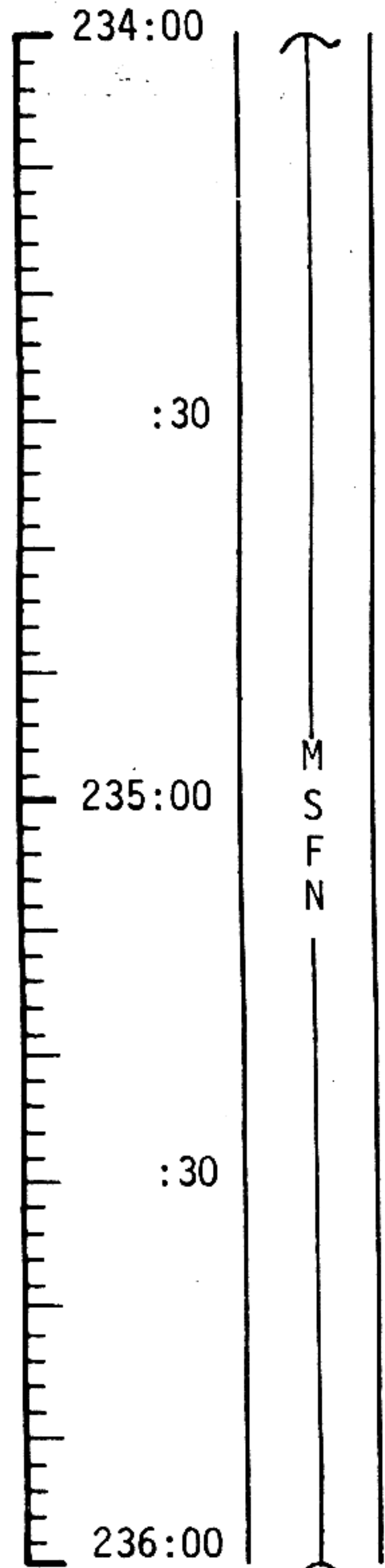


MCC-H

0422 CST

FLIGHT PLAN

NOTES



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

CSM CONSUMABLES UPDATE	
GET:	_____ : _____
RCS TOTAL	_____ %
QUAD A	_____ % B _____ %
	C _____ % D _____ %
H ₂ TOTAL	_____ %
O ₂ TOTAL	_____ %

POSTSLEEP CHECKLIST:	
CREW STATUS REPORT	
CONSUMABLES UPDATE	
CYCLE H ₂ & O ₂ FANS	
FLIGHT PLAN UPDATE	
NORMAL LUNAR COMM EXCEPT:	
S-BD AUX TAPE - OFF	
TAPE RCDR FWD - OFF	
OMNI OPS	
S-BD ANT - OMNI	
S-BD ANT OMNI - B	
HGA OPS	
S-BD ANT - HI GAIN	
CREW MANAGES ANT OPS	

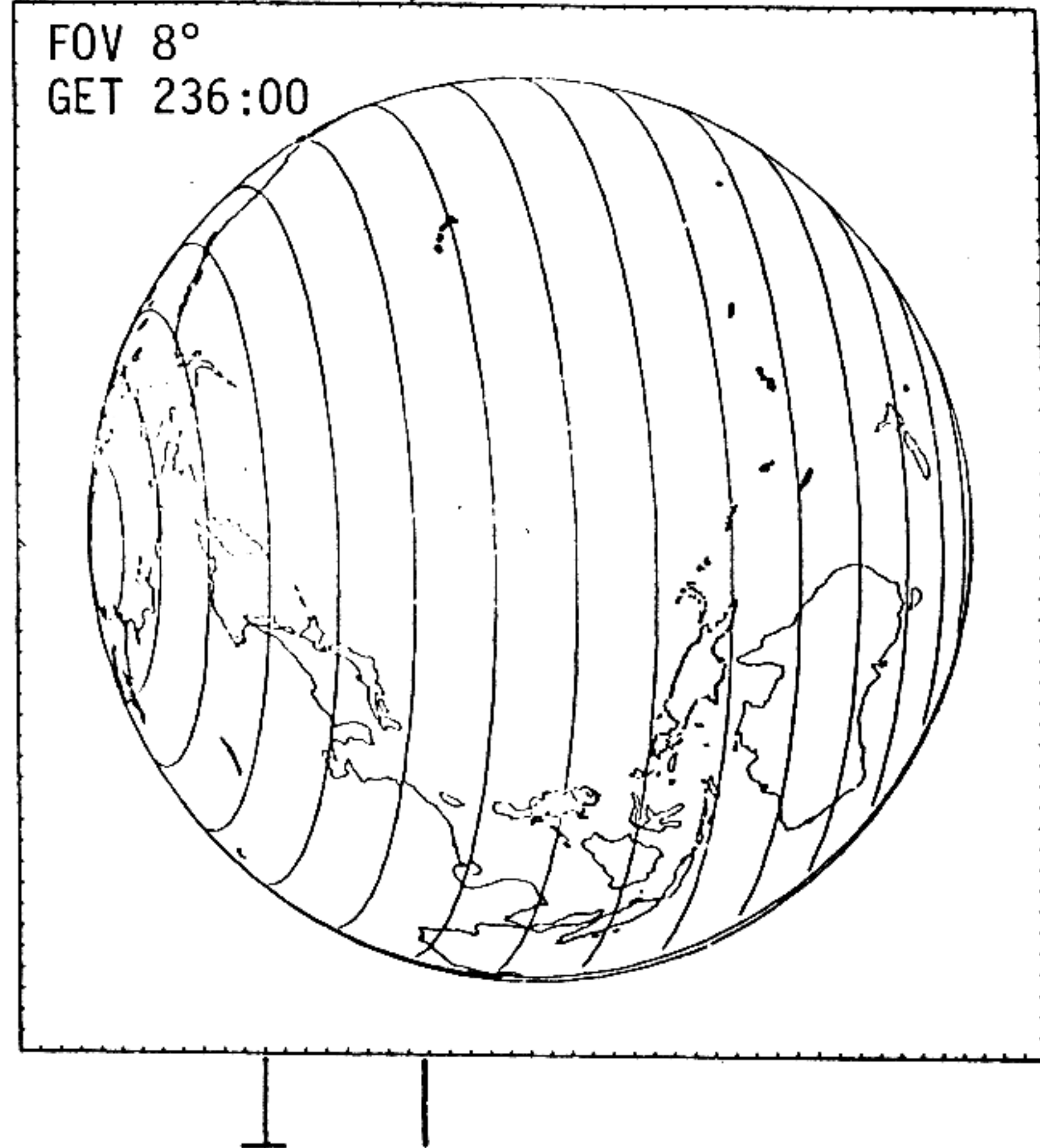
P 270 Y 0

PTC

EAT PERIOD

LiOH CANISTER CHANGE NO. 18
(20 INTO B, STOW 18 IN A6)

STOP PTC AT ROLL 235°



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 12	FINAL (NOV 14)	OCTOBER 15, 1969	234:00 - 236:00	10/TEC	3-197

MCC-H

0622 CST

FLIGHT PLAN

NOTES

236:00

:15

236:30

:45

237:00

M
S
F
N

MNVR TO OPTICS CALIBRATION ATT R 235
 P23 - CISLUNAR NAVIGATION P 272
 OPTICS CALIBRATION Y 0
 STAR 1 2

P00
 V49 - MNVR TO SIGHTING ATT R 90
 STAR/EARTH HORIZON P 153
 P23 - CISLUNAR NAVIGATION Y 341
 LOAD W MATRIX (R1 +4 5 0 0 0)(R2 +0 0 0 0 6)
 1. STAR 2 6 EFH (R3 = 0 0 1 2 0)
 2. JUPITER EFH (R3 = 0 0 1 2 0)
 N88: (R1 = -8 9 8 5 4)(R2 = -4 1 0 1 4)(R3 = -1 5 6 3 6)
 3. STAR 7 5 ENH (R3 = 0 0 1 1 0)
 N88: (R1 = -0 9 8 7 1)(R2 = -7 9 1 6 3)(R3 = -6 0 2 9 8)
 4. STAR 1 6 3 EFH (R3 = 0 0 1 2 0)
 N88: (R1 = -8 3 4 6 4)(R2 = -4 4 9 6 6)(R3 = 3 1 8 0 9)
 5. STAR 2 0 5 ENH (R3 = 0 0 1 1 0)
 N88: (R1 = -0 9 1 5 3)(R2 = -5 5 8 9 1)(R3 = -8 2 4 1 6)
 6. STAR 3 1 EFH (R3 = 0 0 1 2 0)

3 MARKS ON EACH STAR

INCORPORATE P23
 MARK DATA AND
 UPDATE ONBOARD
 STATE VECTOR

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 12	FINAL (NOV 14)	OCTOBER 15, 1969	236:00 - 237:00	10/TEC	3-198

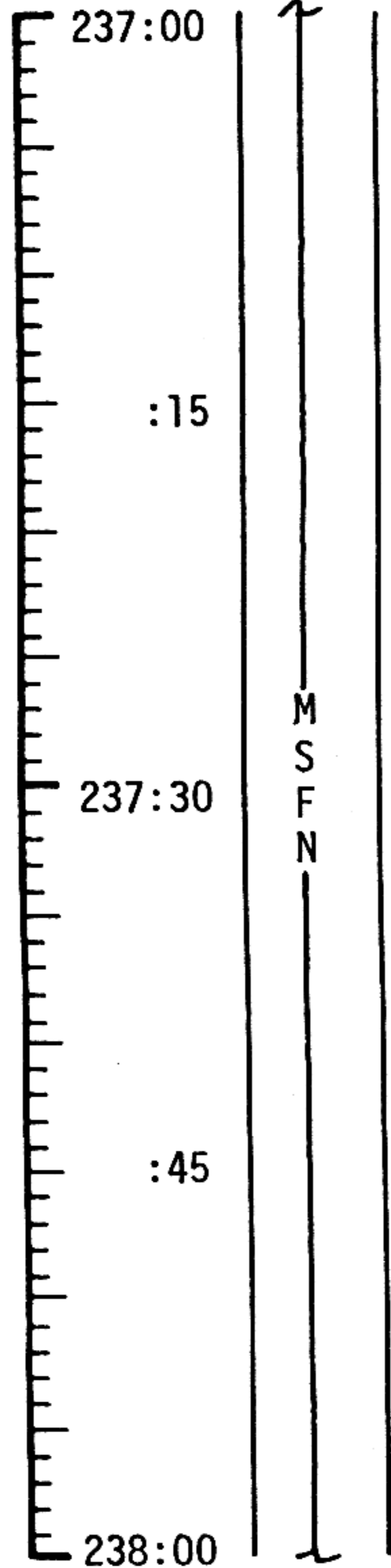
MCC-H

0722 CST

FLIGHT PLAN

NOTES

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



START PTC

PTC
P 270, Y 0

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 12	FINAL (NOV 14)	OCTOBER 15, 1969	237:00 - 238:00	10/TEC	3-199

MCC-H

0822 CST

FLIGHT PLAN

NOTES

(EI-6 HRS)
GO/NO-GO

238:00

:30

239:00

:30

240:00

M
S
F
N

GO/NO-GO FOR MCC-7
REPORT CM RCS INJECTOR
VALVE TEMPS (SYS TEST METER 5C, D, 6A, B, C, D)

VHF SIMPLEX A-ON
(COMM CHECK)

DON MAE WEST & FOOT RESTRAINTS

STOP PTC

PTC
P 270 Y 0

CM RCS INJECTOR TEMP	
5C _____	5D _____
6A _____	6B _____
6C _____	6D _____

UPDATE TO CSM
MCC-7 MNVR PAD
ENTRY PAD
(EI-5 HRS)

UPLINK TO CSM
STATE VECTOR & V66
MCC-7 TGT LOAD
DESIRED ORIENT(ENT)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 12	FINAL (NOV 14)	OCTOBER 15, 1969	238:00 - 240:00	10/TEC	3-200

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FLIGHT PLAN

MCC-7
BURN TABLE

P OR Y RATES	ATT DEVIATION	SHUTDOWN TIME	RESIDUALS
10°/SEC TAKEOVER	+10° TAKEOVER	BT + 1 SEC	TRIM X AXIS ONLY TO 0.2 FPS

TABLE 3-14
3-201

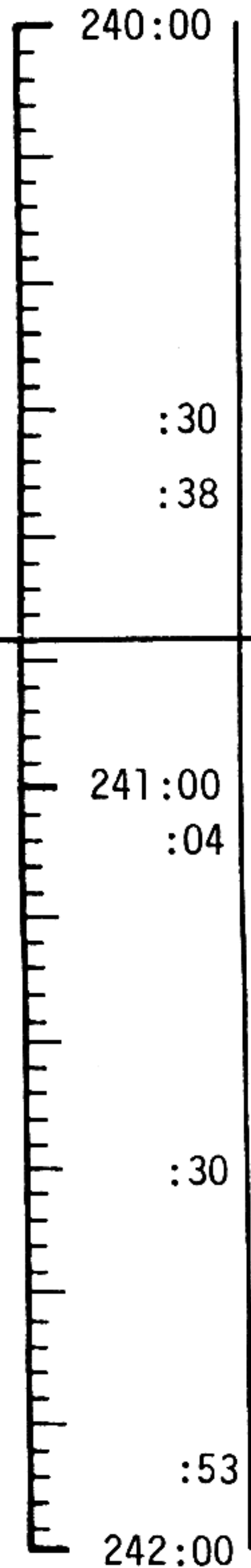
MCC-H

1022 CST

FLIGHT PLAN

NOTES

(EL - 4 HRS)



P52 - IMU REALIGN
OPTION 1 - PREFERRED

REPORT GYRO TORQUING ANGLES
 ECS & EPS CK
 SPS CHECK
 CM RCS MON CK
 SM RCS MON CK
 C & W SYS CK
 CMC SELF TEST
 DSKY COND LT TEST

P30 - EXTERNAL ΔV
 V49 - MNVR TO BURN ATT BY 240:50:00

SXT STAR CHECK
 P40/P41-SPS/RCS THRUST

GDC ALIGN TO IMU

MCC-7

MCC-7 BURN STATUS REPORT
 V66 - TRANS CSM SV TO LM SLOT

EARTH PENUMBRA

MSFN

(EI - 3 HRS)

TIG: 241:21:48
 ΔV: NOMINALLY ZERO

*ITEMS TO BE REPORTED
 to MSFN

P52 (REENTRY ORIENT)
 N71: ___ , ___
 N05: ___ . ___
 N93: ___ . ___
 X ___ . ___
 Y ___ . ___
 Z ___ . ___
 GET : :

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

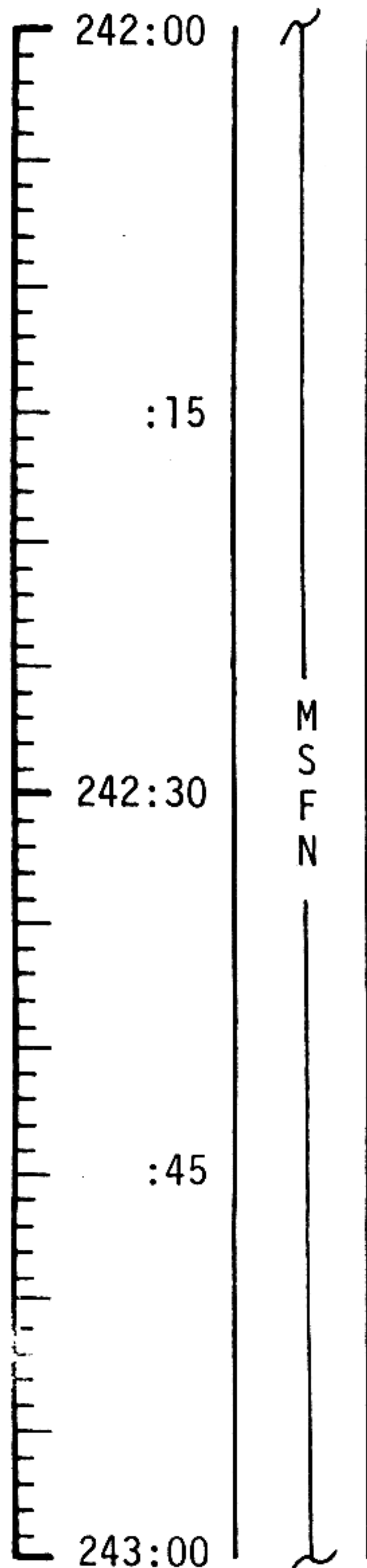
MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 12	FINAL (NOV 14)	OCTOBER 15, 1969	240:00 - 242:00	10/TEC	3-202

MCC-H

1222 CST

FLIGHT PLAN

NOTES



(EI - 2 HRS)

GO/NO GO FOR PYRO
ARM

LOGIC SEQUENCE CHECK
 GO/NO GO FOR PYRO ARM (CUE MSFN)
 LOGIC-ON

MNVR TO ENTRY ATTITUDE R _____
 P _____
 Y _____

SXT AND BORESIGHT STAR CHECK

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 12	FINAL (NOV 14)	OCTOBER 15, 1969	242:00 - 243:00	10/TEC	3-203

MSC Form 29 (May 69)

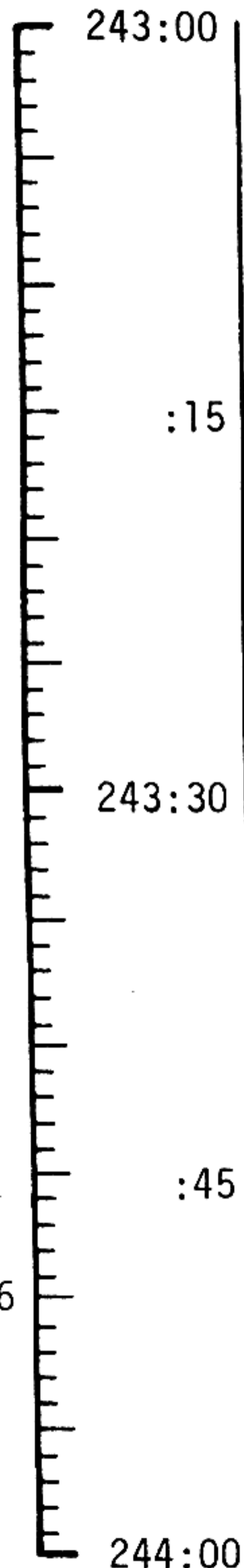
FLIGHT PLANNING BRANCH

MCC-H

1322 CST

FLIGHT PLAN

NOTES



MSFN

P52 - IMU REALIGN
 OPTION 3 - REFSMMAT

REPORT GYRO TORQUING ANGLES
 GDC ALIGN TO IMU
 EMS ENTRY CHECK

PRIM & SEC WATER EVAP ACTIVATION
 CM RCS PRE-HEAT (IF REQ'D)
 FINAL STOWAGE

CONFIGURE CAMERA EQUIP FOR FIREBALL AND CHUTES PHOTOS
 CM/DAC/18/CIN-(f11,250,7) 12 FPS, .5MAG (4 MIN) FIREBALL
 -(f11,125,7) 12 FPS, .5MAG (4 MIN) CHUTES

TERMINATE CM RCS PREHEAT
 SYS TEST PANEL CONFIGURATION
 PYRO BATT CHECK
 FINAL GDC DRIFT CK
 CM RCS ACTIVATION
 GO/NO GO FOR PYRO ARM (CUE MSFN)
 LOGIC-ON
 SET DET (UP, TO EI)
 EMS INITIALIZATION
 RSI ALIGN TO GDC

CM RCS CK

SEPARATION CHECKLIST

P52 (REENTRY ORIENT)	
N71:	____, ____
N05:	____. ____
N93:	
X	____. ____
Y	____. ____
Z	____. ____
GET	____: ____: ____

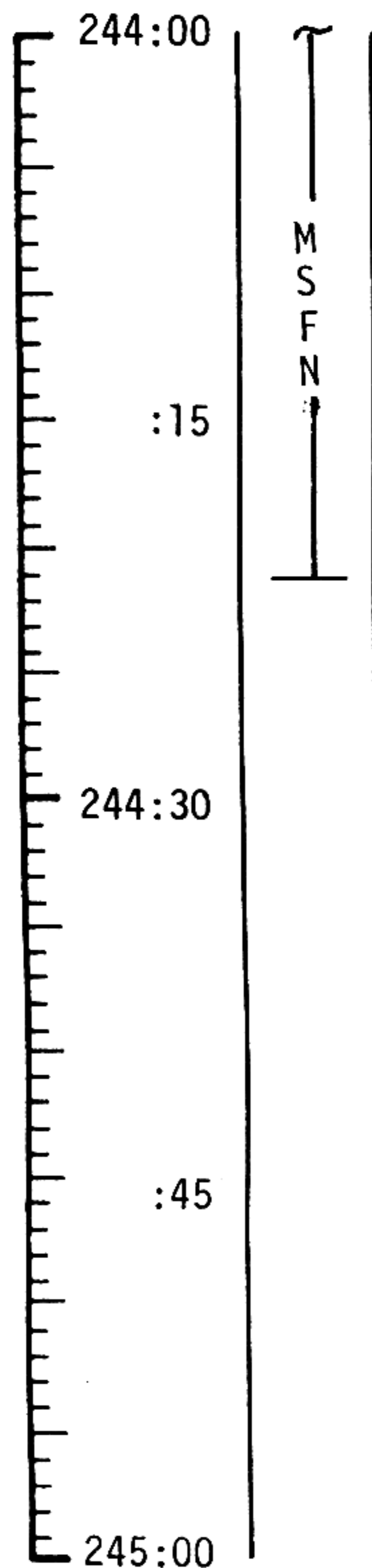
(EI - 1 HR)

UPDATE TO CSM
 ENTRY PAD
 RECOVERY PAD
 GO/NO GO FOR PYRO
 ARM

UPLINK TO CSM
 STATE VECTOR & V66
 (EI - 30 MIN)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 12	FINAL (NOV 14)	OCTOBER 15, 1969	243:00 - 244:00	10/TEC	3-204

FLIGHT PLAN



PYRO ARM
 P61 - ENTRY PREP R _____
 P62 - CM/SM SEP ATT P _____
 Y _____

CM/SM SEP

MNVR TO ENTRY ATT R _____
 P63 - ENTRY INIT P _____
 Y _____

EI - GET = 244:21:48

P64 - ENTRY POST 0.05G

TRAJECTORY EVENTS

400,000 FEET (GET 244:21:48
 ENTER S BAND BLACKOUT
 0.05G
 KA - INITIATE CONSTANT DRAG
 RDOT = -700 FPS
 PEAK G
 SUBCIRCULAR VELOCITY
 P64 TO P67
 EXIT S BAND BLACKOUT
 GUIDANCE TERMINATION
 DROGUE DEPLOYMENT
 MAIN DEPLOYMENT
 SPLASHDOWN

TIME FROM EI
MIN : SEC

00 : 00
 00 : 18
 00 : 30
 00 : 52
 01 : 18
 01 : 22
 02 : 10
 02 : 12
 03 : 23
 07 : 06
 08 : 08
 08 : 54
 13 : 35

Y = -6 . 5° -
 L/D = 0 . 3 0 9
 V = 3 6 1 1 6
 R = 1 2 5 0

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 12	FINAL (NOV 14)	OCTOBER 15, 1969	244:00 - 245:00	10/TEC	3-205