

Byron E. Jewick



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

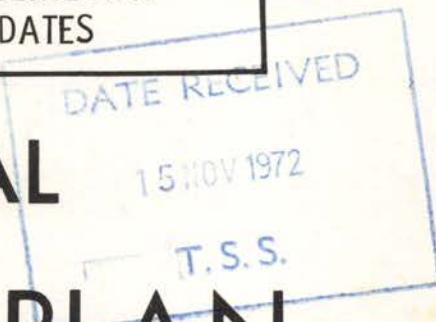
APOLLO 17



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FINAL FLIGHT PLAN

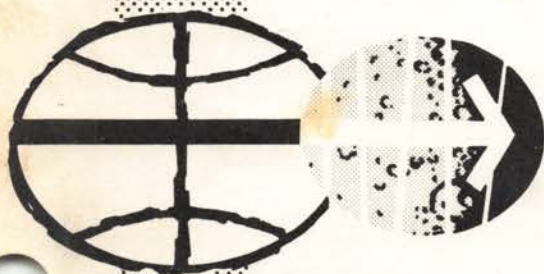


PREPARED BY

FLIGHT PLANNING BRANCH
CREW PROCEDURES DIVISION

MANNED SPACECRAFT CENTER
HOUSTON, TEXAS

OCTOBER 23, 1972



SECTION I

SECTION II

SECTION III

SECTION IV

SECTION V

SECTION VI

01945
This **Apollo 17 Flight Plan** was sent to Honeysuckle Creek Tracking Station, Canberra, Australia, for support of the mission.

This is the Computer section's copy number 6.

The base Flight Plan is dated October 23, 1972.

The last version – dated November 20 (from page 99 of this PDF file) – was received at the station on the day of launch (Australian time), 07 December.

The Flight Plans were distributed as loose leaf to allow for late changes to be made.

Honeysuckle Creek was one of three prime 26 metre dish tracking sites of NASA's Manned Space Flight Network (the others being Goldstone, California and Madrid, Spain).

This copy was preserved by Honeysuckle Creek's **Cyril Fenwick**.

The Flight Plan was scanned, and this PDF file assembled, by Colin Mackellar for **www.honeysucklecreek.net**, December 2022, the 50th anniversary of Apollo 17.

Blank pages have also been retained. Pages with tables have been rotated for ease of reading. The Flight Plan has been scanned in colour for authenticity.

www.honeysucklecreek.net

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December 20, 1972.
APOLLO 17

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FINAL
FLIGHT PLAN

OCTOBER 28, 1972

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It is requested that any organization having comments, questions, or suggestions concerning this document contact T. W. Holloway, Flight Planning Branch, CG52, Building 4, room 230, telephone 483-4271.

This document is under the configuration control of the Crew Procedures Control Board (CPCB). All proposed changes should be submitted to the Apollo Flight Data File Manager, T. W. Holloway, CG52, Building 4, room 230, telephone 483-4271.

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The CSM and LM Attitude information is taken from the document, "Operational Lunar Orbit Attitude Sequence for Apollo 17".

Consumable Analysis data were prepared by the Consumables Analysis Section of the Mission Planning and Analysis Division.

FLIGHT PLAN

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4-11 . . .	10/23/72	5-20 . . .	10/23/72	6-40 . . .	10/23/72
4-12 . . .	10/23/72	5-21 . . .	10/23/72	6-41 . . .	10/23/72
4-13 . . .	10/23/72	5-22 . . .	10/23/72	6-42 . . .	10/23/72
4-14 . . .	10/23/72	5-23 . . .	10/23/72	6-43 . . .	10/23/72
4-15 . . .	10/23/72	5-24 . . .	10/23/72	6-44 . . .	10/23/72
4-16 . . .	10/23/72	5-25 . . .	10/23/72	6-45 . . .	10/23/72
4-17 . . .	10/23/72	5-26 . . .	10/23/72	6-46 . . .	10/23/72
4-18 . . .	10/23/72	6-1 . . .	10/23/72	6-47 . . .	10/23/72
4-19 . . .	10/23/72	6-2 . . .	10/23/72	6-48 . . .	10/23/72
4-20 . . .	10/23/72	6-3 . . .	10/23/72	6-49 . . .	10/23/72
4-21 . . .	10/23/72	6-4 . . .	10/23/72	6-50 . . .	10/23/72
4-22 . . .	10/23/72	6-5 . . .	10/23/72	6-51 . . .	10/23/72
4-23 . . .	10/23/72	6-6 . . .	10/23/72	6-52 . . .	10/23/72
4-24 . . .	10/23/72	6-7 . . .	10/23/72	6-53 . . .	10/23/72
4-25 . . .	10/23/72	6-8 . . .	10/23/72	6-54 . . .	10/23/72
4-26 . . .	10/23/72	6-9 . . .	10/23/72	6-55 . . .	10/23/72
4-27 . . .	10/23/72	6-10 . . .	10/23/72	6-56 . . .	10/23/72
4-28 . . .	10/23/72	6-11 . . .	10/23/72	6-57 . . .	10/23/72
4-29 . . .	10/23/72	6-12 . . .	10/23/72		

FLIGHT PLAN - APOLLO 17 (T=0 LAUNCH)
CHANGE B 11/29/72 (P&I)

The following is a pen and ink change to the Apollo 17 Flight Plan.

1. Page i

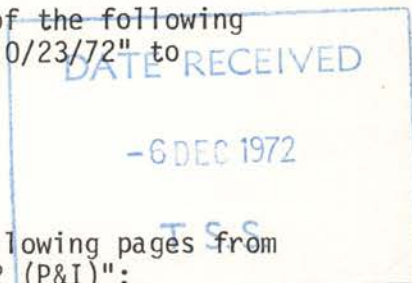
- (a) Under "Change A 11/20/72 (P&I)" add "Change B 11/29/72 (P&I)"
- (b) Change date after *i from "11/20/72 (P&I)" to "11/29/72 (P&I)"
- (c) Change date after *ii from "11/20/72 (P&I)" to "11/29/72 (P&I)"
- (d) Change date after *iii from "11/20/72 (P&I)" to "11/29/72 (P&I)"
- (e) Add an asterisk before page 3-20 and change date from "10/23/72" to "11/29/72 (P&I)"

2. Page ii

- (a) Add an asterisk before each of the following pages and change date from "10/23/72" to "11/29/72 (P&I)":
 - 3-85
 - 3-86
 - 3-115
- (b) Change the date after the following pages from "11/20/72 (P&I)" to "11/29/72 (P&I)":
 - *3-91 *3-147
 - *3-92 *3-235
 - *3-129 *3-237

3. Page iii

- (a) Add an asterisk before 3-318 and change the date from "10/23/72" to "11/29/72 (P&I)"
- (b) Add an asterisk before 3-319 and change the date from "10/23/72" to "11/29/72 (P&I)"
- (c) Change the date after *3-324 from "11/20/72" to "11/29/72 (P&I)"
- (d) Change the date after *3-339 from "11/20/72" to "11/29/72 (P&I)"
- (e) Change the date after *3-340 from "11/20/72" to "11/29/72 (P&I)"
- (f) Add an asterisk before 3-391 and change the date from "10/23/72" to "11/29/72 (P&I)"



THE UNIVERSITY OF CHICAGO
DIVISION OF THE PHYSICAL SCIENCES
DEPARTMENT OF CHEMISTRY

1. Name of the student: _____

2. Name of the instructor: _____

3. Title of the report: _____

4. Date of the report: _____

5. Abstract: _____

6. Introduction: _____

7. Experimental: _____

8. Results: _____

9. Discussion: _____

10. Conclusion: _____

11. References: _____

12. Appendix: _____

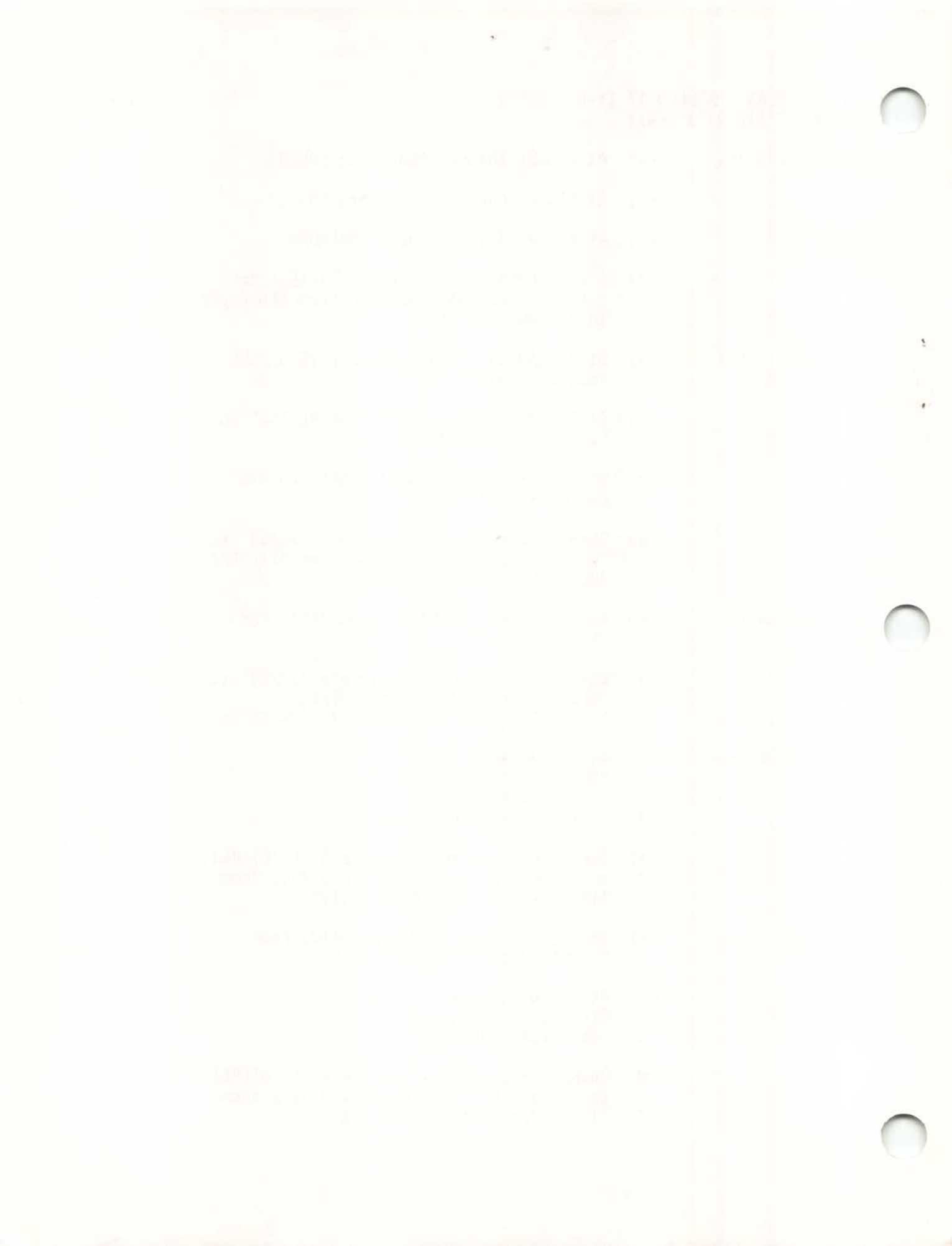
13. Bibliography: _____

14. Acknowledgments: _____

15. Index: _____

4. Page 3-20
 - (a) At 19:55 add "REPORT: LM/CM ΔP"
 - (b) Change Edition from "Final (12/6)" to "Change B (12/6) (P&I)" and date from "10/23/72" to "11/29/72 (P&I)"
5. Page 3-85
 - (a) At 90:39 delete "B2" and add "D2"
 - (b) Change Edition from "Final (12/6)" to "Change B (12/6) (P&I)" and date from "10/23/72" to "11/29/72 (P&I)"
6. Page 3-86
 - (a) At 91:22 delete "Enable all jets" and add "Enable jets A4,C3,B4&D3"
 - (b) At 91:23 add "MAN ATT (ROLL) - ACCEL CMD"
 - (c) At 91:39 add:
"AT 91:39 OR ROLL ERROR OF 10°
MAN ATT (ROLL) - RATE CMD
WAIT 1 MIN
MAN ATT (ROLL) - ACCEL CMD"
 - (d) At 91:54 add:
"ENABLE JETS B1 & B2
MAN ATT (ROLL) - RATE CMD"
 - (e) Change Edition from "Change A (12/6) (P&I)" to "Change B (12/6) (P&I)" and date from "11/20/72" to "11/29/72 (P&I)"
7. Page 3-91
 - (a) At 94:46 add:
"WHEN IN UV GRAZING ATT
UV COVER - OPEN
IR COVER - OPEN"
 - (b) Change Edition from "Change A (12/6) (P&I)" to "Change B (12/6) (P&I)" and date from "11/20/72" to "11/29/72 (P&I)"
8. Page 3-92
 - (a) At 95:00 change SIM EXP STATUS from "(*0000)" to "(*0011)"
 - (b) At 95:24 delete:
"IR COVER - OPEN
UV COVER - OPEN"
 - (c) Change Edition from "Change A (12/6) (P&I)" to "Change B (12/6) (P&I)" and date from "11/20/72" to "11/29/72 (P&I)"

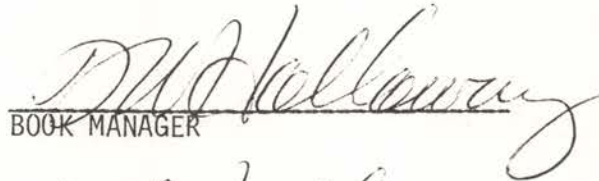
9. Page 3-115
- (a) At 110:31 change "REACQ" to "AUTO"
 - (b) At 110:41 change "REACQ" to "AUTO"
 - (c) At 110:46 delete "CUE: HGA AUTO"
 - (d) Change Edition from "Final (12/6)" to "Change B (12/6)" and date from "10/23/72" to "11/29/72 (P&I)"
10. Page 3-129
- (a) At 114:30 add "CONFIGURE DSE (STOP/CMD RESET/REWIND)"
 - (b) At 114:40 change "CMDS: DSE REWIND" to "CMDS: DSE PLAYBACK"
 - (c) At 114:47 delete "CMDS: (AOS +15 MIN) DSE PLAYBACK"
 - (d) Change Edition from "Change A (12/6)" to "Change B (12/6)" and date from "11/20/72 (P&I)" to "11/29/72 (P&I)"
11. Page 3-147
- (a) At 123:01 add "MAN" between "HGA" and "P -74"
 - (b) Change Edition from "Change A (12/6)" to "Change B (12/6)" and date from "11/20/72 (P&I)" to "11/29/72 (P&I)"
12. Page 3-235
- (a) At 167:30 add:
"WHEN IN UV GRAZING ATT
UV COVER - OPEN
IR COVER - OPEN"
 - (b) Change Edition from "Change A (12/6)(P&I)" to "Change B (12/6)(P&I)" and date from "11/20/72" to "11/29/72 (P&I)"
13. Page 3-237
- (a) At 168:00 change SIM EXP STATUS from "(*0000)" to "(*0011)"
 - (b) At 168:07 delete:
"IR COVER - OPEN
UV COVER - OPEN"
 - (c) Change Edition from "Change A (12/6)(P&I)" to "Change B (12/6)(P&I)" and date from "11/20/72" to "11/29/72 (P&I)"



14. Page 3-318
- (a) Change "SIM EXP STATUS" top register from "+1101" to "+0101"
 - (b) Change Edition from "Final (12/6)" to "Change B (12/6) (P&I)" and date from "10/23/72" to "11/29/72 (P&I)"
15. Page 3-319
- (a) At 210:39 delete:
"AUTO, NARROW"
 - (b) Change Edition from "Final (12/6)" to "Change B (12/6) (P&I)" and date from "10/23/72" to "11/29/72 (P&I)"
16. Page 3-324
- (a) After "ACQ STDN HGA:" add "MAN" before "P -20, Y 30 AUTO, NARROW"
 - (b) Change Edition from "Change A (12/6)" to "Change B (12/6) (P&I)" and date from "11/20/72" to "11/29/72 (P&I)"
17. Page 3-339
- (a) Change "SET HGA MAN P -27, Y 18 REACQ, NARROW (231:21)" to "SET HGA MAN P -27, Y 18 (231:21)"
 - (b) Change Edition from "Change A (12/6)" to "Change B (12/6) (P&I)" and date from "11/20/72" to "11/29/72 (P&I)"
18. Page 3-340
- (a) At 231:21 add "MAN" between "PWR" and "P -27"
 - (b) Change Edition from "Change A (12/6)" to "Change B (12/6) (P&I)" and date from "11/20/72" to "11/29/72 (P&I)"

19. Page 3-391

- (a) At 283:25 change "V40 MNVR ..." to "V49 MNVR ..."
- (b) Change Edition from "Final (12/6)" to "Change B (12/6)" and date from "10/23/72" to "11/29/72 (P&I)"


BOOK MANAGER


APPROVAL

APOLLO 17 FLIGHT PLAN (12/6)
CHANGE A 11/20/72 (P&I)

The following pen and ink changes are FDF approved and are to be included in the Apollo 17 Final Flight Plan (12/6)

1. Page i
 - (a) At the top of the page after "Change A 11/20/72" add "(P&I)"
 - (b) Add an asterisk before each of the following page numbers and change the page dates from "10/23/72" to "11/20/72 (P&I)"

Page i	(Add (P&I) only)
Page ii	(Add (P&I) only)
Page iii	(Add (P&I) only)
Page iv	(Add (P&I) only)
Page 2-18	
Page 3-18	
2. Page ii

Add an asterisk before each of the following page numbers and change the page dates from "10/23/72" to "11/20/72 (P&I)"

Page 3-82	Page 3-99	Page 3-133
Page 3-86	Page 3-100	Page 3-139
Page 3-91	Page 3-101	Page 3-147
Page 3-92	Page 3-102	Page 3-191
Page 3-94	Page 3-103	Page 3-221
Page 3-95	Page 3-121	Page 3-227
Page 3-96	Page 3-125	Page 3-229
Page 3-97	Page 3-129	Page 3-231
Page 3-98	Page 3-131	Page 3-235
		Page 3-237
3. Page iii

Add an asterisk before each of the following page numbers and change the page dates from "10/23/72" to "11/20/72 (P&I)"

Page 3-267	Page 3-342	Page 3-353
Page 3-305	Page 3-351	Page 3-354
Page 3-341	Page 3-352	Page 3-355
		Page 3-375
4. Page iv

Add an asterisk before each of the following page number and change the page date from "10/23/72" to "11/20/72 (P&I)"

Page 3-394
5. Page 2-18

At GET 65:00 under "H₂ FANS 1, 2, & 3" delete the "3" under the "ON" column and add "3" under the "OFF" column
6. Page 3-8
 - (a) Change the "GET 05:10" to "GET 05:30" on the 5° FOV & the "GET 05:31" to "GET 05:51" on the 1° FOV
 - (b) Change EDITION from "FINAL (12/6)" to "CHANGE A (12/6) (P&I)" and DATE from "10/23/72" to "11/20/72 (P&I)"

7. Page 3-82
- (a) At the bottom of the PU VALVE NOTE (LOWER RIGHT) add the following sentence: DO NOT CHANGE PU VALVE POSITION DURING THE LAST 30 SEC OF THE BURN"
 - (b) Change EDITION from "FINAL (12/6)" to "CHANGE A (12/6) (P&I)" and DATE from "10/23/72" to "11/20/72 (P&I)"
8. Page 3-86
- (a) At 91:16 add "LA - OFF"
 - (b) At 91:23 after "P -5, Y 15" add "SELECT HGA"
 - (c) At 91:29 delete "LA - OFF"
 - (d) Change EDITION from "FINAL (12/6)" to "CHANGE A (12/6) (P&I)" and DATE from "10/23/72" to "11/20/72 (P&I)"
9. Page 3-91
- (a) At 94:41 change HGA angles from "P +24, Y 248" to "P +23, Y 260"
 - (b) Change EDITION from "FINAL (12/6)" to "CHANGE A (12/6) (P&I)" and DATE from "10/23/72" to "11/20/72 (P&I)"
10. Page 3-92
- (a) At 95:27 change HGA angles from "P +24, Y 248," to "P +23, Y 260"
 - (b) Change EDITION from "FINAL (12/6)" to "CHANGE A (12/6) (P&I)" and DATE from "10/23/72" to "11/20/72 (P&I)"
11. Page 3-94
- (a) At 97:30 add "UV COVER - CLOSE"
 - (b) Change EDITION from "FINAL (12/6)" to "CHANGE A (12/6) (P&I)" and DATE from "10/23/72" to "11/20/72 (P&I)"
12. Pages 3-95,96
97,98,99
100,101,
102,103
- (a) Change the top line of the SIM STATUS CODE to "-0010" at both the hour and half hour times
 - (b) Change EDITION from "FINAL (12/6)" to "CHANGE A (12/6) (P&I)" and DATE from "10/23/72" to "11/20/72 (P&I)"
13. Page 3-103
- (a) At 106:49 delete "UV COVER - CLOSE"
14. Page 3-121
- (a) At 112:26 add "(-001.96)" after "(+15.405)"
 - (b) Change EDITION from "FINAL (12/6)" to "CHANGE A (12/6) (P&I)" and DATE from "10/23/72" to "11/20/72 (P&I)"
15. Page 3-125
- (a) Change the bottom line of the SIM EXP STATUS CODE from "21000" to "31000"
 - (b) Change EDITION from "FINAL (12/6)" to "CHANGE A (12/6) (P&I)" and DATE from "10/23/72" to "11/20/72 (P&I)"

16. Page 3-129 (a) At 114:45 change "116:20" to "116:33"
(b) Change EDITION from "FINAL (12/6)" to "CHANGE A (12/6) (P&I)" and DATE from "10/23/72" to "11/20/72 (P&I)"
17. Page 3-131 (a) At 115:31 between Y 211 and AUTO, add "SELECT HGA"
(b) Change EDITION from "FINAL (12/6)" to "CHANGE A (12/6) (P&I)" and DATE from "10/23/72" to "11/20/72 (P&I)"
18. Page 3-133 (a) At 116:30 after HGA PWR-ON add "SELECT HGA"
(b) Change EDITION from "FINAL (12/6)" to "CHANGE A (12/6) (P&I)" and DATE from "10/23/72" to "11/20/72 (P&I)"
19. Page 3-139 (a) At 119:43 add camera settings "f4,1/250"
(b) Change EDITION from "FINAL (12/6)" to "CHANGE A (12/6) (P&I)" and DATE from "10/23/72" to "11/20/72 (P&I)"
20. Page 3-147 (a) At 123:01 between Y 280 and AUTO, add "SELECT HGA"
(b) Change EDITION from "FINAL (12/6)" to "CHANGE A (12/6) (P&I)" and DATE from "10/23/72" to "11/20/72 (P&I)"
21. Page 3-191 (a) At 145:09 delete: "MAN"
(b) Change EDITION from "FINAL (12/6)" to "CHANGE A (12/6) (P&I)" and DATE from "10/23/72" to "11/20/72 (P&I)"
22. Page 3-221 (a) At 160:57 add:
"NOTE: R/T PCM DATA WILL NOT BE RECEIVED
UNTIL 161:05"
(b) Change EDITION from "FINAL (12/6)" to "CHANGE A (12/6) (P&I)" and DATE from "10/23/72" to "11/20/72 (P&I)"
23. Page 3-225 (a) At 162:41 delete:
"PC: MODE - STBY"
PWR - ON
PC SELF TEST - SELF TEST (CUE)
PC: PWR - OFF (CUE)"
(b) Change EDITION from "FINAL (12/6)" to "CHANGE A (12/6) (P&I)" and DATE from "10/23/72" to "11/20/72 (P&I)"
24. Page 3-227 (a) At 163:56 change: "OMNI A" to "OMNI B"
(b) Change EDITION from "FINAL (12/6)" to "CHANGE A (12/6) (P&I)" and DATE from "10/23/72" to "11/20/72 (P&I)"

25. Page 3-229 (a) At 164:00 and 164:30 change the first digit of the SIM EXP STATUS code from "+" to "*"
(b) Change EDITION from "FINAL (12/6)" to "CHANGE A (12/6) (P&I)" and DATE from "10/23/72" to "11/20/72 (P&I)"
26. Page 3-231 (a) At 165:00 and 165:30 change the first digit of the SIM EXP STATUS code from "+" to "*"
(b) Change EDITION from "FINAL (12/6)" to "CHANGE A (12/6) (P&I)" and DATE from "10/23/72" to "11/20/72 (P&I)"
27. Page 3-235 (a) At 167:52 after HGA PWR-ON add: "SELECT HGA"
(b) Change EDITION from "FINAL (12/6)" to "CHANGE A (12/6) (P&I)" and DATE from "10/23/72" to "11/20/72 (P&I)"
28. Page 3-237 (a) At 168:52 add:
"NOTE: EARLY MNVR INITIATION OR FAST RATES
MAY CAUSE GIMBAL LOCK PROBLEMS"
(b) Change EDITION from "FINAL (12/6)" to "CHANGE A (12/6) (P&I)" and DATE from "10/23/72" to "11/20/72 (P&I)"
29. Page 3-289 (a) In starred box between the P35 final Comp Pads delete "CSM ACTIVE &"
(b) Change EDITION from "FINAL (12/6)" to "CHANGE A (12/6) (P&I)" and DATE from "10/23/72" to "11/20/72 (P&I)"
30. Page 3-305 (a) At 196:21 add:
"SELECT HGA" after "ACQ STDN HGA P -16 Y 298"
and before "AUTO, NARROW"
(b) Change EDITION from "FINAL (12/6)" to "CHANGE A (12/6) (P&I)" and DATE from "10/23/72" to "11/20/72 (P&I)"
31. Page 3-341 (a) At 232:00 change the second register of the SIM STATUS code from "(00011)" to "(01011)"
(b) Change EDITION from "FINAL (12/6)" to "CHANGE A (12/6) (P&I)" and DATE from "10/23/72" to "11/20/72 (P&I)"
32. Page 3-342 (a) At 233:07 add ", SELECT HGA" after "HGA PWR - ON"
(b) Change EDITION from "FINAL (12/6)" to "CHANGE A (12/6) (P&I)" and DATE from "10/23/72" to "11/20/72 (P&I)"
33. Page 3-351 Under MCC-H at 237:30 delete CMD
DSE REWIND
at 237:39 under MCC-H add CMD
DSE REWIND

34. Pages 3-351 (a) Change the SIM EXP STATUS code by changing the "4"
3-352,3-353 to a "5"
& 3-354 (b) Change EDITION from "FINAL (12/6)" to "CHANGE A
(12/6) (P&I)" and DATE from "10/23/72" to
"11/20/72 (P&I)"
35. Page 3-354 (a) At 240:52 delete "(N20,357,335)" and add "(N20,355,340)"
(b) Change EDITION from "FINAL (12/6)" to "CHANGE A
(12/6) (P&I)" and DATE from "10/23/72" to
"11/20/72 (P&I)"
36. Page 3-355 (a) Under the notes column change "RA 10:25" to "RA 10:00"
(b) Change EDITION from "FINAL (12/6)" to "CHANGE A
(12/6) (P&I)" and DATE from "10/23/72" to
"11/20/72 (P&I)"
37. Page 3-375 (a) At 263:30 above "V48(11101) (01111)" add "CYCLE
CMC MODE - FREE/AUTO"
(b) Change EDITION from "FINAL (12/6)" to "CHANGE A
(12/6) (P&I)" and DATE from "10/23/72" to
"11/20/72 (P&I)"
38. Page 3-394 (a) At 286:45 above "V48(11102)(01111)" add "CYCLE CMC
MODE - FREE/AUTO"
(b) Change EDITION from "FINAL (12/6)" to "CHANGE A
(12/6) (P&I)" and DATE from "10/23/72" to
"11/20/72 (P&I)"

1. The first part of the report is a general
description of the project and its objectives.
It includes a brief history of the project and
a statement of the problem to be solved.

2. The second part of the report is a detailed
description of the methodology used in the study.
It includes a description of the data collection
methods and the statistical analysis techniques used.

3. The third part of the report is a description
of the results of the study. It includes a
summary of the findings and a discussion of the
implications of the results.

4. The fourth part of the report is a conclusion
and a list of references. The conclusion
summarizes the main findings of the study and
the references list the sources of information used.

5. The fifth part of the report is a list of
appendices. These include a list of figures,
a list of tables, and a list of abbreviations.

10/23/72

2-9

TABLE 2-7
(12/6)

LiOH CANISTER CHANGE SCHEDULE

CSM LiOH CANISTER CHANGE

CHANGE NO	APPROX GET (HR:MIN)	APPROX ΔT (HR)	INSTALL		REMOVE & STOW		TOTAL TIME INSTALLED
			CANISTER NO.	POSITION	CANISTER NO.	STOWAGE LOCATION	
1	08:50	15	3	A	1	B5	*08:50
2	23:00	10	4	B	2	B5	*23:00
3	33:00	14	5	A	3	B5	24:10
4	47:00	10	6	B	4	B5	24:00
5	57:30	14	7	A	5	B6	24:30
6	71:00	12	8	B	6	B6	24:00
7	83:00	12	9	A	7	B6	25:30
8	95:00	13	10	B	8	B6	24:00
9	108:10	24	11	A	9	A9	25:10
10	132:00	11	12	B	10	A9	37:00
11	143:15	25	13	A	11	A9	35:05
12	167:45	14	14	B	12	A9	35:45
13	181:00	14	15	A	13	A3	37:45
14	195:25	13	16	B	14	A3	27:40
15	208:35	10	17	A	15	A3	27:35
16	218:12	13	18	B	16	A3	22:47
17	231:00	10	19	A	17	A4	22:25
18	240:30	12	20	B	18	A4	22:18
19	252:15	12	21	A	19	A4	21:15
20	264:30	16	22	B	20	A4	24:00
21	281:00	8	23	A	21	A5	28:45
22	287:50		24	B	22	A5	23:20

LM LiOH CANISTER CHANGE: GET (HR:MIN) 137:30 AND 172:55

TOTAL CM LiOH CANISTERS AVAILABLE 26
*GET FROM LIFTOFF

TABLE 2-8
(12/6)

CSM RCS UNCOUPLED CONFIGURATION

FROM (HR:MIN)	TO (HR:MIN)	REASON
8:35	8:55	RATE DAMPING FOR PTC
19:20	19:40	RATE DAMPING FOR PTC
42:35	43:50	RATE DAMPING FOR PTC & HEAT FLOW EXP
63:50	64:10	RATE DAMPING FOR PTC
90:39	91:22	SIM EXP
94:29	106:52	SIM EXP
113:18	182:16	SIM EXP
182:43	183:40	MAPPING CAMERA
183:40	184:30	ROLL AXIS ONLY FOR MC/PC
194:14	233:05	SIM EXP
233:05	234:23	ROLL AXIS ONLY FOR MC/PC
236:48	240:45	SIM EXP
240:50	241:10	RATE DAMPING FOR PTC
256:45	259:20	CSM EVA
259:20	263:40	SIM EXP
263:40	264:00	RATE DAMPING FOR PTC
265:00	265:20	RATE DAMPING FOR PTC
276:30	285:30	SIM EXP
285:30	285:35	RATE DAMPING FOR PTC
286:15	287:20	SIM EXP
288:15	288:40	RATE DAMPING FOR PTC

11/20/72

2-11

TABLE 2-9
(12/6)

CSM BURN/EVENT SCHEDULE

BURN/ EVENT	GET I(HR:MIN)/ BURN TIME	Δ VT (FPS)	ULLAGE BT	REFSMMAT	RESULTANT HA/HP(NM)	DATE/ CST
LAUNCH SATURN	00:00 11 MIN 51.5 SEC	24,263	--	LAUNCH	93.4 89.7	DEC 6 20:53
S-IVB TLI	03:21:19.3 5 MIN 45.7 SEC	10,346.8	--	LAUNCH	--	DEC 7 00:14
CSM/LM EJECTION	05:07:00.0 3.0 SEC	1.2	--	LAUNCH	--	DEC 7 02:00
MCC-1	08:45	Nom Zero	--	PTC	--	DEC 7 05:38
MCC-2	35:30	Nom Zero	--	PTC	--	DEC 8 08:23
MCC-3	66:55	Nom Zero	--	PTC	--	DEC 9 15:48
MCC-4	83:55	Nom Zero	--	PTC	--	DEC 10 8:48
LOI SPS	88:55:37.5 06 MIN 35.4 SEC	2979.9	--	LOI	170.8 51.4	DEC 10 13:49
DOI SPS	93:13:08.5 22.9 SEC	198.7	4 JETS 15 SEC	LDG SITE	59.00 15.00	DEC 10 18:06
BAILOUT SPS	93:46:55 11.05 SEC	100	4 JETS 17 SEC	LDG SITE	62.0 7.8	DEC 10 18:40
DOI TRIM SPS	AS REQD			LS OR LOPC-1 AS REQD		
UNDOCK & SEP(RCS)	110:27:55.2 3.3 SEC	1.0	--	LDG SITE	60.33 13.6	DEC 11 11:21
CSM CIRC SPS	111:55:22.7 4.0 SEC	70.1	4 JETS 12 SEC	LDG SITE	70.3 54.3	DEC 11 12:48
LOPC SPS	182:35:45.3 18.7 SEC	336.7	4 JETS 12 SEC	LOPC-1	63.0 61.3	DEC 14 11:29
LM JETT	193:58:30.0	2.5	--	LIFT-OFF	62.2 60.3	DEC 14 22:52
CSM SEP RCS	194:03:30.0 12.6 SEC	2.0	--	LIFT-OFF	63.9 62.3	DEC 14 22:57

TABLE 2-9 (CONT)

CSM BURN/EVENT SCHEDULE

BURN/ EVENT	GET I(HR:MIN) BURN TIME	Δ VT (FPS)	ULLAGE BT	REFSMMAT	RESULTANT HA/HP(NM)	DATE/ CST
TEI SPS	236:39:51.1 2 MIN 22.2 SEC	3045.7	4 JETS 12 SEC	TEI	--	DEC 16 17:33
MCC-5	253:40	Nom Zero	--	PTC	--	DEC 17 10:33
MCC-6	282:18	Nom Zero	--	PTC	--	DEC 18 15:11
MCC-7	301:18	Nom Zero	--	ENTRY	--	DEC 19 10:11
EI	304:18:0.5	NO BURN	--	ENTRY	--	DEC 19 13:11
SPLASH- DOWN	304:31:10.5	NO BURN	--	ENTRY	--	DEC 19 13:24

APOLLO 17 FILM BUDGET

CSM					
CAMERA: EL	FILM: VHBW	MAGAZINE: QQ	CAPACITY: 115 FR		
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
0:00		PREFLT CAL	25 FR	90 FR	CAL
89:41	01	LDG SITE	12 FR	78 FR	NST
121:00	17	(NORTH)	12 FR	66 FR	NST
137:34	25	SR CORONA	9 FR	57 FR	X9
144:42	29	(SOUTH)	24 FR	33 FR	NST
159:36	37	AITKEN	12 FR	21 FR	FST
208:17	61	SS CORONA	9 FR	12 FR	X7
CAMERA: EL FILM: VHBW MAGAZINE: RR CAPACITY: 115 FR					
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
0:00		PREFLT CAL	25 FR	90 FR	CAL
209:09	62	GAGARIN (N)	18 FR	72 FR	FST
210:09	62	(NORTH)	24 FR	48 FR	NST
218:08	66	(SOUTH)	24 FR	24 FR	NST
233:58	74	(SOUTH)	12 FR	12 FR	NST
CAMERA: NK FILM: CIN MAGAZINE: SS CAPACITY: 70 FR					
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
68:00	TL	ALFMED	6 FR	64 FR	X1
CAMERA: NK FILM: CIN MAGAZINE: TT CAPACITY: 70 FR					
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
0:00		UNSCHEDULED	0 FR	70 FR	
CAMERA: NK FILM: VHBW MAGAZINE: UU CAPACITY: 40 FR					
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
0:00		PREFLT CAL	40 FR	0 FR	CAL

CSM					
CAMERA: NK	FILM: VHBW	MAGAZINE: VV	CAPACITY: 40 FR		
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
0:00		DIM LT BU	40 FR	0 FR	CAL
CAMERA: NK FILM: VHBW MAGAZINE: WW CAPACITY: 40 FR					
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
121:06	17	EARTHSHINE	40 FR	0 FR	X17
CAMERA: NK FILM: VHBW MAGAZINE: XX CAPACITY: 40 FR					
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
133:29	23	ZOD LT RED	13 FR	27 FR	X13
163:12	38	ZOD LT BLUE	13 FR	14 FR	X13
CAMERA: NK FILM: VHBW MAGAZINE: YY CAPACITY: 40 FR					
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
185:00	49	ZOD LT POL	24 FR	16 FR	X11
CAMERA: NK FILM: VHBW MAGAZINE: ZZ CAPACITY: 40 FR					
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
0:00		UNSCHEDULED	0 FR	40 FR	

11/20/72

2-23

TABLE 2-16

APOLLO 17 FILM BUDGET

LM					
CAMERA:	DCL	FILM: CEX	MAGAZINE: <u>A</u>	CAPACITY:	160 FR
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
110:30	12	LM/CM SEP	10 FR	150 FR	OPS
110:35	12	CABIN (OPT)	5 FR	145 FR	OPS
111:00	12	LDG SITE	5 FR	140 FR	OPS
112:35	13	EARTHRISE	5 FR	135 FR	OPS
116:40	LS	EVA-1	95 FR	40 FR	
CAMERA:	DCC	FILM: CEX	MAGAZINE: <u>B</u>	CAPACITY:	160 FR
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
116:40	LS	EVA-1	94 FR	66 FR	
CAMERA:	DCC	FILM: CEX	MAGAZINE: <u>C</u>	CAPACITY:	160 FR
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
139:20	LS	EVA-2	155 FR	5 FR	
CAMERA:	DCC	FILM: CEX	MAGAZINE: <u>D</u>	CAPACITY:	160 FR
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
139:20	LS	EVA-2	94 FR	66 FR	
CAMERA:	DCC	FILM: CEX	MAGAZINE: <u>E</u>	CAPACITY:	160 FR
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
163:40	LS	EVA-3	151 FR	9 FR	
CAMERA:	DCC	FILM: CEX	MAGAZINE: <u>F</u>	CAPACITY:	160 FR
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
163:40	LS	EVA-3	99 FR	61 FR	
CAMERA:	DCL	FILM: HBW	MAGAZINE: <u>G</u>	CAPACITY:	170 FR
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
116:40	LS	EVA-1	130 FR	40 FR	
CAMERA:	DCL	FILM: HBW	MAGAZINE: <u>H</u>	CAPACITY:	170 FR
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
139:20	LS	EVA-2	128 FR	42 FR	
CAMERA:	DCL	FILM: HBW	MAGAZINE: <u>I</u>	CAPACITY:	170 FR
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
139:20	LS	EVA-2	162 FR	8 FR	

LM					
CAMERA:	DCL	FILM: HBW	MAGAZINE: <u>J</u>	CAPACITY:	170 FR
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
139:20	LS	EVA-2	161 FR	9 FR	
CAMERA:	DCL	FILM: HBW	MAGAZINE: <u>K</u>	CAPACITY:	170 FR
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
139:20	LS	EVA-2	135 FR	35 FR	
CAMERA:	DCL	FILM: HBW	MAGAZINE: <u>L</u>	CAPACITY:	170 FR
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
163:40	LS	EVA-3	154 FR	16 FR	
CAMERA:	DCL	FILM: HBW	MAGAZINE: <u>M</u>	CAPACITY:	170 FR
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
163:40	LS	EVA-3	165 FR	5 FR	
CAMERA:	DCL	FILM: HBW	MAGAZINE: <u>N</u>	CAPACITY:	170 FR
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
163:40	LS	EVA-3	127 FR	43 FR	
CAMERA:	DAC	FILM: CEX	MAGAZINE: <u>O</u>	CAPACITY:	100%
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
110:30	12	LM/CM SEP	6%	94%	OPS
110:35	12	CABIN (OPT)	13%	81%	OPS
111:00	12	LDG SITE	6%	75%	OPS
112:50	13	DESCENT	75%	0%	OPS
CAMERA:	DAC	FILM: CEX	MAGAZINE: <u>P</u>	CAPACITY:	100%
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
113:02	LS	SURFACE OPT	100%	0%	
CAMERA:	DAC	FILM: CEX	MAGAZINE: <u>Q</u>	CAPACITY:	100%
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
188:03	51	ASCENT	100%	0%	
CAMERA:	DC5	FILM: HBW	MAGAZINE: <u>R</u>	CAPACITY:	170 FR
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
163:40	LS	EVA 3	50 FR	120 FR	

TABLE 2-16

NASA — MSC

2-24

10/23/72

CSM TO LM TRANSFER LIST (TLC)		
<u>CSM LOCATION</u>	<u>ITEM</u>	<u>LM LOCATION</u>
A2	JETTISON BAG	TEMP STOW
ICG	SCISSORS (1)	DATA FILE
CCU CABLE	CWG ELECT ADAPT W/CAP (2)	ON COMM CARRIER
ON CREW	COMM CARR (2)	ON CREW
R5	INFLIGHT STRAPS (4)	RAIL ABOVE 190 PK
R5	UTILITY STRAPS (3)	LHSSC
R13	70MM MAG (4) IN BAG	AFT RHSSC (BW-L, CEX-A,E & F)
R13	70MM MAG (3) IN BAG	AFT ENG COVER (BW-H&I,CEX-D)
R13	70MM MAG (3) IN BAG	FWD RHSSC (BW-G,CEX-B&C)
R13	16MM MAG (3) IN BAG	2-W/BAG IN ISA (P,Q) 1-WINDOW SEQ CAMR (0)
A8	70MM MAG (3) IN BAG W/DOS	AFT ENG COVER(BW-J,K,R)
A8	70MM MAG (2) IN BAG	RHSSC (BW-M,N)
R3	LM ACTIVATION C/L (2)	DATA FILE
A8	LGT WGT HEADSETS	LHSSC
A8	CWG'S (2)	AFT ENG COVER
A7	APK	AFT BLKHD
U4	MONOCULAR	RHSSC

MCC-H

1153 CST

FLIGHT PLAN

NOTES

39:00
(21111)
(1111)

PREPARE ITEMS PER CSM TO LM TRANSFER LIST

:10

O₂ HEATERS 1,2 - AUTO

V49 MNVR TO LM
CHECKOUT ATTITUDE
(39:30)

:20

(299,089,000)
HGA: P -30, Y 270

39:30

DIRECT O₂ VLV - OPEN
UNTIL CABIN PRESS
=5.7 PSIA, then CLOSE

S
T
D
N

:40

REMOVE TSB FROM
TUNNEL AND TEMP
STOW

:50

COUCHES: CDR - 0°, CMP - 0°, LMP - 180°
TUNNEL LIGHTS - ON
CM/LM PRESSURE EQUALIZATION (DECAL)
TUNNEL HATCH REMOVAL (DECAL)
PROBE REMOVAL (DECAL)
DROGUE REMOVAL (DECAL)
O₂ HEATERS 1,2 - OFF
O₂ HEATERS 3 - AUTO

40:00

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	39:00 - 40:00	3/TLC	3-38

FLIGHT PLANNING BRANCH

0753 CST

*PERFORM IF
MCC-4 IS REOD

LiOH CANISTER CHANGE
(9 INTO A, STOW 7 IN B6)
CONFIGURE FOR URINE DUMP
H₂ PURGE LINE HTRS - ON

P52 (OPTION 3)
(PTC ORIENT)
REPORT: GYRO TORQUING ANGLES

GDC ALIGN
*P30 EXTERNAL ΔV
*V49 MNVR TO PAD BURN ATT
*IF SPS MIDCOURSE REQUIRED
* PRE-SPS BURN SIM PREP (CUE CARD)

*SXT STAR CHECK
*P40 SPS THRUSTING OR P41 RCS THRUSTING

H₂ & O₂ FUEL CELL PURGE
WASTE WATER DUMP TO PERCENTAGE SPECIFIED BY STDN
SAMPLE BUSS'S (3) - STOW SAMPLES (3)
DUMP URINE FROM BUSS'S (3) - STOW
START NEW URINE COLLECTION PERIOD
H₂ PURGE LINE HTRS - OFF

TIG: 83:55

```
BT:  NOM ZERO
ΔVT: NOM ZERO
ULLAGE:  NONE
```

SIM EXP STATUS
(*0000)(31000)

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					OX
X	X	X					FUEL
X	X	X					UNBA

LATIG

BT

 v_{gx}

R

P

Y

 $\frac{1}{g_x}$

gy

gz

 ΔV_C

0X

FUEL

UNBAL

LOI -5 HR

FLIGHT PLANNING BRANCH

MCC-H

0853 CST

FLIGHT PLAN

NOTES

CMD
DATA SYS - ON
DSE RECORD

UPDATE
GO/NO-GO FOR
SIM DOOR JETT

UPDATE
CUE FOR IR - OFF

UPLINK
CSM S.V. & V66
(PRELIMINARY)
LOI TGT LOAD
(PRELIMINARY)
DESIRED ORIENT(LOI)

84:00
(21101)
(1111)

:10

:20

84:30

:40

:50

85:00

S
T
D
N

*V66 SET CSM S.V. INTO LM S.V.

*REPORT: BURN STATUS

V49 MNVR TO SIM DOOR JETTISON ATTITUDE (84:15)
(138,249,000) HGA P -48, Y 238

CSM EXP/EVA CHECKLIST

SIM DOOR JETTISON PAGE X/1-6 (TO STDN CUE)

GO/NO-GO FOR SIM DOOR JETTISON (CUE)

SIM DOOR JETTISON 84:25

V49 MNVR TO P52 ATTITUDE (84:50)
(273,292,330) OMNI A

cb O₂ TK 100W HTRS (1 & 2) - OPENO₂ HEATERS 1 & 2 - AUTOO₂ HEATER 3 - OFF

REPORT: LM/CM ΔP

IF ΔP < 0.2 PSID, LM TUNNEL VENT VLV - LM PRESS

IF ΔP > 0.2 PSID, PERFORM CM/LM PRESSURE EQUALIZATION (DECAL)

PRESS EQUAL VALVE - CLOSE

LM TUNNEL VENT VLV - LM PRESS

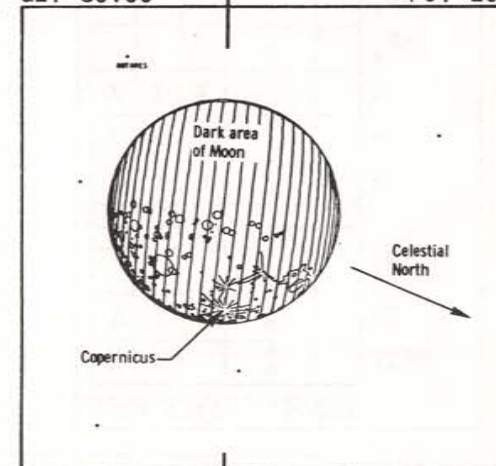
CHECK MISSION TIMER AGAINST CMC CLOCK

*PERFORM IF MCC-4
IS REQUIRED

SIM EXP STATUS
(*0000)
(31000)

GET=85:00

FOV=25°



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	CHANGE A (12/6)	11/20/72	84:00 - 85:00	5/TLC	3-76

FLIGHT PLANNING BRANCH

MCC-H

0953 CST

FLIGHT PLAN

NOTES

UPDATE
LOI MNVR PAD
(PRELIMINARY)
TEI 4 PAD
FLIGHT PLAN

85:00
(21101)
(1111)

:10

:20

85:30

:40

:50

86:00

S
T
D
N

CSM G&C CHECKLIST

EMS ΔV TEST & NULL BIAS CHECK PAGE G/2-5
REPORT: BIAS
CDR DON BIOMED HARNESS

LIMIT CYCLE - ON
ATT DEADBAND - MIN
RATE - LOW
BMAG (3) - ATT 1/RATE 2
SC CONT - SCS
P52 (OPTION 3)
(PTC ORIENT)

STARS _____,
SA _____,
TA _____,

REPORT: GYRO TORQUING ANGLES
P52 (OPTION 1)
(LOI ORIENT)

SC CONT - CMC
BMAG (3) - RATE 2
GDC ALIGN

CHECK CDR BIOMED
CMP DOFF BIOMED HARNESS

SIM EXP STATUS
(*0000)
(31001)

P52 IMU REALIGN

N71: _____,

N05: _____.

N93:

X _____.

Y _____.

Z _____.

GET _____:_____:

LOI REFSMMAT ATT
R 080, P 180, Y 316

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	CHANGE A (12/6)	11/20/72	85:00 - 86:00	5/TLC	3-77

FLIGHT PLANNING BRANCH

MCC-H

1053 CST

FLIGHT PLAN

NOTES

86:00
(21101)
(1111)

CONFIGURE CABIN FOR LUNAR ORBIT

SIM EXP STATUS
(*0000)
(31001)

:10

:20

86:30

:40

:50

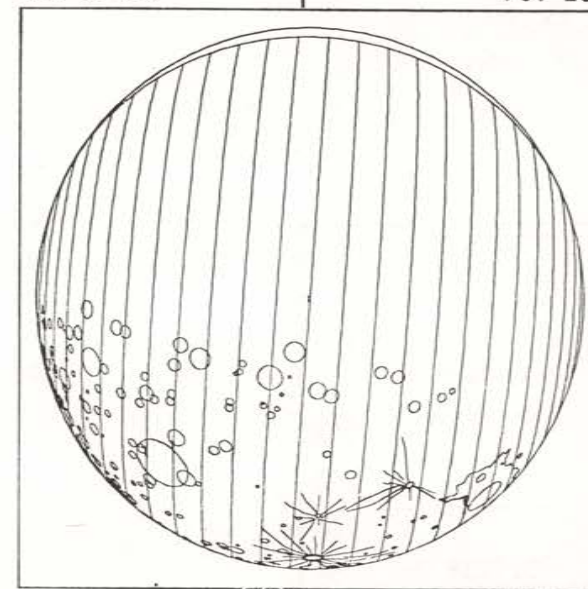
87:00

S
T
D
N

EAT PERIOD

GET=87:00

FOV=20°



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	86:00 - 87:00	5/TLC	3-78

FLIGHT PLANNING BRANCH

MCC-H

1153 CST

FLIGHT PLAN

NOTES

SIM EXP STATUS
(*0000)
(31001)

P52 IMU REALIGN

N71: __, __

N05: __. __

N93: __. __

X __. __

Y __. __

Z __. __

GET __: __: __

EAT PERIOD

MAN ROLL LEFT 30° TO R 050 HGA: P -32, Y 62
CMC MODE - FREE
UV COVER-OPEN

UV COVER-CLOSE
CMC MODE - AUTO
MAN ROLL RIGHT 30° TO R 080, OMNI A
P52 (OPTION 3)
(LOI ORIENT)

REPORT: GYRO TORQUING ANGLES

GDC ALIGN

CSM SYSTEMS CHECKLIST

PRE-LOI SECONDARY GLYCOL LOOP CHECK PAGE S/1-19
C/W SYSTEM OPERATIONAL CHECK PAGE S/1-20
SPS MONITORING CHECK PAGE S/1-1
SM RCS MONITORING CHECK
CM RCS MONITORING CHECK
ECS MONITORING CHECK PAGE S/1-5
OXIDIZER FLOW VALVE INCR - NORM (VERIFY)

PRE-SPS BURN SIM PREP (CUE CARD)

UPDATE
LOI MNVR PAD
MAP UPDATE REV 1
(88:20)

UPLINK
CSM S.V. & V66
LOI TGT LOAD

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	CHANGE A (12/6)	11/20/72	87:00 - 88:00	5/TLC	3-79

FLIGHT PLANNING BRANCH

P30 MANEUVER

SET STARS	L	O	I				PURPOSE
	S	P	S/G	&	N		PROP/GUID
	+						WT N47
R ALIGN _____		0	0				P TRIM N48
P ALIGN _____		0	0				Y TRIM
Y ALIGN _____	+	0	0				HRS GETI
	+	0	0	0			MIN N33
	+	0					SEC
ULLAGE _____							ΔV_X N81
_____							ΔV_Y
_____							ΔV_Z
	X	X	X				R (000)
	X	X	X				P (000)
	X	X	X				Y (000)
	+						H _A N44
							H _P
	+						ΔVT
HORIZON/WINDOW _____	X	X	X				BT
_____	X						ΔVC
_____	X	X	X	X			SXTS
_____	+					0	SFT
_____	+				0	0	TRN
	X	X	X				BSS
	X	X					SPA
	X	X	X				SXP

10/23/72

3-80

CSM FLIGHT PLAN

$$\begin{pmatrix} 21101 \\ 1111 \end{pmatrix}$$

REV 3

:10

$$\begin{pmatrix} 21101 \\ 1111 \end{pmatrix}$$

:20

93:30

SIM EXP STATUS
(*0000)
(31011)

NOTE: DOI-1 WILL BE
PERFORMED ON
BANK A ONLY

DOI-1 (000,195/225,000)

TIG: 93:13:08.5
BT: 22.9 SEC
ΔVT: 198.7 FEET/SEC
ULLAGE: 4 JET 15 SEC
ORBIT: 59 X 15 NM

P00

V66 SET CSM S.V. INTO LM S.V.

DELAY POST-SPS BURN SIM
PREP UNTIL 94:10

V49 MNVR TO LDMK OBS ATT (93:34) * V49 MNVR TO BAILOUT BURN ATT *
 (020,293,000) * (000,005,000) *
 SET HGA MAN P +9, Y 338 REACQ, * SET HGA MAN P -52, Y 331 *
 NARROW FOR AOS * REACQ, NARROW FOR AOS *

DOI-1 BURN TABLE

SPS LIMITS	P OR Y RATES	ATT DEVIATIONS	SHUTDOWN TIME	RESIDUALS	MANUAL
TIGHT	10°/SEC	+10°	BT	*TRIM BURNS IN X TO WITHIN +1 FPS, DO NOT TRIM Y & Z	NO MANUAL START NO RESTART

*IF OVERBURN IS > 2.2 FPS AND < 10 FPS PITCH
180° AND TRIM WITH +X RCS THRUSTERS, IF > 10
FPS USE SPS

BALL VLV FAILURE - START ON SUSPECT BANK

BURN STATUS REPORT

[illegible]

MISSION	EDITION	DATE	PAGE
APOLLO 17	CHANGE A (12/6)	11/20/72	3-89

CSM FLIGHT PLAN

93:30
(21101)
(1111)

AOS-NO UP VOICE PROCEDURE
1. WAIT 30 SEC, CHECK HGA
2. SELECT OMNI C
3. SELECT SEC XPNDR
4. AFTER 3 MIN GO TO LOSS
* OF COMM CUE CARD*

SIM EXP STATUS
(*0000)
(31011)

ACQ STDN HGA P +9, Y 338 NOTE: IF UNABLE TO LOCK UP
HGA, GO TO OMNI C

CMDS:
DSE DUMP

REPORT: BURN STATUS

LOAD N89 (J-3 OBS)

UPDATE:
STAY/BAILOUT

P24 (ORB NAV MONITOR LDMK)(TAKE MARKS)

OPT ZERO - OFF
OPT MODE - CMC
OPT TEL TRUN - SLAVE TO SXT
OPT COUPLING - RSLV
OPT SPEED - HIGH

* SC CONT - SCS
* P47 THRUST MONITOR

* BAILOUT BURN (000,083/005,000)

* : : *

* P00

* V66 SET CSM
S.V. INTO LM
S.V.

TIG: 93:46:55
BT: 11.05 SEC
ΔVC: 100.0 FEET/SEC
ULLAGE: 4 JET 17 SEC
ORBIT: 62.0 X 7.8 NM

LDMK ACQUISITION

TCA

RELOAD P24

LOAD N89 (17-1 OBS)

N89 (+20.160)(+15.405)(-001.96)

:40

:50

94:00

MAP UPDATE REV 3

AOS WITHOUT BURN : : :

AOS WITH BURN : : :

LDMK J-3 OBS

T HOR : : :

TCA -20 SEC : : :

LAT: + 19.948
LONG/2: + 20.051
ALT: +000.00

MISSION	EDITION	DATE	PAGE
APOLLO 17	CHANGE A (12/6)	11/20/72	3-90

CSM FLIGHT PLAN

107:30
(P20)
(2.0°DB)
(21101)
(1111)

SIM EXP STATUS
(-0000)
(01000)

V45 (RESET LUNAR SURFACE FLAG)
P00

P52 (OPTION 3)
(LDG SITE ORIENT)

REPORT: GYRO TORQUING ANGLES

GDC ALIGN
V49 MNVR TO UNDOCK ATT (107:48)
(000,105,000)
HGA P -30, Y 202

P52 IMU REALIGN

N71: _____

N05: _____

N93: _____

X _____

Y _____

Z _____

GET _____

:40

:50

CMDS: (AOS +58 MIN)
DSE REWIND

PGA INTERCONNECTS - A8 TO TSB
CMP DON BIOMED HARNESS, PGA WITHOUT
HELMET AND GLOVES

CDR & LMP IVT TO LM

CMDS: (AOS +66 MIN)
DSE RECORD

VERIFY DSE TAPE MOTION (LBR/RCD/FWD/CMD RESET)
SET HGA MAN P -30, Y 202 AUTO, NARROW FOR AOS

108:00

CSM TO LM TRANSFER LIST

CSM LOCATION	ITEM	LM LOCATION
A2	JETTISON BAG (1)	TEMP STWG
ON CREW	BIO INSTRUMENTATION (2)	ON CREW
PGA BAG	UCTA (2)	ON CREW
A2	FCS (2)	ON CREW
U1	LCG (2)	ON CREW
TEMP STWG	DRINK BAG (2)	ON PGA
TEMP STWG	FOOD STICK (2)	ON PGA
PGA BAG	SUIT ITSLA-EV (2)	ON CREW
ICG	SUNGLASSES IN POUCH (2)	PGA POCKET
ON CREW	WATCH/WATCHBAND (2)	ON PGA
ON CREW	PEN (2)	PGA POCKET
ON CREW	PEN - FELT TIP (2)	PGA POCKET
ON CREW	PENCIL (2)	PGA POCKET
ON CREW	POCKET, C/L & SCISSOR (2)	ON PGA
ON CREW	POCKET, DATA (2)	ON PGA
ON CREW	SCISSOR (1)	LMP POCKET
ON CREW	PEN LIGHT (2)	PGA POCKET
ON CREW	EAR PLUG (2 PR)	PGA POCKET
ON CREW	DOSIMETER - PERSONAL (2)	PGA POCKET
	PASSIVE (6)	
ON CREW	PLIERS/SCREWDRIVER (2) - CDR	PGA POCKET
ON CREW	SILICONE LUBE - CDR	PGA POCKET
ON CREW	CONTINGENCY SAMPLE BAG - CDR	PGA POCKET
ON CREW	HAND LENS - LMP	PGA POCKET
ON CREW	COMM CARRIER (2)	ON CREW
HELMET ACC BAG	IV GLOVES (2 PR) - CDR TRANSFER	TEMP STWG
HELMET BAG	HELMET (2) - CDR TRANSFER	TEMP STWG
CCU CABLE	CWG ELECT ADPTR W/CAP (2)	LHSSC
IN JETT BAG	LCG PLUG (2)	PURSE
ON PGA	GAS CONNECTOR PLUGS (4)	ON PGA
ON PGA	PGA ELECT CONN CAP (2)	PURSE
A8	LIGHTWEIGHT HEADSETS (2)	LHSSC
R3	LM XFER DATA CARD KIT	DATA FILE
	LM TIMELINE BOOK	
	LM DATA CARD BOOK	
	LM LUNAR SURFACE C/L	
	ORBIT MONITOR CHART (LM)	
	ASCENT MONITOR CHART	
	LM STAR CHARTS (3)	
	LM ACT C/L (1)	
	(RETURN JETTISON BAG TO CSM)	

MISSION	EDITION	DATE	PAGE
APOLLO 17	CHANGE A (12/6)	11/20/72	3-107

LM FLIGHT PLAN

MCC-H

0853 CST

CDR

LMP

NOTES

108:00

:10

REV 11

:20

108:30

:40

:50

(32022)

109:00

IVT TO LM

MISSION TIMER ACTIVATION

CONNECT TO LM ECS
CB ACTIVATION
ACTIVATE RCS HEATERS

PGNS TURN ON AND SELF TEST

LGC/CMC CLOCK SYNC
T EPHEM UPDATE

SET DAP
E-MEMORY DUMP
LDG GEAR DEPLOY

TRANSFER POWER
LIGHTS ON
DES O₂ AND H₂O - OPEN

EPS ACTIVATION
CONNECT TO LM COMM

PRIMARY GLYCOL LOOP ACT
CAUTION/WARNING CHECKOUT
ECS ACTIVATION & CHECKOUT

CONNECT TO LM ECS
CB ACTIVATION

VHF CHECKOUT
RECORDER - ON

SUIT FAN/H₂O SEP CHECK
GLYCOL PUMP CHECK

PRIM S-BAND CHECK
STEERABLE ANTENNA ACTIVATION
SEC S-BAND CHECK
BIOMED - RIGHT

-2:00

-1:30

UPDATE TO LM
AGS ABORT CONSTANTS
DOI-2 PAD
UPLINK TO LM
L/S REFSMMAT
LM S.V. & V66
LGC ABORT CONST
LGC ΔT CLOCK SYNC
(IF REQ)

↑
S
T
D
N
↓

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	CHANGE A (12/6)	11/20/72	108:00 - 109:00	6/10-11	3-108

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN

116:00-
(P20)
(0.5°DB)
(11101)
(1111)

REV 15

:10.

:20

116:30

IR - ON
UV - ON
MC - STBY
IMAGE MTN - ON
MC - ON (164°W)
IMAGE MTN - INCR (BP +4 STEPS)/ON
LA - ON
PC SELF TEST - HTRS

PREPARE FOR ORBITAL SCIENCE VISUAL
LANDING SITE (CM5)

HGA PWR - ON
SELECT HGA

```
PC: STBY
    STEREO
    PWR
CONFIGURE DSE (STOP/CMD RESET/REWIND)
```

SIM EXP STATUS
(+1111)
(01000)

116:30 -
(P20)
(0.5°DB)
(11101)
(1111)

:40

:50

117:00

ACQ STDN HGA: MAN, WIDE P -10, Y 25
S-BD ANT IND >1/2 SCALE HGA: REACQ, NARROW
PC - OPR (T START)

SIM EXP STATUS
(+1111)
(22011)

PAN CAMERA PHOTO PAD

T-START: _ _ _ : _ _

T-STOP: _____
(102°E TO 14°E)

CUE: (~AOS +7 MIN)
HGA: AUTO
CMDS:
DSE PLAYBACK

UPDATE:
FLIGHT PLAN

ORBITAL SCIENCE VISUAL
LANDING SITE (CM5)

PC - STBY (T STOP)(_____:_____:_____)
PC - OFF (CUE)

MISSION	EDITION	DATE	PAGE
APOLLO 17	CHANGE A (12/6)	11/20/72	3-133

LM FLIGHT PLAN

MCC-H

1753 CST

CDR

LMP

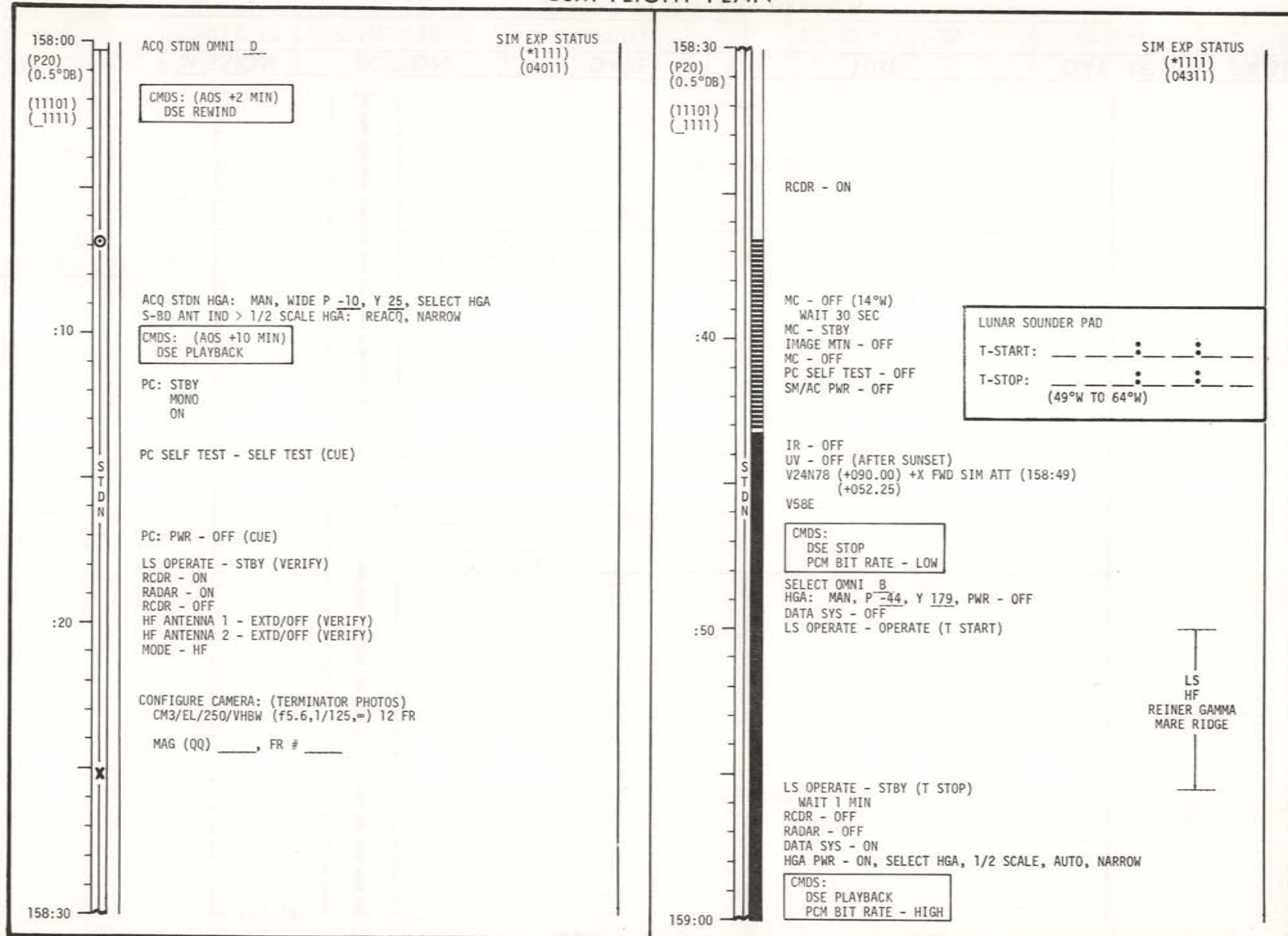
NOTES

117:00		LRV DEPLOY		+0:20
:10				+0:30
		LRV SETUP		
:20		LRV TEST DRIVE	LM AREA DESCRIPTION & PHOTOS	+0:40
117:30	S T D N	LRV FRONT CONFIGURATION	LRV AFT CONFIGURATION	+0:50
:40		LRV ANTENNA CONFIGURATION		+1:00
			LRV MISC EQUIP STOW	
:50		LRV TV CONFIGURATION		+1:10
	T I V	SRC 1 CONFIGURATION	FLAG DEPLOY	
118:00				

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	PRELIM (8/28)	10/23/72	117:00 - 118:00	6/15	3-134

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	CHANGE A (12/6)	11/20/72	3-217

LM FLIGHT PLAN

MCC-H

1153 CST

CDR

LMP

NOTES

STAY/NO-STAY FOR
EVA-3

UPDATE TO LM
LIFT-OFF TIMES FOR
REVS 38-43

159:00
:10
:20
159:30
:40
:50
160:00

S
T
D
N

REST PERIOD
(8 HOURS)

POST SLEEP

REPORT: CREW STATUS

CSM REV 37

PLSS O₂ TOP OFF

EAT PERIOD

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	159:00 - 160:00	8/36-37	3-218

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN

180:00
(P20)
(2.5°DB)
(11101)
(1111)

SIM EXP STATUS
(*0011)
(01011)

:10

PC: MODE - STBY
PWR - ON

TERMINATE JET-ON MONITOR
P30
P20
V21N26 (00000)

UPLINK:
CSM S.V.
SPS BURN CONSTANTS
LOPC TGT LOAD
DESIRED ORIENT (LOPC)

PC: PWR - OFF (CUE)

UPDATE:
FLIGHT PLAN
LOPC MNVR PAD (182:15)
(COPY ATT AT 180:42 ALSO)

:20

CONFIGURE FOR URINE DUMP

(11101)
(1111)

CMC MODE - FREE
POO
CMC MODE - AUTO
LIMIT CYCLE - ON
ATT DEADBAND - MIN
RATE - LOW

NOTE: DO NOT STOP ORB
RATE EARLY
(AVOID GIMBAL
LOCK PROBLEMS)

180:30

180:30
(11101)
(1111)

SIM EXP STATUS
(*0011)
(01011)

BMAG (3) - ATT 1/RATE 2
SC CONT - SCS
P52 (OPTION 3)
(LDG SITE ORIENT)

STARS _____

SA _____

TA _____

REPORT: GYRO TORQUING
ANGLES

P52 (OPTION 1)
(LOPC ORIENT)

(125,154,317) ON LOPC ORIENT
SC CONT - CMC
BMAG (3) - RATE 2
GDC ALIGN

:40

V49 MNVR TO LOPC BURN PAD ATT (180:57)

P52 IMU REALIGN

N71: _____

N05: _____

N93: _____

X _____

Y _____

Z _____

GET _____

IR COVER - CLOSE

O₂ FUEL CELL PURGE

WASTE WATER DUMP
SAMPLE BUSS (1) - STOW SAMPLE (1)
DUMP URINE FROM BUSS (1)
START NEW URINE COLLECTION PERIOD

:50

CMDS: (AOS +65 MIN)
DSE REWIND

CONFIGURE DSE (HBR/RCD/FWD/CMD RESET) (AOS +73 MIN)

SET HGA: MAN, P -63, Y Z, AUTO, NARROW, FOR AOS

181:00

MISSION	EDITION	DATE	PAGE
APOLLO 17	CHANGE A (12/6)	11/20/72	3-261

LM FLIGHT PLAN

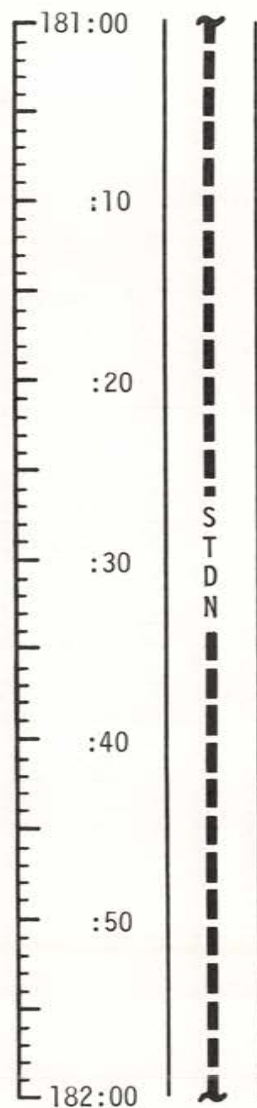
MCC-H

0953 CST

CDR

LMP

NOTES



REST PERIOD
(8 HOURS)

CSM REV 48

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	181:00 - 182:00	9/47-48	3-262

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN

182:30
(P40)
(0.5°DB)
(11101)
(1111)

UPDATE:
GO/NO-GO FOR LOPC

SIM EXP STATUS
(*0000)
(31 000)

LOPC (000,000,315)

TIG: 182:35:45.3
BT: 18.7 SEC
ΔVT: 336.7
ULLAGE: 4 JET 12 SEC
ORBIT: 63.0 X 61.3

POO
REPORT: BURN STATUS

POST-SPS BURN SIM PREP (CUE CARD)

UPLINK:
DESIRED ORIENT (LIFT-OFF)
RLS (IF REQD)

V48 (11101) IF A/C ROLL NOT SELECTED
(11111)

INHIBIT ALL JETS EXCEPT:

A1,C2,A3,C4,B3 & D4
MC/LA COVER - OPEN
MC - EXTD

P20, OPT 5 (+X FWD SIM ATT)(183:00)

N78 (+090.00)
(+052.25)
(+180.00)
N79 (+002.50)

(097,000/068,019)

```
CMDS:
DSE REWIND
```

UPDATE:
PAN CAMERA PHOTO PAD (183:45)

CMDS:
DSE RECORD

VERIFY DSE TAPE MOTION (HBR/RCD/FWD/CMD RESET)

SET HGA: MAN, WIDE P -10, Y 25 FOR AOS

LOPC BURN TABLE

SPS LIMITS	P OR Y RATES	ATT DEVIATION	MANUAL START ACTION	OVERBURN SHUTDOWN CRITERIA	RCS TRIM GUIDELINES
TIGHT	10°/SEC TERMINATE	+10° TERMINATE	NO MANUAL START NO RESTART	BT + 1 SEC	TRIM Vgy TO 0.2 FPS, IF -Vgy ROLL 90° LEFT USE -Z THRUSTERS

NOTES: BALL VLV FAILURE - START ON SUSPECT BANK
Shut down good bank to verify; reenale

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						Ox
X						FUEL
X						UNBAL

LM FLIGHT PLAN

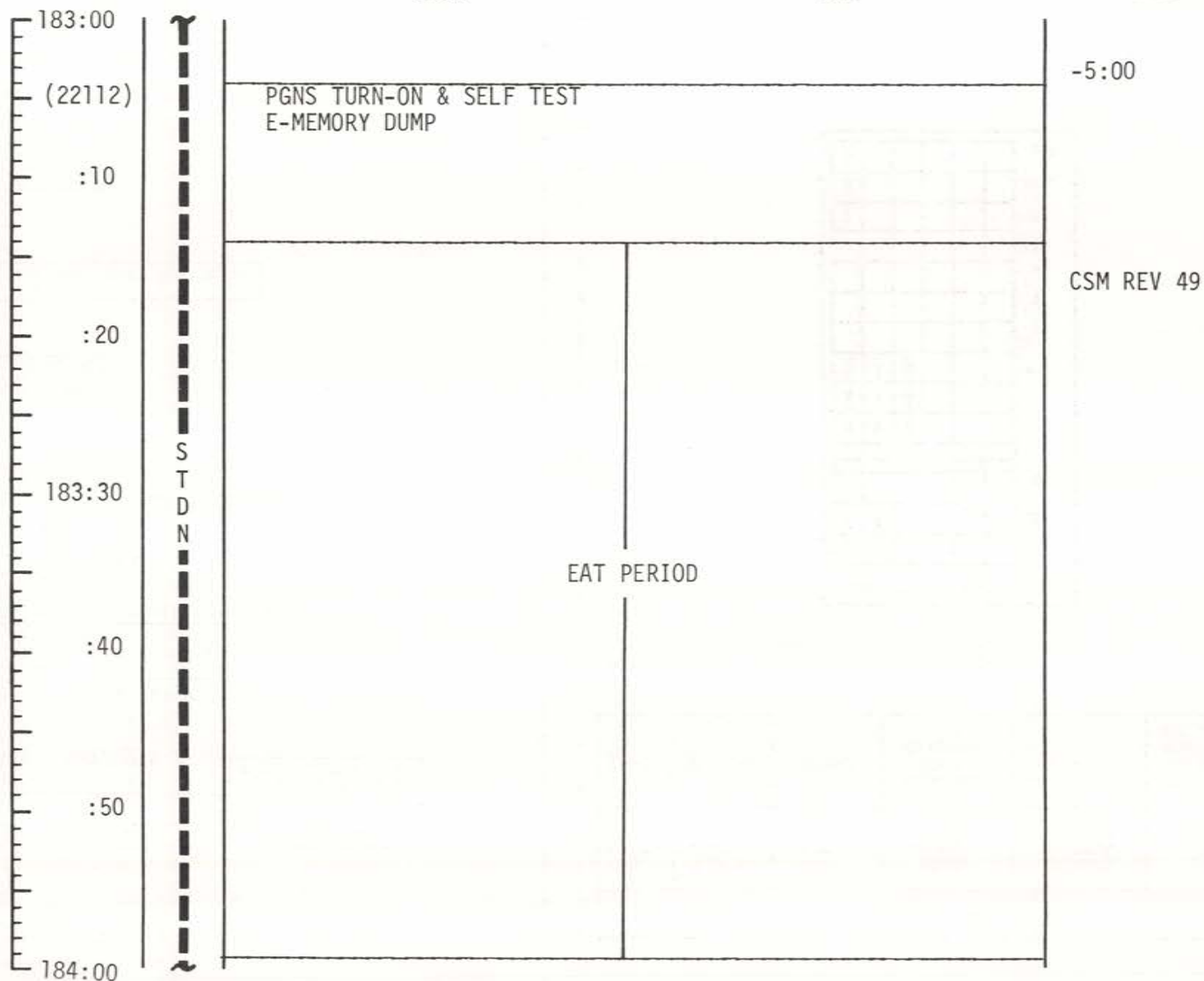
MCC-H

1153 CST

CDR

LMP

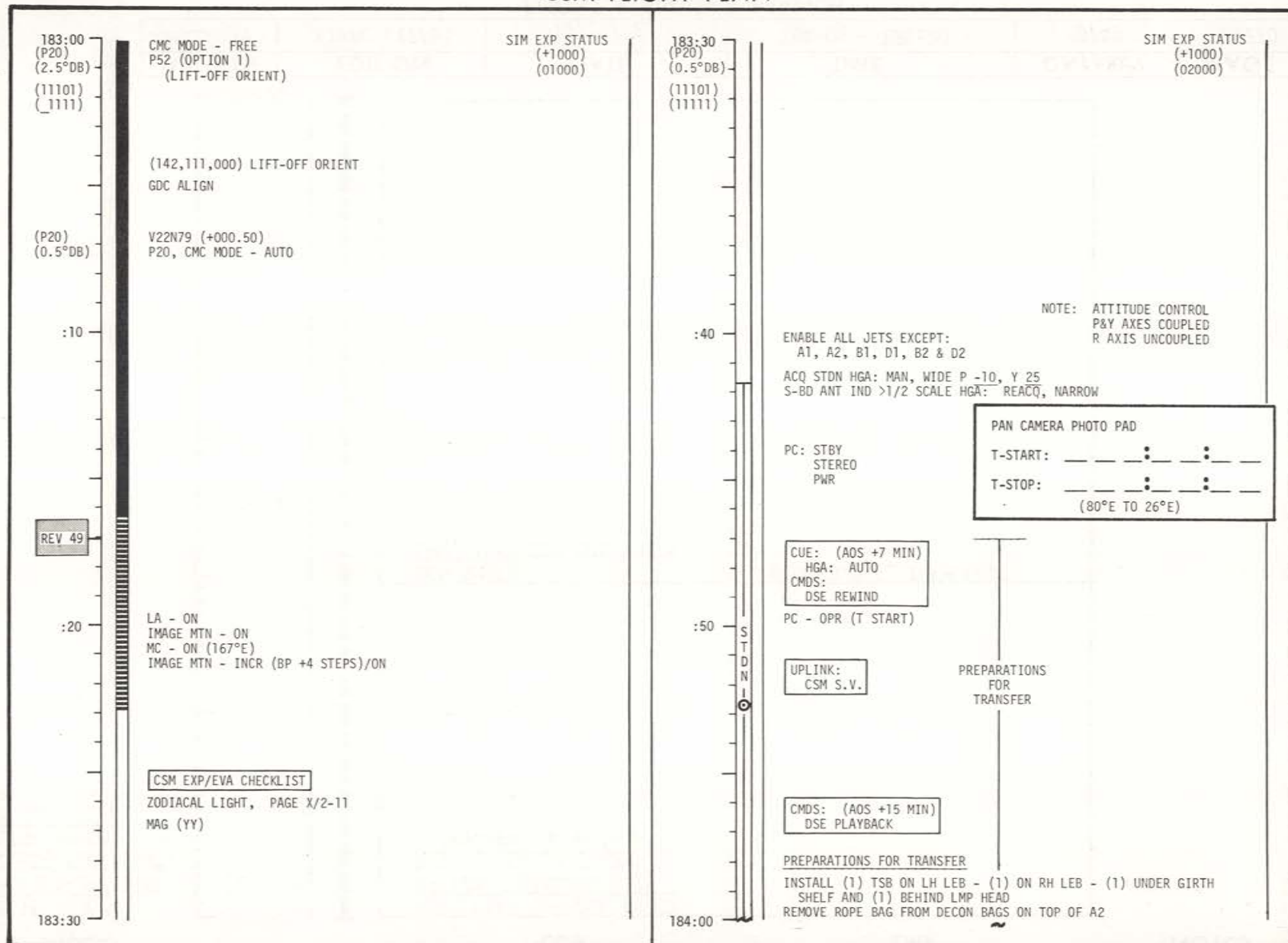
NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	183:00 - 184:00	9/48-49	3-268

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	CHANGE A (12/6)	11/20/72	3-269

LM FLIGHT PLAN

MCC-H

1253 CST

CDR

LMP

NOTES

UPDATE TO LM
P57 LIFT-OFF TIME
P22 ACQ TIME (28°)
UPLINK TO LM
CSM S.V. (L/O)
RLS

184:00
(22112)

:10

:20

184:30

:40

:50

185:00

S
T
D
N

P57 LUNAR SURFACE ALIGN
OPTION 4 LANDING SITE
A/T 3, PLUS 4 STARS
(LIFT-OFF ORIENT)

DON SUITS
LMP, THEN CDR DON SUITS

BIOMED-OFF, THEN LEFT

-4:00

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	184:00 - 185:00	9/49	3-270

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN

192:00
(61111)
(1111)

SIM EXP STATUS
(*0000)
(01011)

:10

UPDATE:
DAP LOAD - UPDATE WEIGHTS
LM JETTISON PAD
FLIGHT PLAN

V48 LOAD CSM & LM WEIGHTS

CSM WT	+						
LM WT	+						

UPLINK:
CSM S.V. (CSM SEP-10)

:20
(61101)
(1111)

V48 (61101)
(1111)

CONTINUE EQUIP & SAMPLE TRANSFER

LM JETTISON PAD							
+	0	0				HRS	GET1
+	0	0	0			MIN	N33
+	0					SEC	
X	X	X				R (020)	N22
X	X	X				P (007)	
X	X	X				Y (349)	

192:30

192:30
(61101)
(1111)

SIM EXP STATUS
(*0000)
(01011)

:40

UPDATE:
GO/NO-GO FOR LM CLOSEOUT

CMDS:
DSE RECORD

:50

VERIFY DSE TAPE MOTION (HBR/RCD/FWD/CMD RESET)

TRANSFER CM JETTISON ITEMS TO LM

NOTICE

NO URINE/FECES
ALL OPEN FOOD MUST
BE TREATED AND
STORED IN BETA BAG

193:00

MISSION	EDITION	DATE	PAGE
APOLLO 17	CHANGE A (12/6)	11/20/72	3-299

MCC-H

2153 CST

LM FLIGHT PLAN

CDR

LMP

NOTES

193:00
(12021)

IVT TO CSM

3:00

:10

CLOSE HATCH, IVT TO CSM

LM CLOSEOUT

REV 54

:20

193:30

:40

S
T
D
N

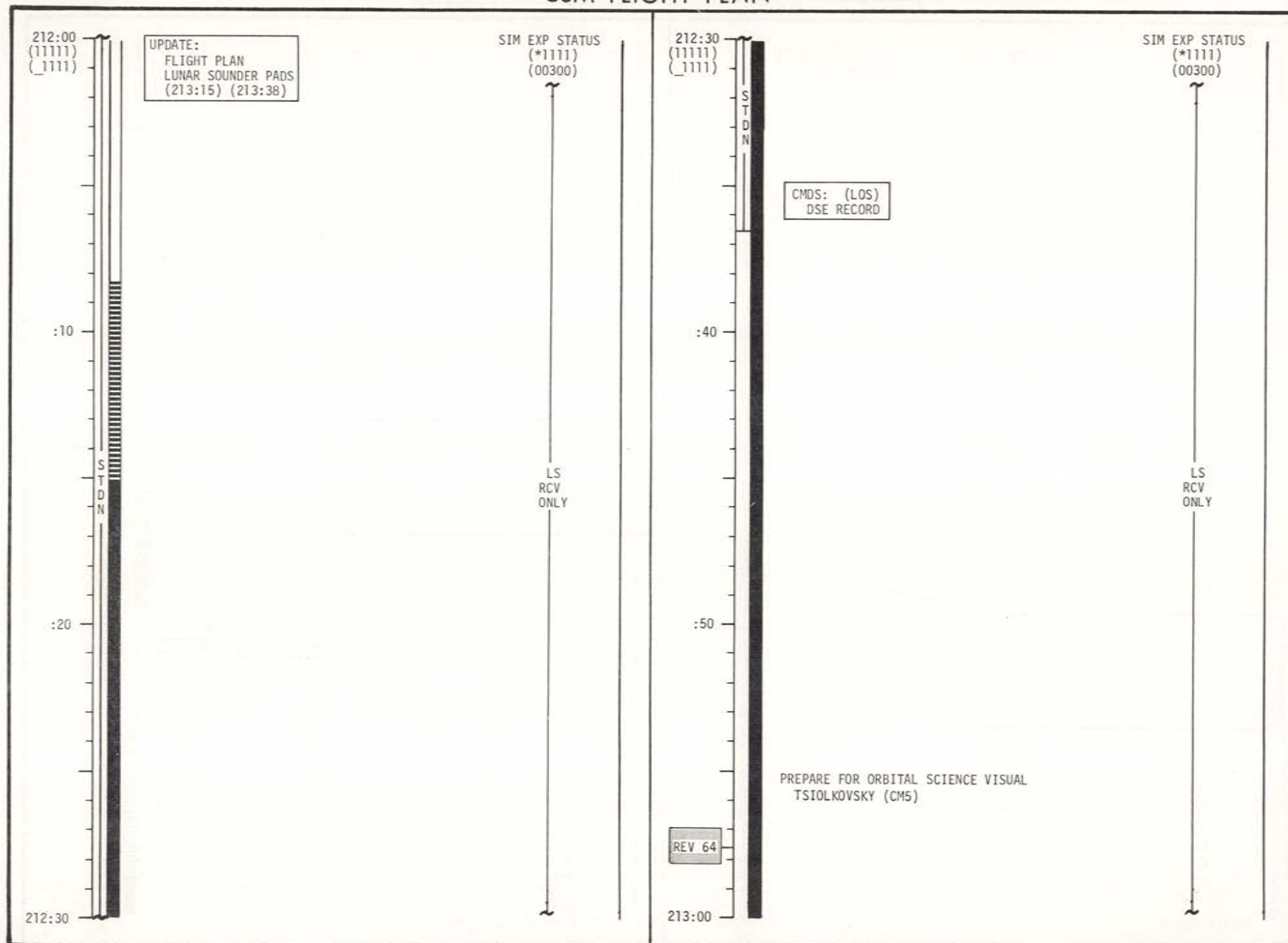
:50

194:00

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	193:00 - 194:00	9/53-54	3-300

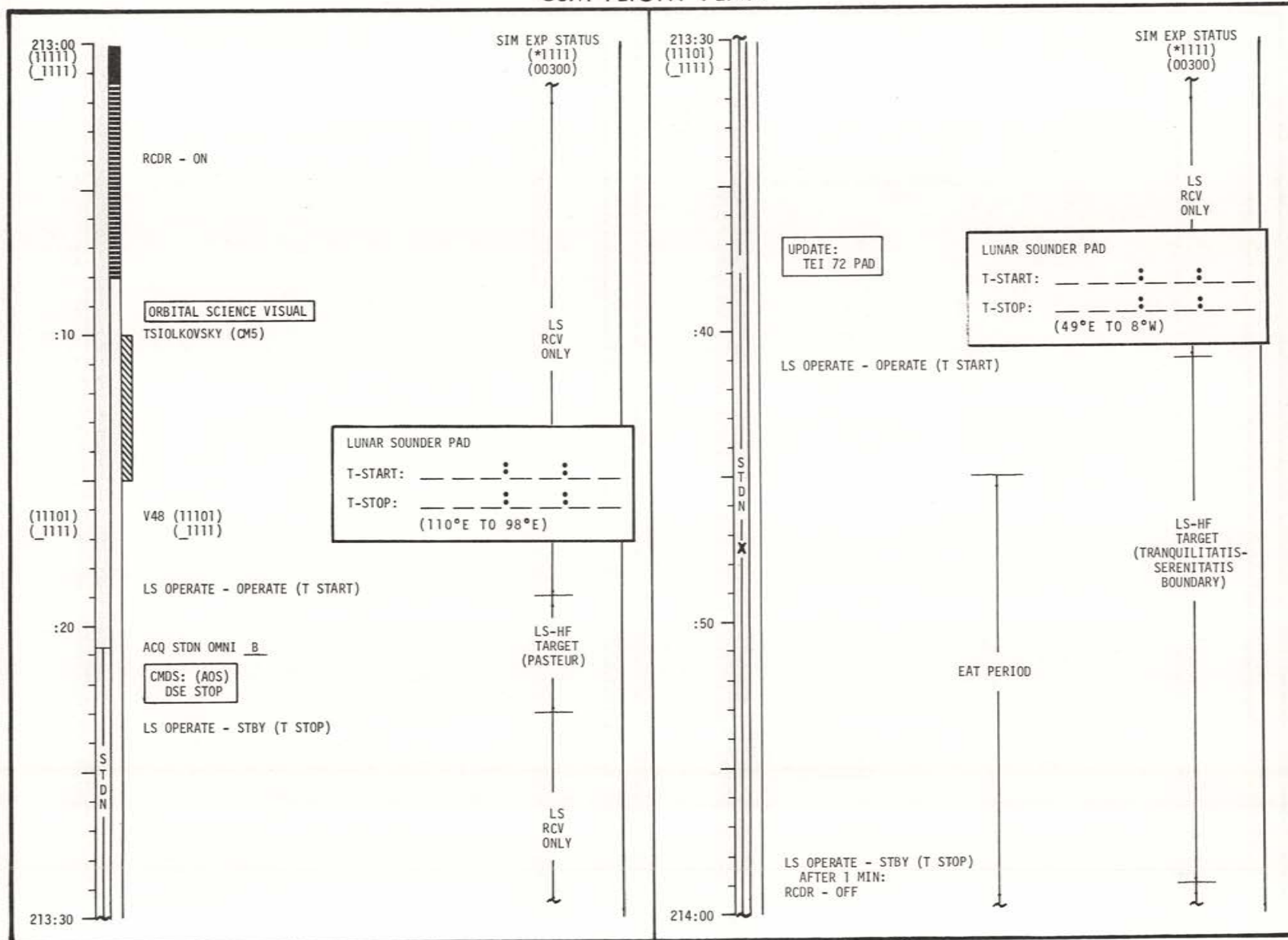
FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



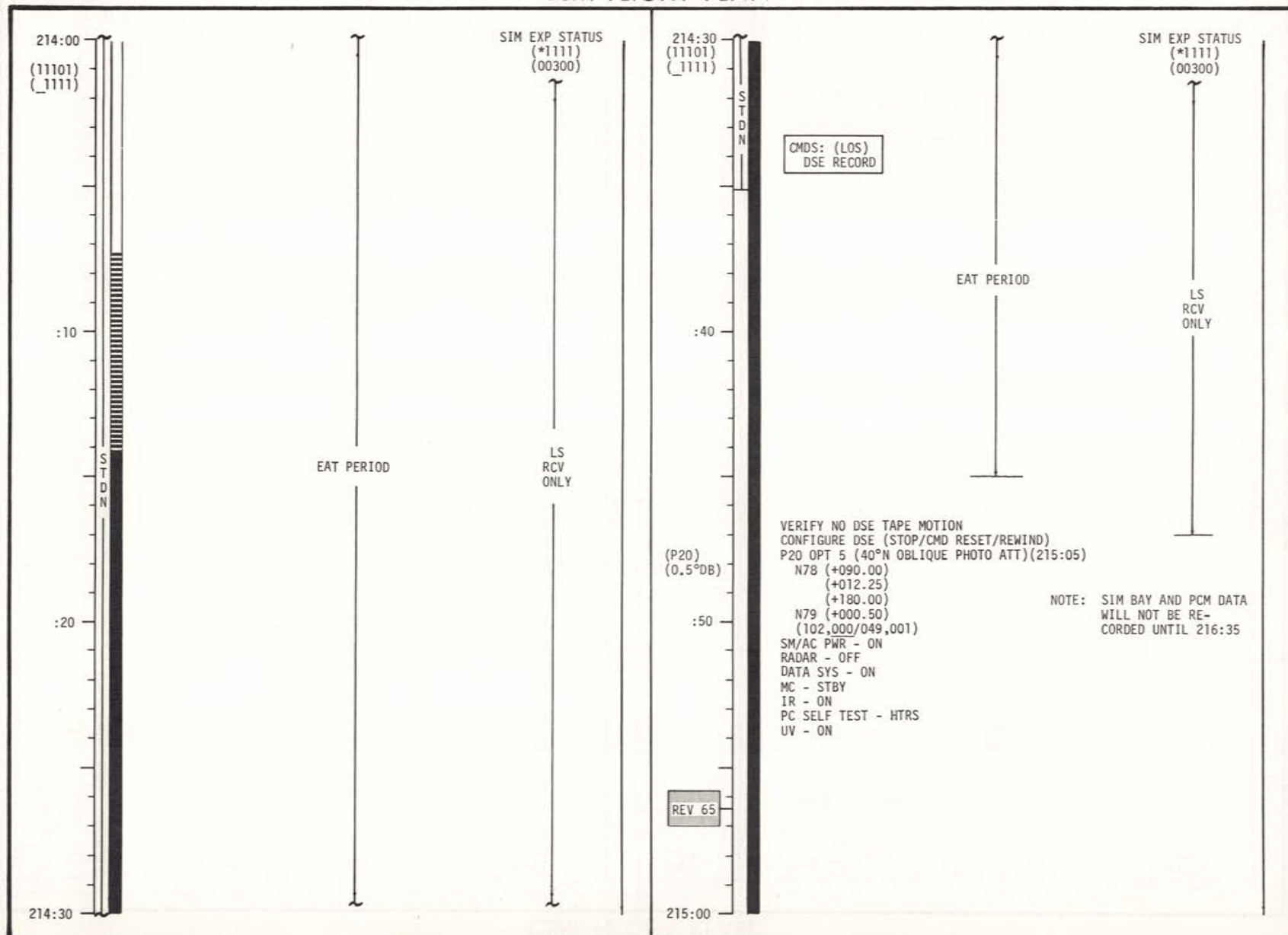
MISSION	EDITION	DATE	PAGE
APOLLO 17	CHANGE A (12/6)	11/20/72	3-321

CSM FLIGHT PLAN



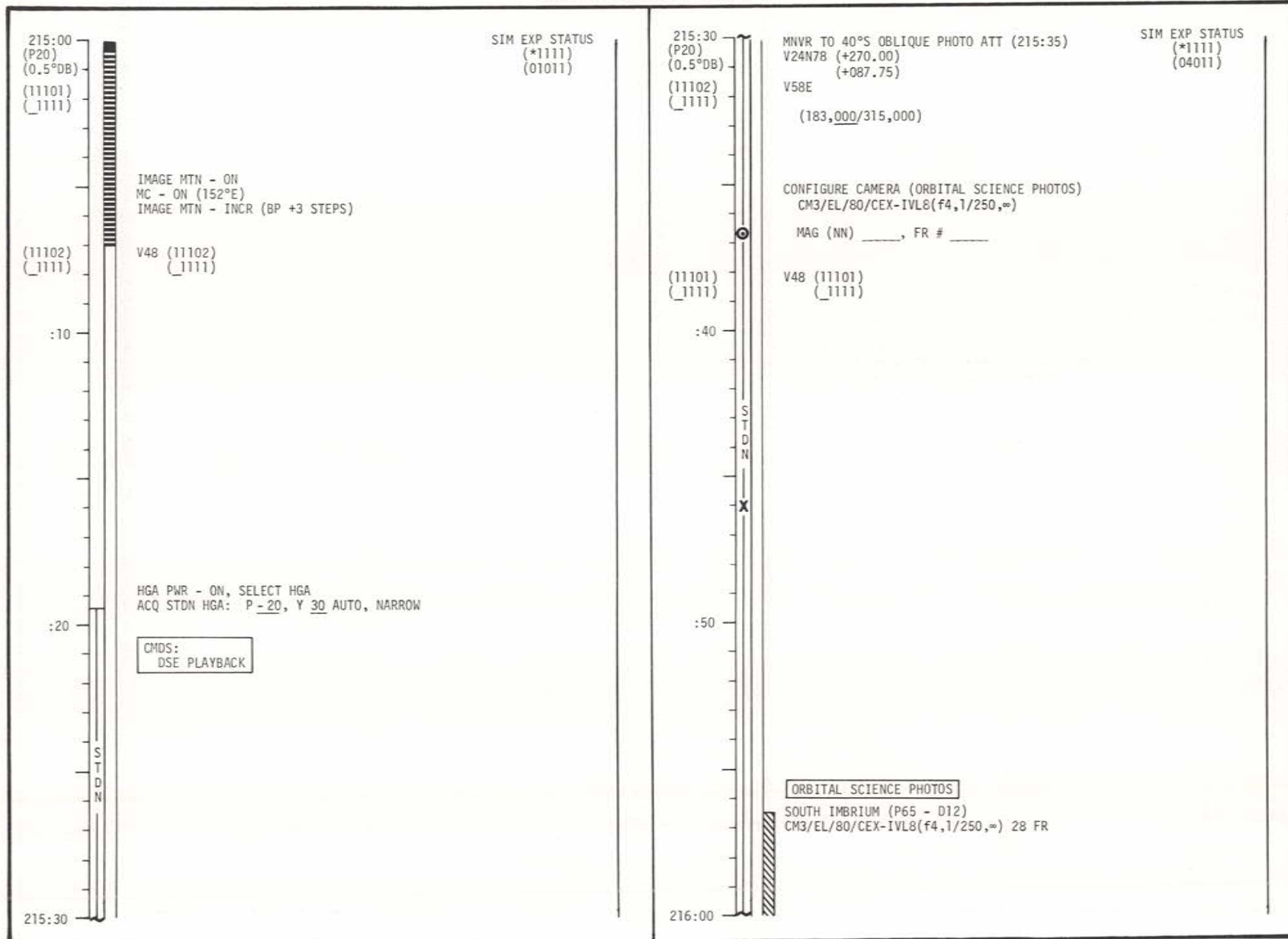
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-322

CSM FLIGHT PLAN



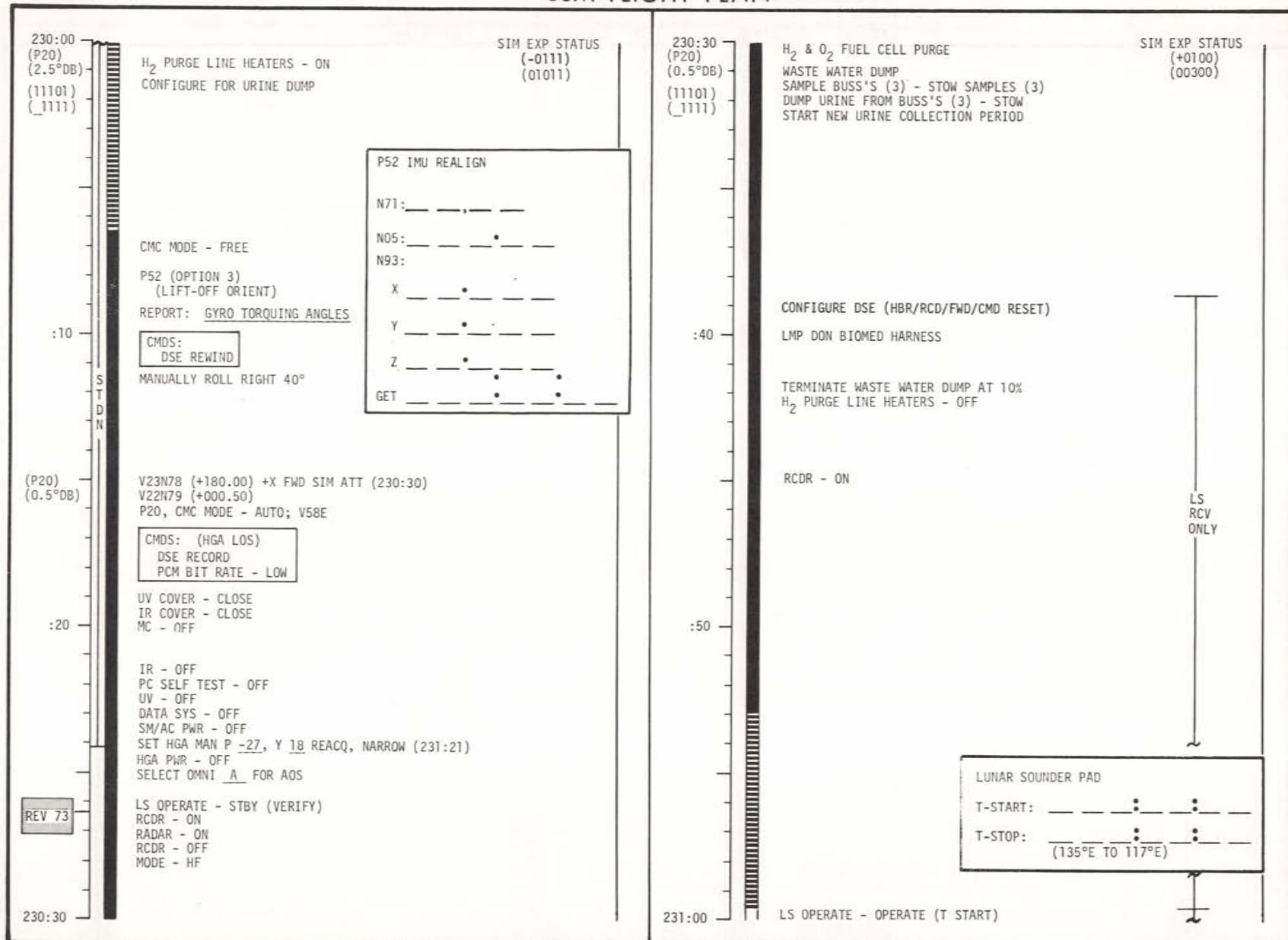
MISSION	EDITION	DATE	PAGE
APOLLO 17	CHANGE A (12/6)	11/20/72	3-323

CSM FLIGHT PLAN



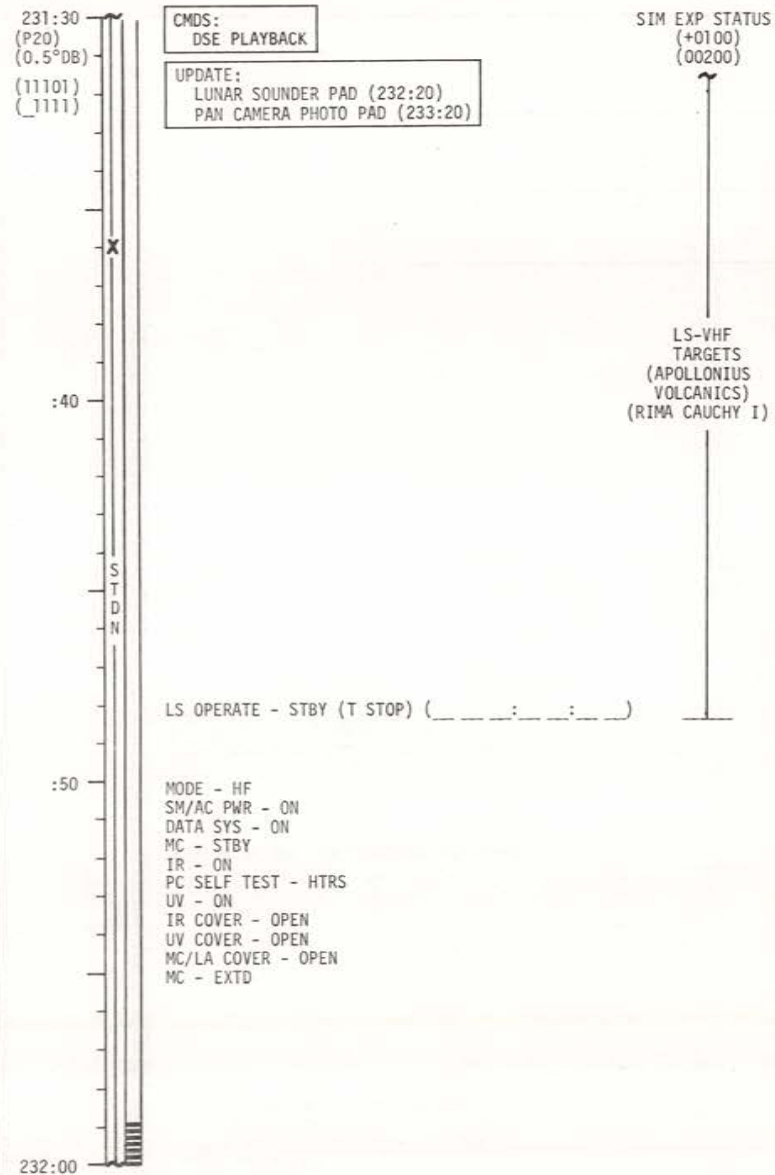
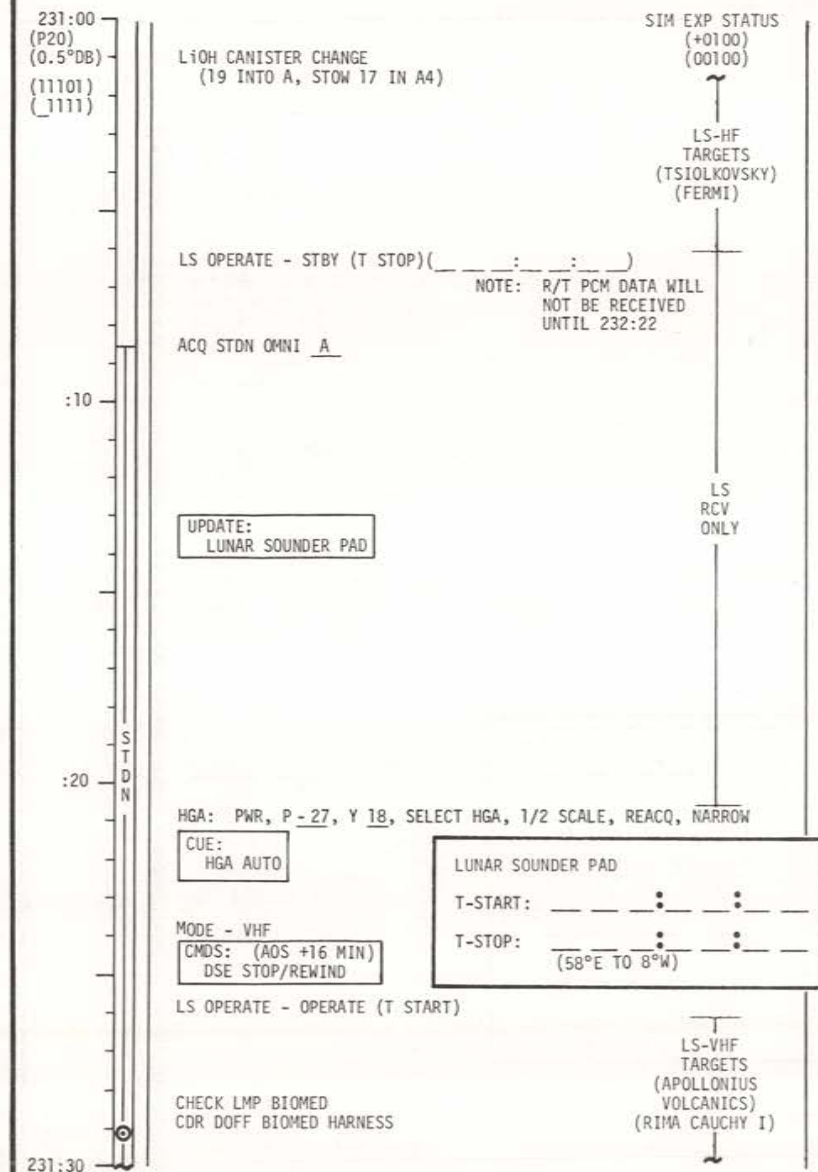
MISSION	EDITION	DATE	PAGE
APOLLO 17	CHANGE A (12/6)	11/20/72	3-324

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	CHANGE A (12/6)	11/20/72	3-339

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	CHANGE A (12/6)	11/20/72	3-340

CSM FLIGHT PLAN

235:30
(P20)
(2.5°DB)

(11101)
(1111)

UPLINK:
CSM S.V. & V66
TEI 75 TGT LOAD

UPDATE:
TEI 75 PAD (235:45)
TEI 76 PAD
MAP UPDATE REV 76 (236:50)

CSM SYSTEMS CHECKLIST

WIPE EXCESS MOISTURE FROM TUNNEL
C&WS OPERATIONAL CHECKS PAGE S/1-20
CM RCS MONITORING CHECKS PAGE S/1-1
SM RCS MONITORING CHECKS PAGE S/1-1
SPS MONITORING CHECKS PAGE S/1-1

MC - OFF
WAIT 30 SEC
MC - STBY
IMAGE MTN - OFF
PRE-SPS BURN SIM PREP (CUE CARD)
P30; VERIFY TEI TIG AND ΔV 's
CMC MODE - FREE
POO
CMC MODE - AUTO
V45 (RESET LUNAR SURFACE FLAG)
V49 MNVR TO TEI PAD BURN ATT (236:07)
OMNI D

CMDS: (HGA LOS)
DSE REWIND
PCM BIT RATE - LOW

SIM EXP STATUS
(+0010)
(04011)

:40

:50

(11101)
(1111)

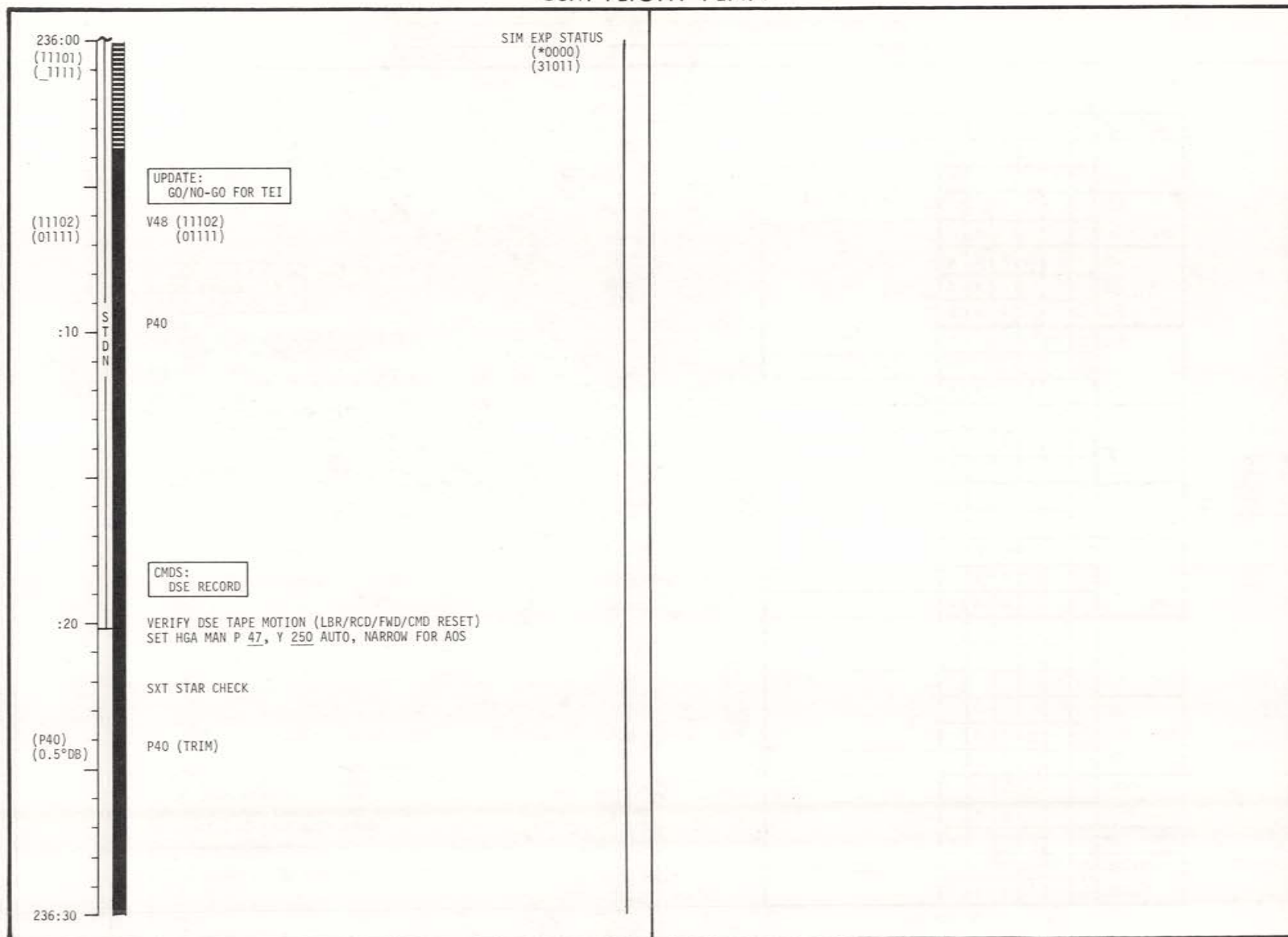
236:00

P30 MANEUVER

SET STARS	T	E	I			PURPOSE
	S	P	S	G	& N	PROP/GUID
	+					WT N47
R ALIGN		0	0			P TRIM N48
P ALIGN		0	0			Y TRIM
Y ALIGN	+	0	0			HRS GETI
	+	0	0	0		MIN N33
	+	0				SEC
ULLAGE						ΔV_X N81
						ΔV_Y
						ΔV_Z
	X	X	X			R (180)
	X	X	X			P (000)
	X	X	X			Y (000)
	+					H _A N44
						H _P
	+					ΔVT
HORIZON/WINDOW	X	X	X			BT
	X					ΔVC
	X	X	X	X		SXTS
	+				0	SFT
	+				0 0	TRN
	X	X	X			BSS
	X	X				SPA
	X	X	X			SXP
OTHER		0				LAT N61
						LONG
	+					RTGO EMS
	+					V10
						GET 0.05G

MISSION	EDITION	DATE	PAGE
APOLLO 17	CHANGE A (12/6)	11/20/72	3-345

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	CHANGE A (12/6)	11/20/72	3-346

CSM FLIGHT PLAN

236:30 -
(P40)
(0.5°DB)
(11102)
(01111)

SIM EXP STATUS
(*0000)
(31011)

*****	*****
* TEI TIG MAY BE DELAYED *	* SINGLE BANK BURN TIME *
* 19 SEC WITHOUT VIOLATING *	* 2 MIN 27.6 SEC *
* SPS OR RCS RESERVE FOR MCC *	* ***** *
*****	*****

TEI (180,000,000)

TIG: 236:39:51
BT: 2 MIN 22.2 SEC
ΔVT: 3045.7 FEET/SEC
ULLAGE: 4 JET 12 SEC
ORBIT: N/A

REV 76

$$\begin{pmatrix} 11102 \\ 01111 \end{pmatrix}$$

P00
V66 SET CSM S.V. INTO LM S.V.
V49 MNVR TO TV, PC & MC ATT (236:49)

(345,125,320)

POST-SPS BURN SIM PREP (CUE CARD)
PCM BIT RATE - HIGH

TV (GDS) 236:53 TO 237:25 - CM 3 (f16,150mm,∞,PEAK)
INHIBIT ALL JETS EXCEPT: D1 & B2, A3, C4, B3, D4

UV COVER - OPEN
IR COVER - OPEN
MC/LA COVER - OPEN
MC - EXT0
S-BD AUX TV - TV

ACQ STDN HGA: P 47, Y 250 AUTO, NARROW

TV - ON
PC - STBY
MONO
PWR
V/h OVRD - HI ALT

MC - ON
IMAGE MTN - INCR (BP +3 STEPS)/OFF (FOR RATE CONTROL)
REPORT: BURN STATUS

PC - OPR

TEI BURN TABLE					
SPS LIMITS	P OR Y RATES	ATT DEVIATION	MANUAL START ACTION	OVERBURN SHUTDOWN CRITERIA	RCS TRIM GUIDELINES
NONE	10°/SEC COMPLETE	+10° COMPLETE	G&N - DELAY 1 REV SCS - START	BT +2 SECS & $\Delta V_c = -40$ FPS	TRIM X AND Z AXES TO 0.2 FPS IF (+) V_{gz} ROLL RIGHT 90° AND USE +Y THRUSTERS

NOTE: IF NO IGN ON FIRST BANK, SPS THRUST - DIRECT ON
IF NO IGN, DELAY 1 REV.

BURN STATUS REPORT

[illegible]

UNDERBURN CRITERIA

```
IF ΔVM<1700 FPS - TEI AT FIRST PERILUNE
IF ΔVM>1700 FPS - DO DIRECT RETURN ΔV
```

```
IF VGO > RCS CAPABILITY -20 FPS - RESTART (NO TRIM)
IF VGO >5 AND < RCS CAPABILITY -20 FPS:
    RCS +X OR SPS (NO TRIM)
IF VGO <5, RCS TRIM X AND Z
```

```
SCS EARLY C/O - RESTART IF C/O > 5 SEC  
EARLY OR VGO > 50 FPS  
SCS RESIDUALS - NO TRIM
```

MAP UPDATE REV 76

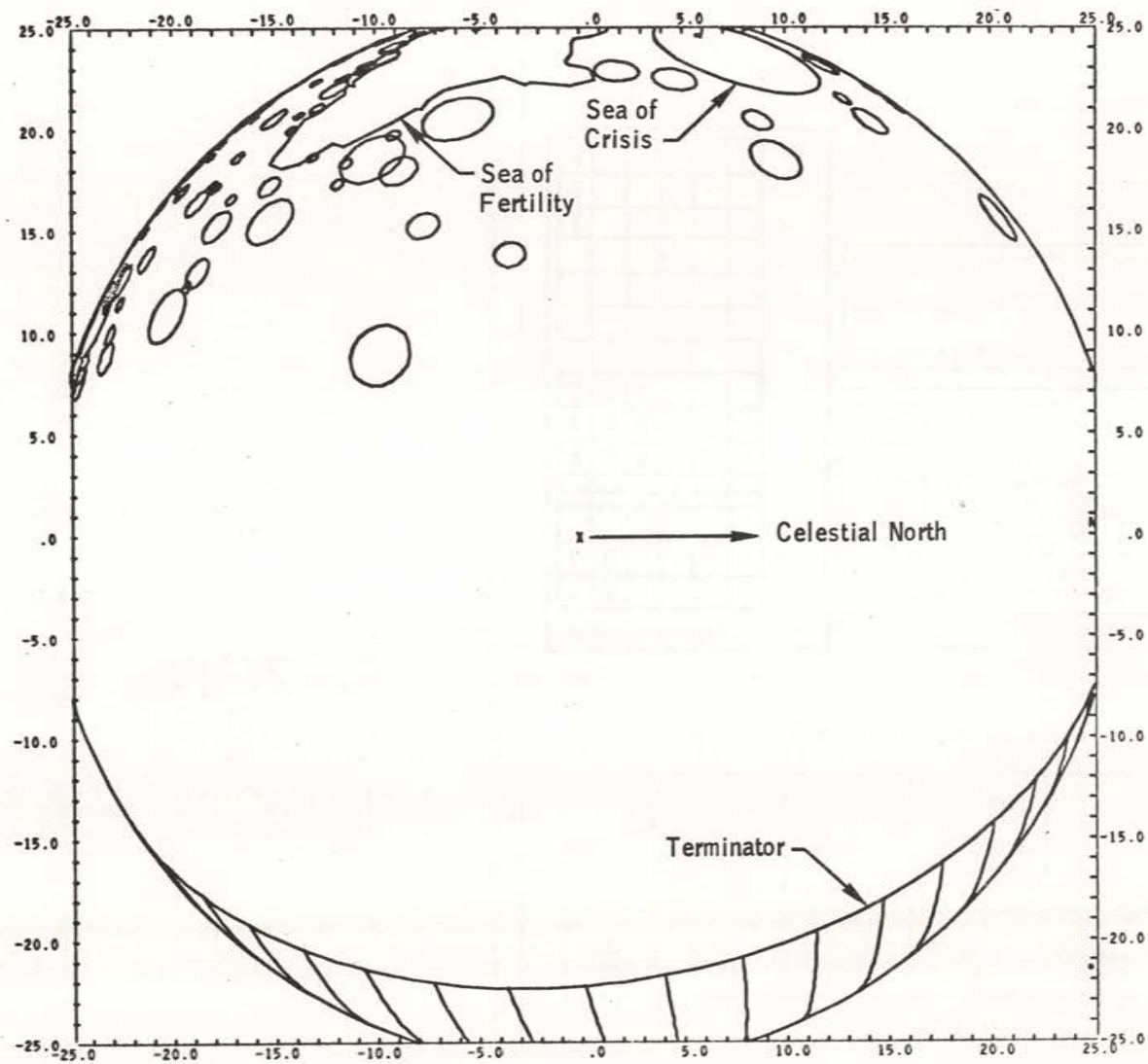
AOS WITHOUT BURN _____ : _____ : _____

AOS WITH BURN _____ : _____ : _____

Longitude = 96.24°

Latitude = -13.32°

Radius = 2121.73 n. mi.



GET=237:10

TEI cutoff + 30 minutes.

0953 CST

*PERFORM IF MCC-5
IS REQUIRED

TERMINATE WASTE WATER DUMP AT 10% LEVEL

STDN

TEI +17 HR

MCC-5

TIG: 253:40
BT: NOM ZERO
ΔVT: NOM ZERO
ULLAGE: NOM ZERO

*V66 SET CSM S.V. INTO LM S.V.
*REPORT: BURN STATUS
*LOGIC PWR (2) - DPLY/RETR
*IR COVER - OPEN

CSM EXP/EVA CHECKLIST

CM EVA PREP PAGE X/3-1
CABIN PREP FOR EVA
CDR & LMP DON BIOMED HARNESS AND VERIFY OPERATION

IR

IR

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

FLIGHT PLANNING BRANCH

MCC-H

1053 CST

FLIGHT PLAN

NOTES

254:00
(11101)
(01111)

:10

:20

254:30

:40

:50

255:00

S
T
D
NTV AND DAC PREP
MAG (FF)

IR

SIM EXP STATUS
(*0010)
(01011)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	254:00 - 255:00	12/TEC	3-366

FLIGHT PLANNING BRANCH

Mission profile dependent
11/14/72 Final

THE SPS ANALYSIS ASSUMPTIONS
FOR THE SPS PROPELLANT ANALYSIS

1. All spacecraft weights and the sequential consumables losses were taken from the Spacecraft Operational Data Book, Amendment 127.
2. The engine I_{sp} assumed for this analysis is 314.3 seconds.
3. The 3σ dispersions are the RSS of the penalties imposed on the SPS margin by 3σ dispersions in propellant loading, mixture ratio, engine I_{sp} , maneuver ΔV , spacecraft weight, consumable weight losses, and an S-IVB ΔV deficit.
4. The CSM/LM weights for the J-missions have increased to an extent that, for some launch dates, the S-IVB will not have sufficient propellant reserves to compensate for a 3σ engine. Thus, in order to have a combined 3σ confidence level for the S-IVB and SPS, the S-IVB ΔV deficit is covered in the SPS propellant budget.
5. The ground rule for a contingency allowance is to budget for either a LM rescue or for a maneuver to avoid adverse weather conditions at entry, whichever produces the least SPS margin. The ΔV for the LM rescue allowance and the weather avoidance allowance is 600 fps and 300 fps, respectively. For this mission, the weather avoidance allowance produces the least SPS margin.

11/20/72

Mission profile dependent
11/14/72 Final
Revision 1

APOLLO 17 SPS PROPELLANT SUMMARY

[DECEMBER 7, 1972, G.m.t., LAUNCH DATE; 72° LAUNCH AZIMUTH]

Item	Required, lb	Remaining, lb
Loading		40 742
Trapped and unavailable	441	40 301
Outage	36	40 265
Unbalance meter	100	40 164
Available for ΔV		40 165
Required for ΔV		
LOI (2979.9 fps)	26 201	13 964
DOI (198.7 fps)	1 500	12 464
CIRC (70.1 fps)	276	12 188
LOPC-1 (336.7 fps)	1 241	10 947
TEI (3045.7 fps)	9 468	1 479
Nominal remaining		1 479
Dispersions		
TLMC (23 fps)	122	1 357
-3 σ performance	514	843
Margin above 3 σ		843
Available for contingencies ^a		843

^a843 pounds is equivalent to 312 fps end-of-mission reserve. Weather avoidance contingency allowance of 300 fps requires 824 pounds, which results in a margin after contingencies of 19 pounds.

SM RCS budget

Mission profile dependent
8/29/72 Basic

Ground Rules and Assumptions

1. Following transposition and docking, the S-IVB performs the evasive maneuver.
2. Two midcourse corrections (translunar) are executed as SPS burns with one MCC followed by an RCS trim.
3. One midcourse correction (transearth) is executed as an RCS burn of 5 fps.
4. Quad management is to be determined during the mission.
5. Single jet RCS control during SIM exps.
6. Couple jet RCS control during SIM off periods (major burns).
7. All maneuvering at low rate ($0.2^\circ/\text{sec}$) both docked and undocked.
8. Attitude hold deadband during SIM photography and major burns - 0.5° .
9. Attitude hold deadband at other times - 2.5° .
10. Lunar orbit usage

Sim photography	1.0 lb/hr
Rest periods	0.1 lb/hr
Other	0.5 lb/hr
11. Nominal ullages.
12. Redlines will be defined by the Flight Control Division as an aid in assuring that mission rules are not violated during the mission. They are subject to review during the mission as mission phases are completed and systems capabilities are evaluated. In the event the rescue redline is violated prior to rendezvous, lunar orbit photography activities can be curtailed to conserve propellant. The lunar orbit redline includes a nominal transearth coast phase (with all navigational sightings) plus a 3 sigma G&N TEI cutoff error MCC. If a rescue is required and the lunar orbit redline is violated prior to the nominal TEI, TEI can be performed early and navigational sighting activity curtailed during the transearth phase. The rescue redline is based on the minimized activity during the transearth phase.

11/20/72

Mission profile dependent

11/7/72 Basic

Revision 1

APOLLO 17 SM RCS ANALYSIS

Item	Required, lb	Remaining, lb
Nominal loading	- -	1338.4
Initial M/R outage	15.6	- -
Total trapped	26.4	- -
Gaging inaccuracy	56.0	- -
Deliverable		1240.4
Nominal usage		
Translunar coast ⁽¹⁾	181.6	- -
Lunar orbit ⁽²⁾	397.4	- -
Transearth coast	86.8	- -
Total	665.8	- -
Nominal remaining usable		574.6

(1) Includes LOI burn and activity.

(2) Includes TEI burn.

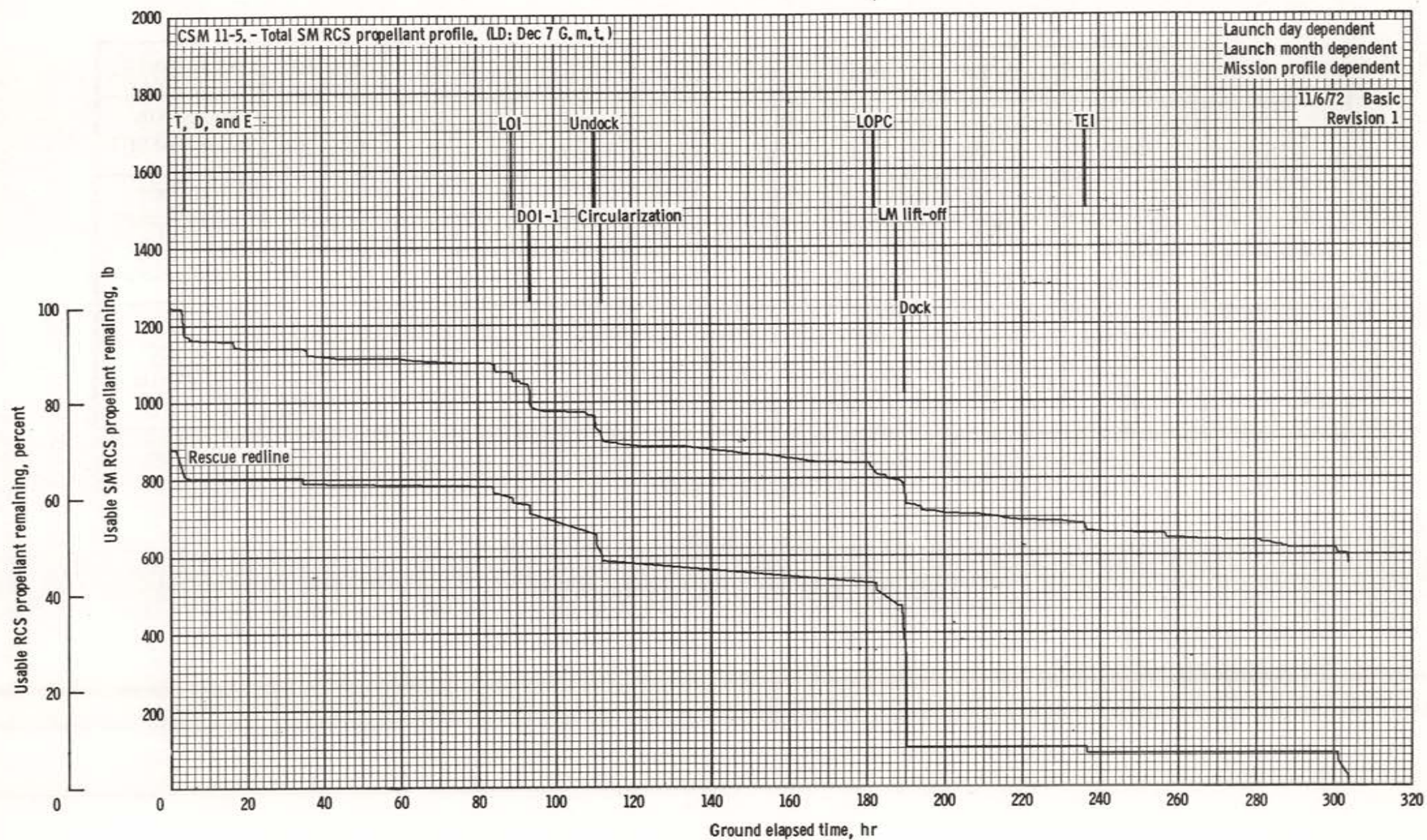
Mission profile dependent
8/29/72 Basic

SM RCS PROPELLANT TRANSLATION COST

APOLLO 17

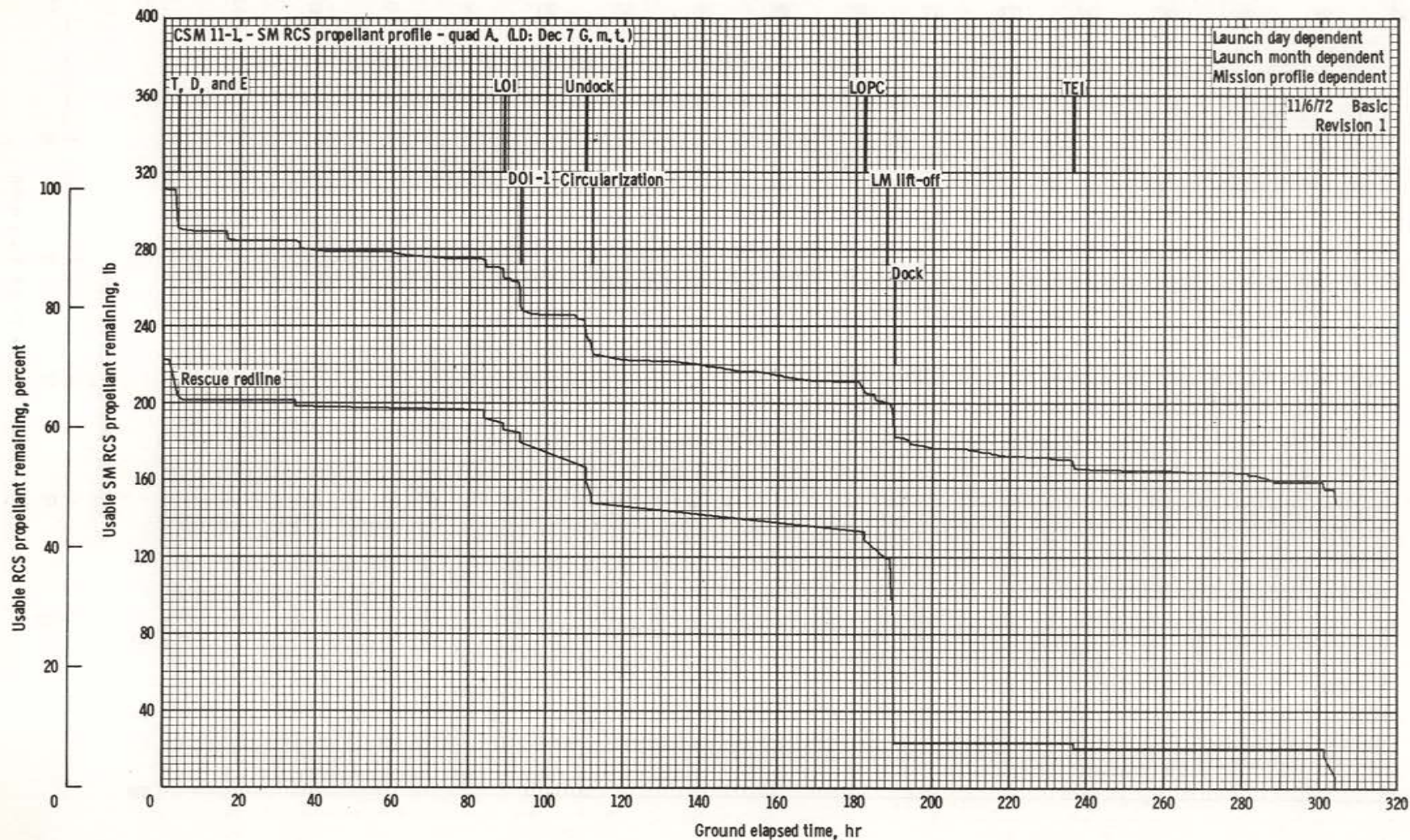
(CSM 114/LM-12)

Mission phase	Typical S/C weight (lb)	+X 4 jet G&C (lb/fps)	+X 4 jet SCS (lb/fps)	+X 2 jet A/C G&C (lb/fps)	+X 2 jet A/C SCS (lb/fps)	+X 2 jet B/D G&C (lb/fps)	+X 2 jet B/D SCS (lb/fps)	+Y or +Z G&C (lb/fps)
Translunar	103 000	11.7	13.3	12.0	13.3	12.4	13.3	--
Lunar orbit docked	75 000	8.6	9.3	8.7	9.3	8.8	9.3	--
Lunar orbit undocked	36 500	4.0	4.7	4.1	4.7	4.3	4.7	5.0
Transearth	26 900	3.1	3.8	3.2	3.8	3.4	3.8	3.5

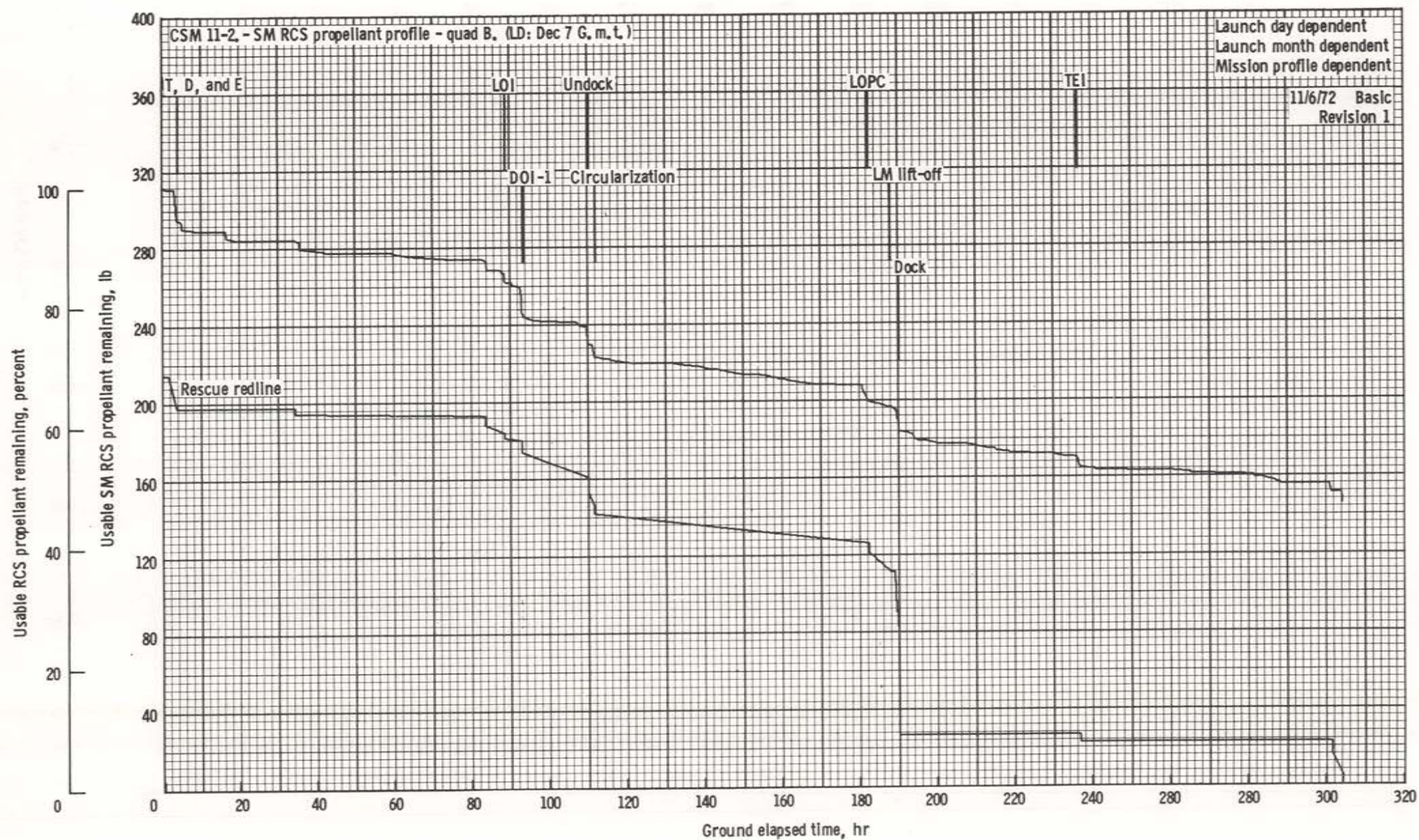


Total SM RCS propellant usage profile.

11/20/72

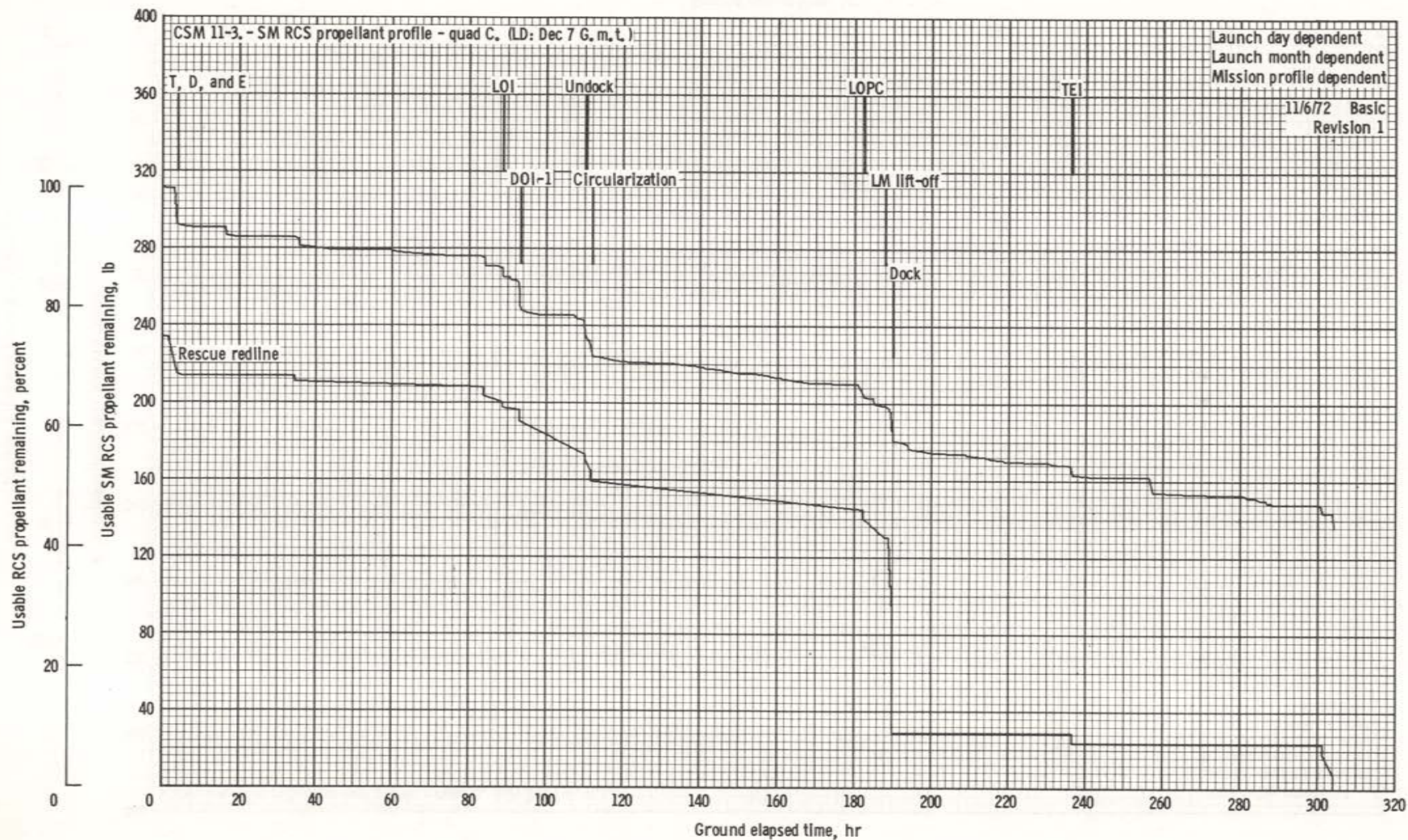


SM RCS propellant profile - quad A.

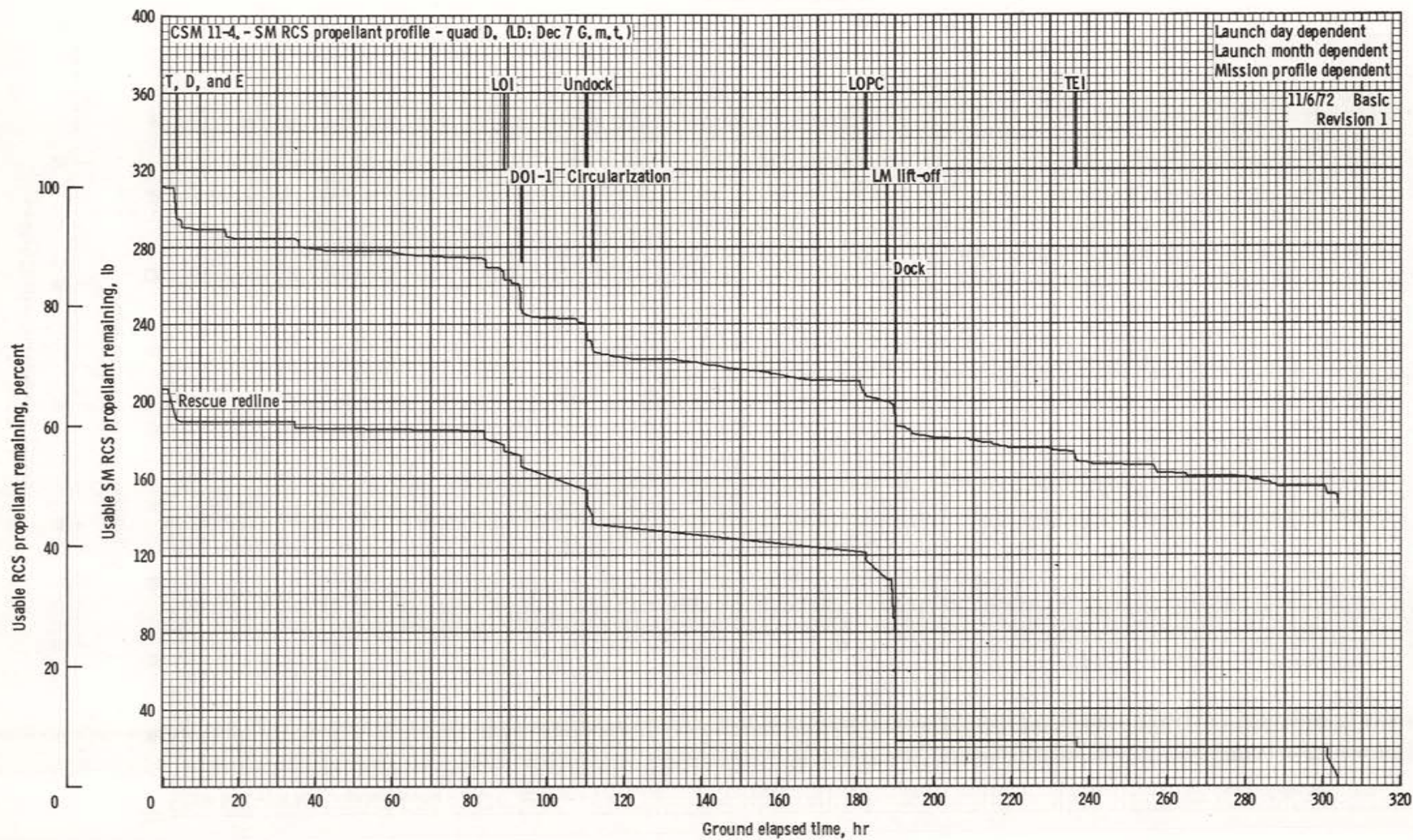


SM RCS propellant profile - quad B.

11/20/72



SM RCS propellant profile - quad C.



SM RCS propellant profile - quad D.

11/20/72

Mission profile dependent
8/29/72 Basic

CM RCS PROPELLANT SUMMARY

Item	Propellant required, lb	Propellant remaining, lb
Loaded	--	233.2
Trapped	36.4	196.8
Available for mission planning . . .	--	196.8
Nominal usage*	54.7	142.1
Nominal remaining	--	142.1

*CM RCS propellant usage is for dual ring operation
with DAP control

Mission profile dependent
11/9/72 Basic
Revision 1

GROUND RULES AND ASSUMPTIONS FOR THE CSM CRYOGENICS

1. Three O_2 and H_2 tanks are available.
2. Fuel cell purging is included in the EPS requirements.
3. No cryogenic venting was assumed in flight.
4. The EPS hydrogen consumption rate ($\dot{H}_2$) (lb/hr) = $0.00257 \times I_{fc}$
when I_{fc} is the total fuel cell current.
5. The EPS oxygen consumption rate ($\dot{O}_2$) (lb/hr) = $7.936 \times \dot{H}_2$.
6. No allowance for the SM enhancement battery is assumed.

7. The cryo tank depletion schedules being used are presented in Table 2-14, page 2-18.

The CSM consumables summary shows that a significant H_2 and O_2 margin exists at the end of the mission. This is reflected in the H_2 and O_2 usage profiles shown on pages 4-15 and 4-16. However, these curves do not include dispersions.

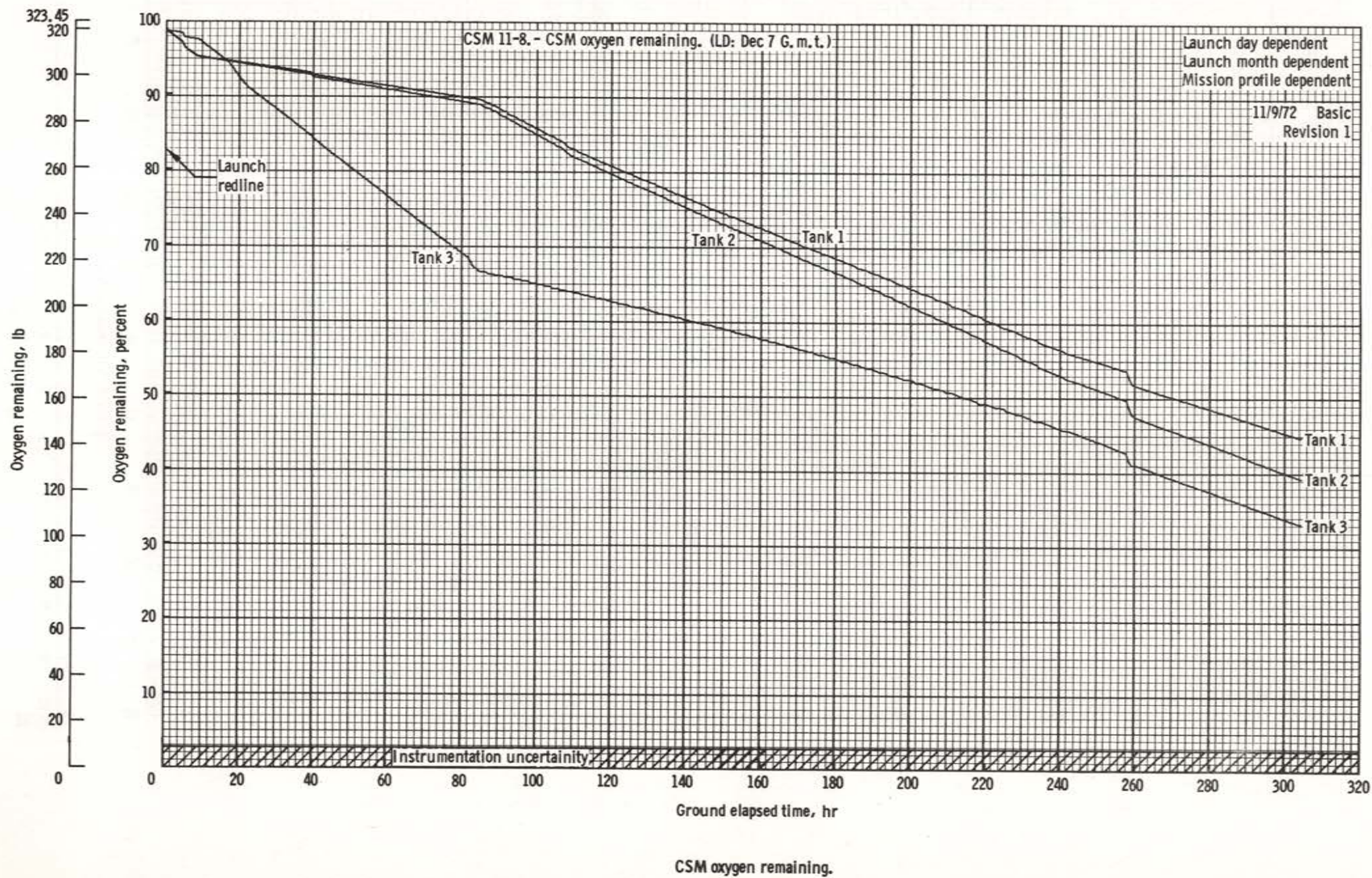
In summary, the nominal mission requirements can be satisfied with the existent consumables.

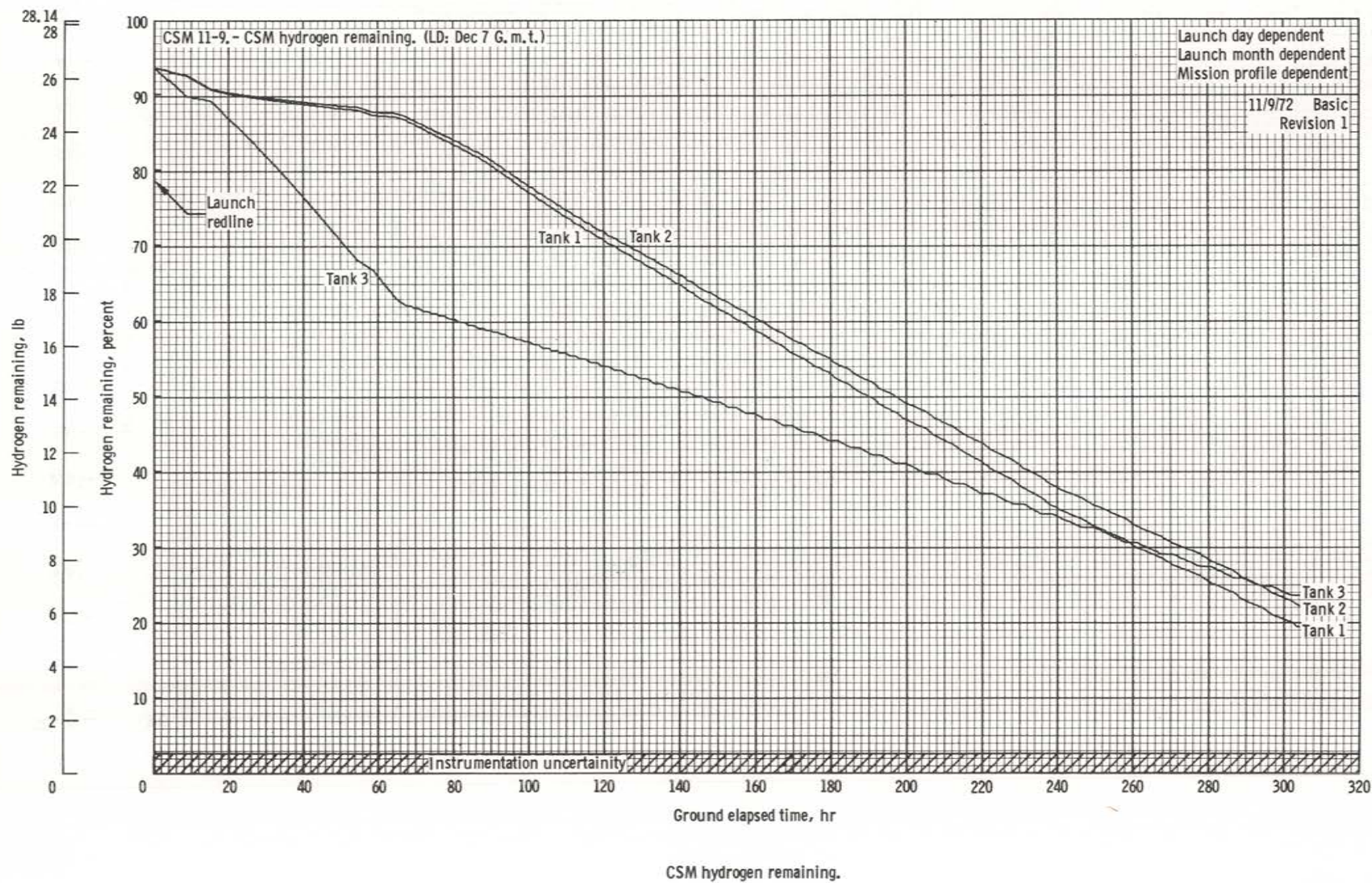
Mission profile dependent
11/9/72 Basic
Revision 1

APOLLO 17 CRYOGENIC SUMMARY

	H ₂ lbs	O ₂ lbs
Planning allowance		
Total loaded	87.9	990.3
Less residual	3.5	19.8
Less instrumentation error	<u>2.3</u>	<u>26.0</u>
Available for mission planning	82.1	944.5
Prelaunch requirement*	5.7	44.8
Flight requirement		
EPS (including fuel cell purge)	60.6	480.1
ECS (including cabin purge + EVA)	--	86.0
LM pressurization	--	11.9
	<u>60.6</u>	<u>578.0</u>
Nominal reserves		
EPS uncertainty (2.5%)	1.5	12.0
ECS uncertainty (.08 #/hr)	--	24.3
	<u>1.5</u>	<u>36.3</u>
Total requirement	67.8	659.1
Margin T = 0 (fill/launch)	14.3	285.4

*Supplied by KSC.





11/20/72

Mission profile dependent

11/7/72 Basic

Revision 1

ASSUMPTIONS FOR THE DPS ANALYSIS

The propellant loading is based on the optimization of the fuel and oxidizer balance that was computed from the LM-12 engine data. The ΔV requirements were coordinated with the Landing Analysis Branch. The ΔV requirement for lunar descent differs from that in the operational trajectory because of the allowance for 155 seconds from low gate to touchdown.

The 3σ dispersions represent total propellant cost based on 3σ uncertainties in propellant loading, trapped propellant, specific impulse, ΔV , separation weight, non- ΔV consumables weight, mixture ratio, and physical location of the low level sensor.

A flying time of 2 minutes and 35 seconds below low gate will be called a nominal requirement.

The following data were used:

- a. The separation weight is $36\,759.3 \pm 39.3$ pounds.
- b. Integrated average I_{sp} is 306.1 ± 1.8 seconds.
- c. Mixture ratio is $1.5999 \pm .012$.
- d. Non- ΔV consumables from separation to PDI are 106.1 pounds.

Mission profile dependent
11/7/72 Basic
Revision 1

DPS PROPELLANT SUMMARY

Item	Total propellant, lb	Hover time, sec
Loaded	19 564.0	--
Trapped and unavailable	-90.6	--
Outage	-16.7	--
Available for ΔV	19 456.7	--
Required for ΔV (155-sec flying time from low gate, $\Delta V = 7099.3$ fps)	-18 779.8	--
Remaining	676.9	73
Dispersion (-3σ)	-280.9	--
Pad	396.0	43
Operational allowances		
Low-level (5 sec, 26.5 fps)	-47.3	--
Abort reserve (20 sec, 106 fps)	-187.8	--
Margin (hover time before abort decision point)	164.0	18

Mission profile dependent
11/7/72 Basic
Revision 1

ASSUMPTIONS FOR THE APS ANALYSIS

The propellant loading is based on the optimization of the fuel and oxidizer balance that was computed from the LM-12 engine data. The ΔV requirements were coordinated with the Landing Analysis Branch. The ΔV requirement for the lunar ascent differs from that in the Operational Trajectory because of differences in the inert vehicle weight.

The APS analysis accounts for an APS TPI, engine valve-pair malfunction, and balanced couples. The following data were used in determining the APS propellant requirements for Apollo 17.

- a. $I_{sp} = 310.3 \pm 3.77$ seconds.
- b. Mixture ratio = $1.5988 \pm .027$.
- c. Lift-off weight = $10\,923.3 \pm 38.7$ pounds.

Mission profile dependent
 11/7/72 Basic
 Revision 1

APS PROPELLANT SUMMARY

Item	Total propellant, lb
Loaded	5261.4
Trapped and unavailable	-51.9
Outage	-11.8
Available for ΔV	5197.7
Required for Ascent (6062.2 fps)	-4968.3
Remaining	229.4
Required for APS TPI ^a (54.8 fps)	-32.6
Remaining	196.8
Dispersions (-3σ)	-67.7
Pad	129.1
Operational allowances	
Engine valve-pair malfunction ($\Delta MR = +.0097$ or $-.0183$)	-23.0
Balanced couples on	-38.3
Half-degree out of plane (18 fps)	-10.7
Margin	57.1

^aThe total TPI ΔV is 76.6 fps. It is assumed that 22 fps is obtained by a 10-sec, 4-jet ullage.

10/23/72

4-21

Mission profile dependent
8/29/72 Basic

ASSUMPTIONS AND GROUND RULES FOR THE LM RCS ANALYSIS

1. Data for the LM RCS engine performance and propellant requirements were obtained from the SODB, Volume II, and from postflight analyses of Apollo 9-16 missions.
2. The analysis assumes an insertion trim or RCS tweak burn (nominally zero) of 20 fps.
3. It is assumed there will be a 5-fps RCS trim following the APS TPI maneuver.

Mission profile dependent

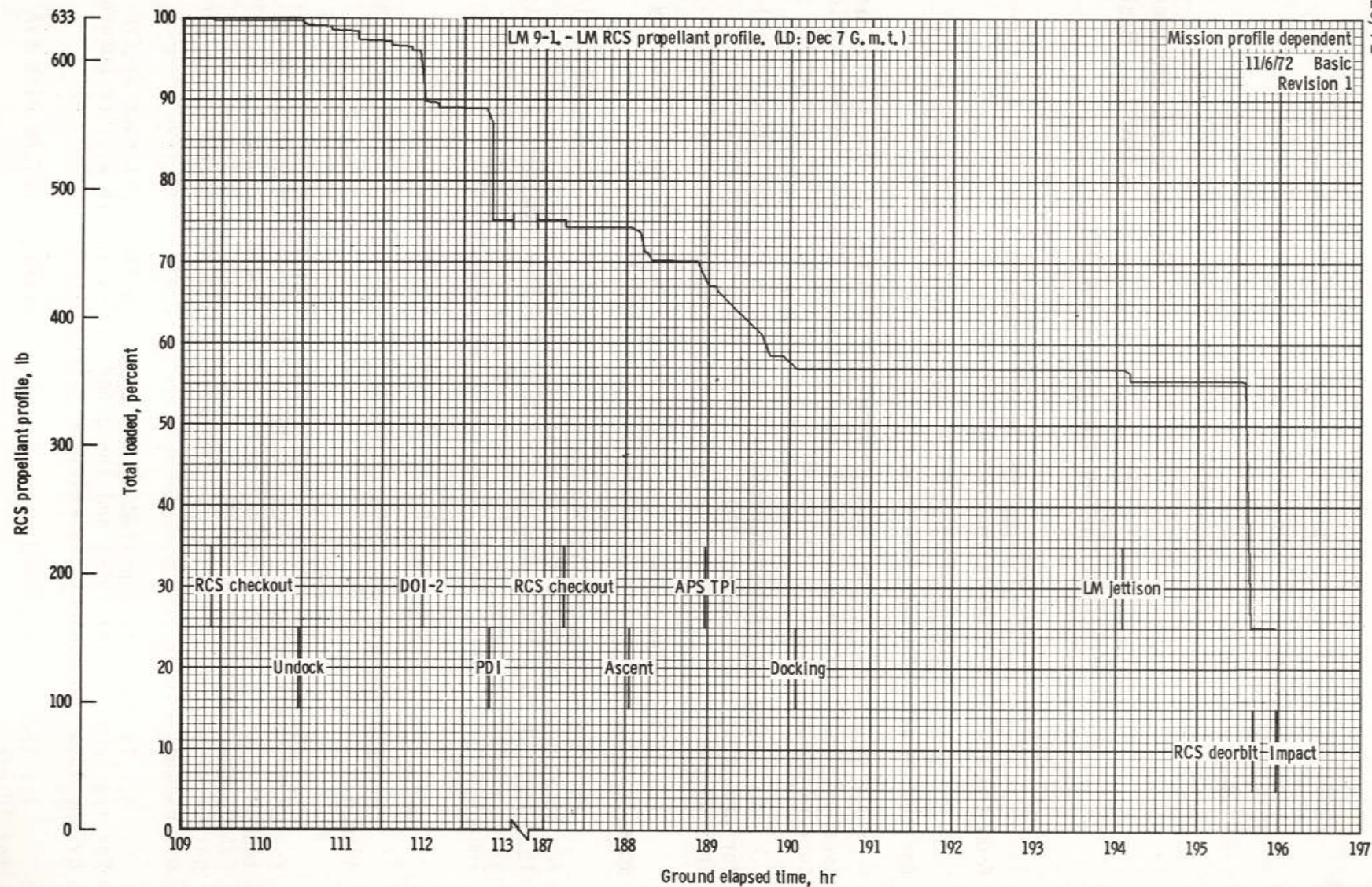
11/7/72 Basic

Revision 1

LM RCS PROPELLANT LOADING AND USAGE SUMMARY

Item	Required, lb	Remaining, lb
Loaded		631.2
Trapped	38.0	593.2
Gaging inaccuracy and loading tolerance	43.5	549.7
Mixture ratio uncertainty	17.0	532.7
Usable		532.7
Nominal usage through lunar landing	158.8	373.9
Nominal usage from landing through docking	114.4	259.5
Nominal usage from docking through impact	200.0	59.5
Usable propellant remaining		59.5

11/20/72



LM RCS propellant profile.

4-23

10/23/72

Mission profile dependent
8/28/72 Basic

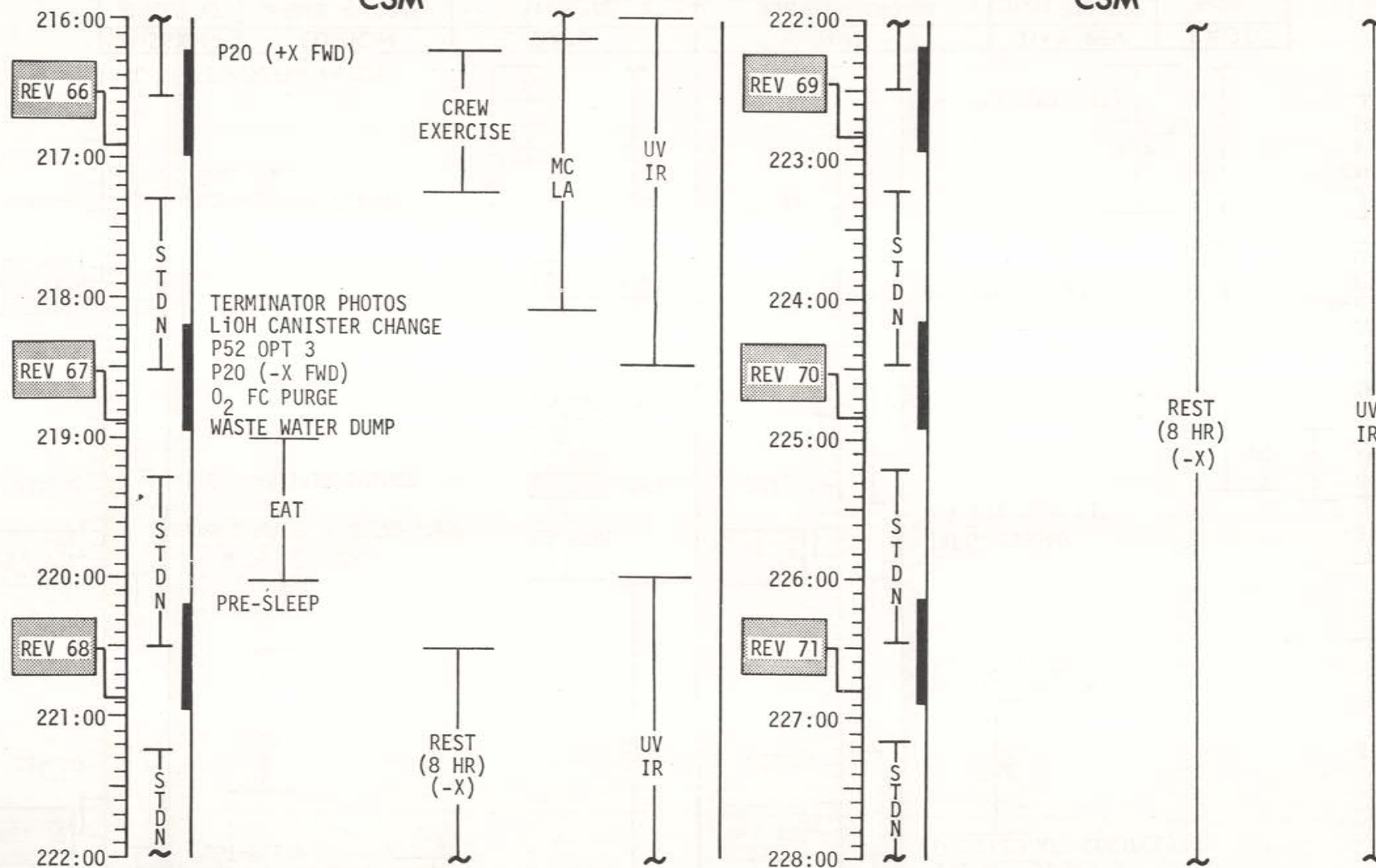
ASSUMPTIONS FOR THE LM EPS ANALYSIS

- a. Energy available from the descent batteries is 2075 A-h and from the ascent batteries is 592 A-h.
- b. Energy unusables caused by lack of continuous STDN coverage for the descent and ascent stages are zero.
- c. Energy unusables caused by TM inaccuracies for the descent and ascent stages were 74 and 18 A-h, respectively. The new descent battery current measurement uncertainty of 0.5 amperes per battery was used.
- d. Energy unusables caused by checklist deviations (dispersion) for the descent and ascent stages were 34 and 6 A-h, respectively. This dispersion is obtained by calculating 2 percent of the energy used.
- e. In accordance with the Flight Plan, the PGNCS was in standby mode from surface powerdown until 3.7 hours before powerup.
- f. The RCS heaters were assumed to have a 100 percent duty cycle for 15 minutes after initial activation and then to decrease to an 18.3 percent duty cycle until undocking. For the remainder of the mission, except for lunar surface stay, the duty cycle was 2.6 percent. The duty cycle during lunar surface stay was 3.9 percent.
- g. The inverter was operated throughout the mission.
- h. The CDR and LMP forward window heaters were assumed not to be needed.
- i. The six MESA heaters have a total power rating of 150 watts. The power required by the heaters during the period LM activation to touchdown was assumed to be 5.6 watts. From touchdown until 1 hour into EVA-2, the heating were assumed to draw 27.5 watts. The power required until the beginning of EVA-3 was 20 watts. The MESA heaters were turned off at that point.
- j. TV power is supplied by the LM during the first hour of EVA-1. For the remainder of EVA-1 and the other EVA's, the TV will be powered by the lunar communications relay unit (LCRU).
- k. The liquid cooled garment pump was operated before each EVA for 10 minutes.

FLIGHT PLAN

CSM

CSM



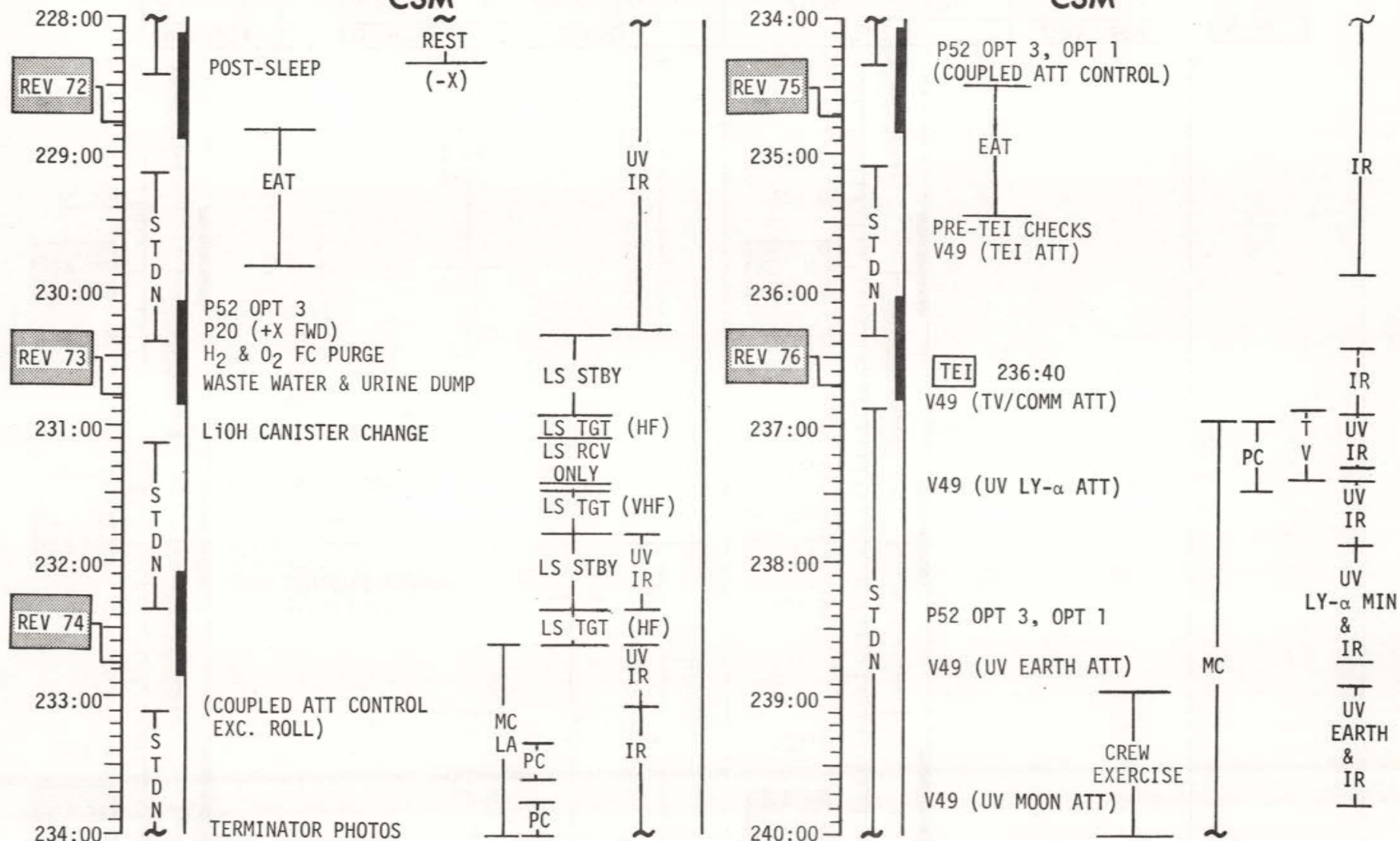
MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	CHANGE A	20 NOV 1972	216:00 - 228:00	10/66-71	5-19

FLIGHT PLANNING BRANCH

FLIGHT PLAN

CSM

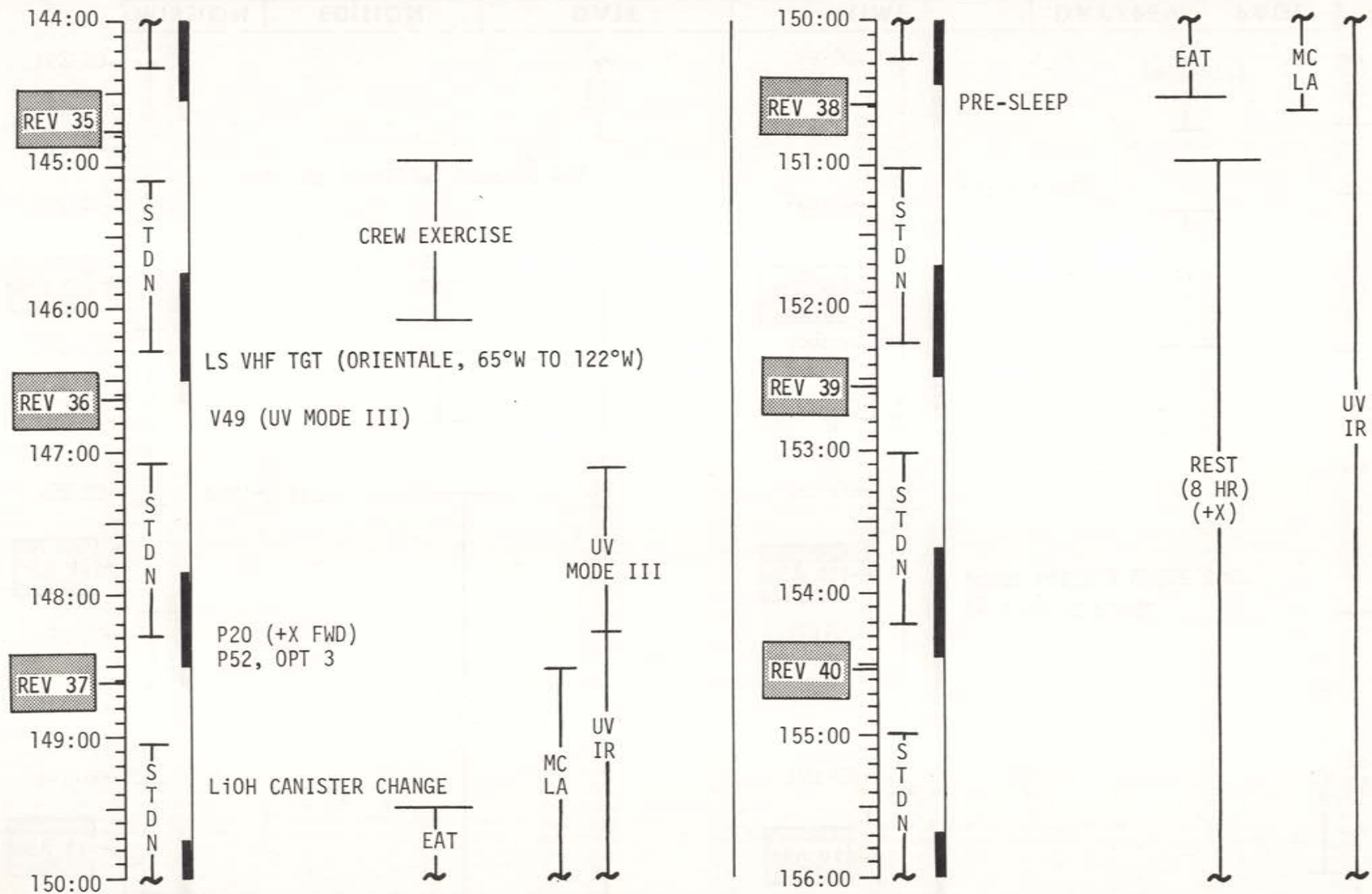
CSM



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	CHANGE A (12/6)	11/20/72	228:00 - 240:00	10-11 / 72-TEC	5-20

FLIGHT PLANNING BRANCH

FLIGHT PLAN

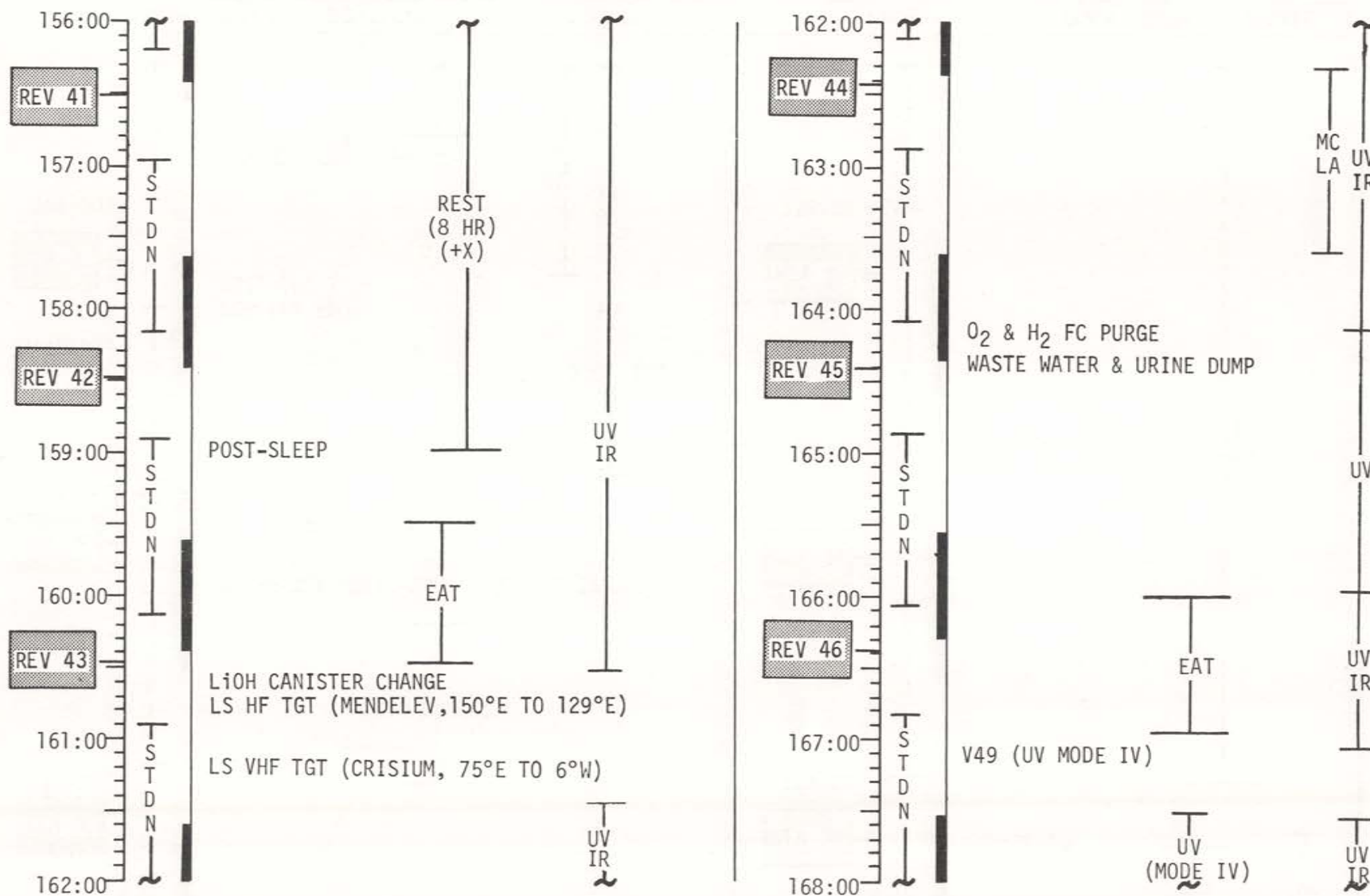


MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	CSM ONLY ALT	20 NOV 1972	144:00 - 156:00	7/35-40	6-49

CHANGE A

FLIGHT PLANNING BRANCH

FLIGHT PLAN

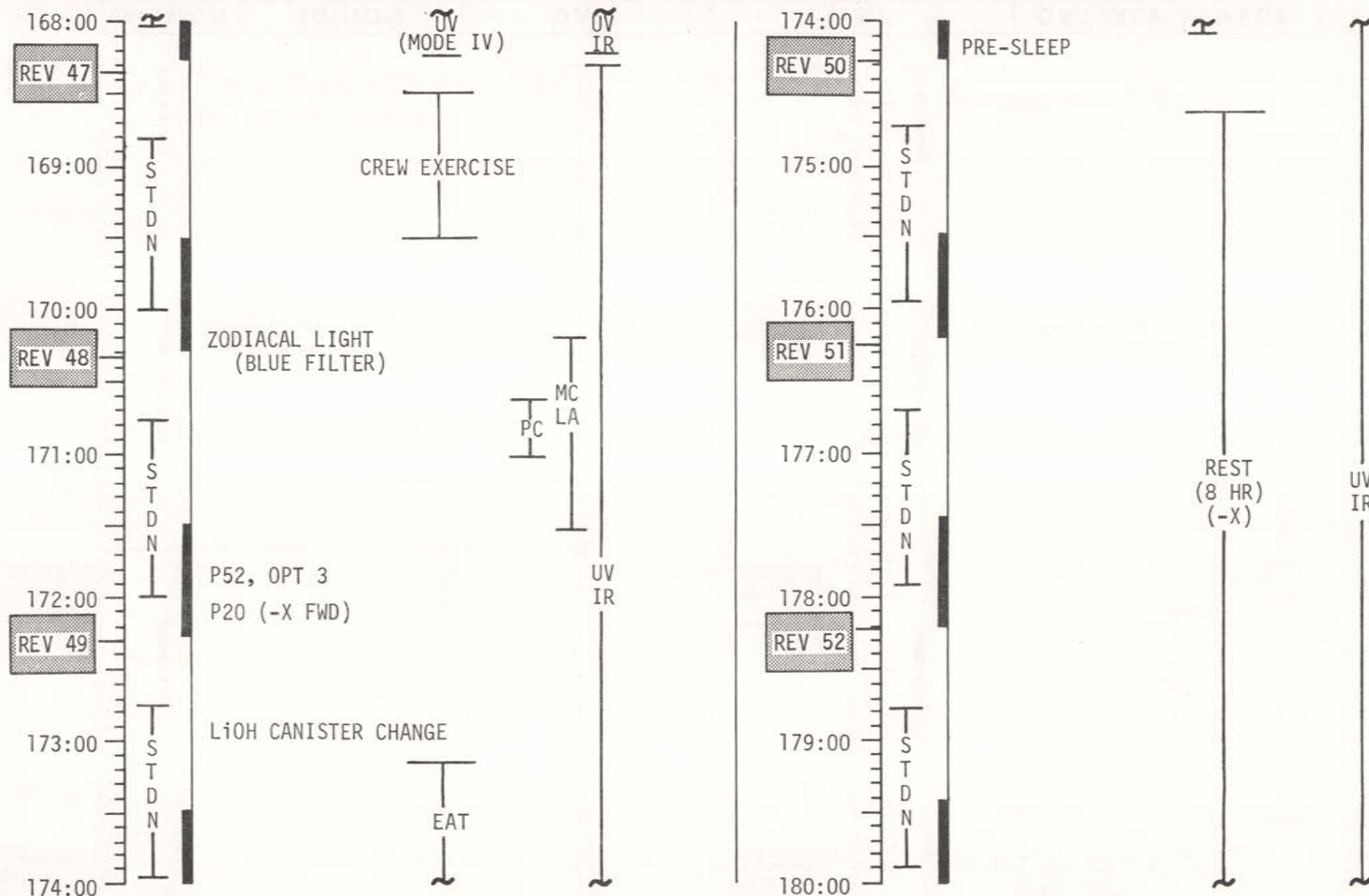


MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	CSM ONLY ALT	20 NOV 1972	156:00 - 168:00	7-8/41-46	6-50

CHANGE A

FLIGHT PLANNING BRANCH

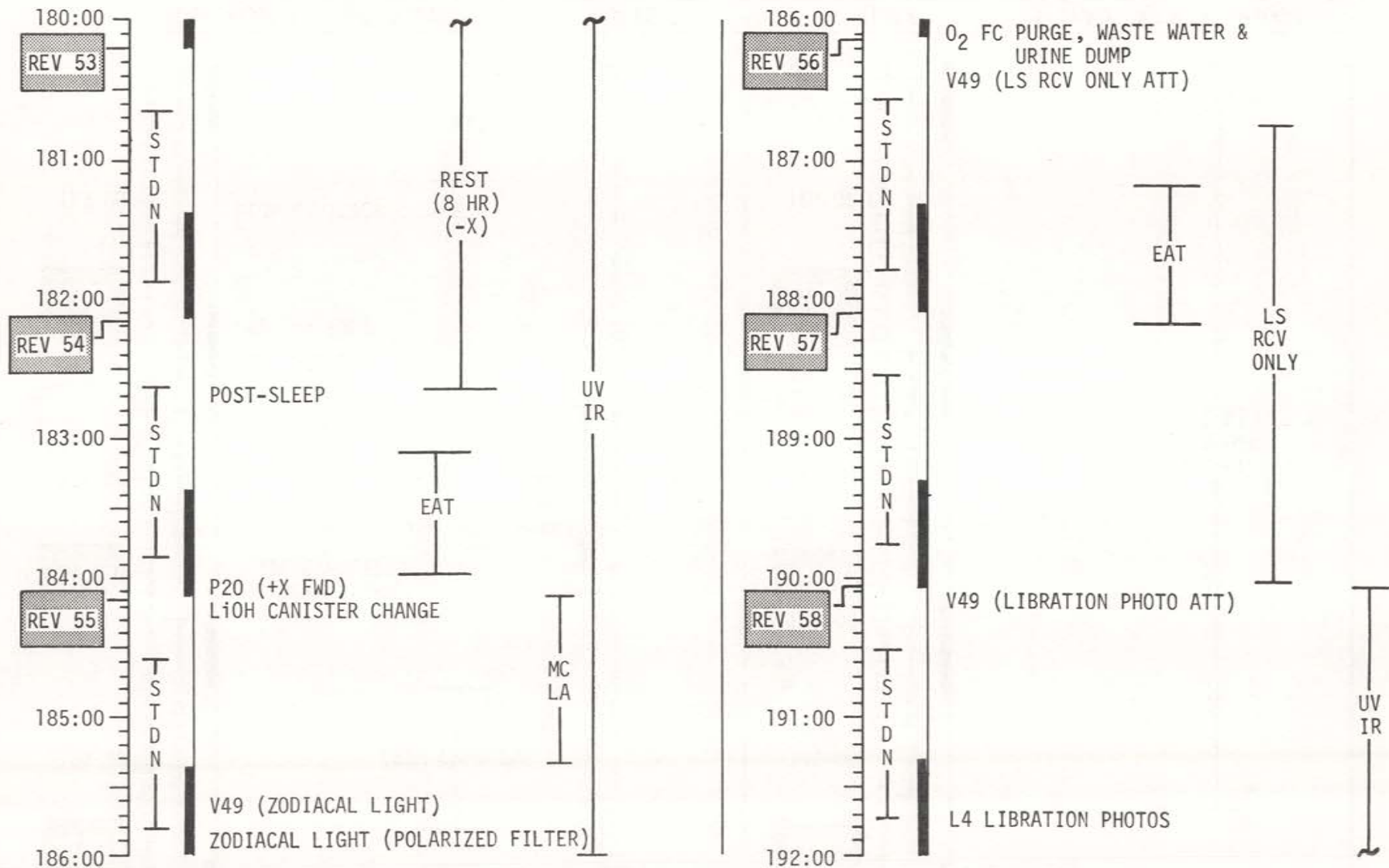
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	CSM ONLY ALT	23 OCT 1972	168:00 - 180:00	8/47-52	6-51

FLIGHT PLANNING BRANCH

FLIGHT PLAN

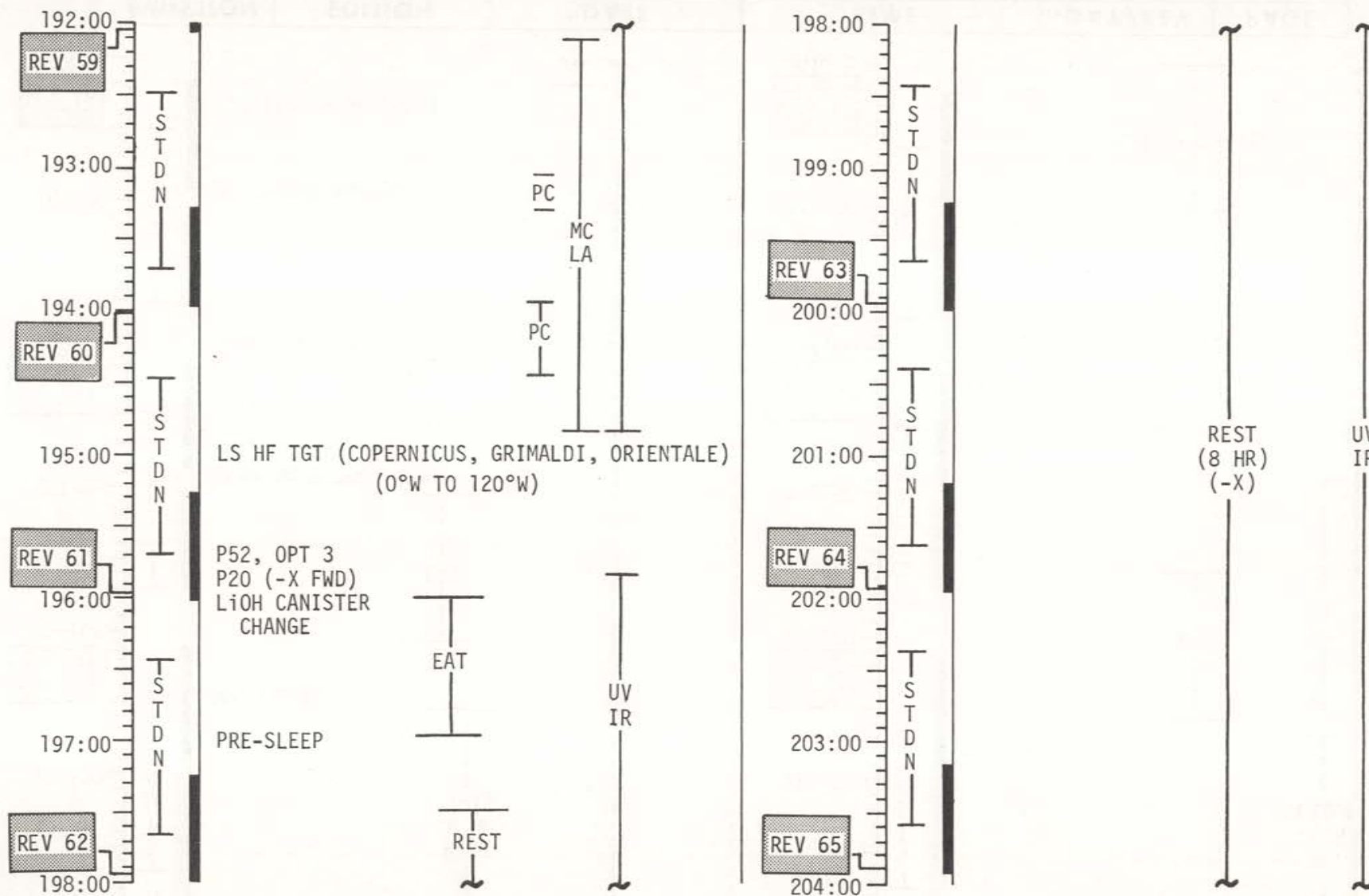


MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	CSM ONLY ALT	20 NOV 1972	180:00 - 192:00	8-9/53-58	6-52

CHANGE A

FLIGHT PLANNING BRANCH

FLIGHT PLAN

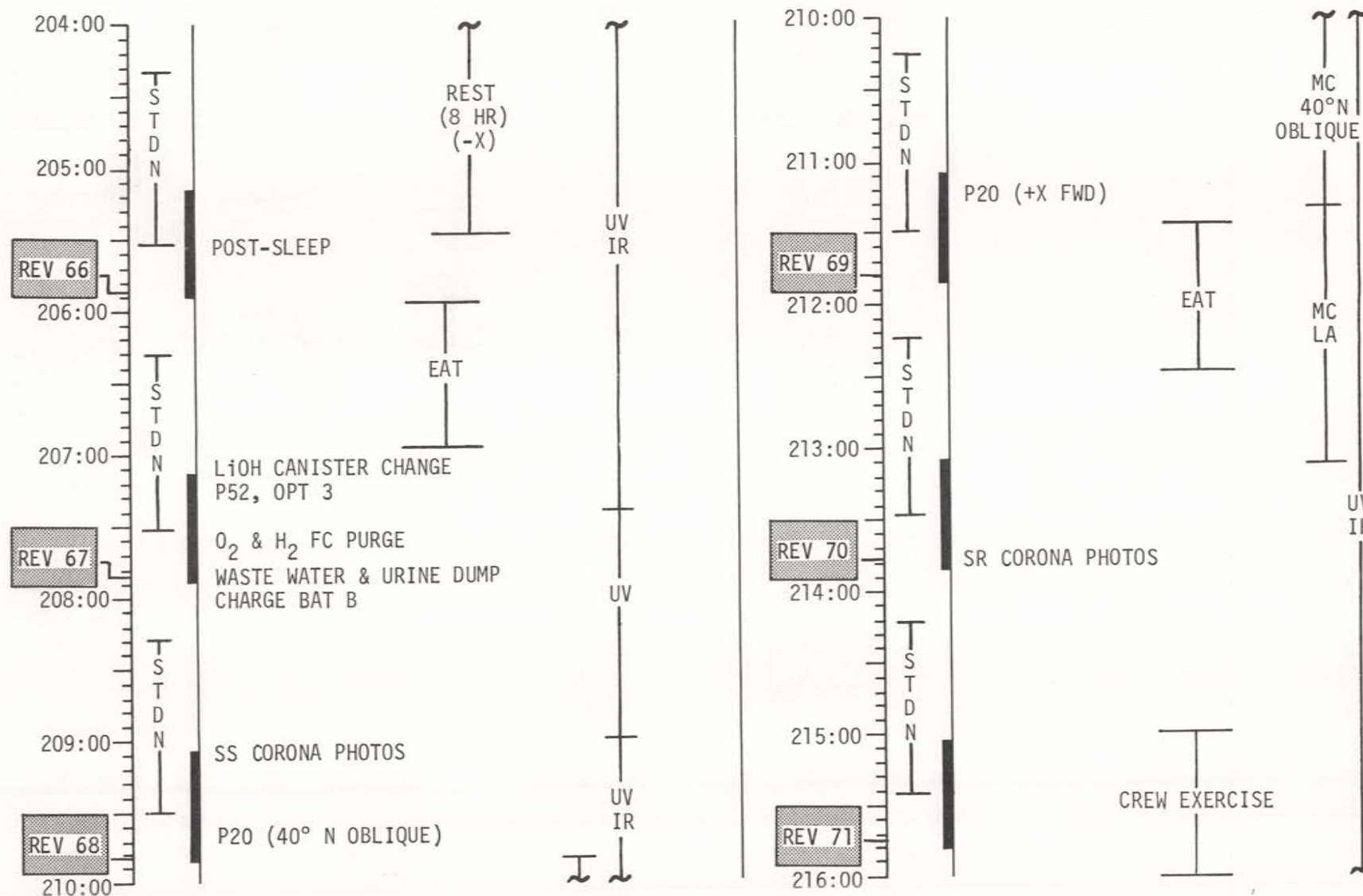


MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	CSM ONLY ALT	20 NOV 1972	192:00 - 204:00	9/59-65	6-53

CHANGE A

FLIGHT PLANNING BRANCH

FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	CSM ONLY ALT	23 OCT 1972	204:00 - 216:00	9-10/66-71	6-54

FLIGHT PLANNING BRANCH

NASA — MSC



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

APOLLO 17

DECEMBER 6 LAUNCH

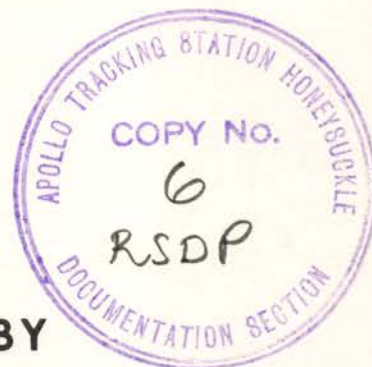
DO NOT DISCARD
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CHANGE A
FLIGHT PLAN

DATE RECEIVED

-7 DEC 1972

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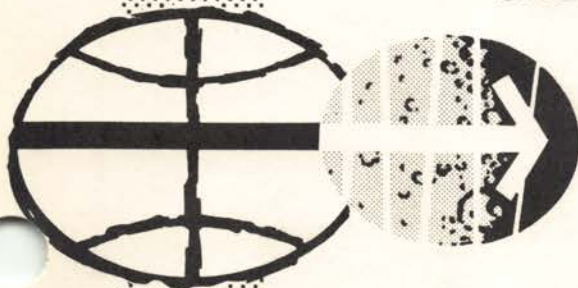


PREPARED BY

FLIGHT PLANNING BRANCH
CREW PROCEDURES DIVISION

MANNED SPACECRAFT CENTER
HOUSTON, TEXAS

NOVEMBER 20, 1972



APOLLO 17

November 20, 1972

DECEMBER 6TH LAUNCH

SUBMITTED BY:

Tommy W. Holloway
TOMMY W. HOLLOWAY
BOOK MANAGER

It is requested that any organization having comments, questions, or suggestions concerning this document contact Tommy W. Holloway, Flight Planning Branch, CG52, Building 4, room 230, telephone 483-4271.

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Distribution of this document is controlled by Flight Data File Manager, Tommy W. Holloway, Flight Planning Branch, Crew Procedures Division.

ACKNOWLEDGMENTS

Acknowledgment is made to the following for their contributions to the Apollo 17 Flight Plan:

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The CSM and LM Attitude information is taken from the document, "Operational Lunar Orbit Attitude Sequence for Apollo 17".

Consumable Analysis data were prepared by the Consumables Analysis Section of the Mission Planning and Analysis Division.

LIST OF EFFECTIVE PAGES

FINAL 10/23/72
CHANGE A 11/20/72 (P+I)

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*i	11/20/72 (P+I)	2-14	10/23/72	3-31	10/23/72
*ii	11/20/72 (P+I)	2-15	10/23/72	3-32	10/23/72
*iii	11/20/72 (P+I)	2-16	10/23/72	3-33	10/23/72
*iv	11/20/72 (P+I)	2-17	10/23/72	3-34	10/23/72
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vi	10/23/72	2-19	10/23/72	3-36	10/23/72
vii	10/23/72	2-20	10/23/72	*3-37	11/20/72
viii	10/23/72	2-21	10/23/72	3-38	10/23/72
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xiv	10/23/72	2-27	10/23/72	3-44	10/23/72
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ABB	abbreviation or abbreviated
AC	alternating current
ACCEL	accelerometer
ACN	Ascension
ACT	activation
ACQ	acquisition or acquire
ADAPT	adapter
AEA	abort electronics assembly
AGS	abort guidance subsystem
AH	ampere hours
ALSCC	Apollo lunar surface close-up camera
ALSD	Apollo lunar surface drill
ALSEP	Apollo lunar surface experiment package
ALT	altitude
ALTM	altimeter
AM	amplitude modulation
AMP or amp	amperes
AMPL	amplifier
ANG	Antigua
ANT	antenna
AOH	Apollo Operations Handbook
AOL	Atlantic Ocean line
AOS	acquisition of signal or acquisition of site
AOT	alignment optical telescope
AP	alpha particle spectrometer
APS	ascent propulsion subsystem
ARIA	Apollo range instrumentation aircraft
ARS	atmosphere revitalization system
ASC	ascent
A/T	alignment technique
ATT	attitude
AUX	auxiliary
AZ	azimuth
BAT	battery
BEF	blunt end forward
BD	band
BDA	Bermuda
BIOMED	bio-medical data
BKWD	backward
BMAG	body mounted attitude gyro
BP	barber pole
BRKT	bracket
BSLSS	buddy secondary life support system
BT	burn time
BU	backup
BUSS	biomedical urine sampling system

B/W	black and white (Film 3400)
BW1	black and white (Film 3401)
CAP COM	capsule communicator
CAL	calibration
CAMR or CAM	camera
CARR	carrier
CB or cb	circuit breaker
CCGE	cold cathode gage experiment
CCIG	cold cathode ion gage
CCU	comm carrier umbilical
CCW	counter clockwise
CDH	constant delta altitude
CDR	Commander
CDU	coupling data unit
CEX	color exterior (S0-368)
CIN	color interior (S0-168)
CIRC	circulation
CK	check
CKT	circuit
C/L	centerline or checklist
CM	command module
CMC	command module computer
CMD	command
CMP	Command Module Pilot
CNTL	control
C/O	check out
COAS	crew optical alignment sight
COMM	communications
CONFIG	configuration
COMP	compare or compensate
CONT	continue or contingency
CP	control point
CPLEE	charged particle lunar environment experiment
CRO	Carnarvon, Australia
CRYO	cryogenic
CS	contingency sample
CSI	coelliptic sequence initiation
CSM	command and service modules
CST	central standard time
CSVC	core sample vacuum container
C/S	central station
CTR	center
C&WS	caution and warning system
CW	clockwise
CWEA	caution and warning electronics assembly

CWG	constant wear garment
CYI	Grand Canary Island
DAC	data acquisition camera
DAP	digital auto pilot
DB	deadband
DC	direct current or data camera (70mm)
DC5	500mm data camera/lens
DCA	digital command assembly
DCC	commander's data camera
DCL	Lunar Module Pilot's data camera
DECON	decontamination
DEDA	data entry and display assembly
DEG	degrees
DEPL	depletion
DES	descent
DET	digital event timer
DIFF	difference
DIR	direct
DK	docked
DO	detailed objective
DOI	descent orbit insertion
DPLY	deployment
DPS	descent propulsion system
DR	door
DRT	dome removal tool
DS	documented sample
DSCRM	discriminator
DSE	data storage equipment(CSM)
DSEA	data storage equipment assembly (LM)
DSKY	display and keyboard
DSM	deep space measurement
DTO	detailed test objective
DUA	digital uplink assembly
DWN	down
E	erasable or enter
ECS	environmental control system
ED	explosive device
EDT	eastern daylight time
EFH	earth far horizon
EI	earth (atmosphere) interface and entry interface
EKG	electrocardiogram
EL	electric Hasselblad camera
ELECT	electrical
ELEV	elevation

EMER	emergency
EMS	entry monitor system
EMU	extravehicular mobility unit
ENG	engine
ENH	earth near horizon
ENT	entry
E.O.	earth orbit
EOM	end of mission
EPO	earth parking orbit
EPHEM	Ephemeris
EPS	electrical power subsystem
EQUIP	equipment
ERECT	erectable
ERR	error
EST	eastern standard time
ETB	equipment transfer bag
EV	extravehicular
EVA	extravehicular activity
EVAP	evaporator
EVCS	extravehicular communications system
EVT	extravehicular transfer
EXP	experiment
EXT	external
EXTD	extend
f	f-stop
FAM	familiarize or familiarization
FC	fuel cell
FCS	fecal containment system
FDAI	flight director attitude indicator
FLT	flight
FM	frequency modulated
FOV	field of view
FPS	feet per second
fps	frames per second
FR	frame(s)
FREQ	frequency
FT or ft	feet
FTO	flight test objective
FTP	full throttle position
FTT	fuel transfer tool
FWD	forward
G.A.	gas analysis
GA	gimbal angle
GAL	galactic

GBI	Grand Bahama Islands
GBM	Grand Bahama (STDN)
GDC	gyro display coupler
GDS	Goldstone, California
GET	ground elapsed time
GETI	ground elapsed time of ignition
GETIL	ground elapsed time of landing for TIG time of abort burn
GLY	glycol
GMT	Greenwich mean time
G&C	guidance and control
G&N	guidance and navigation
GNCS	guidance, navigation and control system (CSM)
GR	gamma ray spectrometer
GWM	Guam
GYM	Guaymas, Mexico
H ₂	hydrogen
HA	apogee altitude
HAW	Hawaii
HBR	high bit rate (TLM)
HBW	high speed black and white film
HD	highly desirable
HDC	hasselblad data camera
HFE	heat flow experiment
HGA	high-gain antenna
HI	high (switch position)
HOR	horizon
H ₂ O	water
HP	perigee altitude
HR	hour(s)
HSB	helmet stowage bag
HSK	Honeysuckle (Canberra, Australia)
HTC	hand tool carrier
HTR	heater
HTV	USNS Huntsville
ICDU	inertial coupling data unit
ID	identification
ICG	inflight coverall garment
ICS	intercomm system
IGA	inner gimbal angle
IGN	ignition
IMC	image motion compensation
IMU	inertial measurement unit
INCR	increase
IND	indicator

INIT	initialization
INT	interval
IP	initial point
ISA	interim stowage assembly
ISS	interim stowage shelf
IU	instrumentation unit
IVC	intervehicular communications
IVL	intervalometer
IVT	intravehicular transfer
iR	inclination of the ascending return
IR	infrared scanning radiometer
JETT	jettison
KG	kilogram
KM	kilometer
kwh	kilowatt hour
LA	launch azimuth or laser altimeter
LACE	lunar atmospheric composition experiment
LAT	latitude
LBR	low bit rate (TLM)
LB or lb	pound(s)
LCG	liquid cooled garment
LCRU	lunar communications relay unit
L/D	lift/drag
LD	lunar day (TV lens)
LDG	landing
LDMK	landmark
LEAM	lunar ejecta & meteorite (experiment)
LEB	lower equipment bay
LEC	lunar equipment conveyor
LEVA	lunar extravehicular visor assembly
LFH	lunar far horizon
LGC	LM guidance computer
LH	left-hand
L/H	local horizontal
LHEB	left-hand equipment bay
LHFEB	left-hand forward equipment bay
LHSSC	left-hand side storage container
LiOH	lithium hydroxide
LLM	lunar landing mission
LLOS	landmark line of sight
LM	lunar module
LMP	Lunar Module Pilot
LMS	lunar mass spectrometer

LNH	lunar near horizon
L/O	lift-off
LOD	lunar orbit docked
LOI	lunar orbit insertion
LONG	longitude
LOS	loss of signal or loss of site
LPD	landing point designator
LPO	lunar parking orbit
LPM	lunar portable magnetometer
LR	landing radar
LRRR or LR3	laser ranging retro-reflector
LRV	lunar roving vehicle
L/S or LS	landing site or lunar surface
LS	lunar sounder
LSG	lunar surface gravimeter
LSM	lunar surface magnetometer
LSPE	lunar seismic profile experiment
LT	light
LTG	lighting
LUB	lubrication
LV	launch vehicle
L/V	local vertical
LVPD	launch vehicle pressure display
M	mandatory
MAD	Madrid, Spain
MAG	magazine (camera)
MAN	manual
MAX	maximum
MAX Q	maximum dynamic pressure
MBW	medium black and white film
MC	mapping camera
MCC	midcourse correction
MCC-H	Mission Control Center - Houston
MDC	main display console
MEAS	measurement
MED	medical
MEED	microbial ecology evaluation device
MESA	modular experiment stowage assembly
MET	mission event timer
MGA	middle gimbal angle
M/I	minimum impulse
MIN	minimum or minutes(s)
MIR	mirror
MLA	Merrit Island, Florida, launch area
mm or MM	millimeter

MNA or MNB	main electrical bus A or B
MNVR	maneuver
MON	monitor
MONO	monaural
MPL	mid-Pacific line
MPS	main propulsion system
M/R	mixture ratio (fuel to oxidizer)
MS	mass spectrometer
MSFN	Manned Space Flight Network
MSO	mass spectrometer outgasing
MTN	motion
MTVC	manual thrust vector control
MULT	multiplier
N_2	nitrogen
NAV	navigation
NEG	negative
NK	Nikon camera
NM	nautical miles
NO.	number
NOM	nominal
NXX	Noun XX
O_2	oxygen
OBS	observation
O/F	oxidizer to fuel ratio
OGA	outer gimbal angle
OID	octal identifier
OMNI	omnidirectional antenna
OPR	operate
OPS	oxygen purge system
OPT	option
ORB	orbital
ORDEAL	orbit rate display earth and lunar
ORIENT	orientation
OVBD	overboard
OVHD	overhead
P	pitch or program
PAD	voice update
PAN	panoramic
PART	particle
PCM	pulse code modulation
PC	plane change or chamber pressure
PDI	powered descent initiation

PER	Pericynthion
PGA	pressure garment assembly
PGNCS	primary guidance, navigation and control system (LM)
PGNS	primary guidance navigation system (LM)
PHOTO	photograph
PIPA	pulse integrating pendulous accelerometer
PKG	package
PKS	Parks, Australia
PLSS	portable life support system
PM	phase modulated
POL	polarity or polarizing
POS	positive
PRD	personal radiation dosimeter
PRO	proceed
PREF	preferred
PREP	preparation
PRESS	pressure
PRIM	primary
PROP	proportional
PRN	pseudo random noise
PRPLNT	propellant
PSE	passive seismic experiment
PSIA	pounds per square inch absolute
PSID	pounds per square inch differential
PSIG	pounds per square inch gage
PT	point
PTC	passive thermal control
PTT	push to talk
PU	propellant utilization
PUGS	propellant utilization gaging system
PWR	power
PXX	Program XX
PYRO	pyrotechnic
QTY	quantity
QUAD	quadrant
R	roll or range
R&B	red and blue
RAD	radiator, radial, or radiation
RCDR	recorder
RCS	reaction control system
RCU	remote control unit
RCVR	receiver
REACQ	reacquire
REFSMAT	reference stable member matrix

REG	regulator
REL	release
REQD	required
RETR	retract
REV	revolution
RH	right-hand
RHC	rotational hand controller
RING	ringsight
RLS	radius of landing site
RMT	remote
RNDZ	rendezvous
RNG	range or ranging
ROD	rate of descent
RR	rendezvous radar
RSI	roll stability indicator
RSLV	resolver
RT	realtime
RTC	realtime command
RTG	radioisotope thermoelectric generator
RXX	Routine XX
SA	shaft angle
SATT	satellite
S-BD	S-BAND
SC	spacecraft
SCE	signal conditioning equipment
SCS	stabilization control system
SCT	scanning telescope
SE	southeast or subearth
SEC	secondary
SECO	S-IVB engine cutoff
SECS	sequential events control system
SEF	sharp end forward
SEL	select
SEP	separate
SEQ	sequence
SEVA	standup extravehicular activity
SIDE	suprathermal ion detector experiment
SII	Saturn II (second stage)
SIM	scientific instrument module
S-IVB	Saturn IVB(third stage)
SLA	service module LM adapter
SLOS	star line-of-sight
SM	service module
SPECT	spectrometer
SPOT	spot meter

SPS	service propulsion system
SR	sunrise
SRC	sample return container
SRX	S-Band receiver mode no. X
SS	sunset or subsolar
STBY	standby
STDN	Spaceflight Tracking and Data Network (formerly MSFN)
STX	S-Band transmit mode no. X
SUBSAT	subsattellite
S.V.	state vector
SW	switch
SWC	solar wind composition
SWE	solar wind experiment
SXT	sextant
SYS	system
T EPHEM	time of Ephemeris update
TA	trunnion angle
TAN	Tananarive, Madagascar
TB	time base or talkback
TCA	time of closest approach
TD	touchdown
T&D	transposition and docking
TD&E	transposition docking and LM ejection
TDS	thermal degradation sample
TEC	transearth coast
TECH	technique
TEI	transearth injection
TEMP	temperature or temporary
TERM	terminate
TEX	Corpus Christi, Texas
TGE	traverse gravimeter experiment
TGT	target
THC	translation hand controller
TIG	time of ignition
TK	tank
TLC	translunar coast
TLI	translunar injection
TLM or TM	telemetry
TPF	terminal phase final
TPI	terminal phase initiation
TPM	terminal phase midcourse
T/R	transmitter/receiver
TRANS	translation
TRK	track or tracking
TRUN	trunnion

TSB	temporary stowage bag
TV	television
TVC	thrust vector control
TWR	tower
UCTA	urine collection transfer assembly
UHT	universal hand tool
ULL	ullage
UMB	umbilical
UNBAL	unbalance (meter)
UNDK	undock
US	United States
UV	ultraviolet spectrometer
V	velocity
VG _{IMU}	velocity to be gained as related to IMU orientation
VGX	velocity to be gained (X-body axis)
VGY	velocity to be gained (Y-body axis)
VGZ	velocity to be gained (Z-body axis)
VR	resultant velocity
VX	velocity along the X-axis
VY	velocity along the Y-axis
VZ	velocity along the Z-axis
VAN	USNS Vanguard
VHBW	very high speed black and white film (2485)
VHF	very high frequency
VLV	valve
VOX	voice keying
VXX	Verb XX
W	Watts
WRT	with respect to
X	time of closest approach (symbol)
XDOT	rate of change along the X-axis
XFER	transfer
XMIT	transmit or transmitter
XPNDER XPNDR	transponder
Y	yaw
YDOT	rate of change along the Y-axis
ZDOT	rate of change along the Z-axis
ZPN	impedance pneumogram

ΔAz	azimuth change (difference)
ΔH	altitude change (difference)
ΔP	pressure change (difference)
ΔR	position change (difference)
ΔV	velocity change (difference)
ΔVC	velocity change at engine cutoff
ΔVT	velocity change loaded pre-burn
#	numbers
ϕ	latitude
λ	longitude

PHOTOGRAPHIC NOMENCLATURE

AAA/BBB/CCC/DDD - EEE, EEE, (fGG, HHH, III) JJ fps or JJ FR (KK% MAG)

AAA - Location from which photography is to be accomplished

BBB - Camera

CCC - Lens

DDD - Film Type

EEE - Photography aids (i.e., brackets, intervalometer, mirror, etc.)

fGG - Lens Aperture Setting

HHH - Shutter Speed

III - Focus Distance in Feet

JJ - Number of frames for DC, EL & NK cameras

JJ - Frame Rate for the DAC only

KK - Magazine percent for the DAC only

CODE EXAMPLE:

1. CM4/DAC/18/CEX-BRKT, SPOT (S,1/250,∞) 12 fps (50% MAG)

Meaning: Photos are taken from CM right hand rendezvous window using the DAC with 18mm lens and S0368 film. The camera will be bracket mounted with the following camera settings: f-stop from spotmeter reading, shutter speed 1/250 of a second, focus at infinity, 12 frames per second, 50% MAG.

2. CM4/EL/80/BW-BRKT, IVL 8 (f5.6,1/250,∞) 10 FR

Meaning: Photos are taken from CM right hand rendezvous window using the Electric Hasselblad camera with the 80mm lens and black & white film (3400). The camera will be bracket mounted with the following settings: f-stop (aperture) f5.6, shutter speed 1/250, and focus at infinity. The operation of the shutter will be controlled by the intervalometer; IVL 8 representing 8 sec between frames and IVL 20 representing 20 sec between frames. Ten frames have been allotted for this sequence.

CAMERA LOCATIONSCOMMAND MODULE

CM-1	LH Side Window
CM-2	LH Rendezvous Window
CM-3	Hatch Window
CM-4	RH Rendezvous Window
CM-5	RH Side Window

LUNAR MODULE

LM-1	LH Window
LM-2	Docking Window
LM-3	RH Window

CAMERA MOUNTSCSM

Electric Hasselblad (EL) +X axis +12° (in X-Z plane)

Electric Hasselblad (EL) normal to RH Side Window

Data Acquisition Camera (DAC) with right angle mirror +X axis

Data Acquisition Camera (DAC) with SXT Adapter - same as SXT shaft & trunnion.

Data Acquisition Camera (DAC) with right angle mirror rotated 180° looking aft out RH side window.

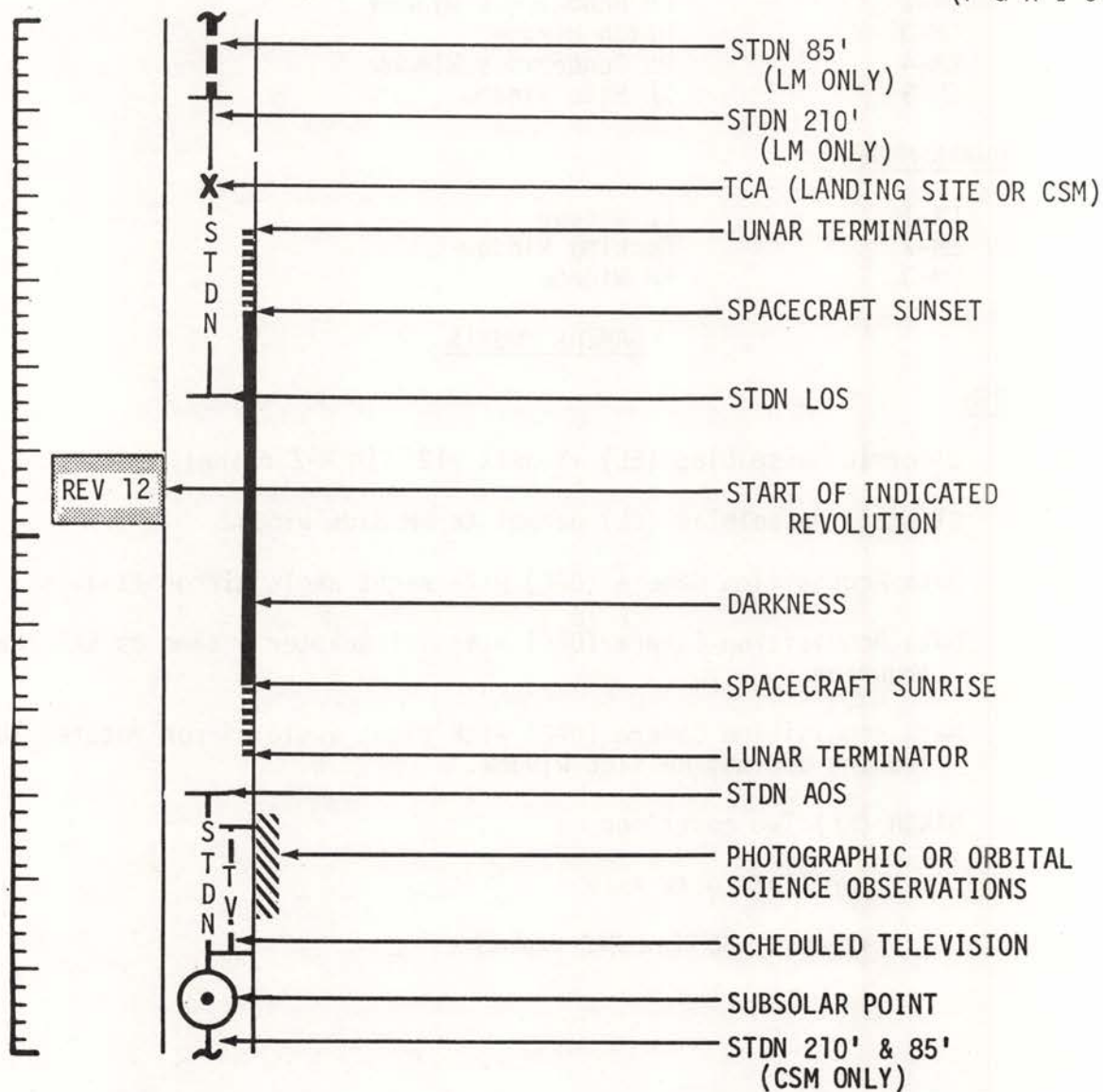
NIKON (NK) Two positions

parallel to +X axis

+X axis +30° (in X-Z plane)

SYMBOL NOMENCLATURE

SIM EXP STATUS
(A B C D E)
(F G H I J)



XXXV

L1	SIM ATT A	MAP CAM COVER/POS B	LS HF ANT C	IR COVER D	UV COVER E
	+ +X FWD - -X FWD * NON SIM	0 CLOSED 1 OPEN/EXTD 2 OPEN/RETR	0 RETR 1 EXTD	0 CLOSED 1 OPEN	0 CLOSED 1 OPEN
L2	PAN CAM F	MAP CAM/ LASER ALTM G	LS H	IR I	UV J
	0 OFF/STBY 1 PWR/STBY 2 PWR/OPERATE 3 BOOST/STBY	0 OFF/OFF 1 STBY/OFF 2 ON/ON 3 STBY/ON 4 ON/OFF 5 ON(IMC-OFF) /OFF	0 OFF 1 HF MODE 2 VHF MODE 3 RECV ONLY 4 STBY	0 OFF 1 ON	0 OFF 1 ON

PRE - SPS BURN PREP (*0000) SLEEP (± 0011) or ($+0111$) MIN POWER (0000)
(31000) or (31011) (01011) (00000)

SIM BAY SECURE (0000) or (0001)
(Dumps, Thermal, Thrusters) (01011)

SECTION 1 - FLIGHT PLAN NOTES

FLIGHT PLAN NOTES

I. Crew

A. Crew designations are as follows:

<u>Designation</u>	<u>Prime</u>	<u>Backup</u>
Commander (CDR)	Cernan	Young
Command Module Pilot (CMP)	Evans	Roosa
Lunar Module Pilot (LMP)	Schmitt	Duke

B. The nominal CM couch positions are:

<u>Activity</u>	<u>Left</u>	<u>Center</u>	<u>Right</u>
Launch thru TLI	CDR	CMP	LMP
T&D thru Entry	CMP	CDR	LMP

C. The PGA's are worn as shown in Table 2-1.

D. The crew biomedical harness and sensor wearing schedule is shown in Table 2-2.

E. A crew status report for each crewman is voiced to MCC-H after each crew sleep period.

F. Negative reporting is used in reporting completion of each checklist.

G. All onboard gauge readings are read directly from the gauges with no calibration bias applied.

II. CSM Systems

A. Communications

1. The preferred S-Band communication modes are:
 - (a) Uplink Mode 6 (Voice, PRN, and Updata)
 - (b) Downlink Mode 2 (Voice, PRN, TLM-HBR)
2. VHF Duplex B is used for launch, and Simplex A is used for earth-orbit operations.
3. Table 2-3 summarizes the STDN coverage available for the CSM.
4. Table 2-4 contains a summary of the scheduled CSM & LM TV transmissions.
5. MCC-H switches OMNI antennas during TLC PTC periods, OMNI and HGA during TEC PTC periods. The crew manages antenna operations during all other TLC and TEC periods.
6. The HGA will be managed by the crew and MCC-H in order to minimize SIM bay experiment data loss at AOS and LOS while in lunar orbit during awake periods.

B. DSE

1. During the earth-orbit phase, the CSM LBR data is recorded when the CSM is not within STDN coverage. The DSE is dumped during the pass over the US prior to TLI.
2. CSM LBR data will be recorded during all P24 landmark tracking.
3. CSM HBR will be recorded during Launch, TLI, SIVB/CSM SEP, TD&E, all CSM SPS maneuvers (except LOPC), Sim Door Jettison, docking, undocking, and LM Final Separation.
4. LM LBR data will be recorded during STDN LOS periods between LM comm activation and PDI.
5. All entry data will be recorded in HBR during the black-out.
6. Lunar Sounder data will be managed per Table 2-15.

C. Electrical Power

1. The CSM normally remains powered up throughout the mission.
2. Table 2-5 lists the fuel cell purges.
3. Based on cryo purity and performance, the time between fuel cell O_2 purges may be increased to coincide with water dump times. The first O_2 purge allows a judgement to be made on the defined purge schedule.
4. The cryogenic heaters are managed such that the planned usage is obtained out of each O_2 tank. The H_2 fans are cycled prior to each sleep period.
5. Table 2-6 contains the battery charge schedule.

D. ECS and Water Management

1. Potable water is chlorinated once a day after the eat period prior to each sleep period.
2. Waste water dump, fuel cell purge, and urine collection scheduling criteria:
 - (a) Table 2-5 contains the scheduled fuel cell purges, urine dumps and waste water dumps
 - (1) Approximately once during each 24 hours following the initial dump and purge when three crewmen are in the CSM. Reduce interval to 22 hours when one crewman is in the CSM.
 - (2) H_2 fuel cell purges are scheduled at every other O_2 fuel cell purge after the first O_2 fuel cell purge
 - (b) The most opportune times to perform waste water dumps and fuel cell purges are as follows:
 - (1) Immediately after the sextant star check in maneuver preparation or cislunar navigation

- (2) Behind the moon, with completion of dump or purge before AOS
 - (3) At least three hours prior to SIM Bay photography and laser altimeter operation
 - (c) If possible, dumps and purges are not scheduled during the following periods, except just prior to the burn.
 - (1) Ten hours before MCC-2
 - (2) Eight hours before MCC-5
 - (d) Dumps and purges are not scheduled during the following STDN tracking periods:
 - (1) Between MCC-4 and LOI
 - (2) Ten hours before MCC-7 until entry, except urine is dumped just prior to MCC-7.
 - (e) All waste water dumps are manual.
- 3. Only one CO₂ absorber filter (LiOH canister) is changed at a time. Table 2-7 lists the LiOH canister change schedule. There are 26 filters on board.
 - 4. At lift-off, the cabin contains 60% O₂ and 40% N₂. The CM is purged after launch. The purge is terminated prior to LM pressurization after TLI. After the LM is configured for ejection, it is isolated and the CM is purged for eight more hours. The purge is stopped for a sleep period and reinitiated after sleep.
 - 5. CSM O₂ pressurizes the LM after transposition and docking; and repressurizes the LM before TLC LM entry(s), MCC-4 and LM activation.

E. Guidance and Navigation

1. REFSMMAT Definitions

- (a) The "Launch Pad" REFSMMAT is used for launch, TLI, and TD&E. This REFSMMAT places the IMU X-axis along the launch azimuth at the pad and the Z-axis along the negative radius vector.
- (b) The "PTC" REFSMMAT is used for all midcourse maneuvers (except MCC-7) and for other operations during TLC and TEC. This REFSMMAT places the X-axis in the ecliptic plane and perpendicular to the earth-moon line projection in the ecliptic plane at the average time of transearth injection for the monthly launch window and azimuth range. The Z-axis is perpendicular to the ecliptic and directed south. At the beginning of the PTC Mode the spacecraft maneuvers to an FDAI display of pitch 90° or 270° .
- (c) A "Preferred" REFSMMAT is used by the CSM for LOI, Lunar-Orbit Plane Change, and TEI. The CSM IMU X-axis aligns normally with the spacecraft X-body axis (except LOPC) at the vehicle attitude for ignition with the thrust directed through the center of gravity. At burn ignition, the FDAI displays roll 0° , pitch 0° , and yaw 0° , except roll 180° for TEI. A yaw of 315° is used for LOPC, which places the X-axis 45° from the IMU X-axis.
- (d) The "Landing Site" REFSMMAT is used for DOI, PDI, landing, and CSM lunar orbit activities up to the first plane change. This REFSMMAT places the CSM and LM IMU X-axis along the positive lunar radius vector at the landing site at the predicted landing time and places the Z-axis in the direction of flight parallel to the CSM orbital plane. At nominal touchdown, the LM FDAI displays roll 0° , pitch 0° , and yaw 0° .
- (e) The "Lift-Off" REFSMMAT is used for all lunar activities after Plane Change, until transearth injection. This REFSMMAT places the CSM and LM IMU X-axis along the positive lunar radius vector at the landing site at predicted lift-off time, with the Z-axis down range parallel to the CSM orbital plane. At nominal lift-off time, the LM FDAI displays roll 0° , pitch 0° , and yaw 0° with slight differences reflecting actual touchdown yaw and slope tilt angles.

- (f) The "Entry" REFSMMAT aligns the IMU X-axis in the local horizontal plane in the direction of flight at entry interface. The entry REFSMMAT is used for MCC-7 and all remaining activities. The Z-axis is down along the negative radius at entry interface. At entry interface, with wings level, local horizontal, heat shield forward inplane, lift up, heads down, the FDAI displays roll 0°, pitch 180°, and yaw 0°.
2. The CSM external lighting is operated during the rendezvous from lift-off to docking. The running lights only are on from CSM/LM separation through PDI.
 3. The time tags on attitude maneuvers in Section 3 indicate the be-there-by time unless otherwise stated. All maneuver angles are the angles read on the FDAI after the maneuver has been completed.
 4. CSM/LM and CSM attitude maneuvers are normally performed at the rate of 0.2°/sec unless other rates are required. LM maneuvers are normally performed at 2°/sec unless otherwise specified.
 5. The SIM Bay RCS configuration provides single jet control authority in each axis to eliminate contamination of the SIM experiments. Table 2-8 identifies the periods when the CSM RCS is in an uncoupled configuration.
 6. Undocking is done radially, CSM below, using the soft undocking procedure. The probe is extended its full length with the LM held on by the capture latches. When the rates are nulled, the CSM releases the LM. The separation maneuver is then performed immediately.
 7. LM jettison is done radially, CSM below, with final sep pyros providing approximately 0.4 foot per second radial thrust. The separation burn is performed five minutes after jettison, providing 2 foot per second posigrade thrust.
 8. The standard register load for nouns 78 and 70 for SIM bay experiment pointing using the Universal Tracking Program P20, option 5 is:
N78 (+090.00)
 (+052.25)
 (+180.00) +X-axis forward
 or (+000.00) -X-axis forward
N70 (00050)

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9. The SC RCS configuration and maneuver control is shown as a DAP LOAD code in the time column where applicable in Section 3. During passive thermal control the code is shown as a note indicating the status of the DAP.

F. Propulsion Systems

1. In order to conserve SM RCS, the SPS engine is used to "back-up" all LM rendezvous burns requiring a ΔV greater than 12 FPS. The SPS gimbal motors are not turned on during the normal maneuver preparation.
2. The SPS always is started using a single bank, however, the other bank will be opened 2 to 5 seconds after ignition for burns longer than 10 seconds. DOI will be performed on a single bank.
3. Table 2-9 lists the CSM propulsion burns.

G. Scientific Instruments Module

1. The panoramic and mapping cameras will be placed in the boost and standby modes, respectively, during launch through TD&E, rendezvous, and all SPS thrusting maneuvers.
2. The following switches may be left in their command position between uses in order to keep track of SIM Bay experiment status:
 - a) Mapping Camera Track
 - b) Mapping Camera/Laser Cover
 - c) IR Cover
 - d) UV Cover

The logic power will be in the OFF (center) position during SPS burns and all other events that may induce vibration or shock, i.e., undocking and rendezvous through LM jettison.

3. The SIM experiment status will be indicated in the upper righthand corner of each page, or half page in the CSM flight plan, of Section 3. The first line will indicate the CSM attitude and experiments positions at the beginning of each hour or half-hour as applicable. The second line indicates the experiments' functional modes as previously set up. Page xxv defines the SIM experiment position and mode status code.

III. LM Systems

A. Communications

1. The preferred S-Band communications are:
 - (a) Uplink Mode 7 (Voice, Updata)
 - (b) Downlink Mode 2 (Voice, TLM-HBR, PRN, BIOMED)
2. The LM DSEA schedule is shown in Table 2-10.

B. ECS

1. The LM contains ambient air at lift-off. During launch the pressure bleeds to zero psia. CSM O_2 pressurizes the LM after T&D. The LM is isolated after T&D and after each entry and allowed to bleed down via leakage. Before the first entry into the LM, the LM is vented to at least 2.7 PSID and repressurized with CSM O_2 in order to enrich the LM atmosphere. CSM O_2 is used to repressurize the LM for the second and third entries.
2. LM O_2 is used to pressurize the LM five times; after EVA-1, EVA-2, EVA-3, and two equipment jettison periods.
3. Table 2-7 lists the LiOH canister change schedule.

C. Guidance Systems

1. The LGC and CMC use the same landing site and lift-off REFSMMATS.
2. The AGS is placed in standby after the "GO" is given for lunar stay for T3.

3. The IMU platform is oriented so that all PIPA output axes are normal to the gravity vector, then powered down and the LGC placed in standby approximately 1 hour after TD until approximately 5 hours prior to lift-off. The LGC is placed in OPERATE several times to update the computer clock.
4. To prevent overheating of the antenna, the rendezvous radar is pointed away from the sun and turned off when no functional use is required.
5. The LM tracking light is operated continuously during rendezvous.

D. Propulsion Systems

1. The APS/RCS interconnect is used during the lunar lift-off and ascent only.
2. Table 2-11 lists the LM propulsion burns.

E. Electrical Power System

1. The LM is powered down to a minimum level to conserve battery consumables on the lunar surface from PDI +1:00 to lift-off -5:00 hours.
2. LM battery management is scheduled on the lunar surface to equalize the usage of the five descent stage batteries. Table 2-6 contains the LM battery management schedule.

IV. Procedures

- A. CSM - Crew procedures called out in the flight plan may be found in the referenced crew checklist.
- B. LM - Crew procedures called out in the flight plan may be found in the referenced crew checklist.

V. Synchronization of Ground Elapsed Time (GET)

The realtime GET is synchronized with the Flight Plan GET. In TLC, the GET is synchronized at 67:30 if the time propagated ahead to start of Rev 2 is more than +1 minute from the flight plan GET. In lunar orbit the GET is synchronized at 95:40 and at 209:40 if the time propagated ahead to start of Rev 26 and Rev 66 respectively is more than +2 minutes from the flight plan GET. The synchronization is performed by a V70 uplink from the ground followed by the crew synchronizing the mission timer to the CMC clock.

VI. Miscellaneous

- A. Table 2-12 contains a schedule of the return to earth block data updates.
- B. Table 2-13 is the landmark tracking and landing site data.
- C. Table 2-14 contains the cryo management schedule.
- D. Table 2-15 contains the Lunar Sounder Schedule.
- E. Table 2-16 contains the Apollo 17 Film Budget.
- F. Table 2-17 contains MC, LA and PC schedules.
- G. Charts 2-1,2,3,4 & 5 identify principal LUNAR SOUNDER Rev activities.

SECTION 2 - CHARTS & TABLES

TABLE 2-1
(12/6)

SUIT WEARING SCHEDULE

ACTIVITY	PRESSURIZED (HARD SUIT)	SUITED (SOFT SUIT)	PARTIAL SUIT WITH- OUT HELMET & GLOVES	SHIRTSLEEVES (ICG)
LAUNCH		ALL		
EARTH ORBIT THRU S-IVB EVASIVE MNVR			ALL	
TLC & TEC EXCEPT TEC EVA				ALL
PGA TEST			ALL	
LM ACTIVATION			ALL	
UNDocking		CDR & LMP	CMP*	
UNDock +5 MIN THRU CIRC			ALL	
PDI thru TD		CDR & LMP	CMP	
LUNAR STAY EXCEPT EVA				ALL
LUNAR SURFACE EVA'S & EQUIP JETT	CDR & LMP			CMP
LIFT-OFF PREP			ALL	
LIFT-OFF THRU DOCKING		CDR & LMP	CMP	
DOCKING TO LM JETT			ALL	
LM JETT		ALL		
POST LM JETT THRU TEI				ALL
TEC EVA	ALL			
ENTRY				ALL

*CMP DON HELMET & GLOVES FOR DOCKING LATCHES RELEASE.

TABLE 2-2
(12/6)

CREW BIOMED HARNESS WEARING SCHEDULE*

<u>GET (HR:MIN)</u>	<u>CDR</u>	<u>CMP</u>	<u>LMP</u>
LAUNCH	ON	ON	ON
05:50		OFF	OFF
19:00	OFF		ON
36:00		ON	OFF
47:00	ON	OFF	
59:00	OFF		ON
69:35		ON	OFF
85:10	ON	OFF	
95:10	OFF		ON
107:25	ON		
107:50		ON	
125:00	OFF**		
147:30	ON		OFF**
171:00	OFF**		ON
184:25	ON		
194:30	OFF	OFF	
210:43		ON	OFF
217:30	ON	OFF	
230:40	OFF		ON
238:30		ON	OFF
253:55	ON		ON
258:55		OFF	OFF
279:05	OFF		ON
286:55		ON	OFF
300:25	ON		ON

*In the event of an inflight medical problem or illness the Flight Surgeon has the option to revise this schedule.

**Crew option - the crewman not on BIOMED data downlink may elect to remove his BIOMED Harness during the lunar surface rest periods.

TABLE 2-3
(12/6)

CSM COVERAGE BY STDN STATIONS USING 85 FT/210 FT DISH ANTENNA

	GOLDSTONE (GDS)		*PARKS (PKS)		HONEYSUCKLE (HSK)		MADRID (MAD)		*GOLDSTONE (MAR)	
	AOS	LOS	AOS	LOS	AOS	LOS	AOS	LOS	AOS	LOS
EARTH ORBIT	01:29	01:33			01:00	01:05				
	03:00	03:06							03:01	03:05
TLI (3:21)	15:17	25:09			04:05	08:26	07:54	16:59	15:52	24:34
TRANSLUNAR COAST					19:35	33:27				
			22:15	30:58			22:15	30:58		
							32:07	41:52		
	39:28	49:41							40:00	49:08
LOI (88:56)	63:30	73:54	46:40	55:08	44:06	57:35	56:09	66:10	64:02	73:22
			70:50	79:11	68:18	81:36				
	87:28	88:44					80:08	88:44	87:59	88:44
TEI (236:40)					242:38	252:30				
TRANSEARTH COAST			245:42	249:33					236:52	247:40
							250:45	265:01		
	258:25	272:24							258:56	271:52
			270:22	272:53	266:52	276:17				
							274:34	289:38		
	282:17	297:25							282:50	296:43
					291:48	299:12				
EI (304:18)							298:15	303:49		

* 210 FT DISH ANTENNA

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TABLE 2-3 (CONT)

REF	GET AT START OF REV	GOLDSTONE (GDS)		*PARKS (PKS)		HONEYSUCKLE (HSK)		MADRID (MAD)		*GOLDSTONE (MAR)	
		AOS	LOS	AOS	LOS	AOS	LOS	AOS	LOS	AOS	LOS
LOI	88:56										
1	88:56	89:17	90:41					89:17	90:16	89:17	90:41
2	90:59	91:25	92:49			92:27	92:49			91:25	92:49
3	93:07	93:35	94:41			93:35	94:41			93:35	94:41
4	95:01	95:29	96:35	95:29	96:35	95:29	96:35			95:29	96:35
5	96:55	97:23	98:15	97:23	98:29	97:23	98:29			97:23	97:41
6	98:49			99:17	100:23	99:17	100:23				
7	100:43			101:11	102:17	101:11	102:17				
8	102:37			103:05	103:26	103:05	104:12				
9	104:31					105:00	105:54	104:59	106:05		
10	106:25							106:53	107:59		
11	108:19							108:47	109:54		
12	110:13							110:42	111:48		
13	112:07	112:34	113:46					112:34	113:47	112:34	113:46
14	114:06	114:32	115:45					114:33	115:20	114:32	115:45
15	116:04	116:31	117:44			117:28	117:43			116:31	117:44
16	118:01	118:30	119:42			118:29	119:42			118:30	119:42
17	120:02	120:28	121:41	120:28	121:41	120:28	121:41			120:28	121:41
18	122:00	122:27	123:16	122:27	123:39	122:27	123:39			122:27	122:43
19	123:59			124:25	125:38	124:25	125:38				
20	125:57			126:24	127:37	126:24	127:37				
21	127:56					128:23	129:36	128:45	129:35		
22	129:55							130:21	131:34		
23	131:53							132:20	133:33		
24	133:52							134:18	135:31		
25	135:50	136:21	137:30					136:17	137:30	136:51	137:30
26	137:49	138:15	139:28					138:15	139:29	138:15	139:28
27	139:48	140:14	141:27					140:14	140:23	140:14	141:27
28	141:46	142:13	143:26			142:27	143:25			142:13	143:26
29	143:45	144:11	145:24	145:04	145:24	144:11	145:24			144:11	145:24
30	145:43	146:10	147:23	146:09	147:23	146:09	147:23			146:10	147:23
31	147:42	148:08	148:16	148:08	149:21	148:08	149:21				
32	149:41			150:06	151:20	150:06	151:20				
33	151:39			152:05	152:23	152:05	153:19	153:11	153:18		
34	153:38					154:04	154:50	154:04	155:17		
35	155:37							156:02	157:15		
36	157:35							158:01	159:14		
37	159:34	160:50	161:12					159:59	161:13		
38	161:32	161:58	163:11					161:58	163:12	161:58	163:11
39	163:31	163:56	165:10					163:57	165:10	163:56	165:10
40	165:30	165:55	167:08							165:55	167:08
41	167:28	167:54	169:07			167:53	169:07			167:54	169:07

* 210 FT ANTENNA

TABLE 2-3 (CONT)

REF	GET AT START OF REV	GOLDSTONE (GDS)		*PARKS (PKS)		HONEYSUCKLE (HSK)		MADRID (MAD)		*GOLDSTONE (MAR)	
		AOS	LOS	AOS	LOS	AOS	LOS	AOS	LOS	AOS	LOS
LOI	88:56										
42	169:27	169:52	171:06	170:08	171:05	169:52	171:05			169:52	171:06
43	171:25	171:51	173:04	171:50	173:04	171:50	173:04			171:51	172:51
44	173:24			173:49	175:03	173:49	175:03				
45	175:23					175:48	176:50				
46	177:21					177:46	179:00	177:46	179:00		
47	179:20							179:45	180:58		
48	181:18							181:43	182:57		
49	183:17							183:42	184:56		
50	185:16	185:40	186:54					185:41	186:55	185:49	186:54
51	187:14	187:39	188:53					187:39	188:53	187:39	188:53
52	189:13	189:38	190:52					189:38	190:41	189:38	190:52
53	191:12	191:36	192:50			192:39	192:50			191:36	192:50
54	193:10	193:35	194:49			193:34	194:48			193:35	194:49
55	195:09	195:34	196:48	195:33	196:47	195:33	196:47			195:34	196:48
56	197:08	197:32	198:28	197:32	198:46	197:32	198:46			197:32	197:54
57	199:06			199:31	200:45	199:31	200:45				
58	201:05					201:29	202:44	202:04	202:43		
59	203:04					203:28	203:49	203:28	204:42		
60	205:03							205:27	206:41		
61	207:01							207:25	208:34		
62	209:00	209:52	210:38					209:24	210:38	210:24	210:38
63	210:59	211:22	212:36					211:23	212:37	211:22	212:36
64	212:58	213:21	214:35					213:21	214:36	213:21	214:35
65	214:56	215:20	216:34					215:20	215:51	215:20	216:34
66	216:55	217:19	218:33			217:46	218:32			217:19	218:33
67	218:54	219:17	220:32			219:17	220:31			219:17	220:32
68	220:53	221:16	222:30	221:15	222:30	221:15	222:30			221:16	222:30
69	222:51	223:15	223:35	223:14	224:29	223:14	224:29				
70	224:50			225:13	225:34	225:13	226:27				
71	226:49					227:12	228:26	227:12	228:25		
72	228:48							229:10	230:24		
73	230:46							231:09	232:23		
74	232:45							233:08	234:22		
75	234:44	235:06	236:20					235:07	236:21	235:06	236:20
TEI	236:43	236:53	248:11					236:53	240:51	236:52	247:40

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TABLE 2-4
(12/6)

APOLLO 17 TV SCHEDULE

<u>DAY</u>	<u>DATE</u>	<u>CST</u>	<u>GET (HR:MIN)</u>	<u>DURATION (HR:MIN)</u>	<u>ACTIVITY SUBJECT</u>	<u>VEHICLE</u>	<u>STATION</u>
THURSDAY	7 DEC	01:05AM	4:12	0:20	TRANSPOSITION & DOCKING	CSM	HSK
MONDAY	11 DEC	6:48PM	117:55	5:19	LUNAR SURFACE EVA-1*	LRV	GDS/HSK/PKS
TUESDAY	12 DEC	4:21PM	139:38	6:21	LUNAR SURFACE EVA-2*	LRV	GDS
WEDNESDAY	13 DEC	3:58PM	163:05	6:35	LUNAR SURFACE EVA-3*	LRV	GDS
THURSDAY	14 DEC	4:41PM	187:48	0:25	LM LIFT-OFF	LRV	GDS/MAD
THURSDAY	14 DEC	6:31PM	189:38	0:06	RENDEZVOUS	CSM	GDS/MAD
THURSDAY	14 DEC	6:54PM	190:01	0:05	DOCKING	CSM	GDS/MAD
SATURDAY	16 DEC	5:46PM	236:53	0:32	VIEW OF MOON AFTER TEI	CSM	GDS/MAD
SUNDAY	17 DEC	2:19PM	257:26	1:04	TRANSEARTH EVA	CSM	MAD
MONDAY	18 DEC	5:00PM	284:07	0:30	TEC PRESS CONFERENCE	CSM	GDS/MAD

*TV WILL NOT BE USED WHILE LRV IS IN MOTION

TABLE 2-5
(12/6)

FUEL CELL PURGE, URINE DUMP AND WASTE WATER DUMP SCHEDULE

GET	O ₂ FC PURGE		H ₂ FC PURGE		WASTE H ₂ O DUMP		URINE COLLECTION PERIODS			URINE DUMP	
(HR:MIN)	NO	ΔT (HR:MIN)	NO	ΔT (HR:MIN)	NO	ΔT (HR:MIN)	GET		ΔT	NO	ΔT (HR:MIN)
							START	STOP			
*18:30	1	18:30			1	18:30	07:00	18:30	11:30	1	18:30
*35:00	2	16:30	1	35:00	2	16:30	18:30	35:00	16:30	2	16:30
*58:45	3	23:45			3	23:45	35:00	58:45	23:45	3	23:45
*83:30	4	24:45	2	48:30	4	24:45	58:45	83:30	24:45	4	24:45
94:13	5	10:43			5	10:43					
*117:45	6	23:32	3	34:15	6	23:32	83:30	107:00	23:30	5	34:15 & UTCA
**137:45	7	20:00			7	20:00	114:30	133:00	18:30	6	20:00
**159:40	8	21:55	4	41:55	8	21:55	133:00	156:10	23:10	7	21:55
**180:45	9	21:05			9	21:05	156:10	180:45	24:35	8	21:05
194:20										DUMP UTCA'S POST RNDZ	
196:50	10	16:05	5	37:10	10	16:05					
**208:20							180:45	208:00	27:15	DUMP UTS	
218:30	11	21:40			11	21:40					
*230:30	12	12:00	6	33:40	12	12:00	208:00	230:25	22:30	9	22:10
*252:50	13	22:20			13	22:20	230:25	252:50	22:25	10	22:20
*276:50	14	24:00	7	46:20	14	24:00	252:50	276:50	24:00	11	24:00
*300:30							276:50	300:30	23:40	12	23:40
*303:30							300:30	303:30	03:00	NO DUMP	

*DUMP URINE FROM BUSS'S (3)

**DUMP URINE FROM BUSS (1)

DUMP LAUNCH UTCA'S 06:30

TRANSFER TO LM - 108:00

TRANSFER TO CM - 193:00

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TABLE 2-6
(12/6)

CSM BATTERY CHARGE AND LM BATTERY MANAGEMENT SCHEDULES

CSM BATTERY CHARGE SCHEDULE

GET (HR:MIN)	BATTERY
09:00	B
18:40	A
35:55	A
59:55	B
114:35	B
140:22	A
208:02	B
277:00	A
283:57	B

LM BATTERY MANAGEMENT SCHEDULE

GET (HR:MIN)	BATTERY						
	1	2	3	4	5	6	L
108:18	ON	ON	ON	ON	OFF	OFF	OFF
112:20					ON	ON	
113:17					OFF	OFF	
113:37	OFF	OFF					LMP
127:30	ON	ON	OFF	OFF			CDR
137:45			ON	ON			OFF
147:10			OFF	OFF			CDR
161:15	OFF	OFF	ON	ON			LMP
170:50	ON	ON					OFF
187:27	OFF		OFF		ON	ON	
187:49		OFF		OFF			

L - LUNAR BATTERY MAY BE USED ON EITHER CDR OR LMP BUS

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TABLE 2-7
(12/6)

LiOH CANISTER CHANGE SCHEDULE

CSM LiOH CANISTER CHANGE

CHANGE NO	APPROX GET (HR:MIN)	APPROX ΔT (HR)	INSTALL		REMOVE & STOW		TOTAL TIME INSTALLED
			CANISTER NO.	POSITION	CANISTER NO.	STOWAGE LOCATION	
1	08:50	15	3	A	1	B5	*08:50
2	23:00	10	4	B	2	B5	*23:00
3	33:00	14	5	A	3	B5	24:10
4	47:00	10	6	B	4	B5	24:00
5	57:30	14	7	A	5	B6	24:30
6	71:00	12	8	B	6	B6	24:00
7	83:00	12	9	A	7	B6	25:30
8	95:00	13	10	B	8	B6	24:00
9	108:10	24	11	A	9	A9	25:10
10	132:00	11	12	B	10	A9	37:00
11	143:15	25	13	A	11	A9	35:05
12	167:45	14	14	B	12	A9	35:45
13	181:00	14	15	A	13	A3	37:45
14	195:25	13	16	B	14	A3	27:40
15	208:35	10	17	A	15	A3	27:35
16	218:12	13	18	B	16	A3	22:47
17	231:00	10	19	A	17	A4	22:25
18	240:30	12	20	B	18	A4	22:18
19	252:15	12	21	A	19	A4	21:15
20	264:30	16	22	B	20	A4	24:00
21	281:00	8	23	A	21	A5	28:45
22	287:50		24	B	22	A5	23:20

LM LiOH CANISTER CHANGE: GET (HR:MIN) 137:30 AND 172:55

TOTAL CM LiOH CANISTERS AVAILABLE 26

*GET FROM LIFTOFF

TABLE 2-8
(12/6)

CSM RCS UNCOUPLED CONFIGURATION

FROM (HR:MIN)	TO (HR:MIN)	REASON
8:35	8:55	RATE DAMPING FOR PTC
19:20	19:40	RATE DAMPING FOR PTC
42:35	43:50	RATE DAMPING FOR PTC & HEAT FLOW EXP
63:50	64:10	RATE DAMPING FOR PTC
90:39	91:22	SIM EXP
94:29	106:52	SIM EXP
113:18	182:16	SIM EXP
183:12	184:30	ROLL AXIS ONLY FOR MC/PC
194:14	233:05	SIM EXP
233:05	234:23	ROLL AXIS ONLY FOR MC/PC
236:48	240:45	SIM EXP
240:50	241:10	RATE DAMPING FOR PTC
256:45	259:20	CSM EVA
259:20	263:40	SIM EXP
263:40	264:00	RATE DAMPING FOR PTC
265:00	265:20	RATE DAMPING FOR PTC
276:30	285:30	SIM EXP
285:30	285:35	RATE DAMPING FOR PTC
286:15	287:20	SIM EXP
288:15	288:40	RATE DAMPING FOR PTC

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TABLE 2-9
(12/6)

CSM BURN/EVENT SCHEDULE

BURN/ EVENT	GET I(HR:MIN)/ BURN TIME	Δ VT (FPS)	ULLAGE BT	REFSMMAT	RESULTANT HA/HP(NM)	DATE/ CST
LAUNCH SATURN	00:00 11 MIN 51.5 SEC	24,263	--	LAUNCH	93.4 89.7	DEC 6 20:53
S-IVB TLI	03:21:19.3 5 MIN 45.7 SEC	10,346.8	--	LAUNCH	--	DEC 7 00:14
CSM/LM EJECTION	05:07:00.0 3.0 SEC	1.2	--	LAUNCH	--	DEC 7 1:54
MCC-1	08:45	Nom Zero	--	PTC	--	DEC 7 05:38
MCC-2	35:30	Nom Zero	--	PTC	--	DEC 8 08:23
MCC-3	66:55	Nom Zero	--	PTC	--	DEC 9 15:48
MCC-4	83:55	Nom Zero	--	PTC	--	DEC 10 8:48
LOI SPS	88:55:37.5 06 MIN 35.4 SEC	2979.9	--	LOI	170.8 51.4	DEC 10 13:48
DOI SPS	93:13:08.5 22.9 SEC	198.7	4 JETS 15 SEC	LDG SITE	59.00 15.00	DEC 10 18:06
BAILOUT SPS	93:48:16.8 11.05 SEC	100	4 JETS 17 SEC	LDG SITE	61.5 5.0	DEC 10 18:41
DOI TRIM SPS	AS REQD			LS OR LOPC-1 AS REQD		
UNDOCK & SEP(RCS)	110:27:55.2 3.3 SEC	1.0	--	LDG SITE	60.33 13.6	DEC 11 11:20
CSM CIRC SPS	111:55:22.7 4.0 SEC	70.1	4 JETS 12 SEC	LDG SITE	70.3 54.3	DEC 11 12:48
LOPC SPS	182:35:45.3 18.7 SEC	336.7	4 JETS 12 SEC	LOPC-1	63.0 61.3	DEC 14 11:29
LM JETT	193:58:30.0	2.5	--	LIFT-OFF	62.2 60.3	DEC 14 22:51
CSM SEP RCS	194:03:30.0 12.6 SEC	2.0	--	LIFT-OFF	63.9 62.3	DEC 14 22:56

TABLE 2-9 (CONT)

CSM BURN/EVENT SCHEDULE

BURN/ EVENT	GET I(HR:MIN) BURN TIME	Δ VT (FPS)	ULLAGE BT	REFSMMAT	RESULTANT HA/HP(NM)	DATE/ CST
TEI SPS	236:39:51.1 2 MIN 22.2 SEC	3045.7	4 JETS 12 SEC	TEI	--	DEC 16 17:33
MCC-5	253:40	Nom Zero	--	PTC	--	DEC 17 10:33
MCC-6	282:18	Nom Zero	--	PTC	--	DEC 18 15:11
MCC-7	301:18	Nom Zero	--	ENTRY	--	DEC 19 10:11
EI	304:18:0.5	NO BURN	--	ENTRY	--	DEC 19 13:11
SPLASH- DOWN	304:31:10.5	NO BURN	--	ENTRY	--	DEC 19 13:24

TABLE 2-10

APOLLO 17 LM DSEA

<u>ACTIVITY</u>	<u>MODE</u>	<u>GET (HR:MIN)</u>	<u>TAPE USED* (HR:MIN)</u>	<u>ACCUM. TAPE USED (HR:MIN)</u>
COMM ACTIVATION	ICS/PTT	108:37	3:58 X 100%	
PDI PREP	VOX	112:35	= 3:58	3:58
PDI PREP	VOX	112:35	0:37 X 63%	
POST TOUCHDOWN (T2)	OFF	113:12	= 0:23.3	4:21
EVA-1 PLSS COMM CK	VOX	116:10	0:50 X 63%	
EVA-1 LMP EGRESS	OFF	117:00	= 0:31.5	4:53
EVA-2 PLSS COMM CK	VOX	138:40	0:50 X 63%	
EVA-2 LMP EGRESS	OFF	139:30	= 0:31.5	5:24
EVA-3 PLSS COMM CK	VOX	162:10	0:50 X 63%	
EVA-3 LMP EGRESS	OFF	163:00	= 0:31.5	5:56
JETTISON #1 PREP	VOX	170:40	0:20 X 63%	
JETTISON #1 POST	OFF	171:00	= 0:12.3	6:08
JETTISON #2 PREP	VOX	185:13	0:17 X 63%	
JETTISON #2 POST	OFF	185:30	= 0:10.7	6:19
ASCENT COMM (L/O -17 MIN)	ICS/PTT	187:46	0:17 X 100%	
LIFT-OFF -2 MIN	VOX	188:01	= 0:17	6:36
LIFT-OFF -2 MIN	VOX	188:01	0:10 X 63%	
INSERTION	ICS/PTT	188:11	= 0:6.3	6:42
INSERTION	ICS/PTT	188:11	1:59 X 100%	
POST DOCKING	OFF	190:10	= 1:59	8:41

*TAPE USED = RECORD TIME X DUTY CYCLE

**REMAINING TAPE (1:19) MAY BE USED AT CREW DISCRETION.

TABLE 2-11
(12/6)

LM BURN/EVENT SCHEDULE

BURN/ EVENT	GETI (HR:MIN) BURN TIME	Δ VT (FPS)	ULLAGE BT	REFSMMAT	RESULTANT HA/HP(NM)	DATE/ CST
DOI-2	112:00:33.7 26.9 SEC	9.4	--	LDG SITE	60.0 7.2	DEC 11 12:53
PDI	112:49:37.7 12 MIN 00 SEC	6701.8	4 JET 7.5SEC	LDG SITE	--	DEC 11 13:42
LANDING	113:01:38.1	NO BURN	--	--	LUNAR SURFACE	DEC 11 13:54
EVA-1	116:40	NO BURN	--	--	--	DEC 11 17:33
EVA-2	139:10	NO BURN	--	--	--	DEC 12 16:03
EVA-3	162:40	NO BURN	--	--	--	DEC 13 15:33
ASCENT	188:03:14.6 7 MIN 17.7 SEC	6062.2	None	LIFTOFF	47.85 9.06	DEC 14 16:56
ORBIT INSERTION	188:10:32.3	NO BURN	--	--		DEC 14 17:03
TPI	188:57:32.3 2.7 SEC	76.6	4 JET 10 SEC	LIFTOFF	64.4 46.7	DEC 14 17:50
BRAKING GATES	189:36:35.0 to 189:43:10.5		--	--	62.4 61.8	DEC 14 18:29
DOCKING	190:05:00.0	NO BURN	--	--	62.4 61.8	DEC 14 19:53
LM DEORBIT	195:39:13.0 1 MIN 56.4 SEC	281.8	--	LIFTOFF	64.9 -141.8	DEC 15 01:34

TABLE 2-12
(12/6)
APOLLO 17 RETURN TO EARTH BLOCK DATA SCHEDULE

DATA	GET UPDATE (HR:MIN)	GETI (HR:MIN)	PAD TYPE
TLI+90	01:30	04:50	COMPLETE P-30
L/O+9	01:30	09:00	P37
L/O+15	08:30	15:00	P37
L/O+25	08:30	25:00	P37
L/O+35	16:30	35:00	P37
L/O+45	16:30	45:00	P37
L/O+55	16:30	55:00	P37
L/O+65	16:30	65:00	P37
*FLYBY	40:55	83:56	P30
*PER+2	82:40	90:56	ABB P-30
TEI 4	85:10	97:22	ABB P-30
TEI 5	91:45	98:41	ABB P-30
TEI 12	95:30	111:56	ABB P-30
TEI 19	95:30	125:49	ABB P-30
TEI 26	118:37	139:43	ABB P-30
TEI 38	137:00	163:24	ABB P-30
TEI 49	144:15	185:17	ABB P-30
TEI 55	170:30	197:01	ABB P-30
TEI 65	195:47	216:43	ABB P-30
TEI 72	213:37	230:39	ABB P-30
<u>PREL</u>			
TEI 75	229:58	236:41	COMPLETE P-30
<u>NOM</u>			
TEI 75	235:32	236:41	COMPLETE P30
<u>ONE REV LATE</u>			
TEI 76	235:32	238:37	ABB P-30

*ASSUMES DOCKED CONFIGURATION

TABLE 2-12 (CONT)
(12/6)

APOLLO 17 RETURN TO EARTH BLOCK DATA SCHEDULE

NOTES:

1. All block data maneuvers are to the MPL line except
 - a. TLI +90 abort is to the AOL
 - b. Nominal TEI 75 and backup Rev TEI 76 is to the EOM target ($\lambda=166^\circ\text{W}$)
2. Pass FLYBY early if pericynthion is not clear of moon
3. The FLYBY and PER+2 maneuvers are docked. All other aborts are undocked.
4. TEI 4 assumes no DOI.
5. TEI 5 assumes DOI.
6. TEI 12 assumes no CIRC.
7. TEI 19 assumes CIRC.
8. TEI 49 assumes no LOPC.
9. TEI 55 assumes LOPC.

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TABLE 2-13
(12/6)

LANDMARK AND LANDING SITE DATA

SITE	REV	LATITUDE (DEG)	LONGITUDE (DEG)	ALTITUDE* (NM)
TAURUS LITTROW		20.164	30.750	-1.95
J-3	3	19.948	40.102	0.0
17-1	12,13,50	20.160	30.809	-1.96
17-2	12**	20.020	30.804	-1.97
17-3	12**	20.272	30.700	-1.89
RP-3	13	-3.694	131.912	0.0
F-1	50	1.863	88.250	0.0

*Difference between landmark radius vector and 938.4935 NM
(mean Lunar Radius)

**Rev 12 Alternates for Perigee < 10 NM

TABLE 2-14
(12/6)

CRYO MANAGEMENT SCHEDULE

GET HRS:MIN	O ₂ HTRS 1,2,&3		H ₂ HTRS 1&2		H ₂ FANS 1,2,&3		
	AUTO	OFF	AUTO	OFF	AUTO	ON	OFF
00:00	1,2	3	1,2			3	1,2
04:17	1,2,3						
05:05	1,2	3					
08:40	3	1,2			3		
15:10				1,2			
39:05	1,2,3						
39:55	3	1,2					
60:10*	1,2,3						
60:30*	3	1,2					
65:00			1,2			3	3
81:15*	1,2,3						
82:50*	3	1,2					
84:40**	1,2	3					
234:18***							
256:50	1,2,3						
259:50	1,2	3					

*If LM/CM $\Delta P > 2.4$ PSID, these actions are required.

**Open 100W cb in oxygen tanks 1 & 2 at 84:40

***Close 100W cb in O₂ tanks 1 & 2

***Open 50W cb in O₂ tanks 1, 2, & 3.

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TABLE 2-15
(12/6)

LUNAR SOUNDER SCHEDULE

REV	TARGET	GET		LONGITUDE		FILM HR:MIN
		START	STOP	START	STOP	
14	LS EMI TEST	115:10	115:59			0:08
16,17,18	HF MODE	118:54	122:59	28°E	3°E	4:05
24-26	GROUND TRACK VHF MODE	135:10	139:15	57°W	64°W	4:05
35	REINER γ & MARE RIDGE VHF MODE	156:51	156:56	49°W	64°W	0:05
36	REINER γ & MARE RIDGE HF MODE	158:50	158:55	49°W	64°W	0:05
39,40	*RCV-ONLY SEP-ON	163:56	167:23	104°E	165°W	N/A
40	MARIUS HILLS HF MODE	166:43	166:48	45°W	60°W	0:05
55	CRISIUM, SERENI- TATIS, FRA MAURO APENNINE BENCH EULER HILLS HF MODE	195:33	196:20	99°E	36°W	0:47
63,64	LS RCV ONLY SEP-OFF HF MODE	211:20	213:19	113°E	110°E	N/A
64	PASTEUR HF MODE	213:19	213:23	110°E	98°E	0:04
64	LS RCV ONLY SEP-OFF HF MODE	213:23	213:41	98°E	49°E	N/A

*REV 40 - "REC-ONLY SEP-ON" IS TERMINATED FOR 5 MIN FOR
"MARIUS HILLS HF MODE".

TABLE 2-15 (CONT)
(12/6)

LUNAR SOUNDER SCHEDULE

REV	TARGET	GET		LONGITUDE		FILM HR:MIN
		START	STOP	START	STOP	
64	TRANQUILITATIS- SERENITATIS HF MODE	213:41	213:59	49°E	8°W	0:18
64	LS RCV ONLY SEP OFF HF MODE	213:59	214:47	8°W	152°W	N/A
73	TSIOLKOVSKY FERMI HF MODE	231:00	231:06	135°E	117°E	0:06
73	APOLLONIUS VOLCANICS HF MODE	231:26	231:48	58°E	8°W	0:22
73	HERTZSPRUNG HF MODE	232:24	232:33	117°W	144°W	0:09
TOTAL FILM 10:19						

APOLLO 17 FILM BUDGET

CSM					
CAMERA:	DAC	FILM: CEX	MAGAZINE: <u>AA</u>	CAPACITY: 100%	
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
4:20	TL	UNDOCK S4BLM	30%	70%	OPS
5:07	TL	LM EJECTION	70%	0%	OPS
CAMERA:	DAC	FILM: CEX	MAGAZINE: <u>BB</u>	CAPACITY: 100%	
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
84:25	TL	DOOR JETT	5%	95%	OPS
110:59	12	LDMK TRK 17-X	3%	92%	LMK
112:20	13	LDMK TRK RP-3	4%	88%	LMK
112:54	13	LDMK TRK 17-1	4%	84%	LMK
185:43	50	F-1 TRACK	4%	80%	LMK
186:03	50	17-1 TRACK	4%	76%	LMK
189:38	52	RNDZ/DOCK	40%	36%	OPS
CAMERA:	DAC	FILM: CEX	MAGAZINE: <u>CC</u>	CAPACITY: 100%	
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
110:27	12	UNDOCKING	100%	0%	OPS
CAMERA:	DAC	FILM: CEX	MAGAZINE: <u>DD</u>	CAPACITY: 100%	
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
193:58	53	LM JETTISON	50%	50%	OPS

CSM					
CAMERA:	DAC	FILM: CEX	MAGAZINE: <u>EE</u>	CAPACITY: 100%	
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
0:00		UNSCHEDULED	0%	100%	
CAMERA:	DAC	FILM: CEX	MAGAZINE: <u>FF</u>	CAPACITY: 100%	
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
257:30	TE	CMP ON EVA	100%	0%	OPS
CAMERA:	DAC	FILM: CEX	MAGAZINE: <u>GG</u>	CAPACITY: 100%	
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
303:08	EE	FIREBALL	50%	50%	OPS
303:20	EE	DROGUE CHUTE	50%	0%	OPS
CAMERA:	DAC	FILM: CIN	MAGAZINE: <u>HH</u>	CAPACITY: 100%	
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
43:00	TL	HEATFLOW	50%	50%	X4
45:20	TL	HEATFLOW	50%	0%	X4
CAMERA:	DAC	FILM: CIN	MAGAZINE: <u>II</u>	CAPACITY: 100%	
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
8:00	TL	SC INT (OPT)	100%	0%	OPS

TABLE 2-16

APOLLO 17 FILM BUDGET

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CSM					
CAMERA: DAC	FILM: VHBW	MAGAZINE: JJ	CAPACITY: 100%		
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
0:00		UNSCHEDULED	0%	100%	
CAMERA: EL	FILM: CEX	MAGAZINE: KK	CAPACITY: 160 FR		
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
19:35	TL	EARTH	4 FR	156 FR	OPS
90:51	01	AITKEN	58 FR	98 FR	OS
110:27	12	UNDocking	10 FR	88 FR	OPS
118:04	16	AITKEN	73 FR	15 FR	OS
CAMERA: EL	FILM: CEX	MAGAZINE: LL	CAPACITY: 160 FR		
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
119:57	17	SNIADCKI	46 FR	114 FR	OS
136:39	25	LDG SITE	24 FR	90 FR	OS
142:26	28	PICARD	36 FR	54 FR	OS
144:02	29	ARABIA	21 FR	33 FR	OS

CSM					
CAMERA: EL	FILM: CEX	MAGAZINE: MM	CAPACITY: 160 FR		
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
144:24	29	PIERCE	88 FR	72 FR	OS
157:35	36	MARE INGENII	34 FR	38 FR	OS
164:26	39	D-CALDERA	19 FR	19 FR	OS
CAMERA: EL	FILM: CEX	MAGAZINE: NN	CAPACITY: 160 FR		
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
4:20	TL	UNDock S4BLM	10 FR	150 FR	OPS
5:07	TL	LM EJECTION	5 FR	145 FR	OPS
190:01	52	DOCKING	10 FR	135 FR	OPS
215:56	65	IMBRIUM(S)	28 FR	107 FR	OS
CAMERA: EL	FILM: CEX	MAGAZINE: OO	CAPACITY: 160 FR		
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
0:00	LO	SCHMITT OPT	160 FR	0 FR	OPT
CAMERA: EL	FILM: CEX	MAGAZINE: PP	CAPACITY: 160 FR		
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
0:00	LO	EVANS OPT	160 FR	0 FR	OPT

TABLE 2-16

APOLLO 17 FILM BUDGET

CSM						
CAMERA:	EL	FILM:	VHBW	MAGAZINE:	QQ	CAPACITY: 115 FR
GET	REV	TARGET	FILM USED	FILM REMAINING	REF	
89:41	01	LDG SITE	12 FR	103 FR	NST	
121:00	17	(NORTH)	12 FR	91 FR	NST	
137:34	25	SR CORONA	9 FR	82 FR	X9	
144:42	29	(SOUTH)	24 FR	58 FR	NST	
159:36	37	AITKEN	12 FR	46 FR	FST	
208:17	61	SS CORONA	9 FR	37 FR	X7	
CAMERA:	EL	FILM:	VHBW	MAGAZINE:	RR	CAPACITY: 115 FR
GET	REV	TARGET	FILM USED	FILM REMAINING	REF	
209:09	62	GAGARIN (N)	18 FR	97 FR	FST	
210:09	62	(NORTH)	24 FR	73 FR	NST	
218:08	66	(SOUTH)	24 FR	49 FR	NST	
233:58	74	(SOUTH)	12 FR	37 FR	NST	
CAMERA:	NK	FILM:	CIN	MAGAZINE:	SS	CAPACITY: 70 FR
GET	REV	TARGET	FILM USED	FILM REMAINING	REF	
68:00	TL	ALFMED	6 FR	64 FR	X1	
CAMERA:	NK	FILM:	CIN	MAGAZINE:	TI	CAPACITY: 70 FR
GET	REV	TARGET	FILM USED	FILM REMAINING	REF	
0:00		UNSCHEDULED	0 FR	70 FR		
CAMERA:	NK	FILM:	VHBW	MAGAZINE:	UU	CAPACITY: 40 FR
GET	REV	TARGET	FILM USED	FILM REMAINING	REF	
0:00		PREFLT CAL	40 FR	0 FR	CAL	

CSM						
CAMERA:	NK	FILM:	VHBW	MAGAZINE:	VV	CAPACITY: 40 FR
GET	REV	TARGET	FILM USED	FILM REMAINING	REF	
0:00		DIM LT BU	40 FR	0 FR	CAL	
CAMERA:	NK	FILM:	VHBW	MAGAZINE:	WW	CAPACITY: 40 FR
GET	REV	TARGET	FILM USED	FILM REMAINING	REF	
121:06	17	EARTHSHINE	40 FR	0 FR	X17	
CAMERA:	NK	FILM:	VHBW	MAGAZINE:	XX	CAPACITY: 40 FR
GET	REV	TARGET	FILM USED	FILM REMAINING	REF	
133:29	23	ZOD LT RED	13 FR	27 FR	X13	
163:12	38	ZOD LT BLUE	13 FR	14 FR	X13	
CAMERA:	NK	FILM:	VHBW	MAGAZINE:	YY	CAPACITY: 40 FR
GET	REV	TARGET	FILM USED	FILM REMAINING	REF	
185:00	49	ZOD LT POL	24 FR	16 FR	X11	
CAMERA:	NK	FILM:	VHBW	MAGAZINE:	ZZ	CAPACITY: 40 FR
GET	REV	TARGET	FILM USED	FILM REMAINING	REF	
0:00		UNSCHEDULED	0 FR	40 FR		

TABLE 2-16

APOLLO 17 FILM BUDGET

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LM					
CAMERA: DCL	FILM: CEX	MAGAZINE: <u>A</u>	CAPACITY: 160 FR		
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
110:30	12	LM/CM SEP	10 FR	150 FR	OPS
110:35	12	CABIN (OPT)	5 FR	145 FR	OPS
111:00	12	LDG SITE	5 FR	140 FR	OPS
112:35	13	EARTHRISE	5 FR	135 FR	OPS
116:40	LS	EVA-1	95 FR	40 FR	
CAMERA: DCC	FILM: CEX	MAGAZINE: <u>B</u>	CAPACITY: 160 FR		
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
116:40	LS	EVA-1	94 FR	66 FR	
CAMERA: DCC	FILM: CEX	MAGAZINE: <u>C</u>	CAPACITY: 160 FR		
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
139:20	LS	EVA-2	155 FR	5 FR	
CAMERA: DCC	FILM: CEX	MAGAZINE: <u>D</u>	CAPACITY: 160 FR		
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
139:20	LS	EVA-2	94 FR	66 FR	
CAMERA: DCC	FILM: CEX	MAGAZINE: <u>E</u>	CAPACITY: 160 FR		
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
163:40	LS	EVA-3	151 FR	9 FR	
CAMERA: DCC	FILM: CEX	MAGAZINE: <u>F</u>	CAPACITY: 160 FR		
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
163:40	LS	EVA-3	99 FR	61 FR	
CAMERA: DCL	FILM: HBW	MAGAZINE: <u>G</u>	CAPACITY: 170 FR		
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
116:40	LS	EVA-1	130 FR	40 FR	
CAMERA: DCL	FILM: HBW	MAGAZINE: <u>H</u>	CAPACITY: 170 FR		
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
139:20	LS	EVA-2	128 FR	42 FR	
CAMERA: DCL	FILM: HBW	MAGAZINE: <u>I</u>	CAPACITY: 170 FR		
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
139:20	LS	EVA-2	162 FR	8 FR	

LM					
CAMERA: DCL	FILM: HBW	MAGAZINE: <u>J</u>	CAPACITY: 170 FR		
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
139:20	LS	EVA-2	161 FR	9 FR	
CAMERA: DCL	FILM: HBW	MAGAZINE: <u>K</u>	CAPACITY: 170 FR		
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
139:20	LS	EVA-2	135 FR	35 FR	
CAMERA: DCL	FILM: HBW	MAGAZINE: <u>L</u>	CAPACITY: 170 FR		
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
163:40	LS	EVA-3	154 FR	16 FR	
CAMERA: DCL	FILM: HBW	MAGAZINE: <u>M</u>	CAPACITY: 170 FR		
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
163:40	LS	EVA-3	165 FR	5 FR	
CAMERA: DCL	FILM: HBW	MAGAZINE: <u>N</u>	CAPACITY: 170 FR		
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
163:40	LS	EVA-3	127 FR	43 FR	
CAMERA: DAC	FILM: CEX	MAGAZINE: <u>O</u>	CAPACITY: 100%		
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
110:30	12	LM/CM SEP	6%	94%	OPS
110:35	12	CABIN (OPT)	13%	81%	OPS
111:00	12	LDG SITE	6%	75%	OPS
112:50	13	DESCENT	75%	0%	OPS
CAMERA: DAC	FILM: CEX	MAGAZINE: <u>P</u>	CAPACITY: 100%		
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
113:02	LS	SURFACE OPT	100%	0%	
CAMERA: DAC	FILM: CEX	MAGAZINE: <u>Q</u>	CAPACITY: 100%		
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
188:03	51	ASCENT	100%	0%	
CAMERA: DC5	FILM: HBW	MAGAZINE: <u>R</u>	CAPACITY: 170 FR		
GET	REV	TARGET	FILM USED	FILM REMAINING	REF
163:40	LS	EVA 3	50 FR	120 FR	

TABLE 2-16

10/23/72

2-25

TABLE 2-17

MC/LA OPERATIONSNOTE: BECAUSE OF ABUNDANT MC FILM, ALL MC/LA START/STOP TIMES ARE ± 2 MIN/6°

REV	T START	T STOP	TYPE	LONG(START)	LONG(STOP)	DEG	HR/MIN
1/2	90:48	91:51*	VERT	144°W	26°E	190°	1:03
13/14	114:00	115:03	VERT	162°W	7°E	191°	1:03
14/15	115:59	117:25	VERT	164°W	63°W	259°	1:26
23/24	133:48	134:52	VERT	168°W	2°W	194°	1:04
26/27	139:44	140:46	N.OBL	168°W	4°E	188°	1:03
27/29	140:46	144:46	VERT	4°E	6°W	730°	4:00
35/36	157:25	158:39	S.OBL	147°W	14°W	227°	1:14
38	161:38	163:32	VERT	162°E	177°E	345°	1:54
49	183:21	184:25	VERT	167°E	28°W	195°	1:04
62/63	209:05	211:08	VERT	163°E	150°E	373°	2:03
65	215:05	215:30	N.OBL	152°E	77°E	75°	0:25
65	215:30	215:35	MNVR	77°E	62°E	15°	0:05
65	215:35	216:10	S.OBL	62°E	47°W	109°	0:35
66	216:10	218:07	VERT	47°W	41°W	354°	1:57
73/74	232:39	235:47**	VERT	161°W	13°W	572°	3:08

POST TEI

*LA OFF AT 91:28 TO AVOID ALTITUDE PROBLEMS

**RETR, CLOSE COVER AT 234:05

TOTAL	4017°	22:24
VERTICAL	3082°	17:15
OBLIQUE	614°	3:22
RUNOUT	321°	1:47

PC OPERATIONS

REV	T START	T STOP	TYPE	LONG(START)	LONG(STOP)	DEG	HR/MIN
1/2	90:51	91:11	STEREO	152°W	144°E	58°	0:20
2	91:18	91:28	STEREO	123°E	95°E	28°	0:10
13/14	114:03	114:33	STEREO	172°W	100°E	88°	0:30
15	116:31	117:00	STEREO	102°E	14°E	88°	0:29
28	141:54	142:19	STEREO	155°E	85°E	70°	0:25
49	183:50	184:09	STEREO	80°E	26°E	54°	0:19
62	209:14	209:29	STEREO	133°F	90°F	43°	0:15
62	209:49	209:51	MONO	33°E	27°E	6°	0:02
74	233:21	233:36	STEREO	67°E	25°E	42°	0:15
74	233:45	233:58	STEREO	5°W	45°W	40°	0:13

514° 2:57

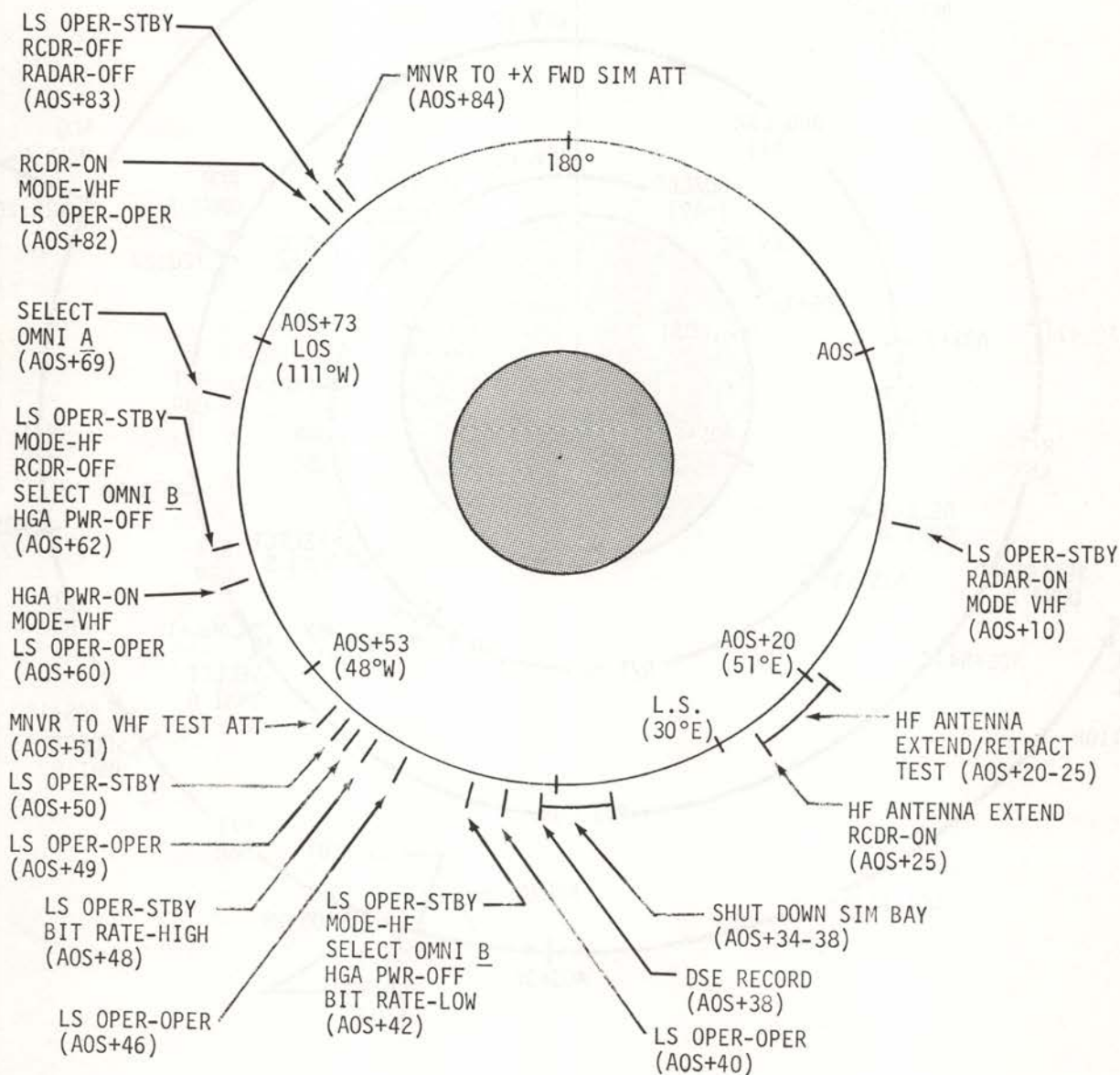
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CHART 2-1
(12/6)

LUNAR SOUNDER EMI TEST

REV 14

FILM USED: 5 MIN

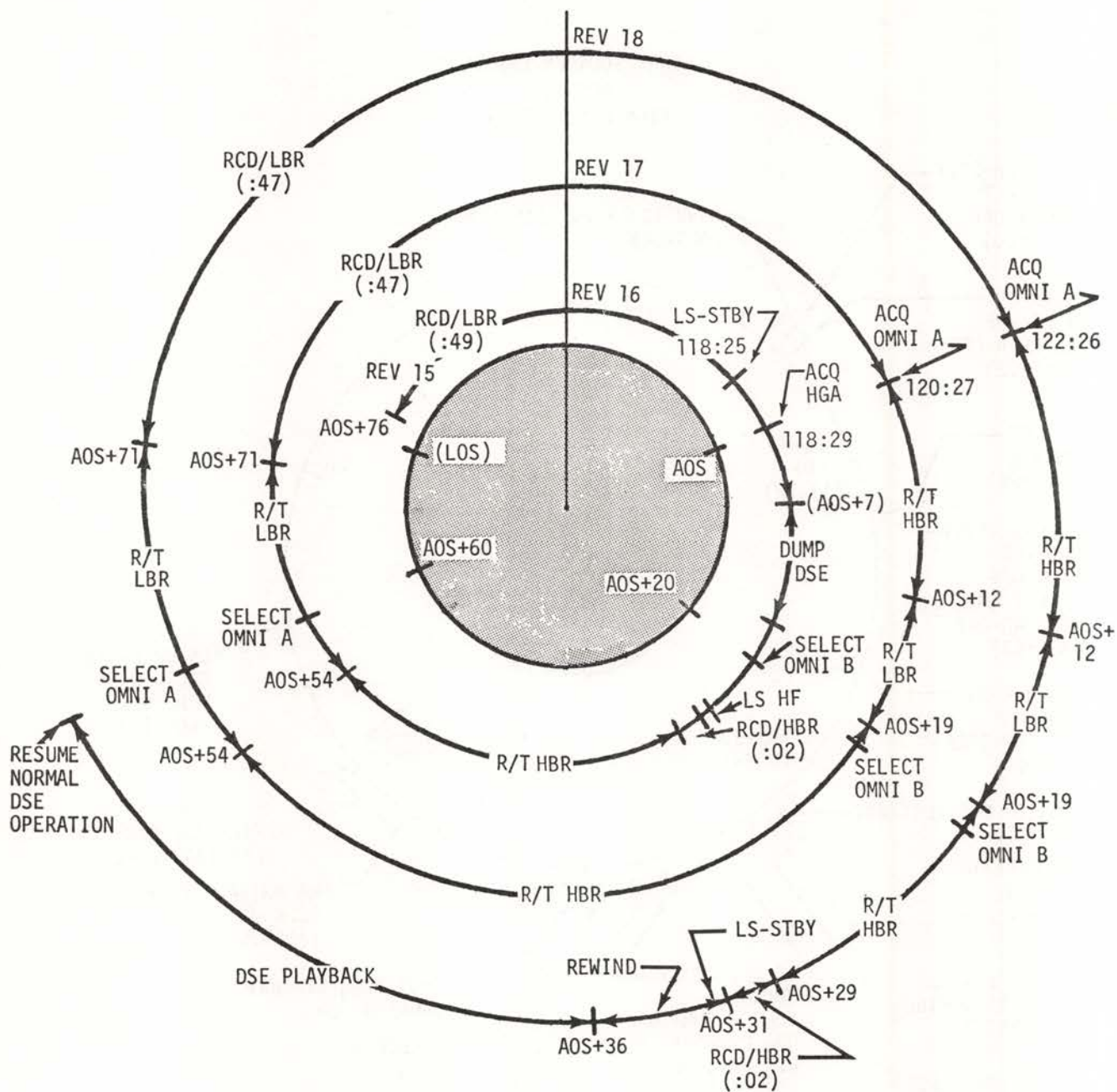


(12/6)

LUNAR SOUNDER HF MODE

REVS 16, 17, 18

FILM USED - 245 MIN

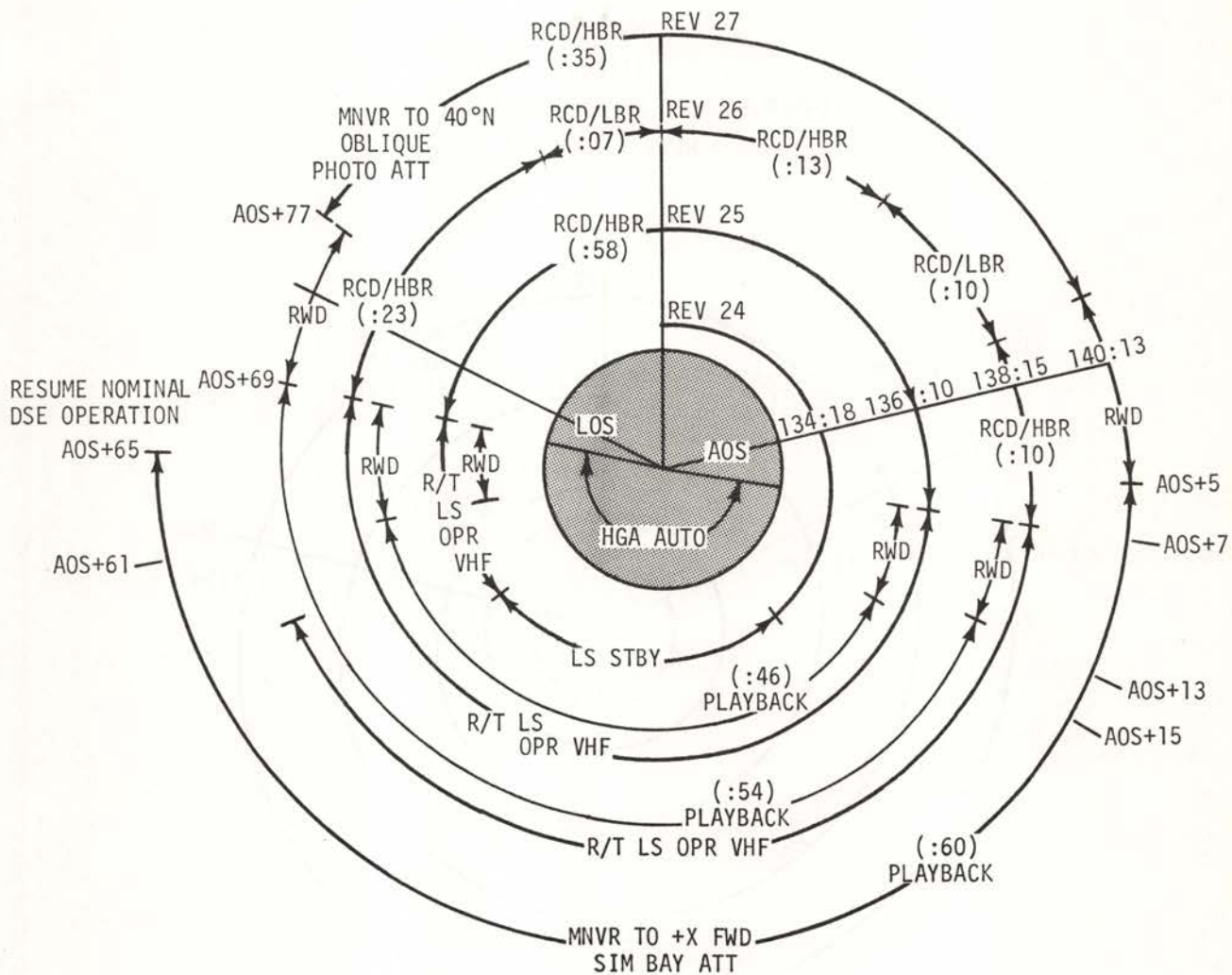


(12/6)

REVS 24, 25, 26, 27

REVS 24, 25, 26, 27

FILM USED - 245 MIN



10/23/72

CHART 2-4
(12/6)
LUNAR SOUNDER RECEIVE ONLY (SEP-ON)
REVS 39, 40, 41

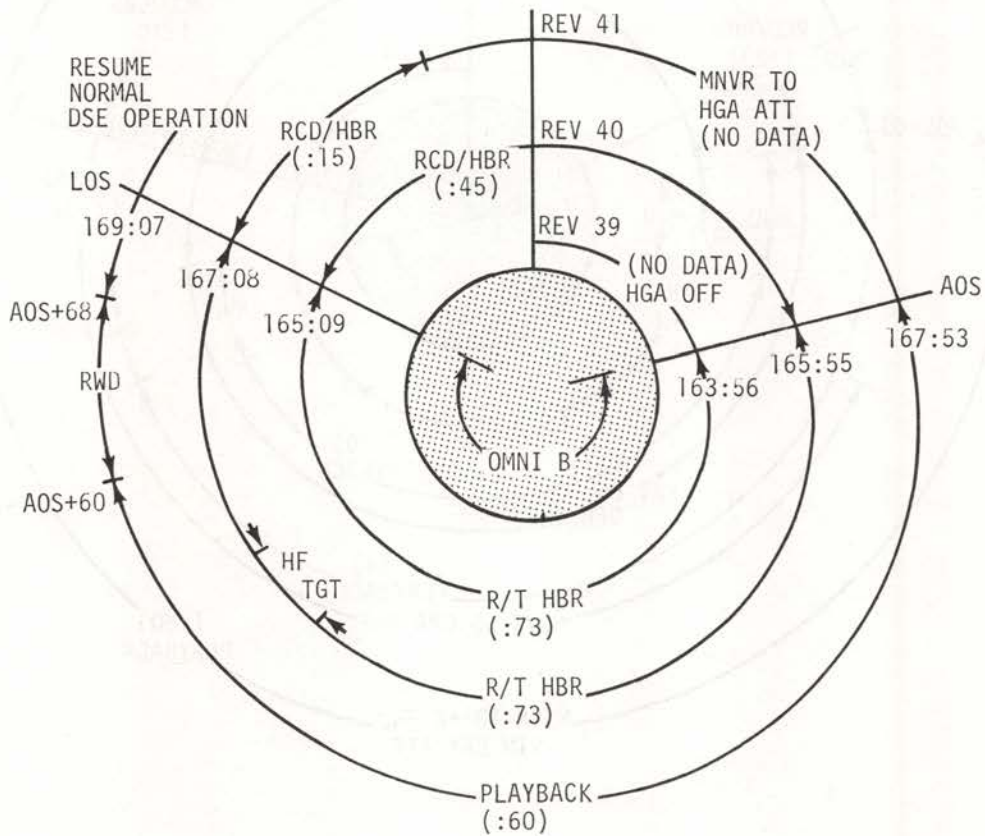
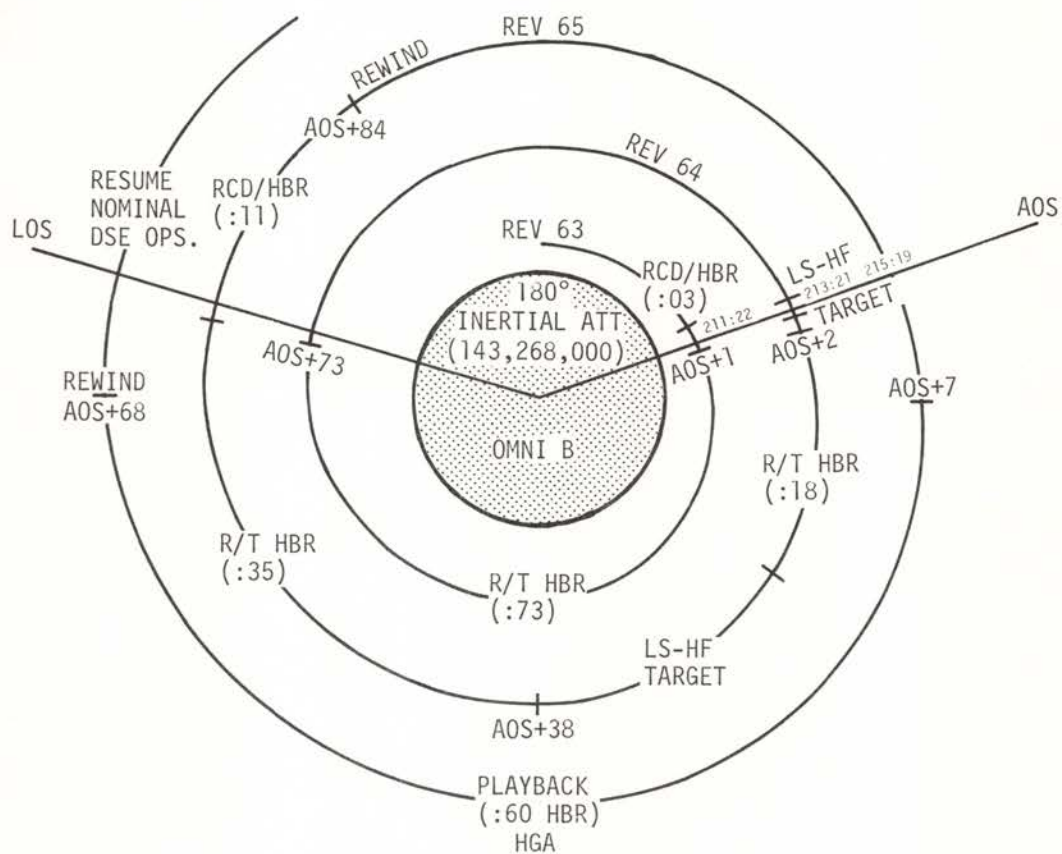


CHART 2-5
(12/6)
LUNAR SOUNDER - RECEIVE ONLY (SEP-OFF)
REVS 63, 64, 65



SECTION 3 - DETAILED TIMELINE

FLIGHT PLAN

MCC-H

2053 CST

NOTES

UPDATE
Z TORQUING ANGLE

00:00
(31102)
(01111)

S
T
D
N

LIFT-OFF DEC 6, 1972

CSM LAUNCH CHECKLIST

BOOST PAGE L/2-7

:10

SECO

INSERTION AND SYSTEM CHECKS PAGE L/2-11

:20

C
Y
I

00:30

OPTICS DUST COVER JETT L/2-16

P52 (OPTION 3)
(LAUNCH ORIENT)

:40

:50

GDC ALIGN

CRO

REPORT: GYRO TORQUING ANGLES
TWO WAY S-BAND VOICE CHECK
SCS ATT REF COMPARISON CHECK PAGE L/2-17

01:00

AT SECO+20 SEC, S-IVB
MNVRS TO LH AND
INITIATES ORB RATE
(HEADS DOWN)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	00:00 - 01:00	1/LAUNCH-E.O.	3-1

FLIGHT PLANNING BRANCH

MCC-H

2153 CST

FLIGHT PLAN

NOTES

CMD
DUMP DSE
UPDATE
TLI +90 MIN ABORT
PAD
P37 (L/O+9) PAD

01:00
(31102)
(01111)

HSK

:10

:20

01:30

:40

:50

02:00

S
T
D
N

CYI

EXTEND DOCKING PROBE PAGE L/2-18

P52 (OPTION 3)
(LAUNCH ORIENT)

GDC ALIGN
REPORT: GYRO TORQUING ANGLES

P52 IMU REALIGN

N71: _ _ , _ _

N05: _ _ . _ _

N93:

X _ _ . _ _

Y _ _ . _ _

Z _ _ . _ _

GET _ _ : _ _ : _ _

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	01:00 - 02:00	I/E.O.	3-2

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

2253 CST

NOTES

02:00
(31102)
(01111)

:10

:20

02:30

:40

:50

03:00

CRO

HAW

UPDATE
GO/NO-GO FOR PYRO
ARM
TLI PAD

UPLINK
CSM S.V. & V66

TLI PREPARATION PAGE L/2-27
GO/NO-GO FOR PYRO ARM (CUE STDN)
LOGIC ON
TLI NOMINAL & MANUAL PAGE L/2-28

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	02:00 - 03:00	1/E.O.	3-3

FLIGHT PLANNING BRANCH

TLI
BURN TABLE

ROLL RATES	P OR Y RATES	P OR Y ATT DEVIATION	SHUTDOWN TIME	RESIDUALS
>20°/SEC TERMINATE	>10°/SEC TERMINATE	+45° TERMINATE	CMC T _{GO} = 0 PLUS 1 SECOND	NO TRIM

APOLLO 17 FINAL (12/6)

10/23/72

E.O./TLC

3-4

FLIGHT PLAN

MCC-H

2353 CST

NOTES

UPDATE
GO/NO-GO FOR TLI

UPDATE
GO/NO-GO FOR T&D

03:00
(31102)
(01111)

:10

:20

03:30

(11103)
(01111)
:40

:50

04:00

ST
D
N

A
R
I
A

A
C
N

T
S
T
D
N

TB6 3:11:41

GO/NO-GO FOR TLI

OMNI C

OMNI D

P00
V66 SET CSM S.V. INTO LM S.V.

TLI BURN STATUS REPORT
CDR - TRANS TO CENTER COUCH, CMP - LEFT COUCH

NORMAL SC/BOOSTER SEPARATIONS PAGE L/3-1
DIRECT 02 VLV - OPEN, UNTIL CABIN IS 5.7 PSI, THEN CLOSE
V48 (11103)(01111)

S-IVB MNVRS TO SEP ATT 03:42:05

(002,310,041) OMNI D

GO/NO-GO FOR TRANSPOSITION AND DOCKING
CSM SEPARATION PREP PAGE L/3-1

TIG: 03:21:19.3
BT: 5 MIN 45.7 SEC
 ΔVC : 10,346.8 FPS

AT SECO: S-IVB INERTIAL
AT SECO +2 MIN 31 SEC:
S-IVB TO LOCAL
HORIZONTAL, ORB RATE
HEADS DOWN

T&D MNVR
+X FOR 3 SEC ($\Delta V \sim 0.5$ FPS)
AFTER 15 SEC PITCH UP AT
0.5°/SEC. V49 AUTO MNVR
TO DOCKING ATT. NULL
TRANSLATION AND RATES,
+X FOR 4 SEC ($\Delta V \sim 0.7$ FPS)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	03:00 - 04:00	E.O./TLC	3-5

FLIGHT PLANNING BRANCH

MCC-H

0053 CST

FLIGHT PLAN

NOTES

CMD
DUMP DSE

UPDATE
GO/NO-GO FOR
PYRO ARM AND
CSM/LM EJECTION

04:00
(11103)
(01111)

:10

(11102)
(01111)
:20

04:30

:40

(21101)
(1111)
:50

05:00

T
I
V
S
T
D
N

CSM/S-IVB SEP 04:12

CSM MNVR TO DOCK ATT (298,130,319) (04:18)

V48 (11102)(01111)

TV (HSK) 04:12 TO 04:32 CM4-BRKT (f22, MONITOR)

VISUALLY INSPECT AND PHOTOGRAPH S-IVB AND LM, MAG (AA,NN)

DOCK 04:22

CM/LM PRESSURE EQUALIZATION (DECAL) PAGE L/3-5

S-IVB NON-PROPULSIVE VENT START 4:27:05

TUNNEL HATCH REMOVAL (DECAL)

DOCKING LATCH VERIFICATION (DECAL)

LM UMBILICAL CONNECTIONS (DECAL)

HATCH INSTALLATION (DECAL)

S-IVB NON-PROPULSIVE VENT COMPLETE 4:42:05

PRE LM SEP & EJECTION

V48 (21101)(1111)

GO/NO-GO FOR PYRO ARM (CUE STDN)

LOGIC ON

PYRO ARM

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	04:00 - 05:00	1/TLC	3-6

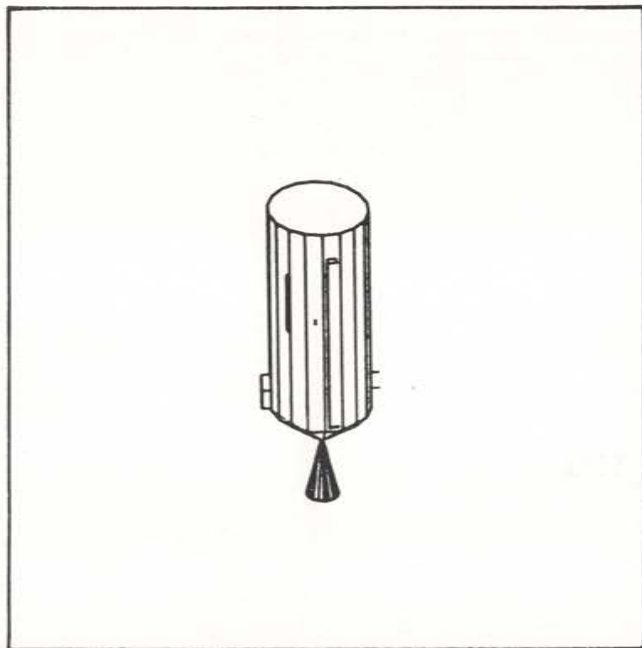
FLIGHT PLANNING BRANCH

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FLIGHT PLAN

GET 05:30

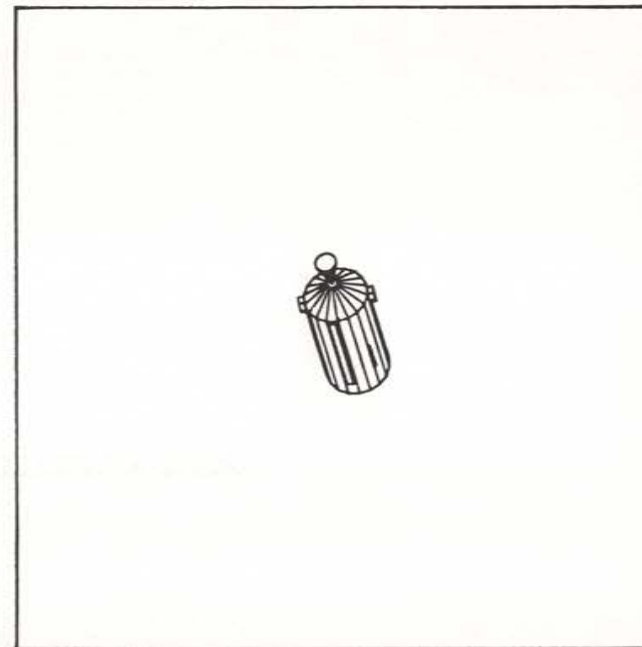
FOV 5°



S-IVB APS EVASIVE INITIATION

GET 05:31

FOV 1°



S-IVB LOX DUMP INITIATION

FLIGHT PLAN

MCC-H

0153 CST

NOTES

TLI CUTOFF +
1 HR 40 MIN

UPDATE
GO FOR S-IVB YAW
MNVR INITIATION

UPDATE
GO/NO-GO FOR S-IVB
EVASIVE BURN

05:00
(21101)
(1111)

:10

:20

(21111)
(1111)
05:30

:40

:50

06:00

S
T
D
N

P47 THRUST MONITOR
PHOTOGRAPH LM EJECTION, MAG (AA,NN)

CSM/LM EJECTION 05:07

P00, V66 SET CSM S.V. INTO LM S.V.
REPORT: GOOD EJECTION
V49 MNVR TO VIEW S-IVB IN HATCH WINDOW BY 05:16
(270.0,129.8,004.3) HGA P -1, Y 273
REPORT: GO FOR S-IVB YAW MNVR
VISUALLY INSPECT S-IVB/IU THERMAL SHROUD

S-IVB YAW MNVR 05:20 (GROUND COMMAND)

REPORT: GO FOR S-IVB EVASIVE BURN

V48 (21111)(1111)

S-IVB APS EVASIVE BURN 05:30 (GROUND COMMAND)

REPORT: LM/CM ΔP
INSTALL CABIN FAN FILTER (U2)

CSM SYSTEMS CHECKLIST

DEACTIVATE PRIMARY EVAP PAGE S/1-16

S-IVB MNVRS TO PROPELLANT DUMP ATT 05:40

VHF A SIMPLEX - OFF
WASTE STOWAGE VENT VALVE - VENT (VERIFY)

S-IVB CONTINUOUS H₂ VENT - ON 05:47

S-IVB LOX DUMP 05:51

DOFF PGA'S
TRANSFER ITEMS OUT OF PGA POCKETS
TRANSFER PRD TO CWG
CMP & LMP DOFF BIOMED HARNESS
DUMP UCTA

SPRING ACTUATOR ΔV
~0.8 FPS. 5 SEC AFTER
EJECTION THERE IS A
4 JET RCS -X TRANSLA-
TION FOR 3 SEC (ΔV
~ 0.4 FPS) TOTAL ΔV
~ 1.2 FPS.

THE MNVR TO ACQUIRE
THE S-IVB WILL BE
PERFORMED AT 0.2°/SEC
AND WILL BE INITIATED
AFTER GOOD EJECTION
IS VERIFIED.

GO FOR S-IVB YAW MNVR
INDICATES THAT THE
S-IVB IS IN THE CREW
FIELD OF VIEW AND
ADEQUATE SPACECRAFT
SEPARATION HAS BEEN
ACHIEVED.
THE S-IVB YAW MNVR
WILL BE PERFORMED
NOMINALLY AT LM
EJECTION +13 MIN

EVASIVE BURN ΔV
~9.4 FPS

LOX DUMP ΔV ~28 FPS

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	05:00 - 06:00	1/TLC	3-9

FLIGHT PLANNING BRANCH

MCC-H

0253 CST

FLIGHT PLAN

NOTES

06:00
(21111)
(1111)

:10

:20

06:30

:40

:50

07:00

S
T
D
N

DOFF PGA'S

S-IVB APS MCC-1
GET ~ 06:35
 ΔV ~30 FPS

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	06:00 - 07:00	1/TLC	3-10

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

0353 CST

NOTES

07:00
(21111)
(1111)

:10

:20

07:30

:40

:50

08:00

S
T
D
N

START URINE COLLECTION PERIOD

EAT PERIOD

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	07:00 - 08:00	1/TLC	3-11

FLIGHT PLANNING BRANCH

FLIGHT PLAN

NOTES

MCC-H 0453 CST
 UPLINK
 ZERO TRUNNION BIAS
 DESIRED ORIENT (PTC)

UPDATE
 QUADS TO ENABLE
 FOR PTC SPINUP
 P37 PAD (L/O+15,25)
 FLIGHT PLAN

WASTE STOWAGE VENT VALVE - CLOSE

LIMIT CYCLE - ON
 ATT DEADBAND - MIN

STARS _____, _____

RATE - LOW
 BMAG (3) - ATT 1/RATE 2

SA _____, _____

SC CONT - SCS

TA _____, _____

P52 (OPTION 3)
 (LAUNCH ORIENT)

REPORT: GYRO TORQUING ANGLES

P52 (OPTION 1)

(PTC ORIENT)

GDC ALIGN

SC CONT - CMC

BMAG (3) - RATE 2

CYCLE CMC MODE - FREE/AUTO

V48 (21101)(1111)

CSM G&C CHECKLIST

PASSIVE THERMAL CONTROL (G&N) PAGE G/8-2

V49 MNVR TO PTC ATTITUDE

(N20,90,000)

H2 HEATERS 1 & 2 - AUTO (VERIFY)

H2 FANS 3 - AUTO

O2 HEATERS 1 & 2 - OFF

O2 HEATERS 3 - AUTO

P20 OPT 2, X-AXIS

N78 (0,0,0)

N79 (-0.4200, +000.50)

N34 (0,0,0)

LiOH CANISTER CHANGE

(3 INTO A, STOW 1 in B5)

CSM SYSTEMS CHECKLIST

PRE-SLEEP CHECKLIST

PAGE S/1-29

COMM - OMNI

SC INTERIOR PHOTOGRAPHY AT CREW OPTION
 CM/DAC/10/CIN- SPOT
 (T2.8,1/60,3) 6 fps

MAG (II) ____, FR # ____

PTC REFSMMAT ATT
 R 196, P 169, Y 055

P52 IMU REALIGN

N71: _____, _____

N05: _____, _____

N93: _____, _____

X _____, _____

Y _____, _____

Z _____, _____

GET _____:_____:_____

IF MCC-1 IS REQUIRED
 PERFORM AT GET 08:45

DAP LOAD STATUS
 (21101)(1111)

PTC

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	08:00 - 09:00	1/TLC	3-12

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

0553 CST

NOTES

09:00

CHARGE BATTERY B

DAP LOAD STATUS
(21101)(1111)

:20

FILM MAGS REQUIRED FOR NEXT DAY

EL: KK

:40

10:00

S
T
D
N

REST PERIOD
(5.75 HOURS)

PTC

:20

S-IVB APS MCC-2
GET ~10:20
 ΔV NOM. ZERO

:40

11:00

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	09:00 - 11:00	1/TLC	3-13

FLIGHT PLANNING BRANCH

MCC-H

0753 CST

FLIGHT PLAN

NOTES

11:00

:20

:40

12:00

:20

:40

13:00

S
T
D
NREST PERIOD
(5.75 HOURS)

PTC

DAP LOAD STATUS
(21101)(_1111)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	11:00 - 13:00	1/TLC	3-14

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

0953 CST

NOTES

13:00
:20
:40
14:00
:20
:40
15:00

S
T
D
N

REST PERIOD
(5.75 HOURS)

PTC

DAP LOAD STATUS
(21101)(_1111)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	13:00 - 15:00	1/TLC	3-15

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

1153 CST

NOTES

15:00
:10
:20
15:30
:40
:50
16:00

S
T
D
N

CSM SYSTEMS CHECKLIST

POST-SLEEP CHECKLIST

PAGE S/1-29

H₂ HEATERS 1&2 - OFF

EAT PERIOD

PTC

GET=15:00

FOV=7°

V_i = 6 841 fps



DAP LOAD STATUS
(21101)(1111)

EARTH DISTANCE
~66,783 NM

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	15:00 - 16:00	2/TLC	3-16

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

1253 CST

NOTES

16:00
(21101)
(1111)

:10

:20

16:30

:40

:50

17:00

S
T
D
N

EAT PERIOD

PTC

P52 (OPTION 3)
(PTC ORIENT)

REPORT: GYRO TORQUING ANGLES
GDC ALIGN

CSM G&C CHECKLIST

EXIT G&N PTC PAGE G/8-3
WASTE STOWAGE VENT VLV - OPEN

UPDATE
P37 PADS (LAUNCH
+35,45,55, & 65)
FLIGHT PLAN

P52 IMU REALIGN

N71: ____, ____

N05: _____. ____

N93: _____

X _____

Y _____

Z _____

GET ____: ____: ____

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	16:00 - 17:00	2/TLC	3-17

FLIGHT PLANNING BRANCH

MCC-H

1353 CST

FLIGHT PLAN

NOTES

 17:00
 (21101)
 (1111)

:10

:20

17:30

:40

:50

18:00

S
T
D
N
 V49 MNVR TO OPTICS CALIBRATION ATTITUDE (17:13)
 (175,298,330) HGA P -58, Y 307

 P23 CISELUNAR NAVIGATION
 OPTICS CALIBRATION STAR N70 (00022)
 P00

V49 MNVR TO SIGHTING ATTITUDE (17:17)

(204,313,340) HGA P -55, Y 357

V67 (+80000) (+00070) (+00003)

P23 CISELUNAR NAVIGATION

5 MARKS ON EACH STAR, UPDATE STATE VECTOR

 1. N70 (00000) (00000) (00110)
 N88 (-53277)(+14235)(+83420)

 2. N70 (00000) (00000) (00120)
 N88 (+02745)(+99128)(+12885)

 3. N70 (00000) (00000) (00110)
 N88 (-84900)(+40299)(+34176)

 113 MERAK
 (ENH)

 55 BETELGEUSE
 (EFH)

 151 GAMMA PRIME
 LEONIS
 (ENH)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	17:00 - 18:00	2/TLC	3-18

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

1453 CST

NOTES

18:00
(21101)
(1111)

:10

:20

18:30

:40

:50

19:00

STDN

4. N70 (00000) (00000) (00120)
N88 (+00780)(+70773)(+70644)

P00
V49 MNVR TO OPTICS CALIBRATION ATTITUDE (18:22)
(175,298,330) HGA P -58, Y 307
P23 CISELUNAR NAVIGATION
OPTICS CALIBRATION STAR N70 (00022)
CONFIGURE FOR URINE DUMP

O₂ FUEL CELL PURGE
SAMPLE BUSS's (3) - STOW SAMPLES (3)
DUMP URINE FROM BUSS's (3) - STOW
START NEW URINE COLLECTION PERIOD
WASTE WATER DUMP TO 10 PERCENT
CHARGE BATTERY A

CSM EXP/EVA CHECKLIST

PC & MC FILM CYCLING PAGE X/1-17

ON STDN CUE: CYCLE FILM

106 MENKALINAN
(EFH)

CMD
DATA SYS - OFF

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	18:00 - 19:00	2/TLC	3-19

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

1553 CST

NOTES

UPDATE
QUADS TO ENABLE
FOR PTC SPINUP
FLIGHT PLAN

19:00
(21101)
(1111)
:10
:20
19:30
:40
:50
20:00

S
T
D
N

LMP DON BIOMED HARNESS

OMNI B
SECURE HGA: MAN, WIDE P -52, Y 270

CSM G&C CHECKLIST

PASSIVE THERMAL CONTROL PAGE G/8-2

V49 MNVR TO PTC ATTITUDE
(N20,090,000)

P20 OPT 2, X-AXIS

N78 (0,0,0)

N79 (-0.4200, +000.50)

N34 (0,0,0)

CHECK LMP BIOMED
CDR DOFF BIOMED HARNESS

EARTH PHOTOS
CM/EL/250-CEX(f8,1/250,∞) 4 FR

MAG (KK) _____, FR # _____

PTC

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	19:00 - 20:00	2/TLC	3-20

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

1653 CST

NOTES

20:00
(21101)
(1111)

:10

:20

20:30

:40

:50

21:00

S
T
D
N

EAT PERIOD

PTC

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	20:00 - 21:00	2/TLC	3-21

FLIGHT PLANNING BRANCH

MCC-H

1753 CST

FLIGHT PLAN

NOTES

21:00
(21101)
(1111)

:10

:20

21:30

:40

:50

22:00

S
T
D
N

PTC

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	21:00 - 22:00	2/TLC	3-22

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

1853 CST

NOTES

UPDATE
FLIGHT PLAN

22:00
(21101)
(1111)

:10

:20

22:30

:40

:50

23:00

S
T
D
N

CREW EXERCISE PERIOD

PTC

WASTE STOWAGE VENT VLV - CLOSE
LiOH CANISTER CHANGE
(4 INTO B, STOW 2 IN B5)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	22:00 - 23:00	2/TLC	3-23

FLIGHT PLANNING BRANCH

MCC-H

1953 CST

FLIGHT PLAN

NOTES

 23:00
 (21101)
 (1111)

 P52 OPTION 3
 (PTC ORIENT)

 REPORT: GYRO TORQUING ANGLES
 GDC ALIGN

:10

:20

23:30

:40

:50

24:00

S
T
D
N

EAT PERIOD

PTC

P52 IMU REALIGN

N71: _ _ _ , _ _ _

N05: _ _ _ . _ _ _

N93: _ _ _ . _ _ _

X _ _ _ . _ _ _

Y _ _ _ . _ _ _

Z _ _ _ . _ _ _

GET _ _ _ : _ _ _ : _ _ _

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	23:00 - 24:00	2/TLC	3-24

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

2053 CST

NOTES

24:00
(21101)
(1111)

:10

:20

24:30

:40

:50

25:00

S
T
D
N

EAT PERIOD

CSM SYSTEMS CHECKLIST

PRE-SLEEP CHECKLIST PAGE S/1-29
COMM - OMNI
FILM MAGS REQUIRED FOR NEXT DAY

DAC: HH

PTC

ONBOARD READOUT

BAT C

PYRO BAT A

PYRO BAT B

RCS A

B

C

D

DC IND SEL - MNA OR B

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	24:00 - 25:00	2/TLC	3-25

FLIGHT PLANNING BRANCH

MCC-H

2153 CST

FLIGHT PLAN

NOTES

25:00

:20

:40

26:00

:20

:40

27:00

S
T
D
NREST PERIOD
(8 HOURS)

PTC

DAP LOAD STATUS
(21101)(_1111)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	25:00 - 27:00	2/TLC	3-26

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

2353 CST

NOTES

27:00
:20
:40
28:00
:20
:40
29:00

S
T
D
N

REST PERIOD
(8 HOURS)

PTC

DAP LOAD STATUS
(21101)(_1111)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	27:00 - 29:00	2/TLC	3-27

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

0153 CST

NOTES

29:00
:20
:40
30:00
:20
:40
31:00

S
T
D
N

REST PERIOD
(8 HOURS)

PTC

DAP LOAD STATUS
(21101)(_1111)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	29:00 - 31:00	2/TLC	3-28

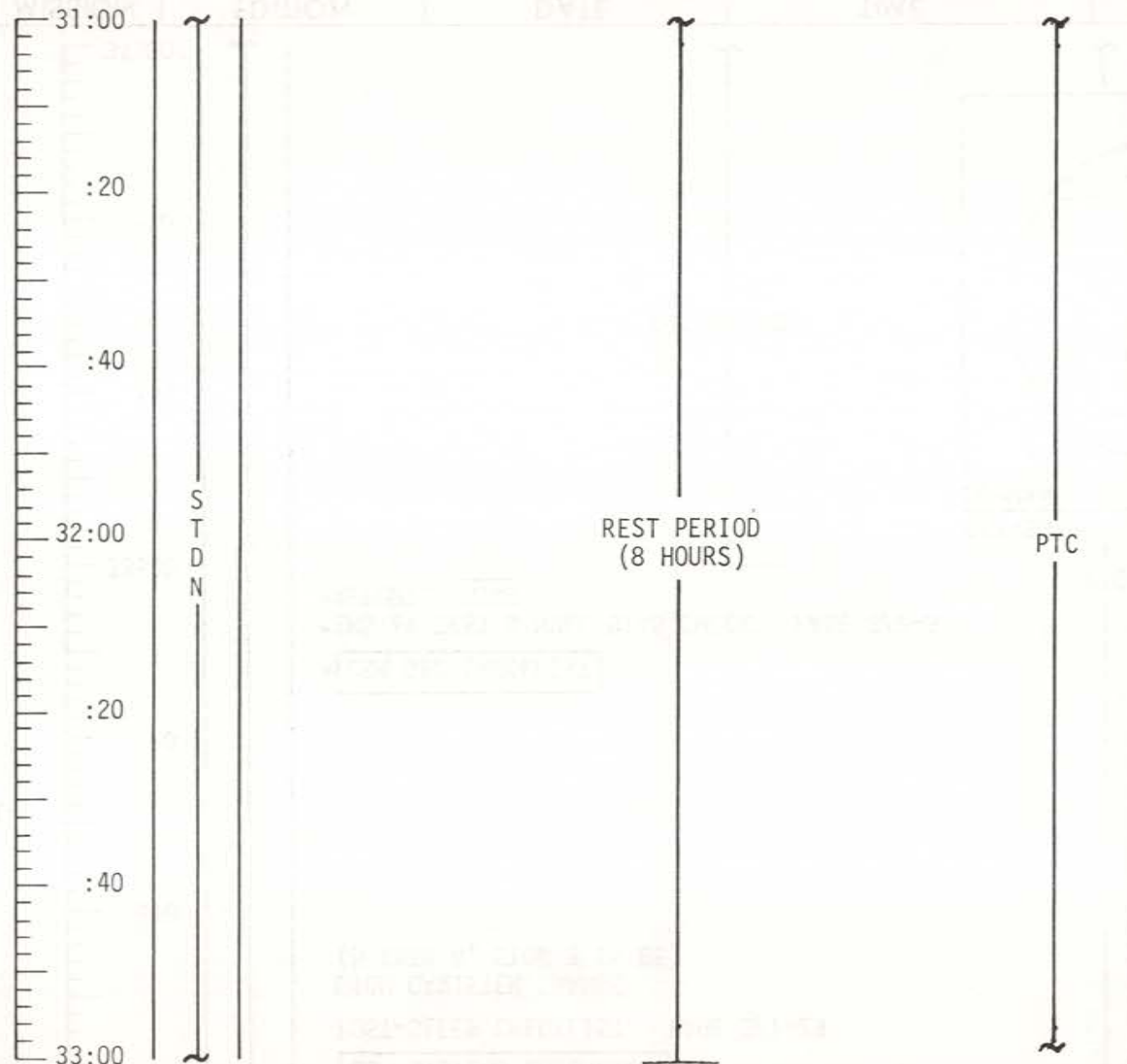
FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

0353 CST

NOTES



DAP LOAD STATUS
(21101)(_1111)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	31:00 - 33:00	2/TLC	3-29

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

0553 CST

NOTES

UPDATE
GO/NO-GO FOR MCC-2

33:00

:10

:20

33:30

:40

:50

34:00

CSM SYSTEMS CHECKLIST

POST-SLEEP CHECKLIST PAGE S/1-29

LiOH CANISTER CHANGE
(5 INTO A, STOW 3 IN B5)

* CSM G&C CHECKLIST

*EMS ΔV TEST & NULL BIAS CHECK PAGE G/2-5

*REPORT: BIAS

S
T
D
N

EAT PERIOD

DAP LOAD STATUS
(21101)(1111)

EARTH DISTANCE
~121,497 NM

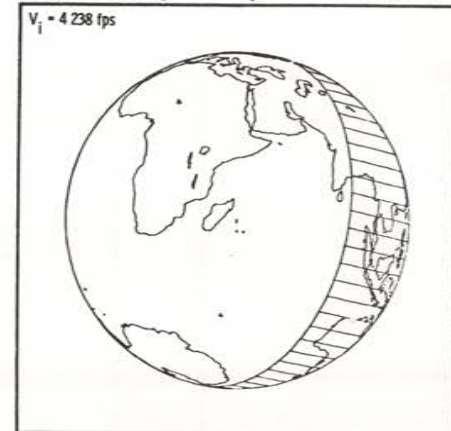
*PERFORM IF MCC-2
IS REQUIRED

PTC

GET=33:00

FOV=4°

$V_i = 4238 \text{ fps}$



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	33:00 - 34:00	3/TLC	3-30

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

0653 CST

NOTES

UPLINK
CSM S.V. & V66
MCC-2 TGT LOAD

UPDATE
MCC-2 MNVR PAD
FLIGHT PLAN

34:00
(21101)
(1111)
:10
:20
34:30
:40
:50
35:00

S
T
D
N

EAT PERIOD

CONFIGURE FOR URINE DUMP
H₂ PURGE LINE HTRS-ON

P52 (OPTION 3)
(PTC ORIENT)
REPORT: GYRO TORQUING ANGLES
GDC ALIGN
* CSM G&C CHECKLIST
*EXIT G&N PTC PAGE G/8-3
*P30 EXTERNAL ΔV

*V49 MNVR TO PAD BURN ATTITUDE
*SXT STAR CHECK

PTC

P52	IMU REALIGN
N71:	____, ____
N05:	____. ____
N93:	
X	____. ____
Y	____. ____
Z	____. ____
GET	____: ____: ____

*PERFORM IF MCC-2
IS REQUIRED

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	34:00 - 35:00	3/TLC	3-31

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-2 BURN TABLE

SPS LIMITS	P OR Y RATES	ATT DEVIATION	MANUAL START ACTION	OVERBURN SHUTDOWN CRITERIA	RCS TRIM GUIDELINES
TIGHT	10°/SEC TERMINATE	+10° TERMINATE	NO MANUAL STARTS NO RESTART	BT + 1 SEC	IF < 2 FPS, TRIM X-AXIS TO 0.2 FPS IF > 2 FPS, NO TRIM

BALL VLV FAILURE - START ON SUSPECT BANK
Shut down good bank to verify; reenable

APOLLO 17

FINAL (12/6)

10/23/72

3/TLC

3-32

FLIGHT PLAN

MCC-H

0753 CST

NOTES

$$\begin{pmatrix} 21101 \\ 1111 \end{pmatrix}$$

*IF SPS MIDCOURSE REQUIRED:
* PRE SPS BURN SIM PREP (CUE CARD)

*PERFORM IF MCC-2
IS REQUIRED

:10

H₂ & O₂ FUEL CELL PURGE
SAMPLE BUSS's (3) - STOW SAMPLES (3)
DUMP URINE FROM BUSS's (3) - STOW
START NEW URINE COLLECTION PERIOD
WASTE WATER DUMP TO 10 PERCENT

:20

H₂ PURGE LINE HTRS - OFF
*P40 SPS THRUSTING OR P41 RCS THRUSTING

- 35:30

STDN

MCC-2

TIG: 35:30
BT: NOM ZERO
ΔVT: NOM ZERO
ULLAGE: NONE

*V66 SET CSM S.V. INTO LM S.V.
*IF SPS MIDCOURSE PERFORMED:
* PC - OFF
* MC - OFF
* SM/AC PWR - OFF

:40

```
*REPORT: BURN STATUS
V48 (21111)(1111)
REPORT: LM/CM ΔP
IF LM/CM ΔP <2.7 PSID, TUNNEL VENT VLV - VENT
UNTIL ΔP >2.7 PSID.
```

$$\begin{pmatrix} 21111 \\ 11111 \end{pmatrix}$$

:50

36:00

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				OX
X	X	X				FUEL
X	X	X				UNBAL

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	35:00 - 36:00	3/TLC	3-33

FLIGHT PLANNING BRANCH

MCC-H

0853 CST

FLIGHT PLAN

NOTES

36:00
(21111)
(1111)

:10

:20

36:30

:40

:50

37:00

S
T
D
N

CMP DON BIOMED HARNESS

CHECK CMP BIOMED
LMP DOFF BIOMED HARNESS

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	36:00 - 37:00	3/TLC	3-34

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

0953 CST

NOTES

37:00	S T D N
(21111) (1111)	
:10	
:20	
37:30	
:40	
:50	
38:00	

UPDATE
FLIGHT PLAN

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	37:00 - 38:00	3/TLC	3-35

FLIGHT PLANNING BRANCH

MCC-H

FLIGHT PLAN

NOTES

1053 CST

38:00
(21111)
(1111)

:10

:20

38:30

:40

:50

39:00

S
T
D
N

EAT PERIOD

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	38:00 - 39:00	3/TLC	3-36

FLIGHT PLANNING BRANCH

MISSION #	LAUNCH DATE	MISSION	DATE OF REPORT	DATE	3-30
MISSION	DATE	DATE	DATE	DATE	DATE

CSM TO LM TRANSFER LIST (TLC)

CSM LOCATION	ITEM	LM LOCATION
A2	JETTISON BAG	TEMP STOW
ICG	SCISSORS (1)	DATA FILE
CCU CABLE	CWG ELECT ADAPT W/CAP (2)	ON COMM CARRIER
ON CREW	COMM CARR (2)	ON CREW
R5	INFLIGHT STRAPS (4)	ON O2 UMP
R5	UTILITY STRAPS (3)	LHSSC
R13	70MM MAG (4) IN BAG	AFT RHSSC (BW-L, HCEX-A,E & F)
R13	70MM MAG (3) IN BAG	AFT ENG COVER (BW-H&I,HCEX-D)
R13	70MM MAG (3) IN BAG	FWD RHSSC (BW-G,HCEX-B&C)
R13	16MM MAG (3) IN BAG	2-W/BAG IN ISA (P,Q) 1-WINDOW SEQ CAMR (0)
A8	70MM MAG (3) IN BAG W/DOS	AFT ENG COVER(BW-J,K,R)
A8	70MM MAG (2) IN BAG	RHSSC (BW-M,N)
R3	LM ACTIVATION C/L (2)	DATA FILE
A8	LGT WGT HEADSETS	LHSSC
A8	CWG'S (2)	AFT ENG COVER
A7	APK	AFT BLKHD

MCC-H

1153 CST

FLIGHT PLAN

NOTES

 39:00
 (21111)
 (1111)

:10

:20

39:30

:40

:50

40:00

S
T
D
N

PREPARE ITEMS PER CSM TO LM TRANSFER LIST

O₂ HEATERS 1,2 - AUTO
 V49 MNVR TO LM
 CHECKOUT ATTITUDE
 (39:30)

 (299,089,000)
 HGA: P -30, Y 270

 DIRECT O₂ VLV - OPEN
 UNTIL CABIN PRESS
 =5.7 PSIA, then CLOSE

 REMOVE TSB FROM
 TUNNEL AND TEMP
 STOW
 COUCHES: CDR - 0°, CMP - 0°, LMP - 180°
 TUNNEL LIGHTS - ON
 CM/LM PRESSURE EQUALIZATION (DECAL)
 TUNNEL HATCH REMOVAL (DECAL)
 PROBE REMOVAL (DECAL)
 DROGUE REMOVAL (DECAL)
 O₂ HEATERS 1,2 - OFF
 O₂ HEATERS 3 - AUTO

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	39:00 - 40:00	3/TLC	3-38

FLIGHT PLANNING BRANCH

FLIGHT PLAN

CSM

LM

MCC-H

CMP

REPORT: DOCKING
TUNNEL INDEX ANGLE
OPEN LM HATCH
LMP TRANSFER TO LM
TRANSFER ITEMS PER
LM ACTIVATION
CHECKLIST

1253 CST

CDR

LMP

LM ACTIVATION CHECKLIST PAGE 1-3

IVT TO LM

40:00
(21111)
(1111)

:10

IVT TO LM

ENTRY STATUS CHECK

:20

HOUSEKEEPING

40:30

:40

:50

41:00

UPDATE TO CSM
LOI -5 HR FLYBY
FLIGHT PLAN

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	40:00 - 41:00	3/TLC	3-39

FLIGHT PLANNING BRANCH

FLIGHT PLAN

CSM
CMP

LM

MCC-H

1353 CST

CDR

LMP

LM PWR - RESET/OFF
(AT LMP REQUEST)
REPORT: GET(____:____:____)

SYS TEST - 7D
SYS TEST IND = 0 VOLTS

CSM/LM VHF VOICE CHECK
(SIMPLEX A&B)

LM PWR - ON
(AT LMP REQUEST)
REPORT: GET(____:____:____)
SYS TEST - 7D
SYS TEST IND = 0.5-3.2
VOLTS

41:00 (21111) (1111)	HOUSEKEEPING
:10	
:20	COMM ACTIVATION
41:30	S-BAND/VHF SIMPLEX VOICE TEST
:40	
:50	OPS PRESSURE C/O
	COMM DEACTIVATION
42:00	LMP & CDR IVT TO CSM PAGE 1-21

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	41:00 - 42:00	3/TLC	3-40

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

1453 CST

NOTES

42:00
(21111)
(1111)
:10
:20
(21101)
(1111)
42:30
:40
:50
43:00

S
T
D
N

CLOSE LM HATCH
INSTALL DROGUE (DECAL)
INSTALL PROBE (DECAL)
HATCH INSTALLATION (DECAL)
LM TUNNEL VENT VALVE - LM/CM ΔP
TUNNEL LIGHTS - OFF

CYCLE CMC MODE - FREE/AUTO
V48 (21101)(1111)

CSM G&C CHECKLIST

PASSIVE THERMAL CONTROL (G&N) PAGE G/8-2
V49 MNVR TO PTC ATTITUDE HGA: P -59, Y 90 REACQ, NARROW
(029,090,000)

WAIT FOR RATES TO DAMP FOR HEAT FLOW PERFORMANCE

CSM EXP/EVA CHECKLIST

HEAT FLOW & CONVECTION PREPARATION PAGE X/2-4
MAG (HH)

LM TO CM TRANSFER LIST (TLC)

LM LOCATION	ITEM	CM LOCATION
ON CREW	COMM CARR (2)	ON CREW
ON CREW	CWG ADPTR W/CAP(2)	CCU CABLE
TEMP. STG.	LM ACT C/L (1)	R3
TEMP. STG.	JETTISON BAG	A2
JETT BAG	DRINK BAG (2)	TEMP STOWAGE
JETT BAG	FOOD STICK (2)	TEMP STOWAGE

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	42:00 - 43:00	3/TLC	3-41

FLIGHT PLANNING BRANCH

MCC-H

1553 CST

FLIGHT PLAN

NOTES

UPDATE
QUADS TO ENABLE
FOR PTC SPINUP

CMD
DATA SYS - ON

CMD
DATA SYS - OFF

43:00
(21101)
(1111)
:10
:20
43:30
:40
:50
44:00

S
T
D
N

*PERFORM HEAT FLOW AND
CONVECTION DEMONSTRATION

*REPEAT AT 45:20

CSM EXP/EVA CHECKLIST

PC & MC FILM CYCLING PAGE X/1-17
ON STDN CUE: CYCLE FILM

OMNI A
SECURE HGA: MAN, WIDE P -52, Y 270
P20 OPT 2, X-AXIS (G&C PAGE G/8-2)
N78 (0,0,0)
N79 (-0.4200, +000.50)
N34 (0,0,0)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	43:00 - 44:00	3/TLC	3-42

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

1653 CST

NOTES

44:00
(21101)
(1111)

:10

:20

44:30

:40

:50

45:00

S
T
D
N

CREW EXERCISE PERIOD

PTC

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	44:00 - 45:00	3/TLC	3-43

FLIGHT PLANNING BRANCH

MCC-H

1753 CST

FLIGHT PLAN

NOTES

45:00
(21101)
(1111)

:10

:20

45:30

:40

:50

46:00

S
T
D
NPERFORM HEAT FLOW AND
CONVECTION DEMONSTRATION

PTC

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	45:00 - 46:00	3/TLC	3-44

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

1853 CST

NOTES

46:00
(21101)
(1111)

STOW HEAT FLOW EQUIPMENT

:10

:20

ENTER LUNAR
PENUMBRA

46:30

S
T
D
N

P52 OPT 3
(PTC ORIENT)

PTC

P52 IMU REALIGN

N71: ____

N05: ____

N93: ____

X ____

Y ____

Z ____

GET ____:____:____

:40

REPORT: GYRO TORQUING ANGLES
GDC ALIGN

:50

LiOH CANISTER CHANGE
(6 INTO B, STOW 4 IN B5)

47:00

UPDATE
FLIGHT PLAN

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	46:00 - 47:00	3/TLC	3-45

FLIGHT PLANNING BRANCH

MCC-H

1953 CST

FLIGHT PLAN

NOTES

47:00
(21101)
(1111)

:10

:20

47:30

:40

:50

48:00

S
T
D
N

CDR DON BIOMED HARNESS

CHECK CDR BIOMED
CMP DOFF BIOMED HARNESS

EAT PERIOD

PTC

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	47:00 - 48:00	3/TLC	3-46

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

2053 CST

NOTES

48:00
(21101)
(1111)

:10

:20

48:30

:40

:50

49:00

S
T
D
N

EAT PERIOD

CSM SYSTEMS CHECKLIST

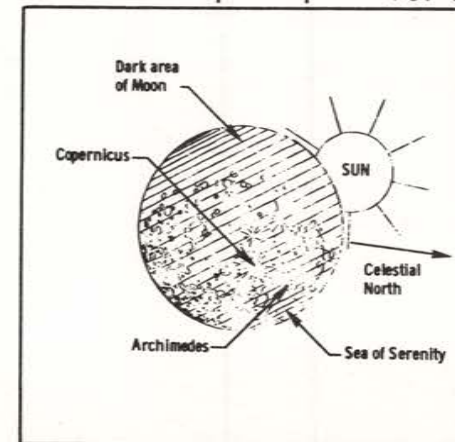
PRE-SLEEP CHECKLIST PAGE S/1-29
COMM - OMNI
FILM MAGS REQUIRED FOR NEXT DAY

DAC: SS

PTC

GET=50:00

FOV=3°



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	48:00 - 49:00	3/TLC	3-47

FLIGHT PLANNING BRANCH

MCC-H

2153 CST

FLIGHT PLAN

NOTES

49:00

:20

:40

50:00

:20

:40

51:00

S
T
D
NREST PERIOD
(8 HOURS)

PTC

DAP LOAD STATUS
(21101)(_1111)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	49:00 - 51:00	3/TLC	3-48

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

2353 CST

NOTES

51:00
:20
:40
52:00
:20
:40
53:00

STDN

REST PERIOD
(8 HOURS)

PTC

DAP LOAD STATUS
(21101)(_1111)

EXIT LUNAR PENUMBRA

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	51:00 - 53:00	3/TLC	3-49

FLIGHT PLANNING BRANCH

MCC-H

0153 CST

FLIGHT PLAN

NOTES

53:00
:20
:40
54:00
:20
:40
55:00

S
T
D
NREST PERIOD
(8 HOURS)

PTC

DAP LOAD STATUS
(21101)(_1111)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	53:00 - 55:00	3/TLC	3-50

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

0353 CST

NOTES

55:00
:20
:40
56:00
:20
:40
57:00

S
T
D
N

REST PERIOD
(8 HOURS)

PTC

DAP LOAD STATUS
(21101)(_1111)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	55:00 - 57:00	3/TLC	3-51

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

0553 CST

NOTES

57:00
:10
:20
57:30
:40
:50
58:00

S
T
D
N

CSM CHECKLIST

POST-SLEEP CHECKLIST PAGE S/1-29

LiOH CANISTER CHANGE
(7 INTO A, STOW 5 IN B6)

EAT PERIOD

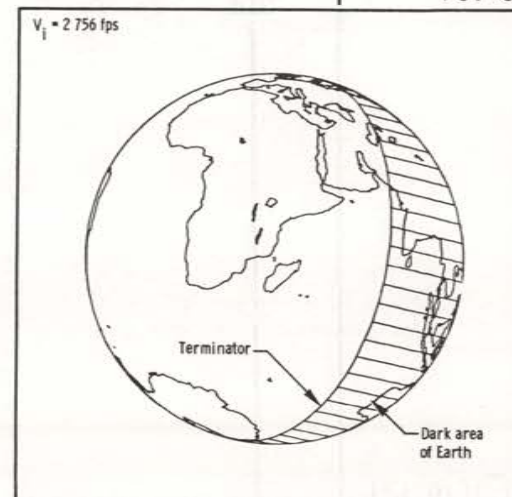
DAP LOAD STATUS
(21101)(1111)

EARTH DISTANCE
~170,566 NM

GET=58:00

PTC

FOV=3°



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	57:00 - 58:00	3/TLC	3-52

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

0653 CST

NOTES

DAP LOAD STATUS
(21101)(1111)

UPDATE
CONSUMABLES STATUS
FLIGHT PLAN

58:00
:10
:20
58:30
:40
:50
59:00

S
T
D
N

EAT PERIOD

CONFIGURE FOR URINE DUMP

PTC

SAMPLE BUSS's (3) - STOW SAMPLES (3)
DUMP URINE FROM BUSS's (3) - STOW
START NEW URINE COLLECTION PERIOD
WASTE WATER DUMP TO 10 PERCENT
O₂ FUEL CELL PURGE

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	58:00 - 59:00	4/TLC	3-53

FLIGHT PLANNING BRANCH

MCC-H

0753 CST

FLIGHT PLAN

NOTES

59:00

LMP DON BIOMED HARNESS

:10

:20

CHECK LMP BIOMED
CDR DOFF BIOMED HARNESS

59:30

S
T
D
N

:40

P52 (OPTION 3)
(PTC ORIENT)

:50

REPORT: GYRO TORQUING ANGLES
GDC ALIGN

(21111)

(_1111)

V48 (21111)(1111)
CHARGE BATTERY B

60:00

DAP LOAD STATUS
(21101)(1111)

P52 IMU REALIGN

N71: _ _ , _ _

N05: _ _ . _ _

N93:

X _ _ . _ _

Y _ _ . _ _

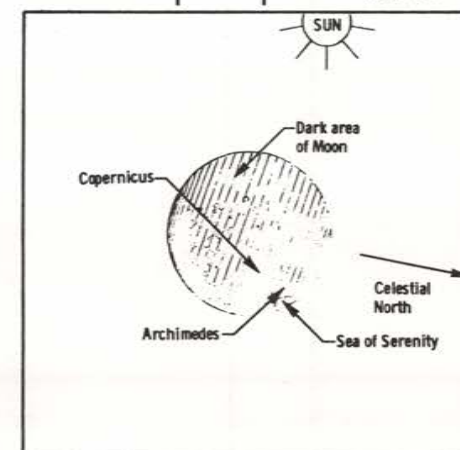
Z _ _ . _ _

GET _ _ : _ _ : _ _

PTC

GET=60:00

FOV=5°



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	59:00 - 60:00	4/TLC	3-54

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

0853 CST

NOTES

60:00
(21111)
(1111)

:10

:20

60:30

:40

:50

61:00

S
T
D
N

REPORT: LM/CM ΔP

IF $\Delta P > 2.4$ PSID:

O₂ HEATERS 1&2 - AUTO

PRESSURIZE CSM TO 5.7 PSIA

COUCHES: CDR - 0°, CMP - 0°, LMP - 180°

CSM G&C CHECKLIST

EXIT G&N PTC PAGE G/8-3

V49 MNVR TO LM CHECKOUT ATTITUDE (60:30)

(302,088,000) HGA P -30, Y 270

TUNNEL LIGHTS - ON

EQUALIZE CM/LM PRESSURE (DECAL)

TUNNEL HATCH REMOVAL (DECAL)

PROBE REMOVAL (DECAL)

DROGUE REMOVAL (DECAL)

REPORT: DOCKING TUNNEL INDEX ANGLE

O₂ HEATERS 1&2 - OFF (VERIFY)

CSM

OPEN LM HATCH

(AT LM REQUEST)

LM PWR - RESET/OFF

REPORT: GET ____:____:____

SYS TEST - 7D

SYS TEST IND = 0 VOLTS

PTC

LM

LM ACTIVATION CHECKLIST

IVT TO LM PAGE 2-1

TLM ACTIVATION

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	60:00 - 61:00	4/TLC	3-55

FLIGHT PLANNING BRANCH

MCC-H

0953 CST

FLIGHT PLAN

NOTES

61:00
(21111)
(1111)
:10
:20
61:30
:40
:50
62:00

S
T
D
NCSM

(AT LM REQUEST)

LM PWR - ON

REPORT: GET : :

SYS TEST - 7D

SYS TEST

IND = 0.5-3.2 VOLTS

E-MEMORY DUMP

LM

TLM DEACTIVATION

IVT TO CSM

LMP DON PGA WITHOUT
HELMET AND GLOVES

CDR DON PGA WITHOUT
HELMET AND GLOVES

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	61:00 - 62:00	4/TLC	3-56

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

1053 CST

NOTES

62:00
(21111)
(1111)

:10

:20

62:30

:40

:50

63:00

S
T
D
N

CLOSE LM HATCH
INSTALL DROGUE (DECAL)
INSTALL PROBE (DECAL)
HATCH INSTALLATION (DECAL)
LM TUNNEL VENT VALVE - LM/CMP ΔP
TUNNEL LIGHTS - OFF

LMP & CDR IVT TO LM
ZIP PGA'S

CMP DON PGA WITHOUT
HELMET AND GLOVES

LMP & CDR IVT CSM

DOFF PGA'S

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	62:00 - 63:00	4/TLC	3-57

FLIGHT PLANNING BRANCH

MCC-H

1153 CST

FLIGHT PLAN

NOTES

63:00
(21111)
(1111)

:10

:20

63:30

:40

(21101)
(1111)

:50

64:00

S
T
D
N

DOFF PGA'S

STOW PGA'S

OMNI B
SECURE HGA: MAN, WIDE P -52, Y 270

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	63:00 - 64:00	4/TLC	3-58

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

1253 CST

NOTES

UPDATE
FLIGHT PLAN
QUADS TO ENABLE
FOR PTC SPINUP

64:00
(21101)
(1111)

:10

:20

64:30

:40

:50

65:00

S
T
D
N

CYCLE CMC MODE - FREE/AUTO
V48 (21101)(1111)

CSM G&C CHECKLIST

PASSIVE THERMAL CONTROL (G&N) PAGE G/8-2
V49 MNVR TO PTC ATTITUDE
(N20,090,000)
P20 OPT 2, X-AXIS
N78 (0,0,0)
N79 (-0.4200, +000.50)
N34 (0,0,0)

H2 HEATERS 1 & 2 - AUTO
H2 FANS 3 - OFF

PTC

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	64:00 - 65:00	4/TLC	3-59

FLIGHT PLANNING BRANCH

MCC-H

1353 CST

FLIGHT PLAN

NOTES

65:00
(21101)
(1111)

:10

:20

65:30

:40

:50

66:00

S
T
D
N

EAT PERIOD

PTC

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	65:00 - 66:00	4/TLC	3-60

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

1453 CST

NOTES

66:00
(21101)
(1111)

:10

:20

66:30

:40

:50

67:00

S
T
D
N

PTC

LOI -22 HOURS

IF MCC-3 IS REQD
PERFORM AT GET 66:55

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	8/28/72	66:00 - 67:00	4/TLC	3-61

FLIGHT PLANNING BRANCH

FLIGHT PLAN

NOTES

MCC-H

1553 CST

UPDATE
FLIGHT PLAN

67:00
(21101)
(1111)

:10

:20

67:30

:40

:50

68:00

STDN

SYNCHRONIZE MISSION TIMER TO CMC CLOCK (IF REQUIRED)
V05N01E, 1706E (T EPHEM VERIFICATION BY STDN,
COPY FROM DSKY ON STDN CUE).
COPY T-EPHEM IN FP SUPPLEMENT

PTC

LIFTOFF TIME WILL BE
UPDATED IF THE TIME
OF REV 2 MERIDIAN
CROSSING DIFFERS
MORE THAN + 1 MIN
FROM 90:59:22

T EPHEM UPDATE	
OID	LOAD B
03	_____
04	_____
05	_____

UPLINK
LIFT-OFF TIME
(IF REQUIRED)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	67:00 - 68:00	4/TLC	3-62

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

1653 CST

NOTES

68:00
(21101)
(1111)
:10
:20
68:30
:40
:50
69:00

S
T
D
N

CSM EXP/EVA CHECKLIST

ALFMED PAGE X/2-1
MAG (SS)

CMD
DSE RECORD
PCM BIT RATE - LOW

ALFMED

PTC

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	68:00 - 69:00	4/TLC	3-63

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

1753 CST

NOTES

69:00
(21101)
(1111)

:10

:20

69:30

:40

:50

70:00

S
T
D
N

CMP DON BIOMED HARNESS

CHECK CMP BIOMED
LMP DOFF BIOMED HARNESS

ALFMED

PTC

CMD
DSE REWIND

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	69:00 - 70:00	4/TLC	3-64

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

1853 CST

NOTES

CMD
DATA SYS-ON

CMD
DATA SYS-OFF
DSE PLAYBACK

70:00
(21101)
(1111)

:10

:20

70:30

:40

:50

71:00

STDN

CSM EXP/EVA CHECKLIST

PC AND MC FILM CYCLING PAGE X/1-17
ON STDN CUE: ACQUIRE HGA
ON STDN CUE: CYCLE FILM

ON STDN CUE:
OMNI B
SECURE HGA: MAN, WIDE P -52, Y 270
P52 (OPTION 3)
(PTC ORIENT)

REPORT: GYRO TORQUING ANGLES
GDC ALIGN
LiOH CANISTER CHANGE
(8 INTO B, STOW 6 IN B6)

PTC

P52 IMU REALIGN

N71: _ _ , _ _

N05: _ _ _ . _ _

N93:

X _ _ . _ _ _

Y _ _ . _ _ _

Z _ _ . _ _ _

GET _ _ _ : _ _ : _ _

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	70:00 - 71:00	4/TLC	3-65

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

1953 CST

NOTES

UPDATE
FLIGHT PLAN

71:00
(21101)
(1111)

:10

:20

71:30

:40

:50

72:00

S
T
D
N

EAT PERIOD

PTC

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	71:00 - 72:00	4/TLC	3-66

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

2053 CST

NOTES

72:00
(21101)
(1111)

:10

:20

72:30

:40

:50

73:00

S
T
D
N

EAT PERIOD

CSM SYSTEMS CHECKLIST

PRE-SLEEP CHECKLIST PAGE S/1-29
COMM - OMNI
FILM MAGS REQUIRED FOR NEXT DAY

DAC: BB

EL: QQ, KK

PTC

ONBOARD READOUT

BAT C

PYRO BAT A

PYRO BAT B

RCS A

B

C

D

DC IND SEL - MNA OR B

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	72:00 - 73:00	4/TLC	3-67

FLIGHT PLANNING BRANCH

MCC-H

2153 CST

FLIGHT PLAN

NOTES

73:00

:20

:40

74:00

:20

:40

75:00

S
T
D
NREST PERIOD
(8 HOURS)

PTC

DAP LOAD STATUS
(21101)(1111)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	73:00 - 75:00	4/TLC	3-68

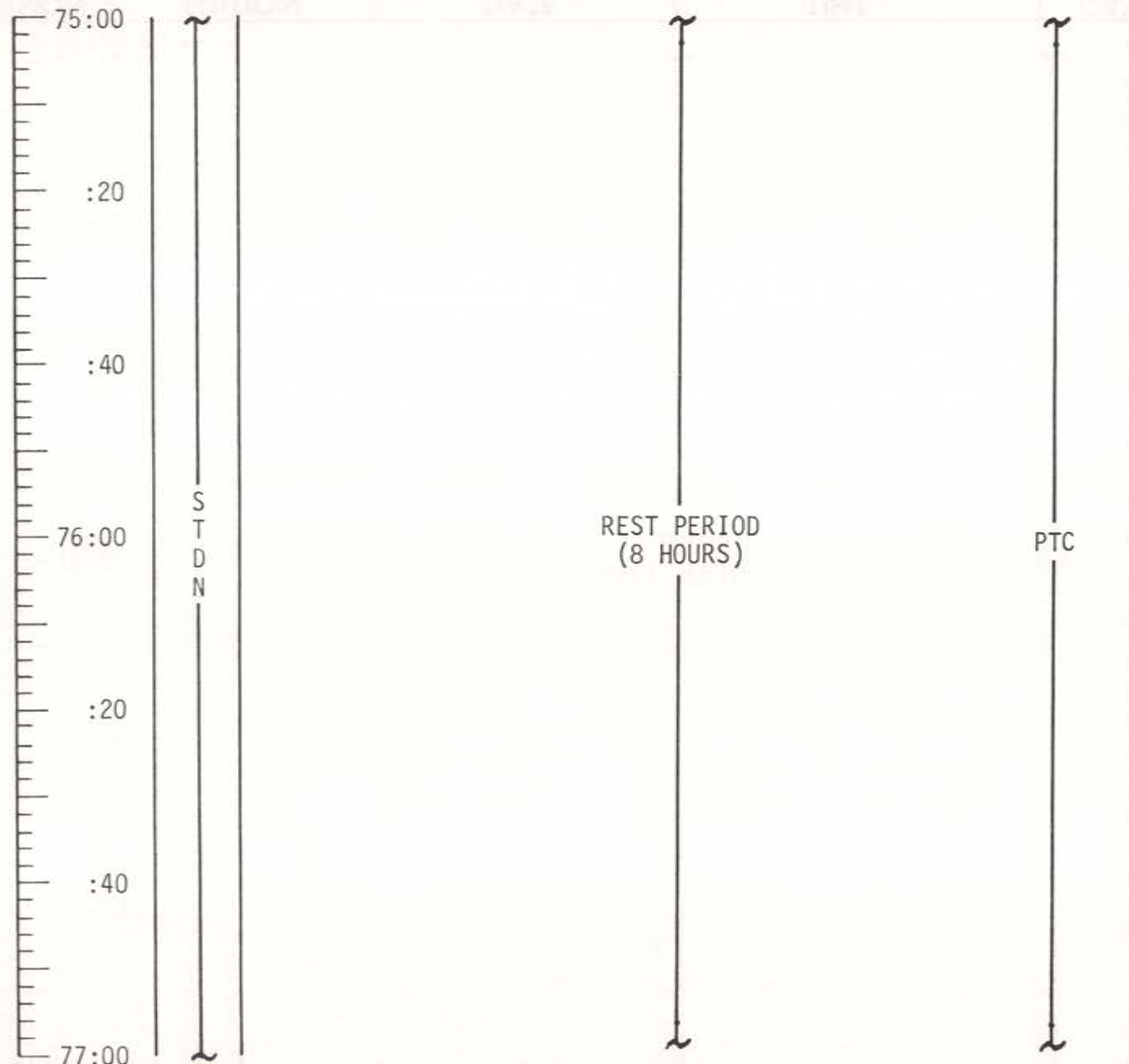
FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

2353 CST

NOTES



DAP LOAD STATUS
(21101)(_1111)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	75:00 - 77:00	4/TLC	3-69

FLIGHT PLANNING BRANCH

MCC-H

0153 CST

FLIGHT PLAN

NOTES

77:00
:20
:40
78:00
:20
:40
79:00

S
T
D
NREST PERIOD
(8 HOURS)

PTC

DAP LOAD STATUS
(21101)(_1111)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	77:00 - 79:00	4/TLC	3-70

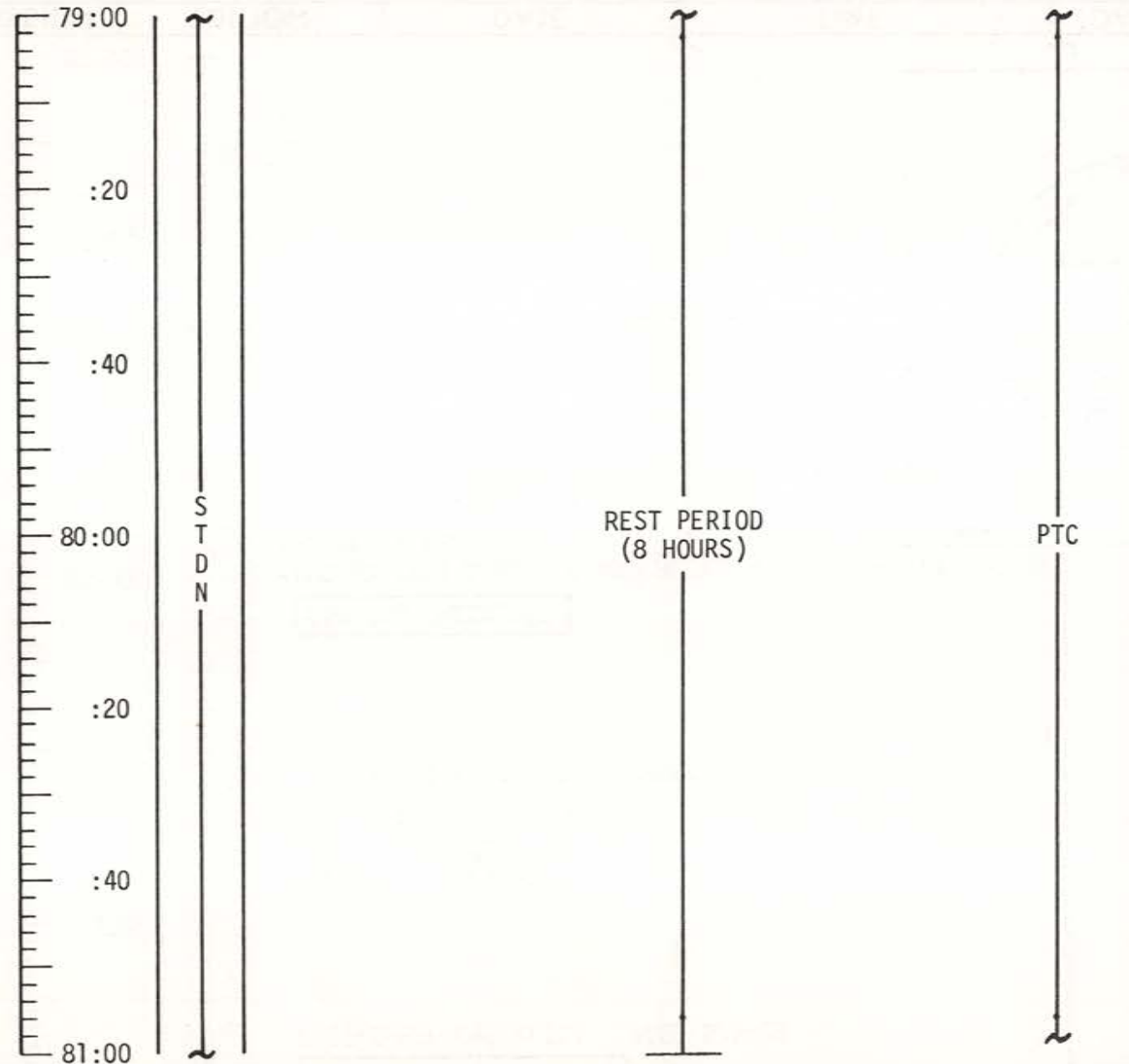
FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

0353 CST

NOTES



DAP LOAD STATUS
(21101)(1111)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	79:00 - 81:00	4/TLC	3-71

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

0553 CST

NOTES

UPDATE
GO/NO-GO FOR MCC-4

81:00
:10
:20
81:30
:40
:50
82:00

S
T
D
N

CSM SYSTEMS CHECKLIST

POST-SLEEP CHECKLIST PAGE S/1-29

REPORT: LM/CM ΔP
IF $\Delta P > 2.4$ PSID:
O₂ HEATERS 1&2 - AUTO
PRESSURIZE CSM TO 5.7 PSIA

CSM G&C CHECKLIST

*EMS ΔV TEST & NULL BIAS CHECK PAGE G/2-5 GET=82:00
*REPORT: BIAS

EAT PERIOD

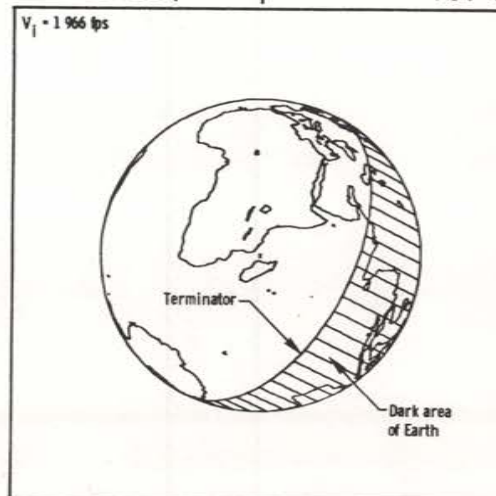
PTC

DAP LOAD STATUS
(21101)(1111)

EARTH DISTANCE
~202,616 NM

*PERFORM IF MCC-4
IS REQUIRED

FOV=3°



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	81:00 - 82:00	4/TLC	3-72

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

0653 CST

NOTES

UPDATE
CONSUMABLES STATUS
FLIGHT PLAN
MCC-4 MNVR PAD
PERICYNTHION +2 HR
ABORT PAD
WASTE WATER
DUMP PERCENT
UPLINK
CSM S.V. & V66
MCC-4 TGT LOAD

82:00
:10
:20
82:30
:40
:50
83:00

S
T
D
N

EAT PERIOD

PTC

DAP LOAD STATUS
(21101)(1111)

*PERFORM IF MCC-4
IS REQUIRED

PERICYNTHION +2 HR
ABORT PAD TARGETED
FOR A FAST RETURN

CSM G&C CHECKLIST

*EXIT G&N PTC AT R 299 (P52) PAGE G/8-3

HGA: P -30, Y 270 AUTO, NARROW
CM/LM PRESSURE EQUALIZATION (DECAL)
PRESSURE EQUAL VALVE - CLOSED
O₂ HEATERS 1&2 - OFF (VERIFY)

CONFIGURE CAMERA FOR SIM DOOR JETT PHOTOS
CM5/DAC/75/CEX (f8,1/250,100) 24 fps (5% MAG)
MAG (BB) _____, MAG % _____

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	82:00 - 83:00	5/TLC	3-73

FLIGHT PLANNING BRANCH

MCC-4
BURN TABLE

SPS LIMITS	P OR Y RATES	DEVIATION	MANUAL START ACTION	OVERBURN SHUTDOWN CRITERIA	RCS TRIM GUIDELINES
TIGHT	10°/SEC TERMINATE	+ 10° TERMINATE	NO MANUAL STARTS NO RESTART	BT + 1 SEC	TRIM ONLY X-AXIS TO 0.2 FPS

BALL VLV FAILURE - START ON SUSPECT BANK
Shut down good bank to verify; reenable

APOLLO 17

FINAL (12/6)

10/23/72

5/TLC

3-74

0753 CST

*PERFORM IF
MCC-4 IS REOD

LiOH CANISTER CHANGE
(9 INTO A, STOW 7 IN B6)
CONFIGURE FOR URINE DUMP
H₂ PURGE LINE HTRS - ON

P52 (OPTION 3)
(PTC ORIENT)
REPORT: GYRO TORQUING ANGLES

GDC ALIGN
*P30 EXTERNAL ΔV
*V49 MNVR TO PAD BURN ATT
*IF SPS MIDCOURSE REQUIRED
* PRE-SPS BURN SIM PREP (CUE CARD)

*SXT STAR CHECK
*P40 SPS THRUSTING OR P41 RCS THRUSTING

H₂ & O₂ FUEL CELL PURGE
WASTE WATER DUMP TO PERCENTAGE SPECIFIED BY STDN
SAMPLE BUSS's (3) - STOW SAMPLES (3)
DUMP URINE FROM BUSS's (3) - STOW
START NEW URINE COLLECTION PERIOD
H₂ PURGE LINE HTRS - OFF

```
TIG: 83:55
BT: NOM ZERO
ΔVT: NOM ZERO
ULLAGE: NONE
```

LOI -5 HR

84:00

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			OX
X	X	X			FUEL
X	X	X			UNBAL

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	83:00 - 84:00	5/TLC	3-75

FLIGHT PLANNING BRANCH

MCC-H

0853 CST

FLIGHT PLAN

NOTES

CMD
DATA SYS - ON
DSE RECORD

UPDATE
GO/NO-GO FOR
SIM DOOR JETT

UPDATE
CUE FOR IR - OFF

UPLINK
CSM S.V. & V66
(PRELIMINARY)
LOI TGT LOAD
(PRELIMINARY)
DESIRED ORIENT(LOI)

84:00
(21101)
(1111)
:10
:20
84:30
:40
:50
85:00

S
T
D
N

*V66 SET CSM S.V. INTO LM S.V.

*REPORT: BURN STATUS

V49 MNVR TO SIM DOOR JETTISON ATTITUDE (84:15)
(138,249,000) HGA P -48, Y 238

CSM EXP/EVA CHECKLIST

SIM DOOR JETTISON PAGE X/1-6 (TO STDN CUE)

GO/NO-GO FOR SIM DOOR JETTISON (CUE)

SIM DOOR JETTISON 84:25

V49 MNVR TO P52 ATTITUDE (84:50)
(262,043,330) HGA P -11, Y 311

cb O₂ TK 100W HTRS (1 & 2) - OPENO₂ HEATERS 1 & 2 - AUTOO₂ HEATER 3 - OFFREPORT: LM/CM Δ PIF Δ P < 0.2 PSID, LM TUNNEL VENT VLV - LM PRESSIF Δ P > 0.2 PSID, PERFORM CM/LM PRESSURE EQUALIZATION (DECAL)

PRESS EQUAL VALVE - CLOSE

LM TUNNEL VENT VLV - LM PRESS

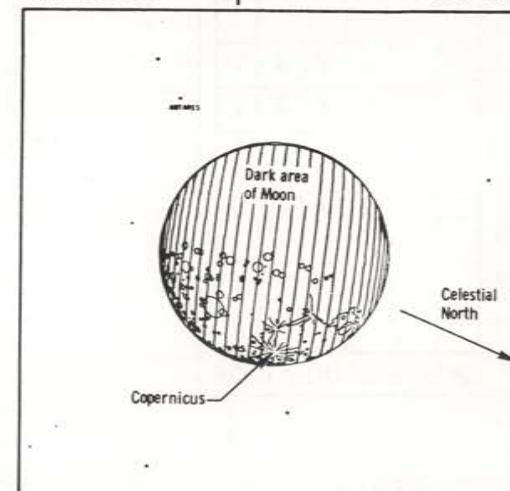
CHECK MISSION TIMER AGAINST CMC CLOCK

*PERFORM IF MCC-4
IS REQUIRED

SIM EXP STATUS
(*0000)
(31000)

GET=85:00

FOV=25°



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	84:00 - 85:00	5/TLC	3-76

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

0953 CST

NOTES

UPDATE
LOI MNVR PAD
(PRELIMINARY)
TEI 4 PAD
FLIGHT PLAN

85:00
(21101)
(1111)

:10

:20

85:30

:40

:50

86:00

S
T
D
N

CSM G&C CHECKLIST

EMS ΔV TEST & NULL BIAS CHECK PAGE G/2-5
REPORT: BIAS
CDR DON BIOMED HARNESS

LIMIT CYCLE - ON
ATT DEADBAND - MIN
RATE - LOW
BMAG (3) - ATT 1/RATE 2
SC CONT - SCS
P52 (OPTION 3)
(PTC ORIENT)

STARS _____
SA _____
TA _____

REPORT: GYRO TORQUING ANGLES
P52 (OPTION 1)
(LOI ORIENT)

SC CONT - CMC
BMAG (3) - RATE 2
GDC ALIGN

CHECK CDR BIOMED
CMP DOFF BIOMED HARNESS

SIM EXP STATUS
(*0000)
(31001)

P52 IMU REALIGN

N71: _____

N05: _____

N93: _____

X _____

Y _____

Z _____

GET _____:_____:_____

LOI REFSMMAT ATT
R 351, P 128, Y 034

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	85:00 - 86:00	5/TLC	3-77

FLIGHT PLANNING BRANCH

MCC-H

1053 CST

FLIGHT PLAN

NOTES

86:00
(21101)
(1111)

:10

:20

86:30

:40

:50

87:00

S
T
D
N

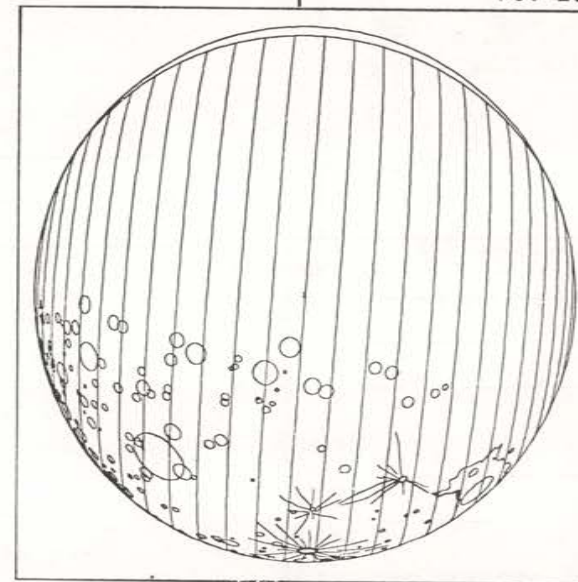
CONFIGURE CABIN FOR LUNAR ORBIT

EAT PERIOD

SIM EXP STATUS
(*0000)
(31001)

GET=87:00

FOV=20°



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	86:00 - 87:00	5/TLC	3-78

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

1153 CST

NOTES

SIM EXP STATUS
(*0000)
(31001)

UPDATE
LOI MNVR PAD
MAP UPDATE REV 1
(88:20)

UPLINK
CSM S.V. & V66
LOI TGT LOAD

87:00
(21101)
(1111)

:10

:20

87:30

:40

:50

88:00

S
T
D
N

EAT PERIOD

CMC MODE - FREE
UV COVER-OPEN

UV COVER-CLOSE
CMC MODE - AUTO

P52 (OPTION 3)
(LOI ORIENT)

REPORT: GYRO TORQUING ANGLES

GDC ALIGN

CSM SYSTEMS CHECKLIST

PRE-LOI SECONDARY GLYCOL LOOP CHECK PAGE S/1-19
C/W SYSTEM OPERATIONAL CHECK PAGE S/1-20
SPS MONITORING CHECK PAGE S/1-1
SM RCS MONITORING CHECK
CM RCS MONITORING CHECK
ECS MONITORING CHECK PAGE S/1-5
OXIDIZER FLOW VALVE INCR - NORM (VERIFY)

PRE-SPS BURN SIM PREP (CUE CARD)

P52 IMU REALIGN

N71: _ _ _ , _ _ _

N05: _ _ _ . _ _ _

N93:

X _ _ _ . _ _ _

Y _ _ _ . _ _ _

Z _ _ _ . _ _ _

GET _ _ _ : _ _ _ : _ _ _

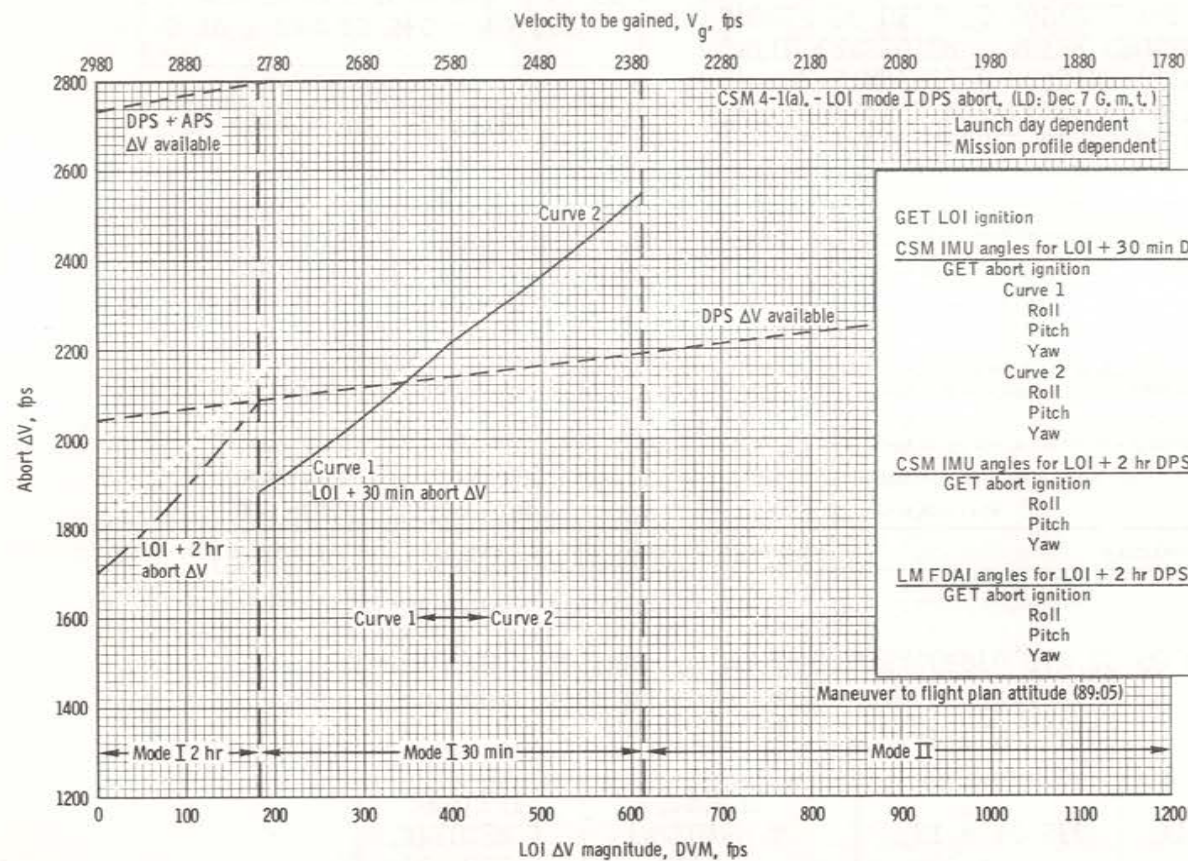
MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	87:00 - 88:00	5/TLC	3-79

FLIGHT PLANNING BRANCH

P30 MANEUVER

SET STARS	L	O	I				PURPOSE
	S	P	S	G	&	N	PROP/GUID
	+						WT N47
R ALIGN		0	0				P _{TRIM} N48
P ALIGN		0	0				Y _{TRIM}
Y ALIGN	+	0	0				HRS GETI
	+	0	0	0			MIN N33
	+	0					SEC
ULLAGE							ΔV_X N81
							ΔV_Y
							ΔV_Z
	X	X	X				R (000)
	X	X	X				P (000)
	X	X	X				Y (000)
	+						H _A N44
							H _P
	+						ΔVT
HORIZON/WINDOW	X	X	X				BT
	X						ΔVC
	X	X	X	X			SXTS
	+					0	SFT
	+				0	0	TRN
	X	X	X				BSS
	X	X					SPA
	X	X	X				SXP

10/23/72



LOI mode I DPS abort.

	Nominal	Update
GET LOI ignition	88:55:37.6	
CSM IMU angles for LOI + 30 min DPS abort	HGA Pitch = -48°, Yaw = 111°	
GET abort ignition	89:25:37.6	
Curve 1		
Roll	210	
Pitch	10	
Yaw	19	
Curve 2	HGA Pitch = -45°, Yaw = 109°	
Roll	212	
Pitch	10	
Yaw	13	
CSM IMU angles for LOI + 2 hr DPS abort	HGA Pitch = -69°, Yaw = 263°	
GET abort ignition	90:55:37.6	
Roll	146	
Pitch	21	
Yaw	13	
LM FDAI angles for LOI + 2 hr DPS abort		
GET abort ignition	90:55:37.6	
Roll	194	
Pitch	27	
Yaw	334	

LOI BURN TABLE

P OR Y RATES	ATT DEVIATION	SHUTDOWN TIME	RESIDUALS
10°/SEC TAKEOVER & COMPLETE	+10° TAKEOVER & COMPLETE	BT + 10 SEC	DO NOT TRIM

BALL VLV FAILURE - START ON GOOD BANK (LM AVAIL)

Shut down good bank 10 sec before nominal C/O.

EARLY C/O - RESTART IF NO LIMITS EXCEEDED, G&N IS GO AND VGO>50

CSM 4-1(b). - LOI mode DPS abort. (LD: Dec 7 G.m.t.)

Launch day dependent
Mission profile dependent

9/26/72 Final

Burntime	ΔVM	Mode	SPS limits	Procedure
0:00 - 0:28	0 - 183	I	TIGHT	DPS at 2 hr (RTCC)
0:28 - 0:53	183 - 348	I	TIGHT	DPS at 30 min (crewchart)
0:53 - 1:31	348 - 613	I	LOOSE	DPS at 30 min to depletion + APS at 2 1/2 hr (RTCC); loss of comm, DPS followed immediately by APS (crewchart)
1:31 - 2:03	613 - 833	II	LOOSE	DPS at 2 hr + DPS to depletion at perilune + APS at 2 hr after DPS depletion (RTCC)
2:03 - 2:54	833 - 1200	II	LOOSE	DPS at 2 hr + DPS at perilune (RTCC)
2:54 - 3:40	1200 - 1543	III	LOOSE	DPS at perilune (RTCC)
3:40 - 4:30	1543 - 1930	III	TIGHT	DPS at perilune (RTCC)
4:30 - Cutoff	1930 - 2980	III	TIGHT	DPS to depletion at perilune + APS at 2 hr after DPS depletion (RTCC)

IGN <3 MIN 40 SEC LATE
SHUTDOWN TIMES

0 TO 1 MIN 20 SEC - 10 SEC
1 MIN 20 SEC TO 2 MIN - 5 SEC
2 MIN TO 3 MIN 40 SEC - 0 SEC

THE PU VALVE SHOULD BE USED TO MAINTAIN
THE INDICATED UNBALANCE TO WITHIN +50 LB
OF THE STABILIZED READING (TIG +25 SEC)
UNTIL CROSSOVER. AFTER CROSSOVER THE VALVE
SHOULD BE USED TO CONTROL THE GREEN BAND
(0+100 LB). THE APPROXIMATE TIME OF CROSS-
OVER IS 4 MIN 20 SEC INTO THE LOI BURN

FLIGHT PLAN

MCC-H

1253 CST

NOTES

SIM EXP STATUS
(*0000)
(31001)

BURN STATUS REPORT

P30 EXTERNAL ΔV

V49 MNVR TO PAD BURN ATTITUDE (88:20)

OMNI C

MAP UPDATE REV

AOS WITHOUT BURN : :

AOS WITH BURN : :

SXT STAR CHECK

P40 SPS THRUSTING

GO/NO-GO FOR LOI

VERIFY DSE TAPE MOTION (LBR/RCD/FWD/CMD RESET)

LOI

TIG: 88:55:37.5
BT: 6 MIN 35.4 SEC
ΔVT: 2979.9 FPS
ULLAGE: NONE
ORBIT: 170.8x51.4 NM

 ΔV_M _____

PREDICTED LOI SINGLE
BANK BURN TIME:
6 MIN 50 SEC

RECORD VG_{IMU} DATA
UPDATE
GO/NO-GO FOR LOI

:10

:20

88:30

: 40

: 50

89:00

STDN

ΔTIG

BT

 v_{gx}

R

P

Y

$$V_{gx}$$
 γ_{gy}

gz

 $\frac{\Delta V}{\Delta y}$

OX

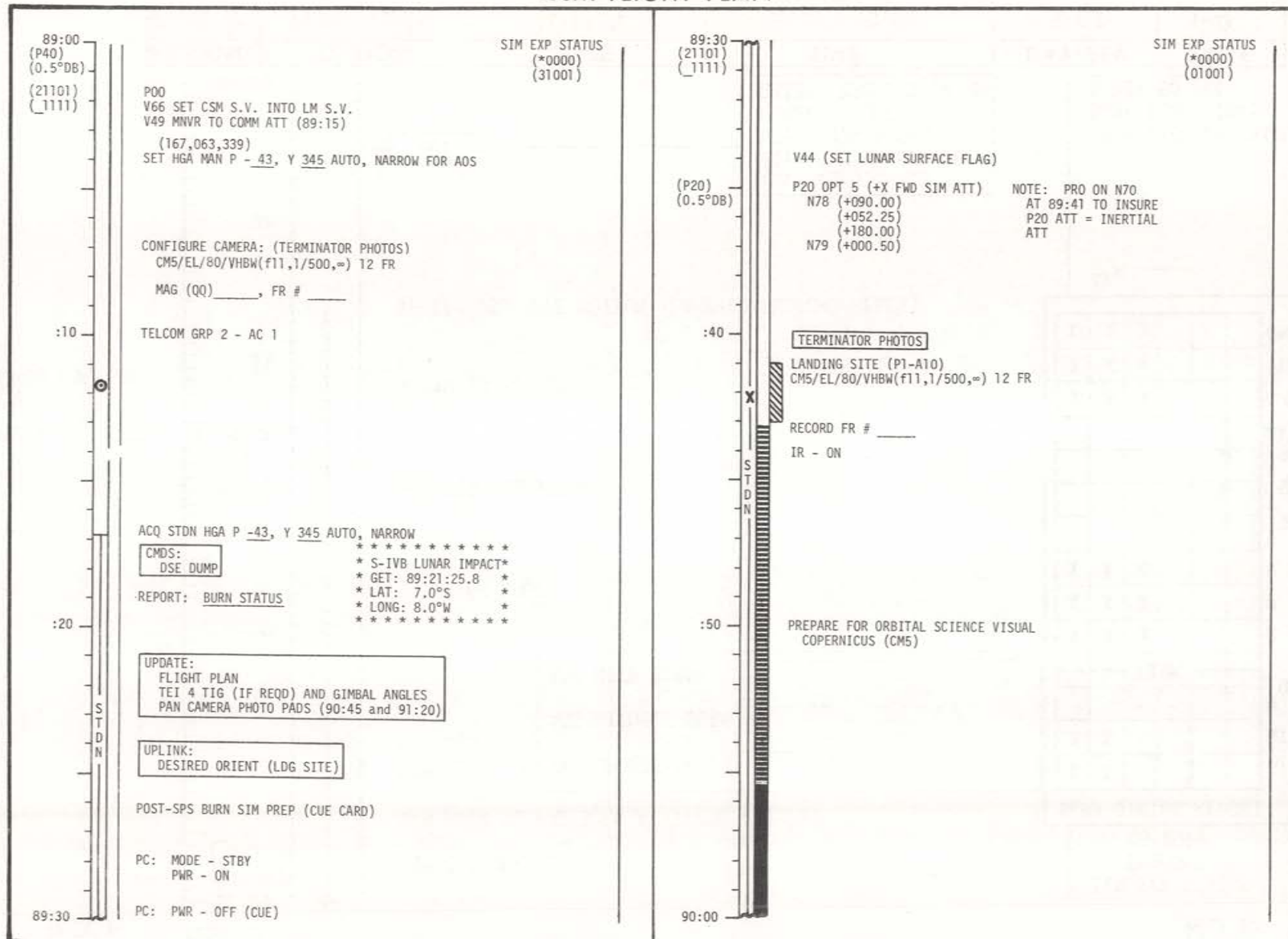
FUEL

UNBAL

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	88:00 - 89:00	5/TLC	3-83

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



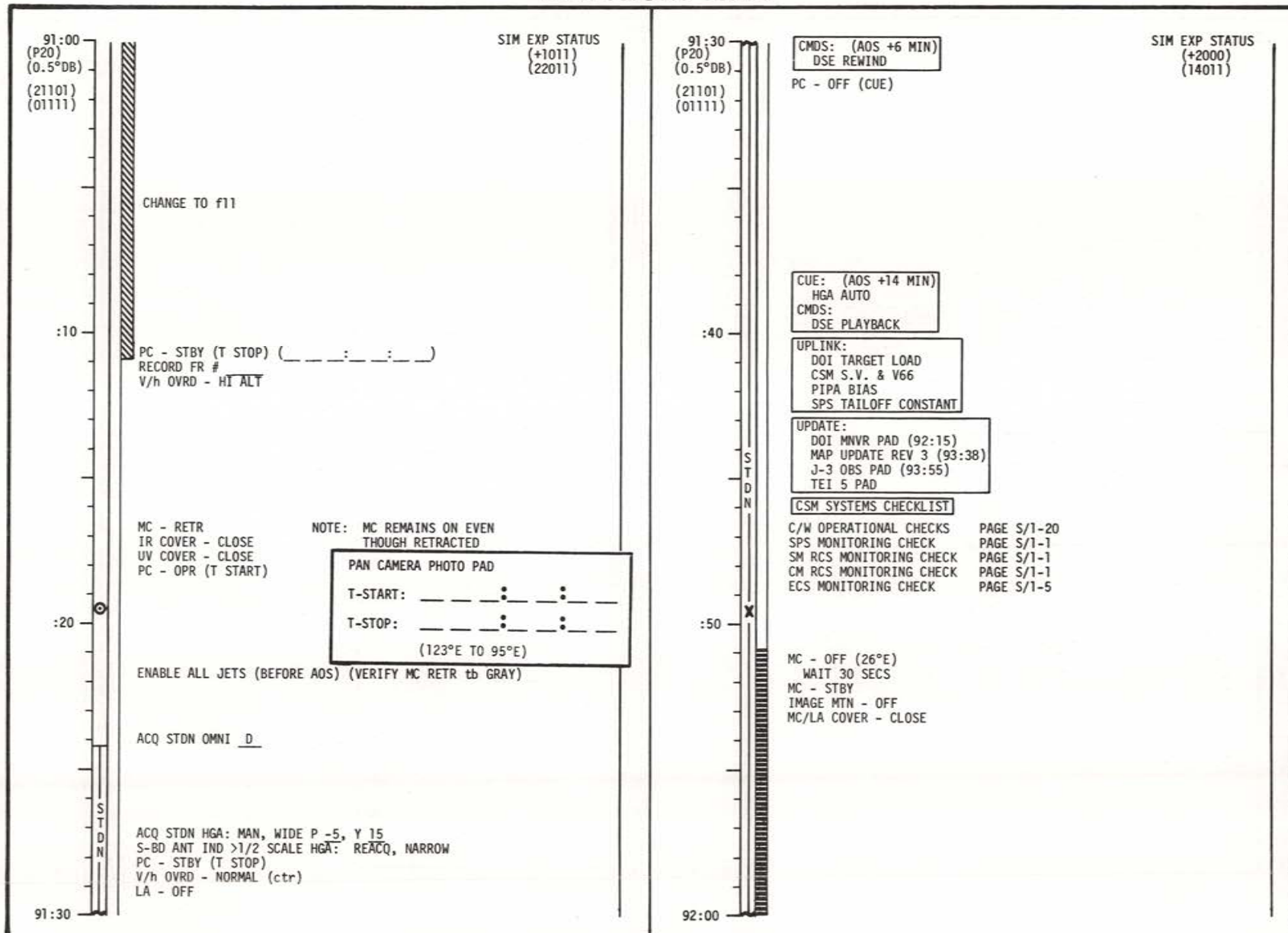
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-84

CSM FLIGHT PLAN

90:00 (P20) (0.5°DB) (21101) (1111) ORBITAL SCIENCE VISUALS COPERNICUS (CM5) CMC MODE-FREE P52 (OPTION 3) (LOI ORIENT) REPORT: GYRO TORQUING ANGLES P52 (OPTION 1) (LDG SITE ORIENT) P20: CMC MODE - AUTO GDC ALIGN CONFIGURE CAMERA: (ORBITAL SCIENCE) CM3/EL/80/CEX-IVL20(f2.8,1/250,∞) 58 FR MAG (KK) _____, FR # _____ SIM EXP STATUS (+0000) (01011) P52 IMU REALIGN N71: _____ N05: _____ N93: _____ X _____ Y _____ Z _____ GET _____	90:30 (P20) (0.5°DB) (21101) (1111) V48 (21101) (01111) CMDS: (AOS +81 MIN) DSE RECORD INHIBIT ALL JETS EXCEPT D1&B2,A3,C4,B3,D4 IR COVER - OPEN UV COVER - OPEN VERIFY DSE TAPE MOTION (HBR/RCD/FWD/CMD RESET) SELECT OMNI D FOR AOS SET HGA MAN, WIDE P -5, Y 15 FOR AOS +3 MIN MC/LA COVER - OPEN MC-EXTD PC: STBY STEREO PWR V/h OVRD - HI ALT LA - ON IMAGE MTN - ON MC - ON (144°W) PC - OPR (T START) IMAGE MTN - INCR (BP +4 STEPS)/ON ORBITAL SCIENCE PHOTOS GALOIS (P 1/2 - A21) CM3/EL/80/CEX-IVL20(f2.8,1/250,∞) 58 FR CHANGE TO f4 CHANGE TO f5.6 CHANGE TO f8 V/H OVRD - LO ALT SIM EXP STATUS (+0000) (01011) PAN CAMERA PHOTO PAD T-START: _____ T-STOP: _____ 152°W TO 144°E
90:30	91:00

MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-85

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-86

CSM FLIGHT PLAN

92:00
(21101)
(1111)

P00

SIM EXP STATUS
(+0000)
(01011)

P52 IMU REALIGN

N71: _ _ . _ _

N05: _ _ _ . _

N93: _ _ _ . _

X _ _ . _ _

Y _ _ . _ _

Z _ _ . _ _

GET _ _ _ . _ _

P52 (OPTION 3)
(LDG SITE ORIENT)

REPORT: GYRO TORQUING
ANGLES

GDC ALIGN

PRE-SPS BURN SIM PREP (CUE CARD)

P30; VERIFY DOI TIG AND ΔV 'S

P40

STDN RECORD:
VG IMU DATA

P00
V49 MNVR TO DOI PAD BURN ATT (92:31)
ACQ STDN OMNI C

:10

:20

92:30

P30 MANEUVER

SET STARS	D	O	I	-	1	PURPOSE
	S	P	S	G	N	PROP/GUID
	+					WT N47
R ALIGN		0	0			P TRIM N48
P ALIGN		0	0			Y TRIM
Y ALIGN	+	0	0			HRS GETI
	+	0	0	0		MIN N33
	+	0				SEC
ULLAGE						ΔV_X N81
						ΔV_Y
						ΔV_Z
	X	X	X			R (000)
	X	X	X			P (225)
	X	X	X			Y (000)
	+					H _A N44
						H _P
	+					ΔVT
HORIZON/WINDOW	X	X	X			BT
	X					ΔVC
	X	X	X	X		SXTS
	+				0	SFT
	+			0	0	TRN
	X	X	X			BSS
	X	X				SPA
	X	X	X			SXP
OTHER		0				LAT N61
						LONG
	+					RTGO EMS
	+					V10
						GET 0.05G

MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-87

CSM FLIGHT PLAN

92:30
(21101)
(1111)

SIM EXP STATUS
(*0000)
(31011)

CMD5:
DSE REWIND

:40

S
T
D
N

SXT STAR CHECK

LOAD EMS WITH ΔVT

UPDATE:
GO/NO GO FOR DOI

CMD5:
DSE RECORD

(P40)
(0.5°DB)

P40 (TRIM)

VERIFY DSE TAPE MOTION (LBR/RCD/FWD/CMD RESET)

:50

NOTE: DSE VOICE RECORDED
THIS BACKSIDE WILL
NOT BE DUMPED

93:00

MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-88

CSM FLIGHT PLAN

93:00 -
(P40)
(0.5°DB)

(21101)
(_1111)

REV 3

:10 -

$$\begin{pmatrix} 21101 \\ _1111 \end{pmatrix}$$

:20 -

93:30

SIM EXP STATUS
(*0000)
(31011)

NOTE: DOI-1 WILL BE PERFORMED ON BANK A ONLY

DOI-1 (000,195/225,000)

P00

V66 SET CSM S.V. INTO LM S.V.

DELAY POST-SPS BURN SIM
PREP UNTIL 94:10

V49 MNVR TO LDMK UBS ATT (93:34)	-	V49 MNVR TO BAILOUT BURN ATT *
(020,293,000)		*(000,002,000) *
SET HGA MAN P +9, Y <u>338</u> REACQ,		* SET HGA MAN P -49, Y <u>334</u> *
NARROW FOR AOS		* REACQ, NARROW FOR AOS *

TIG: 93:13:08.5
BT: 22.9 SEC
ΔVT: 198.7 FEET/SEC
ULLAGE: 4 JET 15 SEC
ORBIT: 59 X 15 NM

DOI-1 BURN TABLE

SPS LIMITS	P OR Y RATES	ATT DEVIATIONS	SHUTDOWN TIME	RESIDUALS	MANUAL
TIGHT	10°/SEC	<u>+10°</u>	BT	*TRIM BURNS IN X TO WITHIN +1 FPS, DO NOT TRIM Y & Z	NO MANUAL START NO RESTART

*IF OVERBURN IS > 2.2 FPS AND < 10 FPS PITCH
180° AND TRIM WITH +X RCS THRUSTERS, IF > 10
FPS USE SPS

BALL VLV FAILURE - START ON SUSPECT BANK

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						OX
X						FUEL
X						UNBAL

MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-89

CSM FLIGHT PLAN

93:30
(21101)
(1111)

AOS-NO UP VOICE PROCEDURE
1. WAIT 30 SEC, CHECK HGA
2. SELECT OMNI C
3. SELECT SEC XPNDR
4. AFTER 3 MIN GO TO LOSS
* OF COMM CUE CARD*

SIM EXP STATUS
(*0000)
(31011)

ACQ STDN HGA P +9, Y 338 NOTE: IF UNABLE TO LOCK UP
HGA, GO TO OMNI C

CMD5:
DSE DUMP

REPORT: BURN STATUS

LOAD N89 (J-3 OBS)

UPDATE:
STAY/BAILOUT

P24 (ORB NAV MONITOR LDMK)(TAKE MARKS)
OPT ZERO - OFF
OPT MODE - CMC
OPT TEL TRUN - SLAVE TO SXT
OPT COUPLING - RSLV
OPT SPEED - HIGH

* SC CONT - SCS
* P47 THRUST MONITOR

* BAILOUT BURN (000,083/002,000)

* : : *

* P00
* V66 SET CSM
S.V. INTO LM
S.V.

TIG: 93:48:17
BT: 11.05 SEC
ΔVC: 100.0 FEET/SEC
ULLAGE: 4 JET 17 SEC
ORBIT: 61.5 X 5.0 NM

LDMK ACQUISITION
TCA
RELOAD P24
LOAD N89 (17-1 OBS)
N89 (+20.160)(+15.405)

STDN

:40

:50

94:00

MAP UPDATE REV 3

AOS WITHOUT BURN : : :

AOS WITH BURN : : :

LDMK J-3 OBS

T HOR : : :

TCA -20 SEC : : :

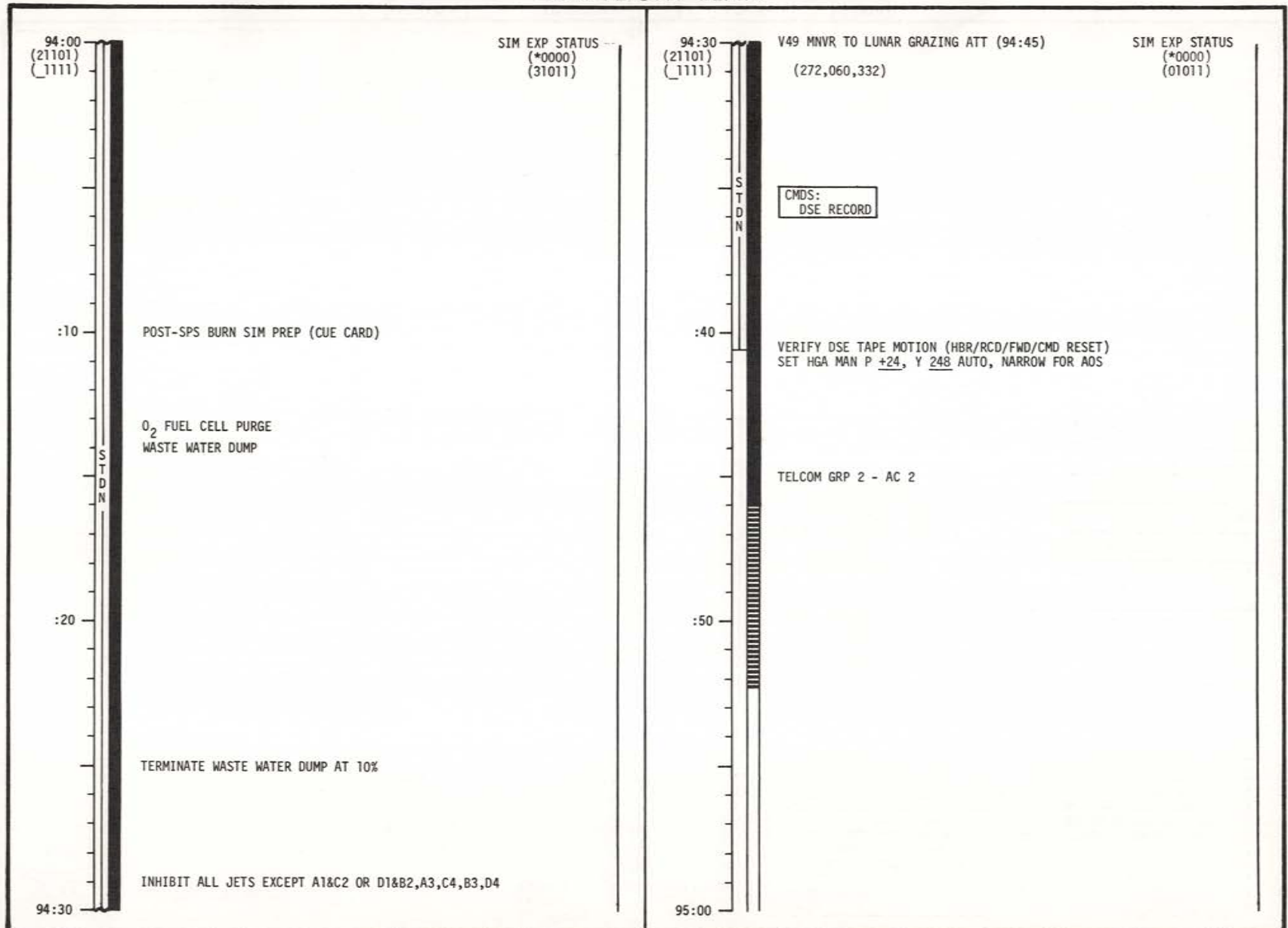
LAT: + 19.948

LONG/2: + 20.051

ALT: +000.000

MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-90

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-91

CSM FLIGHT PLAN

95:00
REV 4
(21101)
(1111)

L10H CANISTER CHANGE
(10 INTO B, STOW 8 IN B6)

SIM EXP STATUS
(*0000)
(01011)

LMP DON BIOMED HARNESS NOTE: CMP MAY DON BIOMED HARNESS

IR COVER - OPEN
UV COVER - OPEN

ACQ STDN HGA P +24, Y 248 AUTO, NARROW

CMDS:
DSE DUMP

95:30

95:30
(21101)
(1111)

UPDATE:
FLIGHT PLAN
TRAJECTORY STATUS
REFSMAT 00 TIME (IF REQD)
TEI 12 AND TEI 19 PADS
LM DAP LOAD (COPY ON PAGE 1
IN THE LM DATA CARD BOOK)

UPLINK:
SHORT BURN CONSTANTS
CSM S.V. AND V66
LIFT-OFF TIME (IF REQD)
DESIRED ORIENT (LDG SITE)
(IF REQD)

SYNCHRONIZE MISSION TIMER
TO CMC (IF REQD)
V05N01E, 1706E (T EPHEM
VERIFICATION BY STDN,
COPY FROM DSKY ON STDN
CUE) (COPY T EPHEM IN
FP SUPPLEMENT)

PC: MODE - STBY
PWR - ON

CHECK LMP BIOMED HARNESS
CDR DOFF BIOMED HARNESS

NOTE: CDR HARNESS REMOVAL IS
OPTIONAL

PC: PWR - OFF (CUE)

P20 OPT 5 (-X FWD SIM ATT)(96:03)
N78 (+086.74)
(+052.20)
(+358.45)
N79 (+002.00)

96:00

SIM EXP STATUS
(*0011)
(01011)

NOTE: LIFT-OFF TIME WILL BE
UPDATED IF THE TIME OF
REV 26 MERIDIAN CROSS-
ING DIFFERS MORE THAN
+2 MIN FROM 137:49:03

T EPHEM UPDATE

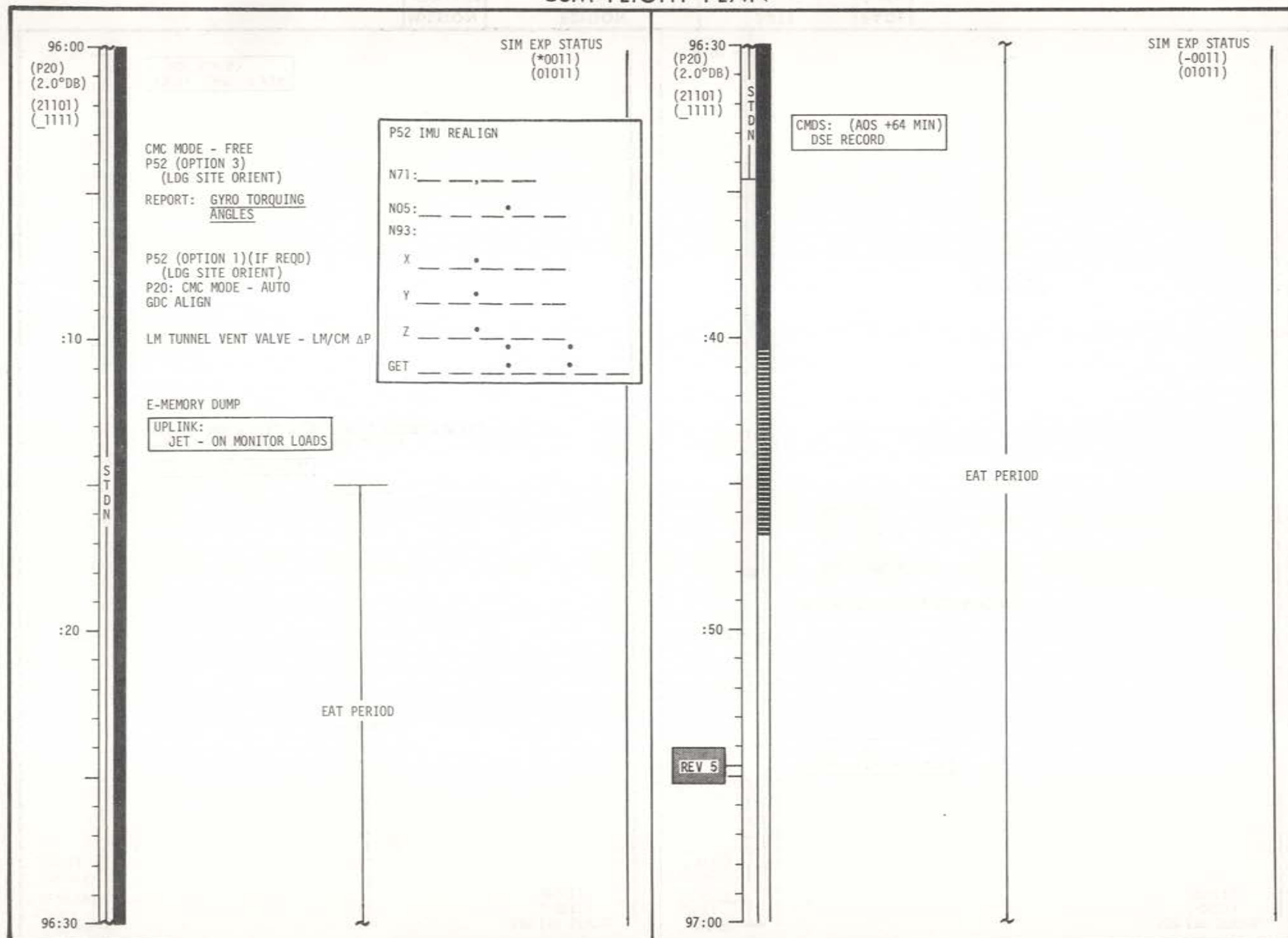
OID	LOAD B
03	_____
04	_____
05	_____

REFSMAT 00 TIME

	HRS	MIN	SEC
+ 0 0			
+ 0 0 0			
+ 0			

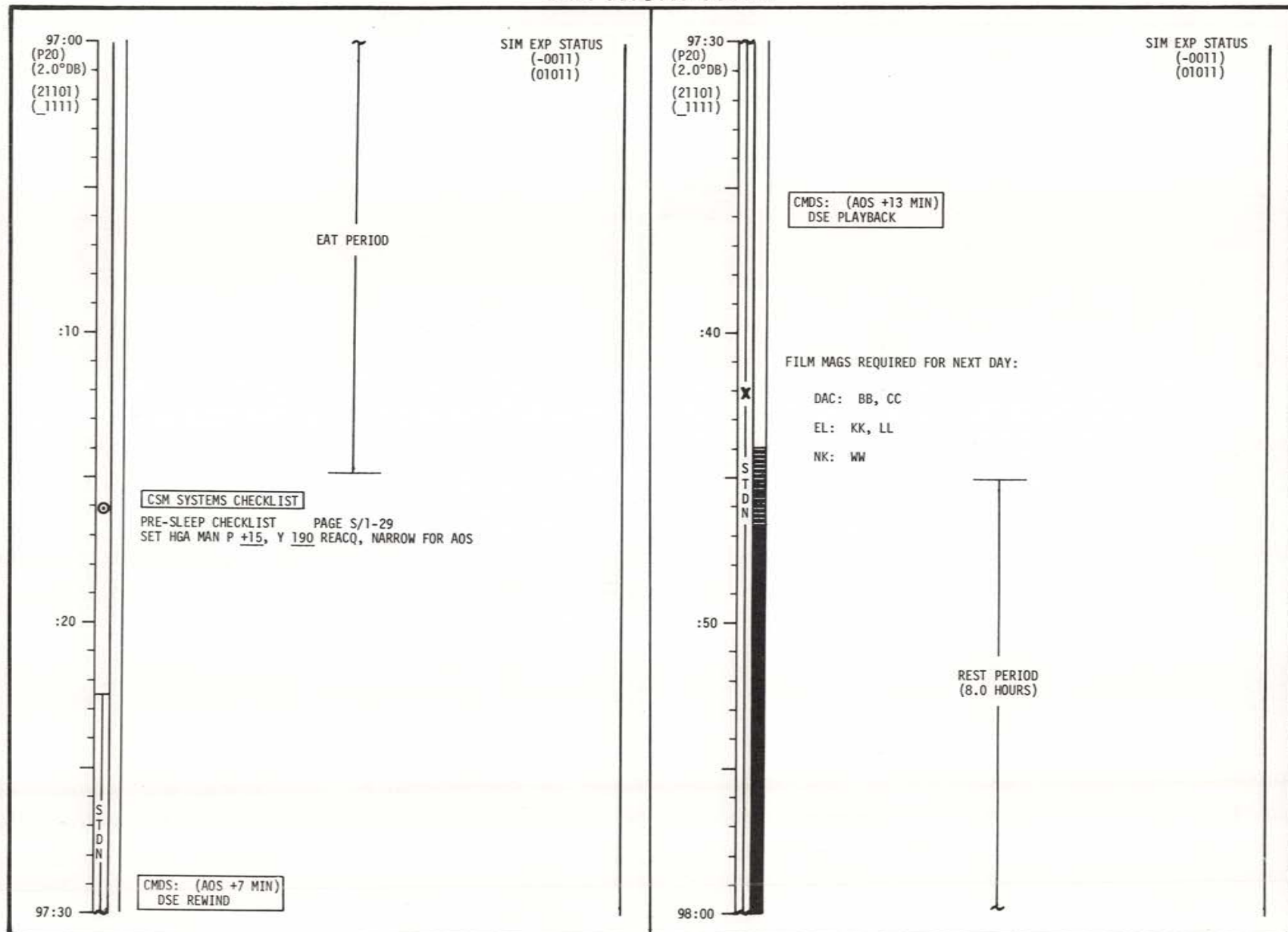
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-92

CSM FLIGHT PLAN



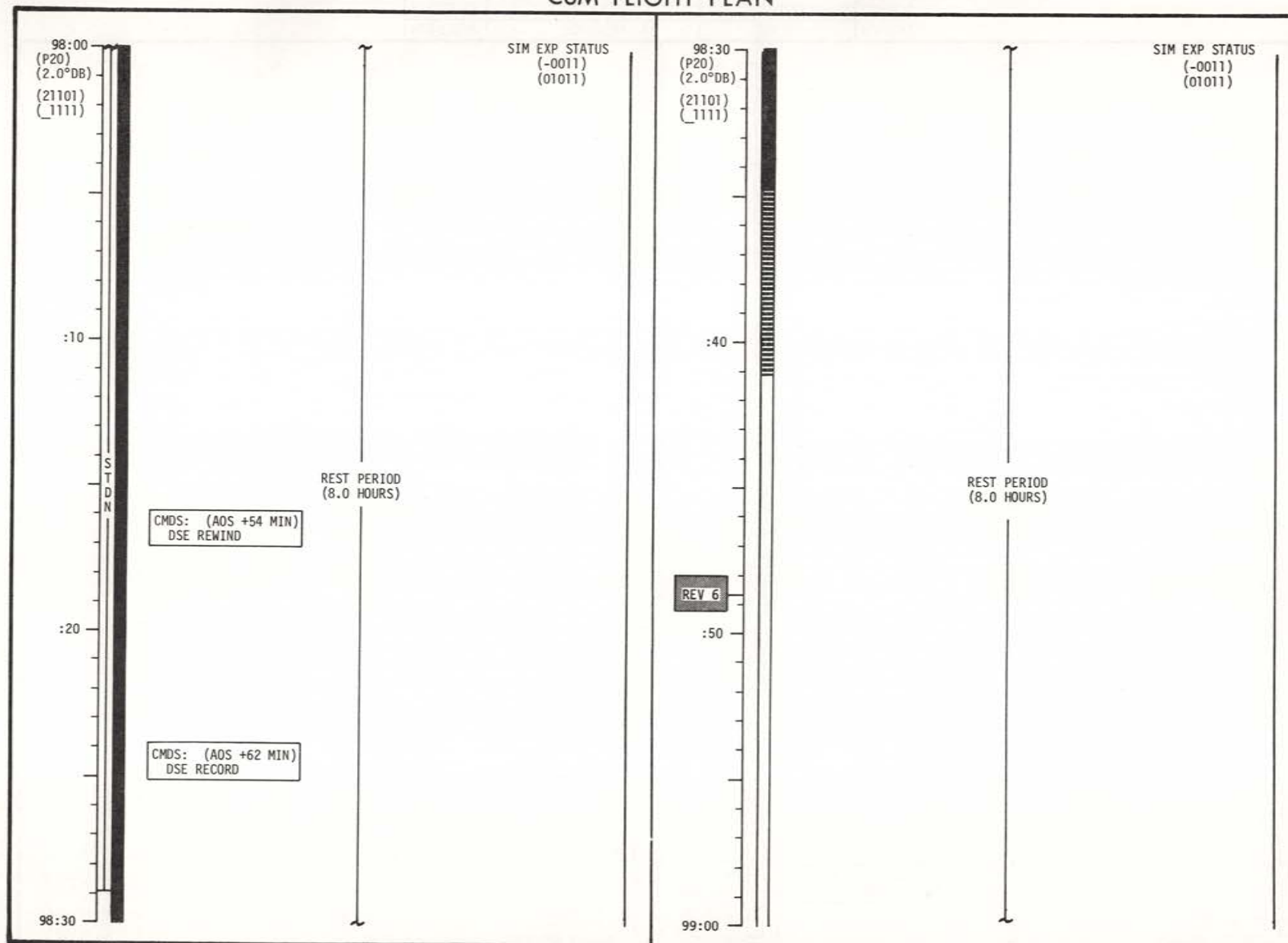
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-93

CSM FLIGHT PLAN



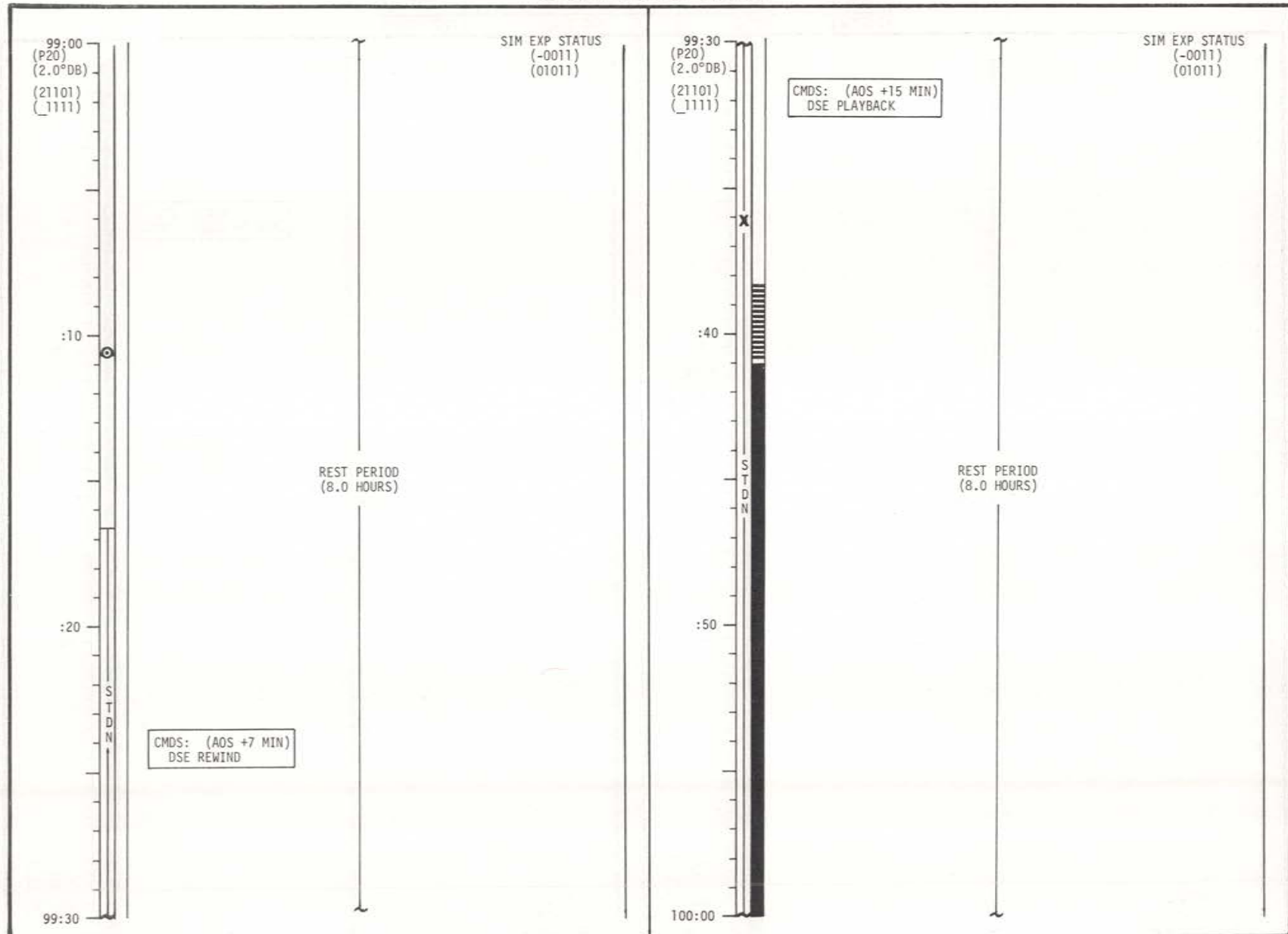
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-94

CSM FLIGHT PLAN



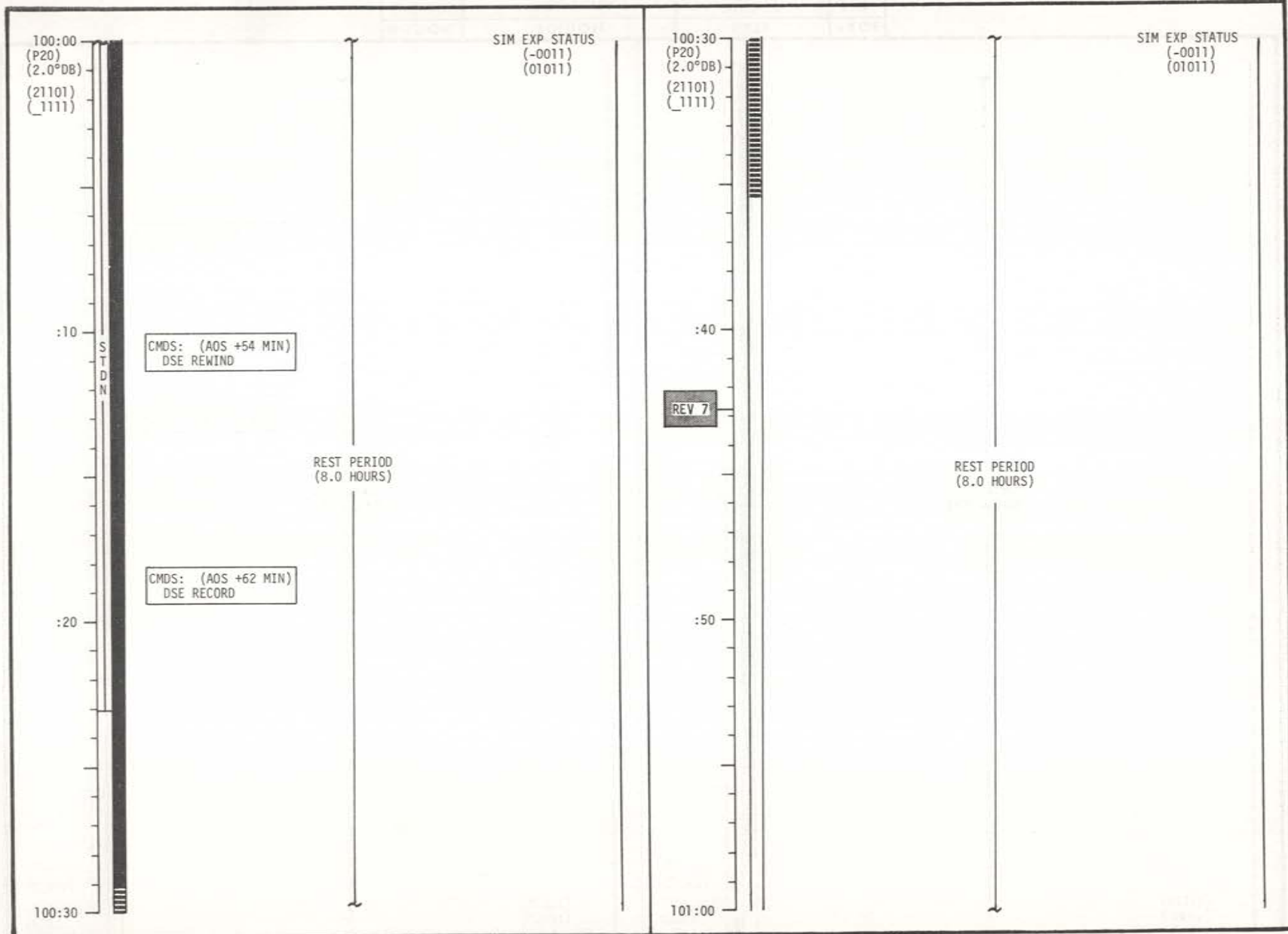
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-95

CSM FLIGHT PLAN



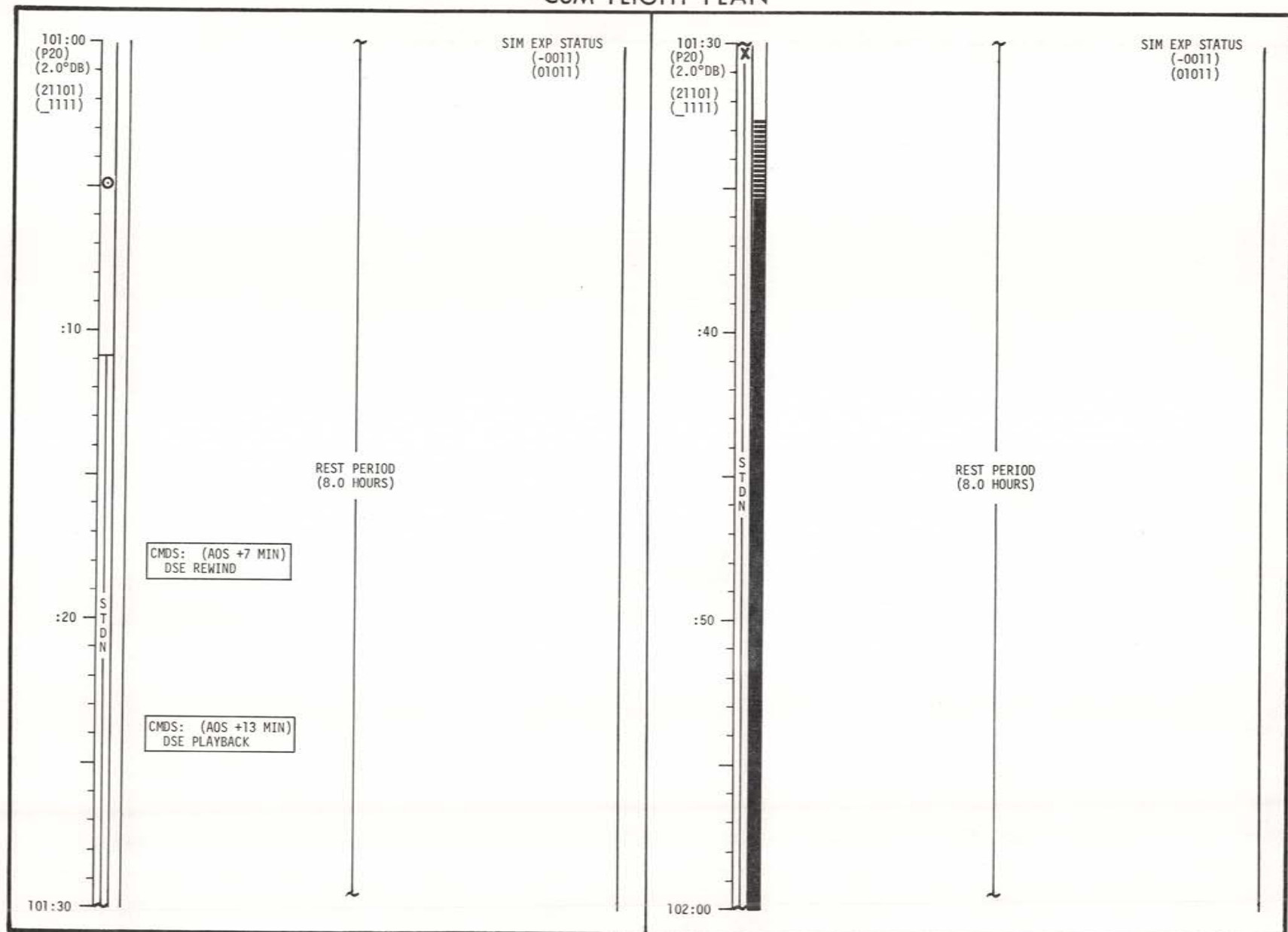
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-96

CSM FLIGHT PLAN



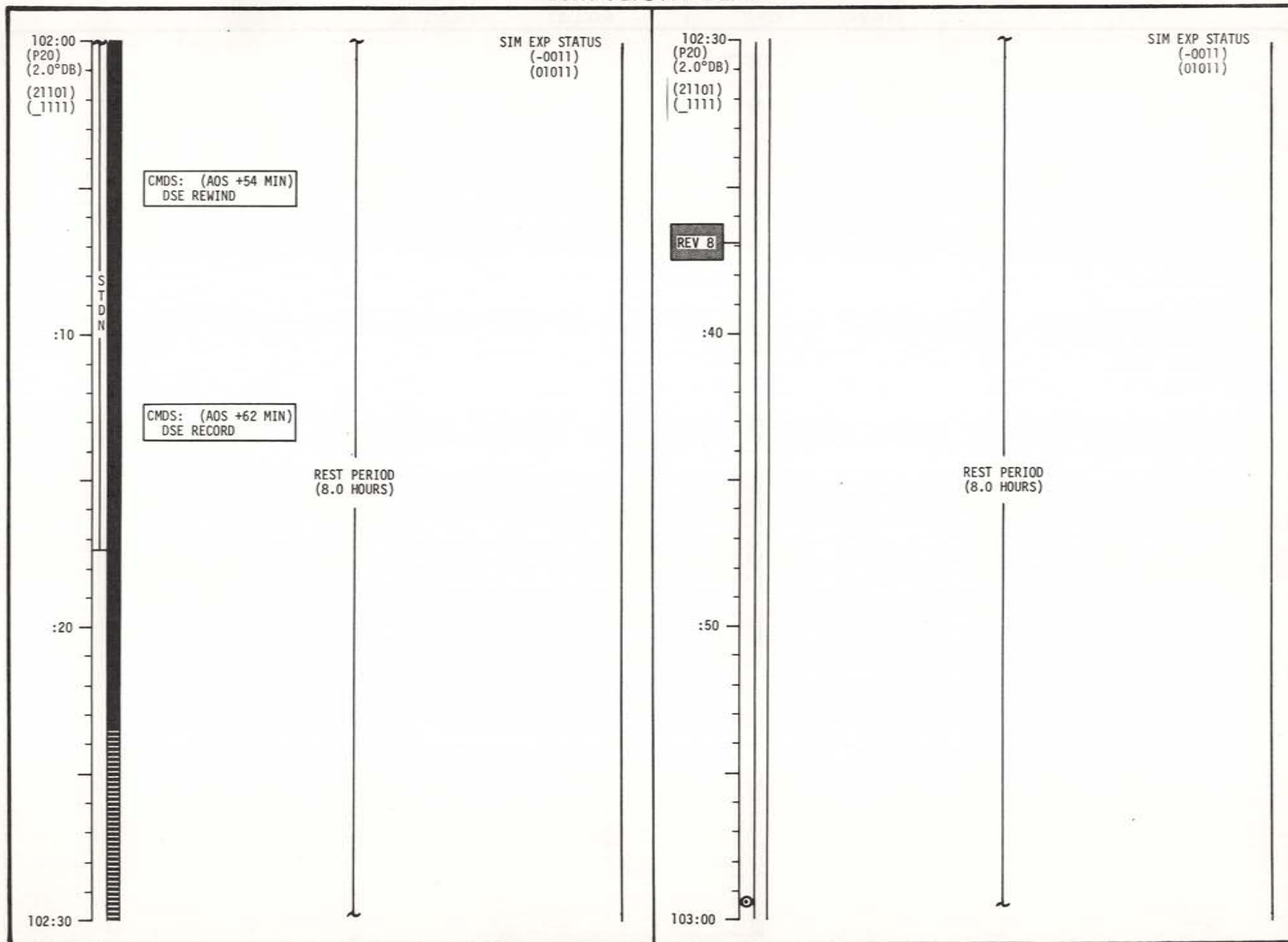
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-97

CSM FLIGHT PLAN



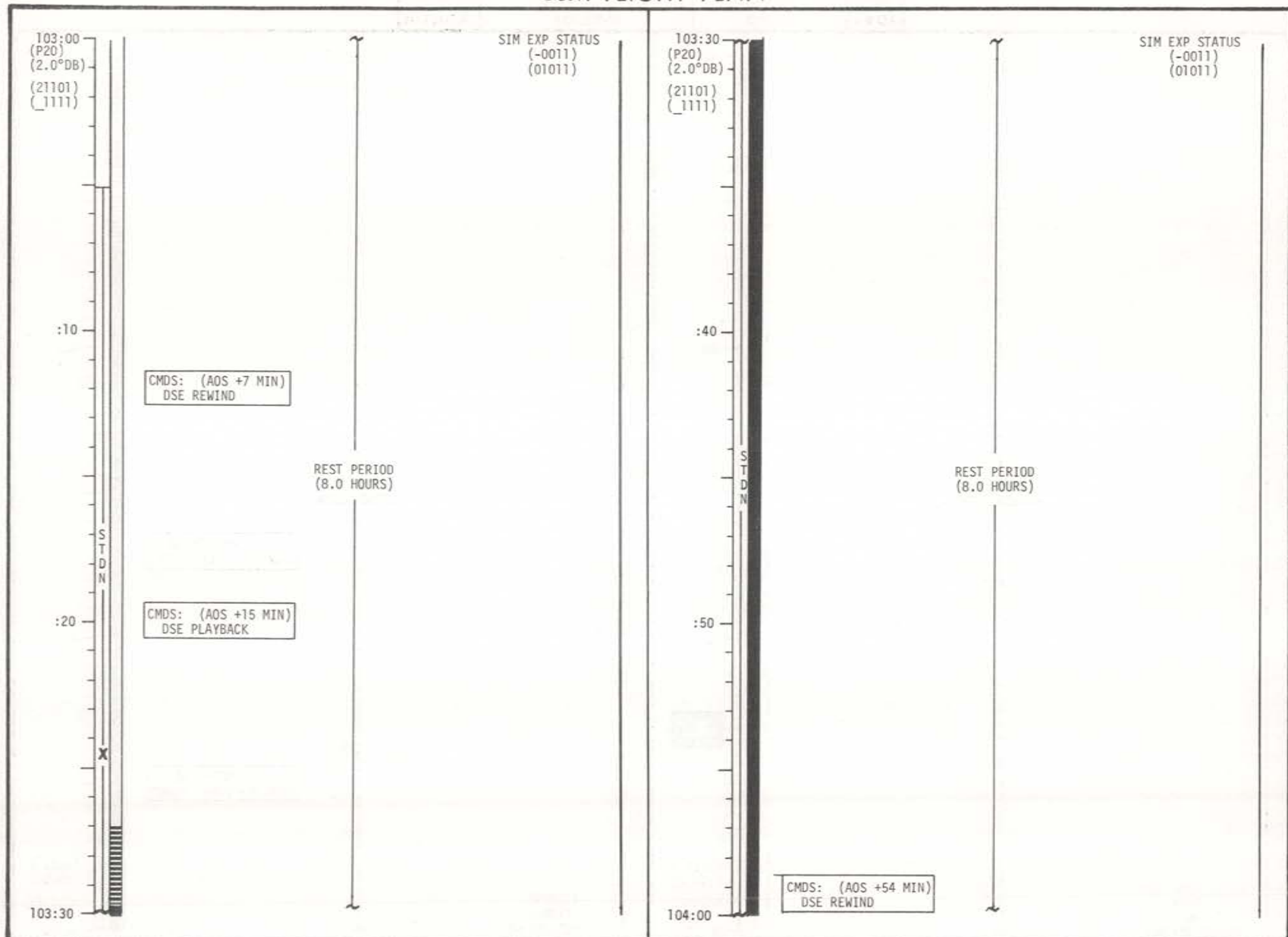
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-98

CSM FLIGHT PLAN



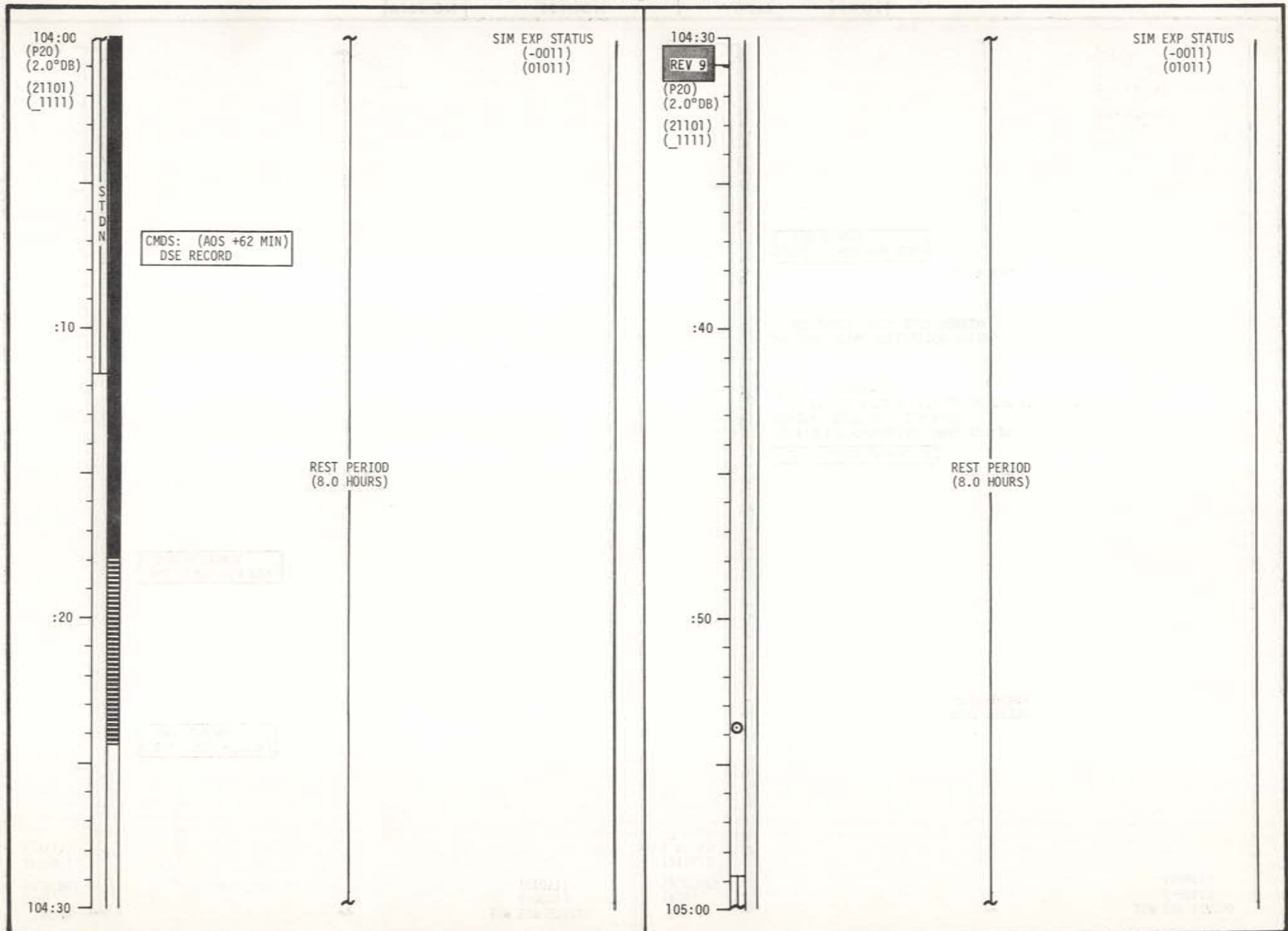
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-99

CSM FLIGHT PLAN



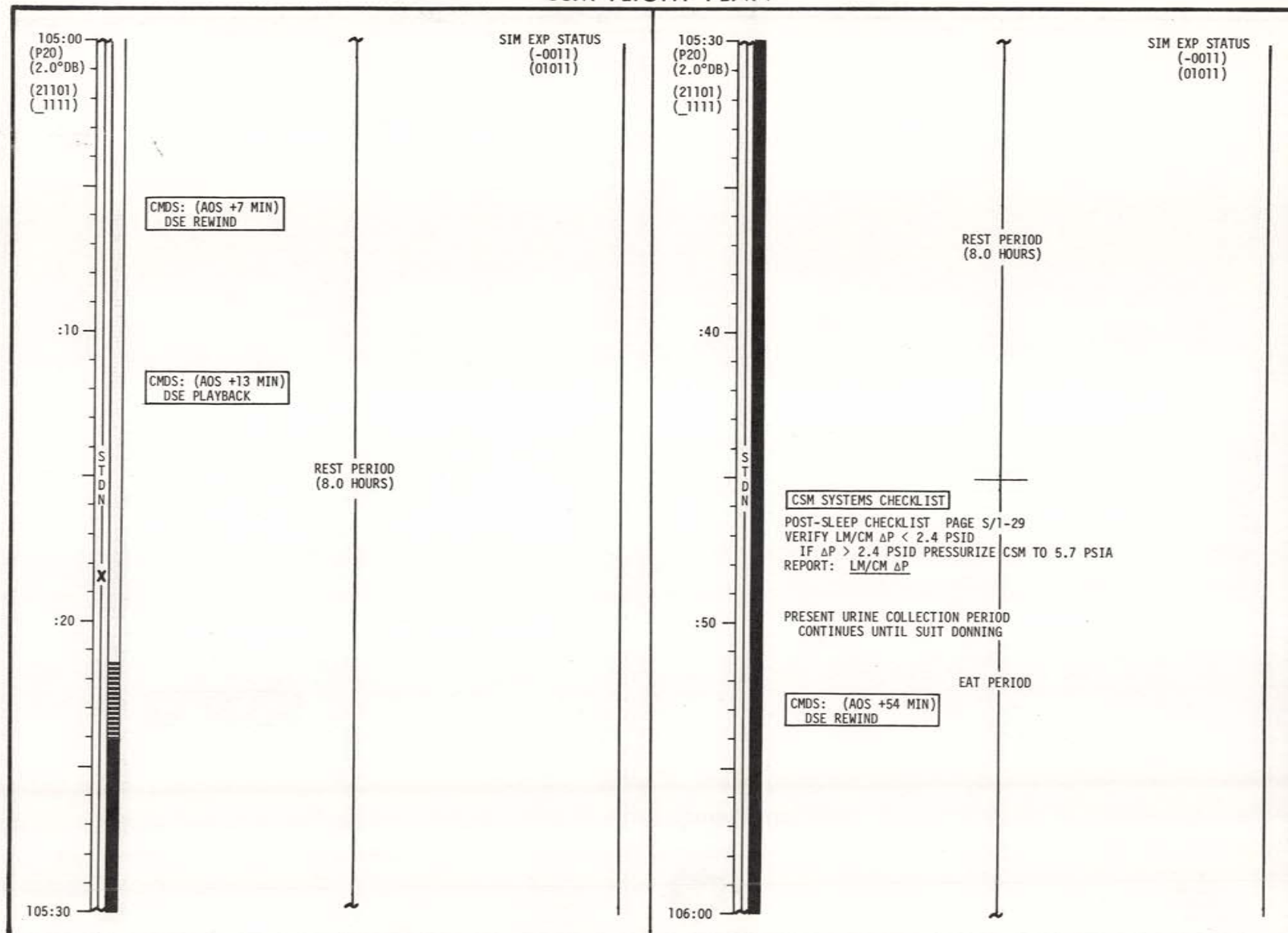
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-100

CSM FLIGHT PLAN



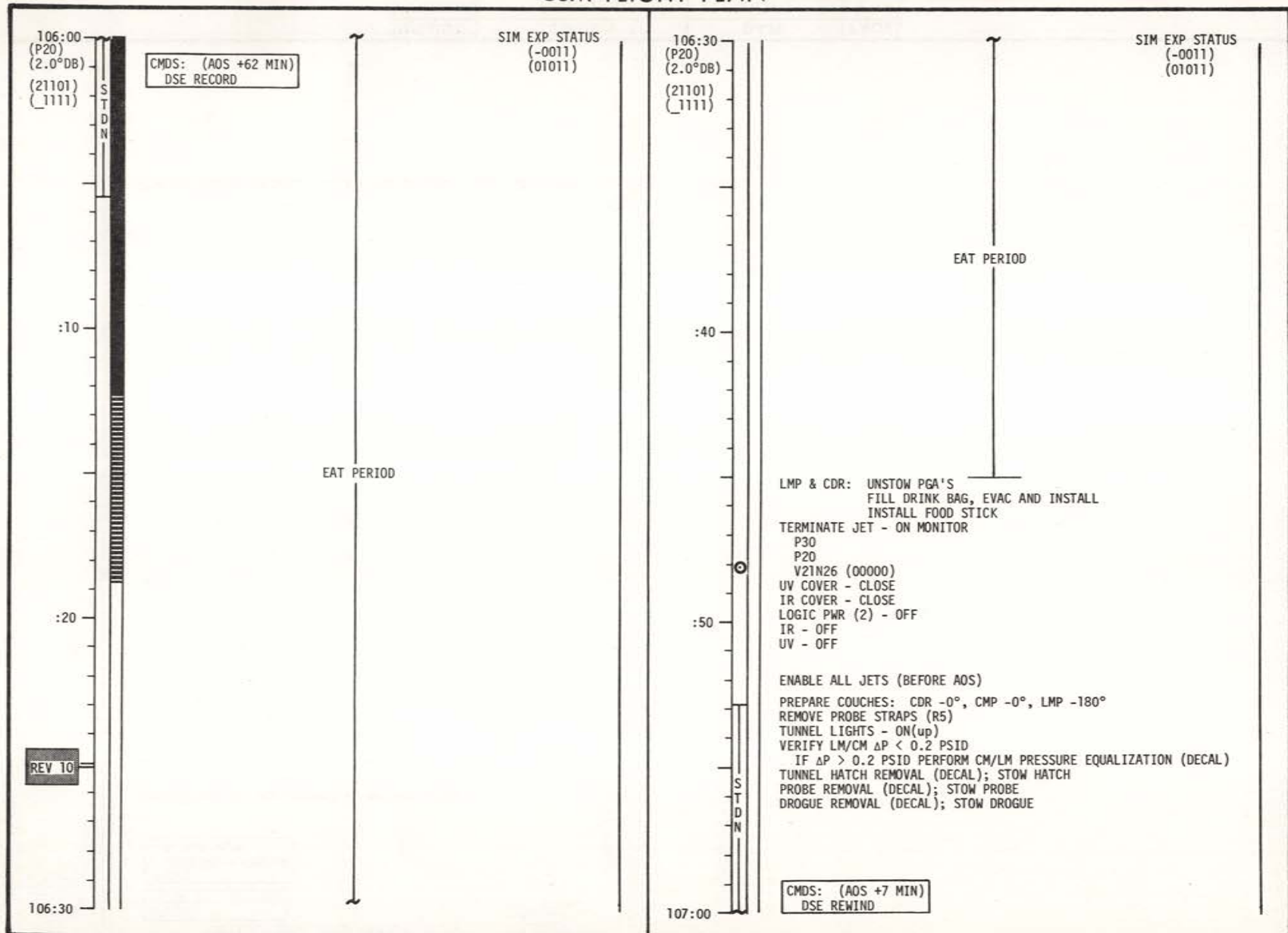
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-101

CSM FLIGHT PLAN



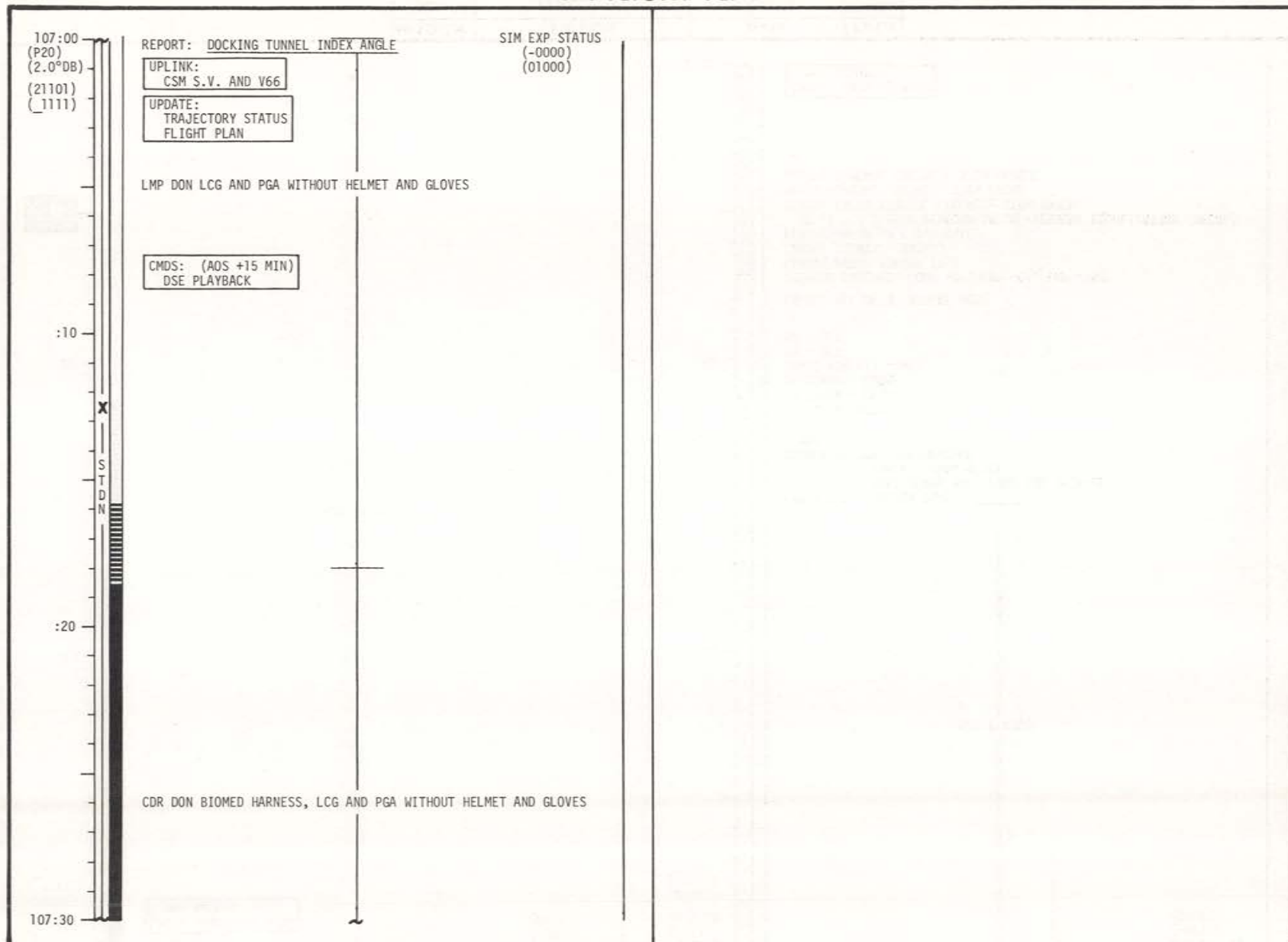
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-102

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-103

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-104

APOLLO 17

MISSION	DATE	TIME	LOCATION	STATUS
---------	------	------	----------	--------

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MCC-H

0823 CST

LM FLIGHT PLAN

CDR

LMP

NOTES

107:30

:35

:40

:45

:50

:55

108:00

S
T
D
N

LM ACTIVATION CHECKLIST PAGE 3-1

IVT TO LM
OPEN HATCH
VERIFY DOCKING ANGLE

-2:30

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	107:30 - 108:00	6/10	3-106

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN

107:30
(P20)
(2.0°DB)
(21101)
(1111)

V45 (RESET LUNAR SURFACE FLAG)
P00

P52 (OPTION 3)
(LDG SITE ORIENT)

REPORT: GYRO TORQUING ANGLES

GDC ALIGN
V49 MNVR TO UNDOCK ATT (107:48)
(000,105,000)
HGA P -30, Y 202

ST
D
N

50

CMDs: (AOS +58 MIN)
DSE REWIND

PGA INTERCONNECTS - A8 TO TSB
CMP DON BIOMED HARNESS, PGA WITHOUT
HELMET AND GLOVES

CDR & LMP IVT TO LM

CMDs: (AOS +66 MIN)
DSE RECORD

VERIFY DSE TAPE MOTION (LBR/RCD/FWD/CMD RESET)
SET HGA MAN P -30, Y 202 AUTO, NARROW FOR AOS

108:00

SIM EXP STATUS
(-0000)
(01000)

P52 IMU REALIGN

N71: _____

N05: _____

N93: _____

X _____

Y _____

Z _____

GET _____

CSM TO LM TRANSFER LIST

CSM LOCATION	ITEM	LM LOCATION
A2	JETTISON BAG (1)	TEMP STWG
ON CREW	BIO INSTRUMENTATION (2)	ON CREW
PGA BAG	UCTA (2)	ON CREW
A2	FCS (2)	ON CREW
U1	LCG (2)	ON CREW
TEMP STWG	DRINK BAG (2)	ON PGA
TEMP STWG	FOOD STICK (2)	ON PGA
PGA BAG	SUIT ITSLA-EV (2)	ON CREW
ICG	SUNGLASSES IN POUCH (2)	PGA POCKET
ON CREW	WATCH/WATCHBAND (2)	ON PGA
ON CREW	PEN (2)	PGA POCKET
ON CREW	PEN - FELT TIP (2)	PGA POCKET
ON CREW	PENCIL (2)	PGA POCKET
ON CREW	POCKET, C/L & SCISSOR (2)	ON PGA
ON CREW	POCKET, DATA (2)	ON PGA
ON CREW	SCISSOR	ON CREW
ON CREW	PEN LIGHT (2)	PGA POCKET
ON CREW	EAR PLUG (2 PR)	PGA POCKET
ON CREW	DOSIMETER - PERSONAL (2)	PGA POCKET
	PASSIVE (6)	
ON CREW	COMM CARRIER (2)	ON CREW
HELMET ACC BAG	IV GLOVES (2 PR) - CDR TRANSFER	TEMP STWG
HELMET BAG	HELMET (2) - CDR TRANSFER	TEMP STWG
R8	CWG ELECT ADPTR CAP (2)	ON CWG ADPTR
CCU CABLE	CWG ELECT ADPTR (2)	LHSSC
IN JETT BAG	LCG PLUG (2)	PURSE
ON PGA	GAS CONNECTOR PLUGS (4)	ON PGA
ON PGA	PGA ELECT CONN CAP (2)	PURSE
A8	LIGHTWEIGHT HEADSETS (2)	LHSSC
R3	LM XFER DATA CARD KIT	DATA FILE
	LM TIMELINE BOOK	
	LM DATA CARD BOOK	
	LM LUNAR SURFACE C/L	
	ORBIT MONITOR CHART (LM)	
	ASCENT MONITOR CHART	
	LM STAR CHARTS (3)	
	LM ACT C/L (1)	
	(RETURN JETTISON BAG TO CSM)	

LM FLIGHT PLAN

MCC-H

0853 CST

CDR

LMP

NOTES

UPDATE TO LM
AGS ABORT CONSTANTS
DOI-2 PAD
UPLINK TO LM
L/S REFSMMAT
LM S.V. & V66
LGC ABORT CONST
LGC ΔT CLOCK SYNC
(IF REQ)

108:00
:10
:20
108:30
:40
:50
109:00
(32022)

↑
S
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↓

IVT TO LM

MISSION TIMER ACTIVATION

CONNECT TO LM ECS
CB ACTIVATION
ACTIVATE RCS HEATERS

PGNS TURN ON AND SELF TEST

LGC/CMC CLOCK SYNC
T EPHEM UPDATE

SET DAP
E-MEMORY DUMP
LDG GEAR DEPLOY

TRANSFER POWER
LIGHTS ON
DES O₂ AND H₂O - OPEN

EPS ACTIVATION
CONNECT TO LM COMM

PRIMARY GLYCOL LOOP ACT
CAUTION/WARNING CHECKOUT
ECS ACTIVATION & CHECKOUT

CONNECT TO LM ECS
CB ACTIVATION

VHF CHECKOUT
RECORDER - ON

SUIT FAN/H₂O SEP CHECK
GLYCOL PUMP CHECK

STEERABLE ANTENNA ACTIVATION
PRIM S-BAND CHECK
SEC S-BAND
BIOMED - RIGHT

-2:00

-1:30

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	108:00 - 109:00	6/10-11	3-108

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN

MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-109

LM FLIGHT PLAN

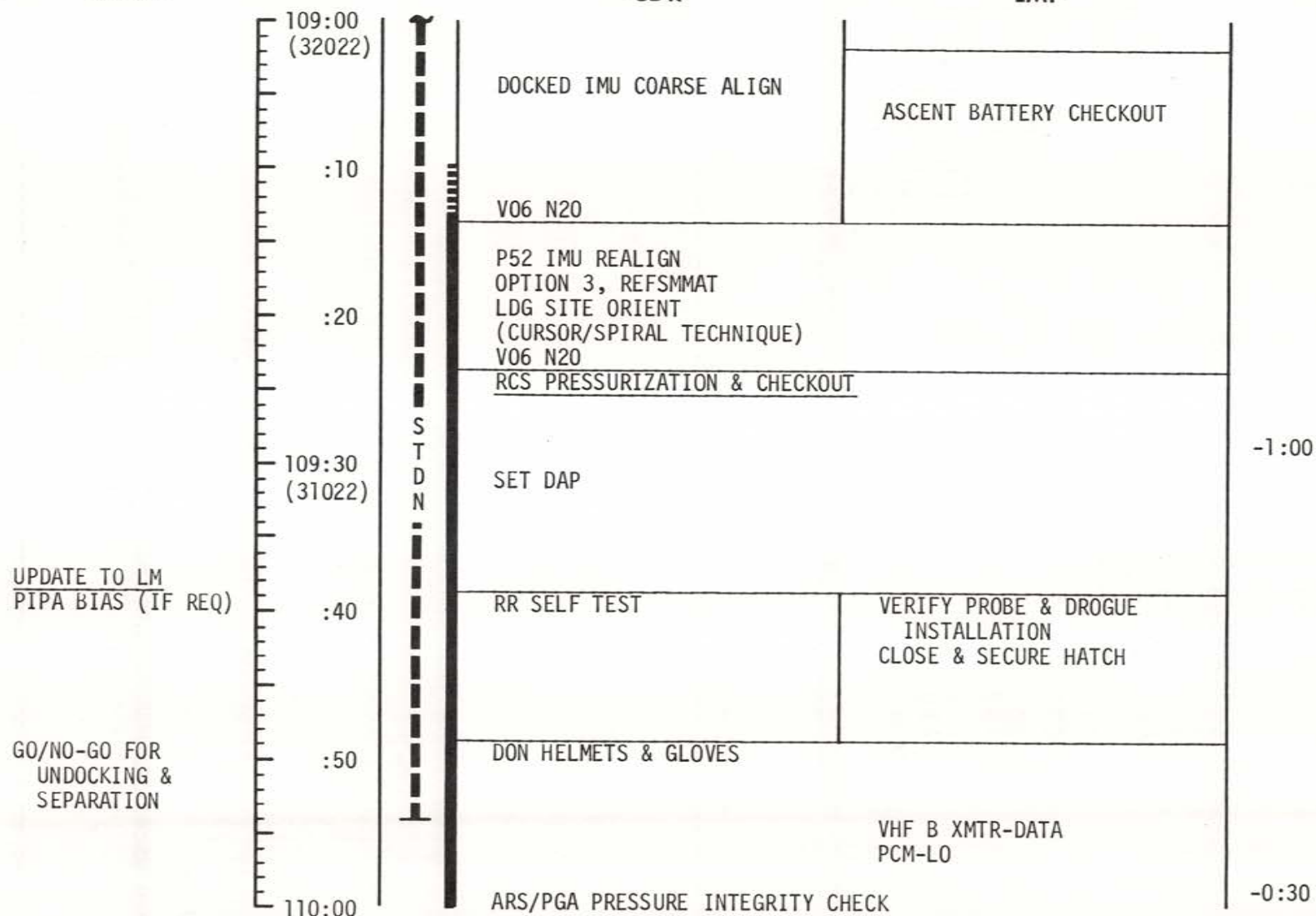
MCC-H

0953 CST

CDR

LMP

NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	109:00 - 110:00	6/11	3-110

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN

109:00
(21101)
(1111)

SIM EXP STATUS
(*0000)
(01000)

MAN ATT (3) - RATE CMD
LIMIT CYCLE - ON
ATT DB - MIN
RATE - LOW
BMAG (3) - ATT 1/RATE 2
SC CONT - SCS
LM DOCKED IMU COARSE ALIGN

:10

V06N20

VERIFY:
CM2/DAC/18/CEX-BRKT, MIR (T8,1/250,7) 12 fps
CM2/EL/80/CEX (f8,1/250,FOCUS) 10 FR
UTILITY PWR - ON

:20

VERIFY PGA INTERCONNECTS - TSB
DON HELMET AND GLOVES

V06N20
ON LM CUE:
SC CONT - CMC
ATT DB - MAX
BMAG (3) - RATE 2
AT CDR'S REQUEST DURING RCS CHECKOUT
CMC MODE - FREE FOR RCS HOT FIRE

SUIT CKT INTEGRITY CHECK (DECAL)

109:30

109:30
(21101)
(1111)

SIM EXP STATUS
(*0000)
(01000)

PANEL 10
MODE - VOX
VOX SENS sw - 5
S-BD - OFF
INTERCOM - OFF
VHF AM T/R - T/R (VERIFY)

AFTER LM RCS CHECKOUT
CMC MODE - AUTO

:40

LM RR SELF TEST
RNDZ XPNDR - OFF (VERIFY)
AUTO RCS SEL B3 - OFF

ROLL (8) - OFF UNTIL LM/CM $\Delta P > 3.5$ PSID
DOCKING LATCH RELEASE (DECAL)
HATCH INSTALLATION (DECAL)

CMDS:
DSE RECORD

UPDATE:
GO/NO-GO FOR UNDOCK/SEP

WHEN LM RR SELF TEST COMPLETE:
AUTO RCS SEL B3 - ON

:50

HATCH INTEGRITY CHECK (DECAL)

VHF ANT - RIGHT (VERIFY)
VHF RCV ONLY - B DATA
VHF AM A - SIMPLEX
VHF AM B - OFF

VERIFY DSE TAPE MOTION (LBR/RCD/FWD/CMD RESET)

DOFF HELMET, GLOVES

RR XPNDR ACTIVATION AND SELF TEST (DECAL)

RNDZ XPNDR - HTRS

110:00

114 VALUES
A ~ 1.75 Agc
B ~ 2.35 SELF TEST
C ~ 0.3 UNLOCKED
~ 4.9 LOCKED

MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-111

LM FLIGHT PLAN

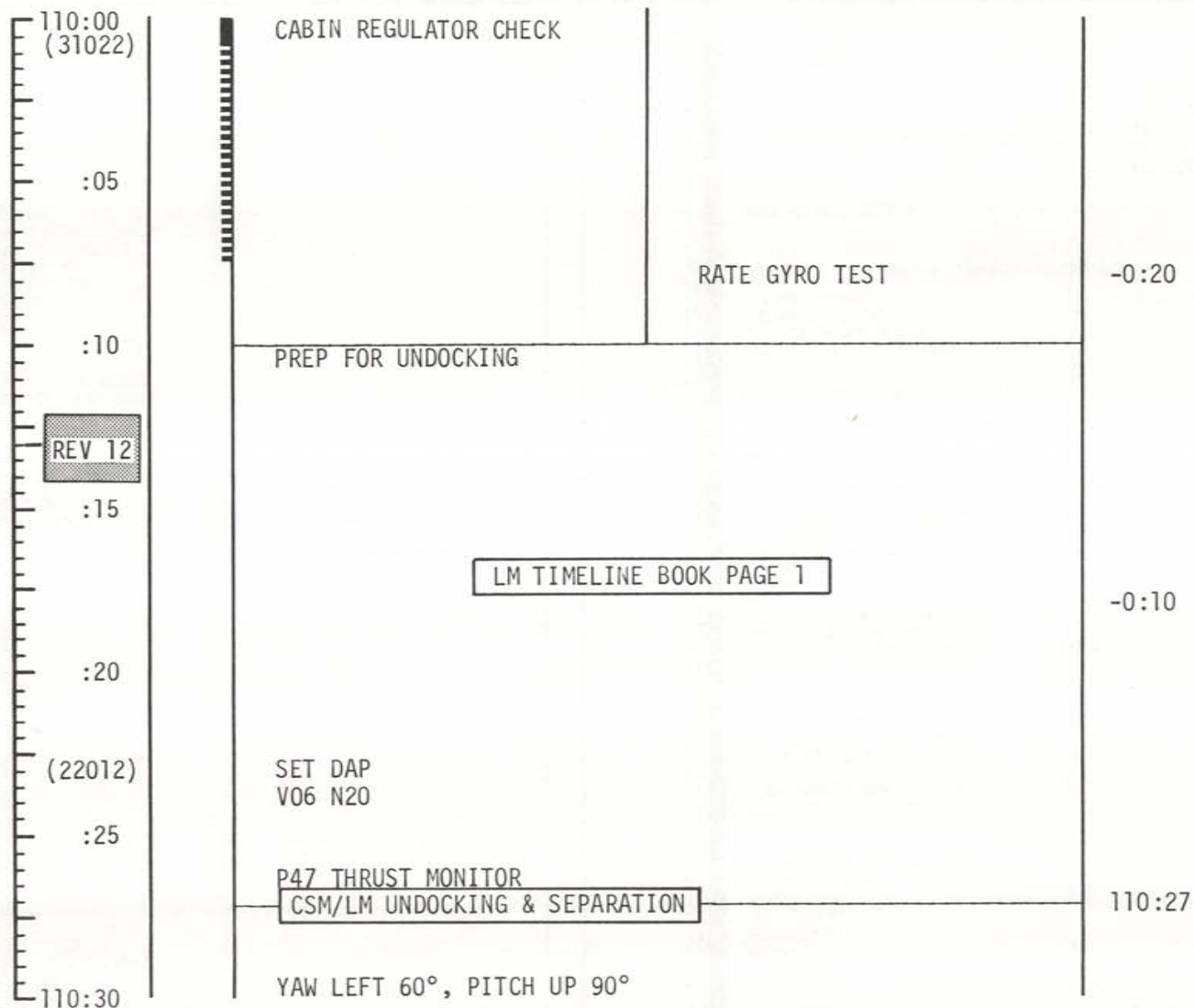
MCC-H

1053 CST

CDR

LMP

NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	110:00 - 110:30	6/11-12	3-112

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN

110:00
(21101)
(1111)

EXT LIGHTS RUN/EVA - ON (UP)
TUNNEL LIGHTS - OFF
ROLL (4) - ON

SIM EXP STATUS
(*0000)
(01000)

V48, LOAD N47 & N48
V49 TRIM MNVR TO CSM SEP PAD ATT

+					WT	N47
	0	0			P _{TRIM}	N48
	0	0			Y _{TRIM}	

P30; LOAD CSM SEP

SET DET COUNTING UP TO UNDOCK/SEP
LOAD ΔV IN EMS TO -100.0
CHECK NULL BIAS
VERIFY EMS -100.0/ ΔV /STBY

GDC ALIGN
VERIFY ORDEAL
ALT SET = 40 NM

UNDOCKING SWITCH CONFIGURATION
ATT DB - MIN
RATE - LOW
RHC PWR NORM - AC/DC
RHC PWR DIR - MNA/MNB
AUTO RCS (12) - MNA/MNB
CB DOCKING PROBE (2) - CLOSED
DSE (HBR/RCD/FWD/CMD RESET)

PERFORM UNDOCKING SWITCH
CONFIGURATION

- NOTE: UNDOCKING MAY OCCUR:
1. FROM 4 MIN EARLY TO 4 MIN LATE ON THE NOMINAL INERTIAL (IMU) ATTITUDE
 2. FROM 4 MIN LATE TO 45 MIN LATE ON THE NOMINAL LOCAL VERTICAL (ORDEAL) ATTITUDE

REV 12

P41 (TRIM)
BMAG (3) - ATT 1/RATE 2
SC CONT - SCS
V48 (11102)
(1111)
RHC & THC - ARMED
V06N20E(AT LM REQUEST)
UNDOCKING CHECKLIST

SEPARATION (000,090/105,000)

TIG: 110:27:55
BT: 3.3 SEC
 ΔVT : 1.0 FPS
ULLAGE: N/A
ORBIT: 60.3 X 13.6

DAC - OFF
RECORD MAG % _____, FR # _____

110:30

UNDOCKING CHECKLIST

DAC - ON
59:00 EIS MODE - NORM
THC PWR - ON

59:30 PROBE EXT/REL - EXT/REL (MOM)
VERIFY PROBE EXTENDED, LM ATTACHED
ALLOW MOTION TO DAMP (5 SEC)
PROBE EXT/REL - EXT/REL (HOLD)(< 20 SEC)
00:00 XLATE (4 JET) AFT
FOR ~ 3 SEC (VGX to + 2.0)
AFTER PROBE/DROGUE DISENGAGED,
PROBE EXT/REL - OFF
CB DOCKING PROBE (2) - OPEN
THC & RHC - LOCKED
THC PWR - OFF
P00
SC CONT - CMC
ATT DB - MAX
 ΔV CG - CSM
BMAG (3) - RATE 2
RHC PWR DIR - OFF
EMS FUNC - ΔV SET/VHF RNG
EMS MODE - VHF RNG
PCM BIT RATE - LOW

P30 MANEUVER

	C	S	M	S	E	P	PURPOSE
SET STARS	R	C	S	G	&	N	PROP/GUID
	+			N	/	A	WT N47
R _{ALIGN} _____		0	0	N	/	A	P _{TRIM} N48
P _{ALIGN} _____		0	0	N	/	A	Y _{TRIM}
Y _{ALIGN} _____	+	0	0				HRS GETI
	+	0	0	0			MIN N33
	+	0					SEC
ULLAGE _____	+	0	0	0	0	0	ΔV_x N81
	+	0	0	0	0	0	ΔV_y
	-	0	0	0	1	0	ΔV_z
	X	X	X				R (000)
	X	X	X				P (105)
	X	X	X				Y (000)

LM FLIGHT PLAN

MCC-H

1123 CST

CDR

LMP

NOTES

110:30
(22012)

:35

:40

:45

:50

:55

111:00

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N

N

N

DOFF HELMETS & GLOVES

LDG RADAR CHECK

REPORT: VO6N20 ANGLES & GET
DPS THROTTLE CHECK

DPS PRESSURIZATION & CHECKOUT

MNVR TO RR CHECK ATT

SEPARATION PHOTOGRAPHY
LM3/DAC & DC

CONFIGURE CAMERAS FOR CABIN
PHOTOS, LM/DAC & DC

VHF B XMTR-OFF, BIOMED-LEFT
PCM-HI

AGS ACTIVATION

LOAD AGS ABORT CONSTANTS

V47 AGS INITIALIZATION
ALIGN AGS TO PGNS

AGS CONTROL CHECK
CONFIGURE CAMERAS FOR TCA
LM3/DAC, LM/DC

UPDATE TO LM
AGS K-FACTOR
REV 12 LS TCA

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	110:30 - 111:00	6/12	3-114

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN

110:30
(11102)
(1111)

V49 MNVR TO LOW ALT LDMK TRK PAD ATT (110:40)
SET HGA MAN P +12, Y 334 REACQ, NARROW FOR AOS

SIM EXP STATUS
(*0000)
(01000)

CONFIGURE CAMERA: (LDMK TRK)
CM/DAC/SXT/CEX (EXP-PAD) 1 fps (3% MAG)

MAG (BB) _____, MAG % _____
UTILITY PWR - ON
RR XPNDR - PWR

:40

ACQ STDN HGA P +12, Y 334 REACQ, NARROW
VHF ANT - LEFT
VHF AM A - OFF
VHF AM B - DUPLEX
ADJUST SQUELCH
VHF RNG - RNG (DSE VOICE USE MARGINAL)
VHF AM RCV ONLY - OFF

CMD5:
DSE STOP
CUE:
HGA AUTO
UPDATE:
P24 T2 TIME (IF REQD)

:50

P20 OPT 2(LOW ALT LDMK TRK)
N78 (+090.00)
(LOAD LDMK PAD ROLL ANGLE)
N79 (-2.0000)
(+000.50)
N34 (LOAD T2 TIME)
PRO

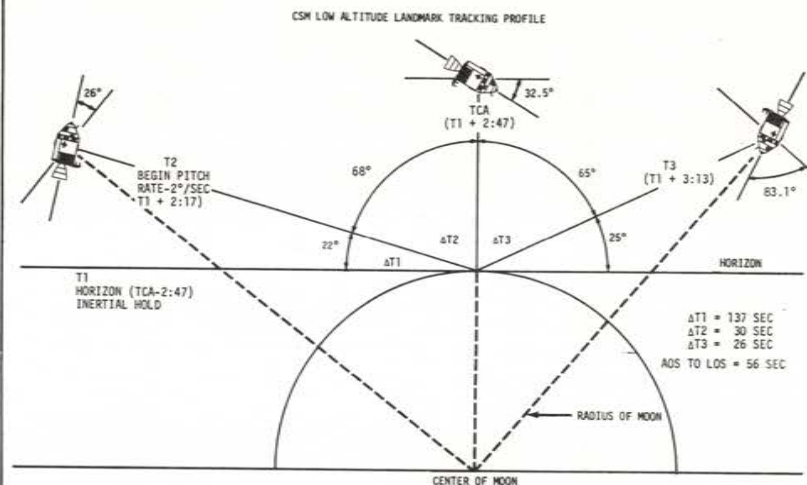
CMD5:
DSE RECORD

P24 (LDMK 17-X)
OPT ZERO - OFF
OPT MODE - CMC
OPT TEL TRUN - SLAVE TO SXT
OPT COUPLING - RSLV
OPT SPEED - HI

0:00 - T1 (HORIZON) DET - RESET/START
DAC - ON

(P20)
(-2.000)
(0.5°DB)

111:00



P24 LDMK TRACKING

(1/125)

TGT:

T₁ _____ : _____ : _____
T₂ _____ : _____ : _____ (111:00:28.5)
TCA _____ : _____ : _____
T₃ _____ : _____ : _____
R _____ °P _____ °Y _____ °(T2 ACQ)
N or S NM _____ / SA _____ TA _____ (T2 ACQ)

N89	17-1	17-2	17-3
LAT	+20.160	+20.020	+20.272
LONG/2	+15.405	+15.402	+15.350
ALT	-001.96	-001.97	-001.89

LM FLIGHT PLAN

MCC-H

1153 CST

CDR

LMP

NOTES

UPDATE TO LM

CSM CIRC P76 PAD

NO PDI+12 ABORT PAD

PDI PAD

PDI EARLY ABORT PAD

PDI LATE ABORT PAD

T2 ABORT

T3 TIG

SHe PRESSURE

111:00
(22012)

:05

:10

:15

:20

:25

111:30

STDN

OBSERVE LDG SITE

RR CHECKOUT

P52 IMU REALIGN
OPTION 3, REFSMMAT
(LDG SITE ORIENT)

COAS CALIBRATION

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	111:00 - 111:30	6/12	3-116

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN

111:00
(P20)
(0.5°DB)
(11102)
(1111)

2:17 - T2 (AUTO PITCH RATE BEGINS) OPT MODE - MAN, TAKE MARKS
2:47 - TCA
3:13 - T3 (LDMK LOSS) DAC - OFF
SIM EXP STATUS
(*0000)
(01000)

STOP PITCH RATE AT P 091
VHF RNG - RESET, COMPARE RR AND VHF RANGE
ACQ STDN HGA P -49, Y 187
RECORD MAG % _____, REMOVE & STOW DAC

CMD5:
DSE DUMP

P52 IMU REALIGN

P00
P52 (OPTION 3)
(LDG SITE ORIENT)
REPORT: GYRO TORQUING ANGLES

GDC ALIGN

N71: _____
N05: _____
N93: _____
X _____
Y _____
Z _____
GET _____

UPDATE:
CIRC PAD (111:15)
P24 LDMK TRACK PAD (LDMK RP-3) (112:20)
PADS E-N (113:15)
PIPA BIAS (IF REQD)

VHF AM A - SIMPLEX
ADJUST SQUELCH
VHF AM B - OFF
VHF RCV ONLY - B DATA
VHF AM T/R - T/R
MODE - ICOM/PTT (PNL 9)
VHF RNG - OFF
MODE - VOX (PNL 6 & 10)

UPLINK:
CSM S.V. (CIRC-10)
CIRC TARGET LOAD

P30; VERIFY CIRC TIG AND ΔV'S

V49 MNVR TO CIRC BURN PAD ATT (111:34)
HGA P -35, Y 207

(11102)
(1111)

:10

:20

111:30

P30 MANEUVER

SET STARS	C	I	R	C		PURPOSE
	S	P	S	G	& N	PROP/GUID
	+					WT N47
R ALIGN _____		0	0			P TRIM N48
P ALIGN _____		0	0			Y TRIM
Y ALIGN _____	+	0	0			HRS GETI
	+	0	0	0		MIN N33
	+	0				SEC
ULLAGE _____						ΔV _X N81
						ΔV _Y
						ΔV _Z
	X	X	X			R (000)
	X	X	X			P (100)
	X	X	X			Y (358)
	+					H _A N44
						H _P
	+					ΔVT
HORIZON/WINDOW _____	X	X	X			BT
	X					ΔVC
	X	X	X	X		SXTS
	+				0	SFT
	+				0 0	TRN
	X	X	X			BSS
	X	X				SPA
	X	X	X			SXP

MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-117

LM FLIGHT PLAN

MCC-H

1223 CST

CDR

LMP

NOTES

UPLINK TO LM

CSM S.V.

LM S.V.

E-MEMORY (IF REQ)

DES TARGETING

UPDATE TO LM(IF REQ)

GYRO DRIFT COMP

PIPA BIAS

GO/NO-GO FOR DOI-2

111:30
(22012)

:35

:40

:45

:50

:55

112:00

S
T
D
N

MNVR TO AGS CAL ATT

VHF COMM CHECK W/CSM

CONFIGURE VHF FOR LOS
VHF B XMTR-DATA

AGS CALIBRATION

CONFIGURE S-BAND FOR LOS
PCM-LO

PREP FOR DOI-2

P30, P41

MNVR TO DOI-2 ATTITUDE

CSM CIRC 111:56

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	111:30 - 112:00	6/12	3-118

FLIGHT PLANNING BRANCH

F8V277 MCC-H

1253 CST

LM FLIGHT PLAN

CDR

LMP

NOTES

112:00
(22012)

LM DOI-2

TIG: 112:01
BT: (RCS) 27 SEC

P76 UPDATE CSM S.V.

V47 AGS INITIALIZATION

PREP FOR PDI

:05

MNVR TO PDI ATTITUDE

REV 13

:10

(22112)

SET DAP

CHECK ECS, RCS, EPS, APS
CAMERA PREP FOR EARTHRISE

LM/DC

CAMERA PREP FOR PDI

LM3/DAC

:15

DON HELMETS & GLOVES

BATS 5 & 6 - ON
INVERTER-1

:20

:25

112:30

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	112:00 - 112:30	6/12-13	3-120

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN

112:00
(P20)
(0.5°DB)
(11101)
(1111)

P20 OPT 5 (LDMK TRK ATT) (112:10)

N78 (+051.05)

(-053.41)

(+012.20)

N79 (+000.50)

(030,338/030,000)

SET HGA MAN P -10, Y 343

REACQ, NARROW FOR ADS

CONFIGURE CAMERA: (LDMK TRK)

CM/DAC/SXT/CEX (EXP-PAD) 1 fps (3.8% MAG)

MAG (BB)

MAG %

UTILITY POWER - ON

SIM EXP STATUS

(*0000)

(31000)

LM DOI-2 (112:01)

COPY P76 DATA FROM STDN

33 _____

84 _____

P76 (LM DOI-2)

GDC ALIGN

VERIFY ORDEAL

ALT SET 70 NM

P24 (LDMK RP -3)

OPT ZERO - OFF

OPT MODE - CMC

OPT TEL TRUN - SLAVE TO SXT

OPT COUPLING - RSLV

OPT SPEED - MED

0:00 - T1 (HORIZON) DET - RESET/START

3:50 - DAC - ON

4:50 - T2 (LDMK ACQ) OPT MODE - MAN,
TAKE MARKS 10 SEC APART

6:30 - TCA

7:18 - T3 (LDMK LOSS) DAC - OFF

P20

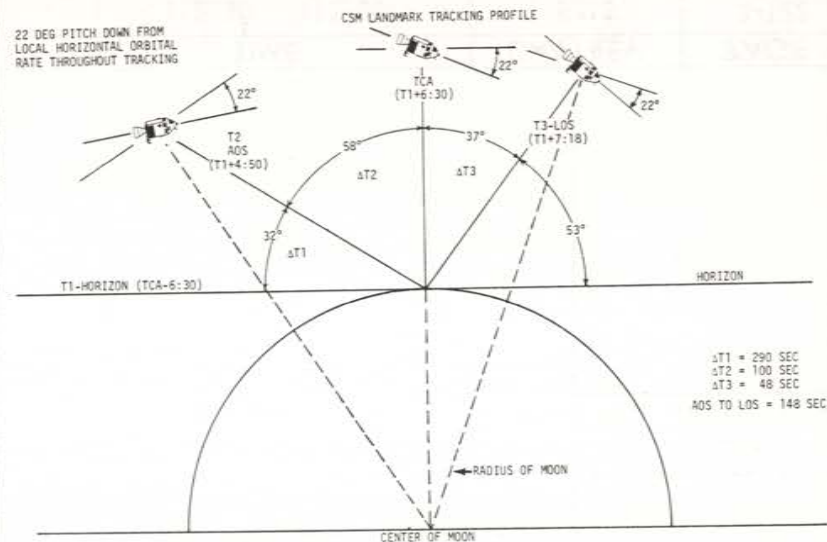
LOAD N89 FOR LDMK 17-1

(+20.160)(+15.405)

UNSTOW CSM RESCUE BOOK

112:30

22 DEG PITCH DOWN FROM
LOCAL HORIZONTAL ORBITAL
RATE THROUGHOUT TRACKING



P24 LDMK TRACKING

TGT: RP-3

(1/250)

T1 _____

T2 _____

TCA _____

T3 _____

R _____ °P _____ °Y _____ ° (T2 ACQ)

N or S NM _____ /SA _____ TA _____ (T2 ACQ)

N89

LAT -03.694

LONG/2 +65.956

ALT +000.00

MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-121

LM FLIGHT PLAN

MCC-H

1323 CST

CDR

LMP

NOTES

UPLINK TO LM
LM S.V. (PDI-10)
RLS-2
UPDATE TO LM
AGS RLS

UPDATE TO LM
N69 BACKUP RLS
(IF REQD)

GO/NO-GO FOR PDI

UPDATE TO LM
N69 NOMINAL, DOWN
TRACK, CROSS
TRACK, RADIAL
(IF REQD)

112:30
(22112)

:35

:40

:45

:50

:55

113:00

S
T
D
N

X

REPORT: ED BAT VOLTS
ASC BATS ON TIME

P63 PDI

LR ON

LM PDI

PCM - HI
VHF B XMTR-OFF
AUDIO MODE - VOX
TARGET AGS FOR ABORT

ALIGN AGS TO PGNS

VHF COMM CHECK

GDS 210' AOS

TIG: 112:50
BT: (DPS) 12 MIN

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	112:30 - 113:00	6/13	3-122

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN

112:30
(P20)
(0.5°DB)

(11101)
(1111)

ACQ STDN HGA P -10, Y 343 REACQ, NARROW
REPORT: BURN STATUS

CMD5:
DSE STOP

UPDATE:
FLIGHT PLAN
P24 LDMK TRACK PAD (LDMK 17-1 (112:50)
GO/NO-GO FOR PDI

UPLINK:
CSM S.V. (P24 T2 ACQ)
LM S.V. (PDI-10)

:40

VHF COMM CHECK WITH LM

P24 (LDMK 17-1)
OPT ZERO - OFF
OPT MODE - CMC

LM PDI (112:49:37.7)

:50

0:00 - T1 (HORIZON) DET - RESET/START

CMD5:
DSE RECORD

3:50 - DAC - ON

4:50 - T2 (LDMK ACQ) OPT MODE - MAN,
TAKE MARKS 10 SEC APART

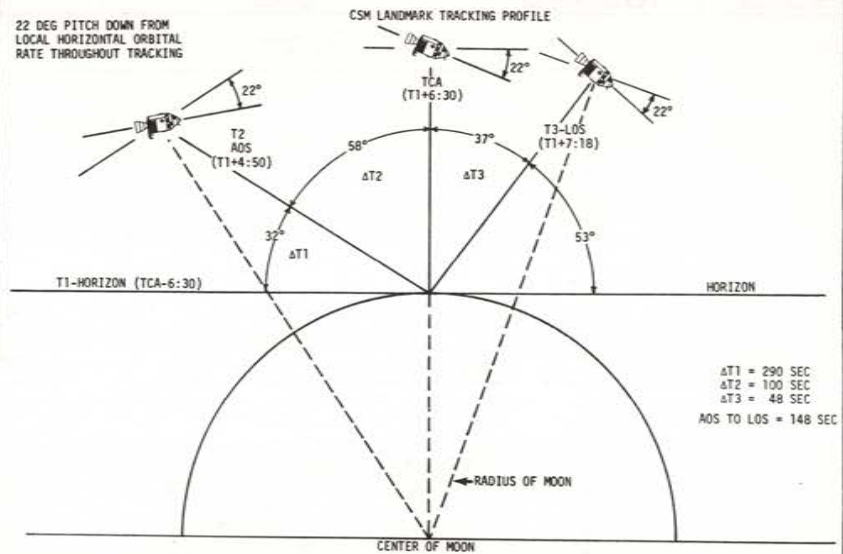
6:30 - TCA
7:18 - T3 (LDMK LOSS) DAC - OFF
P00

(11101)
(1111)

113:00

SIM EXP STATUS
(*0000)
(31000)

22 DEG PITCH DOWN FROM
LOCAL HORIZONTAL ORBITAL
RATE THROUGHOUT TRACKING



P24 LDMK TRACKING

TGT: 17-1

(1/60)

T₁ ———— : ———— : ————
T₂ ———— : ———— : ———— (112:55:46.7)
TCA ———— : ———— : ————
T₃ ———— : ———— : ————
R ———— ° P ———— ° Y ———— ° (T2 ACQ)
N or S NM ———— / SA ———— TA ———— (T2 ACQ)
N89
LAT +20.160
LONG/2 +15.405
ALT -001.96

MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-123

LM FLIGHT PLAN

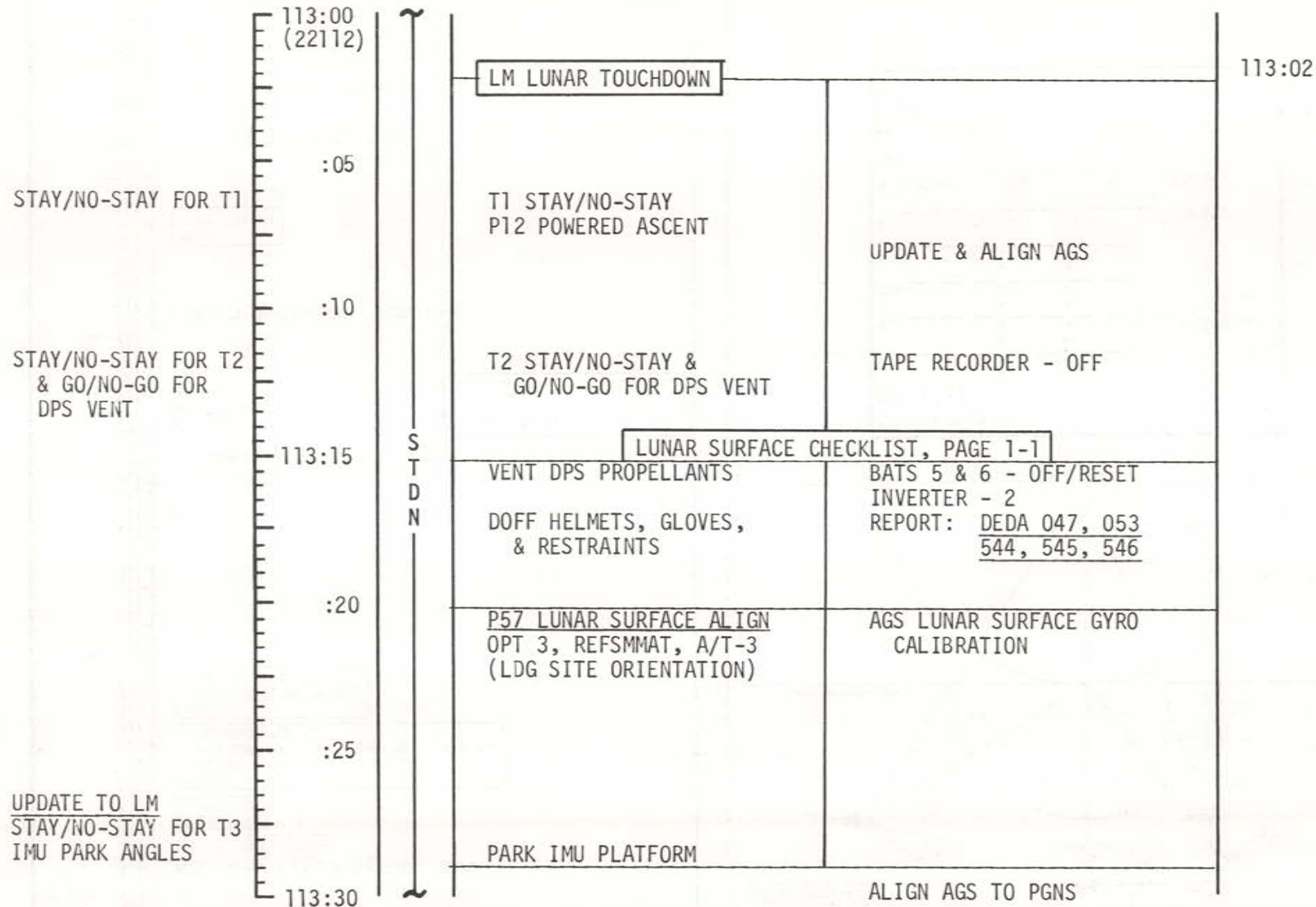
MCC-H

1353 CST

CDR

LMP

NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	113:00 - 113:30	6/13	3-124

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN

113:00
(11101)
(1111)

V49 MNVR TO P52/COAS CAL ATT (113:10)
(180,284,338) HGA P -33, Y 2

SIM EXP STATUS
(*0000)
(21000)

LM TOUCHDOWN (113:02)

P52 IMU REALIGN

N71: _____

N05: _____

N93: _____

X _____

Y _____

Z _____

GET _____

CONFIRM STAY/NO STAY FOR T1

CUE:
HGA AUTO
CMDS:
DSE DUMP

P52 (OPTION 3)
(LDG SITE ORIENT)

CONFIRM STAY/NO STAY FOR T2

REPORT: GYRO TORQUING ANGLES
GDC ALIGN

CSM G&C CHECKLIST

P52 (COAS CALIB) PAGE 6/7-6
USE STAR 16 (PROCYON)
V44 (SET LUNAR SURFACE FLAG)
INHIBIT ALL JETS EXCEPT A1&C2 OR D1&B2,A3,C4,B3,D4

P20 OPT 5 (+X FWD SIM ATT)(113:35)

N78 (+090.00)

(+052.25)

(+180.00)

N79 (+000.50)

HGA P -24, Y 173

COAS CALIB - N92

SHAFT: _____

TRUN: _____

UPDATE:
PAN CAMERA PHOTO PAD (114:10)

RNDZ XPNDR - OFF

EXT LIGHTS RUN/EVA - OFF

CMDS:
PCM BIT RATE - HIGH

113:30

PURPOSE		NO PDI ₁ +12 ABORT					
E GETI N33	HRS	+	0	0			
	MIN	+	0	0	0		
	SEC	+	0				
F N84 LOCAL VERT	ΔVX						
	ΔVY						
	ΔVZ						
G GETI CSI N11	HRS	+	0	0			
	MIN	+	0	0	0		
	SEC	+	0				
H GETI TPI N37	HRS	+	0	0			
	MIN	+	0	0	0		
	SEC	+	0				

I

PURPOSE		PDI ₁ PAD					
GETI PDI N33	HRS	+	0	0			
	MIN	+	0	0	0		
	SEC	+	0				

J

PURPOSE		PDI ₁ ABORT EARLY PAD					
GETI TPI N37	HRS	+	0	0			
	MIN	+	0	0	0		
	SEC	+	0				

K

PURPOSE		PDI ₁ ABORT LATE PAD					
GETI TPI N37	HRS	+	0	0			
	MIN	+	0	0	0		
	SEC	+	0				

L
M

PURPOSE		T2-1 ABORT PAD					
GETI T2	HRS	+	0	0			
	MIN	+	0	0	0		
	SEC	+	0				
GETI TPI N37	HRS	+	0	0			
	MIN	+	0	0	0		
	SEC	+	0				

N

PURPOSE		T3 ABORT PAD					
GETI T3	HRS	+	0	0			
	MIN	+	0	0	0		
	SEC	+	0				

MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-125

LM FLIGHT PLAN

MCC-H

1423 CST

CDR

LMP

NOTES

113:30
(22112)

LM POWER DOWN
LGC - STANDBY, IMU - OFF

:35

BAT L (LMP) - ON
BATS 2 & 1 - OFF/RESET
BIOMED - RIGHT

:40

CABIN CONFIGURATION FOR STAY

UPDATE TO LM
LIFT-OFF TIMES FOR
REVS 15-20

DEPLOY LM EVA ANTENNA

113:45

S
T
D
N

:50

:55

114:00

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	113:30 - 114:00	6/13	3-126

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN

113:30
(P20)
(0.5°DB)
(11101)
(1111)

POST-SPS BURN SIM PREP (CUE CARD)
VHF AM A - OFF (CTR)
VHF RCV ONLY - OFF

SIM EXP STATUS
(+0000)
(31000)

DATA SYS - ON
IR - ON
UV - ON
MC/LA COVER - OPEN
IR COVER - OPEN
UV COVER - OPEN
MC - EXT D

S
T
D
N

:40

CMDS: (AOS +68 MIN)
DSE RECORD

VERIFY DSE TAPE MOTION (HBR/RCD/FWD/CMD RESET)
SET HGA MAN, WIDE P -10, Y 25 FOR AOS

:50

PC: STBY
STEREO
PWR

114:00

LA - ON
IMAGE MTN - ON

MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-127

LM FLIGHT PLAN

MCC-H

1453 CST

CDR

LMP

NOTES

114:00

CABIN CONFIGURATION FOR STAY (CONT)

CSM REV 4

REPORT: PRD

:10

:20

114:30

:40

:50

115:00

S
T
D
N

EAT PERIOD

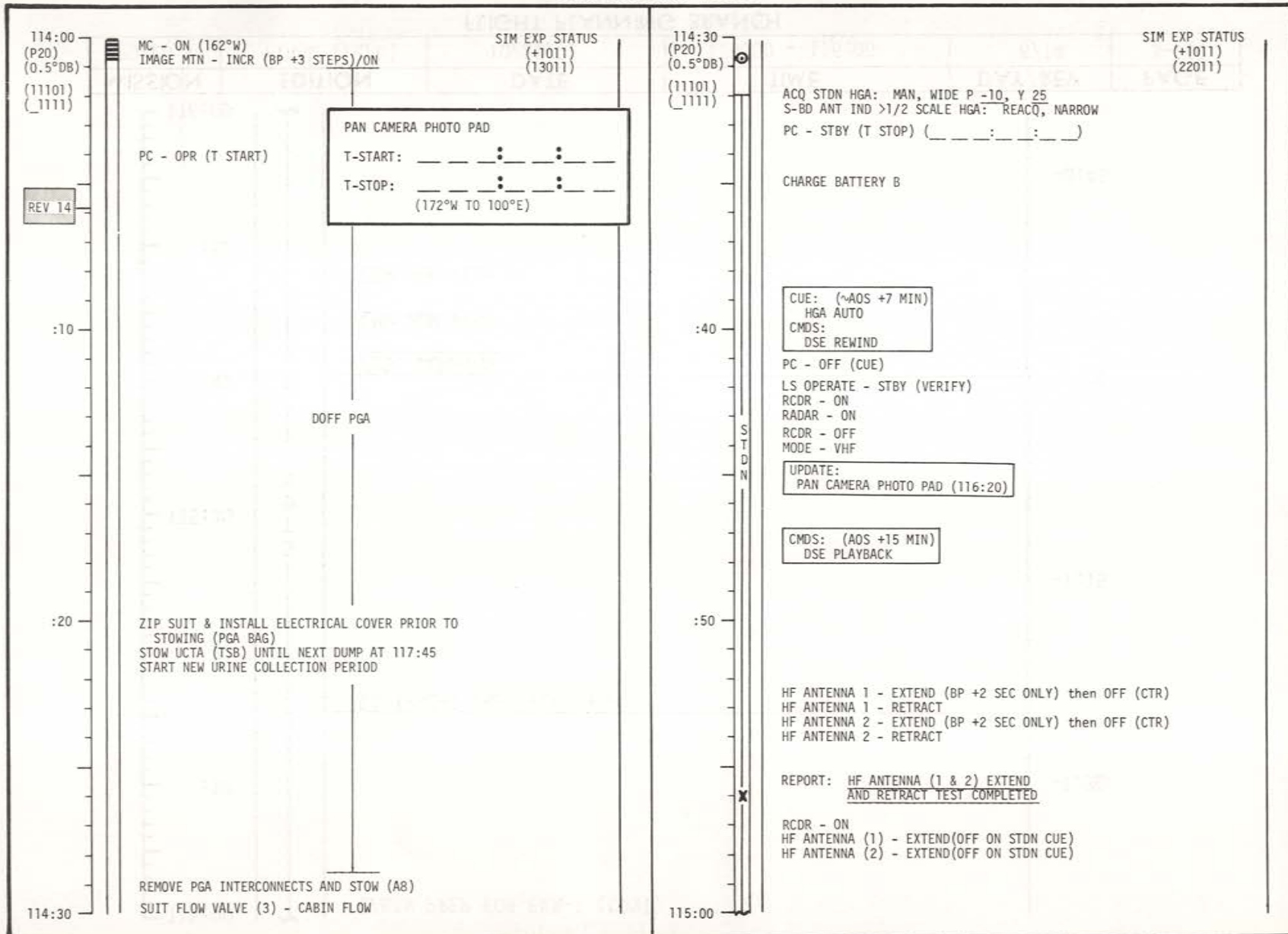
CABIN PREP FOR EVA-1

UNSTOW EVA-1 PREP & POST CARD, STOW LUNAR SURFACE CKLST

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	114:00 - 115:00	6/13-14	3-128

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-129

LM FLIGHT PLAN

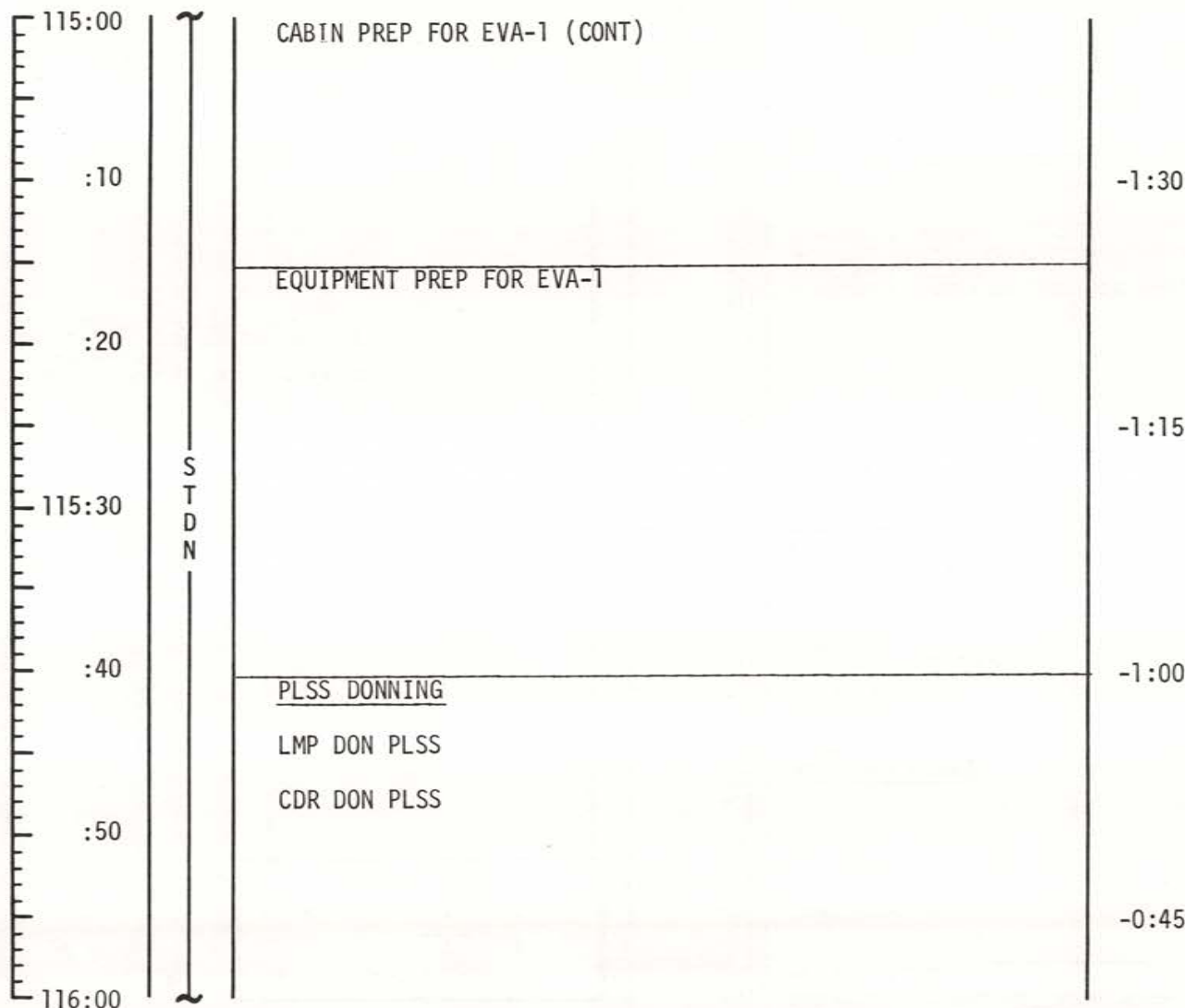
MCC-H

1553 CST

CDR

LMP

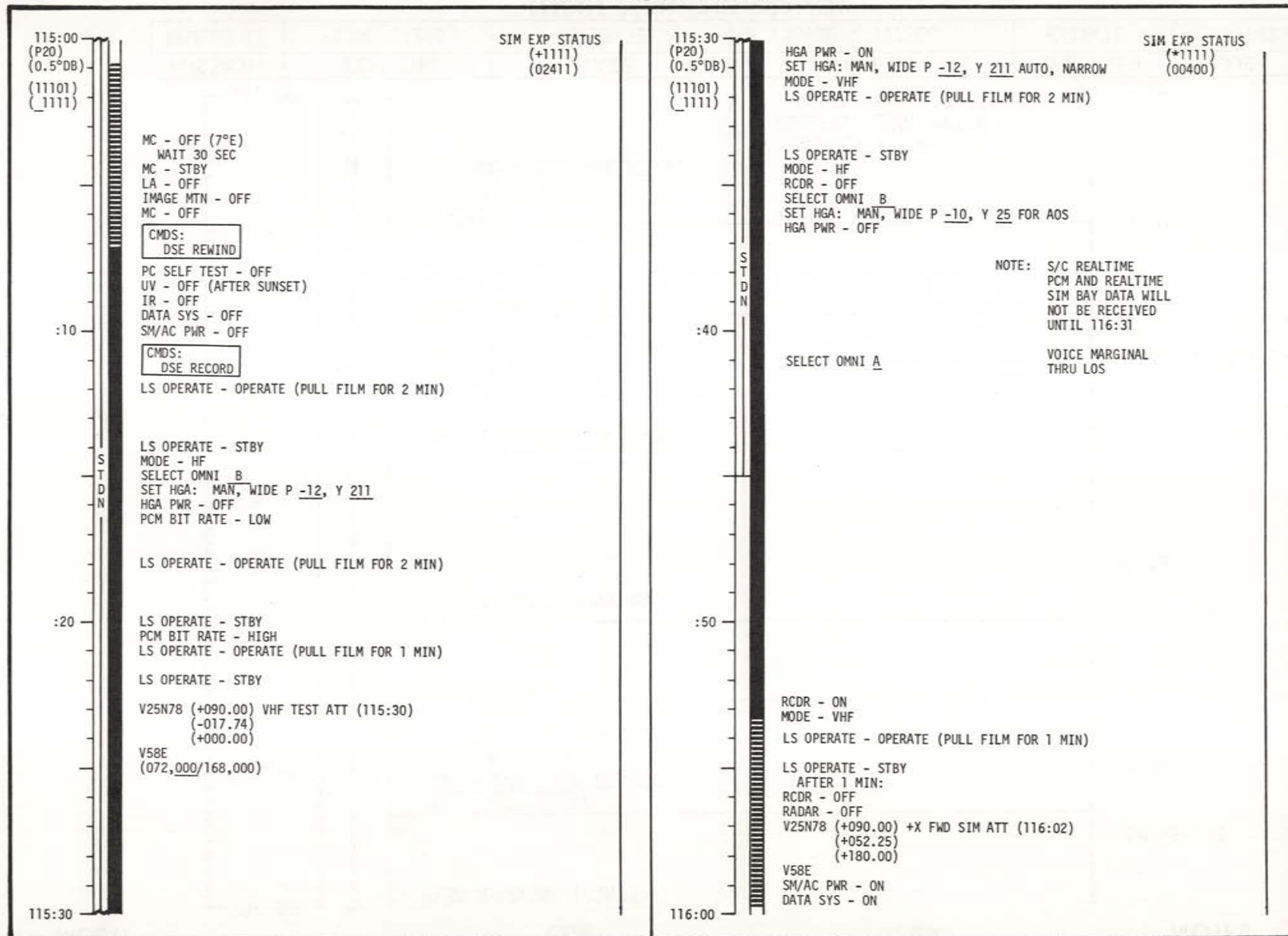
NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	115:00 - 116:00	6/14	3-130

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-131

NOTES

PLSS DONNING (CONT)

CSM REV 15

:10

PLSS COMM CHECK
CONFIGURE COMM FOR EVA
RECORDER - ON
REPORT: PLSS O₂ QUANTITY

-0:30

:20

OPS CONNECT

116:30

HELMET GLOVE DONNING

-0:15

:40

CABIN DEPRESS
START WATCHES @ 3.5 PSIA

00:00/START EVA-1

:50

FINAL PREP FOR EVA

OPEN FWD HATCH

ASSIST CDR

+0:10

117:00

EGRESS
DEPLOY MESA
SURFACE FAMILIARIZATION

RECORDER - OFF
EGRESS, CLOSE HATCH
SURFACE FAMILIARIZATION

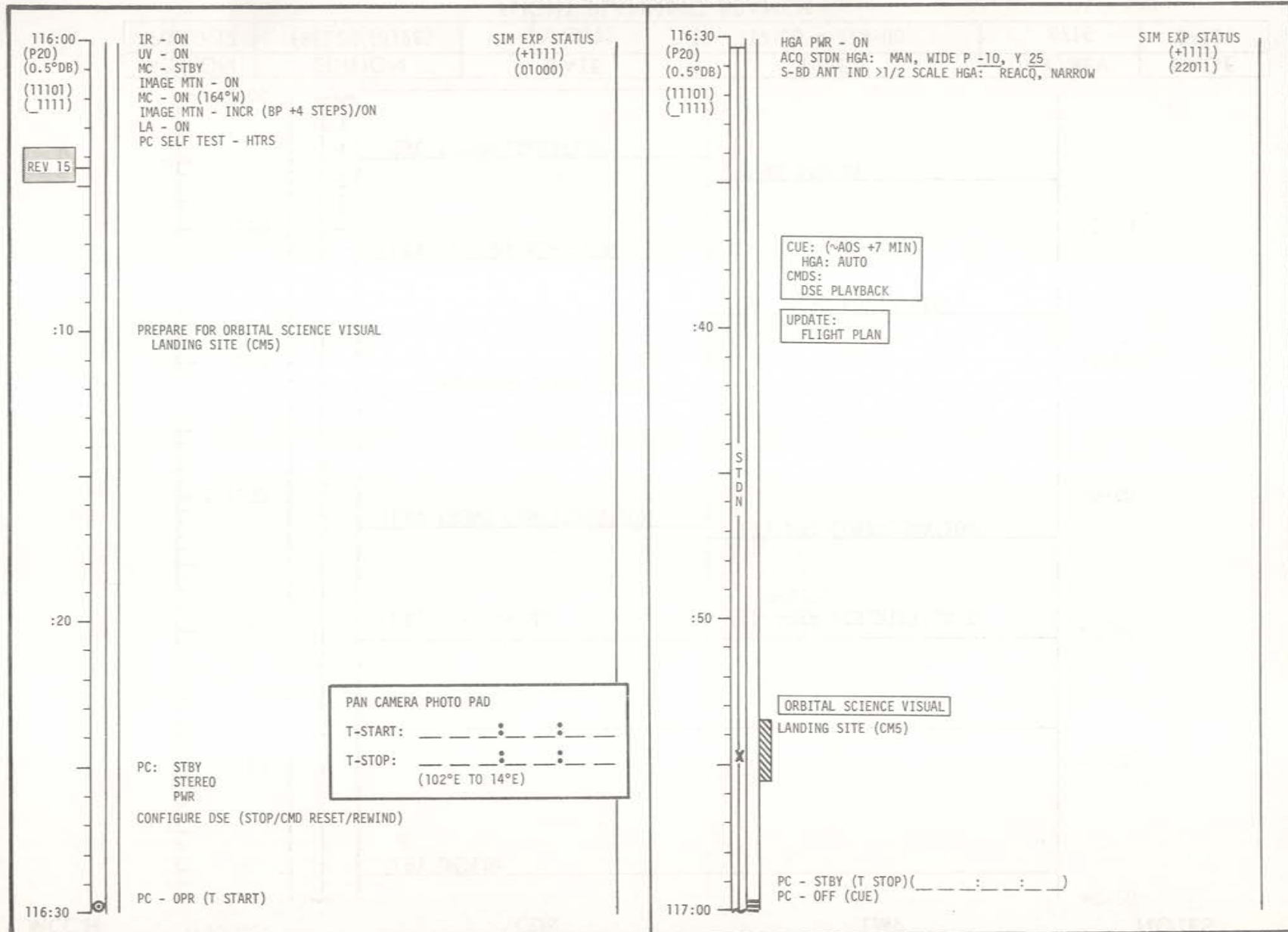
+0:20

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	116:00 - 117:00	6/14-15	3-132

FLIGHT PLANNING BRANCH

GO/NO-GO FOR CABIN
DEPRESS

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-133

LM FLIGHT PLAN

MCC-H

1753 CST

CDR

LMP

NOTES

117:00		LRV DEPLOY		+0:20
:10				+0:30
		LRV SETUP		
:20		LRV TEST DRIVE	LM AREA DESCRIPTION & PHOTOS	+0:40
117:30		LRV FRONT CONFIGURATION	LRV AFT CONFIGURATION	+0:50
		LRV ANTENNA CONFIGURATION		+1:00
:40			LRV MISC EQUIP STOW	
		LRV TV CONFIGURATION		+1:10
:50		SRC 1 CONFIGURATION	FLAG DEPLOY	
118:00				

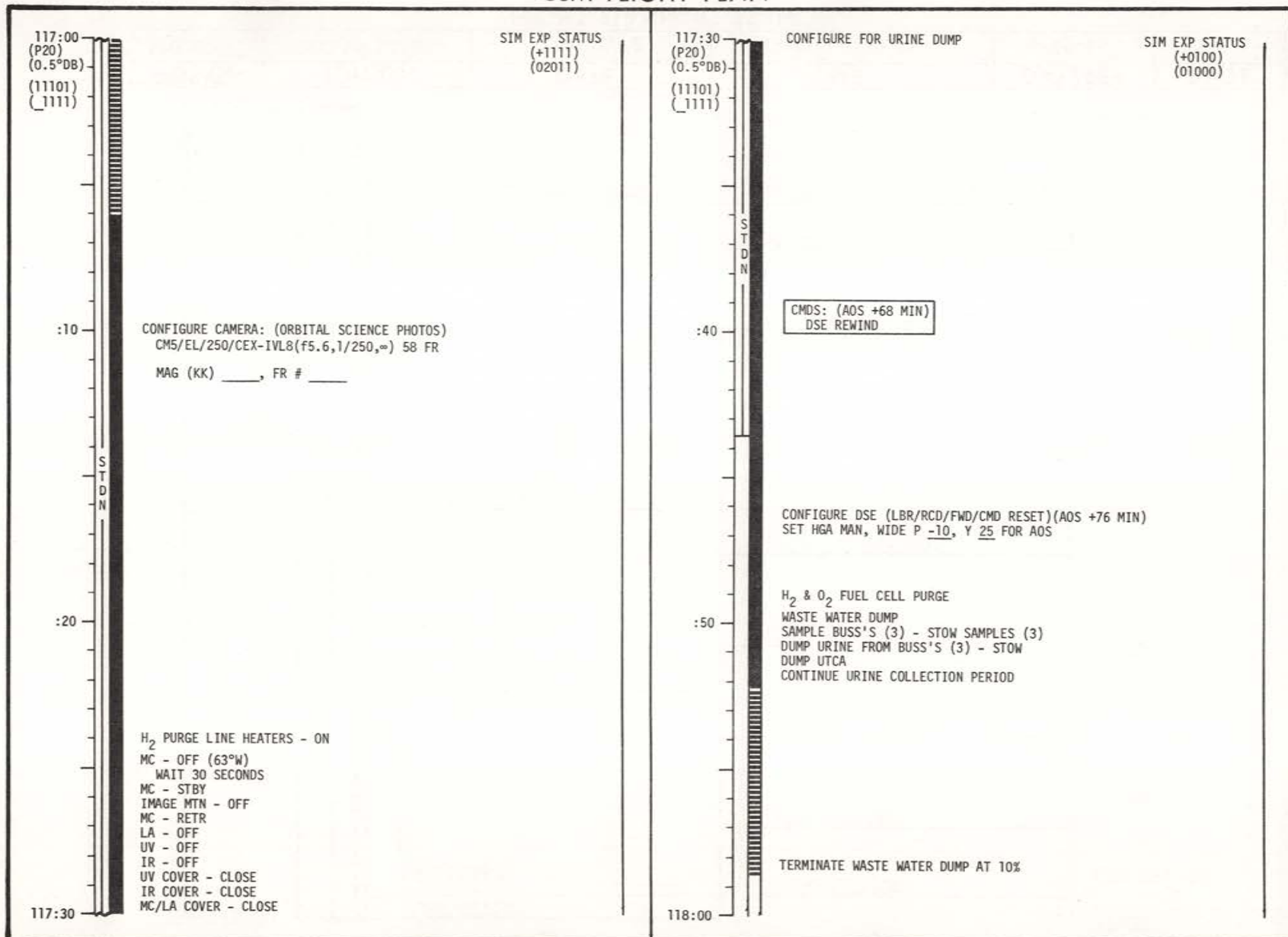
S
T
D
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T
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V

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	PRELIM (8/28)	10/23/72	117:00 - 118:00	6/15	3-134

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-135

LM FLIGHT PLAN

MCC-H

1853 CST

CDR

LMP

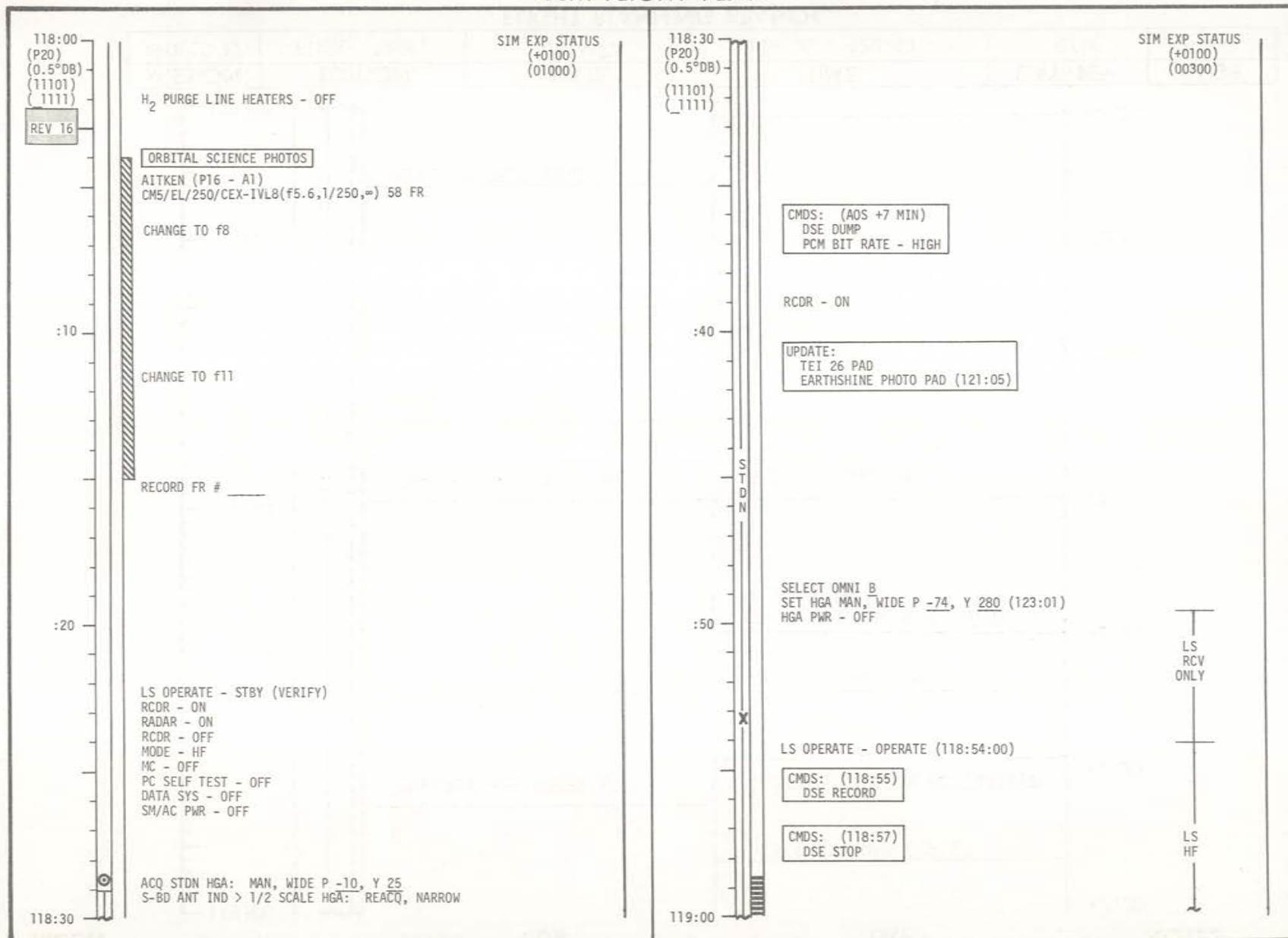
NOTES

118:00	TV	FLAG DEPLOY	LM INSPECTION	+1:20
		LRV LOADUP	ALSEP OFFLOAD	CSM REV 16
:10			FUEL RTG	+1:30
		ALSEP TRAVERSE	ALSEP TRAVERSE	+1:40
:20			ALSEP INTERCONNECT	+1:50
118:30	STDN	ALSEP INTERCONNECT		
		HFE DEPLOY	LSG DEPLOY	+2:00
:40			LSPE G/M DEPLOY	
	TV	DRILL PREP	LMS DEPLOY	+2:10
:50		DRILL FIRST PROBE HOLE	CENTRAL STATION DEPLOY	+2:20
119:00	X			

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	PRELIM (8/28)	10/23/72	118:00 - 119:00	6/15-16	3-136

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-137

MCC-H

1953 CST

LM FLIGHT PLAN

CDR

LMP

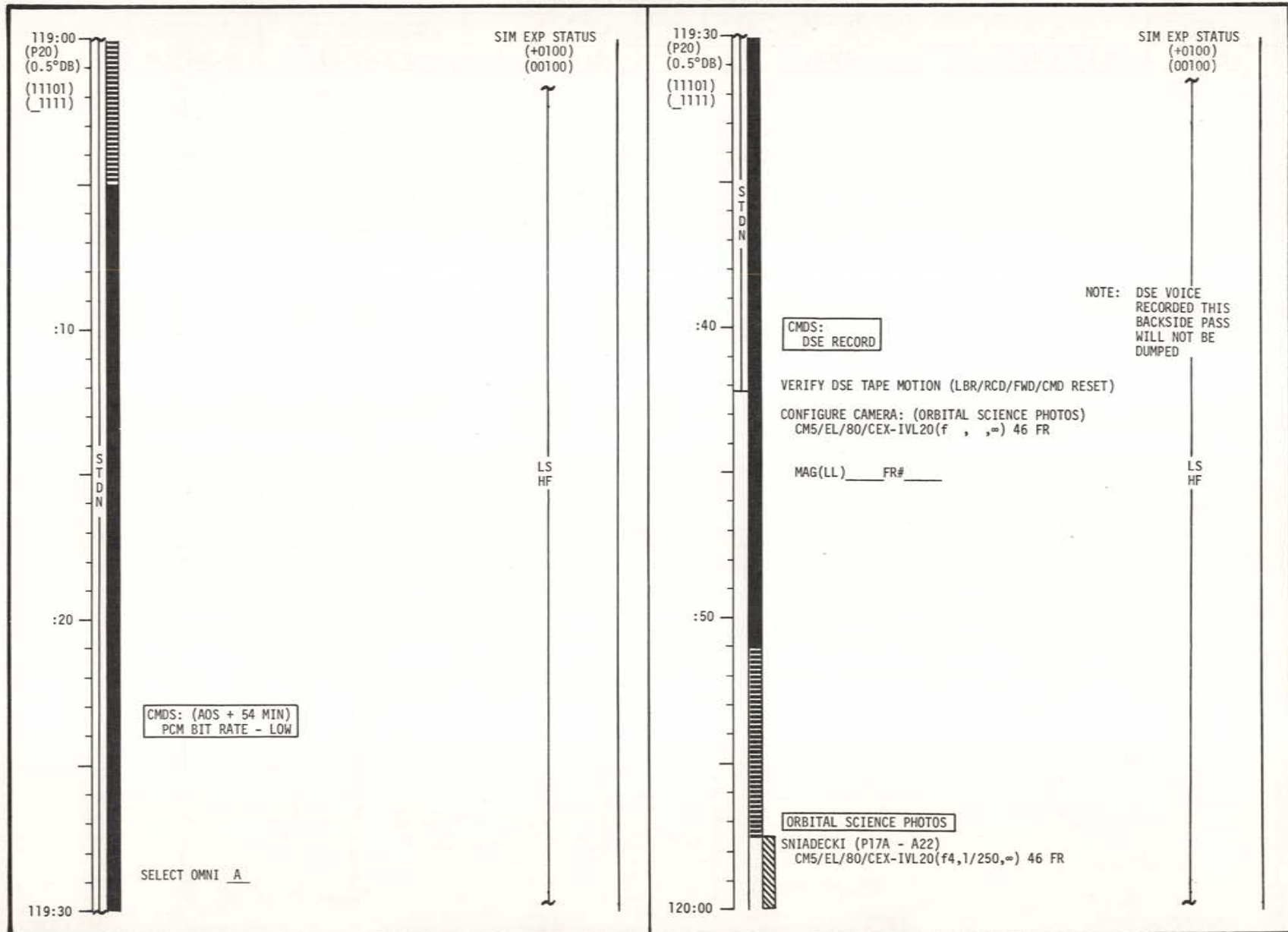
NOTES

119:00				+2:20
			ALSEP ANTENNA DEPLOY	
:10		EMPLACE HFE PROBE #1	CENTRAL STATION ACTIVATION	+2:30
			LEAM DEPLOY	
		DRILL SECOND PROBE HOLE	LSP ANTENNA DEPLOY	
:20			CONFIGURE FOR G/M PHOTOS & SAMPLING	+2:40
119:30		EMPLACE HFE PROBE #2	GEOPHONE DEPLOY	+2:50
			DOCUMENTARY PHOTOS	
		DRILL DEEP CORE		+3:00
:40				
:50				+3:10
		RECOVER DEEP CORE		
120:00				+3:20

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	119:00 - 120:00	6/16	3-138

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-139

LM FLIGHT PLAN

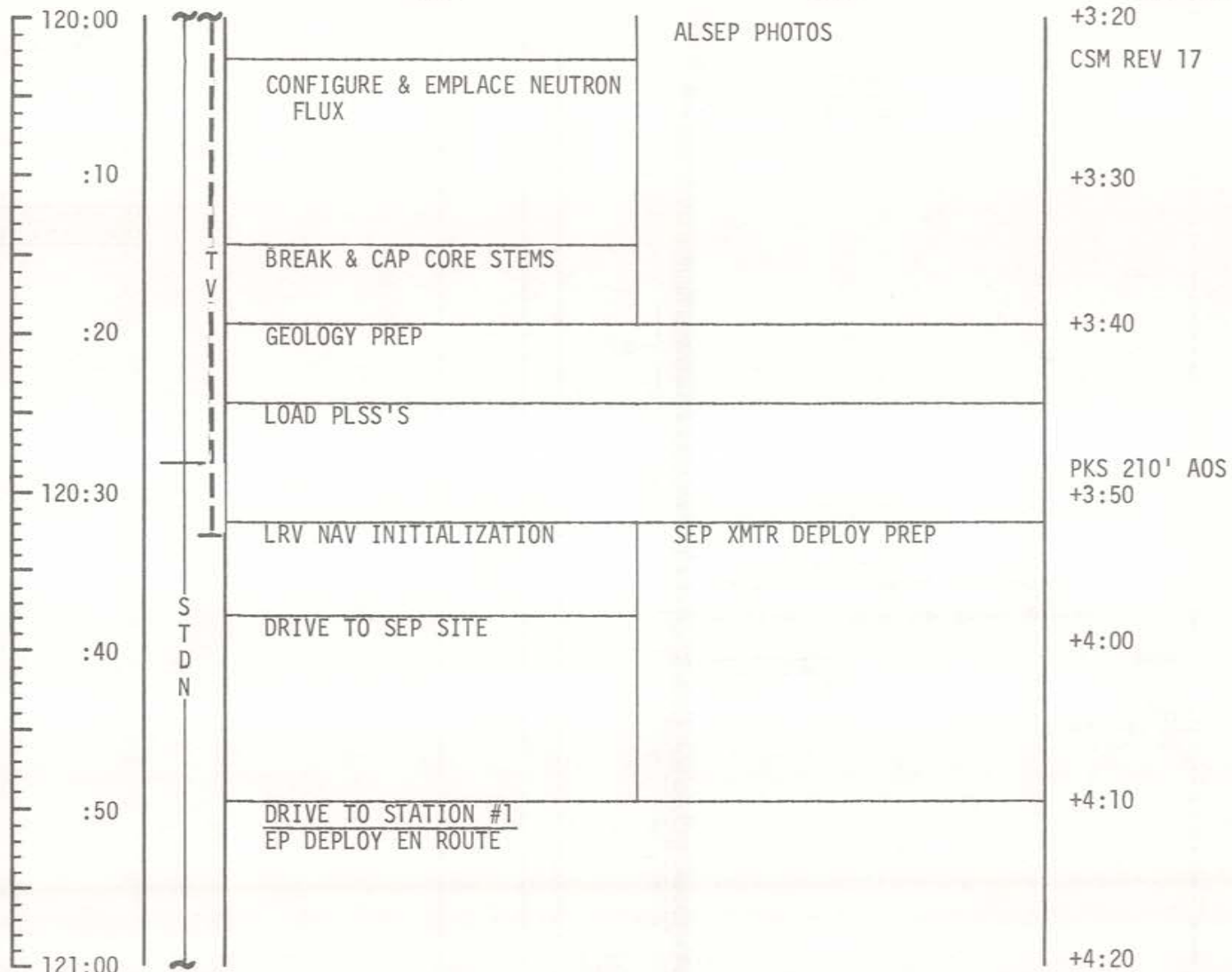
MCC-H

2053 CST

CDR

LMP

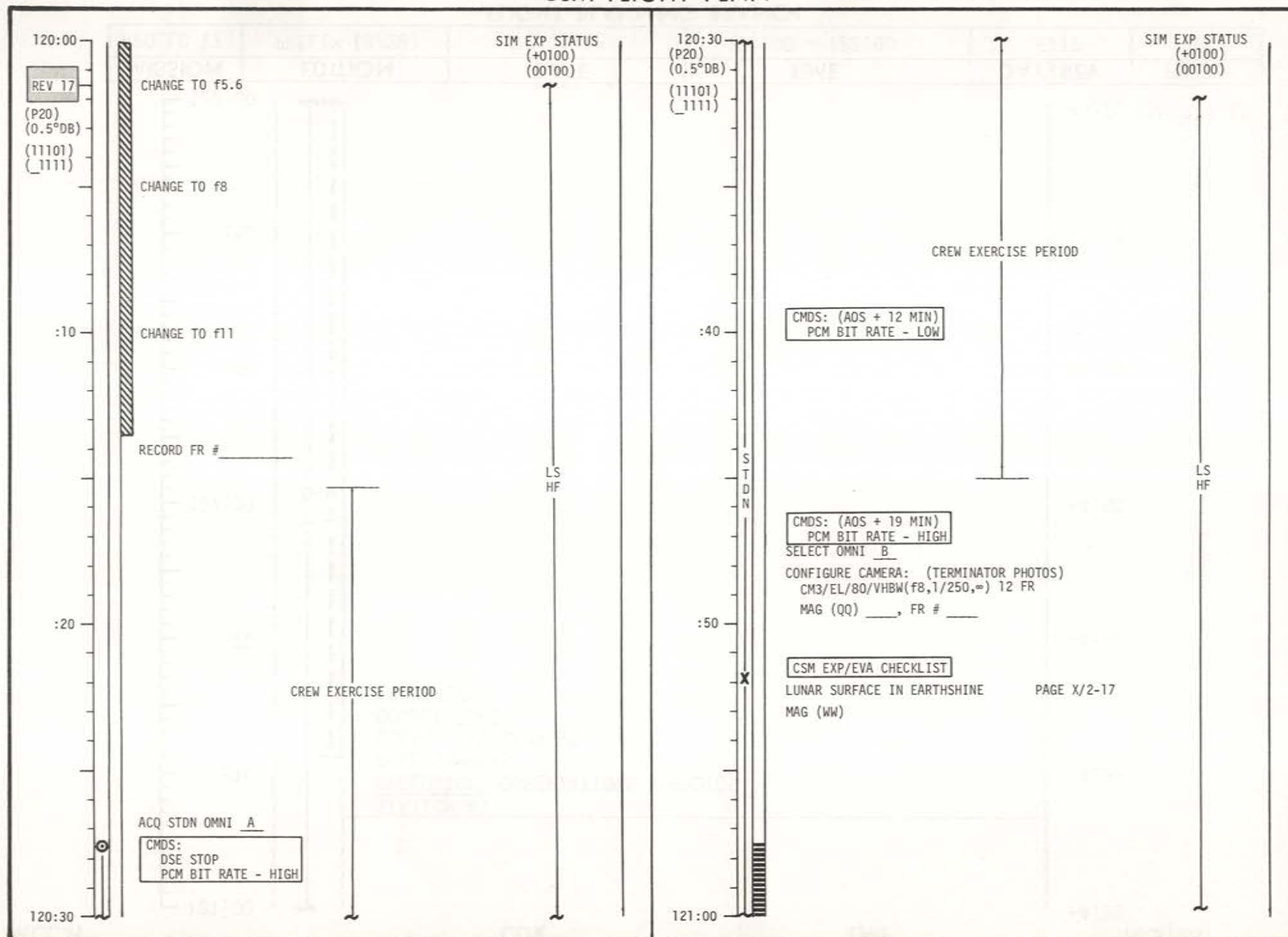
NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	PRELIM (8/28)	10/23/72	120:00 - 121:00	6/16-17	3-140

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-141

LM FLIGHT PLAN

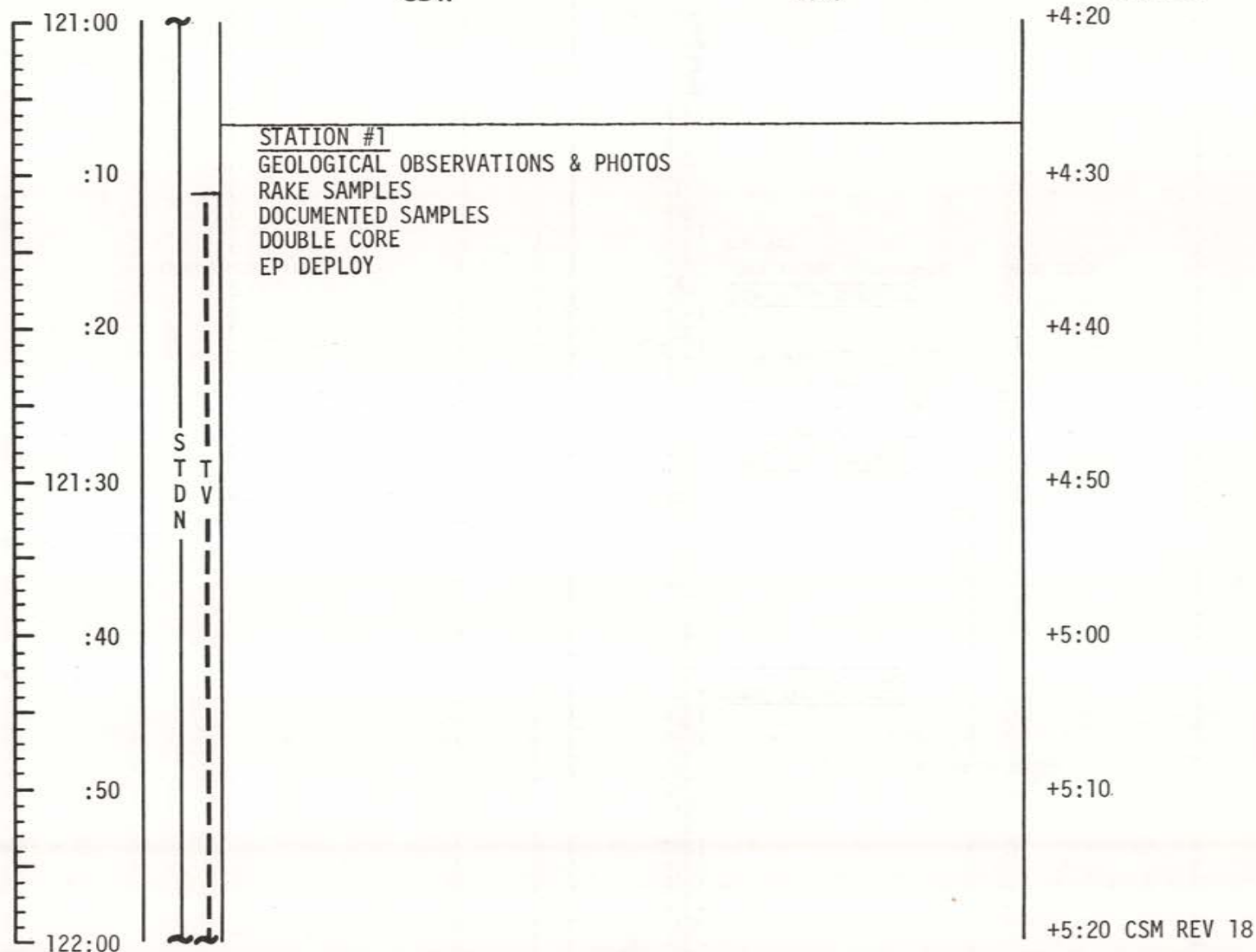
MCC-H

2153 CST

CDR

LMP

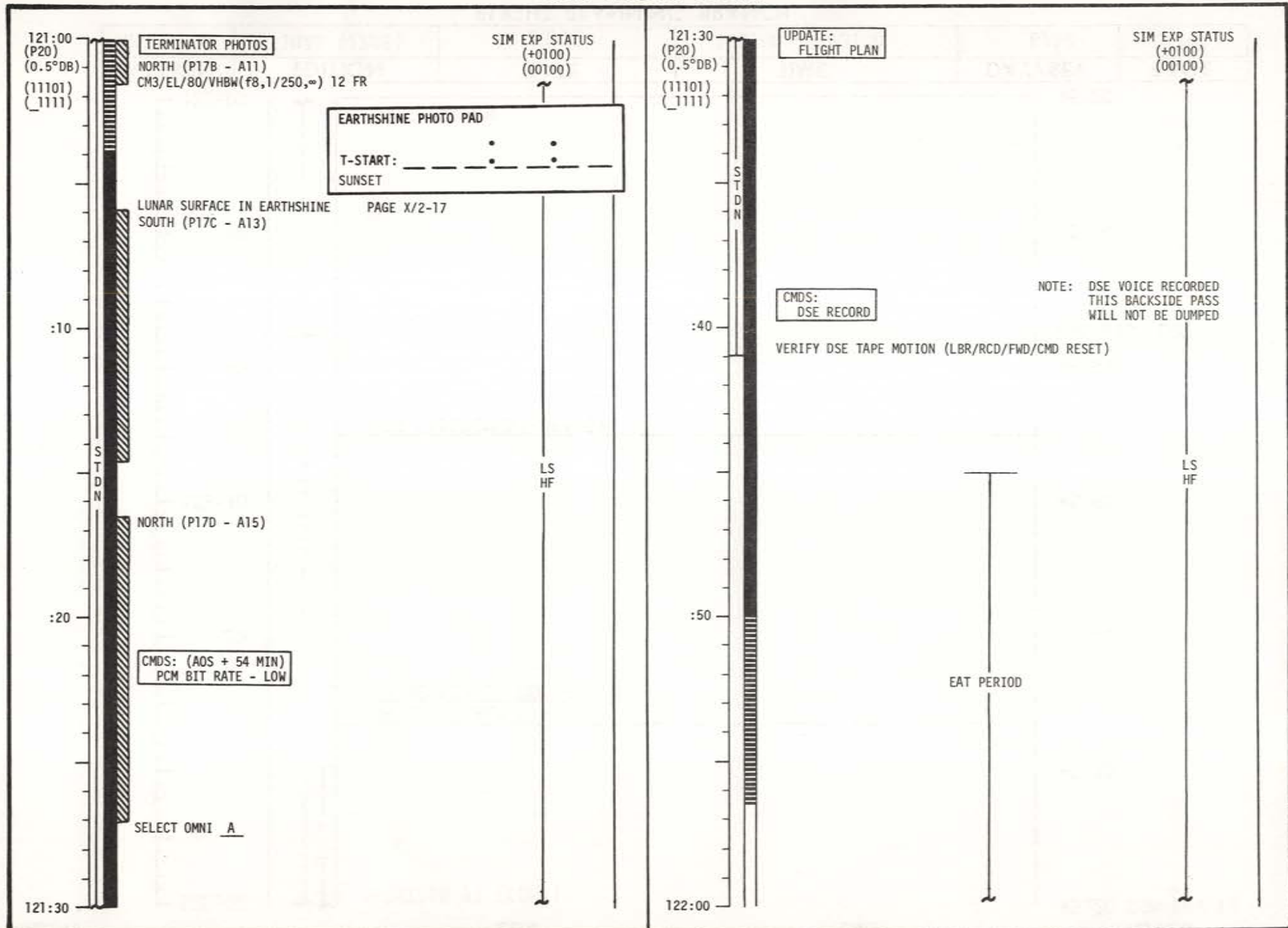
NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	PRELIM (8/28)	10/23/72	121:00 - 122:00	6/17	3-142

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-143

LM FLIGHT PLAN

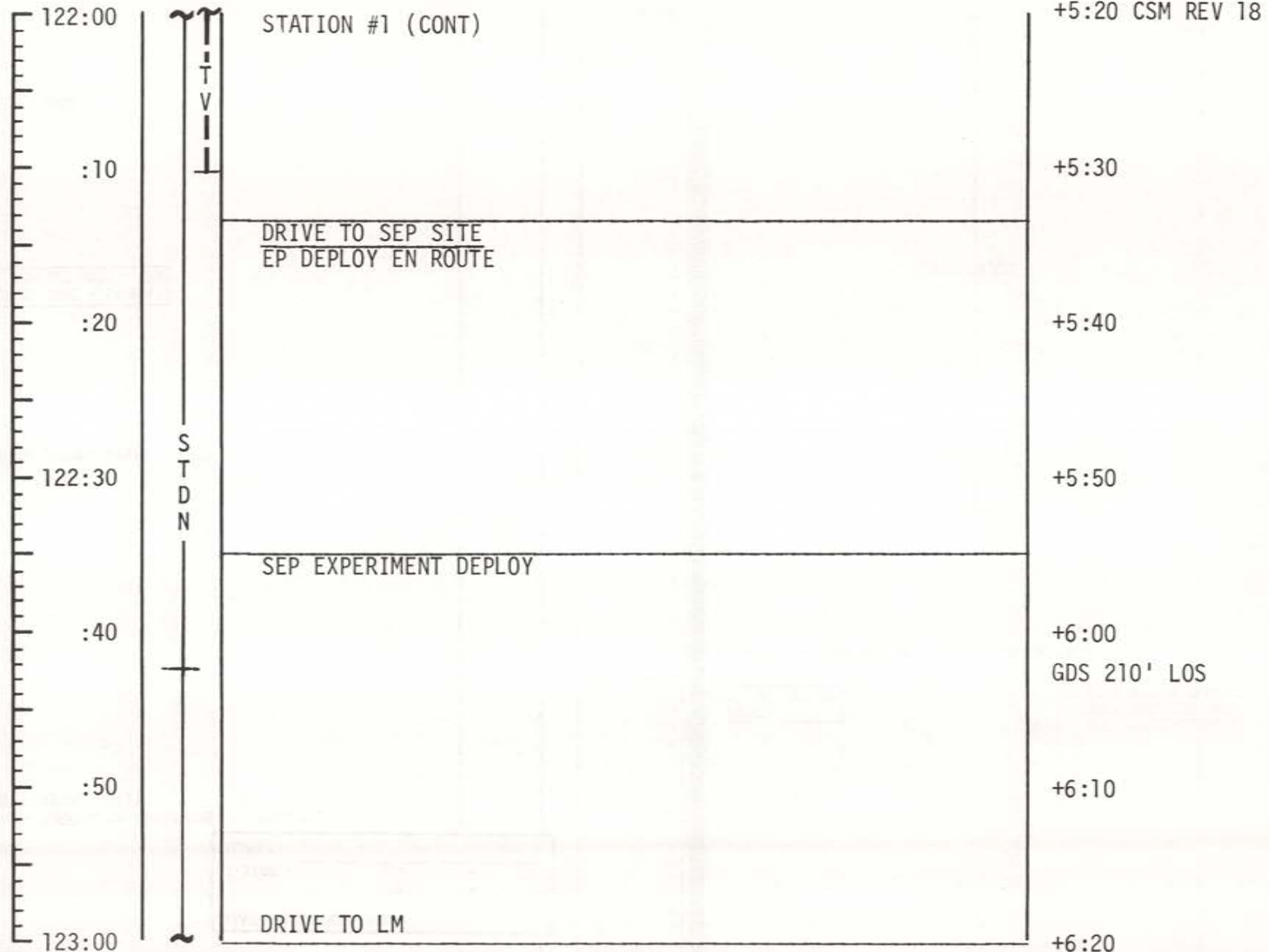
MCC-H

2253 CST

CDR

LMP

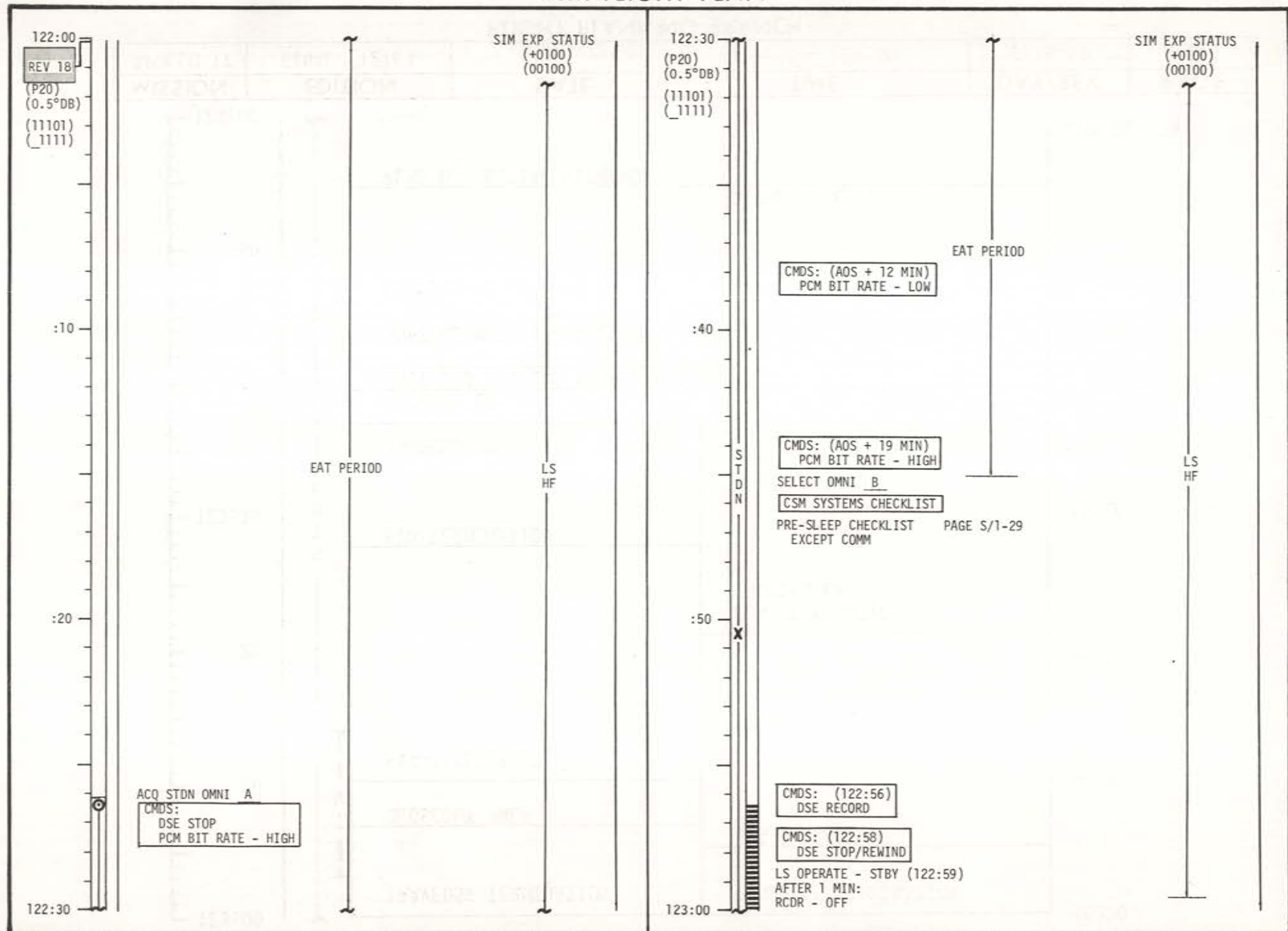
NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	122:00 - 123:00	6/18	3-144

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-145

MCC-H

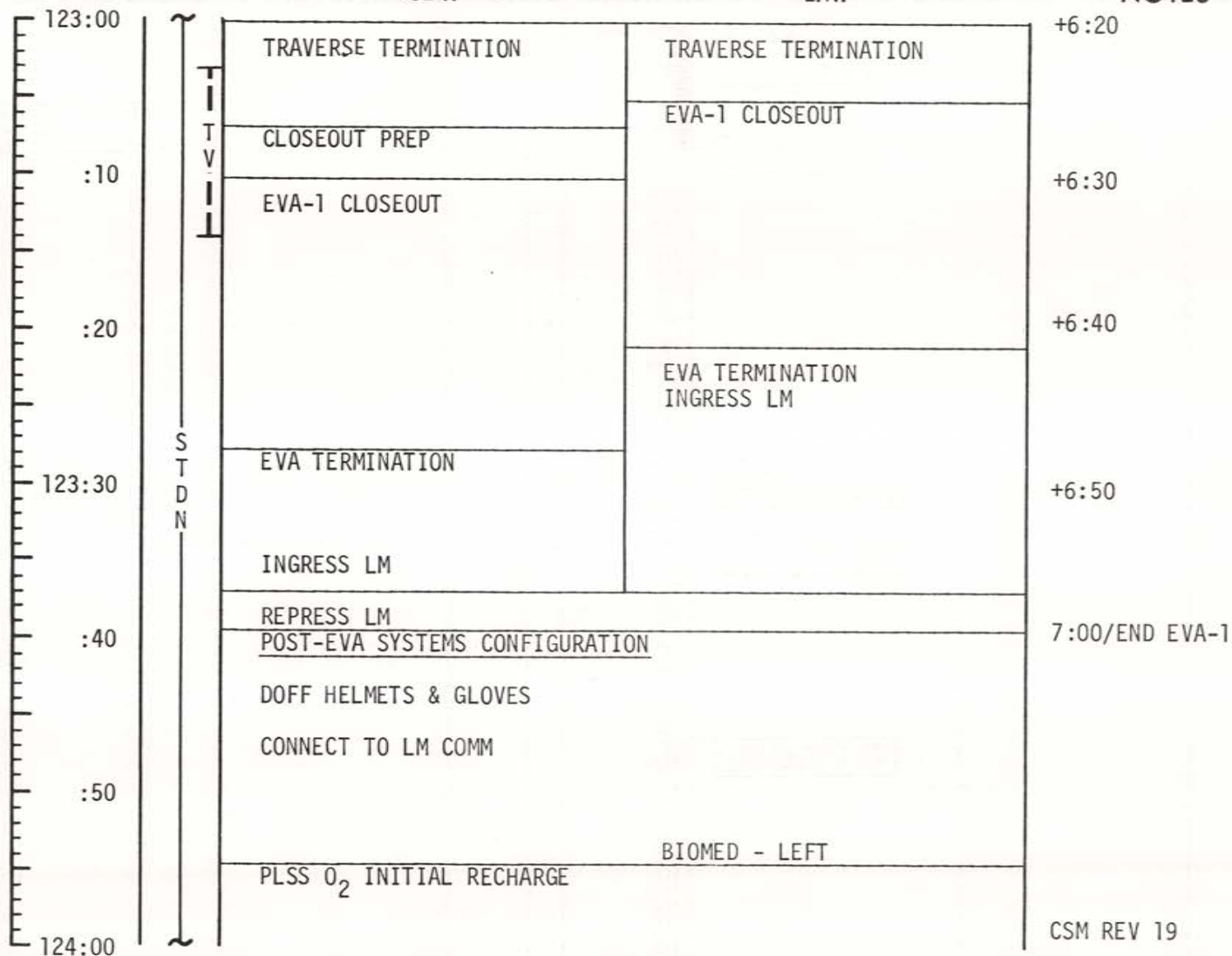
2353 CST

LM FLIGHT PLAN

CDR

LMP

NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	123:00 - 124:00	6/18-19	3-146

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN

123:00 (P20) (0.5°DB) (11101) (1111)	RADAR - OFF DATA SYS - ON HGA PWR - PWR ACQ STDN HGA P -74, Y 280 AUTO, NARROW CMDS: DSE PLAYBACK SM/AC PWR - ON MC - STBY PC SELF TEST - HTRS UV - ON IR - ON UV COVER - OPEN IR COVER - OPEN V22N79 (+002.50) UPLINK: JET-ON MONITOR LOADS CSM SYSTEMS CHECKLIST PRE-SLEEP CHECKLIST PAGE S/1-29 CONFIGURE COMM VHF AM T/R - RCV (PANEL 9) VHF AM A - DUPLEX ADJUST SQUELCH B FILM MAGS REQUIRED FOR NEXT DAY: EL: LL,MM,QQ NK: XX CMDS: (AOS +60 MIN) DSE REWIND	SIM EXP STATUS (+0100) (00000)	ONBOARD READOUT BAT C _____ PYRO BAT A _____ PYRO BAT B _____ RCS A _____ B _____ C _____ D _____ DC IND SEL - MNA OR B
123:30 (P20) (2.5°DB)	123:30 (P20) (2.5°DB) (11101) (1111)	SIM EXP STATUS (+0111) (01011)	CMDS: (AOS +68 MIN) DSE RECORD
123:30	124:00	REST PERIOD (8.0 HOURS)	

LM FLIGHT PLAN

MCC-H

0053 CST, 12/12

CDR

LMP

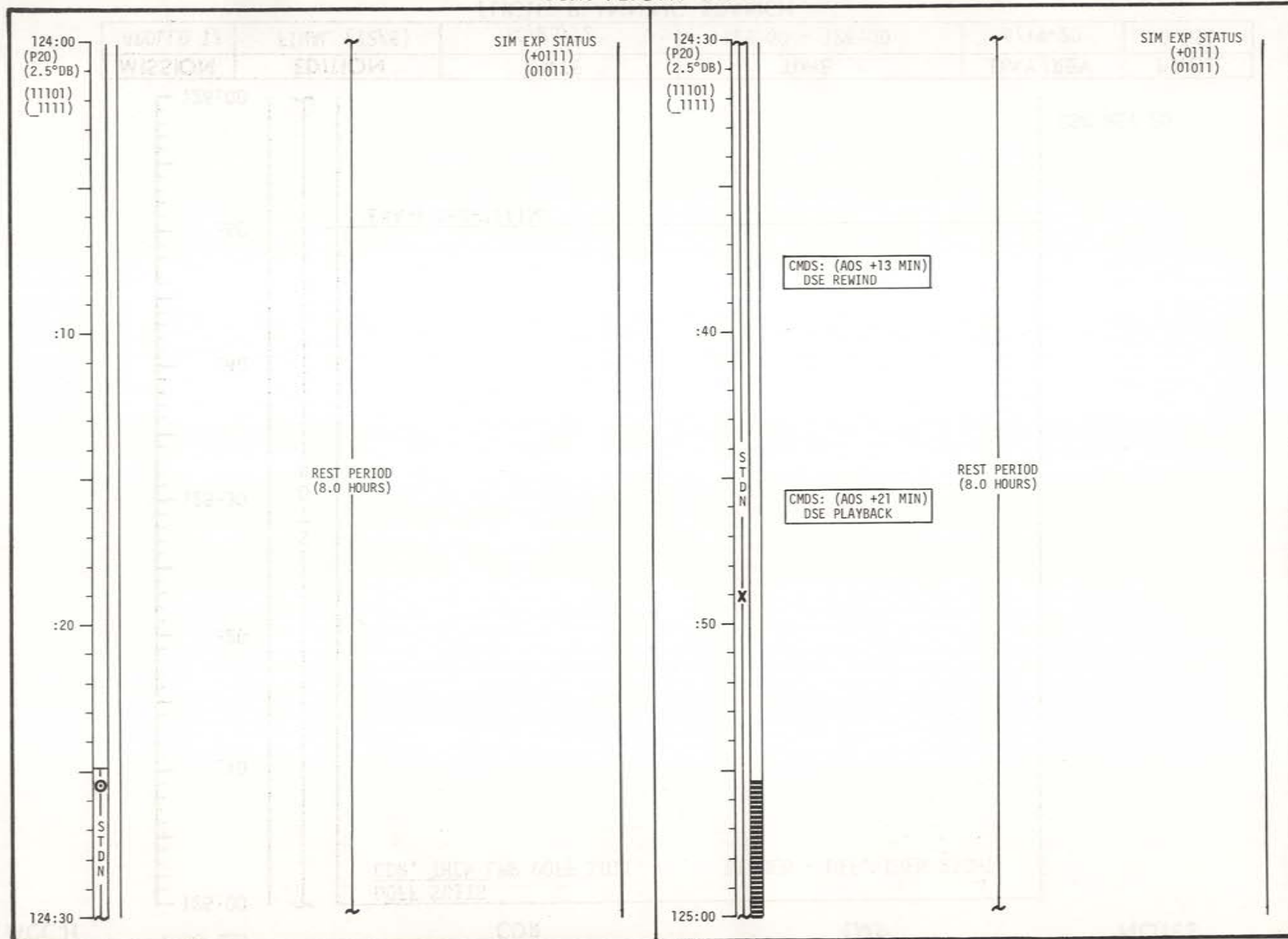
NOTES

124:00	S T D N	PLSS O ₂ INITIAL RECHARGE (CONT)
:10		<u>PLSS/OPS DOFFING</u> REPORT: <u>OPS PRESSURE</u>
:20		
124:30		
:40		<u>POST-EVA CABIN CONFIGURATION</u>
:50	X	WEIGH SRC & COLLECTION BAGS, REPORT: <u>WEIGHTS</u>
125:00		

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	124:00 - 125:00	6/19	3-148

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-149

LM FLIGHT PLAN

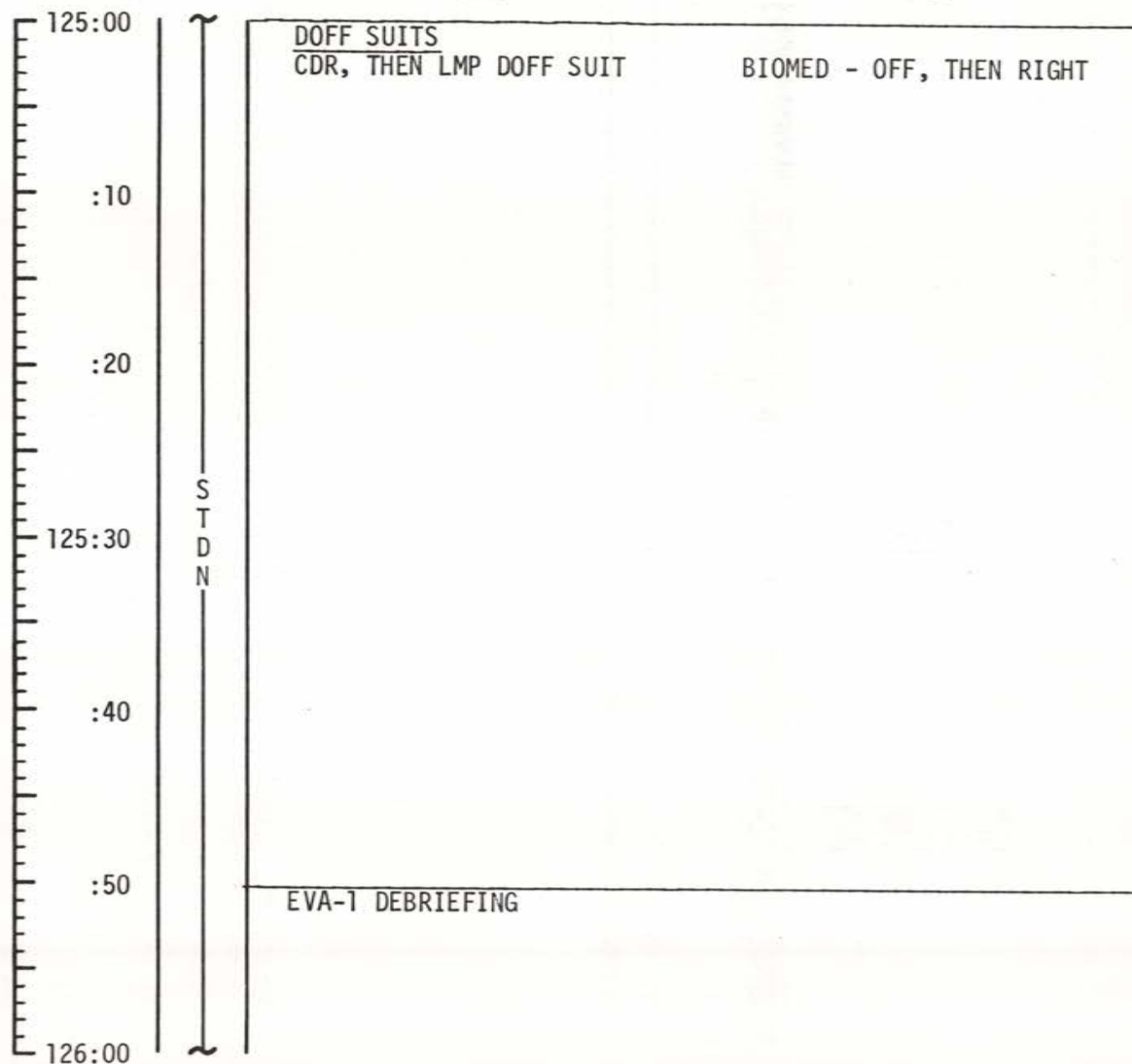
MCC-H

0153 CST

CDR

LMP

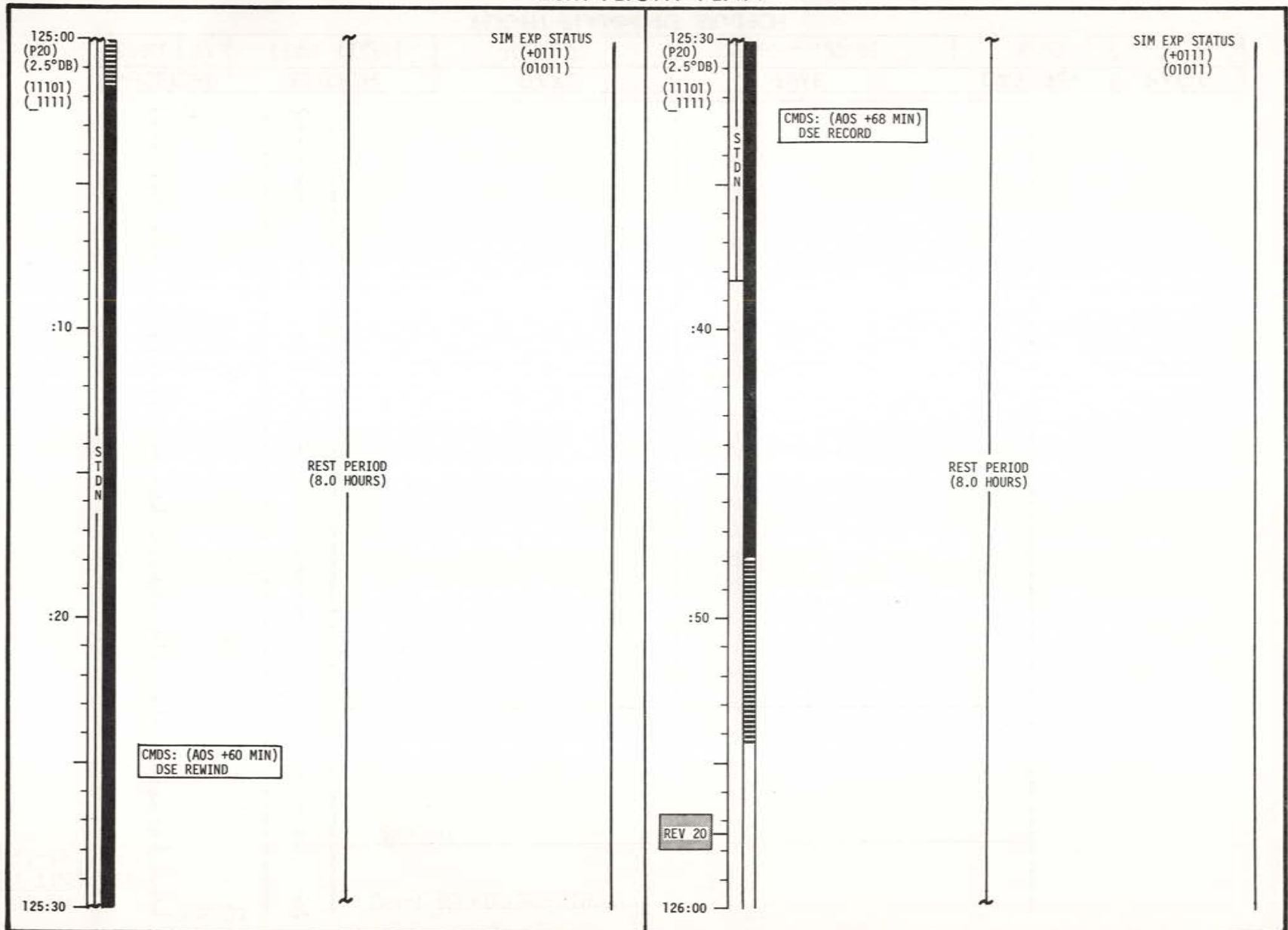
NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	125:00 - 126:00	6/19-20	3-150

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-151

LM FLIGHT PLAN

MCC-H

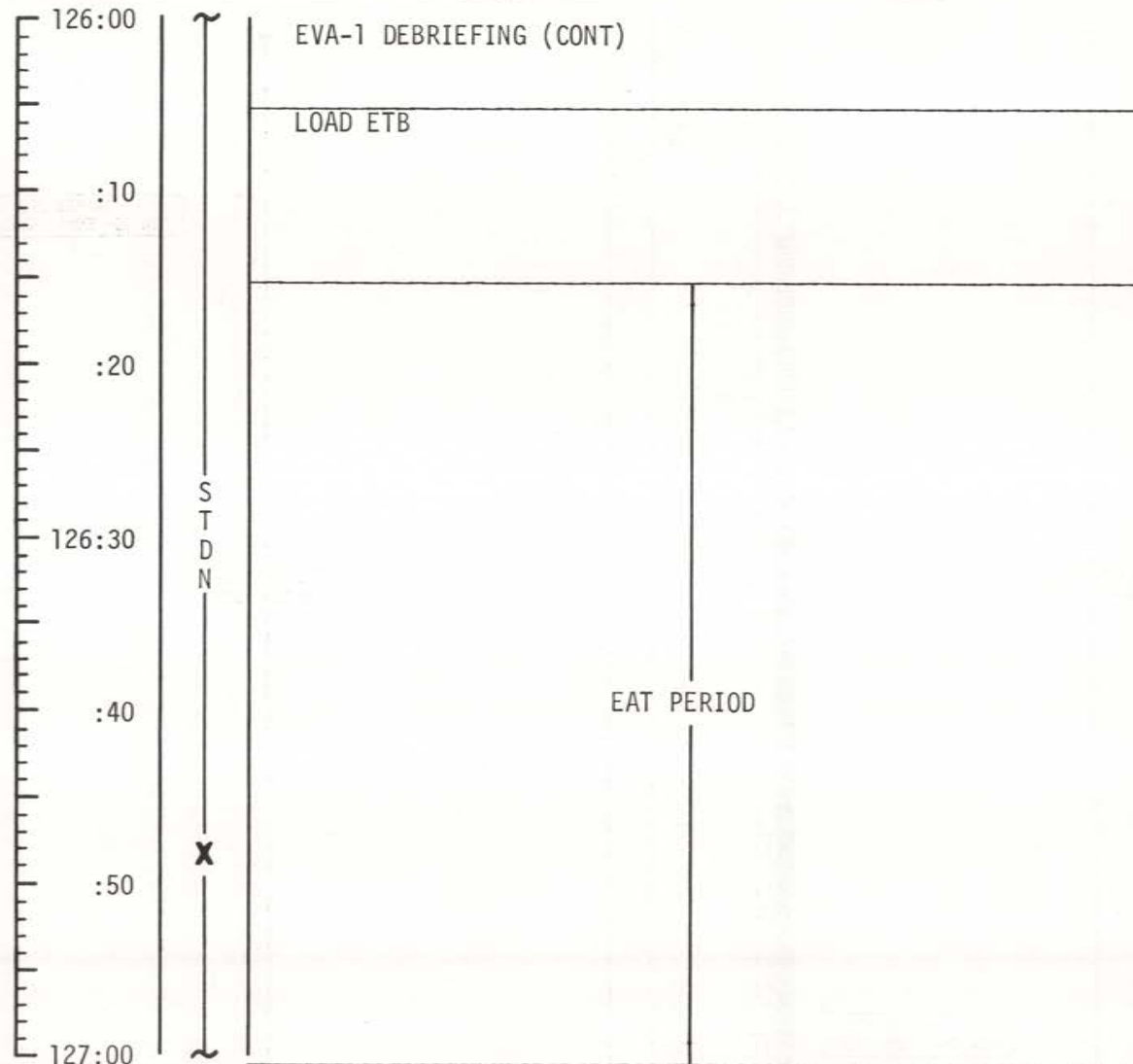
0253 CST

CDR

LMP

NOTES

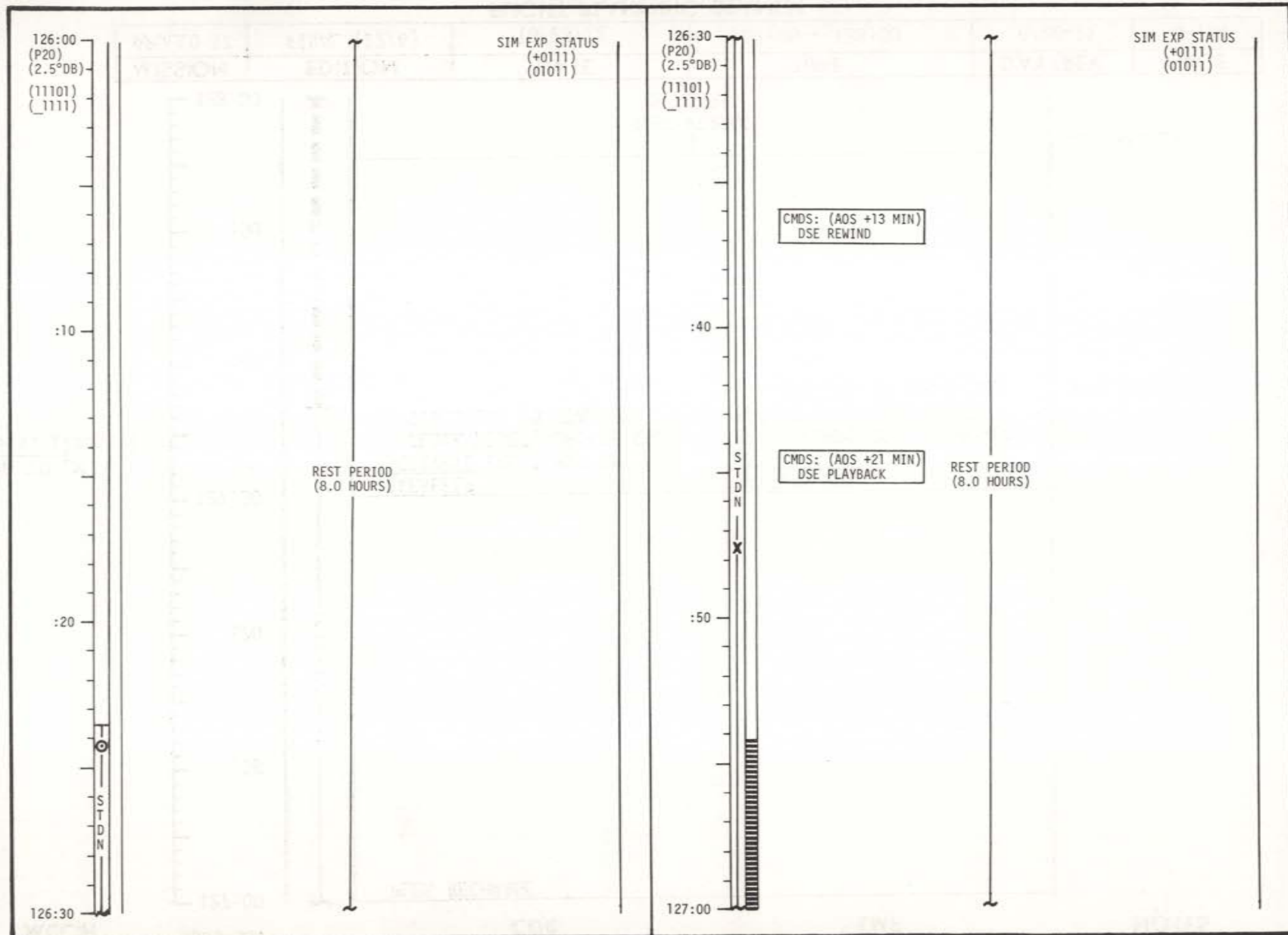
UPDATE TO LM
LIFT-OFF TIMES FOR
REVS 21-25



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	126:00 - 127:00	6/20	3-152

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-153

LM FLIGHT PLAN

MCC-H

0353 CST

CDR

LMP

NOTES

UPLINK TO LM
CSM S.V. (155:15)

127:00
:10
:20
127:30
:40
:50
128:00

STDN

STDN

PLSS RECHARGE

PRESLEEP
ACTIVATE LGC & PWR AMP FOR
CLOCK RESET, UPDATE CSM
S.V., LGC TO STANDBY

BATTERY MGT
BATS 1 & 2 - ON
BAT L (LMP)-OFF, (CDR)-ON
BATS 3 & 4 - OFF/RESET
PWR AMP-OFF ON MCC-H CUE

REST PERIOD
(8 HOURS)

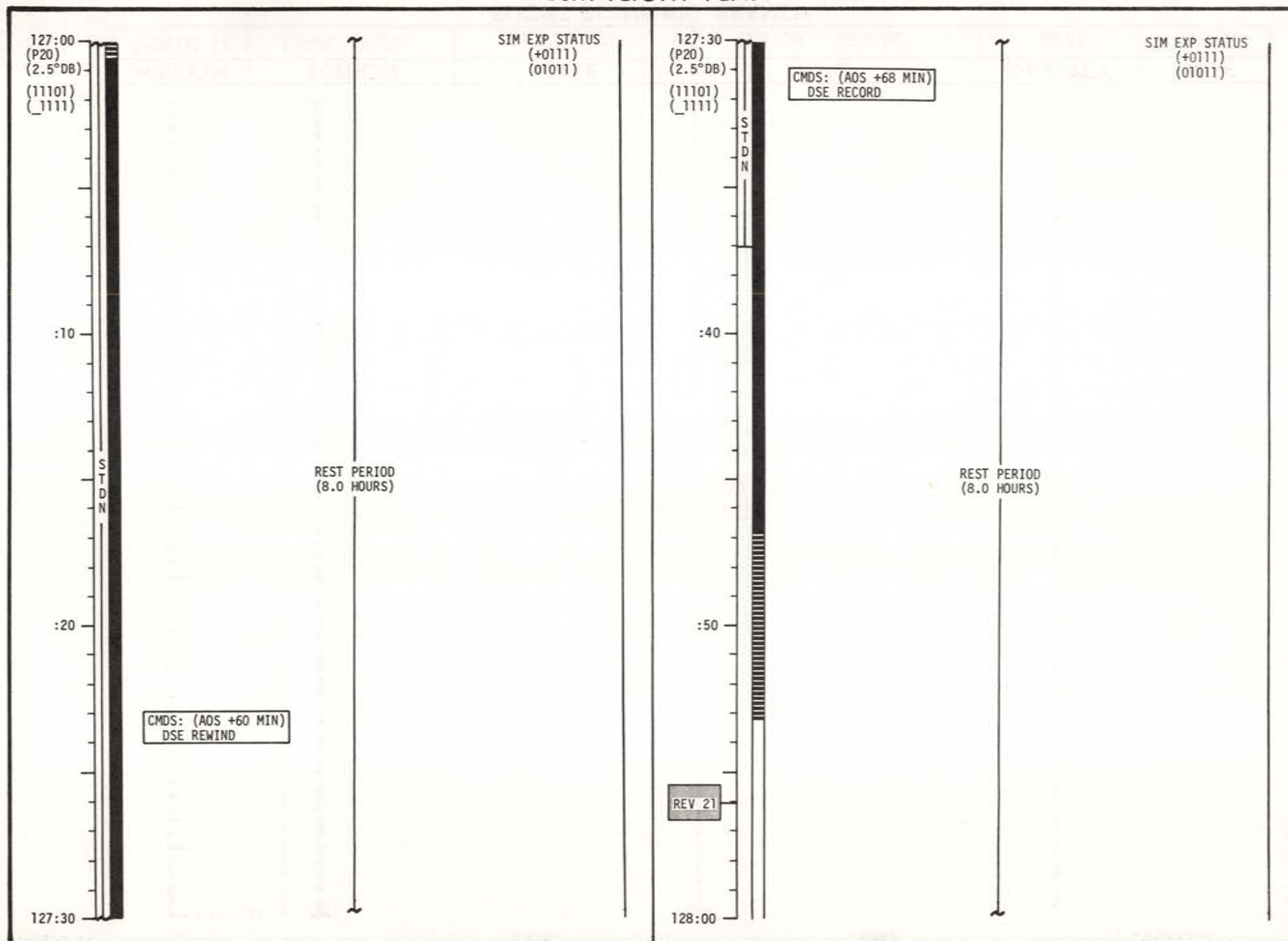
PKS 210' LOS

CSM REV 21

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	127:00 - 128:00	6/20-21	3-154

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
	FINAL (12/6)	10/23/72	3-155

LM FLIGHT PLAN

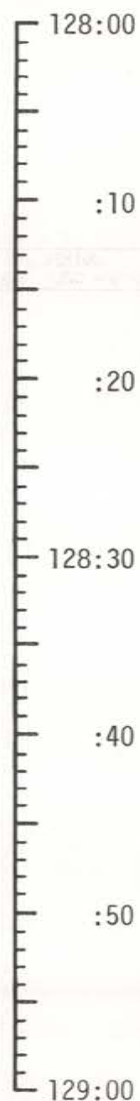
MCC-H

0453 CST

CDR

LMP

NOTES



STDN

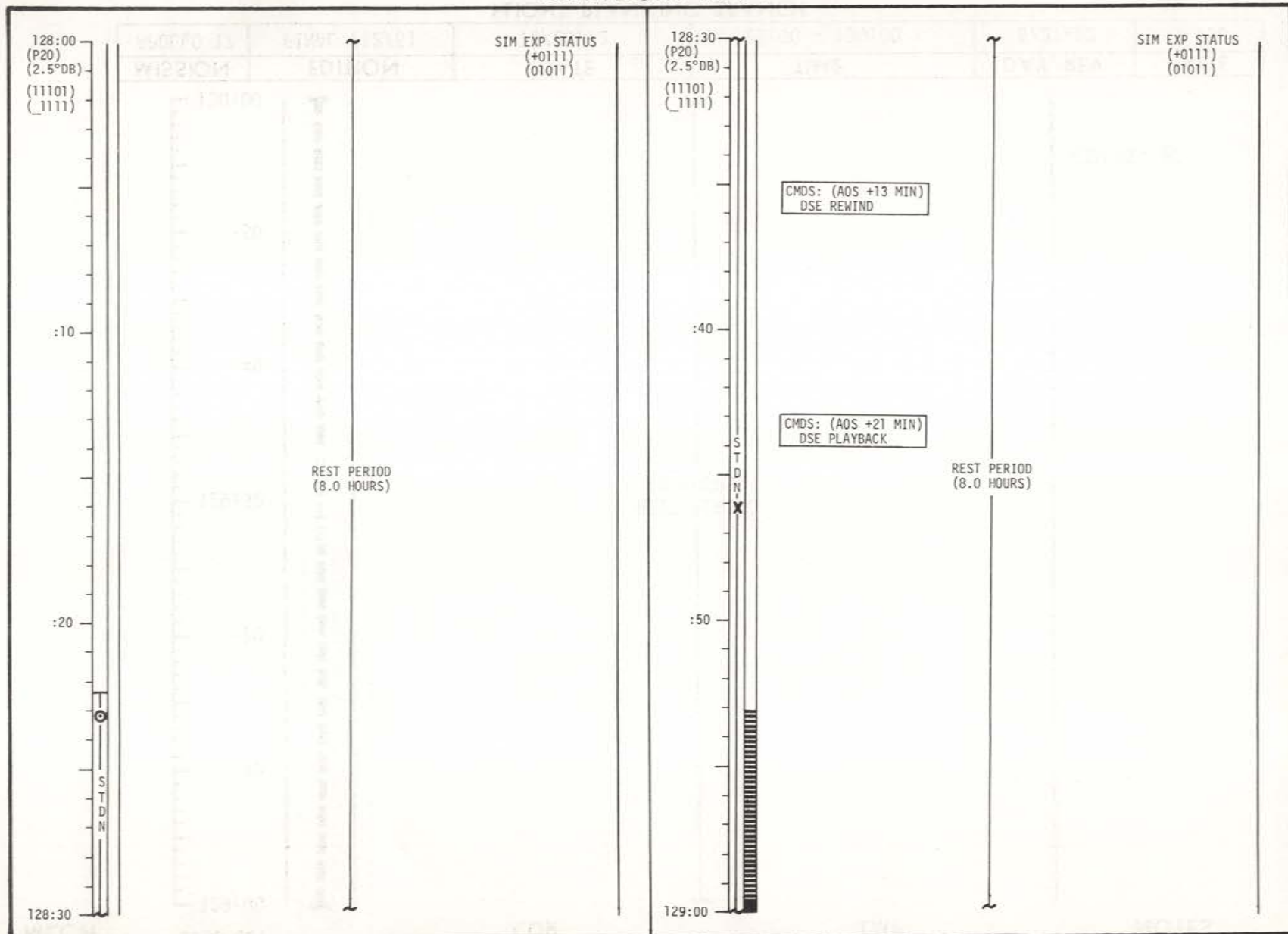
X

REST PERIOD
(8 HOURS)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	128:00 - 129:00	6/21	3-156

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-157

CDR

LMP

NOTES

MCC-H

0553 CST

└ 129:00

:10

:20

• 129:30

:40

:50

130:00

STDN

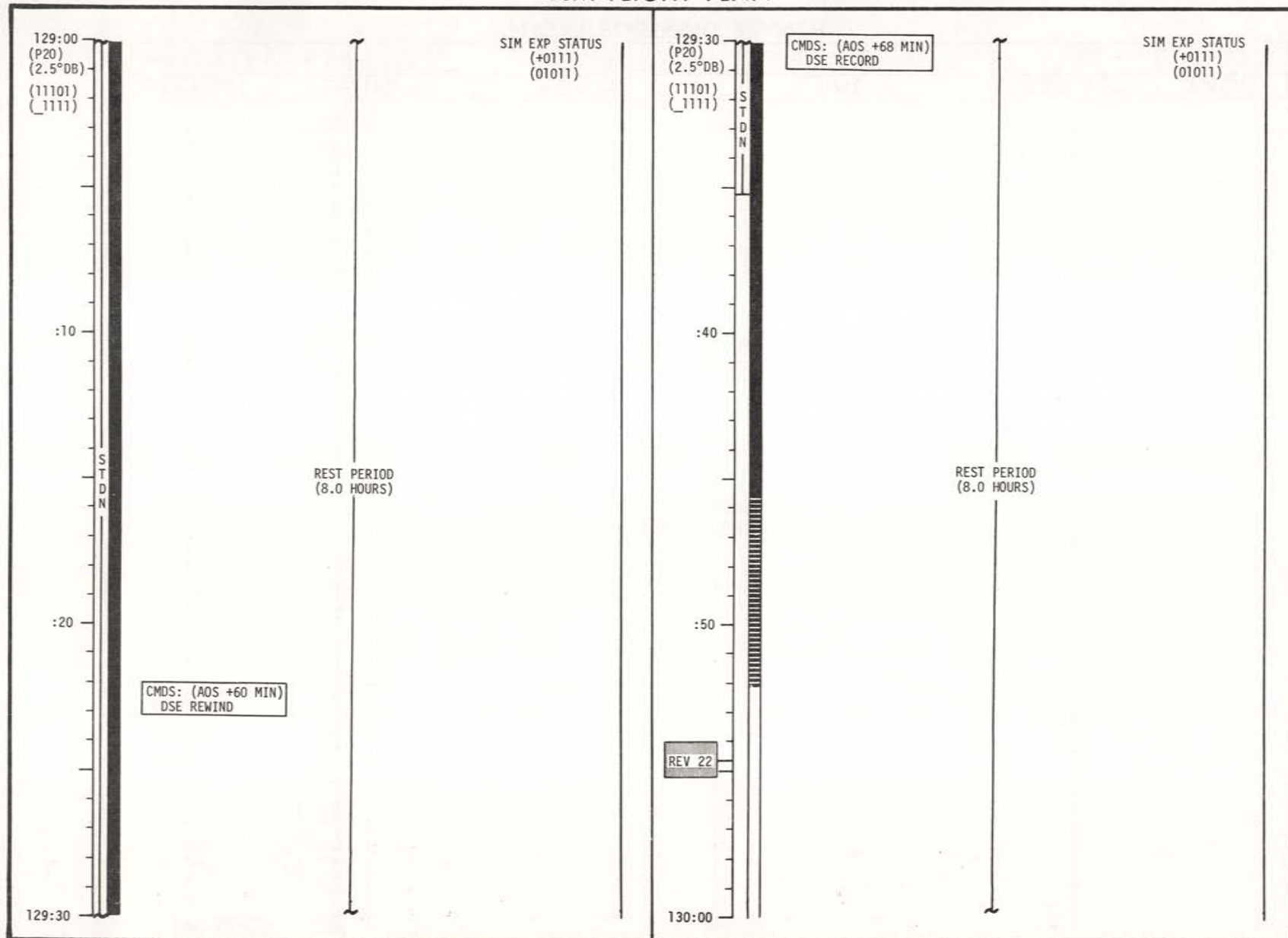
REST PERIOD
(8 HOURS)

CSM REV 22

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	129:00 - 130:00	6/21-22	3-158

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-159

LM FLIGHT PLAN

MCC-H

0653 CST

CDR

LMP

NOTES

130:00
:10
:20
130:30
:40
:50
131:00

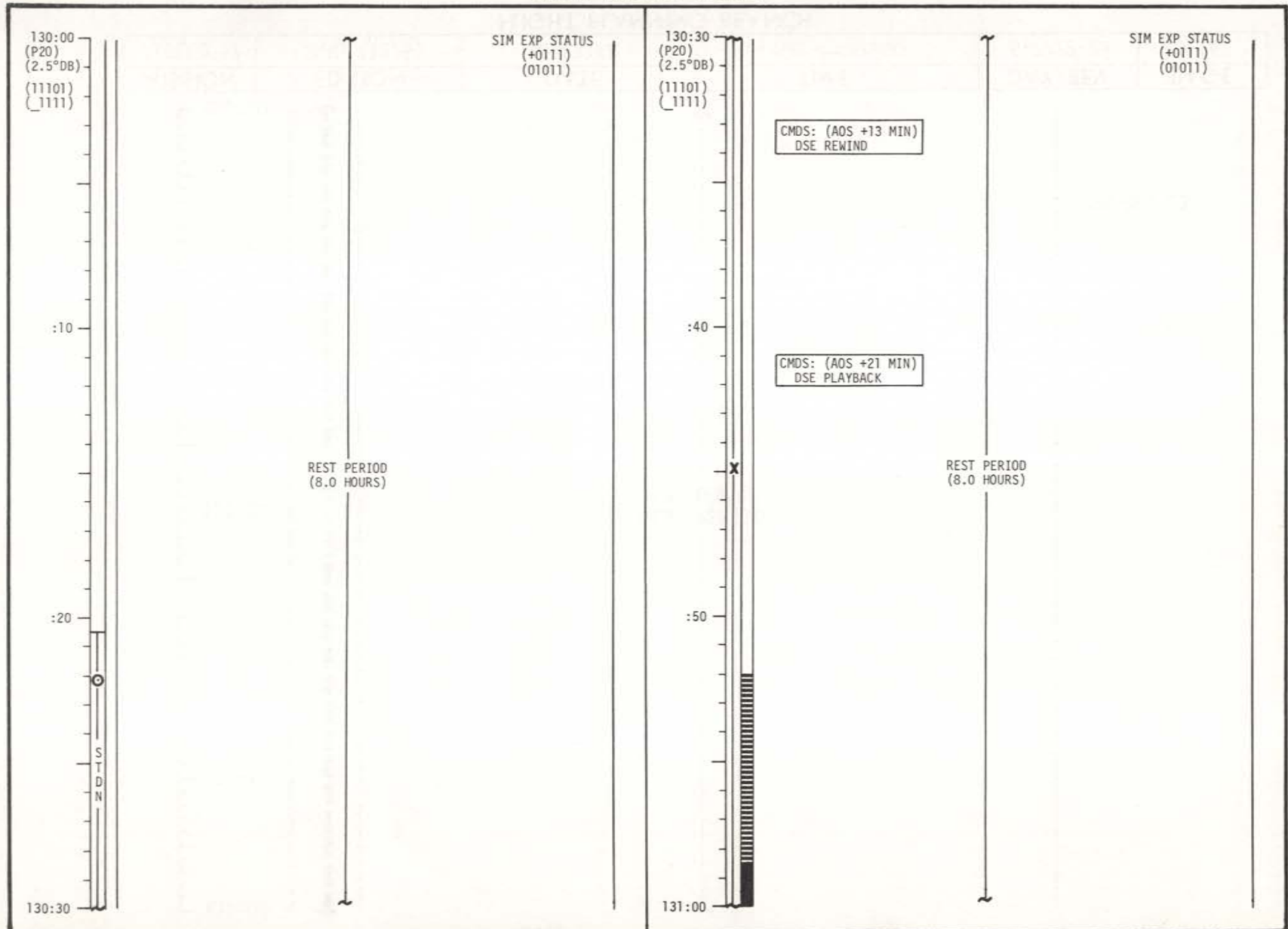
STDN
X

REST PERIOD
(8 HOURS)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	130:00 - 131:00	6/22	3-160

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-161

LM FLIGHT PLAN

MCC-H

0753 CST

CDR

LMP

NOTES



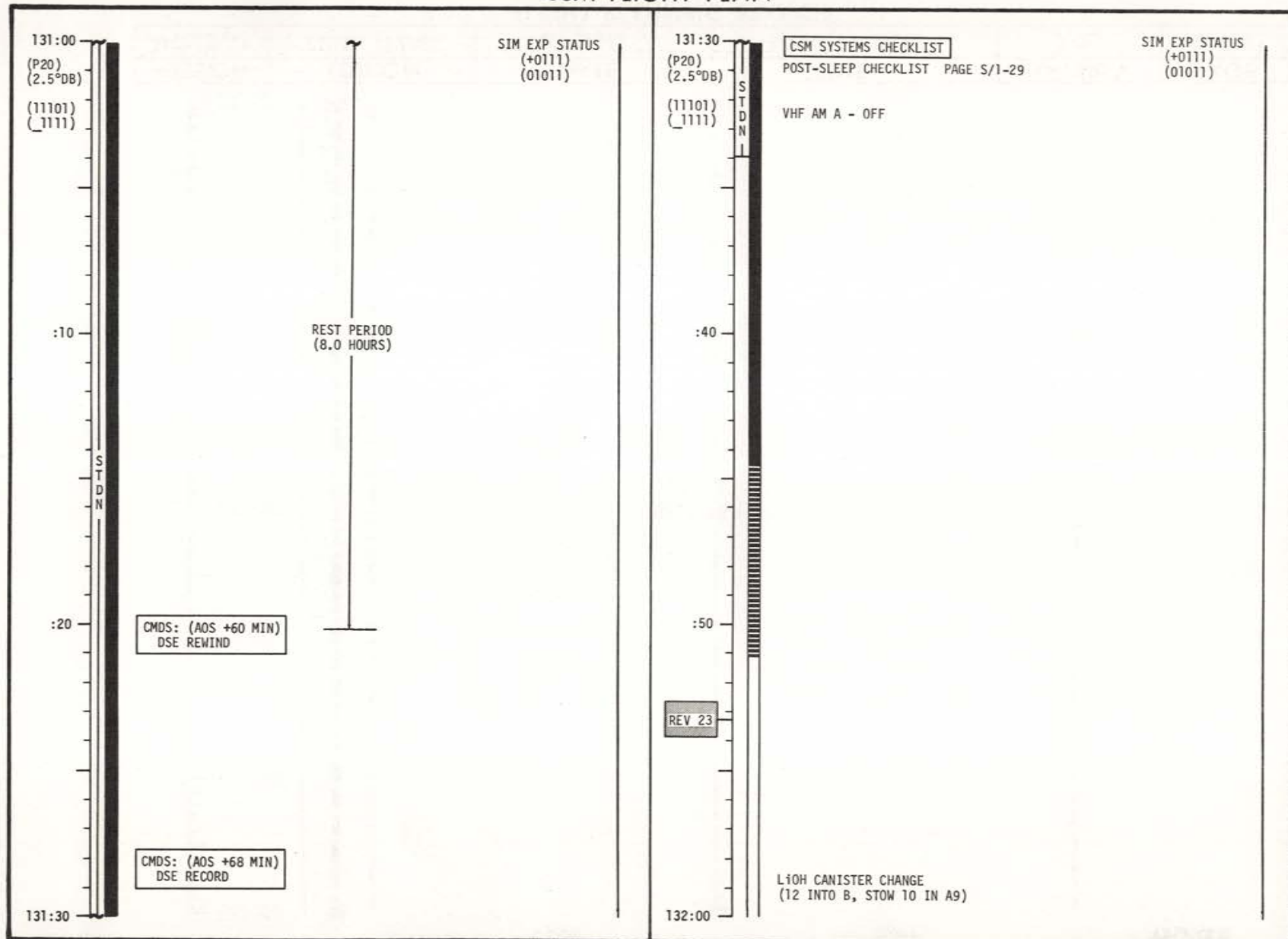
REST PERIOD
(8 HOURS)

CSM REV 23

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	131:00 - 132:00	6-7/22-23	3-162

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-163

LM FLIGHT PLAN

MCC-H

0853 CST

CDR

LMP

NOTES

132:00
:10
:20
132:30
:40
:50
133:00

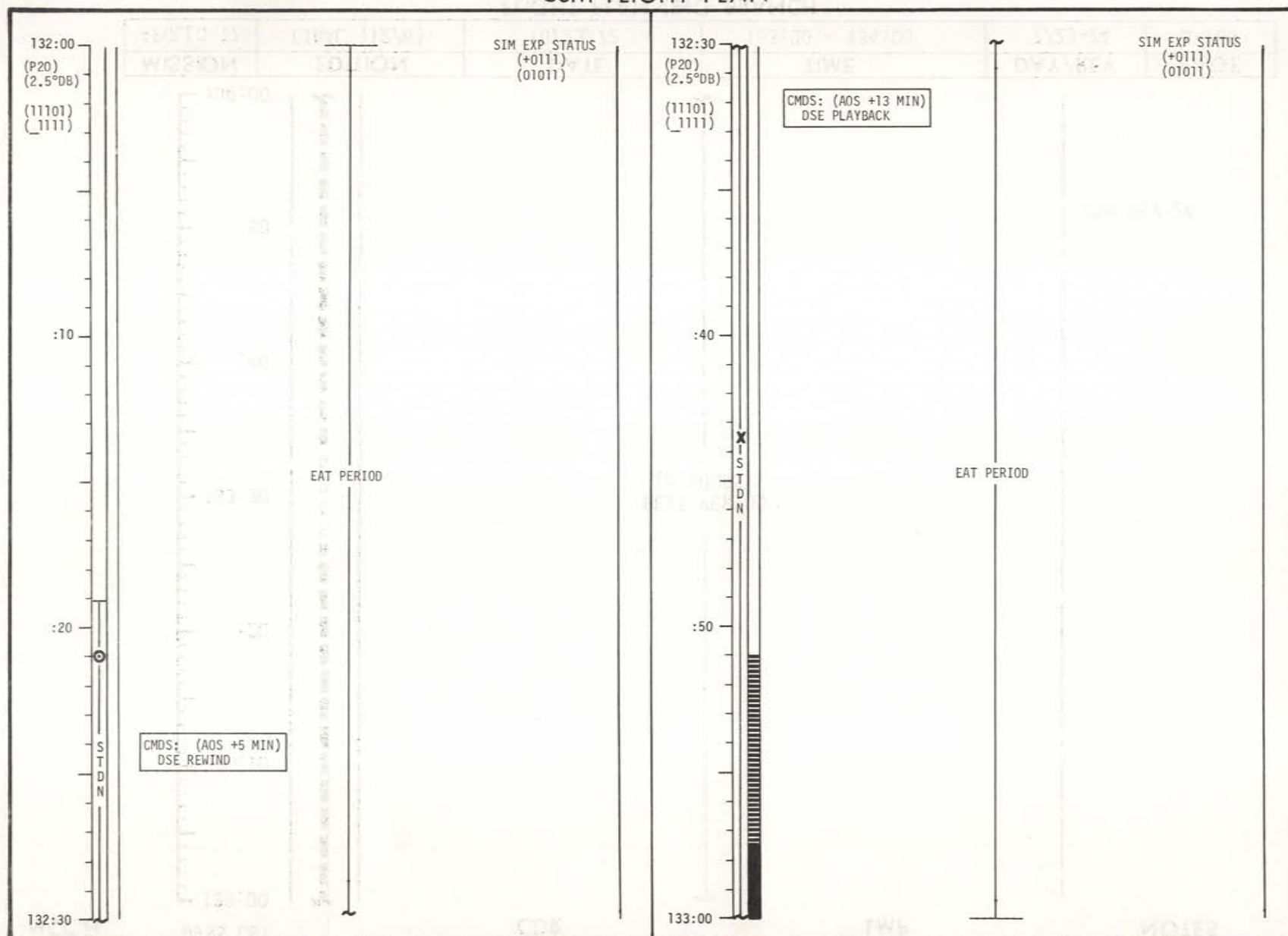
S
T
D
N
X

REST PERIOD
(8 HOURS)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	132:00 - 133:00	7/23	3-164

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (2/6)	10/23/72	3-165

LM FLIGHT PLAN

MCC-H

0953 CST

CDR

LMP

NOTES



REST PERIOD
(8 HOURS)

CSM REV 24

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	133:00 - 134:00	7/23-24	3-166

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN

133:00 (P20) (2.5°DB) (11101) (1111)	START NEW URINE COLLECTION PERIOD TERMINATE JET-ON MONITOR P30 V21N26 (00000) CMC MODE - FREE P52 (OPTION 3) (LDG SITE ORIENT) REPORT: <u>GYRO TORQUING</u> <u>ANGLES</u> P20 V22N79 (+000.50) CMC MODE - AUTO GDC ALIGN MC/LA COVER - OPEN MC - EXTD UPDATE: CONSUMABLES STATUS FLIGHT PLAN SIM EXP STATUS ZODIACAL LIGHT PHOTO PAD UPLINK: CSM S.V. CMDS: (AOS +60 MIN) DSE REWIND CSM EXP/EVA CHECKLIST ZODIACAL LIGHT, RED FILTER, PAGE X/2-13 MAG (XX) CMDS: (AOS +68 MIN) DSE RECORD VERIFY DSE TAPE MOTION (HBR/RCD/FWD/CMD RESET)	SIM EXP STATUS (+0111) (01011)	P52 IMU REALIGN N71: _____ N05: _____ N93: _____ X _____ Y _____ Z _____ GET _____ ZODIACAL LIGHT PHOTO PAD(SR) T-START: _____ (SUNRISE - 15 MIN) 133:30 (P20) (0.5°DB) (11101) (1111)	SIM EXP STATUS (+1111) (01011)
--	--	--------------------------------------	---	--------------------------------------

133:30
(P20)
(0.5°DB)
:10

S
T
D
N

:20

133:30

133:30
(P20)
(0.5°DB)
(11101)
(1111)

S
T
D
N

:40

:50

134:00

SET HGA: MAN, WIDE P -10, Y 25, FOR AOS

LA - ON
 IMAGE MTN - ON
 MC - ON (168°W)
 IMAGE MTN - INCR (BP +4 STEPS)/ON

REV 24

ZODIACAL LIGHT

LM FLIGHT PLAN

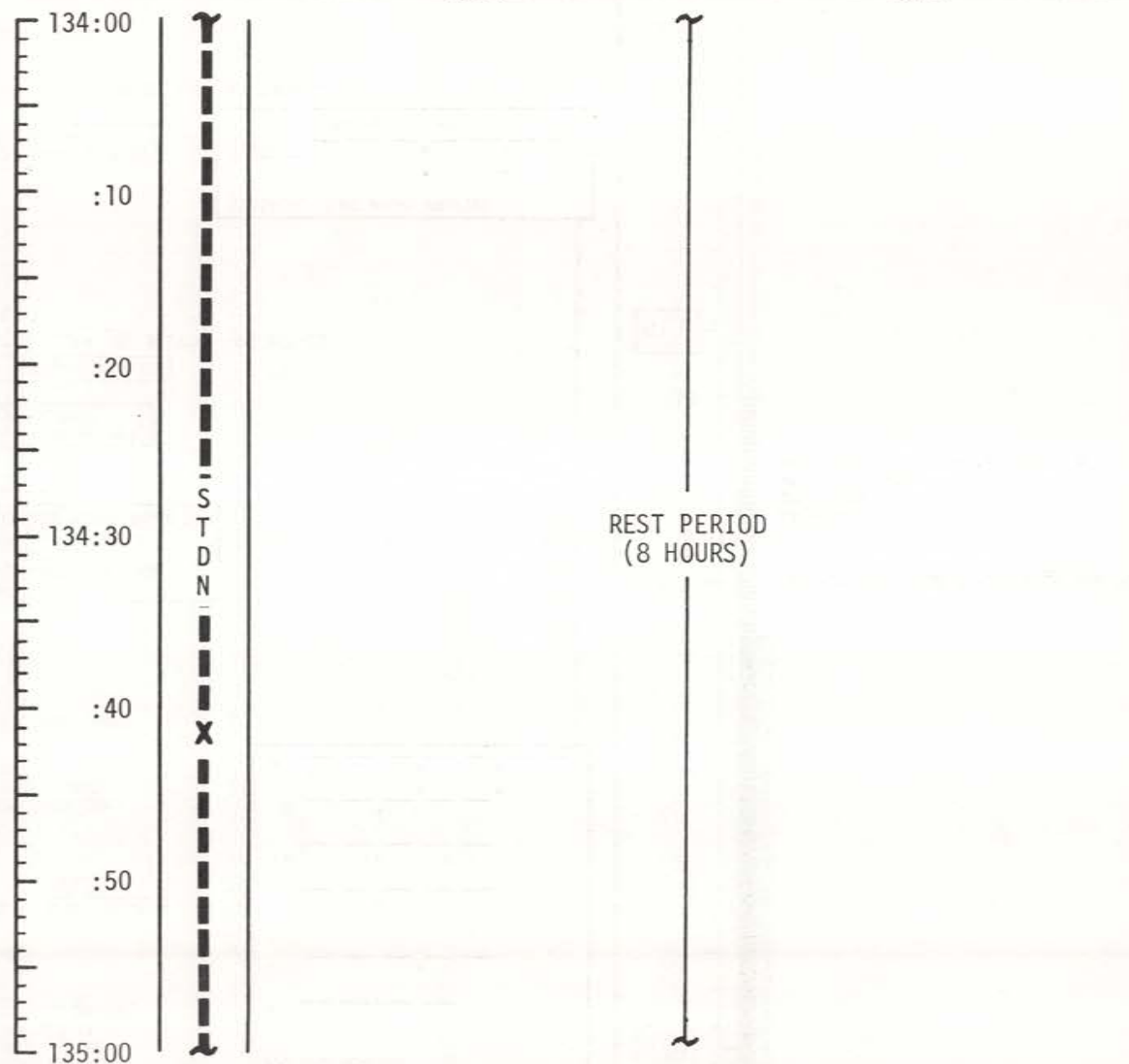
MCC-H

1053 CST

CDR

LMP

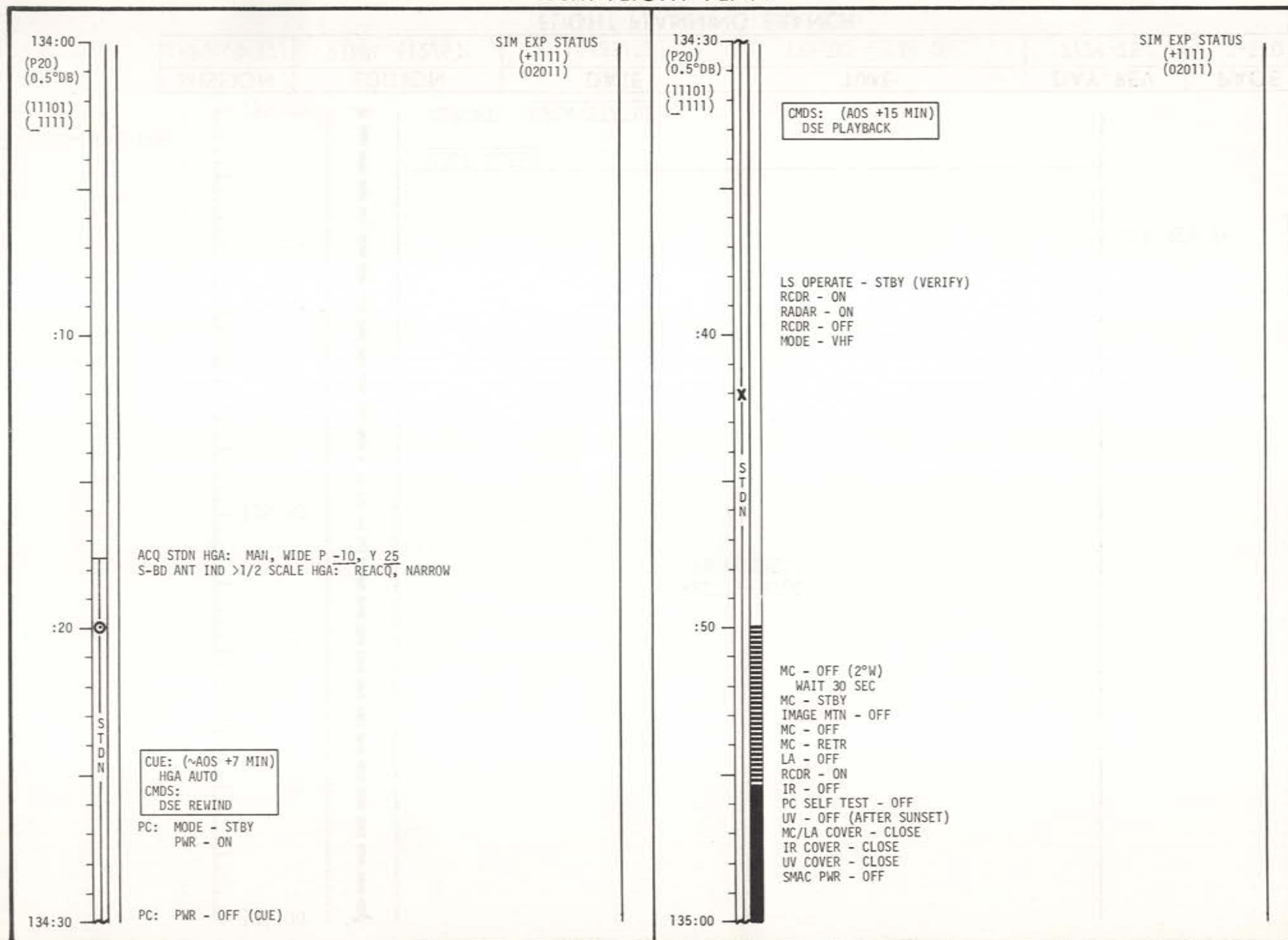
NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	134:00 - 135:00	7/24	3-168

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-169

LM FLIGHT PLAN

MCC-H

1153 CST

CDR

LMP

NOTES

135:00
:10
:20
135:30
:40
:50
136:00

S
T
D
N

REST PERIOD
(8 HOURS)

CSM REV 25

STAY/NO-STAY FOR
EVA-2

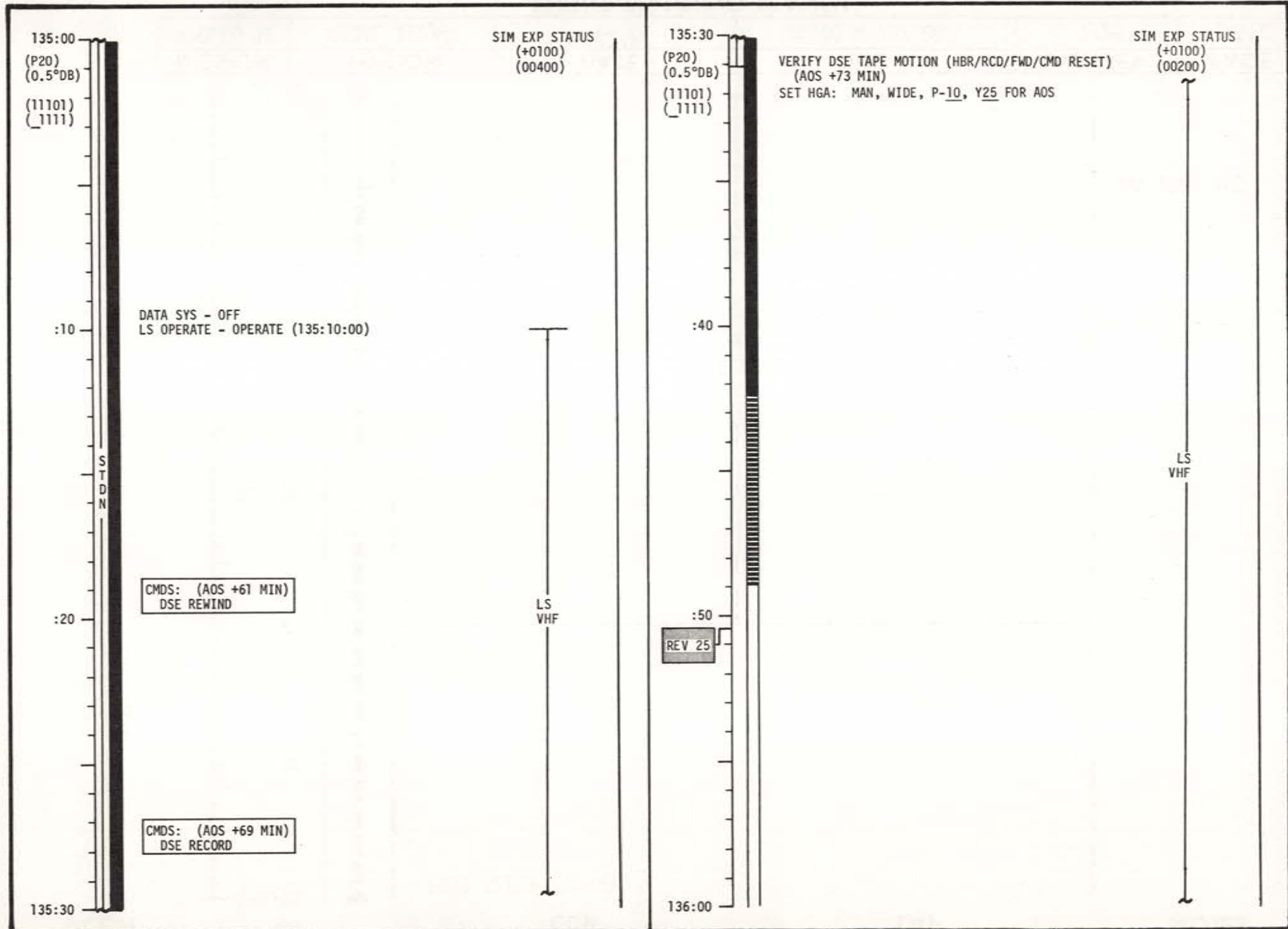
POST SLEEP

REPORT: CREW STATUS

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	135:00 - 136:00	7/24-25	3-170

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-171

LM FLIGHT PLAN

MCC-H

1253 CST

CDR

LMP

NOTES

UPDATE TO LM
LIFT-OFF TIMES FOR
REVS 26-32

136:00
:10
:20
136:30
:40
:50
137:00

Y
STD
N
X

POST SLEEP (CONT)

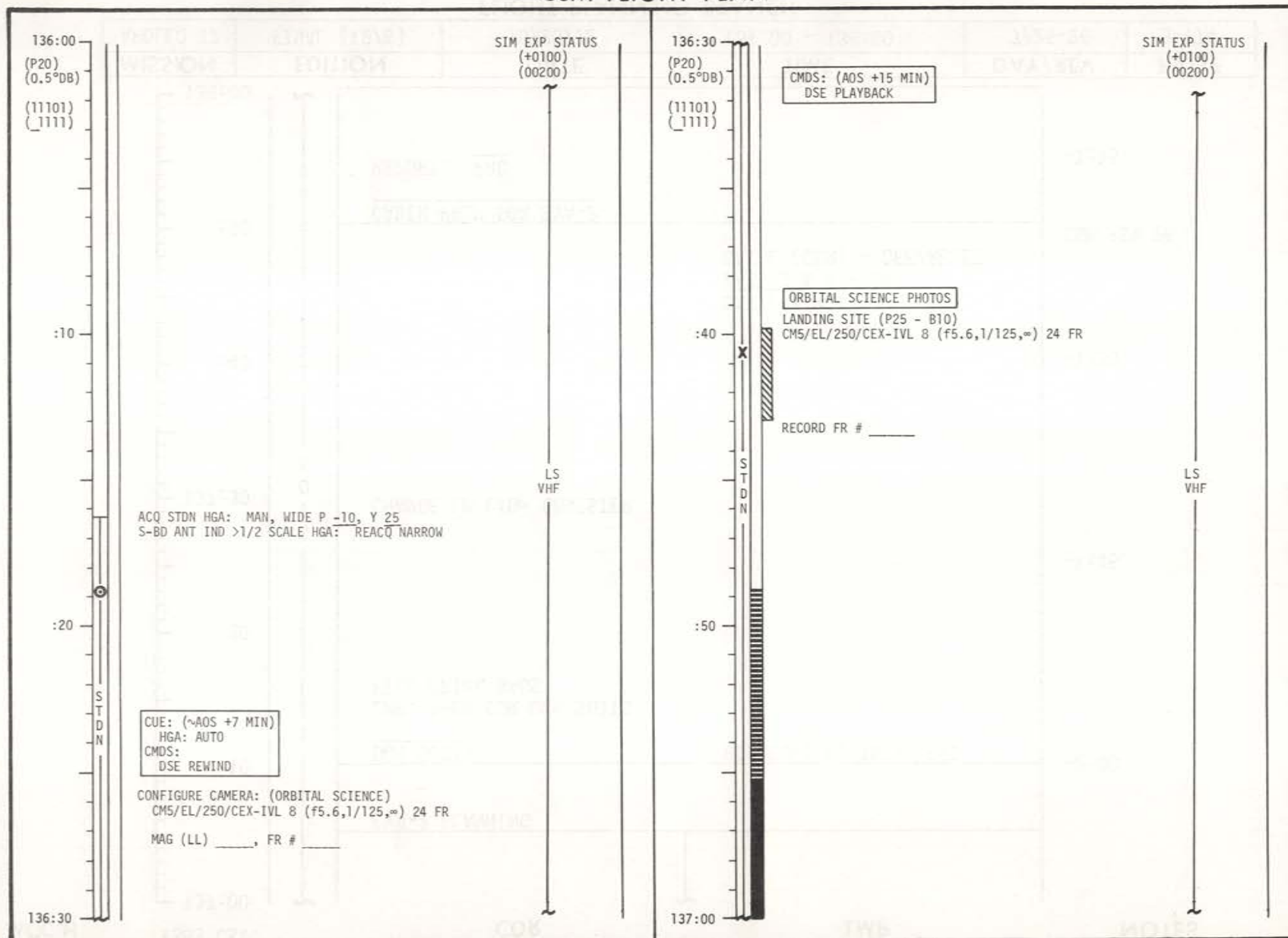
EAT PERIOD

GDS 210' AOS

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	136:00 - 137:00	7/25	3-172

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-173

LM FLIGHT PLAN

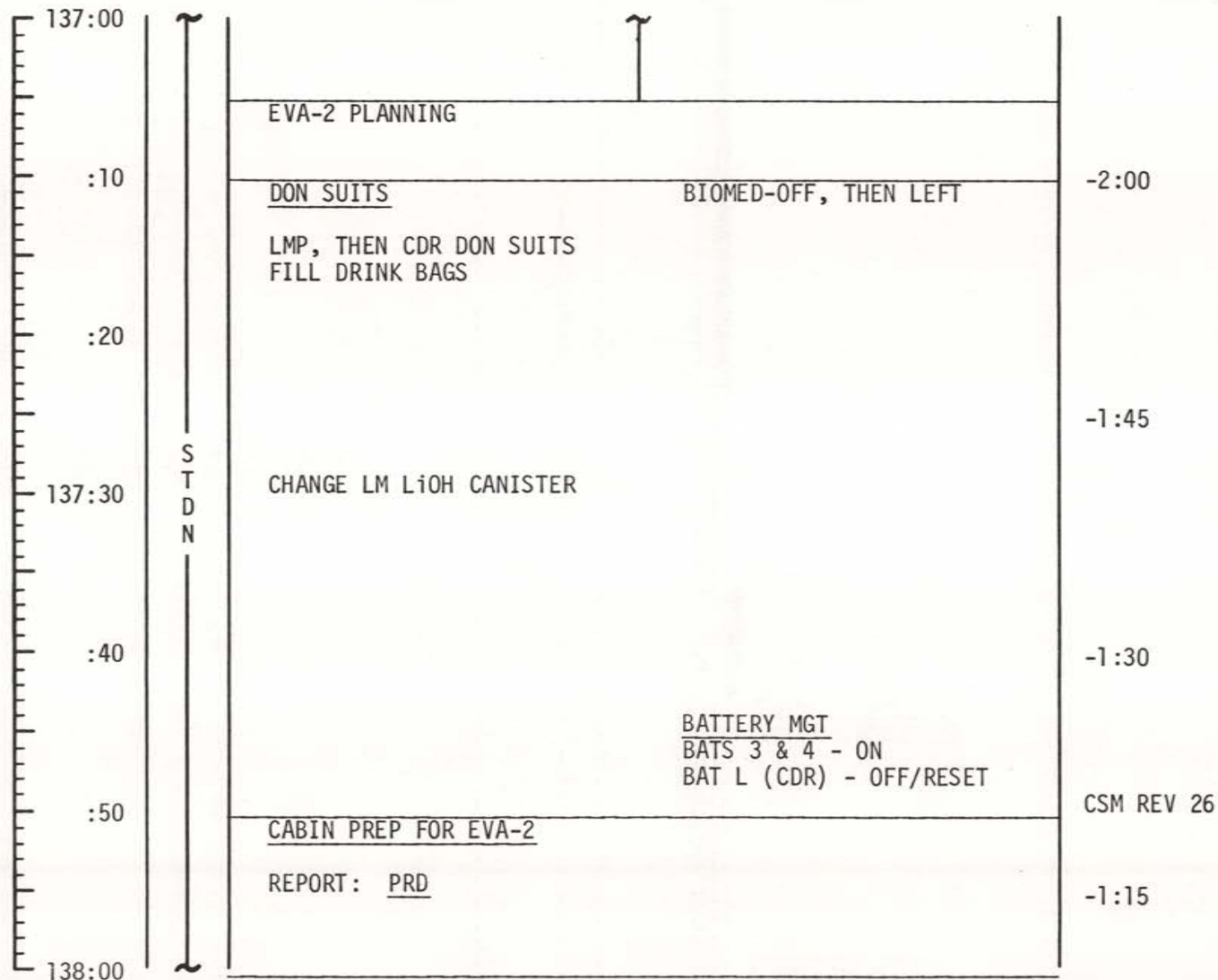
MCC-H

1353 CST

CDR

LMP

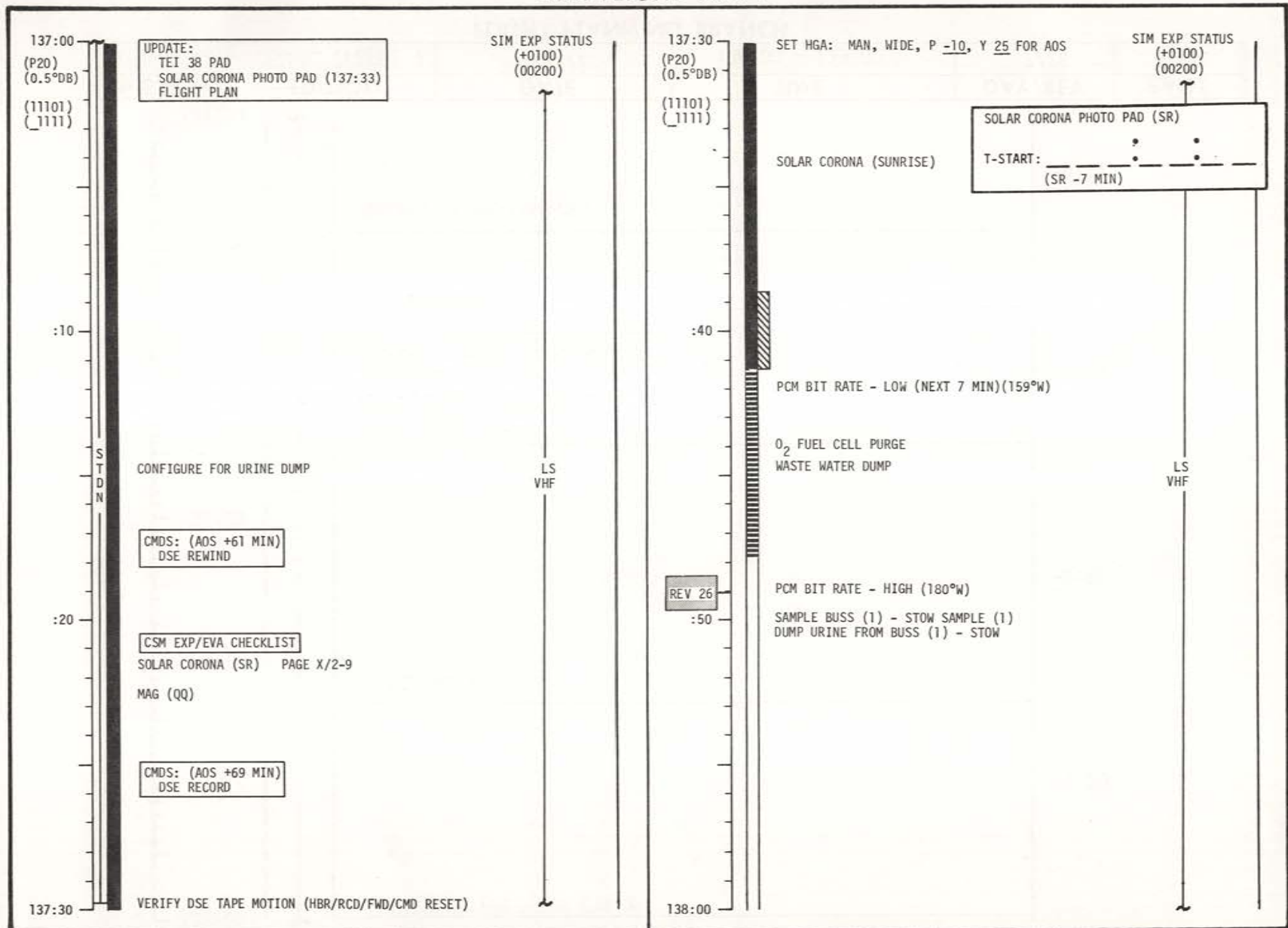
NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	137:00 - 138:00	7/25-26	3-174

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-175

LM FLIGHT PLAN

MCC-H

1453 CST

CDR

LMP

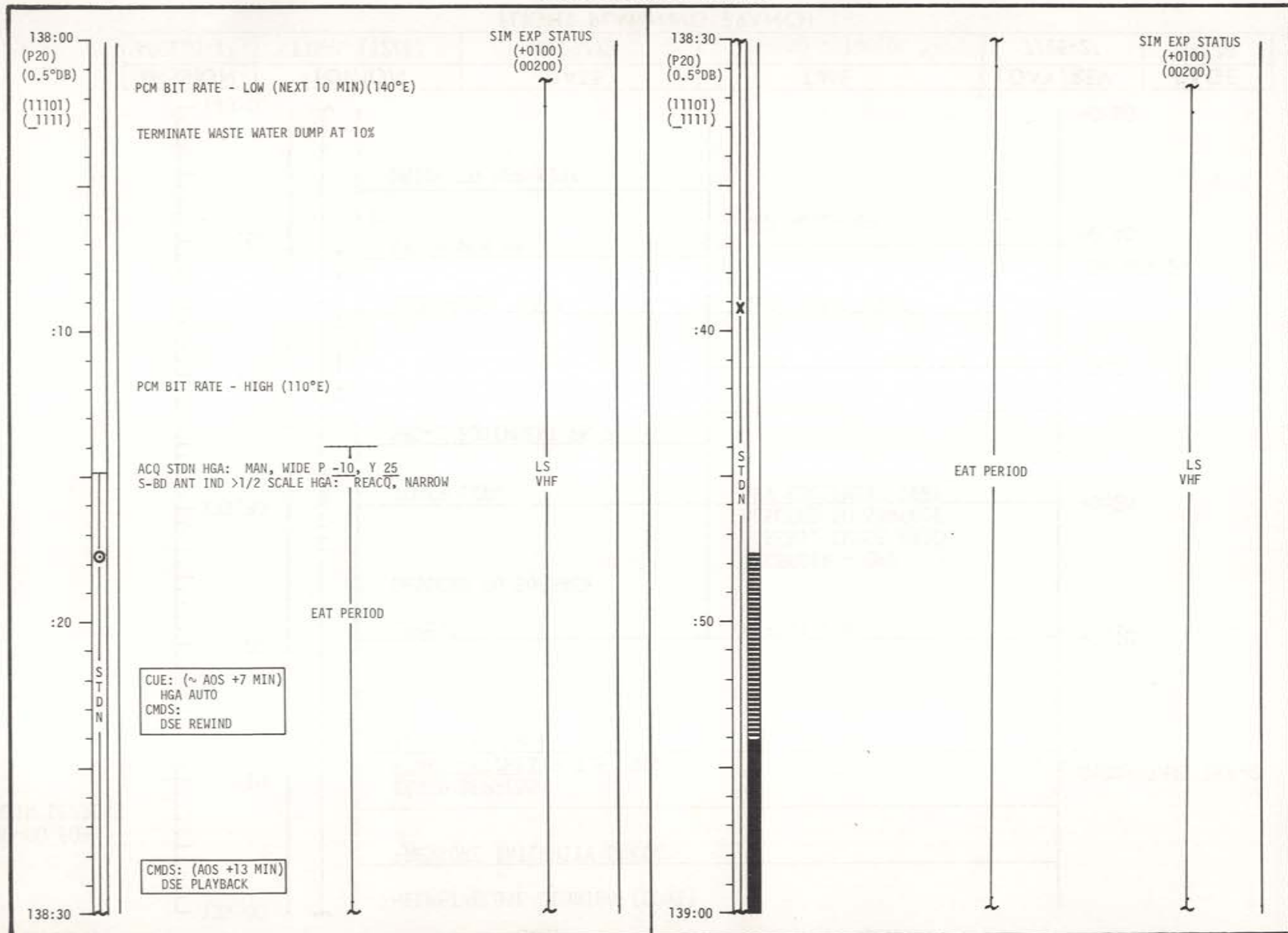
NOTES

138:00	S T D N X	EQUIPMENT PREP FOR EVA-2	-1:00
:10			
:20		PLSS DONNING	-0:45
138:30			
:40		PLSS COMM CHECK CONFIGURE COMM FOR EVA RECORDER - ON REPORT: <u>PLSS O₂ QUANTITY</u>	-0:30
:50		OPS CONNECT	
139:00		HELMET/GLOVE DONNING	-0:15

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	138:00 - 139:00	7/26	3-176

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-177

LM FLIGHT PLAN

MCC-H

1553 CST

CDR

LMP

NOTES

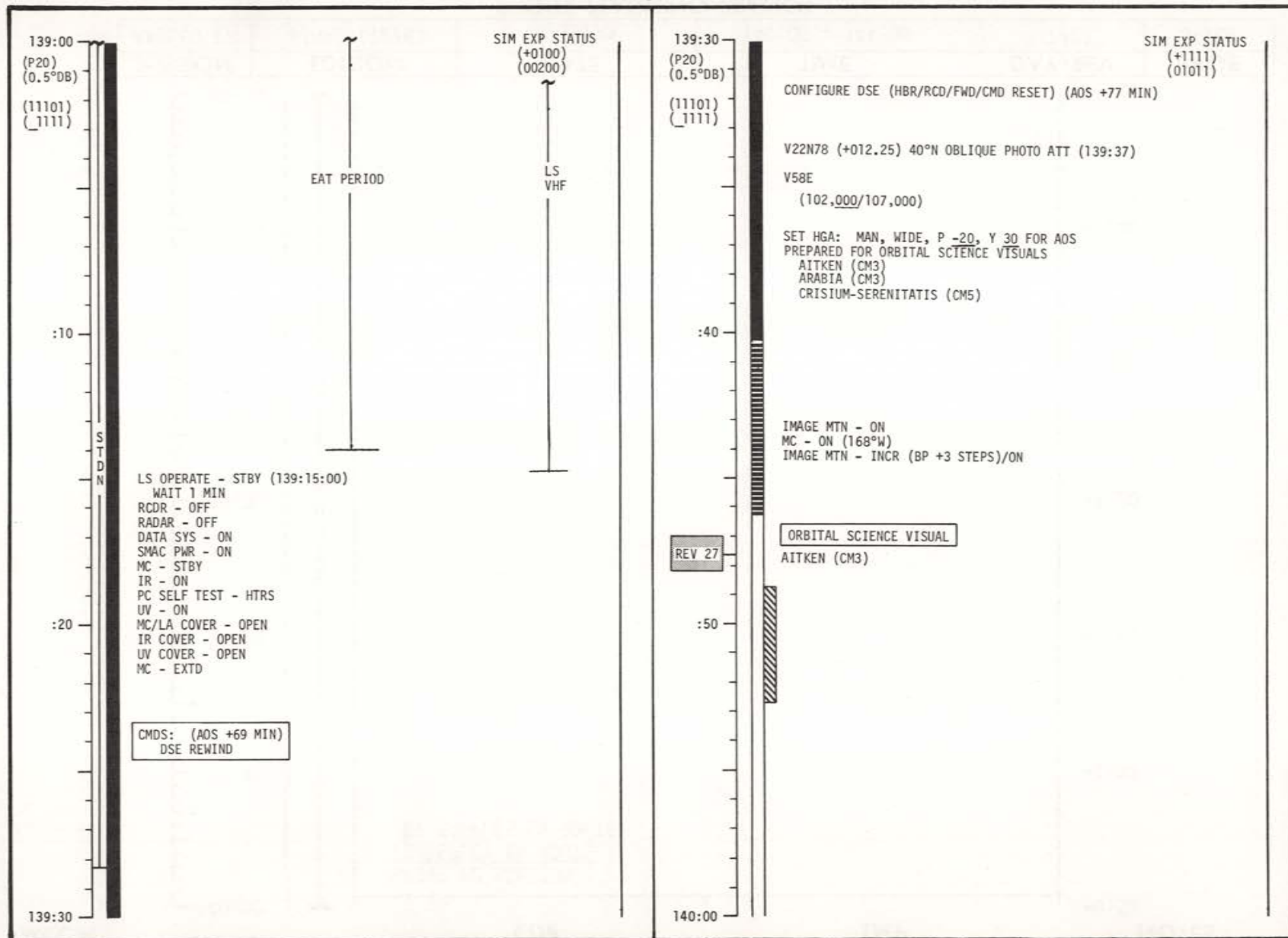
GO/NO-GO FOR
CABIN DEPRESS

139:00	S T D N T I V I T Y	HELMET/GLOVE DONNING (CONT)		
		PRESSURE INTEGRITY CHECK		
:10		CABIN DEPRESS START WATCHES @ 3.5 PSIA		0:00/START EVA-2
		FINAL EVA PREP		
:20		EGRESS	ASSIST CDR	+0:10
		DESCEND TO SURFACE	RECORDER - OFF EGRESS, CLOSE HATCH DESCEND TO SURFACE	
139:30		POWER LCRU	LRV EQUIPMENT PREP	+0:20
		SRC-2 EQUIPMENT PREP	PHOTO PAN	
:40		GEOLOGICAL PREP	GEOLOGICAL PREP	+0:30
		LRV POWER UP	SEP POWER UP	
:50		DRIVE TO SEP SITE		CSM REV 27 +0:40
140:00				+0:50

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	139:00 - 140:00	7/26-27	3-178

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-179

LM FLIGHT PLAN

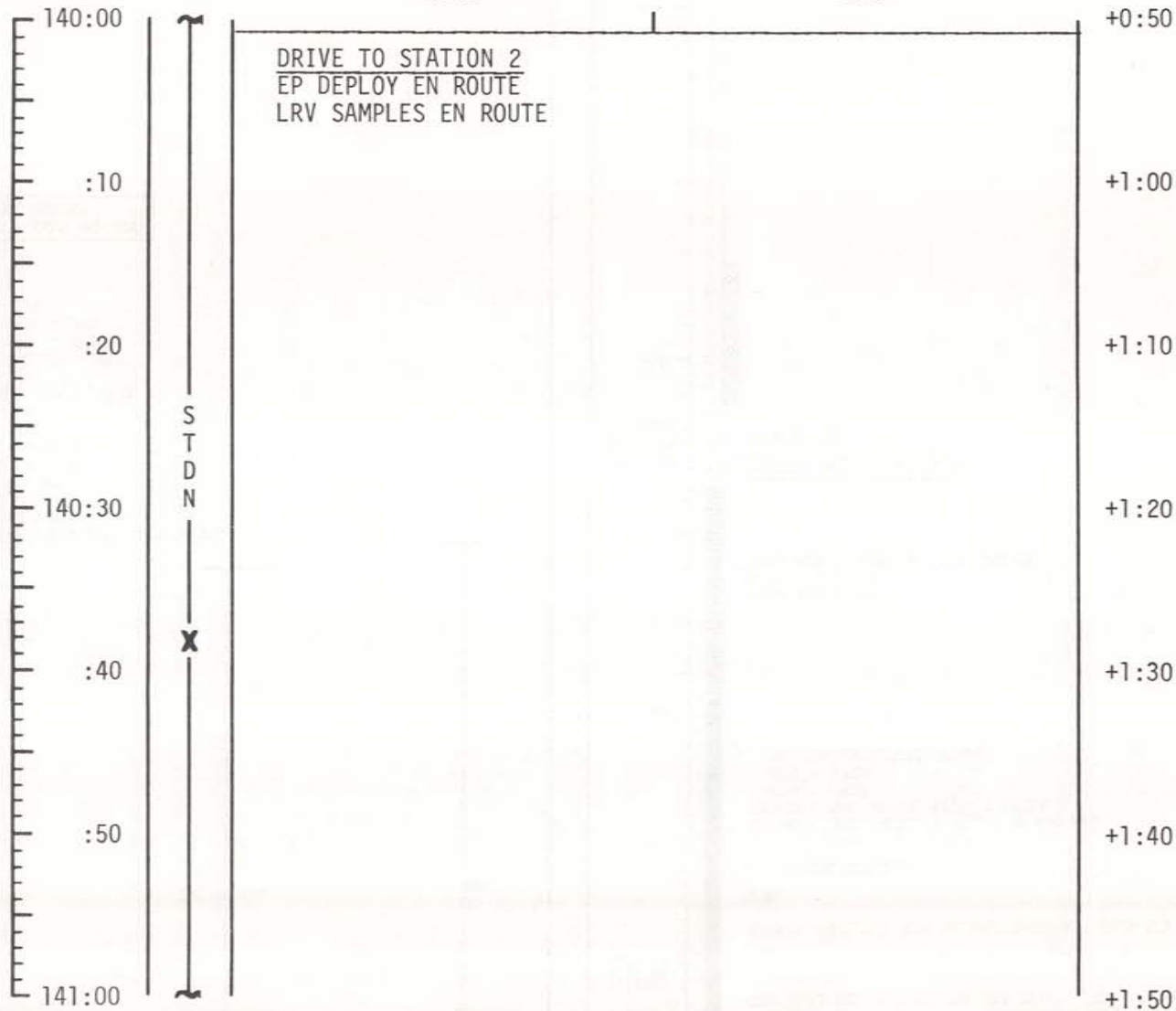
MCC-H

1653 CST

CDR

LMP

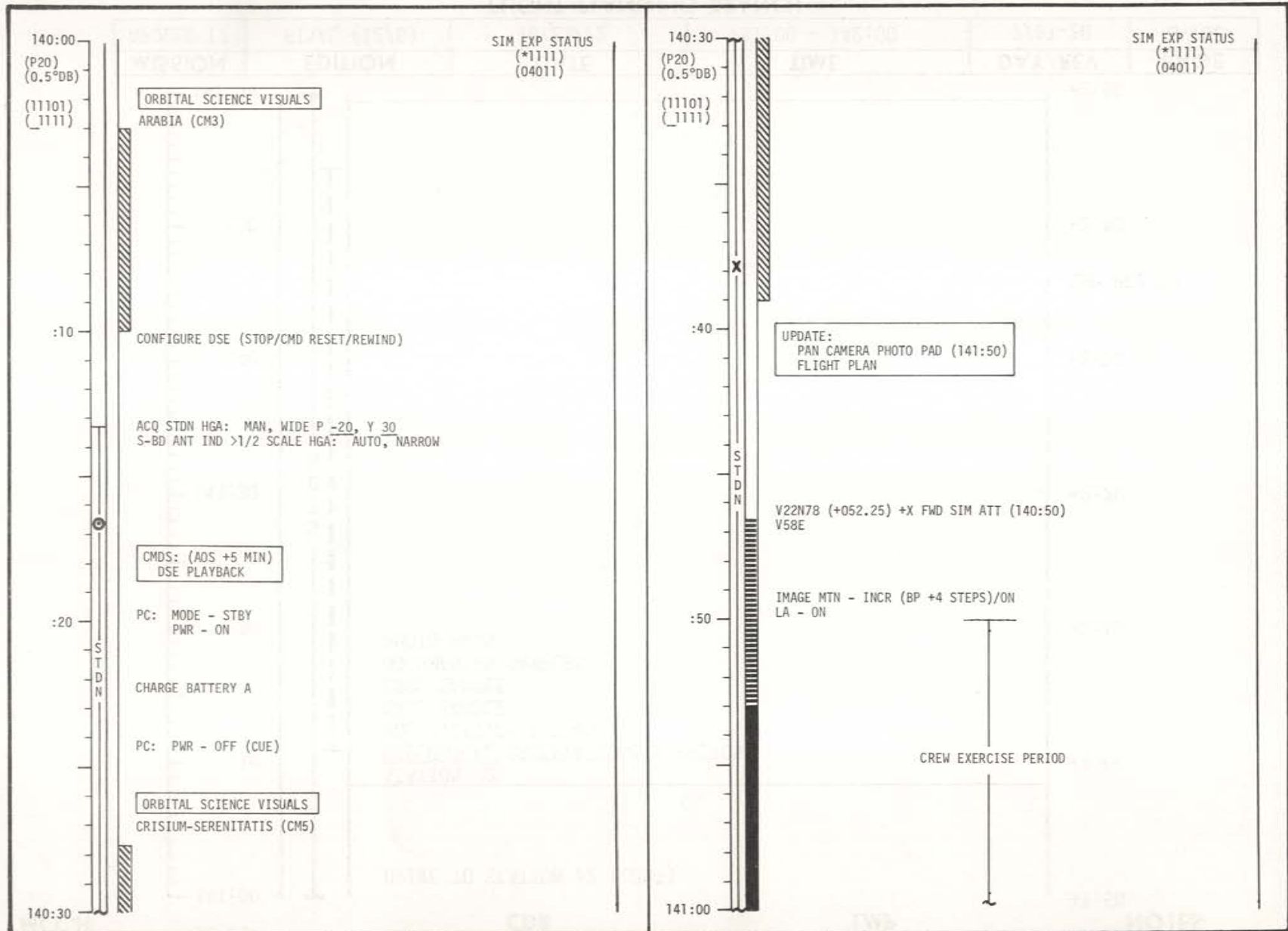
NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	140:00 - 141:00	7/27	3-180

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-181

MCC-H

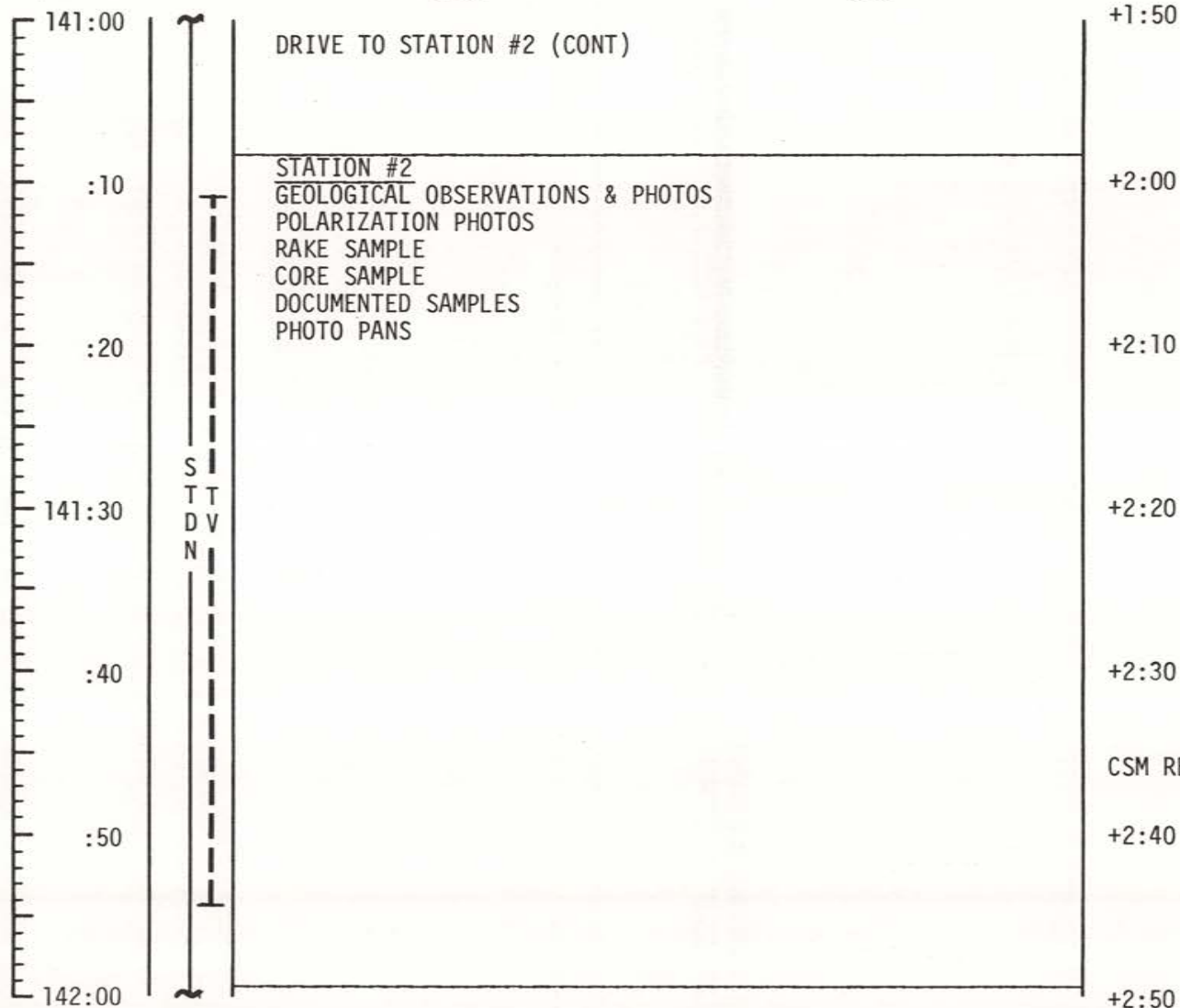
1753 CST

LM FLIGHT PLAN

CDR

LMP

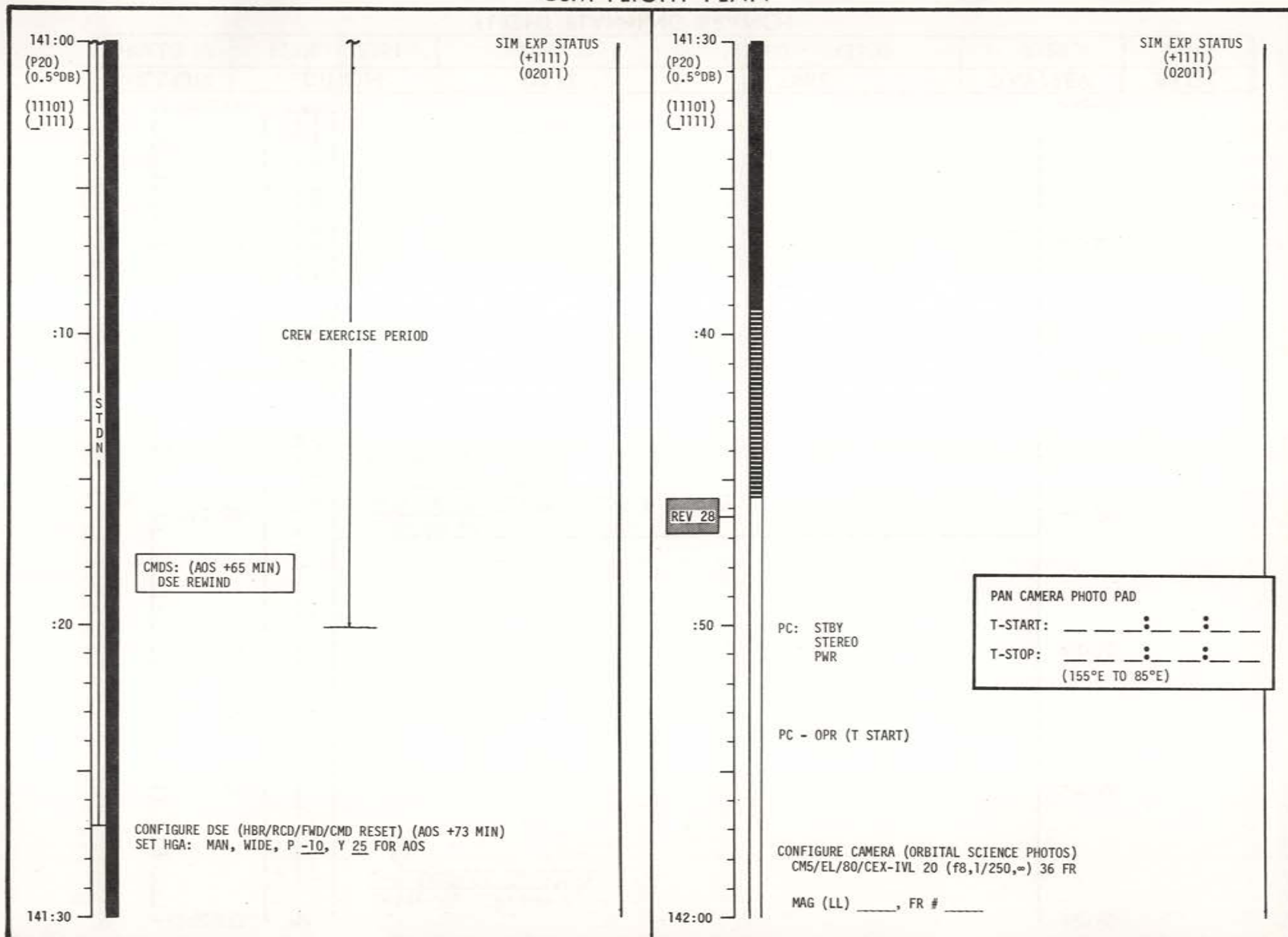
NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	141:00 - 142:00	7/27-28	3-182

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-183

LM FLIGHT PLAN

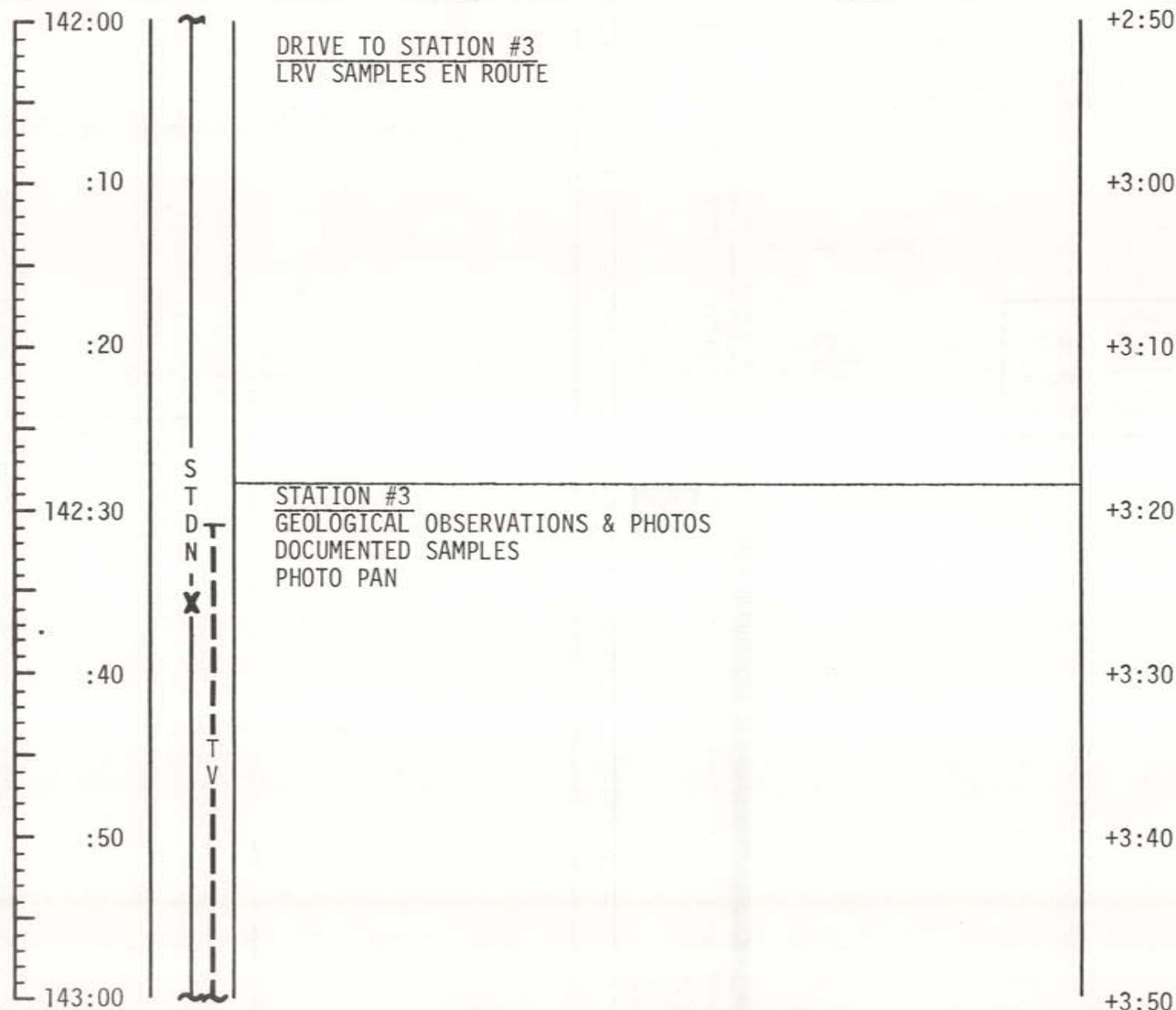
MCC-H

1853 CST

CDR

LMP

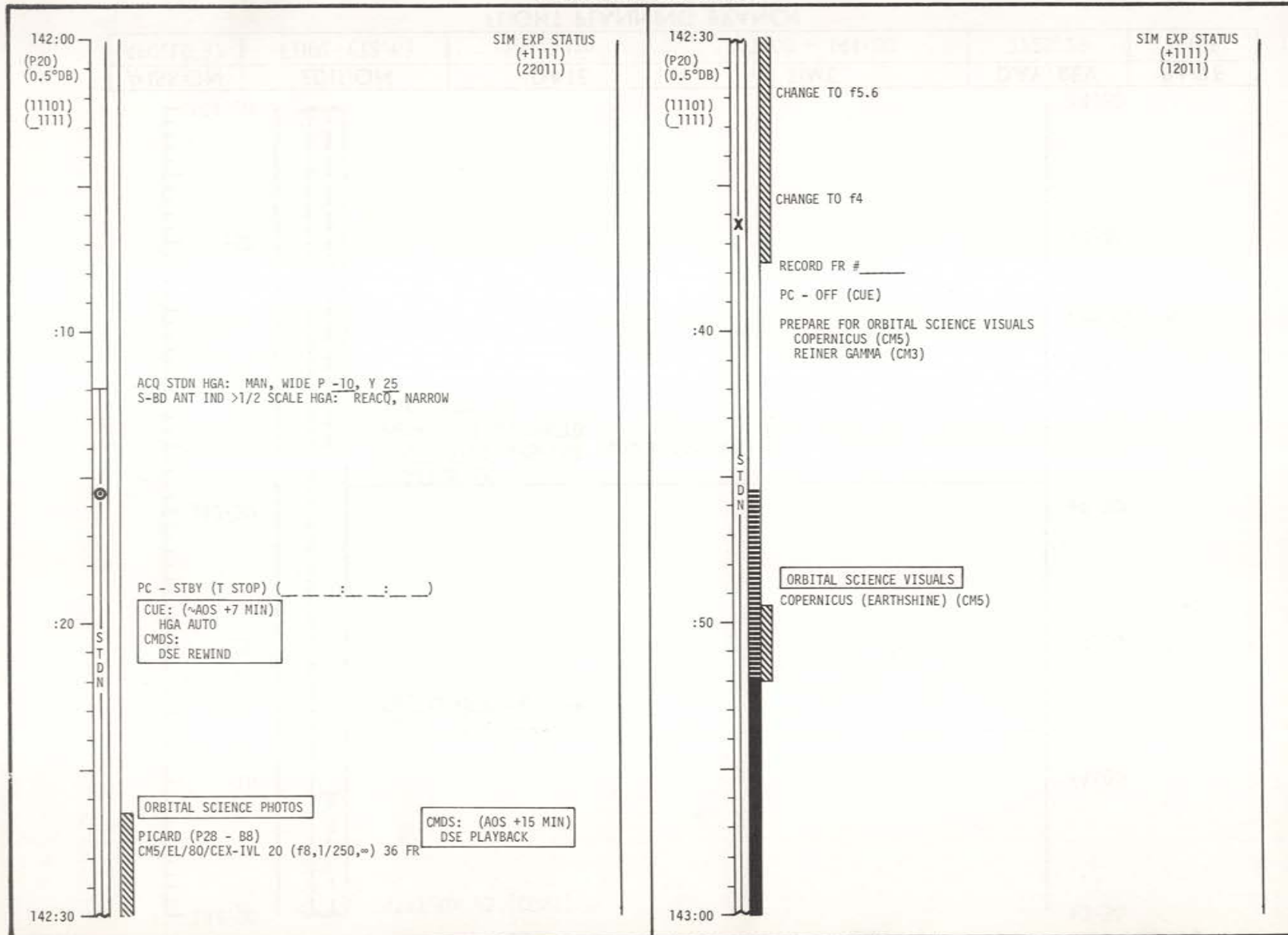
NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	142:00 - 143:00	7/28	3-184

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-185

MCC-H

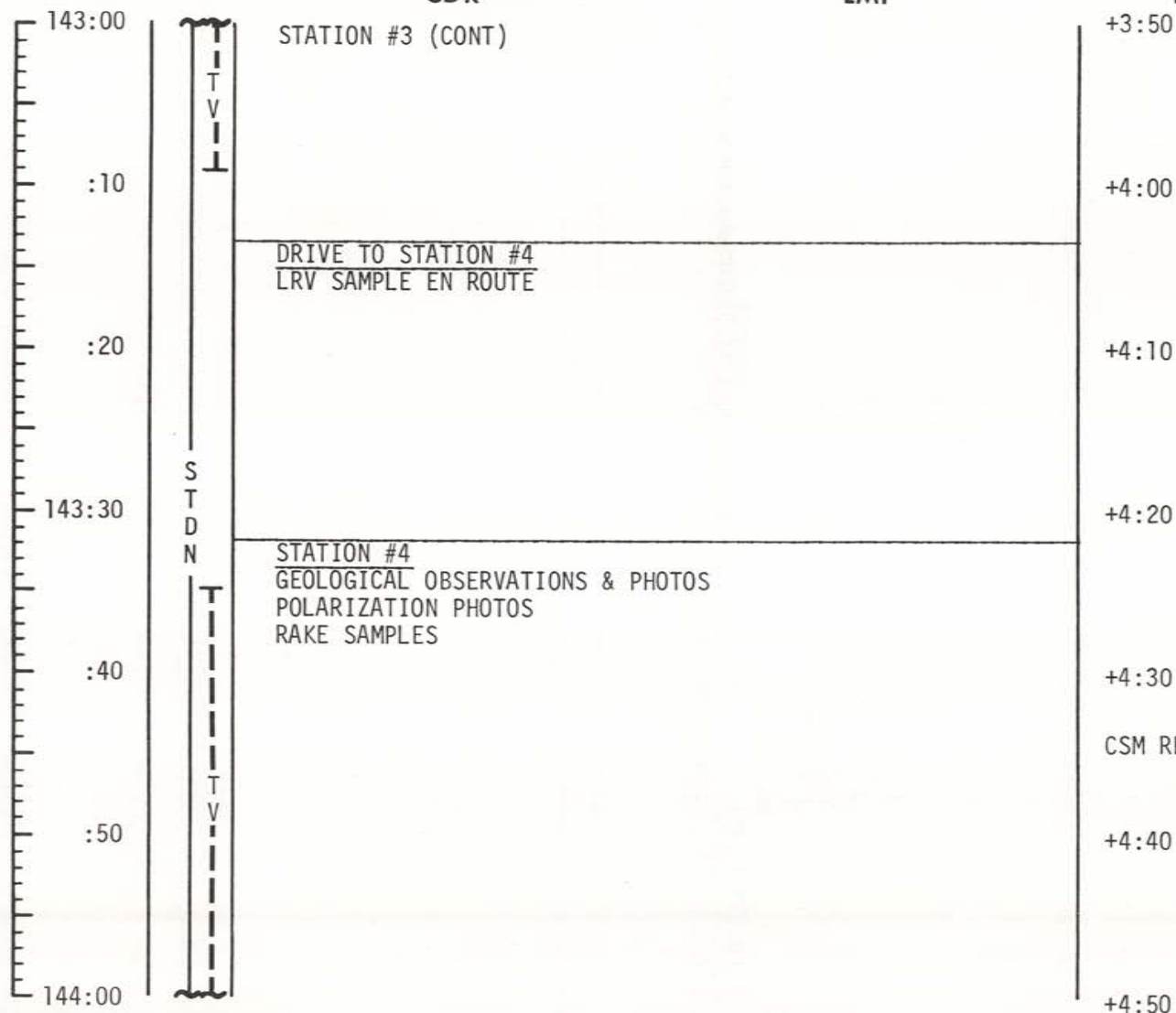
1953 CST

LM FLIGHT PLAN

CDR

LMP

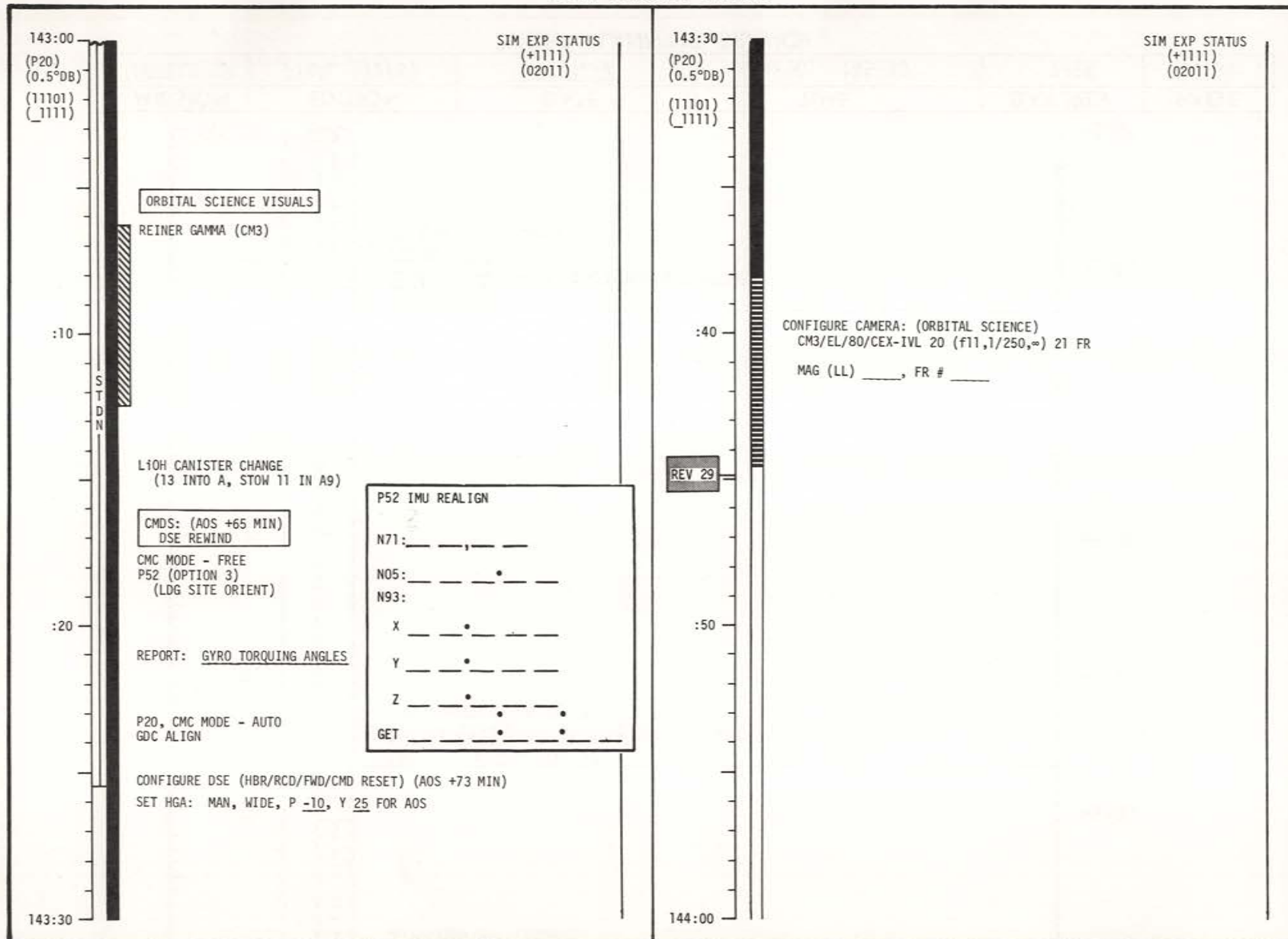
NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	143:00 - 144:00	7/28/29	3-186

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-187

LM FLIGHT PLAN

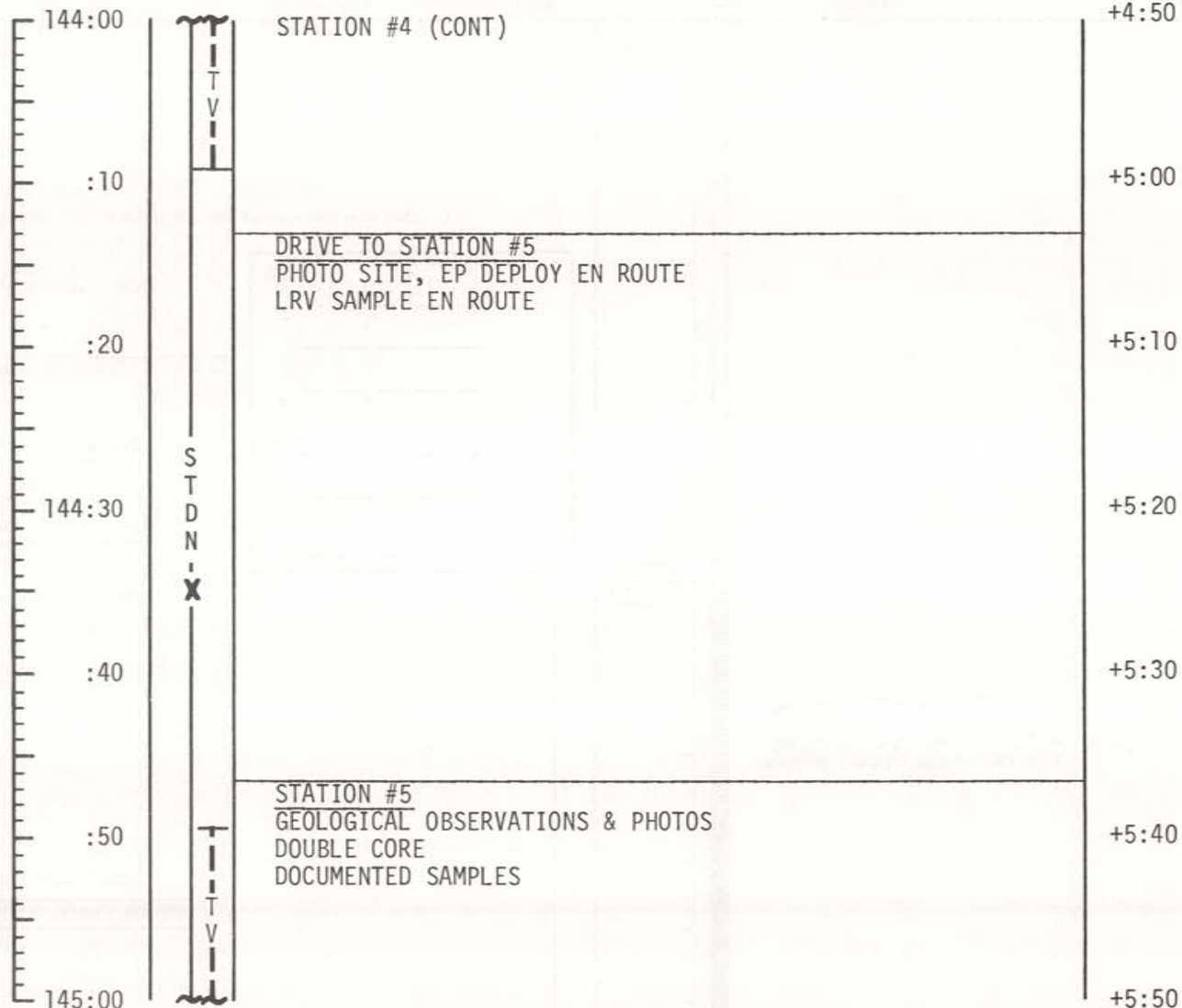
MCC-H

2053 CST

CDR

LMP

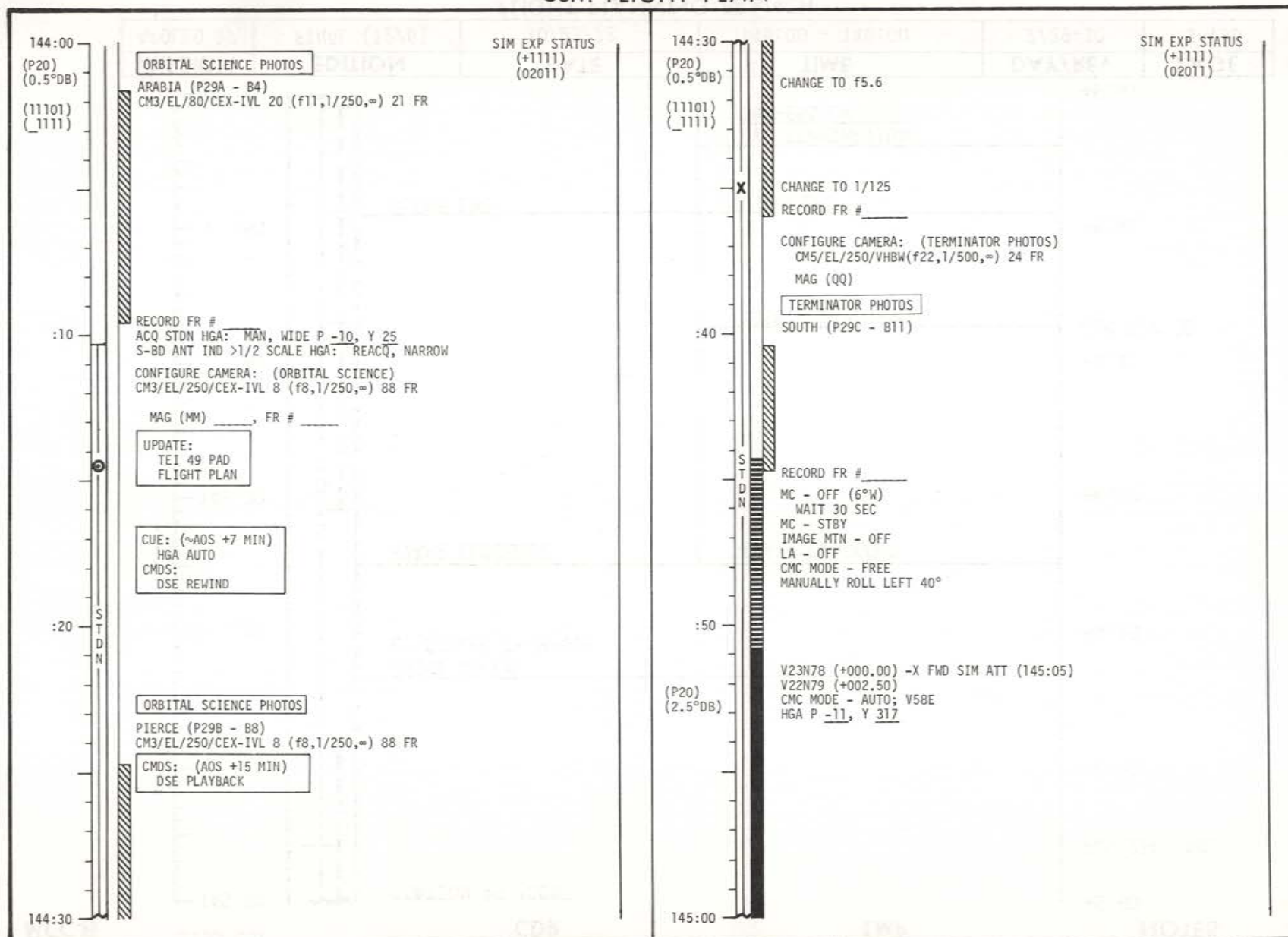
NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	144:00 - 145:00	7/29	3-188

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-189

LM FLIGHT PLAN

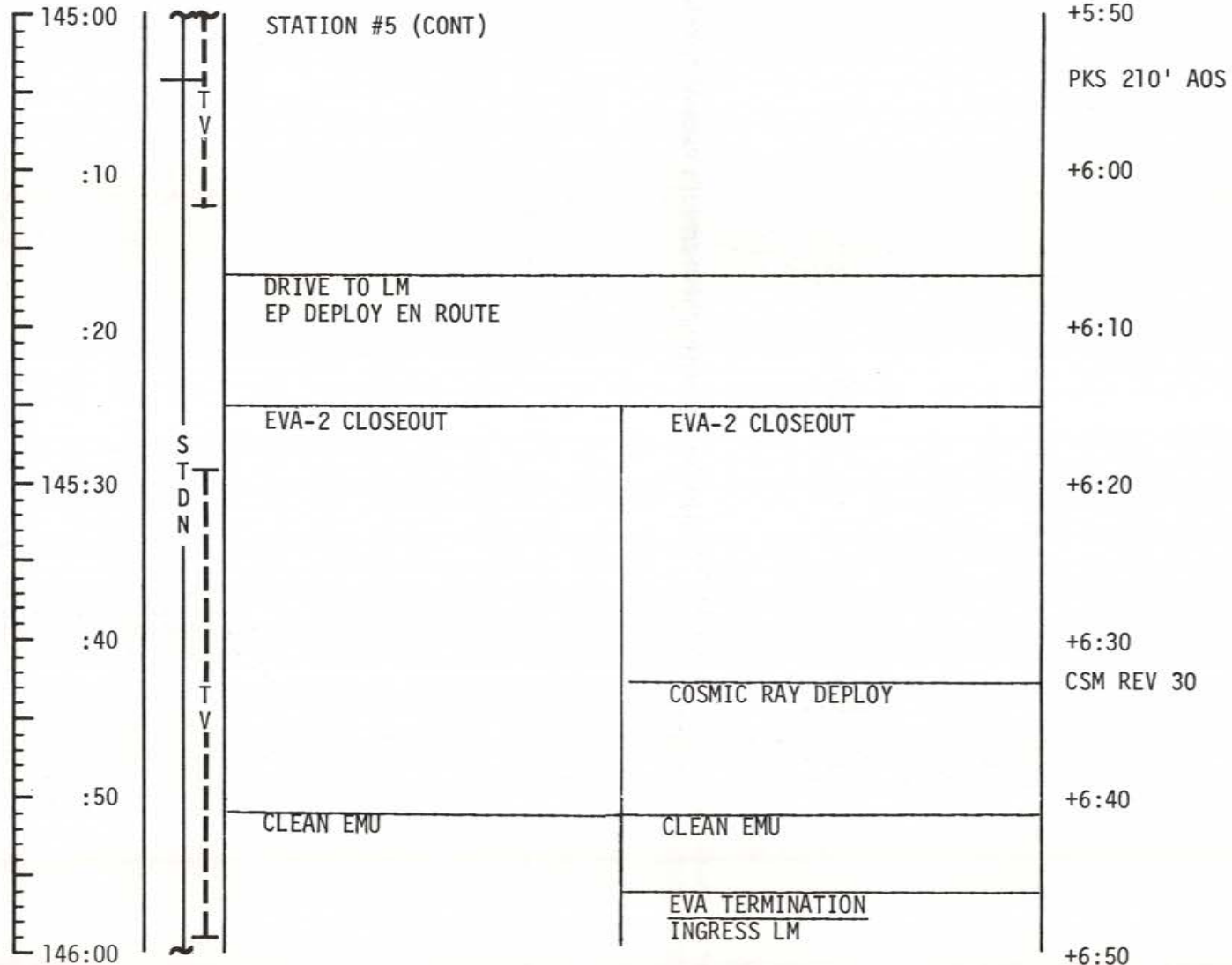
MCC-H

2153 CST

CDR

LMP

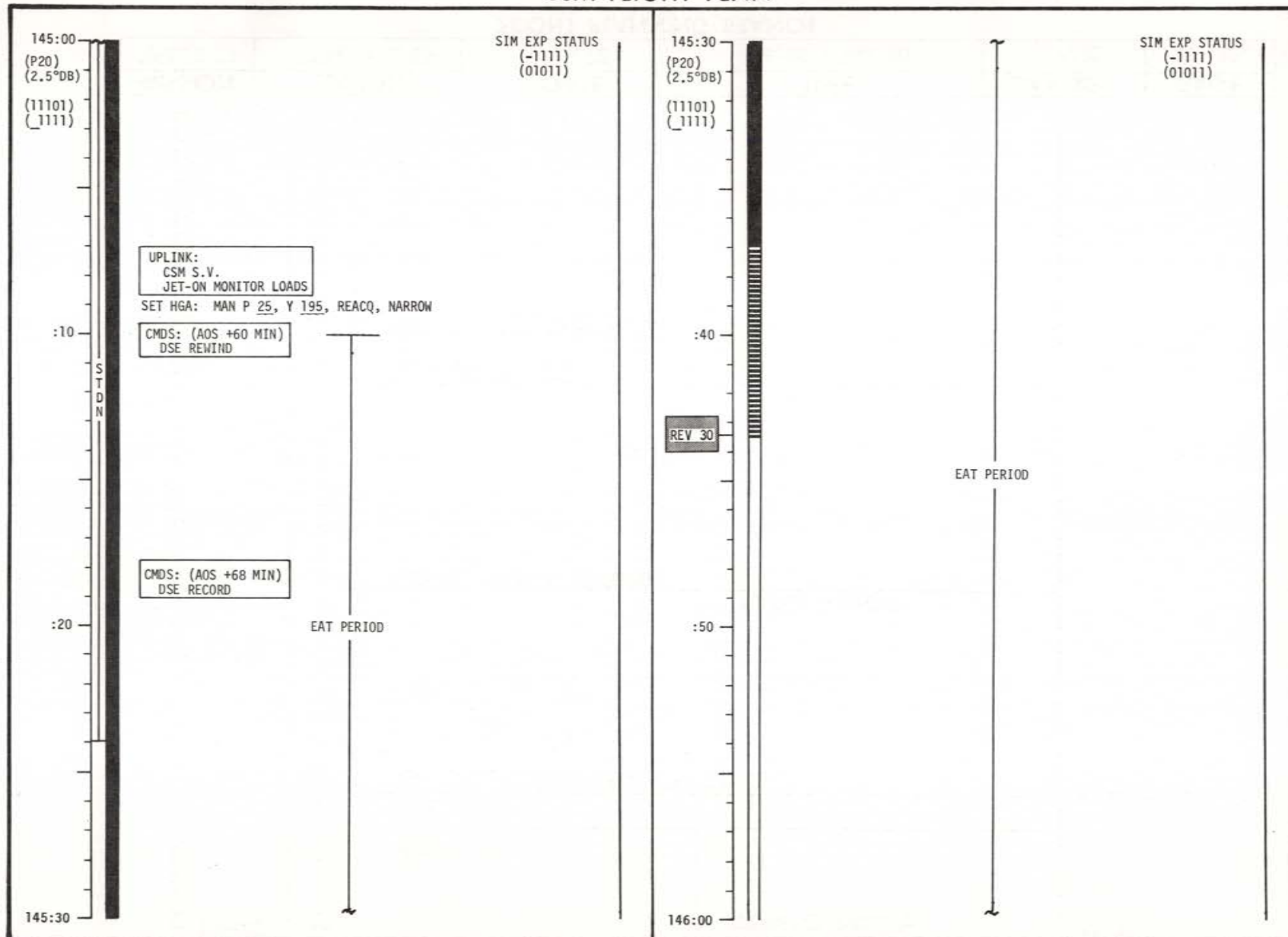
NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	145:00 - 146:00	7/29-30	3-190

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-191

LM FLIGHT PLAN

MCC-H

2253 CST

CDR

LMP

NOTES

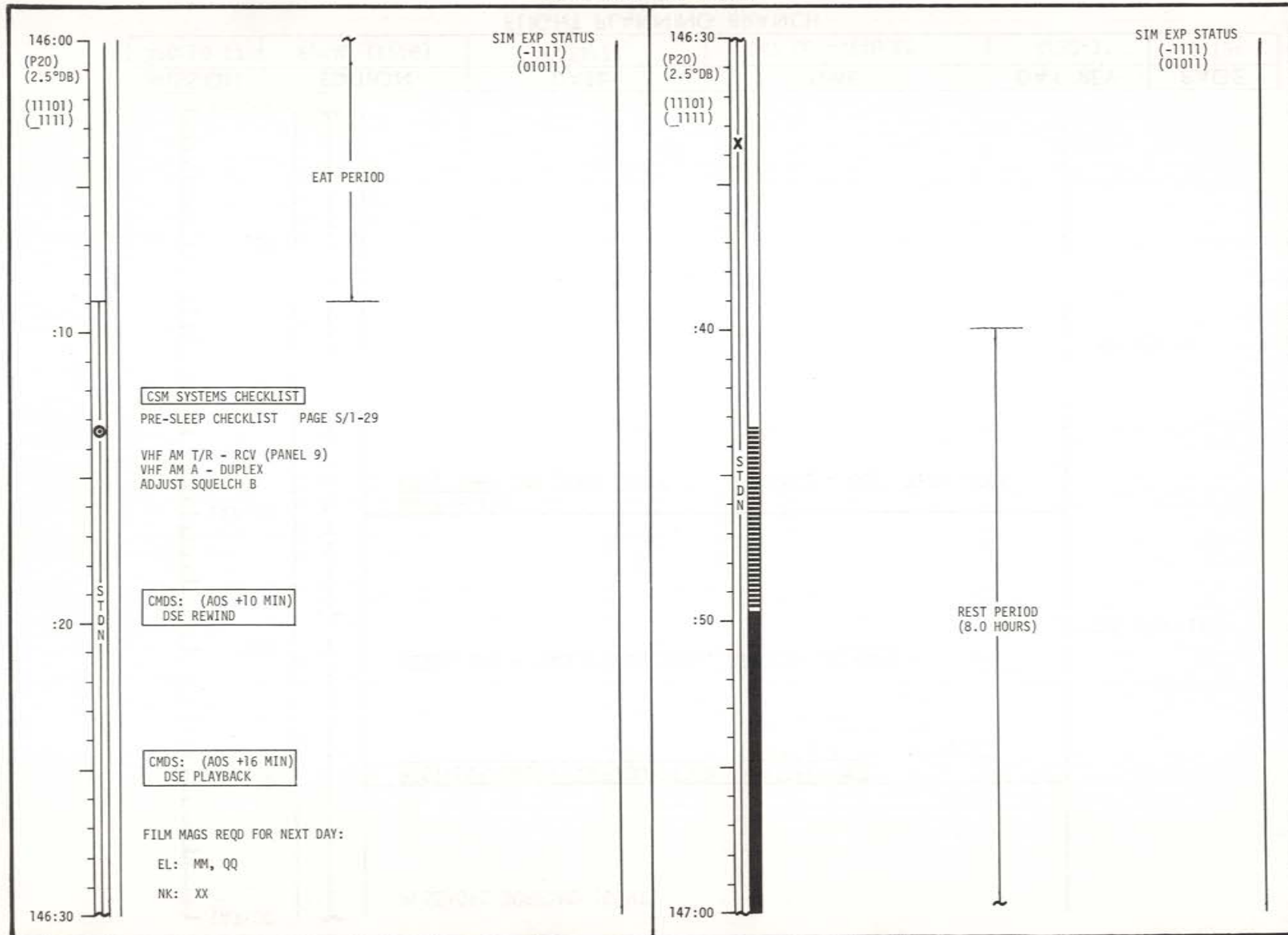
146:00		TRANSFER PALLETS	+6:50
		INGRESS LM	
:10		REPRESS LM	7:00/END EVA-2
		<u>POST-EVA SYSTEMS CONFIGURATION</u>	
		DOFF HELMETS & GLOVES	
		CONNECT TO LM COMM	
:20			
		BIOMED - RIGHT	
		PLSS O ₂ INITIAL RECHARGE	
146:30			
:40		<u>PLSS/OPS DOFFING</u>	
		REPORT: <u>OPS PRESSURE</u>	
:50			
147:00			

S
T
D
N
-
X

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	146:00 - 147:00	7/30	3-192

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-193

MCC-H

2353 CST

LM FLIGHT PLAN

CDR

LMP

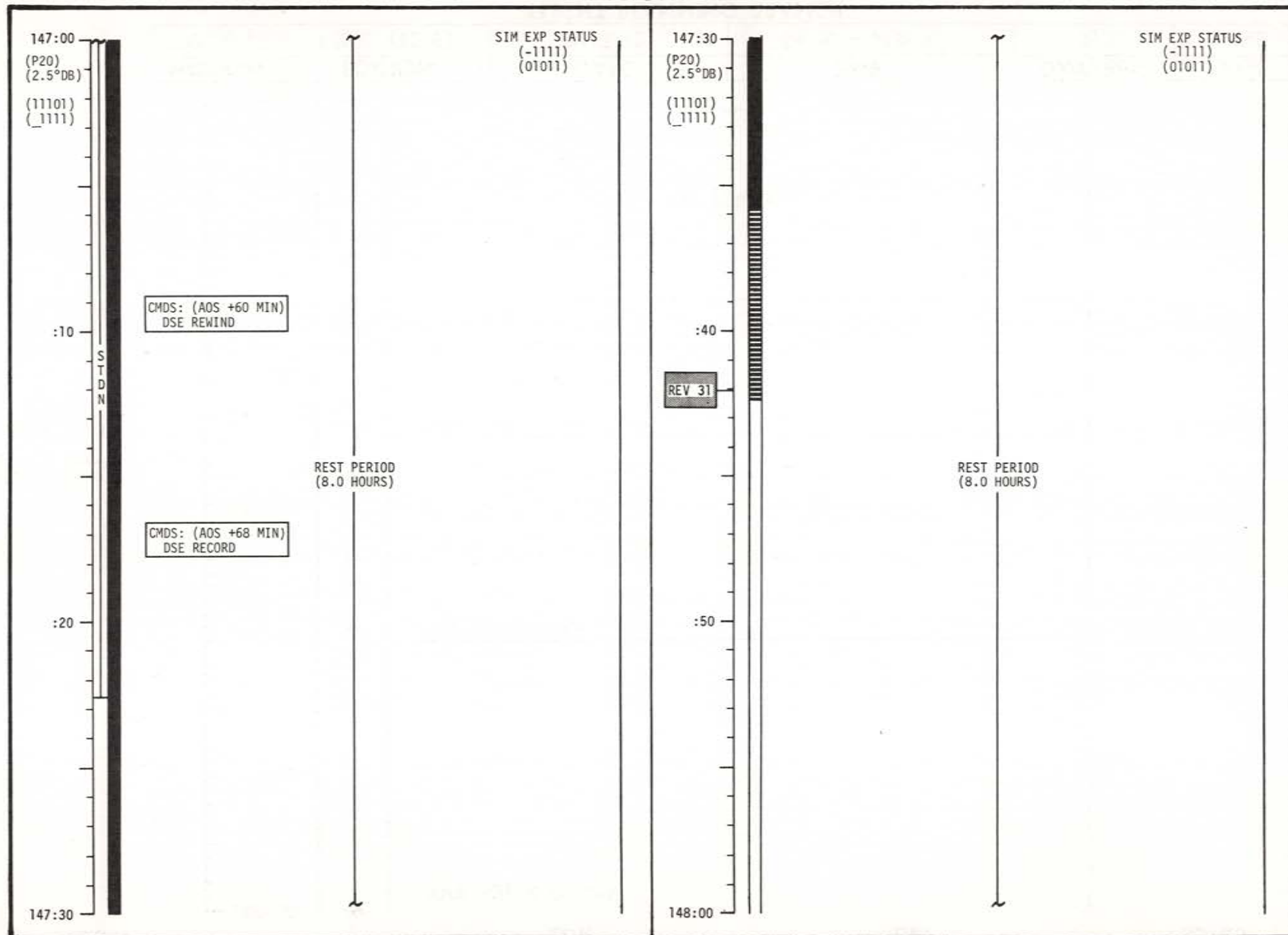
NOTES

147:00		PLSS/OPS DOFFING (CONT)	
:10		<u>POST-EVA CABIN CONFIGURATION</u> <u>BATTERY MGT</u> BATS 3 & 4 - OFF/RESET BAT L (CDR) - ON	
:20		WEIGH SRC & COLLECTION BAGS, REPORT: <u>WEIGHTS</u>	GDS 210' LOS
147:30	S T D N	<u>DOFF SUITS</u> CDR, THEN LMP DOFF SUITS BIOMED - OFF, THEN LEFT	
:40			CSM REV 31
:50			
148:00			

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	147:00 - 148:00	7/30-31	3-194

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-195

MCC-H

0053 CST, 12/13

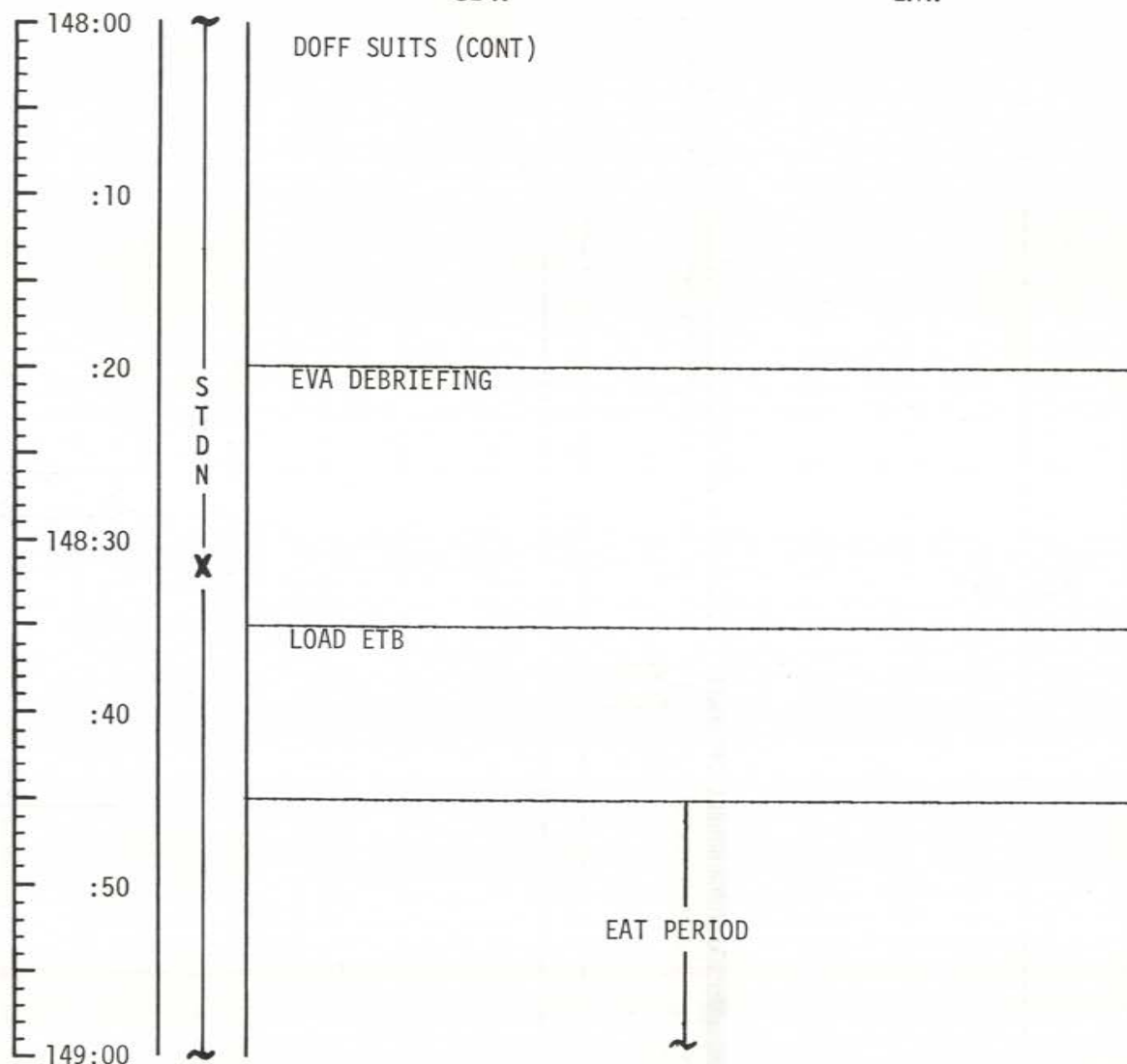
LM FLIGHT PLAN

CDR

LMP

NOTES

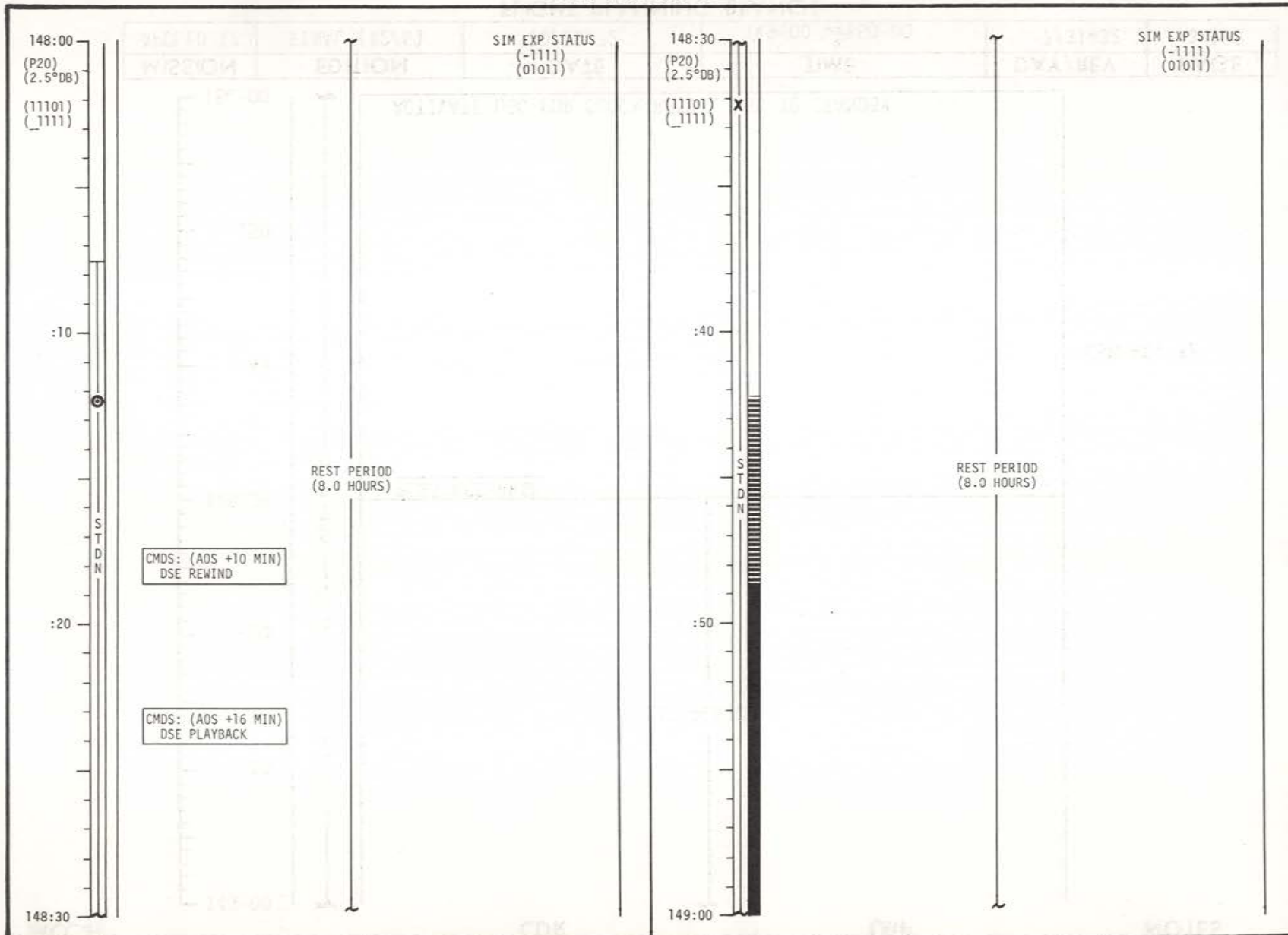
UPDATE TO LM
LIFT-OFF TIMES FOR
REVS 33-37



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	148:00 - 149:00	7/31	3-196

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-197

LM FLIGHT PLAN

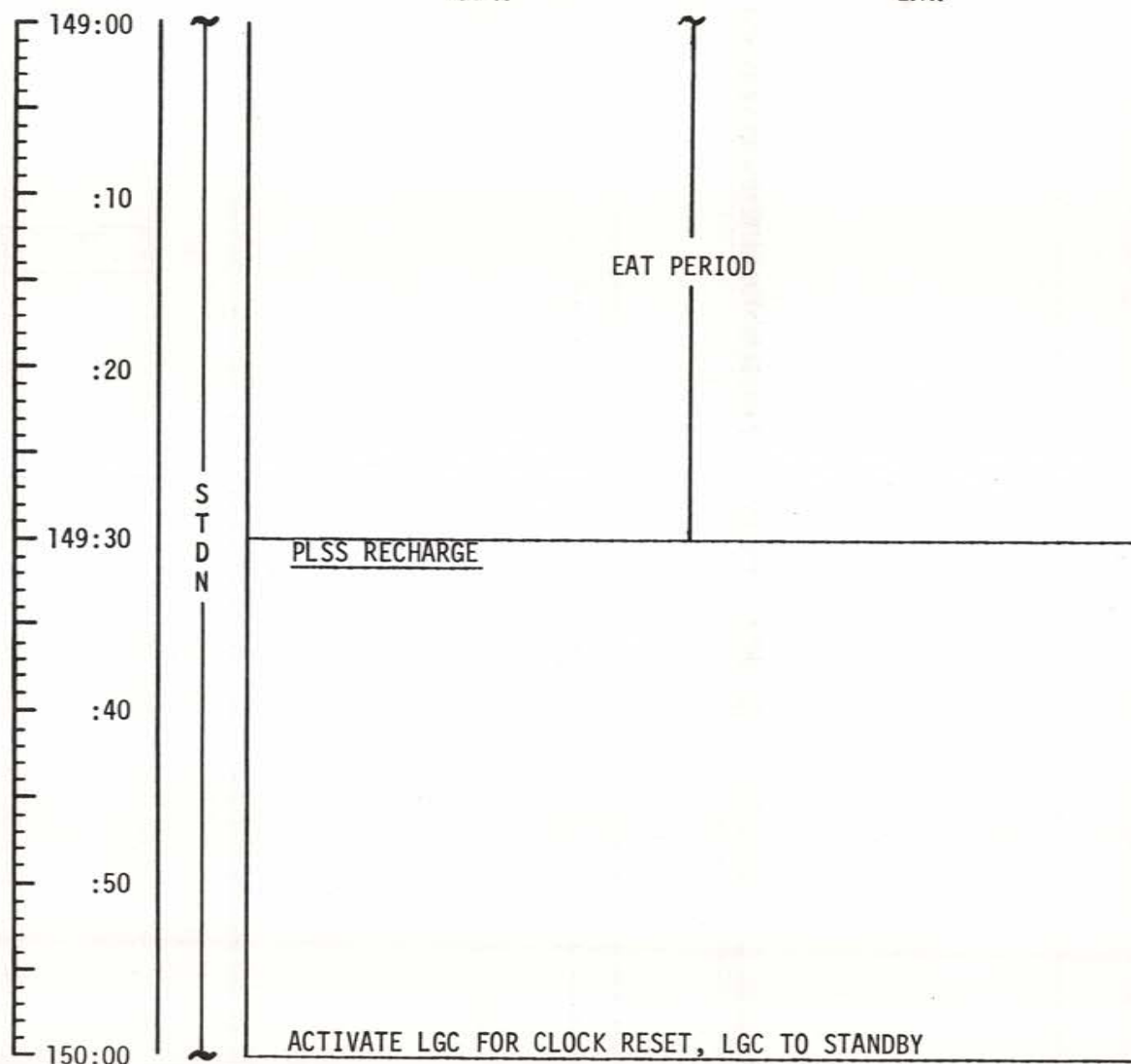
MCC-H

0153 CST

CDR

LMP

NOTES

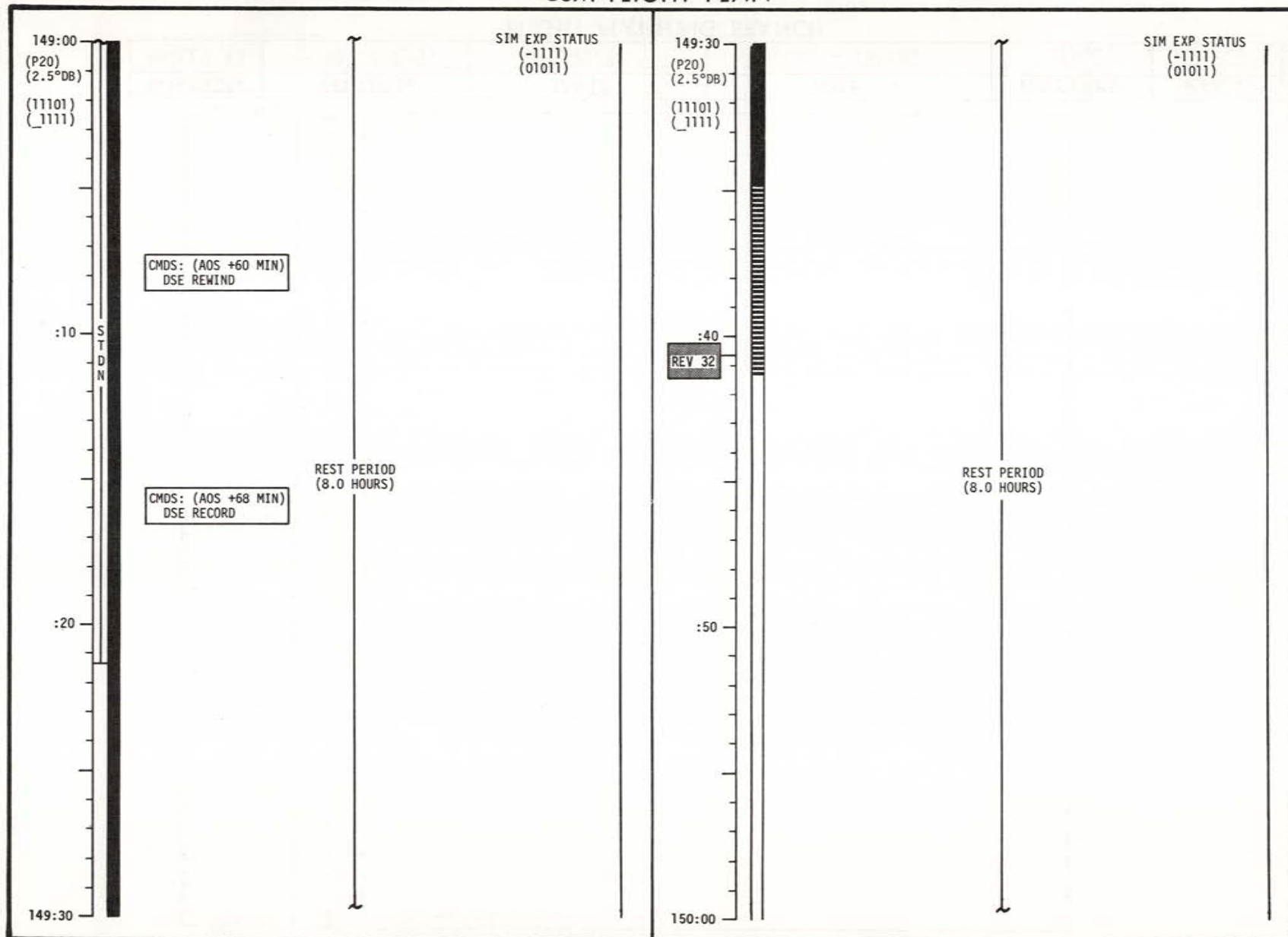


CSM REV 32

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	149:00 - 150:00	7/31-32	3-198

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-199

LM FLIGHT PLAN

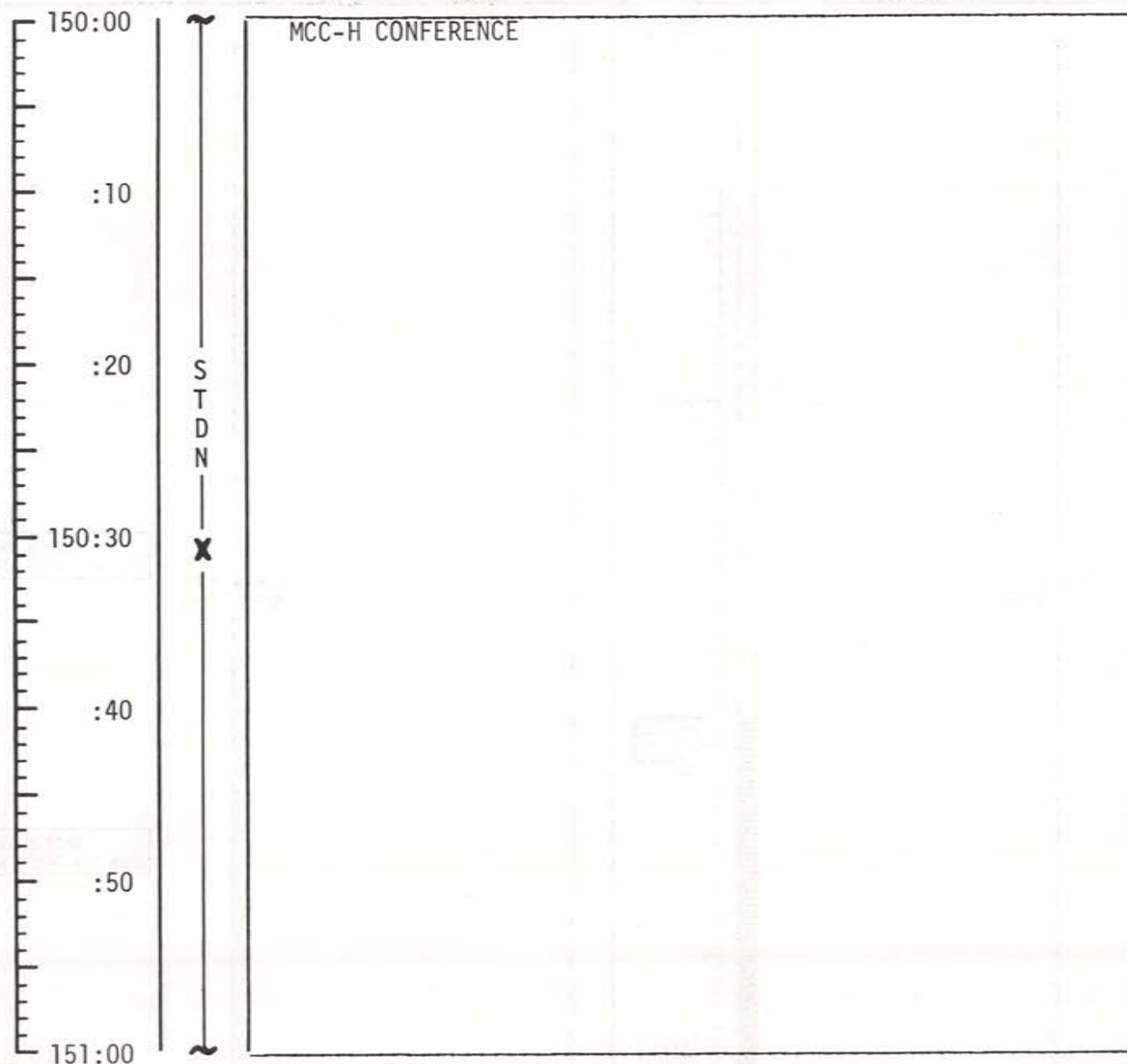
MCC-H

0253 CST

CDR

LMP

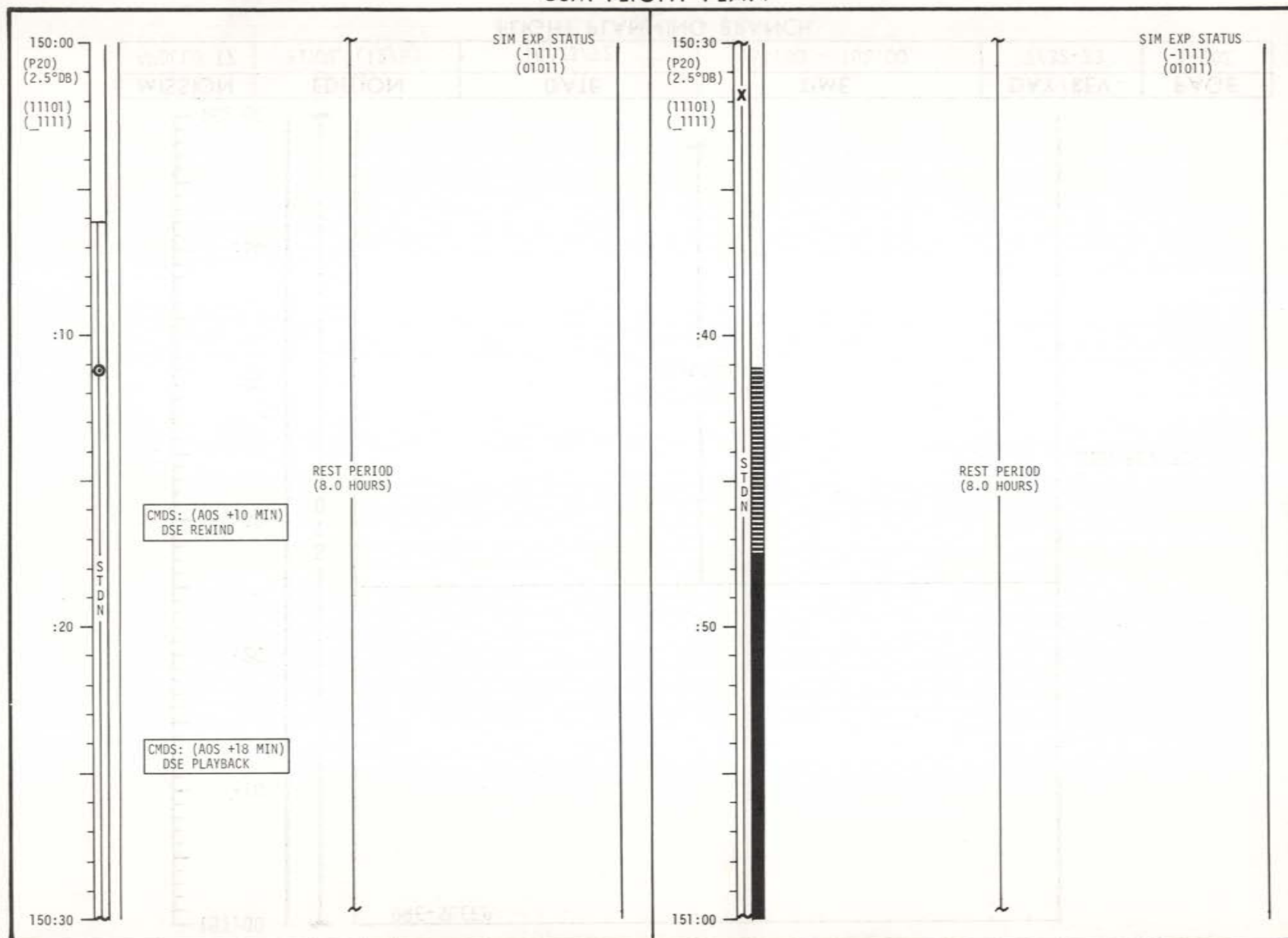
NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	150:00 - 151:00	7/32	3-200

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-201

LM FLIGHT PLAN

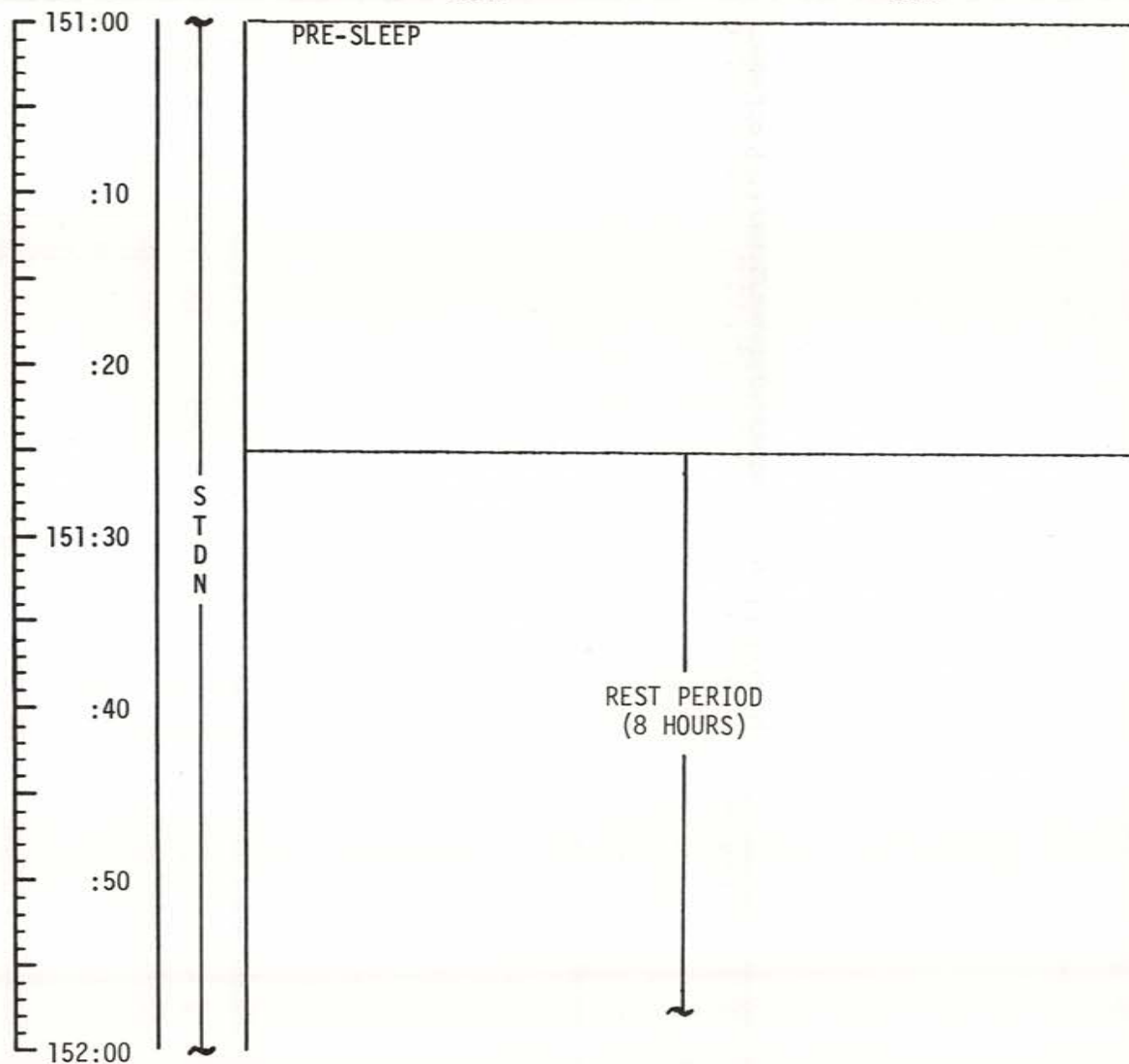
MCC-H

0353 CST

CDR

LMP

NOTES

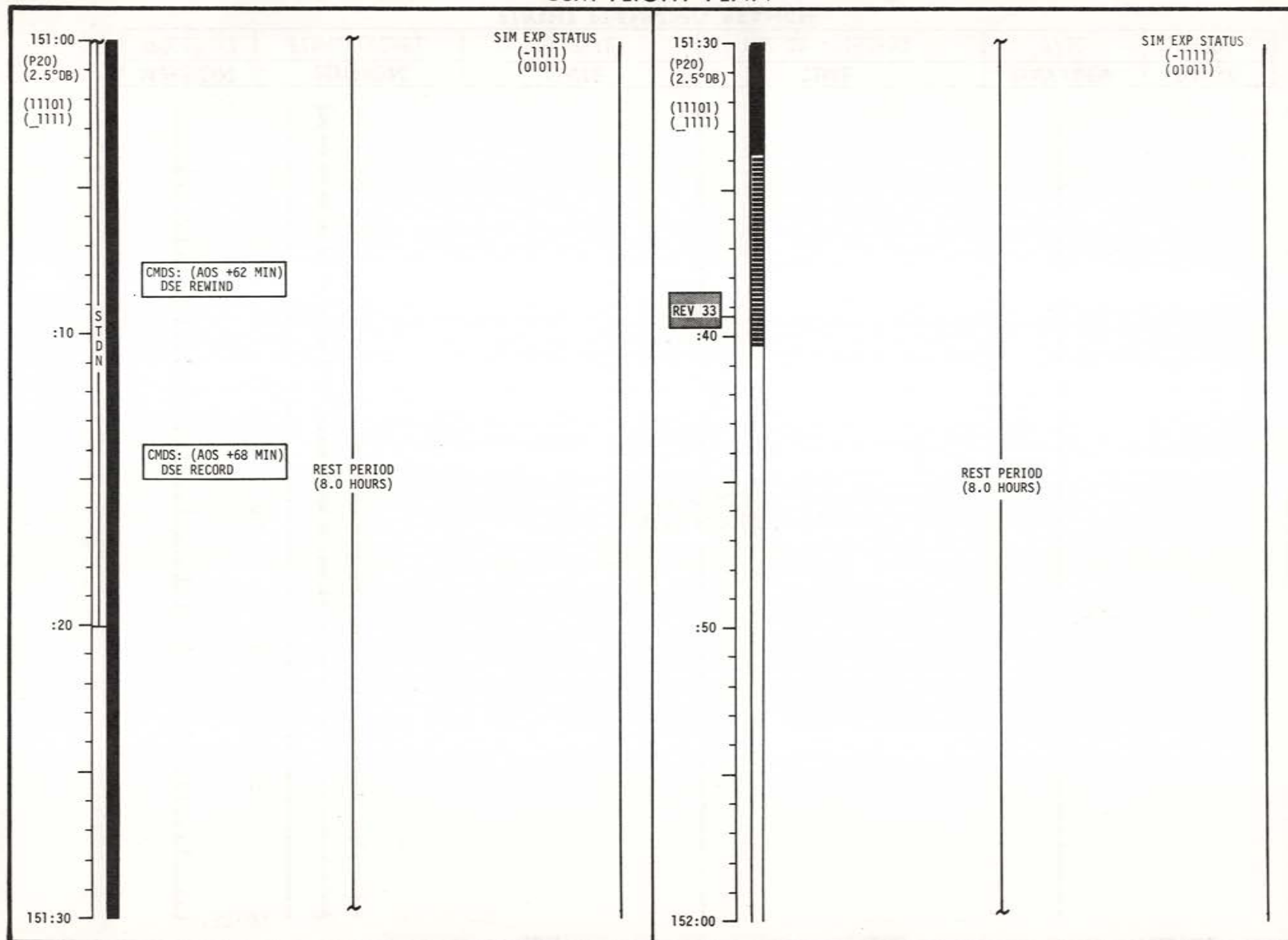


CSM REV 33

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	151:00 - 152:00	7/32-33	3-202

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-203

LM FLIGHT PLAN

MCC-H

0453 CST

CDR

LMP

NOTES

152:00
:10
:20
152:30
:40
:50
153:00



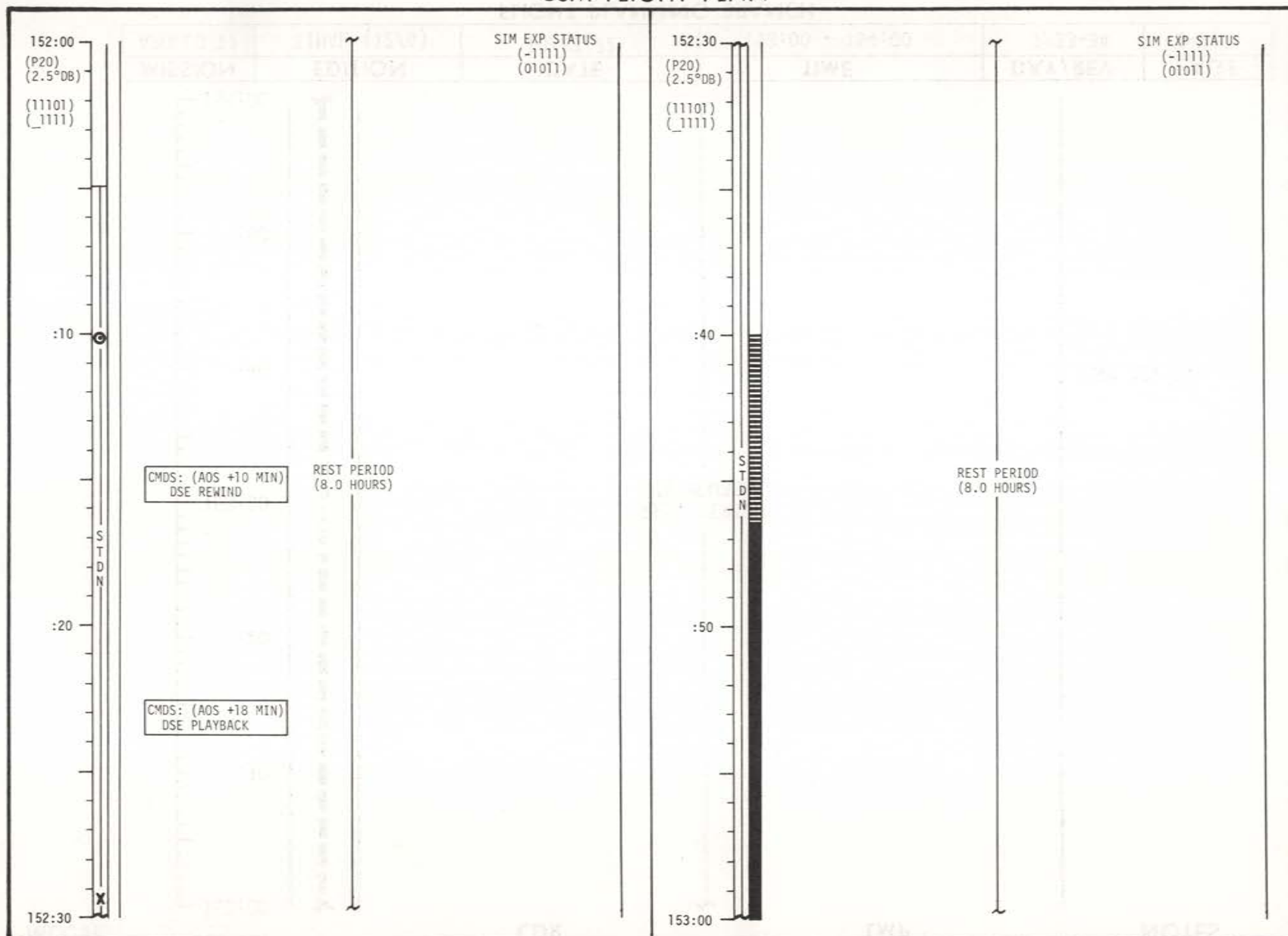
REST PERIOD
(8 HOURS)

PKS 210' LOS

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	152:00 - 153:00	7/33	3-204

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-205

LM FLIGHT PLAN

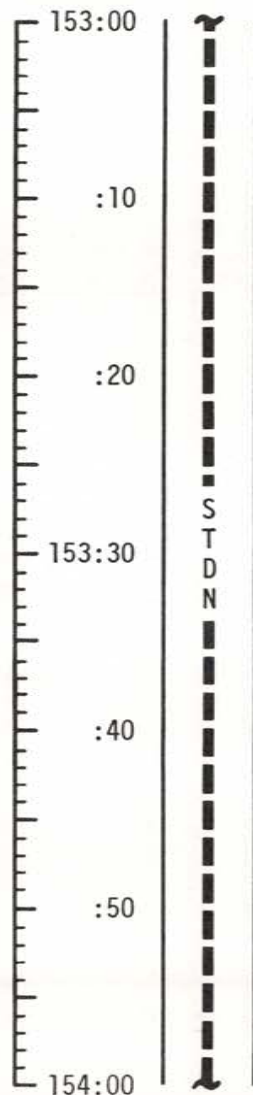
MCC-H

0553 CST

CDR

LMP

NOTES



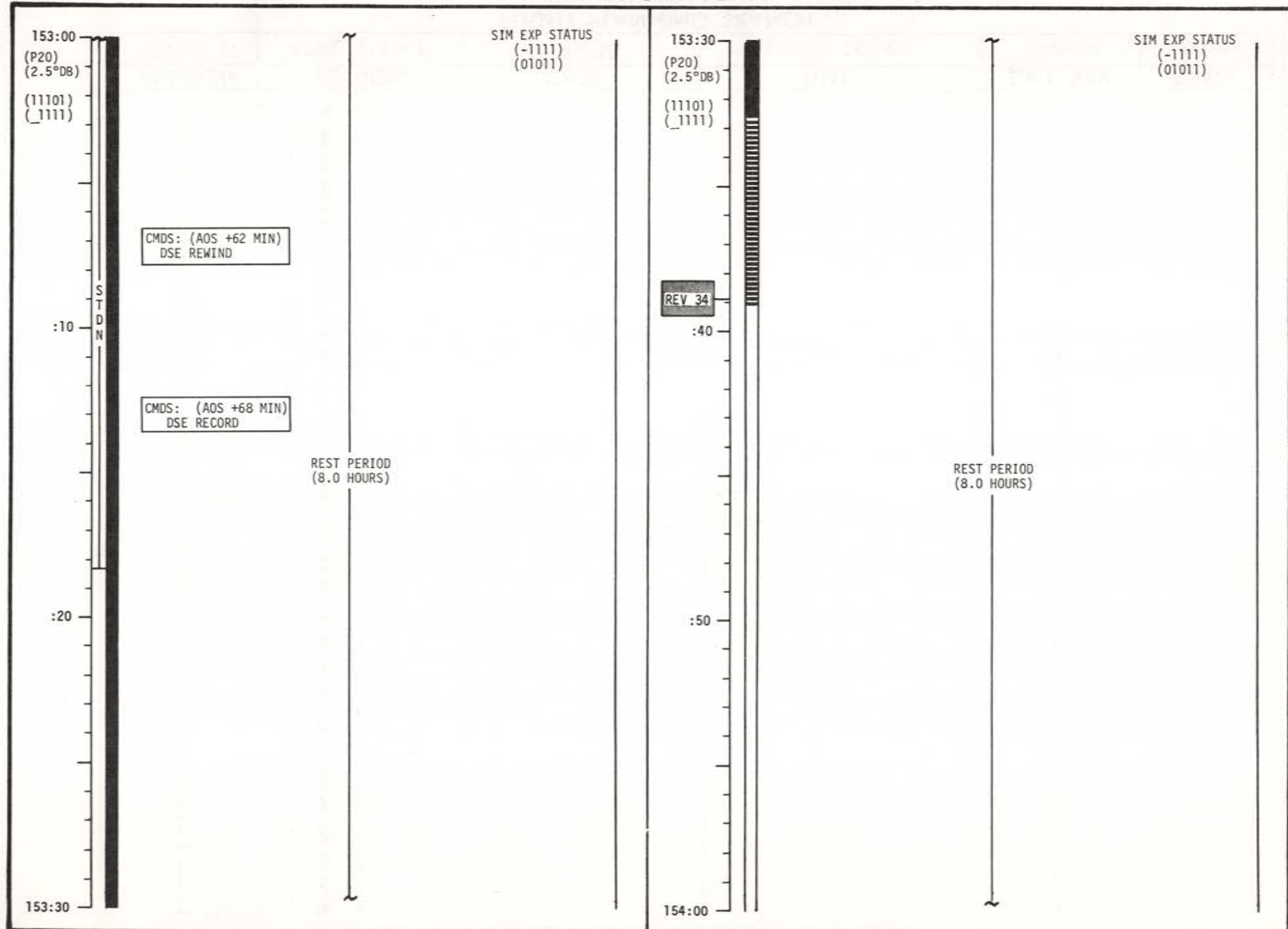
REST PERIOD
(8 HOURS)

CSM REV 34

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	153:00 - 154:00	7/33-34	3-206

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-207

LM FLIGHT PLAN

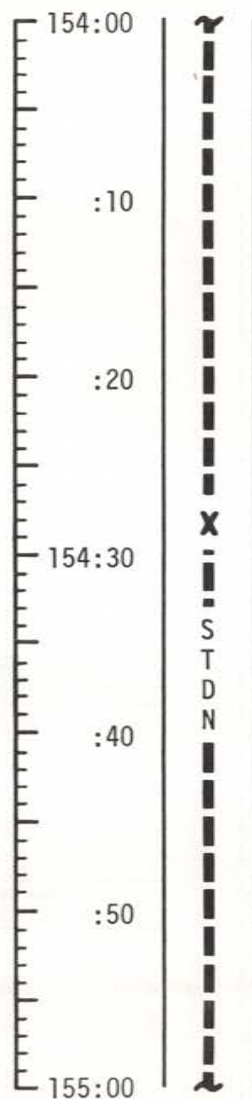
MCC-H

0653 CST

CDR

LMP

NOTES

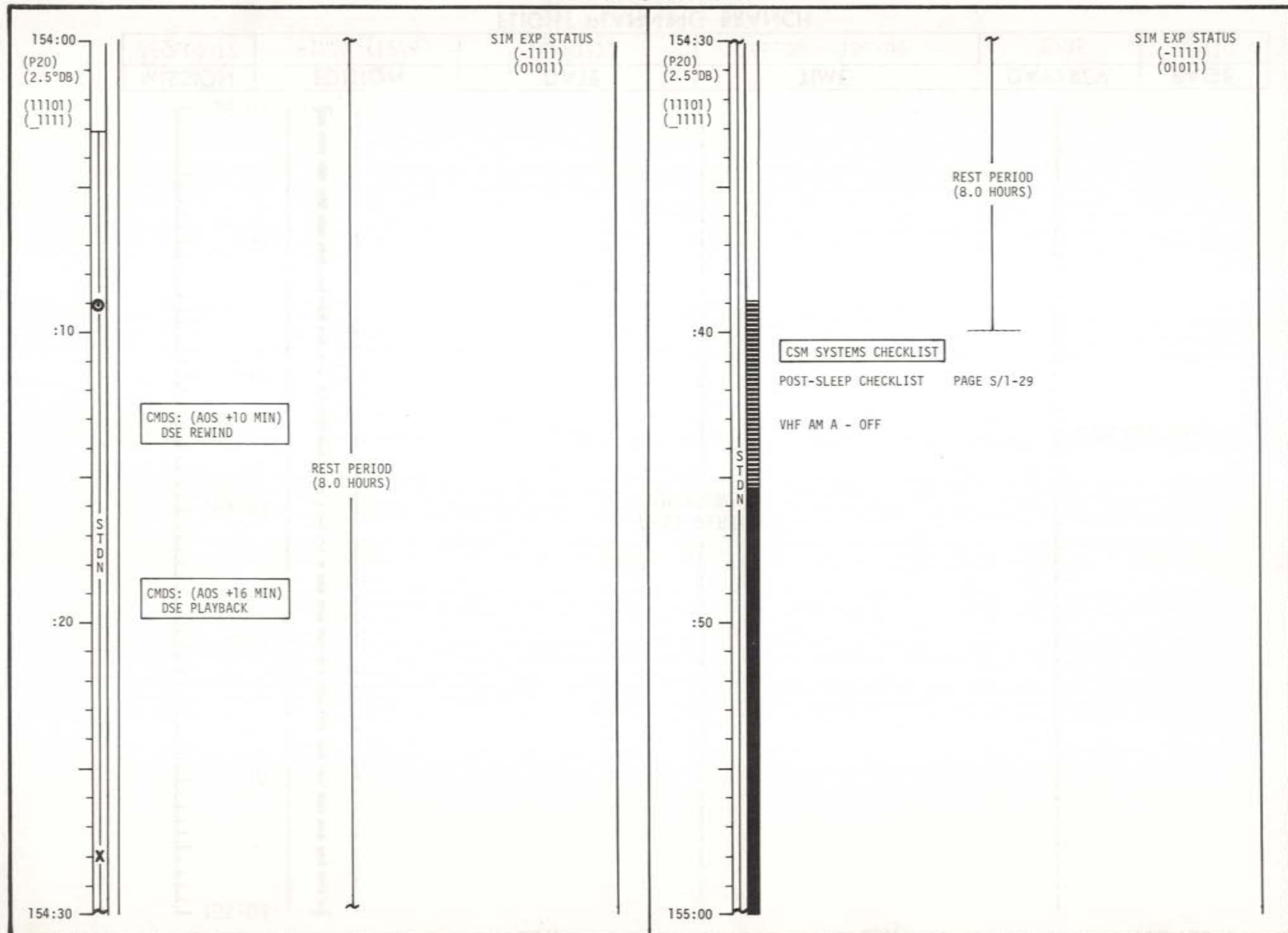


REST PERIOD
(8 HOURS)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	154:00 - 155:00	7-8/34	3-208

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-209

NOTES

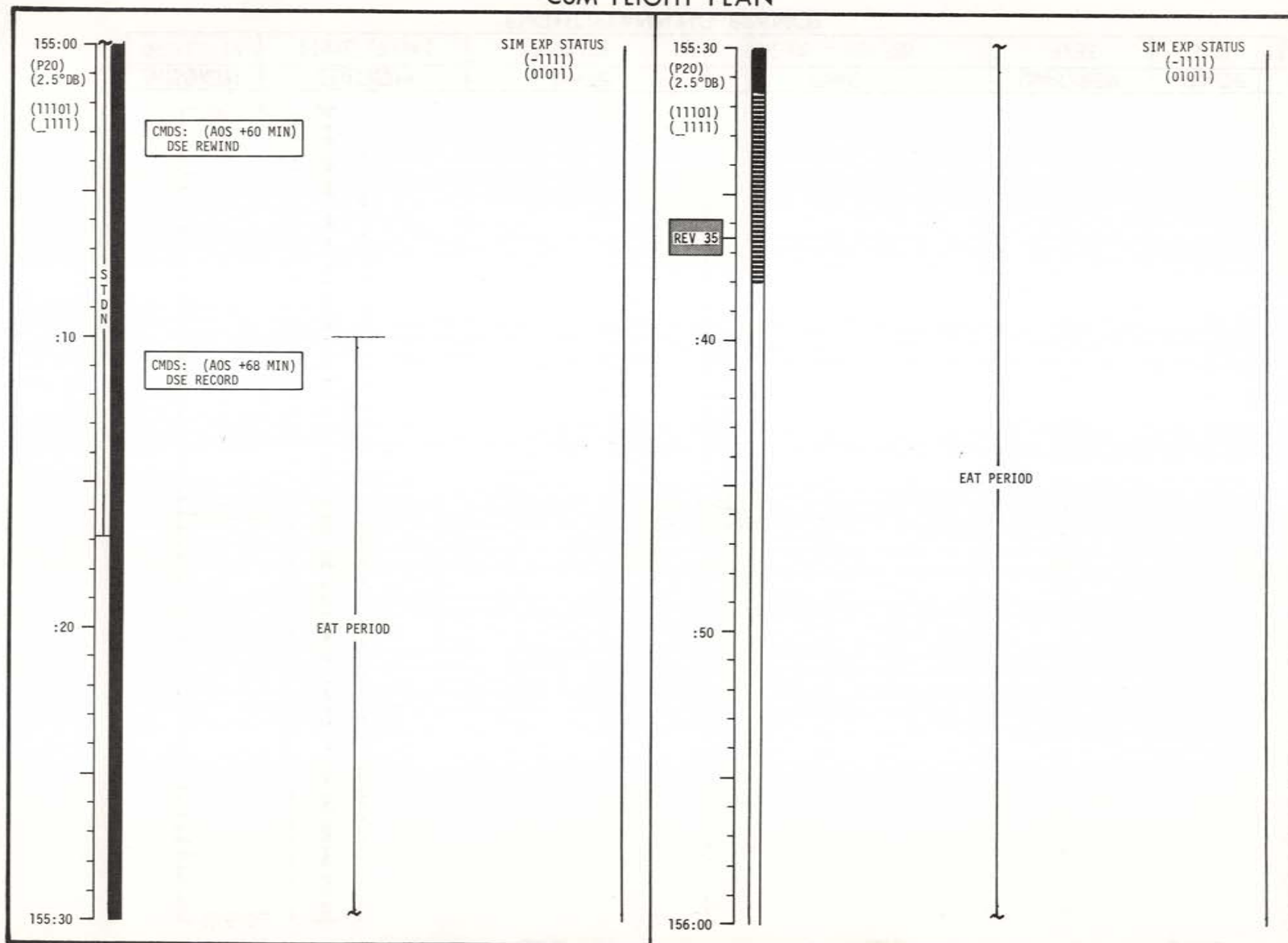
REST PERIOD
(8 HOURS)

CSM REV 35

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	155:00 - 156:00	8/35	3-210

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-211

LM FLIGHT PLAN

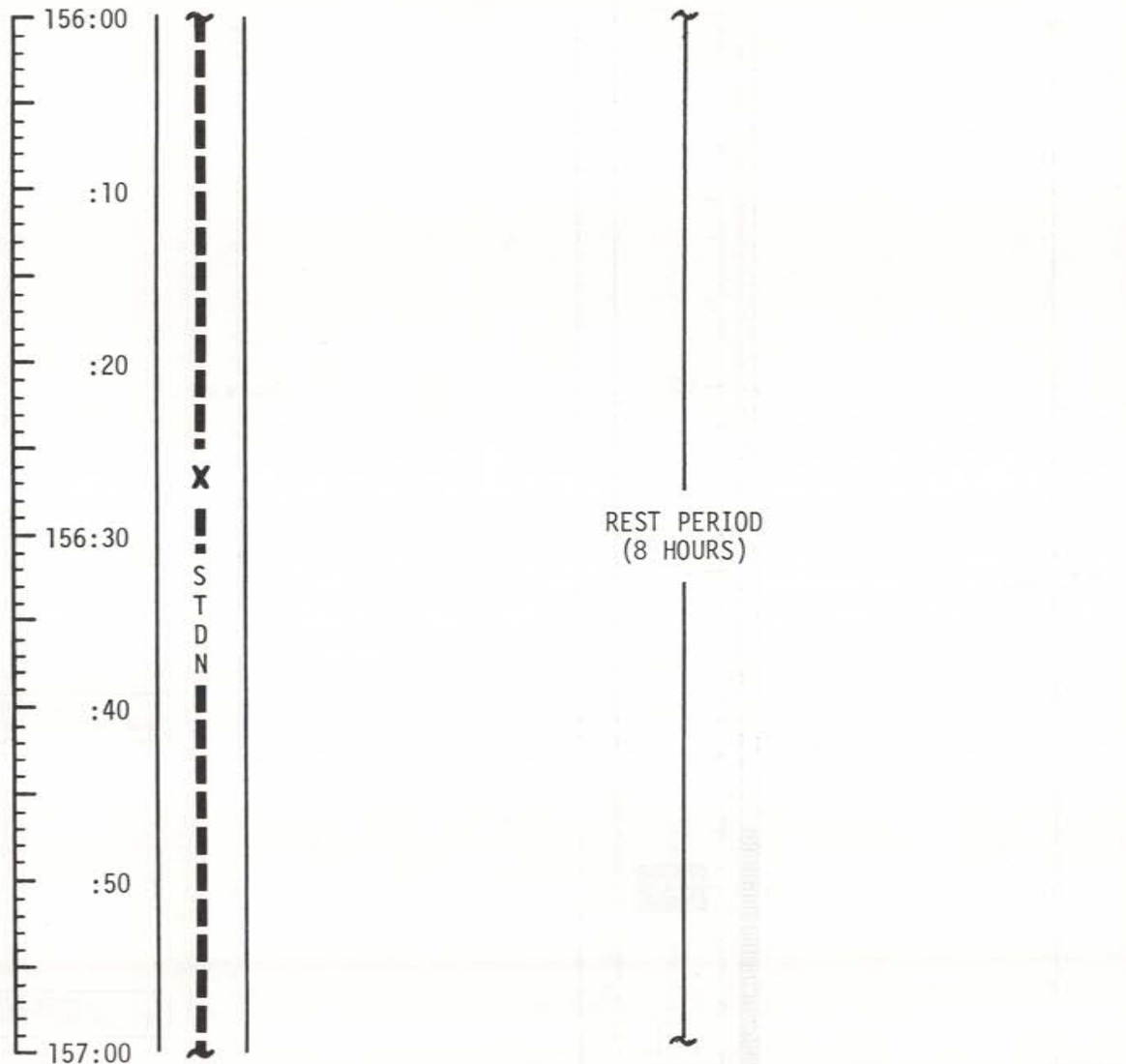
MCC-H

0853 CST

CDR

LMP

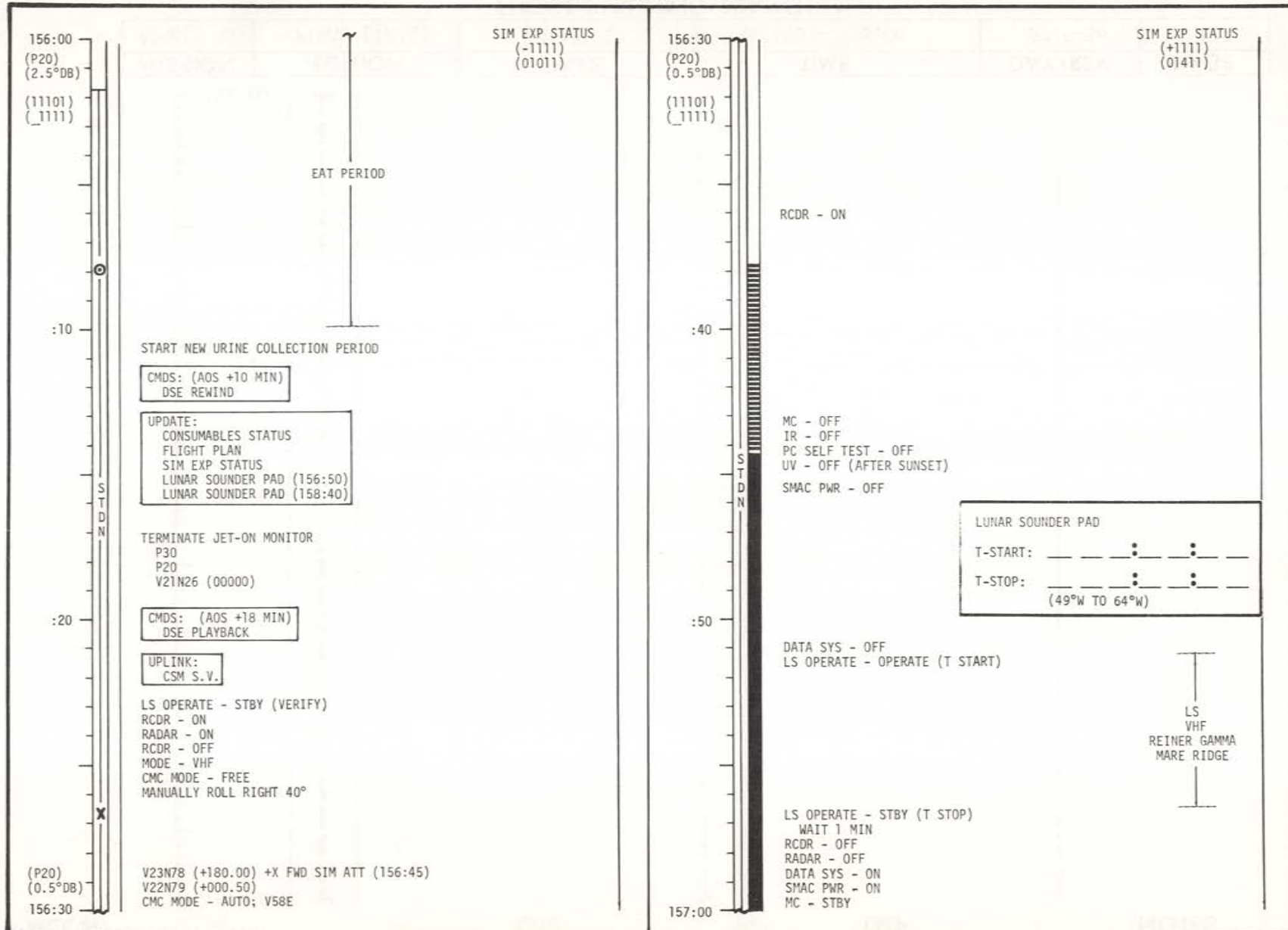
NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	156:00 - 157:00	8/35	3-212

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-213

LM FLIGHT PLAN

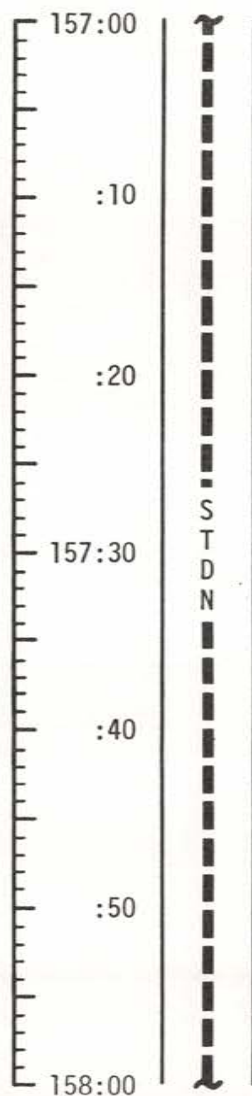
MCC-H

0953 CST

CDR

LMP

NOTES



REST PERIOD
(8 HOURS)

CSM REV 36

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	157:00 - 158:00	8/35-36	3-214

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN

157:00
(P20)
(0.5°DB)

(11101)
(1111)

IR - ON
PC SELF TEST - HTRS
UV - ON

SIM EXP STATUS
(+1111)
(01000)

P52 IMU REALIGN

N71: _____

N05: _____

N93: _____

X _____

Y _____

Z _____

GET _____

CMC MODE - FREE
P52 (OPTION 3)
(LDG SITE ORIENT)

CMDS: (AOS +66 MIN)
DSE REWIND

REPORT: GYRO TORQUING
ANGLES

GDC ALIGN

P20, OPT 5 (40°S OBLIQUE PHOTO ATT)(157:15)

N78 (+270.00)
(+087.75)
(+180.00)

CMC MODE - AUTO; V58E
(182,000/145,001)

CONFIGURE DSE (HBR/RCD/FWD/CMD RESET)(AOS +73 MIN)

SELECT OMNI D FOR AOS

SET HGA: MAN, WIDE, P -10, Y 25 FOR AOS +10 MIN

CONFIGURE CAMERA (ORBITAL SCIENCE PHOTOS)
CM5/EL/250/CEX-IVL 8 (f5.6,1/125,∞) 34 FR

MAG (MM) _____, FR # _____

IMAGE MTN - ON
MC - ON (147°W)
IMAGE MTN - INCR (BP +3 STEPS)/ON

:10

:20

157:30

157:30
(P20)
(0.5°DB)

(11101)
(1111)

REV 36

SIM EXP STATUS
(*1111)
(04011)

ORBITAL SCIENCE PHOTOS

MARE INGENII (P36 - C1)
CM5/EL/250/CEX-IVL 8 (f5.6,1/125,∞) 34 FR
CHANGE TO 1/250

RECORD FR # _____

:40

:50

158:00

MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-215

MCC-H

CDR

LMP

NOTES

:10

:20

158:30

:40

:50

159:00

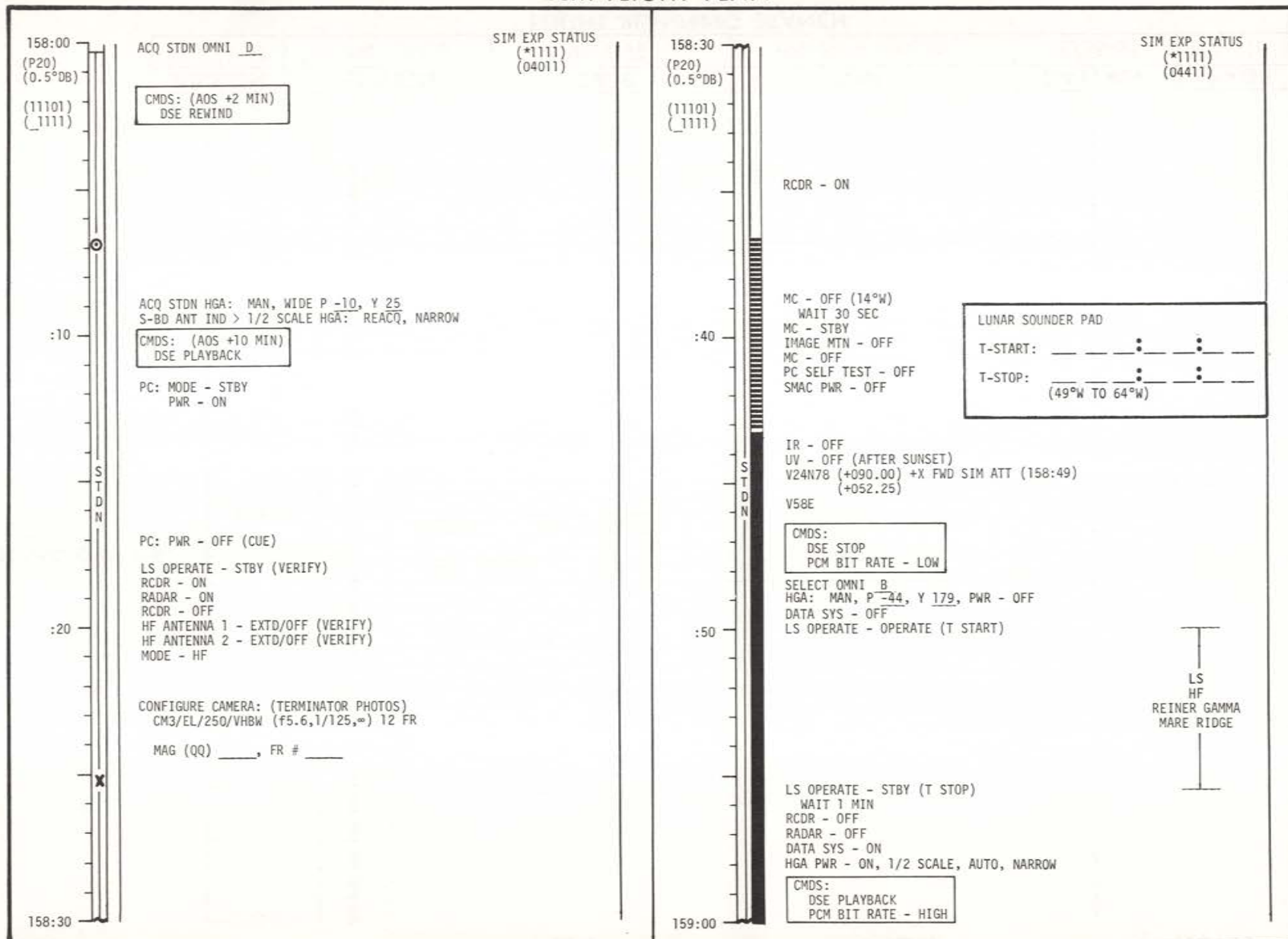
STDX

REST PERIOD
(8 HOURS)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	158:00 - 159:00	8/36	3-216

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-217

MCC-H

1153 CST

LM FLIGHT PLAN

CDR

LMP

NOTES

STAY/NO-STAY FOR
EVA-3UPDATE TO LM
LIFT-OFF TIMES FOR
REVS 38-43

159:00
:10
:20
159:30
:40
:50
160:00

S
T
D
NREST PERIOD
(8 HOURS)POST SLEEPREPORT: CREW STATUSPLSS O₂ TOP OFF

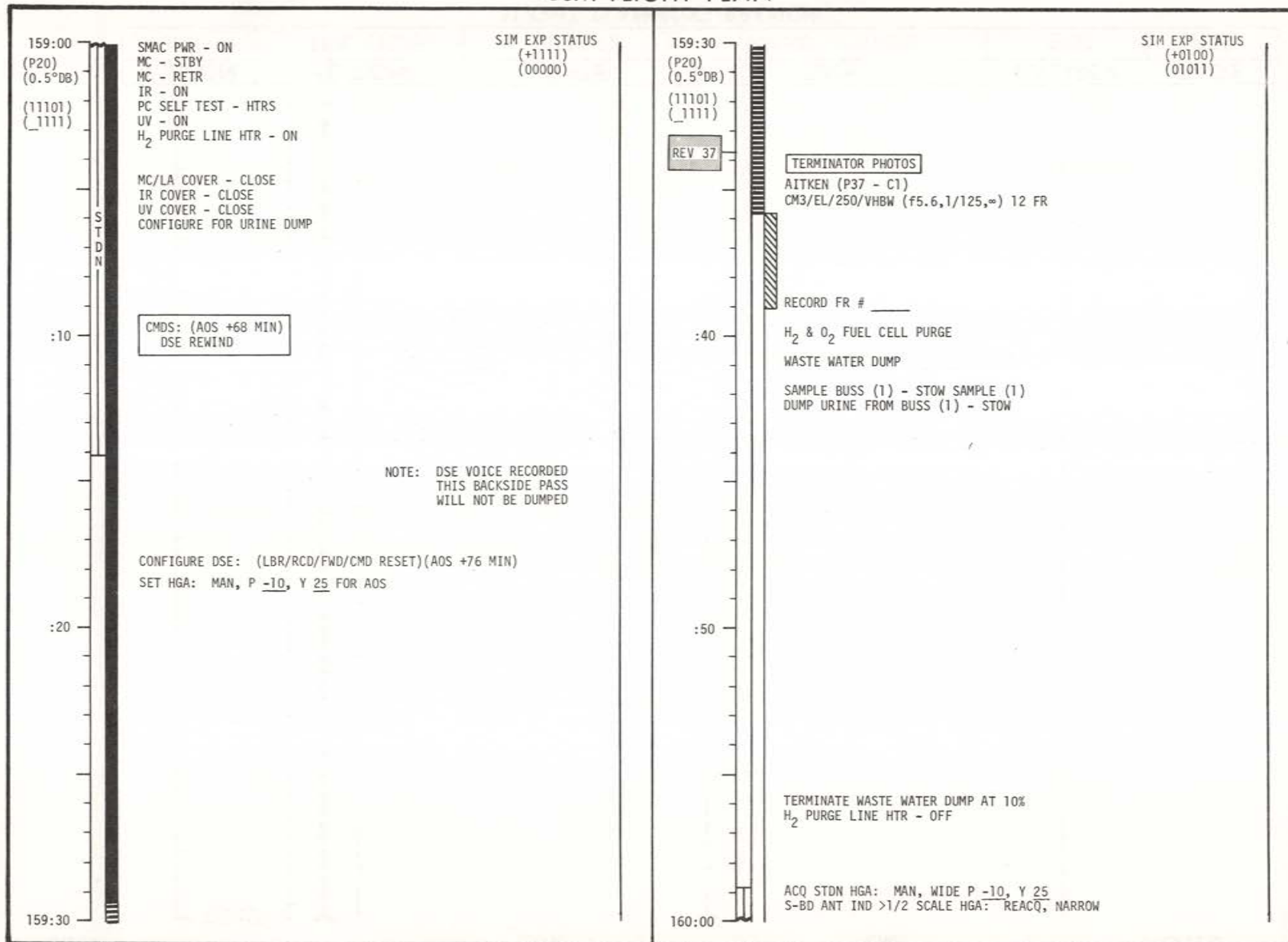
EAT PERIOD

CSM REV 37

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	159:00 - 160:00	8/36-37	3-218

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-219

LM FLIGHT PLAN

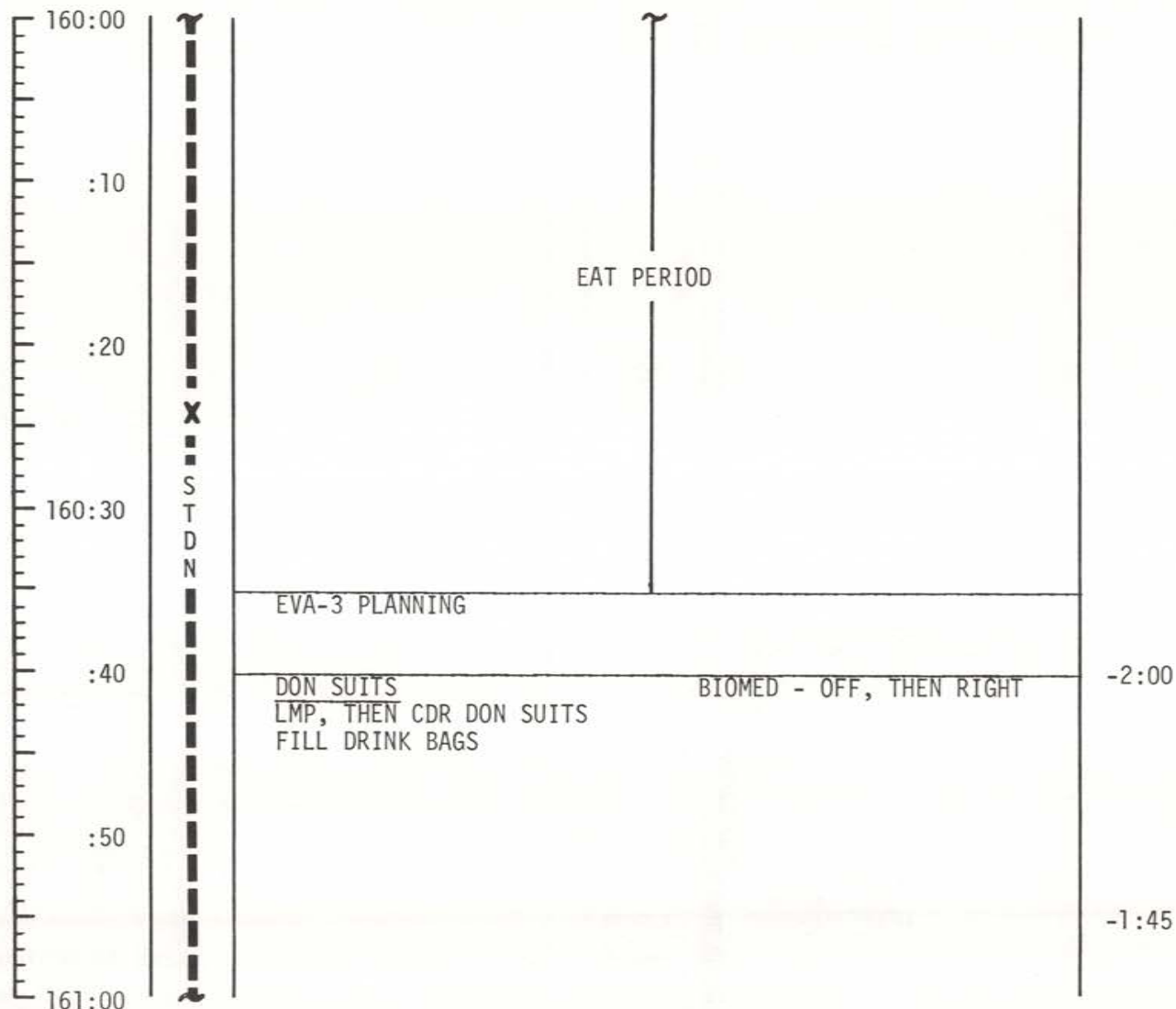
MCC-H

1253 CST

CDR

LMP

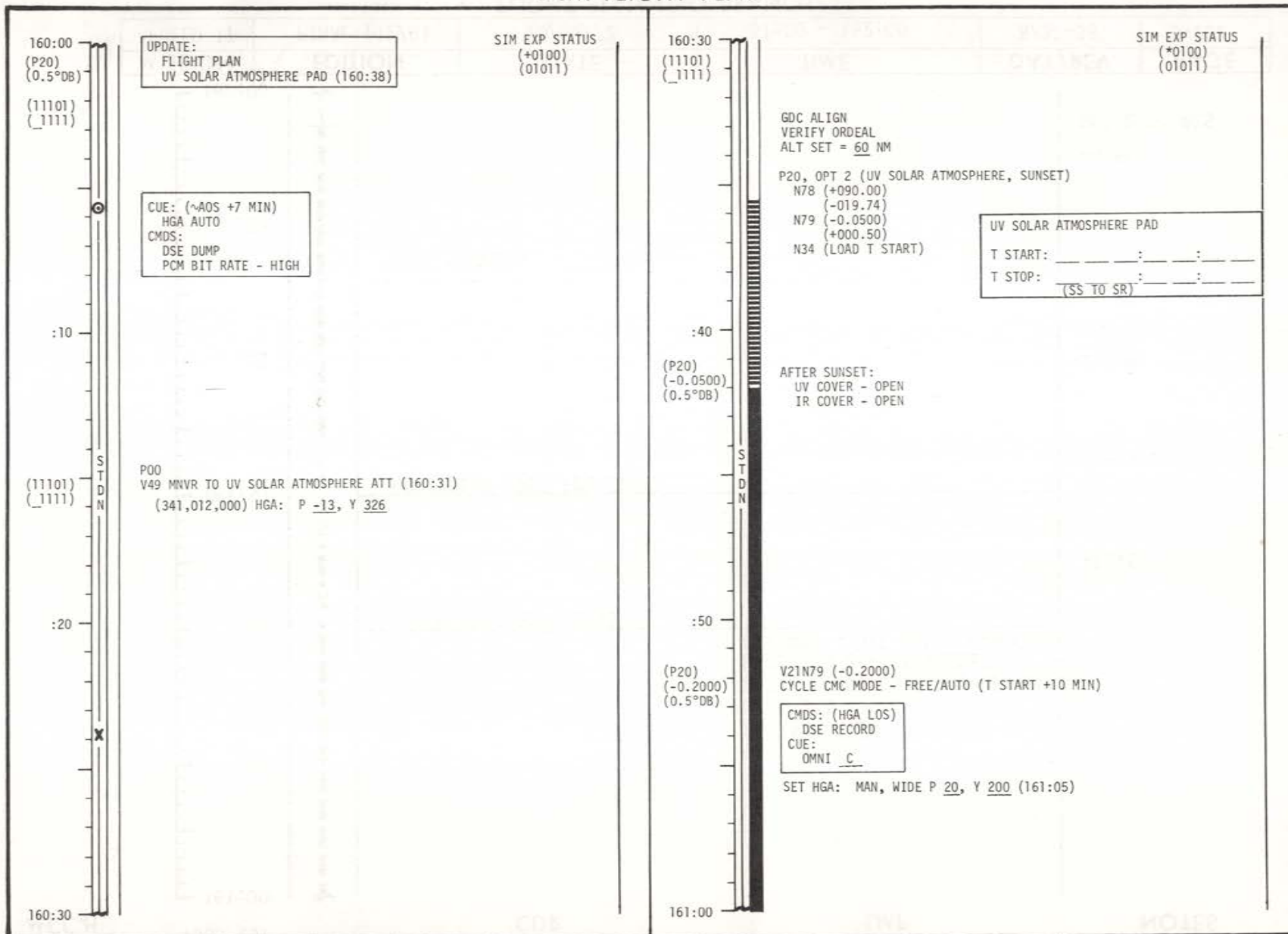
NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	160:00 - 161:00	8/37	3-220

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-221

LM FLIGHT PLAN

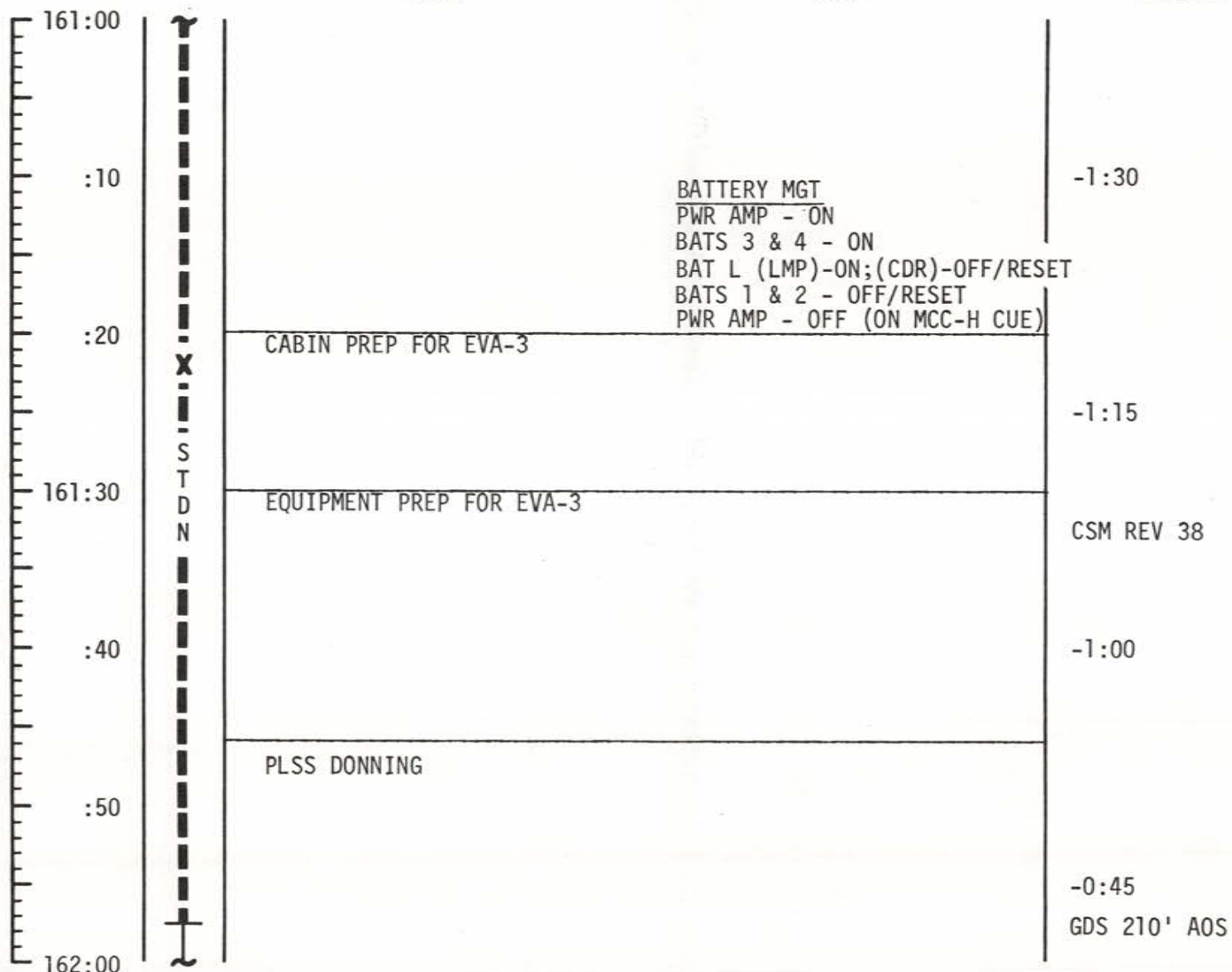
MCC-H

1353 CST

CDR

LMP

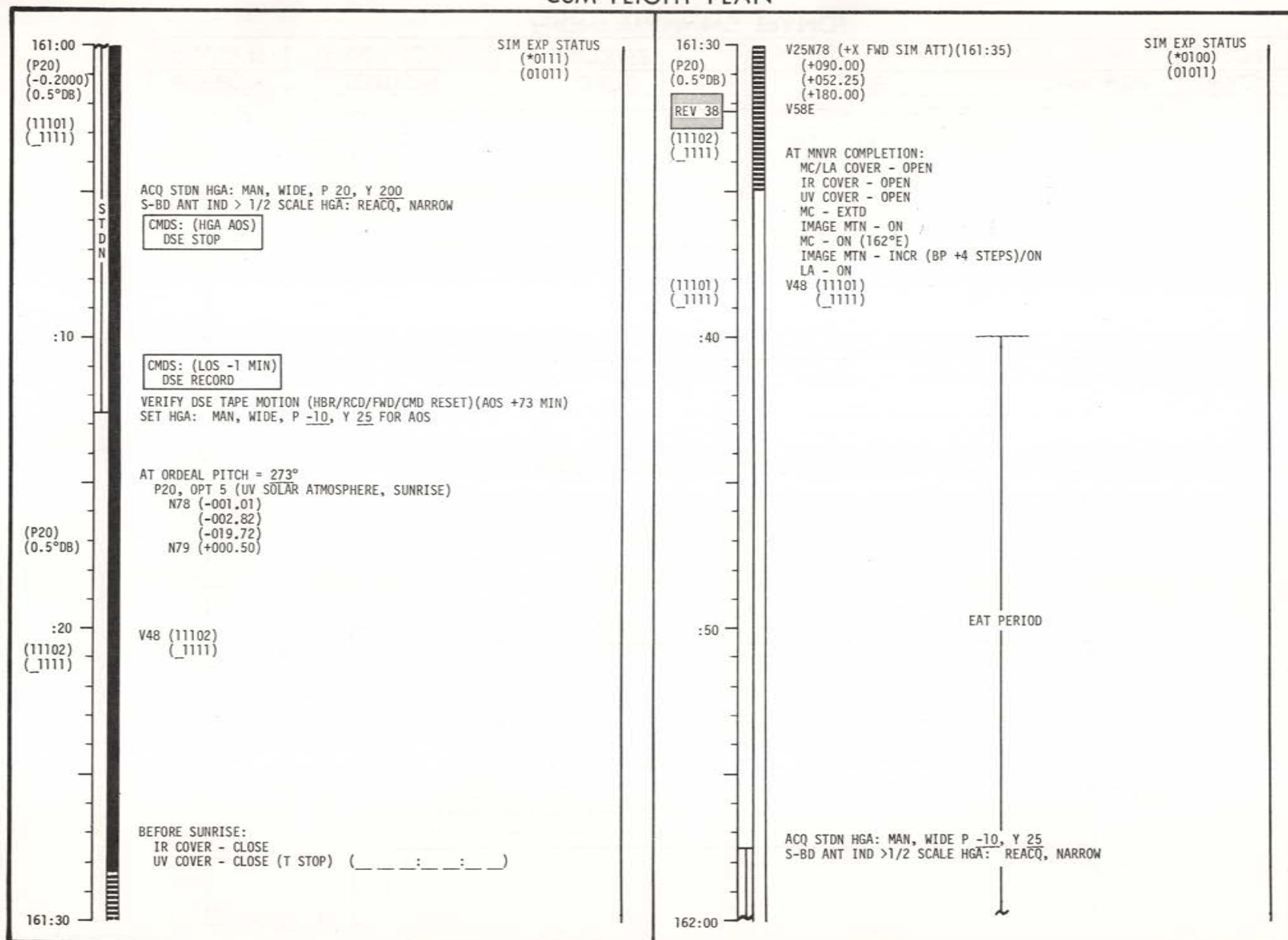
NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	161:00 - 162:00	8/37-38	3-222

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-223

LM FLIGHT PLAN

MCC-H

1453 CST

CDR

LMP

NOTES

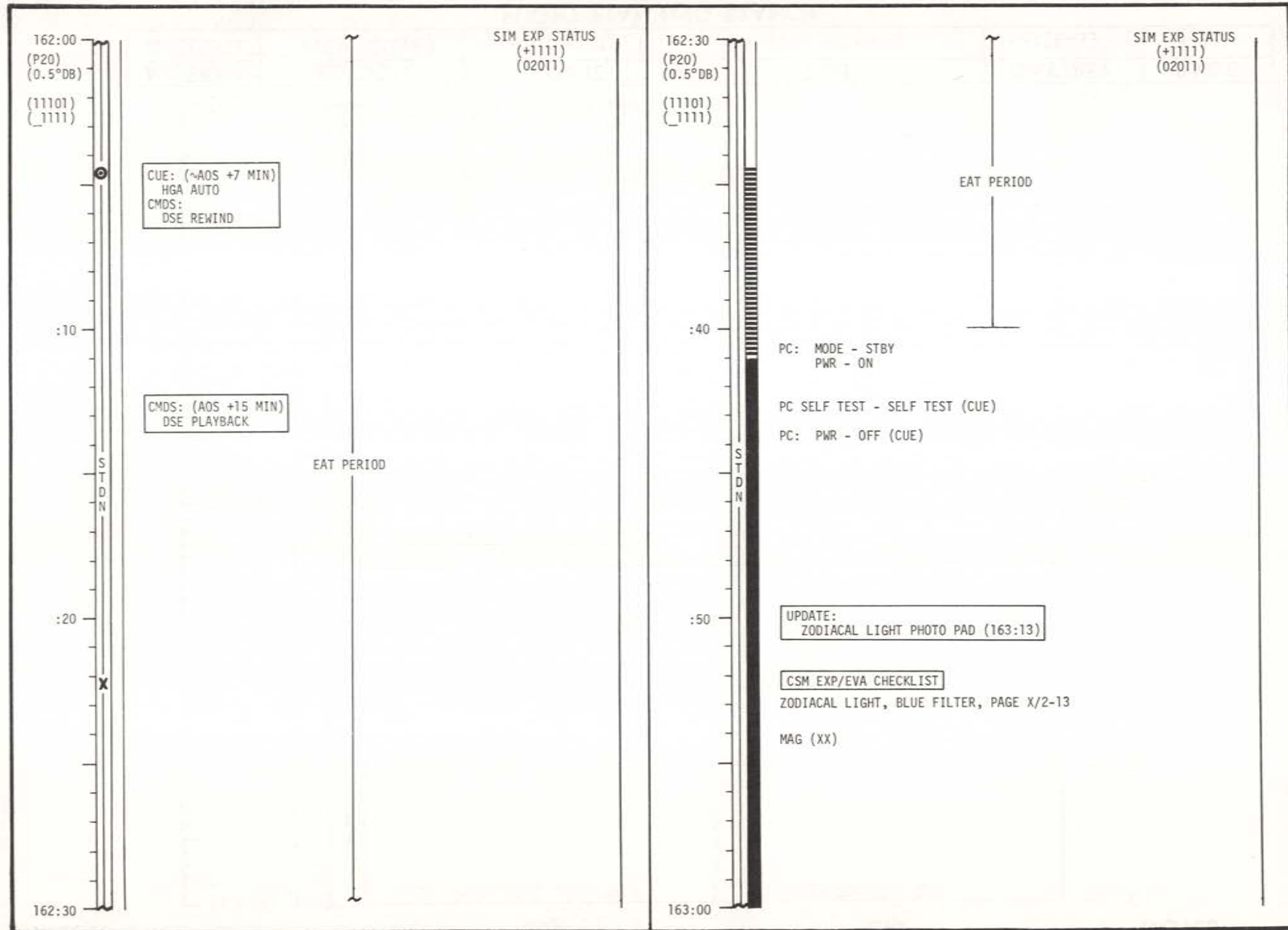
GO/NO-GO FOR
CABIN DEPRESS

162:00				
:10		PLSS COMM CHECK CONFIGURE COMM FOR EVA RECORDER - ON REPORT: <u>PLSS O₂ QUANTITY</u>		-0:30
:20		OPS CONNECT		
	X	HELMET/GLOVE DONNING		-0:15
162:30	S T D N	PRESSURE INTEGRITY CHECK		
:40		CABIN DEPRESS START WATCHES @ 3.5 PSIA FINAL PREP FOR EVA		0:00/START EVA-3
:50		EGRESS LM DESCEND TO SURFACE	ASSIST CDR RECORDER - OFF EGRESS LM, CLOSE HATCH DESCEND TO SURFACE	+0:10
163:00				+0:20

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	162:00 - 163:00	8/38	3-224

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-225

LM FLIGHT PLAN

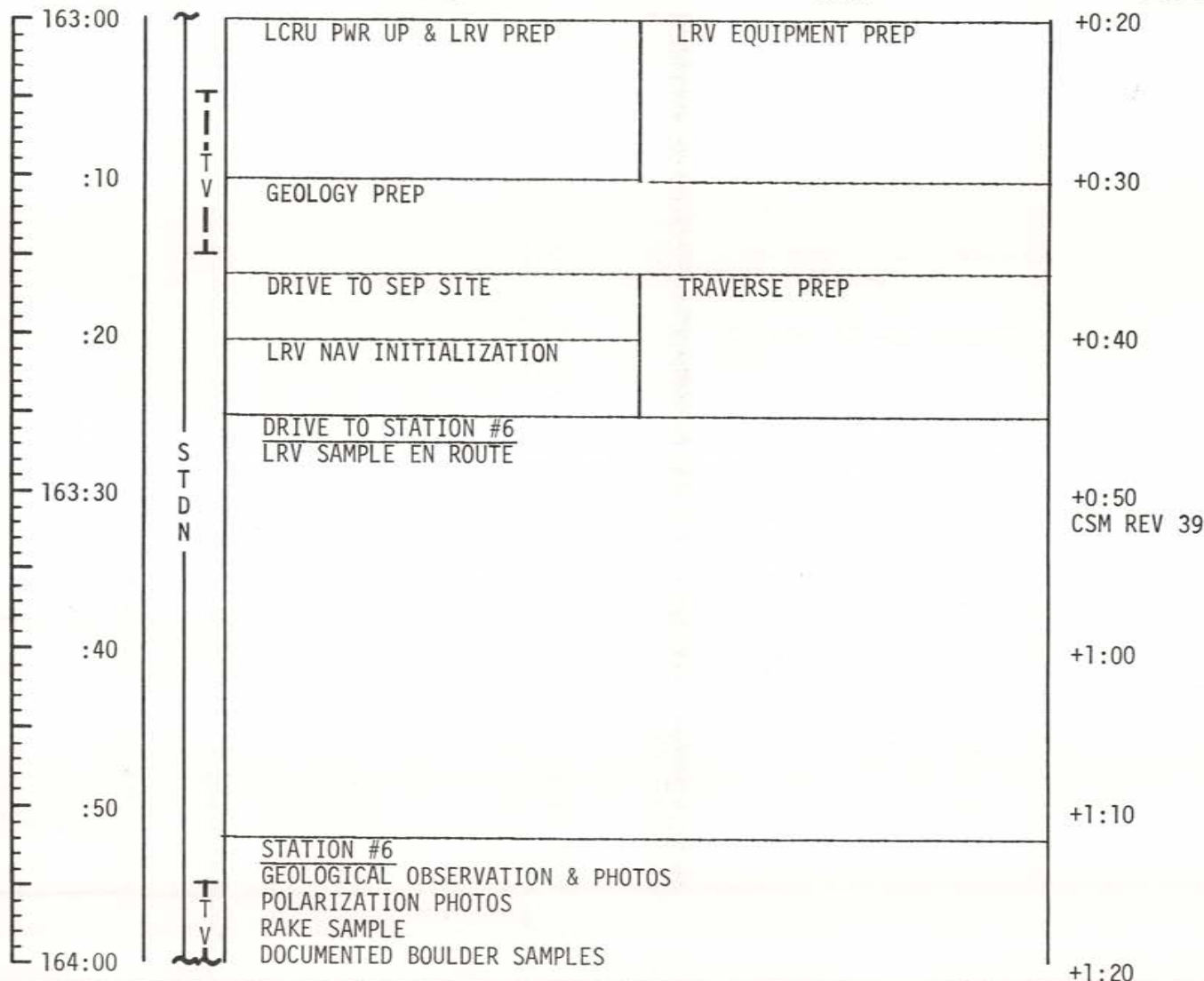
MCC-H

1553 CST

CDR

LMP

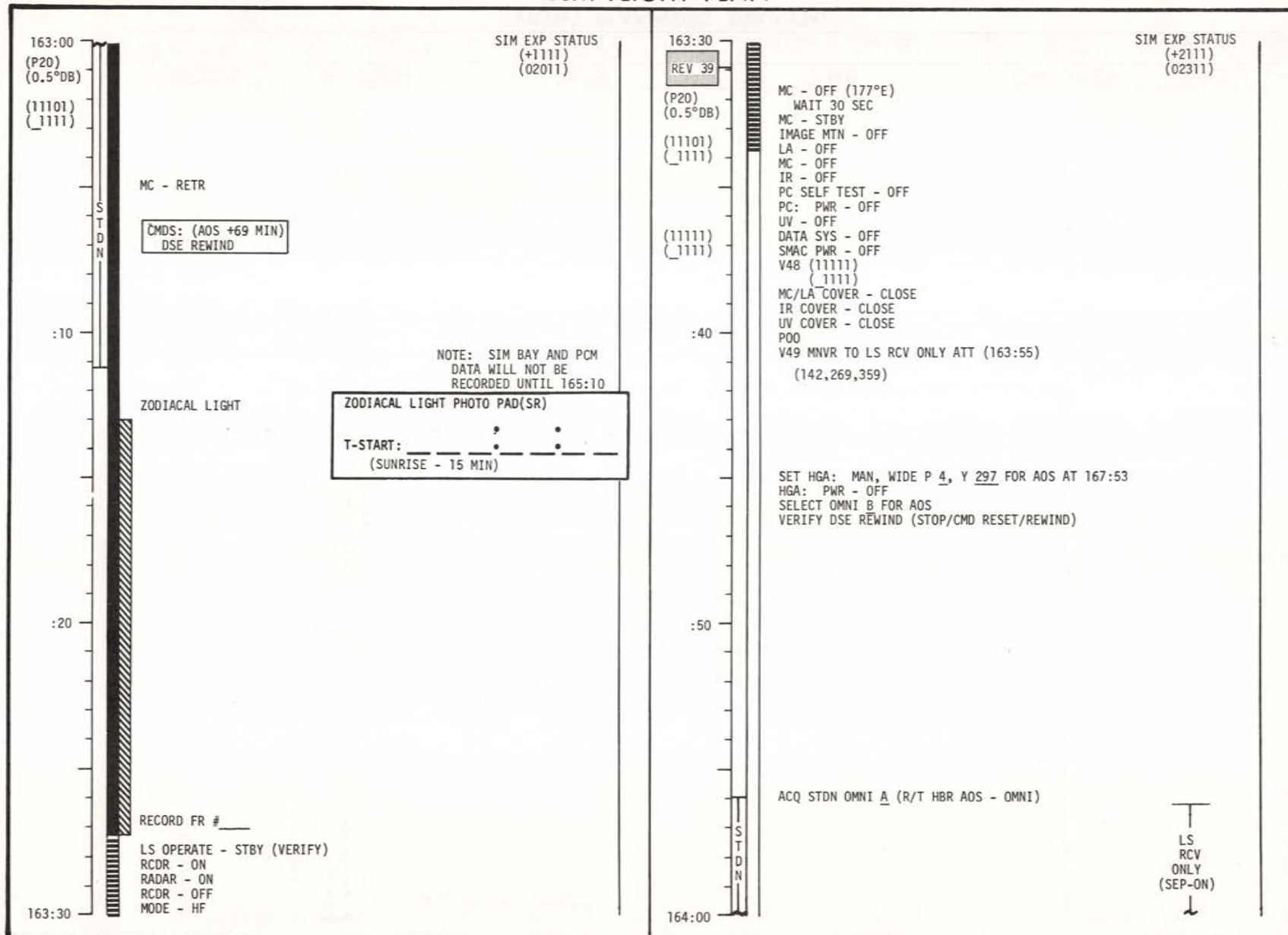
NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	163:00 - 164:00	8/38-39	3-226

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-227

LM FLIGHT PLAN

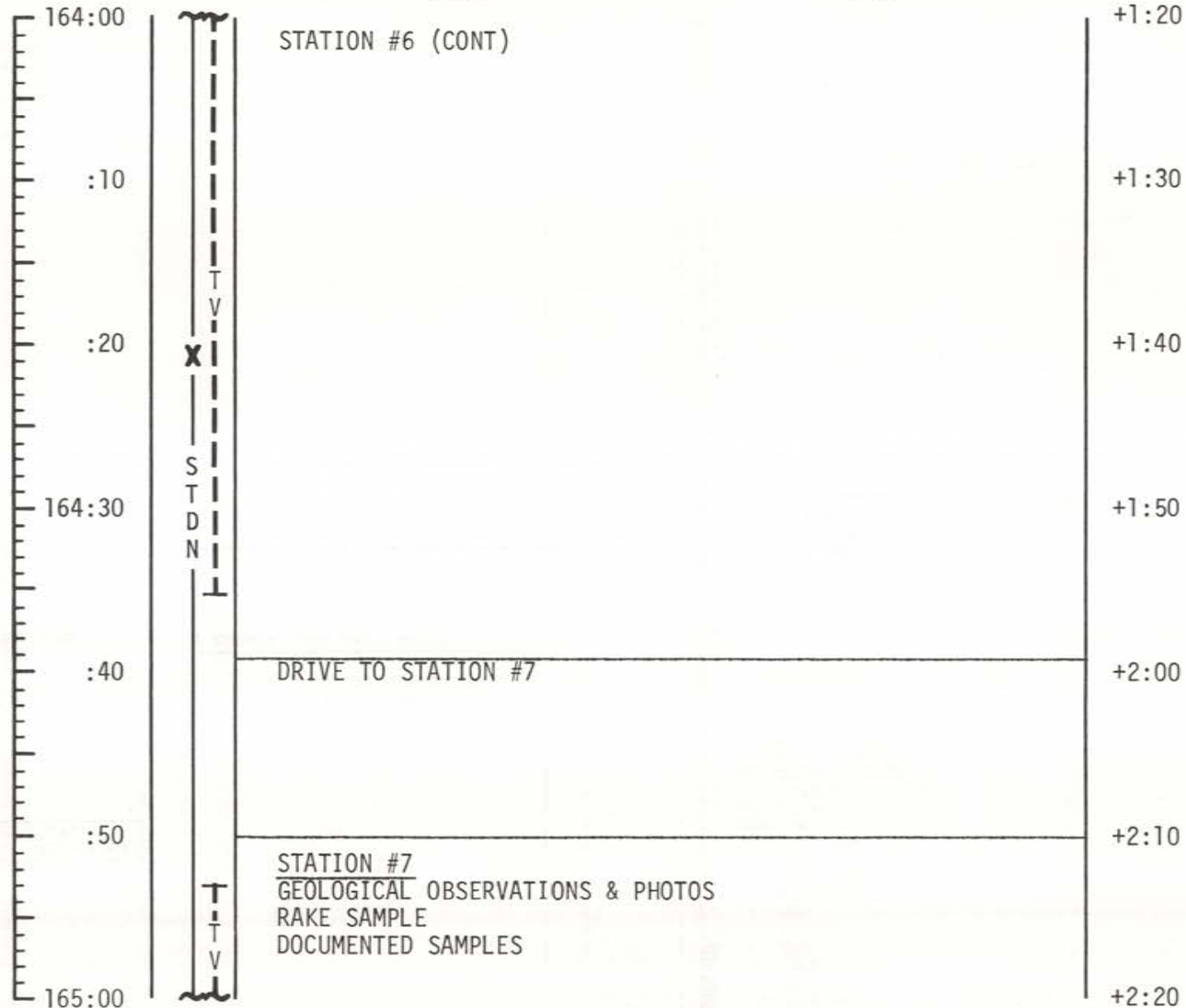
MCC-H

1653 CST

CDR

LMP

NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	164:00 - 165:00	8/39	3-228

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN

164:00 (11111) (1111) UPDATE: FLIGHT PLAN CONFIGURE CAMERA: (ORBITAL SCIENCE PHOTOS) CM5/EL/80/CEX-IVL 20 (f4,1/250,∞) 19 FR MAG (MM) _____, FR # _____ ST D N :10 :20 X ORBITAL SCIENCE PHOTOS D - CALDERA (P39 - C11) CM5/EL/80/CEX-IVL 20 (f4,1/250,∞) 19 FR CHANGE TO f2.8 164:30 SIM EXP STATUS (+0100) (00300) LS RCV ONLY (SEP-ON) 164:30 (11111) (1111) CHANGE TO 1/125 RECORD FR # _____ ST D N :40 :50 165:00 SIM EXP STATUS (+0100) (00300) LS RCV ONLY (SEP-ON)	164:00 (11111) (1111) UPDATE: FLIGHT PLAN CONFIGURE CAMERA: (ORBITAL SCIENCE PHOTOS) CM5/EL/80/CEX-IVL 20 (f4,1/250,∞) 19 FR MAG (MM) _____, FR # _____ ST D N :10 :20 X ORBITAL SCIENCE PHOTOS D - CALDERA (P39 - C11) CM5/EL/80/CEX-IVL 20 (f4,1/250,∞) 19 FR CHANGE TO f2.8 164:30 SIM EXP STATUS (+0100) (00300) LS RCV ONLY (SEP-ON) 164:30 (11111) (1111) CHANGE TO 1/125 RECORD FR # _____ ST D N :40 :50 165:00 SIM EXP STATUS (+0100) (00300) LS RCV ONLY (SEP-ON)
--	--

MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-229

LM FLIGHT PLAN

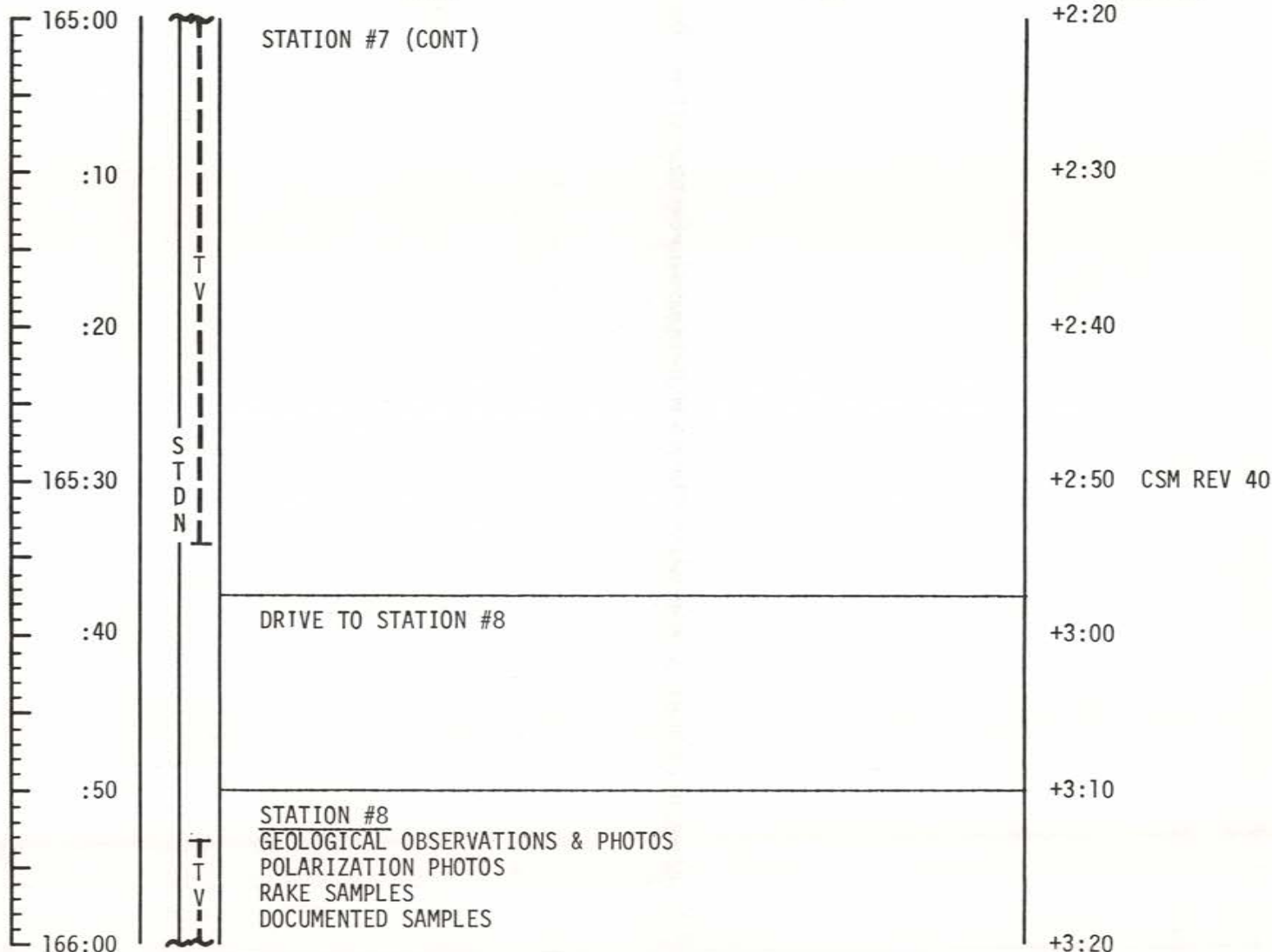
MCC-H

1753 CST

CDR

LMP

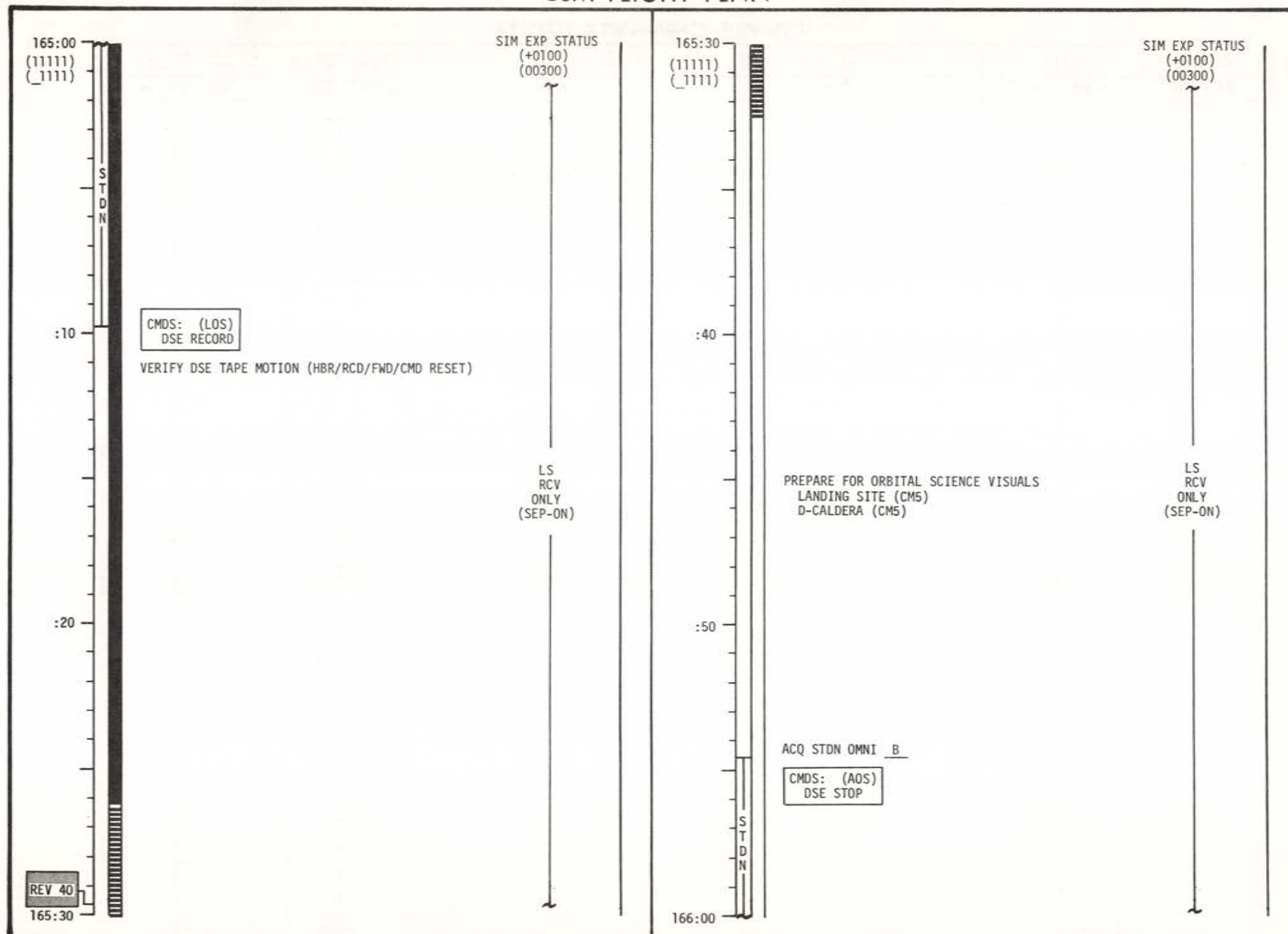
NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	165:00 - 166:00	8/39-40	3-230

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-231

MCC-H

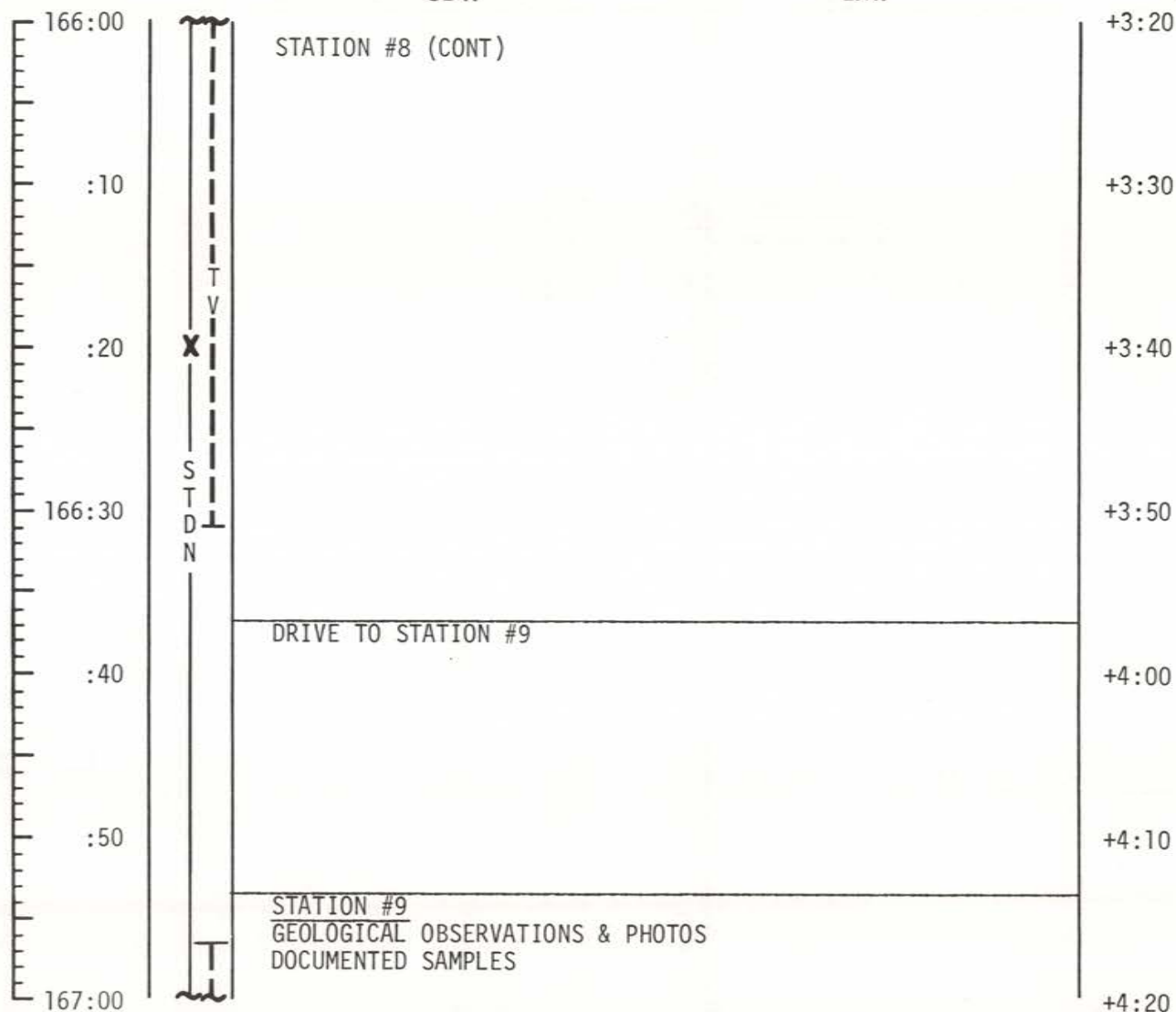
1853 CST

LM FLIGHT PLAN

CDR

LMP

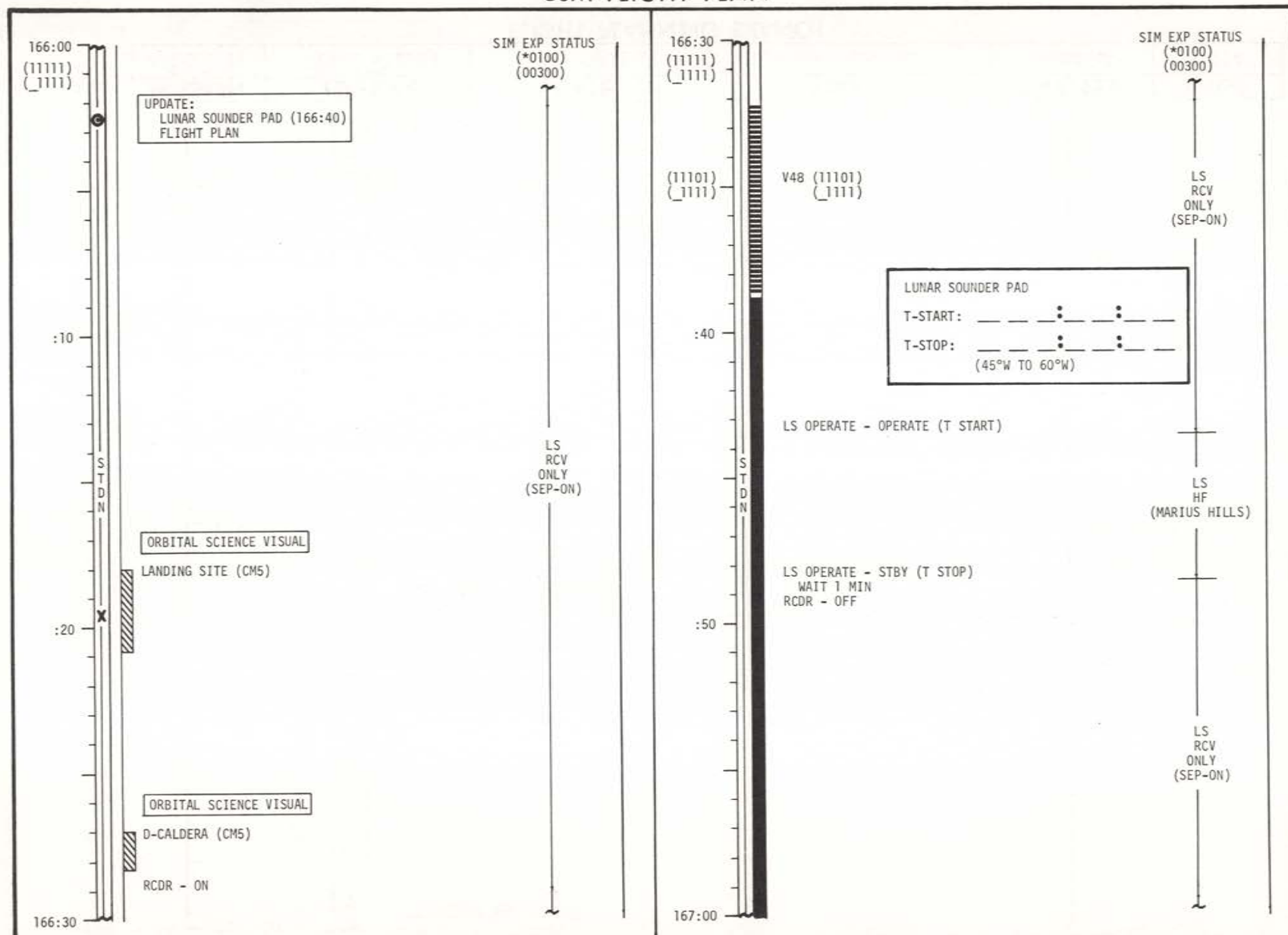
NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	166:00 - 167:00	8/40	3-232

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-233

MCC-H

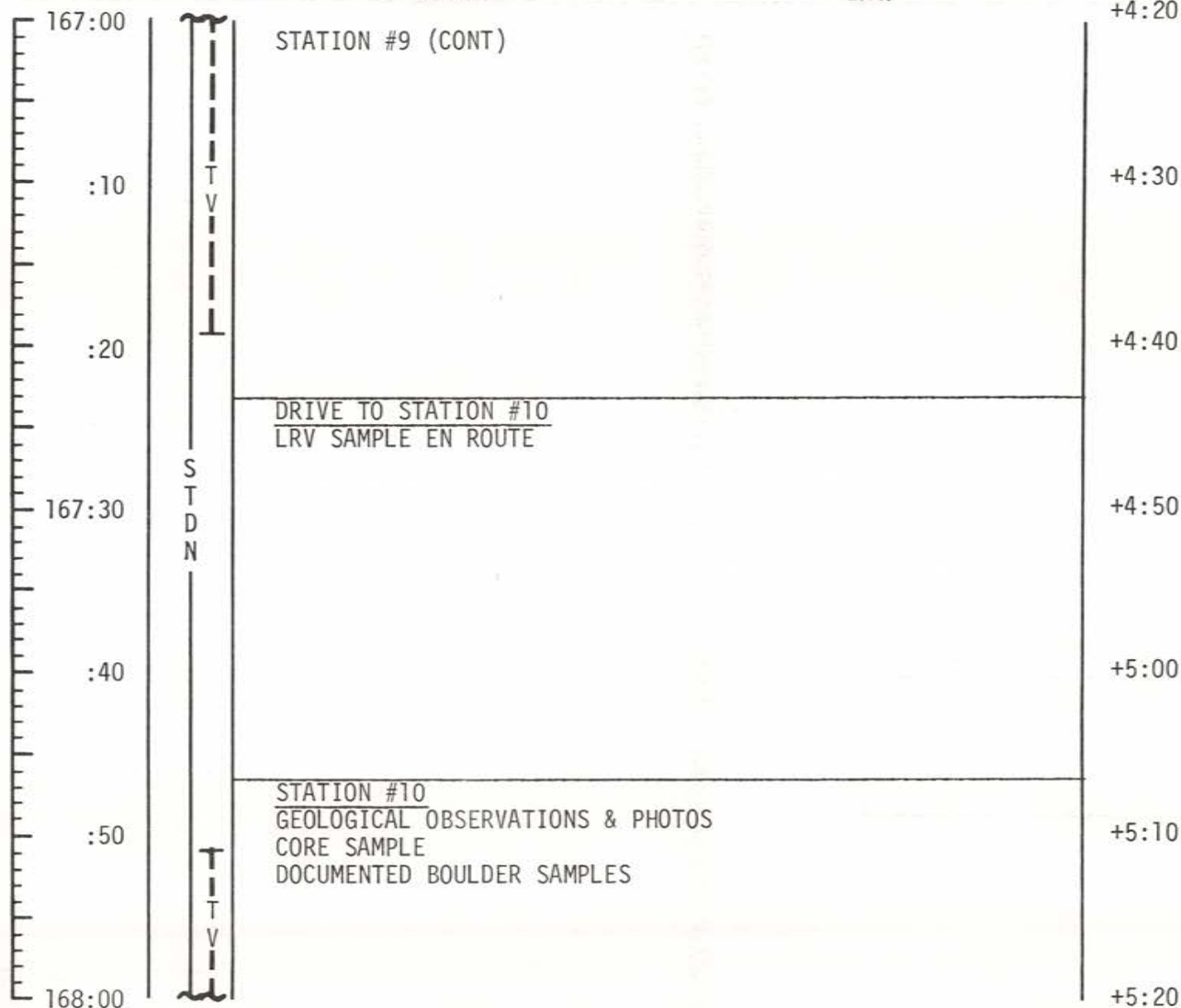
1953 CST

LM FLIGHT PLAN

CDR

LMP

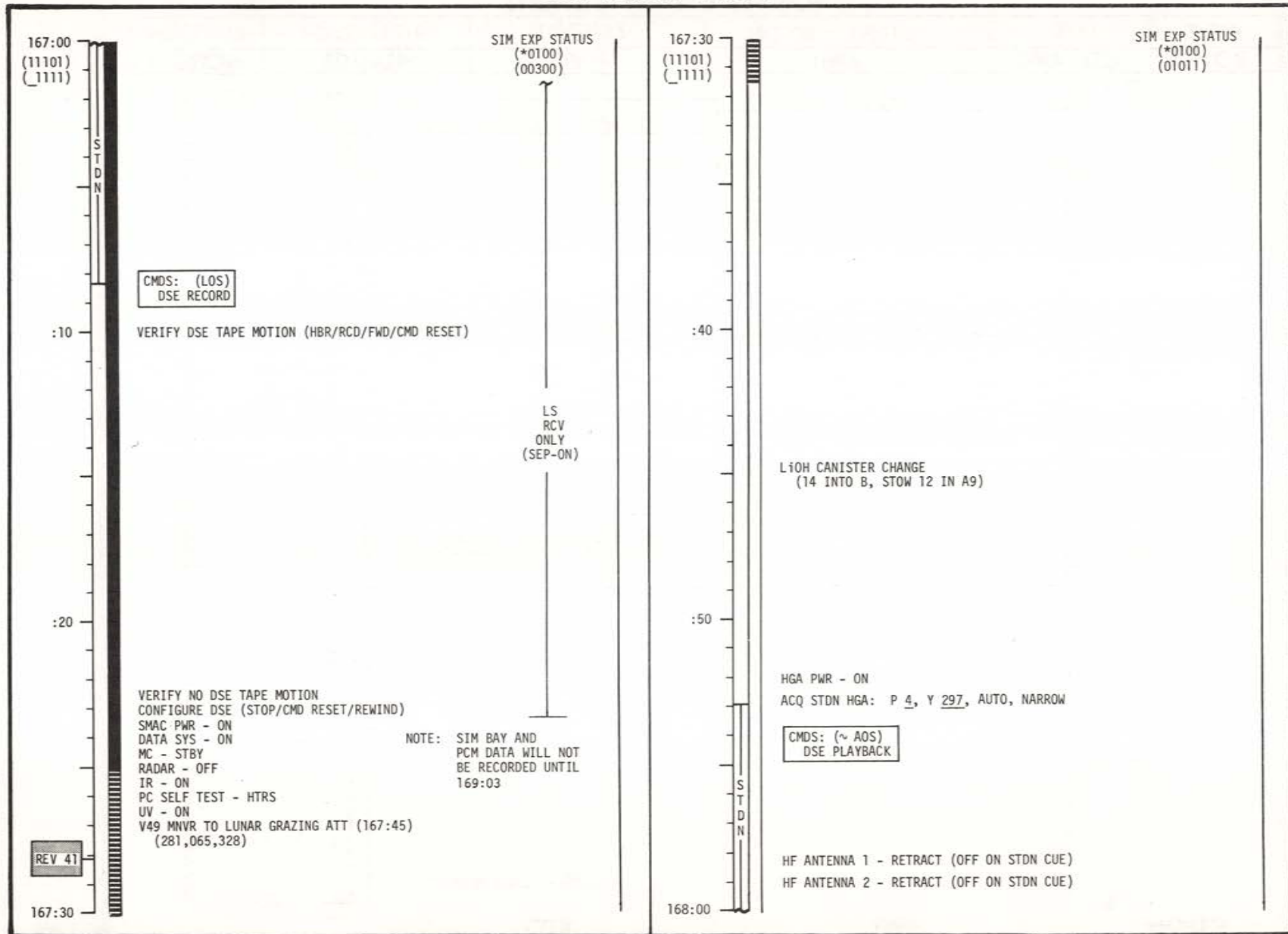
NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	167:00 - 168:00	8/40-41	3-234

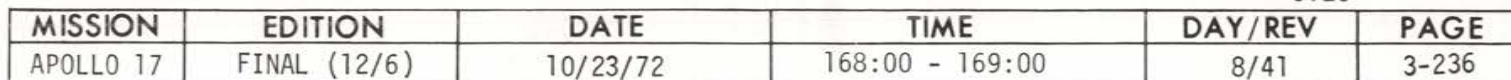
FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



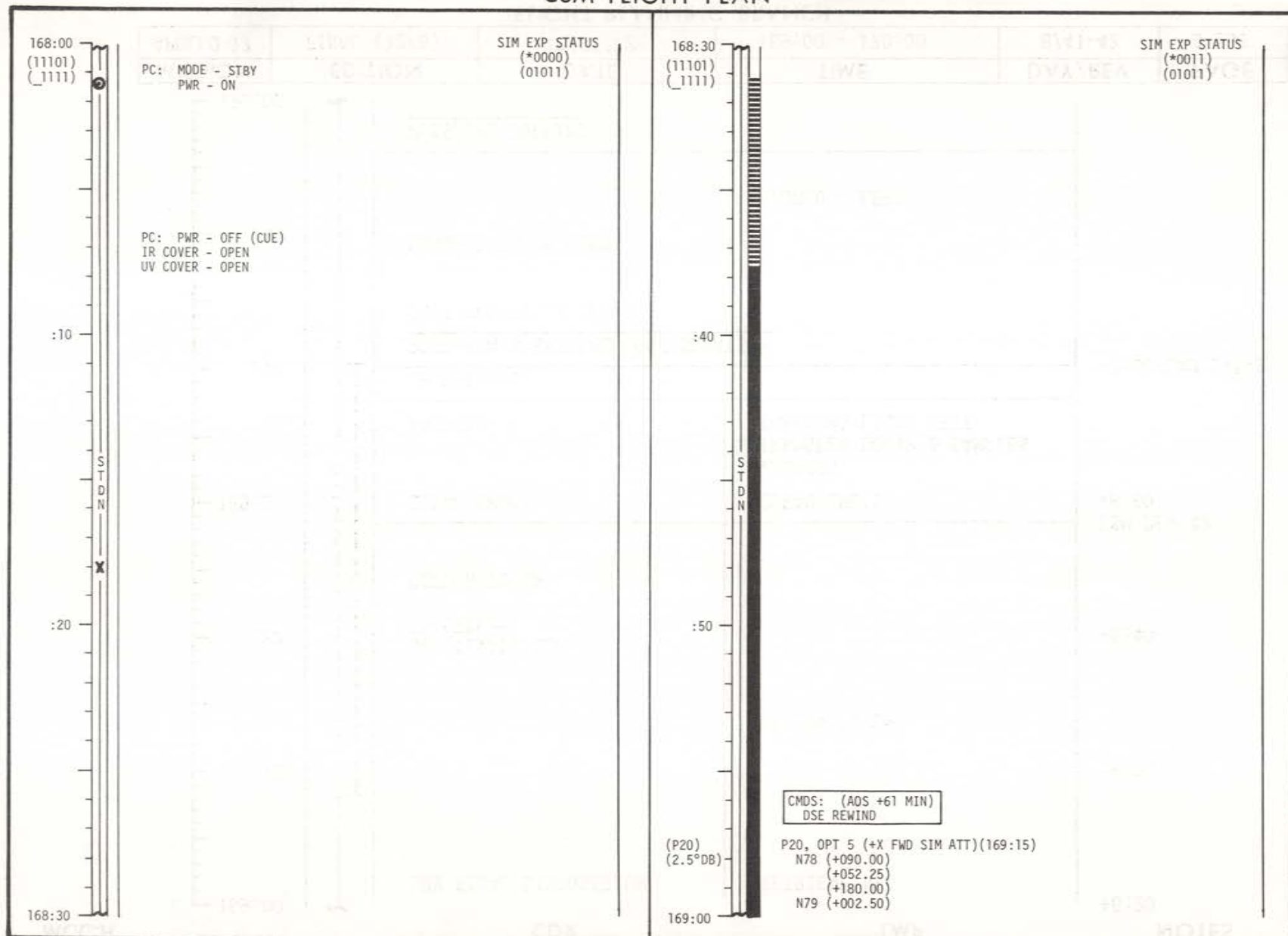
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-235

NOTES



FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-237

MCC-H

2153 CST

LM FLIGHT PLAN

CDR

LMP

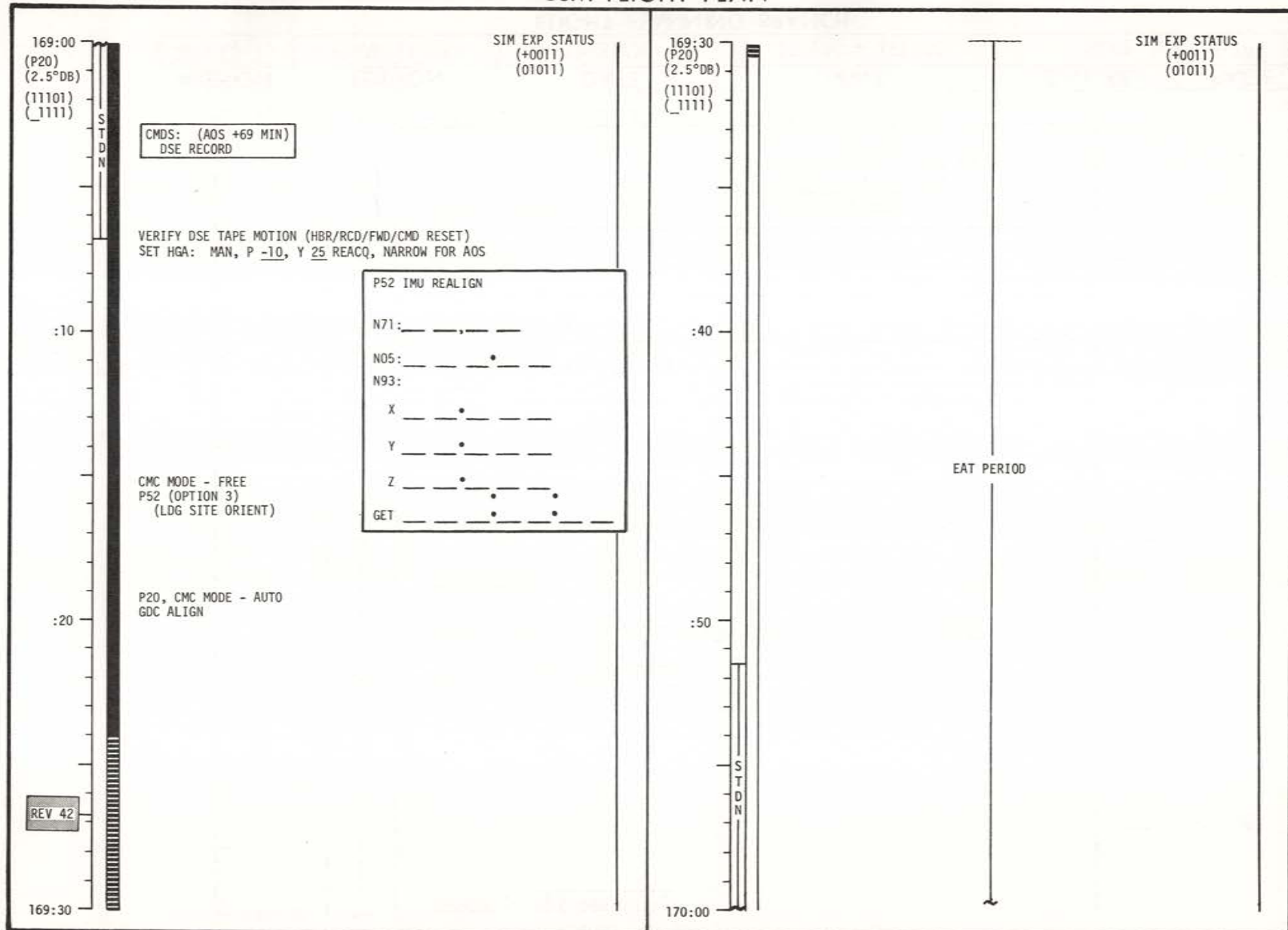
NOTES

169:00		LRV FINAL DISPOSITION	RETRIEVE NFE	+6:20
:10				+6:30
:20		DEACTIVATE SEP EP DEPLOY		+6:40
		RETURN TO LM		
169:30		CLEAN EMU'S	CLEAN EMU'S	CSM REV 42 +6:50
		INGRESS	INGRESS TRANSFER EQUIP & SAMPLES TRACKING LIGHT TEST	
:40		LM REPRESS		+7:00/END EVA-3
		<u>POST EVA-3 SYSTEMS CONFIGURATION</u>		
		DOFF HELMETS & GLOVES		
:50		CONNECT TO LM COMM	BIOMED - LEFT	
170:00		<u>PLSS/OPS DOFFING</u>		

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	169:00 - 170:00	8/41-42	3-238

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-239

LM FLIGHT PLAN

MCC-H

2253 CST

CDR

LMP

NOTES

170:00
:10
:20
170:30
:40
:50
171:00

STDN

REPORT: OPS PRESSURE

PKS 210' AOS

PREP FOR EQUIPMENT JETT

WEIGH ROCK BAG & COLLECTION BAGS, REPORT: WEIGHTS

DON GLOVES

RECORDER - ON/VOX

PRESSURE INTEGRITY CHECK

CABIN DEPRESS

JETTISON #1

CABIN REPRESS

BATTERY MGT

BATS 1 & 2 - ON

LUNAR BAT - OFF/RESET

POST-EVA CABIN CLEANUP

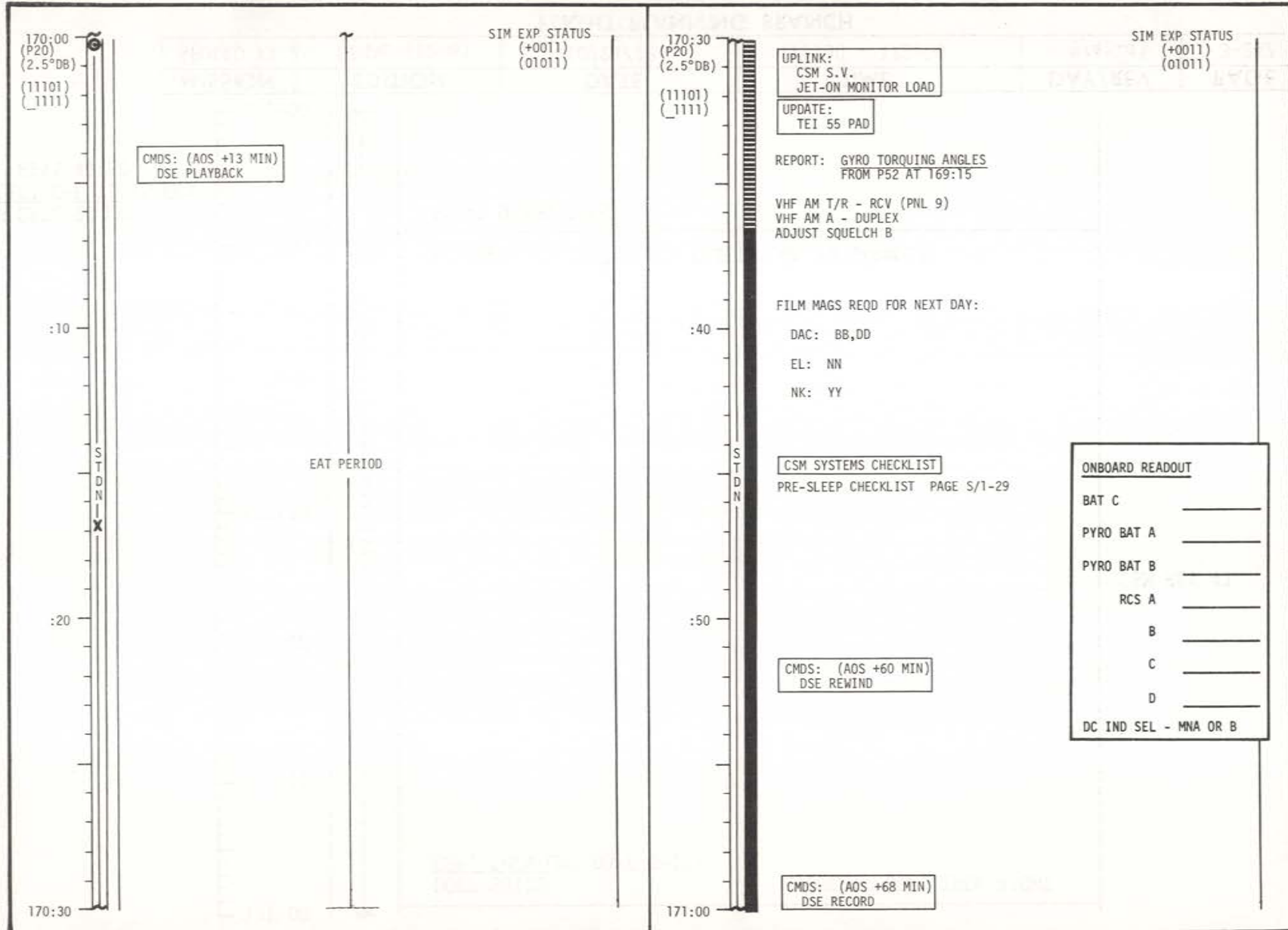
RECORDER - OFF

GO/NO-GO FOR
DEPRESS

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	170:00 - 171:00	8/42	3-240

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-241

MCC-H

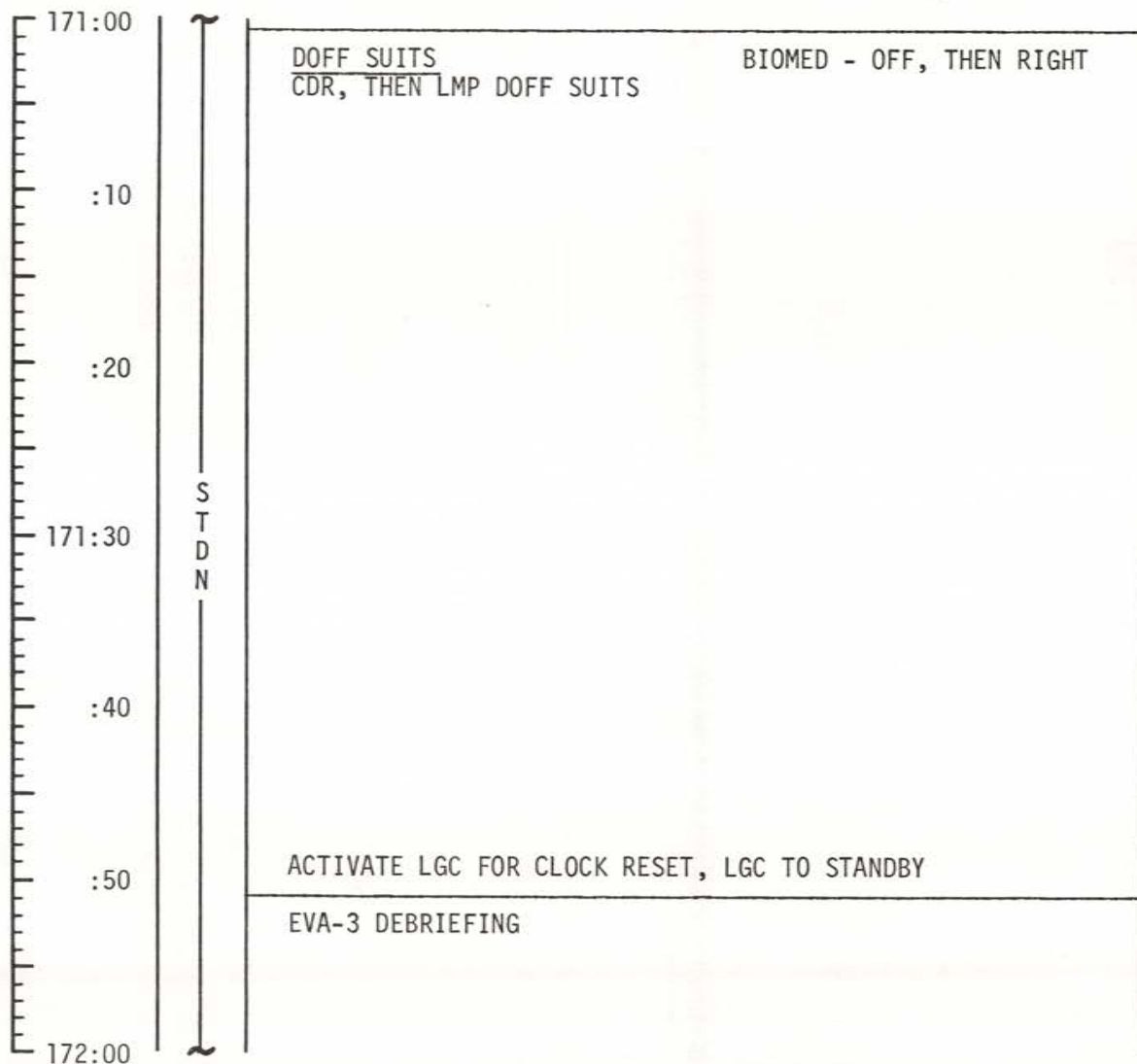
2353 CST

LM FLIGHT PLAN

CDR

LMP

NOTES

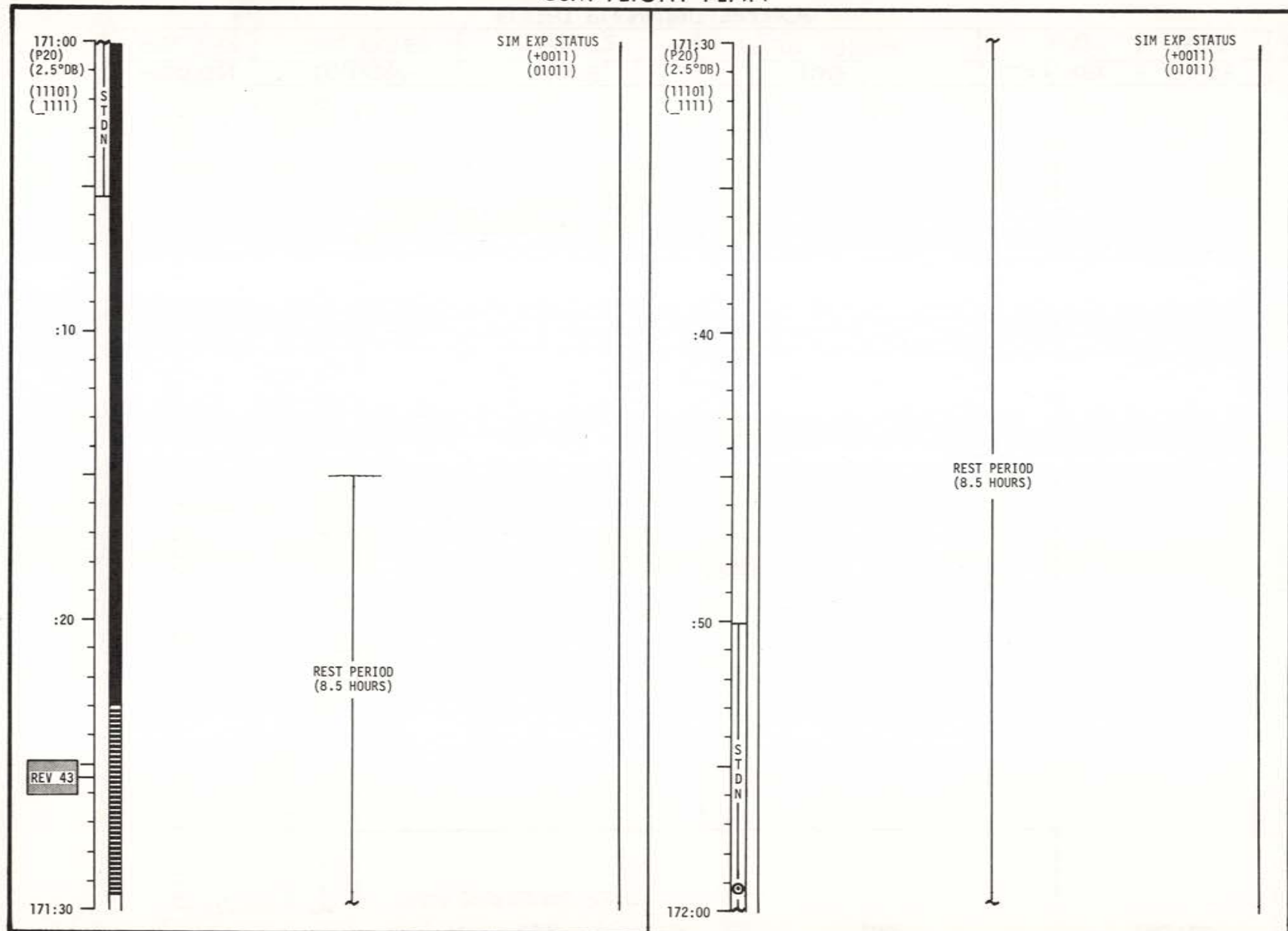


UPDATE TO LM
LIFT-OFF TIMES FOR
REVS 44-50

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	171:00 - 172:00	8/42-43	3-242

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-243

LM FLIGHT PLAN

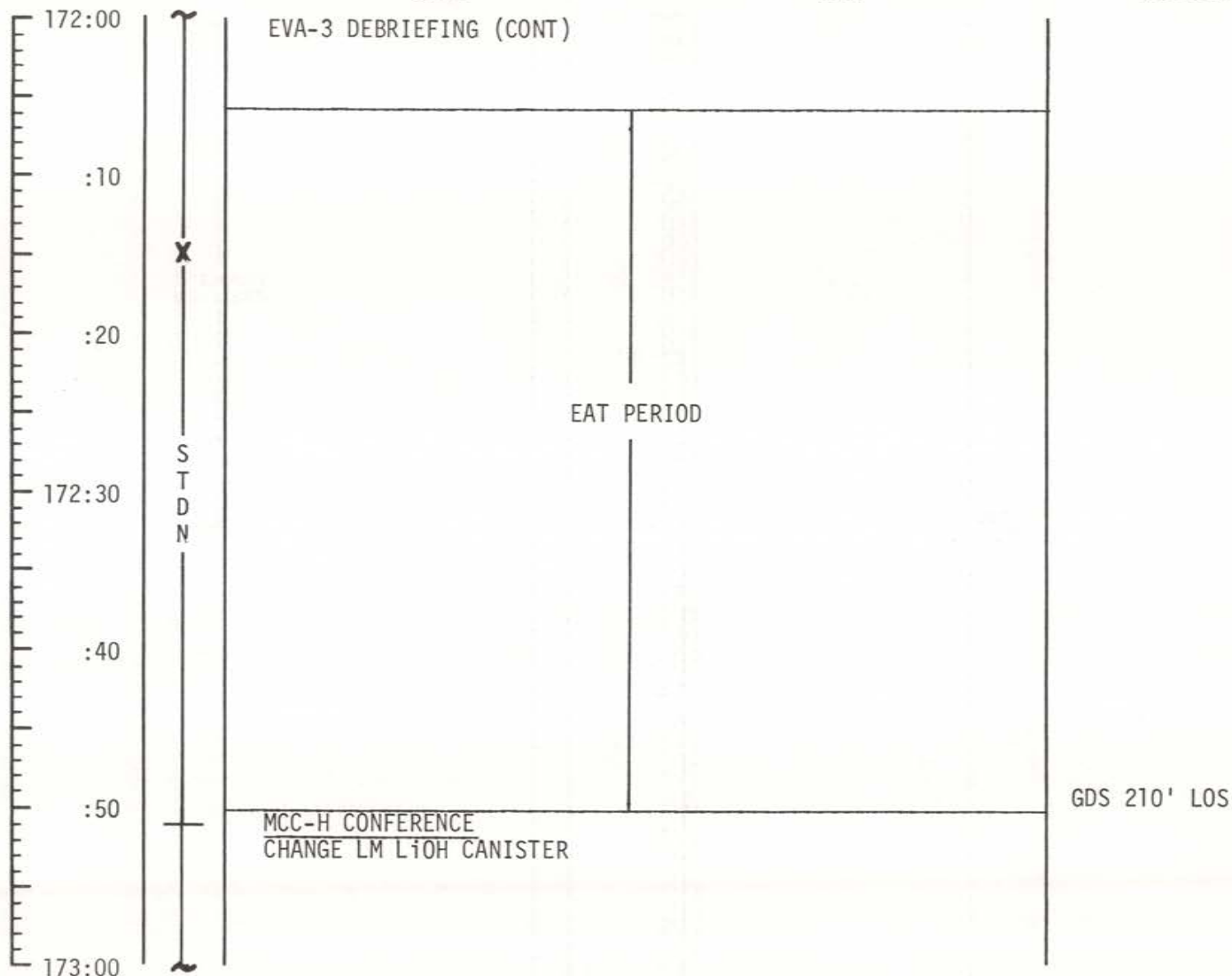
MCC-H

0053 CST, 12/14

CDR

LMP

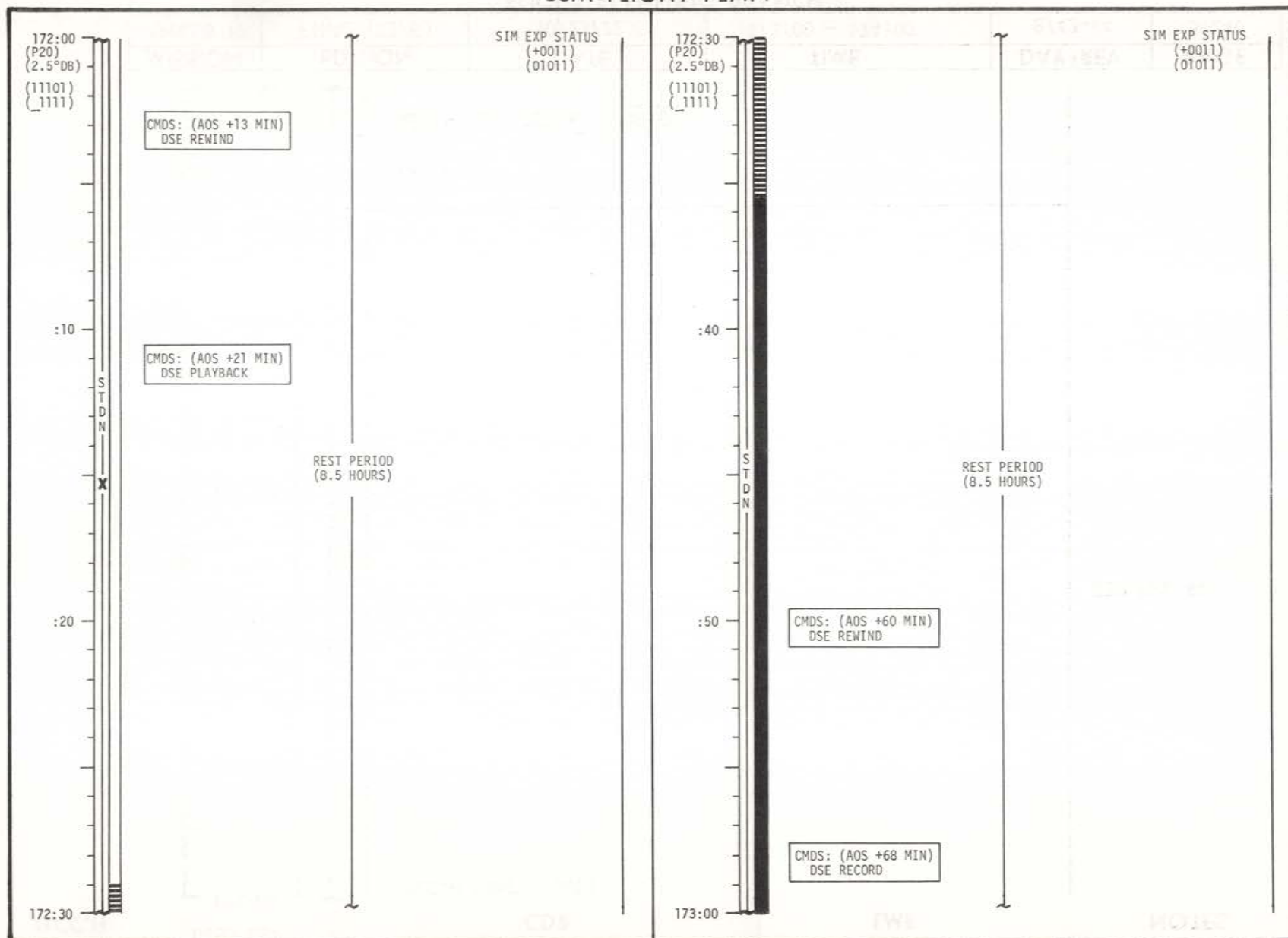
NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	172:00 - 173:00	8/43	3-244

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-245

LM FLIGHT PLAN

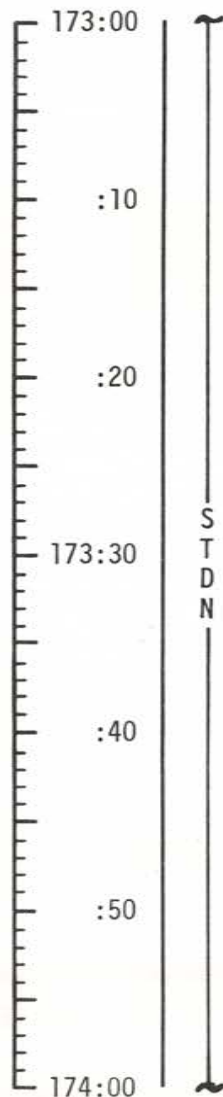
MCC-H

0153 CST

CDR

LMP

NOTES



MCC-H CONF (CONT)

CSM REV 44

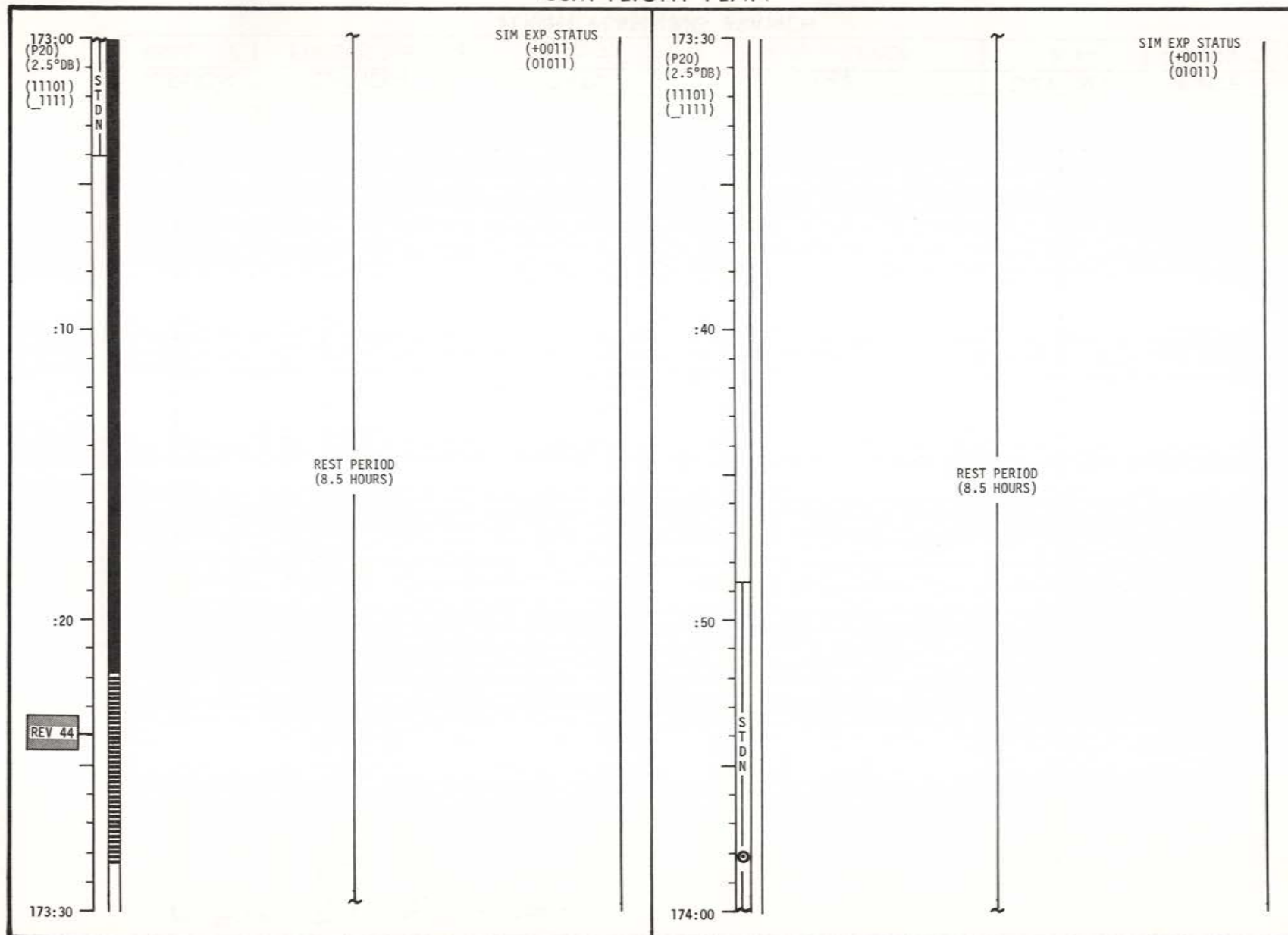
PRESLEEP

WEIGH ISA, REPORT: WEIGHT

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	173:00 - 174:00	8/43-44	3-246

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-247

LM FLIGHT PLAN

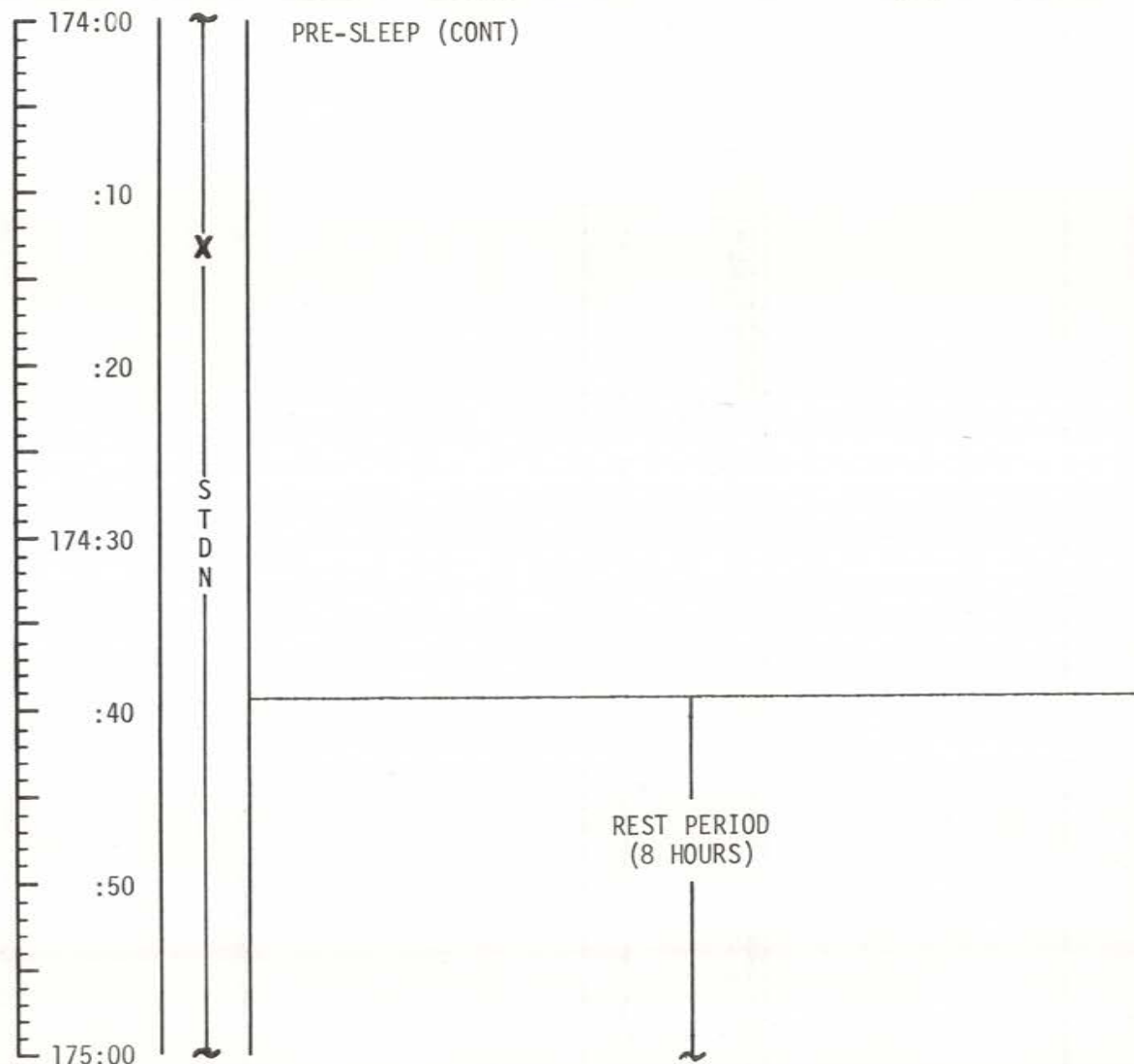
MCC-H

0253 CST

CDR

LMP

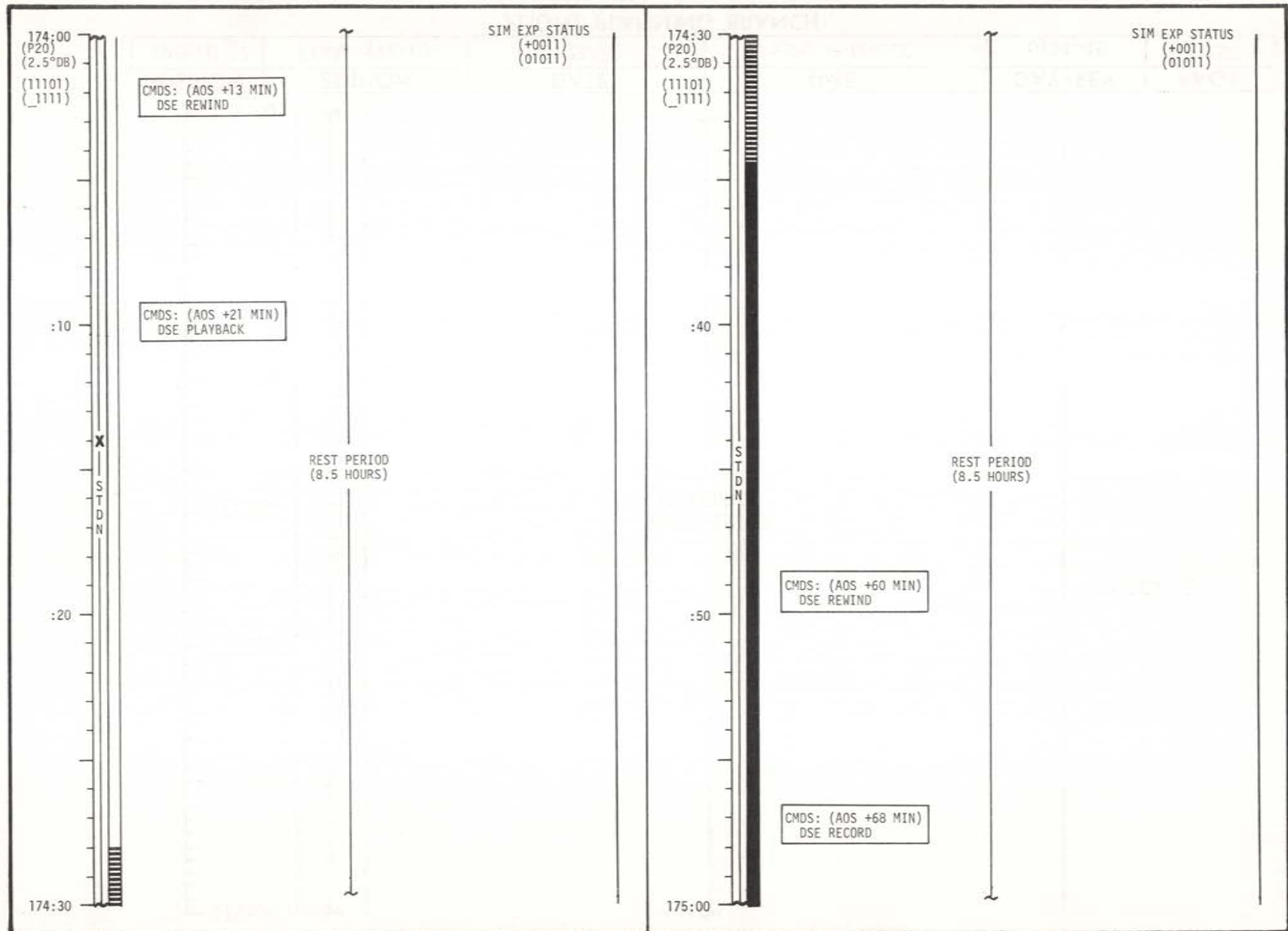
NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	174:00 - 175:00	8/44	3-248

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-249

MCC-H

0353 CST

LM FLIGHT PLAN

CDR

LMP

NOTES

175:00
:10
:20
175:30
:40
:50
176:00

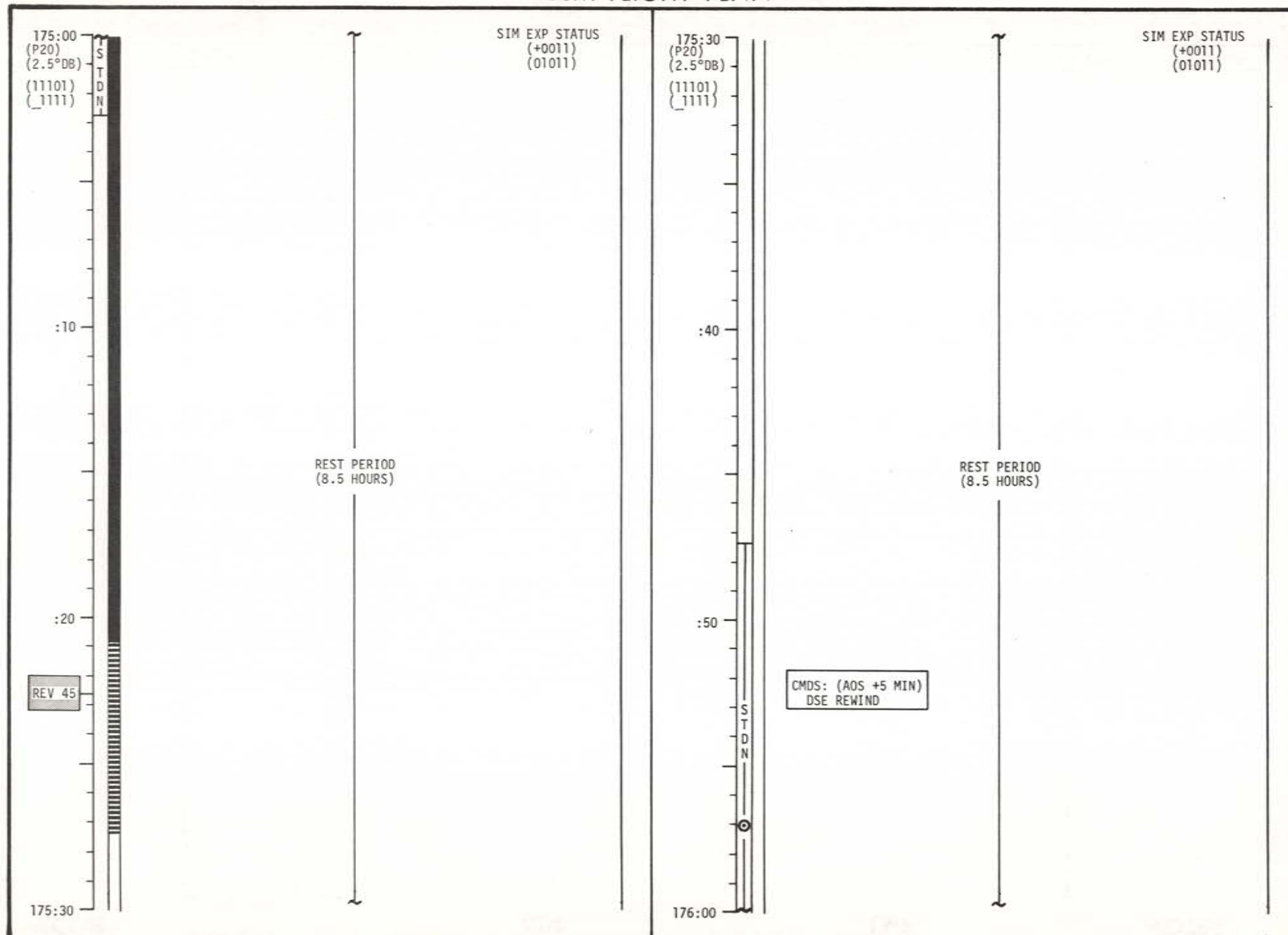
S
T
D
NREST PERIOD
(8 HOURS)

CSM REV 45

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	175:00 - 176:00	8/44-45	3-250

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-251

LM FLIGHT PLAN

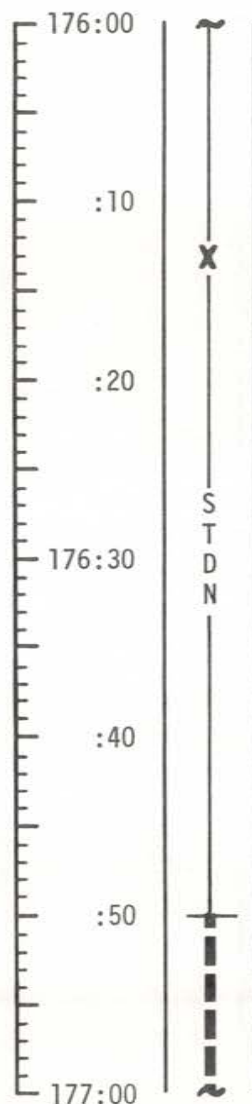
MCC-H

0453 CST

CDR

LMP

NOTES



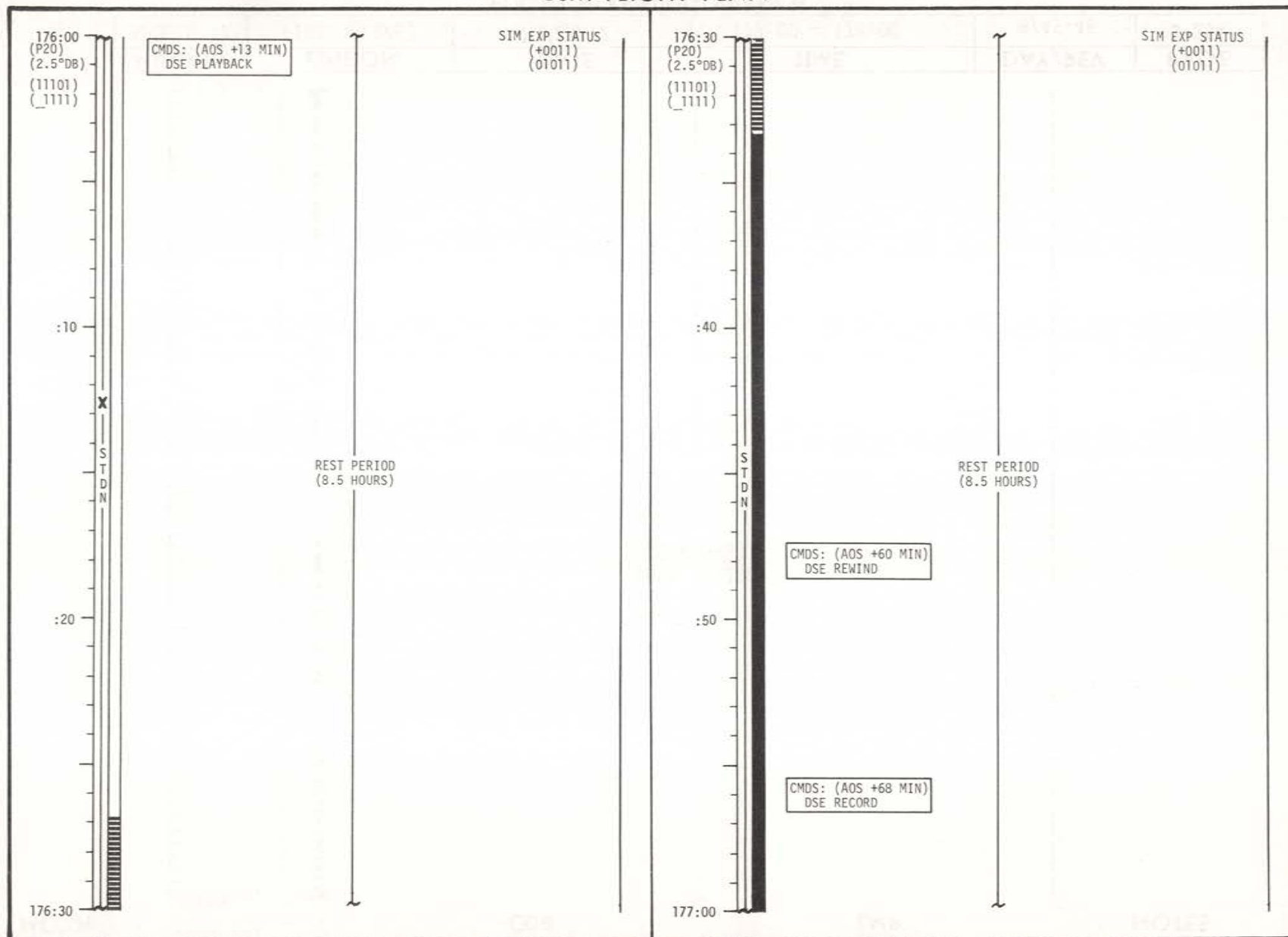
REST PERIOD
(8 HOURS)

PKS 210' LOS

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	176:00 - 177:00	8/45	3-252

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-253

LM FLIGHT PLAN

MCC-H

0553 CST

CDR

LMP

NOTES

177:00

:10

:20

177:30

:40

:50

178:00

STDN

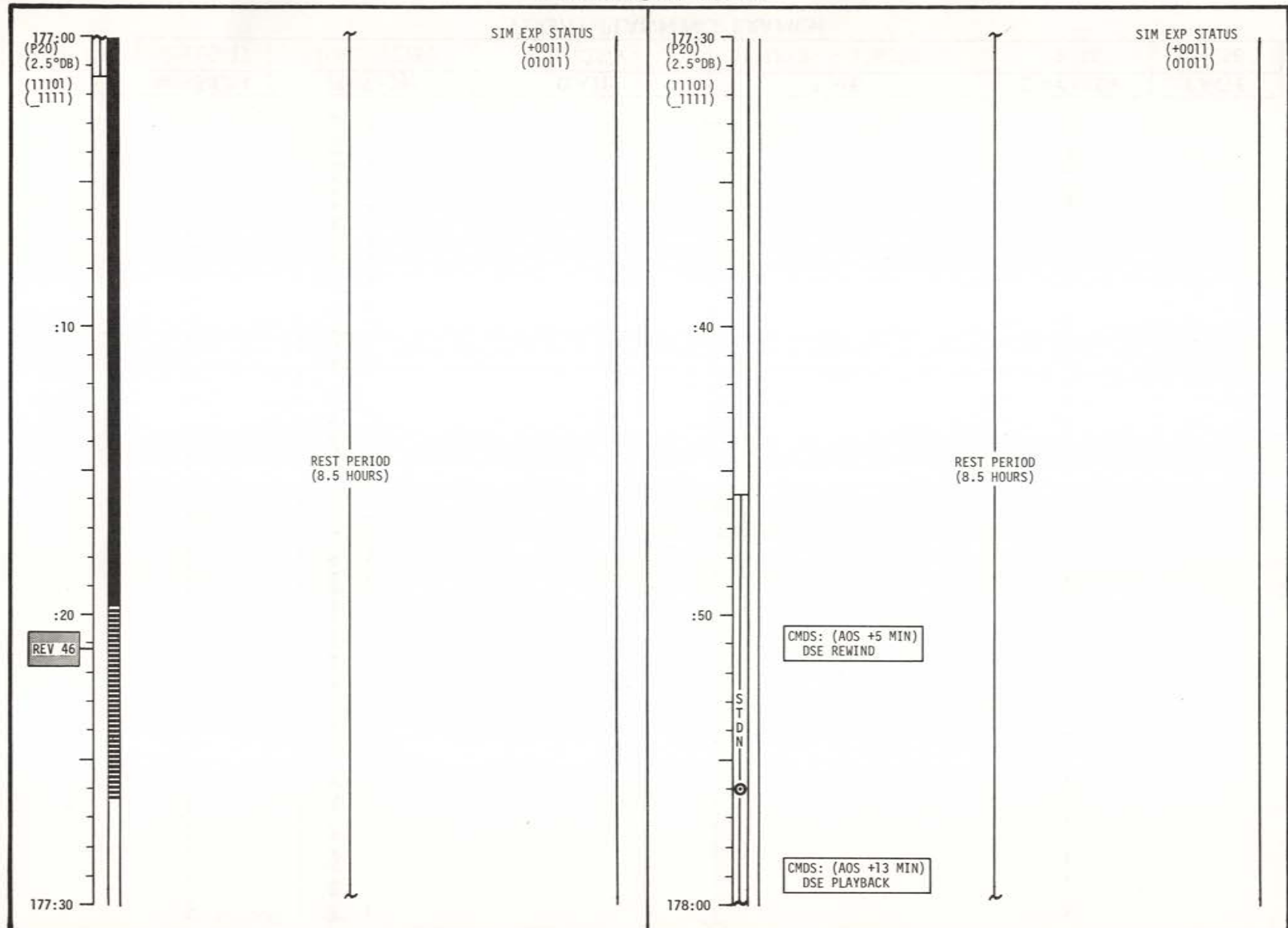
REST PERIOD
(8 HOURS)

CSM REV 46

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	177:00 - 178:00	8/45-46	3-254

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-255

CDR

LMP

NOTES

MCC-H

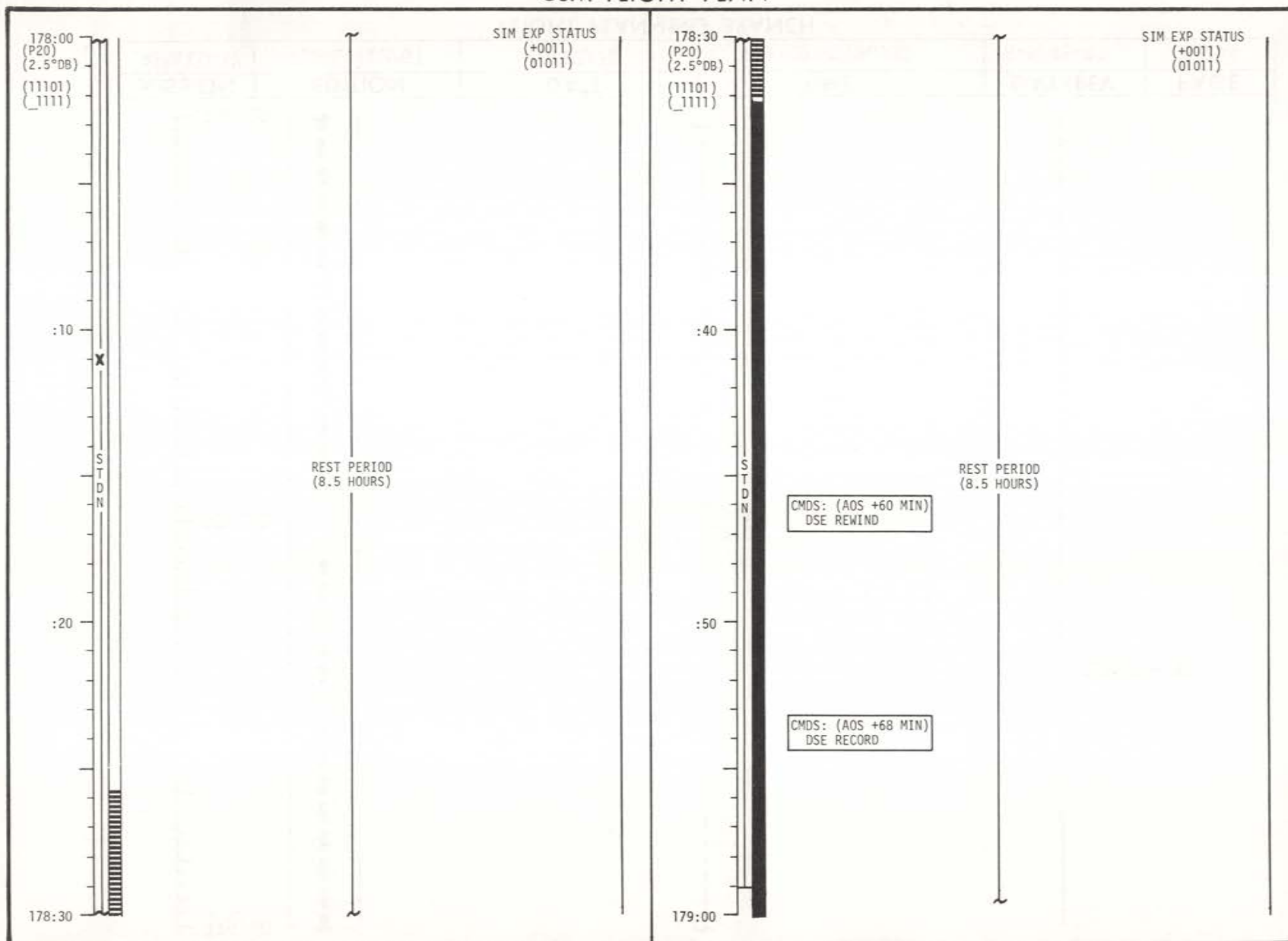
0653 CST

REST PERIOD
(8 HOURS)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	178:00 - 179:00	8/46	3-256

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-257

LM FLIGHT PLAN

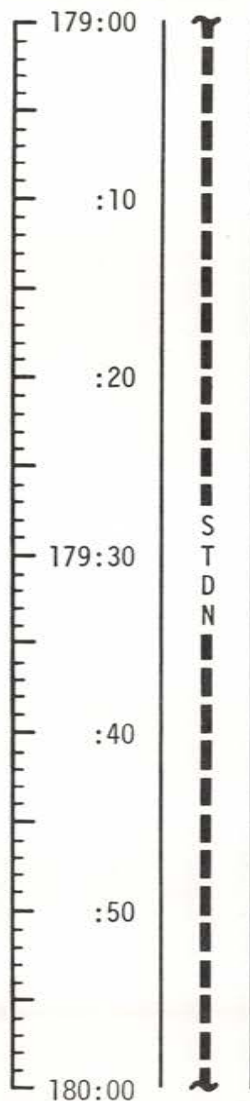
MCC-H

0753 CST

CDR

LMP

NOTES



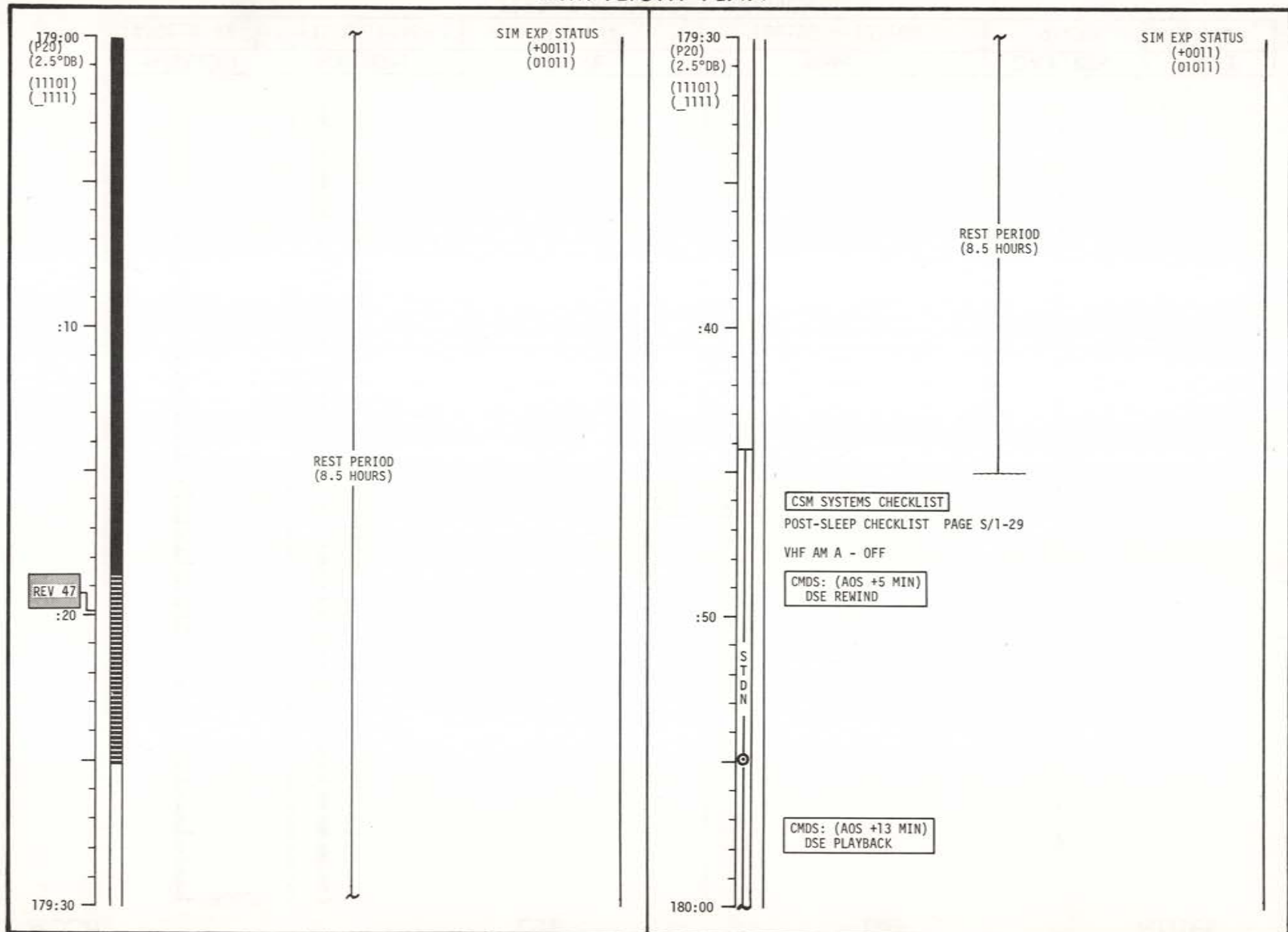
REST PERIOD
(8 HOURS)

CSM REV 47

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	179:00 - 180:00	8-9/46-47	3-258

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-259

LM FLIGHT PLAN

MCC-H

0853 CST

CDR

LMP

NOTES



REST PERIOD
(8 HOURS)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	180:00 - 181:00	9/47	3-260

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN

Left Panel	Right Panel
180:00 (P20) (2.5°DB) (11101) (1111) SIM EXP STATUS (+0011) (01011) S T D N :10 X PC: MODE - STBY PWR - ON TERMINATE JET-ON MONITOR P30 P20 V21N26 (00000) UPLINK: CSM S.V. SPS BURN CONSTANTS LOPC TGT LOAD DESIRED ORIENT (LOPC) PC: PWR - OFF (CUE) UPDATE: FLIGHT PLAN LOPC MNVR PAD (182:15) (COPY ATT AT 180:42 ALSO) :20 CONFIGURE FOR URINE DUMP (11101) (1111) P00 LIMIT CYCLE - ON ATT DEADBAND - MIN RATE - LOW 180:30	180:30 (11101) (1111) SIM EXP STATUS (*0011) (01011) S T D N :40 BMAG (3) - ATT 1/RATE 2 SC CONT - SCS P52 (OPTION 3) (LDG SITE ORIENT) STARS _____ SA _____ TA _____ REPORT: GYRO TORQUING ANGLES P52 (OPTION 1) (LOPC ORIENT) (106,133,330) ON LOPC ORIENT SC CONT - CMC BMAG (3) - RATE 2 GDC ALIGN V49 MNVR TO LOPC BURN PAD ATT (180:57) P52 IMU REALIGN N71: _____ N05: _____ N93: _____ X _____ Y _____ Z _____ GET _____ IR COVER - CLOSE O₂ FUEL CELL PURGE WASTE WATER DUMP SAMPLE BUSS (1) - STOW SAMPLE (1) DUMP URINE FROM BUSS (1) START NEW URINE COLLECTION PERIOD CMDS: (AOS +65 MIN) DSE REWIND :50 CONFIGURE DSE (HBR/RCD/FWD/CMD RESET) (AOS +73 MIN) SET HGA: MAN, P -63, Y 7, AUTO, NARROW, FOR AOS 181:00

MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-261

LM FLIGHT PLAN

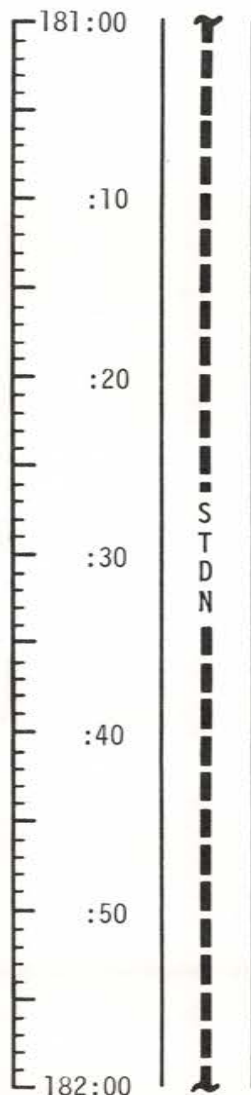
MCC-H

0953 CST

CDR

LMP

NOTES



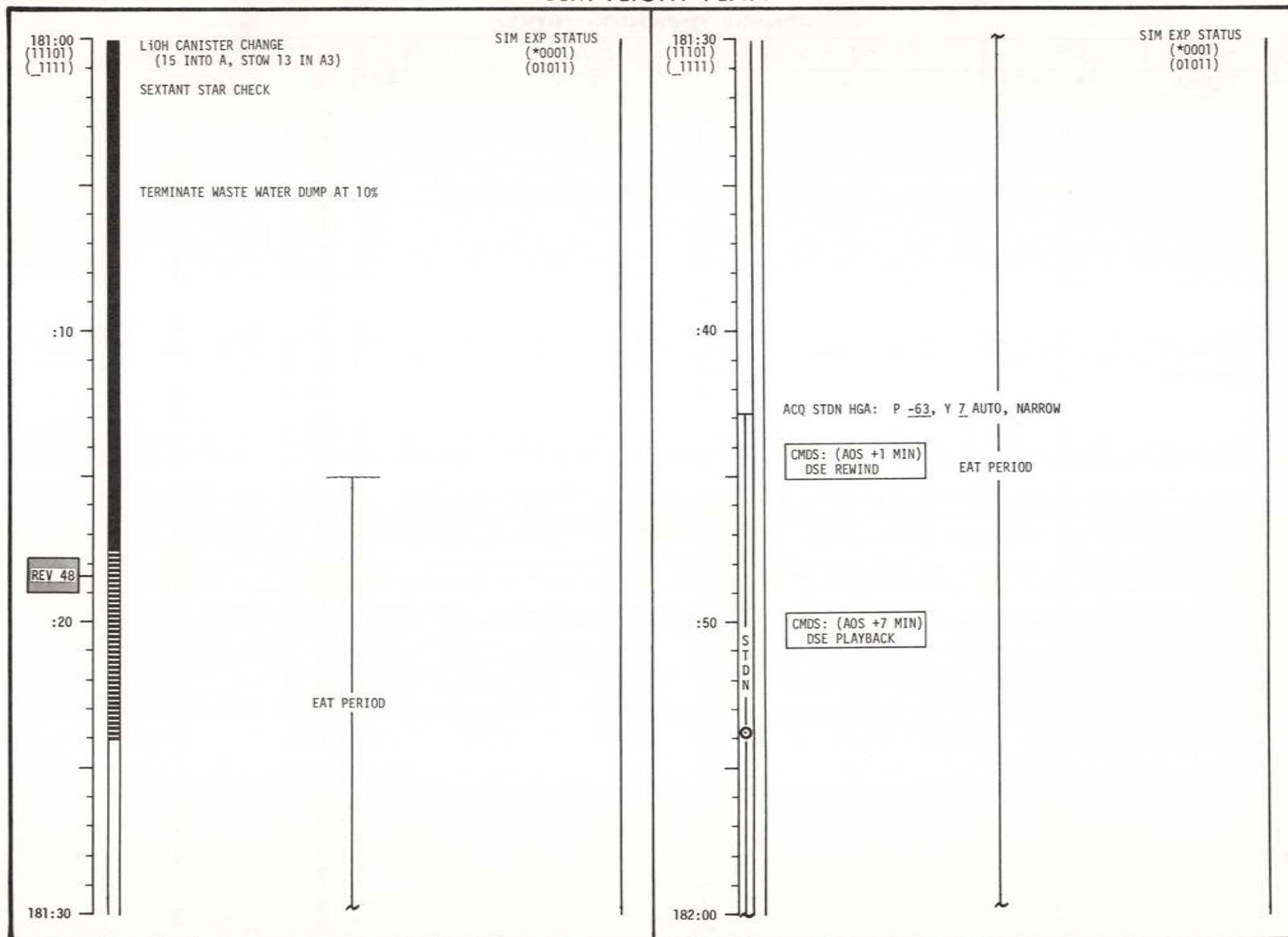
REST PERIOD
(8 HOURS)

CSM REV 48

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	181:00 - 182:00	9/47-48	3-262

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-263

LM FLIGHT PLAN

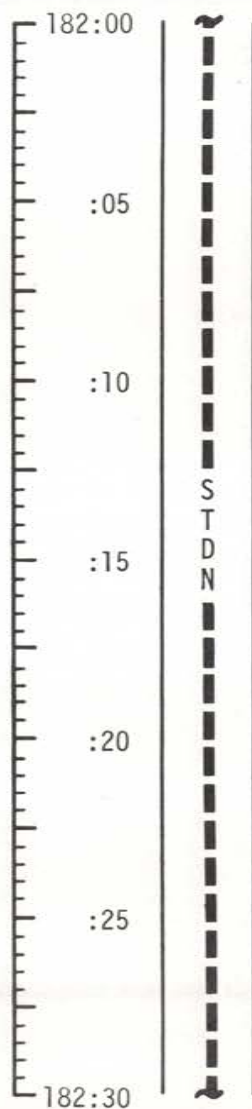
MCC-H

1053 CST

CDR

LMP

NOTES



REST PERIOD
(8 HOURS)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	182:00 - 182:30	9/48	3-264

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN

182:00
(11101)
(1111)

EAT PERIOD

PRE-SPS BURN SIM PREP (CUE CARD)
IR - OFF
UV - OFF
ENABLE ALL JETS
SECURE EQUIPMENT FOR LOPC

P30, VERIFY LOPC TIG AND ΔV
SET DET COUNTING UP TO LOPC

P40 (TRIM)

NOTE: PCM DATA WILL
NOT BE RECORDED
DURING LOPC

182:30

SIM EXP STATUS
(*0001)
(01011)

P30 MANEUVER

SET STARS	L	O	P	C		PURPOSE
	S	P	S	G	& N	PROP/GUID
	+					WT N47
R ALIGN		0	0			P TRIM N48
P ALIGN		0	0			Y TRIM
Y ALIGN	+	0	0			HRS GETI
	+	0	0	0		MIN N33
	+	0				SEC
ULLAGE						ΔV_X N81
						ΔV_Y
						ΔV_Z
	X	X	X			R (000)
	X	X	X			P (000)
	X	X	X			Y (315)
	+					H _A N44
						H _P
	+					ΔVT
HORIZON/WINDOW	X	X	X			BT
	X					ΔVC
	X	X	X	X		SXTS
	+				0	SFT
	+				0 0	TRN
	X	X	X			BSS
	X	X				SPA
	X	X	X			SXP
OTHER		0				LAT N61
						LONG
	+					RTGO EMS
	+					VTO
						GET 0.05G

NOTES

- 183:00

REPORT: CREW STATUS

STDN

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	182:30 - 183:00	9/48	3-266

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN

182:30
(P40)
(0.5°DB)
(11101)
(1111)

UPDATE:
GO/NO-GO FOR LOPC

SIM EXP STATUS
(*0000)
(31000)

LOPC (000,000,315)

TIG: 182:35:45.3
BT: 18.7 SEC
ΔVT: 336.7
ULLAGE: 4 JET 12 SEC
ORBIT: 63.0 X 61.3

P00
REPORT: BURN STATUS

POST-SPS BURN SIM PREP (CUE CARD)

UPLINK:
DESIRED ORIENT (LIFT-OFF)
RLS (IF REQD)

V48 (11101) IF A/C ROLL NOT SELECTED
(11111)

USE A/C ROLL EXCEPT:
AUTO RCS SELECT: A1 & A2 - OFF
MC/LA COVER - OPEN
MC - EXTD

NOTE: ATTITUDE CONTROL
P&Y AXES COUPLED
R AXIS UNCOUPLED

P20, OPT 5 (+X FWD SIM ATT)(183:00)

N78 (+090.00)
(+052.25)
(+180.00)

N79 (+000.50)
(097,000/068,019)

CMDS:
DSE REWIND

UPDATE:
PAN CAMERA PHOTO PAD (183:45)

CMDS:
DSE RECORD

VERIFY DSE TAPE MOTION (HBR/RCD/FWD/CMD RESET)

SET HGA: MAN, WIDE P -10, Y 25 FOR AOS

183:00

LOPC BURN TABLE

SPS LIMITS	P OR Y RATES	ATT DEVIATION	MANUAL START ACTION	OVERBURN SHUTDOWN CRITERIA	RCS TRIM GUIDELINES
TIGHT	10°/SEC TERMINATE	+10° TERMINATE	NO MANUAL START NO RESTART	BT + 1 SEC	TRIM Vgy TO 0.2 FPS, IF -Vgy ROLL 90° LEFT USE -Z THRUSTERS

NOTES: BALL VLV FAILURE - START ON SUSPECT BANK
Shut down good bank to verify; reenable

BURN STATUS REPORT

X	X				ΔTIG
X	X				BT
					Vgx
					TRIM
X	X	X			R
X	X	X			P
X	X	X			Y
					Vgx
					Vgy
					Vgz
					ΔVc
X					OX
X					FUEL
X					UNBAL

MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-267

LM FLIGHT PLAN

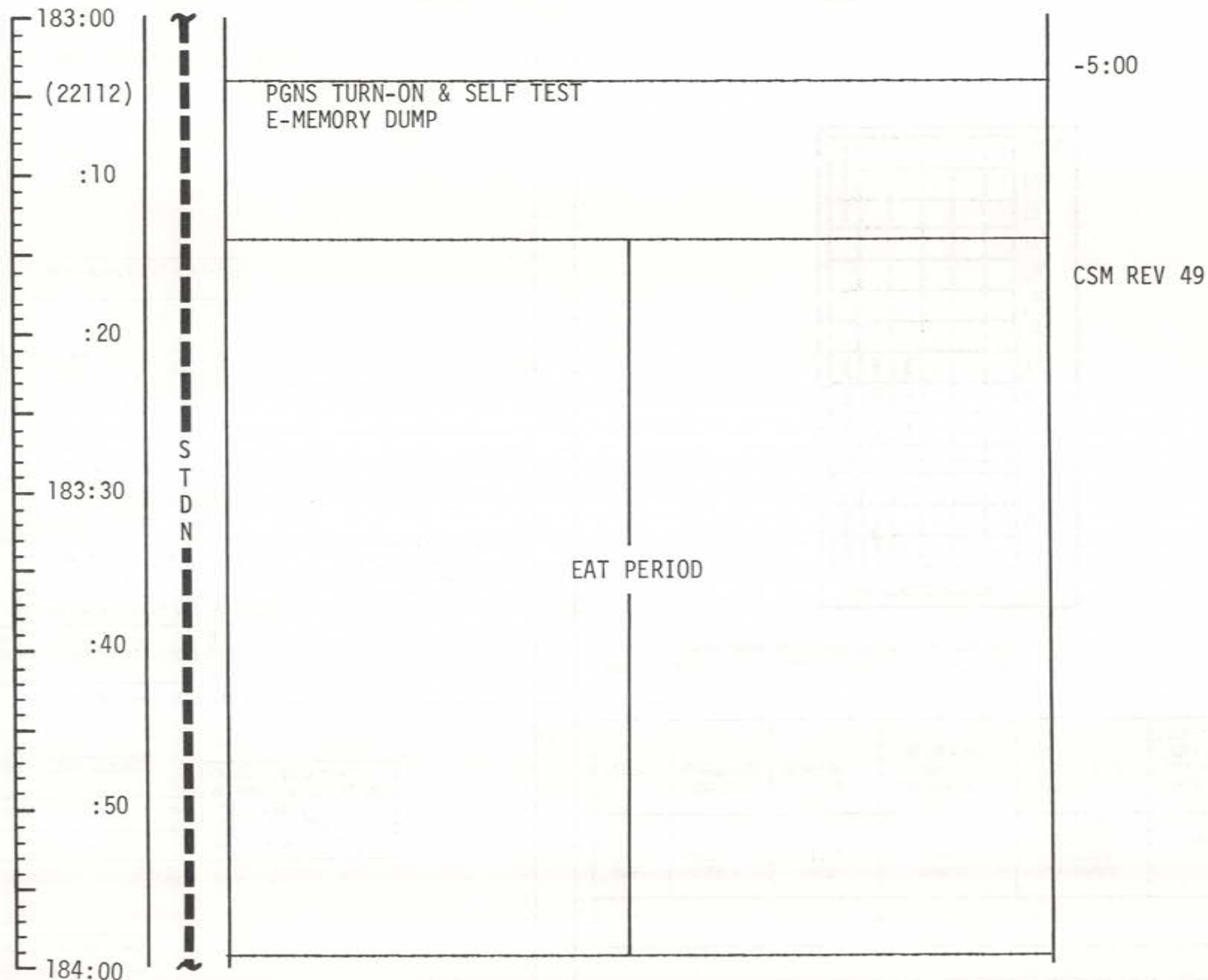
MCC-H

1153 CST

CDR

LMP

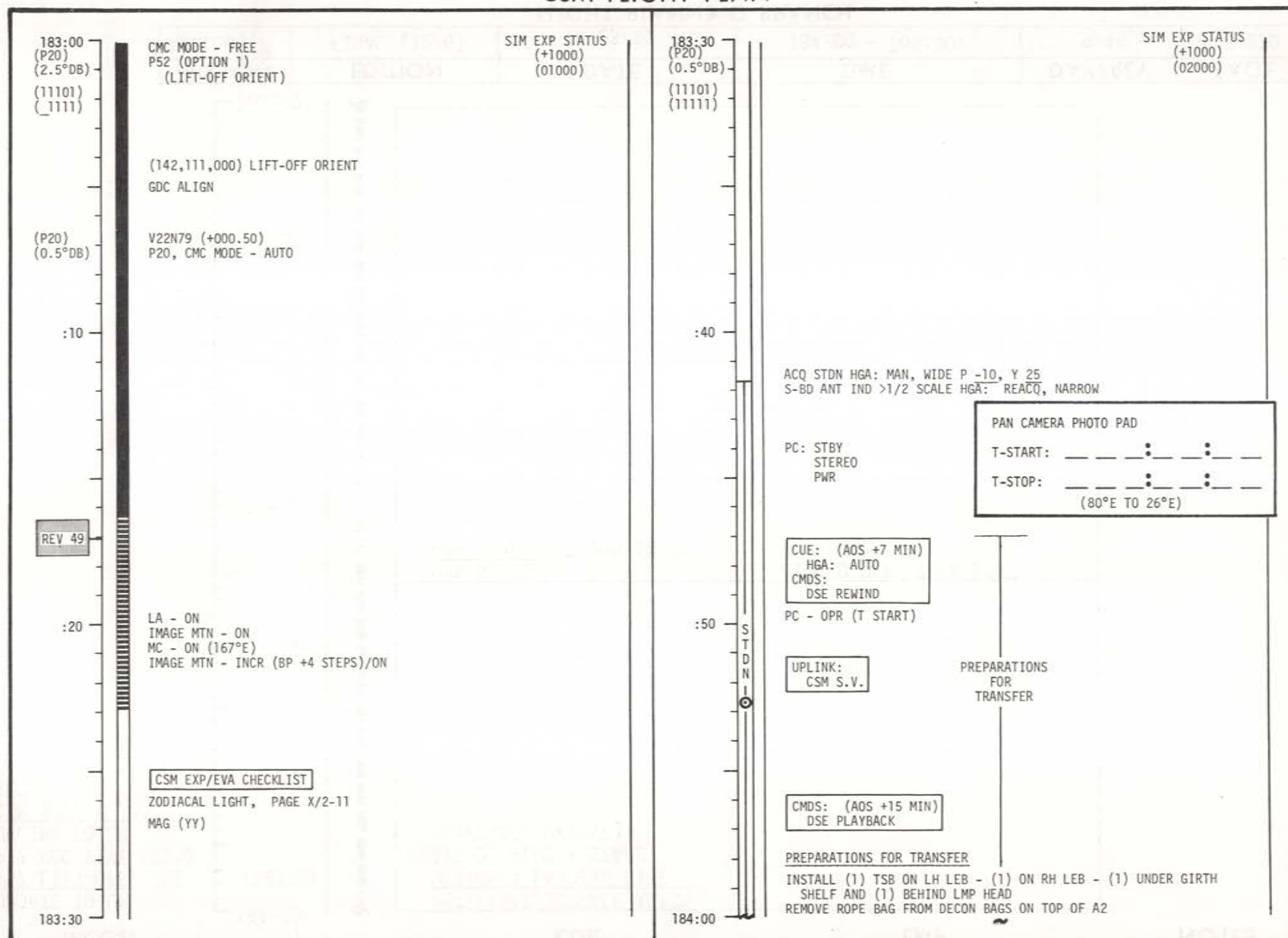
NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	183:00 - 184:00	9/48-49	3-268

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-269

LM FLIGHT PLAN

MCC-H

1253 CST

CDR

LMP

NOTES

UPDATE TO LM
P57 LIFT-OFF TIME
P22 ACQ TIME (28°)
UPLINK TO LM
CSM S.V. (L/O)
RLS

184:00
(22112)
:10
:20
184:30
:40
:50
185:00

S
T
D
N

P57 LUNAR SURFACE ALIGN
OPTION 4 LANDING SITE
A/T 3, PLUS 4 STARS
(LIFT-OFF ORIENT)

-4:00

DON SUITS
LMP, THEN CDR DON SUITS

BIOMED-OFF, THEN LEFT

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	184:00 - 185:00	9/49	3-270

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN

MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-271

MCC-H

1353 CST

LM FLIGHT PLAN

CDR

LMP

NOTES

185:00
(22112)

:05

:10

:15

:20

:25

185:30

S
T
D
NPREP FOR EQUIPMENT JETTISONREPORT: PRD

HELMET/GLOVE DONNING

RECORDER - ON/VOX

PRESSURE INTEGRITY CK

CABIN DEPRESS

EQUIPMENT JETTISON #2

CABIN REPRESS

POST-JETTISON CABIN CLEANUP

RECORDER - OFF

-3:00

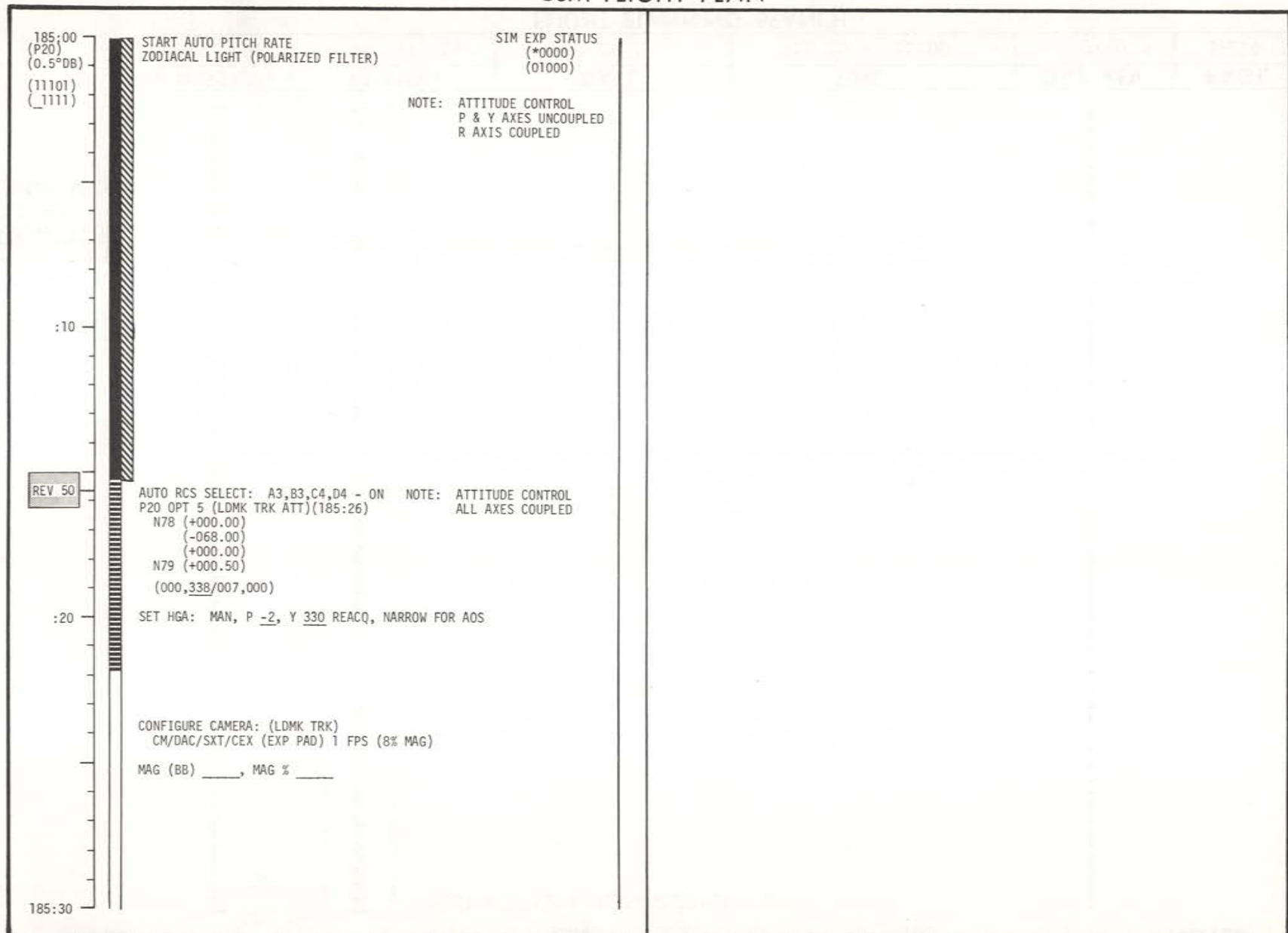
CSM REV 50

GO/NO-GO FOR
DEPRESS

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	185:00 - 185:30	9/49-50	3-272

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-273

LM FLIGHT PLAN

MCC-H

1423 CST

CDR

LMP

NOTES

185:30
(22112)

:35

:40

:45

:50

:55

186:00

STDN
STDN

POST JETTISON CABIN CLEANUP (CONT)

P22 RR LUNAR SURFACE NAVIGATION

GDS 210' AOS

UPDATE TO LM
ASCENT PADS
CSI PAD
LM DAP WEIGHTS

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	185:30 - 186:00	9/50	3-274

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN

185:30
(P20)
(0.5°DB)
(11101)
(1111)

LOAD N89 FOR LDMK F-1

SIM EXP STATUS
(*0000)
(01000)

P24 (LDMK F-1)
OPT ZERO - OFF
OPT MODE - CMC

0:00 T1 (HORIZON) DET-RESET/START

ACQ STDN HGA: P -2, Y 330 REACQ, NARROW

3:50 - DAC - ON

4:50 - T2 (LDMK ACQ) OPT MODE-MAN
TAKE MARKS 10 SEC APART

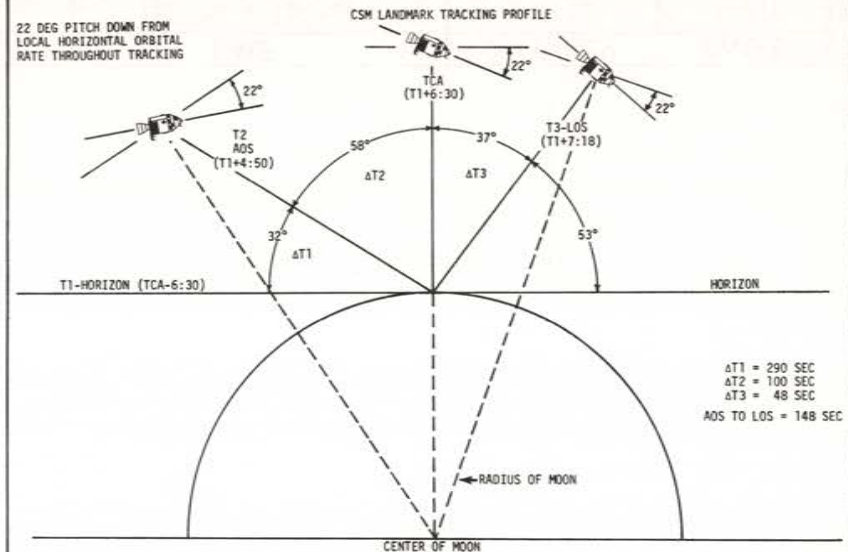
6:30 - TCA
7:18 - T3 (LDMK LOSS) DAC - OFF
P20
LOAD N89 FOR LDMK 17-1
CONFIGURE VHF FOR COMM CHECK WITH LM
VHF AM B - DUPLEX
VHF AM - T/R (PANEL 9)
MODE - VOX
VHF ANT - RIGHT
ADJUST SQUELCH A

RNDZ XPNDR - PWR

P24 (L/S LDMK 17-1)
OPT ZERO - OFF
OPT MODE - CMC

0:00 T1 (HORIZON) DET - RESET/START

22 DEG PITCH DOWN FROM
LOCAL HORIZONTAL ORBITAL
RATE THROUGHOUT TRACKING



P24 LDMK TRACKING

TGT: F-1

(1/250)

T₁ ——— • ———
T₂ ——— • ———
TCA ——— • ———
T₃ ——— • ———
R ——— *P ——— *Y ——— ° (T2 ACQ)

N or S NM ——— / SA ——— TA ——— (T2 ACQ)

N89

LAT +01.863

LONG/2 +44.125

ALT 000.00

P24 LDMK TRACKING

TGT: 17-1

(1/250)

T₁ ——— • ———
T₂ ——— • ———
TCA ——— • ———
T₃ ——— • ———
R ——— *P ——— *Y ——— ° (T2 ACQ)

N or S NM ——— / SA ——— TA ——— (T2 ACQ)

N89

LAT +20.160

LONG/2 +15.405

ALT -001.96

186:00

MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-275

LM FLIGHT PLAN

MCC-H

1453 CST

CDR

LMP

NOTES

186:00
(22112)

VHF VOICE CHECK

-2:00

:05

X

RR - OFF
TERMINATE P22
CABIN PREP FOR ASCENT

:10

:15

S
T
D
N

:20

:25

186:30

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	186:00 - 186:30	9/50	3-276

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN

186:00
(P20)
(0.5°DB)

(11101)
(1111)

3:50 - DAC - ON

4:50 - T2 (LDMK ACQ) OPT MODE - MAN, TAKE MARKS 10 SEC APART

6:30 - TCA

7:18 - T3 (LDMK LOSS) DAC - OFF

P00

VHF AM B - OFF (CTR)

MODE - INTERCOM/PTT

RNDZ XPNDR - HTR

:10

(11102)
(1111)

V48 (11102)

(1111)

V49 MNVR TO P52/COAS CAL ATT (186:18)

(180,244,341) HGA P -58, Y 52

:20

UPLINK:

LM S.V. (INS +5)

CSM S.V. (L/O)

RESET SURFACE FLAG

UPDATE:

CONSUMABLES STATUS

CSM S.V. (L/O)

LM S.V. (INS +5)

ASCENT PADS AND CSM WEIGHT (COPY AT 187:15)

FLIGHT PLAN

CMDS:

DSE DUMP

P52 (OPTION 3)

(LIFT-OFF ORIENT)

REPORT: GYRO TORQUING ANGLES

186:30

SIM EXP STATUS

(*0000)

(01000)

P27 UPDATE

		CSM					LM				
PURP		CSM (INS+1)	V	7	1	V	LM (INS+1)	V	7	1	V
GET		188 : 11 : 32				: : :	188 : 11 : 32				: : :
304	01	INDEX	2	1		INDEX	INDEX	2	1		INDEX
305	02	0 1 5 0 1					0 1 5 0 1				
306	03	0 0 0 0 2					7 7 7 7 5				
307	04	7 7 4 7 7					7 7 5 2 5				
310	05	5 1 3 7 7					7 7 7 3 2				
311	06	7 7 6 3 1					7 7 6 0 4				
312	07	6 5 3 6 1					6 4 4 7 6				
313	10	0 0 0 7 2					0 0 0 5 1				
314	11	1 0 7 2 2					1 4 2 0 4				
315	12	7 2 5 2 3					7 0 2 0 5				
316	13	7 1 7 3 3					4 6 3 3 5				
317	14	1 5 6 6 6					1 4 7 6 3				
320	15	1 5 5 3 2					1 1 6 6 2				
321	16	0 6 5 3 0					0 7 4 1 1				
322	17	1 4 0 2 4					3 2 5 0 0				
323	20	1 0 0 4 7					1 0 0 4 7				
324	21	1 0 1 0 0					1 0 1 0 0				
325	22										
326	23										
327	24										

MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-277

LM FLIGHT PLAN

MCC-H

1523 CST

CDR

LMP

NOTES

186:30
(22112)

:35

:40

:45

:50

:55

187:00

STDN

CABIN PREP FOR ASCENT (CONT)

FINAL LIFT-OFF PREP

CONFIGURE CB'S

CONFIGURE RR

CONFIGURE CB'S

AGS STATUS - OPERATE

-1:15

ENABLE STDN S-BAND
RELAY

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	186:30 - 187:00	9/50	3-278

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN

186:30
(11102)
(1111)

SIM EXP STATUS
(*0000)
(01000)

CSM G&C CHECKLIST

P52 (COAS CALIB) (PG/7-6)
USE STAR NO. 16 (PROCYON)

P52 IMU REALIGN

N71: _____
N05: _____
N93: _____
X _____
Y _____
Z _____
GET _____

P00
GDC ALIGN

:40

STDN

DON PGA WITHOUT HELMET AND GLOVES

CMDS:
DSE RECORD

COAS CALIB - N92

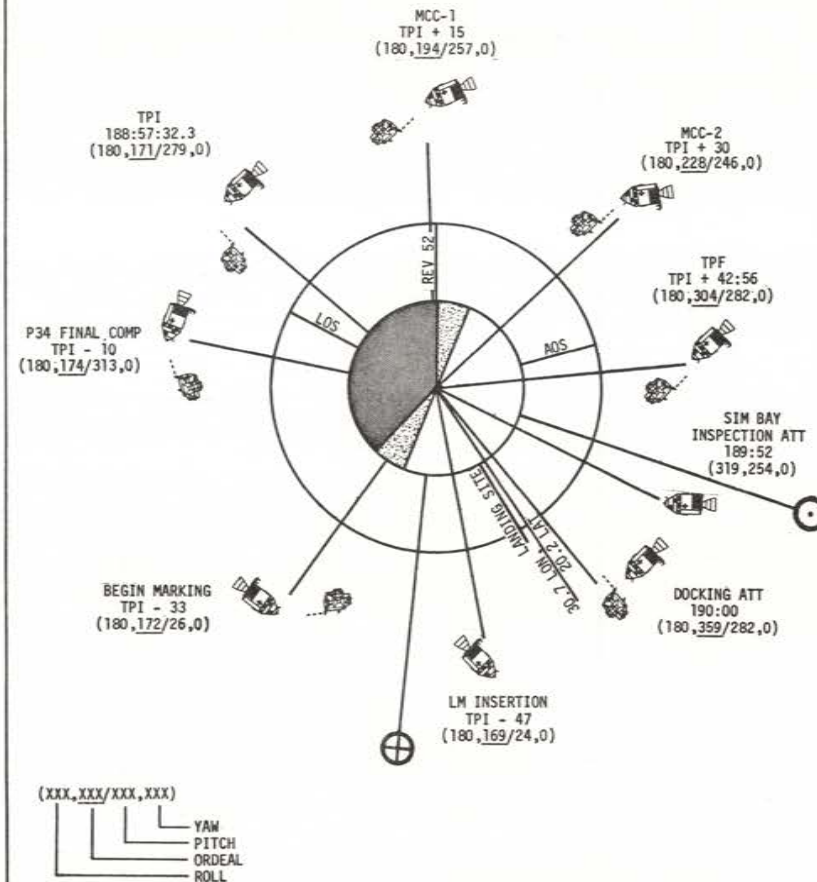
SHAFT: _____
TRUN: _____

STDN ENABLES S-BAND RELAY

VERIFY BUSS COVER INSTALLED AND SNAPPED
STOW BUSS IN PGA BAG
INSTALL INTERCONNECTS (TSB)
SUIT FLOW VALVE CMP - FULL FLOW
SUIT FLOW VALVES CDR AND LMP - OFF

VERIFY DSE TAPE MOTION (LBR/RCD/FWD/CMD RESET)
SET HGA MAN P -58 P -58, Y 52 AUTO, NARROW FOR AOS

187:00



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-279

LM FLIGHT PLAN

MCC-H

1553 CST

CDR

LMP

NOTES

187:00 (22112)		V63 RR SELF TEST (IF REQ)	AGS GYRO CALIBRATION	
:05			LOAD AGS ASCENT TARGETING	-1:00
:10		RATE GYRO TEST	PGNS/AGS CLOCK SYNC	
(12102)		SET DAP RCS CHECKOUT		CSM REV 51
:15				
:20		P57 LUNAR SURFACE ALIGN OPT 4 LANDING SITE A/T 3 (LIFT-OFF ORIENT)		-0:45
:25				
187:30		LOAD DAP, LM WEIGHT	BATS 5&6-ON, 1&3-OFF/RESET	

STDN

UPLINK TO LM
ZERO POS/NEG CELLS
CSM S.V. (L/O)
(IF REQ)
RLS (IF REQ)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	187:00 - 187:30	9/50-51	3-280

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN

187:00
(11102)
(1111)

SIM EXP STATUS
(*0000)
(01000)

:10

REV 51

EAT PERIOD

:20

187:30

DIRECT ASCENT RNDZ PAD						UPDATE (IF REQ)					
GETI LIFT-OFF	HRS	+	0	0		+	0	0			
	MIN	+	0	0	0	+	0	0	0		
	SEC	+	0			+	0				
GETI	HRS	+	0	0		+	0	0			
TPI	MIN	+	0	0	0	+	0	0	0		
N37	SEC	+	0			+	0				

CSM WT	+					
LM WT	+	0	5	9	3	5

COELLIPTIC RNDZ PAD						UPDATE (IF REQ)					
GETI LIFT-OFF	HRS	+	0	0		+	0	0			
	MIN	+	0	0	0	+	0	0	0		
	SEC	+	0			+	0				
GETI	HRS	+	0	0		+	0	0			
CSI	MIN	+	0	0	0	+	0	0	0		
N11	SEC	+	0			+	0				
GETI	HRS	+	0	0		+	0	0			
TPI	MIN	+	0	0	0	+	0	0	0		
N37	SEC	+	0			+	0				

MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-281

LM FLIGHT PLAN

MCC-H

1623 CST

CDR

LMP

NOTES

UPDATE TO LM
AGS K-FACTOR
AGS 047 & 053
LGC GYRO COMP
(IF REQ)
PIPA BIAS (IF REQ)

187:30
(12102)

:35

:40

:45

:50

:55

188:00

S
T
D
N

T
V

P12 POWERED ASCENT

PRELAUNCH SWITCH CHECKS

DON HELMETS & GLOVES

APS PRESSURIZATION

COPY & LOAD AGS 047, 053
SET CAMERA: LM3/DAC

AGS LUNAR ALIGN

V47 SET AGS BIAS
LIFT-OFF COMM, RECORDER - ON

BATS 2 & 4 - OFF/RESET
DES BATS - DEADFACE

-0:30

-0:15

GUIDANCE RECOMMEN-
DATION FOR ASCENT

GO/NO-GO FOR
LIFT-OFF

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	187:30 - 188:00	9/51	3-282

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN

187:30
(11102)
(1111)

SIM EXP STATUS
(*0000)
(01000)

EAT PERIOD

ACQ STDN HGA P -58, Y +52 AUTO, NARROW

CMD5:
DSE DUMP

LOAD CSM AND LM WEIGHTS

V49 MNVR TO P20 ATT (187:48)
(180,026,000) OMNI D

CONFIGURE CAMERAS: (DOCKING)
CM2/DAC/18/CEX-BRKT,MIR (T8,1/250,∞) 6 fps (40% MAG)
MAG (BB) _____, MAG % _____
UTILITY PWR - ON
CM/EL/80/CEX (f8,1/250,FOCUS) 10 FR
MAG (NN) _____, FR # _____
CM4/TV-BRKT
(f44,PEAK,∞,150MM)

PRESSURIZE CABIN TO 5.5 PSIA

VHF AM T/R - OFF (PNL 9)
VHF AM B - DUPLEX
VHF AM A - OFF (CTR) (VERIFY)
VHF RANGING - ON (UP)
VHF ANT - RIGHT (VERIFY)
EXT LIGHTS RUN/EVA - ON (UP)
EXT LIGHTS RNDZ - RNDZ
RNDZ XPNDR - PWR

* IF VHF VOICE REQ:
* VHF AM T/R-T/R (PNL 9) *

UPDATE:
GO/NO-GO FOR LM LIFT-OFF

GDC ALIGN

:40

:50

188:00

EVENT	CONTINGENCY MARKING SCHEDULES															
	SXT FROZEN (USABLE)*				TRACKER LIGHT FAILURE				SXT FAILURE (UNUSABLE)				VHF FAILURE			
	VHF	SXT	COAS	WRI	VHF	SXT	COAS	WRI	VHF	SXT	COAS	WRI	VHF	SXT	COAS	WRI
-50																
INSERTION																
-40																
UPLINK																
P34																
-30																
-20																
FINAL COMP																
-10																
TP1																
P35																
+10																
FINAL COMP																
MCC-1																
P35																
+20																
FINAL COMP																
MCC-2																
+30																

*(1) SXT MARKS ARE TAKEN BY MANEUVERING SPACECRAFT
(2) TO USE COAS VARIANCE (MUST BE DONE PRIOR TO EACH MARKING PERIOD)
V25 N7E, 76E, 20000E, 0E, V21 N1E, 301E, 37777E
(IF MARK REJECT BUTTON INADVERTANTLY PUSHED: BEFORE PROCEEDING
ON F51-V21 N1E, 1336E, 31264E)

MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-283

LM FLIGHT PLAN

MCC-H

1653 CST

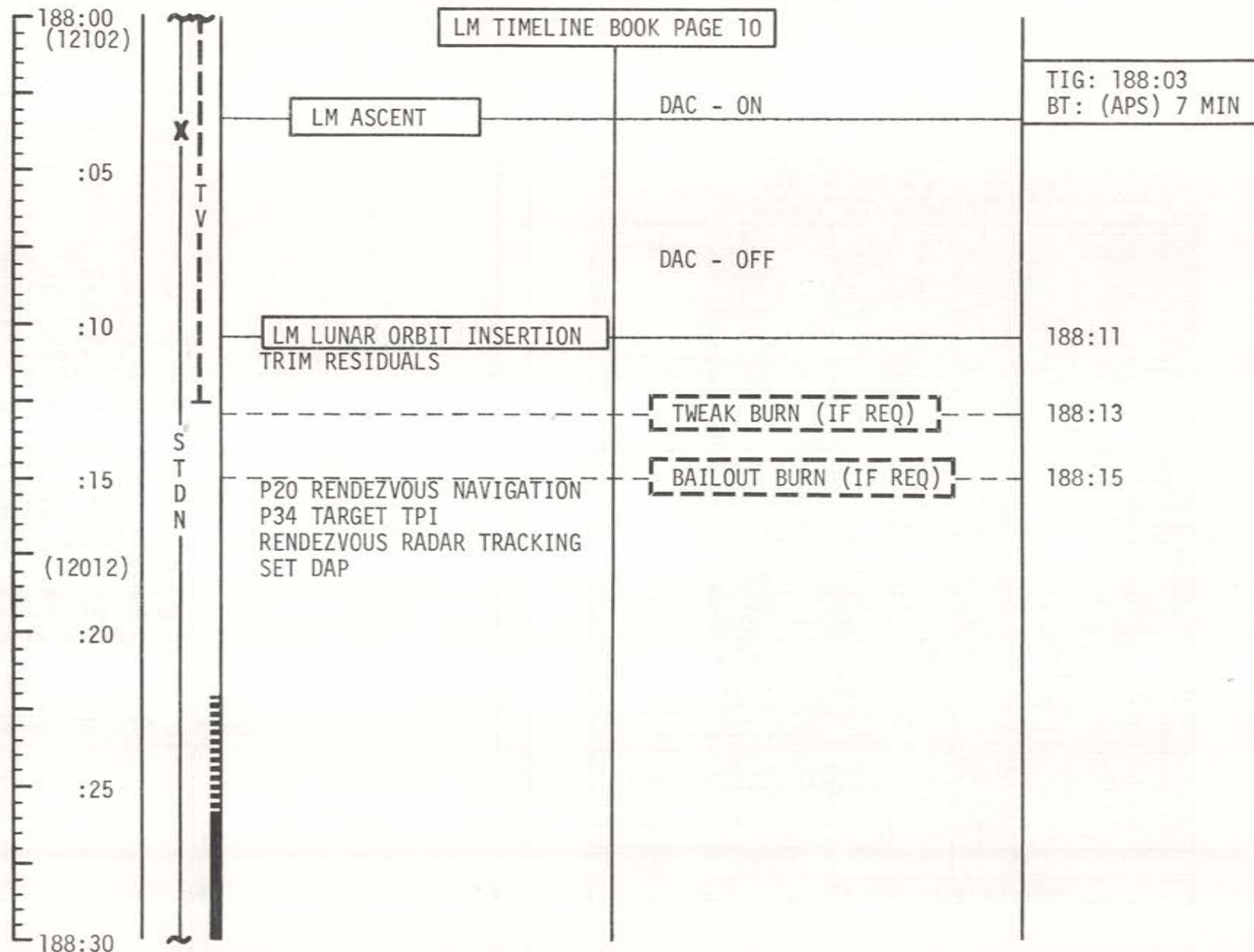
CDR

LMP

NOTES

LM TIMELINE BOOK PAGE 10

UPDATE TO LM
TWEAK OR BAILOUT
INSTRUCTION
(IF REQ)



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	188:00 - 188:30	9/51	3-284

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN

188:00
(11102)
(1111)

PRE-SPS BURN SIM PREP (CUE CARD)

LM LIFT-OFF

188:03:14.6

VHF RNG - RESET

LM INSERTION

188:10:32.3

VHF VOICE CHECK

UPLINK:
LM S.V.

P34 (TRIM) (180,172/26,0)

BEFORE STEADY STATE
PRE-TPI: N49 > (+00200,+00120) REJECT/REPEAT
POST-TPI: N49 > (+00080,+00050) REJECT/REPEAT
AFTER STEADY STATE
ANYTIME: N49 > (+00030,+00020) REJECT/REPEAT

SIM EXP STATUS
(*0000)
(01000)

188:13:32.3 (INS +3) TWEAK
188:15:32.3 (INS +5) LM B/O
188:22:32.3 (INS +12) CSM B/O

P30 MANEUVER

N/A	C	S	M	B	O	PURPOSE
SET STARS	S	P	S	G	N	PROP/GUID
	+			N	A	NT N47
R ALIGN	N	/	A	O	O	P TRIM N48
P ALIGN	N	/	A	O	O	Y TRIM
Y ALIGN	N	/	A	+	O	HRS GETI
	+	O	O	O		MIN N33
	+	O				SEC
ULLAGE						ΔV _X N81
4 JET, 11 SEC						ΔV _Y
						ΔV _Z
	X	X	X			R
	X	X	X			P
	X	X	X			Y
ΔVC	+			N	A	H _A N44
				N	A	H _P

*IF LM BAILOUT REQ:
* COPY P76 DATA FROM LM
*33 : : .
*84 . . .
*GO TO RESCUE BOOK PG 4

*IF CSM BAILOUT REQ:
*
*UPDATE:
* CSM BAILOUT P30 PAD
*P30
*P40: SET UP EMS
*SPS BURN CUE CARD
*CSM BAILOUT BURN
*GO TO RESCUE BOOK PG 4

P34 INPUT			
37	LM GETI-TPI:	:	.
55	INTEG OPT +00000	ELEVATION +00000	TRANSFER +130.00

LM FLIGHT PLAN

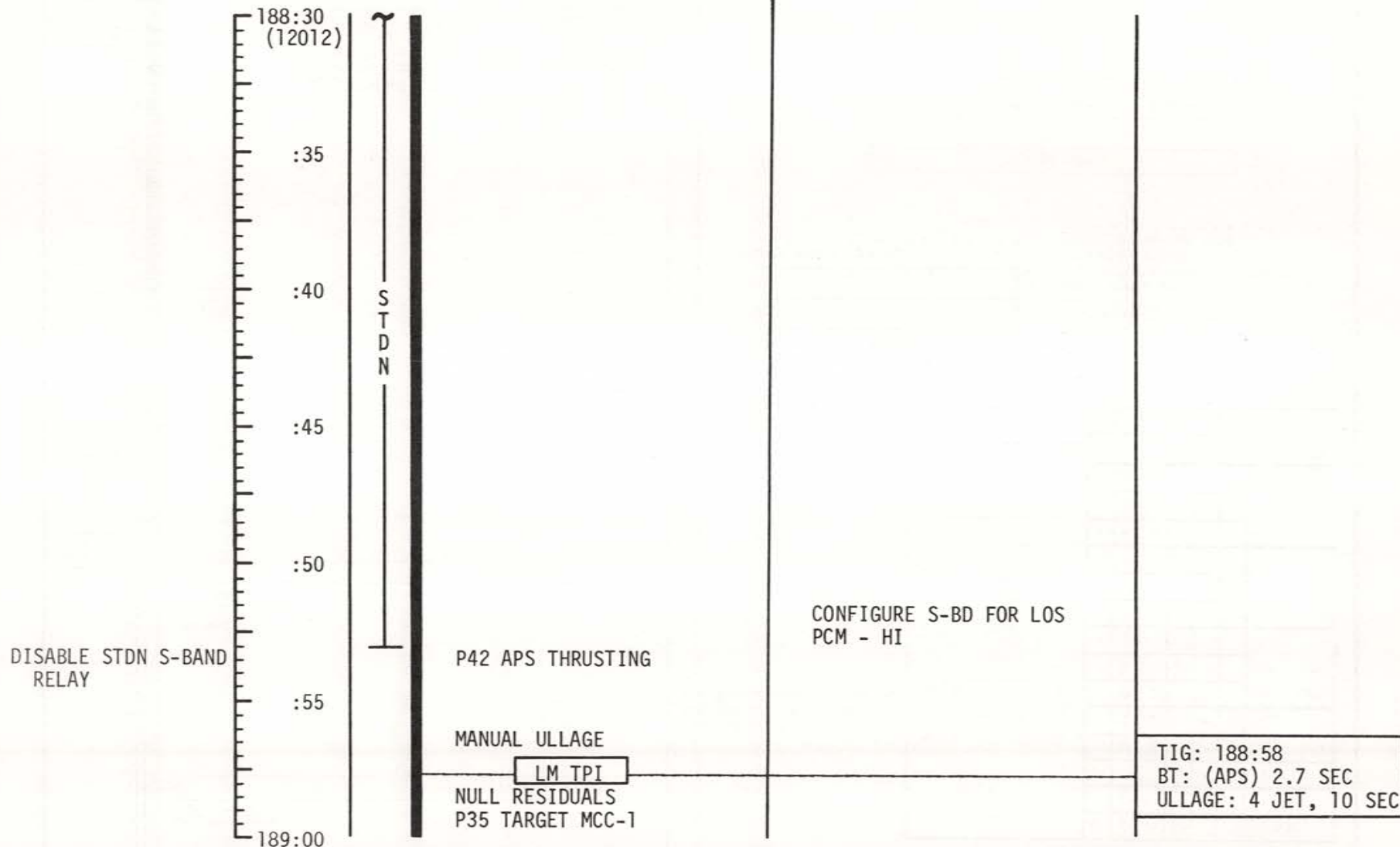
MCC-H

1723 CST

CDR

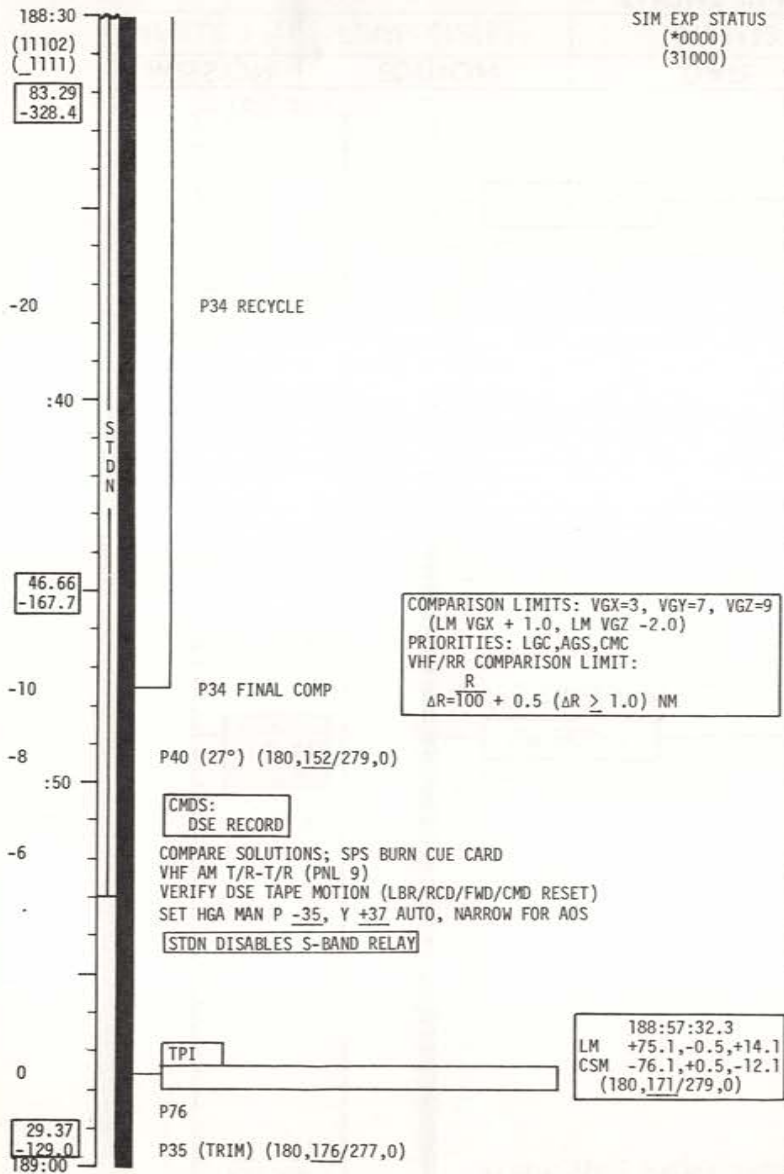
LMP

NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	188:30 - 189:00	9/51	3-286

FLIGHT PLANNING BRANCH



P34 RECYCLE			
55	INTEG OPT +00000	ELEVATION } .	TRANSFER } +130.00
58	PERILUNE ALT .	TPI ΔV .	TPF ΔV .
81	TPI ΔV-LV .		
84	LM TPI ΔV-LV .		

GROUND TPI FOR LM

						ΔV_X
						ΔV_Y
						ΔV_Z

P34 FINAL COMP			
55	INTEG OPT +00000	ELEVATION $\frac{1}{2}$	TRANSFER $\frac{1}{2}$ +130.00
58	PERILUNE ALT	TPI ΔV	TPF ΔV
81	TPI ΔV -LV		
84	LM TPI ΔV -LV		
84	LM TPI ΔV -LV		

P76.

MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-287

LM FLIGHT PLAN

MCC-H

1753 CST

CDR

LMP

NOTES

189:00
(12012)

RENDEZVOUS RADAR TRACKING

:05

:10

REV 52

P41 RCS THRUSTING

LM MCC-1

P35 TARGET MCC-2

:15

:20

:25

P41 RCS THRUSTING

LM MCC-2

189:30

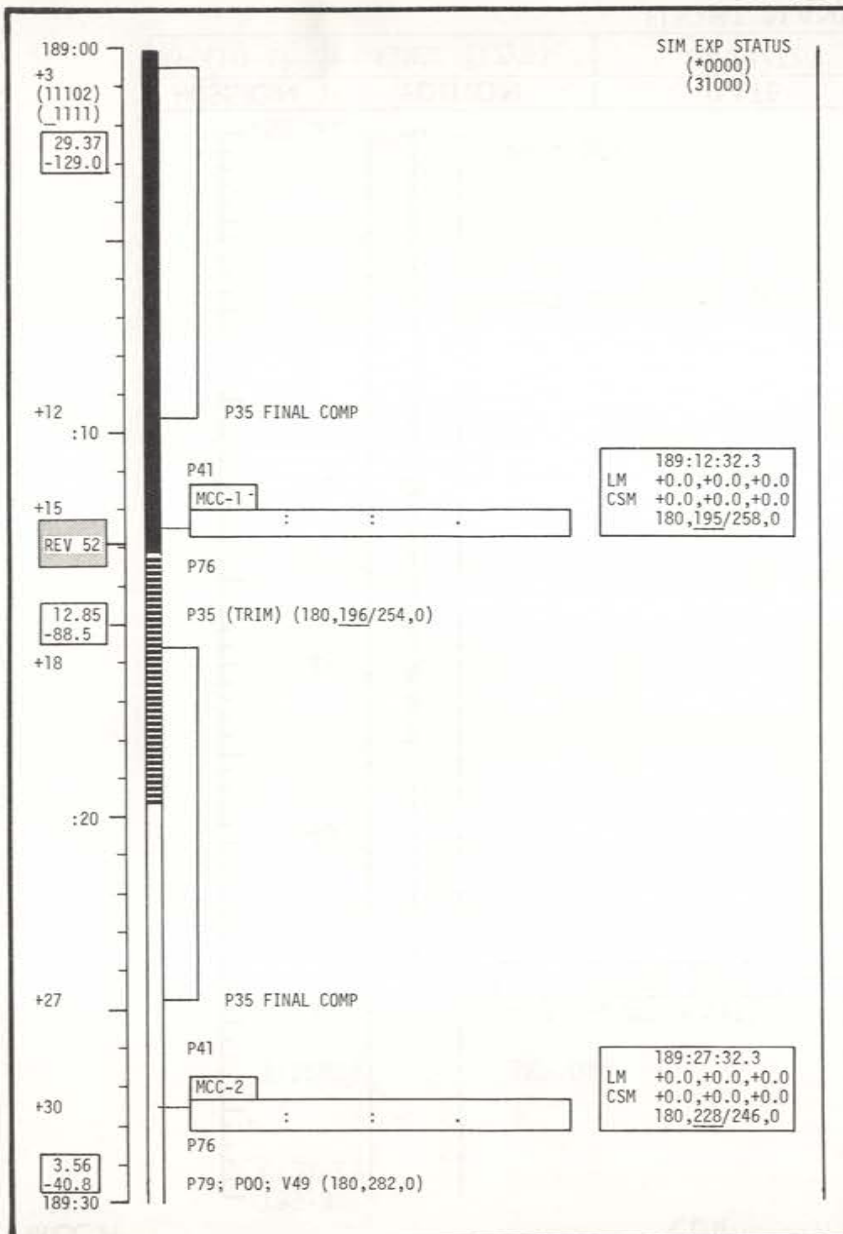
189:13

189:28

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	189:00 - 189:30	9/51-52	3-288

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



P35 FINAL COMP			
81	MCC1 ΔV-LV		
84	LM MCC1 ΔV-LV		
84	LM MCC1 ΔV-LV		
P76			

* IF CSM ACTIVE & N58 TPF ΔV >55 FPS *
* GO TO PRE-BRAKING SPS BURN PROCEDURES *
* (SEE RESCUE BOOK PG 40) *

P35 FINAL COMP			
81	MCC2 ΔV-LV		
84	LM MCC2 ΔV-LV		
84	LM MCC2 ΔV-LV		
P76			

MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-289

MCC-H

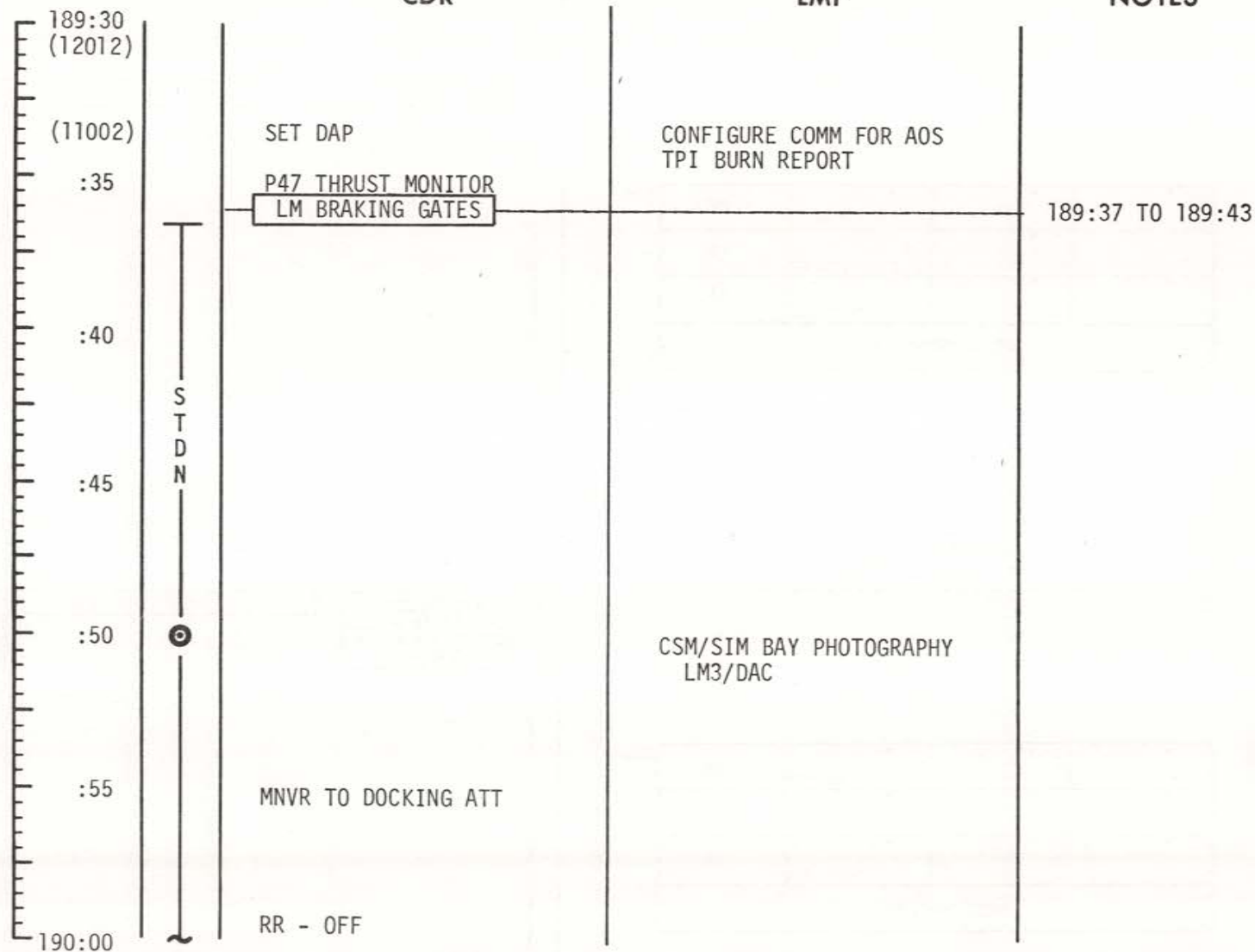
1823 CST

LM FLIGHT PLAN

CDR

LMP

NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	189:30 - 190:00	9/52	3-290

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN

189:30

(11102)
(1111)

3.56
-40.8

PERFORM PRE-DOCK CHECKLIST

IF CSM ACTIVE:
P47 AT R=1.25 NM
SEC PRPLNT FUEL PRESS (4) - OPEN
V83E
N83E
KEY REL

SIM EXP STATUS
(*0000)
(31000)

ACQ STDN HGA P -35, Y +37 AUTO, NARROW
UTILITY PWR - ON (VERIFY)
DAC/TV - ON
LM PHOTOS WITH DAC/TV

TPF

189:40:28.1
LM 31.5 (TOTAL)
CSM 33.6 (TOTAL)
180,304/282,0

EMS MODE - STBY
EMS FUNC - OFF
EXT LIGHT RNDZ - OFF

LM STATION KEEP

DAC/TV - OFF

V49 MNVR TO SIM BAY INSPECTION ATTITUDE (189:52)
(319,254,000) OMNI D

V49 MNVR TO DOCKING ATT (190:00)
(180,282,0) HGA P -35, Y +37

CUE STDN FOR LOGIC ARM
SECS LOGIC (BOTH) - ON (UP)

UPDATE:
GO/NO GO FOR PYRO ARM

SECS PYRO ARM (2) - ON (UP)

190:00

PRE-DOCK CHECKLIST

MAN ATT (3)-RATE CMD (VERIFY)
LIMIT CYCLE - OFF (VERIFY)
ATT DB - MIN
RATE - LOW (VERIFY)
TRANS CONTR PWR - ON (UP)
ROT CONTR PWR DIRECT (BOTH) - MNA/MNB
SC CONT - CMC (VERIFY)
AUTO RCS SEL (16) - MNA/MNB
CB DOCK PROBE (2) - CLOSE
PROBE RETRACT (2) - OFF (VERIFY)
PROBE EXT/REL - RETRACT
PROBE EXT/REL TB (2) - GRAY (VERIFY)
(IF TB NOT GRAY, GO TO PG S/2-13,E)
CB SECS LOGIC (2) - CLOSE (VERIFY)
CB SECS ARM (2) - CLOSE
EXT LIGHTS RUN/EVA - ON (UP) (VERIFY)
COAS PWR - ON (UP) (VERIFY)

BRAKING GATES

R,NM	R,FPS	RETICLE ANG,DEG	R,FT
1.50	45	.08	9000
1.00	30	.13	6000
.50	20	.26	3000
.25	10	.54	1500
.08	5	1.60	500
.05		2.70	300
.03		4.00	200
.02		8.50	100

MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-291

LM FLIGHT PLAN

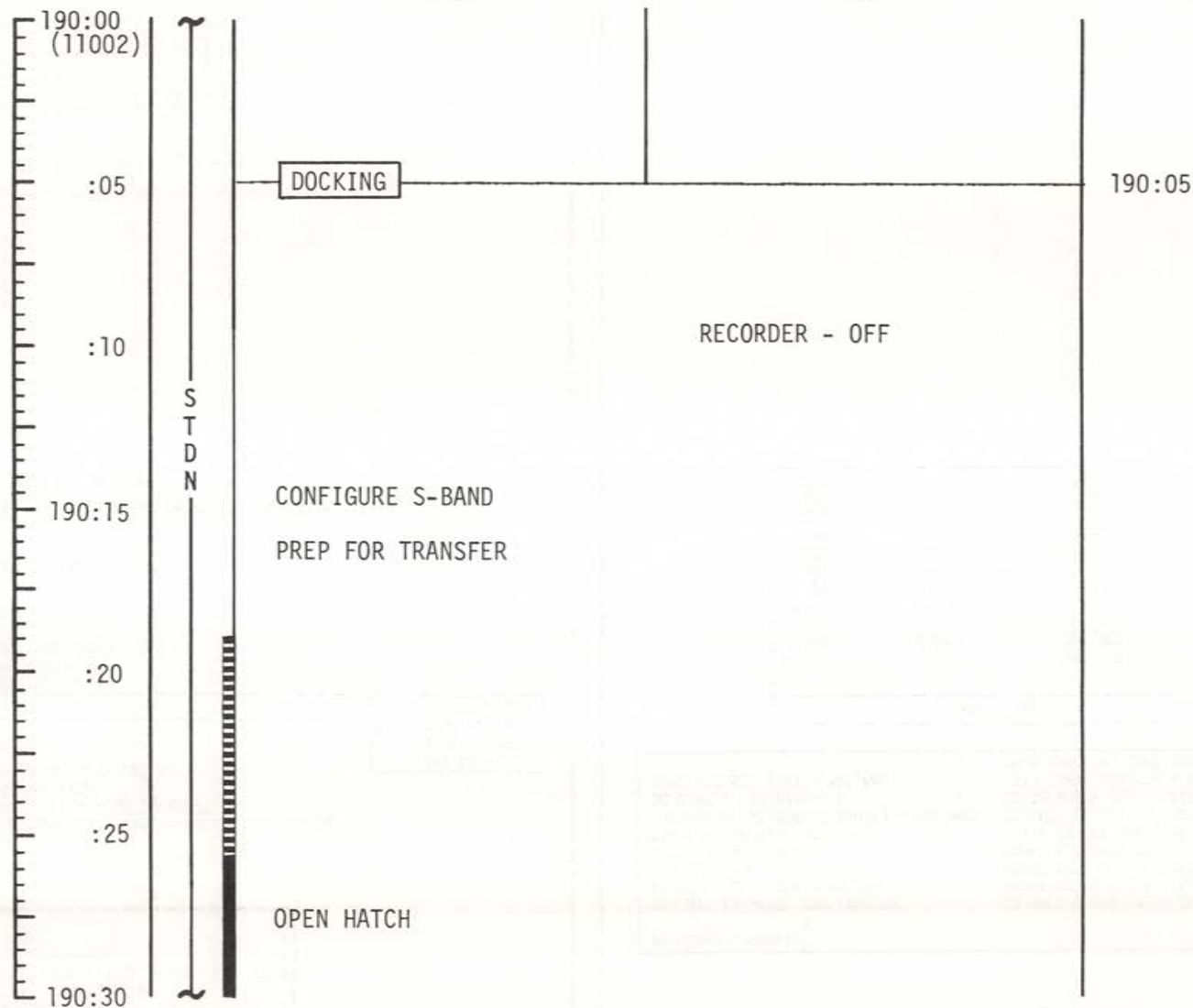
MCC-H

1853 CST

CDR

LMP

NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	190:00 - 190:30	9/52	3-292

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN

190:00		SIM EXP STATUS	
(11102)	P47	(*0000)	
(1111)	DAC/TV - ON	(31000)	
TRANSLATE TO CAPTURE LATCH PERFORM DOCKING CHECKLIST DOCKING		190:05:00	
DAC/TV - OFF P00 V48 (61111) (1111) CMC MODE - AUTO RNDZ XPNDR - OFF V49 MNVR TO LM JETT ATT (190:25) (020,007,349) HGA P -42, Y 349 S-BAND AUX TV - SCI DATA SYSTEMS - ON UV - ON IR - ON CMDS: DSE DUMP POST-SPS BURN SIM PREP (CUE CARD) STOW OPTICS PREPARE COUCHES: CDR - 0°, CMP - 0°, LMP - 180° REMOVE PROBE STRAPS (RS) CDR - VERIFY FWD DUMP VLV - AUTO CABIN FANS - ON (UP) CM/LM PRESSURE EQUALIZATION (LOD) (DECAL) TUNNEL LIGHTS - ON (UP) TUNNEL HATCH REMOVAL (DECAL) VERIFY DOCKING LATCHES ENGAGED (AT LEAST 3, 120° APART) PROBE REMOVAL (CM SIDE) (DECAL) DROGUE REMOVAL (DECAL)		DOCKING CHECKLIST AT CAPTURE PROBE EXT/REL TB (2) - BP (VERIFY) (IF TB NOT BP, GO TO PG S/2-11, A) REPORT CAPTURE TO LM SC CONT - CMC (VERIFY) CMC MODE - FREE ALLOW PROBE TO DAMP SC MOTION (10 SEC) WHEN WITHIN +3° OF DOCKING ATTITUDE PROBE RETRACT SEC - 1 (PRIM - 2 IF REQD) AT DOCK LATCH PROBE EXT/REL TB (2) - GRAY AT HARD DOCK SECS PYRO ARM (2) - SAFE SECS LOGIC (BOTH) - OFF CB SECS ARM (2) - OPEN CB DOCK PROBE (2) - OPEN THC - LOCKED RHC - LOCKED BMAG MODE (3) - RATE 2 (VERIFY) PROBE EXT/REL - OFF PROBE RETRACT (2) - OFF EXT LIGHTS (2) - OFF COAS PWR - OFF AUTO RCS SEL: ROLL (4) - OFF TRANS CONTR PWR - OFF ROT CONTR PWR DIRECT (BOTH) - OFF VHF RANGING - OFF	
190:30			

MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-293

LM FLIGHT PLAN

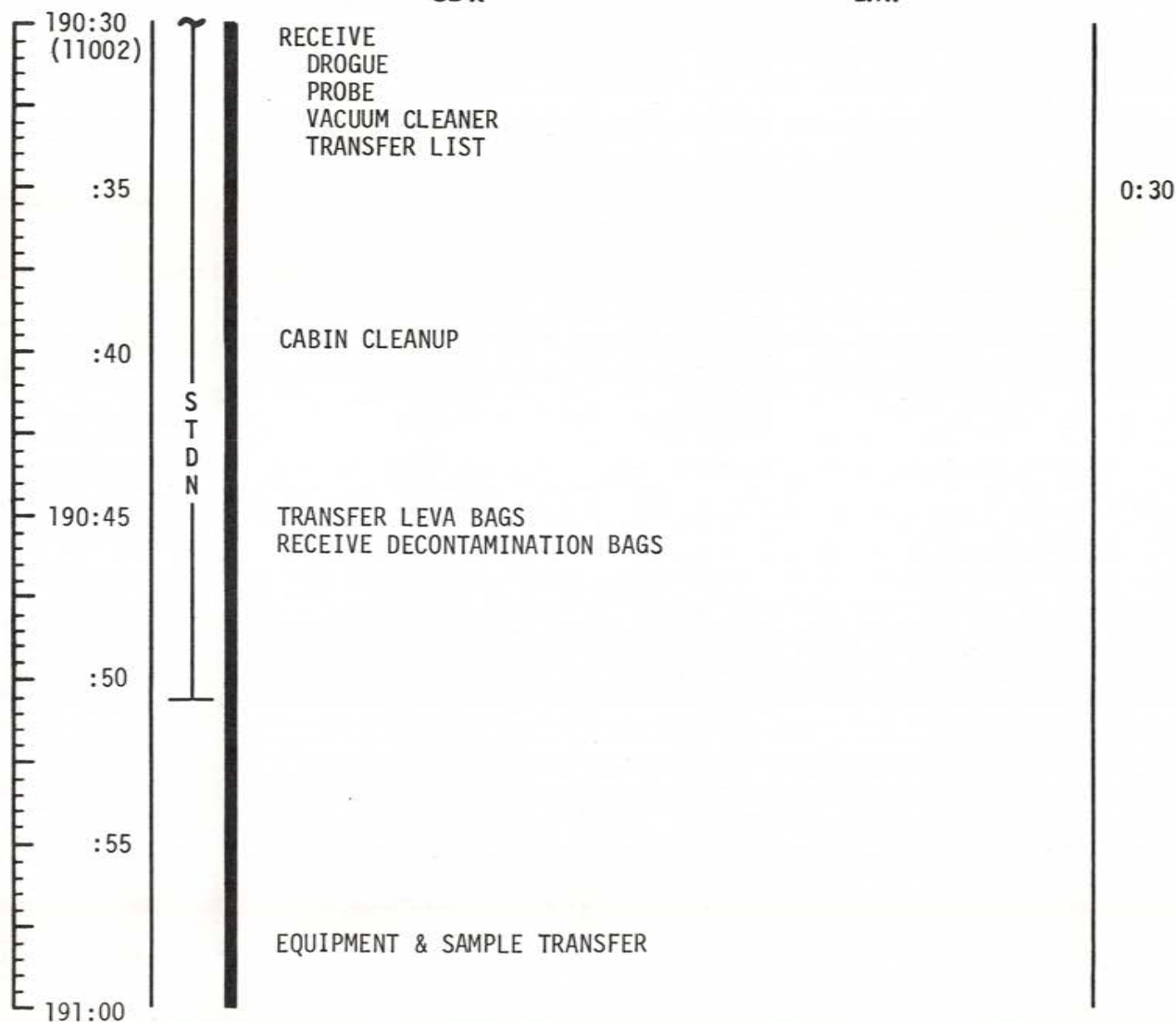
MCC-H

1923 CST

CDR

LMP

NOTES



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	190:30 - 191:00	9/52	3-294

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN

190:30
(61111)
(1111)

TRANSFER TO CDR AT HIS REQUEST:
PROBE
DROGUE
VACUUM CLEANER (ASSEMBLED)
LM TO CM TRANSFER LIST

SIM EXP STATUS
(*0000)
(01011)

:40

S
T
D
N

RECEIVE LEVA BAGS

CMDS:
DSE RECORD

TRANSFER TO CDR:
DECONTAMINATION BAGS

:50

VERIFY DSE TAPE MOTION (HBR/RCD/FWD/CMD RESET)
SET HGA MAN P -42, Y 349 AUTO, NARROW FOR AOS

RECEIVE ITEMS FROM LM AND STOW
(LM TO CM TRANSFER LIST)

191:00

MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-295

LM FLIGHT PLAN

MCC-H

1953 CST

CDR

LMP

NOTES



STDN

TRANSFER SRC'S

RECEIVE B5 & B6

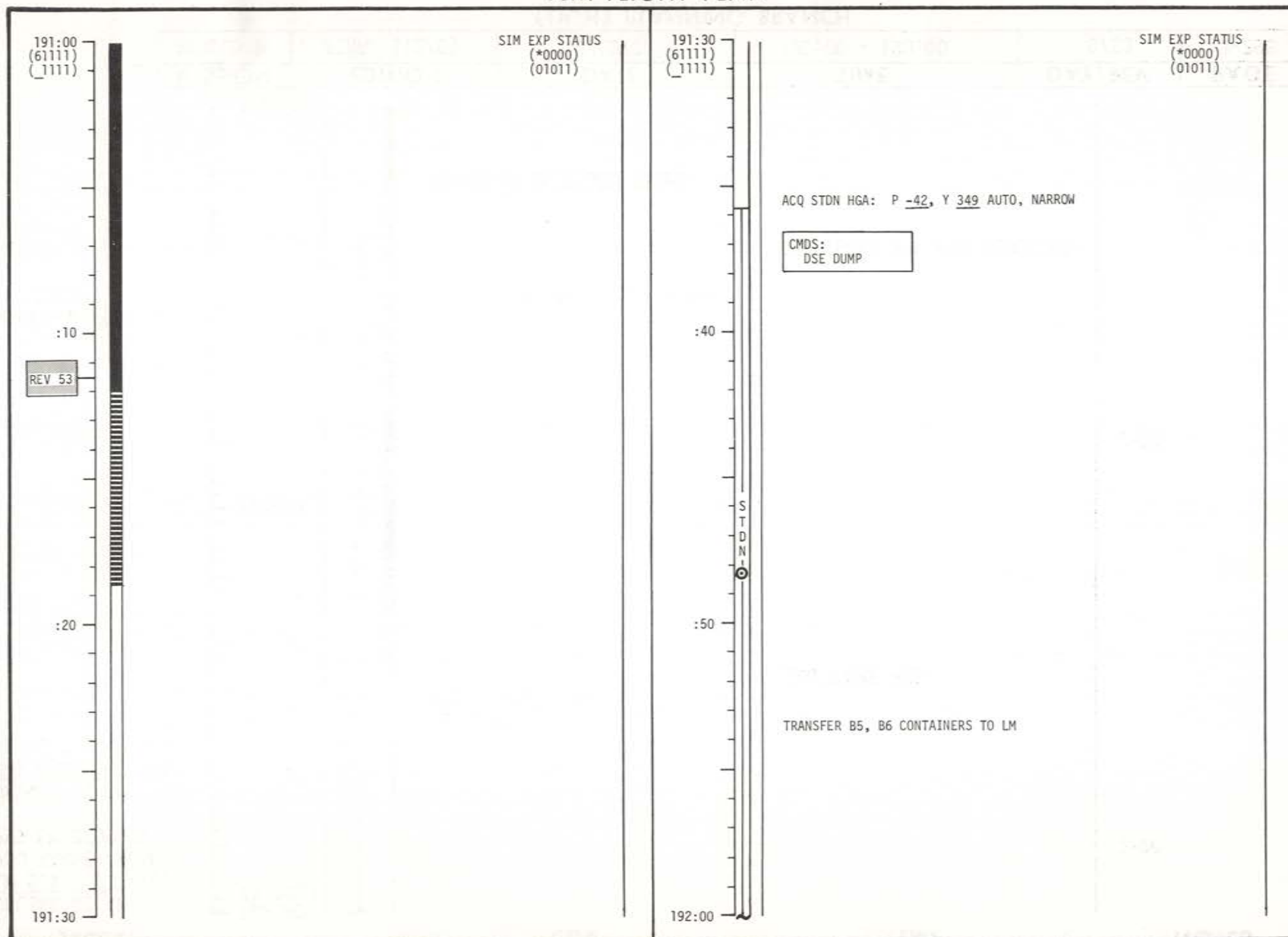
1:00

1:30

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	191:00 - 192:00	9/52-53	3-296

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-297

LM FLIGHT PLAN

MCC-H

2053 CST

CDR

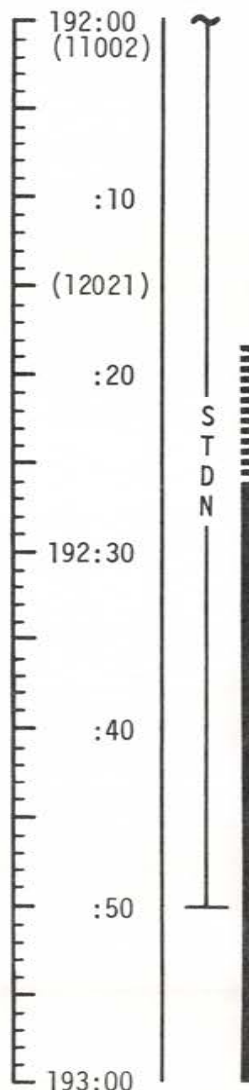
LMP

NOTES

UPLINK TO LM
LM S.V. (TIG-10)
P30 TARGET LOAD
P99 LM DEORBIT

UPDATE TO LM
DAP LOAD (WEIGHTS)
DEORBIT BURN PAD

GO/NO-GO FOR LM
CLOSEOUT



SET DAP
P30 TARGET PGNS

CONFIGURE AGS

CONFIGURE LM FOR JETTISON

CONFIGURE VHF FOR CLOSEOUT

TRANSFER JETTISON ITEMS

2:00

2:30

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	192:00 - 193:00	9/53	3-298

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN

192:00
(61111)
(1111)

SIM EXP STATUS
(*0000)
(01011)

UPDATE:
 DAP LOAD - UPDATE WEIGHTS
 LM JETTISON PAD
 FLIGHT PLAN

V48 LOAD CSM & LM WEIGHTS

CSM WT	+					
LM WT	+					

UPLINK:
 CSM S.V. (CSM SEP-10)

V48 (61101)
(1111)
CONTINUE EQUIP & SAMPLE TRANSFER

LM JETTISON PAD					
+	0	0			HRS GETI
+	0	0	0		MIN N33
+	0	0			SEC
X	X	X			R (020) N22
X	X	X			P (007)
X	X	X			Y (349)

192:30

192:30
(61101)
(1111)

SIM EXP STATUS
(*0000)
(01011)

UPDATE:
 GO/NO-GO FOR LM CLOSEOUT

CMDS:
 DSE RECORD

VERIFY DSE TAPE MOTION (HBR/RCD/FWD/CMD RESET)

TRANSFER CM JETTISON ITEMS TO LM

NOTICE
 NO URINE/FECES
 ALL OPEN FOOD MUST
 BE TREATED AND
 STORED IN BETA BAG

193:00

LM FLIGHT PLAN

MCC-H

2153 CST

CDR

LMP

NOTES

193:00
(12021)

IVT TO CSM

3:00

:10

CLOSE HATCH, IVT TO CSM

LM CLOSEOUT

REV 54

:20

193:30

:40

S
T
D
N

:50

194:00

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	193:00 - 194:00	9/53-54	3-300

FLIGHT PLANNING BRANCH

CSM FLIGHT PLAN

193:00
(61101)
(1111)

SIM EXP STATUS
(*0000)
(01011)

CDR & LMP IVT TO CSM
VHF AM B - OFF (CTR)

:10

REV 54

LMP - CLOSE LM HATCH

STOW INTERCONNECTS - A8
SUIT FLOW VALVE (3) - SUIT FULL FLOW
HATCH INSTALLATION (DECAL)

HATCH INTEGRITY CHECK (DECAL)

:20

CONFIGURE CAMERA FOR LM JETTISON PHOTOS
CM2/DAC/18/CEX - BRKT,MIR(T8,1/250,7) 12 fps (50% MAG)

MAG (DD) _____, MAG % _____
UTILITY PWR - ON

193:30

193:30
(61101)
(1111)

SIM EXP STATUS
(*0000)
(01011)

P30; N33: LM JETTISON TIG +5 MIN
N81 (+2.0, +0.0, +0.0)

LM PWR - OFF (VERIFY)
cb SECS PYRO ARM (2) - CLOSE

ACQ STDN HGA: P -42, Y 349 REACQ, NARROW

CMDS:
DSE DUMP

CUE STDN FOR LOGIC ARM
SECS LOGIC (2) - ON (UP)

REPORT: LM/CM ΔP
DON HELMETS AND GLOVES

:40

SUIT CKT INTEGRITY CHECK (DECAL)

:50

LOAD ΔV IN EMS TO +100.0
CHECK NULL BIAS
GDC ALIGN

UPDATE:
GO/NO-GO FOR PYRO ARM

(11102)
(1111)

PRE-JETTISON CHECKLIST
V48 (11102)
(1111)

SECS PYRO ARM (2) - ARM

P47 (JETT -1 MIN)
EMS MODE - NORMAL (JETT -30 SEC)
DAC - ON (JETT -25 SEC)

LM JETTISON

HOLD P47 FOR STDN
P00

194:00

PRE-JETTISON CHECKLIST

BMAG MODE (3) - ATT 1/RATE 2
RATE - LOW
ATT DB - MIN
SC CONT - SCS
EMS FUNC - ΔV
THC PWR - ON
RHC PWR DIR - MNA/MNB
THC - ARMED
RHC - ARMED
cb CSM/LM FINAL SEP (2) - CLOSE

193:58:30

(020,090/007,349)

MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-301

CSM FLIGHT PLAN

194:00
(11102)
(1111)

PRE-SEPARATION CHECKLIST

SIM EXP STATUS
(*0000)
(01011)

CSM SEPARATION

TIG: 194:03:30
BT: 12.6 SECS
ΔVT: 2.0 FPS
ORBIT: 63.9x62.3NM

HOLD N85 FOR STDN
P00

EMS FUNC - OFF
THC PWR - OFF
RHC PWR DIR - OFF
THC LOCKED
RHC LOCKED

INHIBIT ALL JETS EXCEPT A1 & C2 OR D1 & B2, A3,C4,B3,D4

HF ANTENNA 1 - EXTEND (OFF ON STDN CUE)

HF ANTENNA 2 - EXTEND (OFF ON STDN CUE)

V44 (SET LUNAR SURFACE FLAG)

V48 (11101)

(1111)

P20 OPT 5 (-X FWD SIM ATT) (194:30)

N78 (+090.00)

(+052.25)

(+000.00)

N79 (+002.50)

HGA P -4, Y 316

DOFF PGA'S, HELMETS AND GLOVES

UNSTOW BUSS (CMP'S) FROM PGA BAG

ZIP SUITS & INSTALL ELECTRICAL COVERS PRIOR TO STOWING (PGA BAG)

CDR & LMP INSTALL LCG PLUGS (LH TSB TOP POCKET)

INSTALL NECK RING COVERS (PGA BAG)

DUMP UCTA'S OVERBOARD

CDR & LMP DUMP URINE OVERBOARD

(VIA UTS-R11) UNTIL 197:00

CMP RESUME COLLECTION IN BUSS

STOW UCTAS (PGA BAG)

TRANSFER PRD'S TO CWG'S

DOFF PGA'S

UPLINK:
CSM S.V. & V66

CDR, CMP DOFF BIOMED HARNESS

194:30

PRE-SEPARATION CHECKLIST

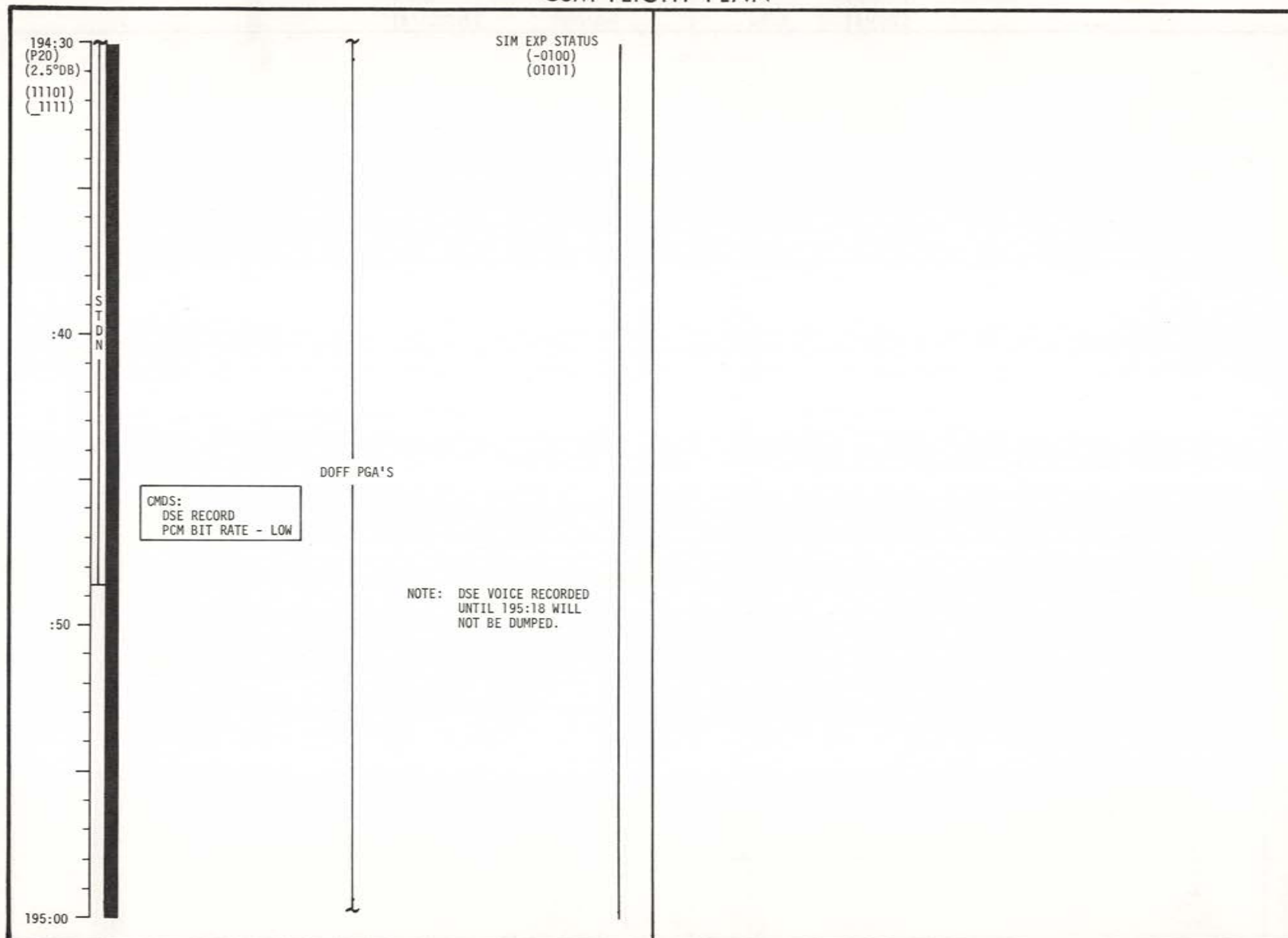
EMS MODE - STBY
SC CONT - CMC
BMAG MODE (3) - RATE 2
V49 MNVR RIGHT 90°
(110,007,349)
DAC - OFF
AUTO RCS SEL (16) - MNA/MNB
SECS PYRO ARM (2) - SAFE
SECS LOGIC (2) - OFF
cb SECS PYRO ARM (2) - OPEN
cb CSM/LM FINAL SEP (2) - OPEN
P41 (BYPASS MNVR)
EMS MODE - NORMAL (SEP -30 SECS)

NOTE:

LM JETTISON MAY BE
DONE IN LM JETTISON
ATTITUDE UNTIL LOS (194:48)

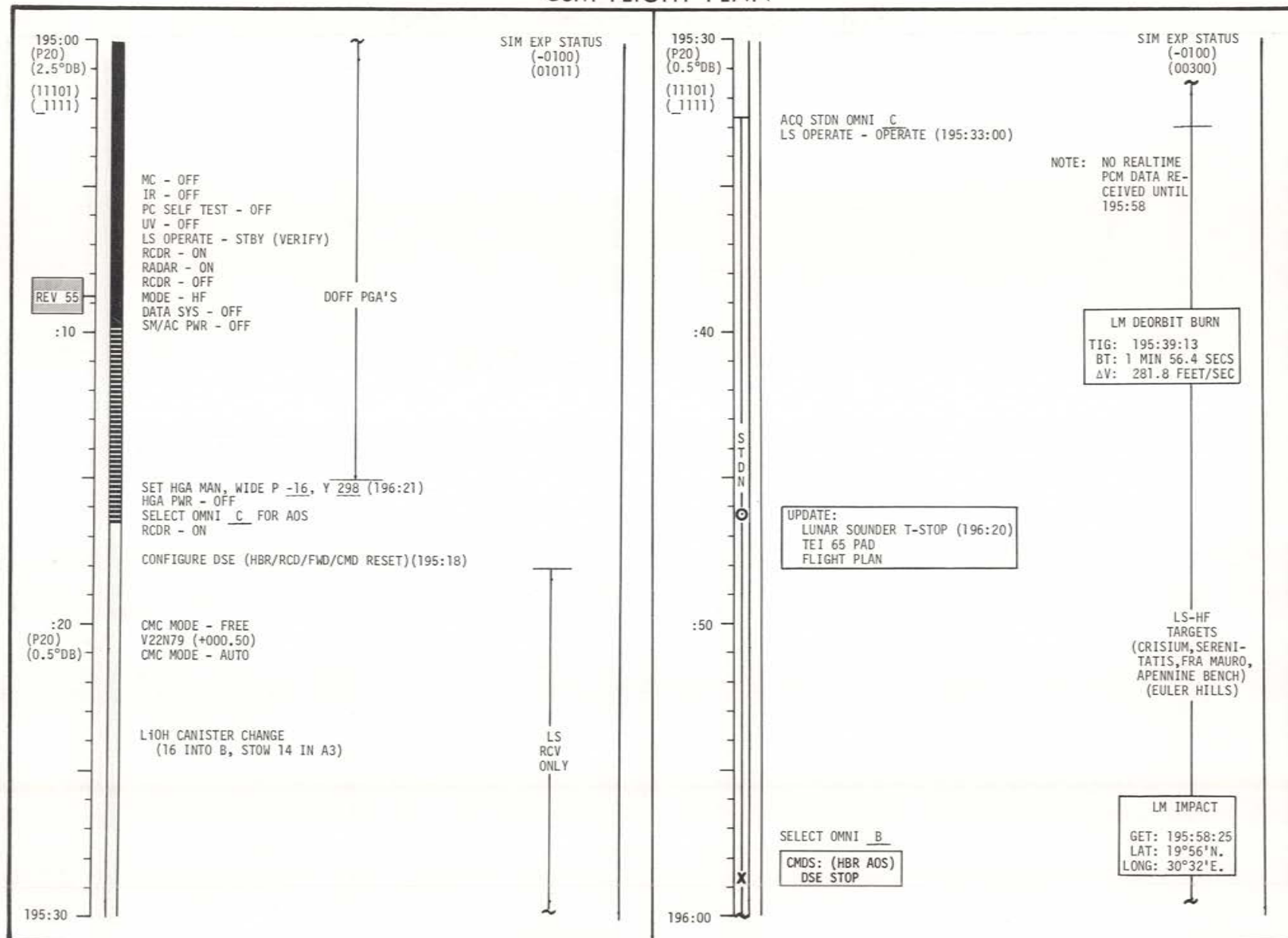
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-302

CSM FLIGHT PLAN



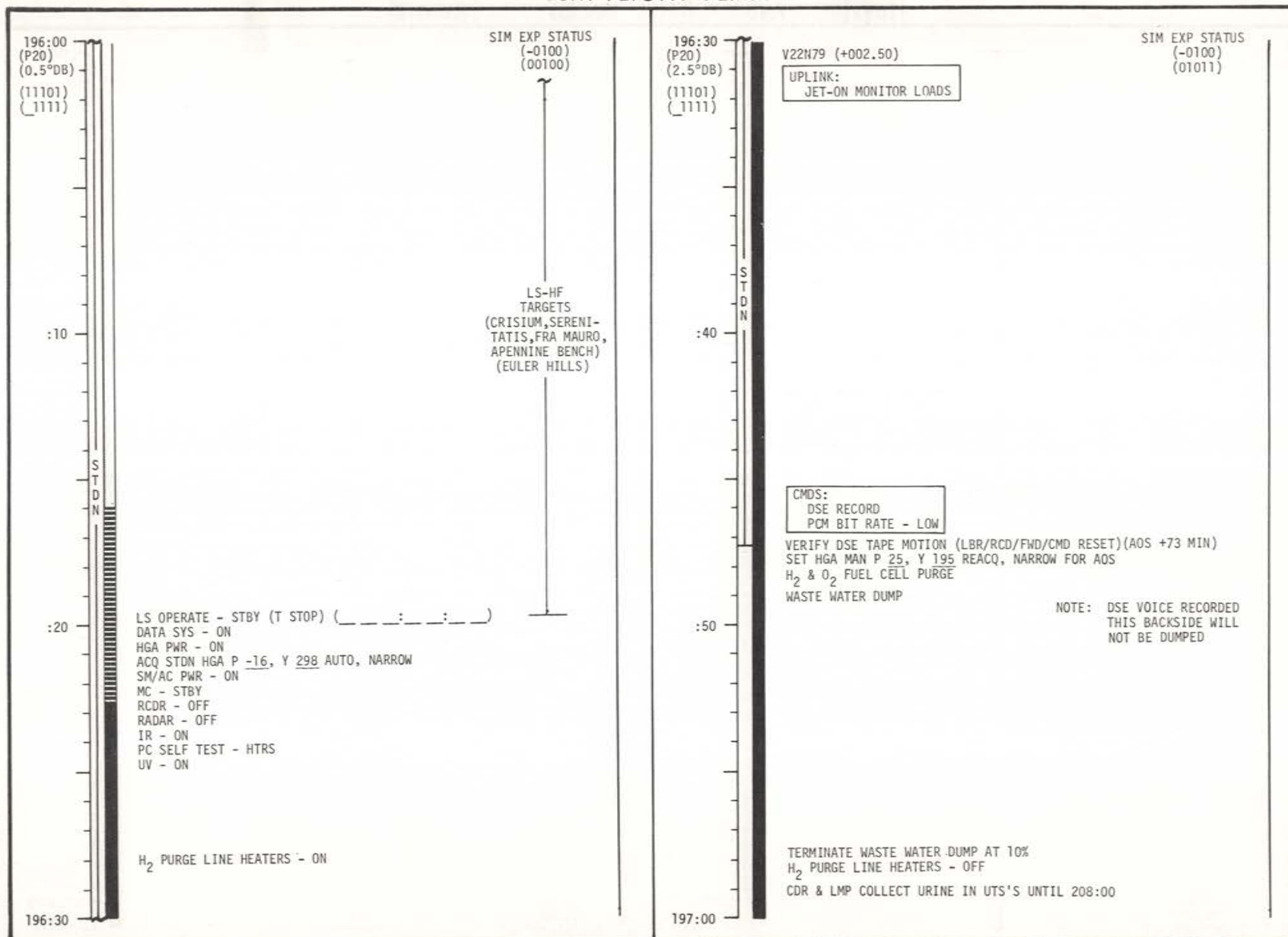
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-303

CSM FLIGHT PLAN



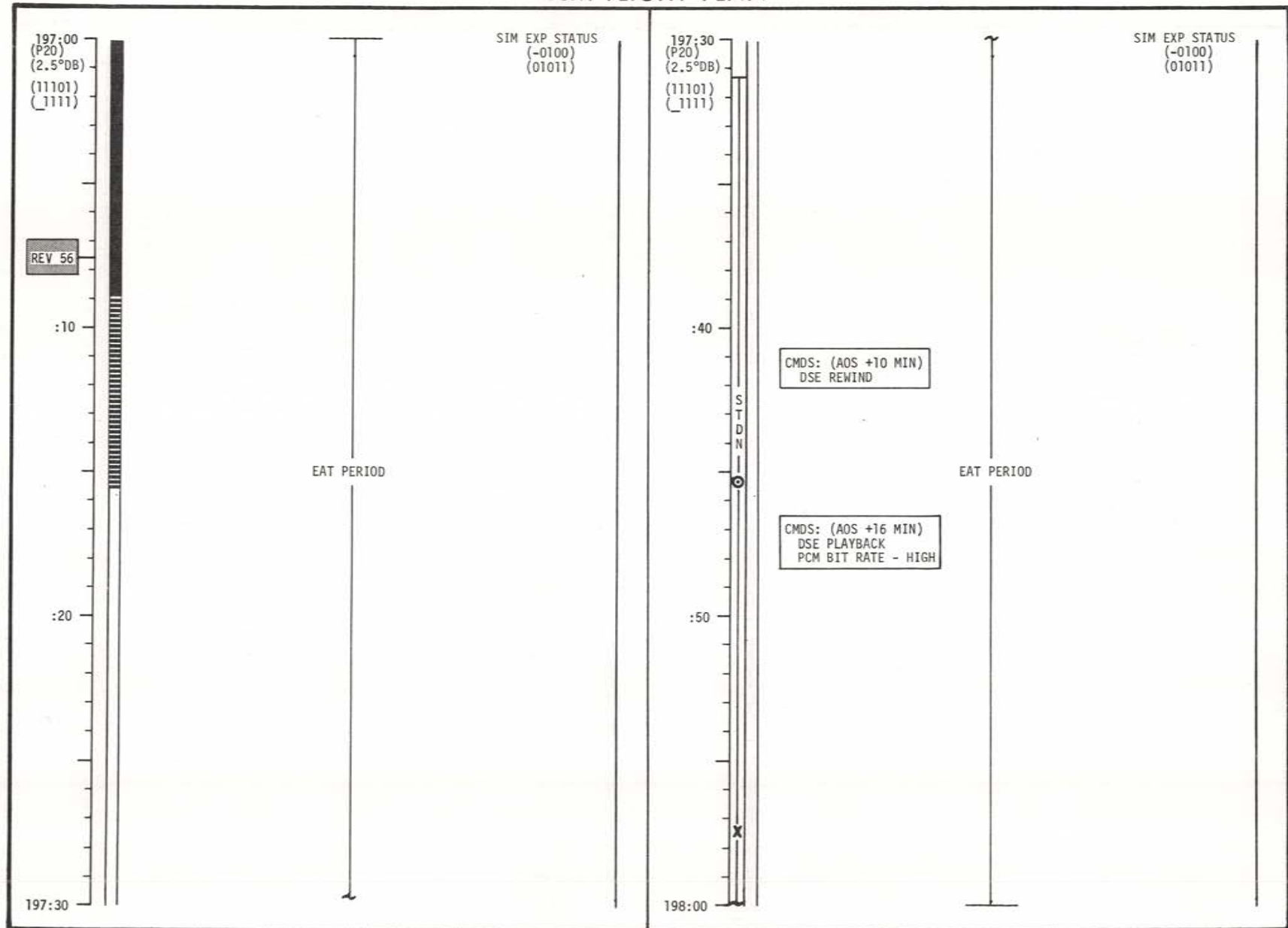
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-304

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-305

CSM FLIGHT PLAN



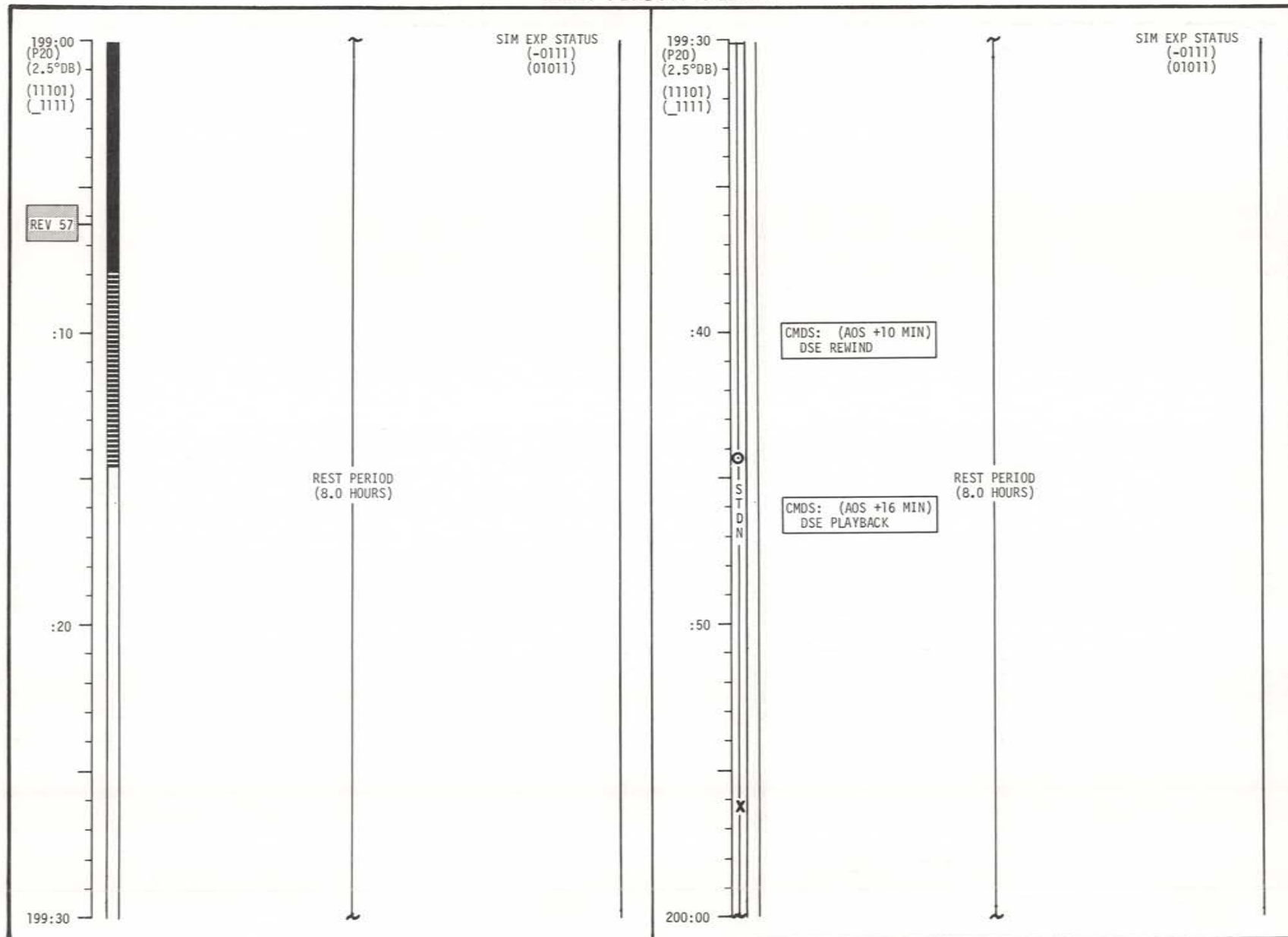
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-306

CSM FLIGHT PLAN

198:00 (P20) (2.5°DB) (11101) (1111) IR COVER - OPEN UV COVER - OPEN CSM SYSTEMS CHECKLIST PRE-SLEEP CHECKLIST PAGE S/1-29 FILM MAGS REQUIRED FOR NEXT DAY: EL: NN, QQ, RR S T D N :10 S T D N :20 198:30 SIM EXP STATUS (-0100) (01011)	198:30 (P20) (2.5°DB) (11101) (1111) CMDS: (AOS +60 MIN) DSE REWIND S T D N :40 CMDS: (AOS +68 MIN) DSE RECORD S T D N :50 199:00 SIM EXP STATUS (-0111) (01011) REST PERIOD (8.0 HOURS)
---	---

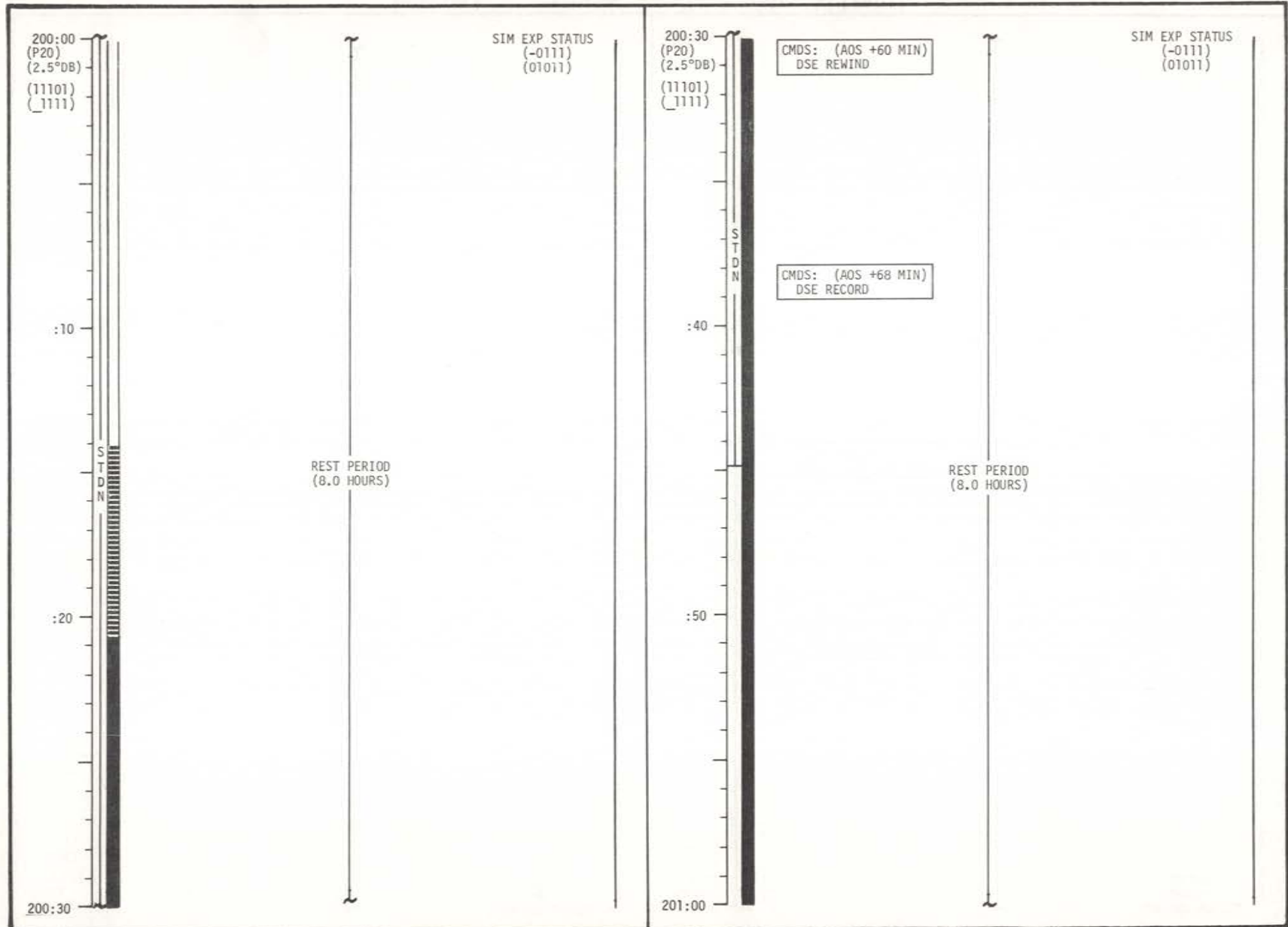
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-307

CSM FLIGHT PLAN



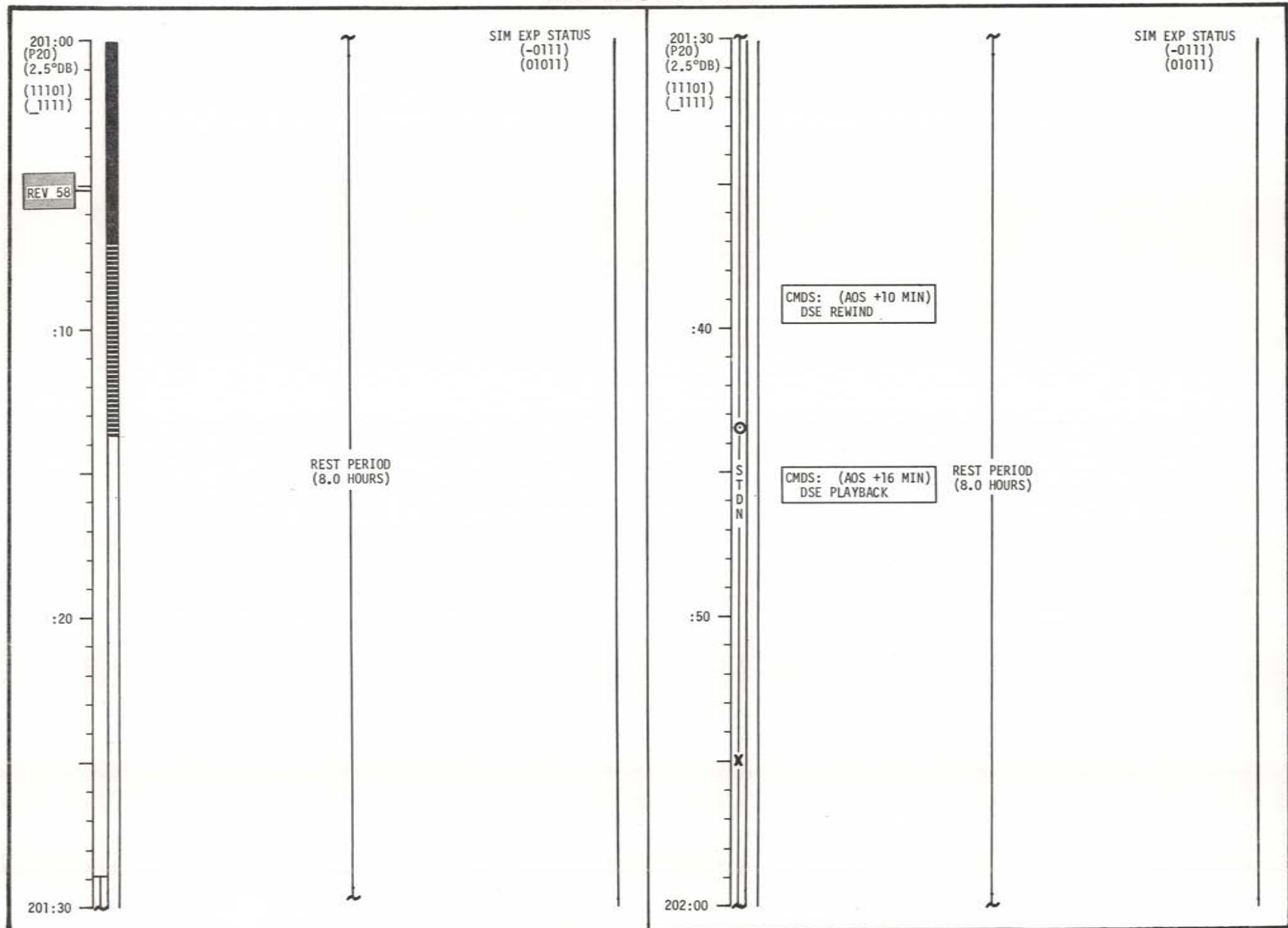
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-308

CSM FLIGHT PLAN



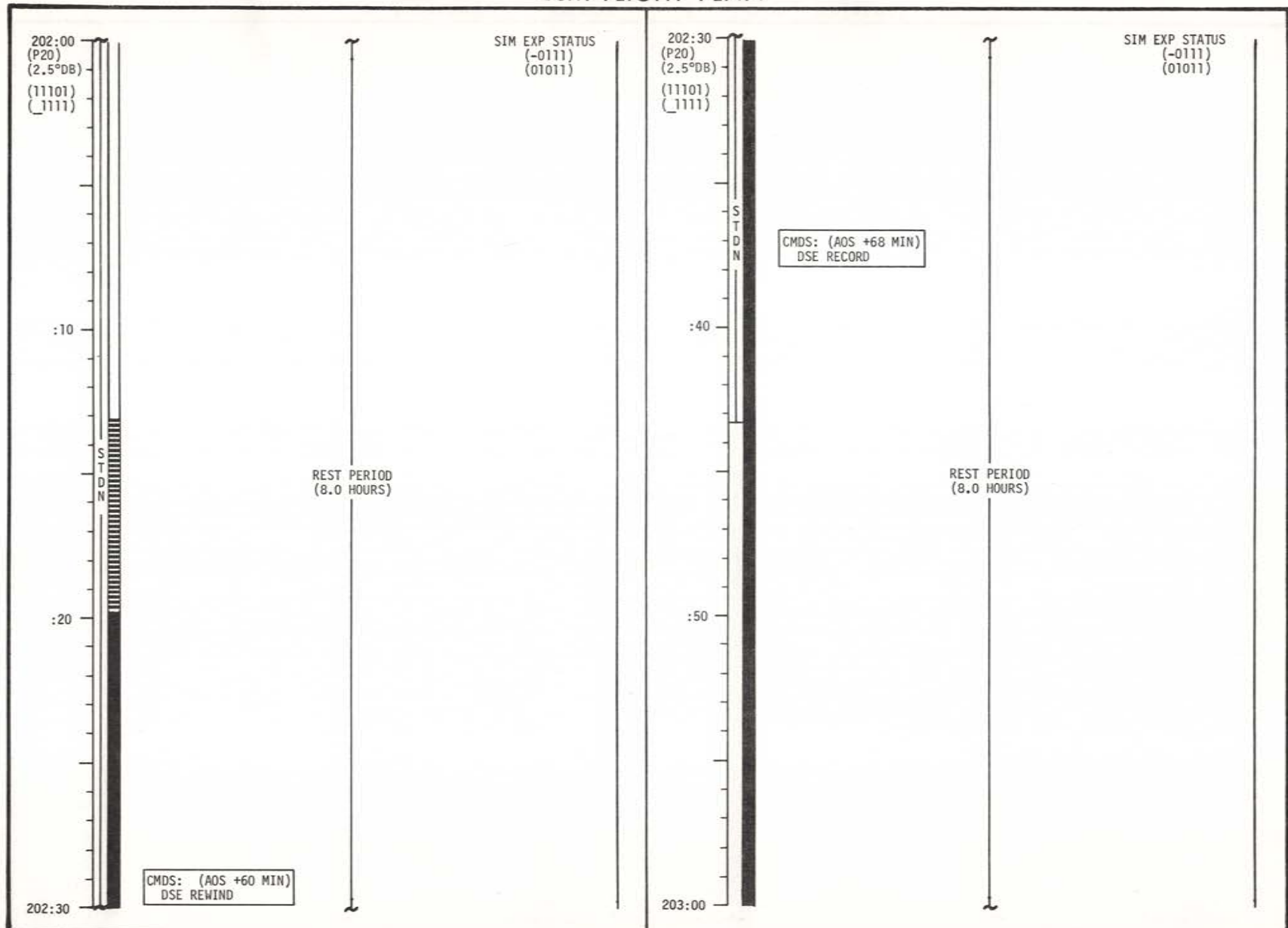
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-309

CSM FLIGHT PLAN



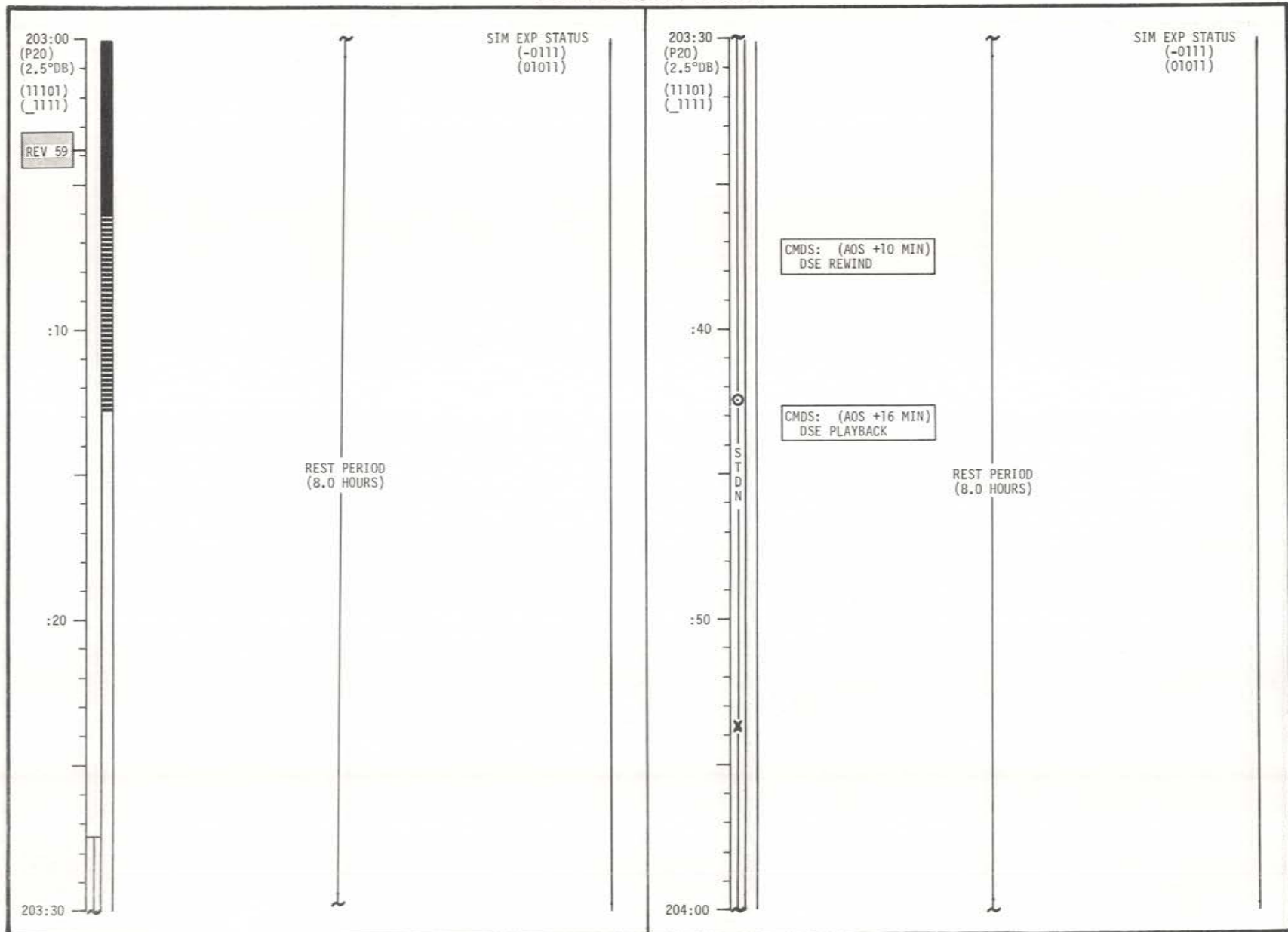
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-310

CSM FLIGHT PLAN



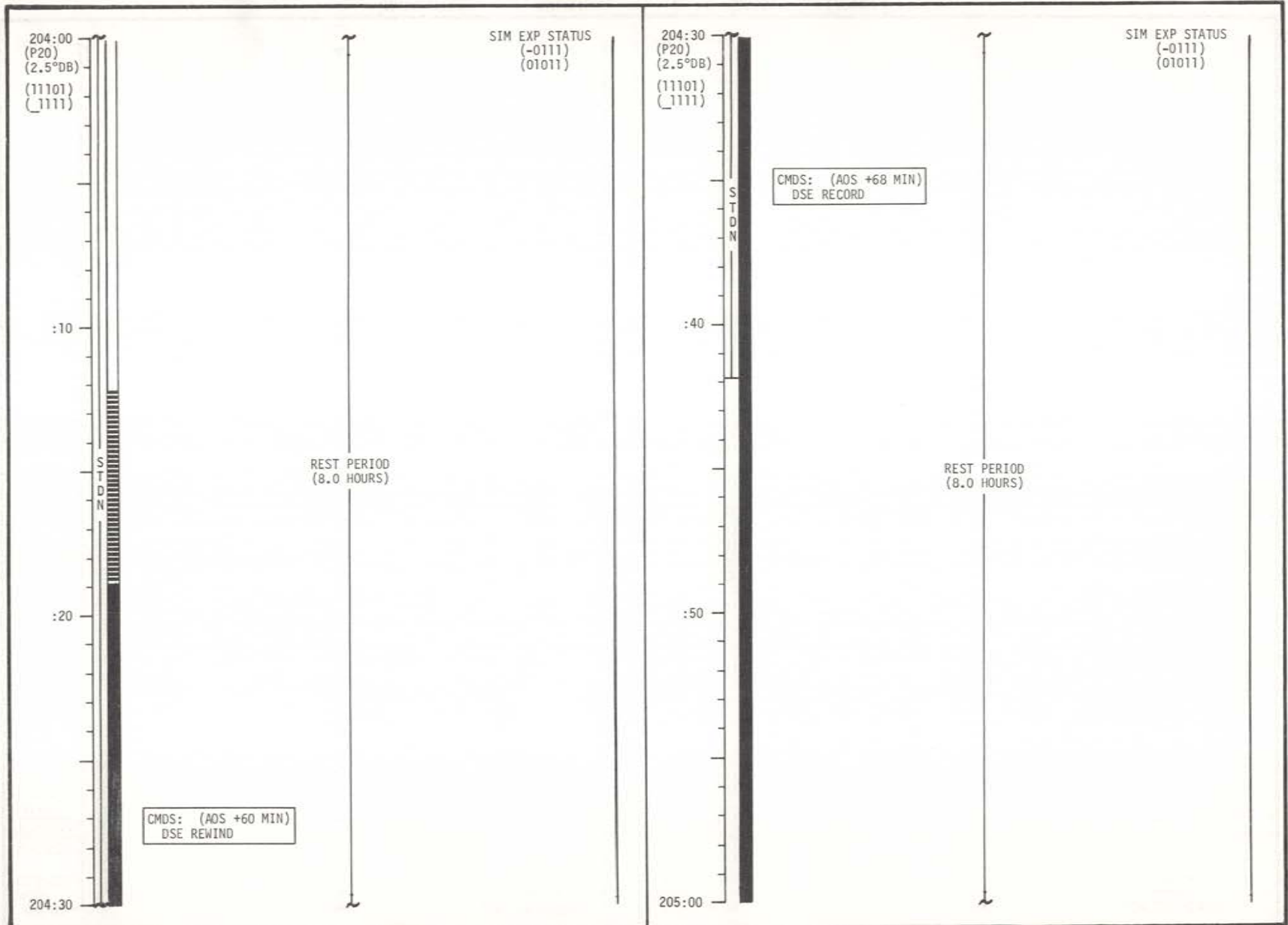
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-311

CSM FLIGHT PLAN



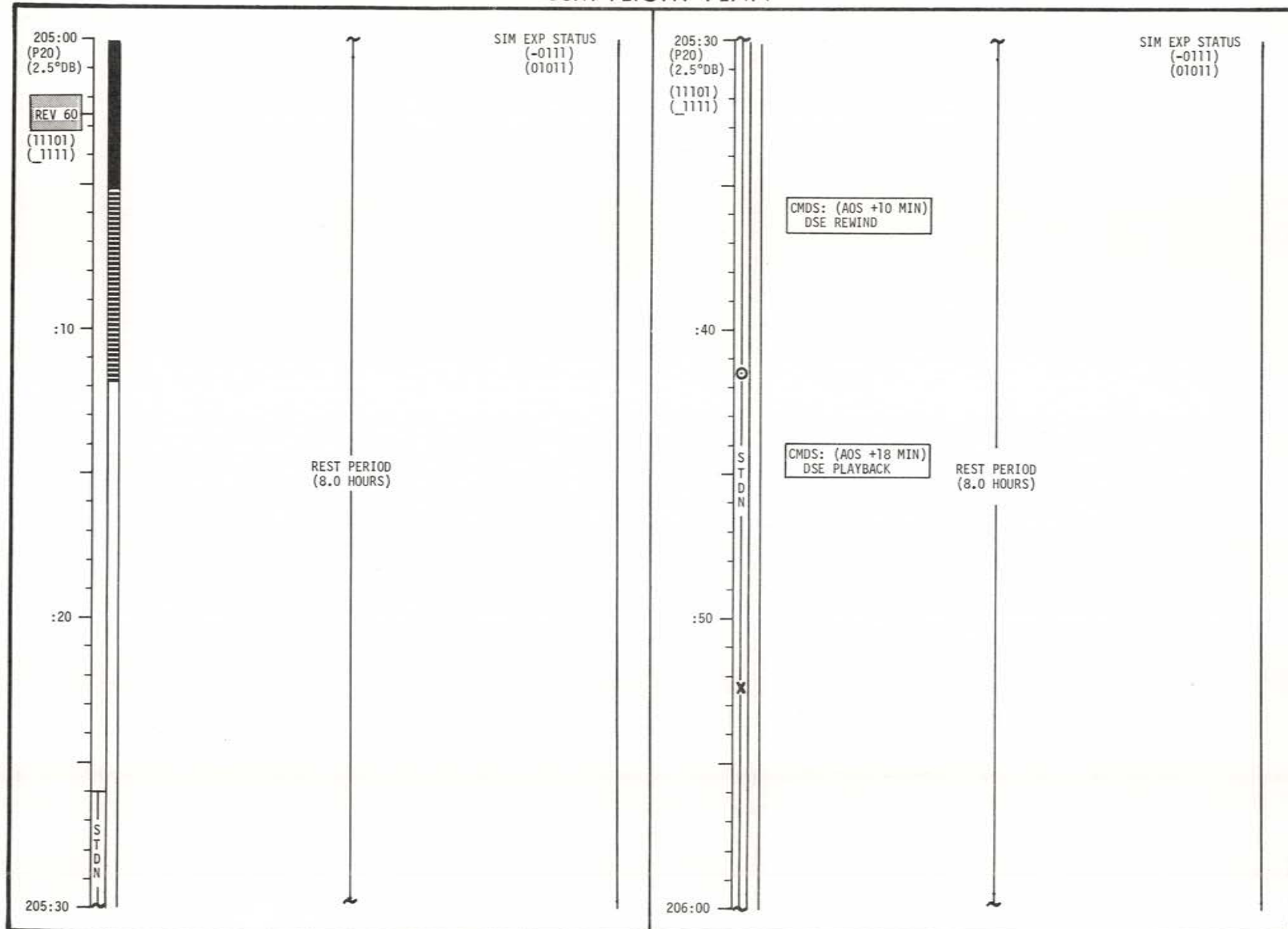
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-312

CSM FLIGHT PLAN



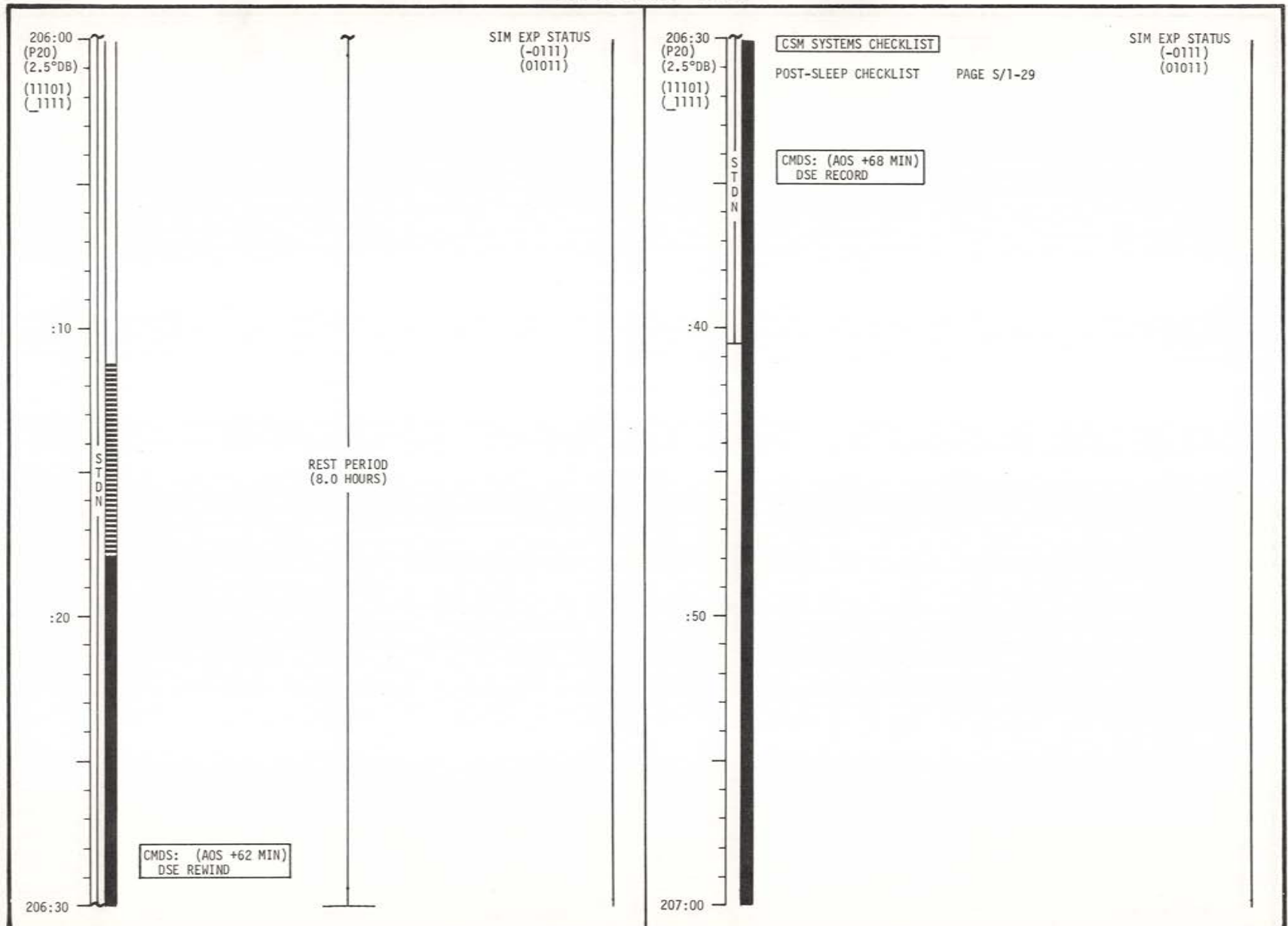
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-313

CSM FLIGHT PLAN



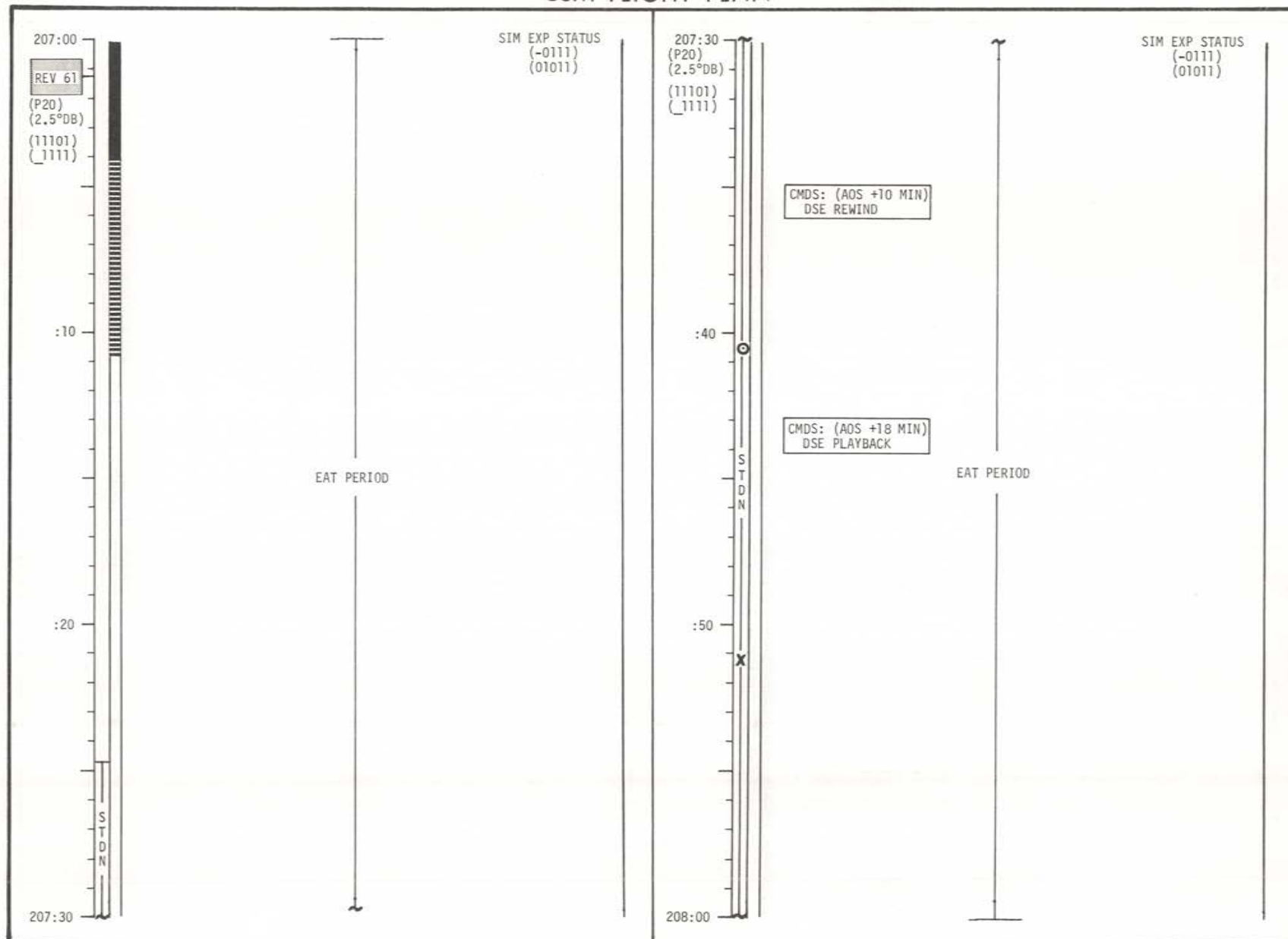
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-314

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-315

CSM FLIGHT PLAN



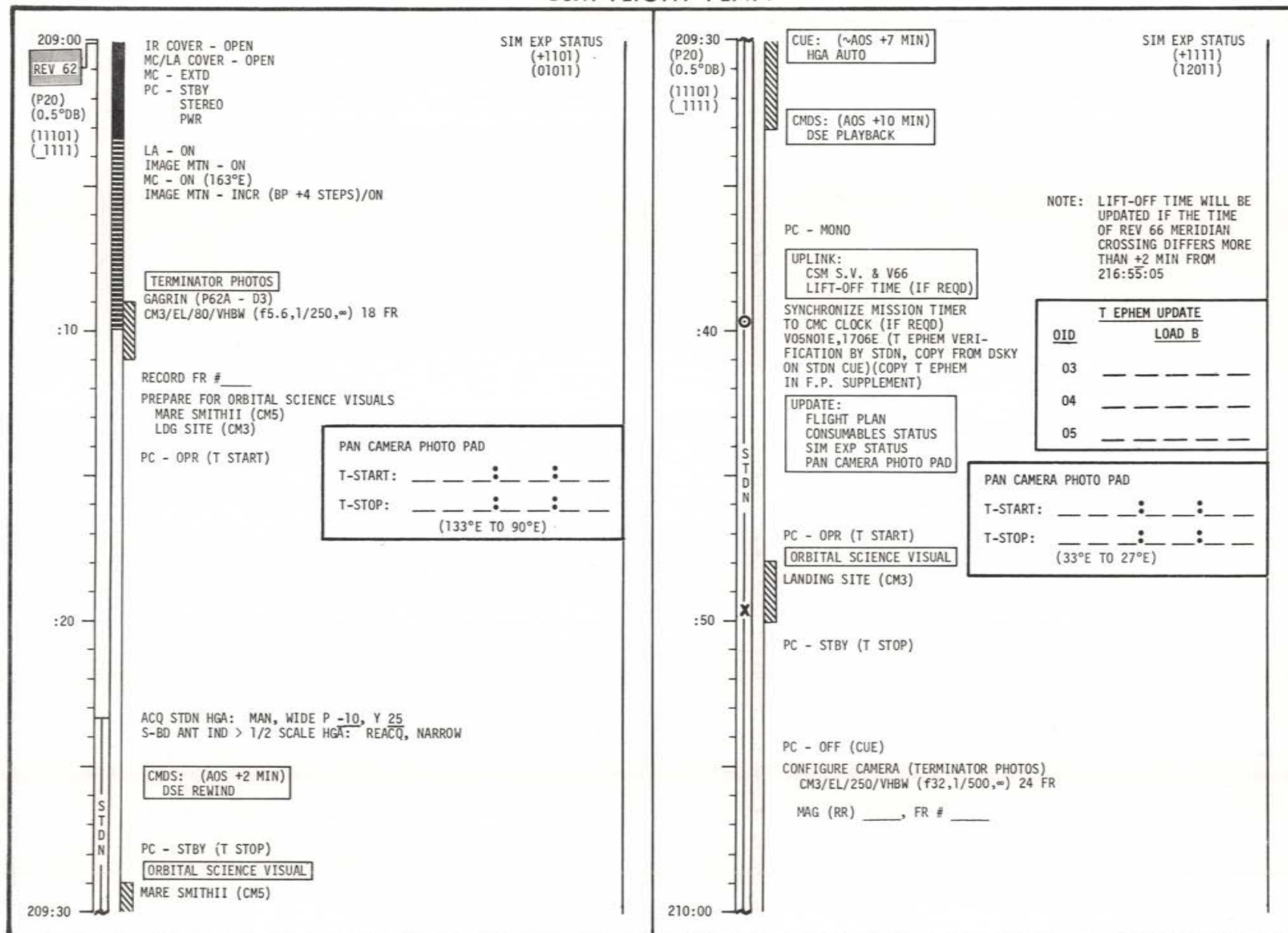
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-316

CSM FLIGHT PLAN

208:00 (P20) (2.5°DB) (11101) (1111) UPDATE: FLIGHT PLAN SOLAR CORONA PHOTO PAD PAN CAMERA PHOTO PAD (209:15) START NEW URINE COLLECTION PERIOD (ALL) CHARGE BATTERY B PC: MODE - STBY PWR - ON CSM EXP/EVA CHECKLIST SOLAR CORONA (SUNSET) PAGE X/2-7 MAG (QQ) PC: PWR - OFF (CUE) SOLAR CORONA (SUNSET) SOLAR CORONA PHOTO PAD (SS) T-START: _____ (SS - 5 MIN) IR COVER - CLOSE UV COVER - CLOSE SAMPLE CMP BUSS (1) - STOW SAMPLE (1) DUMP URINE FROM BUSS (1) AND UTS (CDR'S AND LMP'S) CMDS: (AOS +62 MIN) DSE REWIND TERMINATE JET-ON MONITOR P30 P20 V21N26 (00000) STD N SIM EXP STATUS (-0111) (01011)	208:30 (P20) (2.5°DB) (11101) (1111) CMDS: (AOS +69 MIN) DSE RECORD L10H CANISTER CHANGE (17 INTO A, STOW 15 IN A3) VERIFY DSE TAPE MOTION (HBR/RCD/FWD/CMD RESET) SET HGA MAN, WIDE P -10, Y 25 FOR AOS CMC MODE - FREE P00 V49 MNVR TO UV SCAN ATT (208:49) (003,222,000) CMC MODE - AUTO UV COVER - OPEN P20 OPT 5 (+X FWD SIM ATT) (209:05) N78 (+090.00) (+052.25) (+180.00) N79 (+000.50) CONFIGURE CAMERA: (TERMINATOR PHOTOS) CM3/EL/80/VHBW (f5.6,1/250,∞) 18 FR MAG (RR) _____, FR # _____ STD N SIM EXP STATUS (-0100) (01011)
208:30	209:00

MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-317

CSM FLIGHT PLAN



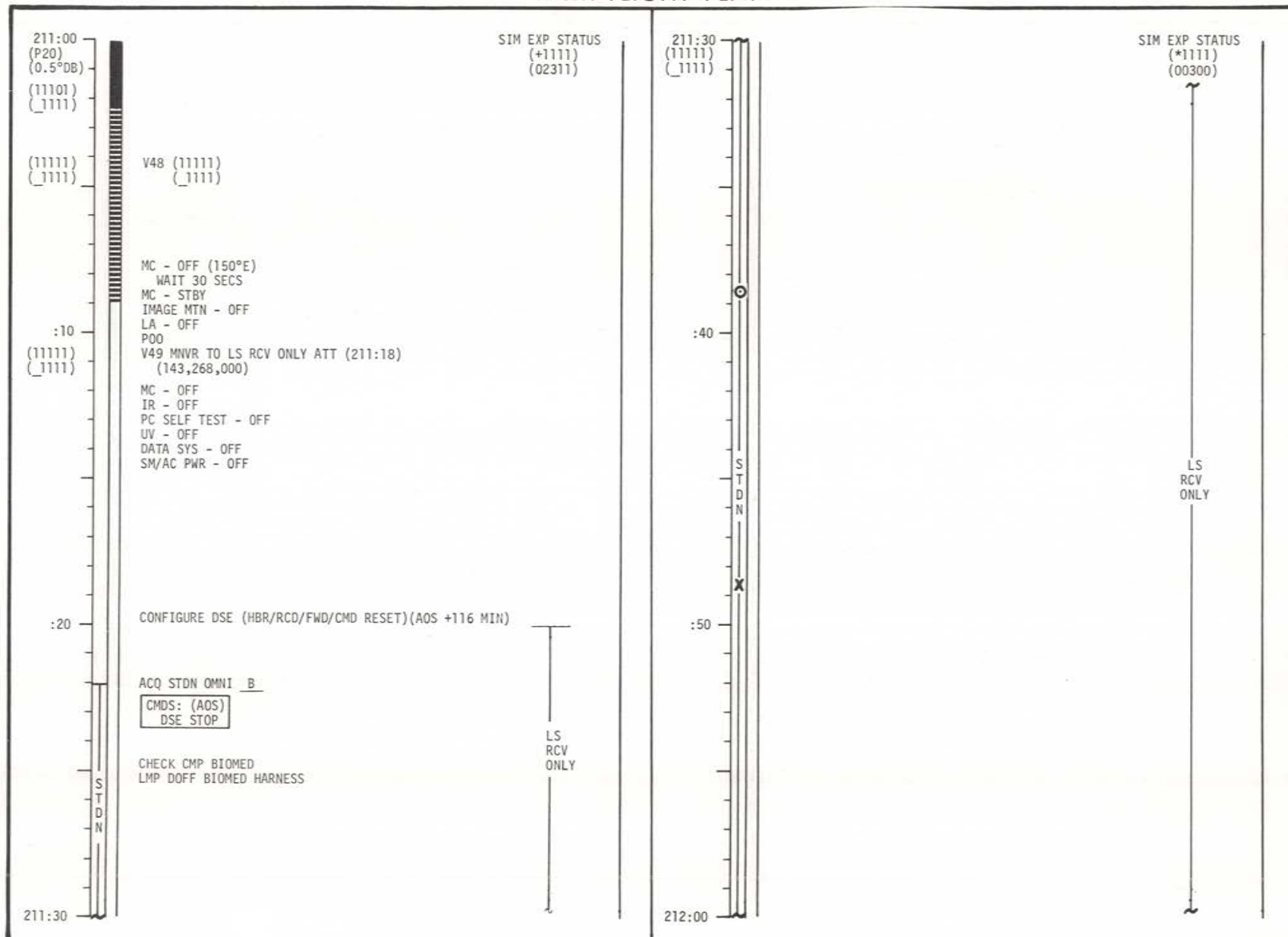
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-318

CSM FLIGHT PLAN

210:00 (P20) (0.5°DB) (11101) (1111) TERMINATOR PHOTOS NORTH (P62B - D13) CM3/EL/250/VHBW (f32,1/500,∞) 24 FR :10 RECORD FR # _____ STD N :20 CMC MODE - FREE P52 (OPTION 3) (LIFT-OFF ORIENT) REPORT: GYRO TORQUING ANGLES P20; CMC MODE - AUTO GDC ALIGN CMDS: (AOS +68 MIN) DSE REWIND 210:30 SIM EXP STATUS (+1111) (02011) P52 IMU REALIGN N71: _____ N05: _____ N93: _____ X _____ Y _____ Z _____ GET _____	210:30 (P20) (0.5°DB) (11101) (1111) STD N :40 SET HGA MAN P -20, Y 30 AUTO, NARROW (215:19) HGA PWR - OFF SELECT OMNI <u>B</u> FOR AOS NOTE: SIM BAY AND PCM DATA IS NOT RE- CORDED UNTIL 211:20 CMP DON BIOMED HARNESS :50 LS OPERATE - STBY (VERIFY) RCDR - ON RADAR - ON RCDR - OFF MODE - HF NOTE: ALL CREWMEN SKETCH SUNRISE AND SUNSET SOLAR CORONA BEFORE TEI. CSM EXP/EVA CHECKLIST PPS. X/2-10 a,b (CMP) X/2-10 c,d (CDR) X/2-10 e,f (LMP) REV 63 211:00 SIM EXP STATUS (+1111) (02011)
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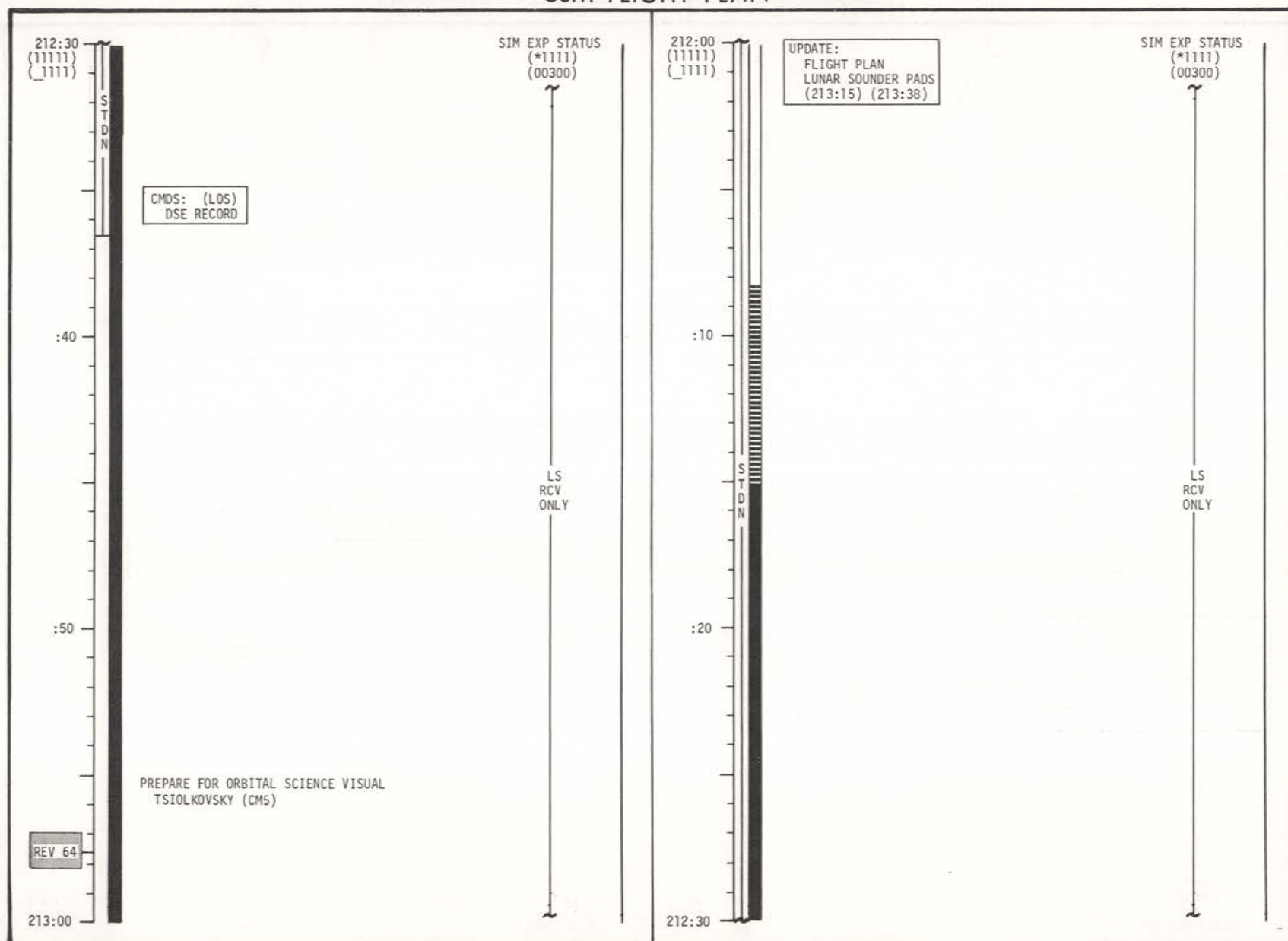
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-319

CSM FLIGHT PLAN



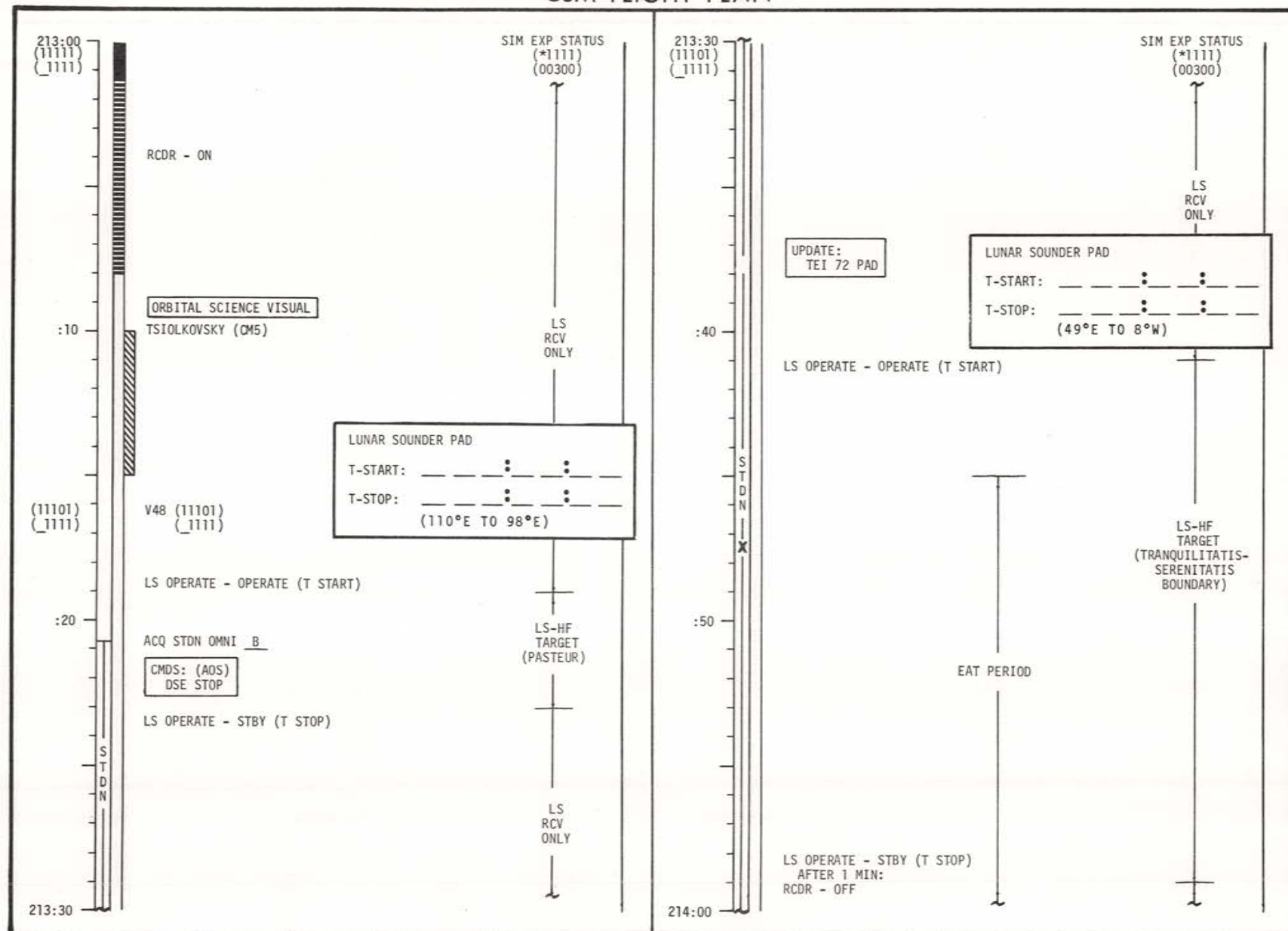
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-320

CSM FLIGHT PLAN



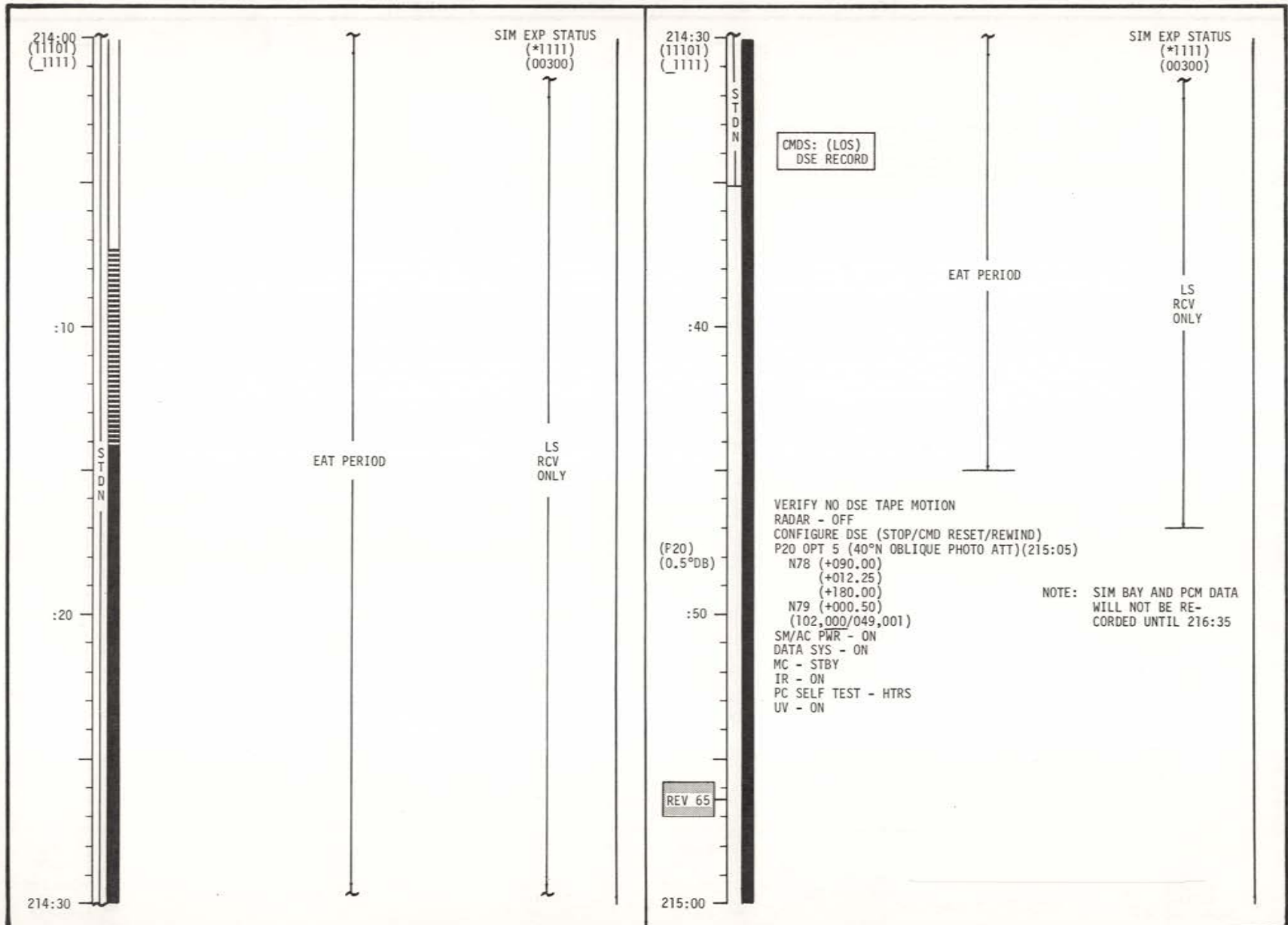
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-321

CSM FLIGHT PLAN



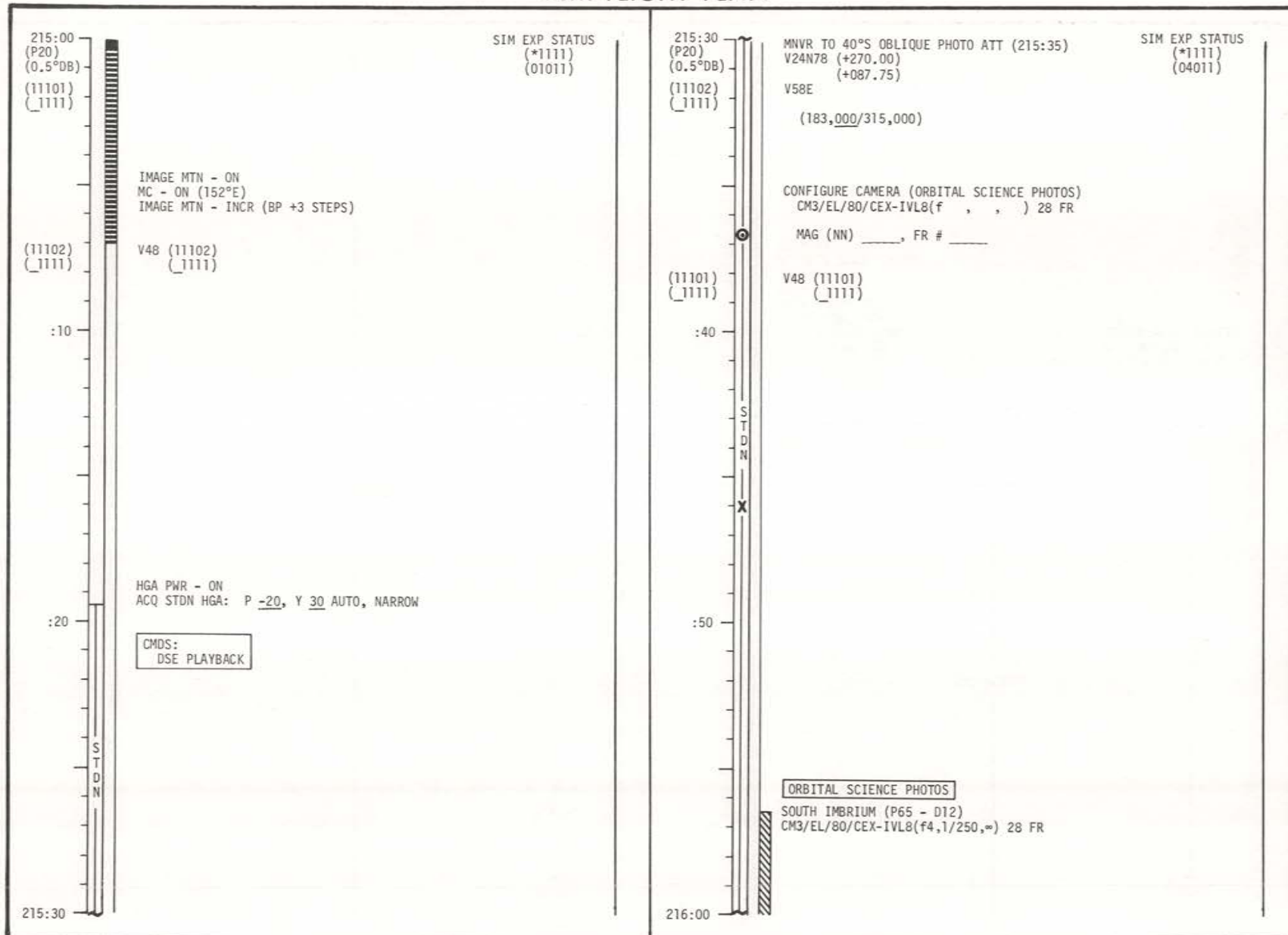
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-322

CSM FLIGHT PLAN



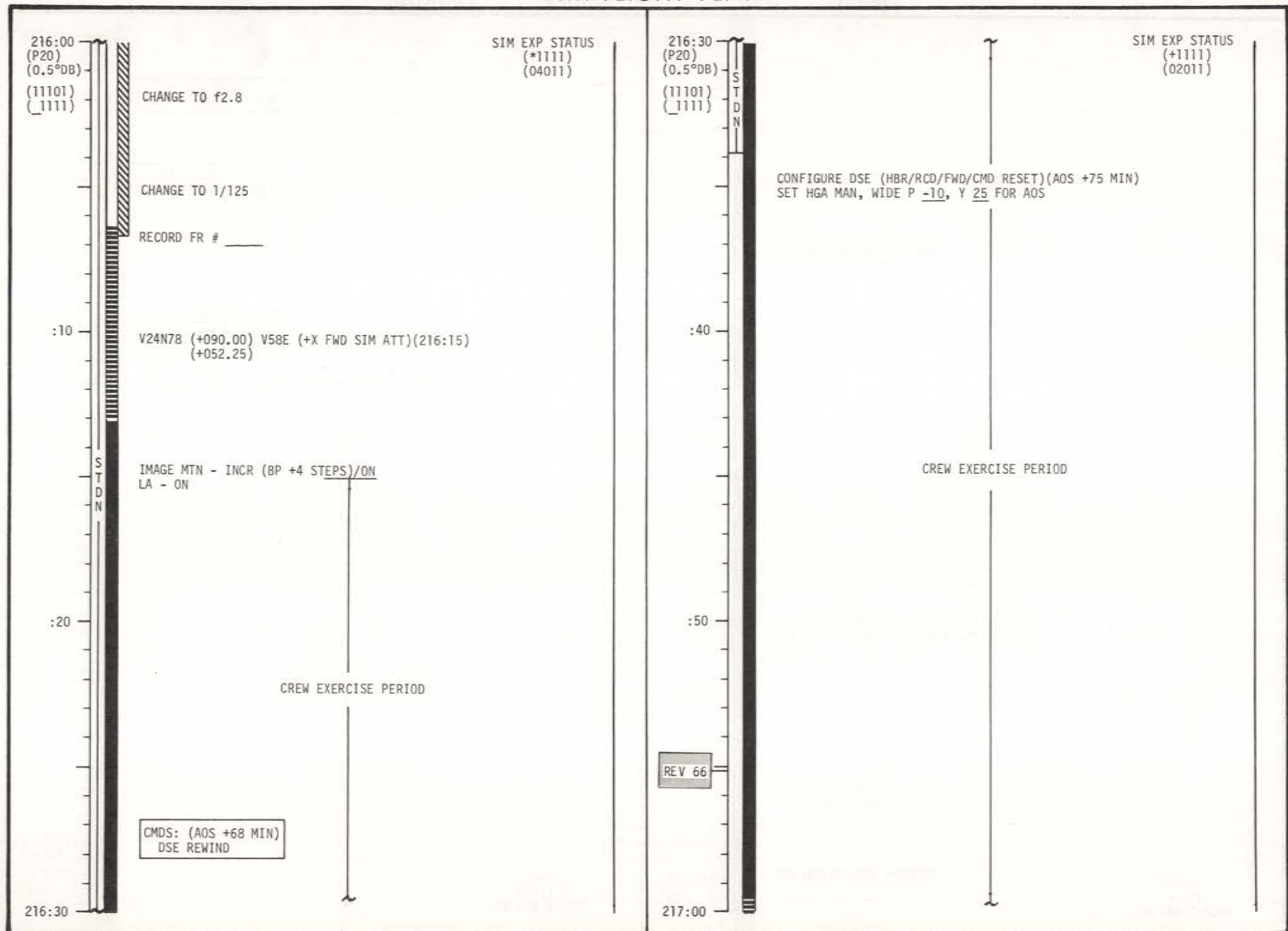
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-323

CSM FLIGHT PLAN



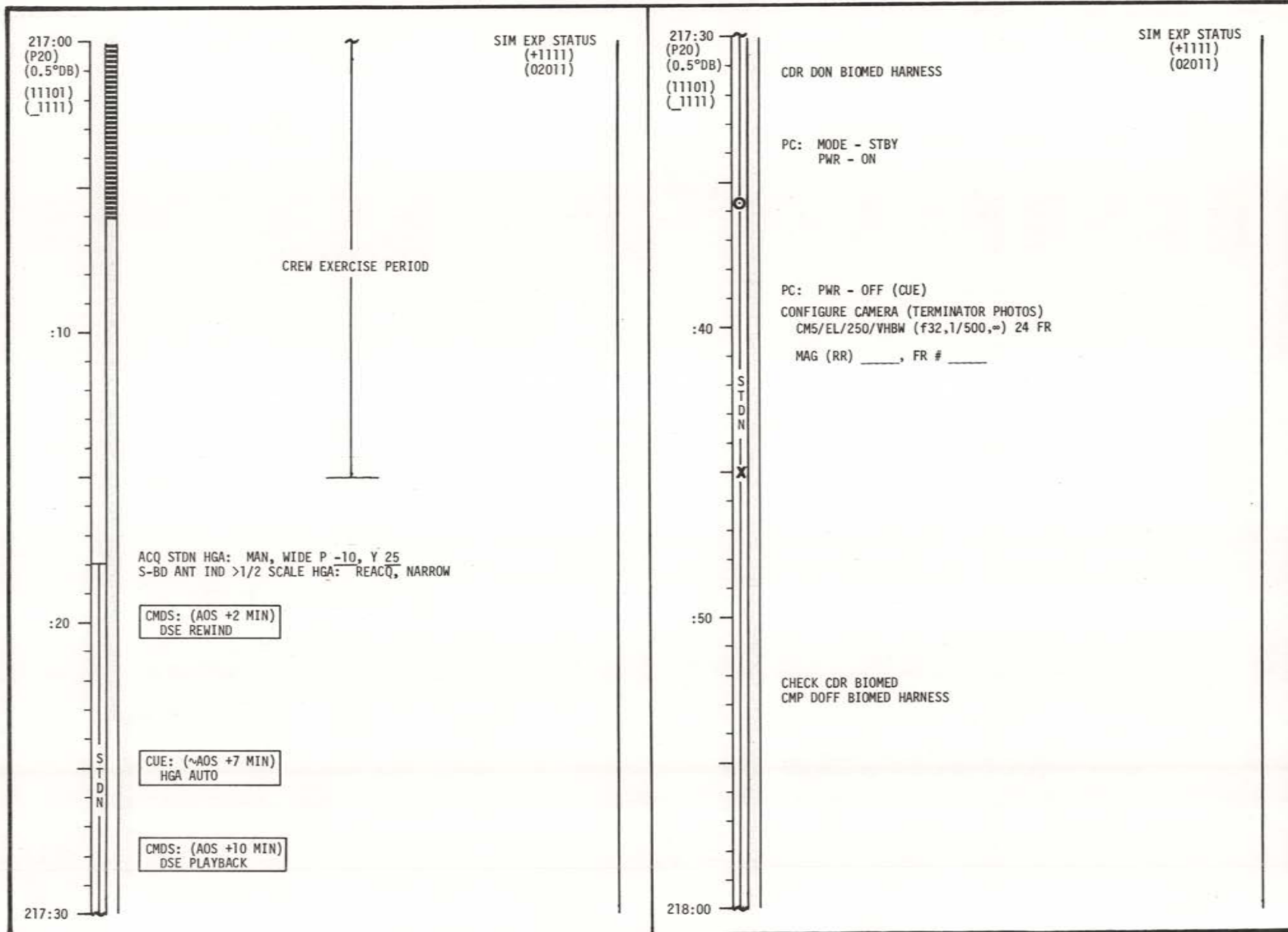
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-324

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-325

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-326

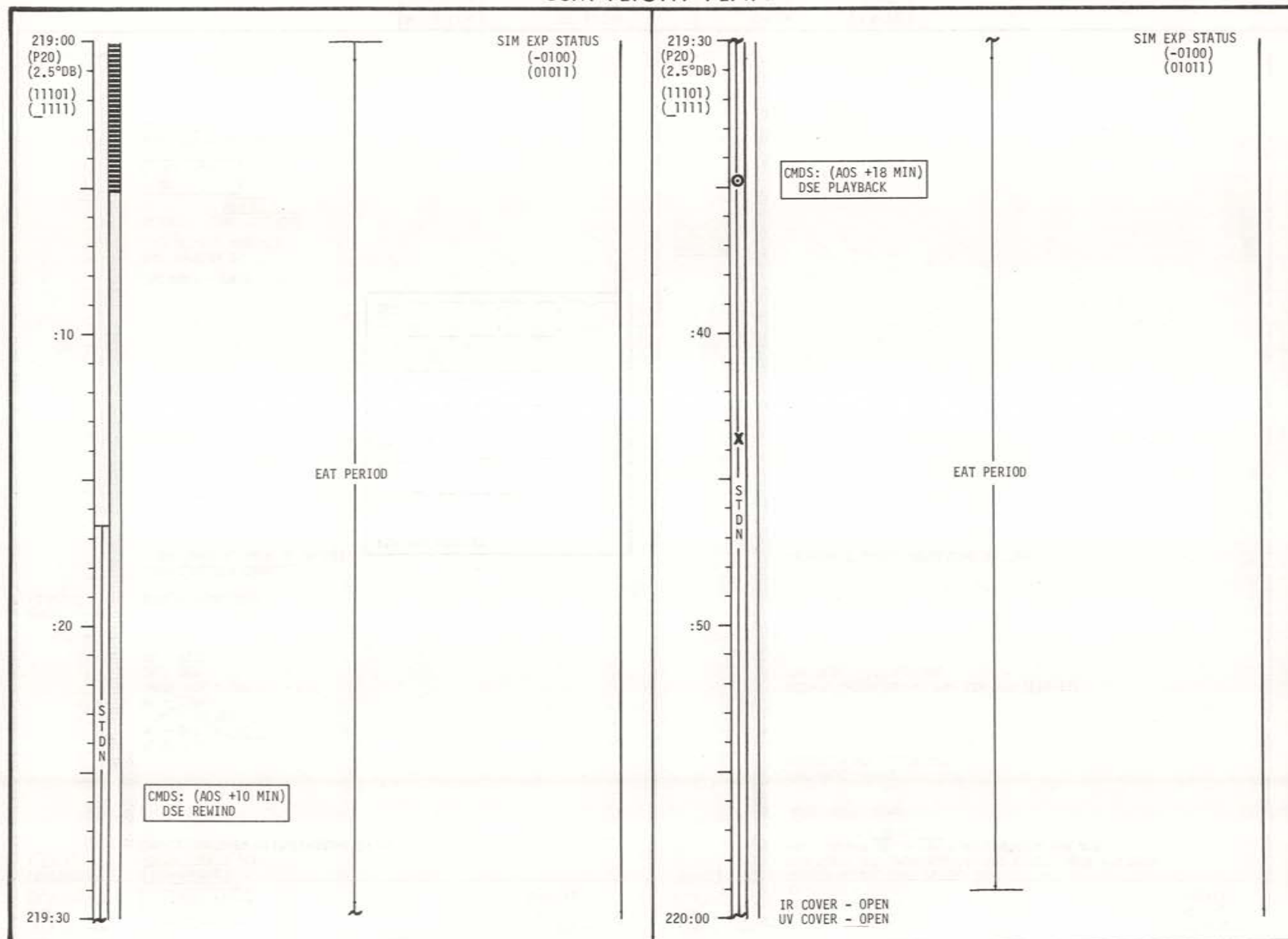
CSM FLIGHT PLAN

218:00 (P20) (0.5°DB) (11101) (1111) UPDATE: FLIGHT PLAN TERMINATOR SOUTH (P66 - D14) CMS/EL/250/VHBW (f32,1/500,=) 24 FR RECORD FR # MC - OFF (41°W) WAIT 30 SEC MC - STBY IMAGE MTN - OFF LA - OFF MC - RETR :10 (P20) (2.5°DB) V22N79 (+002.50) LiOH CANISTER CHANGE (18 INTO B, STOW 16 IN A3) P52 IMU REALIGN N71: _____ N05: _____ N93: _____ X _____ Y _____ Z _____ GET _____ CMC MODE - FREE P52 (OPTION 3) (LIFT-OFF ORIENT) REPORT: <u>GYRO TORQUING</u> <u>ANGLES</u> CMDS: DSE REWIND P20; CMC MODE - AUTO GDC ALIGN 218:30 S T D N SIM EXP STATUS (+1111) (02011)	218:30 (P20) (2.5°DB) (11101) (1111) MC/LA COVER - CLOSE IR COVER - CLOSE UV COVER - CLOSE VERIFY NO DSE TAPE MOTION CONFIGURE DSE (HBR/RCD/FWD/CMD RESET) (AOS +73 MIN) HGA: MAN P 25, Y 195 REACQ, NARROW FOR AOS O₂ FUEL CELL PURGE WASTE WATER DUMP CMC MODE - FREE MANUALLY ROLL LEFT 40° V23N78 (+000.00) -X FWD SIM ATT (218:53) CMC MODE - AUTO, V58E TERMINATE WASTE WATER DUMP AT 10% :40 :50 219:00 S T D N SIM EXP STATUS (+2111) (01011)
--	---

REV 67

MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-327

CSM FLIGHT PLAN

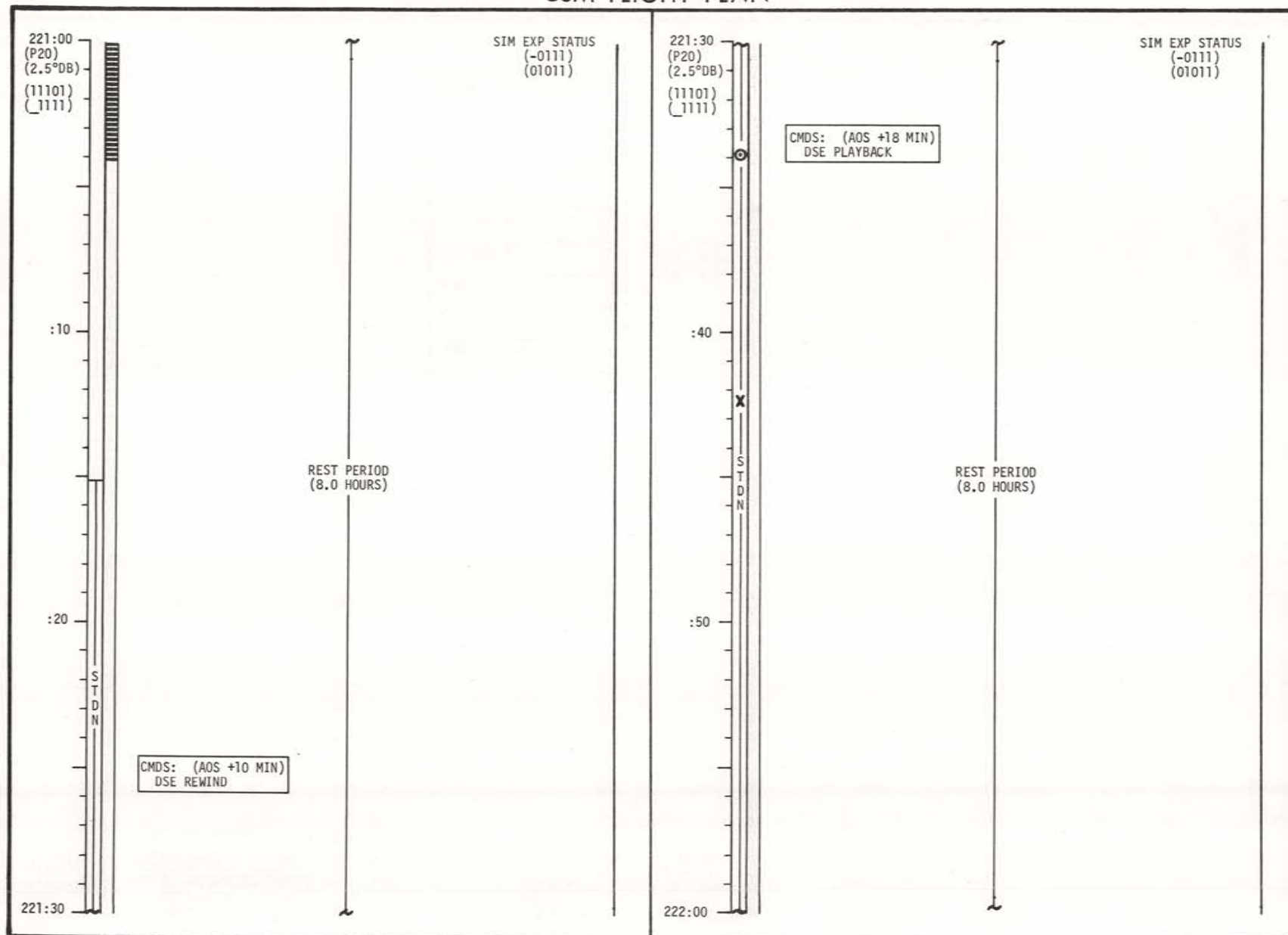


MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-328

CSM FLIGHT PLAN

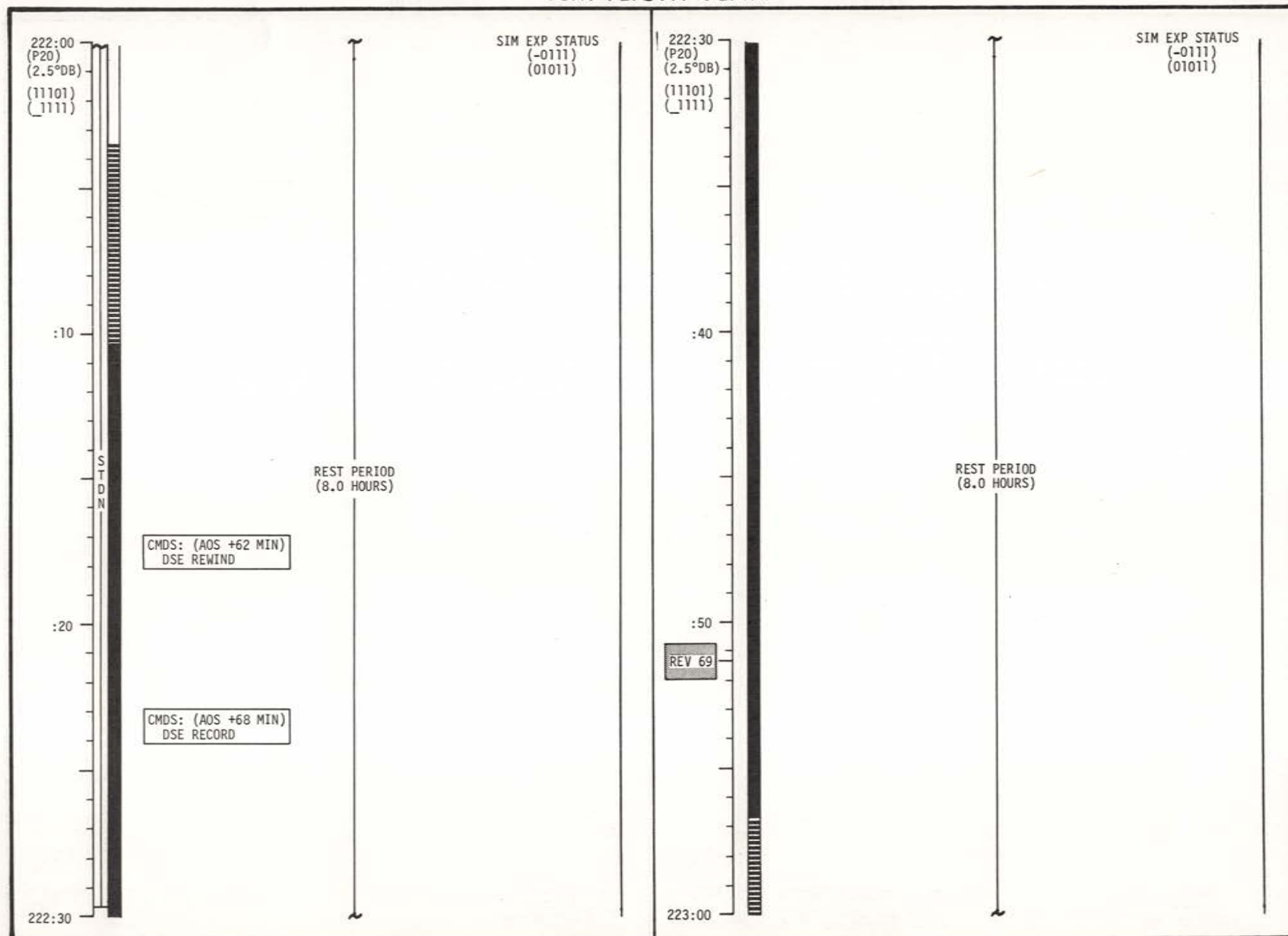
220:00 (P20) (2.5°DB) (11101) (1111)	UPLINK: CSM S.V. & V66 JET-ON MONITOR LOADS CSM SYSTEMS CHECKLIST PRE-SLEEP CHECKLIST PAGE 5/1-29	SIM EXP STATUS (-0111) (01011)	220:30 (P20) (2.5°DB) (11101) (1111)	SIM EXP STATUS (-0111) (01011)
:10	FILM MAGS REQUIRED FOR NEXT DAY: EL: RR			
:20	CMDS: (AOS +62 MIN) DSE REWIND CMDS: (AOS +68 MIN) DSE RECORD			
ONBOARD READOUT BAT C _____ PYRO BAT A _____ PYRO BAT B _____ RCS A _____ B _____ C _____ D _____ DC IND SEL - MNA OR B				
220:30	REST PERIOD (8.0 HOURS)			

CSM FLIGHT PLAN



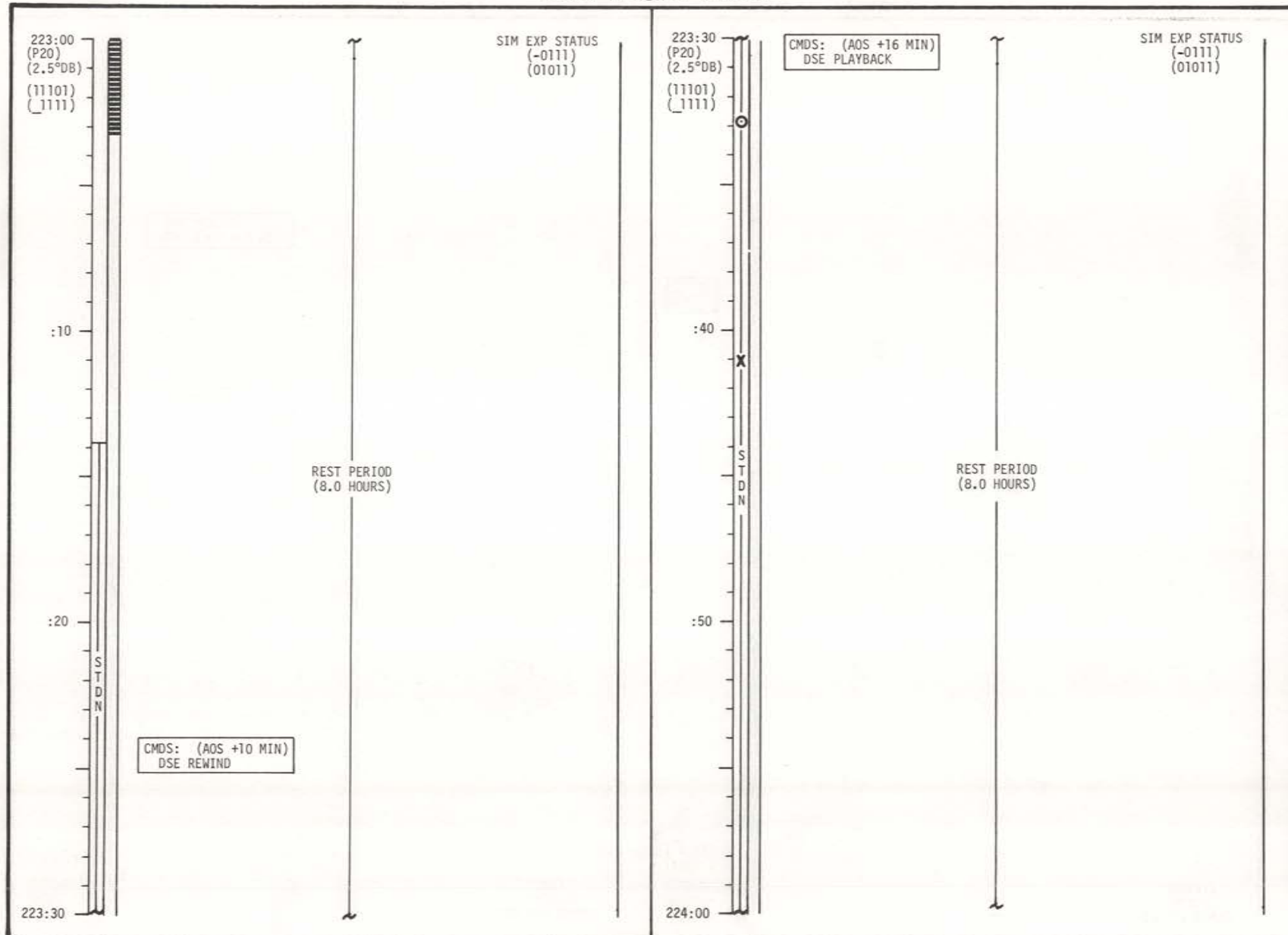
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-330

CSM FLIGHT PLAN



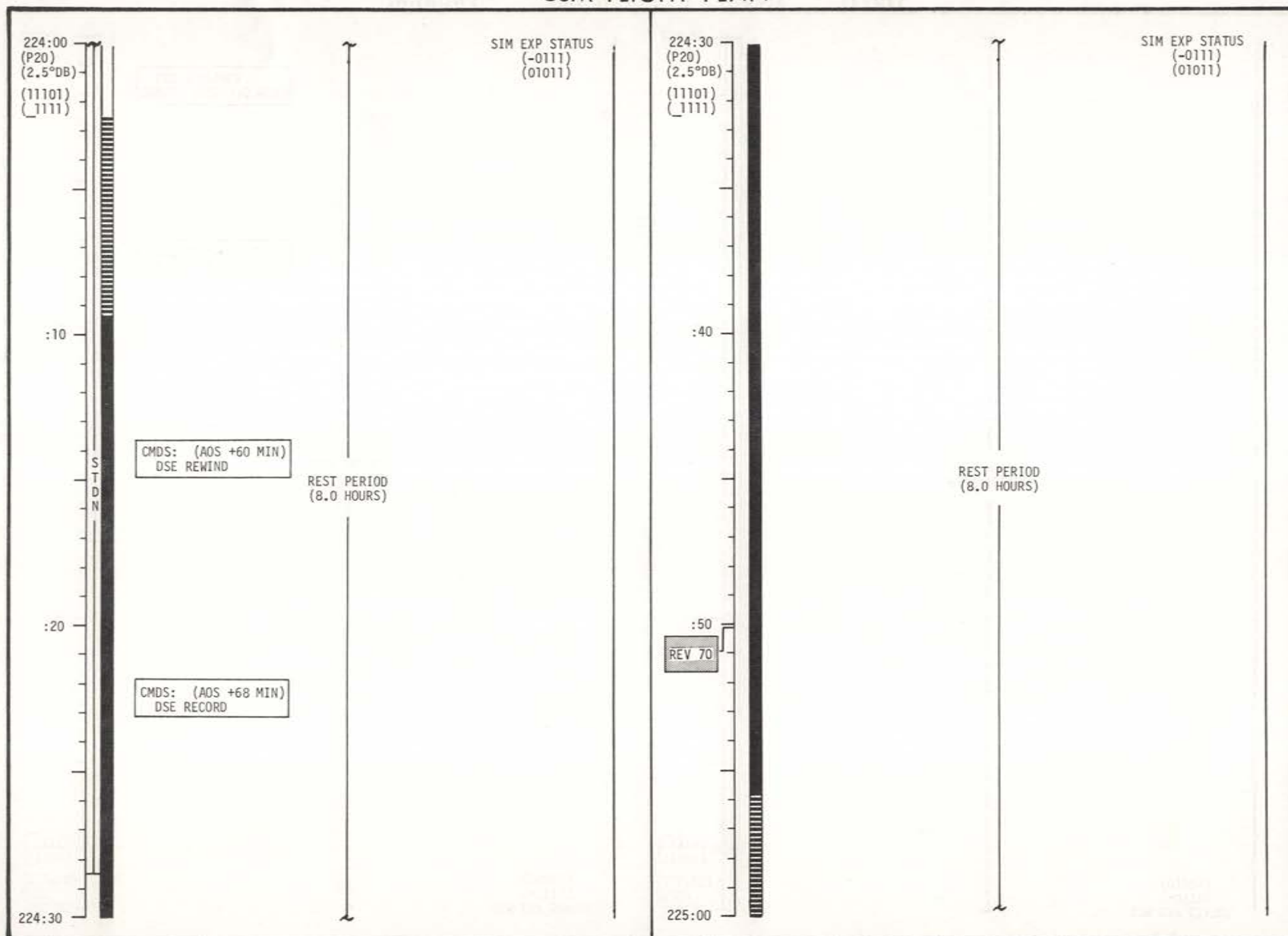
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-331

CSM FLIGHT PLAN



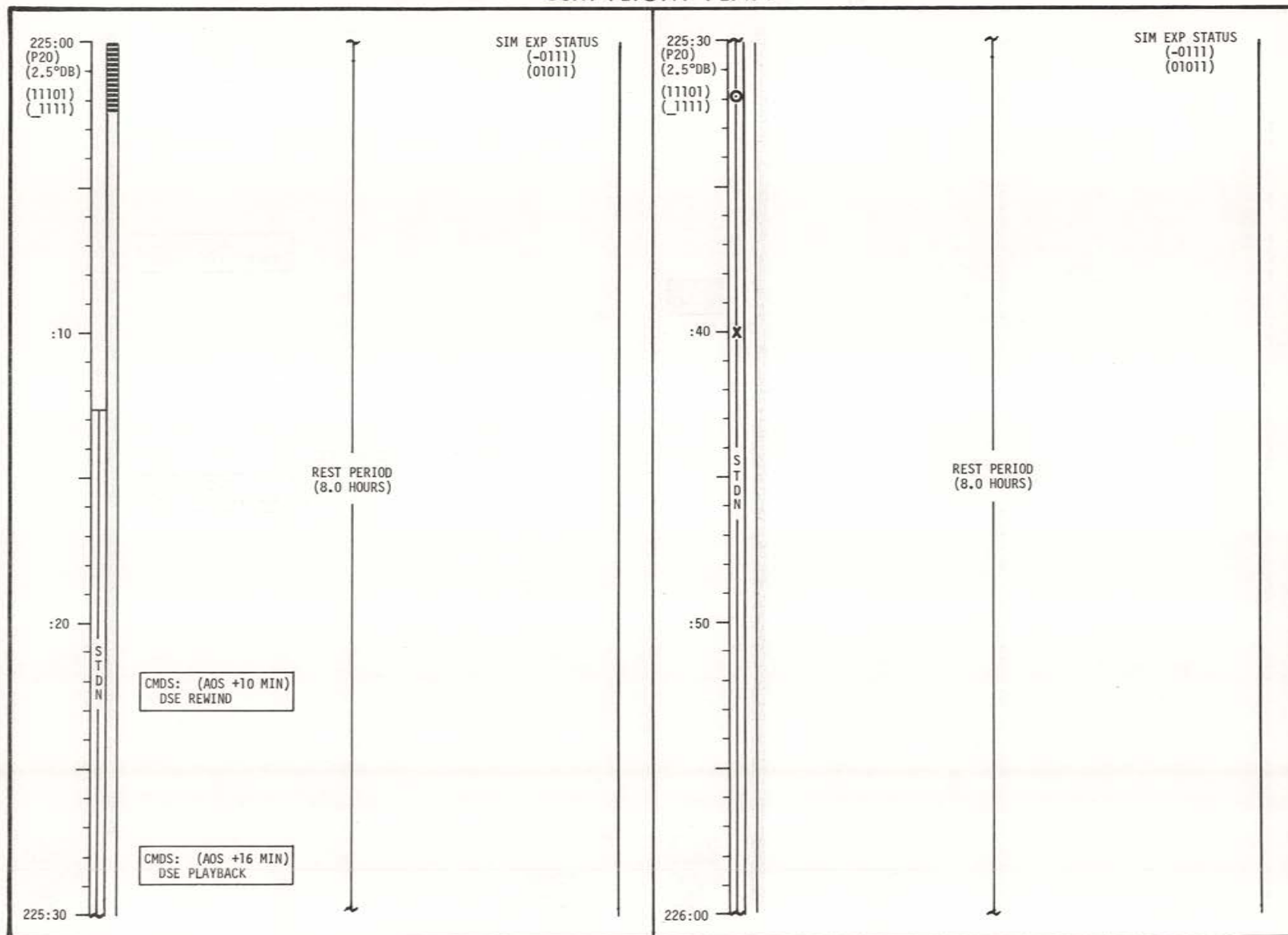
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-332

CSM FLIGHT PLAN



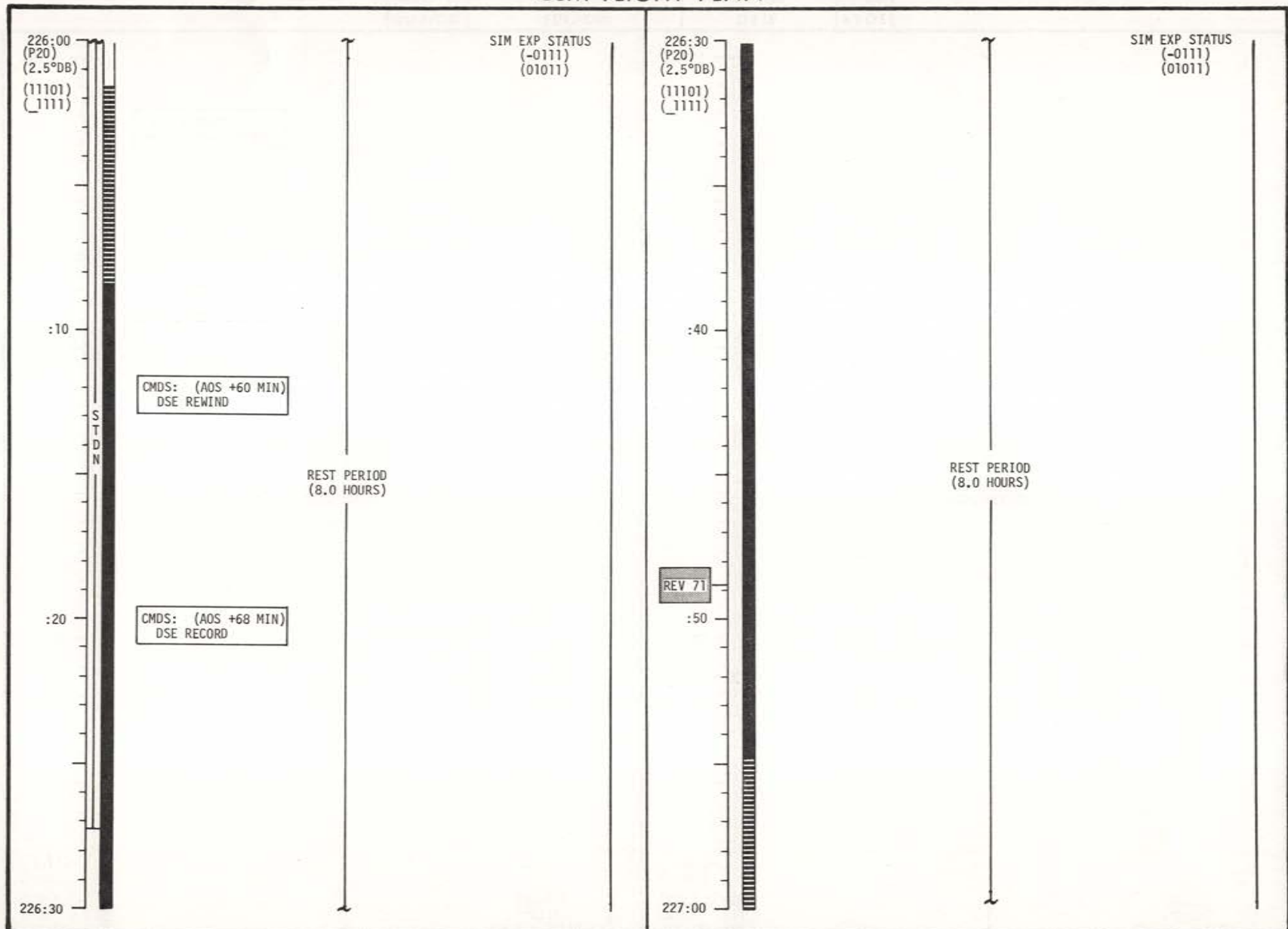
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-333

CSM FLIGHT PLAN



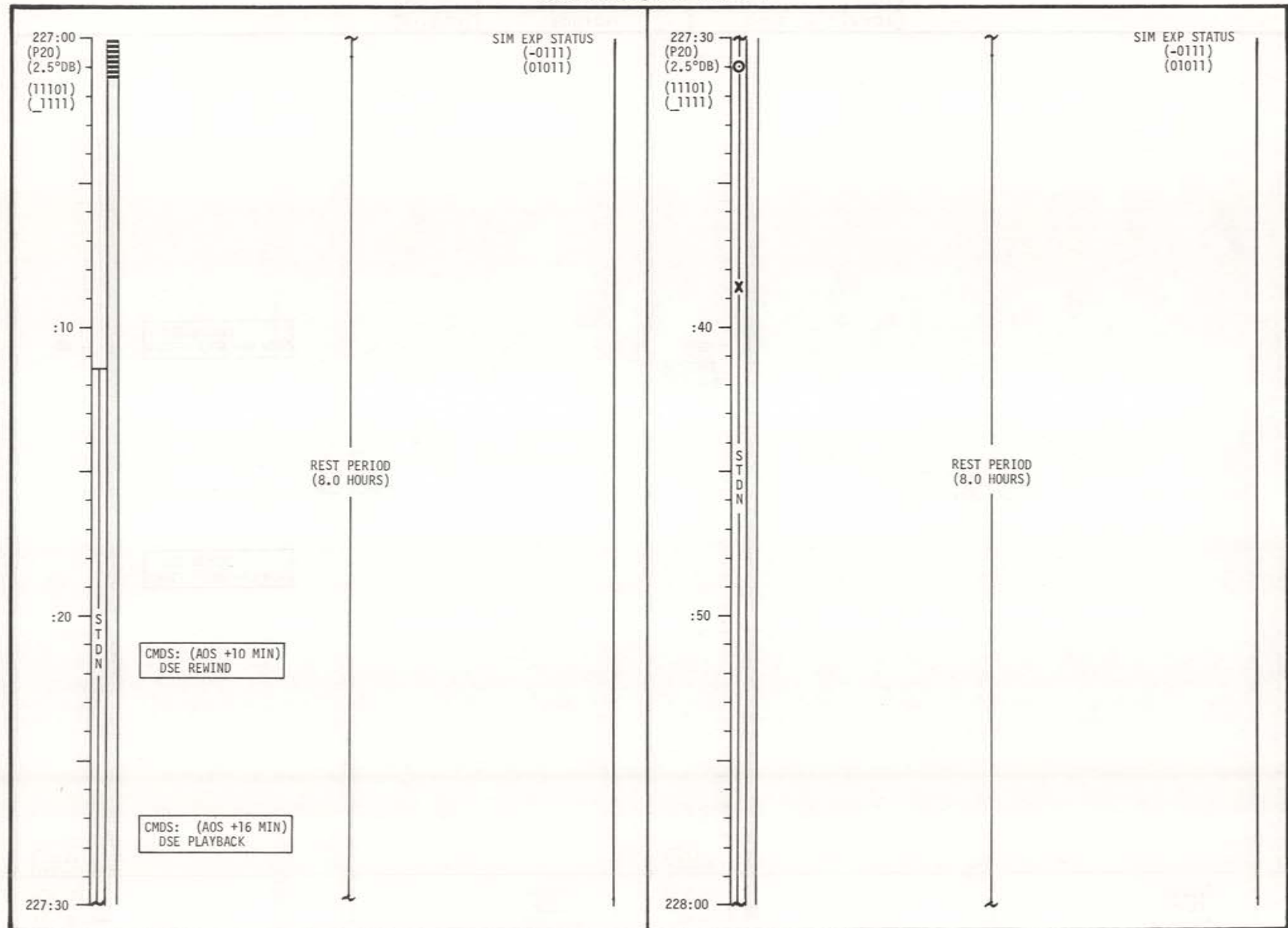
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-334

CSM FLIGHT PLAN



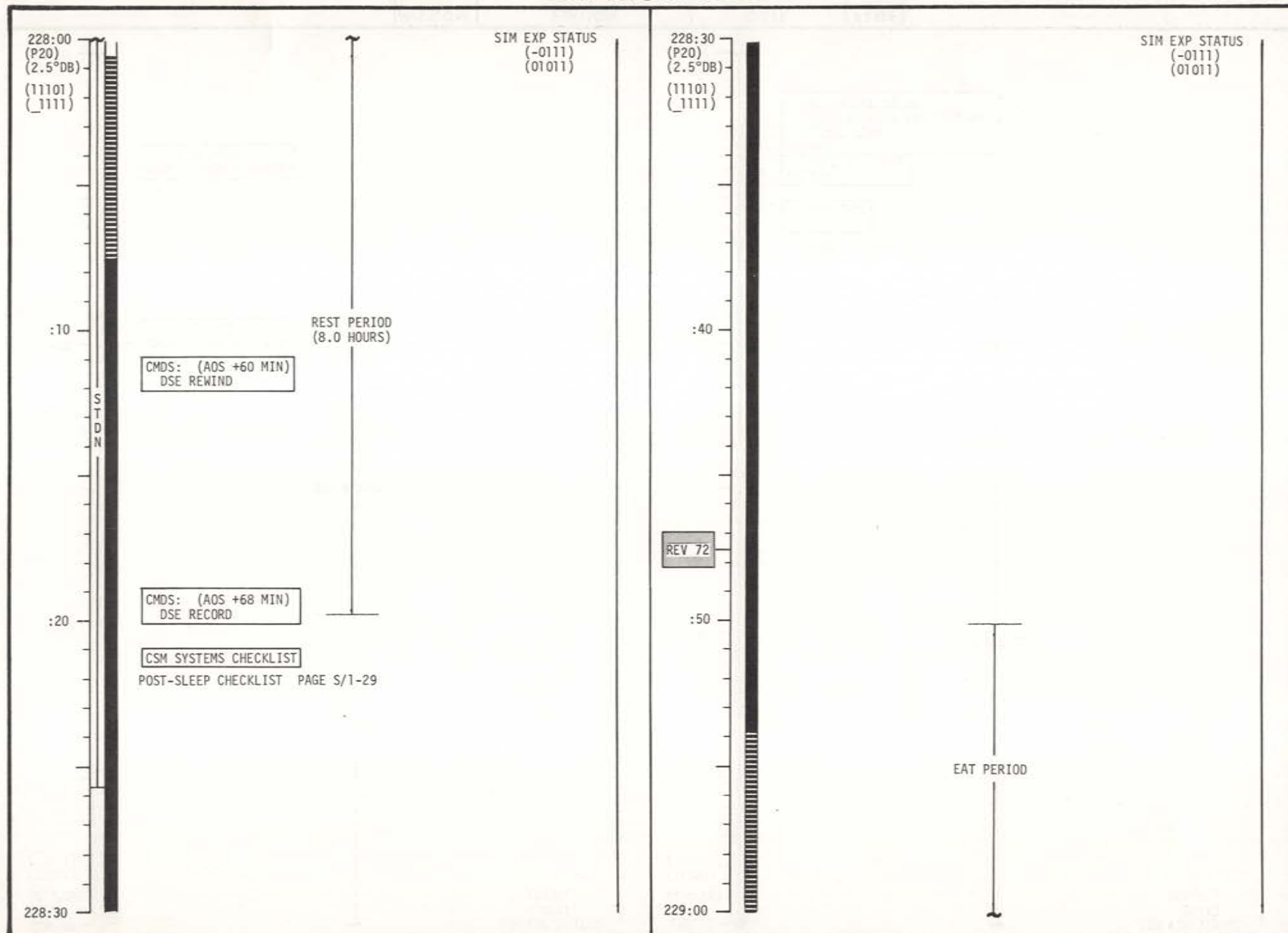
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-335

CSM FLIGHT PLAN



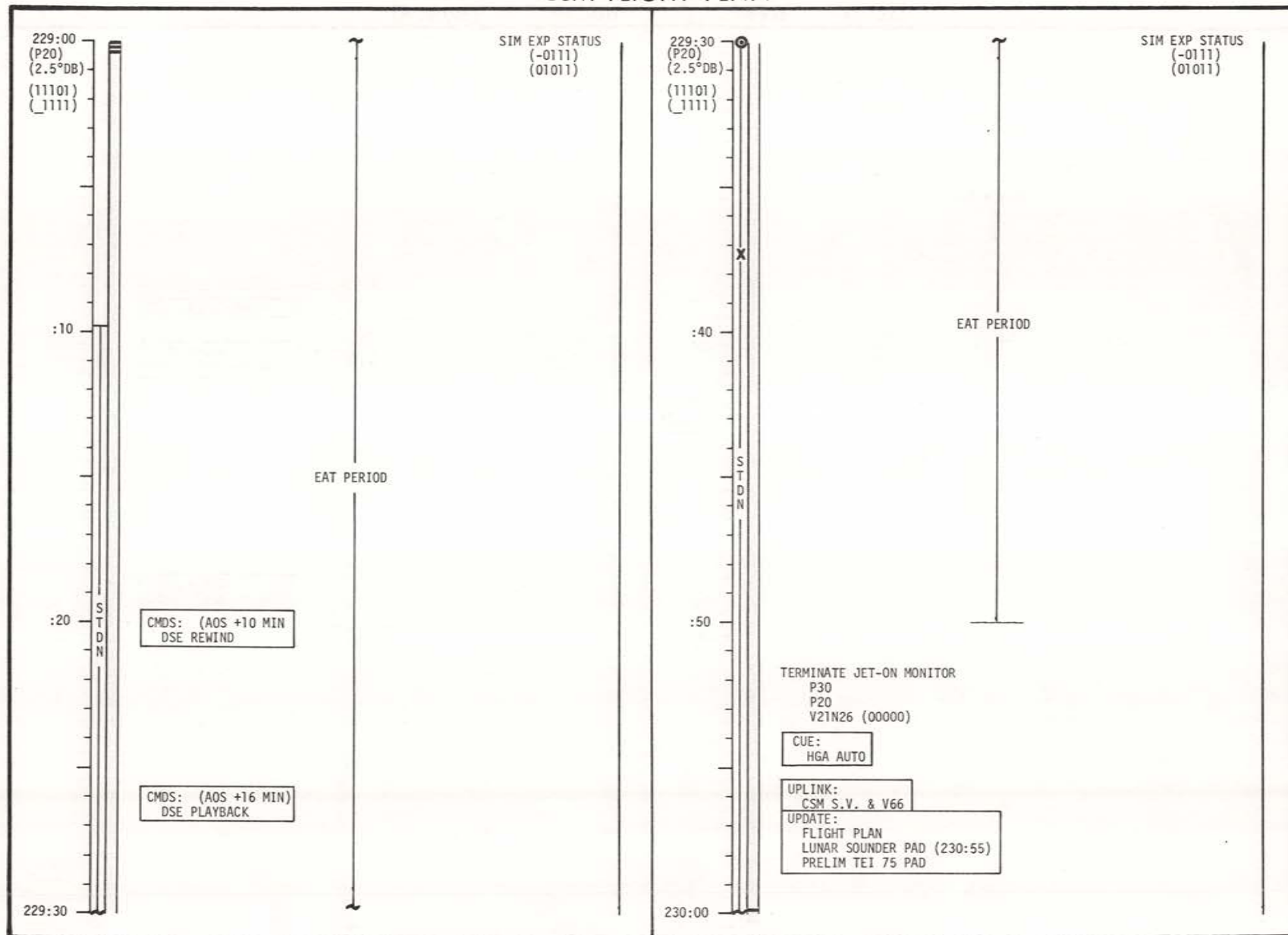
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-336

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-337

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-338

CSM FLIGHT PLAN

230:00
(P20)
(2.5°DB)
(11101)
(1111)

H₂ PURGE LINE HEATERS - ON
CONFIGURE FOR URINE DUMP

SIM EXP STATUS
(-0111)
(01011)

P52 IMU REALIGN

N71: _____
N05: _____
N93: _____
X _____
Y _____
Z _____
GET _____

CMC MODE - FREE

P52 (OPTION 3)
(LIFT-OFF ORIENT)

REPORT: GYRO TORQUING ANGLES

CMDS:
DSE REWIND

MANUALLY ROLL RIGHT 40°

(P20)
(0.5°DB)

V23N78 (+180.00) +X FWD SIM ATT (230:30)
V22N79 (+000.50)
CMC MODE - AUTO; V58E

CMDS: (HGA LOS)
DSE RECORD
PCM BIT RATE - LOW

UV COVER - CLOSE
IR COVER - CLOSE
MC - OFF

IR - OFF
PC SELF TEST - OFF
UV - OFF
DATA SYS - OFF
SM/AC PWR - OFF
SET HGA MAN P -27, Y 18 REACQ, NARROW (231:21)
HGA PWR - OFF
SELECT OMNI A FOR AOS

NOTE: DSE VOICE RECORDED
UNTIL 230:39 WILL
NOT BE DUMPED

LS OPERATE - STBY (VERIFY)
RCDR - ON
RADAR - ON
RCDR - OFF
MODE - HF

REV 73

230:30

230:30
(P20)
(0.5°DB)
(11101)
(1111)

H₂ & O₂ FUEL CELL PURGE
WASTE WATER DUMP
SAMPLE BUSS'S (3) - STOW SAMPLES (3)
DUMP URINE FROM BUSS'S (3) - STOW
START NEW URINE COLLECTION PERIOD

SIM EXP STATUS
(+0100)
(00400)

CONFIGURE DSE (HBR/RCD/FWD/CMD RESET)

LMP DON BIOMED HARNESS

TERMINATE WASTE WATER DUMP AT 10%
H₂ PURGE LINE HEATERS - OFF

RCDR - ON

LS
RCV
ONLY

231:00

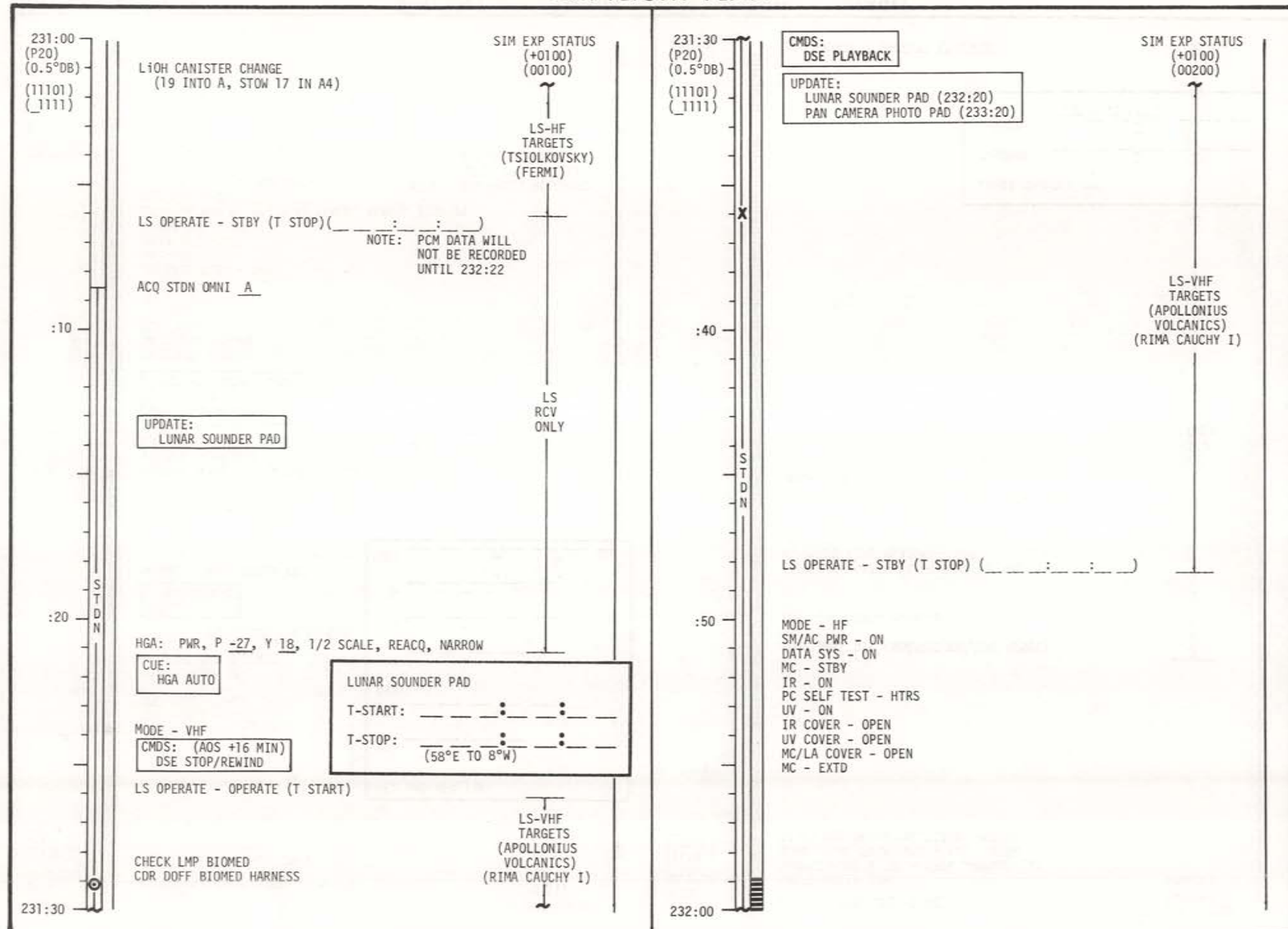
LS OPERATE - OPERATE (T START)

LUNAR SOUNDER PAD

T-START: _____
T-STOP: _____
(135°E TO 117°E)

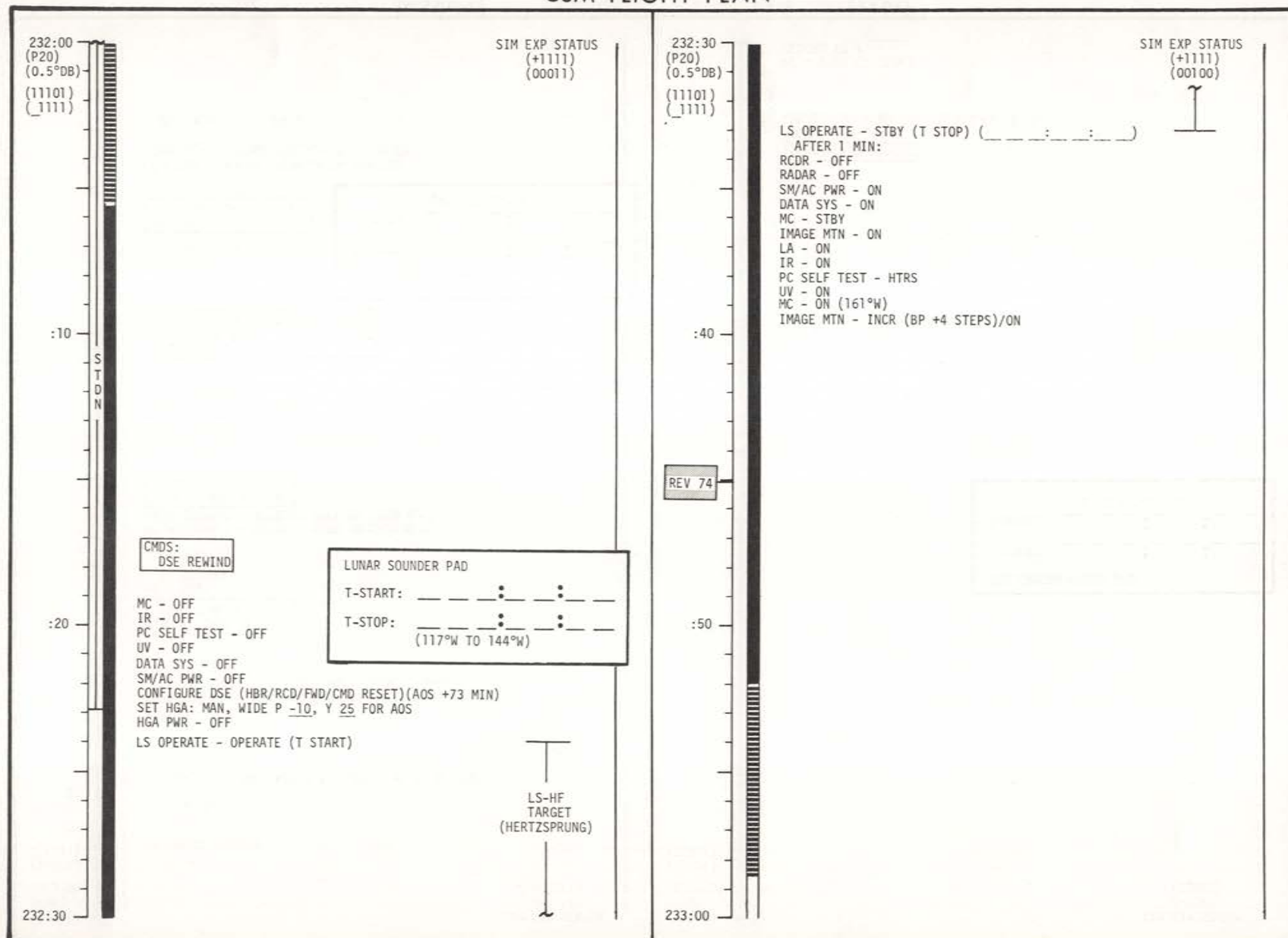
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-339

CSM FLIGHT PLAN



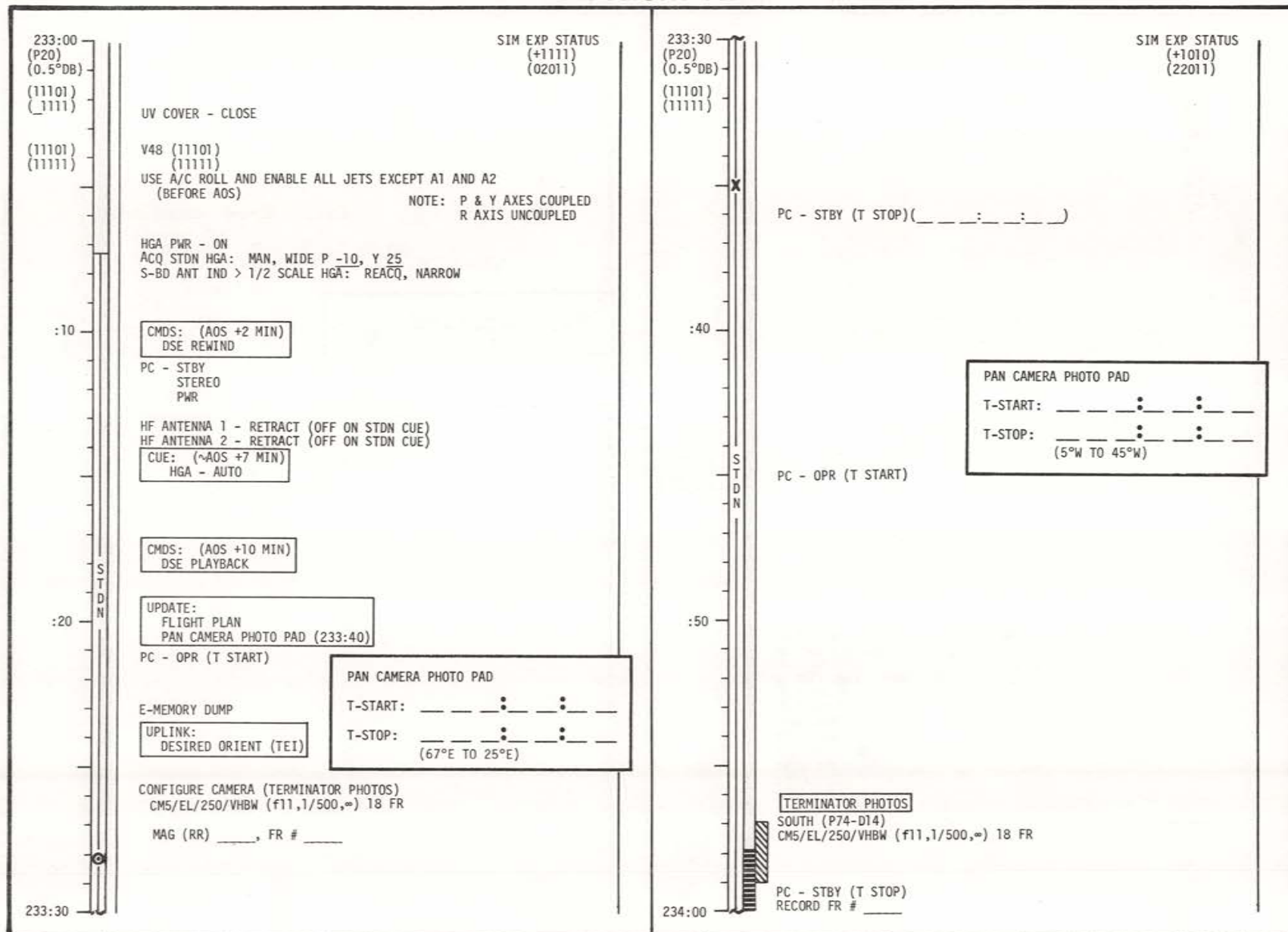
MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-340

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-341

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-342

CSM FLIGHT PLAN

234:00
(P20)
(0.5°DB)
(11101)
(11111)

MC - RETR
PC - OFF (CUE)
LA - OFF

MC/LA COVER - CLOSE
CMC MODE - FREE
P52 (OPTION 3)
(LIFT-OFF ORIENT)

REPORT: GYRO TORQUING ANGLES

P52 (OPTION 1)
(TEI ORIENT)

CMDS: (AOS +64 MIN)
DSE REWIND

V22N79 (+002.50)
P20; CMC MODE - AUTO
GDC ALIGN

cb O₂ TANK 50 WATT HEATERS (3) - OPEN
cb O₂ TANKS 1&2 100 WATT HEATERS - CLOSE

CONFIGURE DSE (HBR/RCD/FWD/CMD RESET) (AOS +73 MIN)
SET HGA MAN P -10, Y 25 REACQ, NARROW FOR AOS
ENABLE ALL JETS
NOTE: ALL AXES COUPLED
FOR ATTITUDE
CONTROL

SIM EXP STATUS
(+1010)
(12011)

P52 IMU REALIGN

N71: _____
N05: _____
N93: _____
X _____
Y _____
Z _____
GET _____

R 142 P 097 Y 000
(ON TEI ORIENT)

:10
S
T
D
N

(P20)
(2.5°DB)

:20

(11101)
(11111)

234:30

234:30
(P20)
(2.5°DB)
(11101)
(11111)

SIM EXP STATUS
(+0010)
(04011)

:40

REV 75

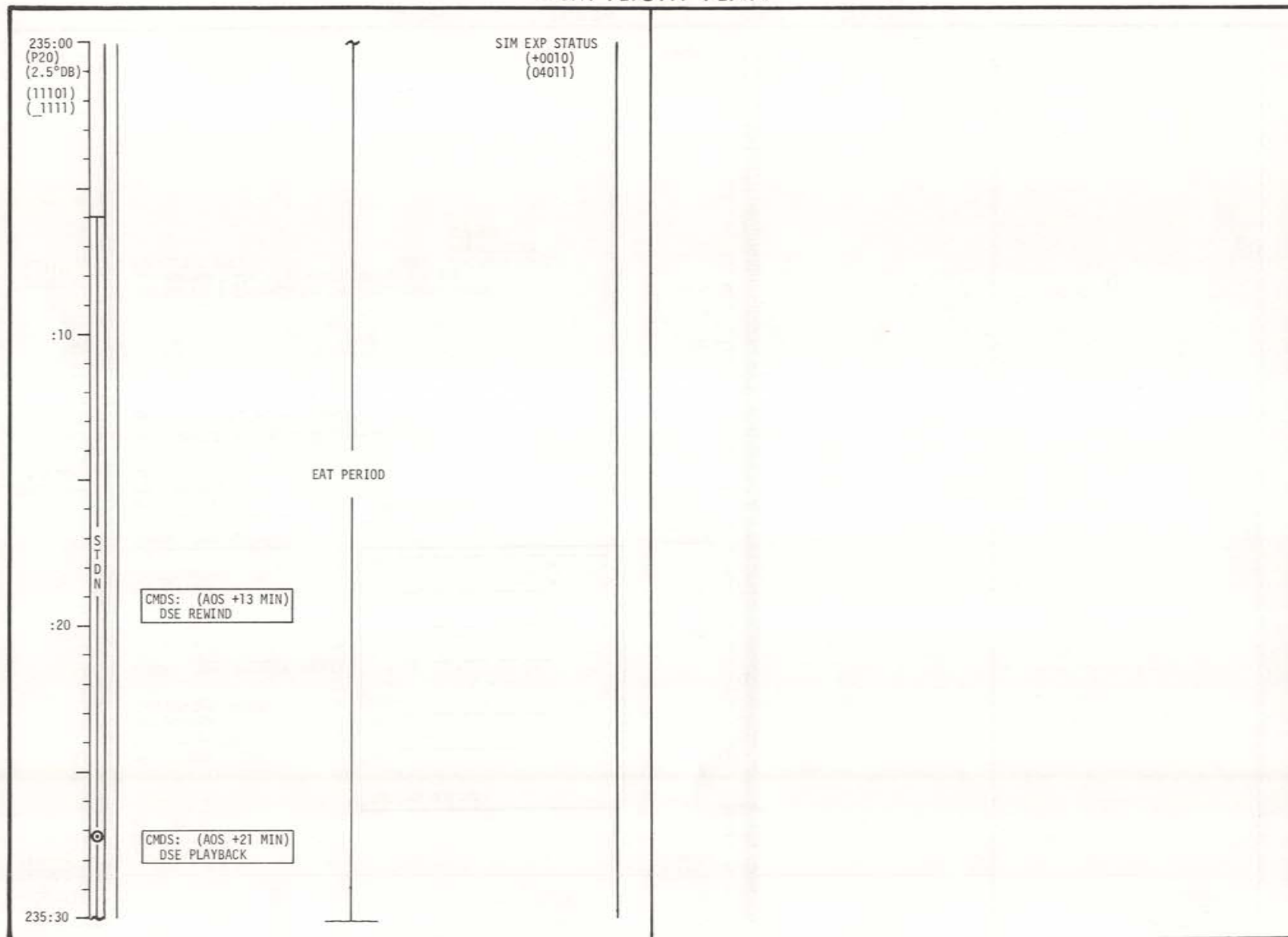
:50

235:00

EAT PERIOD

MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-343

CSM FLIGHT PLAN



MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-344

CSM FLIGHT PLAN

235:30
(P20)
(2.5°DB)
(11101)
(1111)

UPLINK:
CSM S.V. & V66
TEI 75 TGT LOAD

SIM EXP STATUS
(+0010)
(04011)

UPDATE:
TEI 75 PAD (235:45)
TEI 76 PAD
MAP UPDATE REV 76 (236:50)

CSM SYSTEMS CHECKLIST

WIPE EXCESS MOISTURE FROM TUNNEL
C&WS OPERATIONAL CHECKS PAGE S/1-20
CM RCS MONITORING CHECKS PAGE S/1-1
SM RCS MONITORING CHECKS PAGE S/1-1
SPS MONITORING CHECKS PAGE S/1-1

:40

:50

(11101)
(1111)

MC - OFF
WAIT 30 SEC
MC - STBY
IMAGE MTN - OFF
PRE-SPS BURN SIM PREP (CUE CARD) EXCEPT: IR COVER - OPEN
P30; VERIFY TEI TIG AND ΔV 's
CMC MODE - FREE
POO
CMC MODE - AUTO
V45 (RESET LUNAR SURFACE FLAG)
V49 MNVR TO TEI PAD BURN ATT (236:07)
OMNI D

CMDS: (HGA LOS)
DSE REWIND
PCM BIT RATE - LOW

236:00

P30 MANEUVER

SET STARS	T	E	I			PURPOSE
	S	P	S	G	& N	PROP/GUID
	+					WT N47
R ALIGN		0	0			P TRIM N48
P ALIGN		0	0			Y TRIM
Y ALIGN	+	0	0			HRS GETI
	+	0	0	0		MIN N33
	+	0				SEC
ULLAGE						ΔV_X N81
						ΔV_Y
						ΔV_Z
	X	X	X			R (180)
	X	X	X			P (000)
	X	X	X			Y (000)
	+					H _A N44
						H _P
	+					ΔVT
HORIZON/WINDOW	X	X	X			BT
	X					ΔVC
	X	X	X	X		SXTS
	+				0	SFT
	+				0 0	TRN
	X	X	X			BSS
	X	X				SPA
	X	X	X			SXP
OTHER		0				LAT N61
						LONG
	+					RTGO EMS
	+					VTO
						GET 0.05G

CSM FLIGHT PLAN

236:00
(11101)
(_1111)

SIM EXP STATUS
(*0010)
(31011)

UPDATE:
GO/NO-GO FOR TEI

(11102)
(01111)

V48 (11102)
(01111)

:10

S
T
D
N

P40

:20

CMDs:
DSE RECORD
PCM BIT RATE - HIGH

VERIFY DSE TAPE MOTION (HBR/RCD/FWD/CMD RESET)
SET HGA MAN P 47, Y 250 AUTO, NARROW FOR AOS

SXT STAR CHECK

(P40)
(0.5°DB)

P40 (TRIM)

236:30

MISSION	EDITION	DATE	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	3-346

CSM FLIGHT PLAN

236:30
(P40)
(0.5°DB)
(11102)
(01111)

SIM EXP STATUS
(*0010)
(31011)

```

*****
*NOTE:                                     *
*  1) PCM IS ALREADY IN HBR *
*  2) DO NOT GO LBR POST-SPS*
*****

```

```

*****
* TEI TIG MAY BE DELAYED *
* 19 SEC WITHOUT VIOLATING *
* SPS OR RCS RESERVE FOR MCC*
*****
*****
* SINGLE BANK BURN TIME *
* 2 MIN 27.6 SEC *
*****

```

TEI (180,000,000)

TIG: 236:39:51
BT: 2 MIN 22.2 SEC
ΔVT: 3045.7 FEET/SEC
ULLAGE: 4 JET 12 SEC
ORBIT: N/A

P00
V66 SET CSM S.V. INTO LM S.V.
V49 MNVR TO TV, PC & MC ATT (236:49)

(345, 125, 320)

POST-SPS BURN SIM PREP (CUE CARD)

TV (GDS) 236:53 TO 237:25 - CM 3 (f , MONITOR)
INHIBIT ALL JETS EXCEPT: D1 & B2, A3, C4, B3, D4
UV COVER - OPEN
MC/LA COVER - OPEN
MC - EXTD
S-BD AUX TV - TV

ACQ STDN HGA: P 47, Y 250 AUTO, NARROW

TV - ON
PC - STBY
MONO
PWR
V/h OVRD - HI ALT
MC - ON
IMAGE MTN - INCR (BP +3 STEPS)/OFF (FOR RATE CONTROL)
REPORT: BURN STATUS

PC - OPR

TEI BURN TABLE					
SPS LIMITS	P OR Y RATES	ATT DEVIATION	MANUAL START ACTION	OVERBURN SHUTDOWN CRITERIA	RCS TRIM GUIDELINES
NONE	10°/SEC COMPLETE	+10° COMPLETE	G&N - DELAY 1 REV SCS - START	BT +2 SECS & $\Delta V_c = -40$ FPS	TRIM X AND Z AXES TO 0.2 FPS IF (+) V_{gz} ROLL RIGHT 90° AND USE +Y THRUSTERS

NOTE: BALL VALVE FAILURE - START ON SUSPECT BANK

UNDERBURN CRITERIA

```
IF ΔVM<1700 FPS - TEI AT FIRST PERILUNE
IF ΔVM>1700 FPS - DO DIRECT RETURN ΔV
```

```
IF VGO > RCS CAPABILITY -20 FPS - RESTART (NO TRIM)
IF VGO >5 AND < RCS CAPABILITY -20 FPS:
    RCS +X OR SPS (NO TRIM)
IF VGO <5, RCS TRIM X AND Z
```

SCS EARLY C/O - RESTART IF C/O > 5 SEC
EARLY OR VGO > 50 FPS
SCS RESIDUALS - NO TRIM

BURN STATUS REPORT

[illegible]

MAP UPDATE REV 76

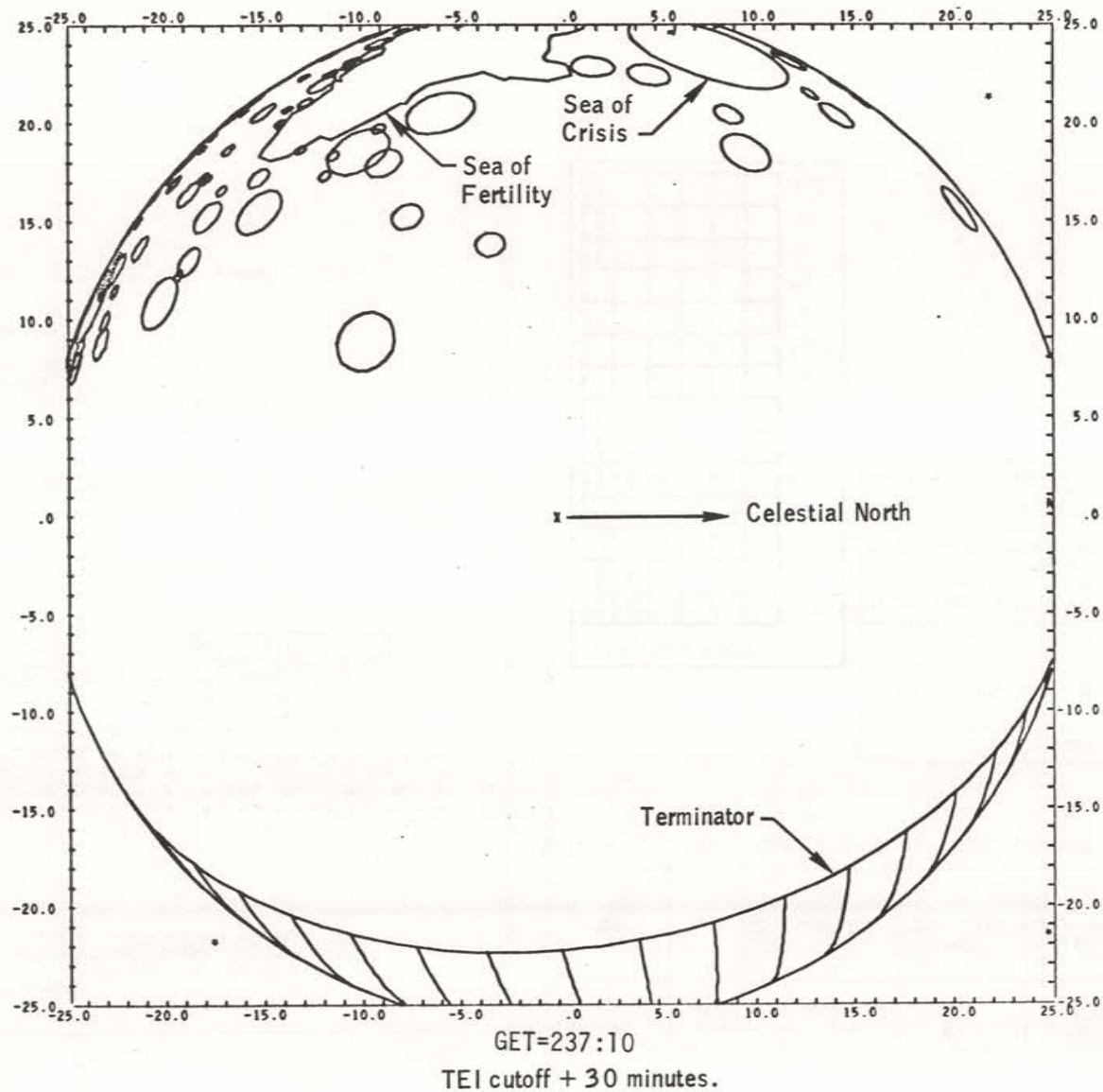
AOS WITHOUT BURN : :

AOS WITH BURN : :

Longitude = 96.24°

Latitude = -13.32°

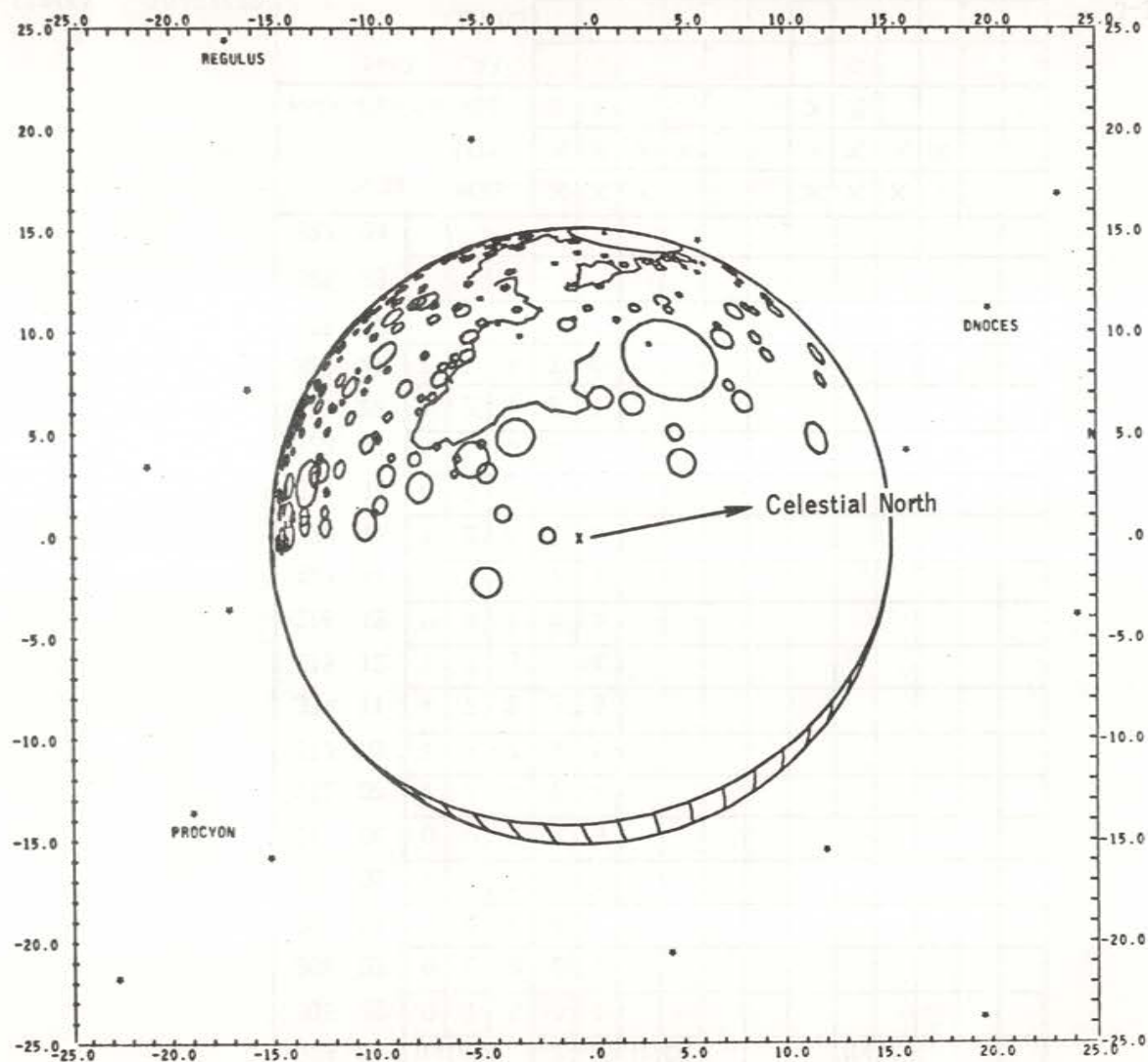
Radius = 2121.73 n. mi.



Longitude = 78.28°

Latitude = -6.51°

Radius = 3587.53 n. mi.



GET=237:40

TEI cutoff + 1 hour.

P27 UPDATE

PURP	TEI BO +1.0MIN	V	7	1	V		V	
GET	236	43	13.3	:	:	:	:	:
304 01	INDEX	2	1	INDEX		INDEX		
305 02	0 1 5	0 1						
306 03	0 0 0	0 2						
307 04	0 0 2	4 7						
310 05	1 7 3	1 4						
311 06	0 0 2	2 6						
312 07	2 7 6	0 1						
313 10	7 7 7	3 6						
314 11	4 7 2	2 3						
315 12	1 7 3	5 4						
316 13	0 6 7	6 5						
317 14	5 7 5	7 1						
320 15	4 2 4	1 5						
321 16	6 3 7	6 6						
322 17	4 5 0	2 0						
323 20	1 2 1	2 1						
324 21	1 1 3	2 0						
325 22								
326 23								
327 24								
N34	HRS	X X X				X X X		
	MIN	X X X X				X X X X		
NAV CHECK	SEC	X X				X X		
N43	LAT		0				0	
	LONG							
	ALT	+	0			+	0	

APOLLO 17

FINAL (12/6)

10/23/72

3-350

FLIGHT PLAN

MCC-H

1753 CST

NOTES

CMD
DSE REWIND

UPDATE
FLIGHT PLAN

CMD
DSE PLAYBACK

UPLINK
DESIRED ORIENT
(PTC)

237:00
(11102)
(01111)
(11101)
(01111)
:10
:20
237:30
:40
:50
238:00

T
V
S
T
D
N

PC - STBY AT (tb - bp)

V48 (11101)(01111)

S-BD AUX TV - SCI

PC - OFF (STDN CUE)
V49 MNVR TO UV STELLAR TGT ATT (LY α MIN) (237:45)
(137,189,000) HGA: P -72, Y 309

COPY CSM S.V. FROM DSKY

UV
IR
UV
IR
UV
LY α MIN
IR

SIM EXP STATUS
(*1011)
(24011)

UV OPTICAL AXIS
POINTED AT RA 4:35,
DEC +30° WITH CSM
+X AXIS AT RA 9:48:20,
DEC 28°51'51"

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	237:00 - 238:00	11/TEC	3-351

FLIGHT PLANNING BRANCH

MCC-H

1853 CST

FLIGHT PLAN

NOTES

238:00
(11101)
(01111)

:10

:20

238:30

:40

:50

239:00

S
T
D
N

LIMIT CYCLE - ON
 ATT DEADBAND - MIN
 RATE - LOW
 BMAG (3) - ATT 1/RATE 2
 SCS CONT - SCS
 P52 (OPTION 3)
 (TEI ORIENT)

STARS _____,
 SA _____,
 TA _____,

REPORT: GYRO TORQUING ANGLES

P52 (OPTION 1)

(PTC ORIENT)

GDC ALIGN

SC CONT - CMC

BMAG (3) - RATE 2

CMP DON BIOMED HARNESS

PTC REFSMMAT ATT.

R 070, P 015, Y 351

CHECK CMP BIOMED
 LMP DOFF BIOMED HARNESS

V49 MNVR TO UV STELLAR TGT ATT (EARTH) (239:00)

(248,331,342) OMNI D

SIM EXP STATUS

(*1011)

(04011)

UV
 LY α MIN

IR

P52 IMU REALIGN

N71: _____,

N05: _____.

N93:

X _____.

Y _____.

Z _____.

GET _____:_____:

SPACECRAFT REAL TIME
 DATA IS NOT AVAILABLE
 UNTIL 240:00

CMD
 DSE REWIND

CMD
 DSE RECORD

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	238:00 - 239:00	11/TEC	3-352

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

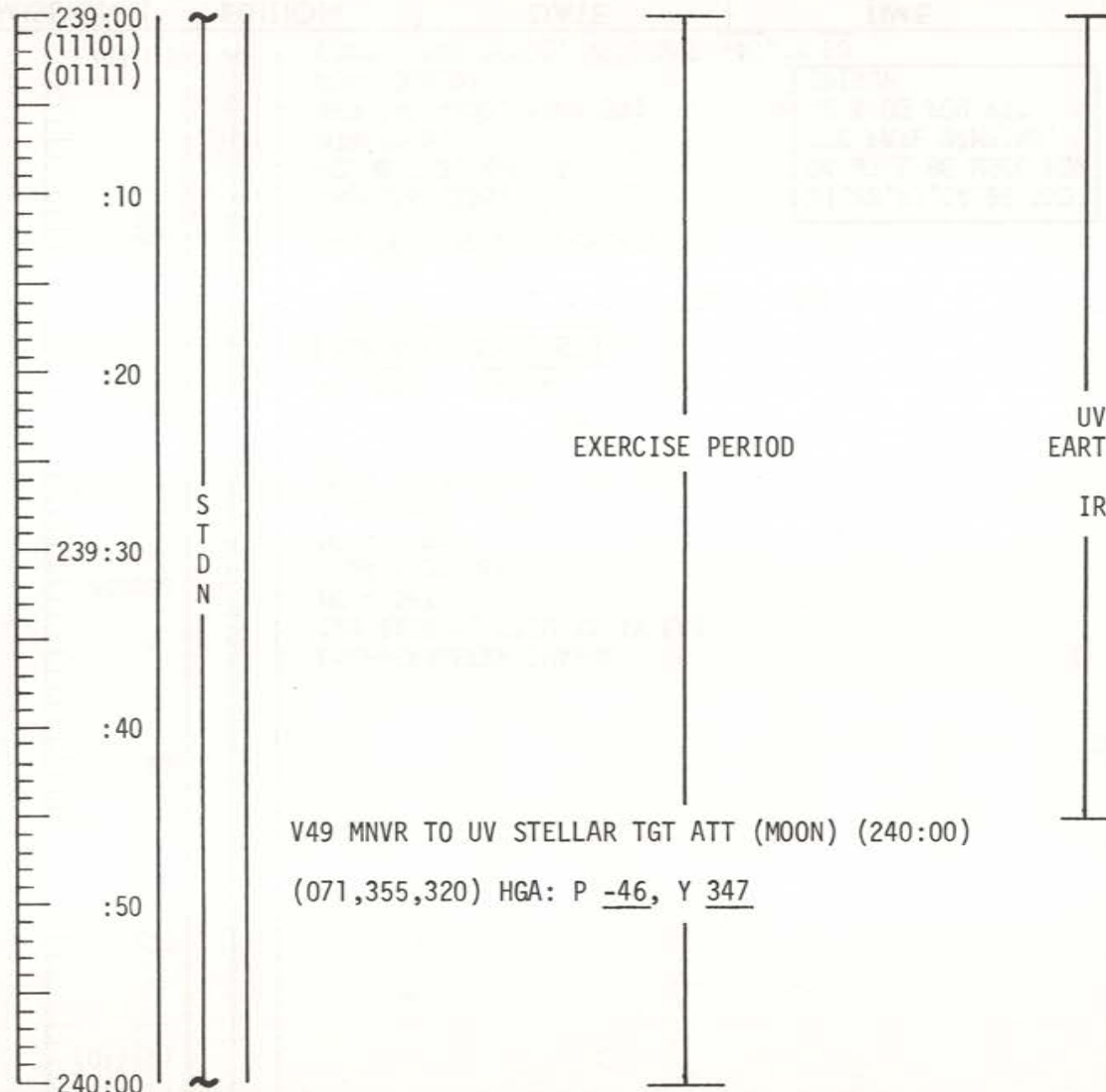
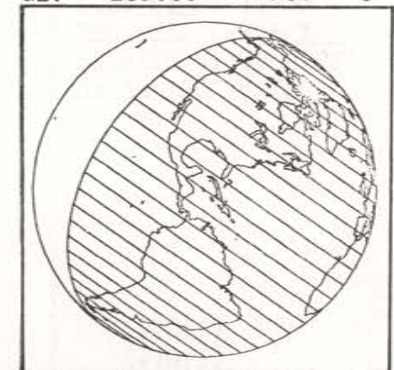
1953 CST

NOTES

SIM EXP STATUS
(*1011)
(04011)
EARTH DISTANCE
~190,239 NM

UV OPTICAL AXIS
POINTED AT EARTH
WITH +X AXIS AT
RA 9:31, DEC -14°

GET = 239:00 FOV = 3°



CMD
DSE REWIND

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	239:00 - 240:00	11/TEC	3-353

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

2053 CST

NOTES

CMD
DSE PLAYBACK

240:00
(11101)
(01111)

SIM EXP STATUS
(*1011)
(04011)

UPDATE
FLIGHT PLAN

:10

:20

UV
MOON

UV OPTICAL AXIS
POINTED AT RA 6:58,
DEC +22° CSM + X
AXIS AT RA 11:20
DEC +4°

IR

240:30

S
T
D
N

L10H CANISTER CHANGE
(20 INTO B, STOW 18 IN A4)

MC - OFF

WAIT 30 SEC

MC - STBY

IMAGE MTN - OFF

MC - RETR

IR - OFF

:40

MC/LA COVER - CLOSE

IR COVER - CLOSE

CSM G&C CHECKLIST

UPLINK
CSM S.V. & V66

PASSIVE THERMAL CONTROL (G&N) PAGE G/8-2

AFTER STDN CUE

V49 TO UV/PTC SLEEP ATT

:50

(N20,357,335)

P20 OPT 2, X-AXIS

N78 (0,0,0)

N79 (-0.4200, +000.50)

N34 (0,0,0)

D1,B2,A3,C4,B3 AND
D4 WILL BE USED FOR
PTC RATE DAMPING,
B2 & D2 FOR PTC
SPINUP

CMD
DSE REWIND

241:00

COMM: HGA REACQ, NARROW P -40, Y 90

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	240:00 - 241:00	11/TEC	3-354

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

2153 CST

NOTES

241:00
(11101)
(01111)

:10

:20

241:30

:40

:50

242:00

S
T
D
N

EAT PERIOD

UV/PTC
GALACTIC SCAN

SIM EXP STATUS
(*0001)
(01001)

DURING UV/PTC GALACTIC
SCAN THE CSM +X AXIS
WILL BE POINTED
AT RA 10:25, DEC
+07°

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	241:00 - 242:00	11/TEC	3-355

FLIGHT PLANNING BRANCH

MCC-H

2253 CST

FLIGHT PLAN

NOTES

242:00

:20

:40

243:00

:20

:40

244:00

S
T
D
N

CSM SYSTEMS CHECKLIST

PRE-SLEEP CHECKLIST PAGE S/1-29

COMM: HGA

FILM MAGS REQUIRED FOR NEXT DAY

DAC: FF

REST PERIOD
(8 HOURS)UV/PTC
GALACTIC SCANSIM EXP STATUS
(*0001)
(01001)DAP LOAD STATUS
(11101)(01111)EARTH DISTANCE
~ 185,522 NM

GET = 242:00 FOV = 3°



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	242:00 - 244:00	11/TEC	3-356

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

0053 CST

NOTES

244:00
:20
:40
245:00
:20
:40
246:00

S
T
D
N

REST PERIOD
(8 HOURS)

UV/PTC
GALACTIC SCAN

SIM EXP STATUS
(*0001)
(01001)
DAP LOAD STATUS
(11101)(01111)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	244:00 - 246:00	11/TEC	3-357

FLIGHT PLANNING BRANCH

MCC-H

0253 CST

FLIGHT PLAN

NOTES

246:00
:20
:40
247:00
:20
:40
248:00

S
T
D
NREST PERIOD
(8 HOURS)UV/PTC
GALACTIC SCANSIM EXP STATUS
(*0001)
(01001)DAP LOAD STATUS
(11101)(01111)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	246:00 - 248:00	11/TEC	3-358

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

0453 CST

NOTES

248:00
:20
:40
249:00
:20
:40
250:00

S
T
D
N

REST PERIOD
(8 HOURS)

UV/PTC
GALACTIC SCAN

SIM EXP STATUS
(*0001)
(01001)

DAP LOAD STATUS
(11101)(01111)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	248:00 - 250:00	11/TEC	3-359

FLIGHT PLANNING BRANCH

MCC-H

0653 CST

FLIGHT PLAN

NOTES



REST PERIOD
(8 HOURS)

CSM SYSTEMS CHECKLIST

POST-SLEEP CHECKLIST PAGE S/1-29

UV/PTC
GALACTIC SCAN

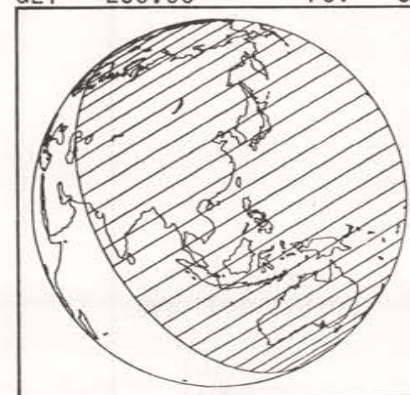
SIM EXP STATUS
(*0001)
(01001)

DAP LOAD STATUS
(11101)(01111)

EARTH DISTANCE
~ 172,669 NM

GET = 250:00

FOV = 3°



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	250:00 - 251:00	11-12/TEC	3-360

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

0753 CST

NOTES

251:00
(11101)
(01111)

:10

:20

251:30

:40

:50

252:00

S
T
D
N

EAT PERIOD

UV/PTC
GALACTIC SCAN

SIM EXP STATUS
(*0001)
(01001)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	251:00 - 252:00	12/TEC	3-361

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

0853 CST

NOTES

UPDATE
GO/NO-GO FOR MCC-5
MCC-5 MNVR PAD
(IF REQUIRED)

CONSUMABLES STATUS
FLIGHT PLAN
SIM EXP STATUS

UPLINK
CSM S.V. & V66
MCC-5 TGT LOAD
(IF REQUIRED)

252:00
(111101)
(011111)

:10

:20

252:30

:40

:50

253:00

S
T
D
N

IR - ON
P52 (OPTION 3)
(PTC ORIENT)

REPORT: GYRO TORQUING ANGLES
GDC ALIGN

LiOH CANISTER CHANGE
(21 INTO A, STOW 19 IN A4)

*UV COVER - CLOSE
*EXIT G&N PTC AT ROLL ANGLE 071, HGA P -58, Y 337
(COUPLED JETS) PAGE G/8-3
IR COVER - OPEN
CONFIGURE FOR URINE DUMP

*P30 EXTERNAL ΔV
*V49 MNVR TO PAD BURN ATTITUDE

*SXT STAR CHECK

O₂ FUEL CELL PURGE
WASTE WATER DUMP

SAMPLE BUSS'S (3) - STOW SAMPLES (3)
DUMP URINE FROM BUSS'S (3) - STOW
START NEW URINE COLLECTION PERIOD

UV/PTC
GALACTIC SCAN

IR

SIM EXP STATUS
(*0001)
(01001)

*PERFORM IF MCC-5
IS REQUIRED

IF MCC-5 IS NOT
REQUIRED EXIT G&N
PTC USING JETS D1,
B2,A3,C4,B3 AND D4,
WITH A ROLL ANGLE OF
071 AND HGA: P -58,
Y 337

P52 IMU REALIGN

N71: ____ , ____

N05: ____ . ____

N93:

X ____ . ____

Y ____ . ____

Z ____ . ____

GET ____ : ____ : ____

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	252:00 - 253:00	12/TEC	3-362

FLIGHT PLANNING BRANCH

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FLIGHT PLAN

MCC-5
BURN TABLE

MANEUVER	SPS LIMITS	P OR Y RATES	ATT DEVIATION	MANUAL START ACTION	OVERBURN SHUTDOWN CRITERIA	RCS TRIM GUIDELINES
CORRIDOR CONTROL	LOOSE	10°/SEC COMPLETE	$\pm 10^\circ$ COMPLETE	DELAY NO RESTART	BT + 1 SEC AND $\Delta V_c = 0$	TRIM X AXIS ONLY TO 0.2 FPS
IP CONTROL	TIGHT	10°/SEC TERMINATE	$\pm 10^\circ$ TERMINATE	DELAY NO RESTART	BT + 1 SEC AND $\Delta V_c = 0$	*TRIM X & Z AXIS TO 0.2 FPS

*TRIM ONLY IF $X \leq 2$ FPS
 IF (+) V_{gz} ROLL RIGHT 90°
 AND USE (+) Y THRUSTERS.

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	N/A	12/TEC	3-364

FLIGHT PLAN

MCC-H

0953 CST

NOTES

- 253:00
(11101)
(01111)

*LOGIC PWR (2) - OFF
*P40 SPS THRUSTING OR
*P41 RCS THRUSTING

SIM EXP STATUS
(*0010)
(01011)

*PERFORM IF MCC-5
IS REQUIRED

:10

TERMINATE WASTE WATER DUMP AT 10% LEVEL

:20

253:30

:40

:50

254:00

STDN

IR

BURN STATUS REPORT	
1	1
2	2
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96	96
97	97
98	98
99	99
100	100

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				OX
X	X	X				FUEL
X	X	X				UNBAL

TEI +17 HR

MCC-5

*V66 SET CSM S.V. INTO LM S.V.
*REPORT: BURN STATUS
*LOGIC PWR (2) - DPLY/RETR

CSM EXP/EVA CHECKLIST

CM EVA PREP PAGE X/3-1
CABIN PREP FOR EVA

CDR & LMP DON BIOMED HARNESS AND VERIFY OPERATION

TIG: 253:40
BT: NOM ZERO
ΔVT: NOM ZERO
ULLAGE: NOM ZERO

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	253:00 - 254:00	12/TEC	3-365

FLIGHT PLANNING BRANCH

MCC-H

1053 CST

FLIGHT PLAN

NOTES

254:00
(11101)
(01111)

:10

:20

254:30

:40

:50

255:00

S
T
D
NTV AND DAC PREP
MAG (FF)

IR

SIM EXP STATUS
(*0010)
(01011)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	254:00 - 255:00	12/TEC	3-366

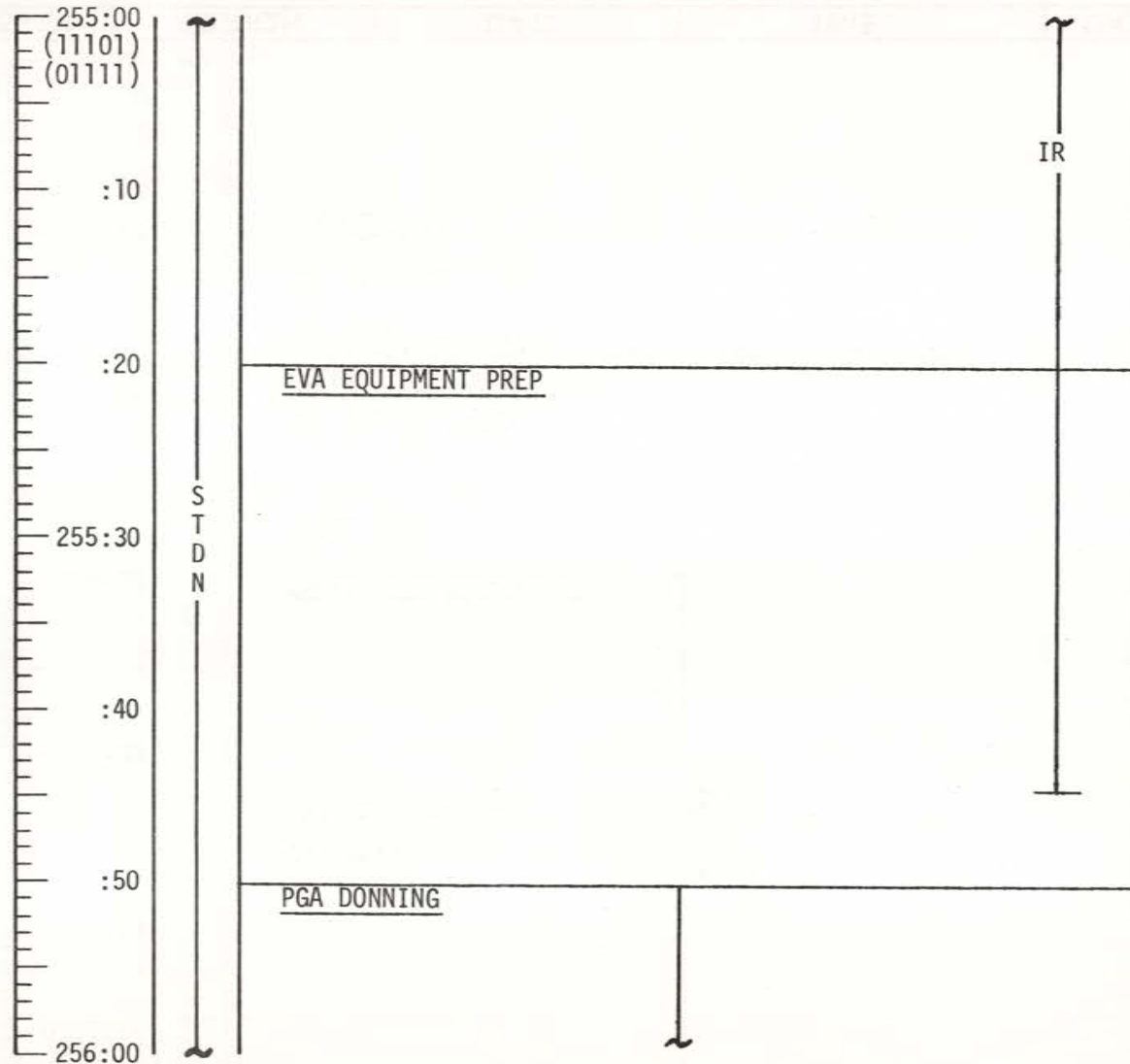
FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

1153 CST

NOTES



SIM EXP STATUS
(*0010)
(01011)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	255:00 - 256:00	12/TEC	3-367

FLIGHT PLANNING BRANCH

MCC-H

1253 CST

FLIGHT PLAN

NOTES

256:00
(11101)
(01111)

:10

:20

256:30

(10101)
(10011)

:40

:50

257:00

S
T
D
N

PGA DONNING

V49 MNVR TO EVA ATT (256:30)

(310,356,009) HGA P 43, Y 262PRESS GAGE STATIC CHECKCOMM CHECKSYSTEMS PREP FOR DEPRESS

V48 (10101)(10011)

INHIBIT ALL JETS EXCEPT:

C1, C2, C3, C4, D3, & D4 AT CONCLUSION OF MNVR

O₂ HEATERS 3 - AUTOCMP EVA EQUIP DONNINGOPS DONNING

SIM EXP STATUS

(*0000)

(00000)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	256:00 - 257:00	12/TEC	3-368

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

1353 CST

NOTES

UPDATE
CONFIRM GO
FOR DEPRESS

257:00
(10101)
(10011)

:10

CDR/LMP INTEGRITY CHECK

:20

CMP HELMET/GLOVE DONNING
EVA WARNING TONE CHECK
CMP INTEGRITY CHECK

257:30

S
T
D
N

CABIN DEPRESS
GO/NO-GO FOR CABIN DEPRESS
S-BD AUX TV - TV
HATCH OPENING

EVA OPERATIONS

CMP EGRESS

:40

INSTALL TV/DAC, ADJUST

:50

RETRIEVE LUNAR SOUNDER FILM CASSETTE

258:00

RETRIEVE PAN CAMERA CASSETTE

SIM EXP STATUS
(*0000)
(00000)
EARTH DISTANCE
~ 160,372 NM

GET = 257:00

FOV 3°



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	257:00 - 258:00	12/TEC	3-369

FLIGHT PLANNING BRANCH

MCC-H

1453 CST

FLIGHT PLAN

NOTES

258:00
(10101)
(10011)

:10

:20

258:30

:40

:50

259:00

TV
STDN

REST
RETRIEVE MAPPING CAMERA CASSETTE

REST
REMOVE TV/DAC & INGRESS

INGRESS
CM POST EVA

HATCH CLOSING
CABIN REPRESS

POST EVA PROCEDURES

CLEANUP PROCEDURES
DOFF PGA'S
CDR VERIFY BIOMED OPERATION
CMP & LMP DOFF BIOMED HARNESS
STOW EQUIPMENT

SIM EXP STATUS
(*0000)
(00000)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	258:00 - 259:00	12/TEC	3-370

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

1553 CST

NOTES

259:00
(10101)
(10011)

:10

(11101)
(01111)

:20

259:30

:40

:50

260:00

S
T
D
N

V48 (11101)(01111)

SIM EXP PREP

AUTO RCS SELECT - OFF

EXCEPT: D1, B2, A3, C4, B3, D4

PCM BIT RATE - HIGH

S-BD AUX TV - SCI

DATA SYS - ON

LOGIC PWR (2) - DPLY/RETR

cb INST SCI EQUIP SEB (2) - CLOSE

IR - ON

UV - ON

IR COVER - OPEN

UV COVER - OPEN

MANUALLY ROLL LEFT 40° TO R 270°

V49 MNVR TO UV STELLAR TGT ATT (COMA CLUSTER) (260:00)

(206,161,301) OMNI: A

O₂ HEATERS 3 - OFF

CONTINUE POST EVA

SIM EXP STATUS

(*0000)

(00000)

CMD
DSE RECORD

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	259:00 - 260:00	12/TEC	3-371

FLIGHT PLANNING BRANCH

MCC-H

1653 CST

FLIGHT PLAN

NOTES

260:00
(11101)
(01111)

:10

:20

260:30

:40

:50

261:00

S
T
D
N

EAT PERIOD

UV
COMA CLUSTER

IR

SIM EXP STATUS
(*0011)
(00011)SPACECRAFT REAL TIME
PCM IS NOT AVAILABLE
UNTIL 261:20UV OPTICAL AXIS
POINTED AT RA 12:58,
DEC +26° WITH
CSM +X AXIS AT
RA 16:37:00, DEC
-12° 24'

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	260:00 - 261:00	12/TEC	3-372

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

1753 CST

NOTES

CMD
DSE REWIND

261:00
(11101)
(01111)

CONTINUE POST EVA
MANUALLY ROLL RIGHT 40° TO R 246
V49 MNVR TO UV STELLAR TGT ATT (CAL LUNAR GRAZING 60x14)
(261:20)

SIM EXP STATUS
(*0011)
(00011)

(024,224,293) HGA: P -2, Y 340

:10

:20

CMD
DSE PLAYBACK

261:30

S
T
D
N

:40

UV
STELLAR CAL

IR

:50

262:00

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	261:00 - 262:00	12/TEC	3-373

FLIGHT PLANNING BRANCH

MCC-H

1853 CST

FLIGHT PLAN

NOTES

262:00
(11101)
(01111)
:10
:20
262:30
:40
:50
263:00

S
T
D
N

V49 MNVR TO UV STELLAR TGT ATT (CAL LUNAR GRAZING 60 X 60)
(262:15)
(035,228,298) HGA: P -8, Y 336

SIM EXP STATUS
(*0011)
(00011)

UV
STELLAR CAL

IR

CREW EXERCISE PERIOD

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	262:00 - 263:00	12/TEC	3-374

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

1953 CST

NOTES

UPLINK
CSM S.V. & V66

$$\begin{array}{l} \text{---} 263:00 \\ \text{E } (11101) \\ \text{E } (01111) \end{array}$$

:10

$$\begin{array}{r} (11111) \\ -(01111) \\ \hline \end{array}$$

:20

—263:30
(11101)
(01111)

: 40

:50

— 264:00

STDN

V49 MNVR TO UV STELLAR TGT ATT (α ERIDANII) (263:15)
(014,192,333) HGA P -5, Y 296

V48 (11111)(01111) CREW EXERCISE PERIOD 1

V48 (11101)(01111)

CSM G&C CHECKLIST

PASSIVE THERMAL CONTROL (G&N) G/8-2
V49 TO UV/PTC ATT

(014,175,066)
IR COVER - CLOSE
IR - OFF
P20, OPT 2, X-AXIS
N78 (0,0,0)
N79 (-0.4200, +000.50)
N34 (0,0,0)
COMM: HGA REACQ NARRO

CREW EXERCISE PERIOD

UV
α ERIDANII

IR

SIM EXP STATUS
(*0011)
(00011)

UV OPTICAL AXIS
POINTED AT RA
01:38:33.0, DEC
-58°10'28"
WITH CSM +X
AXIS AT RA 19:00,
DEC -33°

D1, B2, A3, C4, B3 AND
D4 WILL BE USED FOR PTC
RATE DAMPING.
B2 & D2 FOR PTC SPINUP

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	263:00 - 264:00	12/TEC	3-375

FLIGHT PLANNING BRANCH

MCC-H

2053 CST

FLIGHT PLAN

NOTES

 264:00
 (11101)
 (01111)

:10

:20

264:30

S
T
D
N
 L10H CANISTER CHANGE
 (22 INTO B, STOW 20 IN A4)

:40

:50

 P52 (OPTION 3)
 (PTC ORIENT)

 REPORT: GYRO TORQUING ANGLES
 GDC ALIGN

265:00

 SIM EXP STATUS
 (*0001)
 (00001)

 DURING UV/PTC
 GALACTIC SCAN THE
 CSM +X AXIS WILL
 BE POINTED AT RA
00:55, DEC +08°

 UV/PTC
 α ERI, α GRU

P52 IMU REALIGN

N71: _ _ , _ _

N05: _ _ _ . _ _

N93:

X _ _ . _ _

Y _ _ . _ _

Z _ _ . _ _

GET _ _ : _ _ : _ _

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	264:00 - 265:00	12/TEC	3-376

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

2153 CST

NOTES

UPDATE
FLIGHT PLAN

265:00
(11101)
(01111)

:10

:20

265:30

:40

:50

266:00

S
T
D
N

EXIT G&N PTC AT ROLL ANGLE 014, HGA: P 02, Y 203
USING JETS D1,B2,A3,C4,B3,D4 PAGE G/8-3

CSM G&C CHECKLIST

PASSIVE THERMAL CONTROL (G&N) PAGE G/8-2
AFTER STDN CUE
V49 MNVR TO UV/PTC SLEEP ATT

(014,074,015)
P20 OPT 2, X-AXIS
N78 (0,0,0)
N79 (-0.4200, +000.50)
N34 (0,0,0)
COMM: HGA REACQ NARROW
P -40, Y 90

D1,B2,A3,C4,B3
AND D4 WILL BE USED
FOR PTC RATE
DAMPING, B2 & D2
FOR PTC SPINUP

EAT PERIOD

UV/PTC
GALACTIC SCAN

SIM EXP STATUS
(*0001)
(00001)

DURING UV/PTC
GALACTIC SCAN
THE CSM +X AXIS
WILL BE POINTED
AT RA 20:20, DEC
+88°

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	265:00 - 266:00	12/TEC	3-377

FLIGHT PLANNING BRANCH

MCC-H

2253 CST

FLIGHT PLAN

NOTES

266:00
(11101)
(01111)

:10

:20

266:30

:40

:50

267:00

S
T
D
N

EAT PERIOD

CSM SYSTEMS CHECKLIST

PRE-SLEEP CHECKLIST
COMM - HGA

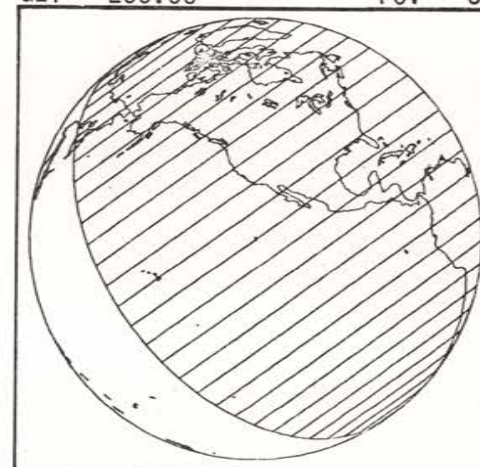
PAGE S/1-29

NO FILM MAGS REQD FOR NEXT DAY

SIM EXP STATUS
(*0001)
(00001)

GET = 266:00

FOV = 3°



UV/PTC
GALACTIC SCAN

ONBOARD READOUT

BAT C

PYRO BAT A

PYRO BAT B

RCS A

B

C

D

DC IND SEL - MNA OR B

EARTH DISTANCE

~ 140,423 NM

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	266:00 - 267:00	12/TEC	3-378

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

2353 CST

NOTES

267:00
:20
:40
268:00
:20
:40
269:00

S
T
D
N

REST PERIOD
(8 HOURS)

UV/PTC
GALACTIC SCAN

SIM EXP STATUS
(*0001)
(00001)

DAP LOAD STATUS
(11101)(01111)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	267:00 - 269:00	12/TEC	3-379

FLIGHT PLANNING BRANCH

MCC-H

0153 CST

FLIGHT PLAN

NOTES

269:00

:20

:40

270:00

:20

:40

271:00

S
T
D
NREST PERIOD
(8 HOURS)UV/PTC
GALACTIC SCANSIM EXP STATUS
(*0001)
(00001)DAP LOAD STATUS
(11101)(01111)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	269:00 - 271:00	12/TEC	3-380

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

0353 CST

NOTES

271:00
:20
:40
272:00
:20
:40
273:00

S
T
D
N

REST PERIOD
(8 HOURS)

UV/PTC
GALACTIC SCAN

SIM EXP STATUS
(*0001)
(00001)

DAP LOAD STATUS
(11101)(01111)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	271:00 - 273:00	12/TEC	3-381

FLIGHT PLANNING BRANCH

MCC-H

0553 CST

FLIGHT PLAN

NOTES

273:00
:20
:40
274:00
:20
:40
275:00

S
T
D
NREST PERIOD
(8 HOURS)UV/PTC
GALACTIC SCANSIM EXP STATUS
(*0001)
(00001)DAP LOAD STATUS
(11101)(01111)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	273:00 - 275:00	12/TEC	3-382

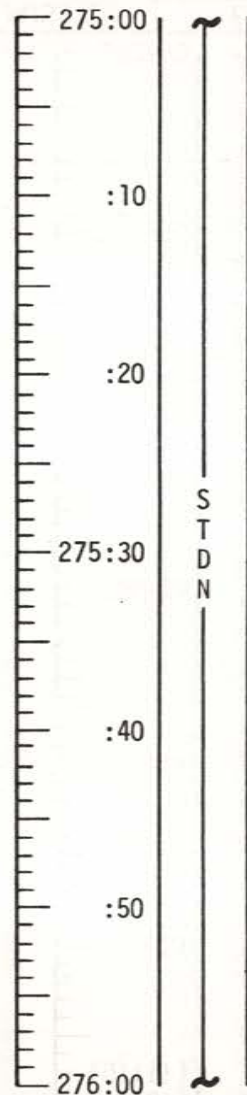
FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

0753 CST

NOTES



CSM SYSTEMS CHECKLIST

POST-SLEEP CHECKLIST PAGE S/1-29

SIM EXP STATUS
(*0001)
(00001)

DAP LOAD STATUS
(11101)(01111)

EARTH DISTANCE
~ 121,855 NM

GET = 275:00

FOV = 4°



EAT PERIOD

UV/PTC
GALACTIC SCAN

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	8/28/72	275:00 - 276:00	13/TEC	3-383

FLIGHT PLANNING BRANCH

MCC-H

0853 CST

FLIGHT PLAN

NOTES

SIM EXP STATUS
(*0001)
(00001)UPDATE
CONSUMABLES STATUS
FLIGHT PLAN
SIM EXP STATUS
WASTE WATER DUMP
PERCENTAGE276:00
(11101)
(01111)

:10

:20

276:30

:40

:50

277:00

S
T
D
N

EAT PERIOD

UV/PTC
GALACTIC SCAN

CSM G&C CHECKLIST

IR - ON
EXIT G&N PTC AT ROLL ANGLE 014 HGA: P -16, Y 247
USING JETS D1,B2,A3,C4,B3,D4 PAGE G/8-3
H₂ PURGE LINE HEATER - ONP52 (OPTION 3)
(PTC ORIENT)

CONFIGURE FOR URINE DUMP

REPORT: GYRO TORQUING ANGLES
GDC ALIGN

IR COVER - OPEN (BEFORE DUMP)

H₂ & O₂ FUEL CELL PURGE

SAMPLE BUSS'S (3) - STOW SAMPLES (3)

DUMP URINE FROM BUSS'S (3) - STOW

START NEW URINE COLLECTION PERIOD

WASTE WATER DUMP TO PERCENTAGE SPECIFIED BY STDN

CHARGE BATTERY A

H₂ PURGE LINE HEATER - OFF

P52 IMU REALIGN

N71: _ _ _ , _ _ _

N05: _ _ _ . _ _ _

N93:

X _ _ . _ _ _

Y _ _ . _ _ _

Z _ _ . _ _ _

GET _ _ _ : _ _ _ : _ _ _

UV
IR

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	276:00 - 277:00	13/TEC	3-384

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

0953 CST

NOTES

277:00
(11101)
(01111)

V49 MNVR TO UV STELLAR TGT ATT (DARK NORTH) (277:15)
(212,172,316) OMNI D

SIM EXP STATUS
(*0011)
(00011)
SPACECRAFT REAL TIME
PCM IS NOT
AVAILABLE UNTIL
278:00

CMD
DSE RECORD

:10

:20

277:30

:40

:50

278:00

S
T
D
N

STOWAGE
FOR
ENTRY

UV
IR

UV
DARK NORTH

IR

UV OPTICAL AXIS
POINTED AT RA 14:00,
DEC +22° WITH CSM
+X AXIS AT RA 17:40,
DEC -17°30'

CMD
DSE STOP
PCM BIT RATE - LOW

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	277:00 - 278:00	13/TEC	3-385

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

1053 CST

NOTES

278:00
(11101)
(01111)

V49 MNVR TO THERMAL ATT (278:15)
(265,037,011) OMNI C

SIM EXP STATUS
(*0011)
(00011)

:10

CMD
PCM BIT RATE - HIGH
DSE RECORD

:20

CMD
DSE REWIND
PCM BIT RATE - LOW

278:30

S
T
D
N

:40

CREW EXERCISE PERIOD

:50

279:00

UV
DARK NORTH

IR

SPACECRAFT REAL TIME
PCM IS NOT
AVAILABLE UNTIL
278:30

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	278:00 - 279:00	13/TEC	3-386

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

1353 CST

NOTES

UPDATE
ENTRY PAD
FLIGHT PLAN

CMD
DSE RECORD

CMD (HGA AOS)
DSE DUMP

281:00
(11101)
(01111)
:10
:20
281:30
:40
:50
282:00

STDN

MANUALLY ROLL LEFT 40° TO R 091°
V49 MNVR TO UV SOLAR ATMOSPHERE CAL ATT (281:15)
(273,026,325) OMNI C
P20 OPT 2
N78 (+090.00)
(+019.74)
N79 (-0.2000)
(+000.50)
N34 (0,0,0)

SPACECRAFT REAL TIME
PCM IS NOT AVAILABLE
UNTIL 281:35

ACQ HGA: MAN, WIDE, P 20, Y 200
S-BD ANT IND >1/2 SCALE HGA: REACQ, NARROW

STOP PITCH RATE AT 146°

UV
ATMOSPHERE
CAL

IR

SIM EXP STATUS
(*0011)
(00011)

IF MCC-6 IS REQUIRED:
UPLINK TGT LOAD
UPDATE MNVR PAD

IF MCC-6 IS REQUIRED:
PERFORM AT 282:18

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	281:00 - 282:00	13/TEC	3-389

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

1453 CST

NOTES

CMD
DSE RECORD

EI -22 HRS

SIM EXP STATUS
(*0011)
(00011)

SPACECRAFT REAL TIME
PCM IS NOT AVAILABLE
UNTIL 283:15

UV OPTICAL AXIS
POINTED AT RA 12:30,
DEC +12°

282:00
(11101)
(01111)

:10

ON STDN CUE

V49 MNVR TO UV STELLAR TGT ATT (VIRGO CLUSTER)(282:25)

(253,018,017) OMNI D

:20

282:30

STDN

:40

EAT PERIOD

:50

283:00

UV
VIRGO CLUSTER

IR

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	282:00 - 283:00	13/TEC	3-390

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

1553 CST

NOTES

SIM EXP STATUS
(*0011)
(00011)

CMD
DSE STOP/REWIND
PCM BIT RATE LOW

CMD
PCM BIT RATE HIGH
DSE PLAYBACK

283:00
(11101)
(01111)

:10

:20

283:30

:40

:50

284:00

S
T
D
N

EAT PERIOD

UV
VIRGO CLUSTER

IR

MANUALLY ROLL RIGHT 40° TO R293°

V40 MNVR TO UV STELLAR TGT ATT (DARK SOUTH)(283:37)

(056,186,354) HGA: P -44, Y 283

PREPARE FOR TV PRESS CONFERENCE

TV (GDS) 284:07-284:37 CM/TV AVG (f5.6 MONITOR)

UV
DARK SOUTH

IR

CHARGE BATTERY B

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	283:00 - 284:00	13/TEC	3-391

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

1653 CST

NOTES

CMD
DSE STOP

CMD
DSE PLAYBACK

284:00
(11101)
(01111)

:10

:20

284:30

:40

:50

285:00

TEC PRESS CONFERENCE

S-BD AUX TV - TV

S-BD AUX TV - SCI

UV
DARK SOUTH
IR

SIM EXP STATUS
(*0011)
(00011)

UV OPTICAL AXIS
POINTED AT RA 01:05,
DEC -10° WITH CSM
+X AXIS AT RA 20:30
DEC -25°

UV
DARK SOUTH
IR

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	284:00 - 285:00	13/TEC	3-392

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

1753 CST

NOTES

UPDATE
FLIGHT PLAN

CMD
DSE REWIND

SIM EXP STATUS
(*0011)
(00011)

285:00
(11101)
(01111)

:10
(11102)
(01111)

:20

285:30

:40

:50

286:00

S
T
D
N

V48 (11102)(01111)

CSM G&C CHECKLIST

PASSIVE THERMAL CONTROL (G&N) PAGE G/8-2
EXCEPT: DAMP RATE FOR 5 MIN

V49 MNVR TO UV/PTC ATT

(N20,035,047)

IR COVER - CLOSE

P20 OPT 2, X-AXIS

N78 (0,0,0)

N79 (-0.4200, +000.50)

N34 (0,0,0)

COMM: HGA REACQ NARROW P -40, Y 90

D1,B2,A3,C4,B3 AND
D4 WILL BE USED FOR
PTC RATE DAMPING
B2 & D2 FOR PTC
SPINUP

UV
DARK SOUTH

IR

UV/PTC
NEP, PEG

DURING UV/PTC
GALACTIC SCAN THE
CSM + AXIS WILL
BE POINTED AT
RA 04:55, DEC +46°

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	285:00 - 286:00	13/TEC	3-393

FLIGHT PLANNING BRANCH

MCC-H

1853 CST

FLIGHT PLAN

NOTES

CMD
DSE RECORDCMD
DSE DUMP286:00
(11102)
(01111)

:10

:20

286:30
(11112)
(01111)

:40

(11102)
(01111)

:50

287:00

S
T
D
N

CSM G&C CHECKLIST

EXIT G&N PTC AT ROLL ANGLE 131, HGA: P -21, Y 149
USING JETS D1,B2,A3,C4,B3 AND D4 PAGE G/8-3

AFTER STDN CUE

V49 MNVR TO UV STELLAR TGT ATT (SPICA)(286:30)

(255,188,321) OMNI D

IR COVER - OPEN

V48 (11112)(01111)

V48 (11102)(01111)

V49 MNVR TO COMM/UV PTC ATT (286:52)

(148,142,321) HGA: P -37, Y 48

CMP DON BIOMED HARNESS

UV/PTC
NEP, γ PEGUV
SPICA

IR

UV
SPICA, NUMA
IRSIM EXP STATUS
(*0001)
(00011)SPACECRAFT REAL TIME
PCM IS NOT
AVAILABLE UNTIL
286:52UV OPTICAL AXIS
POINTED AT RA
13:24, DEC -11°
WITH CSM +X AXIS
AT RA 18:02, DEC -30°

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	286:00 - 287:00	13/TEC	3-394

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

1953 CST

NOTES

287:00
(11102)
(01111)

:10

:20

287:30

:40

:50

288:00

S
T
D
N

E-MEMORY DUMP (CUE STDN)

CSM G&C CHECKLIST

PASSIVE THERMAL CONTROL (G&N) PAGE G/8-2

AFTER STDN CUE

IR COVER - CLOSE

IR - OFF

P20 OPT 2, X-AXIS

N78 (0,0,0)

N79 (-0.4200, +000.50)

N34 (0,0,0)

COMM: HGA REACQ NARROW

P -40, Y 90

D1,B2,A3,C4,B3 AND
D4 WILL BE USED
FOR PTC RATE
DAMPING, B2 & D2
FOR PTC SPINUP

CHECK CMP BIOMED
LMP DOFF BIOMED HARNESS

LiOH CANISTER CHANGE
(24 INTO B, STOW 22 IN A5)

UV
SPICA, NUMA

IR

UV/PTC
SPICA, NUMA

SIM EXP STATUS
(*0011)
(00011)

DURING UV/PTC
GALACTIC SCAN
THE CSM +X
AXIS WILL BE
POINTED AT
RA 17:40, DEC
+05°

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	287:00 - 288:00	13/TEC	3-395

FLIGHT PLANNING BRANCH

2053 CST

NOTES

- 288:00
(11102)
(01111)

P52 (OPTION 3)
(PTC ORIENT)
REPORT: GYRO TORQUING ANGLES
GDC ALIGN

UV/PTC
SPICA, NUMA

SIM EXP STATUS
(*0001)
(00001)

:10

CSM G&C CHECKLIST

EXIT G&N PTC AT ROLL ANGLE 146 HGA: P -39, Y 46
 USING JETS D1,B2,A3,C4,B3,D4 PAGE G/8-3
 PASSIVE THERMAL CONTROL (G&N) PAGE G/8-2
 AFTER STDN CUE
 V49 MNVR TO UV/PTC SLEEP ATT

:20

```
(146,284,014)
P20 OPT 2, X-AXIS
N78 (0,0,0)
N79 (-0.4200, +000.50)
N34 (0,0,0)
COMM: HGA REACQ NARROW
P -40, Y 90
V48 (11101)(01111)
```

D1,B2,A3,C4,B3 AND
D4 WILL BE USED
DAMPING, B2 & D2
FOR PTC SPINUP

- 288:30
(11101)
(01111)

STDN

:40

EAT PERIOD

UV/PTC
GALACTIC SCAN

DURING UV/PTC
GALACTIC SCAN THE
CSM +X AXIS WILL
BE POINTED AT
RA 05:45, DEC -47°

:50

- 289:00

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	288:00 - 289:00	13/TEC	3-396

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

2153 CST

NOTES

289:00
(11101)
(01111)

:10

:20

289:30

:40

:50

290:00

S
T
D
N

EAT PERIOD

CSM SYSTEMS CHECKLIST

PRE-SLEEP CHECKLIST
COMM - HGA

PAGE S/1-29

FILM MAGS REQUIRED FOR NEXT DAY

DAC: GG

SIM EXP STATUS
(*0001)
(00001)

EARTH DISTANCE
~ 80,921 NM

GET = 289:00

FOV = 7°



UV/PTC
GALACTIC SCAN

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	289:00 - 290:00	13/TEC	3-397

FLIGHT PLANNING BRANCH

MCC-H

2253 CST

FLIGHT PLAN

NOTES

290:00

:20

:40

291:00

:20

:40

292:00

S
T
D
NREST PERIOD
(8 HOURS)UV/PTC
GALACTIC SCANSIM EXP STATUS
(*0001)
(00001)DAP LOAD STATUS
(11101)(01111)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	290:00 - 292:00	13/TEC	3-398

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

0053 CST

NOTES

292:00
:20
:40
293:00
:20
:40
294:00

S
T
D
N

REST PERIOD
(8 HOURS)

UV/PTC
GALACTIC SCAN

SIM EXP STATUS
(*0001)
(00001)

DAP LOAD STATUS
(11101)(01111)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	292:00 - 294:00	13/TEC	3-399

FLIGHT PLANNING BRANCH

MCC-H

0253 CST

FLIGHT PLAN

NOTES

294:00

:20

:40

295:00

:20

:40

296:00

S
T
D
NREST PERIOD
(8 HOURS)UV/PTC
GALACTIC SCANSIM EXP STATUS
(*0001)
(00001)DAP LOAD STATUS
(11101)(01111)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	294:00 - 296:00	13/TEC	3-400

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

0453 CST

NOTES

296:00
:20
:40
297:00
:20
:40
298:00

S
T
D
N

REST PERIOD
(8 HOURS)

UV/PTC
GALACTIC SCAN

SIM EXP STATUS
(*0001)
(00001)

DAP LOAD STATUS
(11101)(01111)

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	296:00 - 298:00	13/TEC	3-401

FLIGHT PLANNING BRANCH

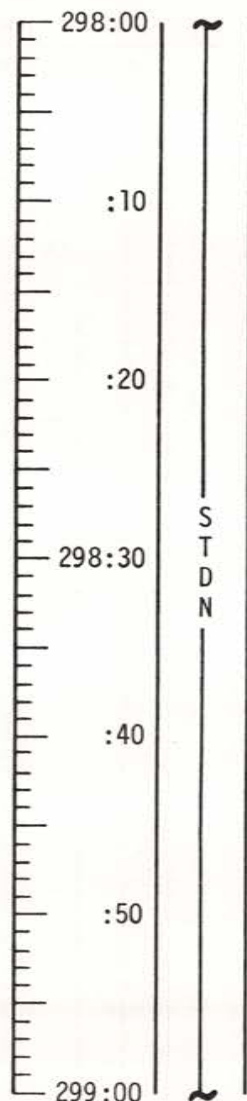
FLIGHT PLAN

MCC-H

0653 CST

NOTES

EI - 6 HRS



CSM SYSTEMS CHECKLIST

POST-SLEEP CHECKLIST PAGE S/1-29

SIM EXP STATUS
(*0001)
(00001)
DAP LOAD STATUS
(11101)(01111)

UV/PTC
GALACTIC SCAN

GET = 299:00 FOV = 20°



EAT PERIOD

EARTH DISTANCE
~ 38,615

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	298:00 - 299:00	14/TEC	3-402

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

0753 CST

NOTES

EI - 5 HRS

UPDATE
CONSUMABLE STATUS
FLIGHT PLAN
GO/NO-GO FOR
MCC-7

UPLINK

DESIRED ORIENT
(ENTRY)

299:00
(11101)
(01111)
:10
:20
299:30
:40
(11102)
(01111)
:50
300:00

S
T
D
N

EAT PERIOD

UV/PTC
GALACTIC SCAN

REPORT: CM INJECTOR VALVE TEMPS
SYS TEST METER 5C,5D,6A,6B,6C,6D
CSM G&C CHECKLIST
EXIT G&N PTC AT ROLL ANGLE 146, HGA: P -27, Y 93
(COUPLED JETS) PAGE G/8-3
V48 (11102)(01111)
IR - ON
IR COVER - OPEN
LIMIT CYCLE - ON
ATT DEADBAND - MIN
RATE - LOW
BMAG (3)-ATT 1/RATE 2
SC CONT - SCS
P52 (OPT - 3)
(PTC ORIENT)
REPORT: GYRO TORQUING ANGLES
P52 (OPT 1)
(ENTRY ORIENT)

STARS _____
SA _____
TA _____
EI REFSMMAT ATT
R 246
P 324
Y 059

SIM EXP STATUS
(*0001)
(00001)

P52 IMU REALIGN
N71: _____
N05: _____
N93: _____
X _____
Y _____
Z _____
GET _____:_____:_____

UV
IR

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	299:00 - 300:00	14/TEC	3-403

FLIGHT PLANNING BRANCH

MCC-H

0853 CST

FLIGHT PLAN

NOTES

UPLINK

MCC-7 TGT LOAD
CSM S.V. & V66
UPDATE
MCC-7 MNVR PAD
ENTRY PAD

EI -4 HR

300:00
(11102)
(01111)
:10
:20
300:30
:40
:50
301:00

S
T
D
N

GDC ALIGN
SC CONT - CMC
BMAG (3) - RATE 2
EXTEND AND LOCK YY ATTENUATOR STRUTS
DON MAE WESTS & FOOT RESTRAINTS
cb S-BD FM XMTR/DSE (2) CLOSE-(VERIFY)
CSM SYSTEMS CHECKLIST
ECS CKS
O2 SUPPLY REFILL PAGE S/1-7
PGA VERIFICATION (IF SUITED) PAGE S/1-14
ECS MONITOR CK PAGE S/1-5
EVAP H2O CONT PRI VLV - AUTO
*P30 EXTERNAL ΔV
*V49 MNVR TO BURN ATT
CONFIGURE FOR URINE DUMP
UPDATE STOWAGE LIST & TAPE TO LEB
CDR & LMP DON BIOMED HARNESS
*SXT STAR CHECK
SAMPLE BUSS'S (3) - STOW SAMPLES (3)
DUMP URINE FROM BUSS'S (3) - STOW
START NEW URINE COLLECTION PERIOD

SIM EXP STATUS
(*0011)
(00011)

EVAP H2O CONT SEC VLV - AUTO
SUIT HEAT EXCH SEC GLY - FLOW
MARK DIRECT O2 "OFF" POSITION WITH TAPE

CSM SYSTEMS CHECKLIST

EPS CKS PAGE S/1-2
SPS CK PAGE S/1-1
RCS CKS PAGE S/1-1
C&W SYS CK PAGE S/1-20

*PERFORM IF
MCC-7 IS REQUIRED

UV

IR

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	300:00 - 301:00	14/TEC	3-404

FLIGHT PLANNING BRANCH

STATE 13	INT	EXP	...	...	...	...	...
APPROX	EXP	EXP	...	...	...	...	...

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CONTROL	...	...	...	...	...	...
CONTROL	...	...	...	...	...	...
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...	...	...	...	...	...	...

FLIGHT PLAN

MCC-7 BURN TABLE

MANEUVER	SPS LIMITS	P OR Y RATES	ATT DEVIATION	MANUAL START ACTION	OVERBURN SHUTDOWN CRITERIA	RCS TRIM GUIDELINES
CORRIDOR CONTROL	LOOSE	10°/SEC COMPLETE	$\pm 10^\circ$ COMPLETE	DELAY NO RESTART	BT + 1 SEC AND $\Delta V_c = 0$	TRIM X AXIS ONLY TO 0.2 FPS

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)		N/A	14/TEC	3-406

FLIGHT PLAN

MCC-H

0953 CST

NOTES

EI -3 HR

301:00
(11102)
(01111)

:10

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301:30

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302:00

S
T
D
N

*P40 SPS THRUSTING OR
*P41 RCS THRUSTING

MCC-7

TIG: 301:18
BT: NOM ZERO
ΔVT: NOM ZERO
ULLAGE: NOM ZERO

*V66 SET S.V. INTO LM S.V.
*REPORT: BURN STATUS

CMP DON COUNTERPRESSURE GARMENT

VERIFY STOWAGE

REMOVE AND STOW CABIN FAN FILTER (U2)

SIM EXP STATUS
(*0011)
(00011)

*PERFORM IF MCC-7
IS REQUIRED

UV
IR

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

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	301:00 - 302:00	14/TEC	3-407

FLIGHT PLANNING BRANCH

MCC-H

1053 CST

FLIGHT PLAN

NOTES

302:00
(11102)
(01111)

IR - OFF
 UV - OFF
 IR COVER - CLOSE
 UV COVER - CLOSE
 S-BD AUX TV - OFF
 DATA SYS - OFF

SIM EXP STATUS
 (*0011)
 (00011)

:10

STOW FLIGHT PLAN

CSM ENTRY CHECKLIST

LOGIC SEQUENCE CHECK PAGE E/1-2

:20

EI -2 HR

UPDATE
 GO/NO-GO FOR
 PYRO ARM
 SEQUENCE

302:30

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P52 (OPTION 3) PAGE E/1-2
 (ENTRY ORIENT)

P52 IMU REALIGN

N71: __ __, __ __

N05: __ __. __ __

N93:

X __ __. __ __

Y __ __. __ __

Z __ __. __ __

GET __ __: __ __: __ __

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	302:00 - 303:00	14/TEC	3-408

FLIGHT PLANNING BRANCH

FLIGHT PLAN

MCC-H

1153 CST

NOTES

303:00
(11102)
(01111)

REPORT: GYRO TORQUING ANGLES

GDC ALIGN PAGE E/1-3
V49 MNVR TO HORIZON CHECK ATT
BORESIGHT & SXT STAR CHECK

EMS ENTRY CHECK PAGE E/1-3
PRI & SEC WATER EVAP ACTIVATION PAGE E/1-4

CONFIGURE CAMERA EQUIP FOR FIREBALL & CHUTES PHOTOS
CM RCS PREHEAT (IF REQUIRED)

FINAL STOWAGE PAGE E/1-5

CONFIGURE FOR VHF A SIMPLEX VOICE CHECK

TERMINATE RCS PREHEAT
PYRO BATT CHECK
SYSTEMS TEST PANEL CONFIGURATION PAGE E/1-6
CONFIGURE PNL 8

P27 & ENTRY PAD UPDATE

EMS INITIALIZATION PAGE E/2-1

RSI ALIGNMENT
CM RCS CHECK

SEPARATION CHECKLIST PAGE E/2-2
P61 ENTRY PREP PAGE E/2-2
P62 CM/SM SEP & PRE-ENTRY MNVR PAGE E/2-3
P63 ENTRY INIT PAGE E/2-4

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FLIGHT PLAN

MCC-H

1253 CST

NOTES

EI -15 MIN

304:00
(11102)
(01111)

CM/SM SEP 304:03

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S
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ENTRY ATT
(000,152,000)

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EI 304:18

304:30

SPLASHDOWN 304:31

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305:00

TIME FROM 400K FT

TRAJECTORY EVENTS	MIN:SEC
400K FT (GET 304:18:00.5)	00:00
ENTRY S-BAND BLACKOUT	00:17
0.05G	00:29
KA-INITIATE CONSTANT DRAG	00:52
MAX HEATING RATE	01:12
RDOT = -700 FPS	01:20
PEAK G (FIRST)	01:23
SUBCIRCULAR VELOCITY	02:06
P64 TO P67	02:02
EXIT S-BAND BLACKOUT	03:36
PEAK G (SECOND)	05:32
GUIDANCE TERMINATION	06:44
DROGUE DEPLOYMENT	07:41
MAIN DEPLOYMENT	08:23
SPLASHDOWN	13:09

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	304:00 - 305:00	14/TEC	3-410

FLIGHT PLANNING BRANCH

SECTION 4 - CONSUMABLES ANALYSIS

Mission profile dependent
8/29/72 Basic

THE SPS ANALYSIS ASSUMPTIONS
FOR THE SPS PROPELLANT ANALYSIS

1. All spacecraft weights and the sequential consumables losses were taken from the Spacecraft Operational Data Book, Amendment 127.
2. The engine I_{sp} assumed for this analysis is 314.5 seconds.
3. The 3σ dispersions are the RSS of the penalties imposed on the SPS margin by 3σ dispersions in propellant loading, mixture ratio, engine I_{sp} , maneuver ΔV , spacecraft weight, and consumable weight losses.
4. The CSM/LM weights for the J-missions have increased to an extent that, for some launch dates, the S-IVB will not have sufficient propellant reserves to compensate for a 3σ engine. Thus, in order to have a combined 3σ confidence level for the S-IVB and SPS, the S-IVB ΔV deficit is covered in the SPS propellant budget. Currently, the nominal mission does not require this allowance.
5. The ground rule for a contingency allowance is to budget for either an LM rescue or for a maneuver to avoid adverse weather conditions at entry, whichever produces the least SPS margin. The ΔV for the LM rescue allowance and the weather avoidance allowance is 600 ft/sec and 300 ft/sec, respectively. For this mission, the weather avoidance allowance produces the least SPS margin.

10/23/72

Mission profile dependent
8/29/72 Basic

APOLLO 17 SPS PROPELLANT SUMMARY

[DECEMBER 7, 1972, G.m.t., LAUNCH DATE; 72° LAUNCH AZIMUTH]

Item	Required, lb	Remaining, lb
Actual loading		40 796
Trapped and unavailable	441	40 355
Outage	60	40 295
Unbalance meter	100	40 195
Available for ΔV		40 195
Required for ΔV		
LOI (2979.9 fps)	26 143	14 052
DOI	1 497	12 555
CIRC (70.1 fps)	276	12 279
LOPC-1 (336.7 fps)	1 238	11 041
TEI (3045.7 fps)	9 446	1 595
Nominal remaining		1 595
Dispersions		
TLMC (23 fps)	263	1 332
-3 σ performance	367	965
S-IVB ΔV deficit	0	965
Margin above 3 σ		965
Available for contingencies*		965

*965 lb is equivalent to 378 fps end-if-mission reserve. Weather avoidance contingency allowance of 300 fps requires 795 lbs, which results in a margin after contingencies of 172 lbs.

SM RCS budget

Mission profile dependent
8/29/72 Basic

Ground Rules and Assumptions

1. Following transposition and docking, the S-IVB performs the evasive maneuver.
2. Two midcourse corrections (translunar) are executed as SPS burns with one MCC followed by an RCS trim.
3. One midcourse correction (transearth) is executed as an RCS burn of 5 fps.
4. Quad management is to be determined during the mission.
5. Single jet RCS control during SIM exps.
6. Couple jet RCS control during SIM off periods (major burns).
7. All maneuvering at low rate ($0.2^\circ/\text{sec}$) both docked and undocked.
8. Attitude hold deadband during SIM photography and major burns - 0.5° .
9. Attitude hold deadband at other times - 2.5° .
10. Lunar orbit usage

Sim photography	1.0 lb/hr
Rest periods	0.1 lb/hr
Other	0.5 lb/hr
11. Nominal ullages.
12. Redlines will be defined by the Flight Control Division as an aid in assuring that mission rules are not violated during the mission. They are subject to review during the mission as mission phases are completed and systems capabilities are evaluated. In the event the rescue redline is violated prior to rendezvous, lunar orbit photography activities can be curtailed to conserve propellant. The lunar orbit redline includes a nominal transearth coast phase (with all navigational sightings) plus a 3 sigma G&N TEI cutoff error MCC. If a rescue is required and the lunar orbit redline is violated prior to the nominal TEI, TEI can be performed early and navigational sighting activity curtailed during the transearth phase. The rescue redline is based on the minimized activity during the transearth phase.

10/23/72

Mission profile dependent
8/29/72 Basic

APOLLO 17 SM RCS ANALYSIS

Item	Required, lb	Remaining, lb
Nominal loading	- -	1338.4
Initial M/R outage	15.6	- -
Total trapped	26.4	- -
Gaging inaccuracy	56.0	- -
Deliverable		1240.4
Nominal usage		
Translunar coast	177.5	- -
Lunar orbit	395.9	- -
Transearth coast	99.4	- -
Total	672.8	- -
Nominal remaining usable		567.6

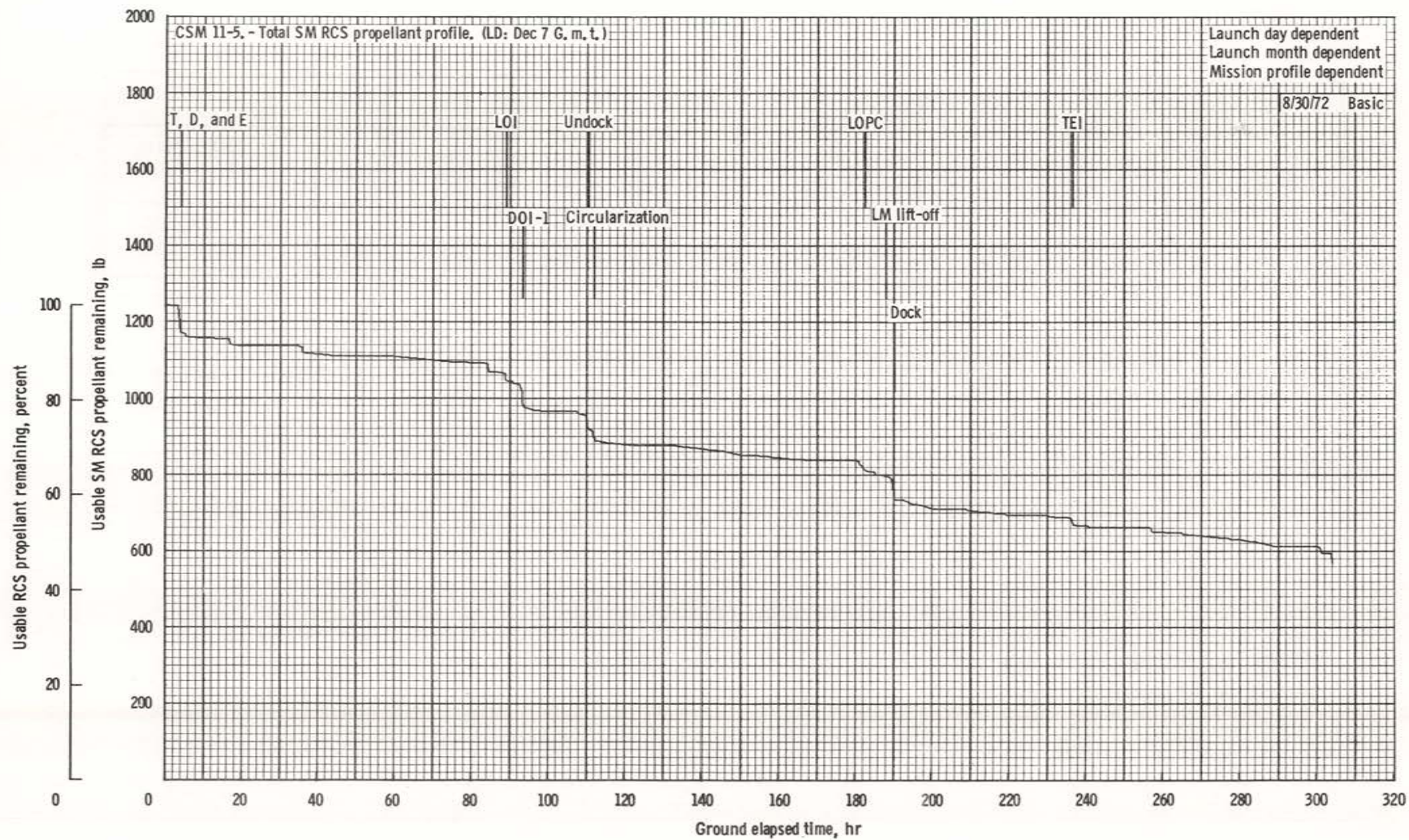
Mission profile dependent
8/29/72 Basic

SM RCS PROPELLANT TRANSLATION COST

APOLLO 17

(CSM 114/LM-12)

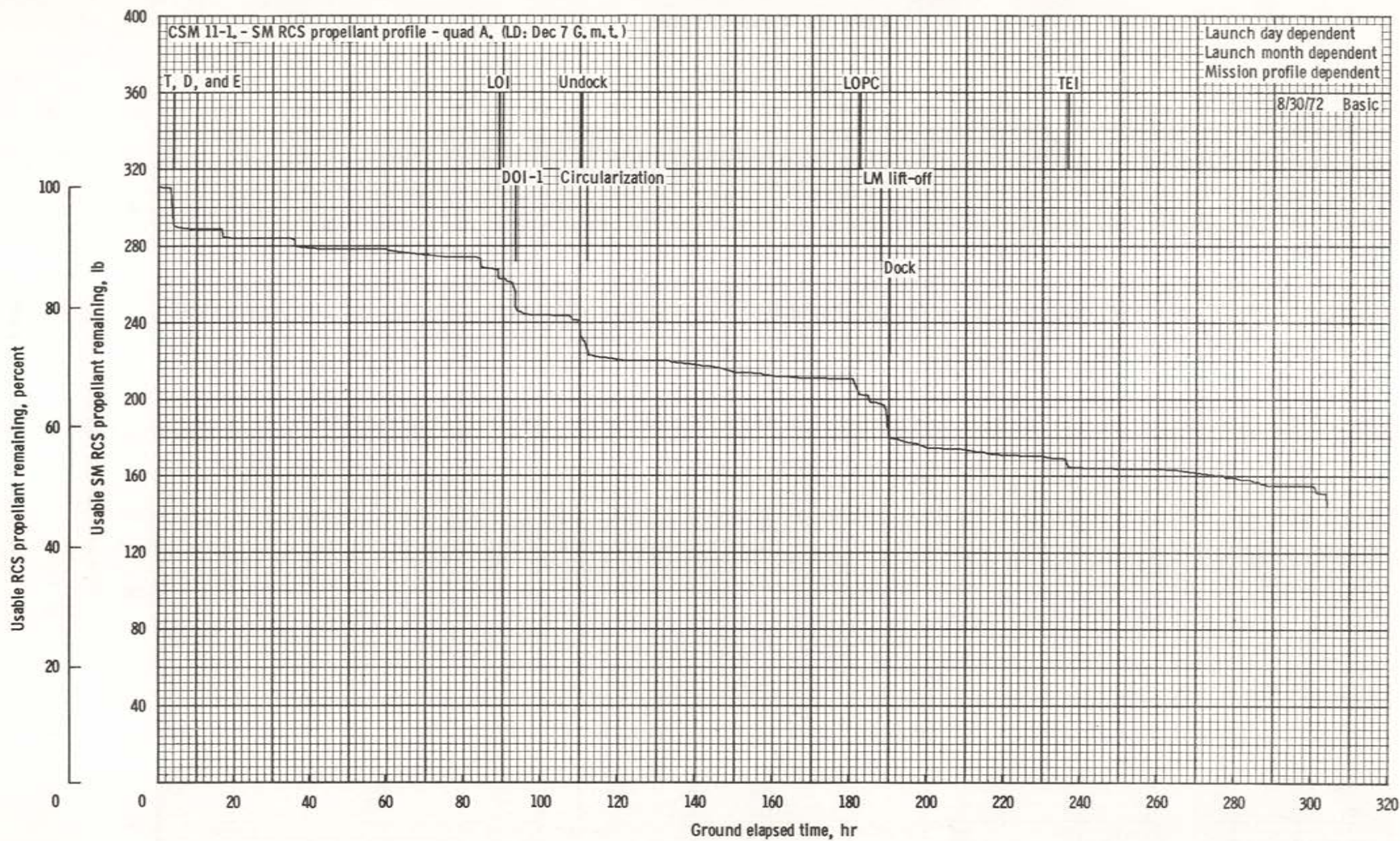
Mission phase	Typical S/C weight (lb)	+X 4 jet G&C (lb/fps)	+X 4 jet SCS (lb/fps)	+X 2 jet A/C G&C (lb/fps)	+X 2 jet A/C SCS (lb/fps)	+X 2 jet B/D G&C (lb/fps)	+X 2 jet B/D SCS (lb/fps)	+Y or +Z G&C (lb/fps)
Translunar	103 000	11.7	13.3	12.0	13.3	12.4	13.3	--
Lunar orbit docked	75 000	8.6	9.3	8.7	9.3	8.8	9.3	--
Lunar orbit undocked	36 500	4.0	4.7	4.1	4.7	4.3	4.7	5.0
Transearth	26 900	3.1	3.8	3.2	3.8	3.4	3.8	3.5



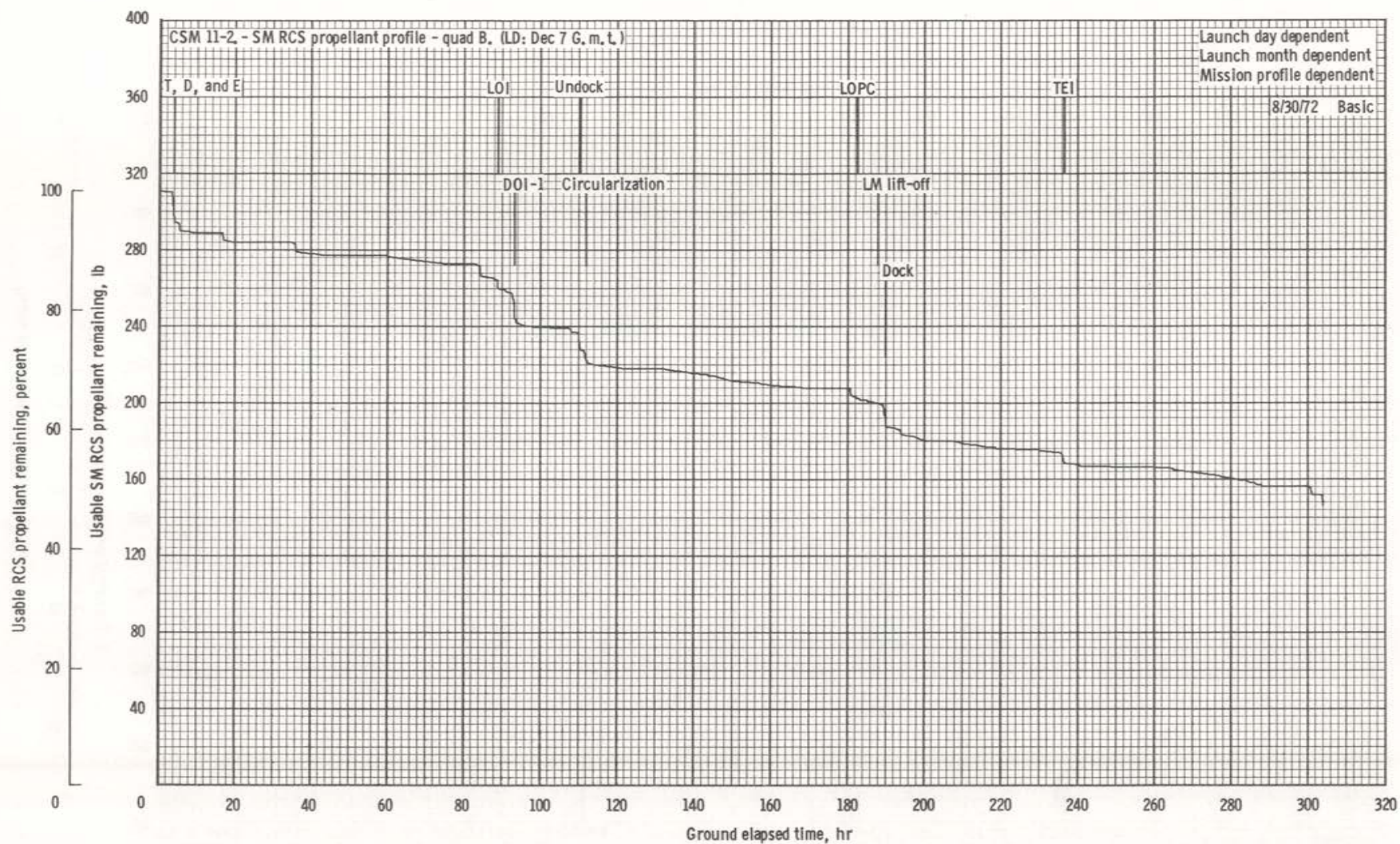
Total SM RCS propellant usage profile.

10/23/72

10/23/72



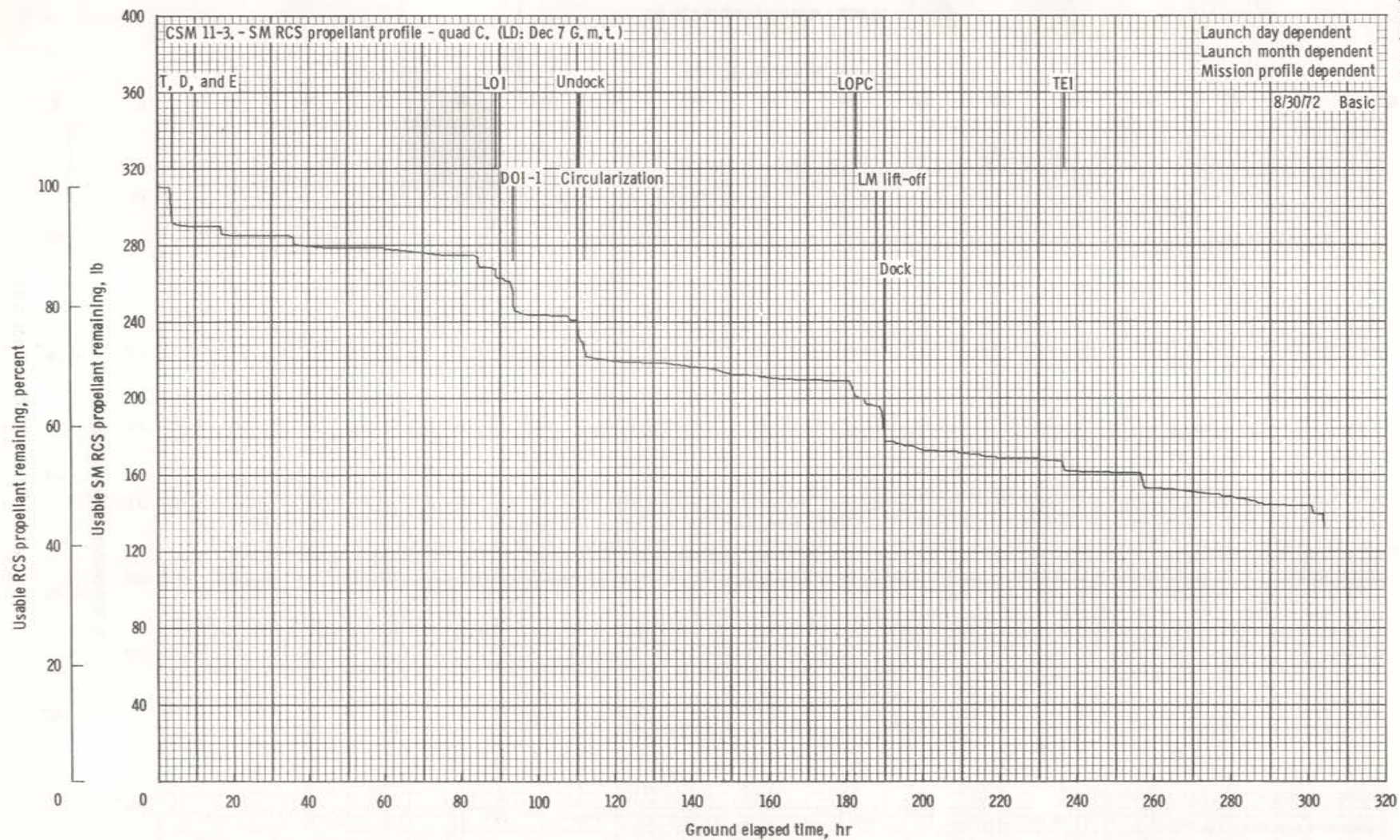
SM RCS propellant profile - quad A.



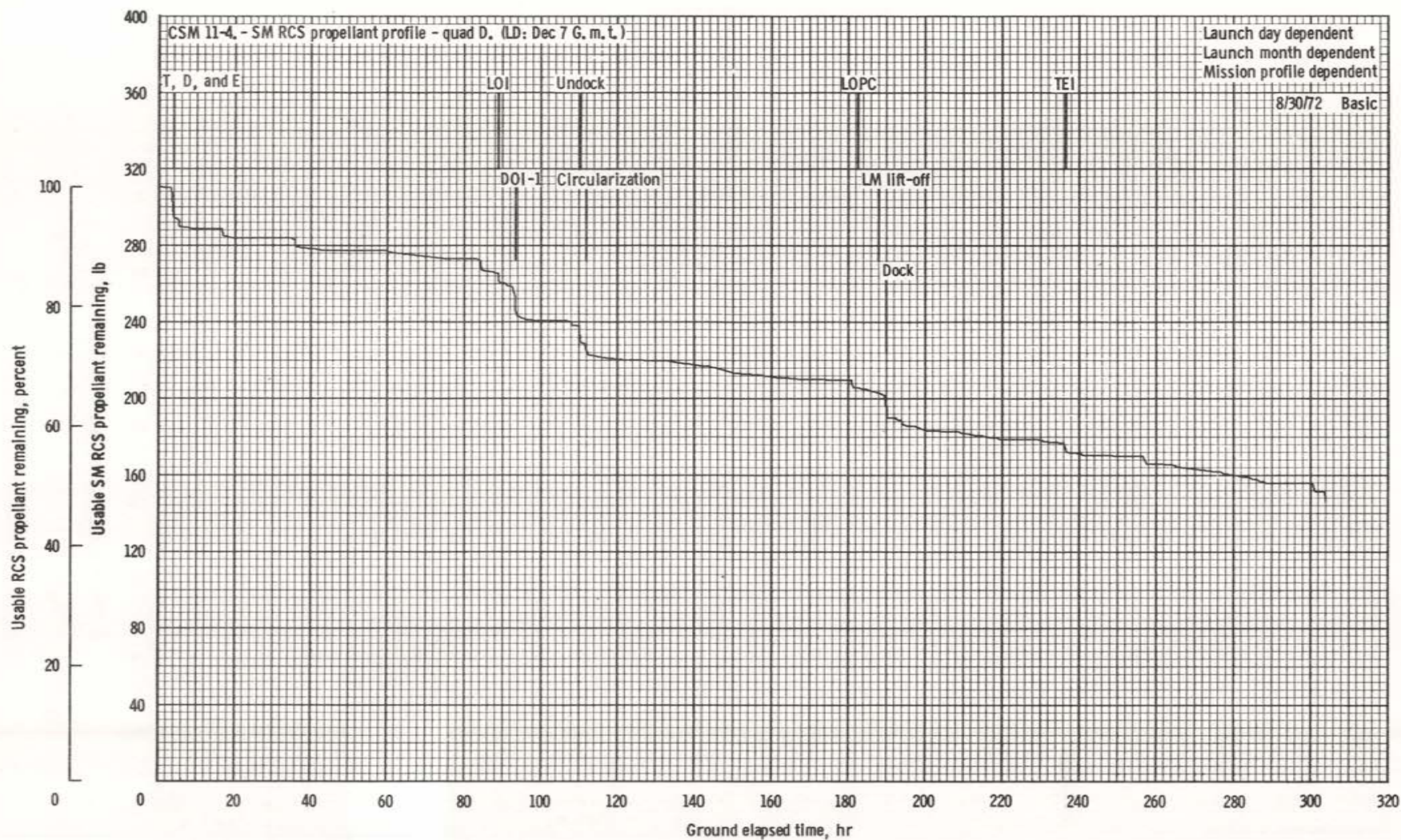
SM RCS propellant profile - quad B.

10/23/72

10/23/72



SM RCS propellant profile - quad C.



SM RCS propellant profile - quad D.

Mission profile dependent
8/29/72 Basic

CM RCS PROPELLANT SUMMARY

Item	Propellant required, lb	Propellant remaining, lb
Loaded	--	233.2
Trapped	36.4	196.8
Available for mission planning . . .	--	196.8
Nominal usage*	54.7	142.1
Nominal remaining	--	142.1

*CM RCS propellant usage is for dual ring operation
with DAP control

Mission profile dependent
8/30/72 Basic

GROUND RULES AND ASSUMPTIONS FOR THE CSM CRYOGENICS

1. Three O_2 and H_2 tanks are available.
2. Fuel cell purging is included in the EPS requirements.
3. No cryogenic venting was assumed in flight.
4. The EPS hydrogen consumption rate ($\dot{H}_2$) (lb/hr) = $0.00257 \times I_{fc}$
when I_{fc} is the total fuel cell current.
5. The EPS oxygen consumption rate ($\dot{O}_2$) (lb/hr) = $7.936 \times \dot{H}_2$.
6. No allowance for the SM enhancement battery is assumed.

Mission profile dependent
8/30/72 Basic

7. The following tank depletion schedules are being used:

CRYO MANAGEMENT SCHEDULE

GET (hrs:min)	Tank numbers				
	Oxygen hrs ^a		H ₂ tank 1, 2 hrs, tank 3 fan		
	Auto	Off	Auto	Manual	Off
0:00	1, 2	3	1, 2	3	
4:17	1, 2, 3				
5:05	1, 2	3			
8:40	3	1, 2	3		
15:10					1, 2
39:05	1, 2, 3				
39:55	3	1, 2			3
70:00			1, 2	3	
^b 84:40	1, 2	3			
^c 256:50	1, 2, 3				
259:23	1, 2	3			

^aO₂ tank 1 and 2 heaters may be required if the LM pressure equalization at approximately 39:00 hrs GET causes a pressure decay in the O₂ tanks.

^bSwitch to 50-watt heaters in O₂ tanks 1, 2 at this time.

^cSwitch to 100-watt heaters in O₂ tanks 1, 2 and 3 at this time.

The CSM consumables summary (table 5-1) shows that a significant H₂ and O₂ margin exists at the end of the mission. This is reflected in the H₂ and O₂ usage profiles shown in figures 5-1 and 5-2. However, these curves do not include dispersions.

In summary, the nominal mission requirements can be satisfied with the existent consumables.

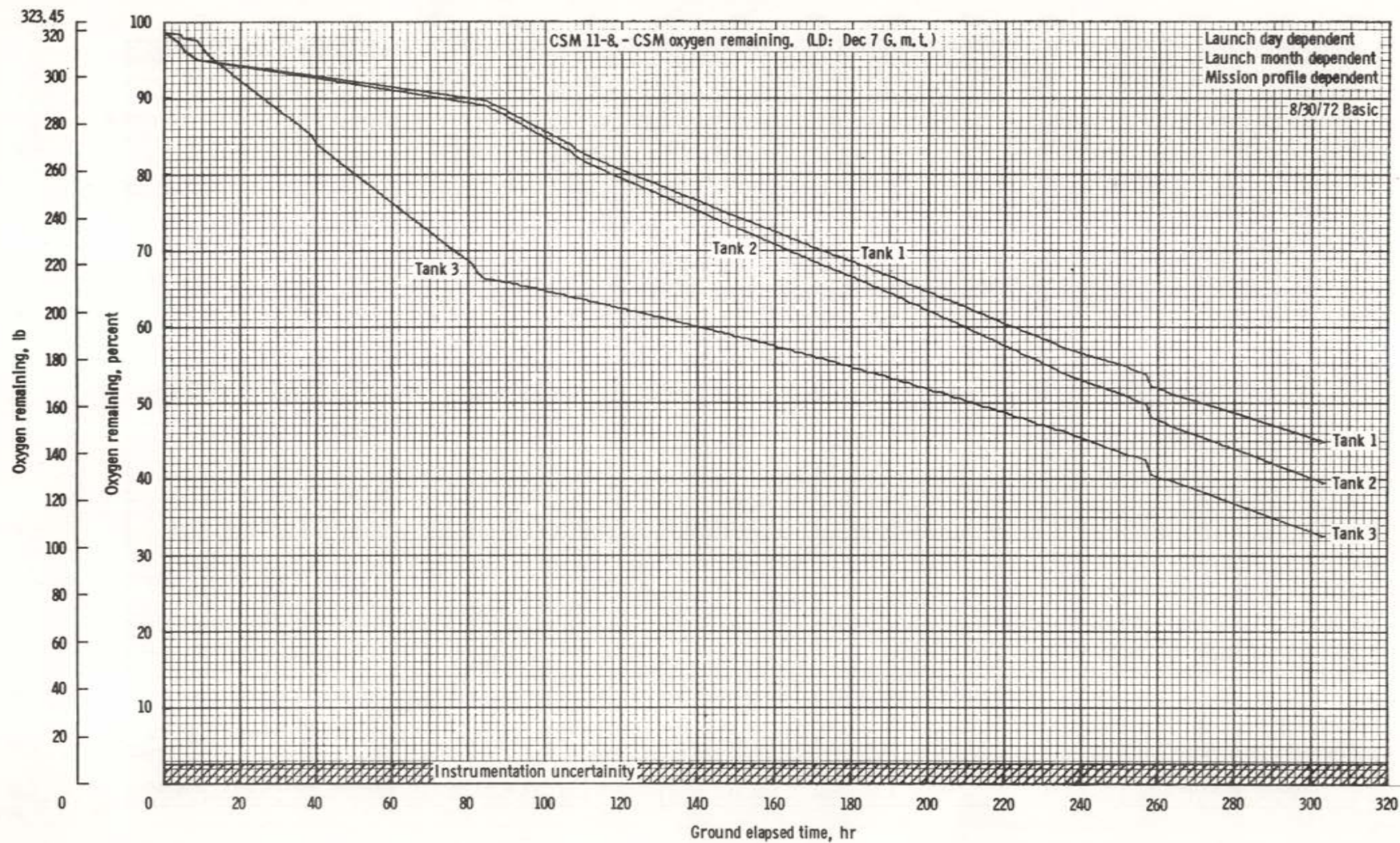
10/23/72

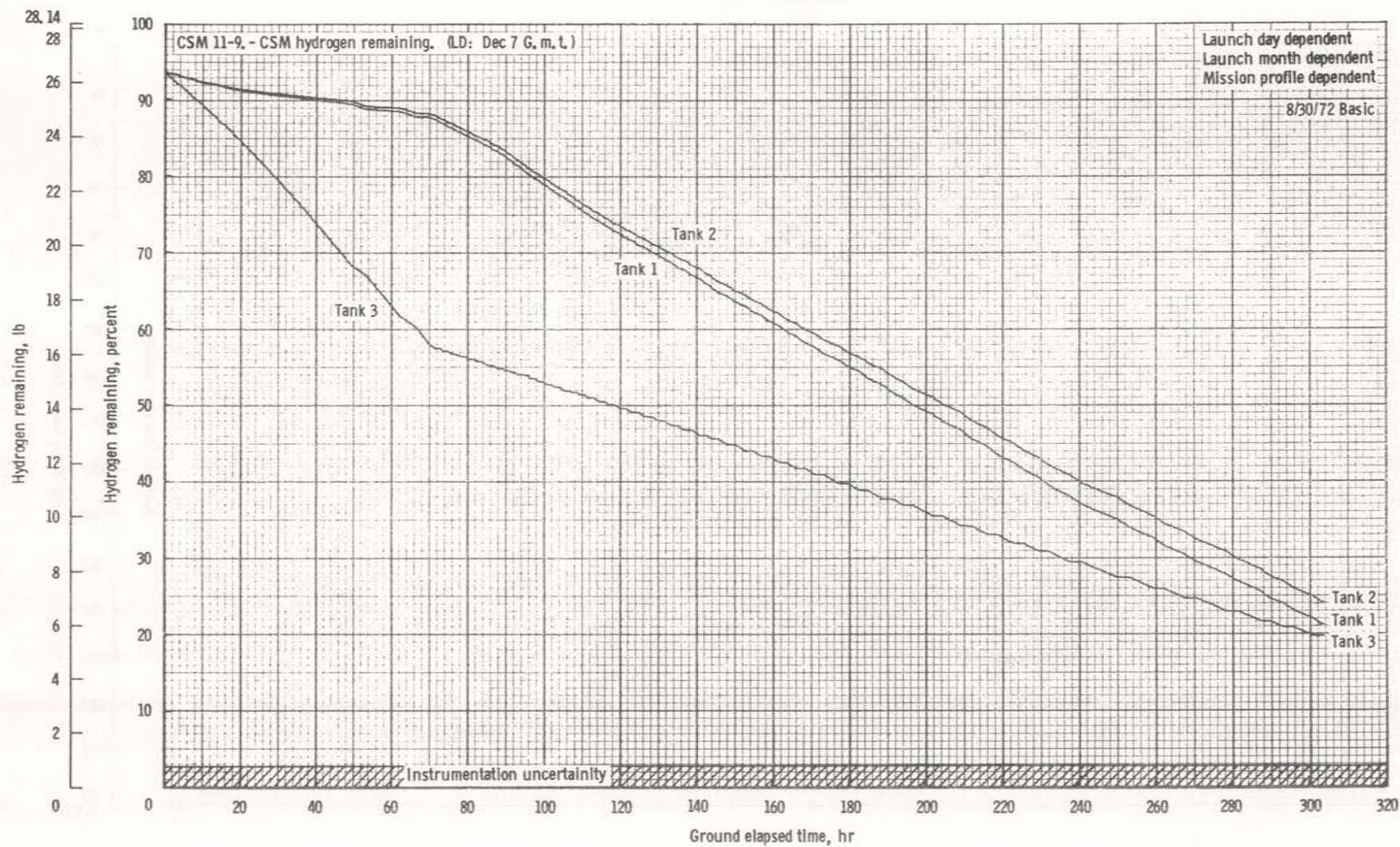
Mission profile dependent
8/30/72 Basic

APOLLO 17 CRYOGENIC SUMMARY

	H ₂ lbs	O ₂ lbs
Planning allowance		
Total loaded	87.9	990.3
Less residual	3.5	19.8
Less instrumentation error	<u>2.3</u>	<u>26.0</u>
Available for mission planning	82.1	944.5
Prelaunch requirement*	5.7	44.8
Flight requirement		
EPS (including fuel cell purge)	60.5	479.3
ECS (including cabin purge + EVA)	--	85.7
LM pressurization	--	11.9
	<u>60.5</u>	<u>576.9</u>
Nominal reserves		
EPS uncertainty (2.5%)	1.5	12.0
ECS uncertainty (.08 #/hr)	--	24.3
	<u>1.5</u>	<u>36.3</u>
Total requirement	67.7	658.0
Margin T = 0 (fill/launch)	14.4	286.5

*Supplied by KSC.





CSM hydrogen remaining.

10/23/72

10/23/72

4-17

Mission profile dependent
8/29/72 Basic

ASSUMPTIONS FOR THE DPS ANALYSIS

The propellant loading is based on the optimization of the fuel and oxidizer balance that was computed from the LM-12 engine data. The ΔV requirements were coordinated with the Landing Analysis Branch. The ΔV requirement for lunar descent differs from that in the operational trajectory because of differences in the inert vehicle weight, plus an allowance for 155 seconds from low gate to touchdown.

The 3σ dispersions represent total propellant cost based on 3σ uncertainties in propellant loading, trapped propellant, specific impulse, ΔV , separation weight, non- ΔV consumables weight, mixture ratio, and physical location of the low level sensor.

A flying time of 2 minutes and 35 seconds below low gate will be called a nominal requirement.

The following data were used:

- a. The separation weight is $36\,733.5 \pm 39.3$ pounds.
- b. Integrated average I_{sp} is 305.1 ± 1.8 seconds.
- c. Mixture ratio is $1.5999 \pm .012$.
- d. Non- ΔV consumables from separation to PDI are 110.7 pounds.

Mission profile dependent
8/29/72 Basic

DPS PROPELLANT SUMMARY

Item	Total propellant, lb	Hover time, sec
Loaded	19 562.9	--
Trapped and unavailable	-100.9	--
Outage	-16.6	--
Available for ΔV	19 445.4	--
Required for ΔV (155-sec flying time from low gate, $\Delta V = 7099.3$ fps)	-18 820.0	--
Remaining	625.4	67
Dispersion (-3σ)	-280.9	--
Pad	344.5	37
Operational allowances		
Low-level (5 sec, 26.5 fps)	-47.2	--
Abort reserve (20 sec, 106 fps)	-187.5	--
Margin (hover time before abort decision point)	109.8	12

Mission profile dependent
8/29/72 Basic

ASSUMPTIONS FOR THE APS ANALYSIS

The propellant loading is based on the optimization of the fuel and oxidizer balance that was computed from the LM-12 engine data. The ΔV requirements were coordinated with the Landing Analysis Branch. The ΔV requirement for the lunar ascent differs from that in the Operational Trajectory because of differences in the inert vehicle weight.

The APS analysis accounts for an APS TPI, engine valve-pair malfunction, and balanced couples. The following data were used in determining the APS propellant requirements for Apollo 17.

- a. $I_{sp} = 309.9 \pm 3.5$ seconds.
- b. Mixture ratio = $1.598 \pm .027$.
- c. Lift-off weight = $10\ 917.1 \pm 38.7$ pounds.

Mission profile dependent
8/29/72 Basic

APS PROPELLANT SUMMARY

Item	Total propellant, lb
Loaded	5257.5
Trapped and unavailable	-51.9
Outage	-12.2
Available for ΔV	5193.4
Required for Ascent (6062.2 fps)	-4974.2
Remaining	219.1
Required for APS TPI ^a (54.8 fps)	-32.6
Remaining	186.5
Dispersions (-3σ)	-67.6
Pad	118.9
Operational allowances	
Engine valve-pair malfunction ($\Delta MR = +.0097$ or $-.0183$)	-22.8
Balanced couples on	-39.2
Half-degree out of plane (18 fps)	-10.7
Margin	46.3

^aThe total TPI ΔV is 76.6 fps. It is assumed that 22 fps is obtained by a 10-sec, 4-jet ullage.

Mission profile dependent
8/29/72 Basic

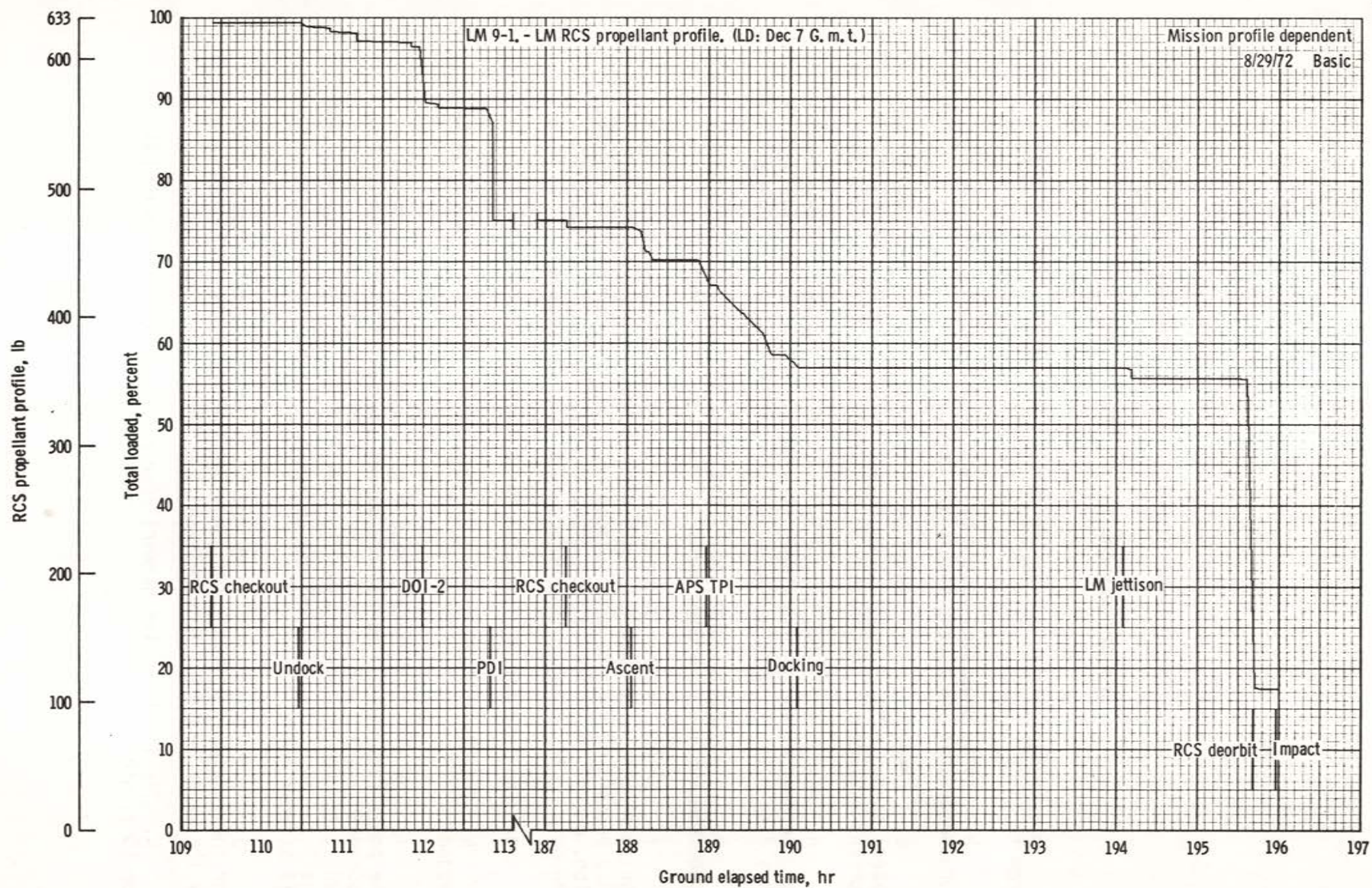
ASSUMPTIONS AND GROUND RULES FOR THE LM RCS ANALYSIS

1. Data for the LM RCS engine performance and propellant requirements were obtained from the SODB, Volume II, and from postflight analyses of Apollo 9-16 missions.
2. The analysis assumes an insertion trim or RCS tweak burn (nominally zero) of 20 fps.
3. It is assumed there will be a 5-fps RCS trim following the APS TPI maneuver.

Mission profile dependent
(LD: Dec 7 G.m.t.)

LM RCS PROPELLANT LOADING AND USAGE SUMMARY

Item	Required, lb	Remaining, lb
Loaded		631.2
Trapped	38.0	593.2
Gaging inaccuracy and loading tolerance	43.5	549.7
Mixture ratio uncertainty	17.0	532.7
Usable		532.7
Nominal usage through lunar landing	158.2	374.5
Nominal usage from landing through docking	114.2	260.3
Nominal usage from docking through impact	249.4	10.9
Usable propellant remaining		10.9



LM RCS propellant profile.

10/23/72

Mission profile dependent
8/28/72 Basic

ASSUMPTIONS FOR THE LM EPS ANALYSIS

- a. Energy available from the descent batteries is 2075 A-h and from the ascent batteries is 592 A-h.
- b. Energy unusables caused by lack of continuous STDN coverage for the descent and ascent stages are zero.
- c. Energy unusables caused by TM inaccuracies for the descent and ascent stages were 74 and 18 A-h, respectively. The new descent battery current measurement uncertainty of 0.5 amperes per battery was used.
- d. Energy unusables caused by checklist deviations (dispersion) for the descent and ascent stages were 34 and 6 A-h, respectively. This dispersion is obtained by calculating 2 percent of the energy used.
- e. In accordance with the Flight Plan, the PGNCs was in standby mode from surface powerdown until 3.7 hours before powerup.
- f. The RCS heaters were assumed to have a 100 percent duty cycle for 15 minutes after initial activation and then to decrease to an 18.3 percent duty cycle until undocking. For the remainder of the mission, except for lunar surface stay, the duty cycle was 2.6 percent. The duty cycle during lunar surface stay was 3.9 percent.
- g. The inverter was operated throughout the mission.
- h. The CDR and LMP forward window heaters were assumed not to be needed.
- i. The six MESA heaters have a total power rating of 150 watts. The power required by the heaters during the period LM activation to touchdown was assumed to be 5.6 watts. From touchdown until 1 hour into EVA-2, the heating were assumed to draw 27.5 watts. The power required until the beginning of EVA-3 was 20 watts. The MESA heaters were turned off at that point.
- j. TV power is supplied by the LM during the first hour of EVA-1. For the remainder of EVA-1 and the other EVA's, the TV will be powered by the lunar communications relay unit (LCRU).
- k. The liquid cooled garment pump was operated before each EVA for 10 minutes.

10/23/72

4-25

Mission profile dependent
8/28/72 Basic

ASSUMPTIONS FOR THE LM EPS ANALYSIS - Concluded

- l. The S-band power amplifier was cycled as dictated by the time line.
- m. The portable utility lights were assumed to be off throughout the mission.
- n. In accordance with the Flight Plan, the floodlights were turned off at surface powerdown, and on again at powerup. The overhead and forward floodlights were not used.
- o. The short ($M=1$) rendezvous was considered nominal.
- p. At the beginning of the analysis, it was assumed that a total of 10 A-h had been used from the descent batteries between the period starting 30 minutes before launch and ending at the conclusion of transposition and docking.

Mission profile dependent
8/28/72 Basic

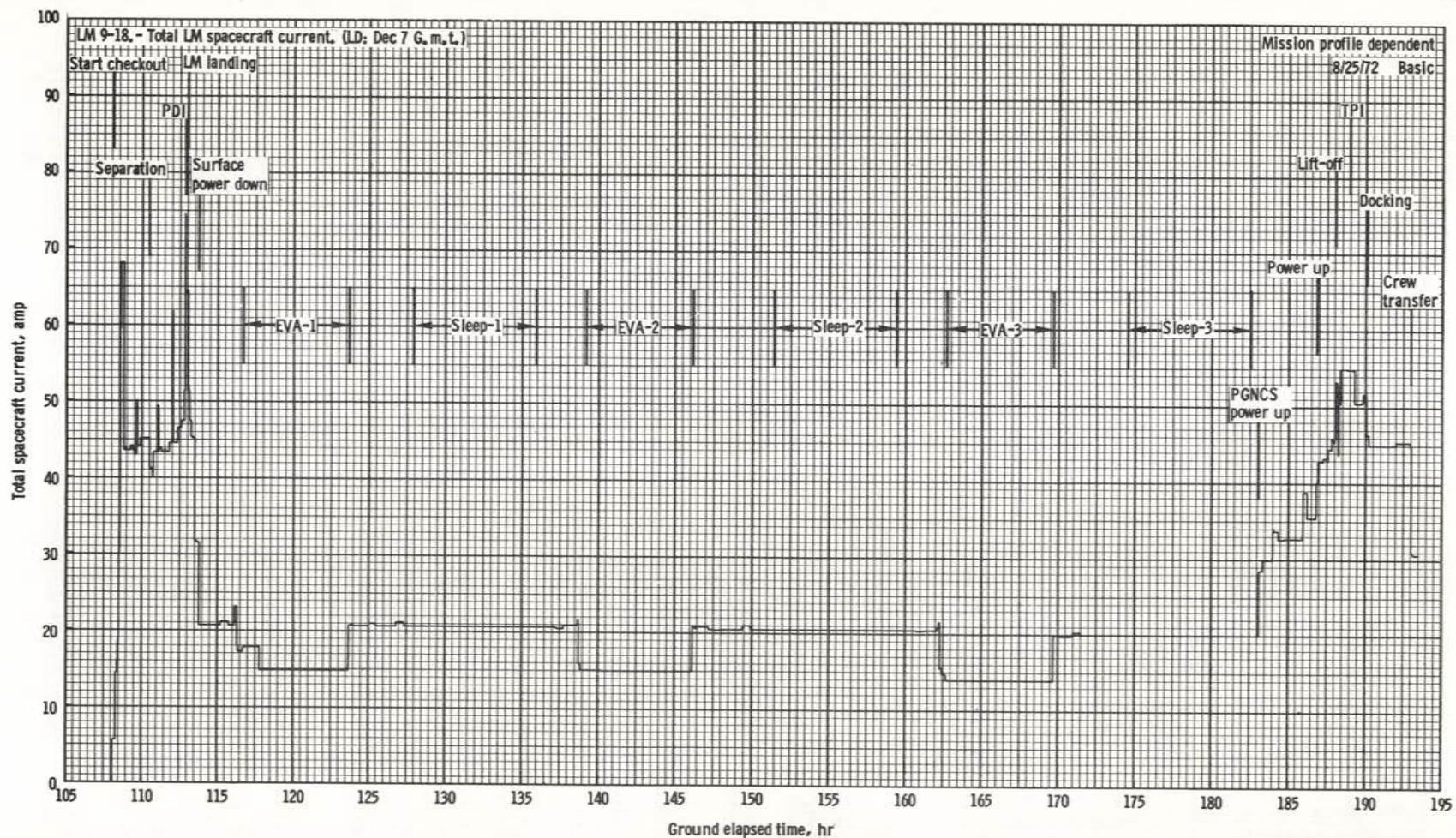
DESCENT STAGE EPS SUMMARY

Item	A-h required	A-h remaining
Initial capacity	--	2075
Total unusables	108	1967
Required through touchdown	219	1748
Required for surface stay	1470	278
Total usable margin	--	278

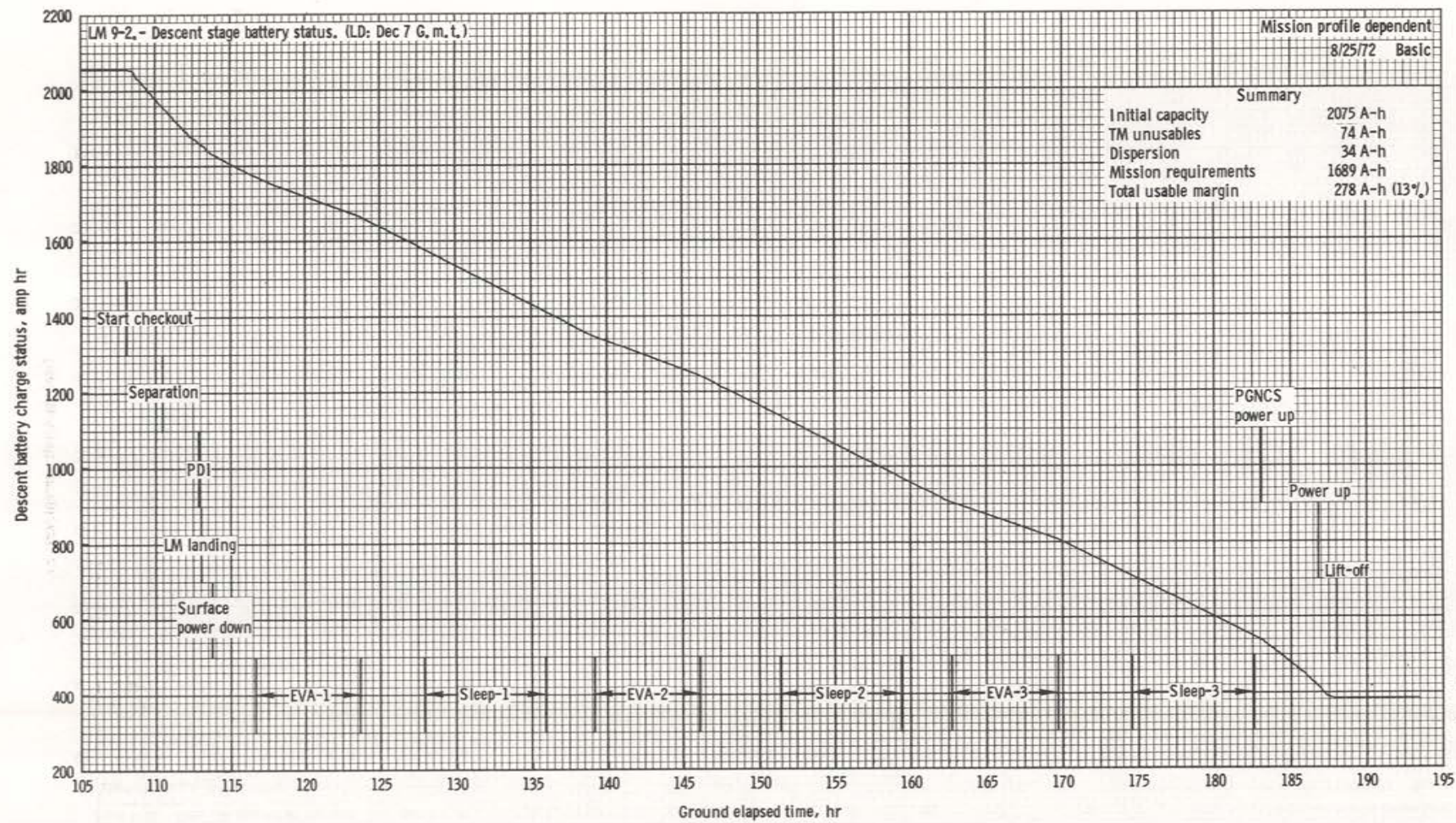
ASCENT STAGE EPS SUMMARY

Item	A-h required	A-h remaining
Initial capacity	--	592
Total unusables	24	568
Required through docking	150	418
Required through crew transfer	284	284

10/23/72



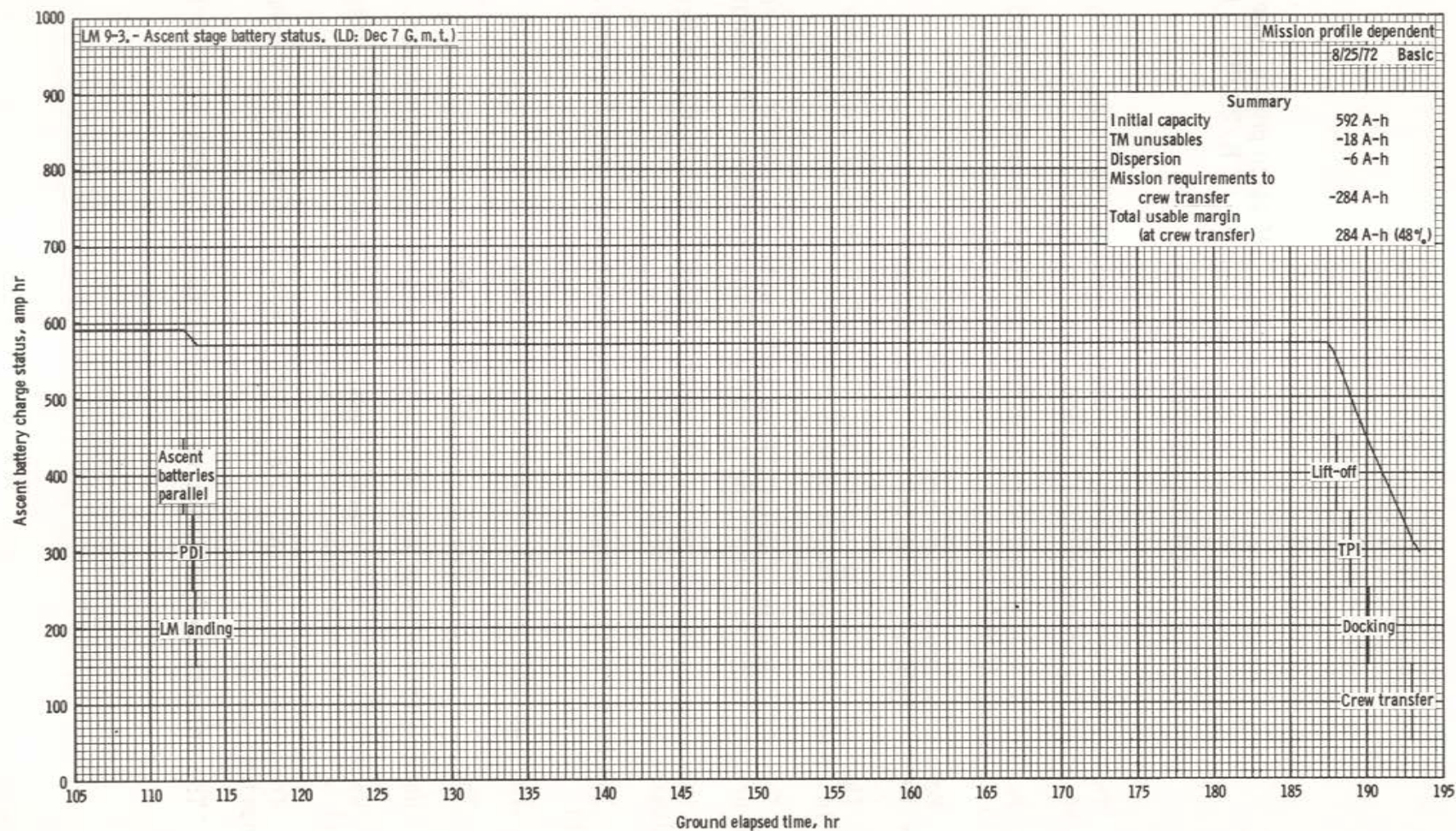
Apollo 17 total LM spacecraft current.



10/23/72

Apollo 17 descent electrical energy remaining.

10/23/72



Apollo 17 ascent electrical energy remaining.

Mission profile dependent
8/28/72 Basic

LM ECS ASSUMPTIONS

- a. The oxygen analyses were calculated using a cabin leak rate of 0.06 lb/hr based on previous Apollo postflight analyses.
- b. Metabolic rates were varied using the final flight plan and table 4.3-II of SODB Vol. II.
- c. Metabolic oxygen consumed was calculated by $(1.643 \times 10^{-4} \times \text{lb/Btu})$ (metabolic rate, Btu/hr).
- d. The cabin regulator check and the suit integrity check were assumed to require 0.5 pound of oxygen.
- e. The cabin was pressurized five times with 5.5 pounds required for each pressurization except the last two which required 5.8 pounds.
- f. The dispersion in the oxygen profile was calculated as 5 percent of the nominal oxygen requirement.
- g. The PLSS refills required 47.0 pounds of water and 5.4 pounds of oxygen.
- h. The sublimator fill required 2.23 pounds.
- i. The drink bags required 8.0 pounds of water.
- j. Water lost through crew micturition was 0.11 lb/hr per man.
- k. Water required for thermal control was calculated by dividing the total spacecraft heat load by 1040 Btu/lb.
- l. The dispersion in the water profile was calculated as 5 percent of the nominal usage.
- m. The descent oxygen tanks were loaded to 2610.0 psi at 70.0°F.

Mission profile dependent
9/1/72 Basic

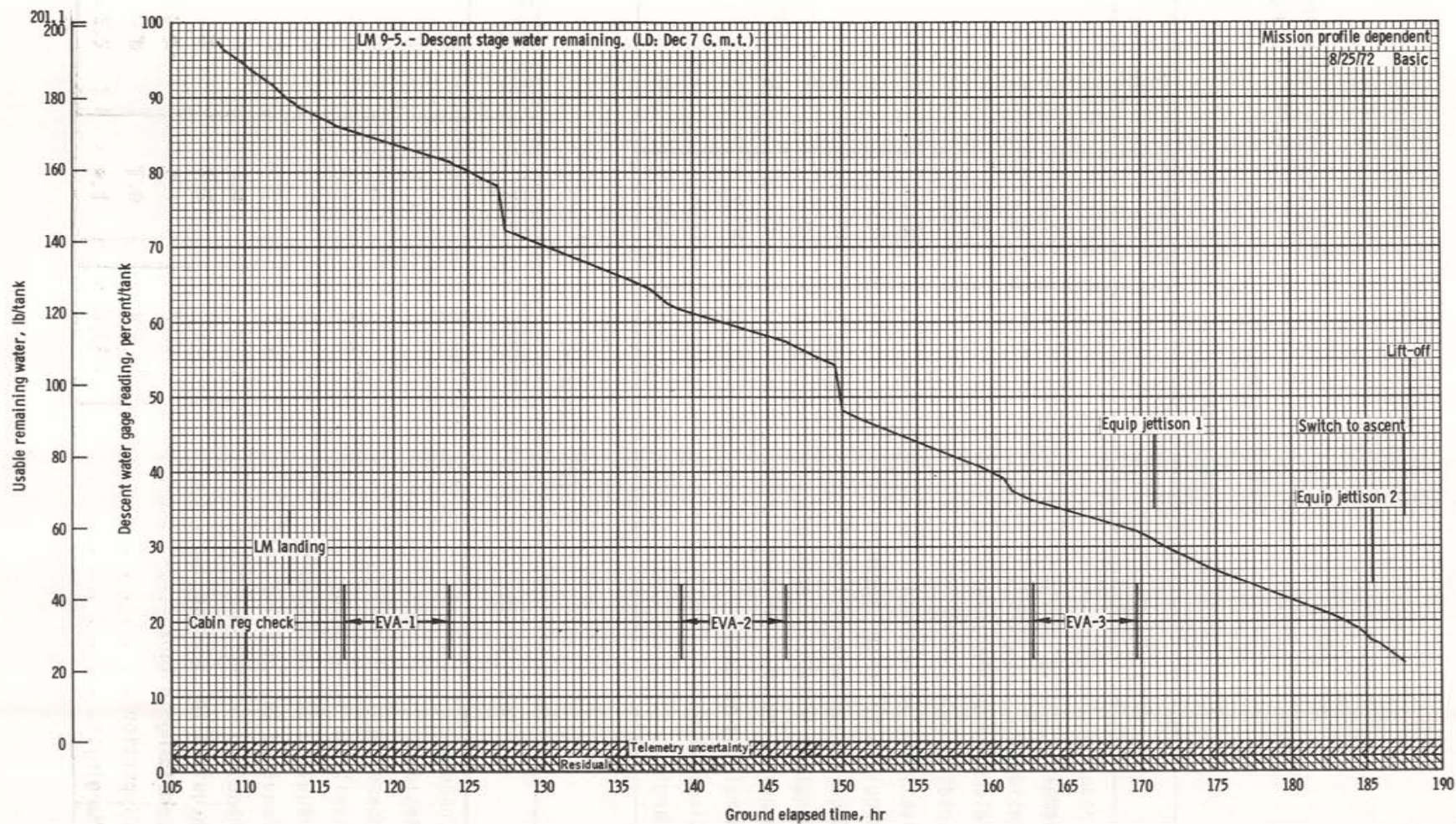
LM ECS SUMMARY

(a) Water

Description	Descent, lb	Ascent, lb
Loaded	419.0	85.0
Sampling	11.0	0
Residual	8.4	1.7
Telemetry uncertainty	8.4	7.5
Loading uncertainty	3.0	1.8
Available for mission	388.2	74.0
Required to lunar landing	28.1	0
Required to lunar lift-off	319.2	0
Required to LM/CSM docking	0	17.2
Required to LM close-out	0	15.1
Remaining in tanks	40.9	41.7
Dispersion	17.4	1.6
Margin	23.5	40.1

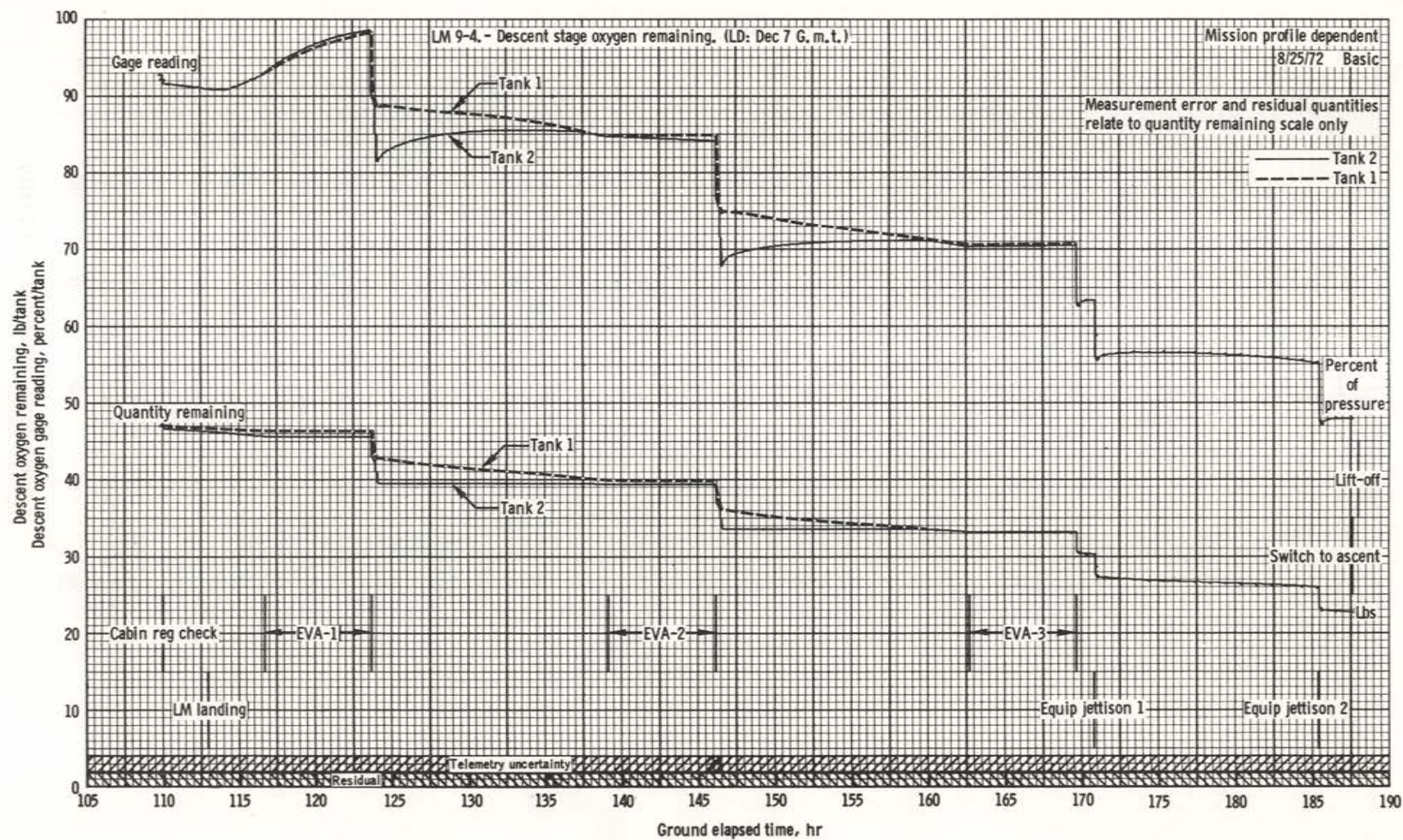
(b) Oxygen

Description	Descent, lb	Ascent 1, lb	Ascent 2, lb
Loaded	93.8	2.4	2.4
Residual	1.6	0.1	0.1
Measurement uncertainty	2.2	0.1	0.1
Available for mission	90.0	2.2	2.2
Required to lunar landing	1.3	0	0
Required to lunar lift-off	47.5	0	0
Required to LM/CSM docking	0	0.6	0
Required to LM close-out	0	0.1	0
Remaining in tank	41.2	1.5	2.2
Dispersion	2.4	0.1	0
Margin	38.8	1.4	2.2

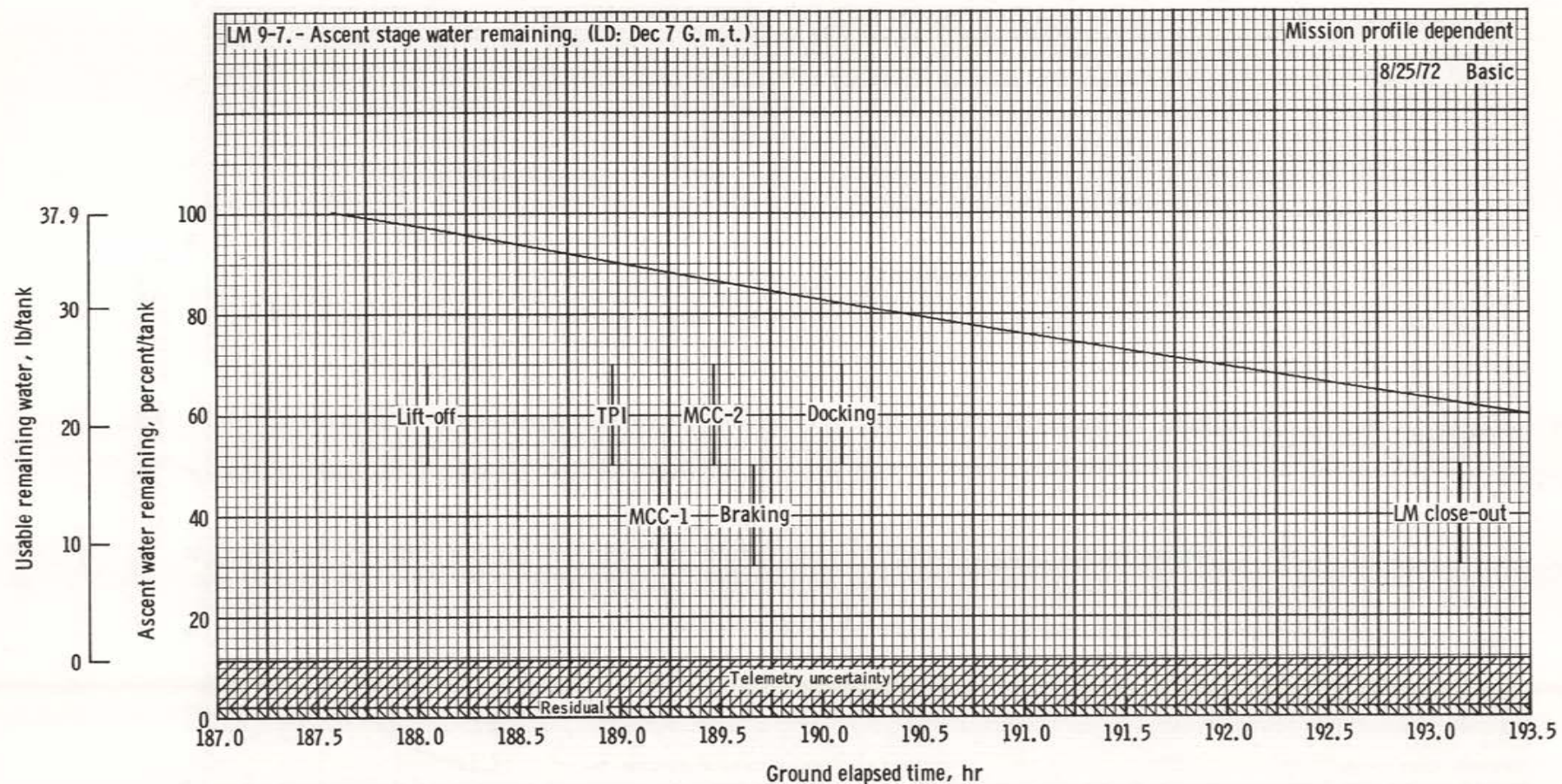


Descent stage water remaining.

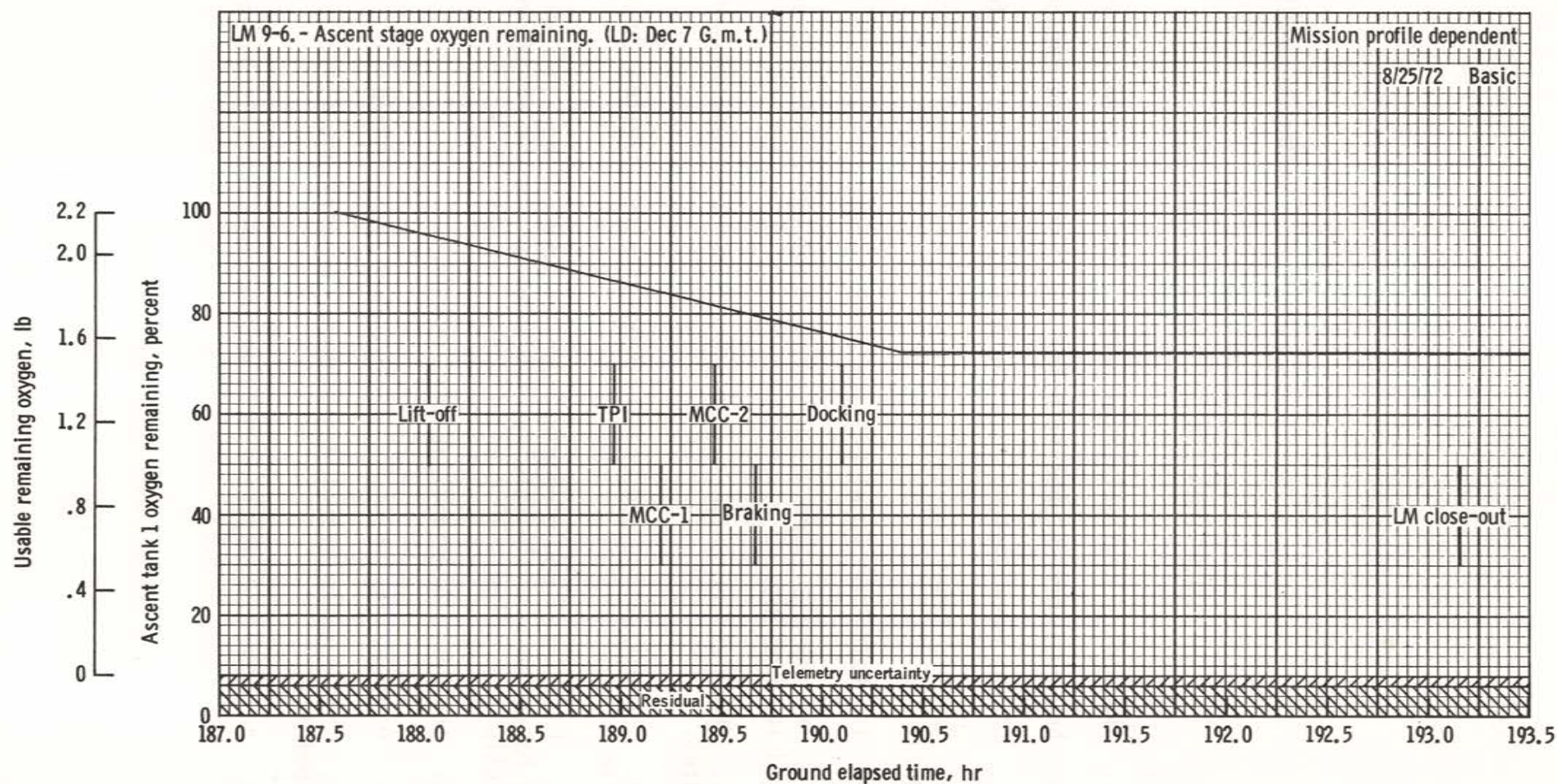
10/23/72



Descent stage oxygen remaining.



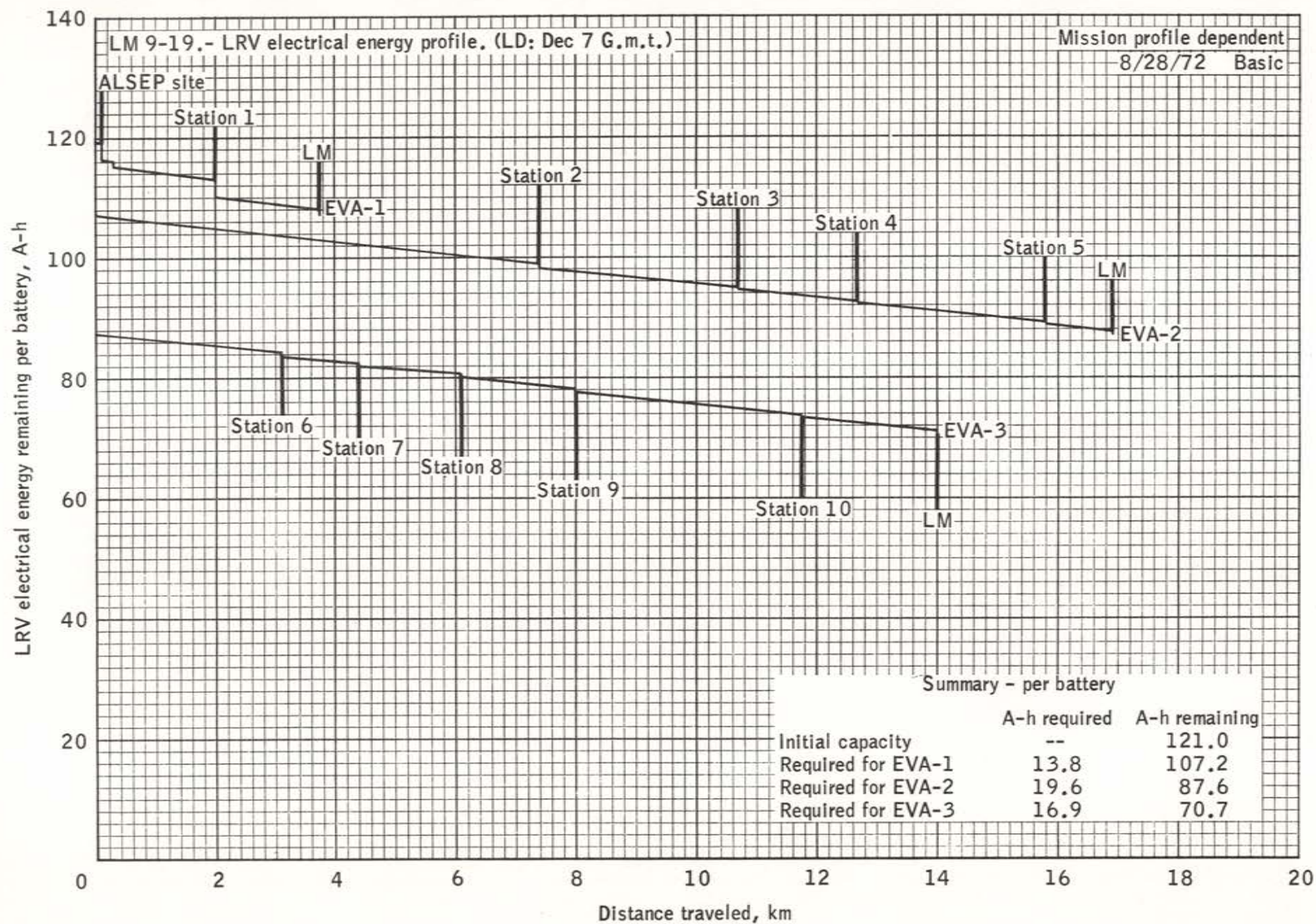
Ascent stage water remaining.



Mission profile dependent
8/28/72 Basic

ASSUMPTIONS FOR THE LRV EPS ANALYSIS

- a. The energy available from each of the two batteries is 121 A-h.
- b. No unusables or uncertainties are considered in the budget.
- c. Slopes were derived from the Apollo 17 landing site form line map.
- d. Terrain types and stop times were derived from the traverse data package.
- e. The MSFC soil model L-3 was used.
- f. The vehicle speed was 8 km/hr except where mobility conditions dictated lower speeds.
- g. The traction drive system was off during stops longer than 5 minutes.
- h. The navigation and caution systems were operated throughout each traverse.
- i. Electrical power required by the LCRU during EVA-1 was supplied by LRV batteries. While driving, the LCRU was in the PM1/WB mode. During all station stops the LCRU mode of operation was FM/TV.
- j. The vehicle weight was 1470 pounds.
- k. A wander factor of 1.1 is included in the analysis.
- l. The distance traveled is the map or straight line distance between points.
- m. An effective alpha of 0.40 was assumed for all cool-down periods.



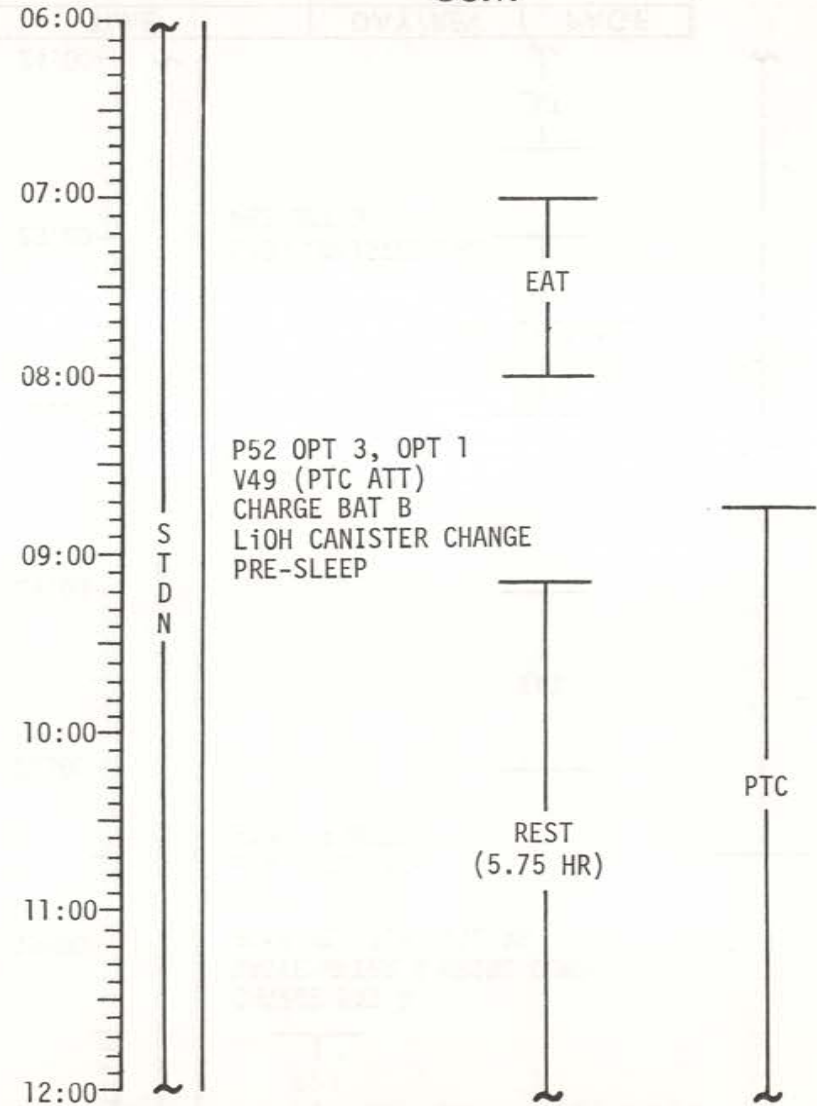
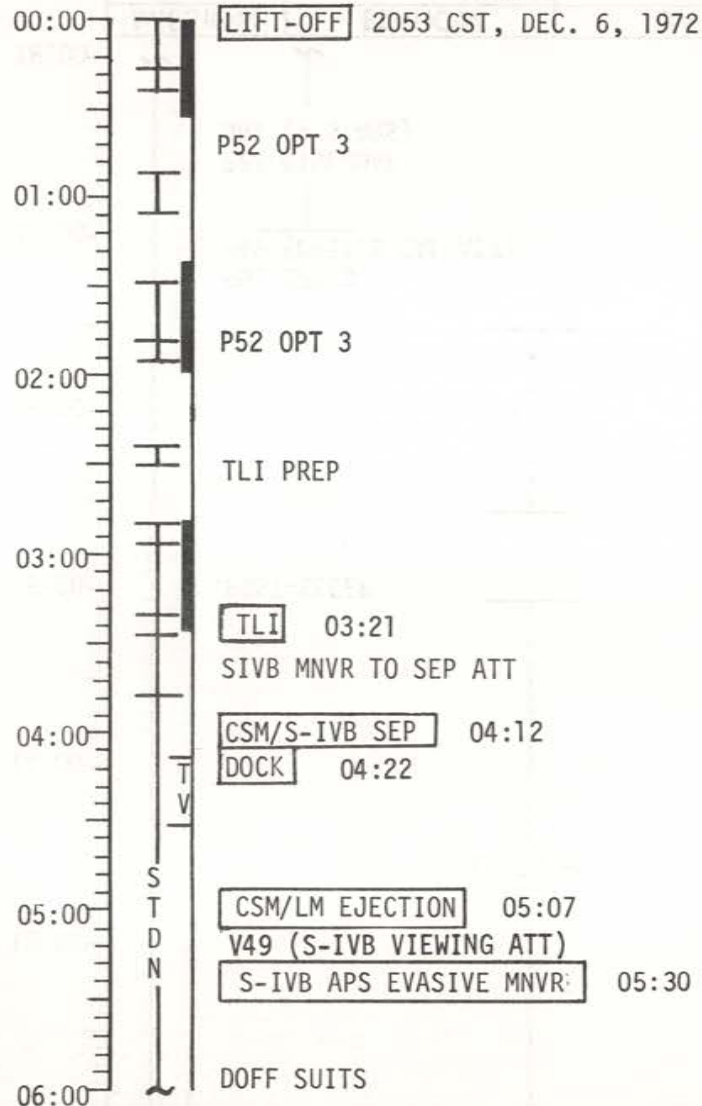
LRV electrical energy profile.

SECTION 5 - SUMMARY TIMELINE

FLIGHT PLAN

CSM

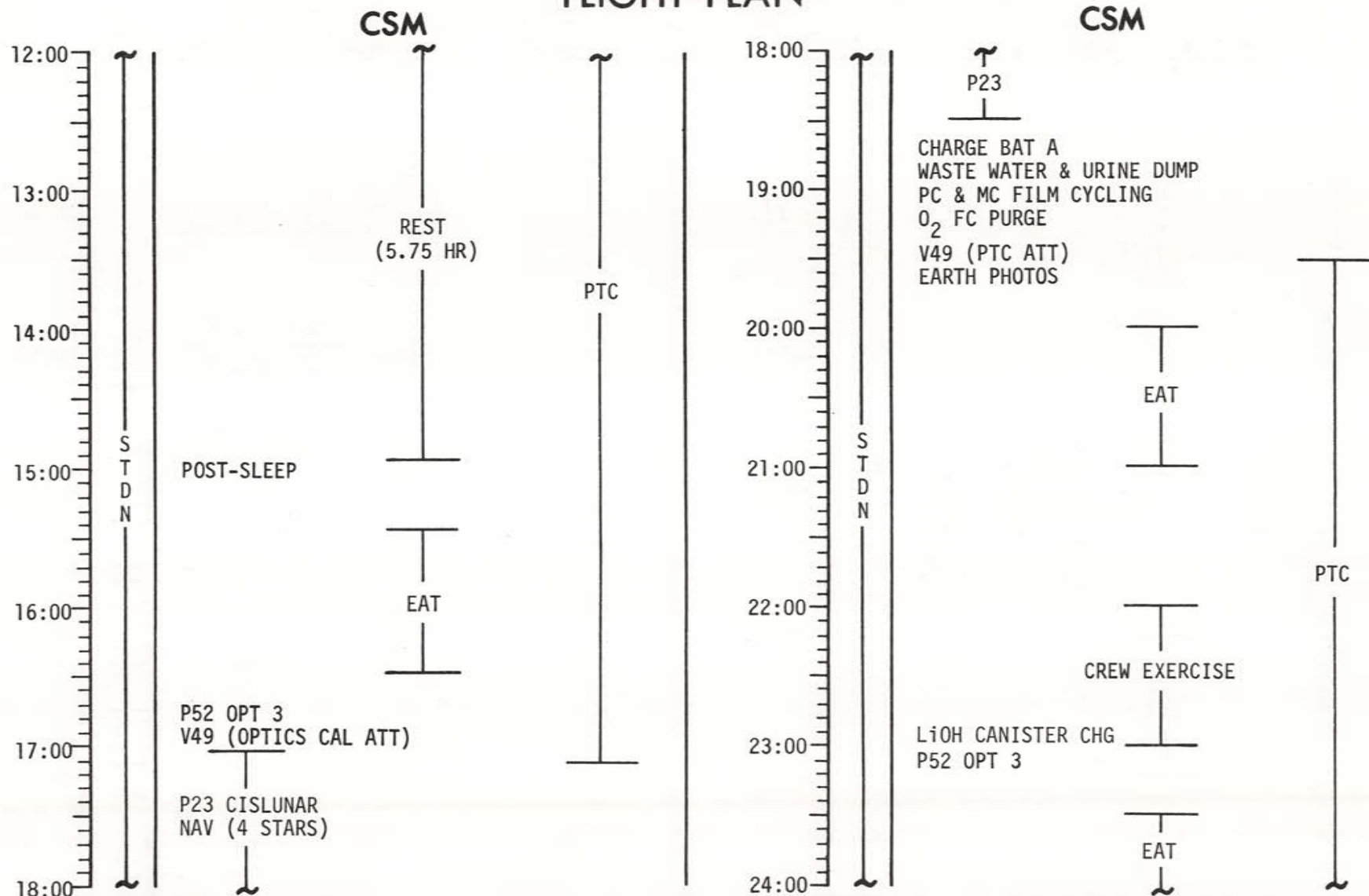
CSM



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	23 OCTOBER 1972	00:00 - 12:00	1/E0-TLC	5-1

FLIGHT PLANNING BRANCH

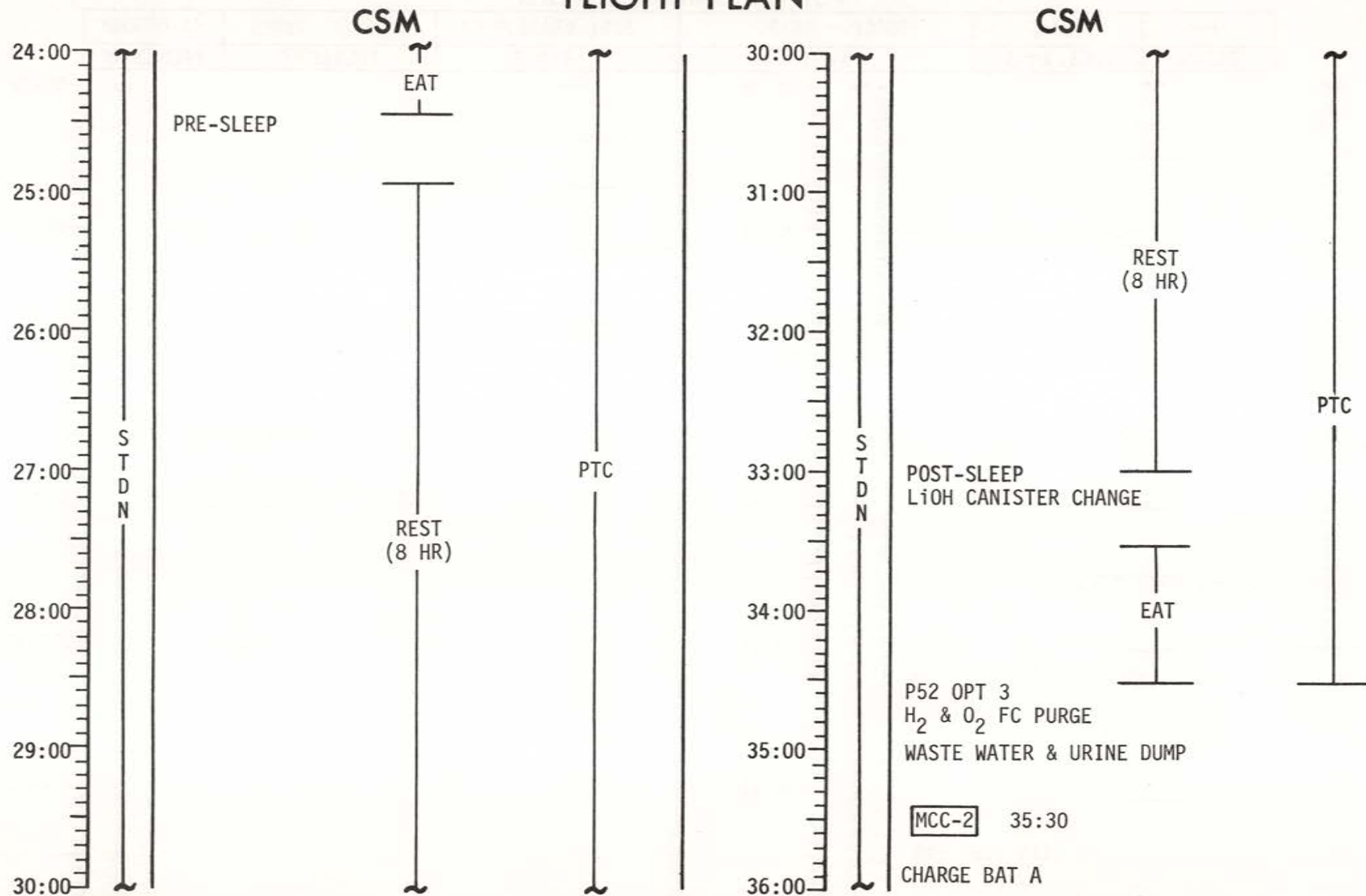
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	23 OCTOBER 1972	12:00 - 24:00	1-2 /TLC	5-2

FLIGHT PLANNING BRANCH

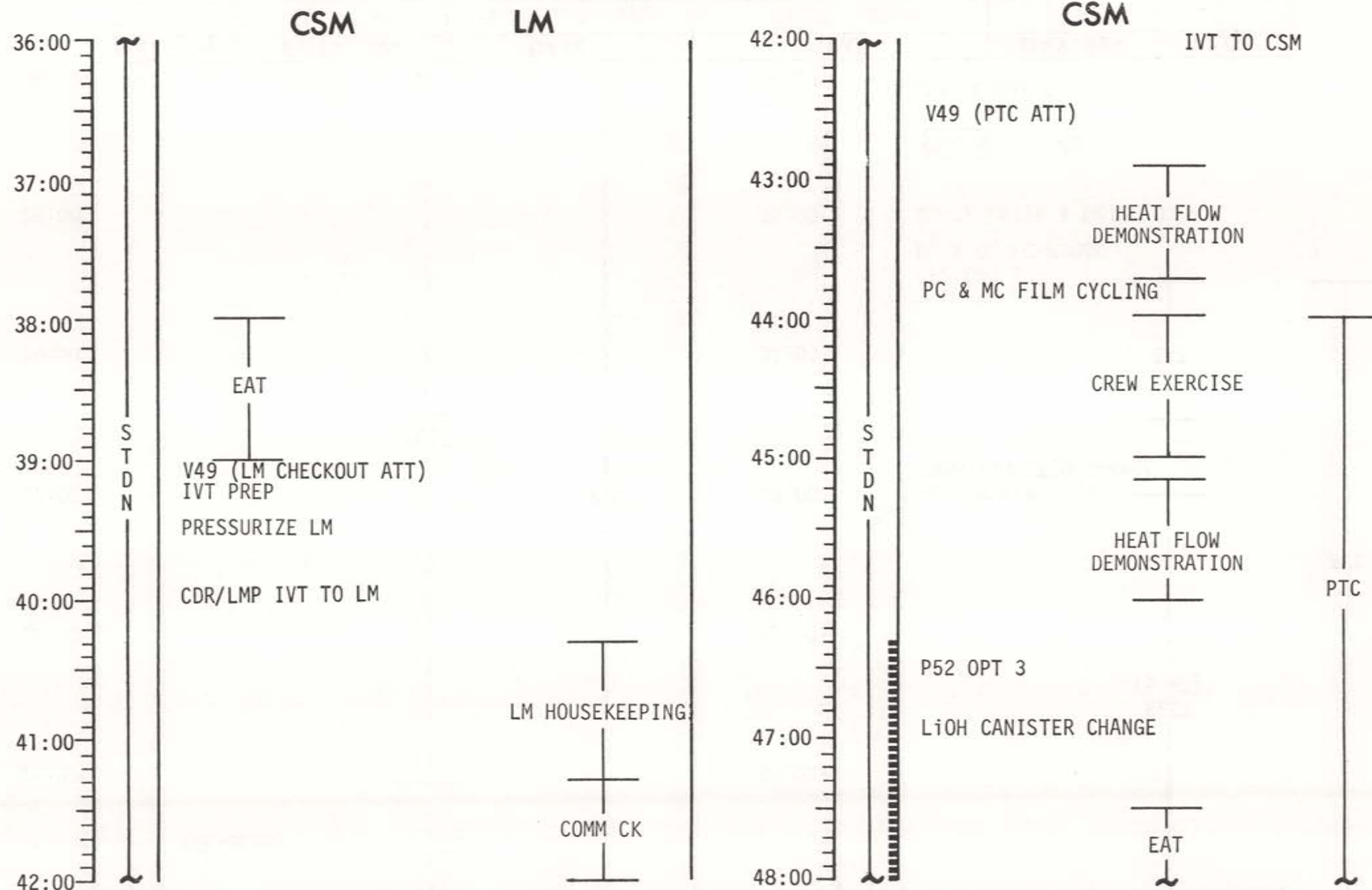
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	23 OCTOBER 1972	24:00 - 36:00	2-3 /TLC	5-3

FLIGHT PLANNING BRANCH

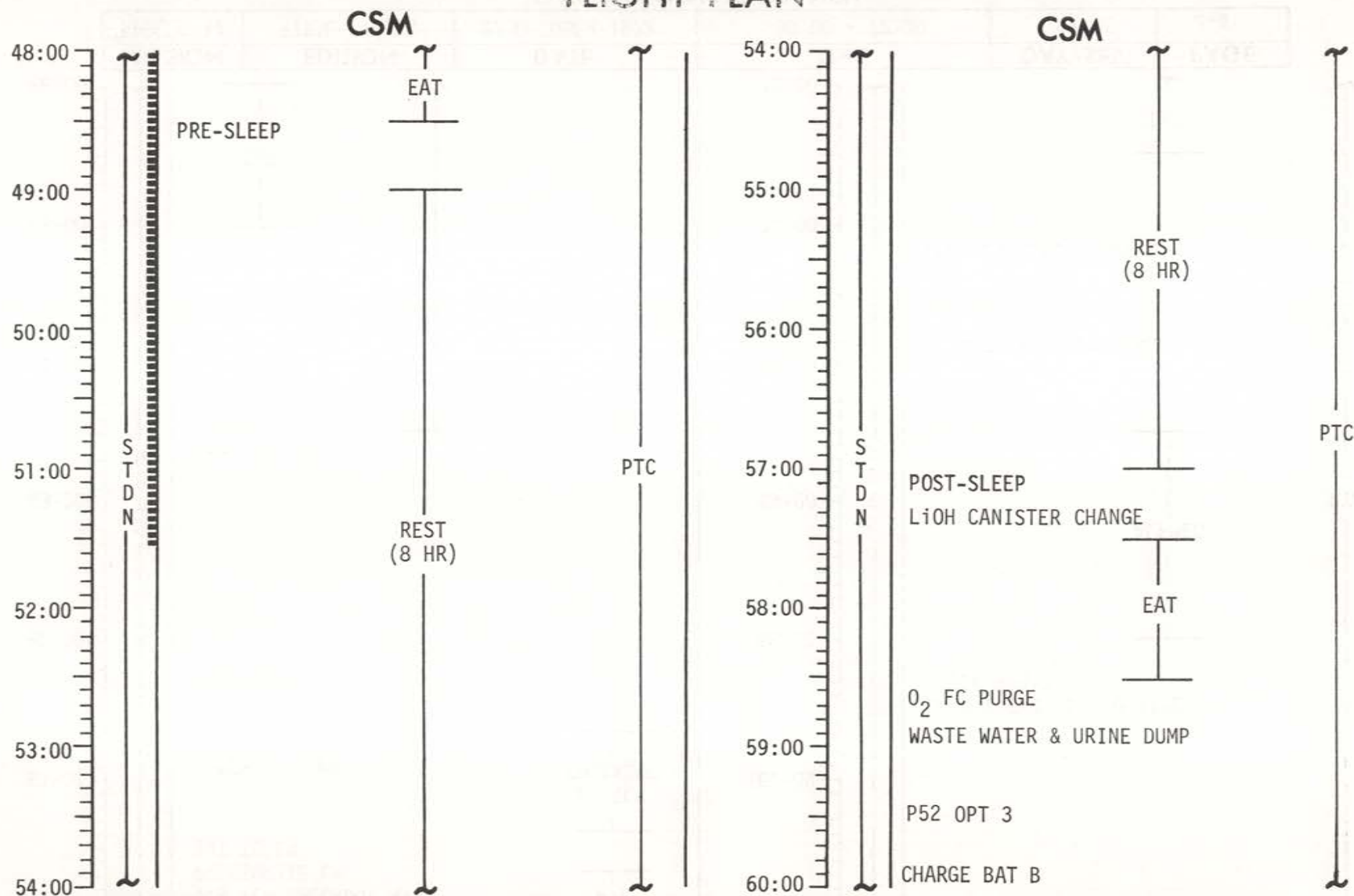
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	23 OCTOBER 1972	36:00 - 48:00	3 /TLC	5-4

FLIGHT PLANNING BRANCH

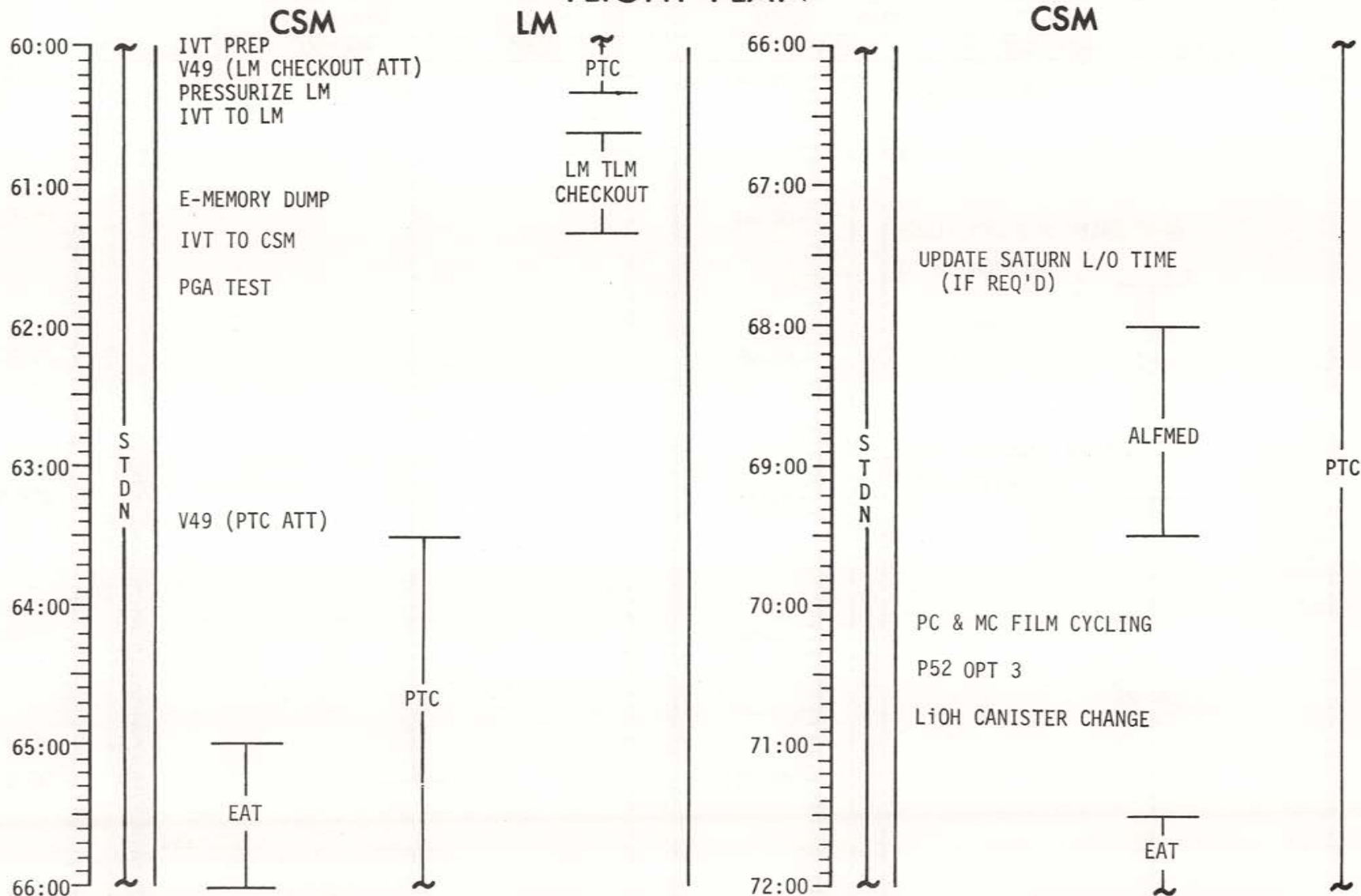
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	23 OCTOBER 1972	48:00 - 60:00	3-4 /TLC	5-5

FLIGHT PLANNING BRANCH

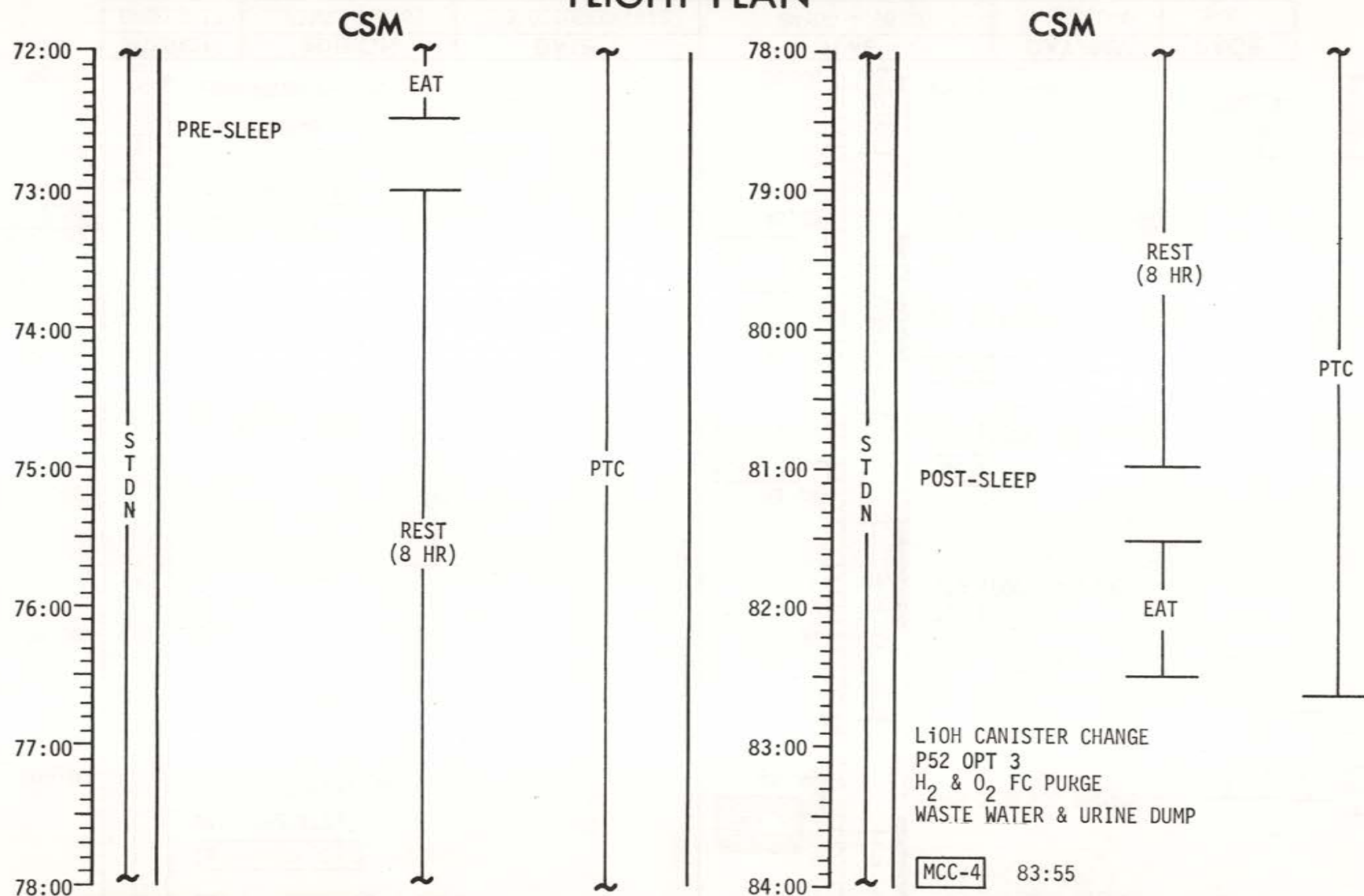
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	23 OCTOBER 1972	60:00 - 72:00	4/TLC	5-6

FLIGHT PLANNING BRANCH

FLIGHT PLAN



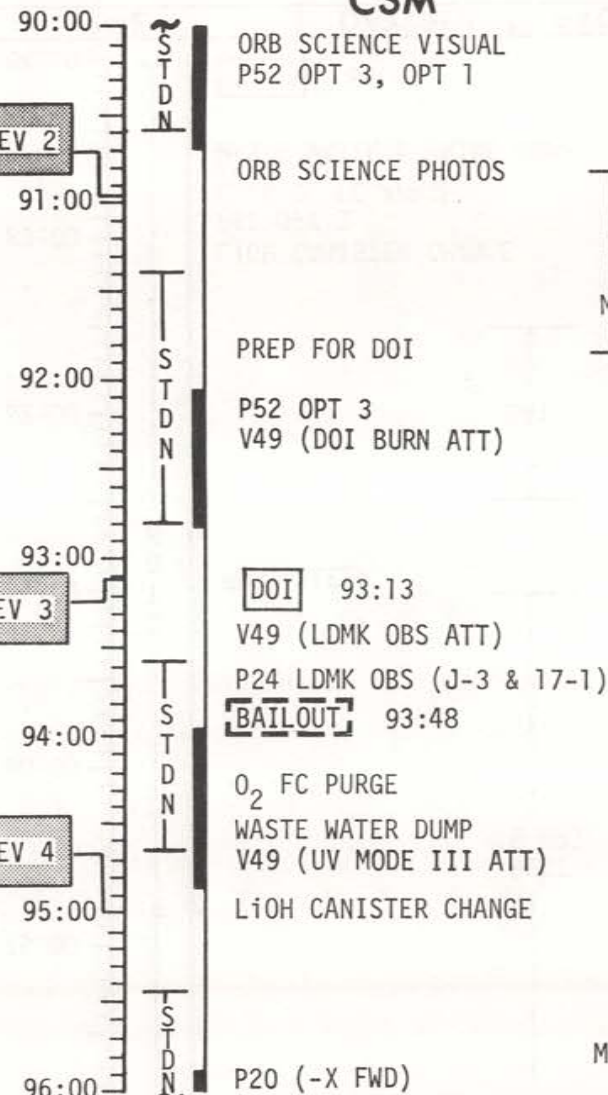
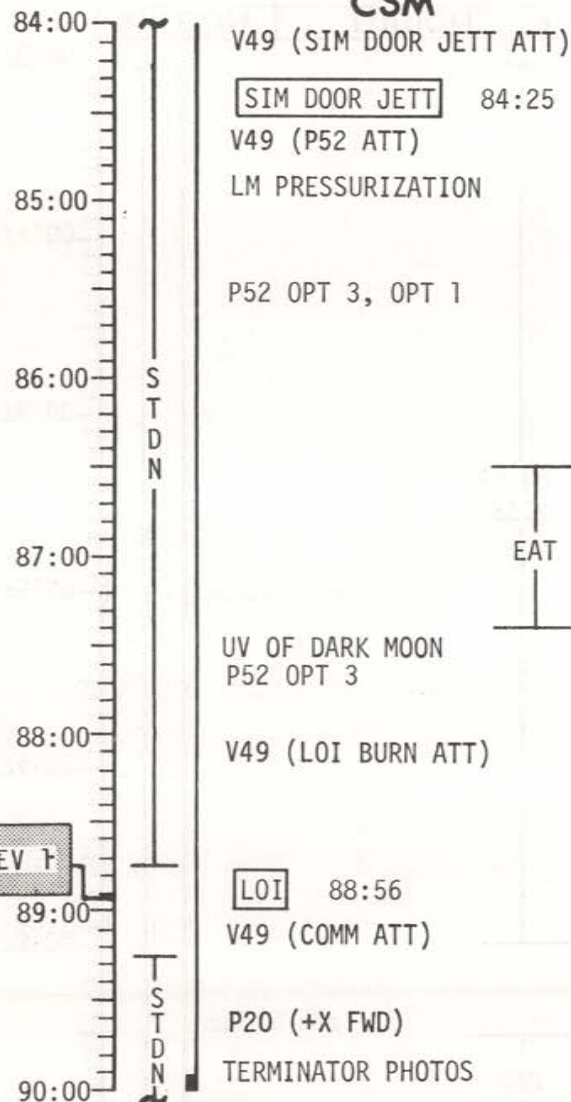
MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	23 OCTOBER 1972	72:00 - 84:00	4-5 /TLC	5-7

FLIGHT PLANNING BRANCH

FLIGHT PLAN

CSM

CSM



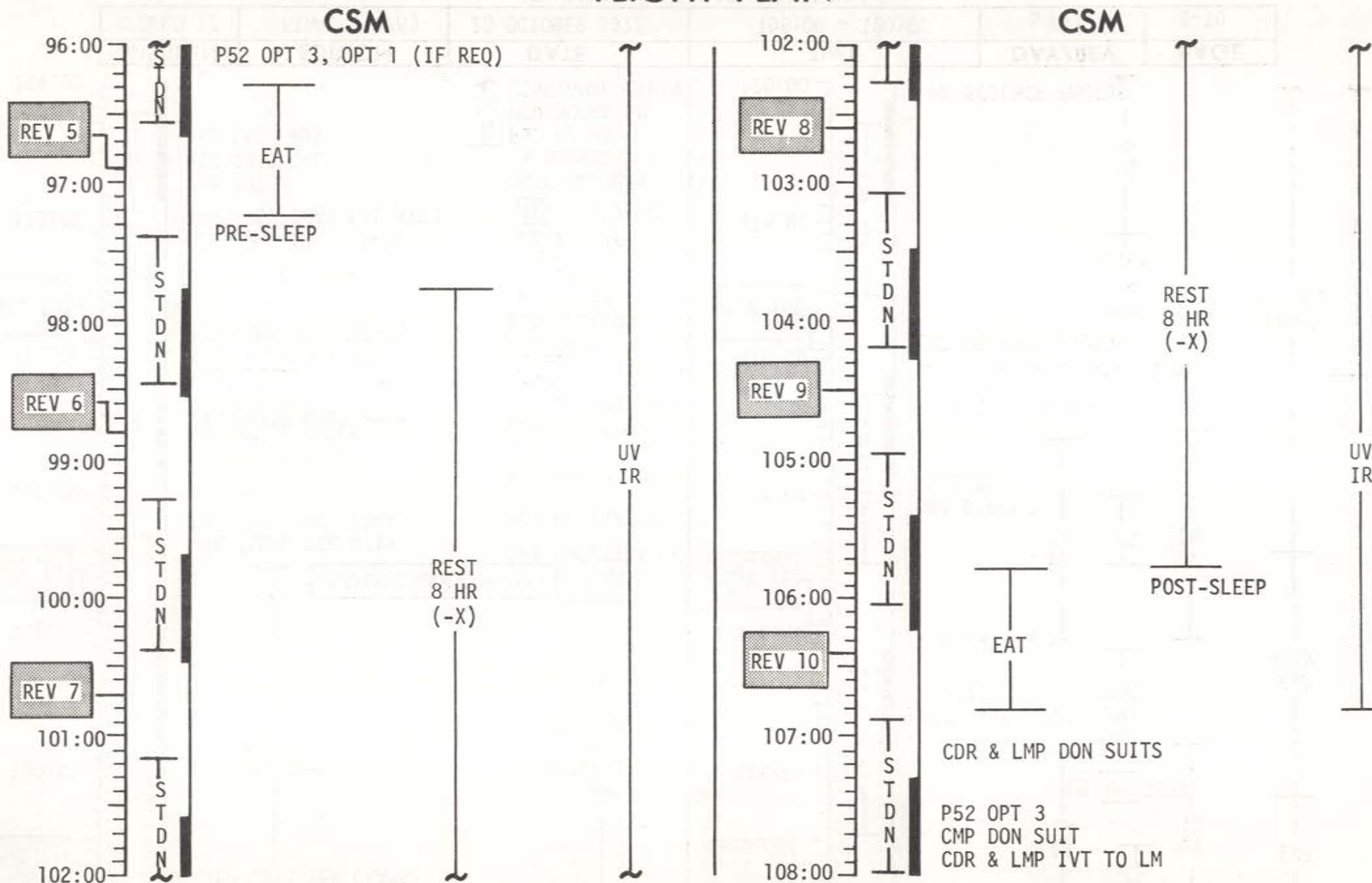
PC
 PC
 MC
 LA
 UV
 IR

UV
 MODE III
 IR

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	23 OCTOBER 1972	84:00 - 96:00	5/TLC-4	5-8

FLIGHT PLANNING BRANCH

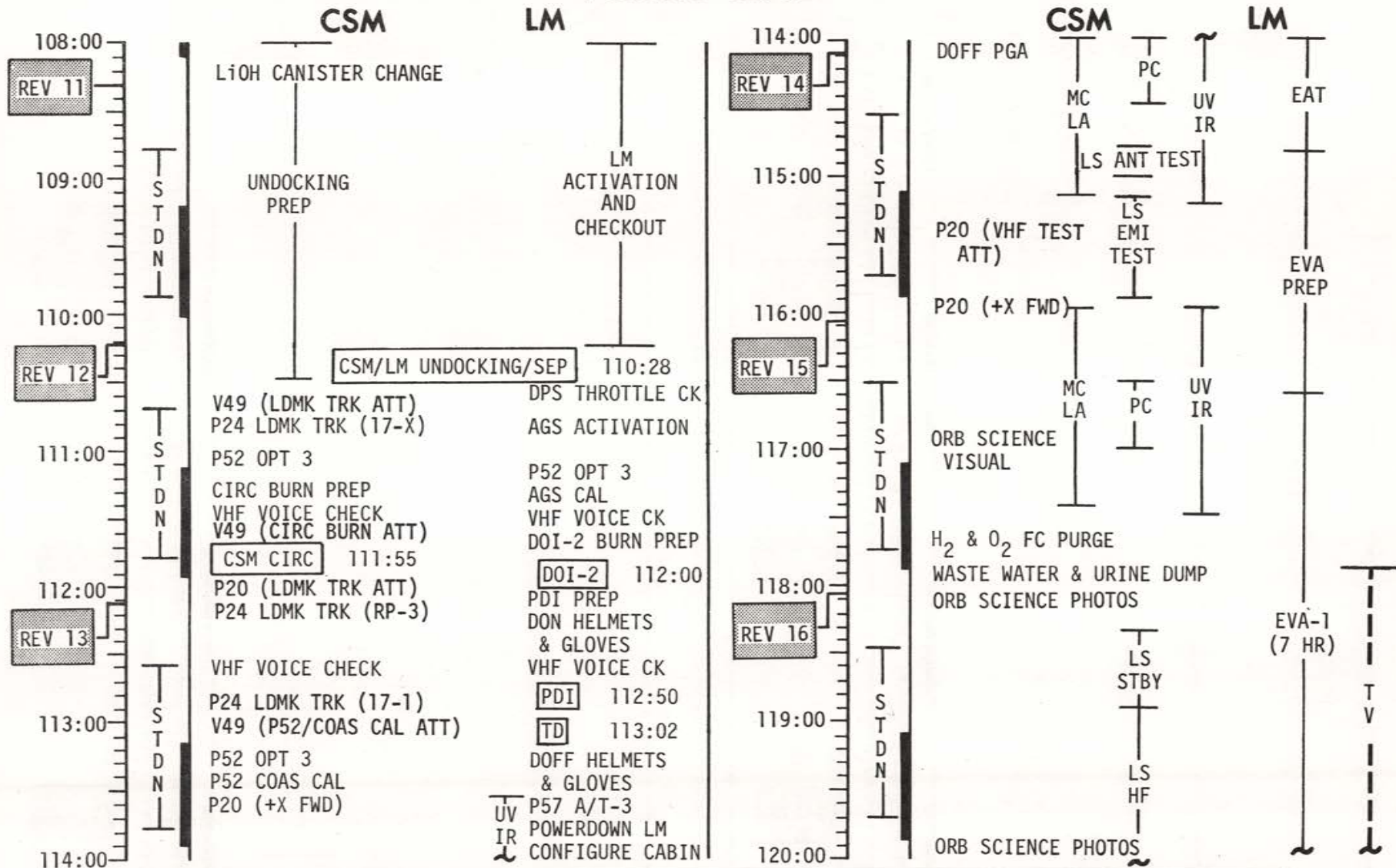
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	23 OCTOBER 1972	96:00 ~ 108:00	5-6/5-10	5-9

FLIGHT PLANNING BRANCH

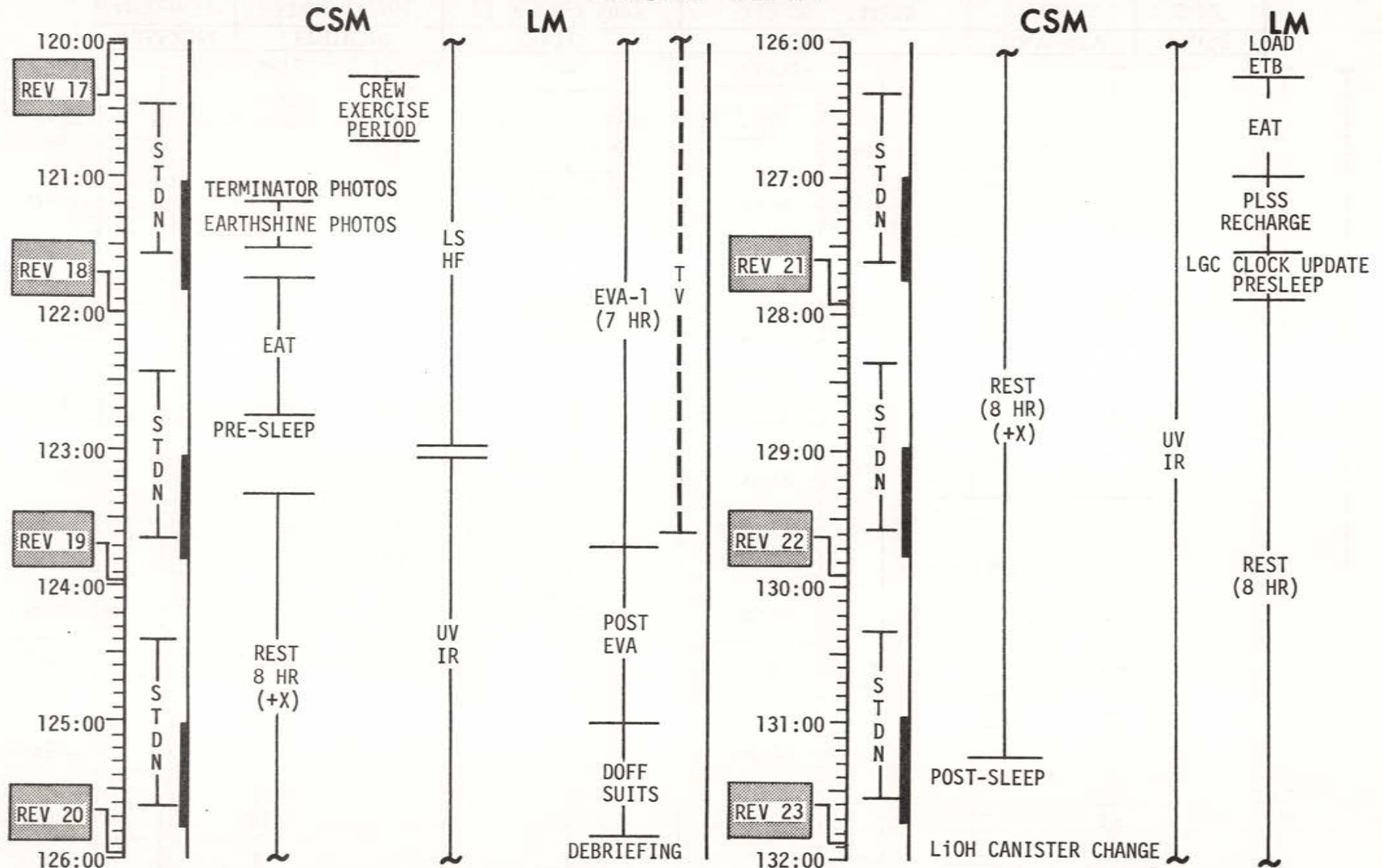
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	23 OCTOBER 1972	108:00 ~ 120:00	6 /11-16	5-10

FLIGHT PLANNING BRANCH

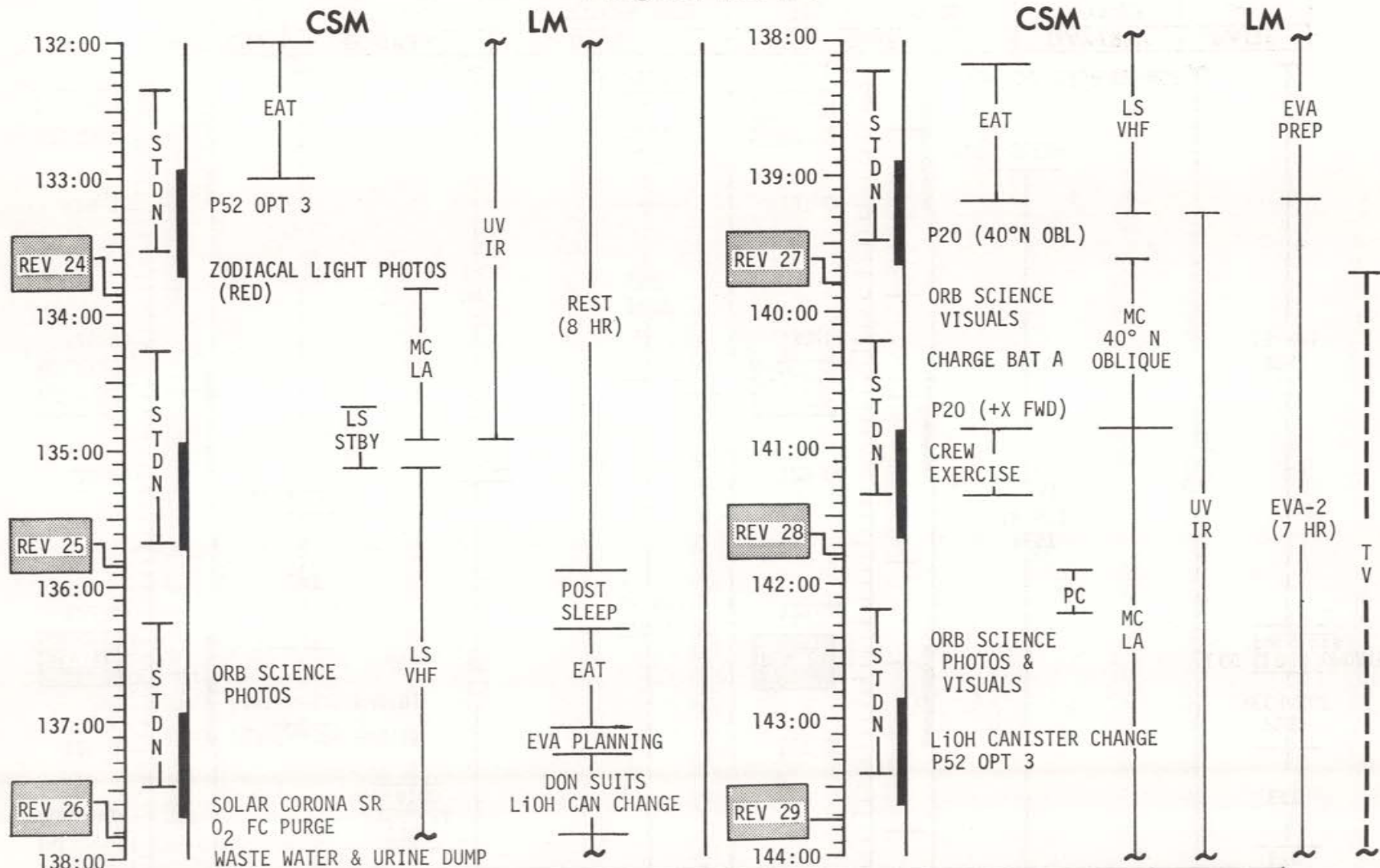
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	23 OCTOBER 1972	120:00 - 132:00	6-7/17-23	5-11

FLIGHT PLANNING BRANCH

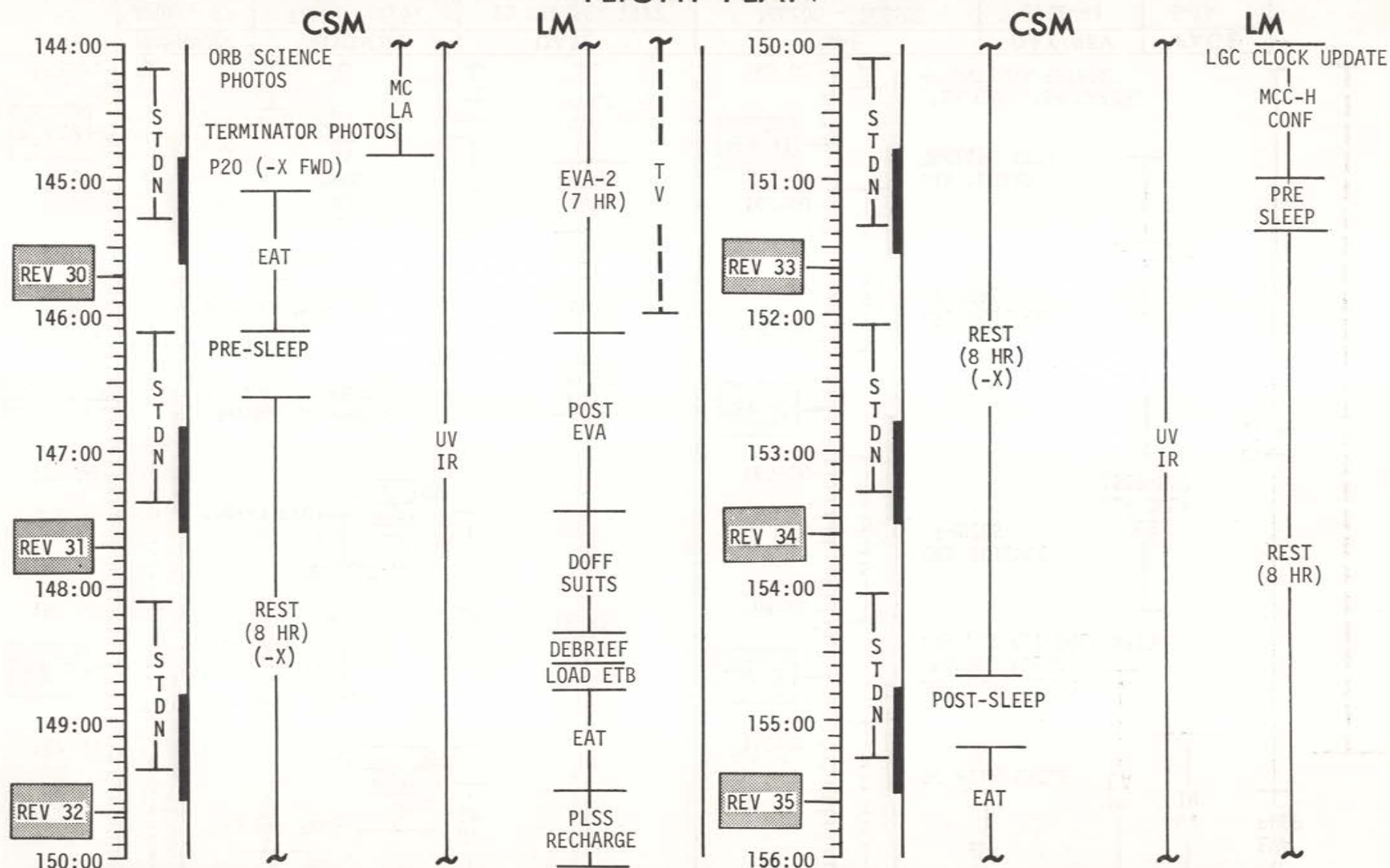
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	23 OCTOBER 1972	132:00 - 144:00	7/24-29	5-12

FLIGHT PLANNING BRANCH

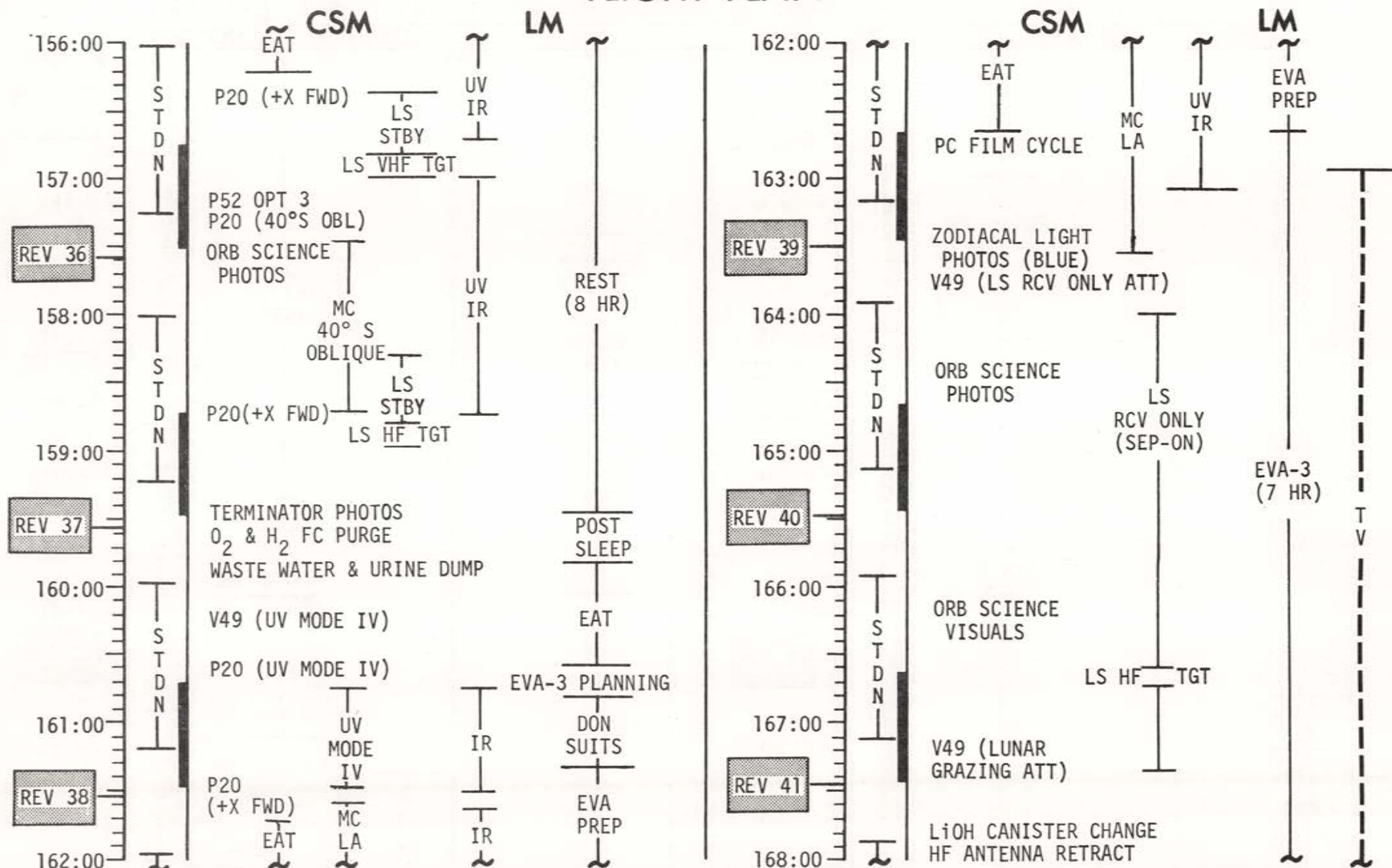
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	23 OCTOBER 1972	144:00 - 156:00	7-8/30-35	5-13

FLIGHT PLANNING BRANCH

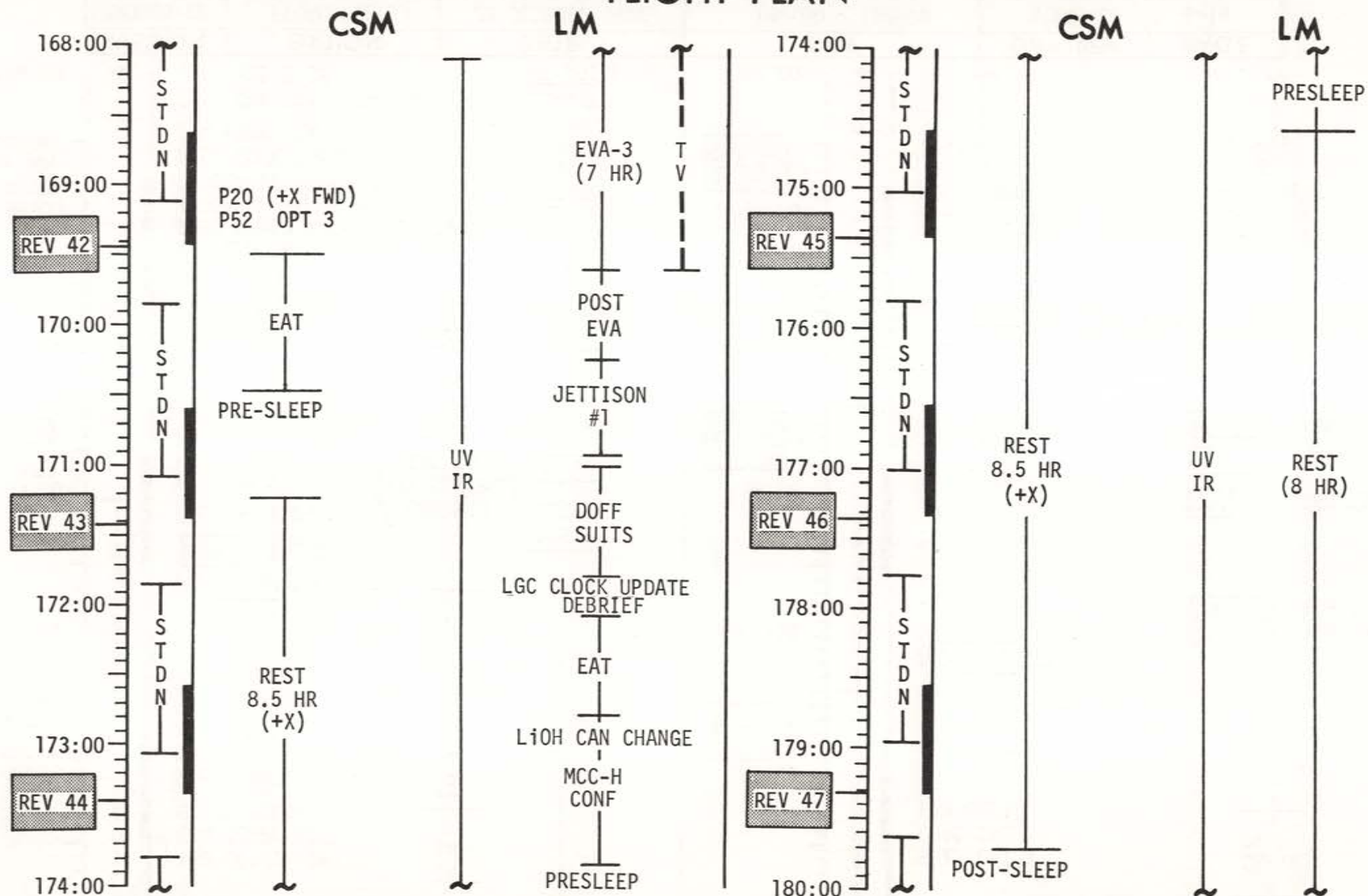
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	23 OCTOBER 1972	156:00 - 168:00	8/36-41	5-14

FLIGHT PLANNING BRANCH

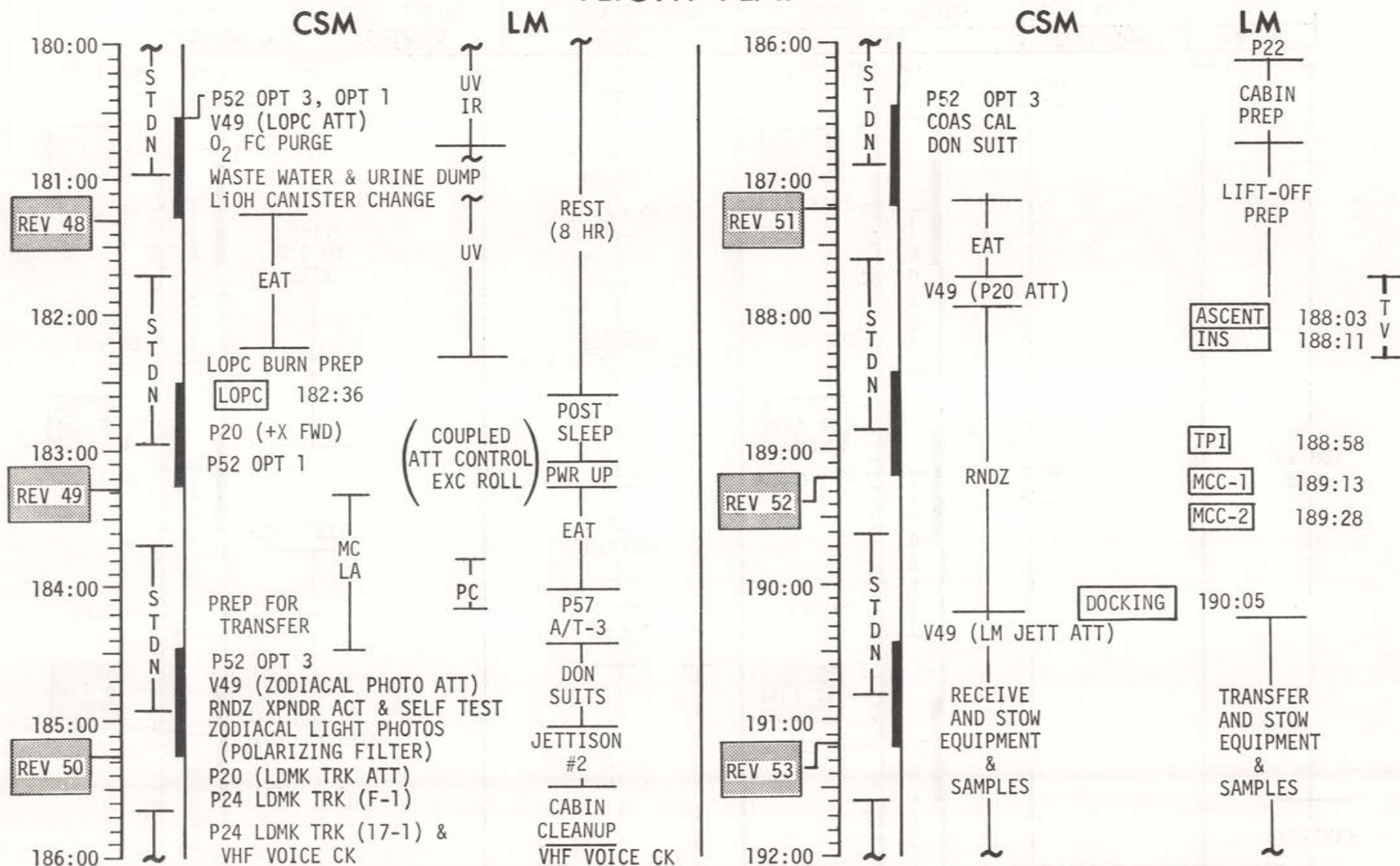
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	23 OCTOBER 1972	168:00 - 180:00	8-9 / 42-47	5-15

FLIGHT PLANNING BRANCH

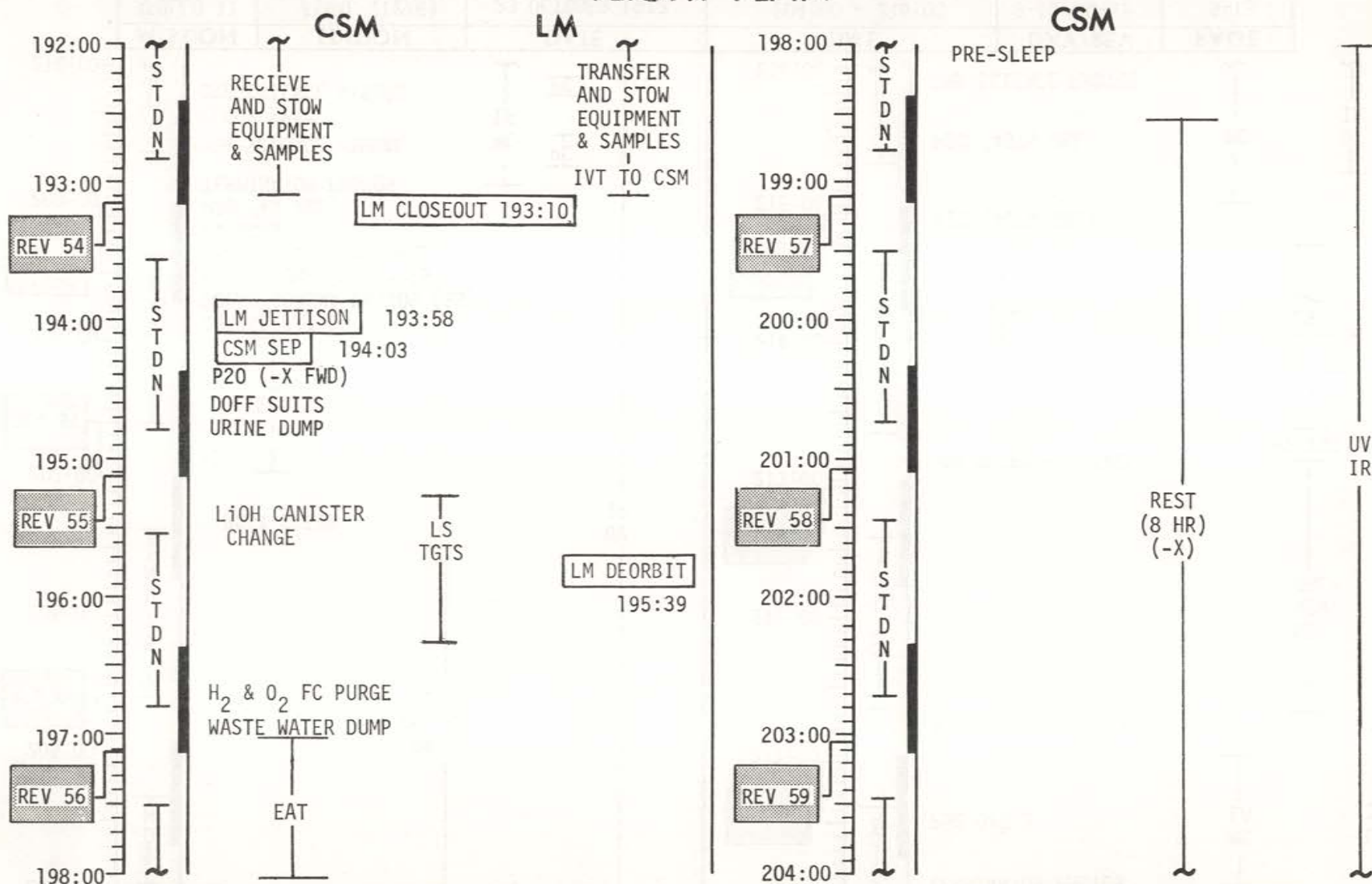
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	23 OCTOBER 1972	180:00 - 192:00	9 /48-53	5-16

FLIGHT PLANNING BRANCH

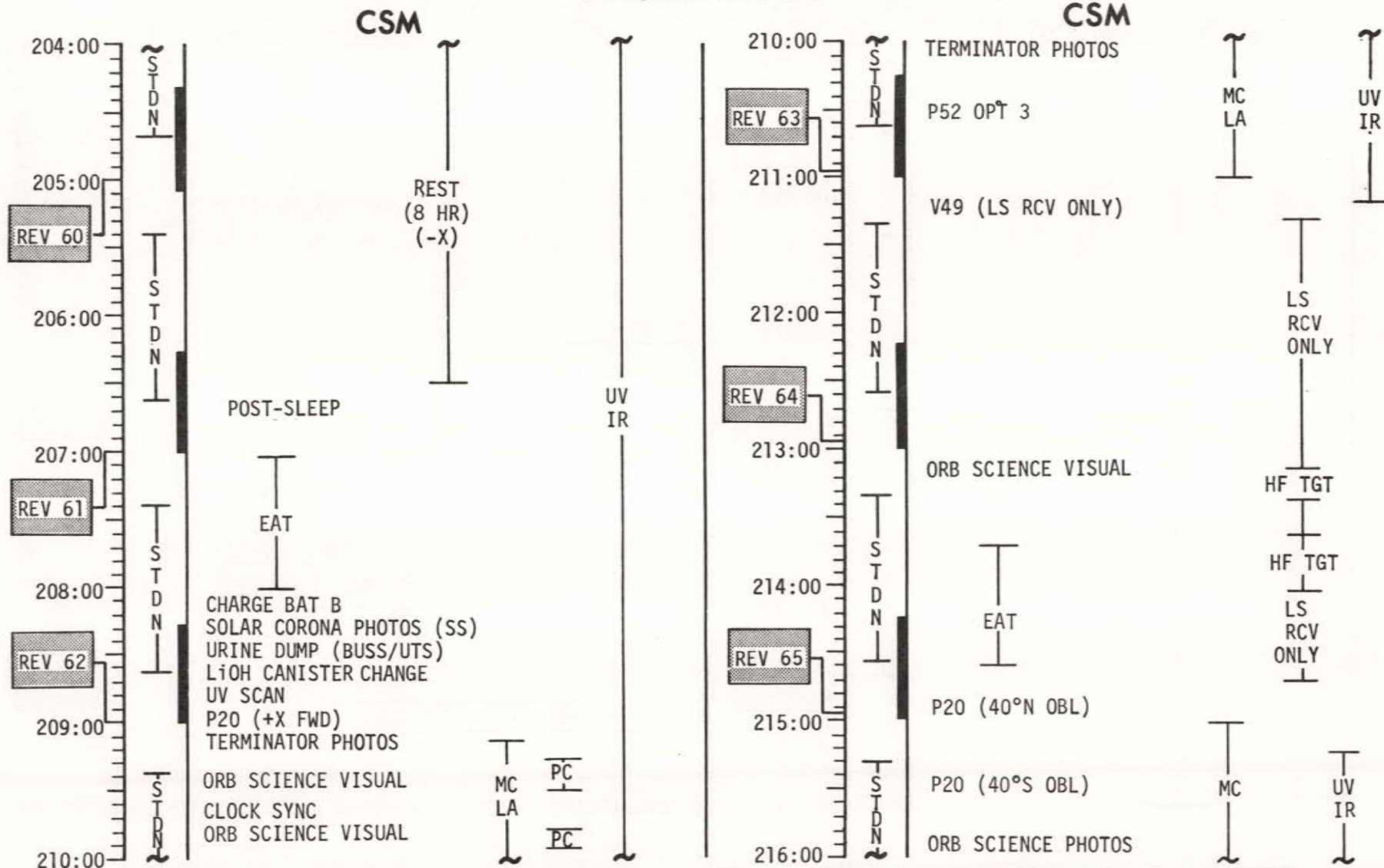
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	23 OCTOBER 1972	192:00 - 204:00	9/54-59	5-17

FLIGHT PLANNING BRANCH

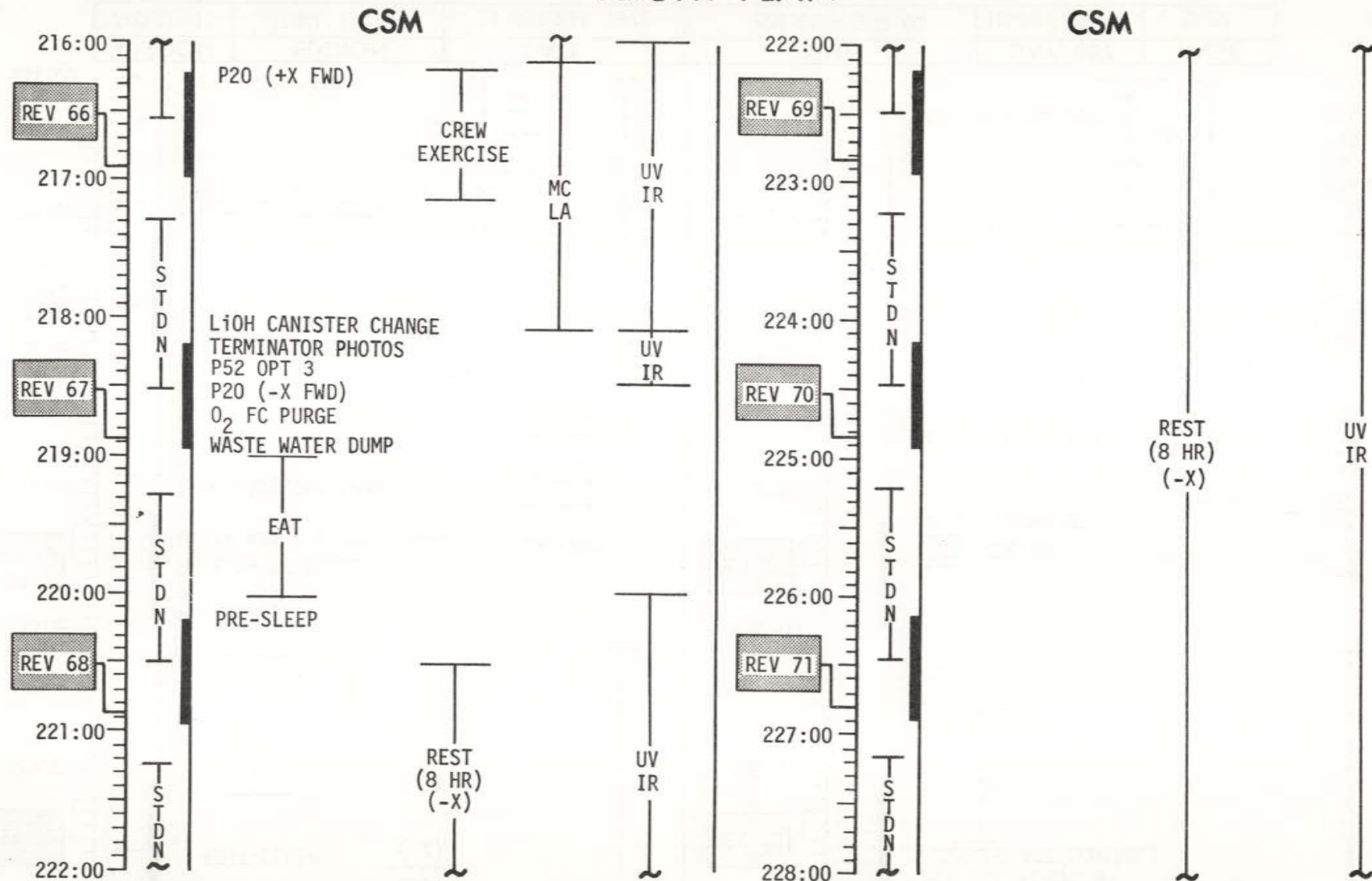
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	23 OCTOBER 1972	204:00 - 216:00	9-10/60-65	5-18

FLIGHT PLANNING BRANCH

FLIGHT PLAN



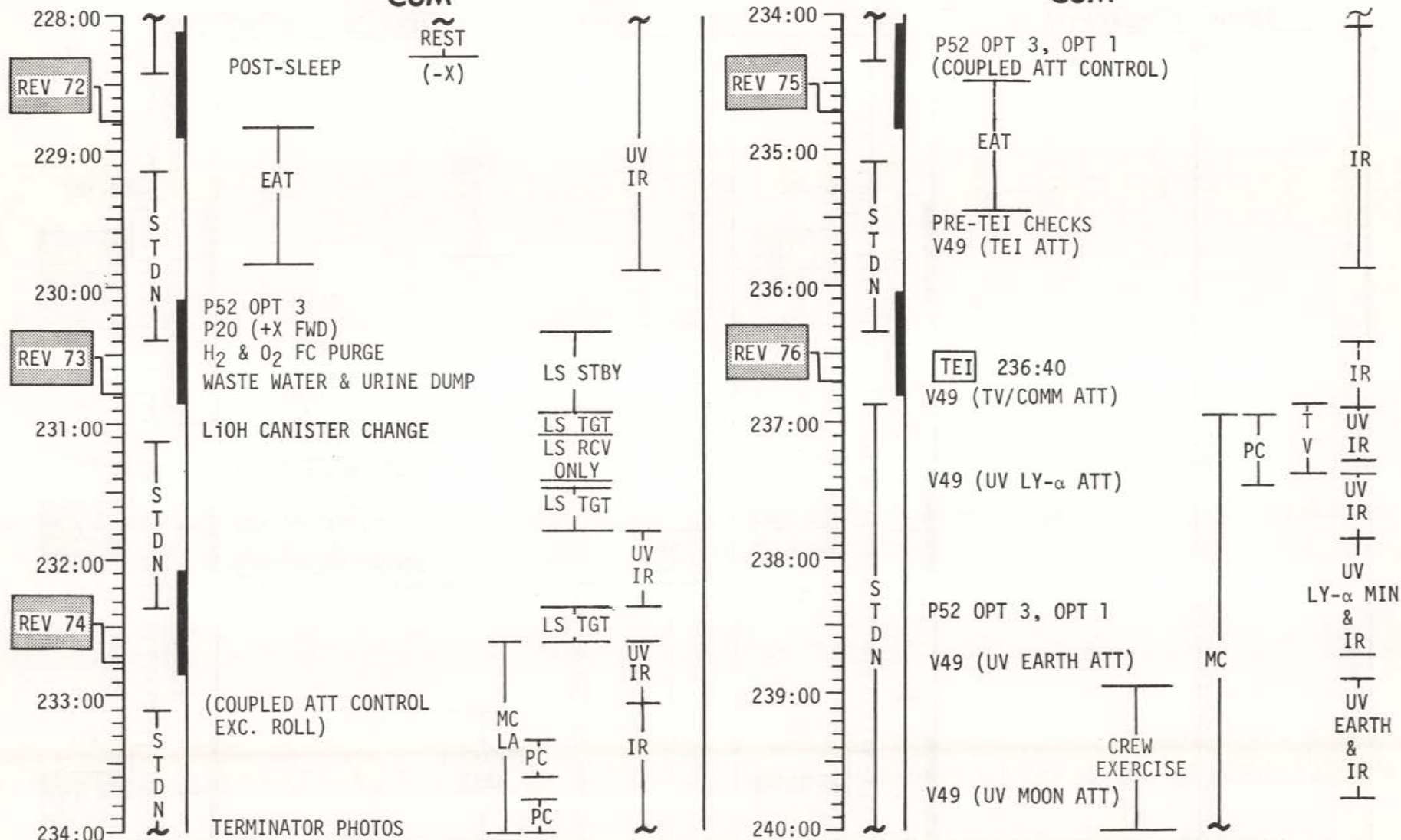
MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	23 OCTOBER 1972	216:00 - 228:00	10/66-71	5-19

FLIGHT PLANNING BRANCH

FLIGHT PLAN

CSM

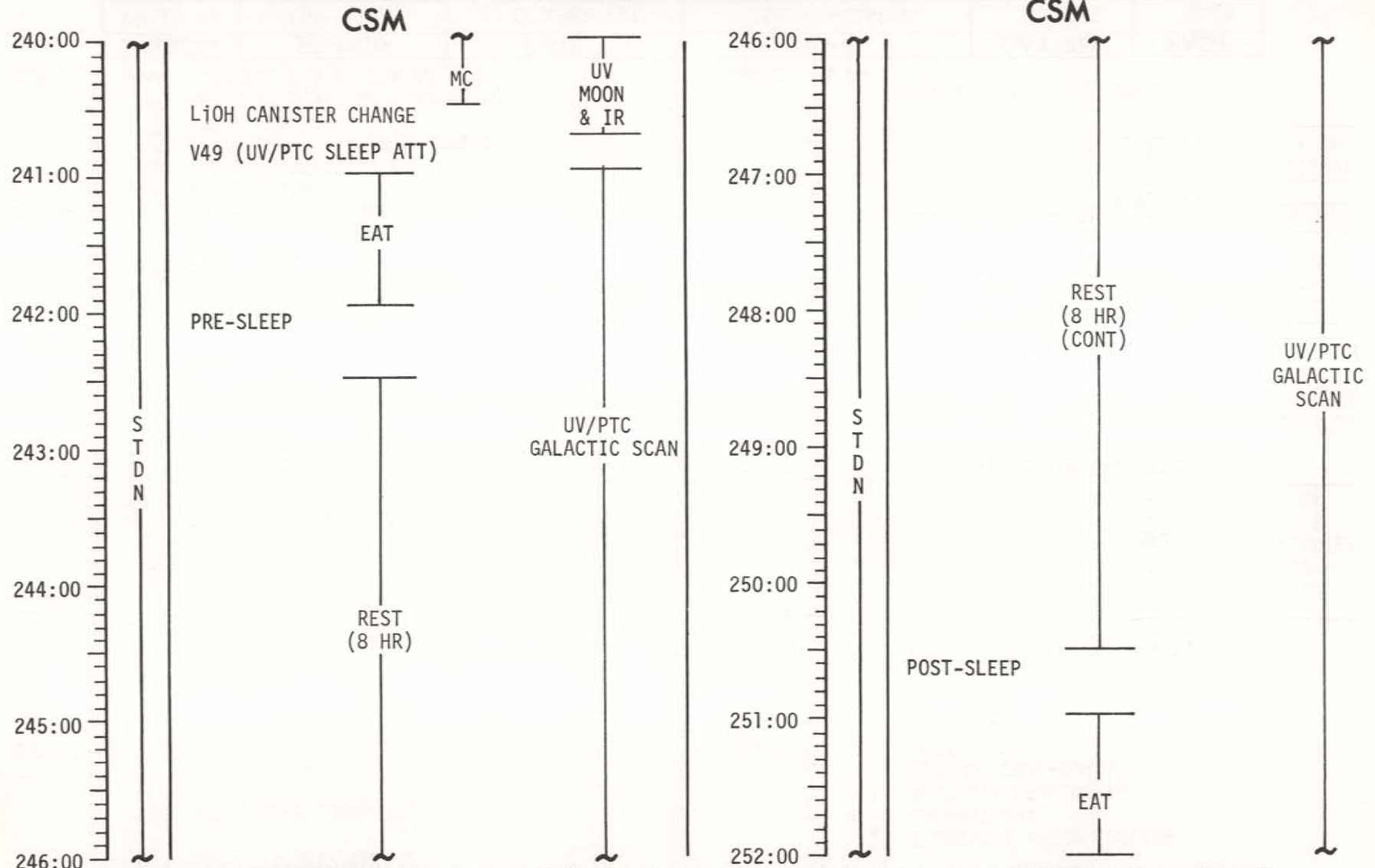
CSM



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	23 OCTOBER 1972	228:00 - 240:00	10-11 /72-TEC	5-20

FLIGHT PLANNING BRANCH

FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	23 OCTOBER 1972	240:00 - 252:00	11-12/TEC	5-21

FLIGHT PLANNING BRANCH

FLIGHT PLAN

CSM

252:00 P52 OPT 3
LiOH CANISTER CHANGE

V49 (MCC-5 BURN ATT)

O₂ FC PURGE

253:00 WASTE WATER & URINE DUMP

MCC-5 253:40
CABIN PREP FOR CM EVA

TV & DAC PREP

255:00 EVA EQUIP PREP

DON SUITS

V49 (EVA ATT)
PRESS GAGE STATIC CHECK
COMM CHECK
SYS PREP FOR DEPRESS
CMP EVA EQUIP PREP
OPS DONNING
CDR/LMP INTEGRITY CHECK
CABIN DEPRESS & HATCH OPENING
INSTALL TV/DAC
RETRIEVE LUNAR SOUNDER CASSETTE
RETRIEVE PAN CAMERA CASSETTE

258:00

UV/PTC

IR

CSM

258:00 RETRIEVE MAPPING CAMERA CASSETTE

INGRESS & HATCH CLOSING
CM POST EVA
POST EVA PROCEDURES
CLEANUP PROCEDURES
DOFF SUITS
STOW EQUIP

259:00

V49 (UV COMA CLUSTER ATT)

EAT

261:00 V49 (UV STELLAR CAL ATT)
(60 x 14)

V49 (UV STELLAR CAL ATT)
(60 x 60)

263:00 V49 (UV αERI ATT) CREW EXERCISE

V49 (UV/PTC αERI, αGRU)

264:00

UV
COMA
CLUSTER
&
IR

IR & UV
STELLAR
CAL
(60x14)

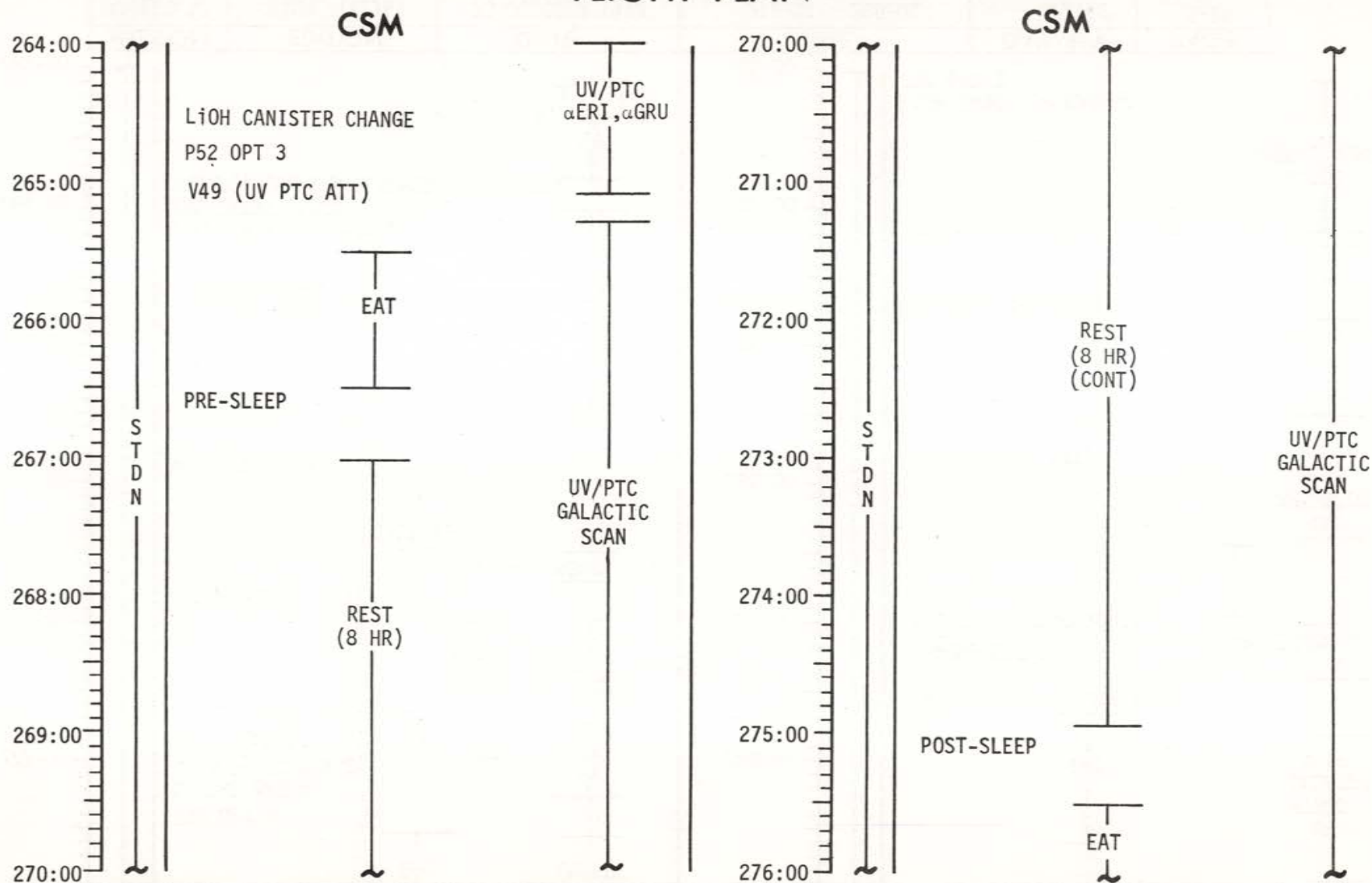
UV
STELLAR
CAL
(60x60)
& IR

UVαERI
& IR

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	23 OCTOBER 1972	252:00 - 264:00	12 /TEC	5-22

FLIGHT PLANNING BRANCH

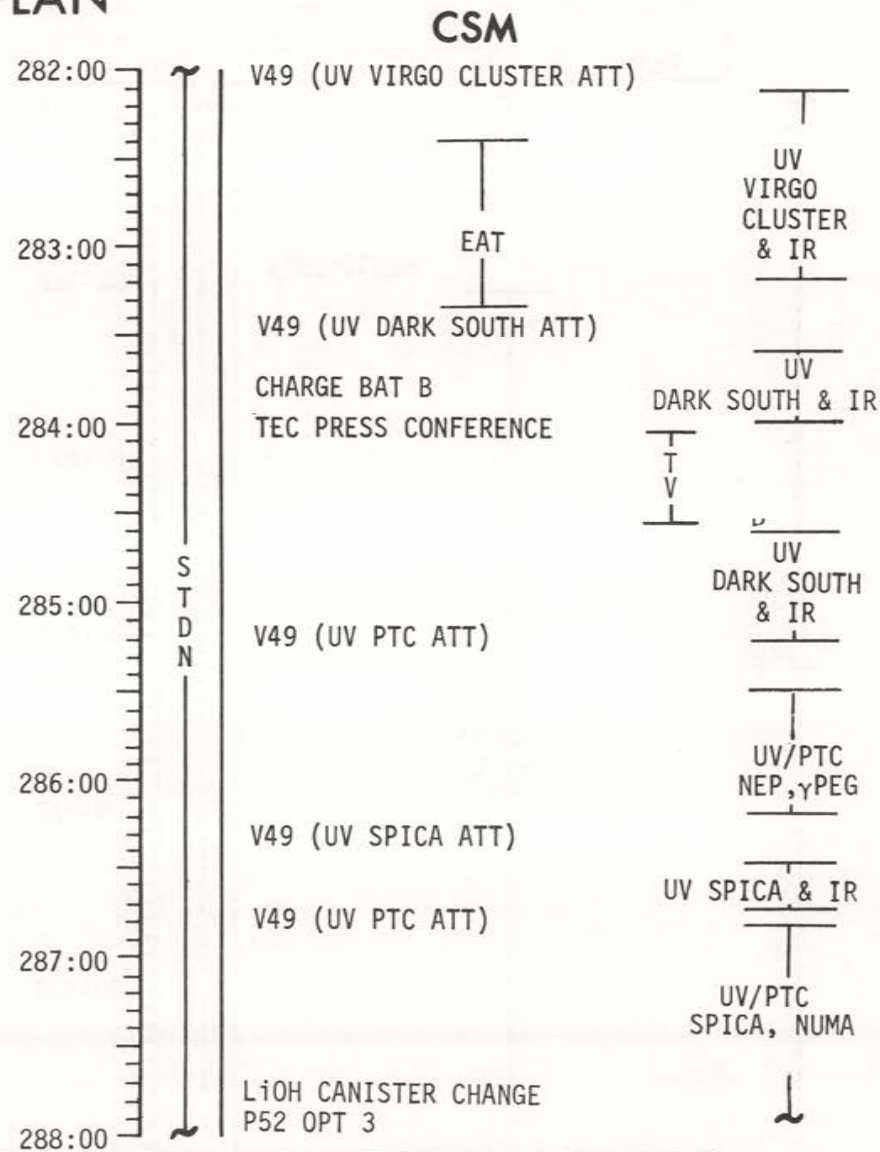
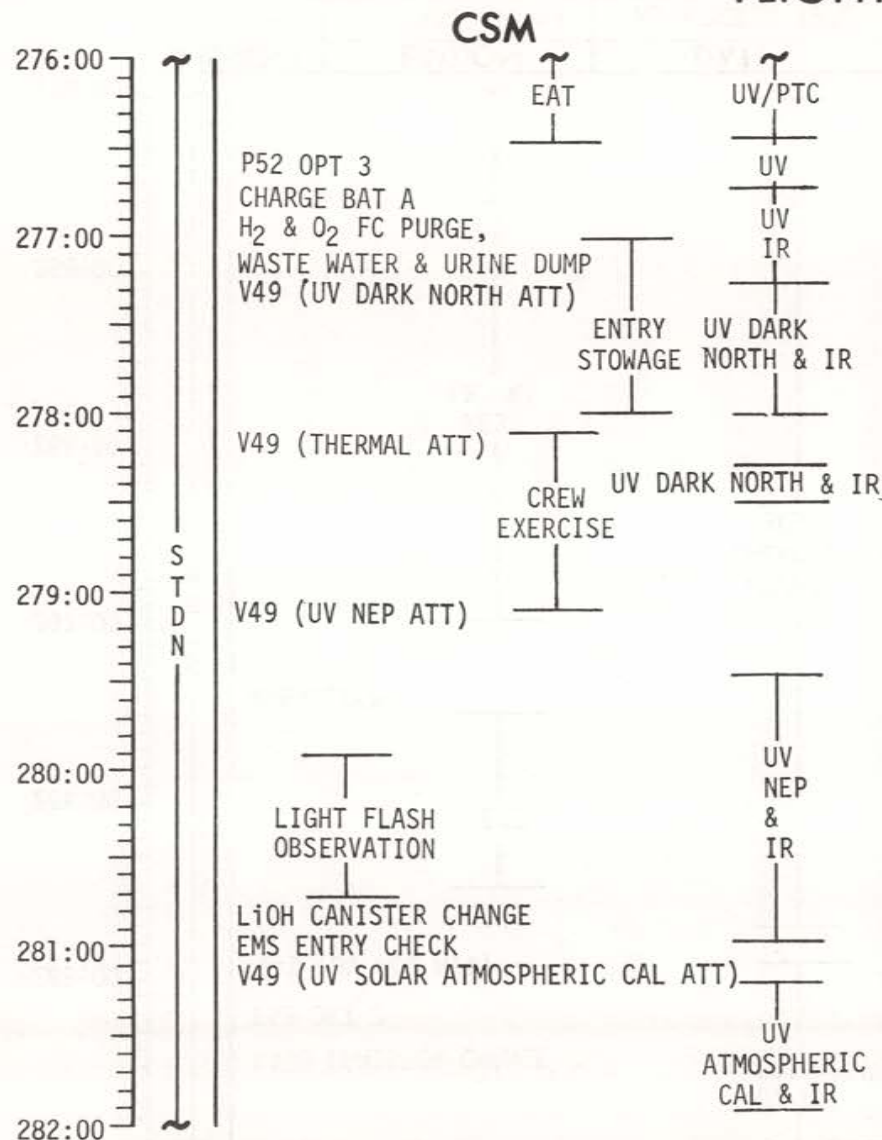
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	23 OCTOBER 1972	264:00 - 276:00	12-13/TEC	5-23

FLIGHT PLANNING BRANCH

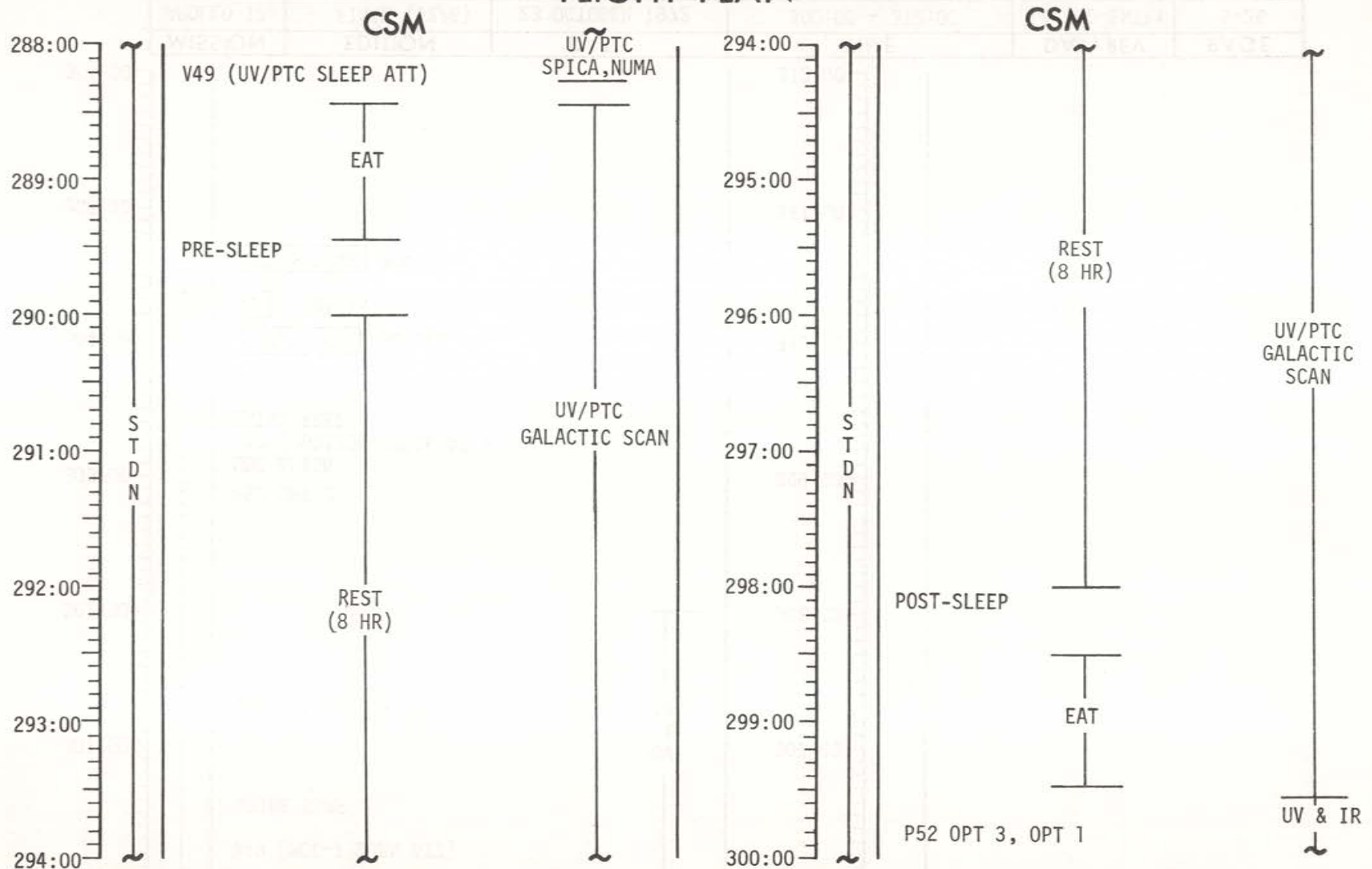
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	23 OCTOBER 1972	276:00 - 288:00	13 /TEC	5-24

FLIGHT PLANNING BRANCH

FLIGHT PLAN

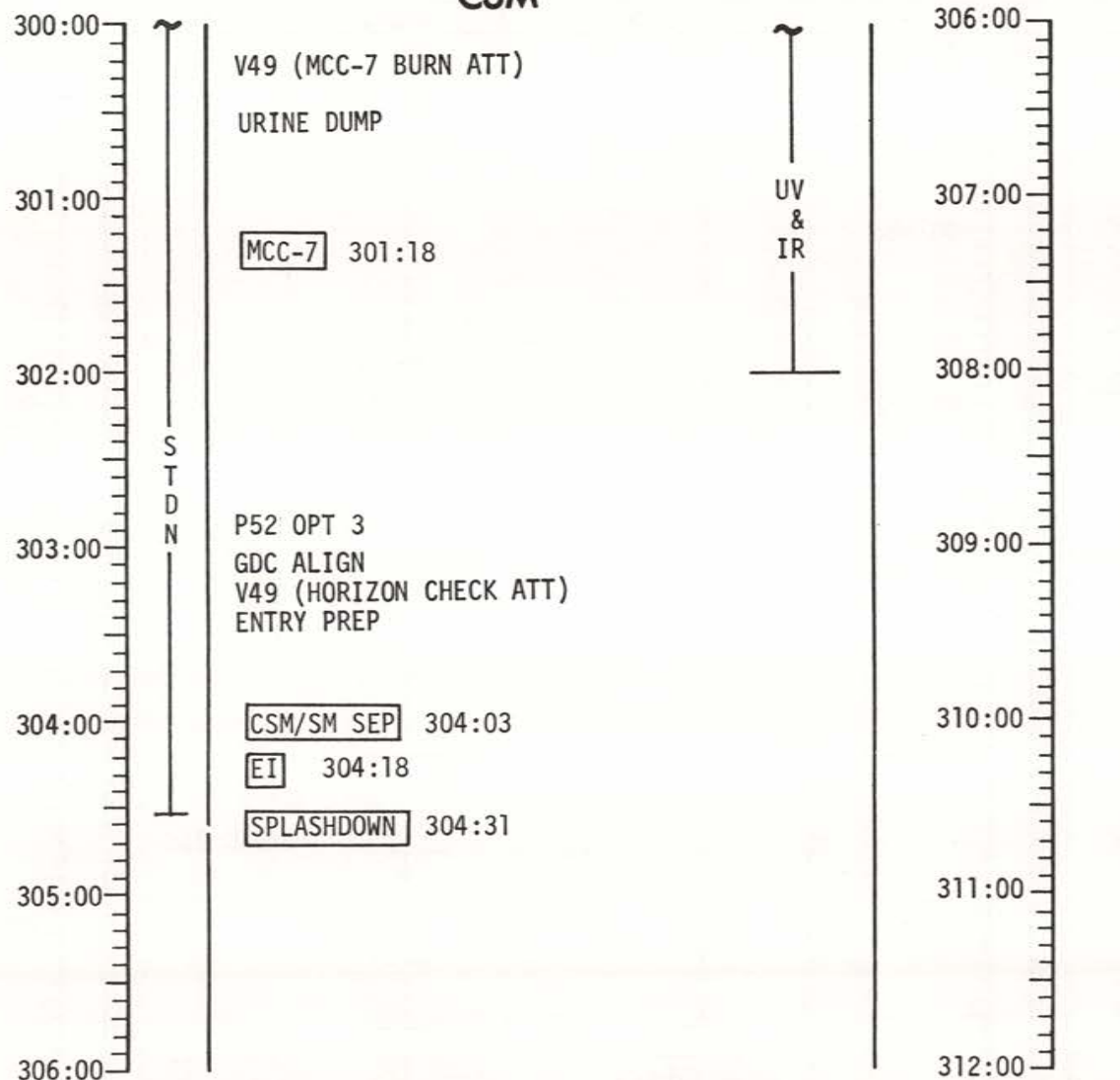


MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	23 OCTOBER 1972	288:00 - 300:00	13-14/TEC	5-25

FLIGHT PLANNING BRANCH

FLIGHT PLAN

CSM



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	23 OCTOBER 1972	300:00 - 312:00	14/TEC-ENTRY	5-26

FLIGHT PLANNING BRANCH

SECTION 6 - ALTERNATE MISSION SUMMARIES

EARTH ORBIT ALTERNATE MISSION

Assumptions

- 1) A SAFE insertion orbit has been achieved by the S-IVB.
- 2) A systems failure has resulted in a NO/GO for TLI.

CONSTRAINTS

- 1) Maintain SM-RCS deorbit capability
- 2) Photography in the southern hemisphere
- 3) LM to be jettisoned for water impact.

Sequence of Events

This alternate mission is initiated by a systems failure which will not allow TLI. The alternate mission timeline is entered at the nominal time of TLI and allows for a failure checkout period followed by a possible second TLI opportunity. If the second TLI is not performed, the CSM executes TD&E and prepares the LM for an ocean impact. The CSM executes five SPS burns to position itself for photographic coverage of the Southern Hemisphere with an inclination of forty-five degrees.

All the Sim Bay experiments are activated, except for the IR Radiometer, and an EVA is planned to retrieve the film canisters. The timeline indicates that lunar sounder operations is continuous but these will be broken into passes of approximately five minutes each when specific targets are chosen. At that time additional UV passes will be scheduled for Mode IV, lunar surface albedo, and galactic targets. The DSE will be managed such that data will be recorded during the daytime and dumped to STDN during the crew sleep periods when possible.

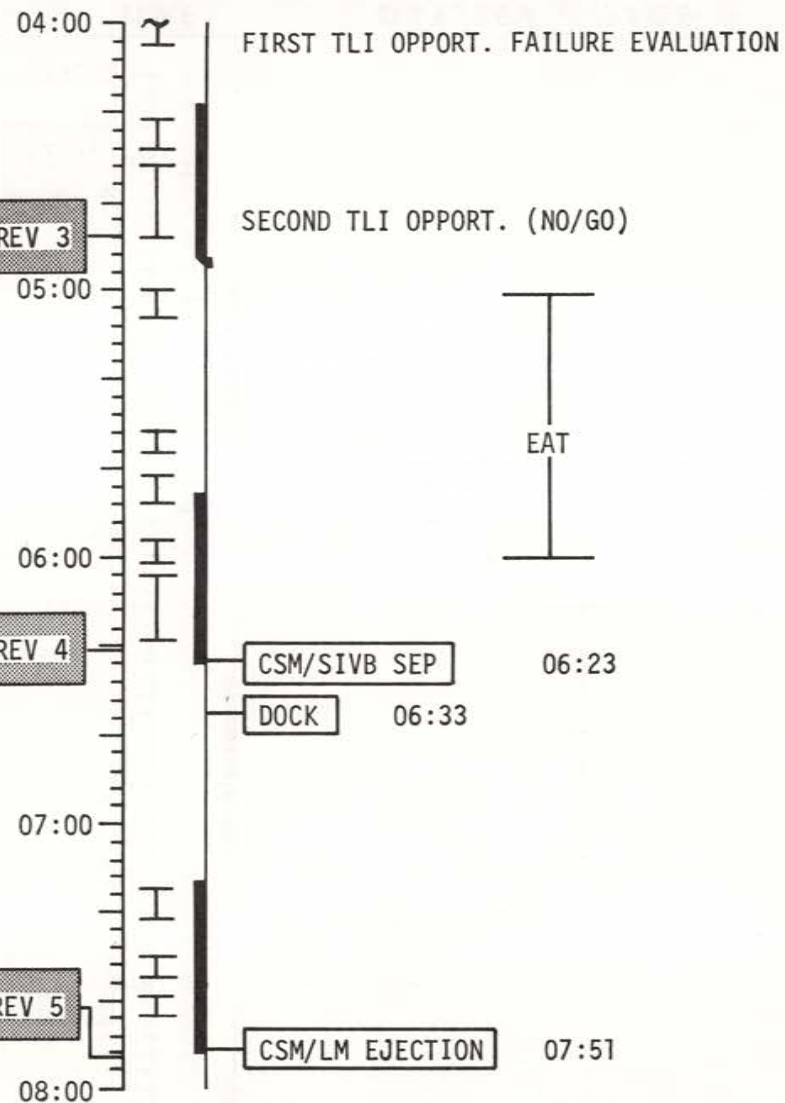
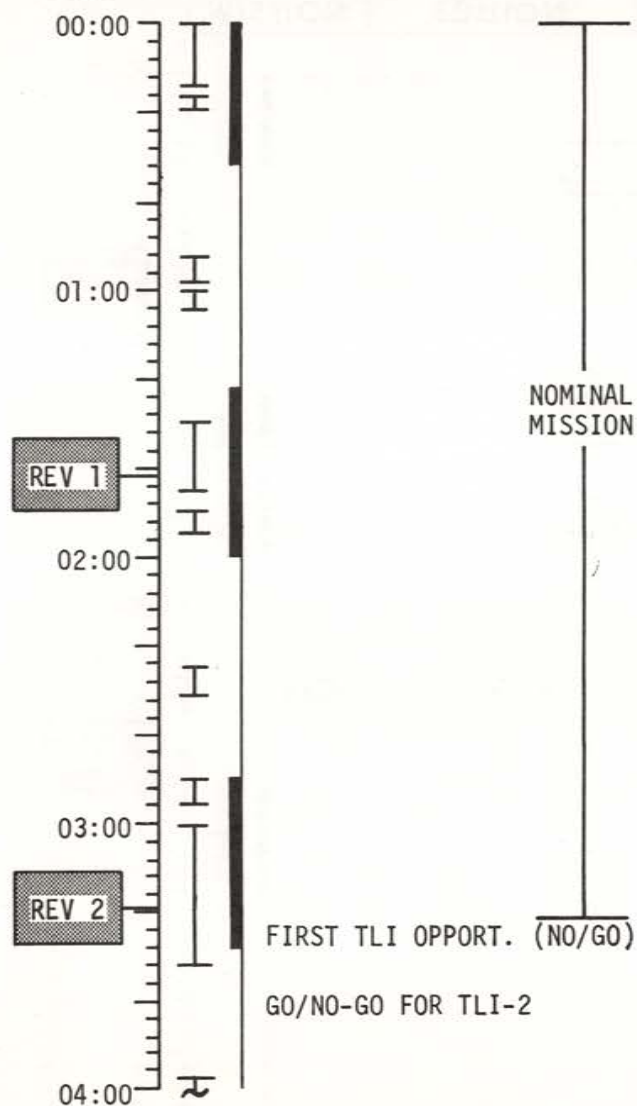
The mission is open ended but for flight planning purposes, a seven-day mission is planned.

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FLIGHT PLAN

EARTH ALTERNATE

2053 CST



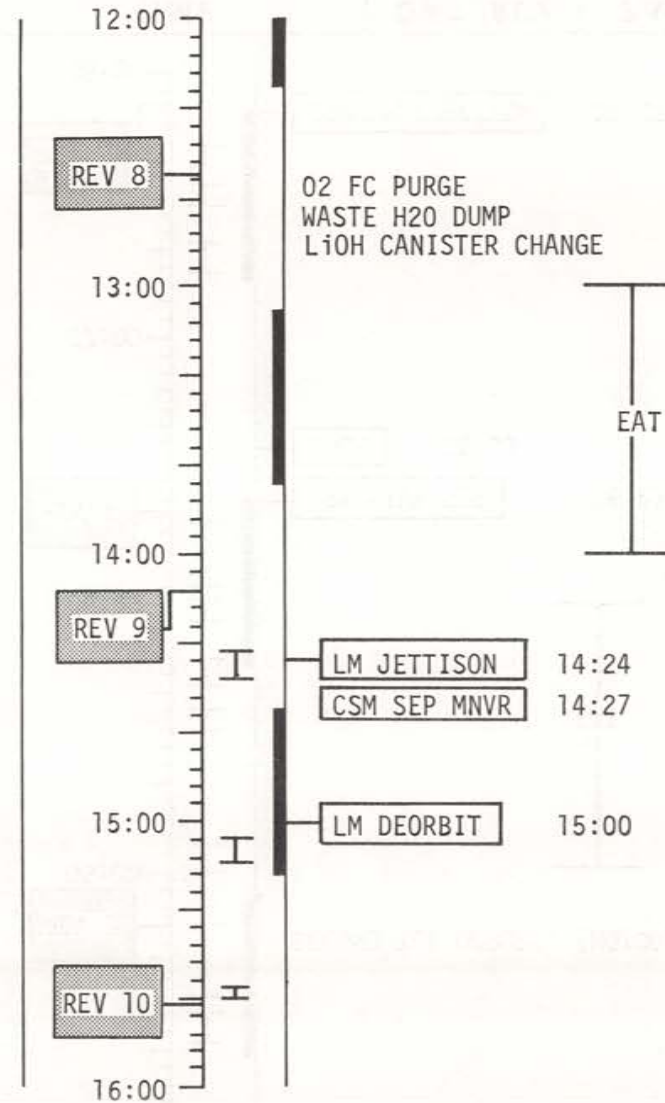
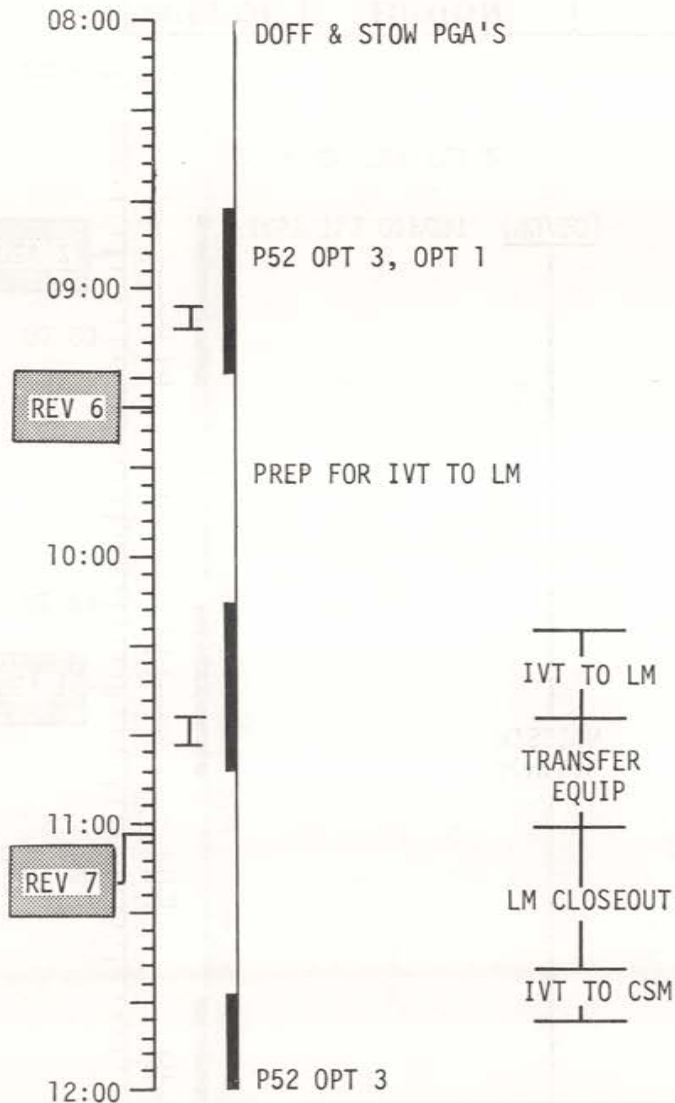
MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	00:00 - 08:00	1/1-5	6-3

FLIGHT PLANNING BRANCH

FLIGHT PLAN

EARTH ALTERNATE

0453 CST



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	08:00 - 16:00	1/5-10	6-4

FLIGHT PLANNING BRANCH

FLIGHT PLAN

EARTH ALTERNATE

1253 CST

16:00

H

17:00

REV 11

I

18:00

REST
8 HR

REV 12

19:00

I

20:00

I

20:00

REV 13

I

21:00

I

REV 14

22:00

I

REST
8 HR

23:00

I

REV 15

24:00

I

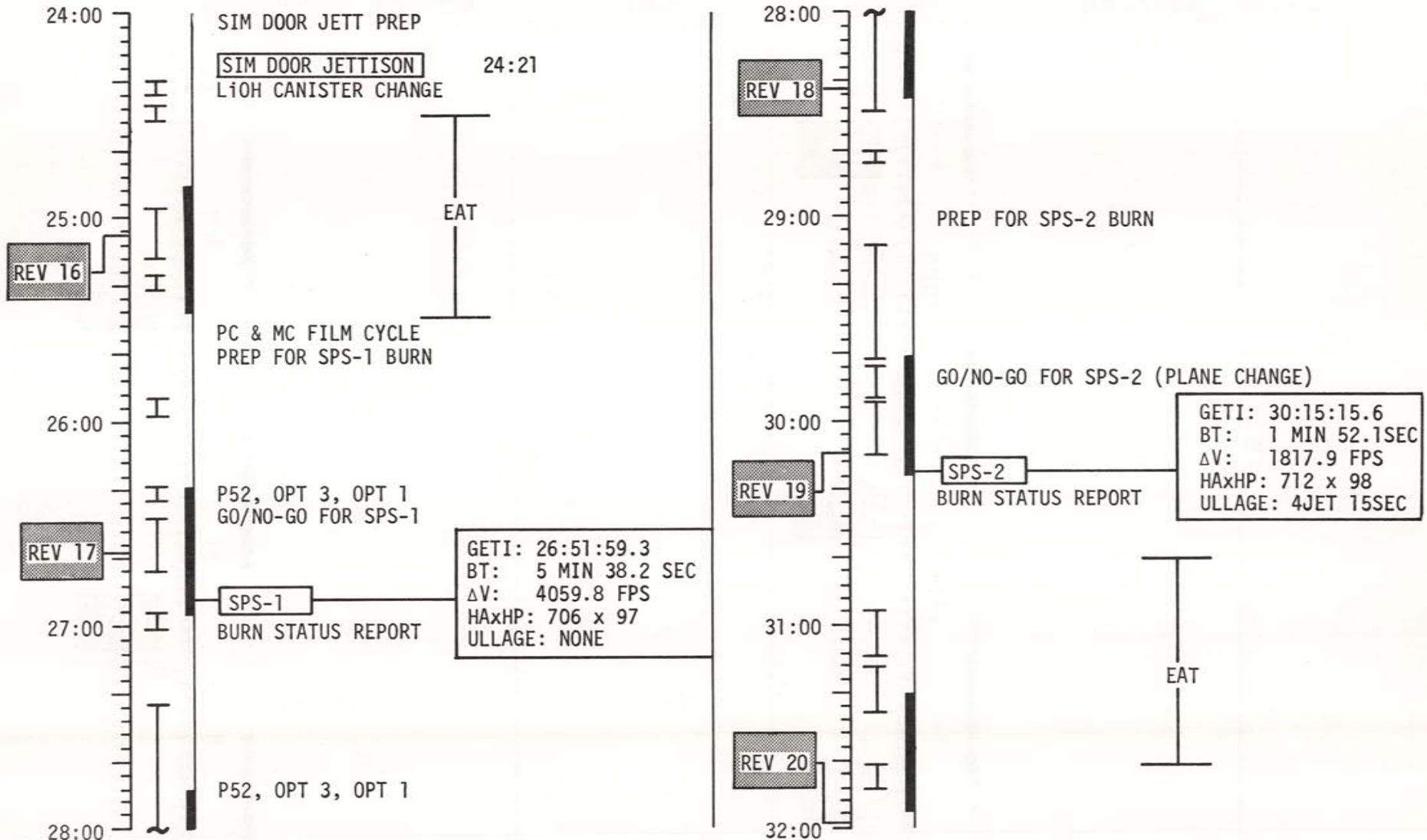
MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	16:00 - 24:00	1/10-15	6-5

FLIGHT PLANNING BRANCH

EARTH ALTERNATE

FLIGHT PLAN

2053 CST



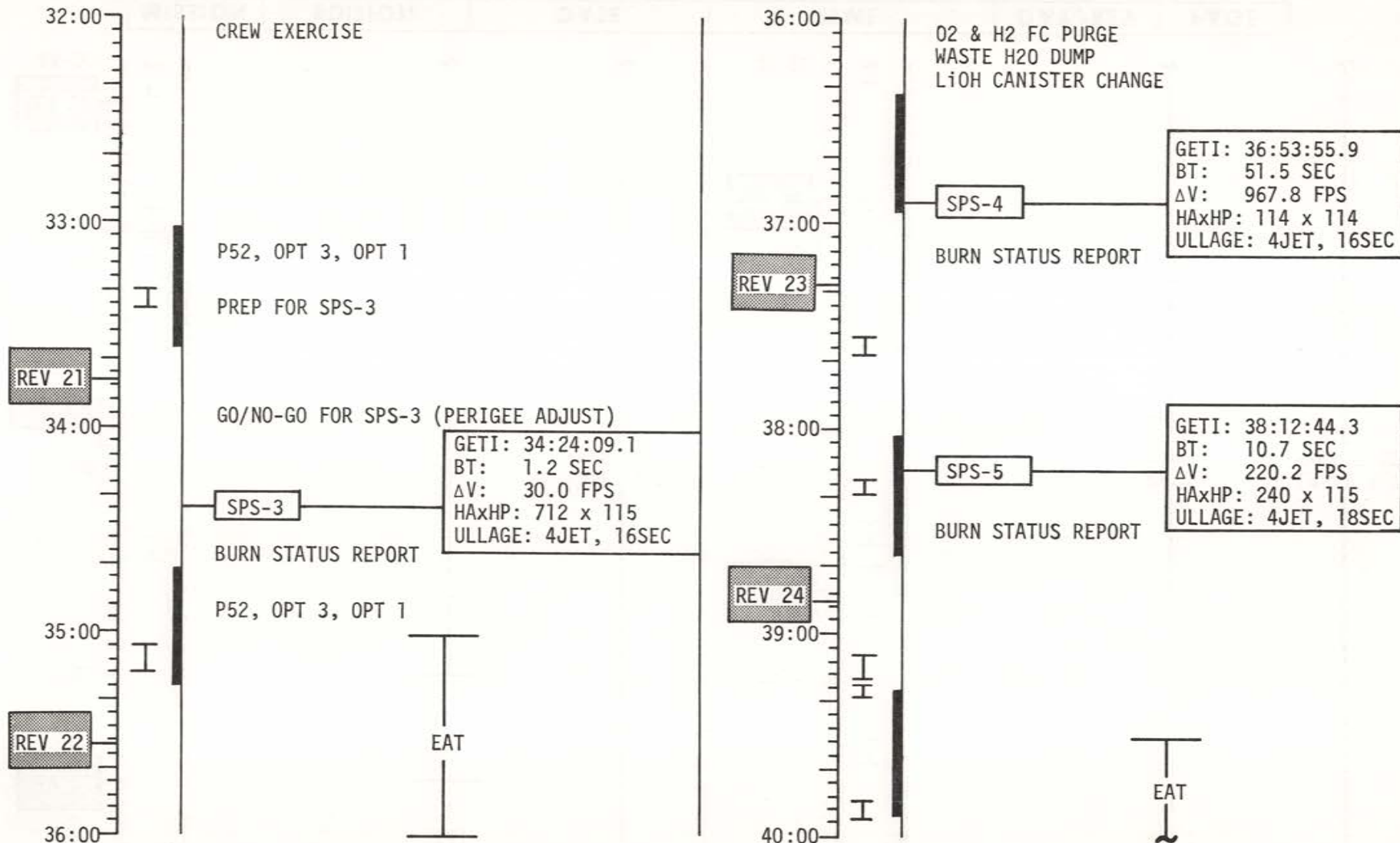
MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	24:00 - 32:00	2/15-20	6-6

FLIGHT PLANNING BRANCH

FLIGHT PLAN

EARTH ALTERNATE

0453 CST

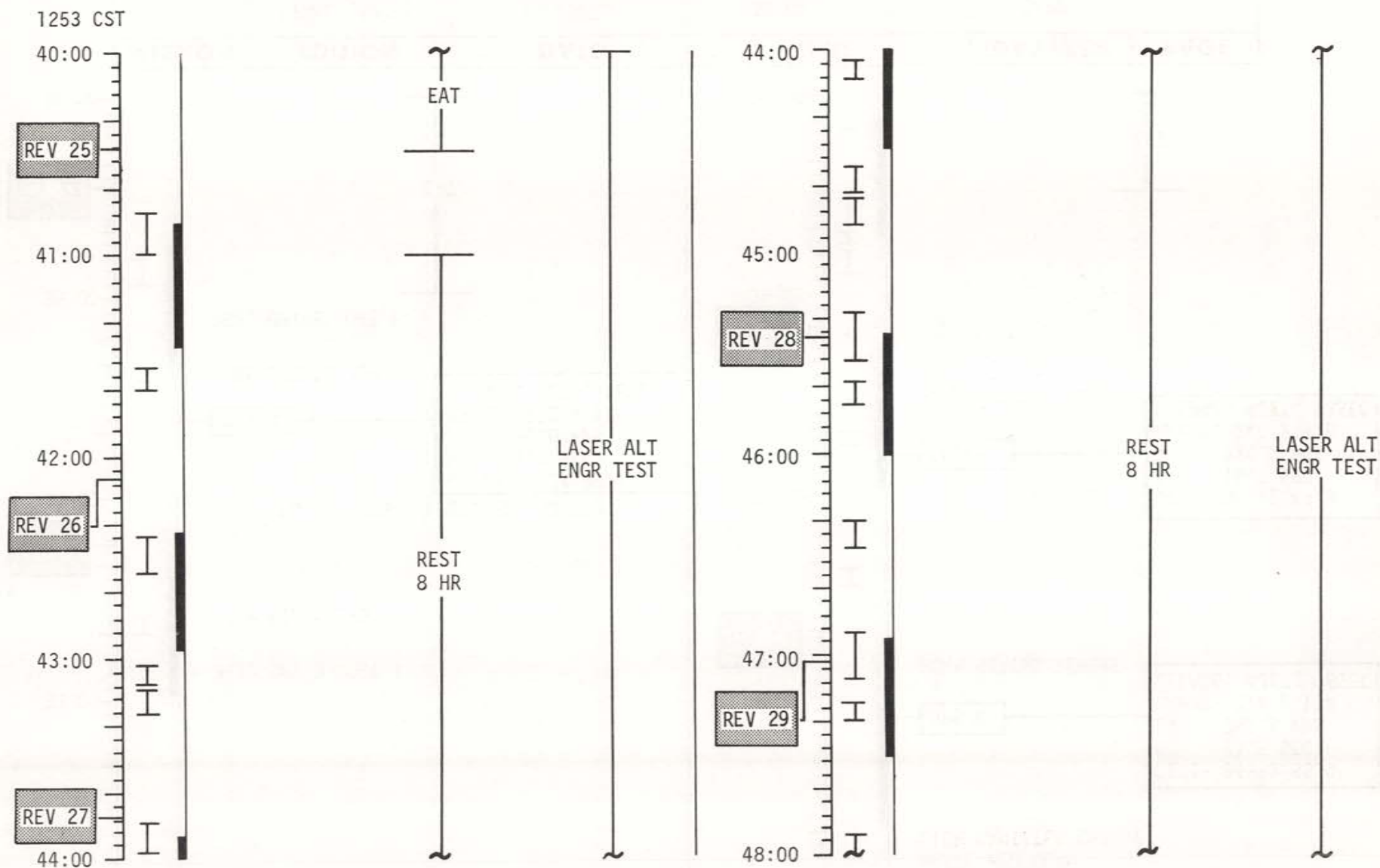


MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	32:00 - 40:00	2/20-24	6-7

FLIGHT PLANNING BRANCH

EARTH ALTERNATE

FLIGHT PLAN

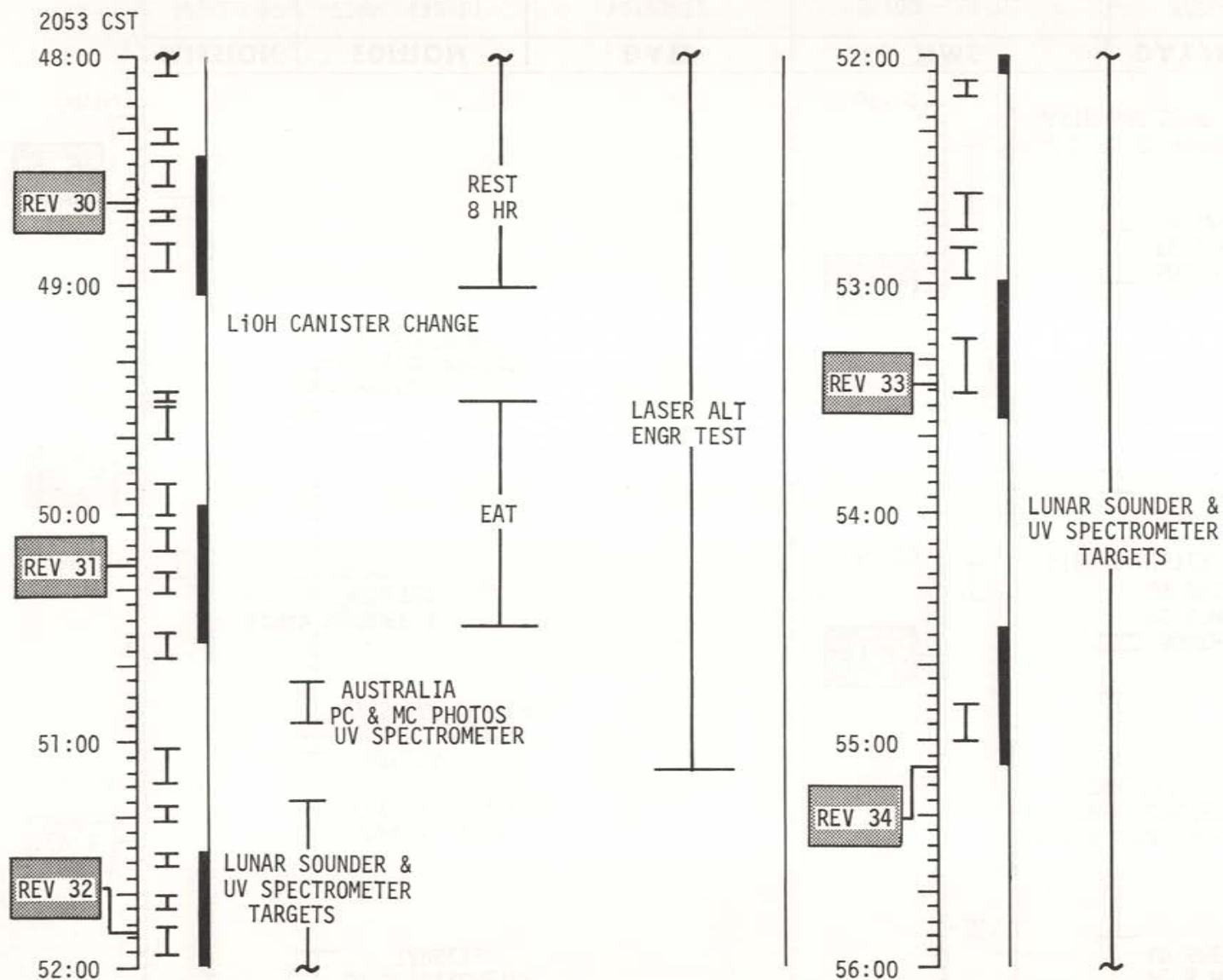


MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	40:00 - 48:00	2/25-29	6-8

FLIGHT PLANNING BRANCH

EARTH ALTERNATE

FLIGHT PLAN



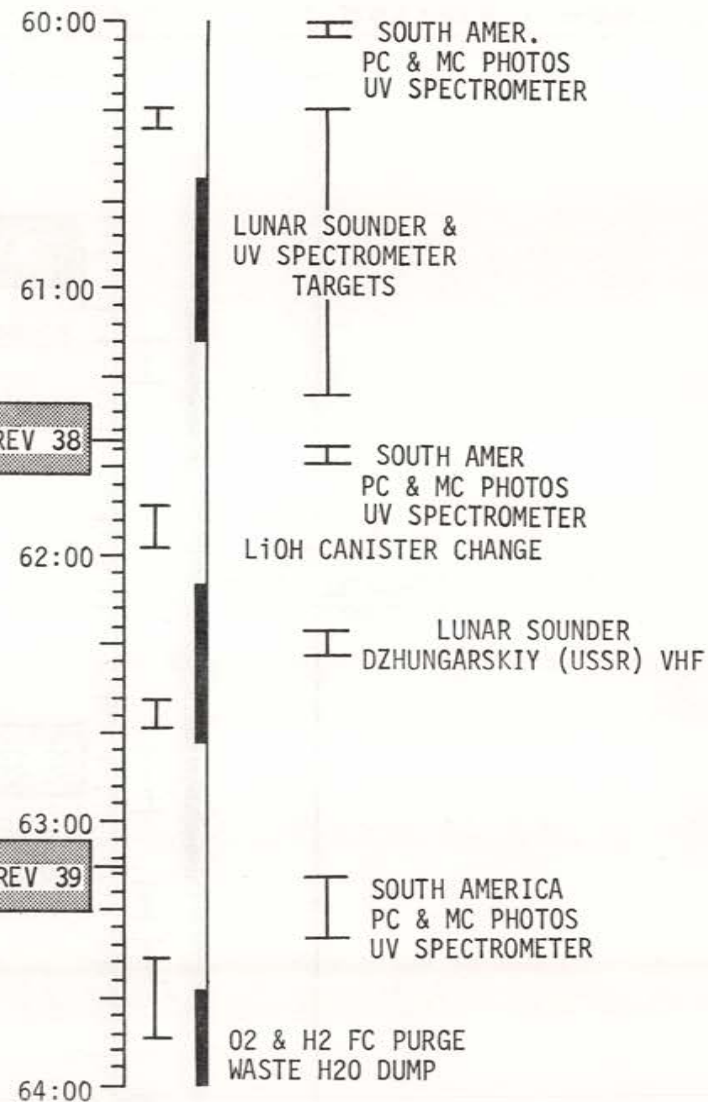
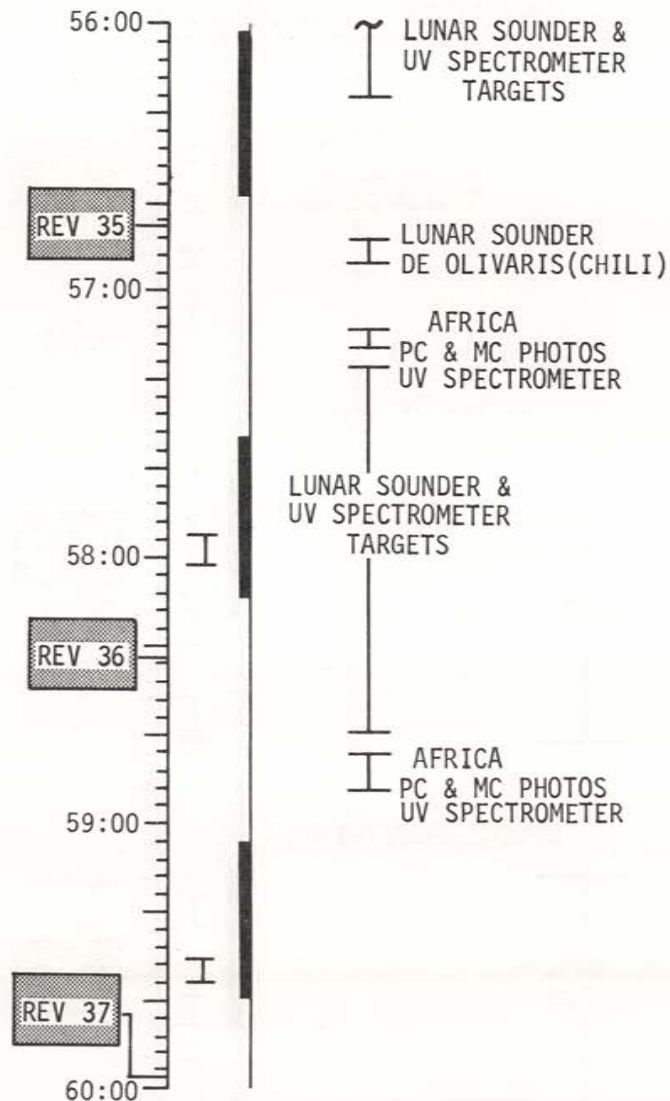
MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	48:00 - 56:00	3/30-34	6-9

FLIGHT PLANNING BRANCH

EARTH ALTERNATE

FLIGHT PLAN

0453 CST

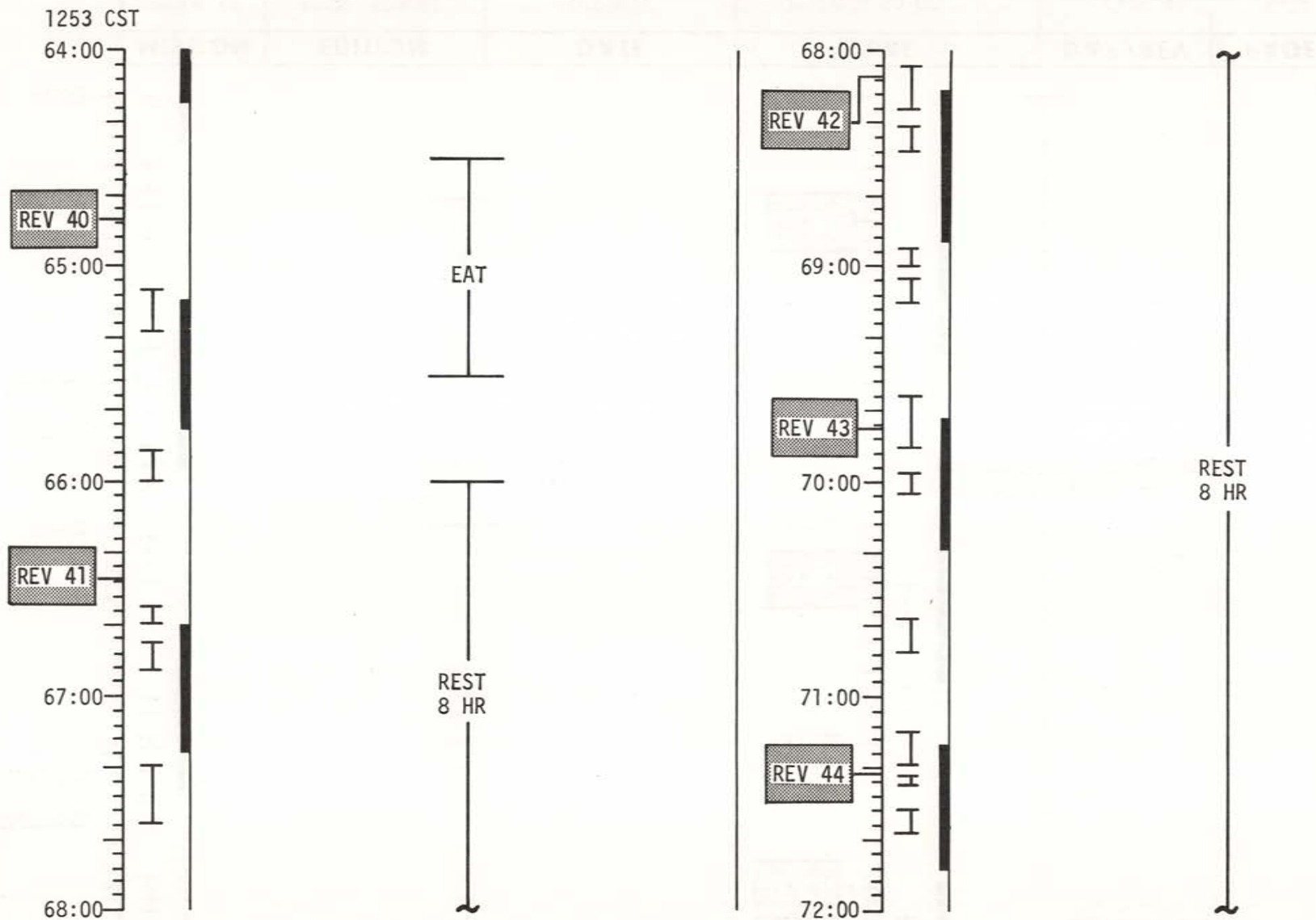


MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	56:00 - 64:00	3/35-39	6-10

FLIGHT PLANNING BRANCH

EARTH ALTERNATE

FLIGHT PLAN

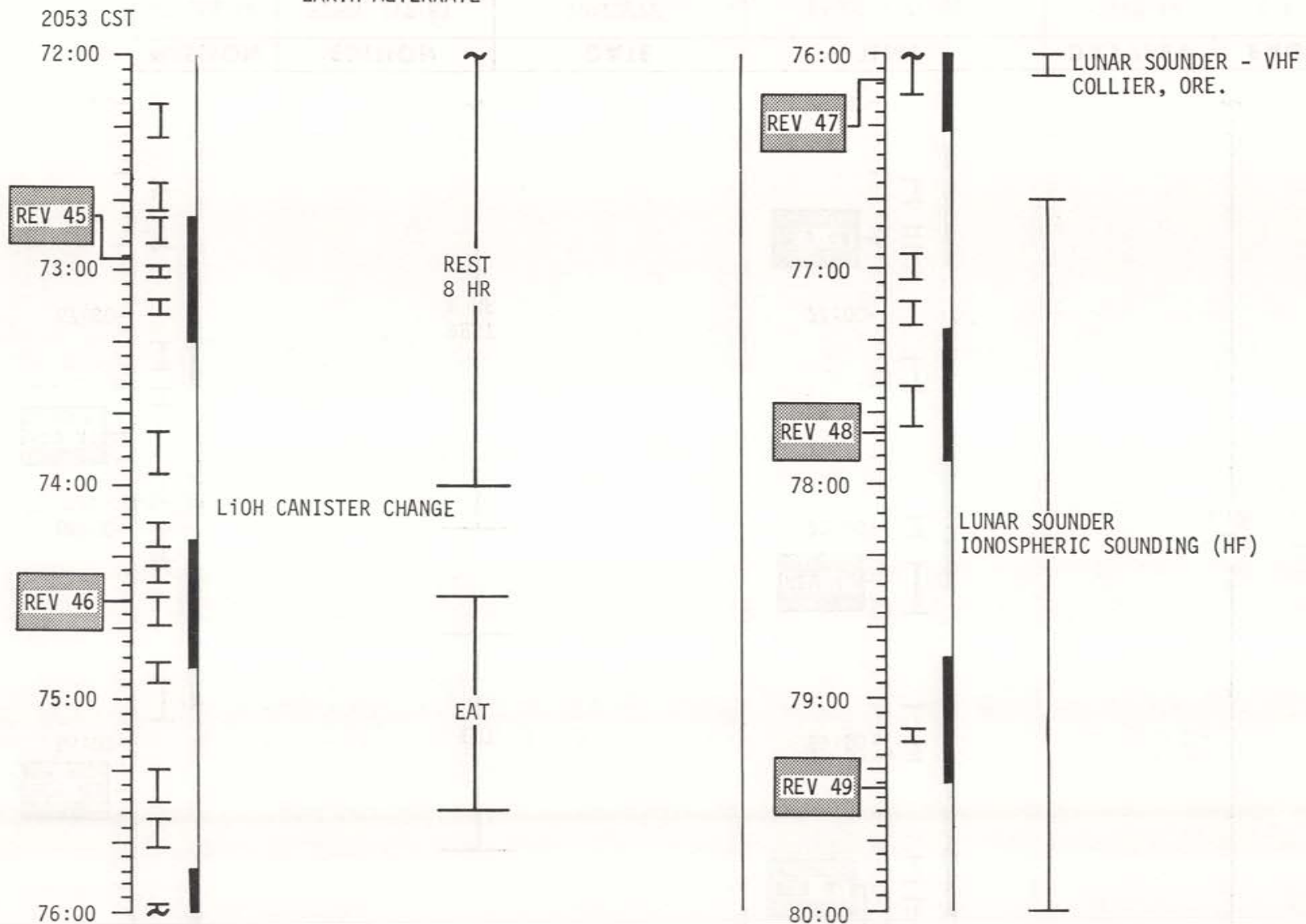


MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	64:00 - 72:00	3/40-44	6-11

FLIGHT PLANNING BRANCH

FLIGHT PLAN

EARTH ALTERNATE

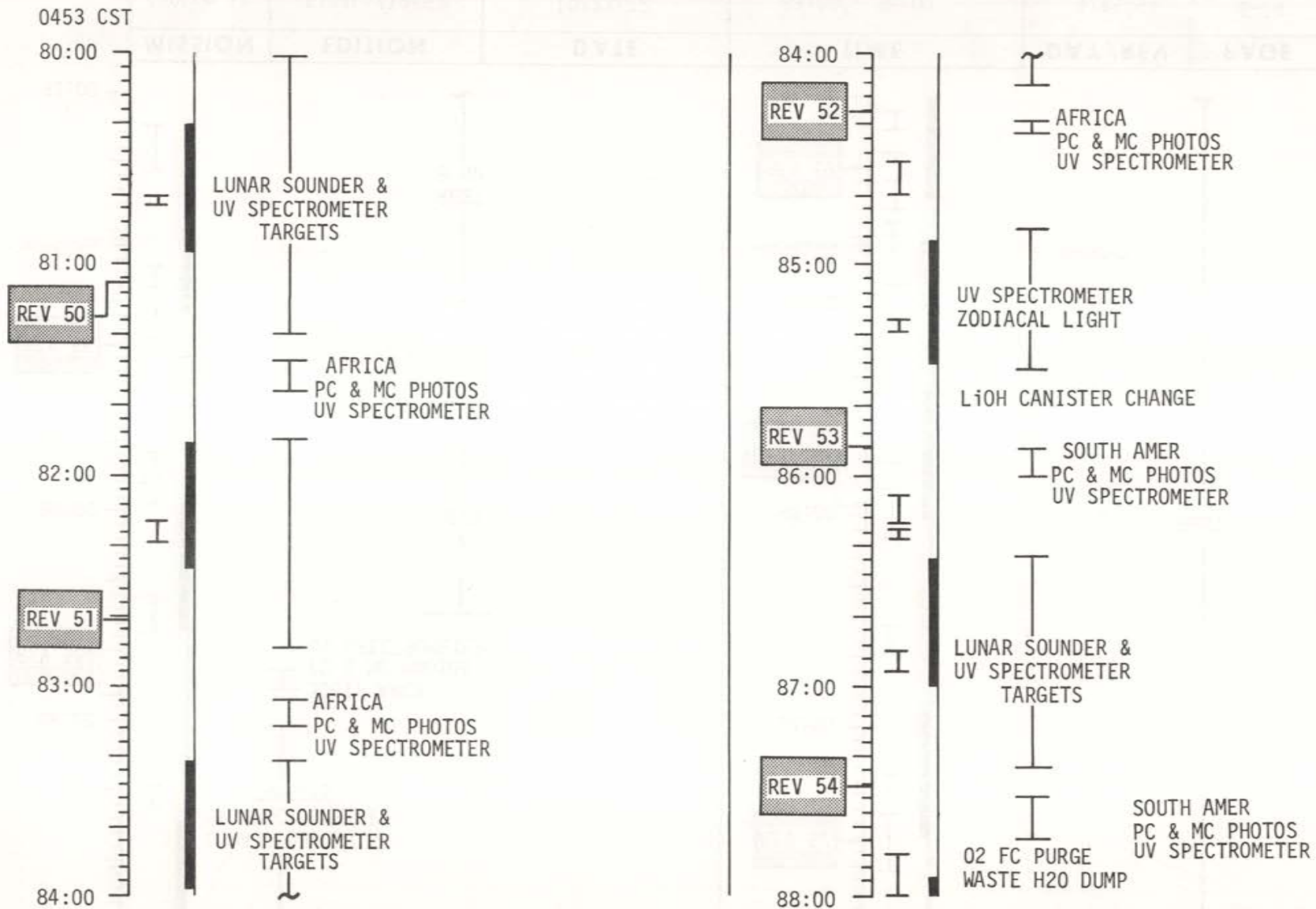


MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	72:00 - 80:00	4/45-49	6-12

FLIGHT PLANNING BRANCH

FLIGHT PLAN

EARTH ALTERNATE

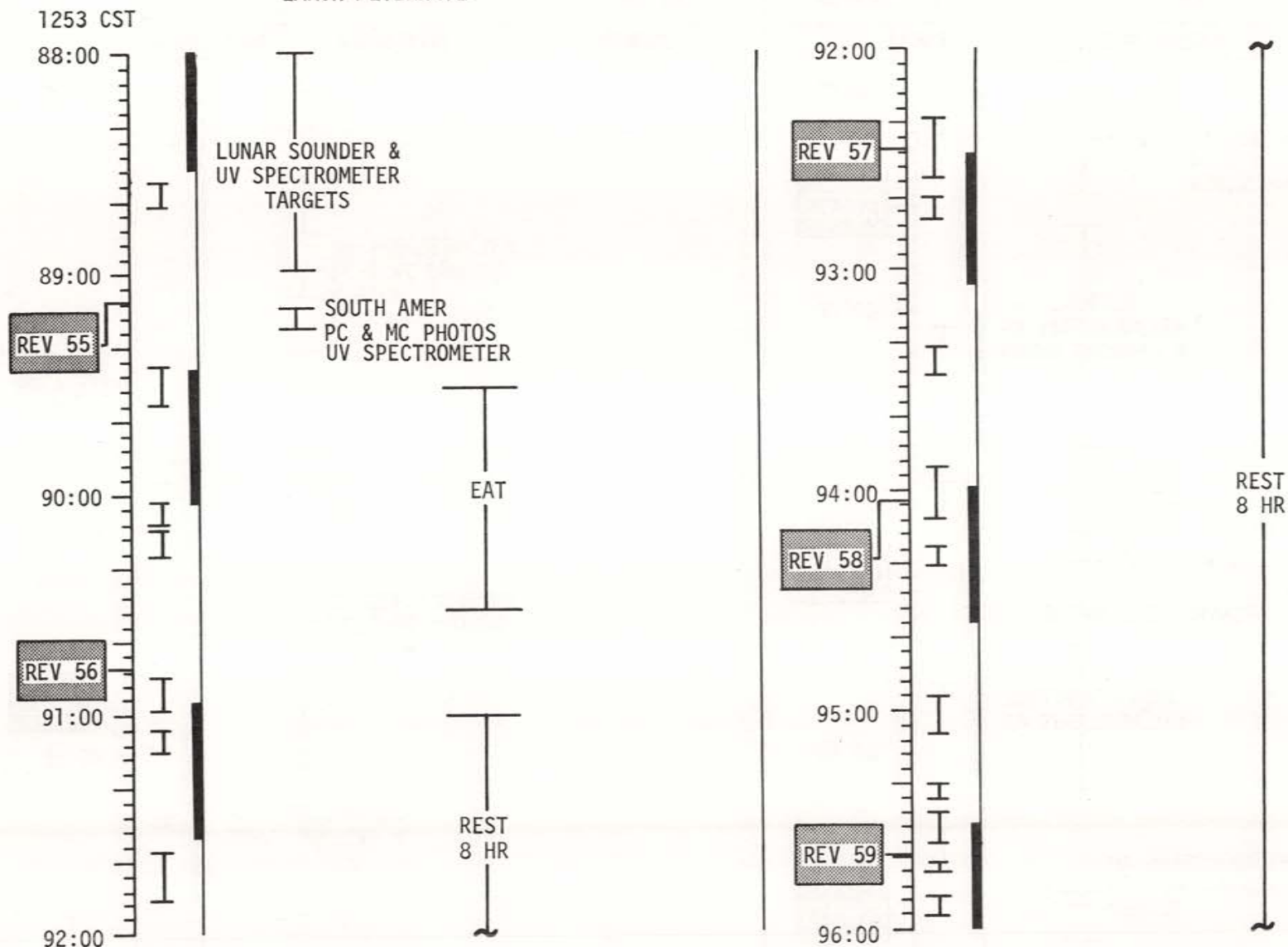


MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	80:00 - 88:00	4/50-54	6-13

FLIGHT PLANNING BRANCH

FLIGHT PLAN

EARTH ALTERNATE

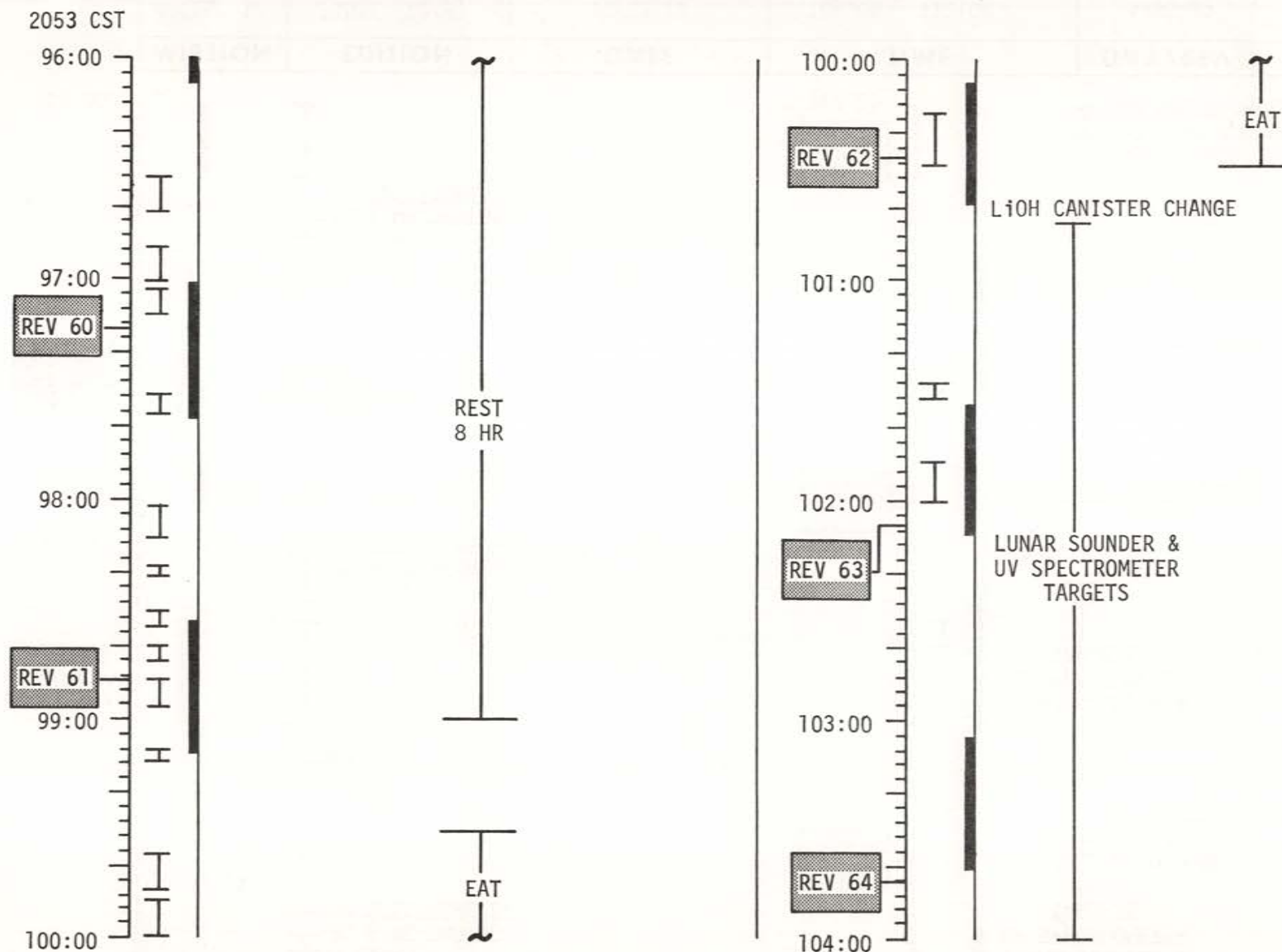


MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	88:00 - 96:00	4/55-59	6-14

FLIGHT PLANNING BRANCH

EARTH ALTERNATE

FLIGHT PLAN



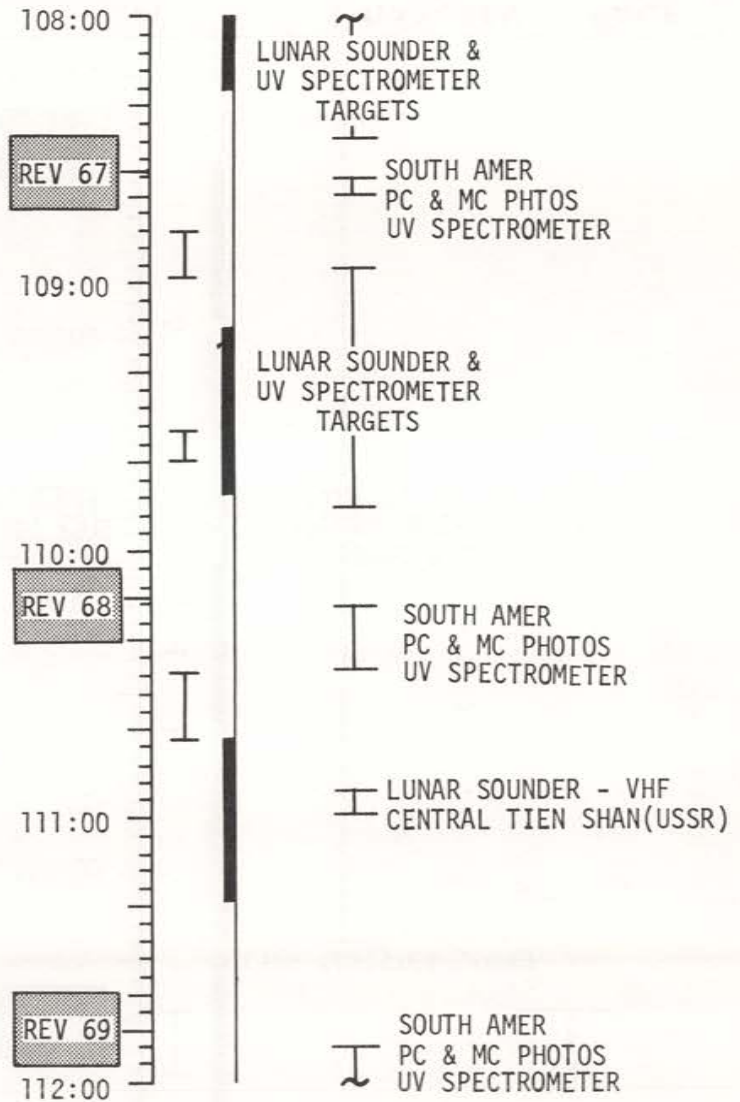
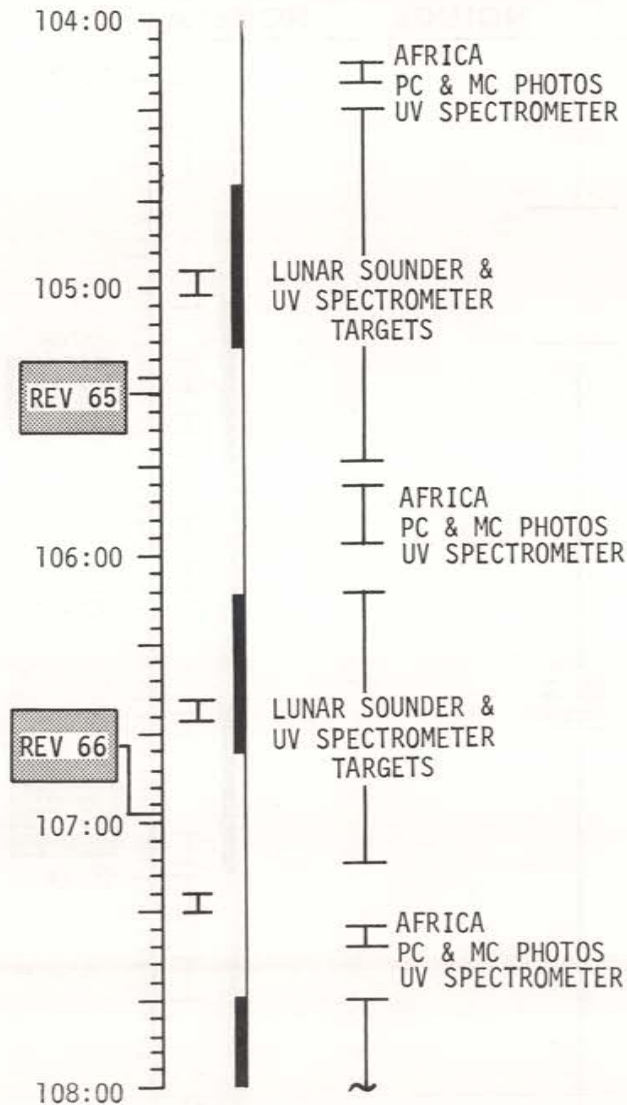
MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	96:00 - 104:00	5/60-64	6-15

FLIGHT PLANNING BRANCH

FLIGHT PLAN

EARTH ALTERNATE

0453 CST

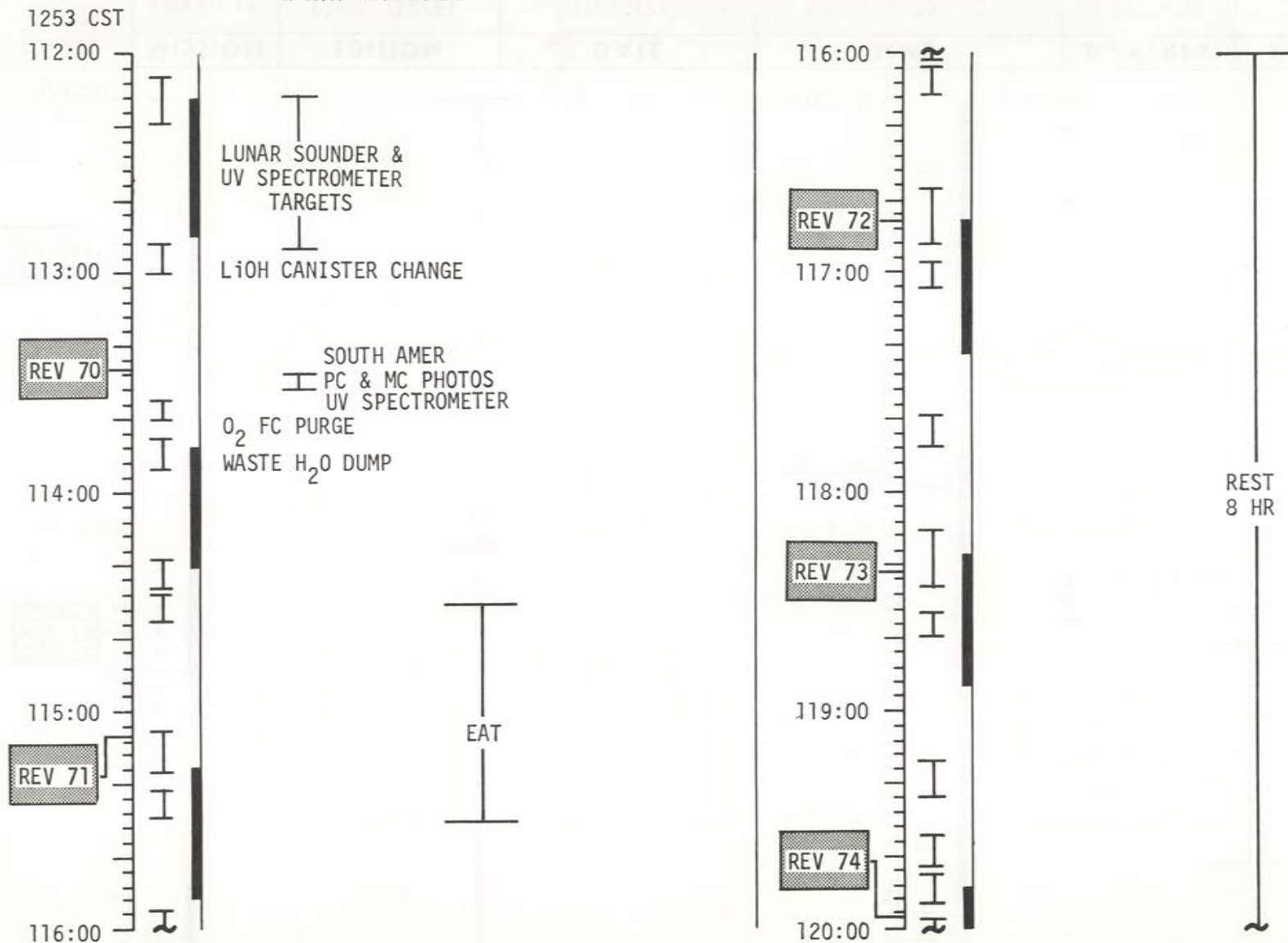


MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	104:00 - 112:00	5/65-69	6-16

FLIGHT PLANNING BRANCH

FLIGHT PLAN

EARTH ALTERNATE

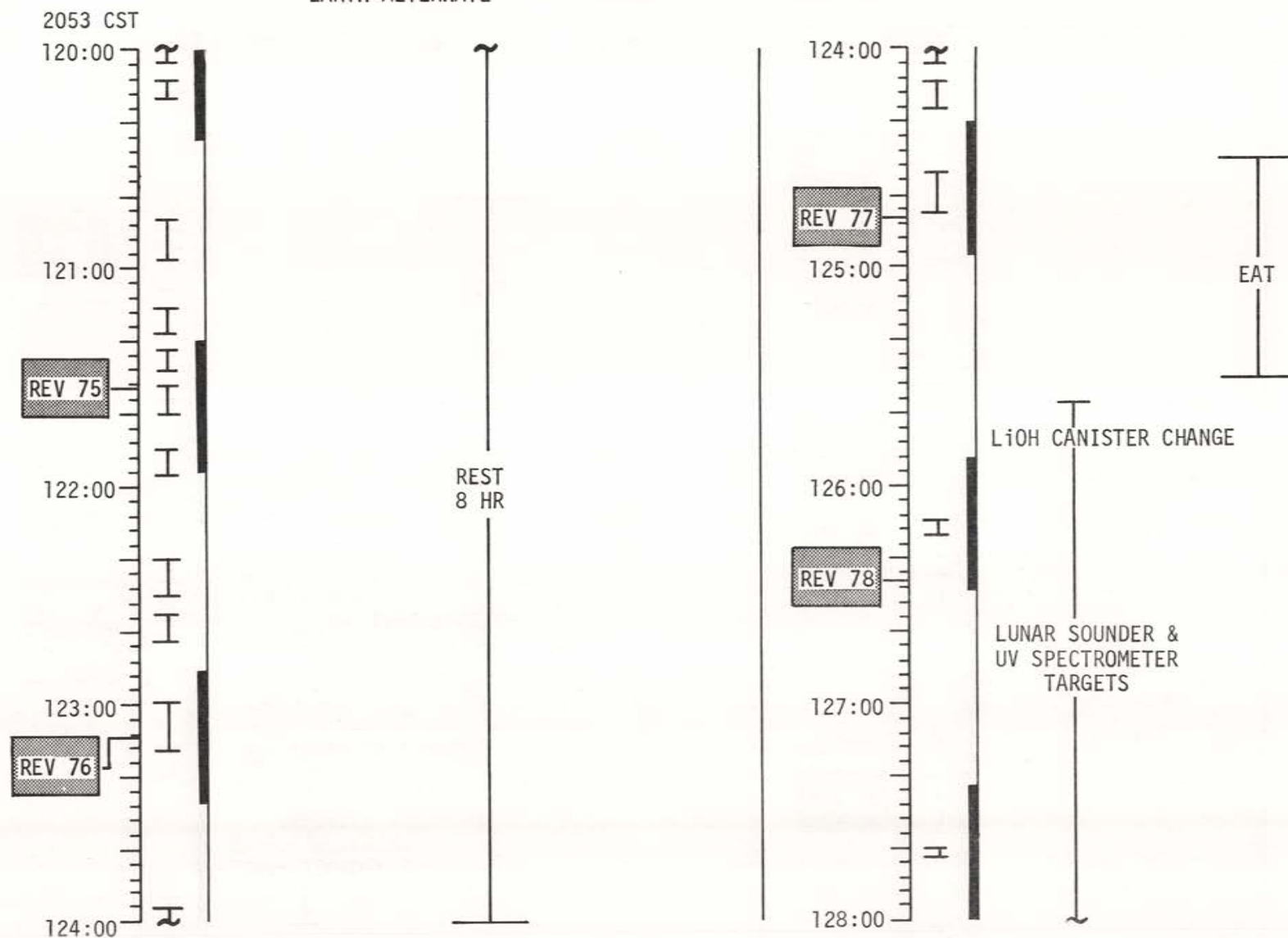


MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	112:00 - 120:00	5/70-74	6-17

FLIGHT PLANNING BRANCH

FLIGHT PLAN

EARTH ALTERNATE



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	120:00 - 128:00	6/7 ^F -78	6-18

FLIGHT PLANNING BRANCH

FLIGHT PLAN

EARTH ALTERNATE

0453 CST

128:00

REV 79

129:00

REV 80

130:00

131:00

REV 81

132:00

I

AFRICA
PC & MC PHOTOS
UV SPECTROMETER

LUNAR SOUNDER &
UV SPECTROMETER
TARGETS

AFRICA
PC & MC PHOTOS
UV SPECTROMETER

LUNAR SOUNDER &
UV SPECTROMETER
TARGETS

AFRICA
PC & MC PHOTOS
UV SPECTROMETER

132:00

REV 82

133:00

134:00

REV 83

135:00

136:00

LUNAR SOUNDER &
UV SPECTROMETER
TARGETS

SOUTH AMER
PC & MC PHOTOS
UV SPECTROMETER

LUNAR SOUNDER &
UV SPECTROMETER
TARGETS

SOUTH AMER
PC & MC PHOTOS
UV SPECTROMETER

LUNAR SOUNDER &
UV SPECTROMETER
TARGETS

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	128:00 - 136:00	6/79-83	6-19

FLIGHT PLANNING BRANCH

FLIGHT PLAN

EARTH ALTERNATE

1253 CST

136:00

REV 84

SOUTH AMER
PC & MC PHOTOS
UV SPECTROMETER

137:00

LUNAR SOUNDER &
UV SPECTROMETER
TARGETS

REV 85

138:00

LUNAR SOUNDER - VHF
VIKRENE (BULGARIA)

139:00

LUNAR SOUNDER &
UV SPECTROMETER
TARGETS

O₂ & H₂ FC PURGE
WASTE H₂O DUMP
LiOH CANISTER CHANGE

REV 86

140:00

EAT

140:00

EAT

141:00

REV 87

142:00

REV 88

143:00

REST
8 HR

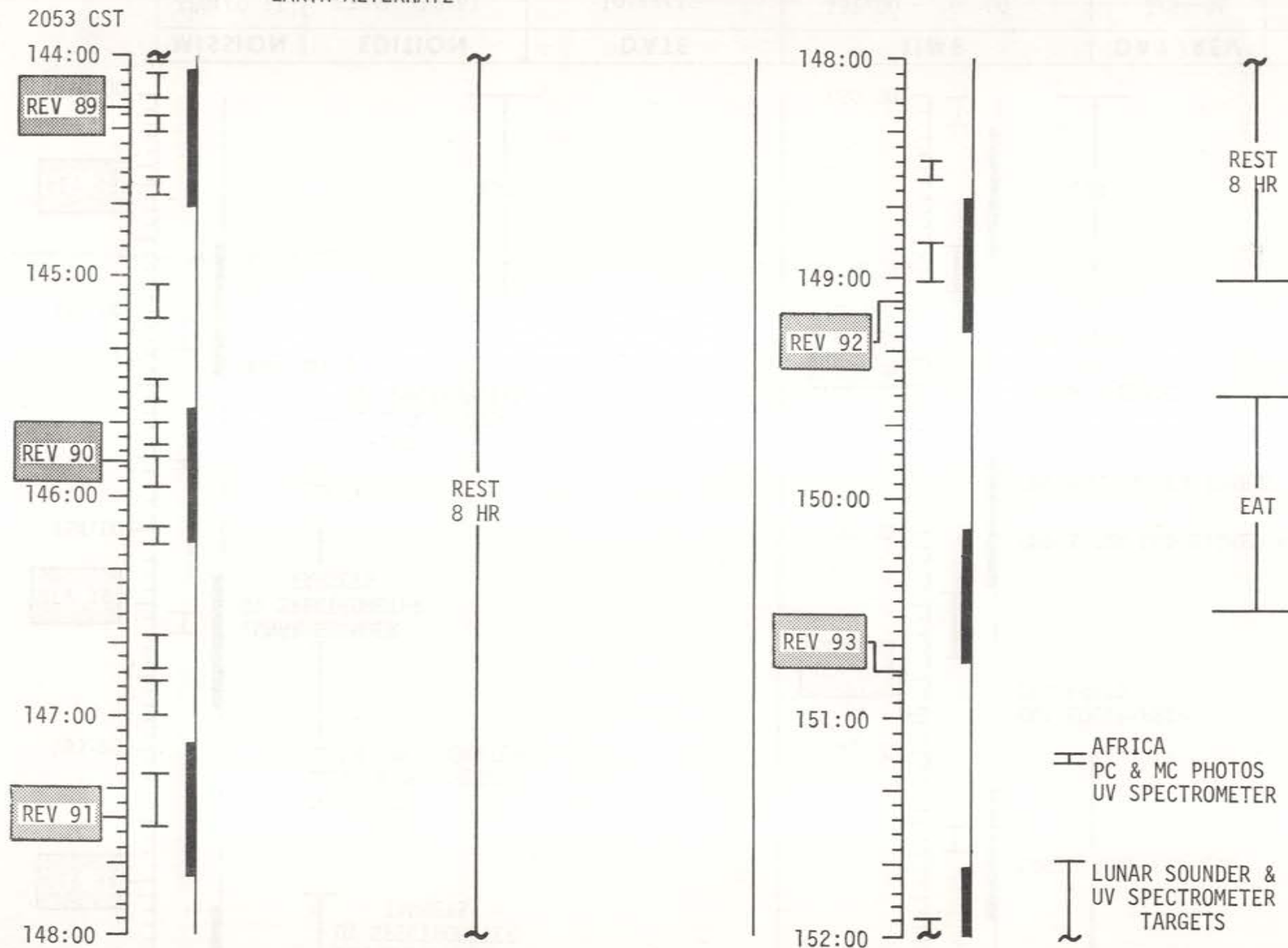
144:00

MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	136:00 - 144:00	6/84-88	6-20

FLIGHT PLANNING BRANCH

FLIGHT PLAN

EARTH ALTERNATE



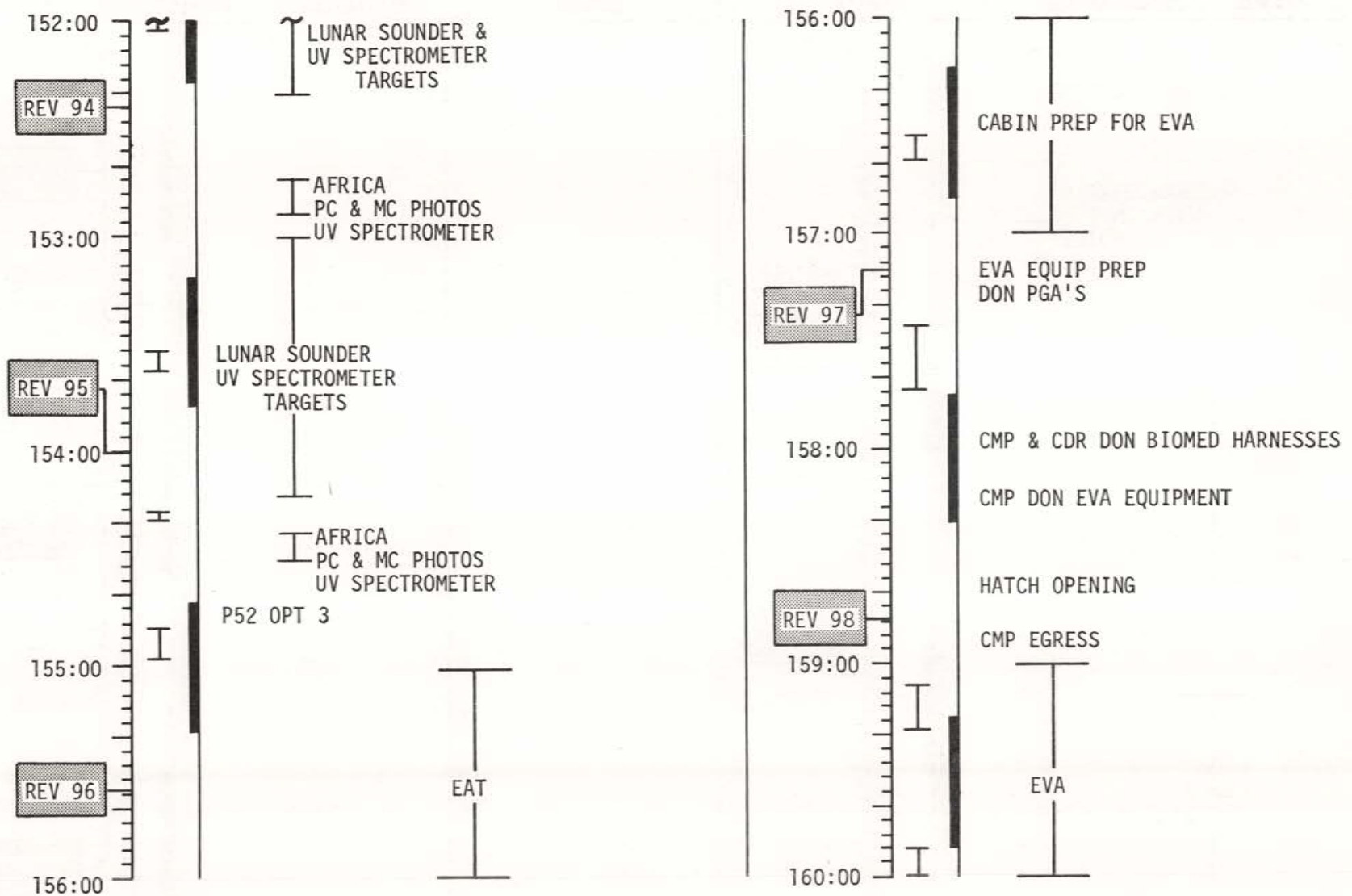
MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	144:00 - 152:00	7/89-93	6-21

FLIGHT PLANNING BRANCH

FLIGHT PLAN

EARTH ALTERNATE

0453 CST

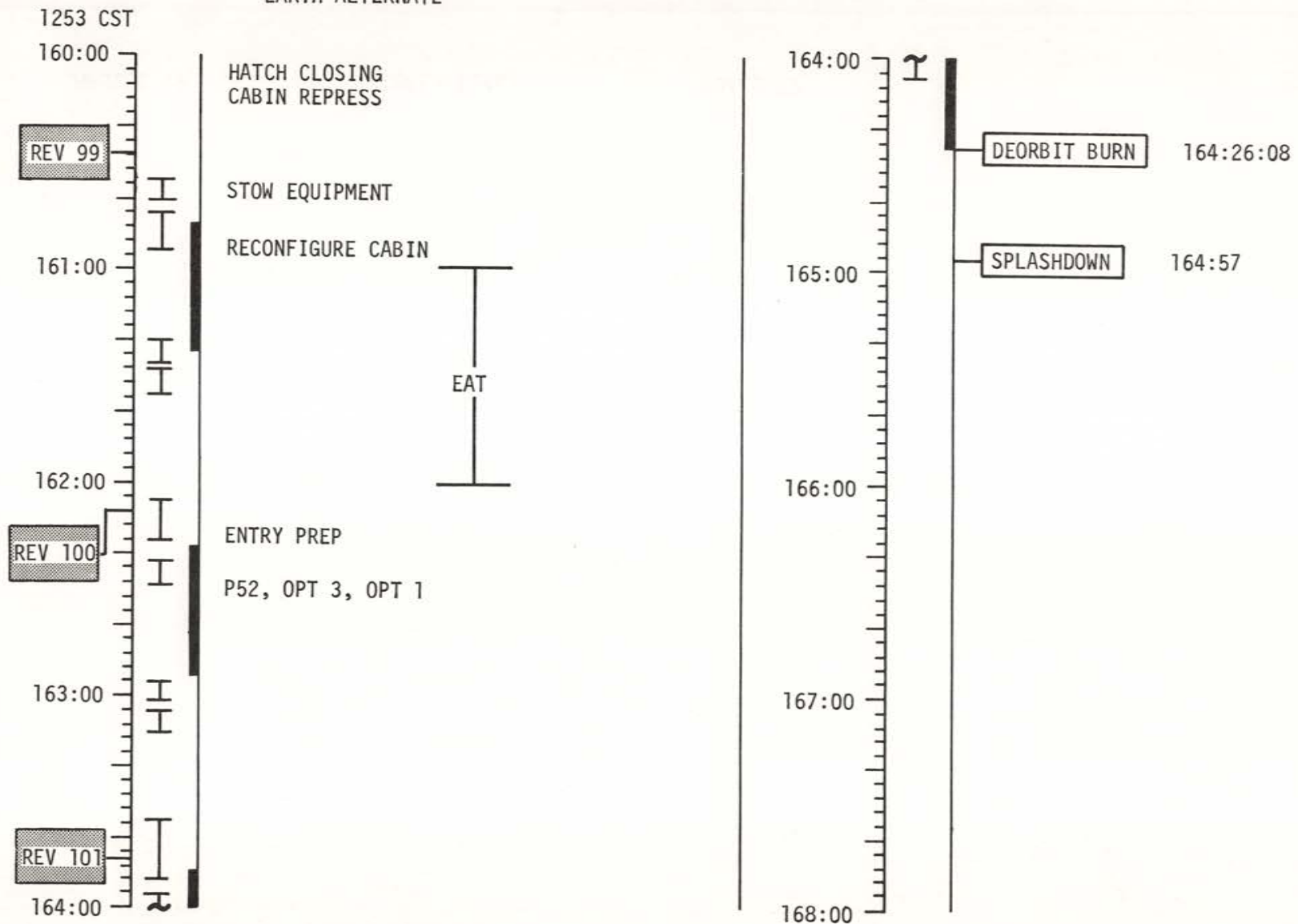


MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	152:00 - 160:00	7/94-98	6-22

FLIGHT PLANNING BRANCH

FLIGHT PLAN

EARTH ALTERNATE



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	10/23/72	160:00 - 168:00	7/99-101	6-23

FLIGHT PLANNING BRANCH

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CSM/LM ALTERNATE MISSION

Assumptions

- 1) Nominal LOI and DOI Burns have been achieved by the SPS.
- 2) A systems failure while in lunar orbit has resulted in a NO/GO for landing.

Constraints

- 1) Jettison LM to a lunar impact.
- 2) Circularize to a 60 nm orbit.
- 3) Adhere to the nominal flight plan as much as possible
- 4) Obtain sim bay experiments data.

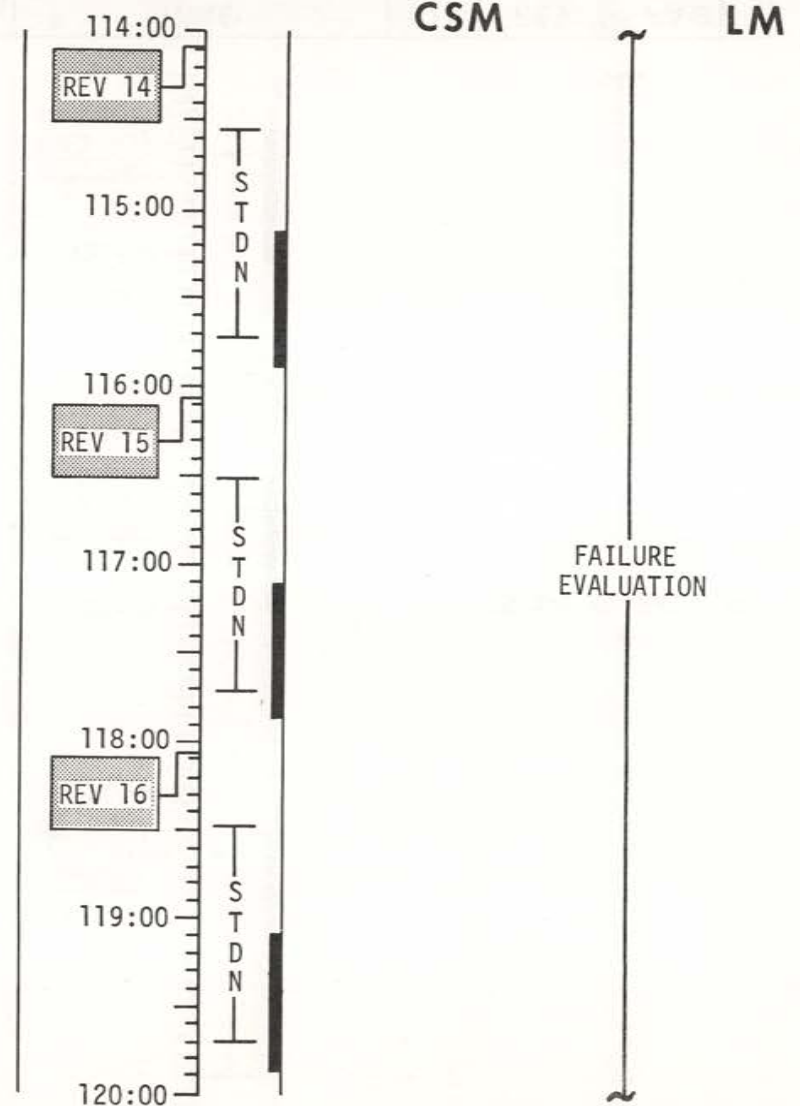
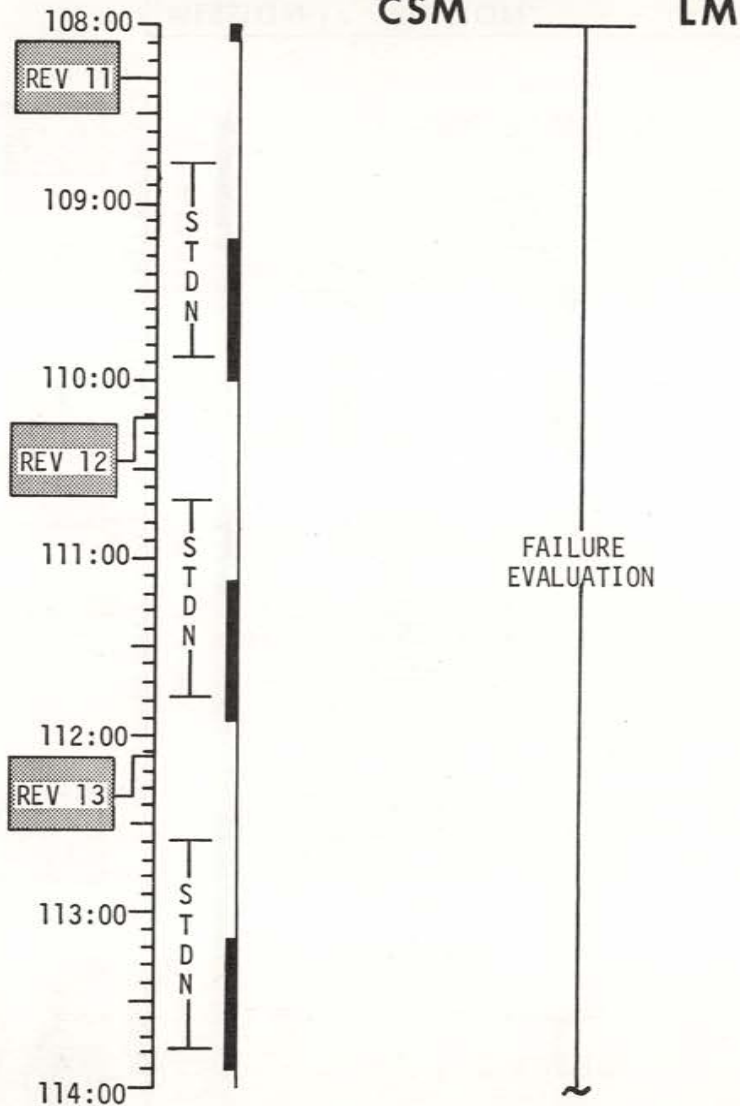
Sequence of Events

This alternate mission is initiated by a systems failure with the DPS which will not allow a landing mission. LM jettison, Circularization and TEI occurs at approximately the nominal time.

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FLIGHT PLAN

CSM/LM ALTERNATE MISSION

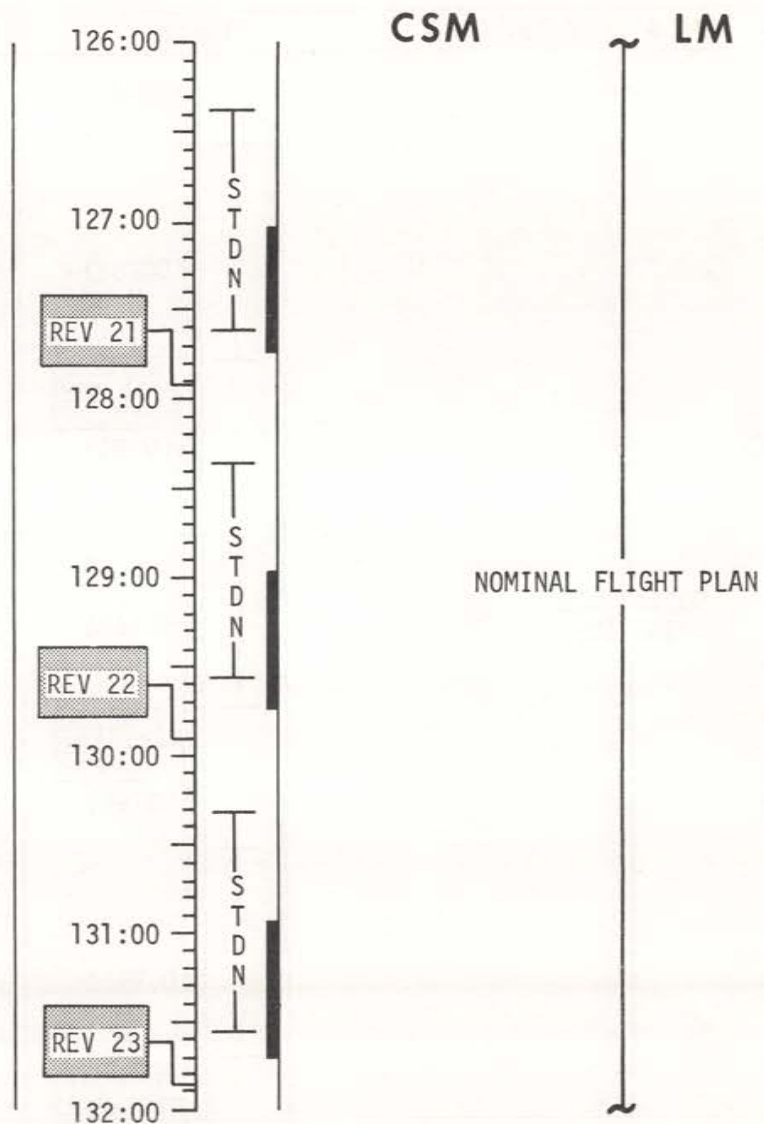
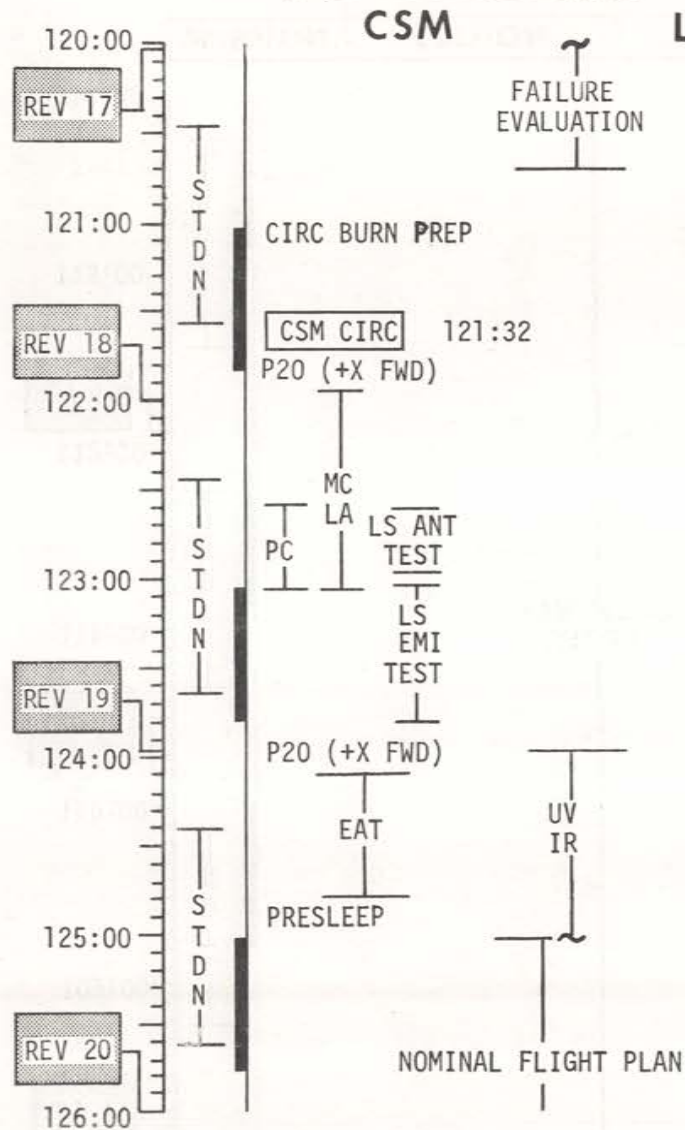


MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	23 OCTOBER 1972	108:00 - 120:00	6/11-16	6-27

FLIGHT PLANNING BRANCH

FLIGHT PLAN

CSM/LM ALTERNATE MISSION

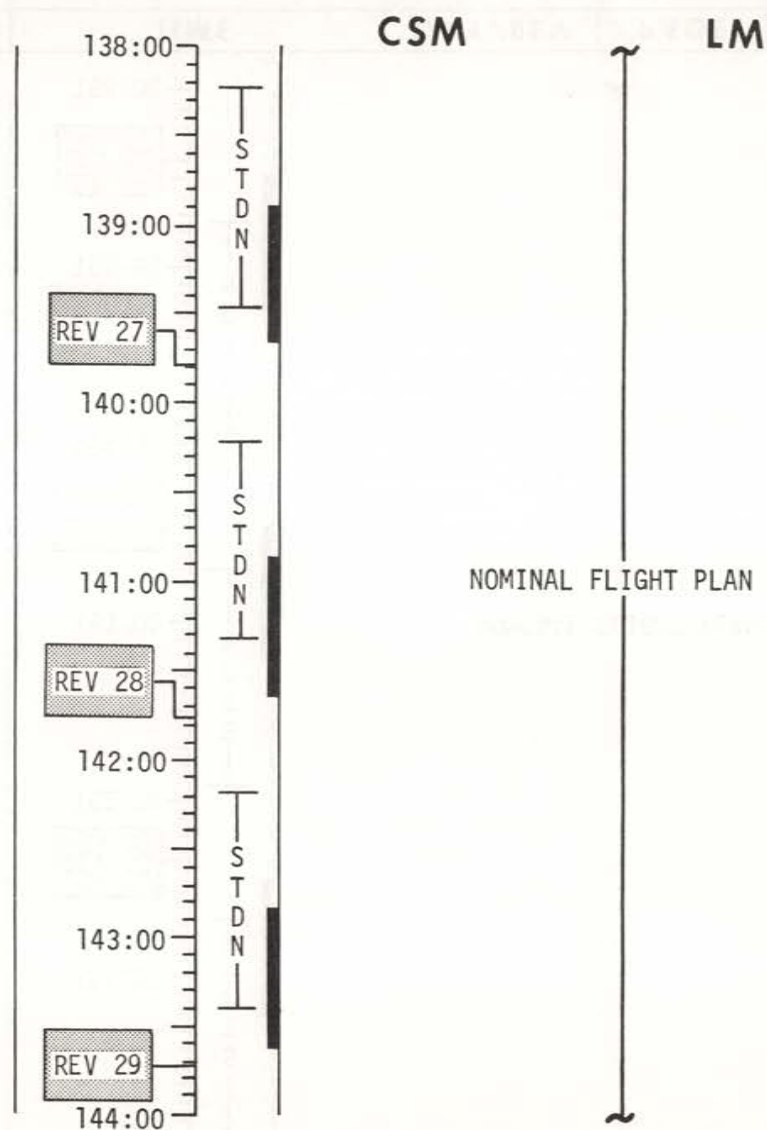
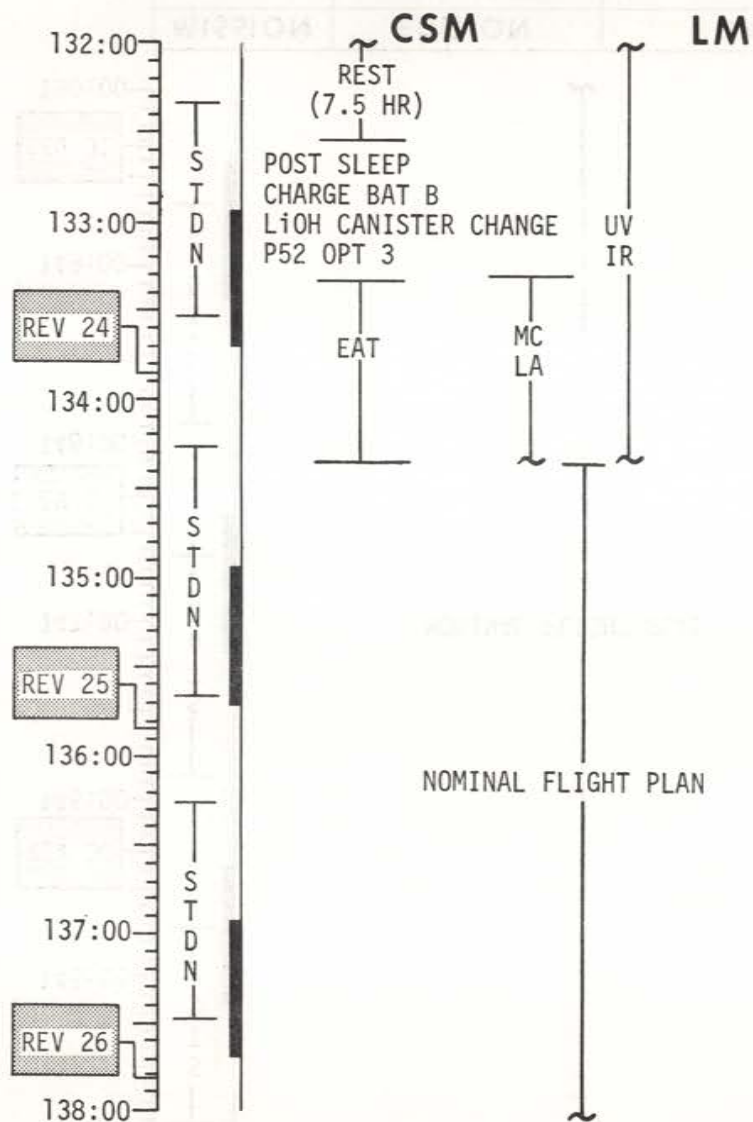


MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	23 OCTOBER 1972	120:00 - 132:00	6-7/17-23	6-28

FLIGHT PLANNING BRANCH

FLIGHT PLAN

CSM/LM ALTERNATE MISSION

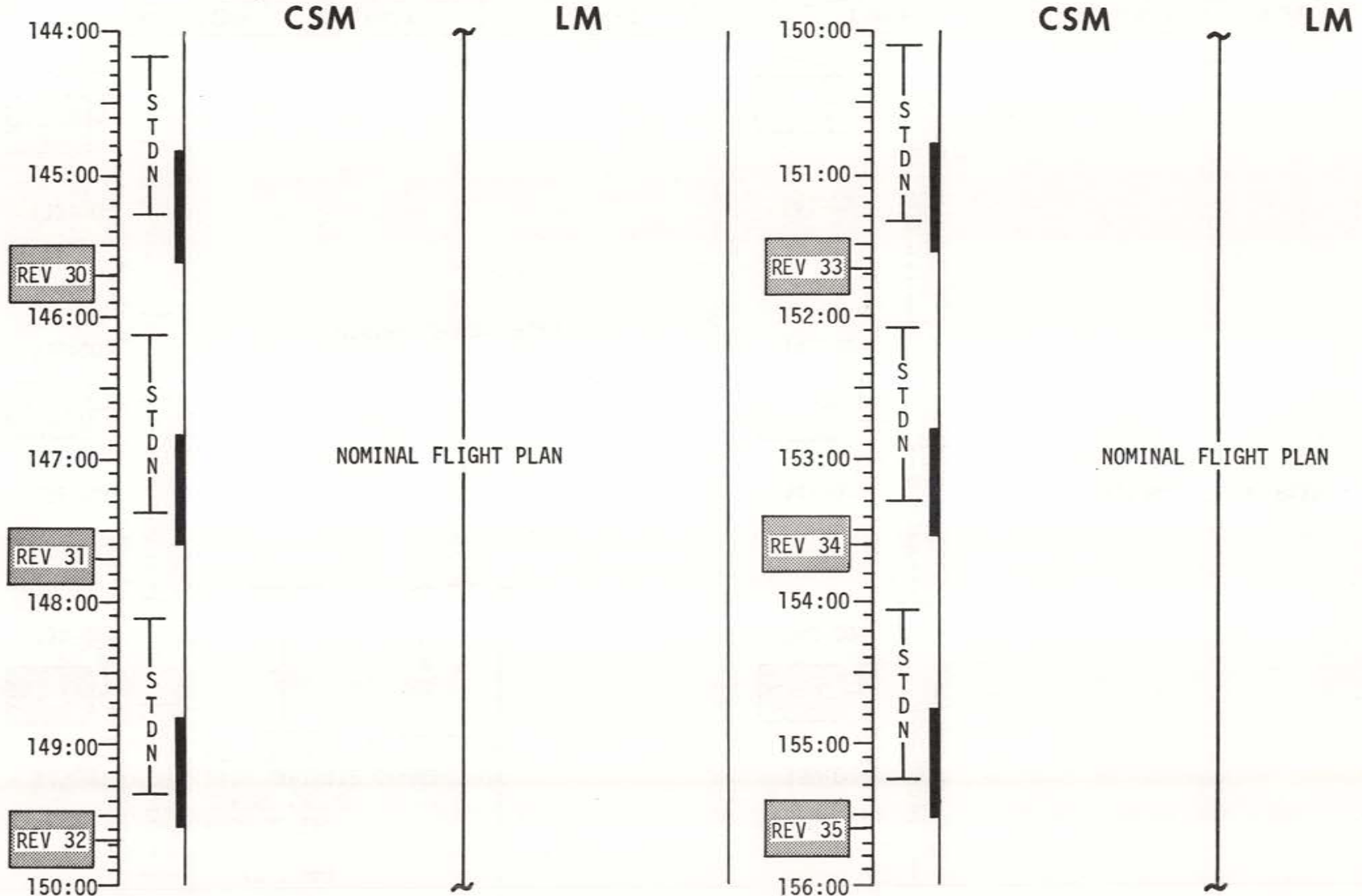


MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	23 OCTOBER 1972	132:00 - 144:00	7/24-29	6-29

FLIGHT PLANNING BRANCH

FLIGHT PLAN

CSM/LM ALTERNATE MISSION

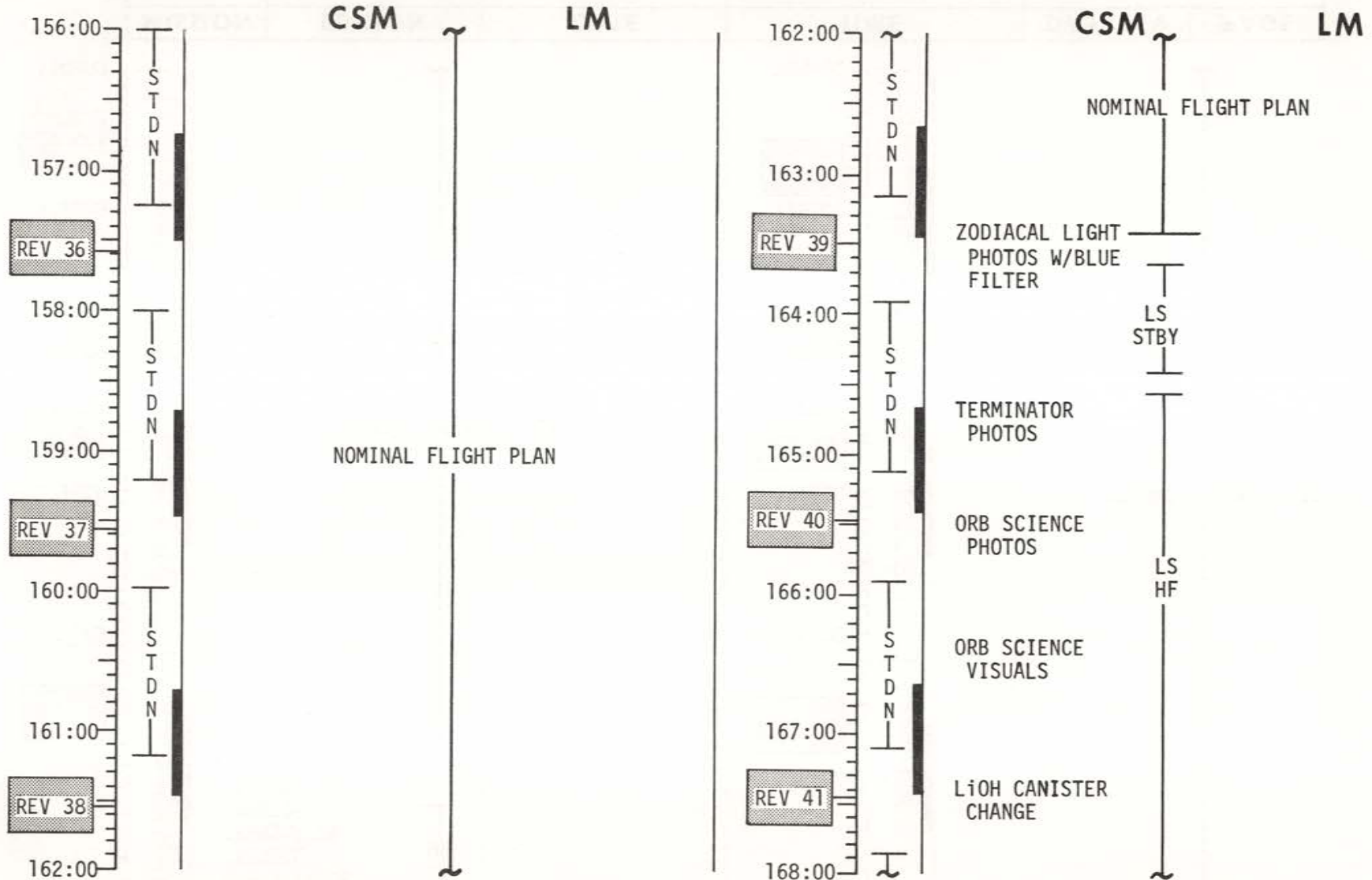


MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	23 OCTOBER 1972	144:00 - 156:00	7-8/30-35	6-30

FLIGHT PLANNING BRANCH

FLIGHT PLAN

CSM/LM ALTERNATE MISSION

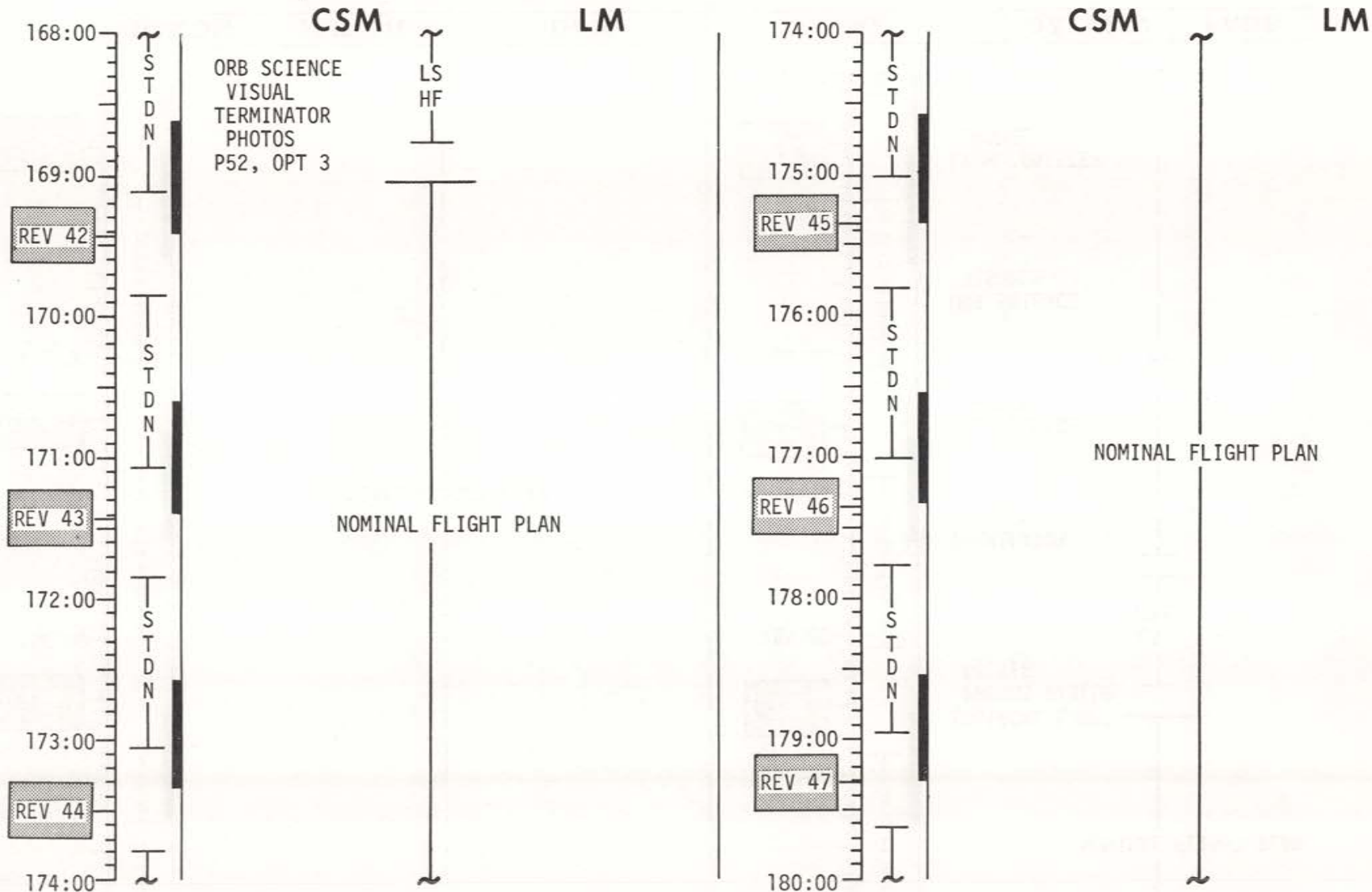


MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	23 OCTOBER 1972	156:00 - 168:00	8/36-41	6-31

FLIGHT PLANNING BRANCH

FLIGHT PLAN

CSM/LM ALTERNATE MISSION

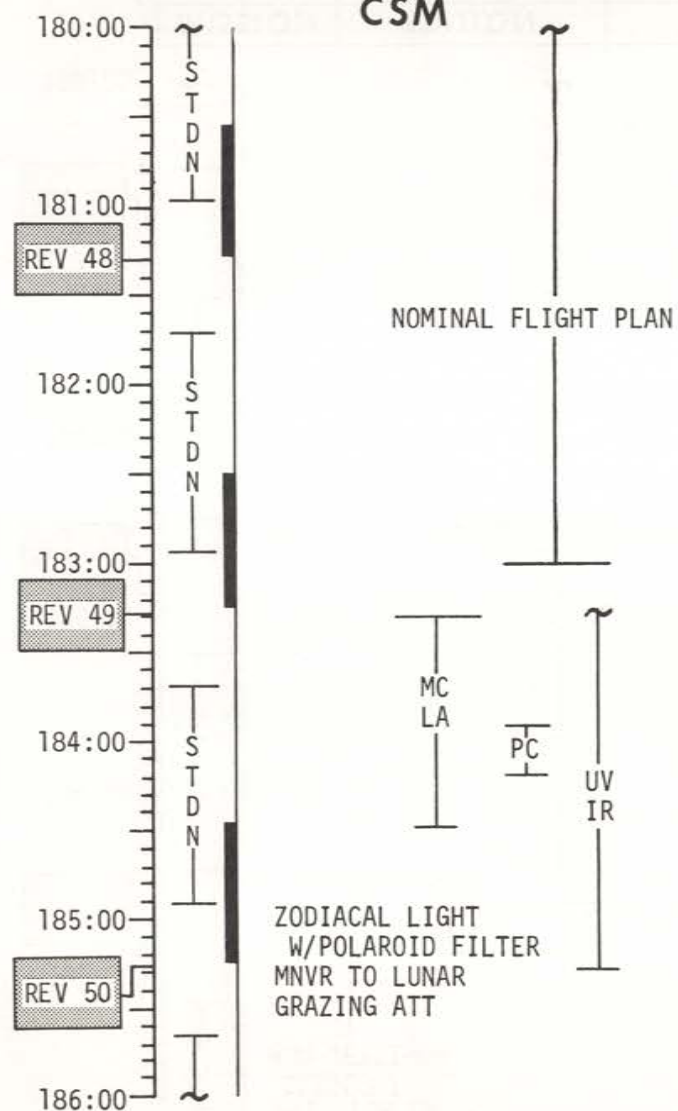


MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	23 OCTOBER 1972	168:00 - 180:00	8-9/42-47	6-32

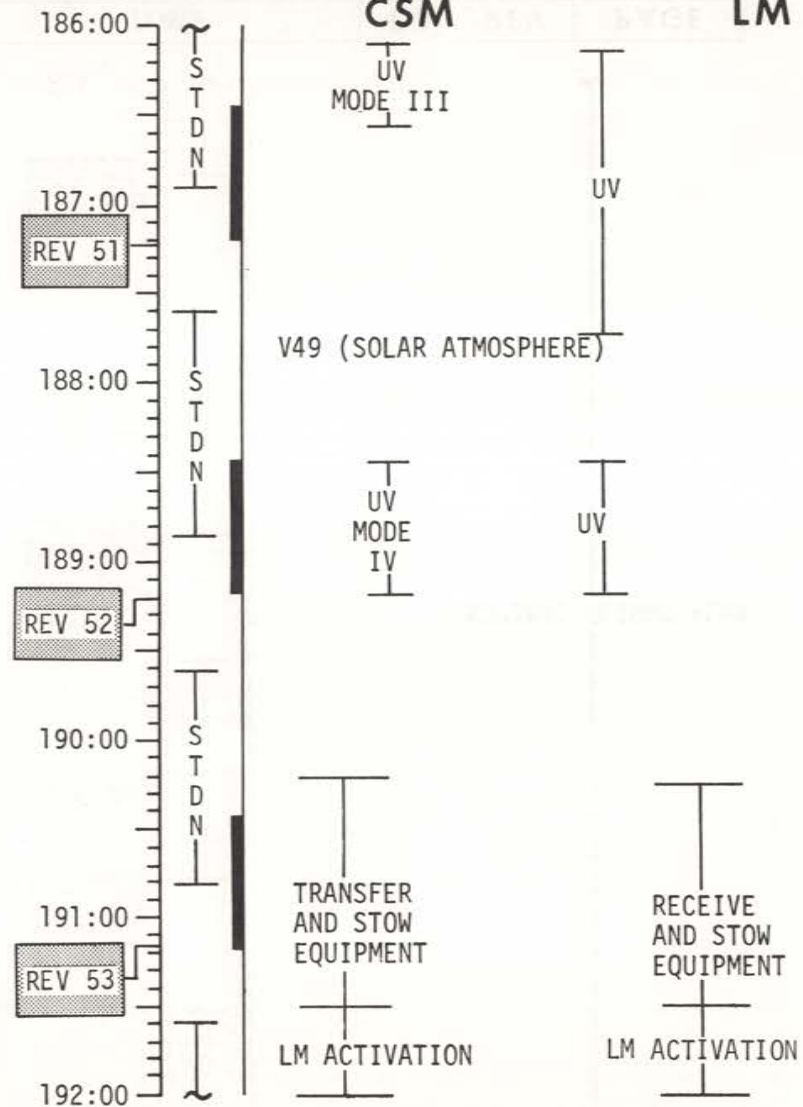
FLIGHT PLANNING BRANCH

CSM/LM ALTERNATE MISSION

LM



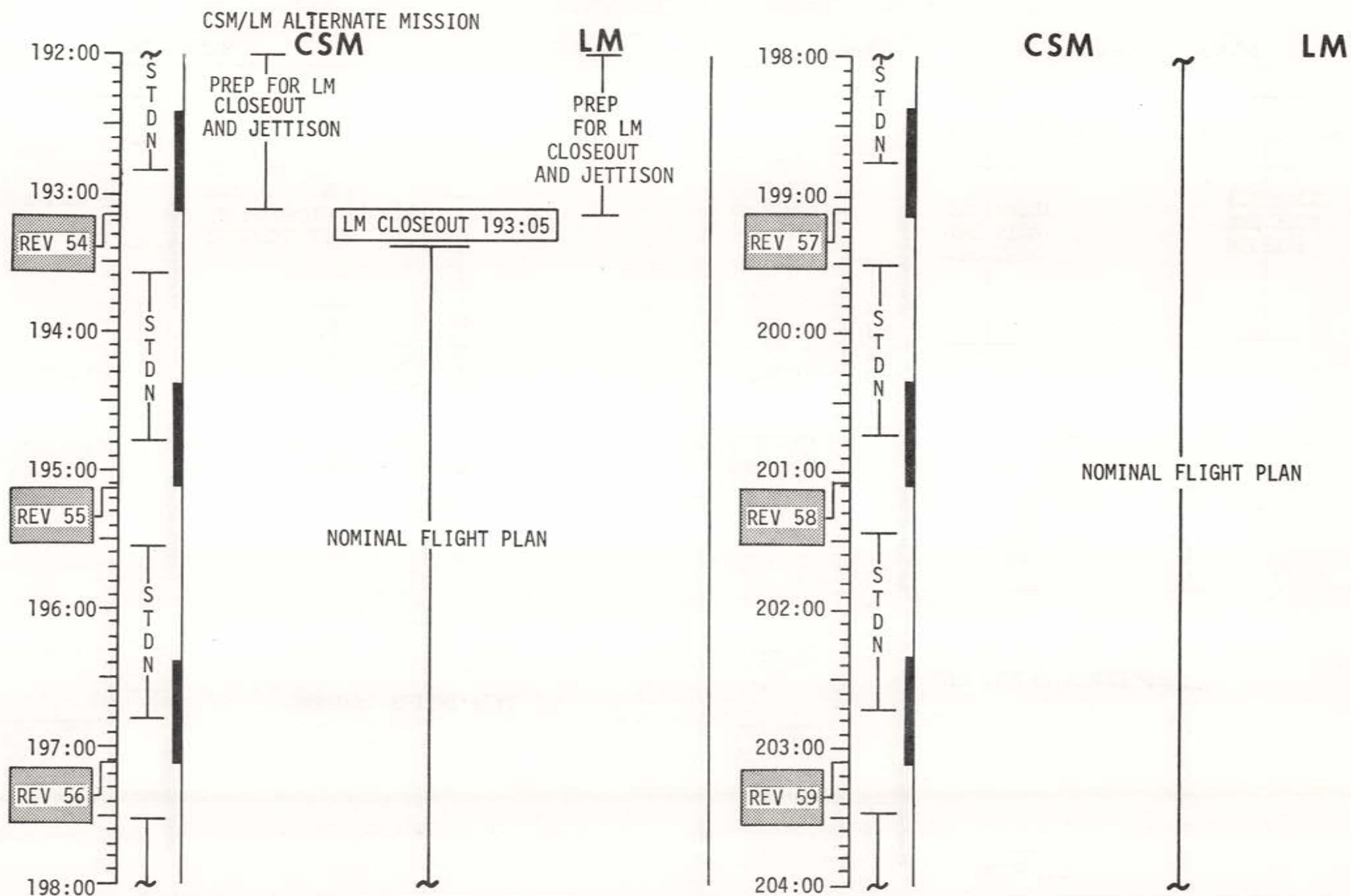
LM



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	23 OCTOBER 1972	180:00 - 192:00	9/48-53	6-33

FLIGHT PLANNING BRANCH

FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	FINAL (12/6)	23 OCTOBER 1972	192:00 - 204:00	9/54-59	6-34

FLIGHT PLANNING BRANCH

CSM ONLY ALTERNATE MISSION

Assumptions

- 1) A nominal TLI Burn has been achieved by the S-IVB.
- 2) A systems failure during T.D.&E or a LM Jettison during TLC has resulted in a CSM-Only Alternate Mission.

Constraints

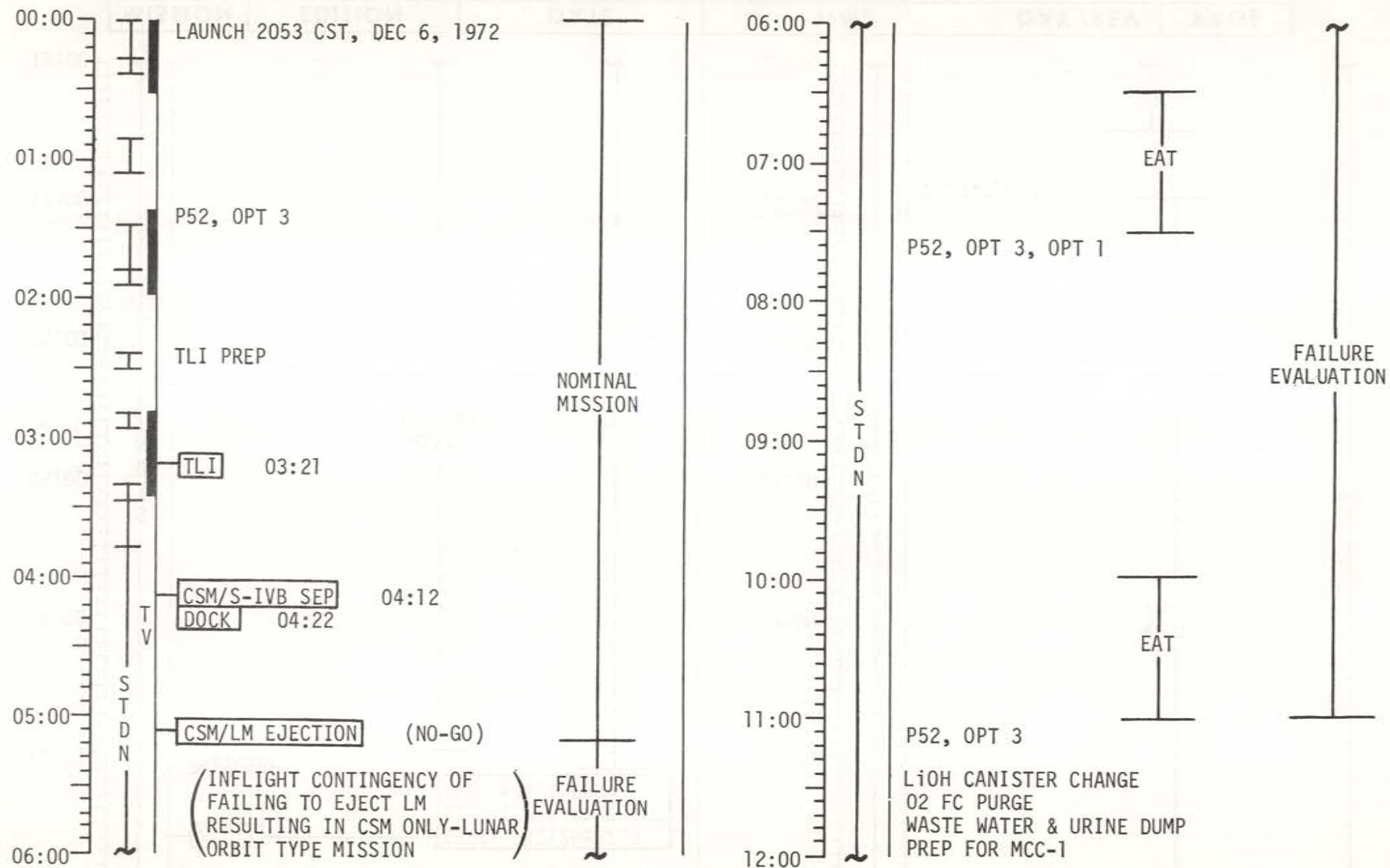
- 1) SPS midcourse burn to return to a free **return** trajectory.
- 2) Maintain any rev TEI Capability.
- 3) Obtain sim bay experiments data.

Sequence of Events

This alternate mission is initiated by a failure to eject the LM at T.D.&E or a LM Jettison during TLC. An SPS midcourse will be performed to a free return trajectory. The CSM will perform an LOI and Circularization Burn sequence with an inclination of approximately twenty degrees. Six days are planned in lunar orbit operating all the sim bay equipment and expending all the pan and mapping camera film. The TEI burn will follow a sequence similar to the nominal mission.

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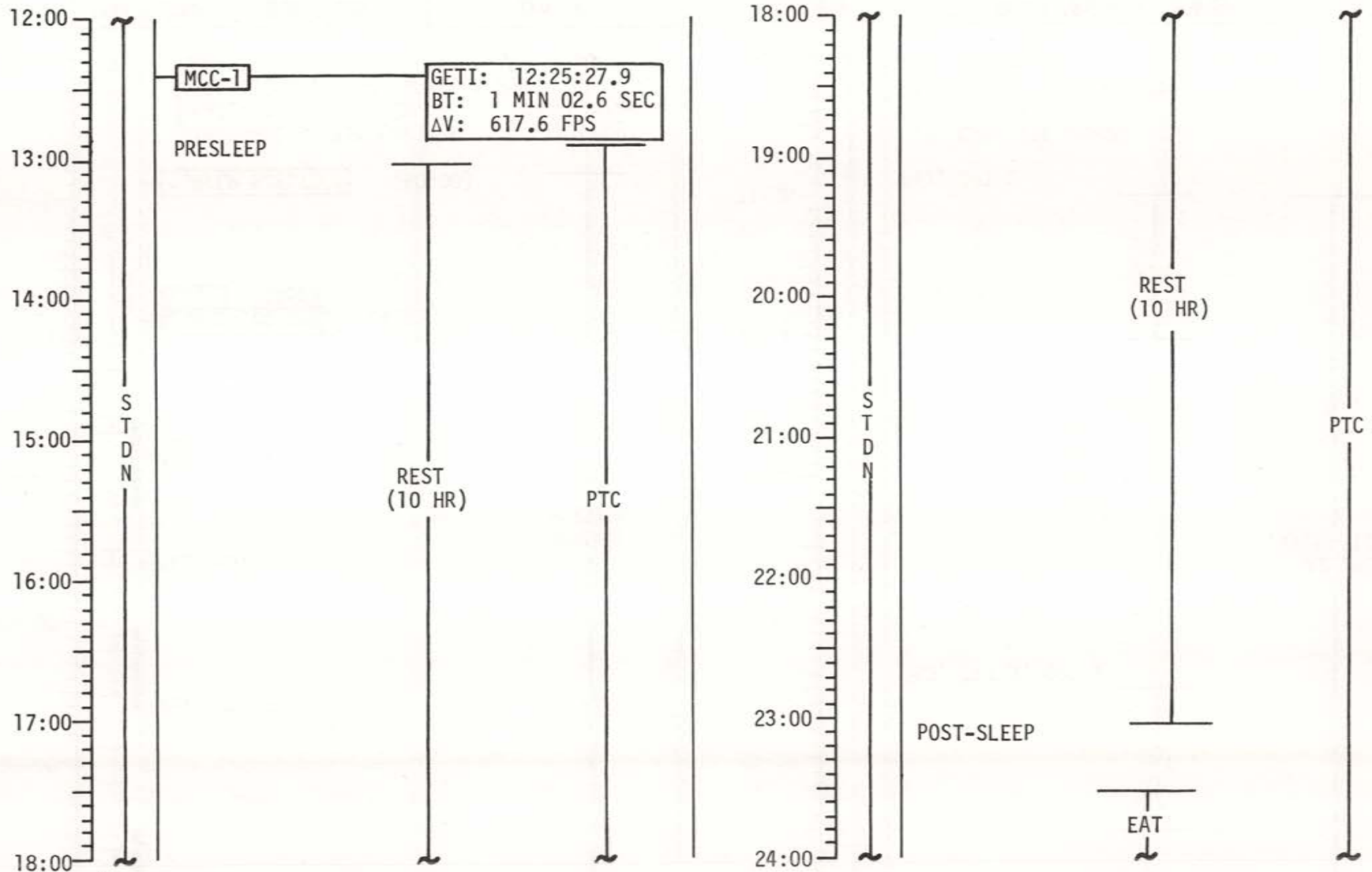
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	CSM ONLY ALT	23 OCT 1972	00:00 - 12:00	1/TLC	6-37

FLIGHT PLANNING BRANCH

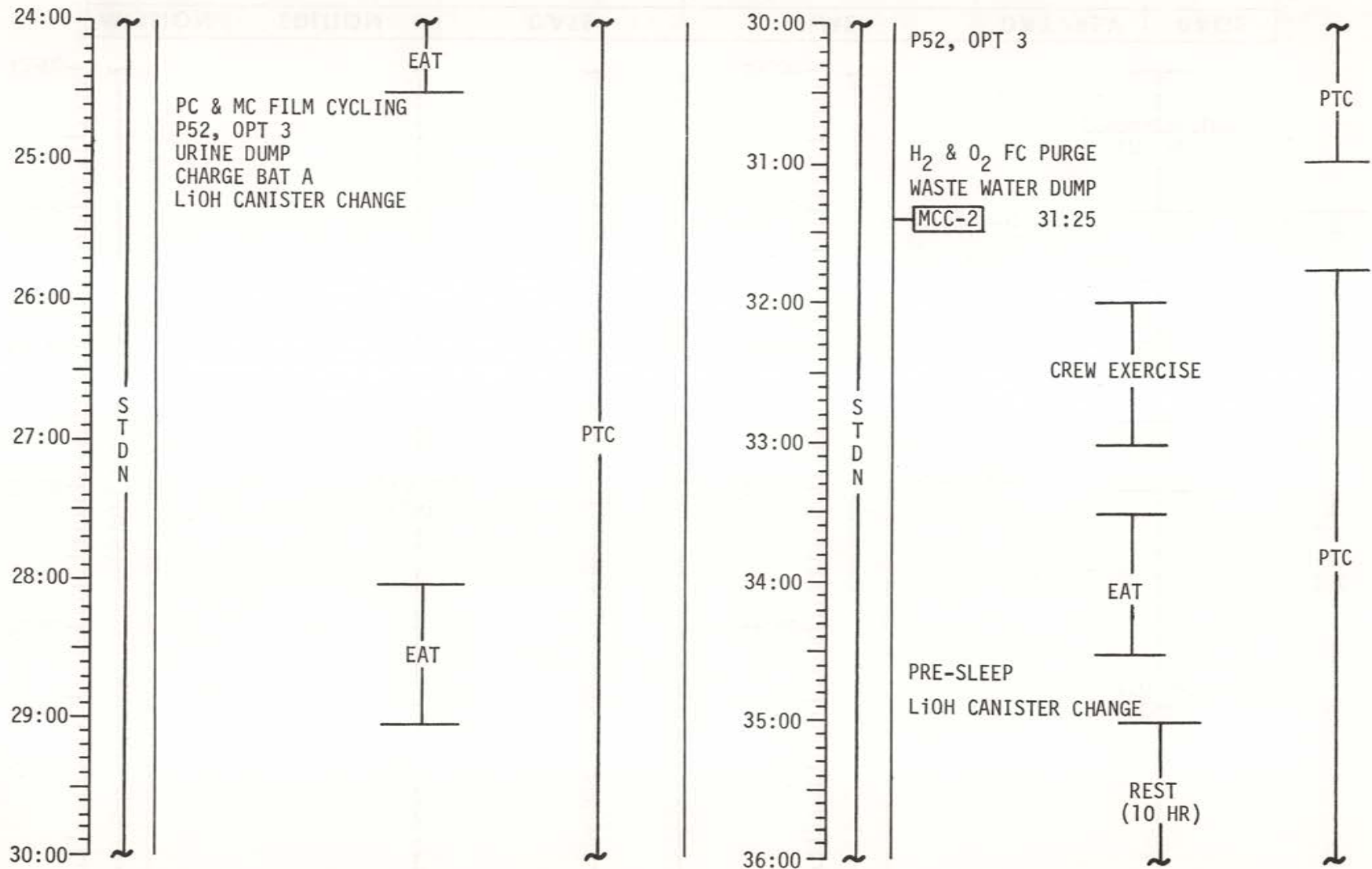
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	CSM ONLY ALT	23 OCT 1972	12:00 - 24:00	1/TLC	6-38

FLIGHT PLANNING BRANCH

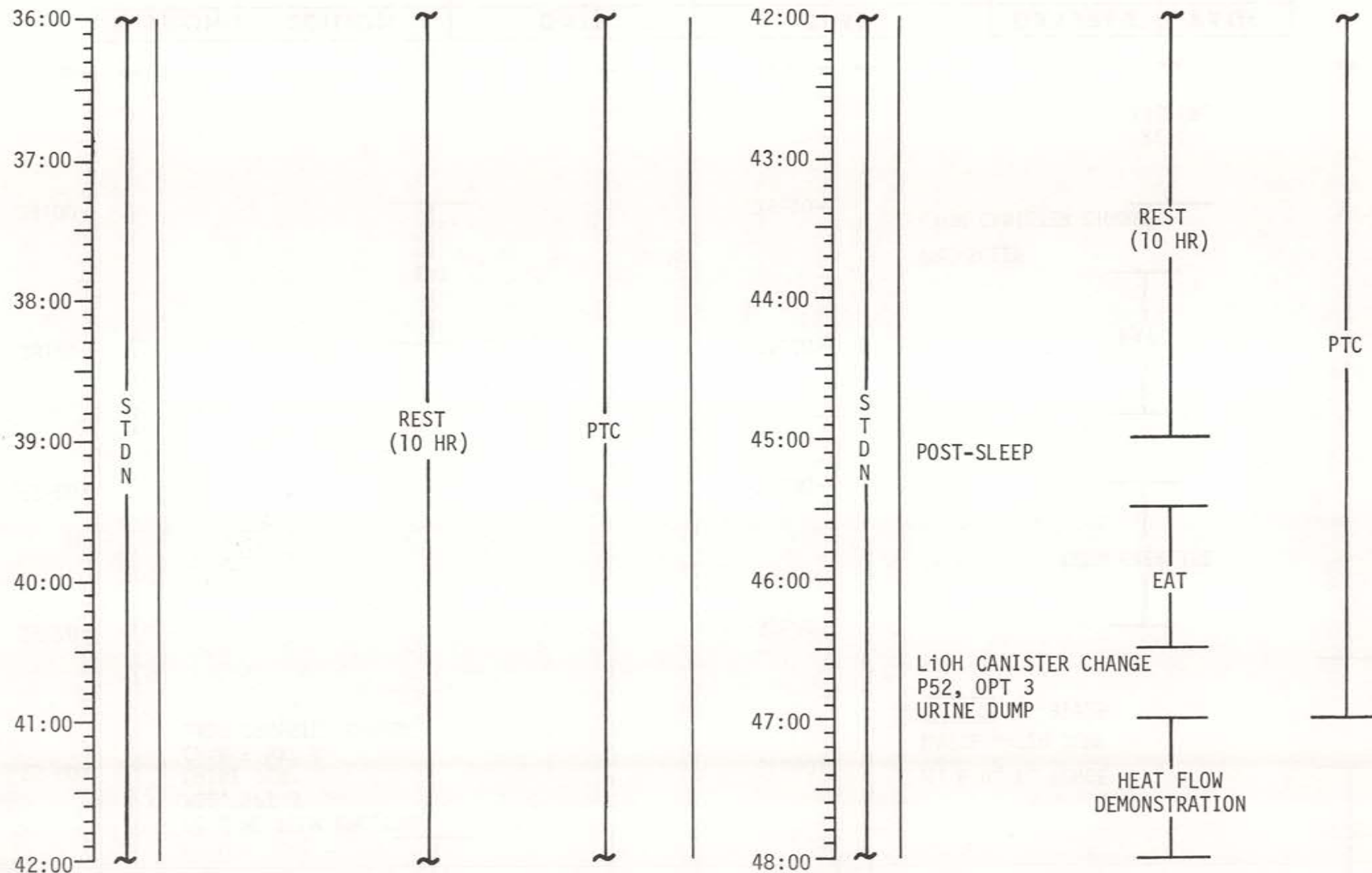
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	CSM ONLY ALT	23 OCT 1972	24:00 - 36:00	2/TLC	6-39

FLIGHT PLANNING BRANCH

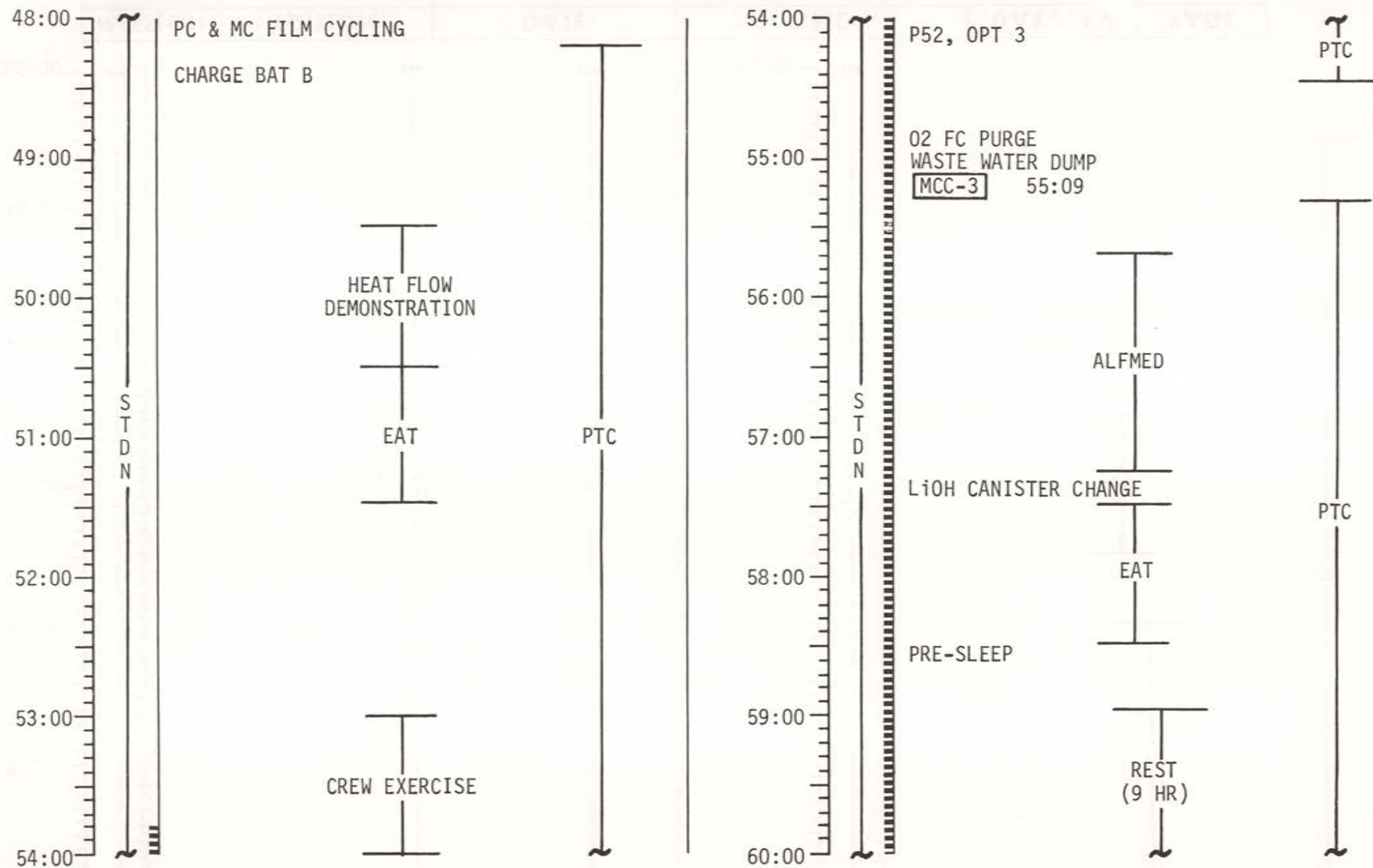
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	CSM ONLY ALT	23 OCT 1972	36:00 - 48:00	2/TLC	6-40

FLIGHT PLANNING BRANCH

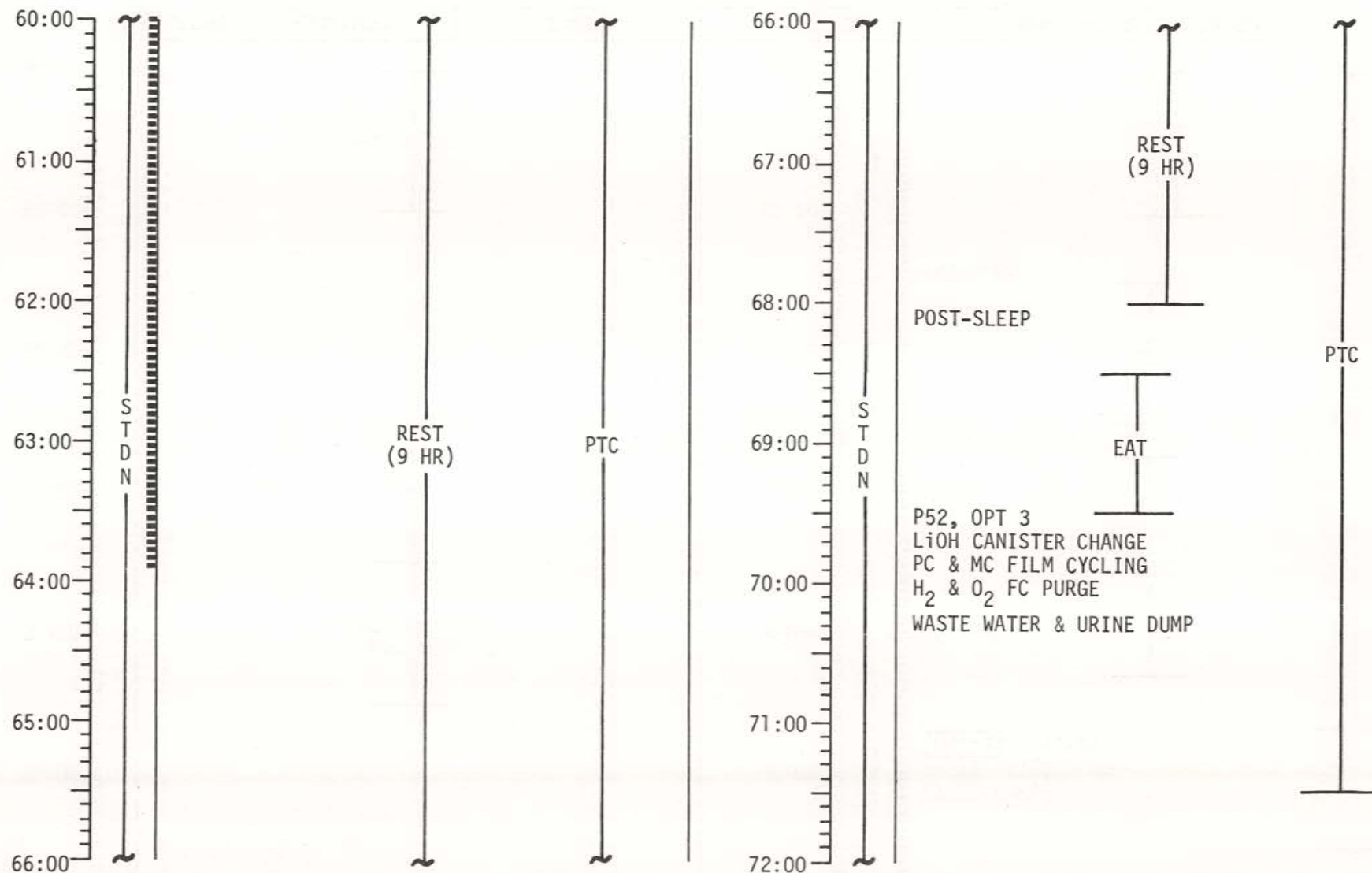
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	CSM ONLY ALT	23 OCT 1972	48:00 - 60:00	3/TLC	6-41

FLIGHT PLANNING BRANCH

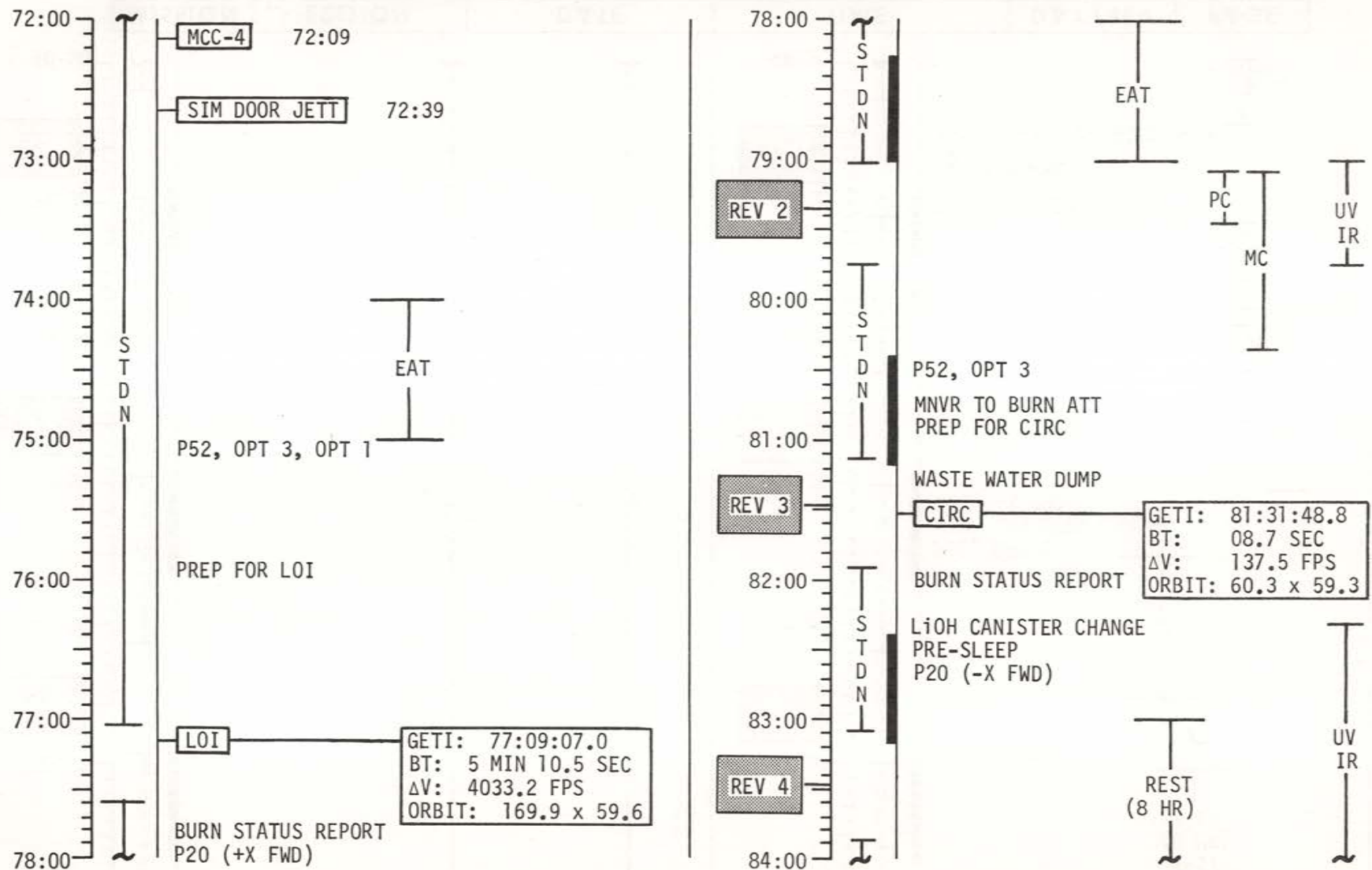
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	CSM ONLY ALT	23 OCT 1972	60:00 - 72:00	3/TLC	6-42

FLIGHT PLANNING BRANCH

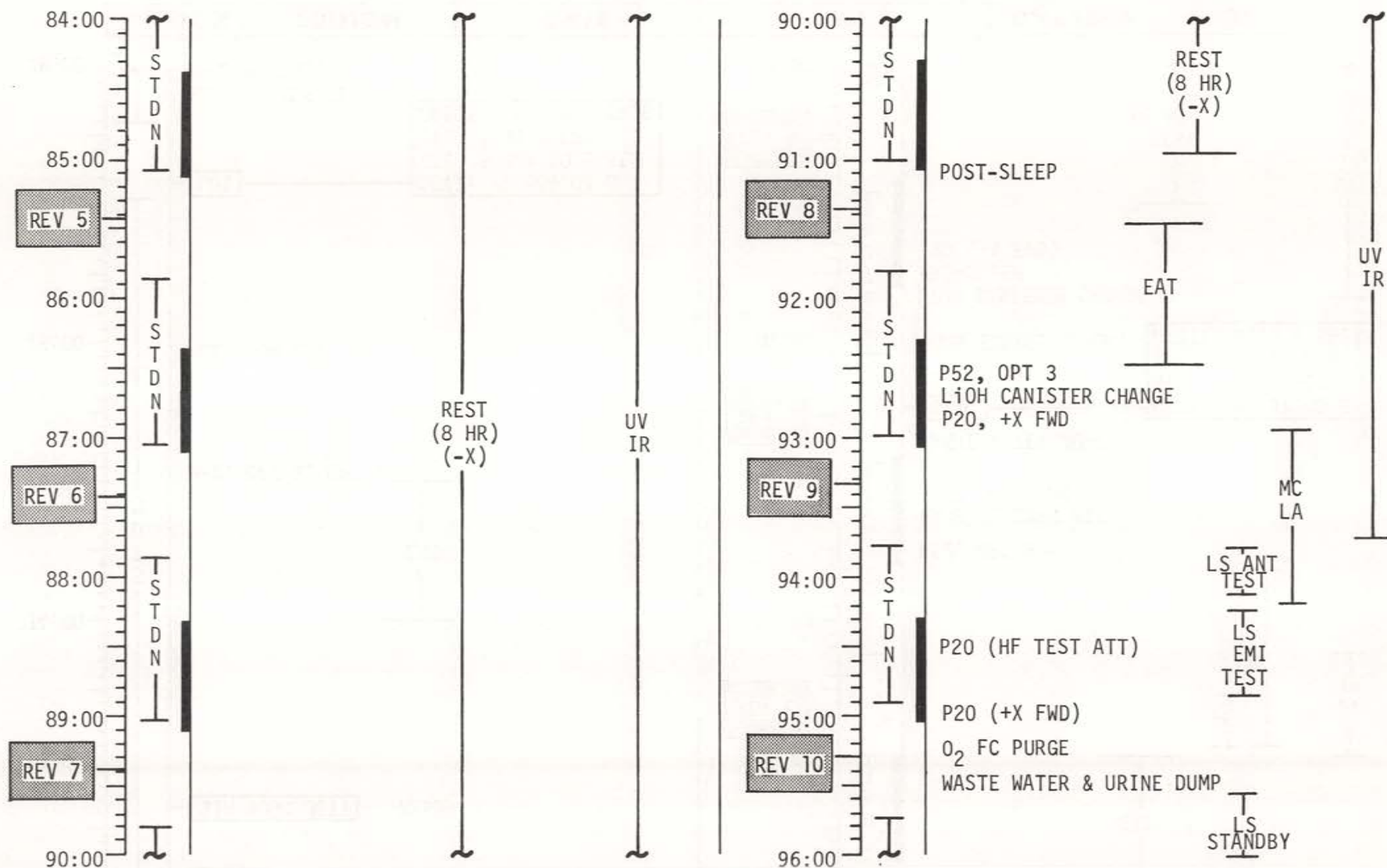
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	CSM ONLY ALT	23 OCT 1972	72:00 - 84:00	4/1-4	6-43

FLIGHT PLANNING BRANCH

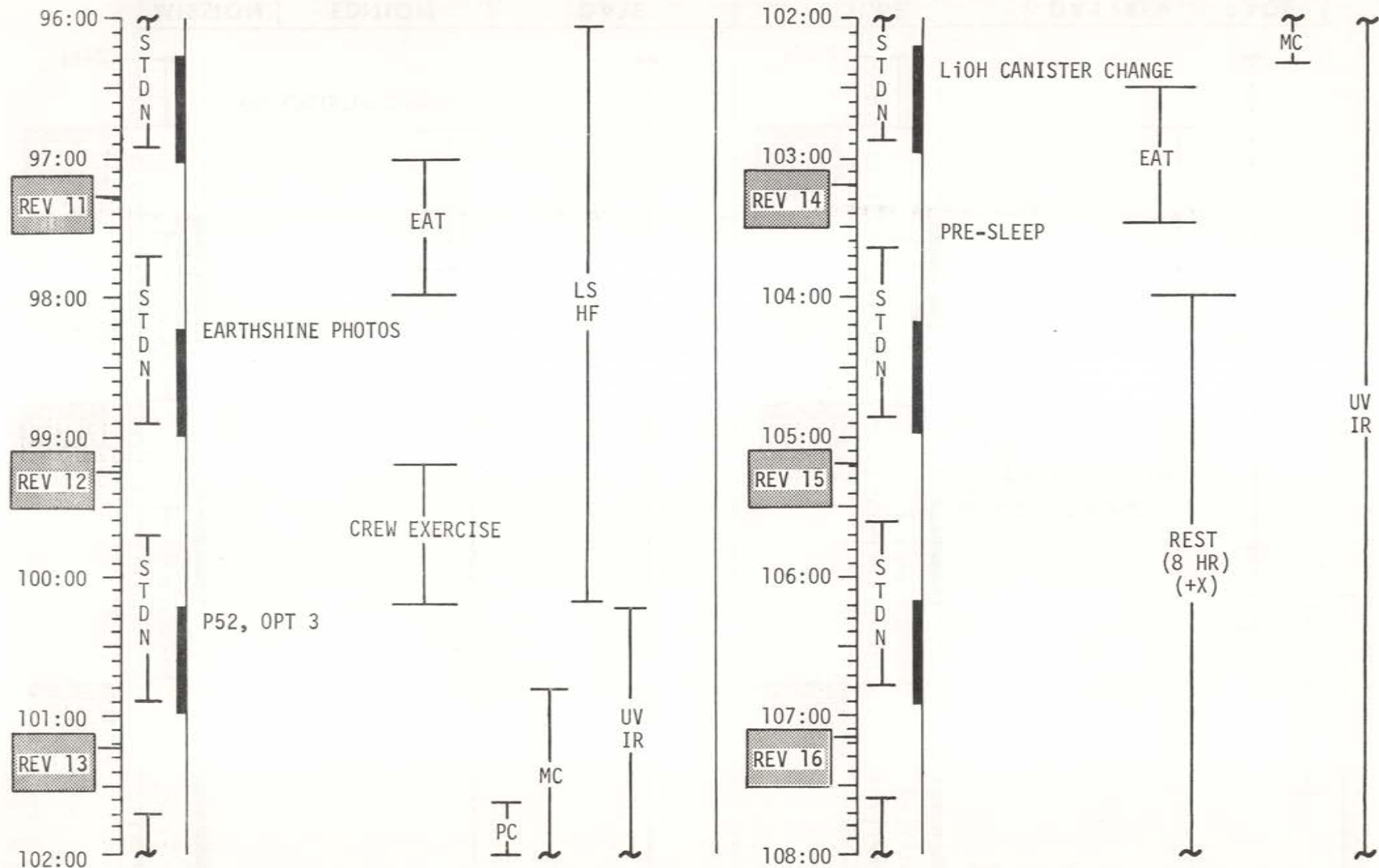
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	CSM ONLY ALT	23 OCT 1972	84:00 - 96:00	4/4-10	6-44

FLIGHT PLANNING BRANCH

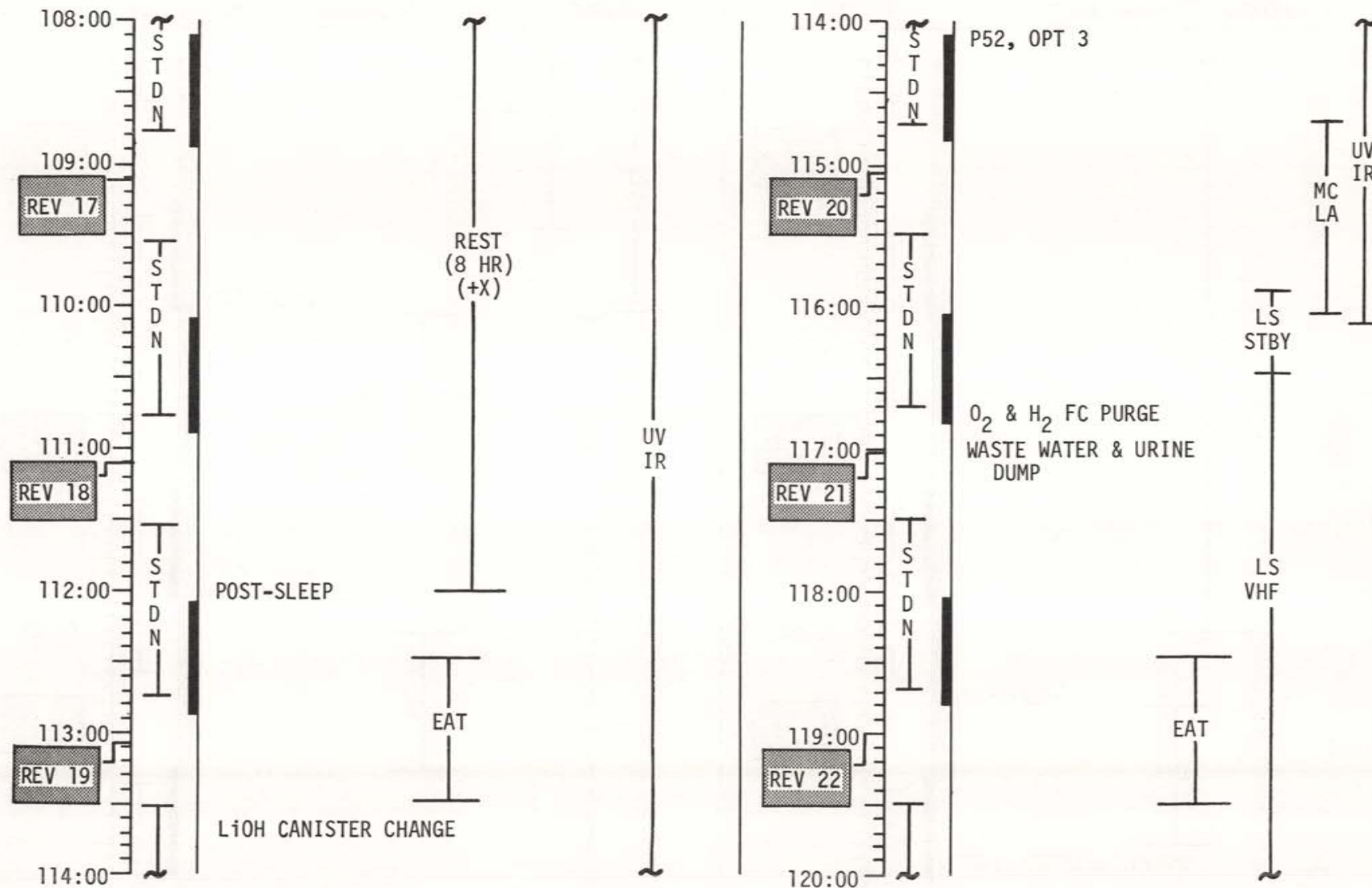
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	CSM ONLY ALT	23 OCT 1972	96:00 - 108:00	5/11-16	6-45

FLIGHT PLANNING BRANCH

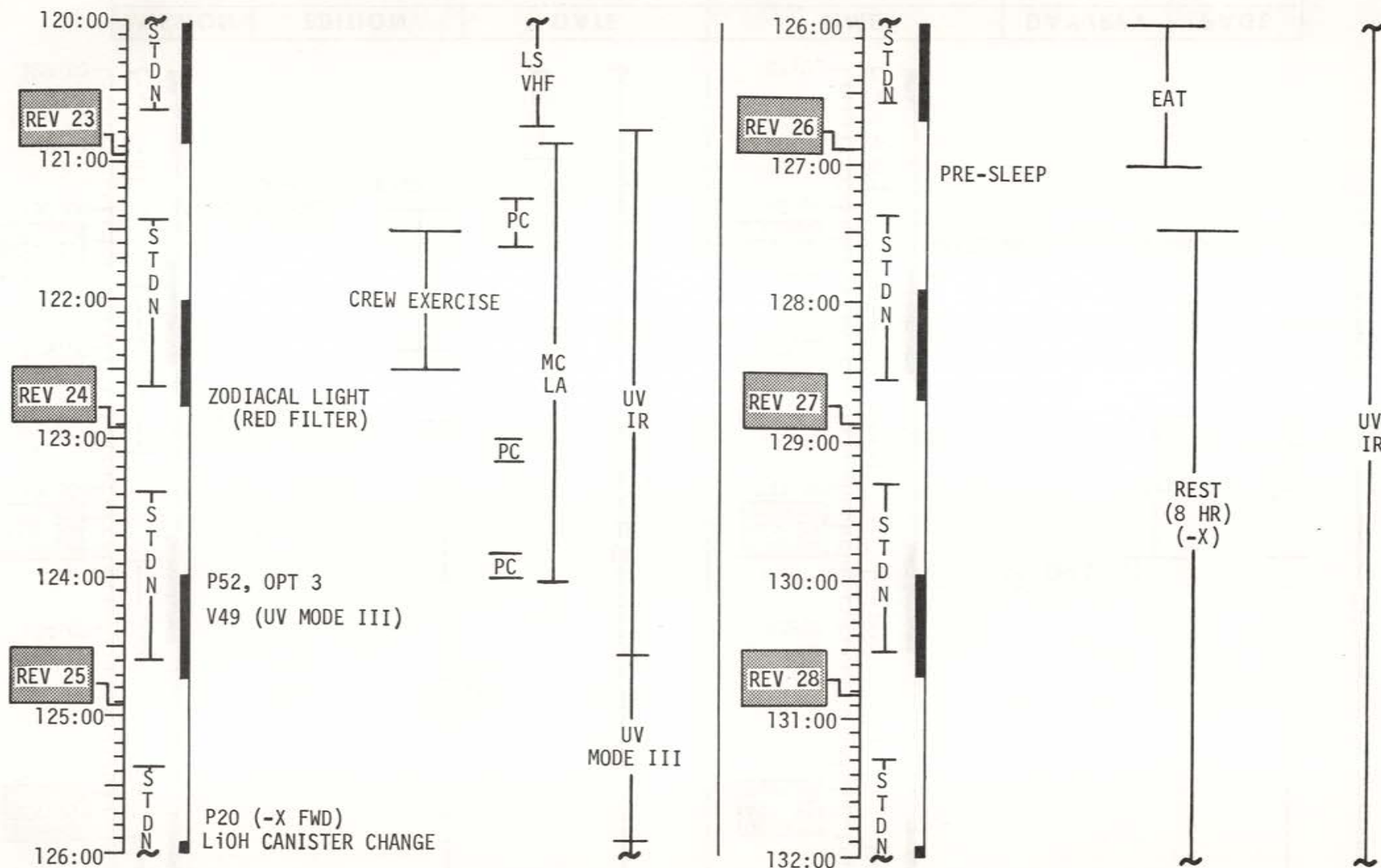
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	CSM ONLY ALT	23 OCT 1972	108:00 - 120:00	5-6/17-22	6-46

FLIGHT PLANNING BRANCH

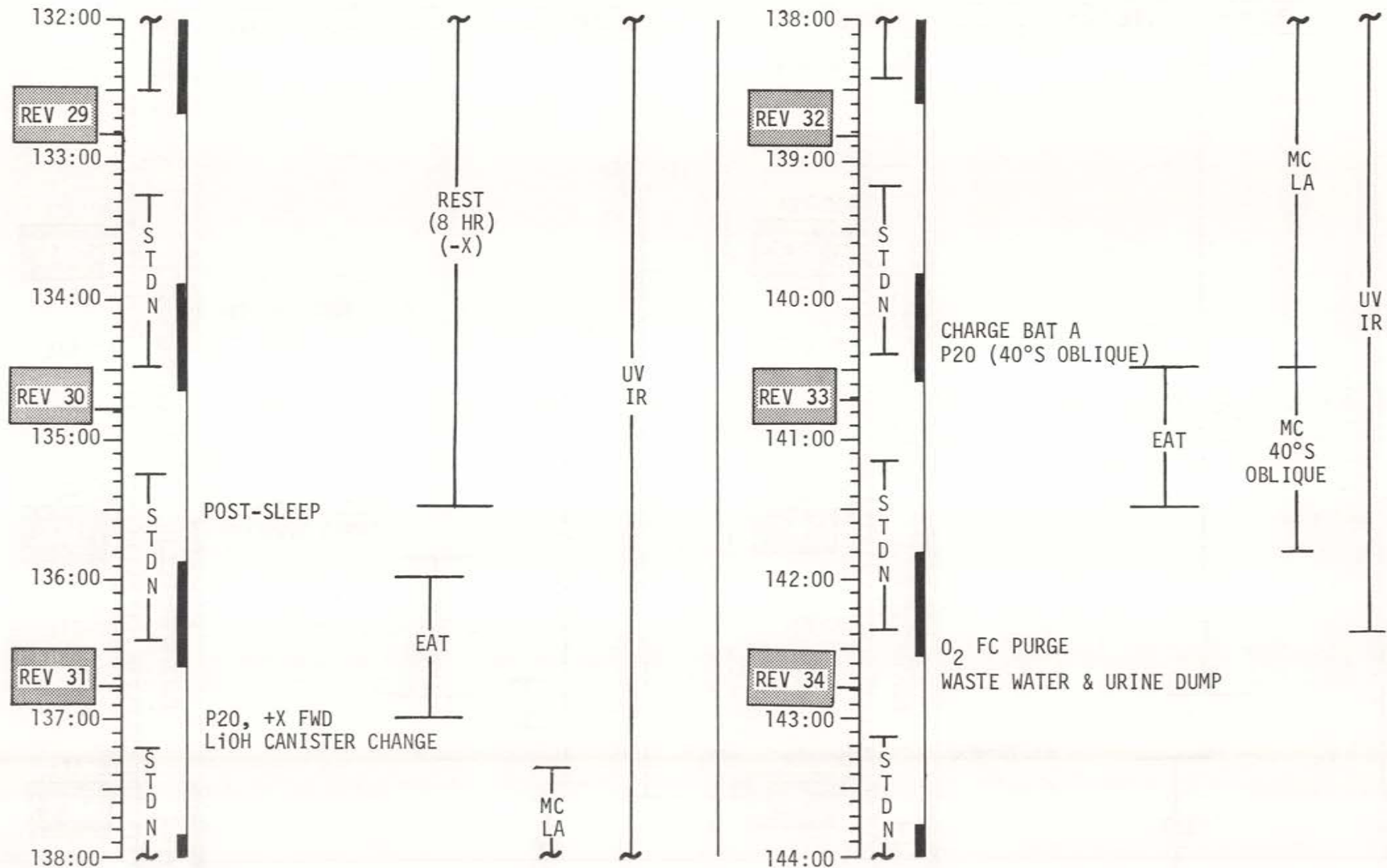
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	CSM ONLY ALT	23 OCT 1972	120:00 - 132:00	6/23-28	6-47

FLIGHT PLANNING BRANCH

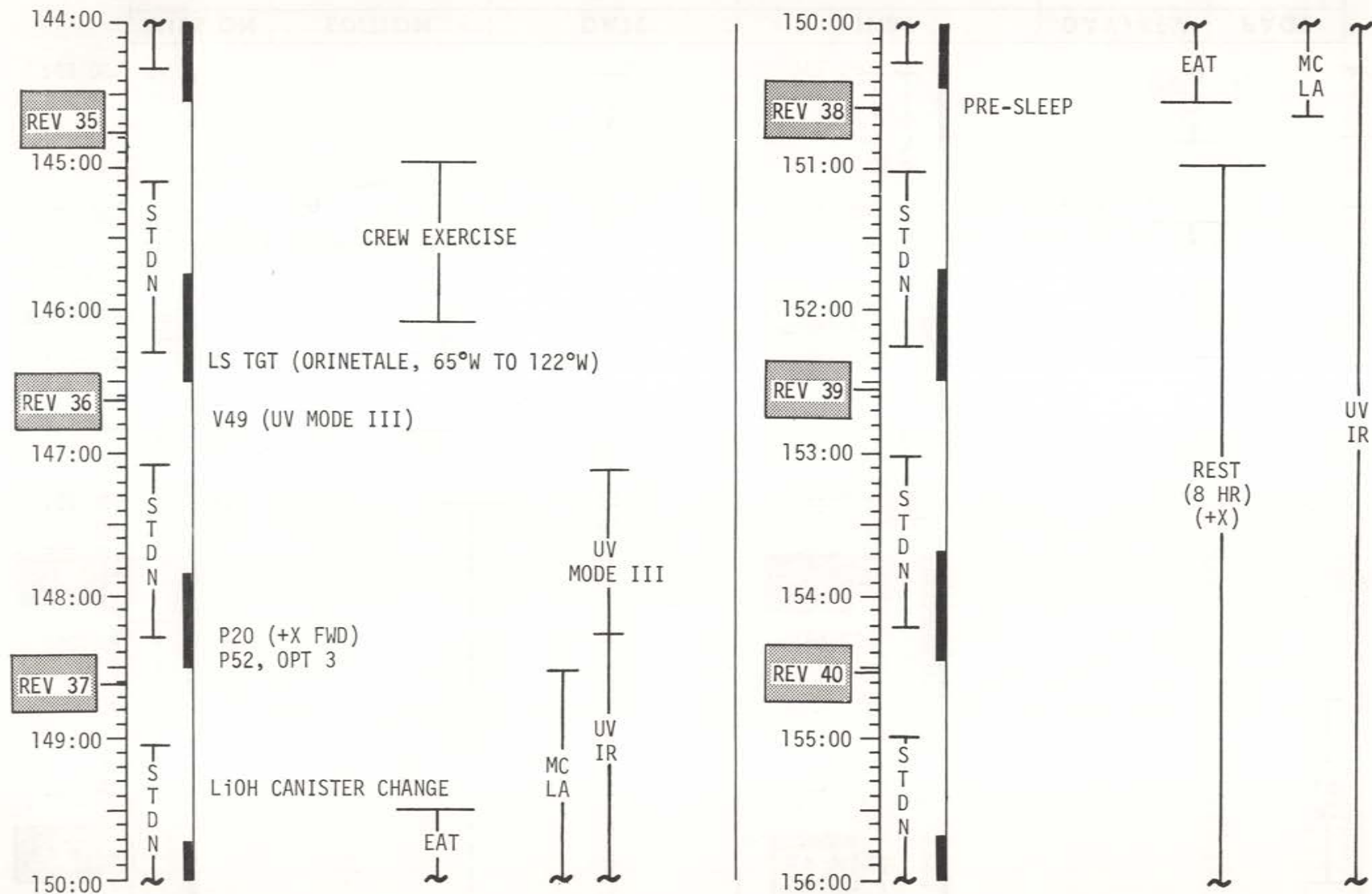
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	CSM ONLY ALT	23 OCT 1972	132:00 - 144:00	6-7/29-34	6-48

FLIGHT PLANNING BRANCH

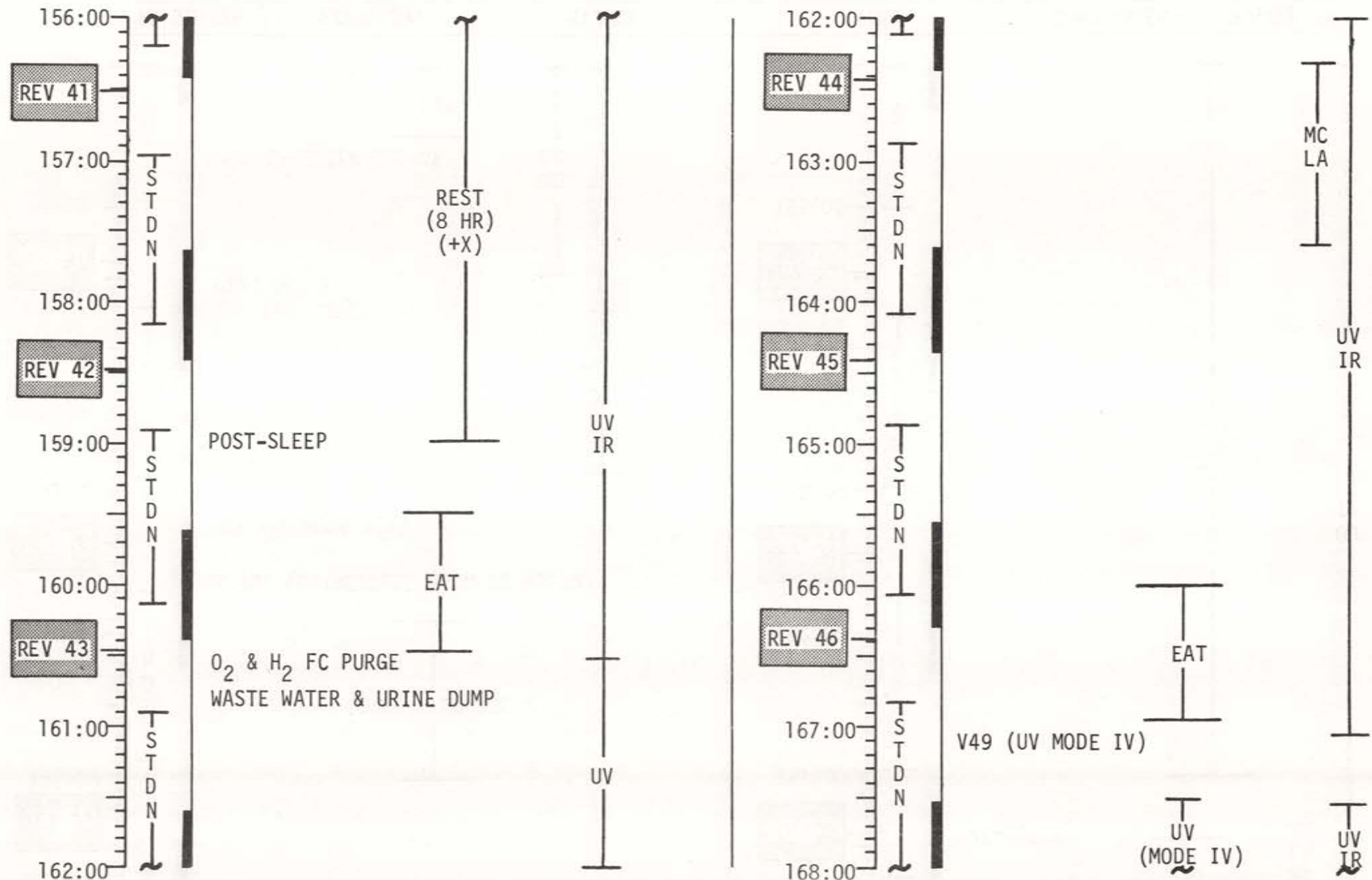
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	CSM ONLY ALT	23 OCT 1972	144:00 - 156:00	7/35-40	6-49

FLIGHT PLANNING BRANCH

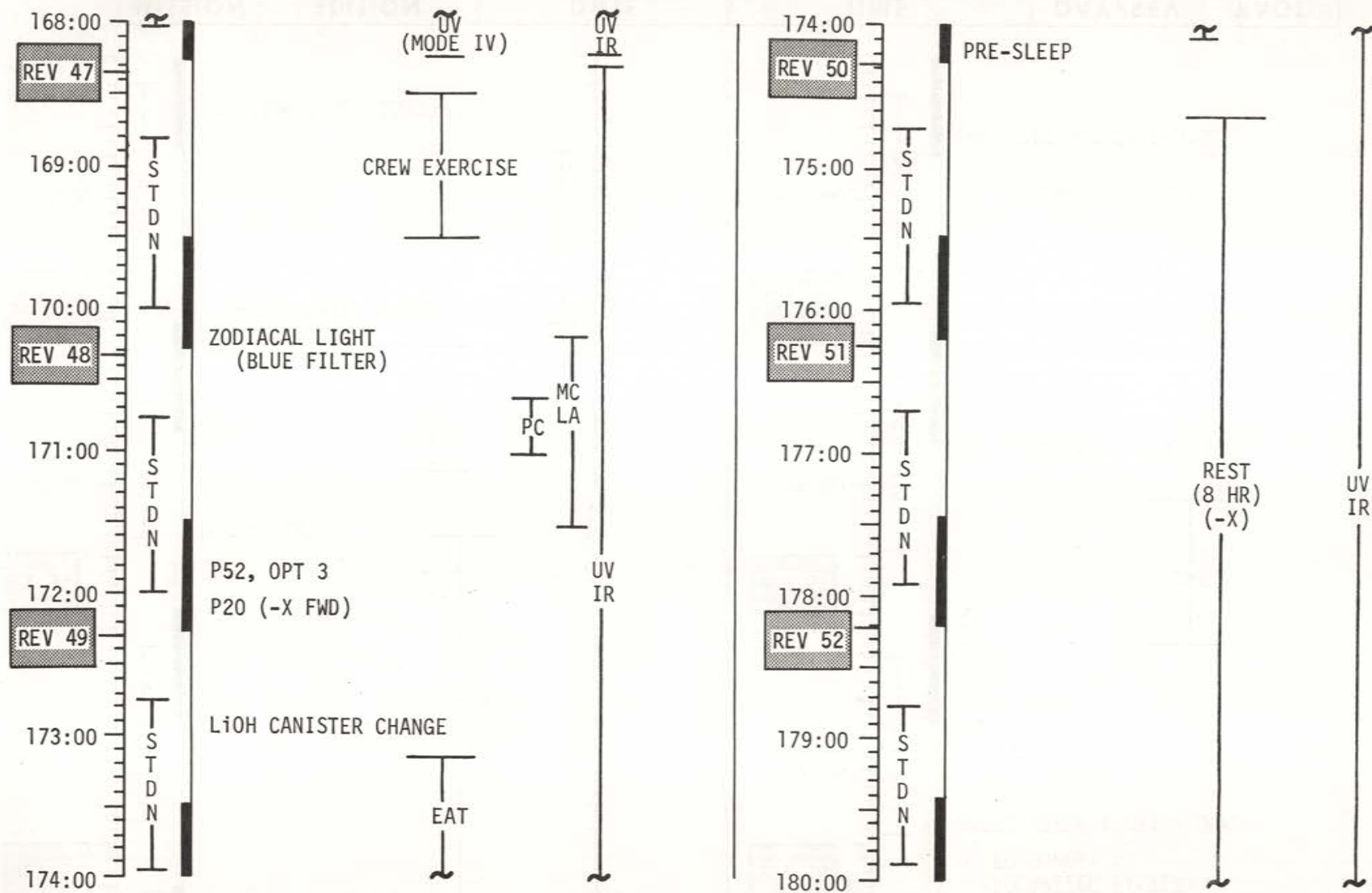
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	CSM ONLY ALT	23 OCT 1972	156:00 - 168:00	7-8/41-46	6-50

FLIGHT PLANNING BRANCH

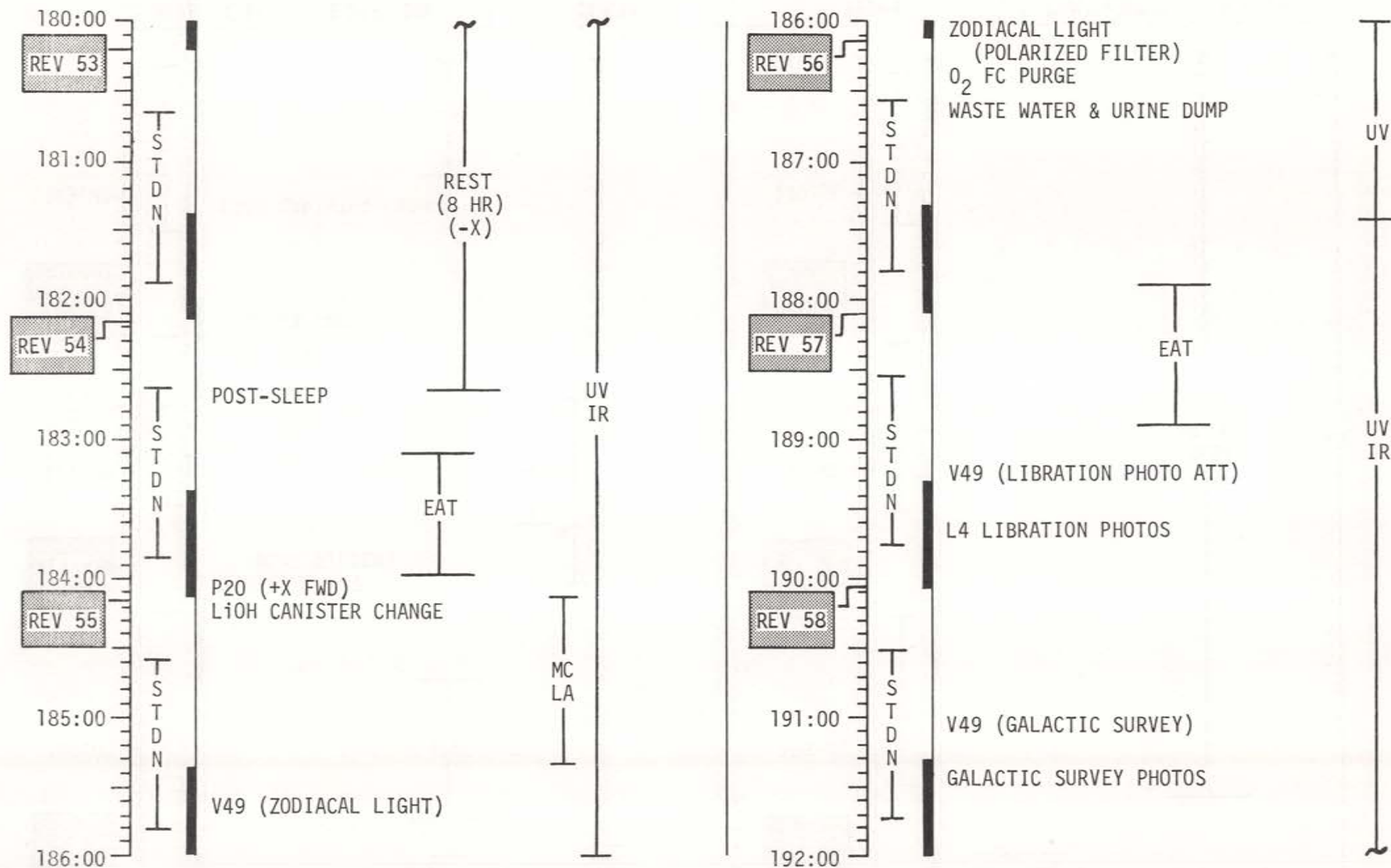
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	CSM ONLY ALT	23 OCT 1972	168:00 - 180:00	8/47-52	6-51

FLIGHT PLANNING BRANCH

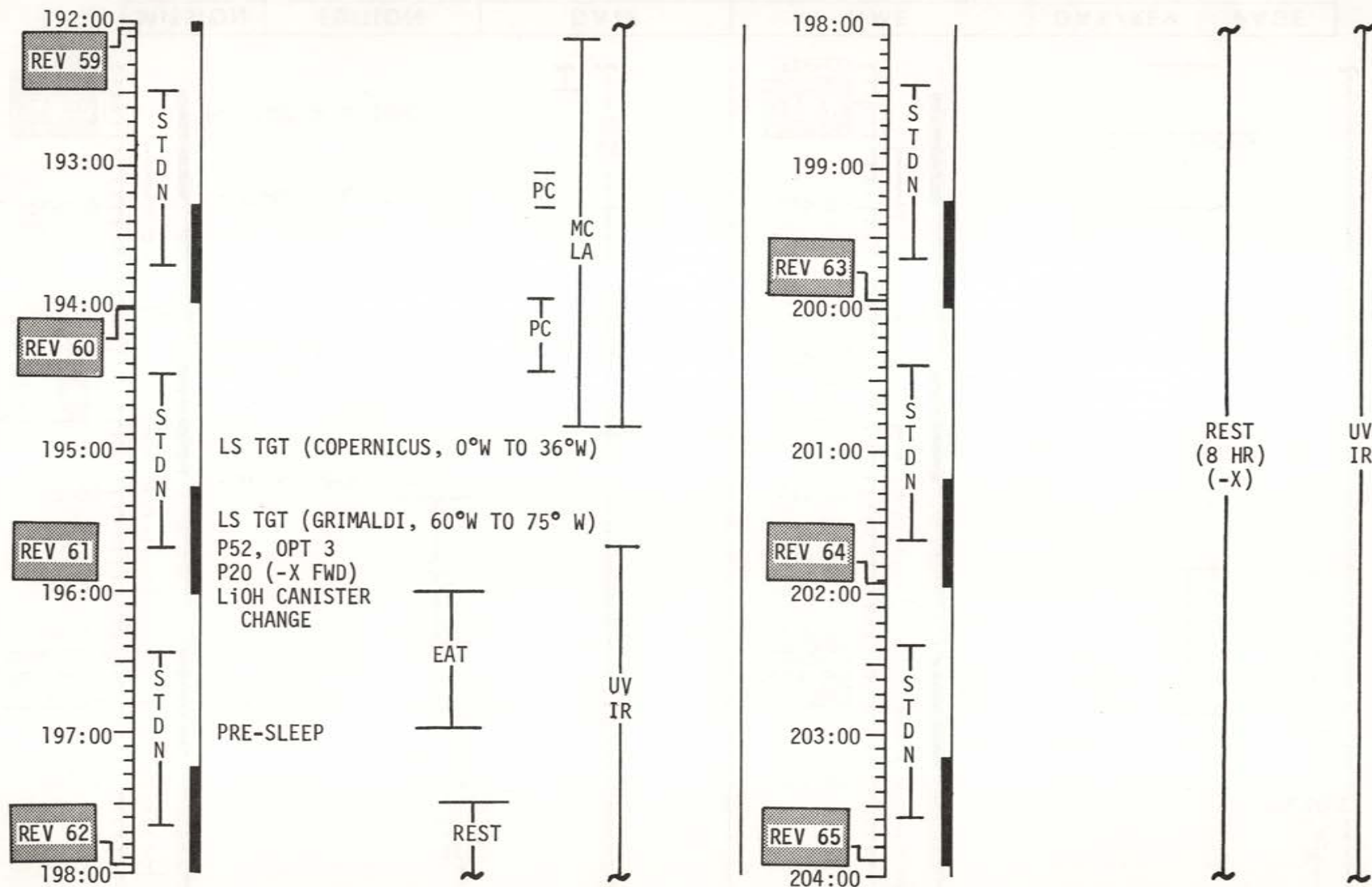
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	CSM ONLY ALT	23 OCT 1972	180:00 - 192:00	8-9/53-58	6-52

FLIGHT PLANNING BRANCH

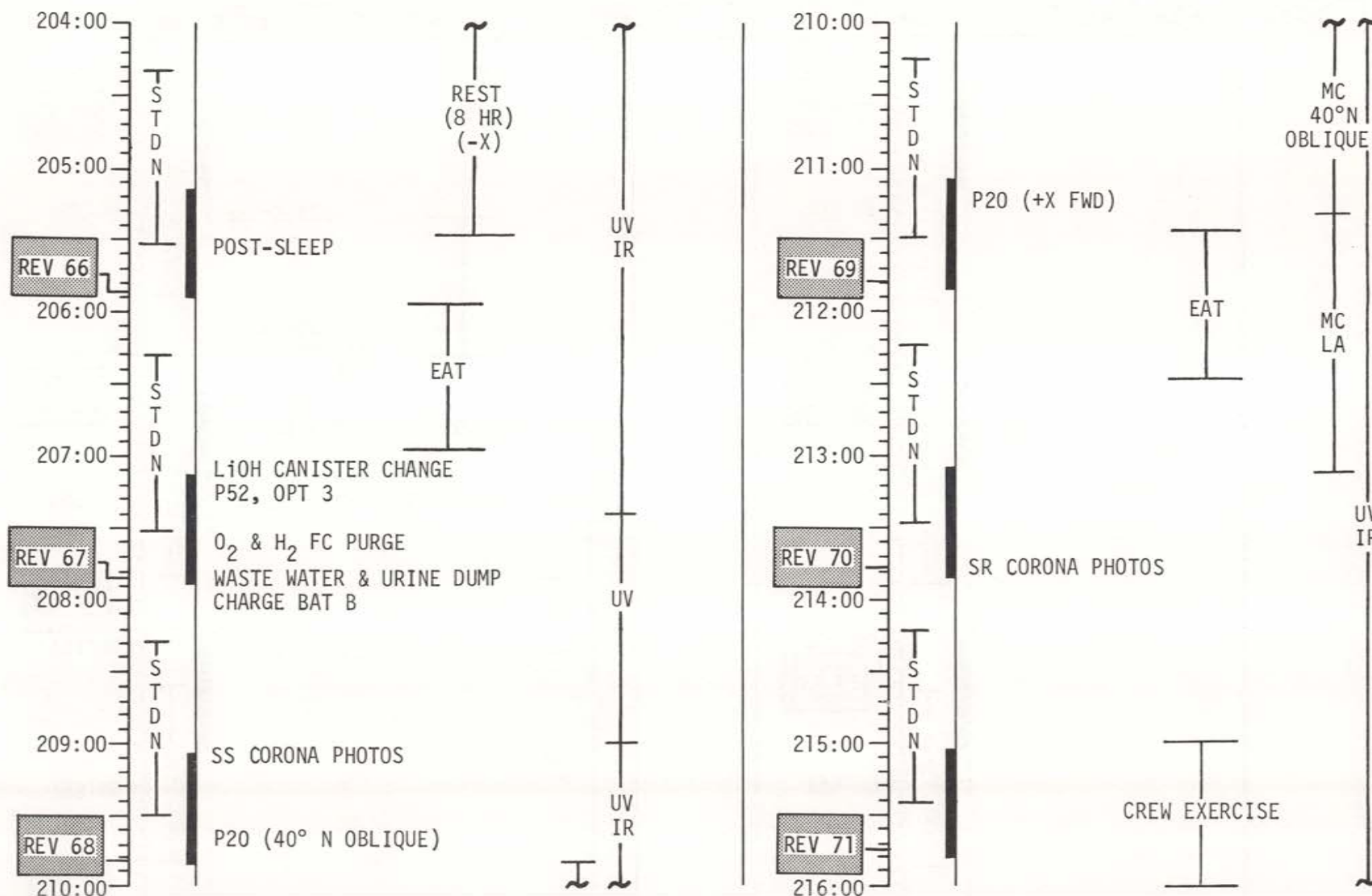
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	CSM ONLY ALT	23 OCT 1972	192:00 - 204:00	9/59-65	6-53

FLIGHT PLANNING BRANCH

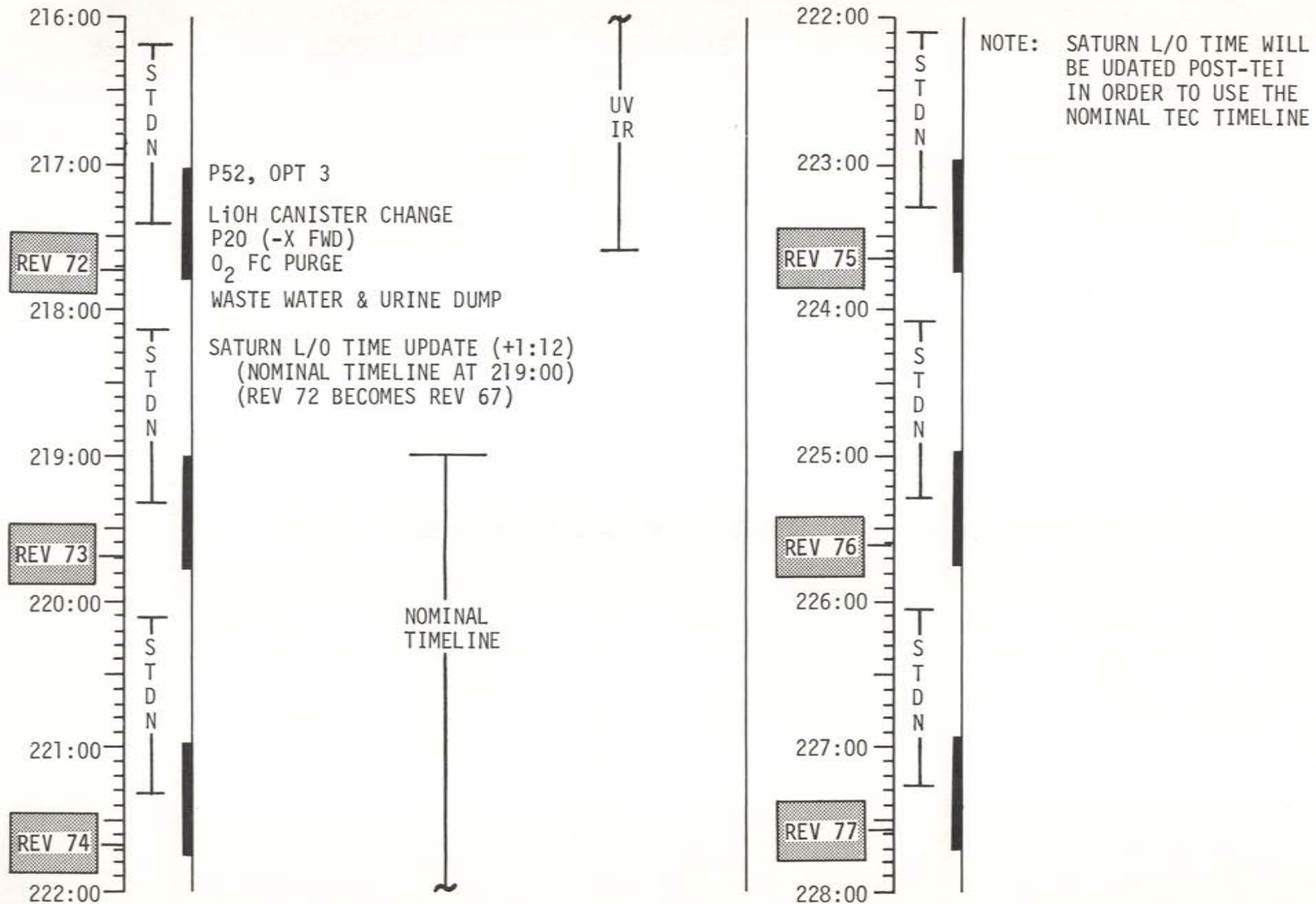
FLIGHT PLAN



MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	CSM ONLY ALT	23 OCT 1972	204:00 - 216:00	9-10/66-71	6-54

FLIGHT PLANNING BRANCH

FLIGHT PLAN



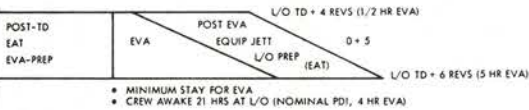
MISSION	EDITION	DATE	TIME	DAY/REV	PAGE
APOLLO 17	CSM ONLY ALT	23 OCT 1972	216:00 - 228:00	10/71-72	6-55

FLIGHT PLANNING BRANCH

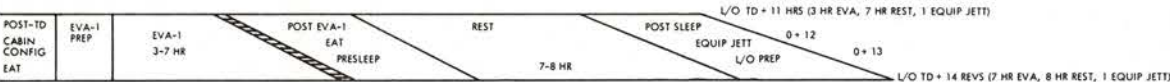
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• ALL PLANS ASSUME L/O AT NEXT BEST OPPORTUNITY
• 18 HRS SINCE CREW WAKEUP

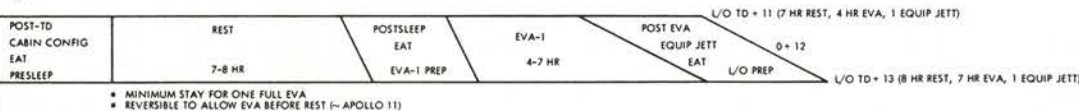
1. TD/EVA/L/O



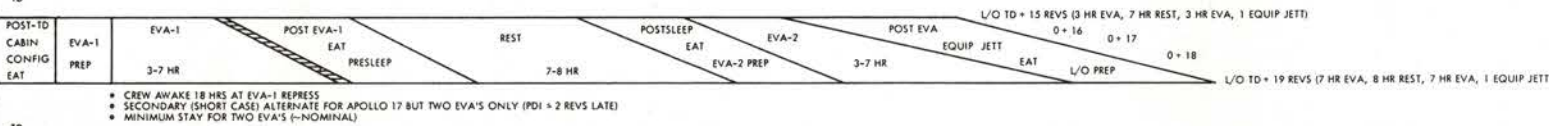
2A. TD/EVA/REST/L/O



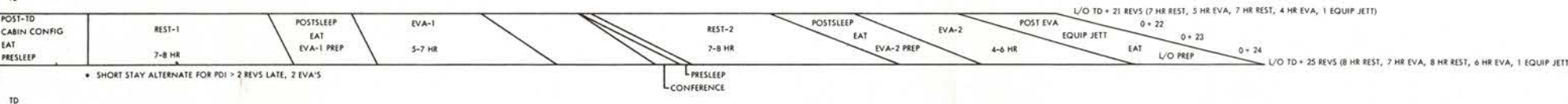
2B. TD/REST/EVA



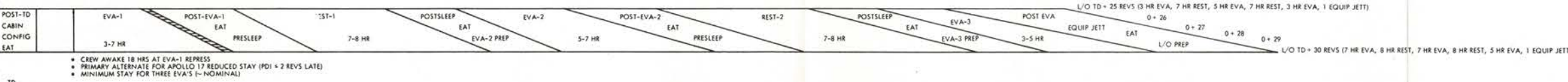
3. TD/EVA/ETC



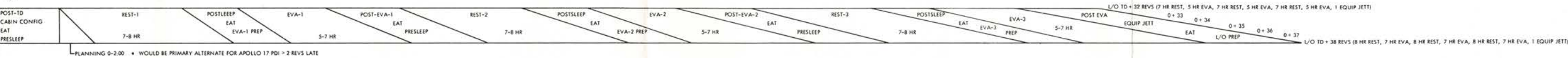
4. TD/REST/ETC



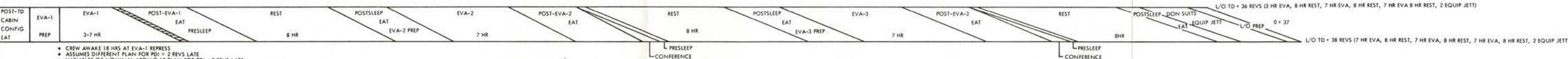
5. TD/EVA/ETC



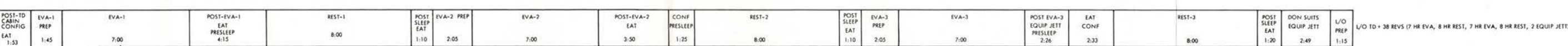
6. BASELINE REST FIRST



7. BASELINE 17



8. APOLLO 17 NOMINAL



APOLLO 17
LUNAR SURFACE ALTERNATE MISSIONS

SEPTEMBER 21, 1972

LUNAR SURFACE ALTERNATE PLANS NOTES:

1. THIS CHART IS INTENDED AS A GUIDELINE FOR DETERMINING THE MOST EFFICIENT LUNAR-STAY PLAN FOR VARIOUS SURFACE STAY TIMES LESS THAN THAT NOMINALLY PLANNED FOR APOLLO 17. ALL PLANS ASSUME THAT THE LENGTH OF THE LUNAR STAY WILL BE KNOWN AT OR NEAR THE TIME OF TOUCHDOWN. HOWEVER, ANY OF THE EVA-FIRST PLANS COULD BE MODIFIED TO ASSIST IN PLANNING SHORTER STAYS REALIZED LATER AFTER TOUCHDOWN.
2. VARIABLES IN THE PLAN ARE INDICATED BY THE NUMBERS IN EACH BLOCK (E.G. REST, 7-8 HRS). OTHER TIME BLOCKS ARE ASSUMED TO BE FIXED AND, WHERE APPLICABLE, THE SAME LENGTH OF TIME AS ON THE NOMINAL APOLLO 17 PLAN.
3. ALL LIFTOFFS ARE INDICATED AT THE ACTUAL LIFTOFF OPPORTUNITY. THUS, THE TIME ALLOWED IN THE LAST BLOCK IN EACH PLAN MAY VARY FROM THE MINIMUM REQUIRED FOR THE ACTIVITIES INDICATED BY AS MUCH AS THE EXCESS REQUIRED TO GET TO THE NEXT OPPORTUNITY LIFTOFF.
4. ALL EVA-FIRST PLANS ARE CONSTRAINED BY A LIMIT OF 18 HOURS FROM WAKEUP TO EVA-1 REPRESS. THE 18 HOUR LIMIT IS INDICATED BY A HATCHED LINE AT THE END OF EVA-1 ON THESE PLANS. THUS, THOSE WITH A SHORTER EVA-1 ARE THOSE IN WHICH TOUCHDOWN HAS BEEN DELAYED BY UP TO TWO REVS. FOR DELAYS GREATER THAN 2 REVS IT IS ASSUMED THAT A REST-FIRST PLAN WILL BE USED.
5. IT IS ASSUMED THAT, FOR A LESS THAN NOMINAL STAY, MAXIMUM EVA TIME IS DESIRABLE. THEREFORE, ALL PLANS EXCEPT THE NOMINAL AND A ONE EVA PLAN END WITH AN EVA BEFORE LIFTOFF. IF MORE REST THAN SHOWN WERE NECESSARY ON THE LUNAR SURFACE, IT COULD ONLY BE ACCOMPLISHED AT THE EXPENSE OF EVA TIME FOR A GIVEN LUNAR STAY. STAYS SHORTER THAN NECESSARY FOR A MINIMUM EVA ARE NOT CONSIDERED HERE.
6. THE GMT SCALE AND 210 FT ANTENNA COVERAGES ARE EFFECTIVE FOR THE NOMINAL TO TIME ONLY.

