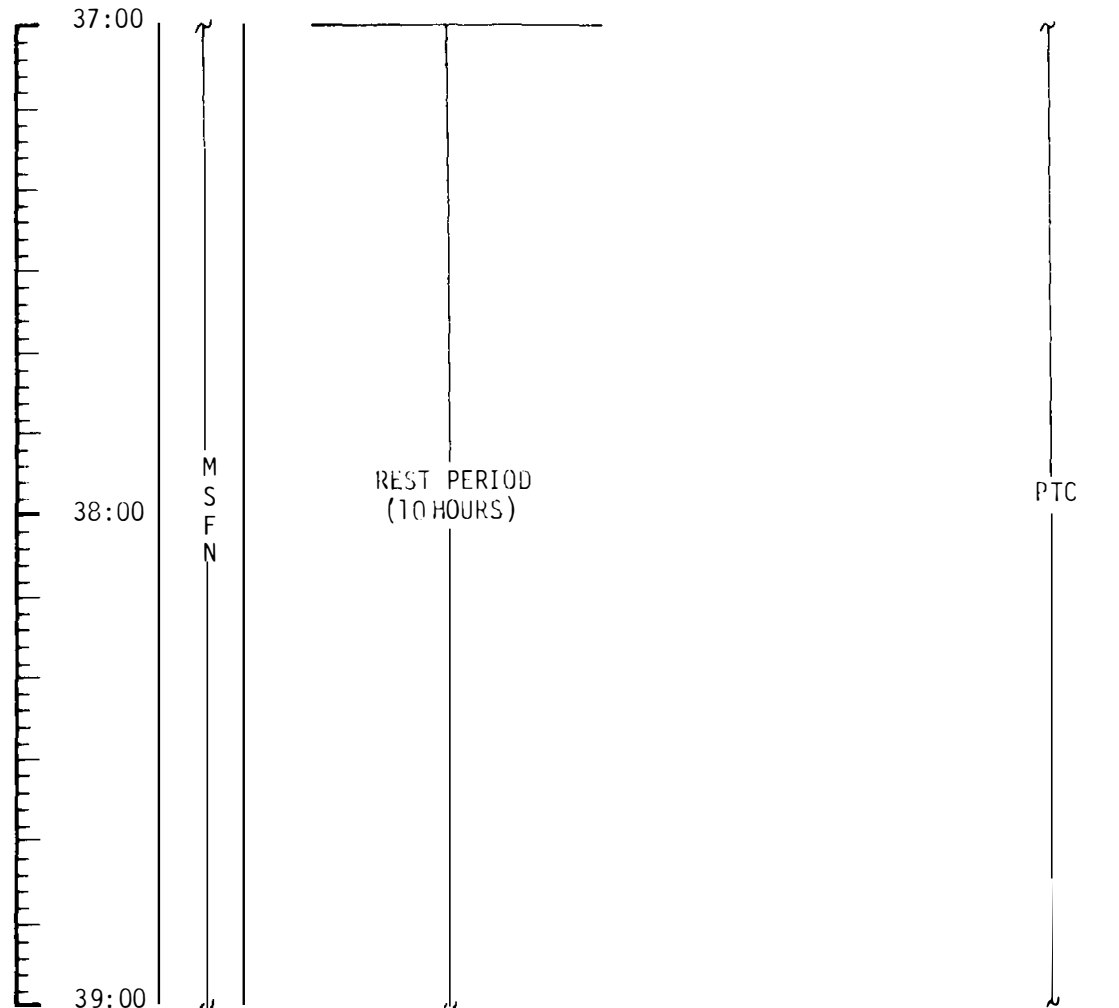
MCC Form 29 OT (Mar. 69)

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

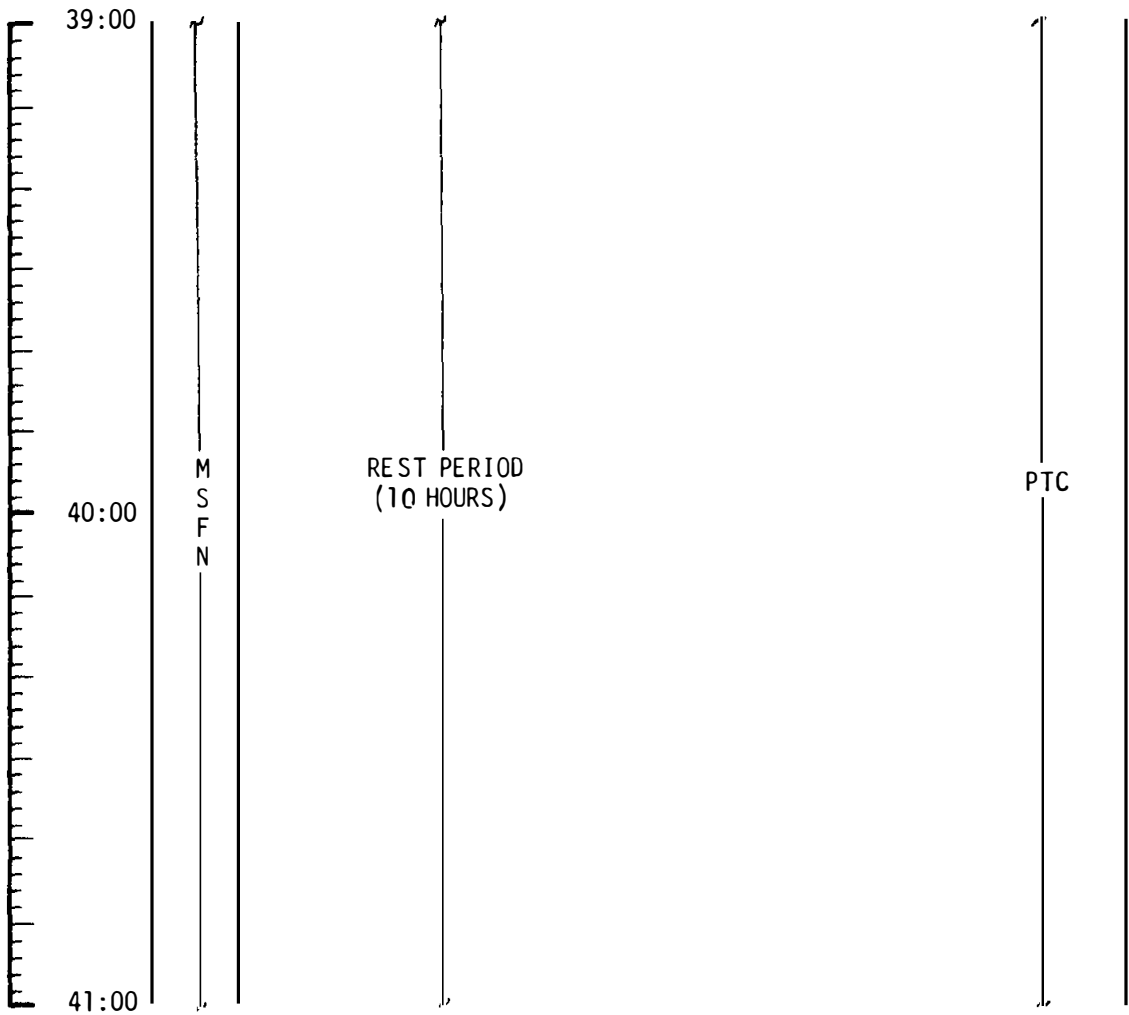
MSC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH

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

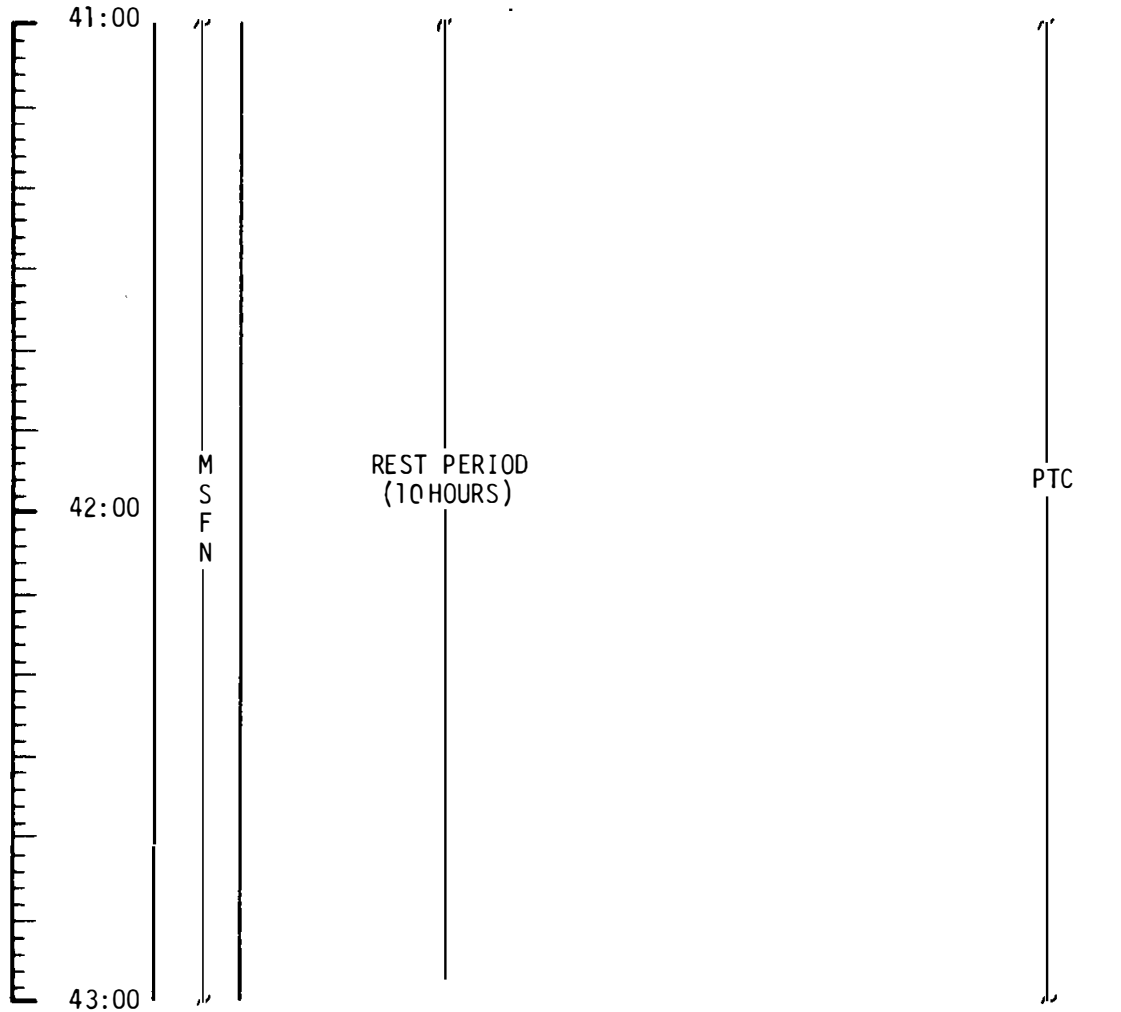
MSC Form 29 OT (Mar. 69)

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

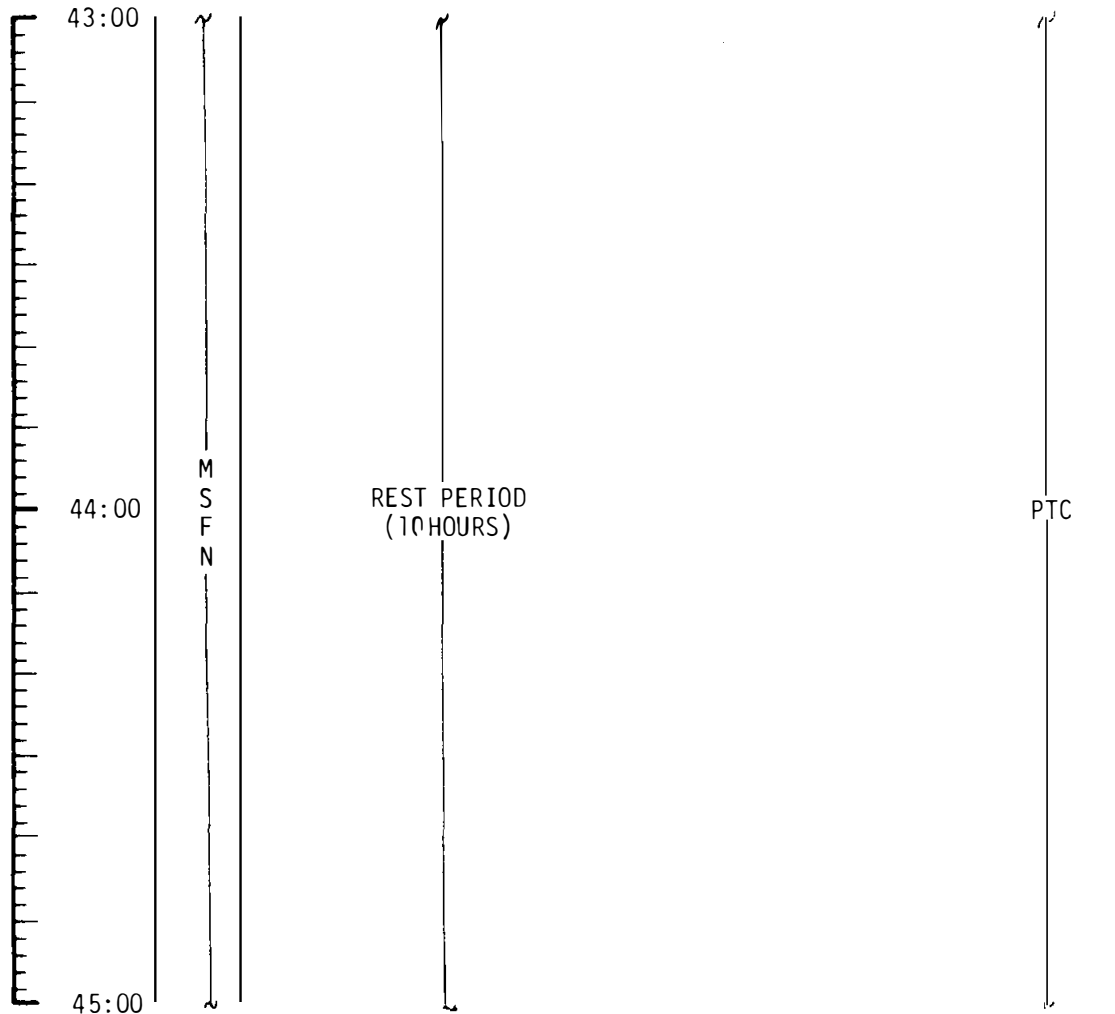
MSC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH

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

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)

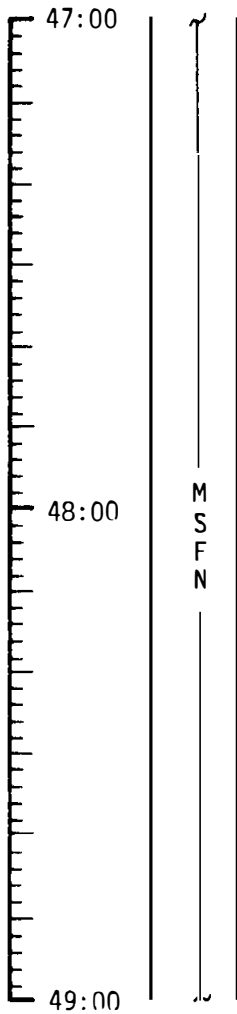
FLIGHT PLANNING BRANCH

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

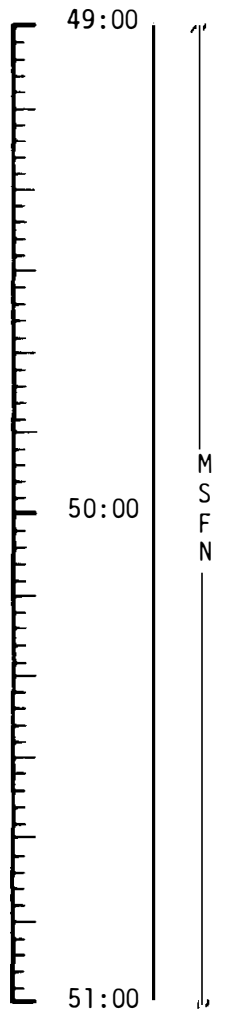
FLIGHT PLANNING BRANCH

MSC Form 29 OT (Mar. 69)

10:30 AM EDT **MCC-H**

FLIGHT PLAN

NOTES



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

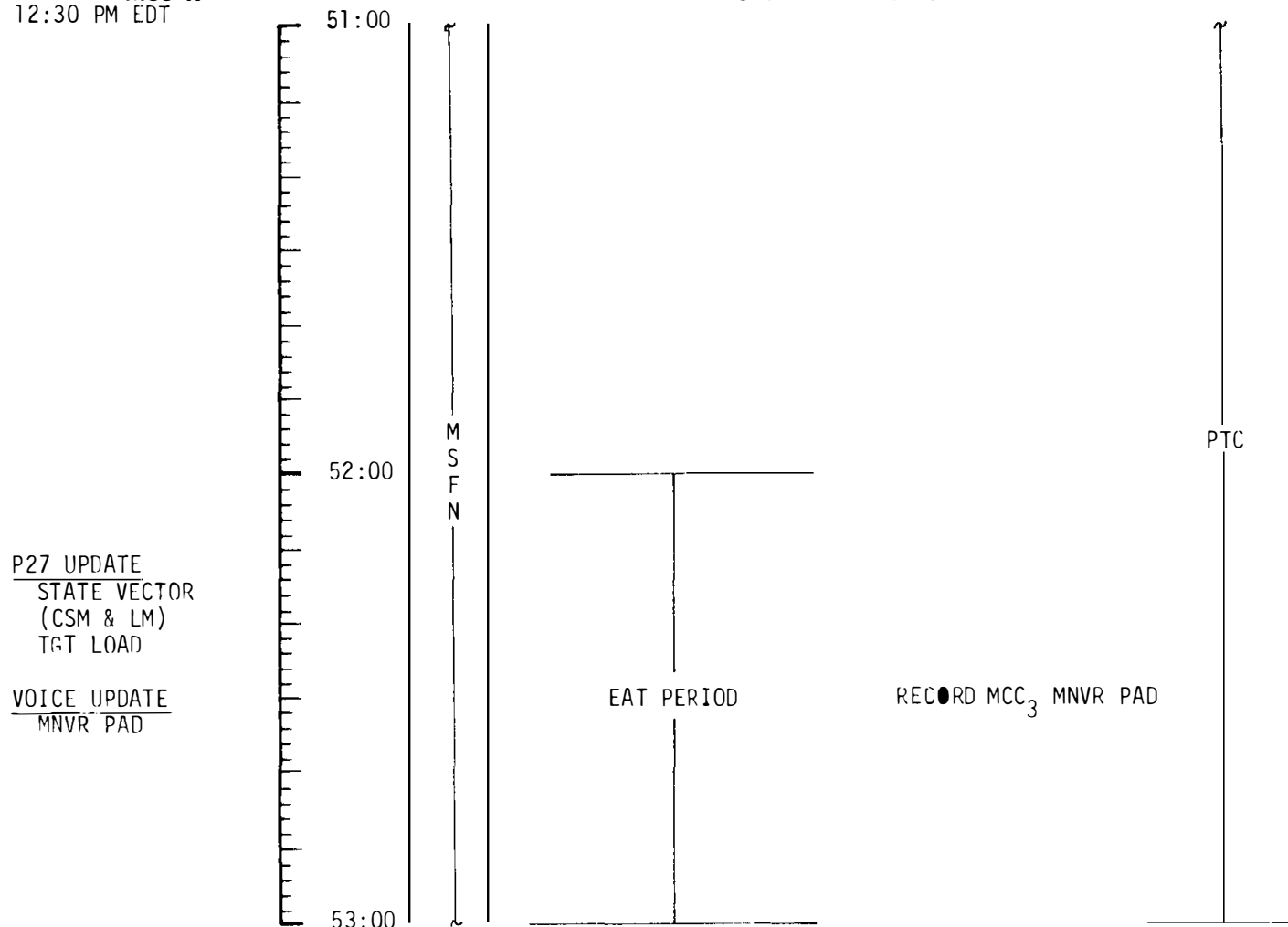
MSC Form 29 OT (Mar. 69)

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

MSC Form PD OT (Mar. 69)

FLIGHT PLANNING BRANCH

MCC
BURN CHART

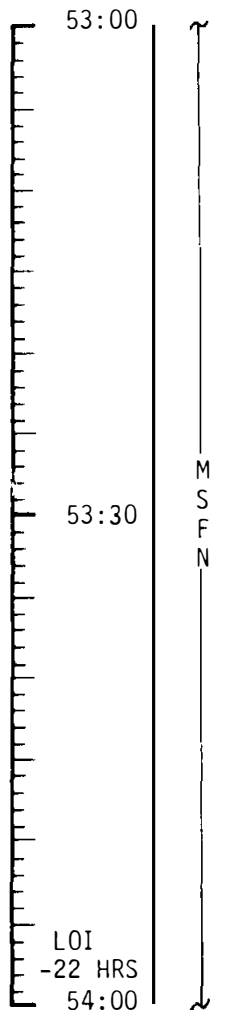
	P OR Y RATES	ATT DEVIATION	SHUTDOWN TIME	RESIDUALS
MCC ₃	10°/SEC TAKEOVER	+10° TAKEOVER	BT + 1 SEC	TRIM TO 0.5 FPS

3-34a

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

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 _____

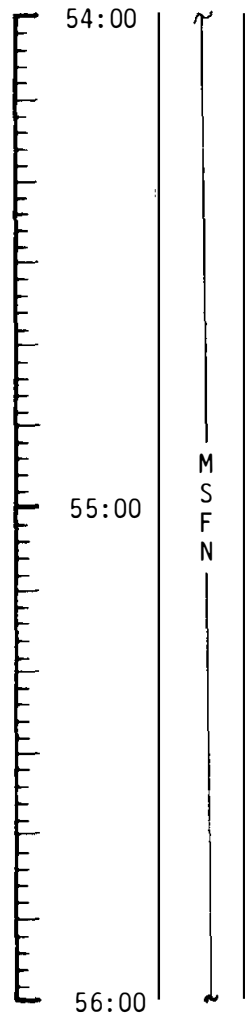
MCC₃ WILL BE PERFORMED WITH THE SPS IF ΔV ≥ 3 FPS, OR WITH THE RCS IF ΔV < 3 FPS. MCC₃ WILL NOT BE PERFORMED IF THE ΔV < 3 FPS AND CAN BE CORRECTED DURING LOI, WITHOUT EXCEEDING 45° IN APSIDAL ROTATION

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

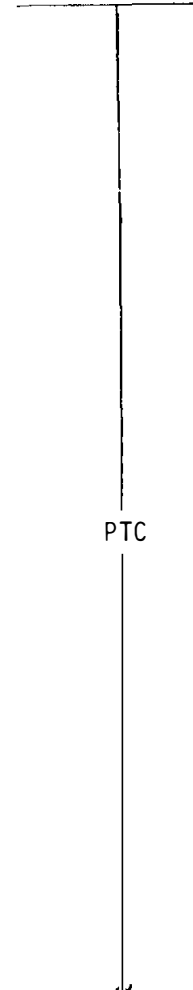
3:30 PM EDT **MCC-H**

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)

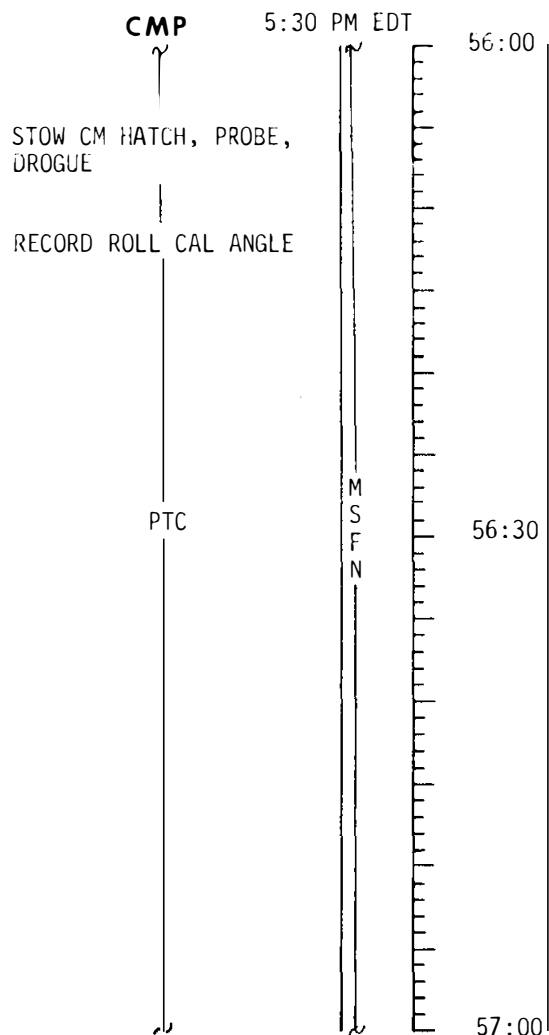
FLIGHT PLANNING BRANCH

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

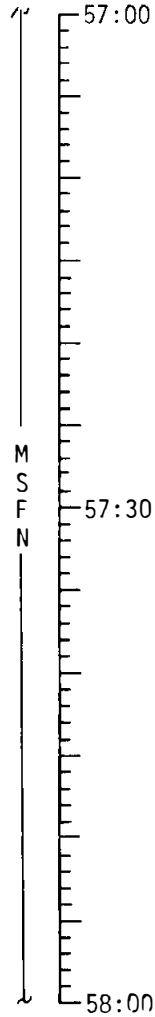
CSM

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

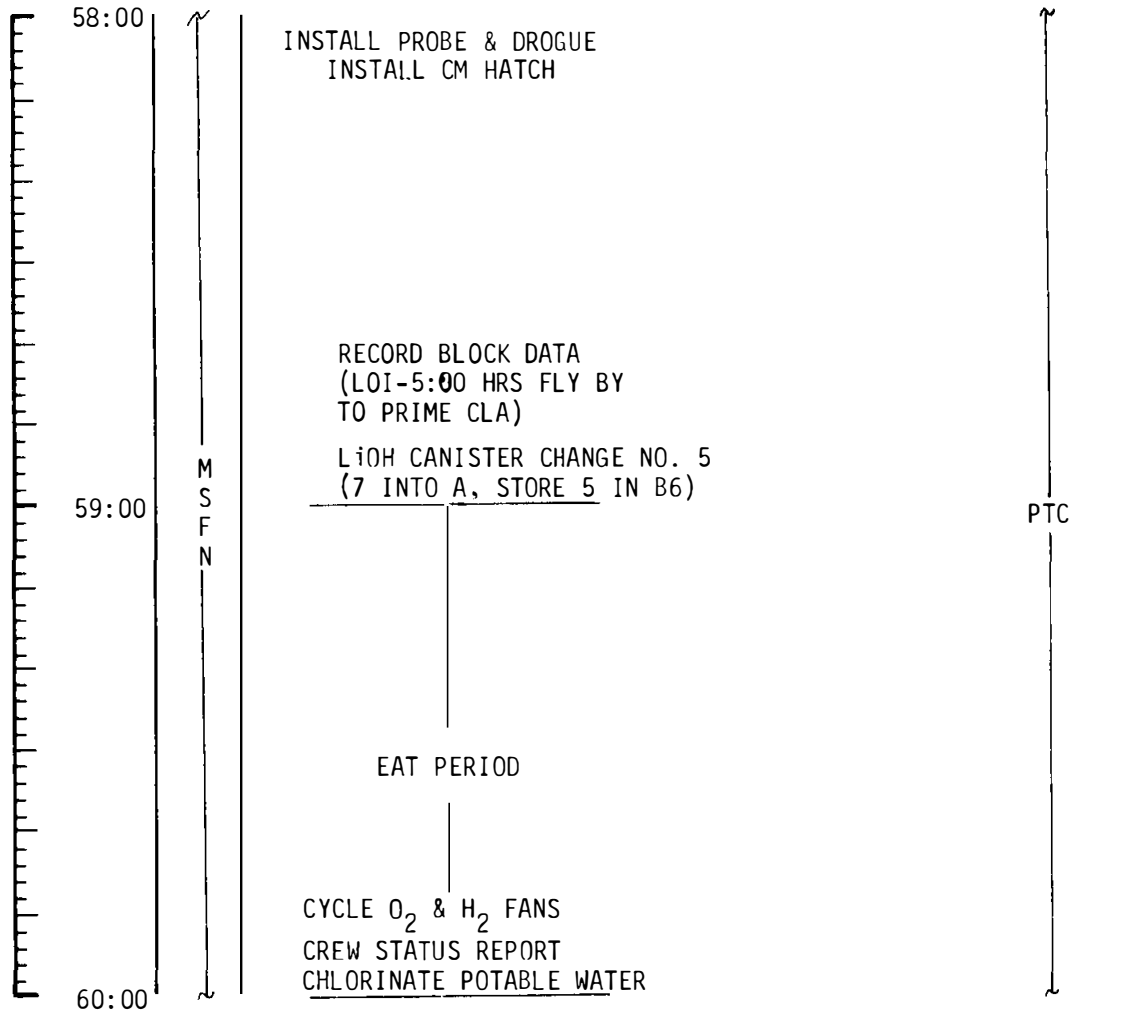
FLIGHT PLAN

NOTES

MCC-H
7:30 PM EDT

180,000 NM FROM EARTH

VOICE UPDATE:
BLOCK DATA



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

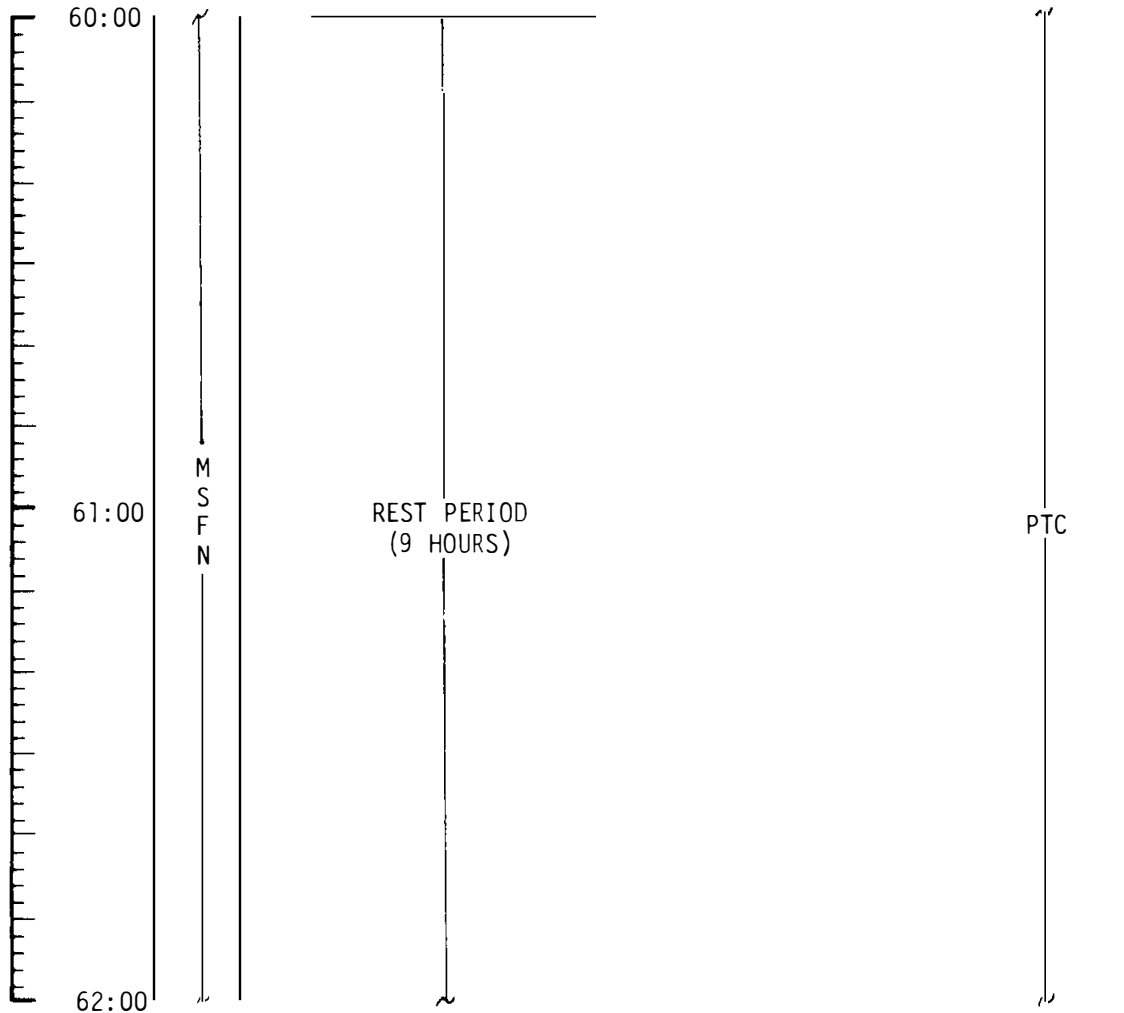
FLIGHT PLANNING BRANCH

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

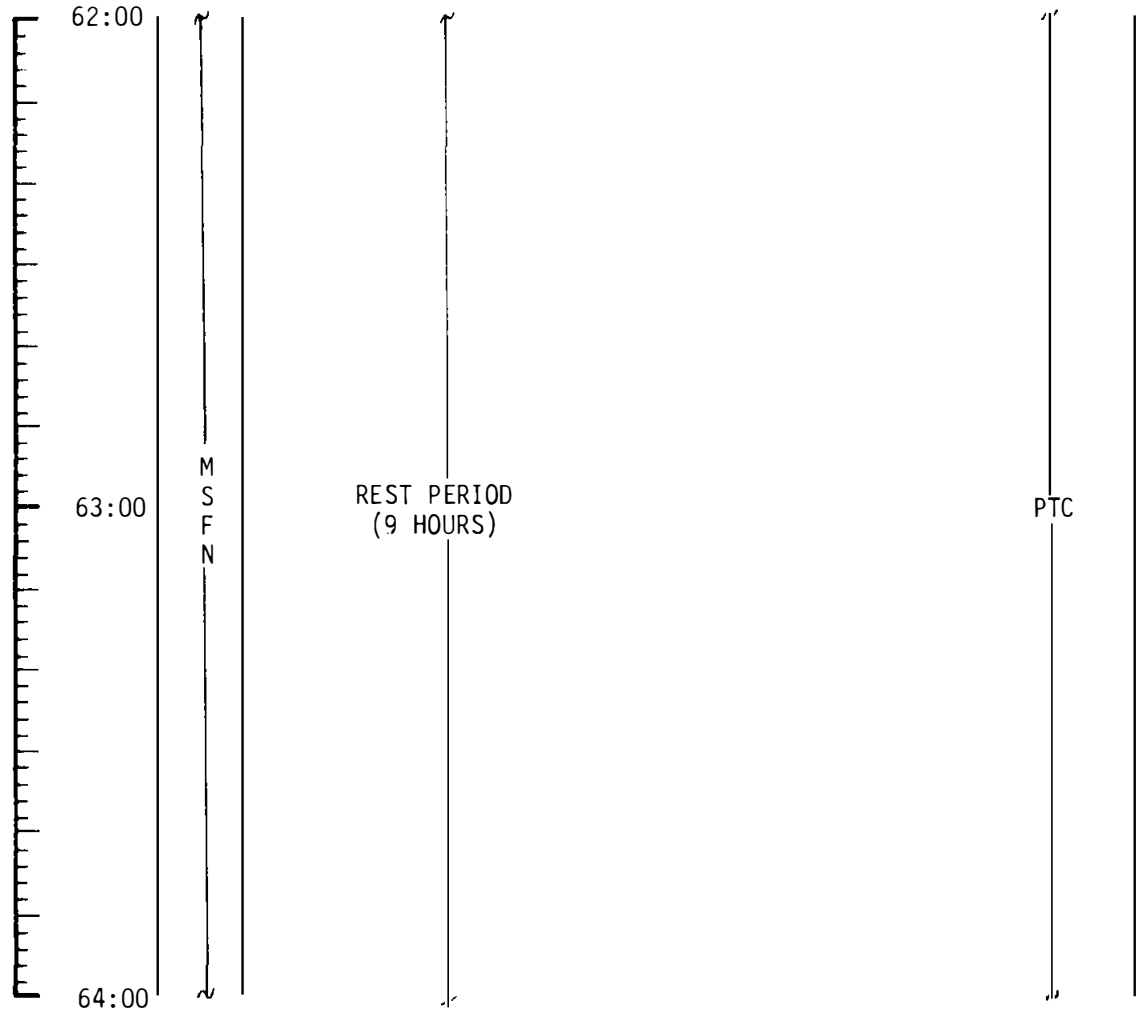
MSC Form 29-01 (Mar. 69)

FLIGHT PLANNING BRANCH

MCC-H
11:30 PM EDT

FLIGHT PLAN

NOTES



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

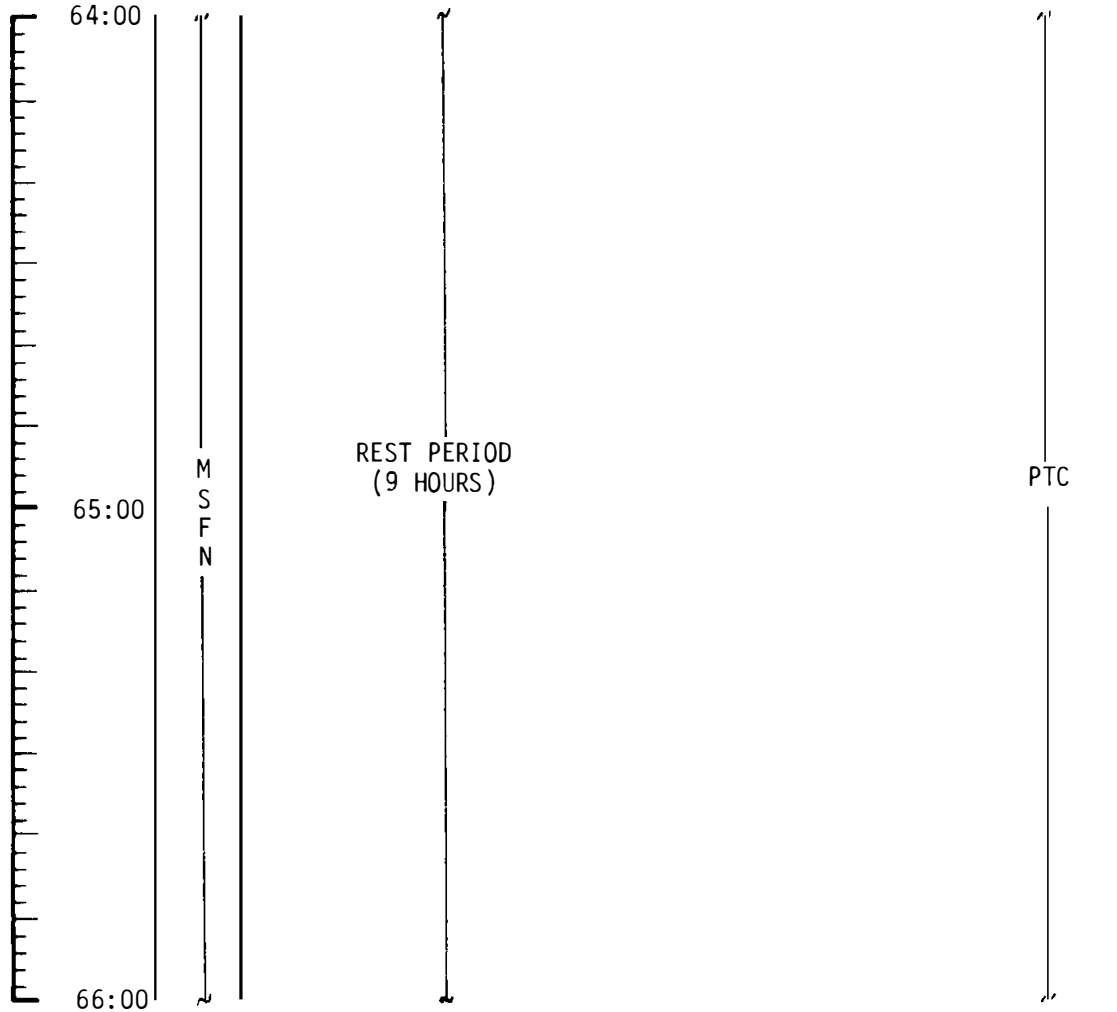
MSC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH

1:30 AM EDT **MCC-H**

FLIGHT PLAN

NOTES



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

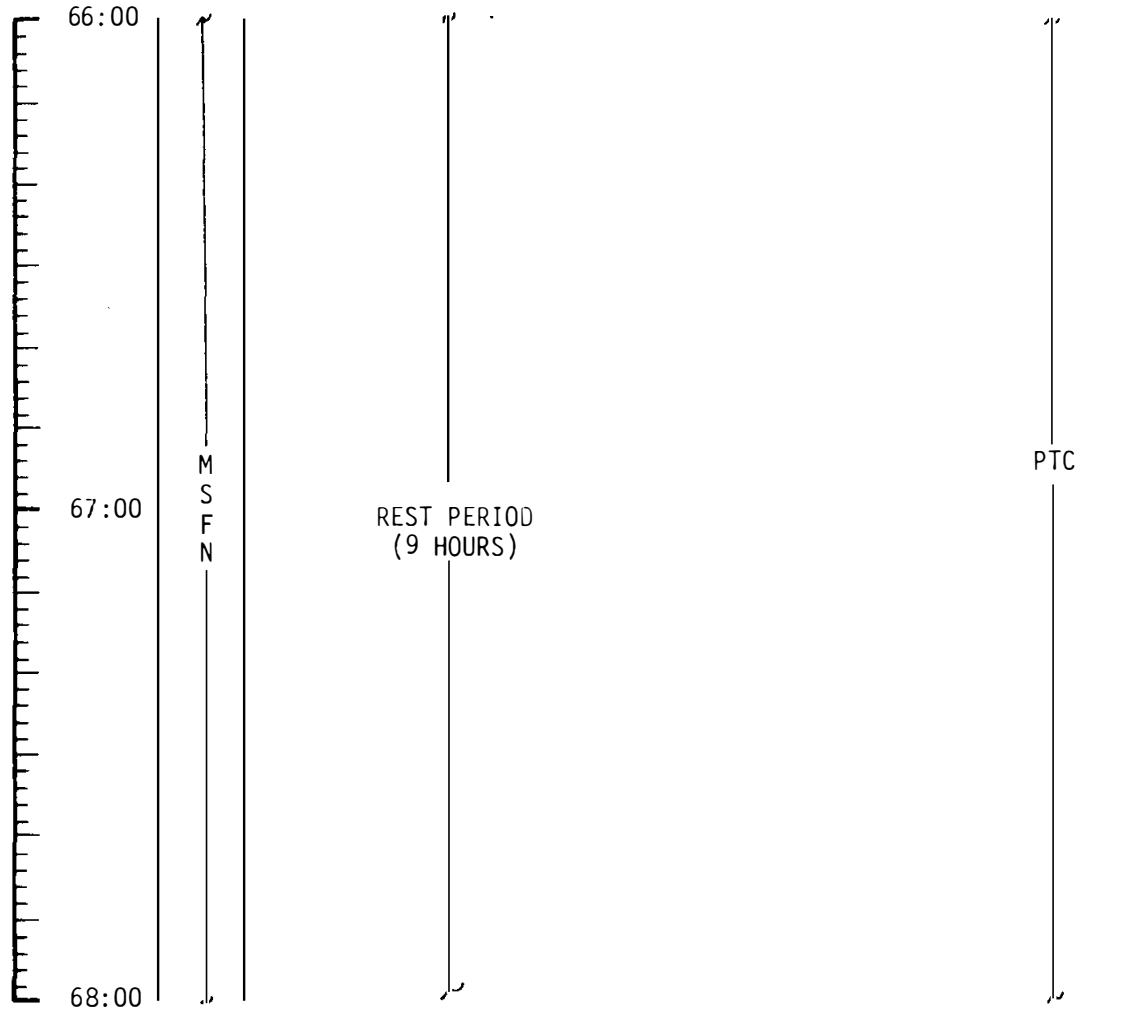
MSC Form 29 OF (Mar. 69)

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

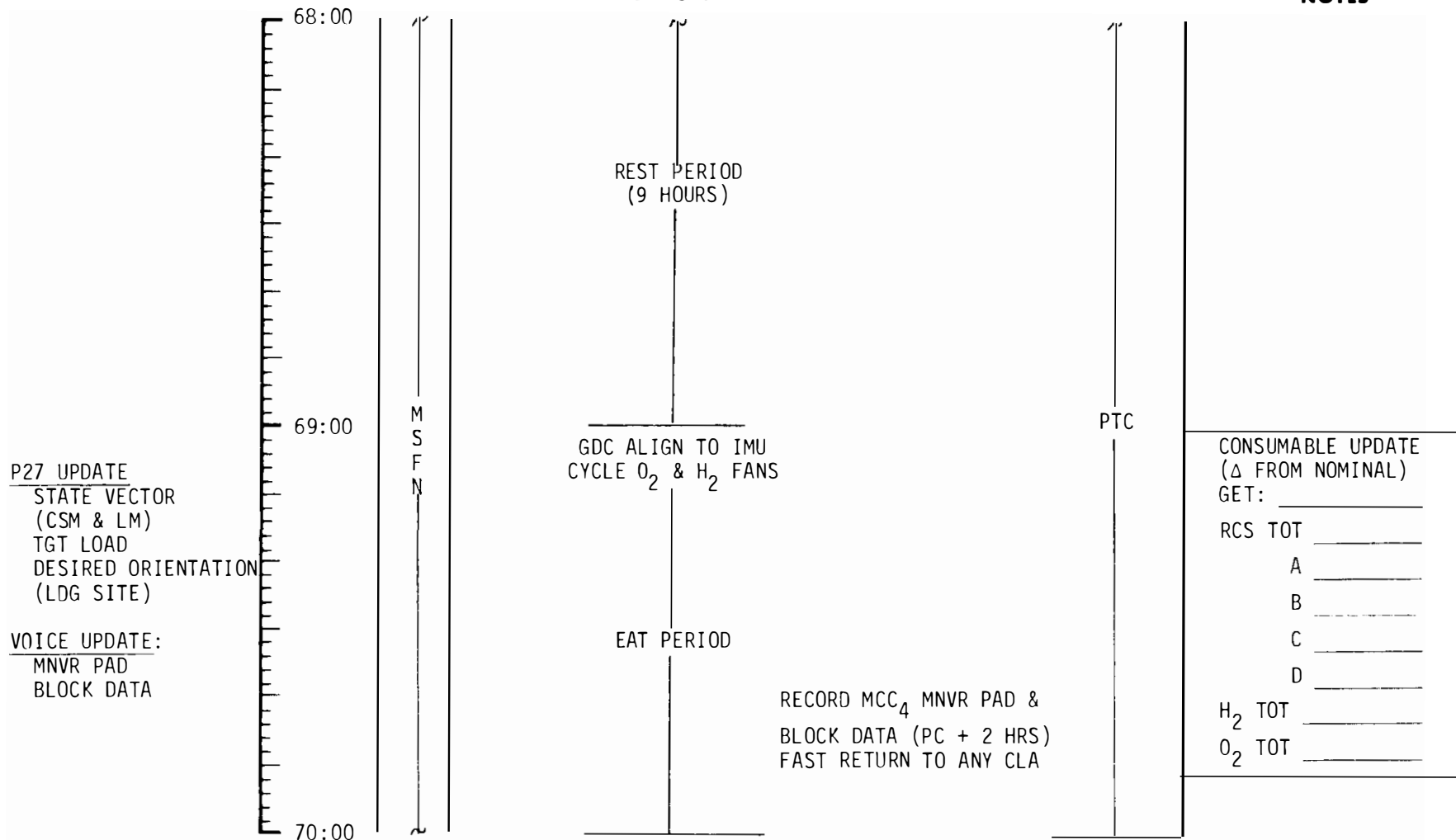
MSC Form 29 OT (Mar. 69)

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

MCC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH

MCC
BURN CHART

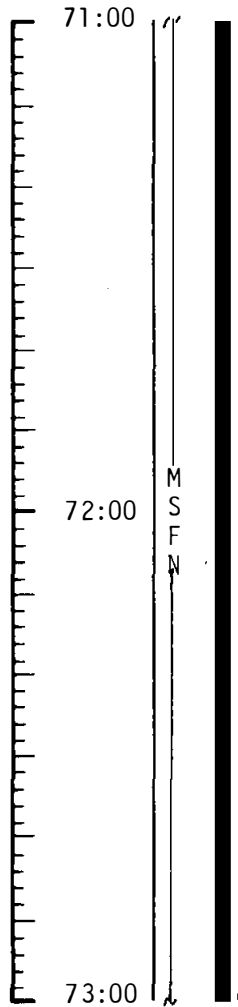
	P OR Y RATES	ATT DEVIATION	SHUTDOWN TIME	RESIDUALS
MCC4	10°/SEC TAKEOVER	+10° TAKEOVER	BT + 1 SEC	TRIM TO 1 FPS

3-44a

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

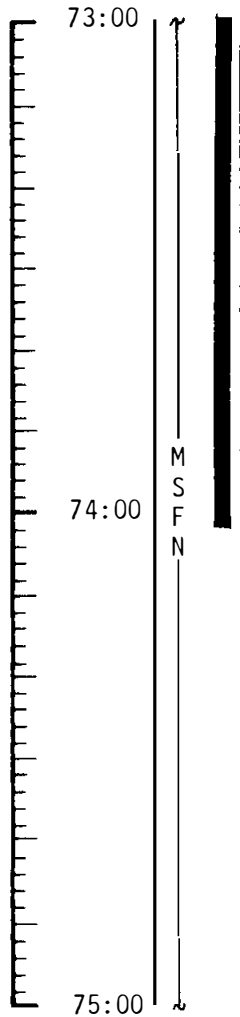
MCC-H

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

MSC Form 29 OT (Mar. 69)

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	

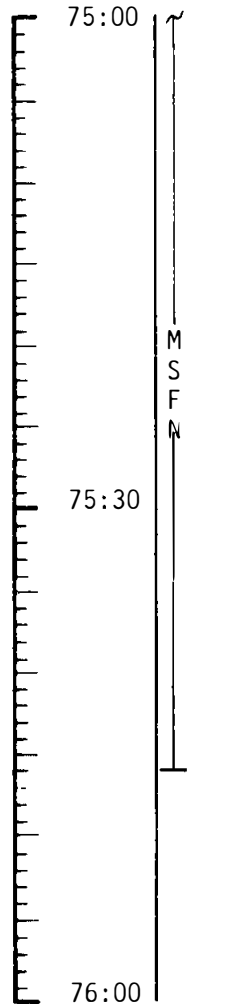
3-47a

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

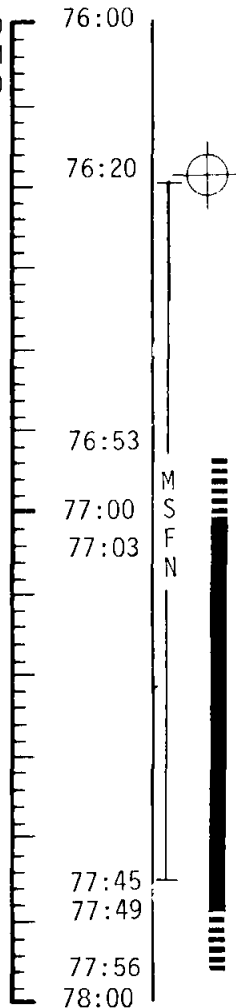
LOI₁

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

MCC-H
 1:30 PM EDT 00:00
 ET FROM
 LOI₁ C.O.



FLIGHT PLAN

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
		.	V _{gx}
		.	V _{gy}
		.	V _{gz}
		.	ΔV _c
X	X	X	FUEL
X	X	X	OX
X	X	X	UNBAL
REMARKS:			

NOTES

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 PLAN

NOTES

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

02:00

78:00
REV 2



78:28
78:30



V64 REACQUIRE MSFN

M
S
F
N

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

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

03:00

79:00

79:01

79:12

79:30

79:53

79:58

80:00

M
S
F
N

PIPA BIAS CK

FLIGHT PLAN

CMP - 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 (LDG SITE REFSMMAT)

N71: _____

N05: _____

N93:

X _____

Y _____

Z _____

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

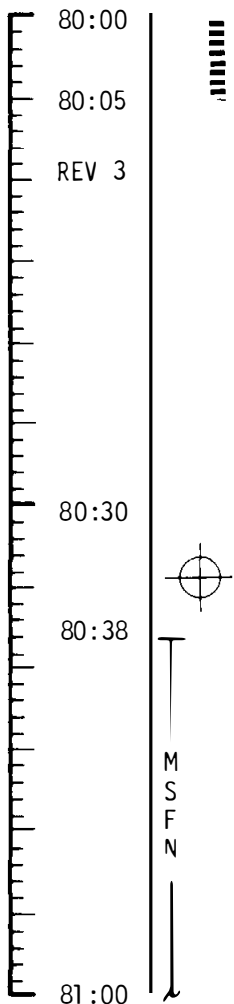
	P OR Y RATES	ATT DEVIATION	SHUTDOWN TIME	RESIDUALS
LOI ₂	10°/SEC TAKEOVER	+10° TAKEOVER	BT + 1 SEC	NO TRIM

3-51a

MCC-H
5:30 PM EDT

FLIGHT PLAN

NOTES



GDC ALIGN TO IMU

LOI₂

GETI: 80:12:01
ULLAGE: 2 JET, 20 SEC
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

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:			

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

FLIGHT PLAN

81:00 81:04 81:10 81:30 81:50 82:00	6:30 PM EDT CMP 05:00 RECORD UPDATE (SEE GET 82:40) STOW CM HATCH, PROBE & DROGUE CSM POWER TO LM - OFF (UPON REQUEST OF LMP)	CDR	LMP	MCC-H VOICE UPDATE: P22 AUTO OPTICS
		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	

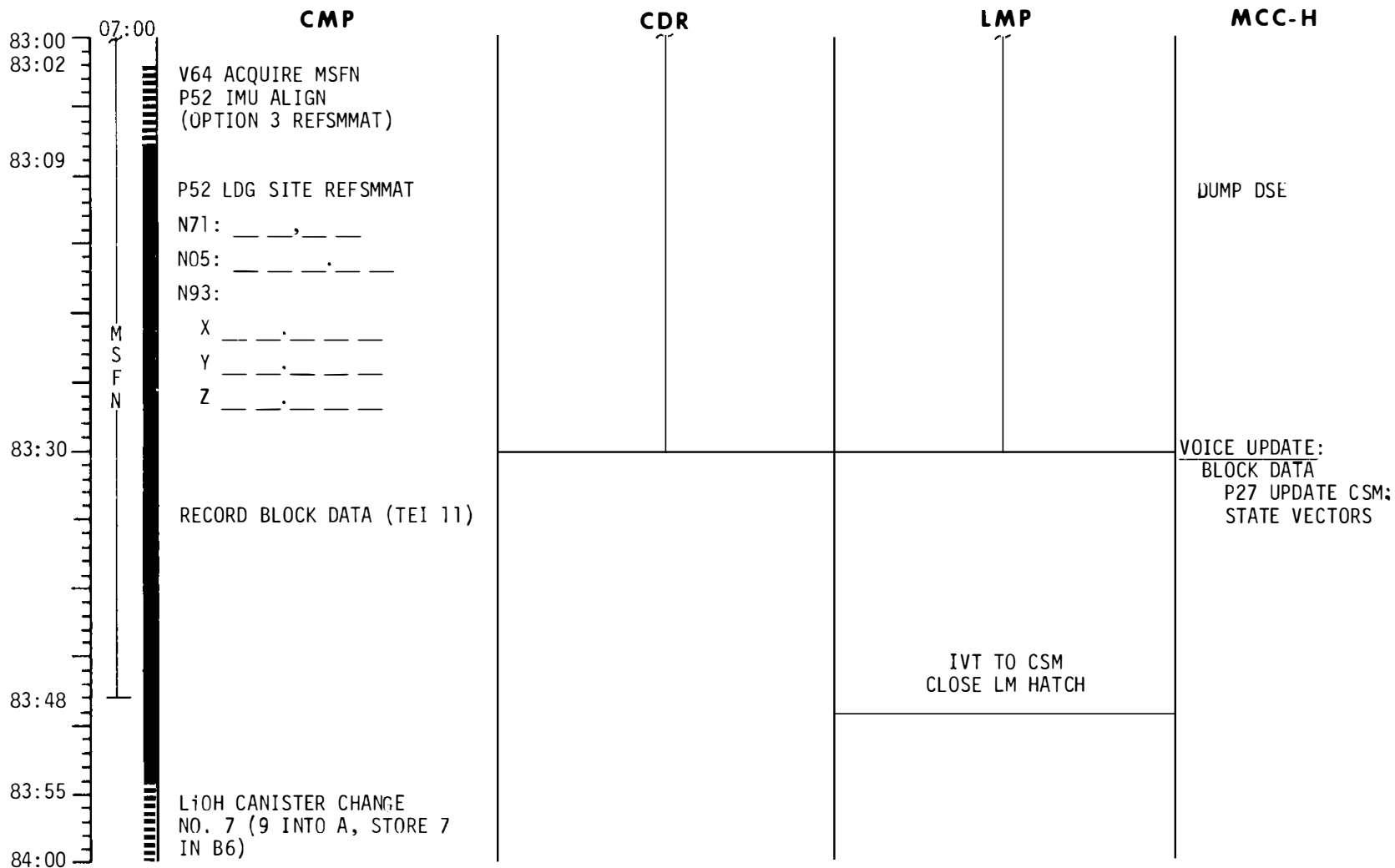
MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	81:00 - 82:00	4/3	3-53

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 +0 <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

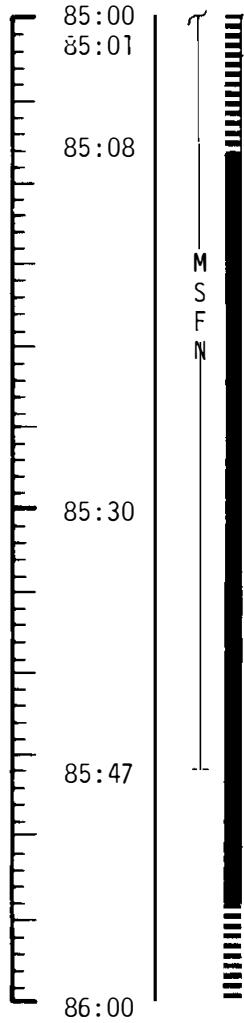
MSC Form 29 OT (Mar. 69)

MCC-H

10:30 PM EDT

FLIGHT PLAN

NOTES



REST PERIOD
(8 HOURS)

DUMP DSE

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

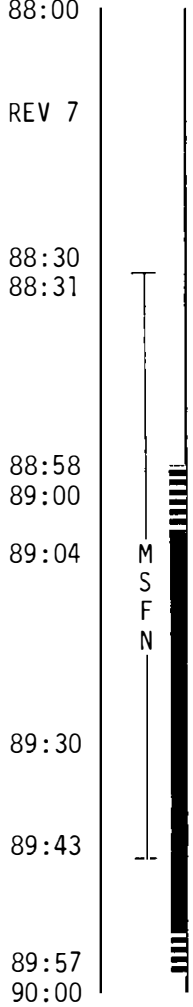
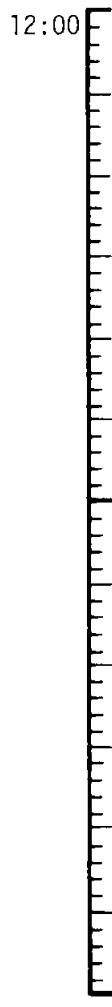
MSC Form 29 OT (Mar. 69)

MCC-H

1:30 AM EDT

FLIGHT PLAN

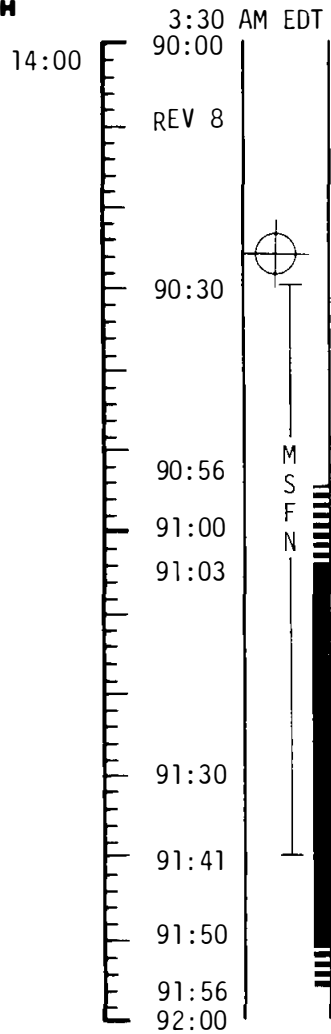
NOTES



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

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

MSC Form 29 OT (Mar. 69)

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

ALIGN GDC TO IMU

CYCLE H₂, O₂ FANS

REST PERIOD

EAT PERIOD

CONSUMABLES UPDATE
Δ FROM NOMINAL

GET: _____

RCS TOT _____

A _____

B _____

C _____

D _____

H₂ TOTAL _____

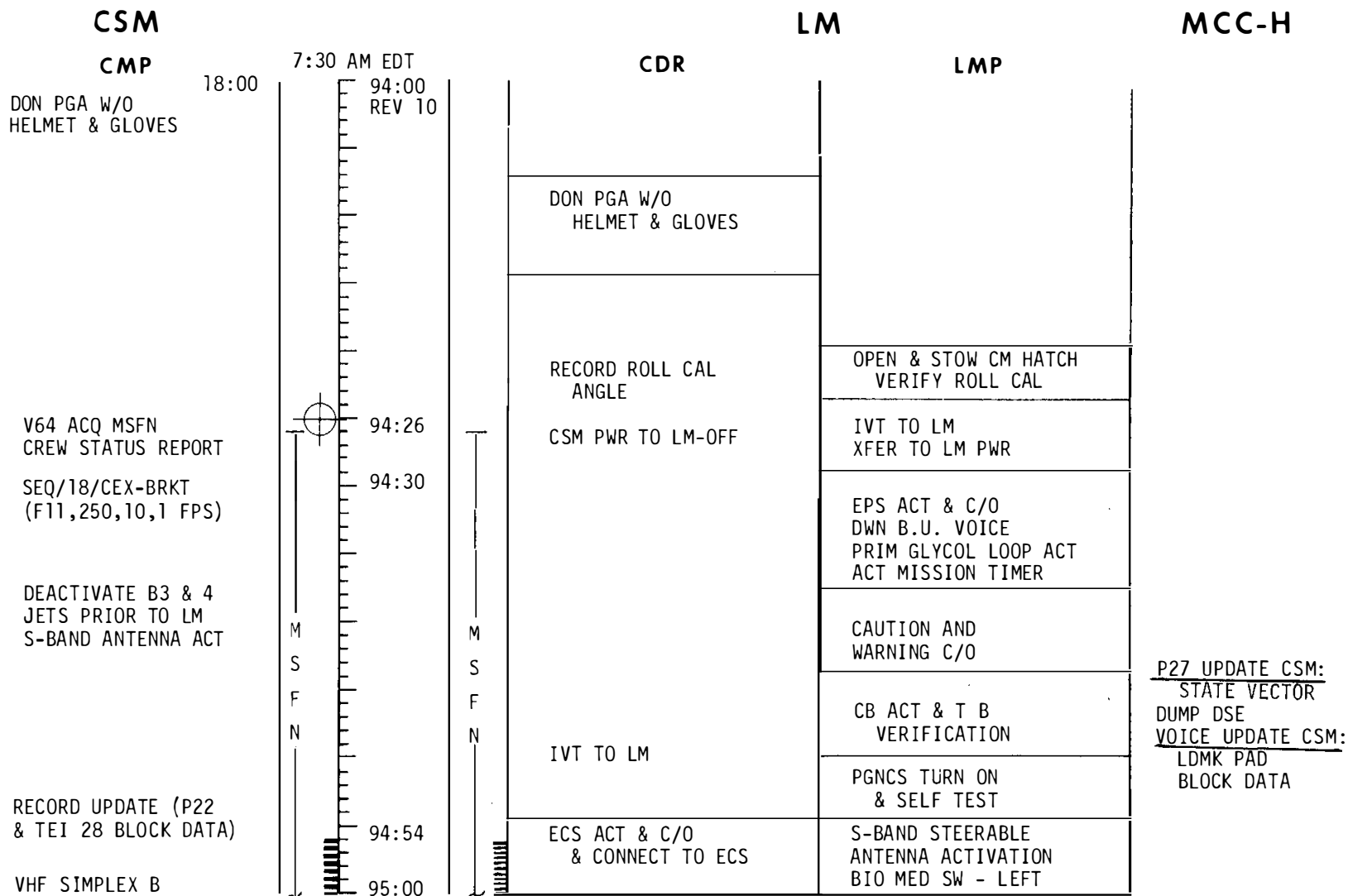
O₂ TOTAL _____

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



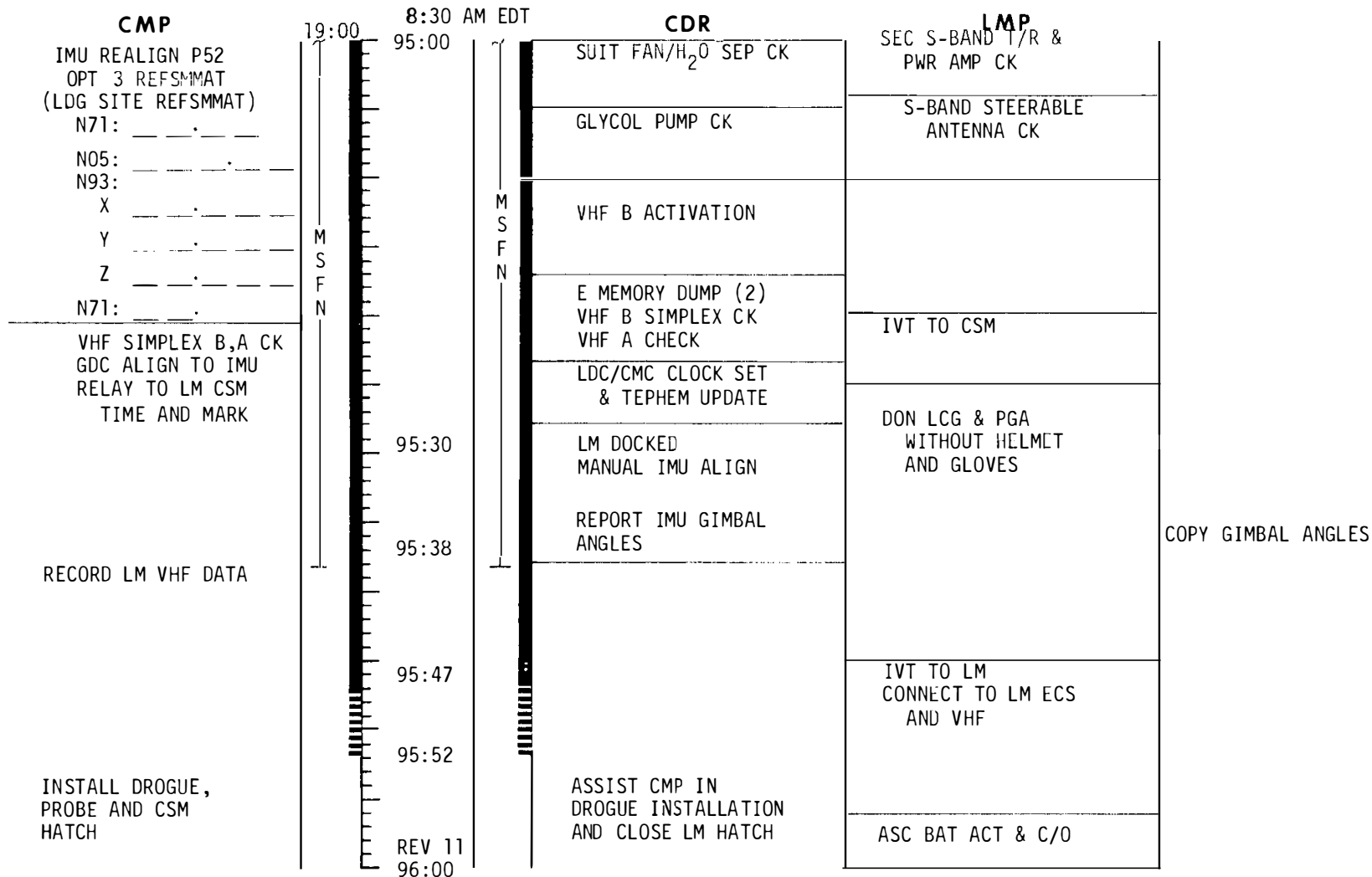
MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	94:00 - 95:00	5/10	3-62

FLIGHT PLAN

CSM

LM

MCC-H



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

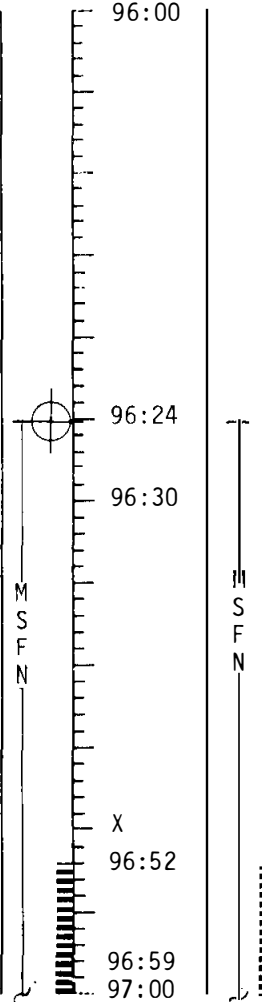
P22 ORBITAL
NAVIGATION

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

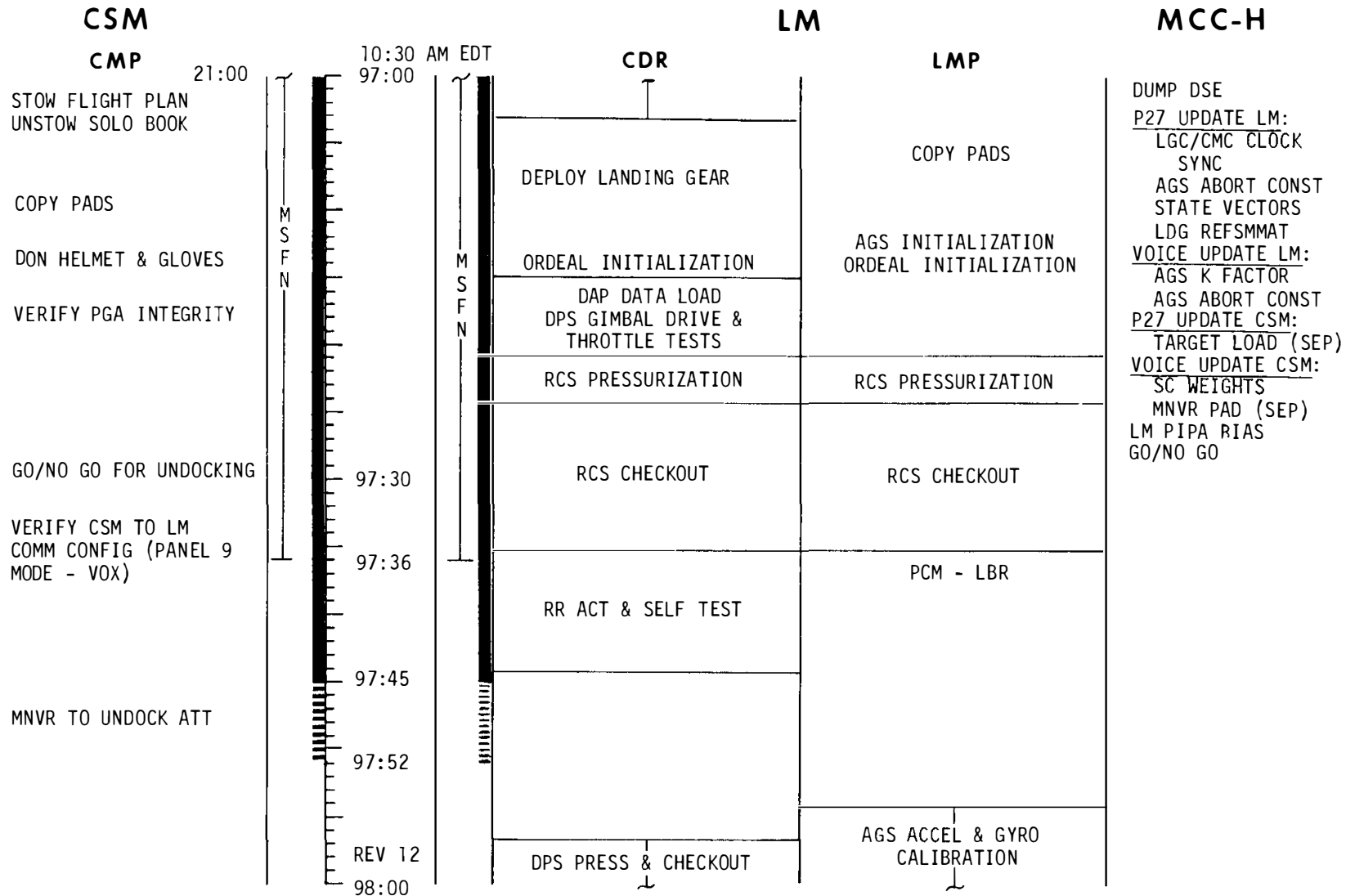
VOICE UPDATE LM:
GYRO TORQUE
ANGLES

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

FORM 2187 (OT) (REV 6-68)

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

CSM

LM

MCC-H

CMP

26:00

11:30 AM EDT

CDR

LMP

CONFIGURE DAP
FOR UNDOCKING

SC CONTROL

98:18 UNDOCK

STATION KEEP 40'
LM INSPECTION,
PHOTOGRAPHY
ROLL 180°
V64 ACQUIRE MSFN

LOAD DAP (4 JET)
SC CONT - CMC
P30 EXT ΔV
P41 - RCS THRUST

98:43 CSM SEPARATE

ΔV: 2.5 FPS RADIAL DWN

P20 AUTO MNVR TO
SXT & VHF
TRACKING

MSFN

98:22

98:30

98:51

98:57

99:00

MSFN

PREPARATION
FOR UNDOCKING

WHEN CLEAR OF CSM
YAW RT 120°
PITCH UP 90°
YAW 360° FOR
INSPECTION

FLY FORMATION

P30 EXTERNAL ΔV

RR & VHF
RANGING & CHECKOUT

UPDATE & ALIGN AGS

PREPARATION
FOR UNDOCKING

V64 ACQUIRE MSFN, PCM-HBR
BIO MED SW - LEFT
COPY PADS

V47 AGS UPDATE
AGS ALIGN

DUMP DSE
P27 UPDATE LM:
LM STATE VECTOR
TGT LOAD (DOI)
TGT LOAD (DESCNET)
VOICE UPDATE LM:
MNVR (DOI),
PDI PAD

P27 UPDATE LM:
CSM STATE VECTOR
(DOI + 25)

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

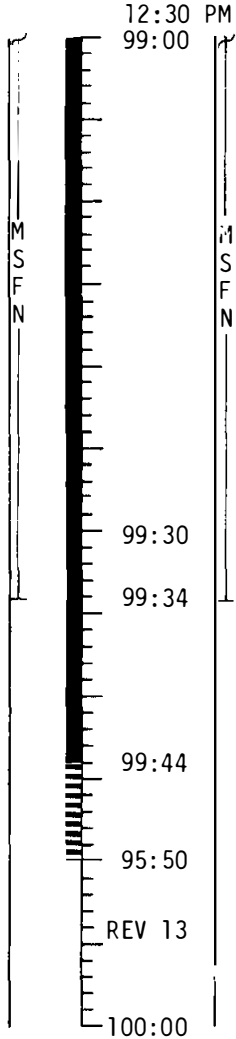
FLIGHT PLAN

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

LMP

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	SYSTEMS CHECKS RECORD LUNAR SURFACE PAD PCM-LBR V47 AGS UPDATE AGS ALIGN LOADS AGS EXT ΔV 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

Form 3184 (02) (Rev 5-67)

FLIGHT PLANNING BRANCH

FLIGHT PLAN

CSM

2:30 PM EDT

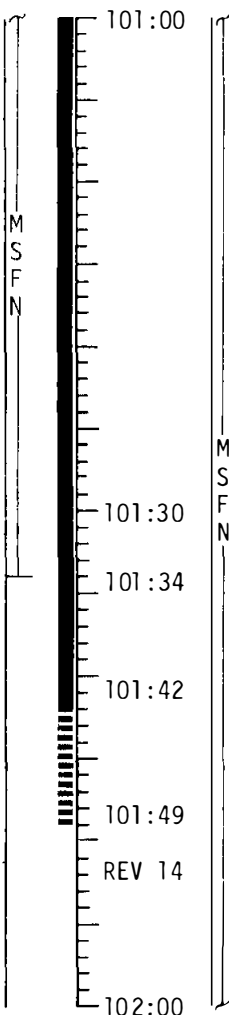
LM

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

102:00

MNVR TO TRACKING ATT

R ___ P ___ Y ___

P22 ORBITAL NAVIGATION

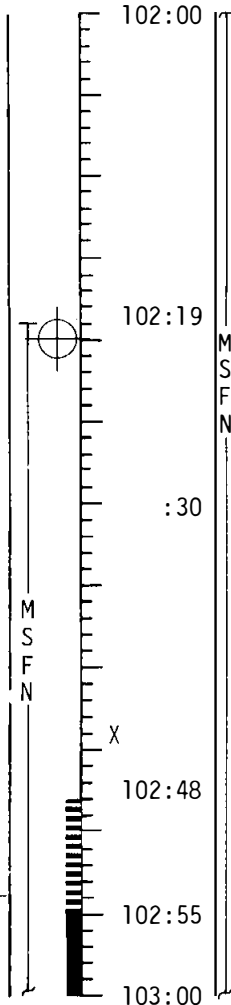
LM TRACKING
5 MARKS ON LM

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 SIMULATFD 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

103:00

103:30

103:31

103:41

103:47

REV 15

104:00

CDR

LMP

EAT PERIOD
(35 MIN)

EAT PERIOD
(35 MIN)

EAT PERIOD

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

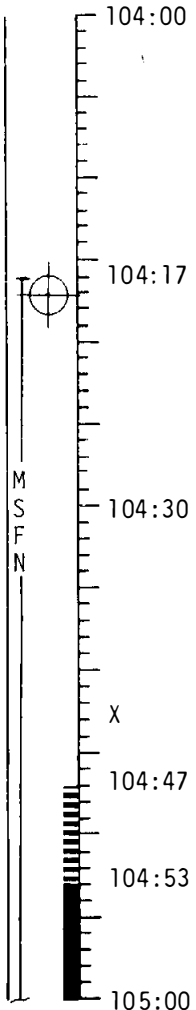
CMP

CDR

LMP

28:00

V64 REACQUIRE MSFN
COPY PLANE CHANGE PAD



REST PERIOD

REST PERIOD

I
V
C

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

P30 EXT ΔV

P40 SPS THRUST

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

105:29
105:30

105:40

105:46

REV 16

106:00

CDR

LMP

REST PERIOD

REST PERIOD

REST PERIOD
(4 HOURS)

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

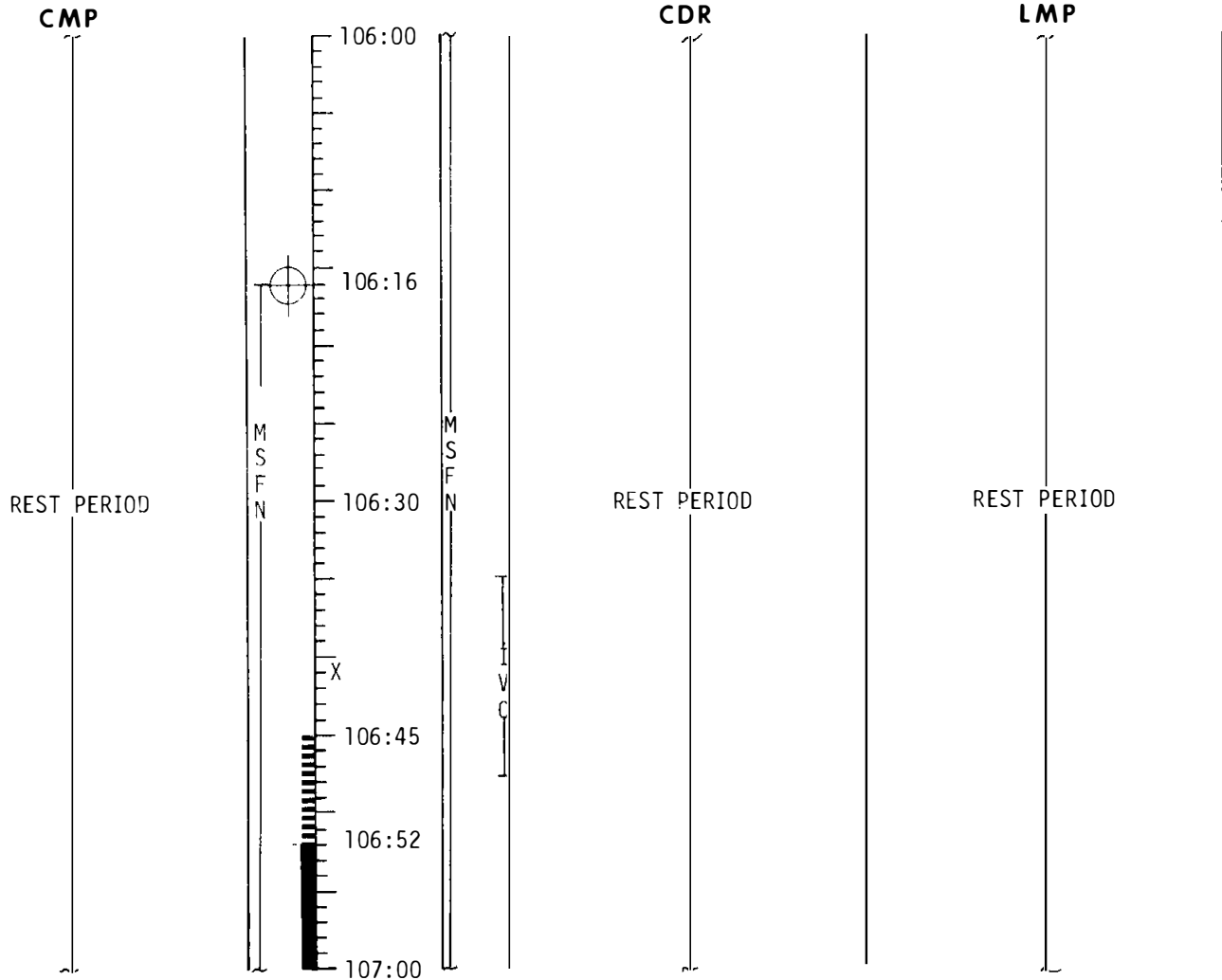
FLIGHT PLAN

CSM

7:30 PM EDT

LM

MCC-H



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

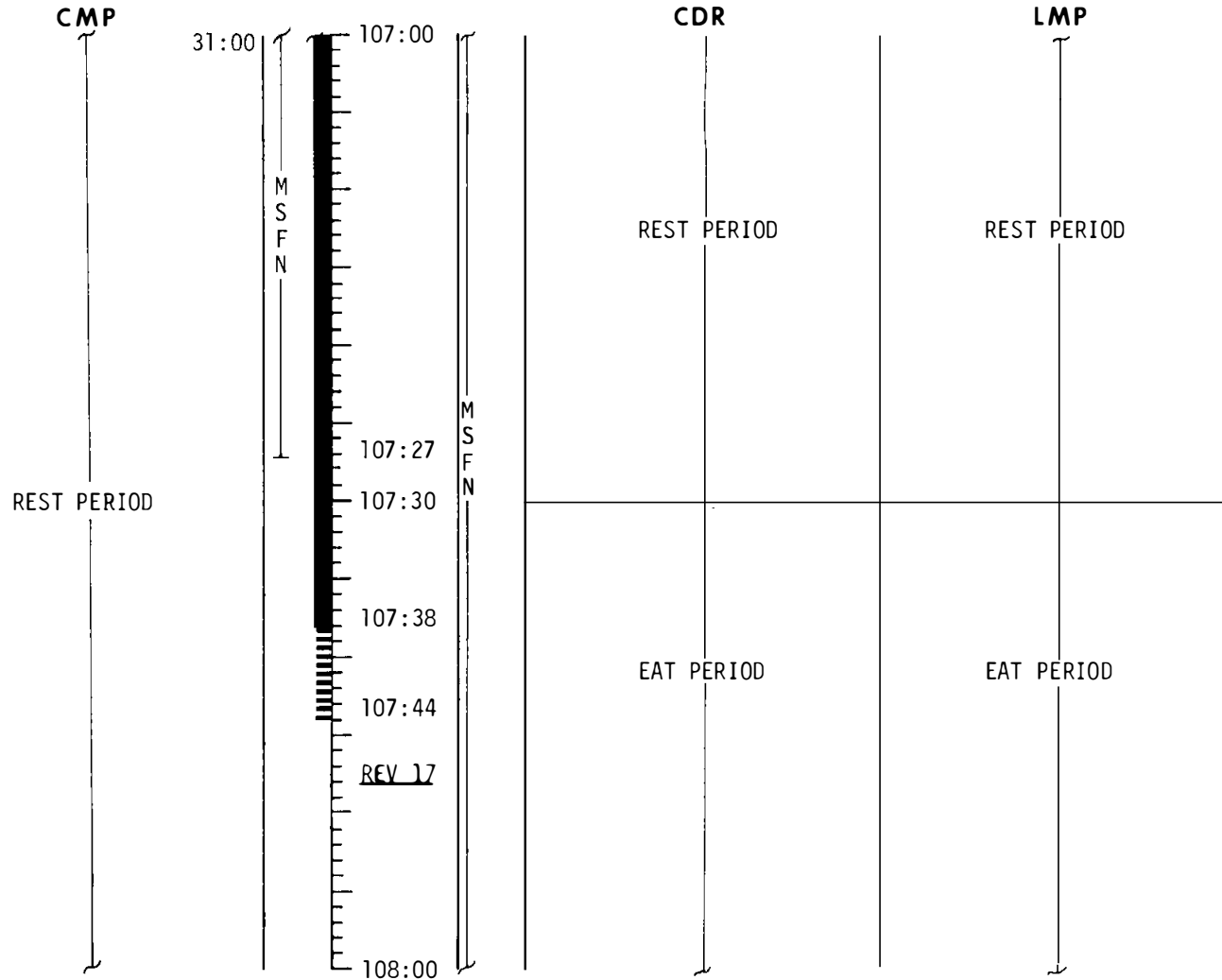
FLIGHT PLAN

CSM

8:30 PM EDT

LM

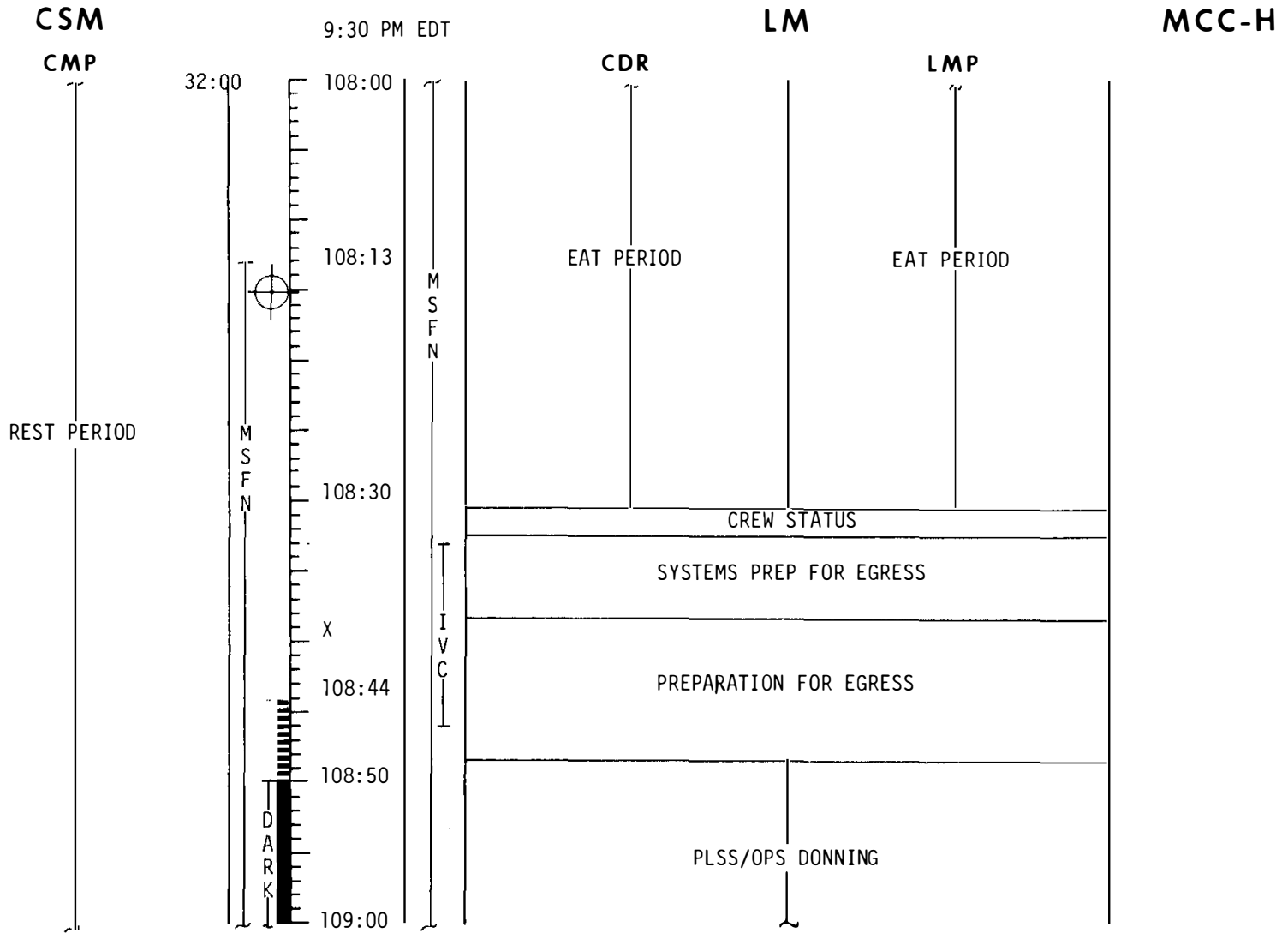
MCC-H



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

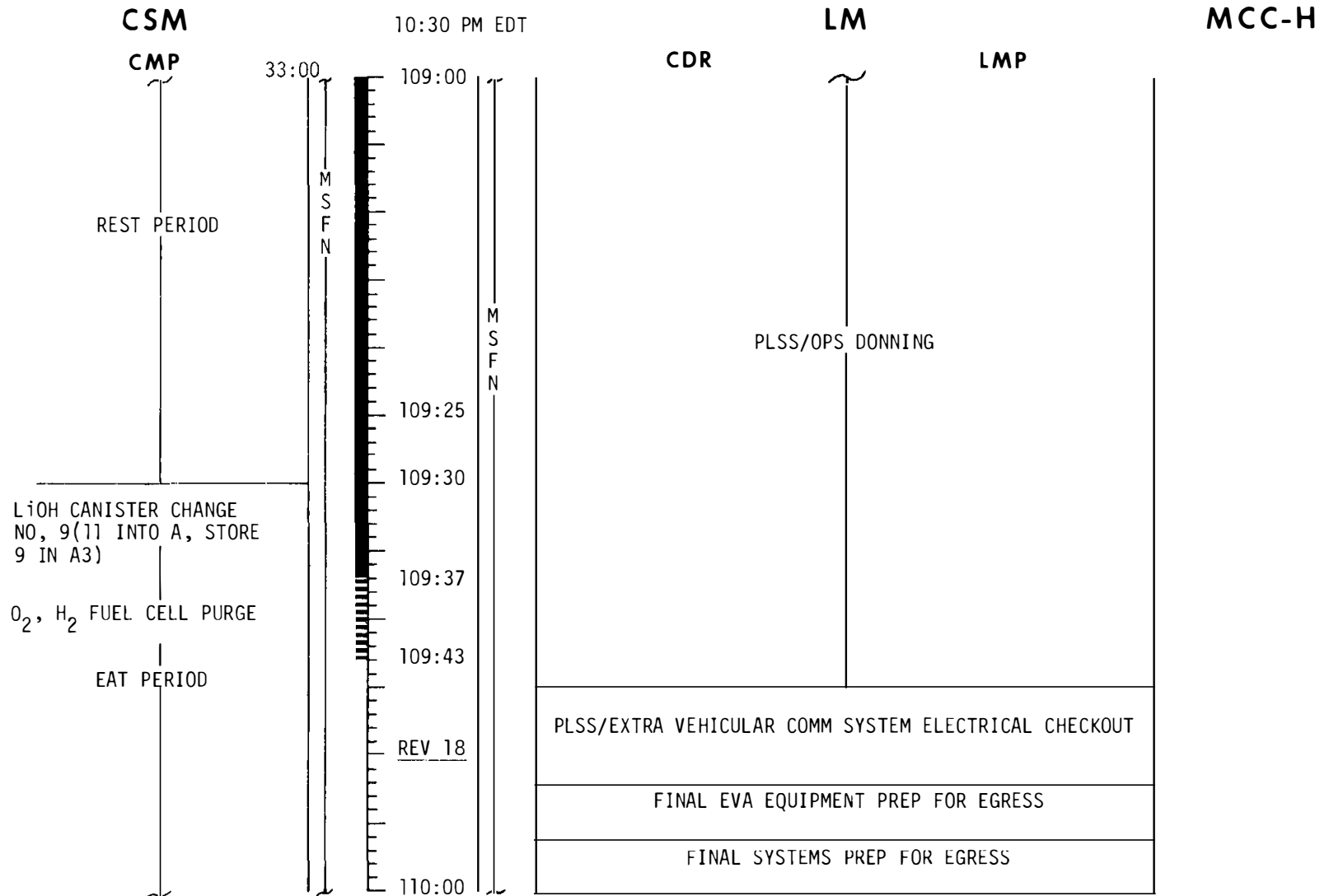
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	108:00 - 109:00	5/17	3-76

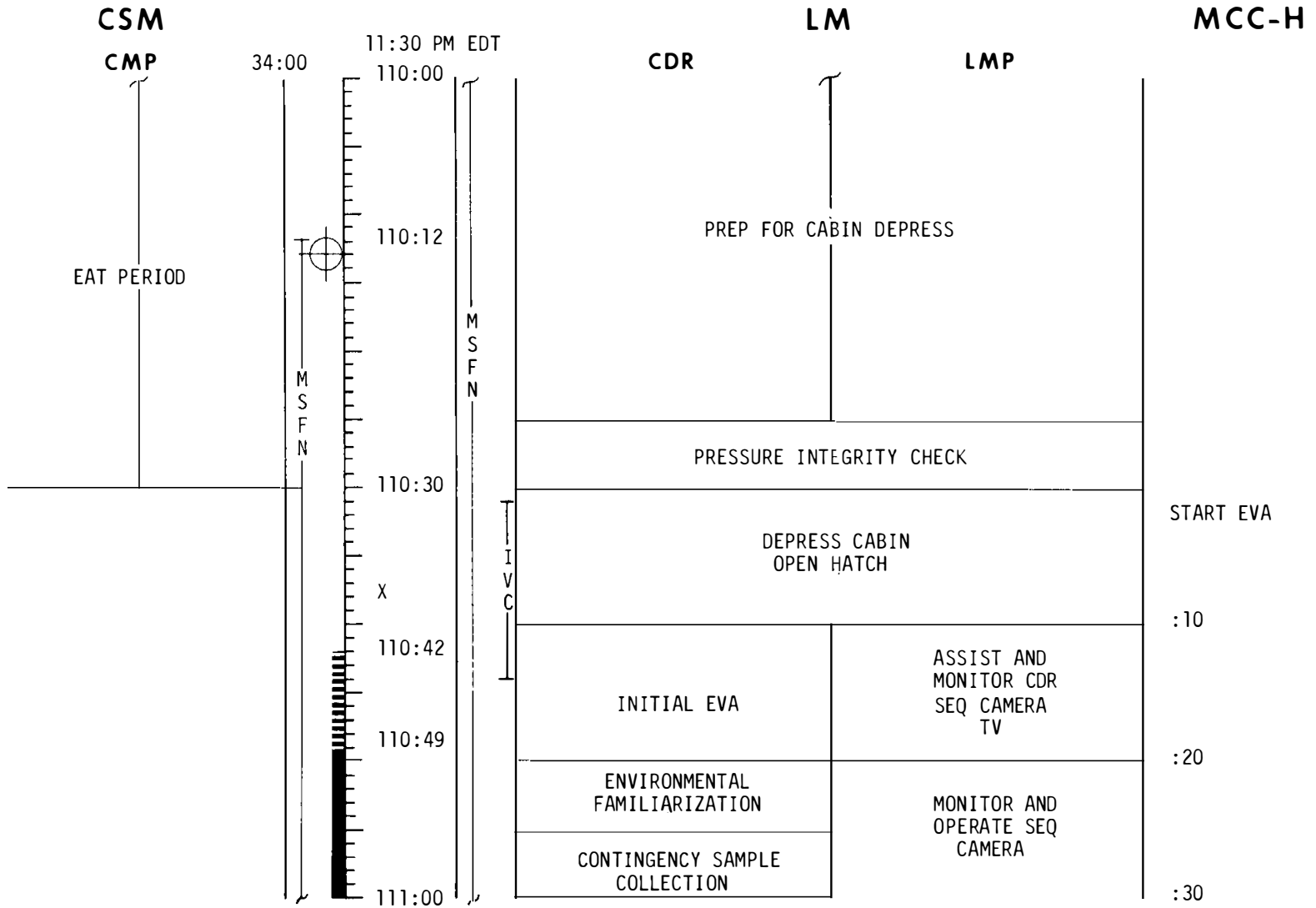
FLIGHT PLANNING BRANCH

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

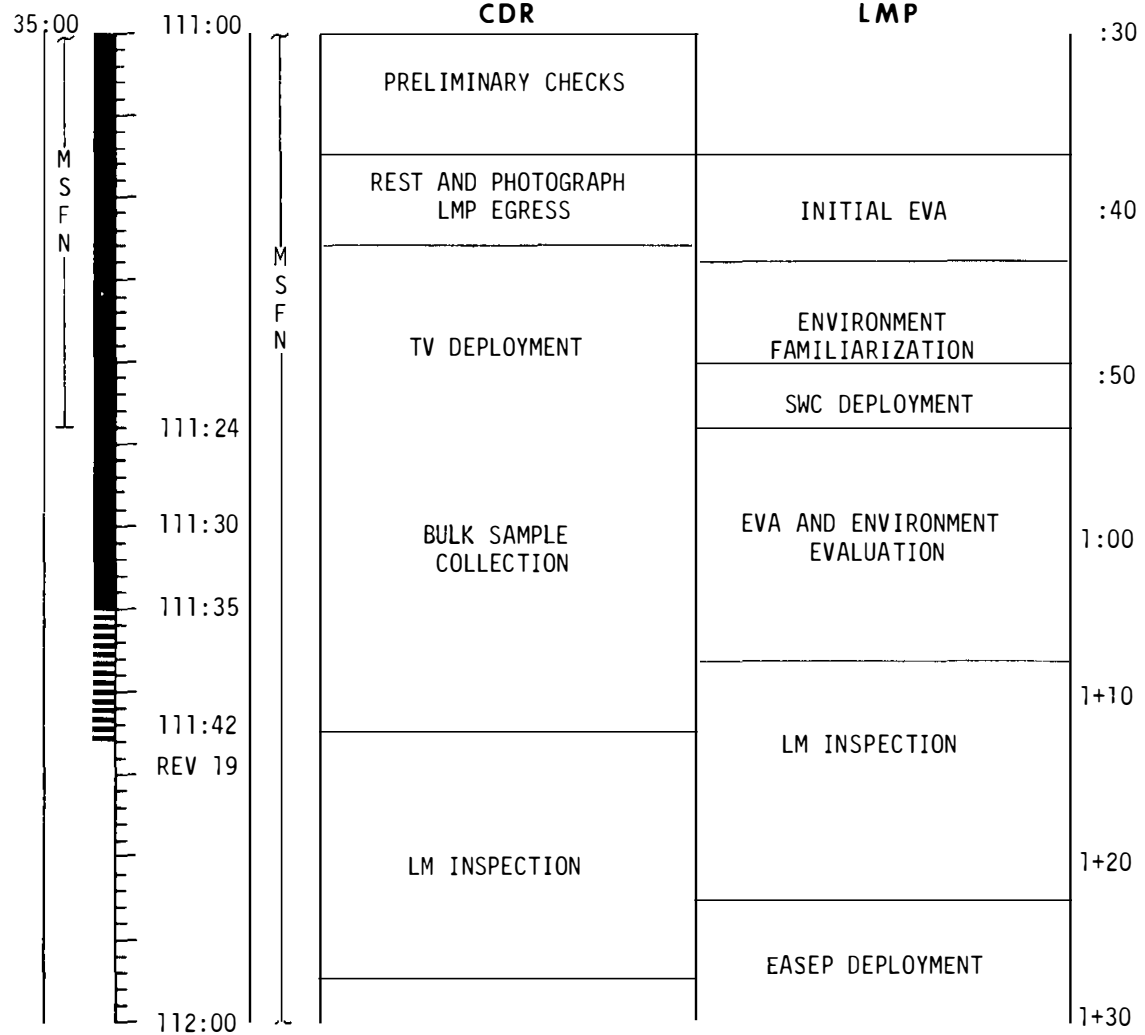
FLIGHT PLAN

CSM
CMP

00:30 AM EDT

LM

MCC-H



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

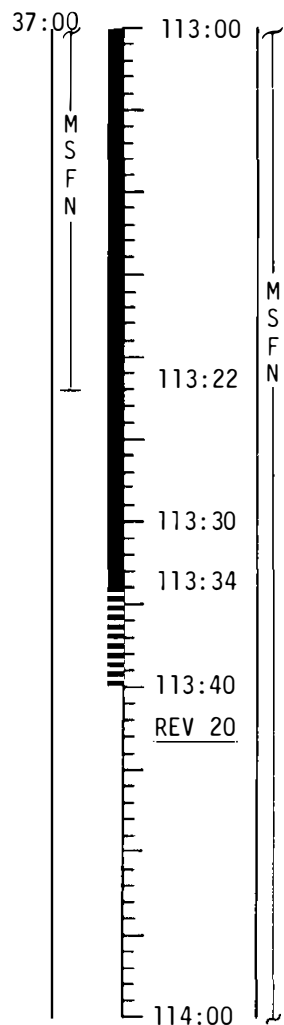
FLIGHT PLAN

CSM
CMP

2:30 AM EDT

LM

MCC-H



CDR	LMP
TERMINATE EVA SECURE HATCH REPRESS CABIN	
POST EVA SYSTEMS CONFIGURATION	
PLSS/OPS DOFFING	
FINAL SYSTEMS CONFIGURATION	
PREP FOR EQUIPMENT JETTISON	

2+30

END EVA
2+40

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

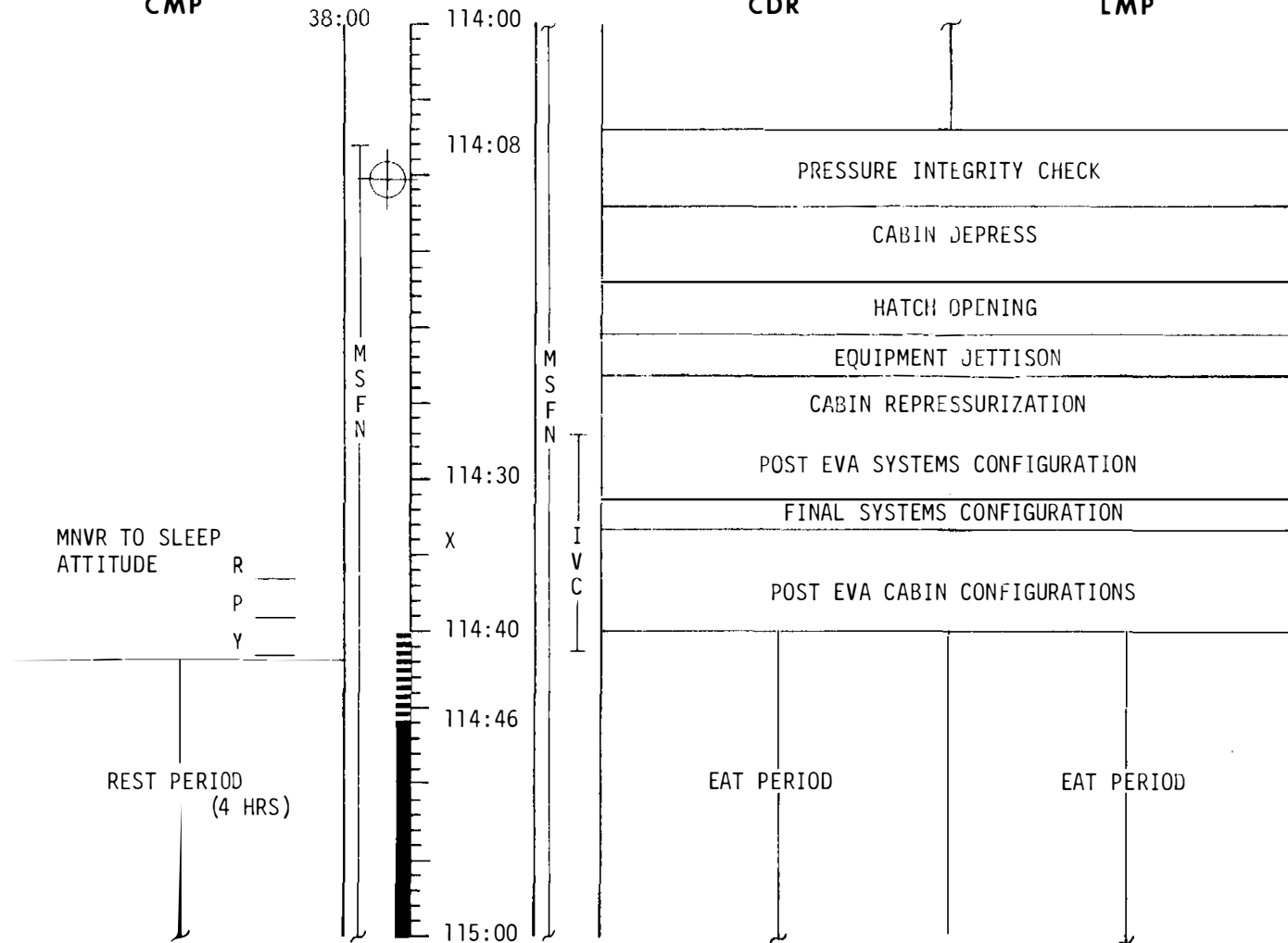
LM

MCC-H

3:30 AM EDT

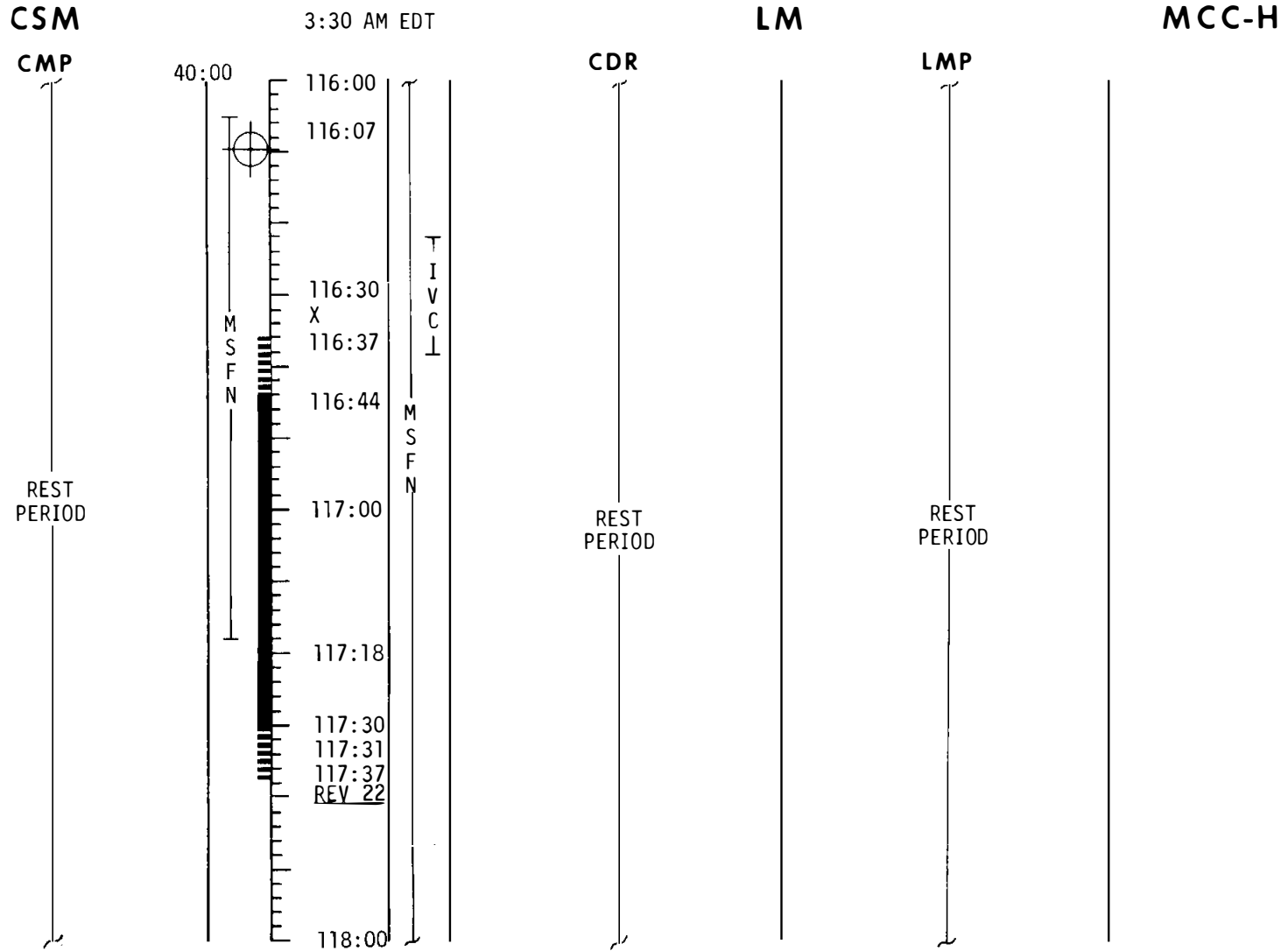
CDR

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	116:00 - 118:00	5/21-22	3-84

FLIGHT PLAN

CSM

7:30 AM EDT

LM

MCC-H

CMP

42:00

118:00

CDR

LMP

118:05

118:30

118:37

118:43

119:00

119:17

119:29

119:30

119:36

REV 23

120:00

T
I
V
C
I

M
S
F
N

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

CDR

LMP

MNVR TO TRACK ATT

R:

P:

Y:

P22 ORBITAL NAVIGATION
AUTO OPTICS

LAT = +00.714

LONG/2 = +11.839

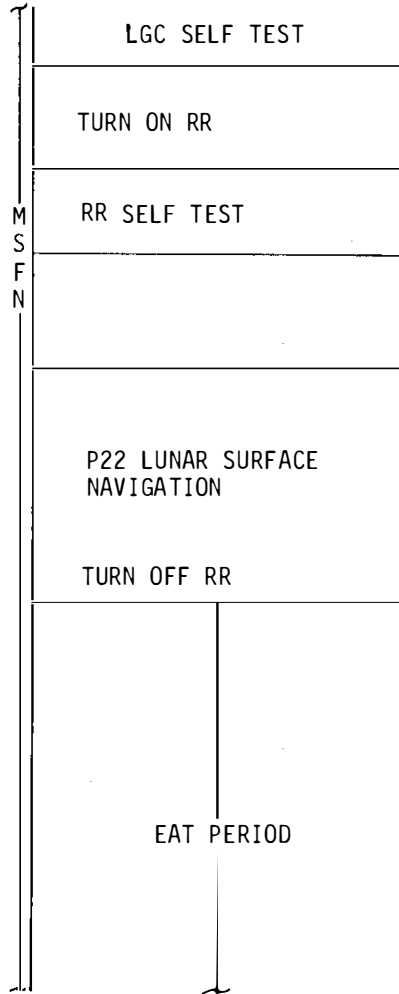
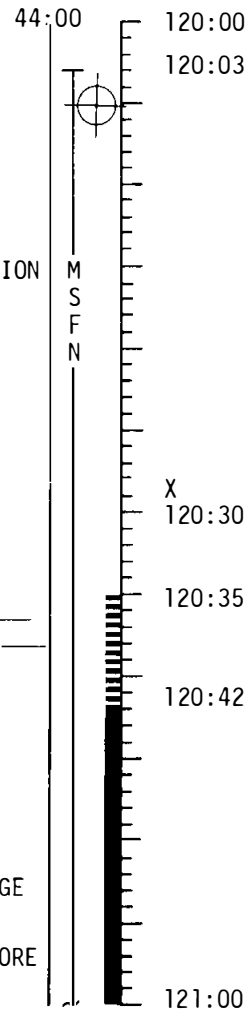
ALT = -001.61

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)



AGS TURN ON, SELF TEST
& SYSTEMS TEST

P57 IMU REALIGN
REFSMAT - GRAVITY
VECTOR AND CELESTIAL
BODY

INITIALIZE TIME BIAS
ALIGN AGS TO PGNC

AGS LUNAR ALIGN

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)

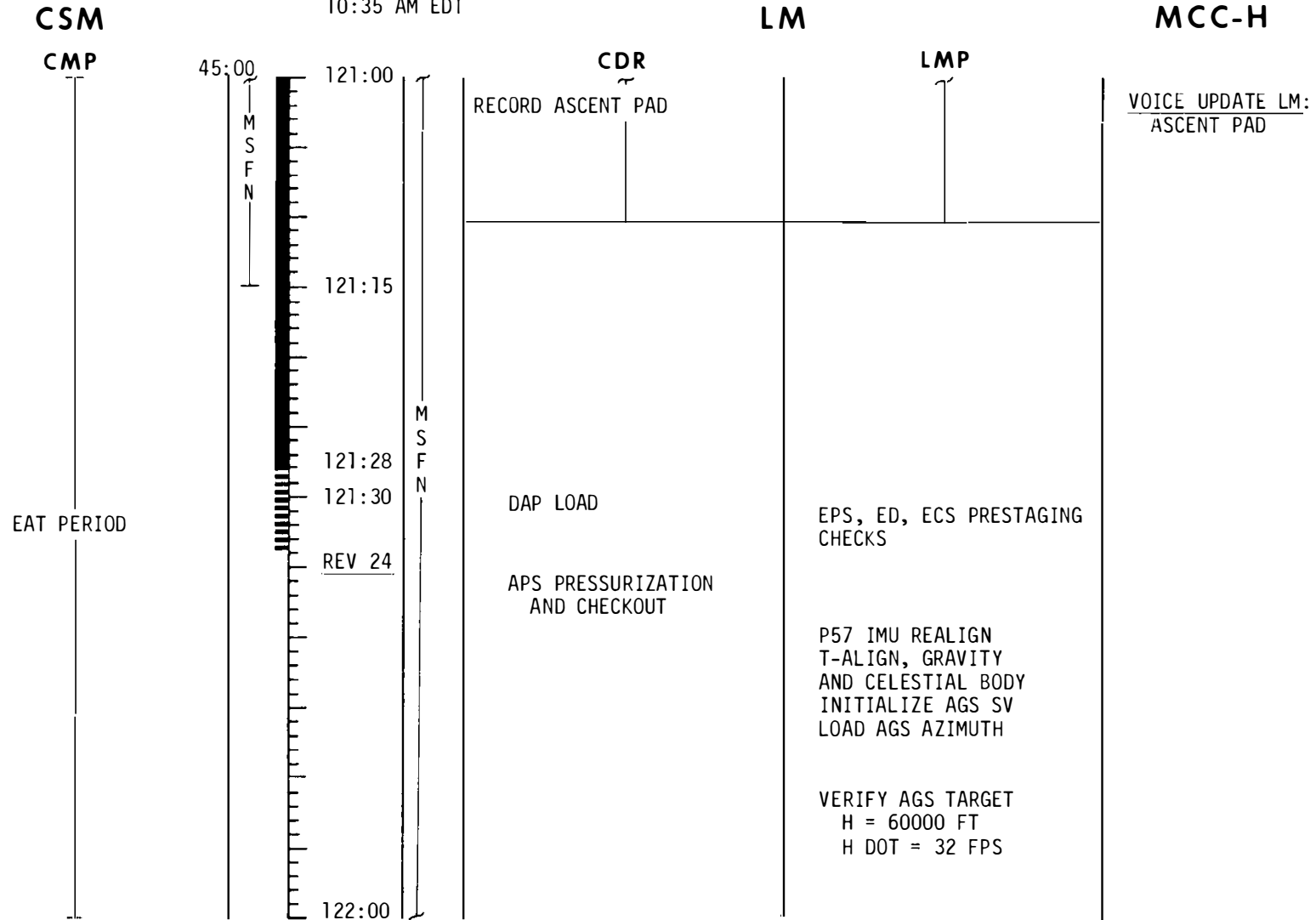
MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 11	PRELIMINARY	APRIL 15, 1969	120:00 - 121:00	6/23	3-86

MCC Form 11-70 (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

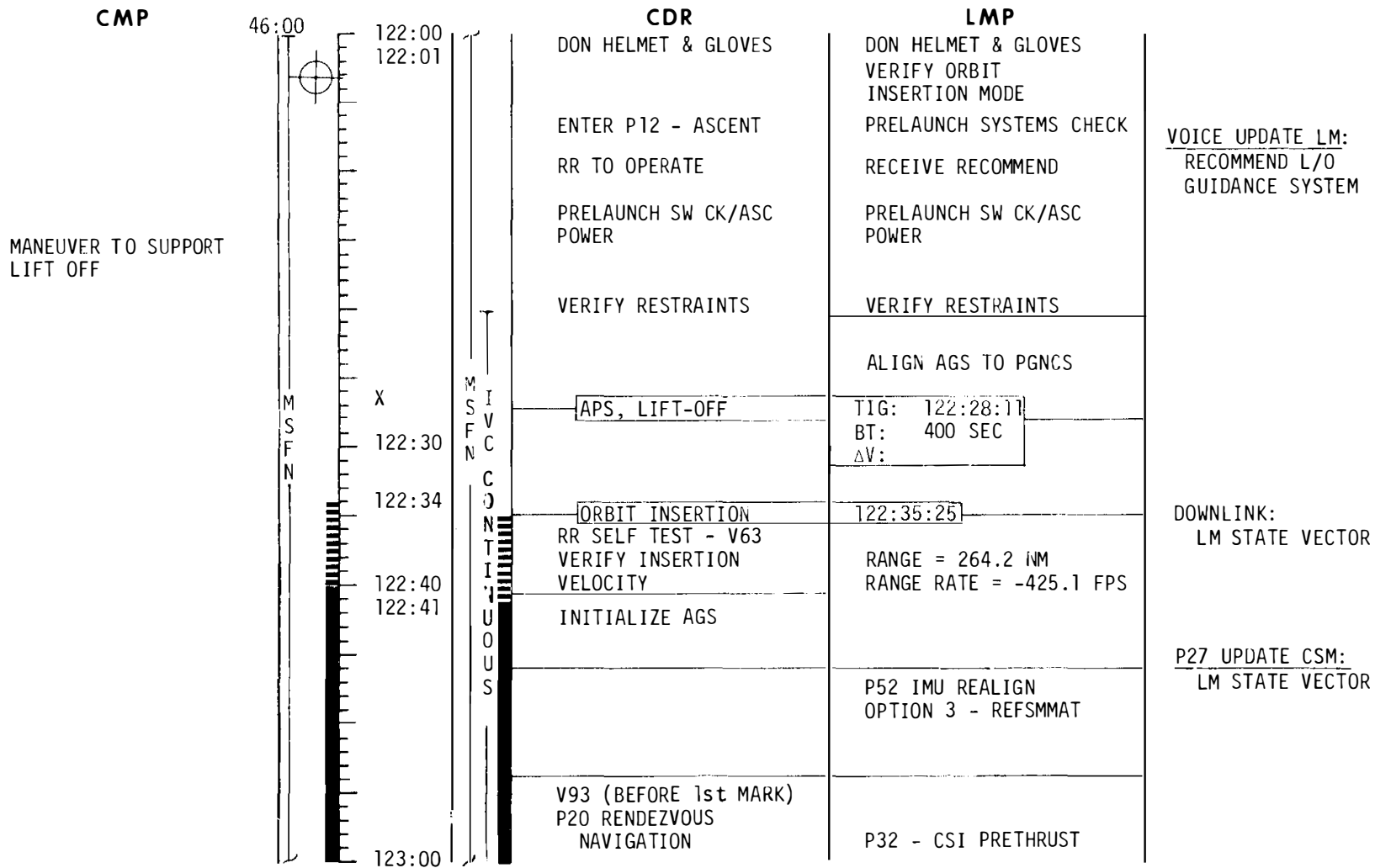
FLIGHT PLAN

CSM
CMP

11:30 AM EDT

LM

MCC-H



MANEUVER TO SUPPORT
LIFT OFF

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

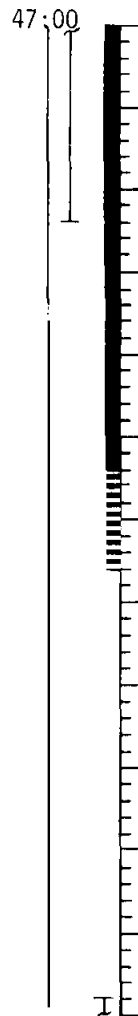
LM

MCC-H

CMP

V90 VOICE LM Y DOT
TO LM

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



123:00
123:12
123:14
123:27
123:30
123:33
REV 25
123:59
124:00

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

48:00

124:00
124:02

CDR

LMP

TRANSMIT Y DOT
COPY TARGET Δ 'S

P33, FINAL COMP
P41

BACKUP CDH
TIG: 124:27:25
P76 TARGET Δ V

M
S
F
N

124:30
124:32

M
S
F
N

124:39

COPY LM TPI SOLUTION
TRANSMIT Y DOT
P40 AUTO MNVR

125:00

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 Δ V'S

TIG: 124:24:25
BT: 2.8 SEC
 Δ V: 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 Δ V'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

FLIGHT PLAN

CSM

2:30 PM EDT

LM

MCC-H

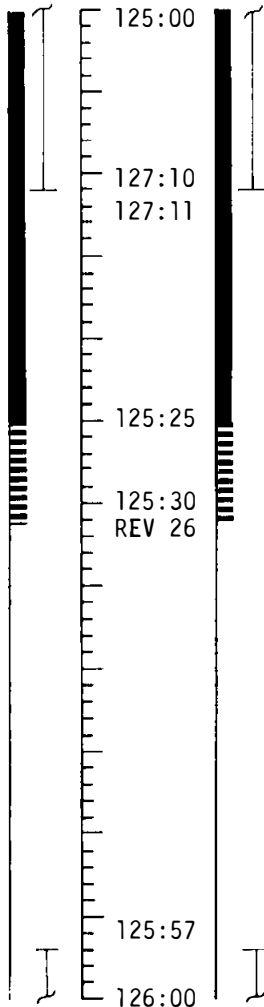
CMP
 TPI, TIG:
 P 76 TARGET ΔV
 P 35 TPM PRE THRUST

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

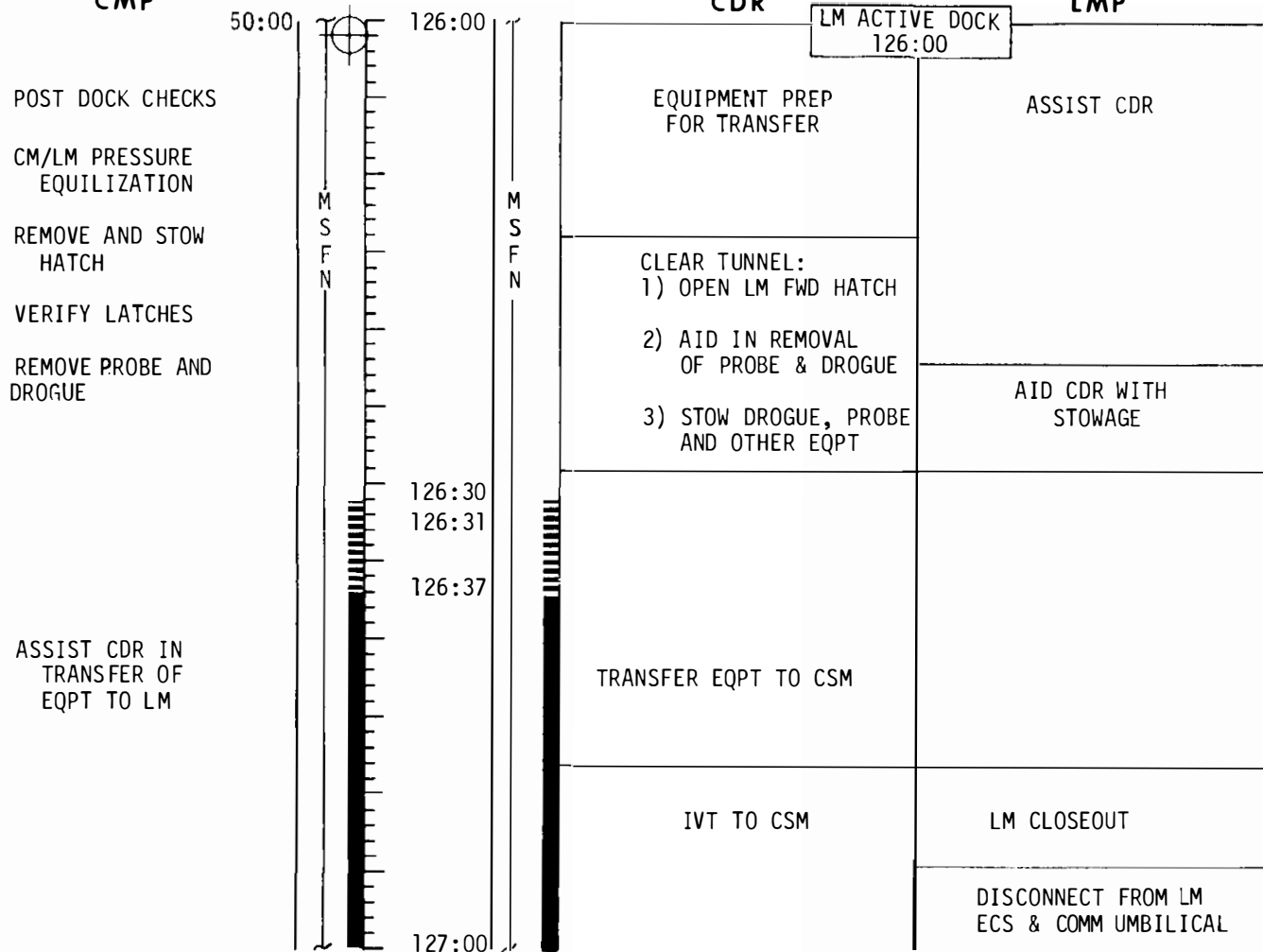
CSM

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

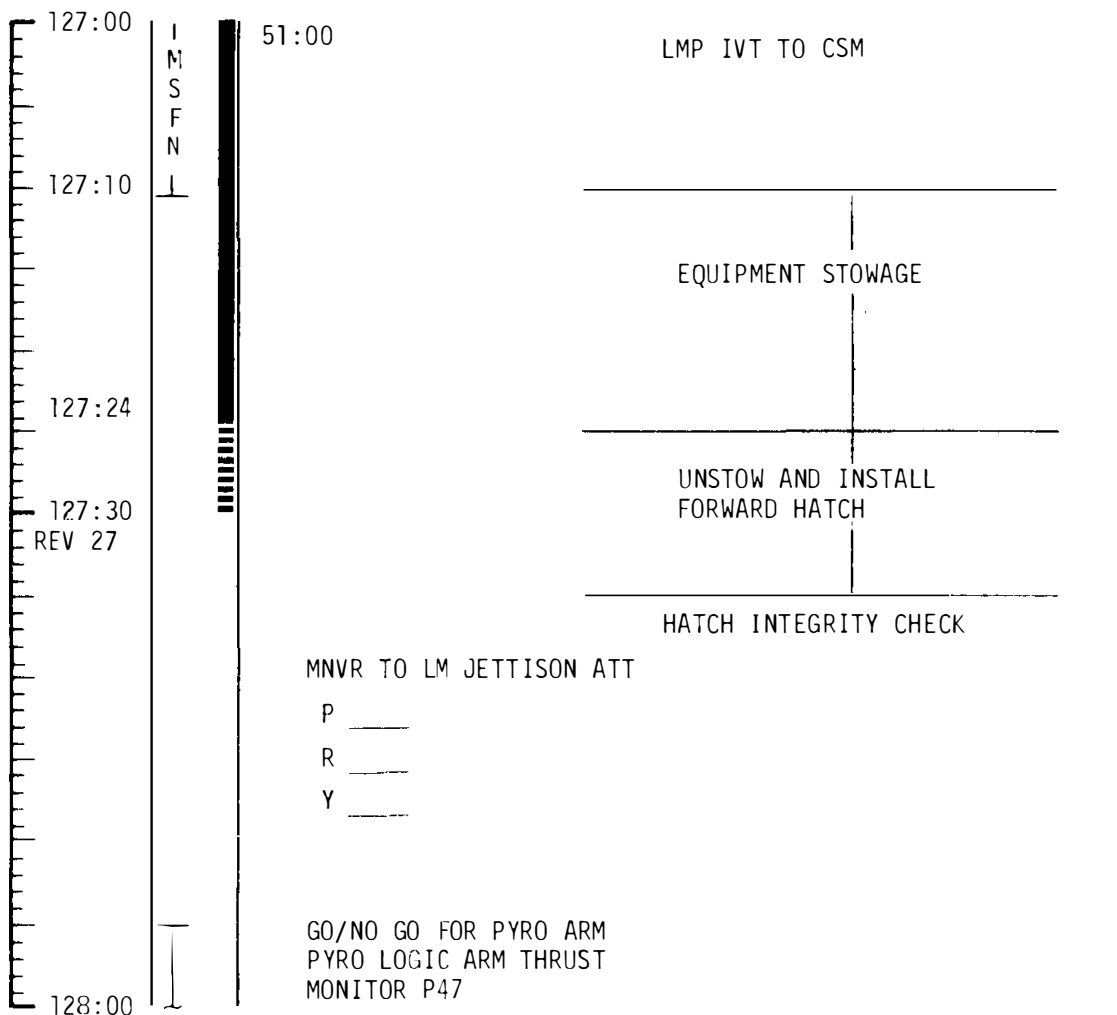
WFO Form 718 (OT) (Rev. 6-68)

FLIGHT PLANNING BRANCH

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

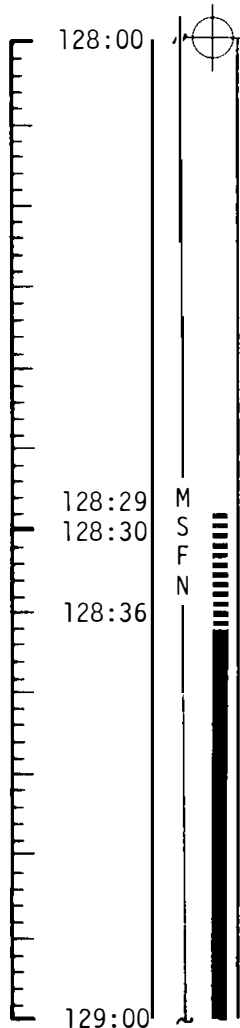
FLIGHT PLANNING BRANCH

MCC Form 13-01 (Mar. 69)

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	:	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:			

P27 UPDATE:
STATE VECTOR
(CSM & LM)

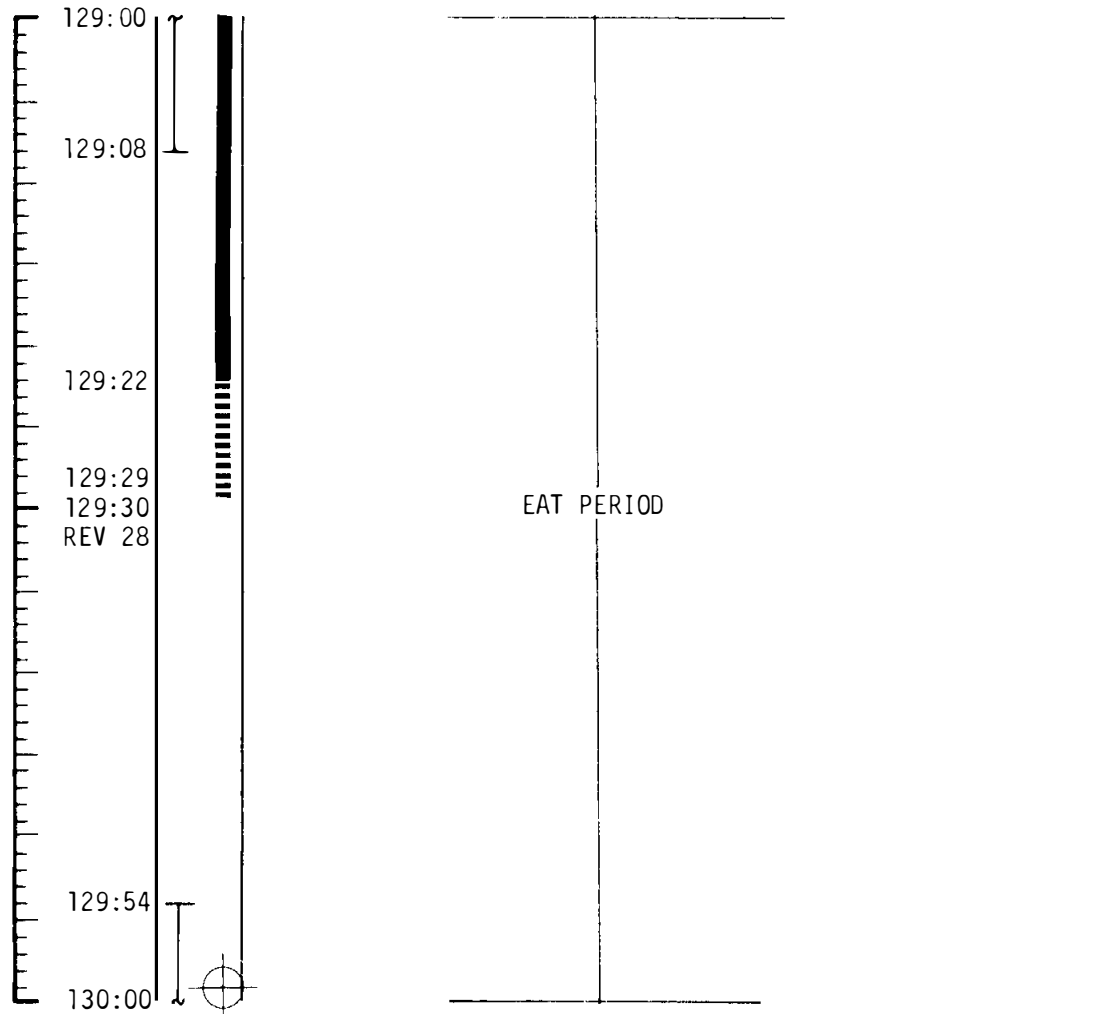
P52 - (LDG SITE REFSMMAT)
N71: _____
N05: _____
N93: _____
X _____
Y _____
Z _____

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

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

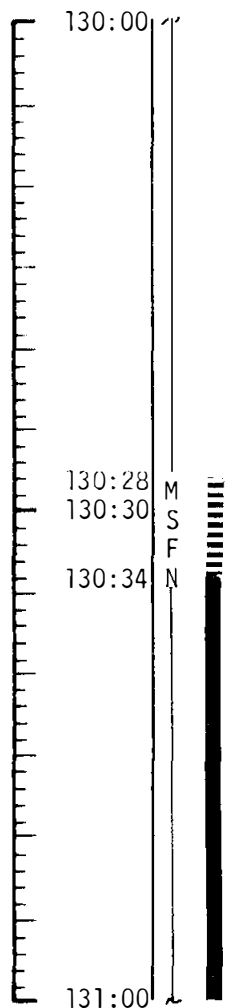
MCC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH

MCC-H
7:30 PM EDT

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

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



FLIGHT PLAN

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 AV - P30
SPS THRUST - P40
MNVR TO BURN ATT ...

NOTES

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

MSC Form 29 OT (Mar. 69)

FLIGHT PLANNING BRANCH