

# Flight Data File Crew Activity Plan STS 51-I (Cycle 3 Trajectory)

Mission Operations Directorate  
Operations Division

Final, Revision A  
August 9, 1985

<u>EVENT</u>	<u>CDT</u>		
Launch	07:51	Sat	Aug 24
ASC Deploy	17:28	Sat	Aug 24
AUSSAT Deploy	08:44	Sun	Aug 25
SYNCOM Deploy	07:39	Mon	Aug 26
Rendezvous	01:51	Fri	Aug 30
EVA	08:07	Fri	Aug 30
Crew Press Conference	06:40	Sat	Aug 31
EDW Landing	08:31	Sun	Sep 1



National Aeronautics and  
Space Administration

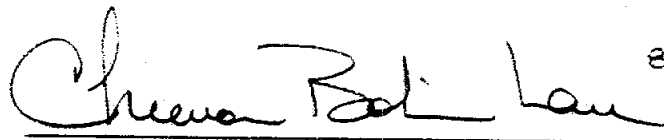
Lyndon B. Johnson Space Center  
Houston, Texas

MISSION OPERATIONS DIRECTORATE

STS 51-I CREW ACTIVITY PLAN

FINAL, REVISION A  
August 9, 1985

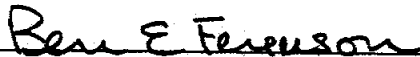
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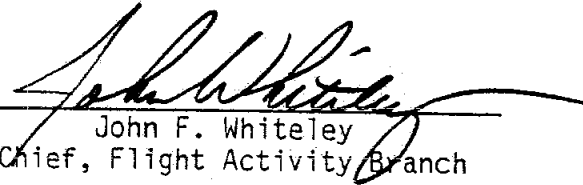
8/7/85

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APPROVED BY:



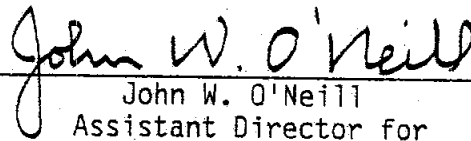
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This document is under the configuration control of the Crew Procedures Control Board (CPCB). All proposed changes must be submitted on standard JSC Form 482 to DH4/FDF Manager, Bldg 4, Rm 352, 713-483-2868.

Comments concerning this document may be addressed to DH4/Mi-Mi Lau, or DH4/Gail Schneider, Bldg 4, Rm 337, 713-483-5871.

Changes to the distribution list should be submitted in writing to DH4/Gwen Butler, Bldg 4, Rm 373, 713-483-5224.

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CAP-404  
CAP-405  
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CAP-407  
FDF-585

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ACKNOWLEDGMENTS

The following individuals contributed significantly to preparing the STS 51-I Crew Activity Plan:

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STS 51-I CREW ACTIVITY PLAN

**LIST OF EFFECTIVE PAGES**

FINAL 07/15/85

REV A 08/09/85

i.....	CAP/51-I/FIN A	3-24.....	CAP/51-I/FIN A
ii.....	CAP/51-I/FIN A	3-25.....	CAP/51-I/FIN A
iii.....	CAP/51-I/FIN A	3-26.....	CAP/51-I/FIN A
iv.....	CAP/51-I/FIN A	3-27.....	CAP/51-I/FIN A
v.....	CAP/51-I/FIN A	3-28.....	CAP/51-I/FIN A
vi.....	CAP/51-I/FIN A	3-29.....	CAP/51-I/FIN A
1-1.....	CAP/51-I/FIN A	3-30.....	CAP/51-I/FIN A
1-2.....	CAP/51-I/FIN A	3-31.....	CAP/51-I/FIN A
1-3.....	CAP/51-I/FIN A	3-32.....	CAP/51-I/FIN A
1-4.....	CAP/51-I/FIN A	3-33.....	CAP/51-I/FIN A
2-1.....	CAP/51-I/FIN A	3-34.....	CAP/51-I/FIN A
2-2.....	CAP/51-I/FIN A	3-35.....	CAP/51-I/FIN A
2-3.....	CAP/51-I/FIN A	3-36.....	CAP/51-I/FIN A
2-4.....	CAP/51-I/FIN A	3-37.....	CAP/51-I/FIN A
2-5.....	CAP/51-I/FIN A	3-38.....	CAP/51-I/FIN A
2-6.....	CAP/51-I/FIN A	3-39.....	CAP/51-I/FIN A
2-7.....	CAP/51-I/FIN A	3-40.....	CAP/51-I/FIN A
2-8.....	CAP/51-I/FIN A	4-1.....	CAP/51-I/FIN A
2-9.....	CAP/51-I/FIN A	4-2.....	CAP/51-I/FIN A
2-10.....	CAP/51-I/FIN A	4-3.....	CAP/51-I/FIN A
2-11.....	CAP/51-I/FIN A	4-4.....	CAP/51-I/FIN A
2-12.....	CAP/51-I/FIN A	4-5.....	CAP/51-I/FIN A
2-13.....	CAP/51-I/FIN A	4-6.....	CAP/51-I/FIN A
2-14.....	CAP/51-I/FIN A	4-7.....	CAP/51-I/FIN A
2-15.....	CAP/51-I/FIN A	4-8.....	CAP/51-I/FIN A
2-16.....	CAP/51-I/FIN A	5-1.....	CAP/51-I/FIN A
2-17.....	CAP/51-I/FIN A	5-2.....	CAP/51-I/FIN A
2-18.....	CAP/51-I/FIN A	5-3.....	CAP/51-I/FIN A
3-1.....	CAP/51-I/FIN A	5-18.....	CAP/51-I/FIN A
3-2.....	CAP/51-I/FIN A	6-1.....	CAP/51-I/FIN A
3-3.....	CAP/51-I/FIN A	6-2.....	CAP/51-I/FIN A
3-4.....	CAP/51-I/FIN A	6-3.....	CAP/51-I/FIN A
3-5.....	CAP/51-I/FIN A	6-4.....	CAP/51-I/FIN A
3-6.....	CAP/51-I/FIN A	6-5.....	CAP/51-I/FIN A
3-7.....	CAP/51-I/FIN A	6-6.....	CAP/51-I/FIN A
3-8.....	CAP/51-I/FIN A	6-7.....	CAP/51-I/FIN A
3-9.....	CAP/51-I/FIN A	6-8.....	CAP/51-I/FIN A
3-10.....	CAP/51-I/FIN A		
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3-14.....	CAP/51-I/FIN A		
3-15.....	CAP/51-I/FIN A		
3-16.....	CAP/51-I/FIN A		
3-17.....	CAP/51-I/FIN A		
3-18.....	CAP/51-I/FIN A		
3-19.....	CAP/51-I/FIN A		
3-20.....	CAP/51-I/FIN A		
3-21.....	CAP/51-I/FIN A		
3-22.....	CAP/51-I/FIN A		
3-23.....	CAP/51-I/FIN A		

STS 51-I CAP CUE CARDS

DAP Book Front Cover.....	5-4	CAP/51-I/O/BAS
UNIV PTG (Back of DAP Book Front Cover).....	5-4	CAP/51-I/O/FIN
DAP A TOC.....	5-5	CAP/51-I/O/FIN
DAP A1.....	5-5	CAP/51-I/O/BAS
A1.....	5-5	CAP/51-I/O/BAS
DAP A2.....	5-6	CAP/51-I/O/BAS
A2.....	5-6	CAP/51-I/O/BAS
DAP A3.....	5-6	CAP/51-I/O/BAS
A3.....	5-6	CAP/51-I/O/BAS
DAP A4.....	5-7	CAP/51-I/O/BAS
A4.....	5-7	CAP/51-I/O/BAS
DAP A5.....	5-7	CAP/51-I/O/BAS
A5.....	5-7	CAP/51-I/O/FIN
DAP A6.....	5-8	CAP/51-I/O/BAS
A6.....	5-8	CAP/51-I/O/BAS
DAP A7.....	5-8	CAP/51-I/O/BAS
A7.....	5-8	CAP/51-I/O/FIN
DAP A8.....	5-9	CAP/51-I/O/BAS
A8.....	5-9	CAP/51-I/O/BAS
DAP A9.....	5-9	CAP/51-I/O/FIN
A9.....	5-9	CAP/51-I/O/FIN
DAP A10.....	5-10	CAP/51-I/O/FIN
A10.....	5-10	CAP/51-I/O/FIN
DAP A11.....	5-10	CAP/51-I/O/FIN
A11.....	5-10	CAP/51-I/O/FIN
(Blank).....	5-11	CAP/51-I/O/FIN
DAP B TOC.....	5-11	CAP/51-I/O/FIN A
DAP B1.....	5-11	CAP/51-I/O/BAS
B1.....	5-11	CAP/51-I/O/BAS
DAP B2.....	5-12	CAP/51-I/O/BAS
B2.....	5-12	CAP/51-I/O/BAS
DAP B3.....	5-12	CAP/51-I/O/BAS
B3.....	5-12	CAP/51-I/O/BAS
DAP B4.....	5-13	CAP/51-I/O/BAS
B4.....	5-13	CAP/51-I/O/FIN
DAP B5.....	5-13	CAP/51-I/O/BAS
B5.....	5-13	CAP/51-I/O/BAS
DAP B6.....	5-14	CAP/51-I/O/FIN
B6.....	5-14	CAP/51-I/O/FIN
DAP B7.....	5-14	CAP/51-I/O/FIN
B7.....	5-14	CAP/51-I/O/FIN
DAP B8.....	5-15	CAP/51-I/O/FIN
B8.....	5-15	CAP/51-I/O/FIN
DAP B9.....	5-15	CAP/51-I/O/FIN A
B9.....	5-15	CAP/51-I/O/FIN A
DAP B10.....	5-16	CAP/51-I/O/FIN A
B10.....	5-16	CAP/51-I/O/FIN A
(Blank).....	5-16	CAP/51-I/O/FIN A
DAP Book (Back Cover).....	5-17	CAP/51-I/O/BAS

CONTENTS

PAGE

INTRODUCTION..... v

STS 51-I OVERVIEW..... 1-1

SUMMARY TIMELINE..... 2-1

DETAILED TIMELINE..... 3-1

    FLT DAY 1..... 3-2

    FLT DAY 2..... 3-6

    FLT DAY 3..... 3-10

    FLT DAY 4..... 3-15

    FLT DAY 5..... 3-19

    FLT DAY 6..... 3-24

    FLT DAY 7..... 3-29

    FLT DAY 8..... 3-34

    FLT DAY 9..... 3-39

CONSUMABLES CURVES..... 4-1

STS 51-I DAP BOOK..... 5-1

STS 51-I ATTITUDE TIMELINE..... 6-1

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## INTRODUCTION

The STS 51-I Crew Activity Plan is the flight data file article that contains the on-orbit timeline. It does not contain the detailed timelines that are covered in the Ascent, Post Insertion, Rendezvous, EVA, Deorbit Prep, and Entry Checklists. The detailed RMS procedures required during the Rendezvous timeframe are in the 51-I Rendezvous book. During the EVA timeframe, the detailed RMS procedures are in the 51-I PDRS OPS Checklist. For continuity, the entire flight is shown in the summary level timeline.

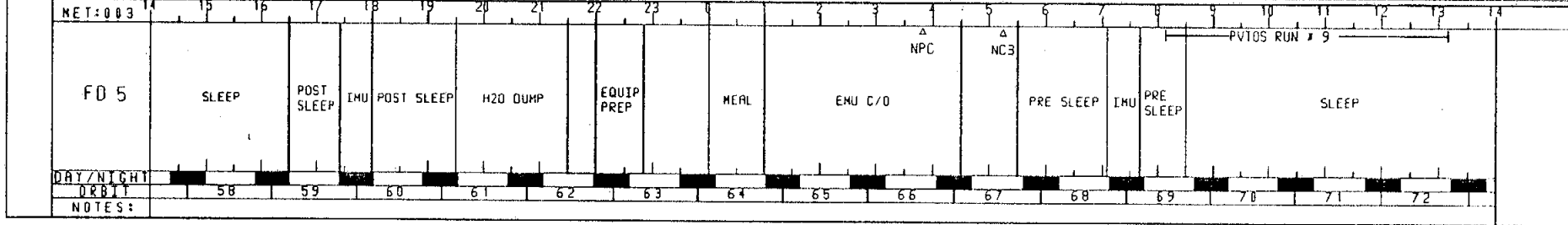
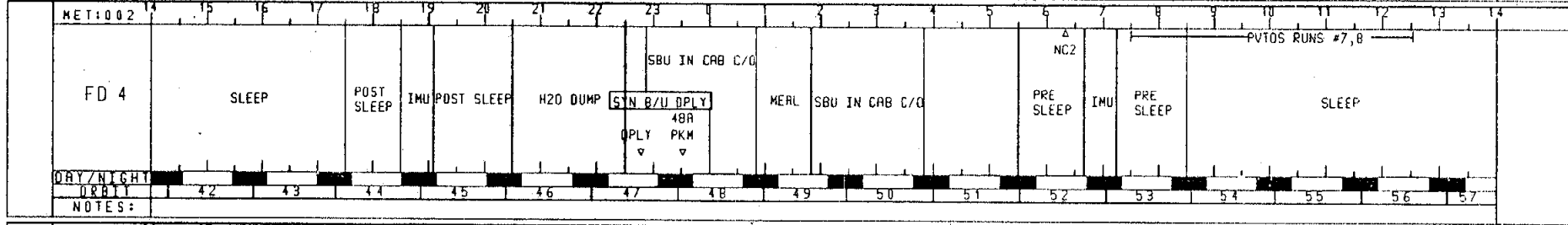
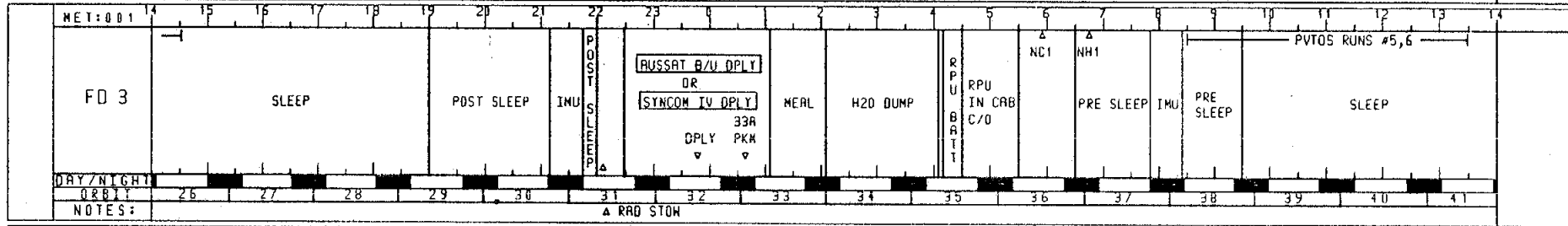
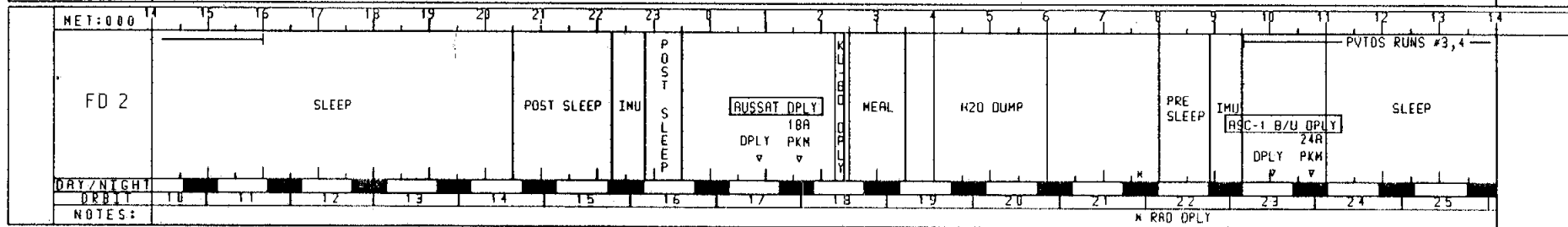
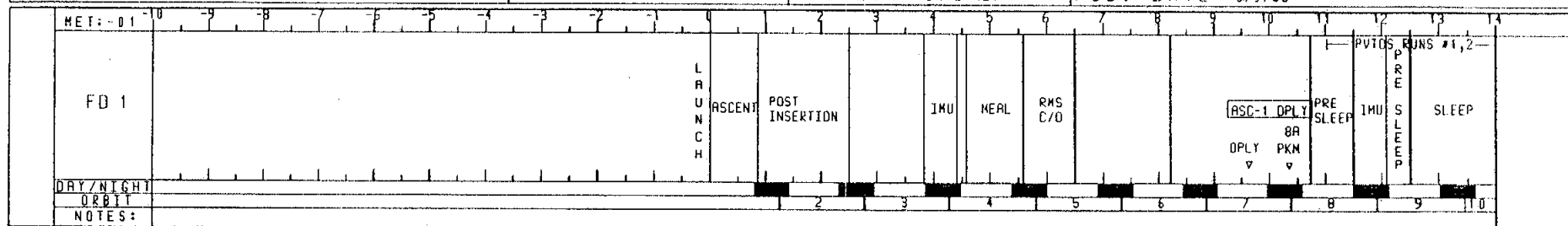
This on-orbit timeline satisfies the objectives specified in the Flight Definition and Requirements Directive and the requirements of the STS 51-I Flight Requirements Document.

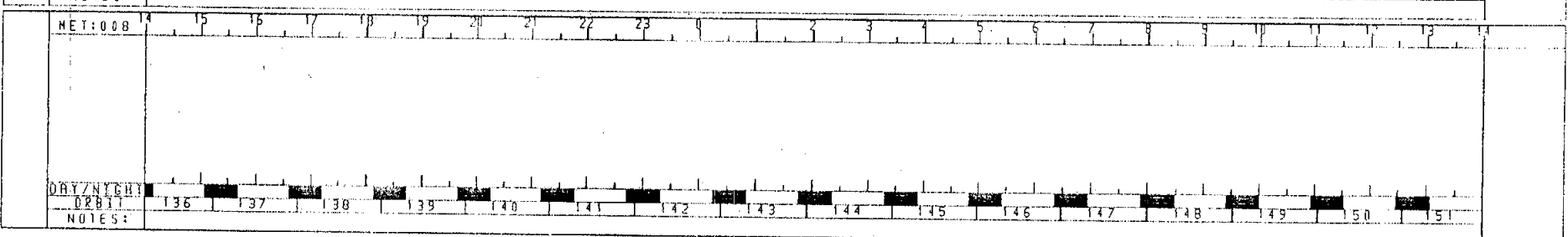
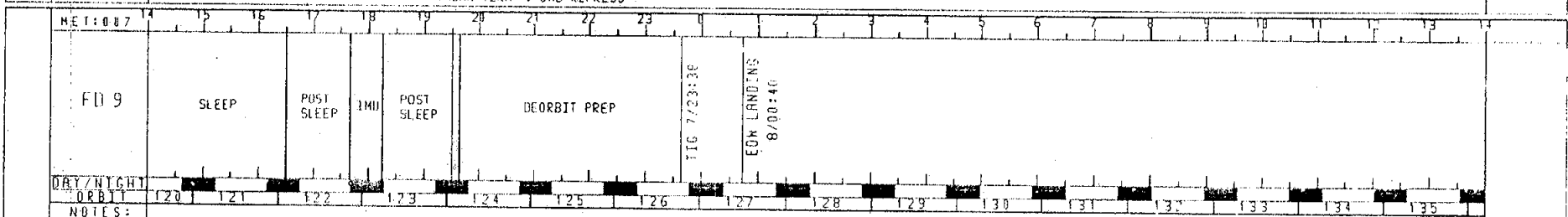
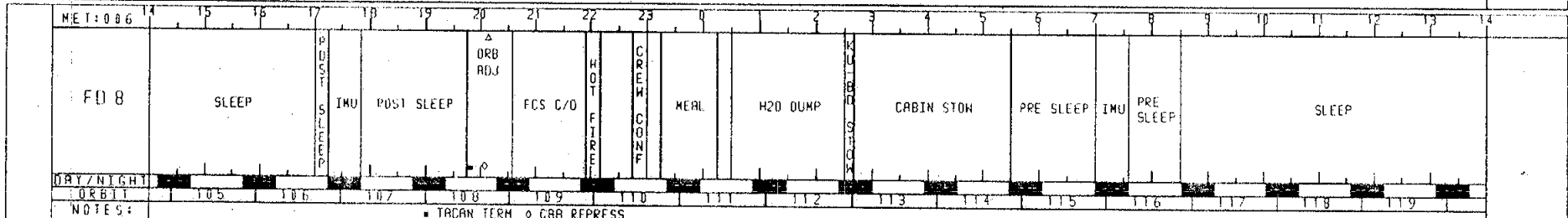
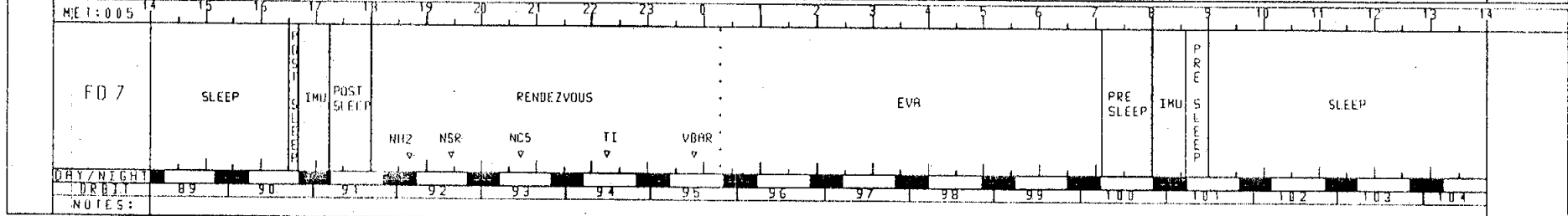
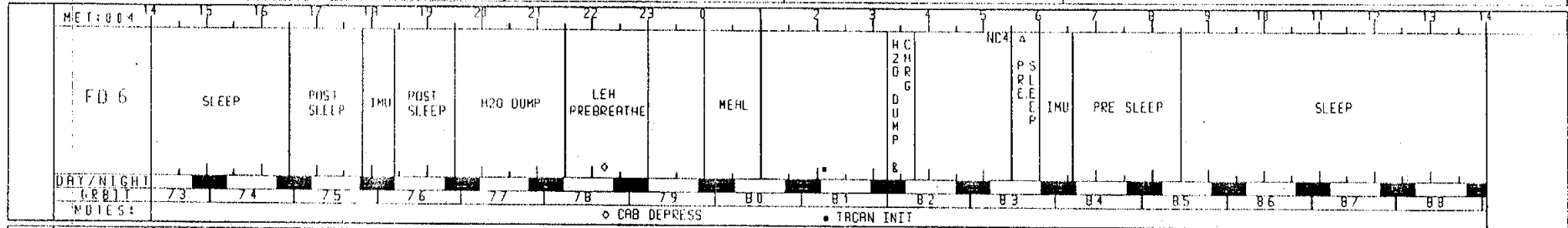
The flight profile (cycle 3 trajectory data) used for this Crew Activity Plan is for a launch date of August 24, 1985, at 07:51 CDT. Orbiter inertial attitudes are expressed relative to a mean of 1950 (M50) reference frame. The CAP reflects the orbit adjust burn on FD8 occurring one orbit earlier (108 vice 109) than baselined on the cycle 3 tape. The end result, trajectory wise, is less than 30 seconds difference in AOS/LOS times.



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51-I  
OVERVIEW

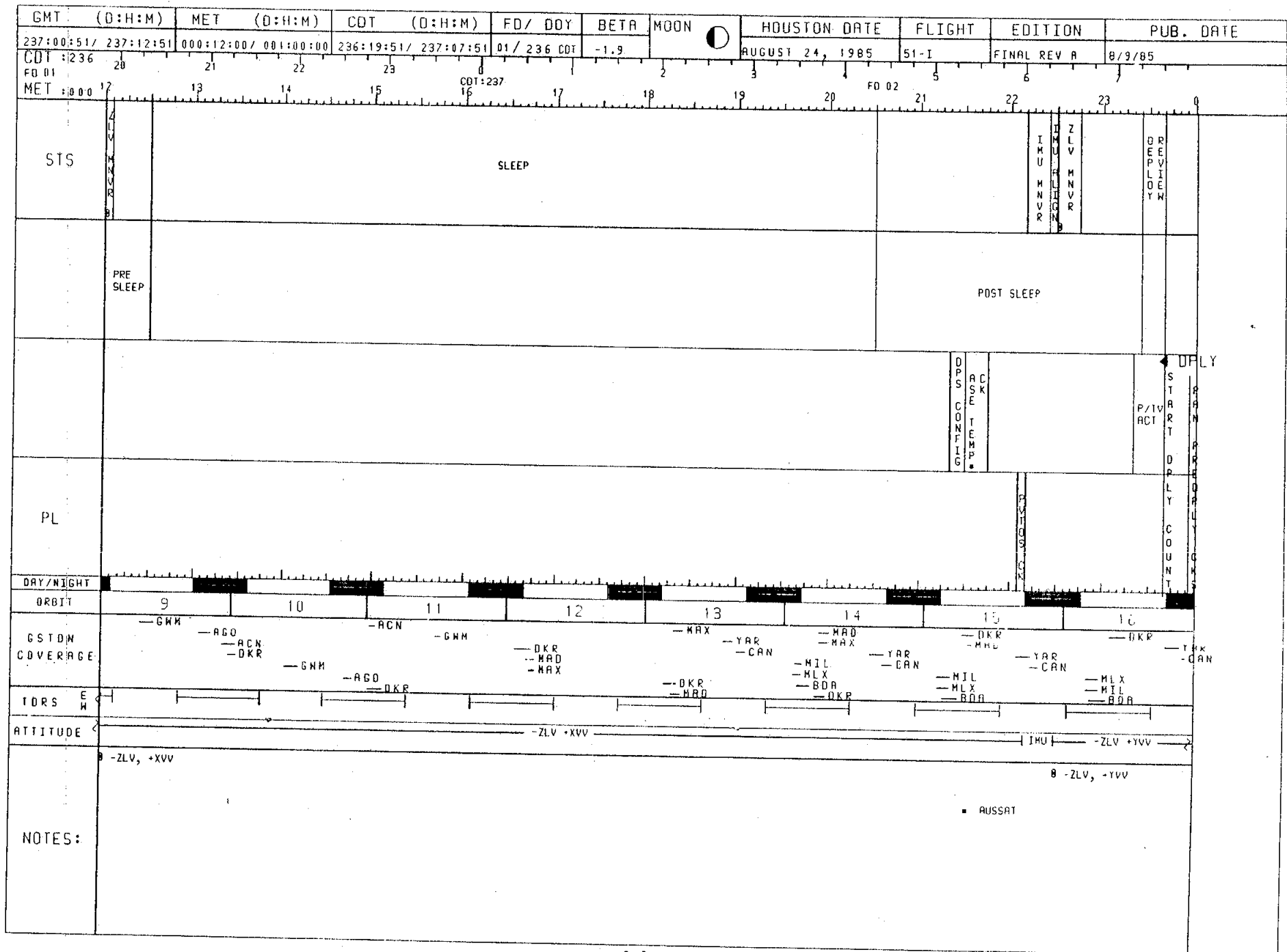




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SUMMARY TIMELINE

GMT (O:H:M)	MET (O:H:M)	CDT (O:H:M)	FD/ DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE
236:12:51 / 237:00:51	000:00:00 / 000:12:00	236:07:51 / 236:19:51	01/ 236 CDT	-3.4		AUGUST 24, 1985	51-I	FINAL REV A	8/9/85
CDT -236									
FD 01									
MET :000									
STS									
PL									
DAY/NIGHT									
ORBIT									
GSTDN COVERAGE									
TORS E H									
ATTITUDE									
NOTES:									





GMT (D:H:M)	MET (D:H:M)	CDT (D:H:M)	FD/ DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE						
237:12:51 / 238:00:51	001:00:00 / 001:12:00	237:07:51 / 237:19:51	02 / 237 CDY	0.3	☉	AUGUST 25, 1985	51-1	FINAL REV A	8/9/85						
CDT :237															
FD 02															
MET :001															
STS	DPLY ATT	OMNS SEPP BOURN	HI ND D N P RO H N V R	PKM	ZLV M N V R	LOAD PC M H U C O N F I G	MEAL	RAD HI	RMS P H R U P	H2O DUMP SURVEY	RMS P W R D N	FLTR IFM	IMU M N V R	ZLV M N V R	SLEEP
	M N V R					KU-BB D P L Y				SUPPLY H2O DUMP				PRE SLEEP	
	← AUSSAT DPLY →														
	M E C H T E R M S E D					RMS P W R D N				VTR S E T U P					
PL															
DAY/NIGHT															
ORBIT	17	18	19	20	21	22	23	24							
GSTON COVERAGE	--HAW --ACN --GDS --GDX --MIL --BDR --MLX	--YAR --BDR --HAW --DKR --ACN --GDX --GDS --MIL --MLX	--YAR --GMM --HAW --GDS	--GDX --MLX --ACN --GMM --HAW --GDX	--GDS --ACN --GMM --HAW --GDX	--GMM --HAW	--ACN --GMM --HAW --GDX	--GMM --HAW --GDX	--ACN --GMM --HAW --GDX	--GMM --HAW --GDX	--ACN --GMM --HAW --GDX	--GMM --HAW --GDX	--ACN --GMM --HAW --GDX	--GMM --HAW --GDX	--ACN --GMM --HAW --GDX
IDRS E															
ATTITUDE	← DEPLOY →	← SEP →	← WEN →												
NOTES:		8 -ZLV, -YVV		8 DTD 0325 WASTE AND SUPPLY WATER DUMPS		8 FILTER CLEANING		8 DTD 0624 RADIATOR PERFORMANCE							

GMT (D:H:M)	MET (D:H:M)	CDT (D:H:M)	FD/DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE	
238:00:51 / 238:12:51	001:12:00 / 002:00:00	237:19:51 / 238:07:51	02 / 297 CDT	1.2		AUGUST 25, 1985	51-I	FINAL REV A	8/9/85	
CDT: 237 FD 02										
MET: 001										
STS	SLEEP						IMU HNVVR	ZLV HNVVR	ORVILLE W	START DPLY
	POST SLEEP								P/TV ACT	DPLY HNVVR
									P/TV SETUP	SYN DPLY PREP DEP LDA
PL									RAD STU H	Y R A C H E C K S O N I T A N T D E P L O Y
DAY/NIGHT										
ORBIT	25	26	27	28	29	30	31	32	33	
GSTON COVERAGE	-AGO -ACN	-GWM -AGO -ACN -DKR	-DKR -HAD	-DKR -HAD -MAX	-MIL -BDA -DKR -HAD -MAX	-MIL -MLX -BDA -DKR -HAD -MAX	-CAN	-MIL -MLX -BDA -DKR	-HAW -GWS -GOX -MIL -BDA -MLX	-ACN
TORS										
ATTITUDE	-ZLV +XVV									
NOTES:	8 -ZLV, -XVV									

GMT (D:H:M)	MET (D:H:M)	CDT (D:H:M)	FD/DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE
238:12:51 / 239:00:51	002:00:00 / 002:12:00	238:07:51 / 238:19:51	03 / 238 CDT	2.9	☉	AUGUST 26, 1985	51-I	FINAL REV A	8/9/85
CDT: 238 FD 03	MET: 002								
STS	MEAL	H2O DUMP SURVEY							SLEEP
		SUPPLY H2O DUMP							PRE SLEEP
			P/TV SETUP	P/TV ACT					
PL			RPU IN CABIN C/O						
DAY/NIGHT									
ORBIT	32	33	34	35	36	37	38	39	40
GSTDN COVERAGE	YAR HAW DKR ACN GDX GDS MIL MLX BDR	YAR GWM HAW ACN GDS GDX	MIL MLX BDR	GDX MIL MLX	HAW AGO	HAW AGO	GWM HAW AGO ACN	AGO ACN	AGO ACN
TORS									
ATTITUDE	SEPI WIN	-ZLV +XVW			NCI	NHI	-ZLV -YVW IMU		-ZLV -YVW
NOTES:	0 -ZLV, +XVW	0 DTO 0325 WASTE AND SUPPLY WATER DUMPS			0 -ZLV, -YVW	0 -ZLV, -YVW			

GMT (D:H:M)	MET (D:H:M)	CDT (D:H:M)	FD/ DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE						
239:00:51/ 239:12:51	002:12:00/ 003:00:00	238:19:51/ 239:07:51	03/ 238 CDT	4.6	☉	AUGUST 26, 1985	51-I	FINAL REV A	8/9/85						
CDT : 238 FD 03															
MET : 002															
STS:	SLEEP				I M U M N V R	Z L V M N V R	R H S P W R U P	H2O DUMP SURVEY	R H S P H R D N						
	POST SLEEP							SPLY/MST H2O DUMP							
								P/TV SETUP	P/TV ACT						
PL									SBU IN CABIN C/O						
DAY/NIGHT	[Day/Night Cycle Diagram]														
ORBIT	40	41	42	43	44	45	46	47	48						
GSTDN COVERAGE	-AGO -ACN -DKR	-GMM	-AGO -DKR	--MAD -MAX	-CAN	-BDA -DKR -MAD -MAX	--YAR -CAN	-MAX	--MIL -MLX -BDA -DKR -MAD	--YAR -CAN	-MLX -MIL -BDA -DKR	--YAR -CAN	-DKR	-YAK	-MLX
TDRS E H	[Diagram]	[Diagram]	[Diagram]	[Diagram]	[Diagram]	[Diagram]	[Diagram]	[Diagram]	[Diagram]	[Diagram]	[Diagram]	[Diagram]	[Diagram]	[Diagram]	[Diagram]
ATTITUDE	-ZLV -YVV									IHU	-ZLV -YVV				
NOTES:										8 -ZLV, -YVV 8 DTO 0325 WASTE AND SUPPLY H2O DUMPS					

GMT (O:H:M)	MET (D:H:M)	CDT (O:H:M)	FD/ DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE
239:12:51/ 240:00:151	003:00:00/ 003:12:00	239:07:51/ 239:19:51	04/ 239 CDT	6.4	☉	AUGUST 27, 1985	51-I	FINAL REV A	8/9/85
CDT 1239 FD 04									
MET :003									
STS	MEAL				NC2 RCS BURN		ZLV IMU MNV R		SLEEP
									PRE SLEEP
	P/TV ACT								P/TV ACT
PL	SBU IN CABIN C/O								SBU IN CABIN C/O
DAY/NIGHT									
ORBIT	48	49	50	51	52	53	54	55	56
GSTDN COVERAGE	BDR -DKR -ACN	-GDX -MIL -MLX -BDR -GMM -HAW -GDS	-HAW -GDS -GDX -MIL -MLX -ACN -YAR -GMM	-HAW -GDX -GDS	-GMM -HAW	-HAW -AGO -ACN	-GMM -HAW -AGO	-GMM -ACN -DKR	
TDRS									
ATTITUDE			-ZLV -YVV		NC2	IMU		-ZLV -YVV	
NOTES:						8 -ZLV, -YVV			

GMT (D:H:M)	MET (D:H:M)	CDT (D:H:M)	FD/DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE
240:00:51 / 240:12:51	003:12:00 / 004:00:00	239:19:51 / 240:07:51	04 / 239 CDT	0.2	☉	AUGUST 27, 1985	51-I	FINAL REV A	8/9/85
CDT: 239 FD 04									
MET: 003			CDT: 240 FD 05						
STS	SLEEP					H2O DUMP SURVEY			
						SUPPLY H2O DUMP	P/TV SETUP	P/TV ACT	
						FLTR IFM		EQUIP PREP	
PL									
DAY/NIGHT									
ORBIT	56	57	58	59	60	61	62	63	
GSTON COVERAGE	-GMM -AGD -DKR -ACN	-GMM	-MAX -DKR -MAD -ACN	-YAR -CAN -MLX -MAD -MAX	-MIL -BDA -DKR -MAD -MAX	-MIL -MLX -BDA -DKR -MAD -MAX	-CAN -MLX -MIL -BDA -DKR	-HAW -ACN -YAK -GUX -GDS -MIL -BDA -MLX	-YAK -HAW
TORS									
ATTITUDE	-ZLV -YVV								
NOTES:	0 -ZLV, -YVV 0 FILTER CLEANING 0 010 0325 WASTE AND SUPPLY WATER DUMPS								

GMT (D:H:M)	MET (D:H:M)	CDT (D:H:M)	FD/ DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE	
240:12:51 / 241:00:51	004:00:00 / 004:12:00	240:07:51 / 240:19:51	05 / 240 CDT	10.0	○	AUGUST 28, 1985	51-I	FINAL REV A	8/9/85	
CDT : 240	FD 05	MET : 004								
STS	MEAL		NPC	NC3	Z L V	I M U	Z L V		SLEEP	
			DMS BURN	RCS BURN	M N V R	M N V R	M N V R			
		P/TV ACT							PRE SLEEP	
		EMU C/D								
PL										
DAY/NIGHT	[Day/Night Cycle Bar]									
ORBIT	64	65	66	67	68	69	70	71		
GSTDN COVERAGE	HAW ACN -GDX -GDS	-YAR -GMM	-MIL -ACN	-GMM -HAW	-GMM -HAW	-GMM -HAW -AGO	-AGO -ACN	-GMM -AGO	-AGO -ACN	ACN OKK
TORS	-OKR	-MLX	-GDS -GDX	-GDS	-GMM -HAW	-GMM -HAW	-GMM -HAW	-GMM -HAW	-GMM -HAW	-AGO
ATTITUDE	-ZLV -YVV									
			NPC	NC3	-ZLV -YVV	IMU	-ZLV -YVV			
NOTES:					8 -ZLV, -YVV		8 -ZLV, -YVV			

GMT (D:H:M)	MET (D:H:M)	CDT (D:H:M)	FD/DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE		
241:00:51 / 241:12:51	004:12:00 / 005:00:00	240:19:51 / 241:07:51	05 / 240 CDT	11.8		AUGUST 28, 1985	51-I	FINAL REV A	8/9/85		
CDT: 240 20 21 22 23 24 MET: 004 12 13 14 15 16 17 18 19 20 21 22 23 24 FD: 05 CDT: 241 FD 06											
STS	SLEEP				IMU ZLV MNV R		RMS PHR UP	H2O DUMP SURVEY	RMS PHR DN		
										10.2 PREP DEPRESS	
										LEH PREBREATHE	
PL											
DAY/NIGHT											
ORBIT	72	73	74	75	76	77	78	79			
GSTON COVERAGE	-RCN -DKR -GMH	-AGO -DKR -MAD	-MAD -MAX -CAN	-BOR -DKP -MAD -MAX	-YAR -CAN	-MIL -MLX -BDA -DKR -MAD	-YAK -CAN -MIL -MLX -BDA -DKP	-YAP -CAN -GDY -GDS -MIL -BDA -MIX	-DKR -HCN -YAR -HAW -GDx -GDS -MIL	-BDA -MLX -DKR -RCN	-YAR
TORS E M	-ZLV -YVV										
ATTITUDE											
NOTES:	8 -ZLV, -YVV      8 DTD 0325 WASTE AND SUPPLY H2O DUMPS      10.2 CONFIG										



GMT (D:H:M)	MET (D:H:M)	CDT (D:H:M)	FO/ DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE									
241:12:51 / 242:00:51	005:00:00 / 005:12:00	241:07:51 / 241:19:51	06 / 241 CDT	13.6	☉	AUGUST 29, 1985	51-I	FINAL REV A	8/9/85									
CDT : 241	8	9	10	11	12	13	14	15	16	17	18	19						
FD 06																		
MET : 005	0	1	2	3	4	5	6	7	8	9	10	11	12					
STS	MEAL	TACAN INIT		RCS BURN			A NC4 I MU M NV R Z LV M NV R	SLEEP										
H2O DUMP & P/TV SETUP CHRG			PRE SLEEP															
PL																		
DRY/NIGHT	[Bar chart showing dry/night periods]																	
ORBIT	80		81		82		83		84		85		86		87			
GSTON COVERAGE	-YAR -BDR -ACN		-YAR -GMM -HAW -GOS -MIL -MLX -ACN		-GMM -HAW		-GMM -HAW		-GMM -HAW -AGO -ACN		-GMM -HAW -AGO -HLN		-GMM -HAW -AGO -ACN -OKR		-GMM			
TORS	E H		E H		E H		E H		E H		E H		E H		E H			
ATTITUDE	-ZLV -YVV				NC4 -IMU				-ZLV -YVV									
NOTES:	• DTD 780 TACAN NAVIGATION						B -ZLV, -YVV											

GMT (D:H:M)	MET (D:H:M)	CDT (D:H:M)	FD/ DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE	
242:00:51 / 242:12:51	005:12:00 / 006:00:00	241:19:51 / 242:07:51	06 / 241 CDT	15.3	☉	AUGUST 29, 1985	51-I	FINAL REV A	8/9/85	
CDT: 241 FD 06										
MET: 005										
STS	SLEEP		IMU MNV R		ZLV MNV R	NH2	NSR	NC5	TI	VBR
	POST SLEEP					RENDEZVOUS				
			RC SK E T E M P					EVA PREP		
PL							P/TV SETUP	P/TV ACT		
DAY/NIGHT	[Day/Night Cycle Bar]									
DRBIT	87	88	89	90	91	92	93	94	95	
GSTDN COVERAGE	-AGO -DKR -ACN	-GMN	-DKR -MAD -MAX	-YAR -CAN	-BDA -DKR -MAD -MAX	-MIL -BDA -DKR -MAD	-GDS -MLX -MIL -BDA -DKR	-GDS -GOX -MIL -BDA -MLX -DKR	-YAR -HAW -GDS -GOX -MIL -MLX -DKR -ACN	-ACN
TDRS	[Coverage Bar]									
ATTITUDE	-ZLV -YVV   IMU   -ZLV -YVV   RENDEZVOUS									
NOTES:	0 -ZLV, -YVV									

GMT (D:H:M)	MET (D:H:M)	CDT (D:H:M)	FD/ DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE	
242:12:51/ 243:00:51	006:00:00/ 006:12:00	242:07:51/ 242:19:51	07/ 242 CDT	17.1	☉	AUGUST 30, 1985	51-1	FINAL REV A	8/9/85	
CDT 1242 FD 07	MET 1:006									
35 FT SK INERTIAL SK	<div style="display: flex; justify-content: space-between;"> <span>STS</span> <span>RNDZ</span> <span>INERTIAL SK</span> <span>IMU</span> <span>ZLV</span> <span>MNR</span> <span>SLEEP</span> </div>									
	P/TV ACT				PRE SLEEP					
AD L P R E P S	EVA				AD L P R E P S	POST EVA				
PL	EVA SUPPORT				ACK T E M P					
DAY/NIGHT										
ORBIT	95	96	97	98	99	100	101	102	103	
GSTDN COVERAGE										
TDRS E H										
ATTITUDE										
NOTES:	P/TV ACT EVA PREP				8 -ZLV, +XVV					

GMT (D:H:M)	MET (D:H:M)	CDT (D:H:M)	FD/DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE			
243:00:51 / 243:12:51	006:12:00 / 007:00:00	242:19:51 / 243:07:51	07 / 242 CDT	10.8	☉	AUGUST 30, 1985	51-I	FINAL REV A	8/9/85			
CDT: 242 FD 07												
MET: 006												
STS	SLEEP			JMU MNV R	ZLV MNV R	ORB ADJ OMS BURN	CONF ATT	FCS C/D	RCS RE HOT	CREW CONF	ZLV MNV R	MEAL
	POST SLEEP						TACAN TERM	P/TV SETUP			P/TV ACT	
						14.7 CABIN REPRESS	EMU MAINT RCHG	POST EVA ENT PREP			RECD NF IG	
PL												
DAY/NIGHT	[Day/Night Cycle]											
ORBIT	103	104	105	106	107	108	109	110	111			
GSTON COVERAGE	-GMM -DKR -MAD -MAX		-TAK -LHN -DKR -MAD -MAX	-MXX -MIL -MIL -BDR -DKR -MAD	-TAK -CAN -MIL -MLX -BDR -DKR	-MAD -MXX -YAR -CAN -MIL -MLX -BDR	-DKK -TAK -CAN -HAN -GDX -GDS -MIL	-BDR -MLX -DKR -ACN -YAR -HAN -GDX	-GDS -MIL -MLX -BDR -DKR -ACN -GDX	-GMM -HAK -GDS -GDX		
TDRS	[TDRS Coverage]											
ATTITUDE	-ZLV +XVV											
NOTES:	0 -ZLV, +XVV											

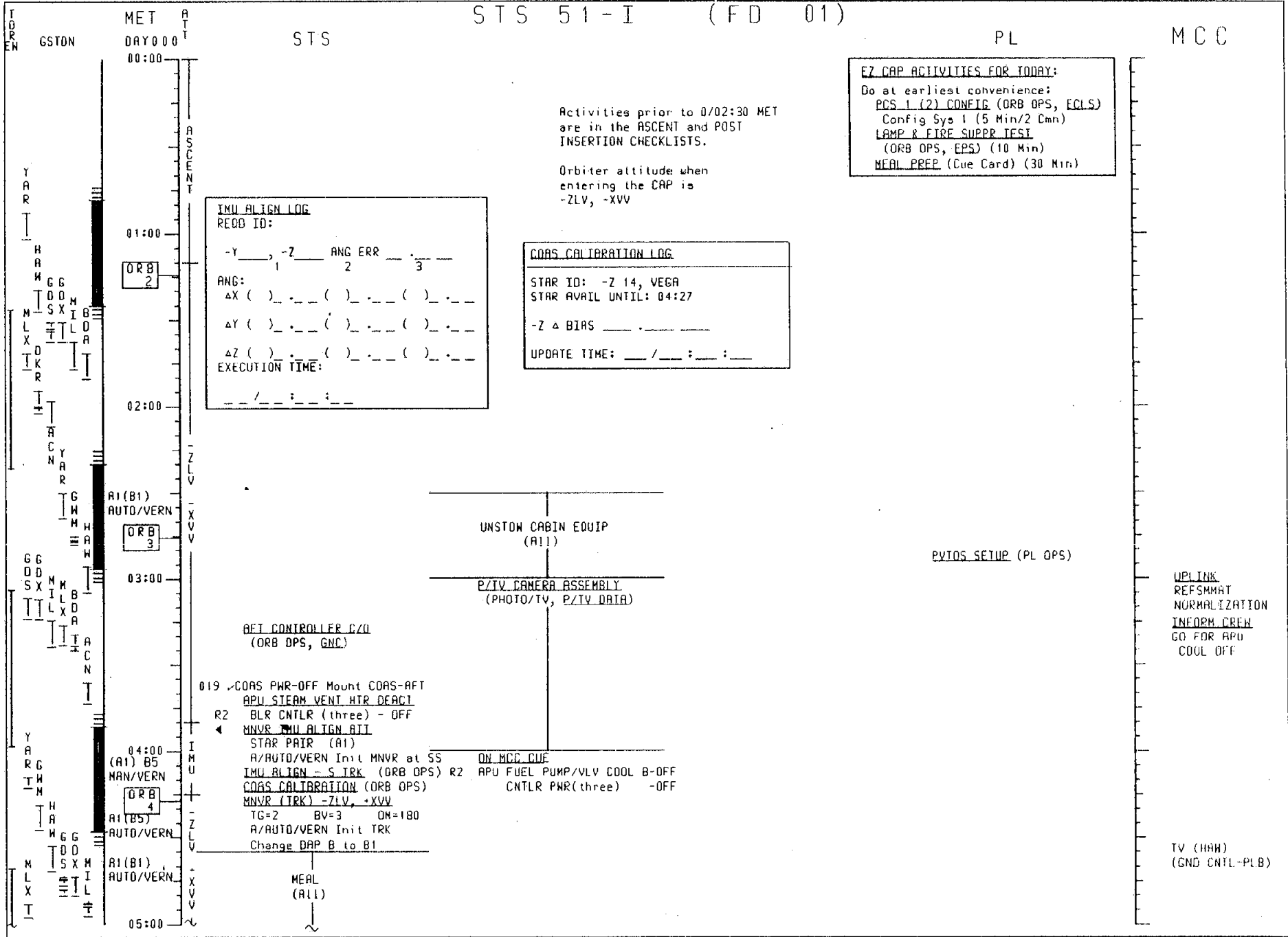
GMT (D:H:M)	MET (D:H:M)	CDT (D:H:M)	FD/ DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE	
243:12:51 / 244:00:51	007:00:00 / 007:12:00	243:07:51 / 243:19:51	08 / 243 CDT	20.5	☉	AUGUST 31, 1985	51-I	FINAL REV R	8/9/85	
CDT : 243 FD 08 MET : 007										
STS	H2O DUMP SURVEY	H2O DUMP SURVEY	CABIN STOW	PRE SLEEP	SLEEP					
PL										
DAY/NIGHT										
ORBIT	111	112	113	114	115	116	117	118		
GSTDN COVERAGE	GDS -GDx -MIL -BDA -ACN	-HAW -GDs -GDY -MIL -ACN	-GMM -HAK -AGO	-GMM -HAK -AGO	-GMM -HAK -AGO	-GMM -HAK -AGO	-HGO -ACN	-GMM -AGO -ACN -OKR	-GMM -AGO	-GMM -AGO
YDRS E M										
ATTITUDE										
NOTES:	0 DTD 0325 WASTE AND SUPPLY WATER DUMPS				0 -ZLV, +XVV					

GMT (D:H:M)	MET (D:H:M)	CDT (D:H:M)	FO/DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE	
244:00:51 / 244:12:51	007:12:00 / 008:00:00	243:19:51 / 244:07:51	08 / 243 CDT	22.1	☉	AUGUST 31, 1985	51-I	FINAL REV A	8/9/85	
CDT: 243 FD 08										
MET: 007			CDT: 244 FD 09							
STS	SLEEP			I M U N V R	X S I N V R		PLBD OPS			
									DEORBIT BURN (7/23:38)	
PL							D P S N S H L D			
DAY/NIGHT	[Day/Night Cycle]									
ORBIT	119	120	121	122	123	124	125	126		
STATION COVERAGE	-DKR -MIL -MAX	-MAX -CAN	-YAK -CAN	-MAD -MAX -MIL -MLX -BDR -DKP	-YAR -CAN	-DKR -YAR -CAN	-BDR -DKR -ACN -GDX -GDS -MIL -MLX	-MIL -BDR -MLX -DKR -ACN -HAN -GDS -GDX	-YAR -GDS -MLX -BDR -ACN	-YAR
TORS										
ATTITUDE	-ZLV +XVV									
NOTES:										

GMT (D:H:M)	MET (D:H:M)	CDT (D:H:M)	FD/ DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE
244:12:51 / 245:00:51	008:00:00 / 008:12:00	244:07:51 / 244:19:51	09/ 244 CDT	23.7		SEPTEMBER 1, 1985	51-I	FINAL REV A	8/9/85
CDT :244									
FD 09									
MET :008									
STS									
	EDW LANDING (8/00:40)								
PL									
DRY/NIGHT									
ORBIT	127	128	129	130	131	132	133	134	
GSTON COVERAGE	GMM -HAW -GDS -GDJ -NIL -HLX	GMM -HAW -GDS -GDJ	GMM -HAW -AGO	GMM -HAW -AGO -ACN	GMM -HAW -AGO -ACN	GMM -HAW -AGO -ACN	GMM -HAW -AGO -ACN -DKR	GMM -HAW -AGO -ACN -DKR	GMM -HAW -AGO -ACN -DKR
TDRS E W	ACN	ACN	ACN	ACN	ACN	ACN	ACN	ACN	ACN
ATTITUDE	← ENTRY →								
NOTES:									

DETAILED TIMELINE

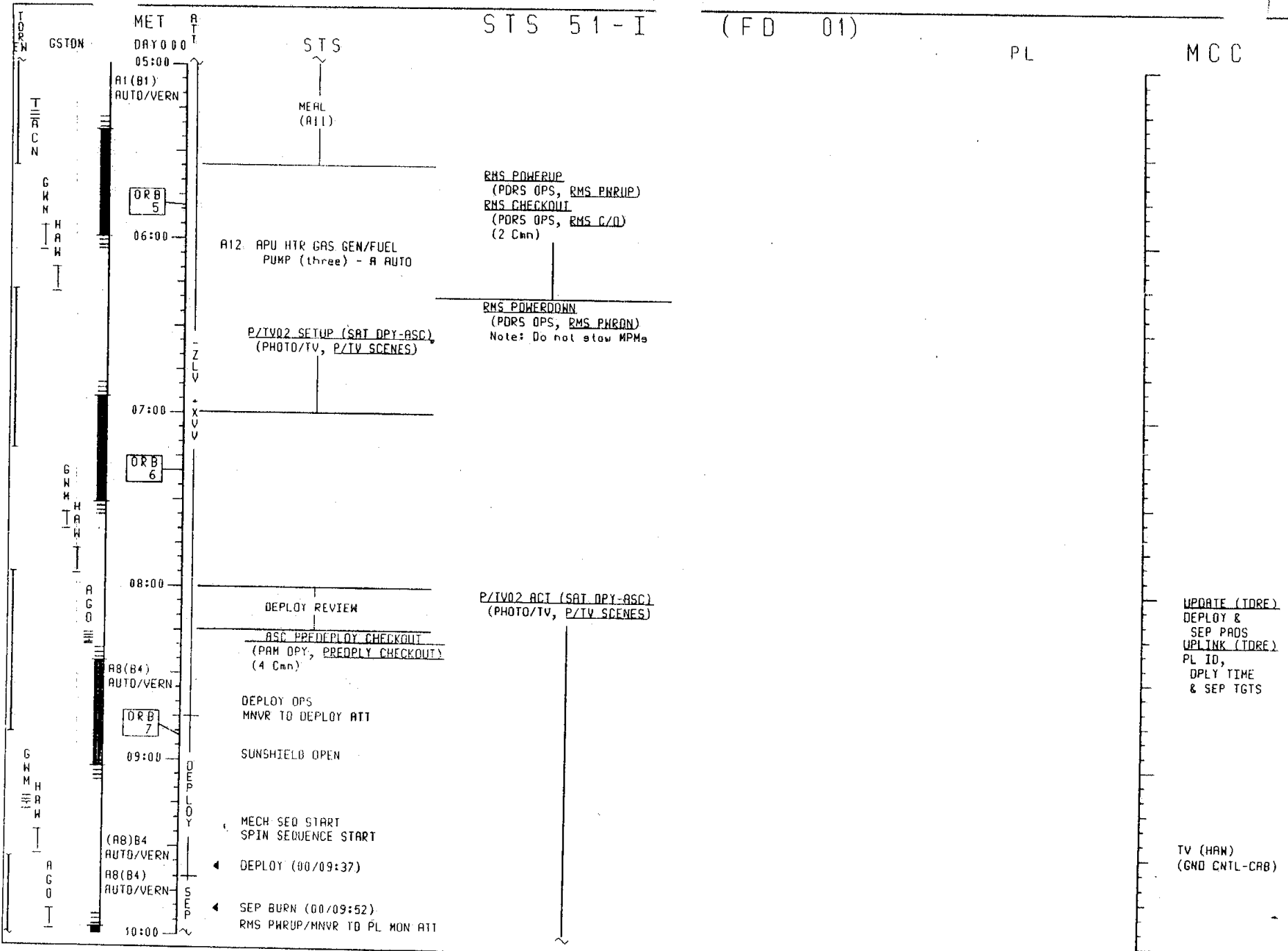


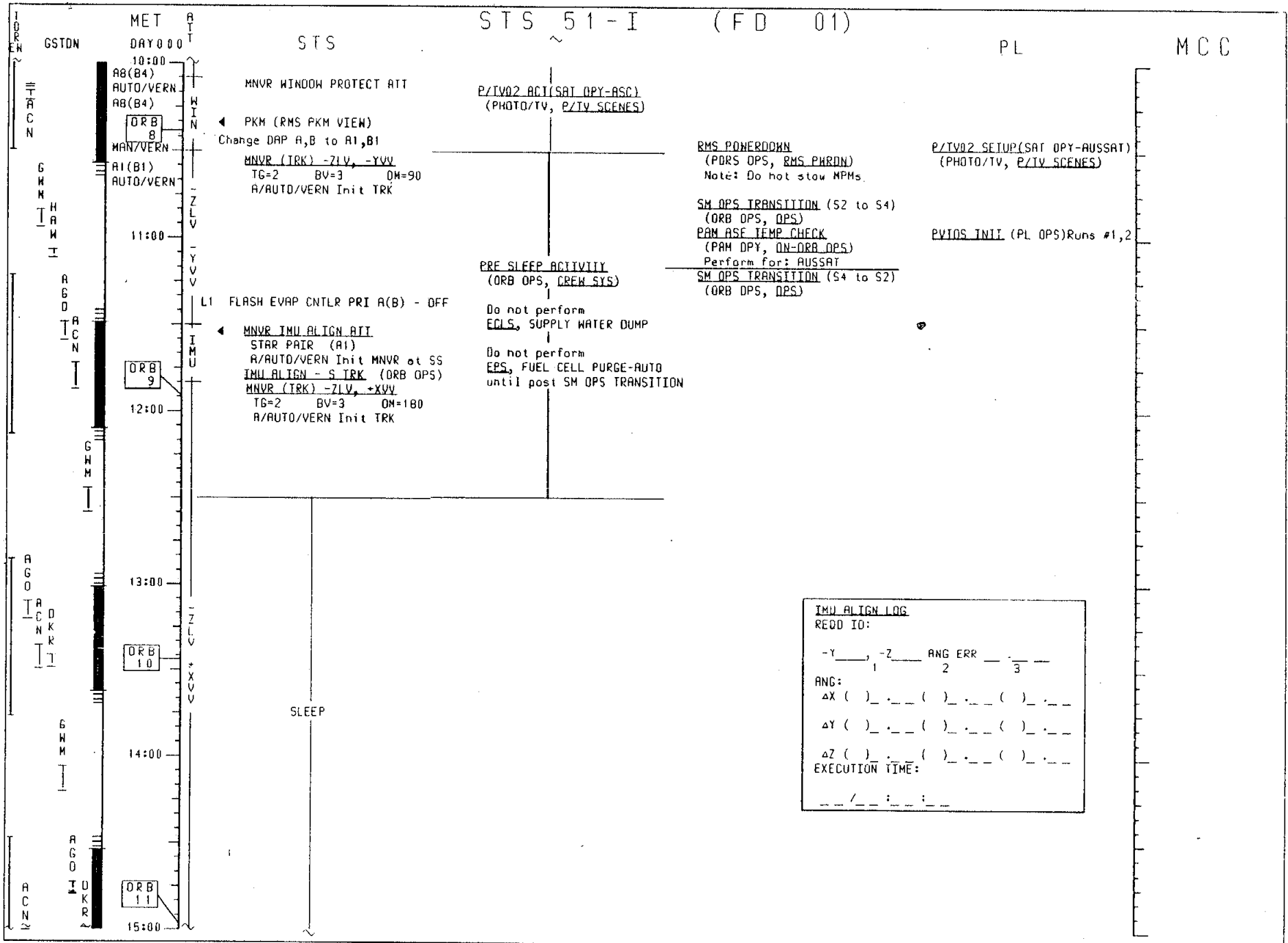


STS 51-I (FD 01)

PL

MCC





**IMU ALIGN LOG**

REDD ID:

-Y \_\_\_\_, -Z \_\_\_\_ ANG ERR \_\_\_\_

1 2 3

ANG:

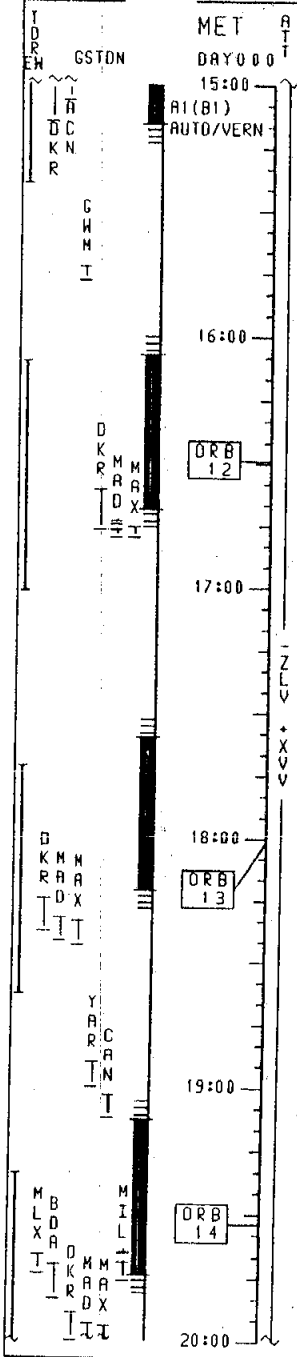
ΔX ( ) . ( ) . ( ) .

ΔY ( ) . ( ) . ( ) .

ΔZ ( ) . ( ) . ( ) .

EXECUTION TIME:

\_\_ / \_\_ : \_\_



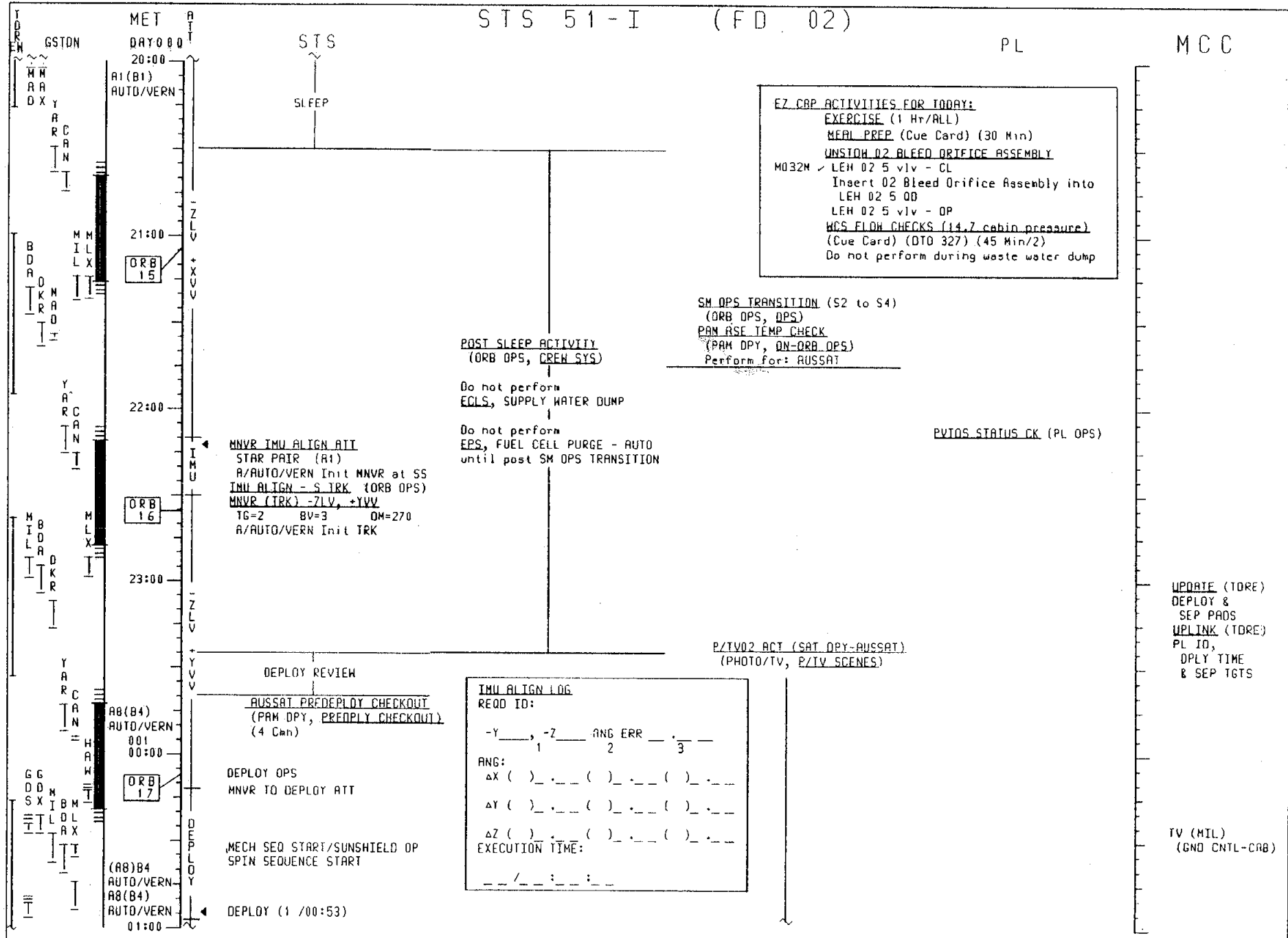
STS

SLEEP

# STS 51-I (FD 02)

PL

MCC



EZ CAB ACTIVITIES FOR TODAY:  
EXERCISE (1 Hr/ALL)  
MEAL PREP (Cue Card) (30 Min)  
UNSTOH 02 BLEED ORIFICE ASSEMBLY  
 M032M ✓ LEH 02 5 vlv - CL  
 Insert 02 Bleed Orifice Assembly into  
 LEH 02 5 00  
 LEH 02 5 vlv - OP  
WCS FLOW CHECKS (14.7 cabin pressure)  
 (Cue Card) (OTO 327) (45 Min/2)  
 Do not perform during waste water dump

SM OPS TRANSITION (S2 to S4)  
 (ORB OPS, OPS)  
PAN ASE TEMP CHECK  
 (PAN DRY, ON-ORB OPS)  
 Perform for: AUSSAT

POST SLEEP ACTIVITY  
 (ORB OPS, CREW SYS)

Do not perform  
ECLS, SUPPLY WATER DUMP  
  
 Do not perform  
EPS, FUEL CELL PURGE - AUTO  
 until post SM OPS TRANSITION

PVTOS STATUS CK (PL OPS)

MNVR IMU ALIGN ATT  
 STAR PAIR (A1)  
 A/AUTO/VERN Init MNVR at SS  
IMU ALIGN - S TRK (ORB OPS)  
MNVR (TRK) -7LV, +YVV  
 TG=2 BV=3 OM=270  
 A/AUTO/VERN Init TRK

P/TVO2 ACT (SAT OPY-AUSSAT)  
 (PHOTO/TV, P/TV SCENES)

DEPLOY REVIEW

AUSSAT PREDEPLOY CHECKOUT  
 (PAN DRY, PREDEPLY CHECKOUT)  
 (4 Can)

DEPLOY OPS  
 MNVR TO DEPLOY ATT

MECH SEQ START/SUNSHIELD OP  
 SPIN SEQUENCE START

DEPLOY (1 /00:53)

IMU ALIGN LOG  
 REQD ID:  
 -Y \_\_, -Z \_\_ ANG ERR \_\_  
           1      2          3  
 ANG:  
 ΔX ( ) . ( ) . ( ) .  
 ΔY ( ) . ( ) . ( ) .  
 ΔZ ( ) . ( ) . ( ) .  
 EXECUTION TIME:  
 \_ / \_ : \_ : \_

UPDATE (TORE)  
DEPLOY &  
SEP PADS  
UPLINK (TORE)  
 PL ID,  
 DPLY TIME  
 & SEP TGTS

TV (MIL)  
 (GND CNTL-CAB)

MET DAY 001  
 01:00  
 02:00  
 03:00  
 04:00  
 05:00  
 06:00

TDRN  
 GSDN  
 YARR  
 HAW  
 GDS  
 MIL  
 BOA  
 DOKRN  
 YARR  
 GDS  
 MIL  
 HAW  
 GDS  
 MIL  
 HAW  
 GDS  
 MIL  
 A C N =

SEP  
 WIN  
 ZLV  
 YVV

AB(B4) AUTO/VERN  
 AB(B4) MAN/VERN  
 A1(B1) AUTO/VERN

ORB 18  
 PKM (RMS PKM VIEW)  
 Change OAP A,B to A1,B1  
 MNVR (TRK) -ZLV, -YVV  
 TG=2 BV=3 OH=90  
 A/AUTO/VERN Init TRK  
 SM OPS TRANSITION (S4 to S2)  
 (ORB OPS, OPS)  
 LOAD PCMMU FORMAT (ORB OPS)  
 Load 103 / 161

ORB 19  
 MEAL (ALL)

ORB 20  
 SUPPLY H2O DUMP  
 RAD HI, EES ACTIVE  
 (ORB OPS, ECLS)  
 RMS POWERUP  
 (PDRS OPS, RMS PHRUP)  
 H2O DUMP NOZZLE SURVEY  
 (PDRS OPS, EXT SURVEYS)

RMS POWERDOWN  
 (PDRS OPS, RMS PHRDN)  
 Note: Do not slow MPMS

KU-BD ANT DEPLOY  
 (ORB OPS, COMM/INST)  
 KU-BD ACTIVATION (COMM mode)  
 (ORB OPS, COMM/INST)

SUPPLY WATER DUMP (OTO 325)  
 (ORB OPS, ECLS)  
 Monitor with wrist camera from  
 initiation to termination  
 Initiate when H2O SPLY NOZ T  
 exceeds 100 DEG  
 Terminate post bake out when  
 nozzle temps exceed 100 DEG

RMS POWERDOWN  
 (PDRS OPS, RMS PHRDN)  
 Note: Do not slow MPMS

VTR SETUP (ASC & AUS Deploys)  
 (Cue Card, TV/VTR)

VTR PLAYBACK (ASC & AUS Deploys)  
 (Cue Card, TV/VTR)  
 VTR at HAW,GDS,MIL (1/03:23)

VTR (HAW, GDS, MIL)

TV (HAW)  
 (GND CNTL-PLB)

STS 51-I (FD 02)

PL

MCC

MET DAY 001  
06:00  
07:00  
08:00  
09:00  
10:00  
11:00

ORBIT  
GSTM  
H A H  
G M H A H  
A G G O  
I I Z C R  
H I M H A H  
A G G O  
I I Z C R  
A C N N

ORB 21

A1(B1)  
AUTO/VERN

ORB 22

ORB 23

ORB 24

ETLIER CLEANING  
(IFM, SCHEDULED MAINTENANCE)

MNVR IMU ALIGN ATT  
STAR PAIR (A1)  
A/AUTO/VERN Init MNVR at SS  
IMU ALIGN - S TRK (ORB OPS)  
MNVR (TRK) =ZLV, +XVV  
TG-2 BV-3 OM-180  
A/AUTO/VERN Init TRK

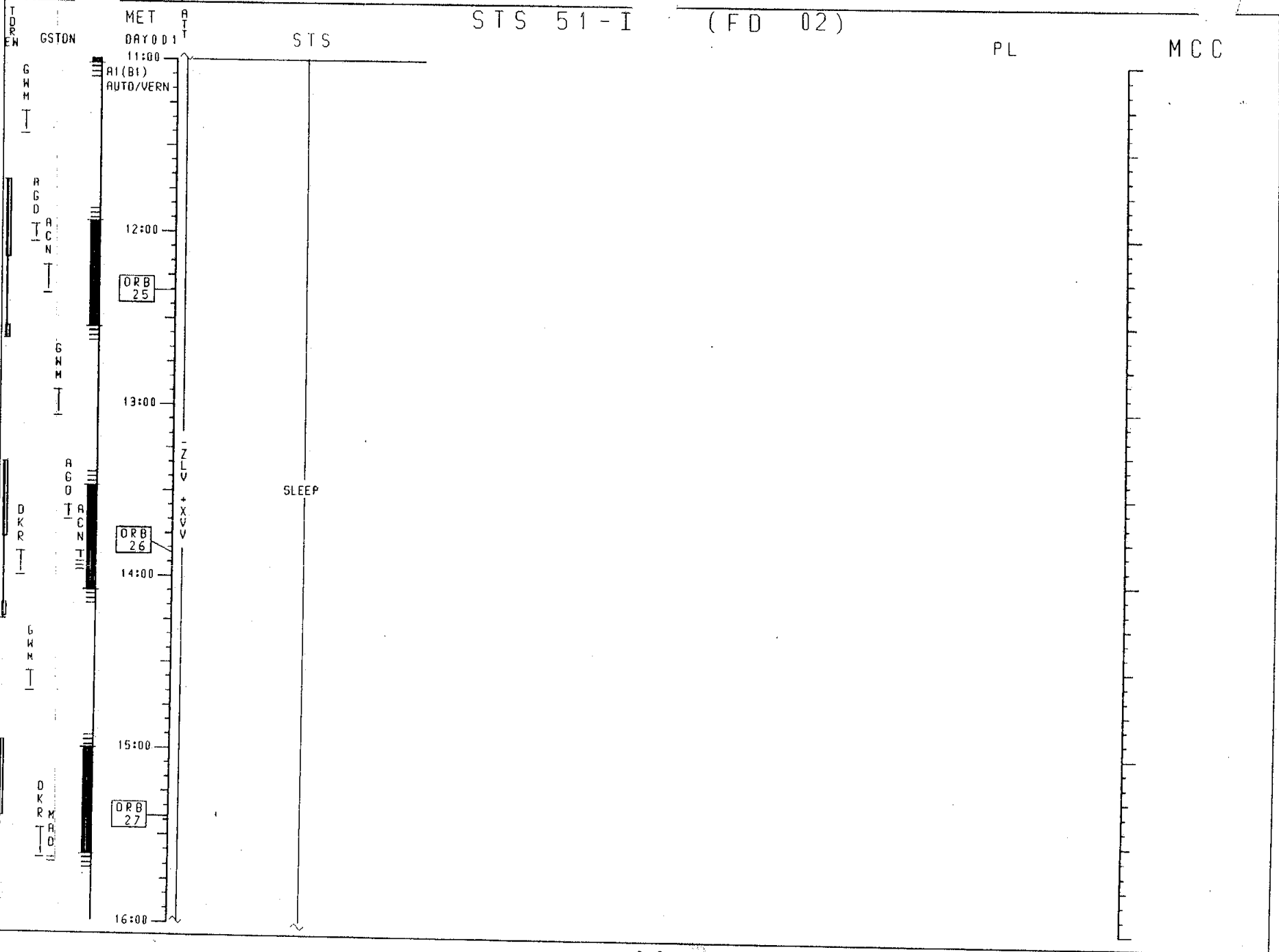
PRE SLEEP ACTIVITY  
(ORB OPS, CREW SYS)

Do not perform  
ECLS, SUPPLY WATER DUMP

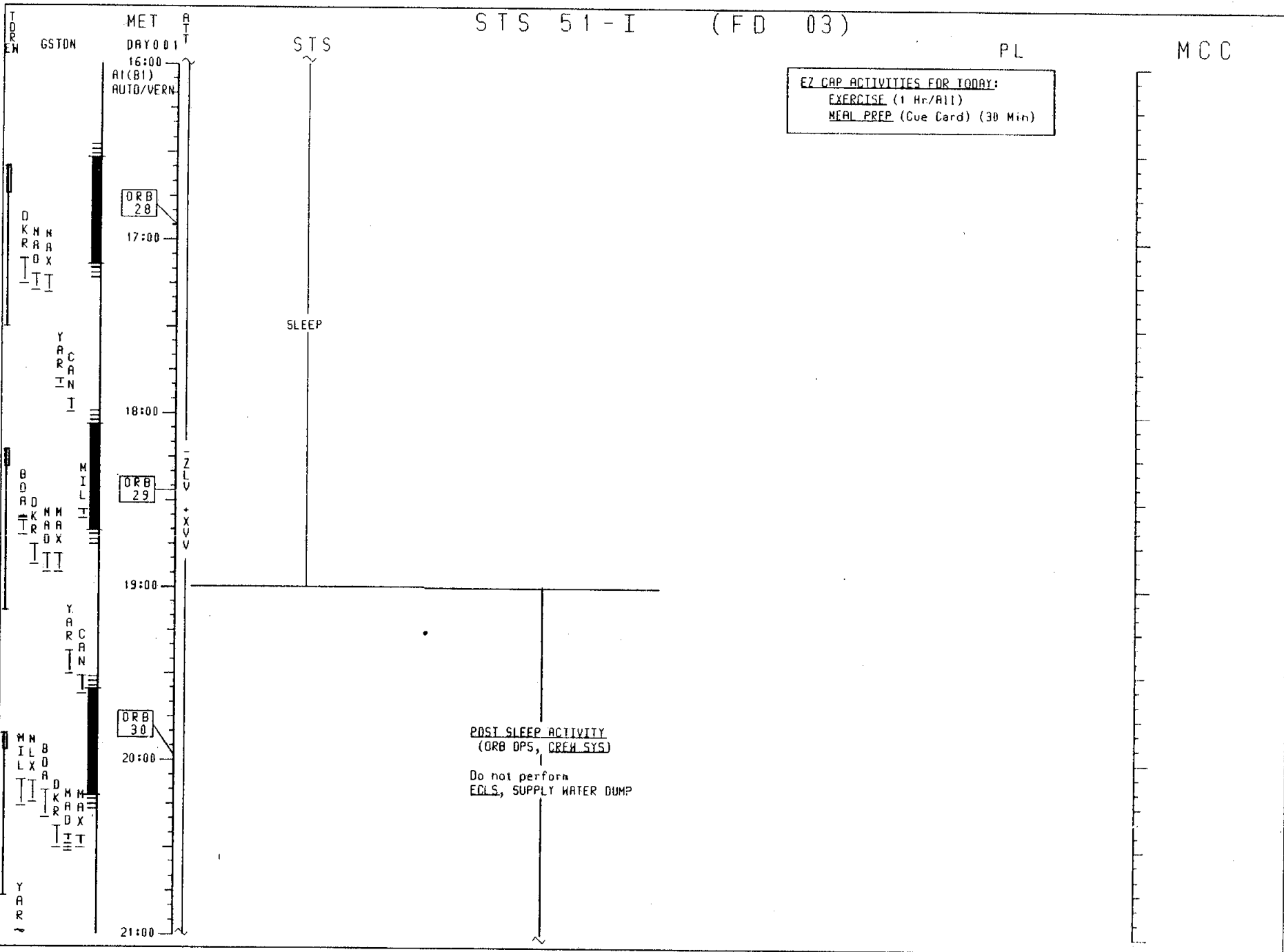
RAG SLOW/DEPLOY (OTO 0624)  
(ORB OPS, ECLS)  
Step 2

IMU ALIGN LOG  
REDD ID:  
-Y \_\_\_\_\_ -Z \_\_\_\_\_ ANG ERR \_\_\_\_\_  
          1          2          3  
ANG:  
ΔX ( ) \_\_\_\_\_ ( ) \_\_\_\_\_ ( ) \_\_\_\_\_  
ΔY ( ) \_\_\_\_\_ ( ) \_\_\_\_\_ ( ) \_\_\_\_\_  
ΔZ ( ) \_\_\_\_\_ ( ) \_\_\_\_\_ ( ) \_\_\_\_\_  
EXECUTION TIME:  
\_\_\_\_/\_\_\_\_/\_\_\_\_ : \_\_\_\_: \_\_\_\_

PVIDS INIT (PL OPS)Runs #3,4







MET DAY001  
 21:00  
 AI(B1)  
 AUTO/VERN  
 ORB 31  
 22:00  
 AB(B4)  
 AUTO/VERN  
 ORB 32  
 23:00  
 (AB)B4  
 AUTO/VERN  
 AB(B4)  
 002  
 00:00  
 AUTO/VERN  
 ORB 33  
 AI(B1)  
 AUTO/VERN  
 01:00  
 02:00

TORN  
 GSTON  
 YARCAN  
 NMLD  
 ILLX  
 A  
 YARCAN  
 HADD  
 ILLX  
 BDL  
 AX  
 DKKR  
 HANCN  
 YARCAN  
 HAW  
 ILLX  
 MB  
 ILLX  
 A  
 YARCAN  
 ILLX  
 YARCAN

◀ MNVR IMU ALIGN ATT  
 STAR PAIR (A1)  
 A/AUTO/VERN Init MNVR at 55  
 IMU ALIGN - S TRK (ORB OPS)  
 MNVR (TRK) -ZLV, -XVV  
 TG=2 BV=3 OM=0  
 A/AUTO/VERN Init TRK

POST SLEEP ACTIVITY  
 (ORB OPS, CREW SYS)  
 Do not perform  
 ECLS, SUPPLY WATER DUMP

P/IV02 SETUP (SAT DPY-SYNCOM)  
 (PHOTO/TV, P/TV SCENES)

DEPLOY REVIEW  
 P/IV02 ACT (SAT DPY-SYNCOM)  
 (PHOTO/TV, P/TV SCENES)

RAD STOW/DEPLOY (OTO 0624)  
 (ORB OPS, ECLS)  
 Step 1  
 PVIQS STATUS CK (PL OPS)

PAYLOAD CHECKOUT AND DEPLOY  
 (SYNCOM DPY, PL C/O & DEPLOY) (4 Cnn)  
 ✓ MPMS DEPLOYED  
 PIVOT/KEEL PIN RETRACTION

IMU ALIGN LOG  
 RECD ID:  
 -Y\_\_\_\_, -Z\_\_\_\_ ANG ERR \_\_\_\_  
 1 2 3  
 ANG:  
 ΔX ( ) . ( ) . ( ) .  
 ΔY ( ) . ( ) . ( ) .  
 ΔZ ( ) . ( ) . ( ) .  
 EXECUTION TIME:  
 \_ / \_ : \_ : \_

DEPLOY OPS  
 MNVR TO DEPLOY ATT  
 PUSH OFF PIN RETRACTION  
 STATUS CHECK  
 ◀ DEPLOY (1/23:48)  
 ◀ SEP BURN (2/00:03)  
 RMS PWRUP/MNVR TO PL MON ATT  
 MNVR WINDOW PROTECT ATT

◀ PKM (RMS PKM VIEW)  
 Change DAP A,B to A1,B1  
 MNVR (TRK) -ZLV, +XVV  
 TG=2 BV=3 OM=180  
 A/AUTO/VERN Init TRK

VIR SETUP (SYNCOM DPY)  
 (Cue Card, IV/VIR)

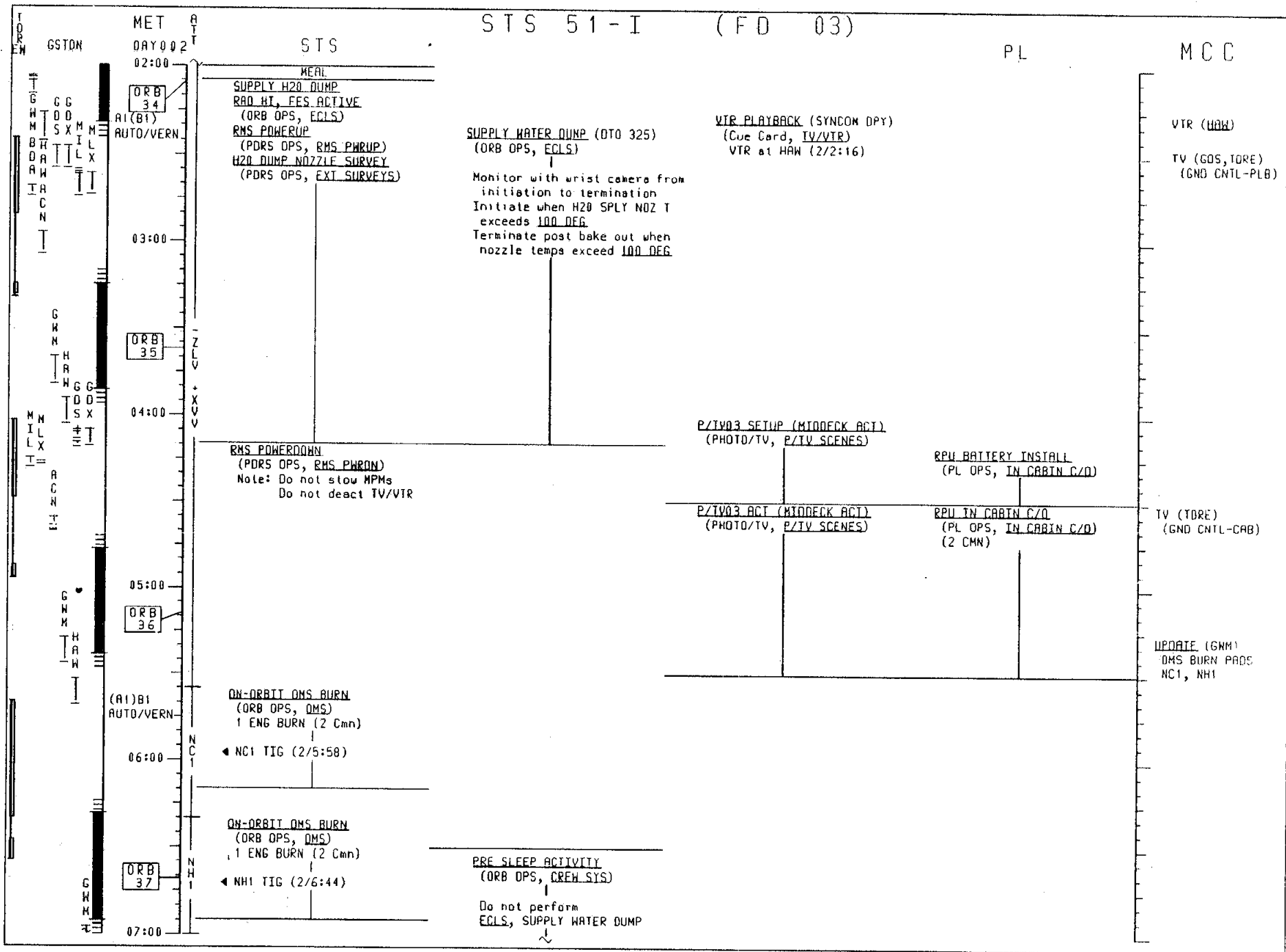
RMS POWERDOWN  
 (PDRS OPS, RMS PHRON)  
 Note: Do not stow MPMS

MEAL  
 (All)

UPDRIE (TDRE)  
 DEPLOY &  
 SEP PROS  
 UPLINK (TDRE)  
 DPLY TIME  
 & SEP TGTS

TV (MIL)  
 (GND CNTL-CAB)

UPLINK (HAW)  
 KU COMM PWR-ON



MET DAY 002  
 07:00  
 A1 (B1)  
 AUTO/VERN  
 08:00  
 ORB 38  
 09:00  
 ORB 39  
 10:00  
 11:00  
 ORB 40  
 12:00

STS  
 MNVR (TRK) -ZLV, -YVV  
 TG=2 BV=3 OM=90  
 A/AUTO/VERN Init TRK

MNVR IMU ALIGN ATT  
 STAR PAIR (A1)  
 A/AUTO/VERN Init MNVR at 55  
 IMU ALIGN - S TRK (ORB OPS)  
 MNVR (TRK) -ZLV, -YVV  
 TG=2 BV=3 OM=90  
 A/AUTO/VERN Init TRK

PRE SLEEP ACTIVITY  
 (ORB OPS, CREW SYS)  
 Do not perform  
 ECLS, SUPPLY WATER DUMP

PVQDS INIL (PL OPS) Run #5,6

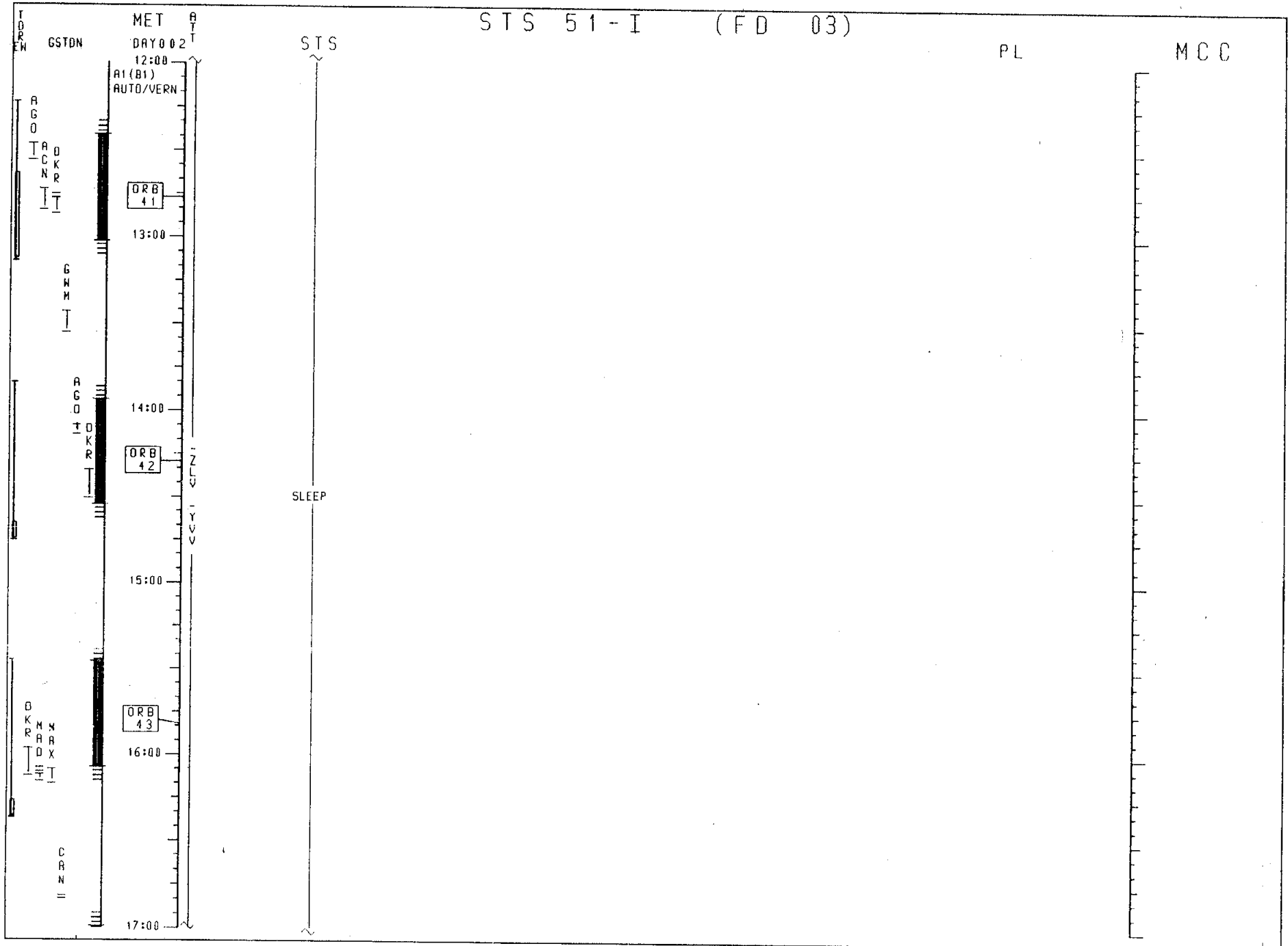
IMU ALIGN LOG  
 REQD ID:  
 -Y\_\_\_\_, -Z\_\_\_\_ ANG ERR \_\_\_\_  
 1 2 3  
 ANG:  
 ΔX ( ) \_\_\_\_ ( ) \_\_\_\_ ( ) \_\_\_\_  
 ΔY ( ) \_\_\_\_ ( ) \_\_\_\_ ( ) \_\_\_\_  
 ΔZ ( ) \_\_\_\_ ( ) \_\_\_\_ ( ) \_\_\_\_  
 EXECUTION TIME:  
 \_\_\_\_ / \_\_\_\_ : \_\_\_\_ : \_\_\_\_

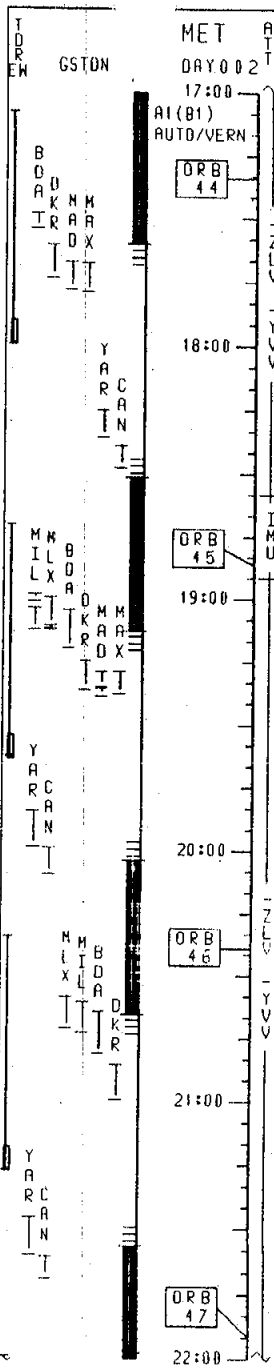
SLEEP

STS 51-I (FD 03)

PL

MCC





MET DAY 002  
 17:00  
 AI (B1)  
 AUTO/VERN  
 ORB 44  
 18:00  
 ORB 45  
 19:00  
 ORB 46  
 21:00  
 ORB 47  
 22:00

STS  
 SLEEP

◀ MNVR IMU ALIGN ATT  
 STAR PAIR (A1)  
 A/AUTO/VERN Init MNVR at 55  
 IMU ALIGN - S TRK (ORB OPS)  
 MNVR (TRK) -ZLV, -YVV  
 TG=2 BV=3 OH=90  
 A/AUTO/VERN Init TRK

POST SLEEP ACTIVITY  
 (ORB OPS, CREW SYS)  
 Do not perform  
 ECLS, SUPPLY WATER DUMP  
 Do EC PURGE - MANUAL  
 (Cue Card)

RMS POWERUP  
 (PDRS OPS, RMS PHRUP)  
 H2O DUMP NOZZLE SURVEY  
 (PDRS OPS, EXT SURVEYS)

SUPPLY WATER DUMP  
 WASTE WATER DUMP  
 (ORB OPS, ECLS) (DTO 0325)

Dump simultaneously  
 Monitor with wrist camera from  
 initiation to termination  
 Initiate when H2O NOZ T exceeds:  
 SPLY 250 DEG WASTE 250 DEG  
 Terminate post bake out when  
 nozzle temps exceed:  
 SPLY 250 DEG WASTE 250 DEG

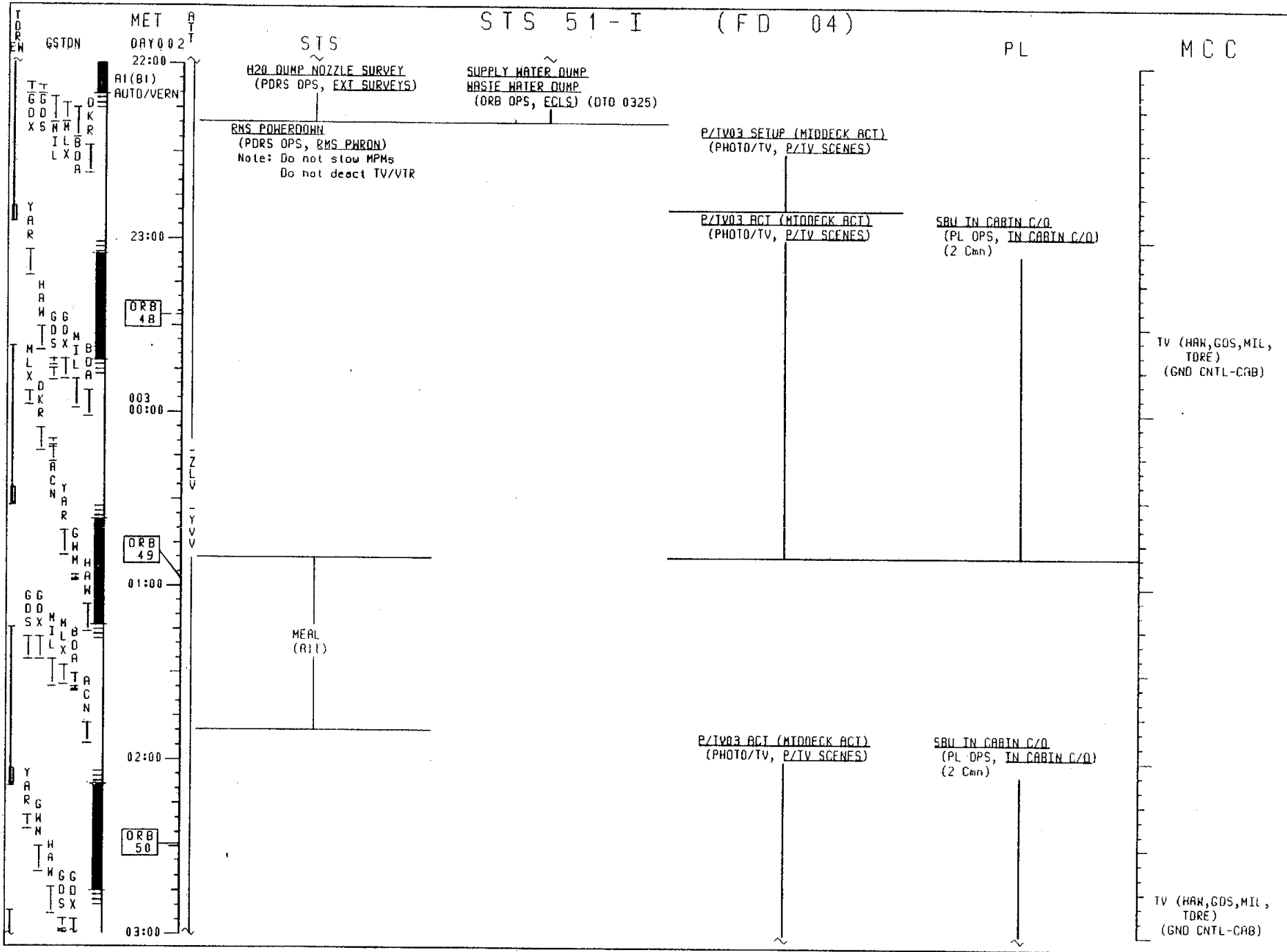
EZ CAP ACTIVITIES FOR TODAY:

- RCS REGULATOR RECONFIGURE  
 07/08 He PRESS A(three)-CL(lb-CL)  
 B(three)-GPC(lb-OP)  
 Perform midflt/A.M.(10 Min)
- HEATER RECONFIG - A (ORB OPS, EPS)  
 Perform midflt/A.M.(5 Min)
- EXERCISE (1 Hr/All)
- MEAL PREP (Cue Card) (30 Min)
- ECLS REDUNDANT COMPONENT C/O  
 (ORB OPS, ECLS) (10 Min)  
 Inform MCC when complete
- PCS 1 (2) CONFIG (ORB OPS, ECLS)  
 Config Sys 2 (5 Min/2 Cmn)  
 Perform midflight
- DSO 45B SALIVARY ACETAMINOPHEN  
PHARMACOKINETICS  
 (MED, MED DSO's)  
 Samples AT 0, .25, .5, 1, 2, 3,  
 4, 5, 6 and 8 hrs post-dosing
- RCS FLOW CHECKS (14.7 cabin pressure)  
 (Cue Card) (DTO 327) (45 Min/2)  
 Do not perform during waste water dump

PVTOS STATUS CK (PL OPS)

IMU ALIGN LOG  
 RECD ID:  
 -Y \_\_\_\_ -Z \_\_\_\_ ANG ERR \_\_\_\_  
 1 2 3  
 ANG:  
 ΔX ( ) ( ) ( )  
 ΔY ( ) ( ) ( )  
 ΔZ ( ) ( ) ( )  
 EXECUTION TIME:  
 \_\_\_\_ / \_\_\_\_ : \_\_\_\_ : \_\_\_\_

TV (TDRE)  
 (GND CNTL-PLB)



STS 51-I (FD 04)

MET DAY 003

STS

PL

MCC

P/TV03 ACT (MIDDECK ACT)  
(PHOTO/TV, P/TV SCENES)

SBU IN CABIN C/O  
(PL OPS, IN CABIN C/O)  
(2 Cmn)

TV (GDS, MIL, TDRE)  
(GND CNTL-CAB)

IMU ALIGN LOG  
REQD ID:  
-Y\_\_\_\_, -Z\_\_\_\_ ANG ERR \_\_\_\_  
          1          2          3  
ANG:  
ΔX ( ) . ( ) . ( ) .  
ΔY ( ) . ( ) . ( ) .  
ΔZ ( ) . ( ) . ( ) .  
EXECUTION TIME:  
\_ / \_ : \_ : \_

03:00 A1(B1) AUTO/VERN  
04:00 ORB 51  
05:00  
06:00 (A1)B1 AUTO/VERN  
07:00 A1(B1) AUTO/VERN  
08:00

DR EN  
GSTON  
GMM  
HAW  
GMM  
HAW  
GMM  
HAW  
GMM  
HAW

ON-ORBIT RCS BURN  
(ORB OPS, RCS)  
(2 Cmn)

◀ NC2 TIG (3/6:24)

PRE SLEEP ACTIVITY  
(ORB OPS, CREW SYS)

Do not perform  
ECLS, SUPPLY WATER DUMP

MNVR IMU ALIGN ATT  
STAR PAIR (A1)  
A/AUTO/VERN Init MNVR at 55  
IMU ALIGN - 5 TRK (ORB OPS)  
MNVR (TRK) -ZLV, -YVV  
TG=2 BV=3 OM=90  
A/AUTO/VERN Init TRK

ORB 53

UPDATE (GMM)  
RCS BURN PAD  
NC2

PVLOS INIT (PL OPS)Runs #7,8



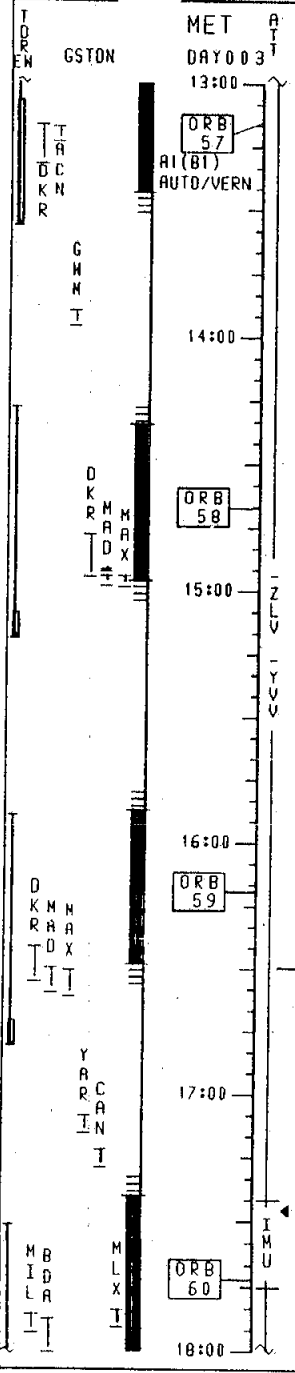
TDR EN  
 MET DAY 003  
 08:00  
 AI (B1)  
 AUTO/VERN  
 ORB 54  
 09:00  
 ORB 55  
 10:00  
 ORB 56  
 11:00  
 12:00  
 13:00

STS 51-I (FD 04)

PL MCC

PRE SLEEP ACTIVITY  
 (ORB OPS, CREW SYS)  
 Do not perform  
 ECLS, SUPPLY WATER DUMP

SLEEP



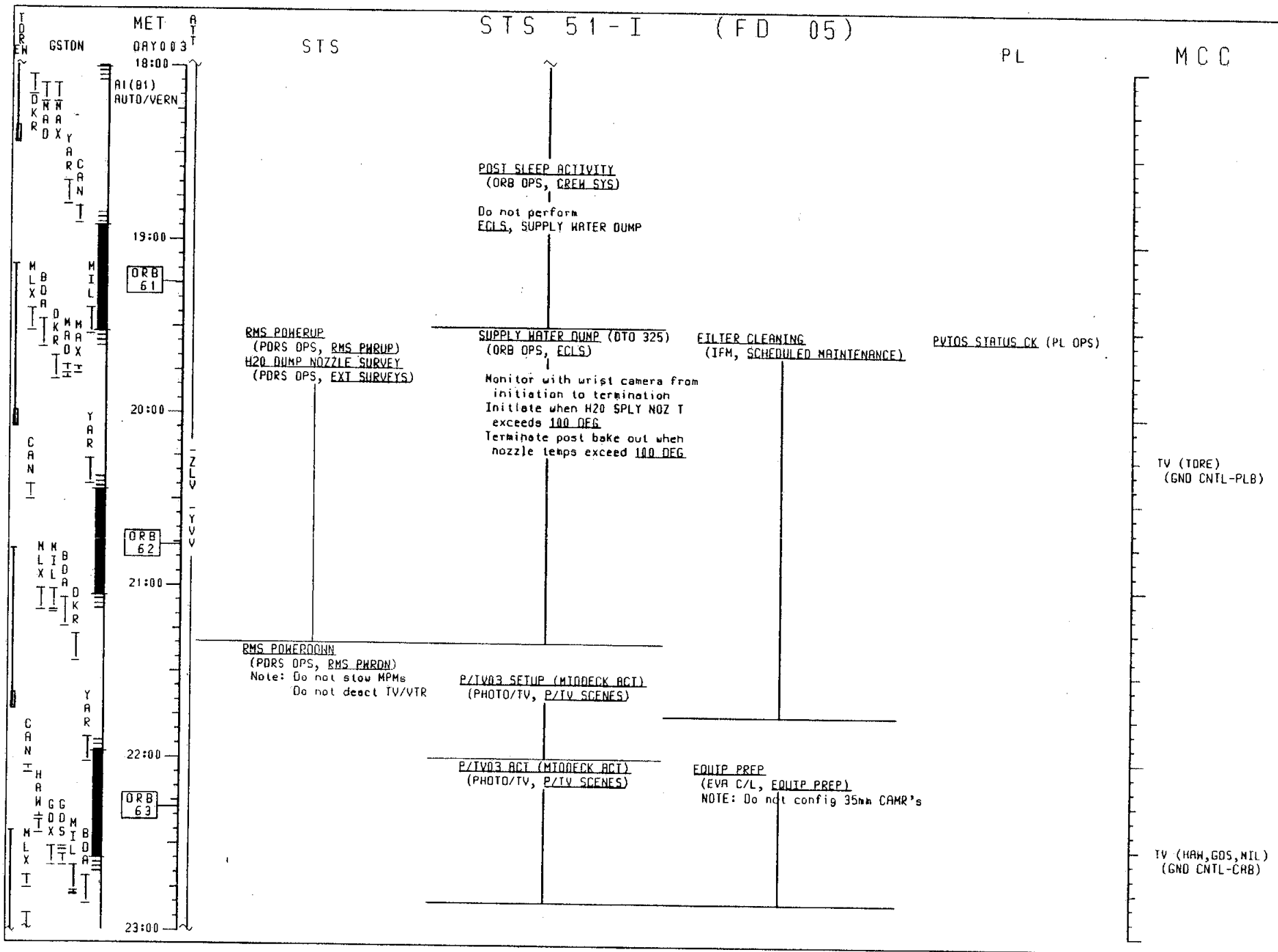
STS  
SLEEP

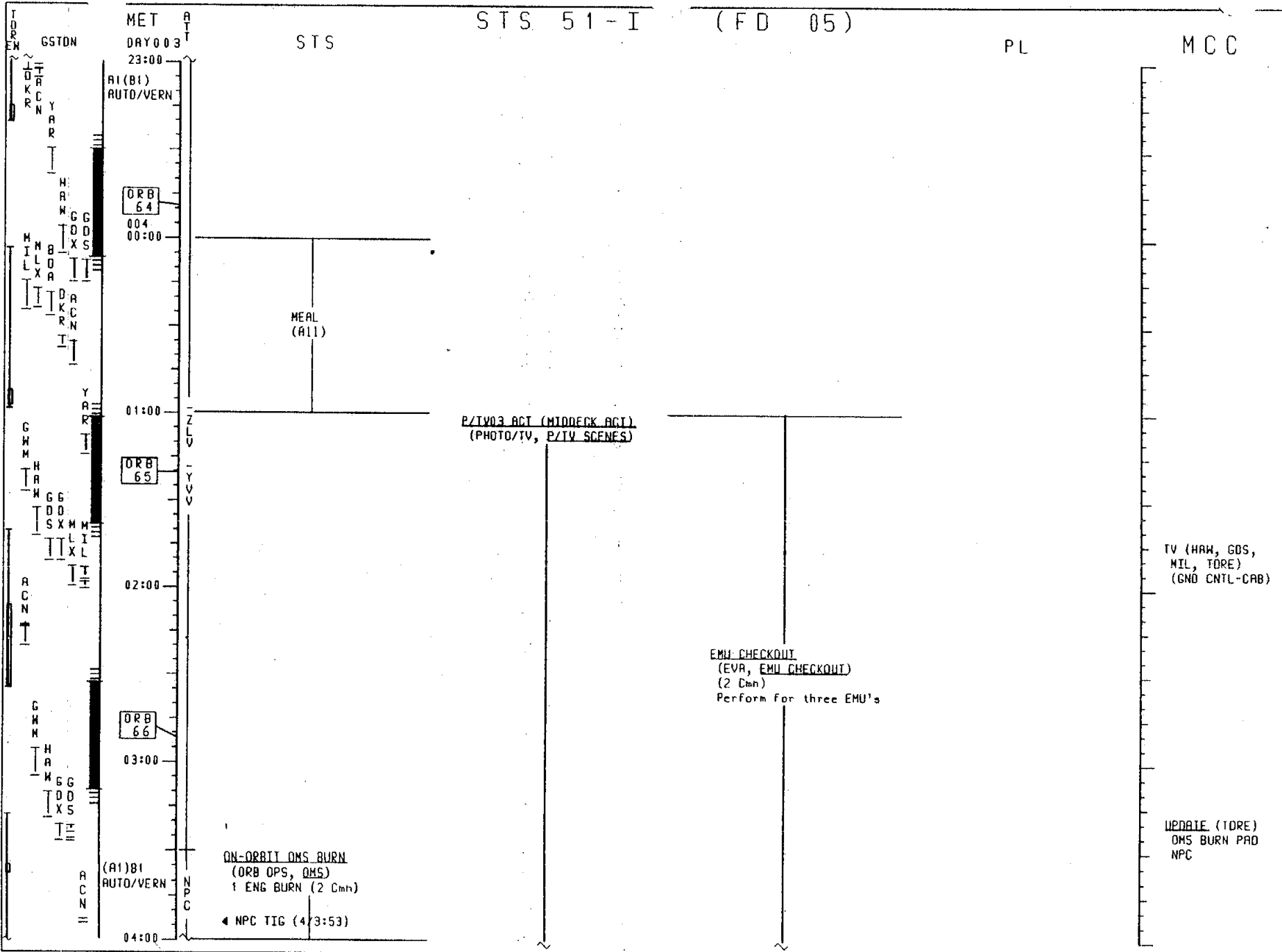
EZ CAP ACTIVITIES FOR TODAY:  
EXERCISE (1 Hr/All)  
MEAL PREP. (Cue Card) (30 Min)

IMU ALIGN LOG  
REQD ID:  
-Y\_\_\_, -Z\_\_\_ ANG ERR \_\_\_  
          1      2      3  
ANG:  
ΔX ( ) . ( ) . ( ) .  
ΔY ( ) . ( ) . ( ) .  
ΔZ ( ) . ( ) . ( ) .  
EXECUTION TIME:  
\_ / \_ : \_ : \_

IMU  
MNVN IMU ALIGN ATT  
STAR PAIR (AI)  
A/AUTO/VERN Init MNVN at 55  
IMU ALIGN - S TRK (ORB OPS)  
MNVN (TRK) -ZLV, -YVV  
TG=2 BV=3 OM=90  
A/AUTO/VERN Init TRK

POST SLEEP ACTIVITY  
(ORB OPS, CREW SYS)  
Do not perform  
ECLS, SUPPLY WATER DUMP

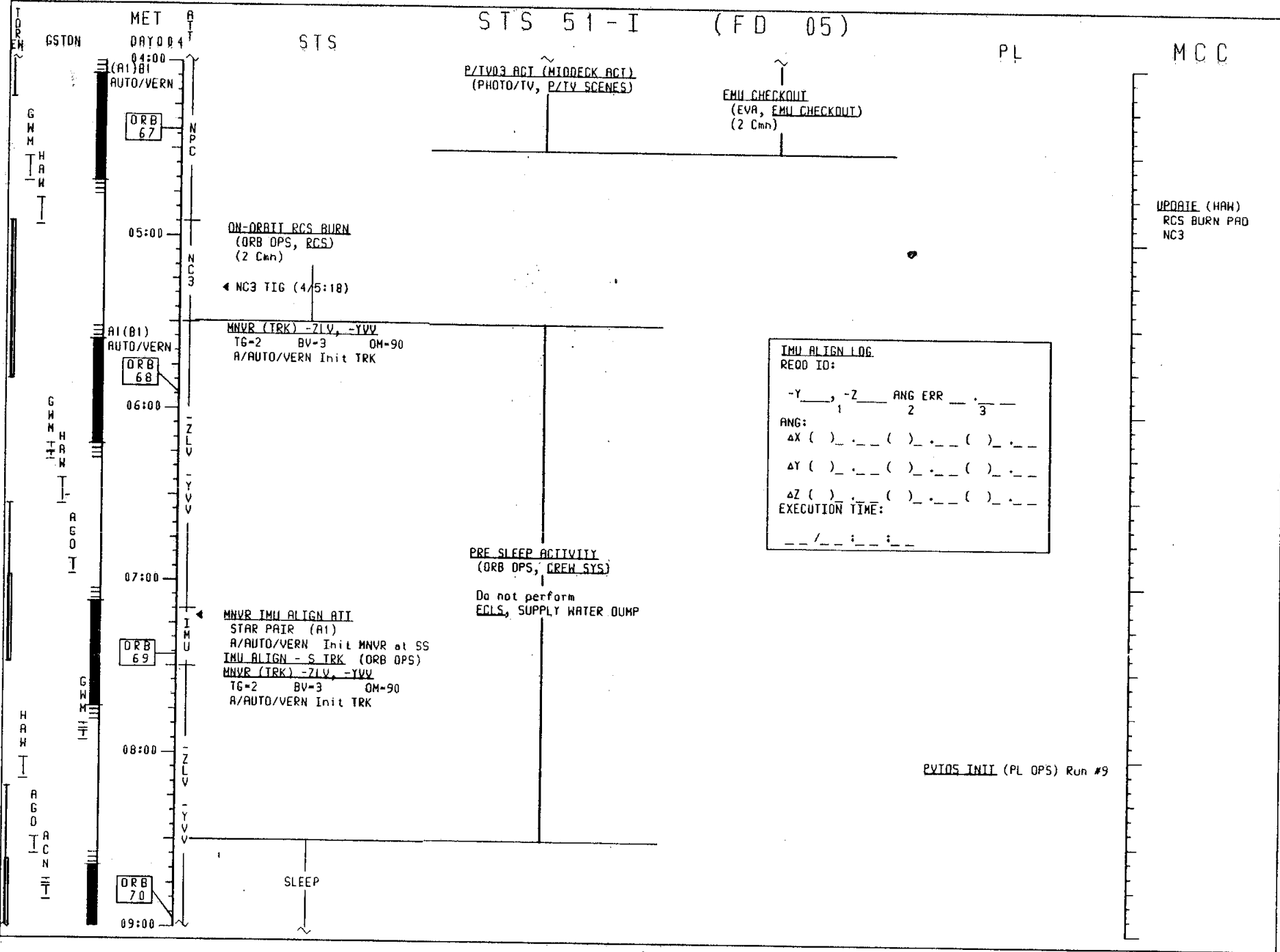




STS 51-I (FD 05)

PL

MCC



P/TV03 ACT (MIDDECK ACT)  
(PHOTO/TV, P/TV SCENES)

EMU CHECKOUT  
(EVA, EMU CHECKOUT)  
(2 Cmn)

UPDATE (HAW)  
RCS BURN PAD  
NC3

**IMU ALIGN LOG**  
REQD ID:

-Y     , -Z      ANG ERR            
          1          2          3

ANG:  
ΔX ( ) . ( ) . ( ) .  
ΔY ( ) . ( ) . ( ) .  
ΔZ ( ) . ( ) . ( ) .

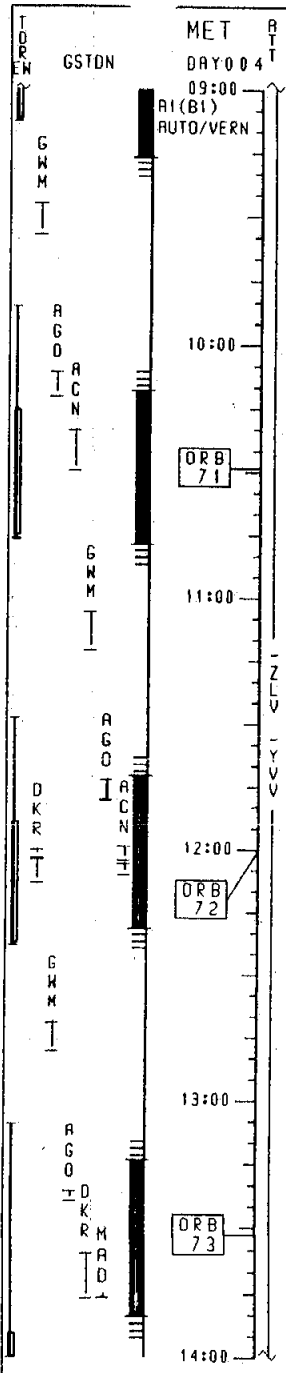
EXECUTION TIME:  
\_ / \_ : \_ : \_

PVT05 INIT (PL OPS) Run #9

STS 51-I (FD 05)

PL

MCC

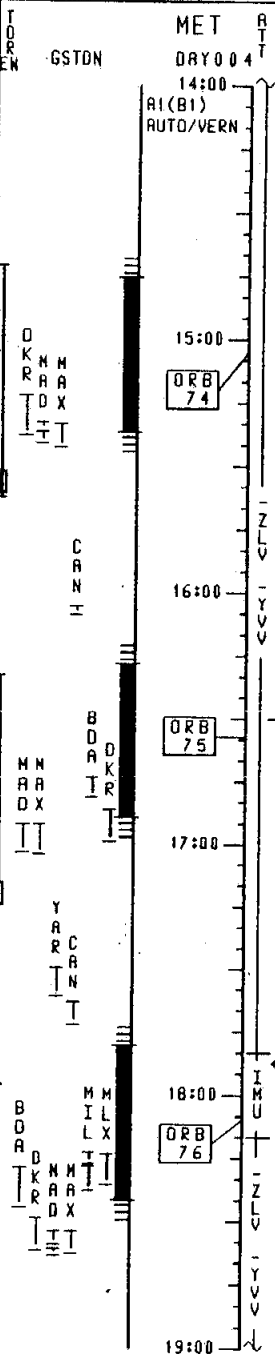


STS 51-I (FD 06)

PL

MCC

EZ CAP ACTIVITIES FOR TODAY:  
 EXERCISE (1 Hr/ALL)  
 MEAL PREP (Cue Card) (30 Min)



14:00  
 15:00  
 16:00  
 17:00  
 18:00  
 19:00

STS  
 SLEEP

ORB 74

ORB 75

ORB 76

IMU ALIGN LOG  
 RECD ID:  
 -Y \_\_\_ -Z \_\_\_ ANG ERR \_\_\_  
 1 2 3  
 ANG:  
 ΔX ( ) ( ) ( )  
 ΔY ( ) ( ) ( )  
 ΔZ ( ) ( ) ( )  
 EXECUTION TIME:  
 \_\_\_ / \_\_\_ : \_\_\_

POST SLEEP ACTIVITY  
 (ORB OPS, CREW SYS)

Do not perform  
 ECDS, SUPPLY WATER DUMP

MNVR IMU ALIGN ATT  
 STAR PAIR (A1)  
 A/AUTO/VERN Init MNVR at SS  
 IMU ALIGN - S TRK (ORB OPS)  
 MNVR (TRK) -7LV, -YVV  
 TC=2 BV=3 OM=90  
 A/AUTO/VERN Init TRK

PVTDS STATUS CK (PL OPS)  
 PVTDS STOW (PL OPS)

I D R E M  
 GSTDN  
 MET  
 DAY 004  
 19:00  
 AI(81)  
 AUTO/VERN  
 Y T A C R A N  
 M I L D A  
 N L X A  
 O K R C N  
 20:00  
 Y T A C R A N  
 G O D S I L  
 M L X I  
 O K R C N  
 21:00  
 Z L V  
 Y V V  
 22:00  
 Y A R R  
 H A W G O X  
 G O S I L  
 M L X A  
 O K R C N  
 23:00  
 Y A R R  
 005  
 00:00

STS

STS 51-I (FD 06)

PL

MCC

RMS POWERUP  
 (PDRS OPS, RMS PWUP)  
H2O DUMP NOZZLE SURVEY  
 (PDRS OPS, EXT SURVEYS)

POST SLEEP ACTIVITY  
 (ORB OPS, CREW SYS)

Do not perform  
 ECLS, SUPPLY WATER DUMP

SUPPLY WATER DUMP  
WASTE WATER DUMP  
 (ORB OPS, ECLS) (DTO 0325)

Dump simultaneously  
 Monitor with wrist camera from  
 initiation to termination  
 Initiate when H2O NOZ T exceeds:  
 SPLY 175 DEG WASTE 175 DEG  
 Terminate post bake out when  
 nozzle temps exceed:  
 SPLY 175 DEG WASTE 175 DEG

RMS POWERDOWN  
 (PDRS OPS, RMS PWDRN)  
 Note: Do not stow MPHs

LEH PREBREATHE INIT/TERM  
 (C EVA OPS, 10.2 PSI CABIN)  
 (2 Cmn)

PREP FOR 10.2 PSI CABIN (2 Cmn)  
 (C EVA OPS, 10.2 PSI CABIN)  
CABIN DEPRESS TO 10.2 PSI  
 (C EVA OPS, 10.2 PSI CABIN)  
 (2 Cmn)

10.2 PSI CABIN CONFIG  
 (C EVA OPS, 10.2 PSI CABIN)

TV (MIL, TORE)  
 (GND CNTL-PLB)





MET DAY 005  
 05:00  
 A1(B1)  
 AUTO/VERN  
 (A1)B1  
 AUTO/VERN  
 06:00  
 A1(B1)  
 AUTO/VERN  
 07:00  
 08:00  
 09:00  
 10:00

ON:ORBIT RCS\_BURN  
 (ORB OPS, RCS)  
 (2 Cmn)

◀ NC4 TIG (5/5:44)

MNVR IMU ALIGN AIT  
 STAR PAIR (A1)  
 A/AUTO/VERN Init MNVR at 55  
 IMU ALIGN - S TRK (ORB OPS)  
 MNVR (TRK) -ZLV, -YVV  
 TG=2 BV=3 OM=90  
 A/AUTO/VERN Init TRK

PRE SLEEP ACTIVITY  
 (ORB OPS, CREW SYS)

SLEEP

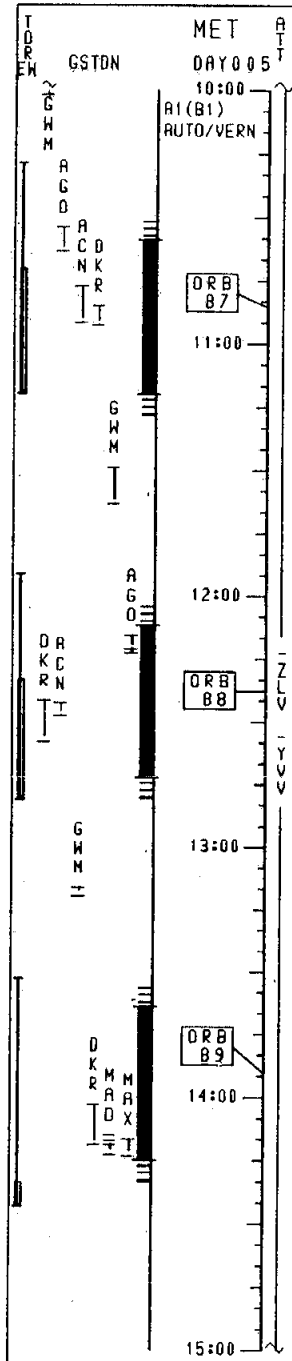
IMU ALIGN LOG  
 REQ ID:  
 -Y\_\_\_\_, -Z\_\_\_\_ ANG ERR \_\_\_\_  
           1          2          3  
 ANG:  
 ΔX ( ) \_ \_ \_ ( ) \_ \_ \_ ( ) \_ \_ \_  
 ΔY ( ) \_ \_ \_ ( ) \_ \_ \_ ( ) \_ \_ \_  
 ΔZ ( ) \_ \_ \_ ( ) \_ \_ \_ ( ) \_ \_ \_  
 EXECUTION TIME:  
 \_ \_ / \_ \_ : \_ \_ : \_ \_

UPDATE (GMM)  
 RCS BURN PRO  
 NC4

# STS 51-I (FD 06)

PL

MCC



EZ CAP ACTIVITIES FOR TODAY:  
MEAL PREP (Cue Card) (30 Min)

NOMINAL RNDZ  
PET 0/00:00  
EQUALS  
MET 5/20:47  
(NCS TIG)

IMU ALIGN LOG  
REQD ID:  
-Y \_\_\_\_\_ -Z \_\_\_\_\_ ANG ERR \_\_\_\_\_  
                  1                  2                  3  
ANG:  
ΔX ( ) . ( ) . ( ) .  
ΔY ( ) . ( ) . ( ) .  
ΔZ ( ) . ( ) . ( ) .  
EXECUTION TIME:  
\_ / \_ : \_

MNVR IMU ALIGN ATT  
STAR PAIR (A1)  
A/AUTO/VERN Init MNVR at 55  
IMU ALIGN - S TRK (ORB OPS)  
MNVR (TRK) -ZLV, -YVV  
TG=2 BV=3 OM=90  
A/AUTO/VERN Init TRK

POST SLEEP ACTIVITY  
(ORB OPS, CREW SYS)

Do not perform  
ECLS, SUPPLY WATER DUMP

PAN ASE TEMP CHECK  
(PAM OPY, OR-ORB OPS)  
Perform for: ASC

*aussat → ops 4*

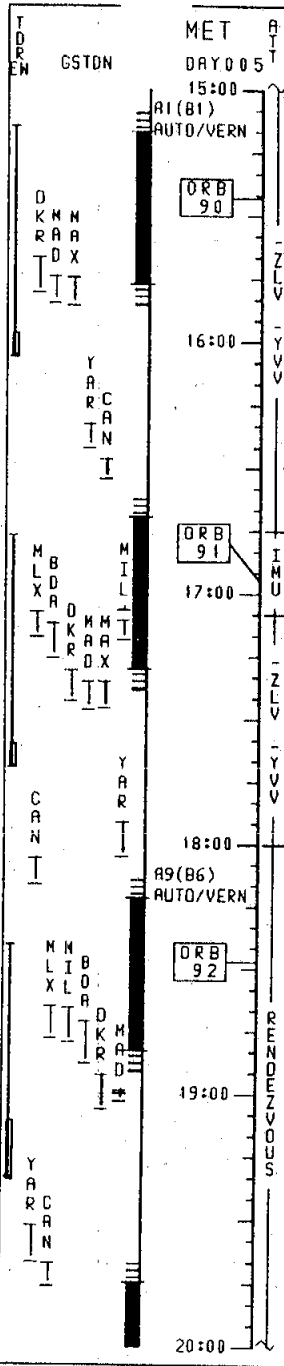
DETAILED TIMELINE:  
(RNDZ, DETAILED TIMELINE)  
(2 CMN)

P/TVOR ACT (RNDZ/EVAL)  
(PHOTO/TV, P/TV SCENES)

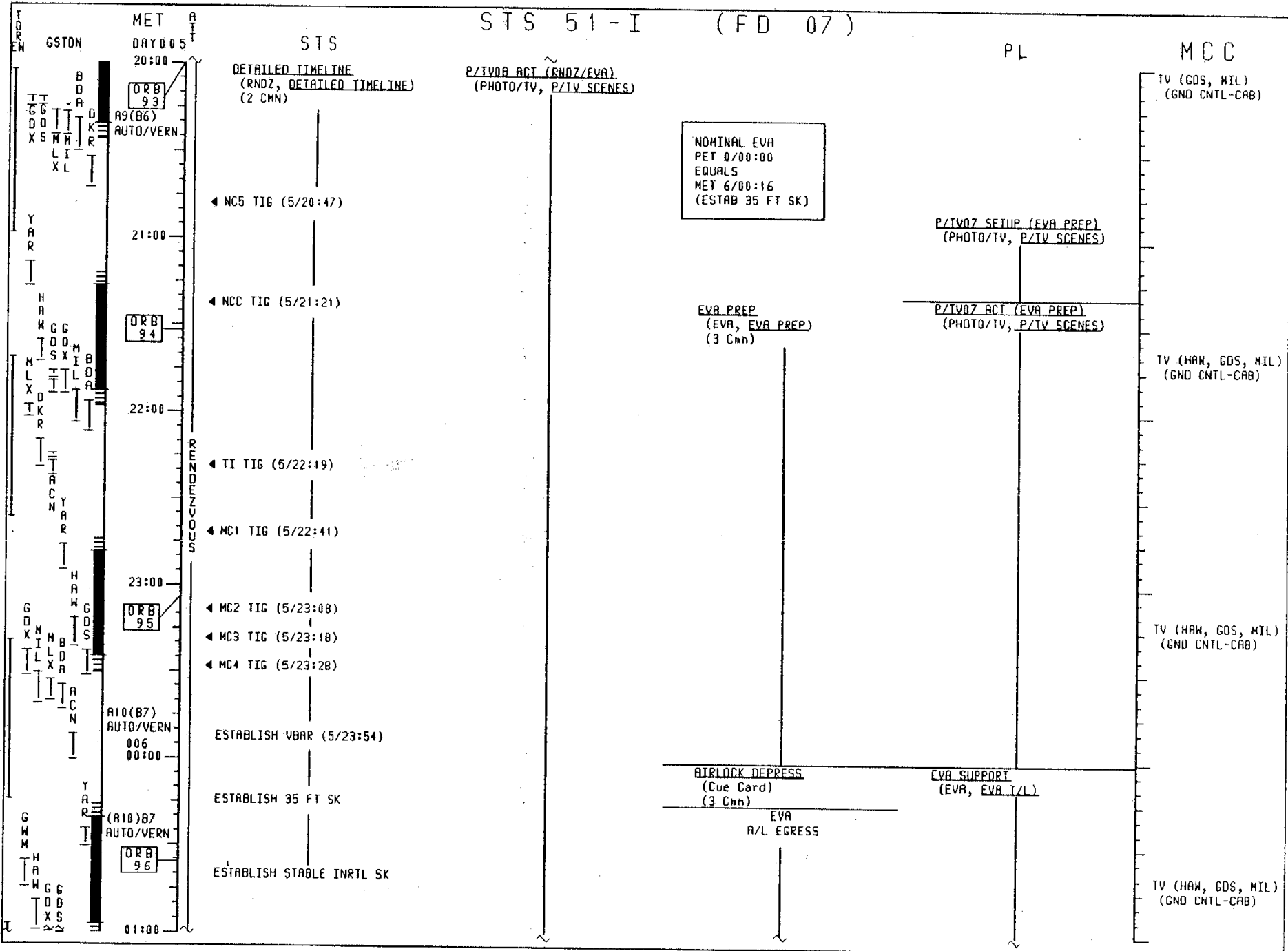
◀ NH2 TIG (5/18:43)

◀ NSR TIG (5/19:28)

UPLINK (CAN)  
TGT SV AND  
COV MATRIX  
UPDATE (CAN)  
NH2, NSR, NCS  
TI BURN PADS  
TV (MIL)  
(GND CNTL-CAB)



# STS 51-I (FD 07)



STS 51-I (FD 07)

STS

PL

MCC

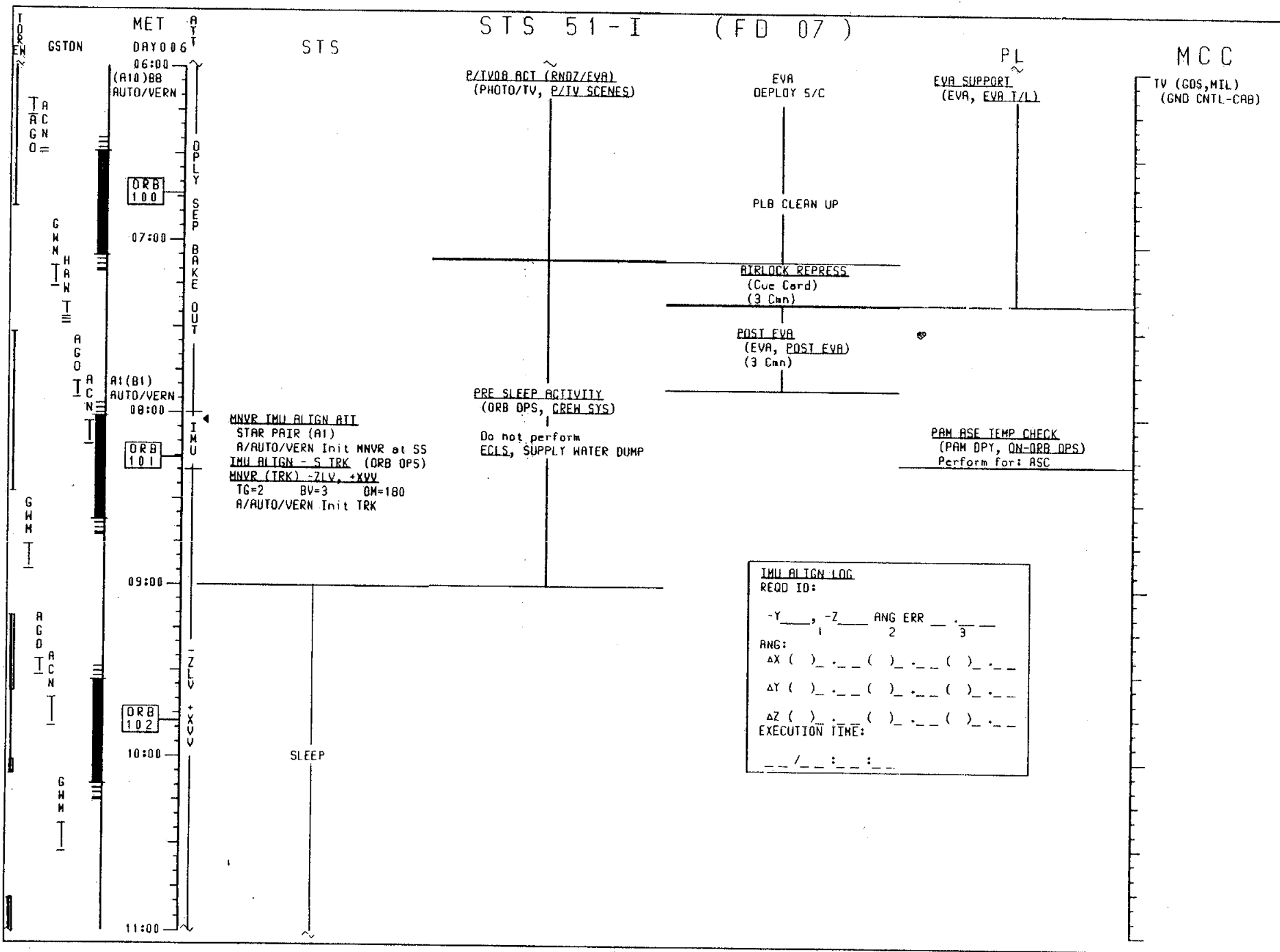
MET DAY 006  
 01:00  
 R10(B7)  
 AUTO/VERN  
 02:00  
 ORB 97  
 (A7)BB  
 AUTO/VERN  
 03:00  
 A7(BB)  
 AUTO/VERN  
 ORB 98  
 04:00  
 (A7)BB  
 AUTO/VERN  
 05:00  
 ORB 99  
 06:00

P/TV OR ACT (RNDZ/EVA)  
 (PHOTO/TV, P/TV SCENES)

EVA  
 STABILIZE S/C  
 INSTALL SEP LEV TOOL  
 GRAPPLE S/C  
 SBU C/O  
 MOUNT SBU  
 CONNECT RPU  
 DEPLOY DMNI ANT  
 REMOVE RPU  
 SET S/C TIMERS

EVA SUPPORT  
 (EVA, EVA T/L)

TV (HAW, GDS, MIL)  
 (GND CNTL-CAB)  
 TV (HAW, GDS)  
 (GND CNTL-PLB)  
 TV (TDRE)  
 (GND CNTL-CAB)  
 TV (HAW)  
 (GND CNTL-PLB)  
 TV (TDRE)  
 (GND CNTL-CAB)



STS 51-I (FD 07)

PL

MCC

STS

SLEEP

MET DAY 006  
 11:00  
 AT (B1)  
 AUTO/VERN  
 12:00  
 13:00  
 14:00  
 15:00  
 16:00

ORB 103

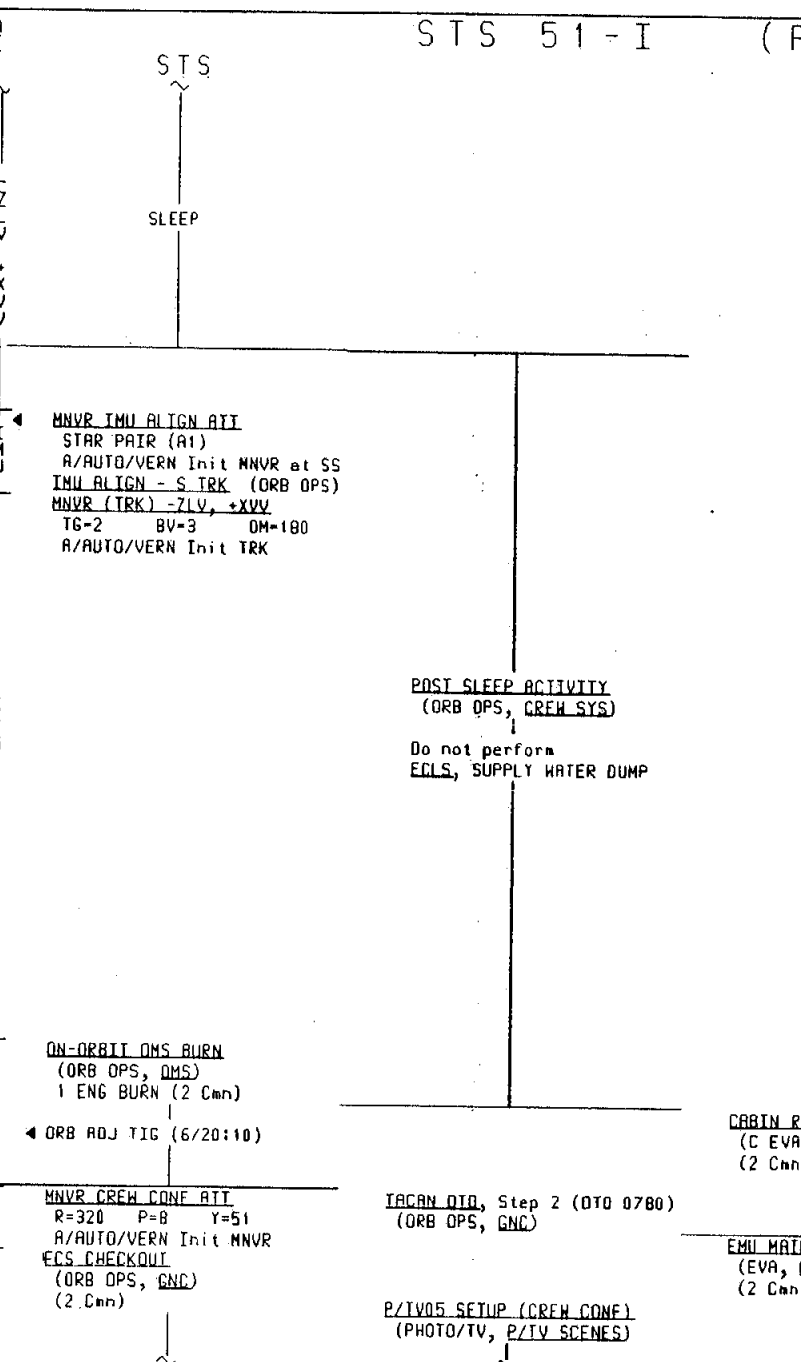
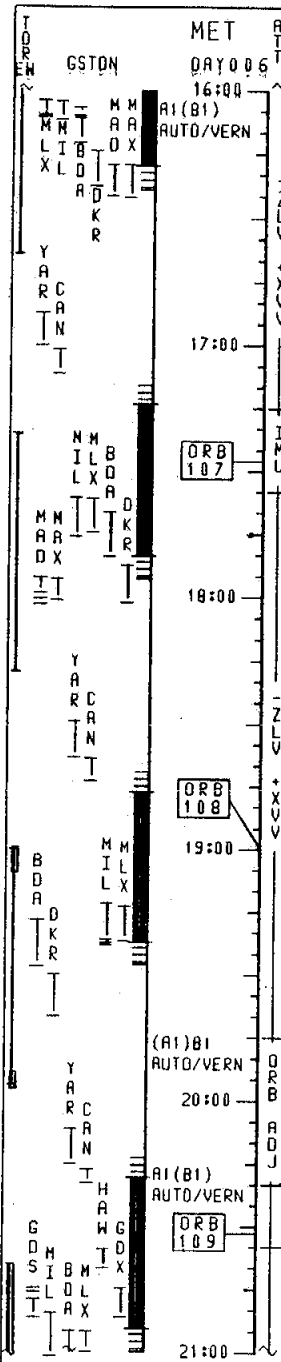
ORB 104

ORB 105

ORB 106

TDR EN  
 GSTDN  
 TACKR  
 GNR  
 OT  
 G N H T  
 M A X I  
 O K R R A R D X  
 Y A R R C A N T





**EZ CAP ACTIVITIES FOR TODAY:**

- MEAL PREP (Cue Card) (30 Min)
- WCS FLOW CHECKS (14.7 cabin pressure) (Cue Card) (OTO 327) (45 Min/2)  
Do not perform during waste water dump
- RPU BATTERY REMOVAL/STORAGE (PL OPS, IN CABIN C/O) (20 Min)

**IMU ALIGN LOG**  
READ ID:

-Y \_\_, -Z \_\_ ANG ERR \_\_. \_\_  
1 2 3

ANG:  
ΔX ( ) . ( ) . ( ) .  
ΔY ( ) . ( ) . ( ) .  
ΔZ ( ) . ( ) . ( ) .

EXECUTION TIME:  
\_\_ / \_\_ : \_\_ : \_\_

UPDATE (TORE)  
OMS BURN PAD  
ORB ADJ

CABIN REPRESS TO 14.7 PSI  
(C EVA OPS, 10.2 PSI CABIN)  
(2 Cmn)

EMU MAINT/RECHARGE  
(EVA, EMU MAINT/RECHARGE)  
(2 Cmn)

TACAN DTD, Step 2 (OTO 0780)  
(ORB OPS, GNC)

P/TV05 SETUP (CREW CONF)  
(PHOTO/TV, P/TV SCENES)

STS 51-I (FD 08)

PL

MCC

MET DAY 006  
 21:00  
 A1(B1)  
 AUTO/VERN  
 R3(B1)  
 NAN/NORM  
 22:00  
 ORB 110  
 A1(B1)  
 AUTO/VERN  
 23:00  
 ORB 111  
 007  
 00:00  
 ORB 112  
 01:00  
 02:00

AT  
 FCS  
 C/O  
 CONF  
 ZLV  
 XVV

FCS CHECKOUT  
 (ORB OPS, GNC)  
 (2 Cmn)

P/TV05 SETUP (CREW CONF)  
 (PHOTO/TV, P/TV SCENES)

EMU MAINT/RECHARGE  
 (EVA, EMU MAINT/RECHARGE) (2 Cmn)

RCS HOT FIRE TEST  
 (ORB OPS, RCS)  
 (2 Cmn)  
 Change Dap A to A1, A/AUTO/VERN

POST EVA ENT PREP  
 (EVA, POST EVA ENT PREP)  
 (2 Cmn)

ON MCC CUE  
 R2 APU FUEL PUMP/VLV COOL A-OFF  
 CNTLR PWR(three) -OFF

P/TV05 ACT (CREW CONF)  
 (PHOTO/TV, P/TV SCENES)

LEH RECONNECT  
 (C EVA OPS, 10.2 PSI CABIN)

CREW CONF  
 (All)

MNVR (TRK) -ZLV, +XVV  
 TG-2 BV-3 OM-100  
 A/AUTO/VERN Init TRK

MEAL  
 (All)

OTO 325 VENTED SPLY  
WST H2O TANK DUMP  
 (ORB OPS, ECLS)  
RMS POWERUP  
 (PDRS OPS, RMS PWRUP)  
H2O DUMP NOZZLE SURVEY  
 (PDRS OPS, EXT SURVEYS)

SUPPLY WATER DUMP (OTO 325)  
 (ORB OPS, ECLS)

Monitor with wrist camera from initiation to termination  
 Initiate when H2O SPLY NOZ T exceeds 100 Deg  
 Terminate post bake out when nozzle temps exceed 100 Deg

INFORM CREW  
 GO FOR APU  
 COOL OFF  
 TV (TDRE)  
 (GND CNTL-CAB)

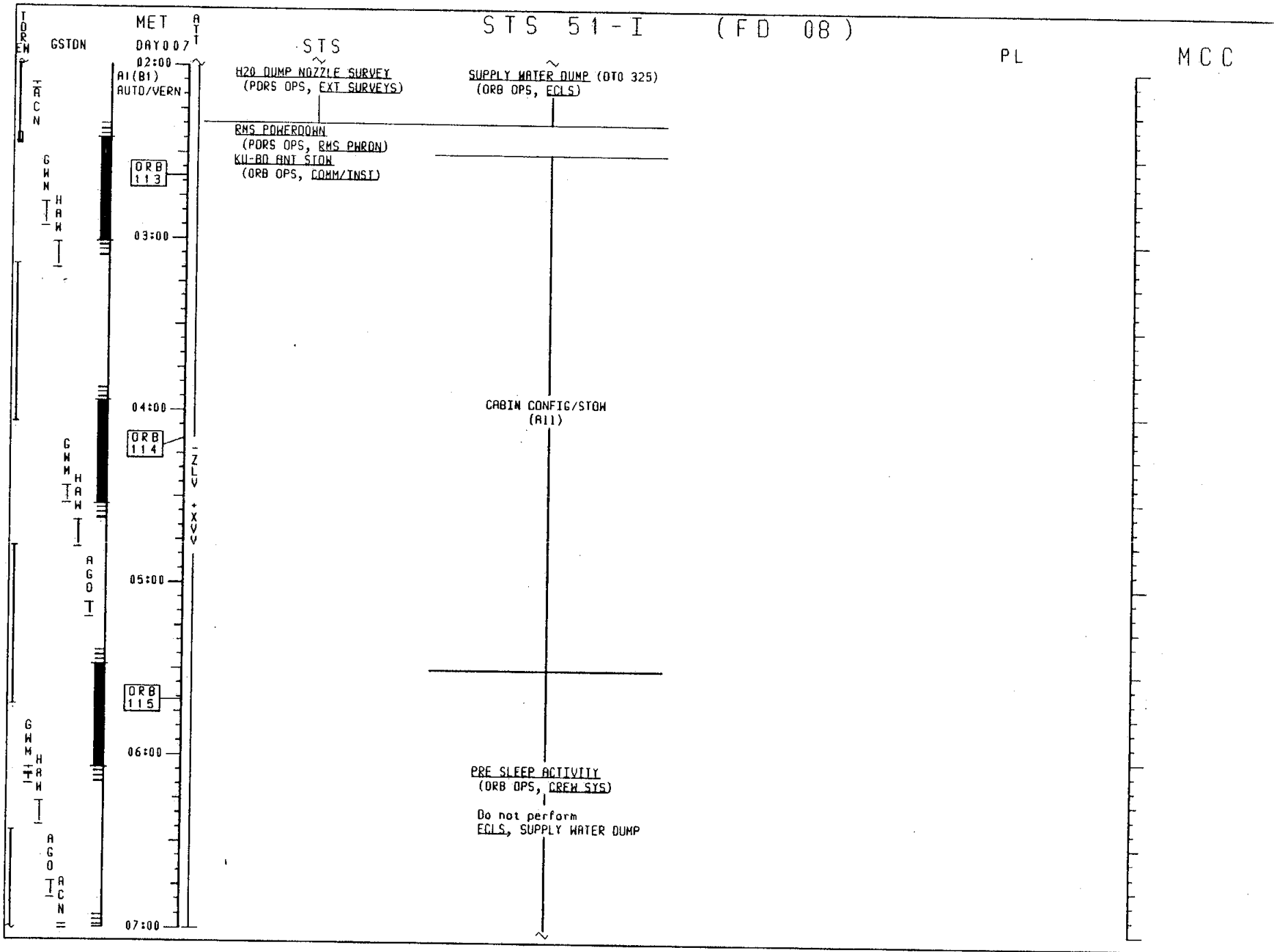
TV (HAM)  
 (GND CNTL-PLB)

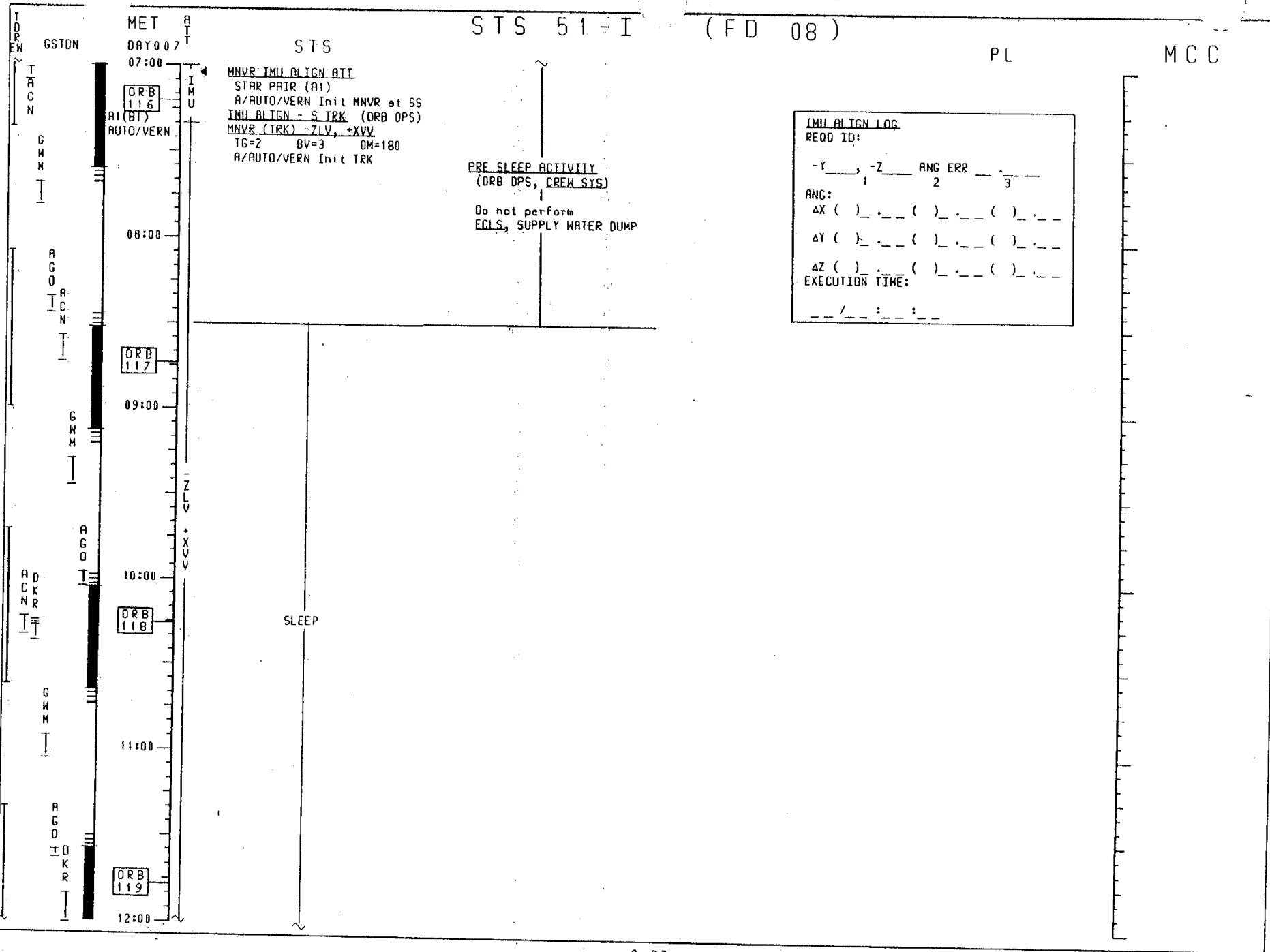
DR EN  
 GSTON  
 IBD  
 A  
 T  
 D  
 K  
 R  
 Y  
 A  
 R  
 H  
 A  
 W  
 G  
 D  
 X  
 G  
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 A  
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 X  
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STS 51-I (FD 08)

PL

MCC

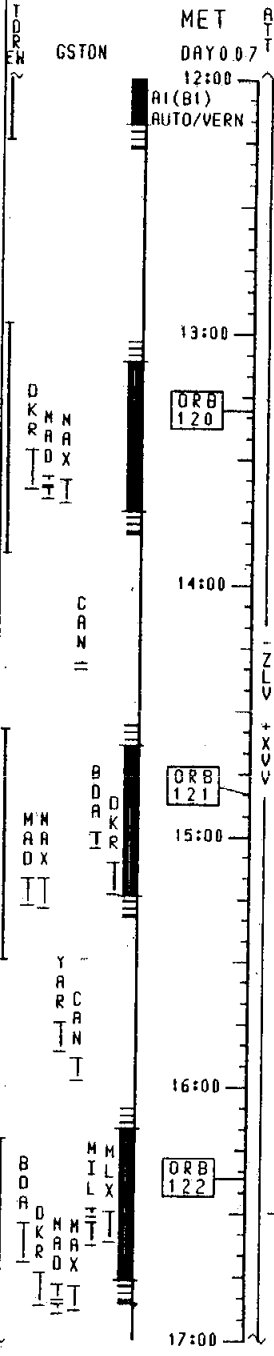




STS 51-I (FD 08)

PL

MCC

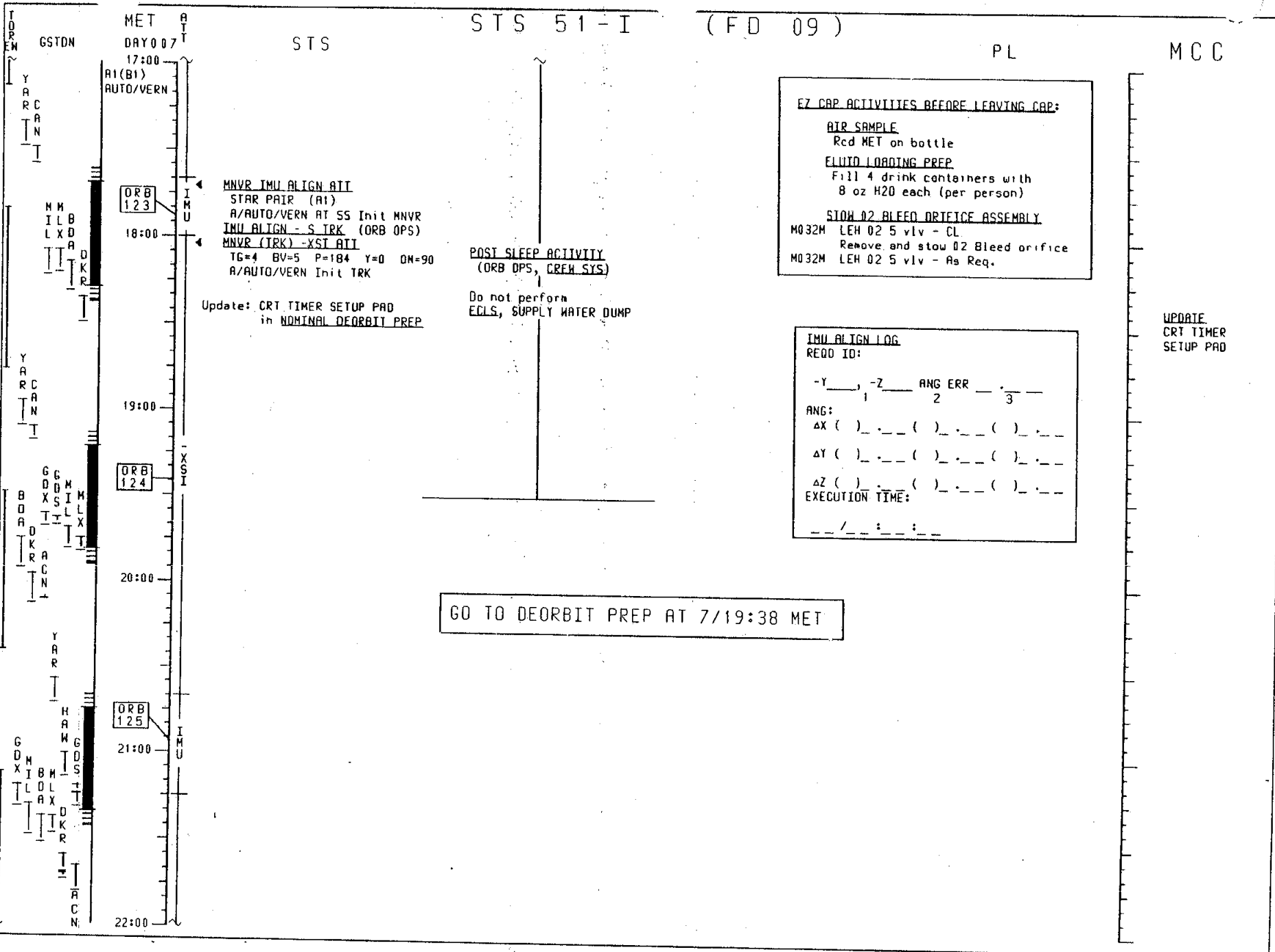


STS

SLEEP

POST SLEEP ACTIVITY  
(ORB OPS, CREW SYS)

Do not perform  
ECLS, SUPPLY WATER DUMP



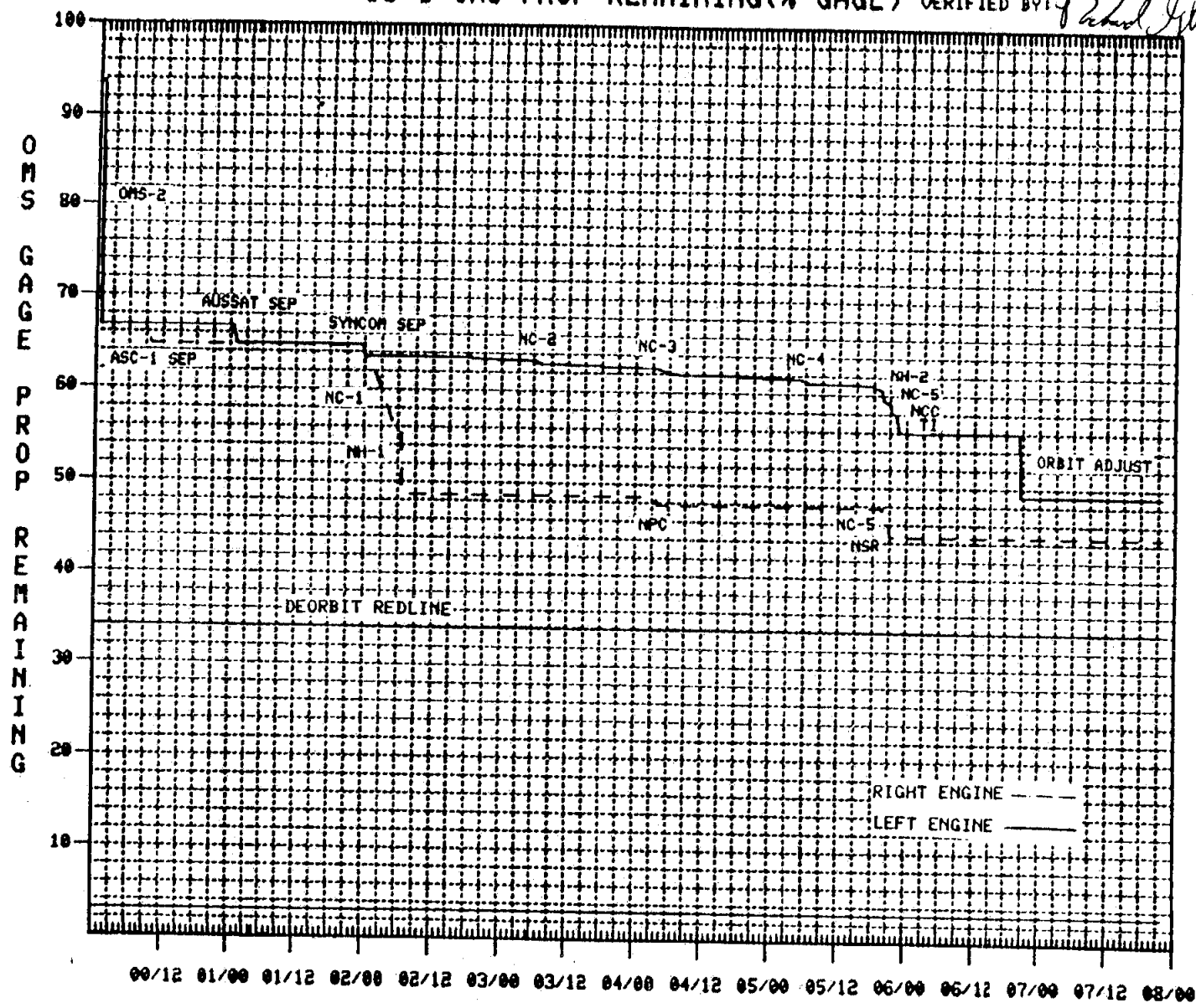
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CONSUMABLES CURVES



# 51-I OMS PROP REMAINING(% GAGE)

6 AUGUST 1965  
 S.O.D.S. J-767 ADD 6  
 PREPARED BY: BILL HOLLISTER / MDTSCO  
 VERIFIED BY: *Richard J. ...*

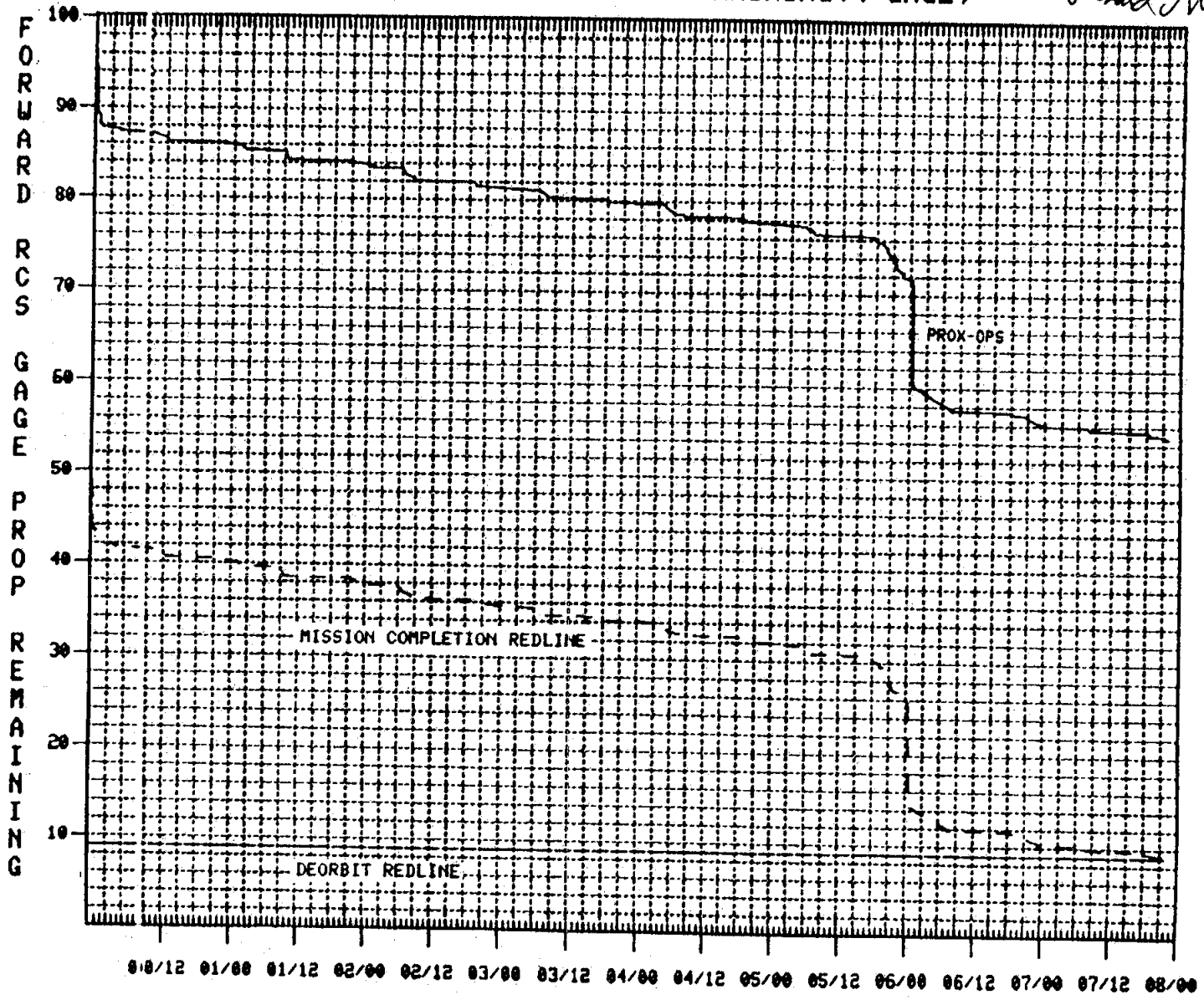


MISSION ELAPSED TIME IN DAYS/HOURS

6 AUGUST 1985  
S.O.D.S. J-767 ADD 6  
PREPARED BY: BILL HOLLISTER / MDTSCO  
VERIFIED BY:

*Richard J. ...*

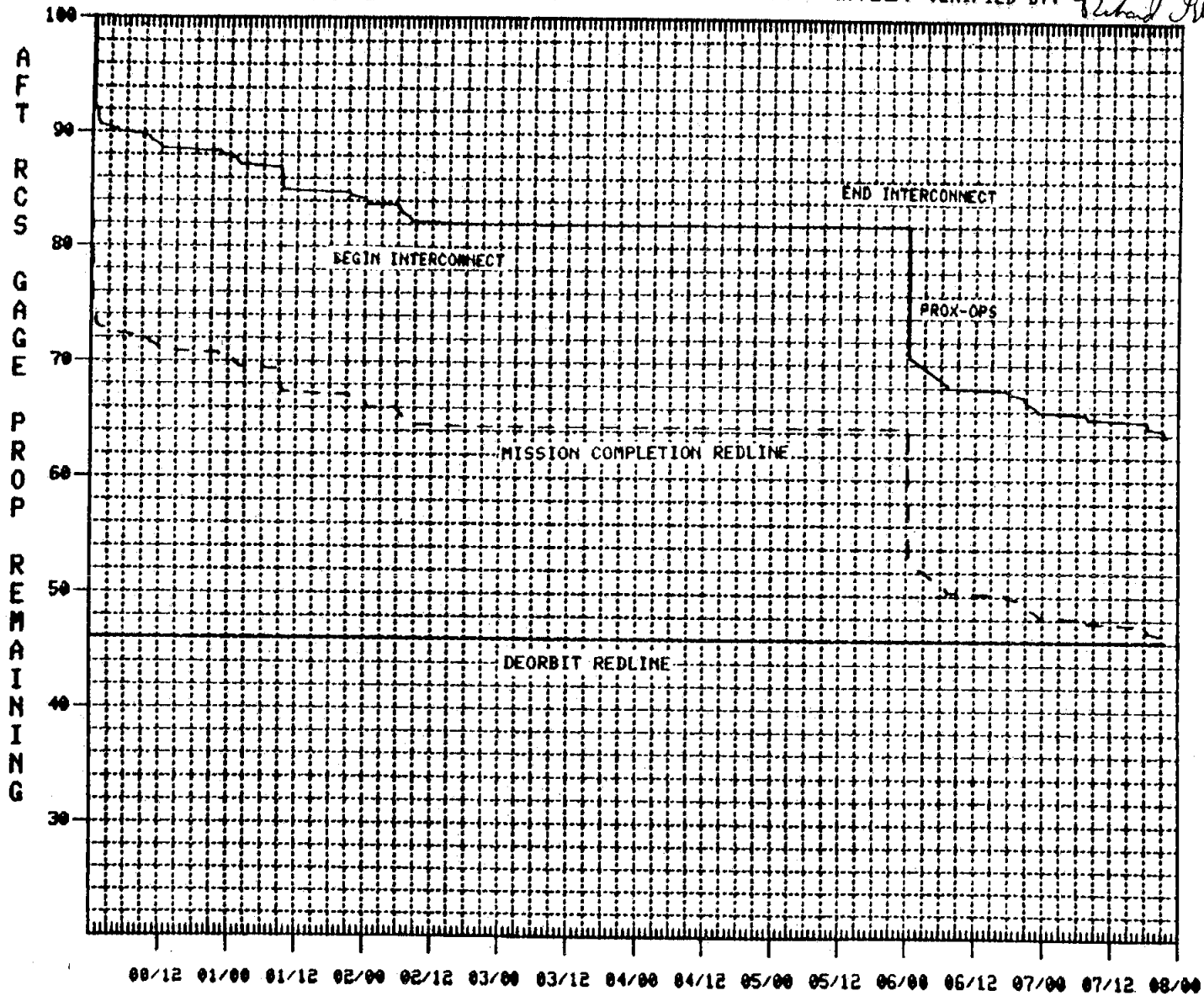
### 51-I FORWARD RCS PROP REMAINING(% GAGE)



MISSION ELAPSED TIME IN DAYS/HOURS

# 51-I AFT RCS PROP REMAINING(% GAGE)

6 AUGUST 1985  
 S.O.D.S. J-767 ADD 6  
 PREPARED BY: BILL HOLLISTER / MDTSCO  
 VERIFIED BY: *Richard Johnson*



MISSION ELAPSED TIME IN DAYS/HOURS

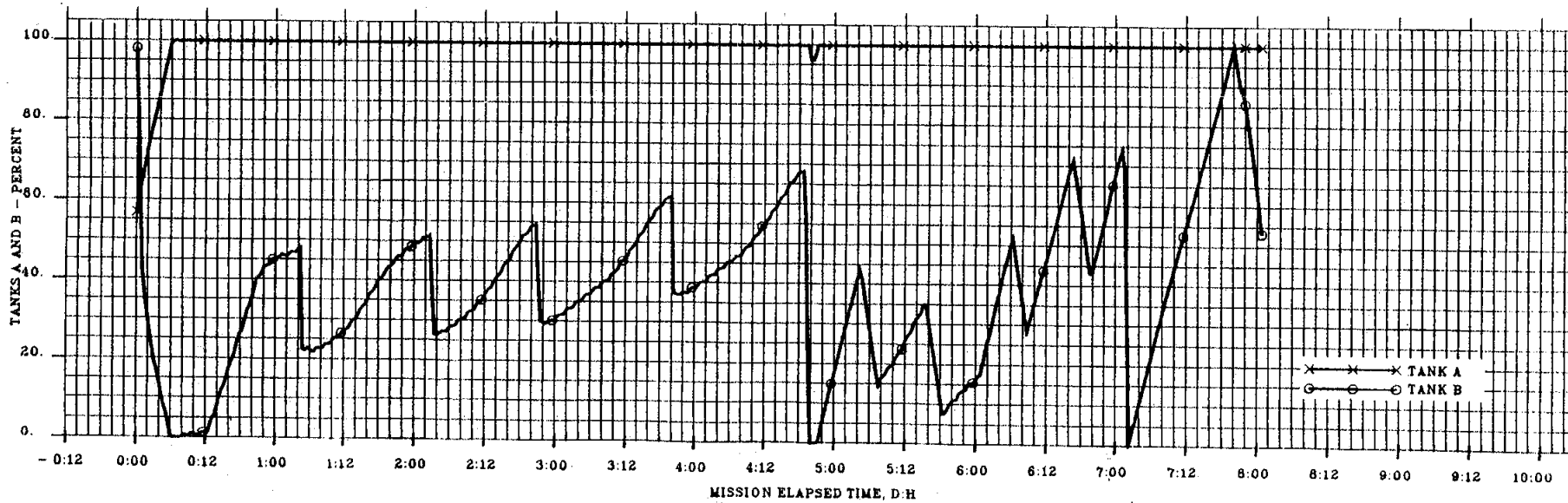
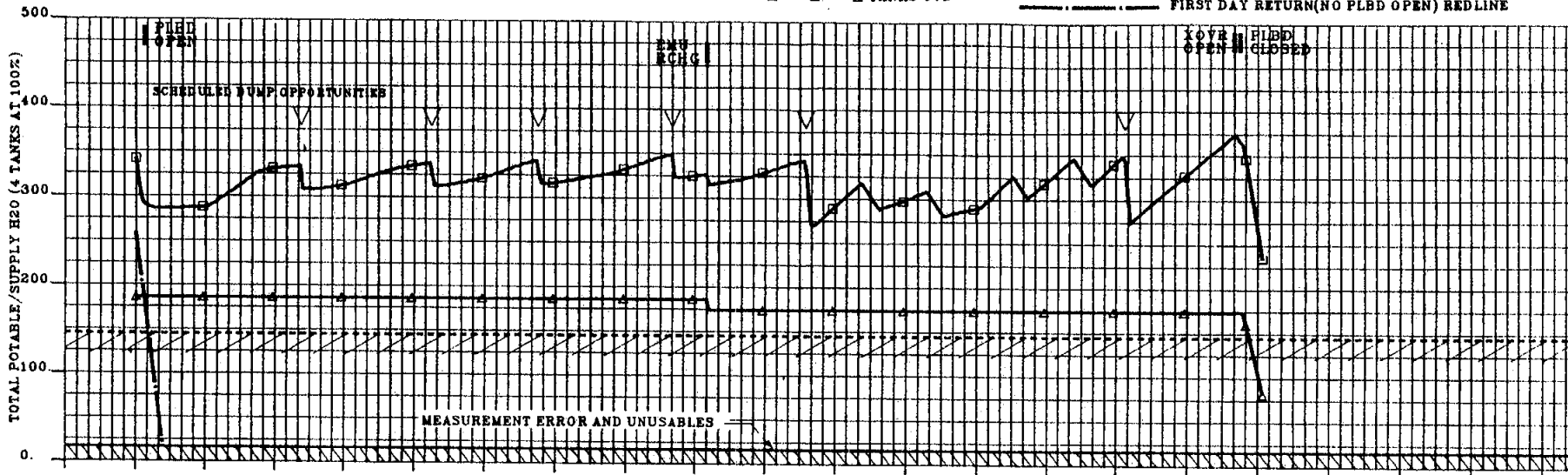
EMMIT FISHER, SR.

N/A  
DATA CONFIRMED *Michael Smith by PPS*

TRAJECTORY: OFF CYCLE 1  
CAP: PRELIM 6/19/85  
ANALYSIS DATE: 6/22/85

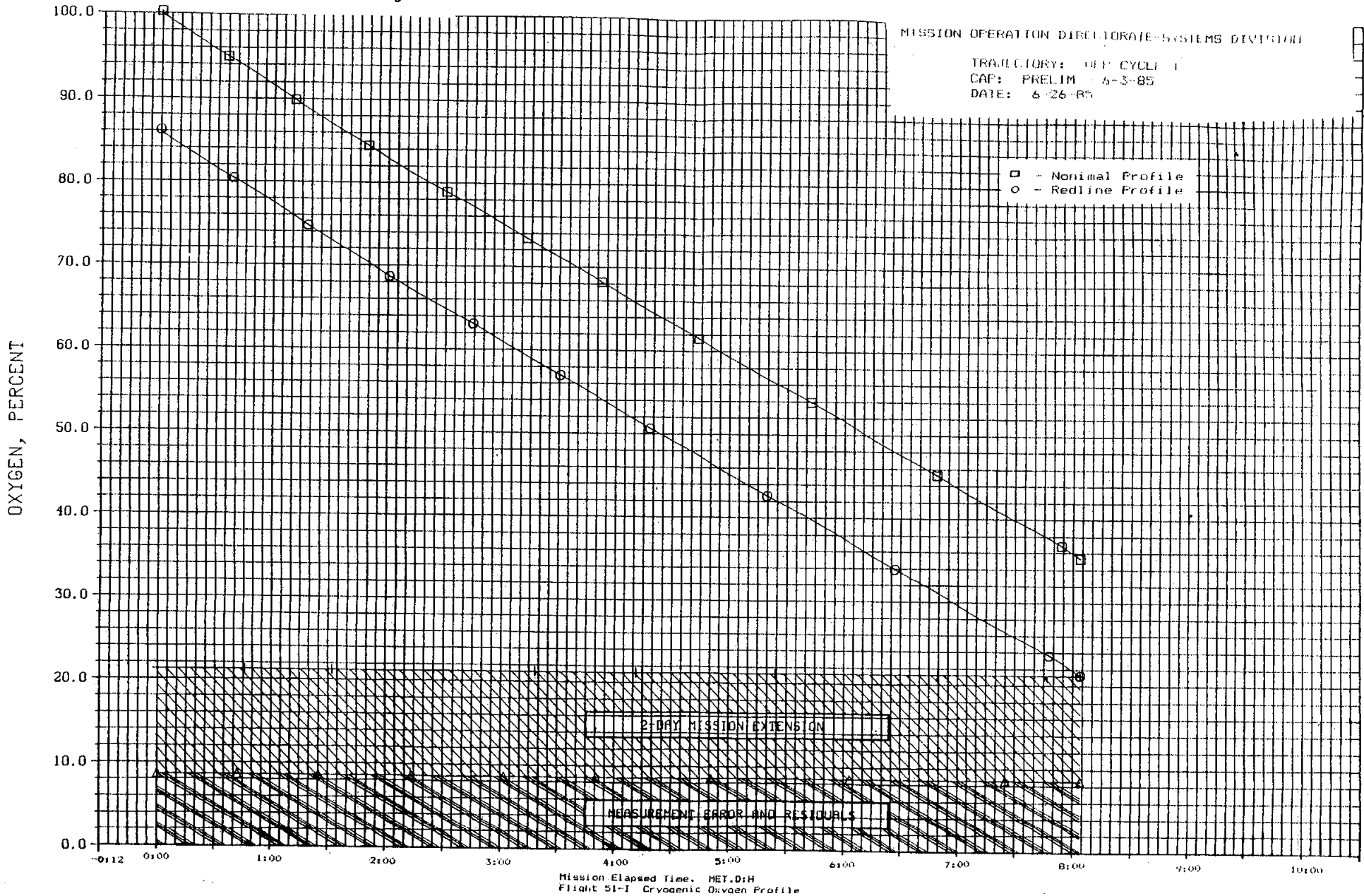
□ — □ — TANKS A-D  
△ — △ — TANKS C+D

----- ANYTIME CONTINGENCY DEORBIT REDLINE  
- - - - - FIRST DAY RETURN (NO PLBD OPEN) REDLINE



STS 51-1 SUPPLY WATER

P. Rafferty/DL  
N/A  
Date Confirmed 6/26/85 JAL/clack



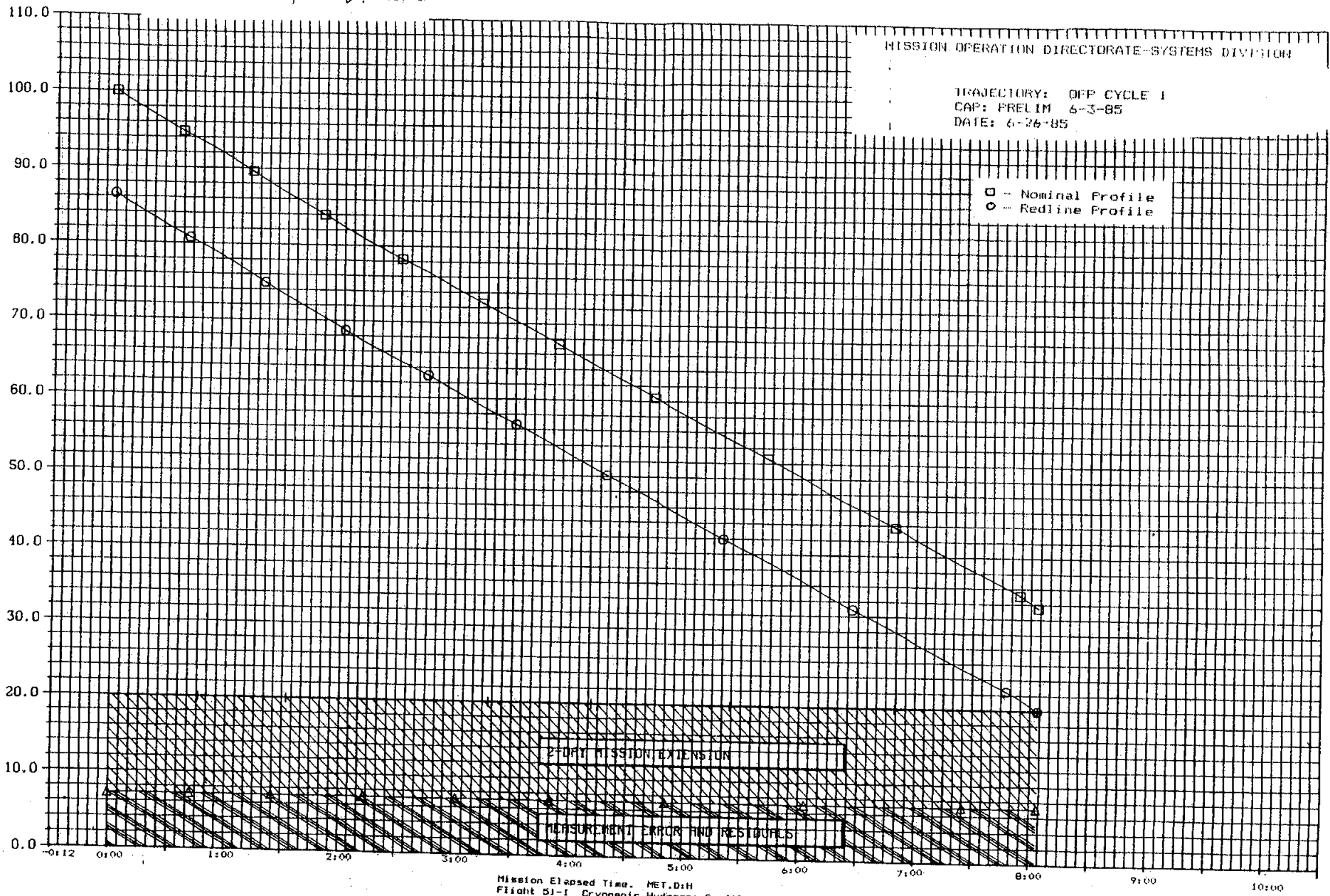
P. Raillie/DF6  
MZA  
Date Confirmed 6/26/85 *Jed Clark*

MISSION OPERATION DIRECTORATE-SYSTEMS DIVISION

TRAJECTORY: OFF CYCLE 1  
CAP: PRELIM 6-3-85  
DATE: 6-26-85

□ - Nominal Profile  
○ - Redline Profile

HYDROGEN, PERCENT



Mission Elapsed Time, MET:D:H  
Flight 51-I Cryogenic Hydrogen Profile

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The sections following this divider page will  
not be included in flight copies.



DAP BOOK

TABLE 5-1  
DAP A CONFIGURATIONS

	A1*	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11
<u>TRANSLATION</u>											
PULSE ft/sec	0.10	0.10	0.10	0.10	0.10	0.10	0.02	0.10	0.10	0.05	
<u>ROTATION</u>											
DSC RT											
NORM °/sec	0.200	0.400	0.200	0.200	0.200	0.200	0.100	0.500	0.200	0.200	
VERN °/sec	0.200	0.400	0.200	0.008	0.200	0.200	0.150	0.200	0.200	0.200	
PULSE											
NORM °/sec	0.10	0.10	0.30	0.10	0.10	0.10	0.04	0.10	0.10	0.10	
VERN °/sec	0.010	0.010	0.010	0.010	0.050	0.010	0.002	0.010	0.010	0.010	
COMP											
NORM °/sec	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
VERN °/sec	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	
<u>DEADBAND</u>											
ATT											
NORM (deg)	5.00	1.00	5.00	1.00	5.00	5.00	3.00	3.00	2.00	2.00	
VERN (deg)	1.000	1.000	1.000	0.070	1.000	1.000	1.000	1.000	1.000	1.000	
RATE											
NORM °/sec	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	
VERN °/sec	.020	.020	.020	.010	.020	.020	.100	.020	.020	.020	
<u>JET OPT</u>											
P	1	1	3	1	1	3	3	1	1	1	
Y	1	1	3	3	1	3	3	1	1	1	
CNTL ACCEL	0	0	0	0	0	0	2	0	0	0	

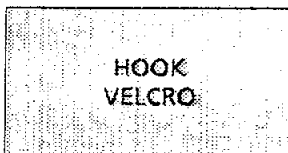
\*I-LOADED OPS-2 DAP Configuration

TABLE 5-1 (Cont)  
DAP B CONFIGURATIONS

	B1*	B2	B3	B4	B5	B6	B7	B8	B9	B10
<u>TRANSLATION</u>										
PULSE ft/sec	0.02	0.02	0.02	0.02	0.02	0.05	0.01	0.02	0.02	
<u>ROTATION</u>										
DSC RT										
NORM °/sec	0.500	0.200	0.200	0.200	0.200	0.500	0.200	0.100	0.100	
VERN °/sec	0.200	0.200	0.200	0.008	0.016	0.200	0.200	0.150	0.150	
PULSE										
NORM °/sec	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
VERN °/sec	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
COMP										
NORM °/sec	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
VERN °/sec	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
<u>DEADBAND</u>										
ATT										
NORM (deg)	3.00	3.00	3.00	0.30	3.00	2.00	2.00	3.00	3.00	3.00
VERN (deg)	1.000	1.000	1.000	0.100	0.033	1.000	1.000	1.000	1.000	1.000
RATE										
NORM °/sec	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
VERN °/sec	.020	.020	.020	.010	.020	.020	.020	.100	.100	.100
<u>JET OPT</u>										
P	1	3	1	3	3	1	1	3	3	
Y	1	3	1	3	3	1	1	3	3	
CNTL ACCEL	0	0	0	0	0	0	0	5	3	

\*I-LOADED OPS-2 DAP Configuration

# DAP BOOK



CAP/51-I/O/BAS

CAP/51-I/O/FIN

UNIV PTG	
TGT ID = 1	Orbiting Vehicle
= 2	Earth ctr
= 3	Earth tgt
	Input LAT ( $\pm 90$ )
	LON ( $\pm 180$ , + = East)
	ALT (-3444 to 20,000nm)
= 4	Sun ctr
= 5	Celestial tgt
	Input RA (0-359.99)
	DEC ( $\pm 90$ )
= 11-110	Nav Stars
BODY VECT = 1	+X*
= 2	-X*
= 3	-Z*
= 4	PTC ( $\sim 2^\circ$ below +X)*
= 5	Optional
	Input P (0-359.99)
	Y (270-359.99, 0-90)
* input OM $\rightarrow$	OM (0-359.99)
MON AXIS = 1	+X
2	-X

G20 DAP CONFIG			
CNTL ACCEL = 0	Orbiter alone	JET OPT = 1	Normal
= 1	(not used)	= 2	Nose only
= 2	RMS OPS	= 3	Tail only
= 3	(not used)		
= 4	(not used)		
= 5	RMS/SYNCOM F3 deploy		

TOP

DAP            PURPOSE

- A1 - NOMINAL  
IMU ALIGN  
LOSS OF VERN  
(NOSE & TAIL)
- A2 - PTC
- A3 - RCS HOT FIRE
- A4 - GG
- A5 - IMU ROTATION
- A6 - LOSS OF VERN  
(TAIL ONLY)
- A7 - RMS OPS
- A8 - PRE/POST DEPLOY
- A9 - RENDEZVOUS
- A10 - PROX OPS
- A11 - (Blank)

CAP/51-I/O/FIN

A1

TOP

**DAP A1**

**A1**

PURPOSE:

NOMINAL  
IMU ALIGN  
LOSS OF VERN  
(NOSE & TAIL)

0.1 0	1	TRANSLATION PULSE
		ROTATION
0.2 0 0	2	DSC RT NORM
0.2 0 0	3	VERN
0.1 0	4	PULSE NORM
0.0 1 0	5	VERN
.0 0 0	6	COMP. NORM
.0 0 0	7	VERN
		DEADBAND
5.0 0	8	ATT NORM
1.0 0 0	9	VERN
0.2 0	10	RATE NORM
0.2 0	11	VERN
1	12	JET OPT P
1	13	Y
0	14	CNTL ACCEL

CAP/51-I/O/BAS

CAP/51-I/O/BAS

A2

TOP



A1  
DAP A2

PURPOSE:  
PTC

A2

0.1 0	1	TRANSLATION	
		PULSE	
ROTATION			
0.4 0 0	2	DSC RT	NORM
0.4 0 0	3		VERN
0.1 0 0	4	PULSE	NORM
0.0 1 0	5		VERN
.0 0 0	6	COMP	NORM
.0 0 0	7		VERN
DEADBAND			
1.0 0	8	ATT	NORM
1.0 0 0	9		VERN
0.2 0	10	RATE	NORM
.0 2 0	11		VERN
1	12	JET OPT	P
1	13		Y
0	14	CNTL ACCEL	

CAP/51-I/O/BAS

CAP/51-I/O/BAS

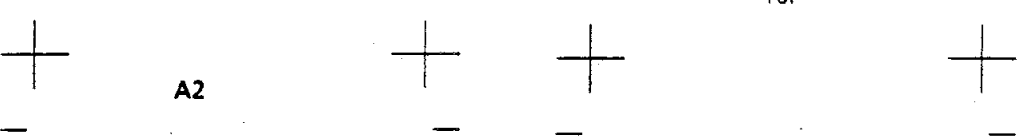


TOP

TOP

A2

A3



DAP A3

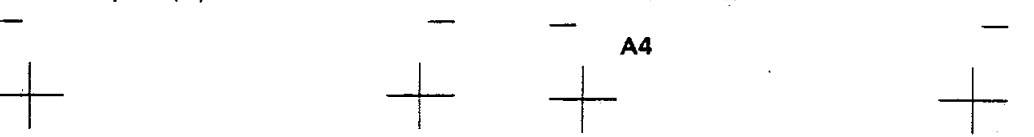
A3

PURPOSE:  
RCS HOT FIRE

0.1 0	1	TRANSLATION	
		PULSE	
ROTATION			
0.2 0 0	2	DSC RT	NORM
0.2 0 0	3		VERN
0.3 0	4	PULSE	NORM
0.0 1 0	5		VERN
.0 0 0	6	COMP	NORM
.0 0 0	7		VERN
DEADBAND			
5.0 0	8	ATT	NORM
1.0 0 0	9		VERN
0.2 0	10	RATE	NORM
.0 2 0	11		VERN
3	12	JET OPT	P
3	13		Y
0	14	CNTL ACCEL	

CAP/51-I/O/BAS

CAP/51-I/O/BAS



TOP

A4

TOP

A3

DAP A4

PURPOSE:

GG

A4

TRANSLATION  
PULSE

0.1 0 1

ROTATION

0.2 0 0 2 DSC RT NORM

0.0 0 8 3 VERN

0.1 0 4 PULSE NORM

0.0 1 0 5 VERN

.0 0 0 6 COMP NORM

.0 0 0 7 VERN

DEADBAND

1.0 0 8 ATT NORM

0.0 7 0 9 VERN

0.2 0 10 RATE NORM

0.1 0 11 VERN

1 12 JET OPT P

3 13 Y

0 14 CNTL ACCEL

CAP/51-I/O/BAS

CAP/51-I/O/BAS

A5

TOP

TOP

A4

DAP A5

PURPOSE:

IMU ROTATION

A5

TRANSLATION  
PULSE

0.1 0 1

ROTATION

0.2 0 0 2 DSC RT NORM

0.2 0 0 3 VERN

0.1 0 4 PULSE NORM

0.0 5 0 5 VERN

.0 0 0 6 COMP NORM

.0 0 0 7 VERN

DEADBAND

5.0 0 8 ATT NORM

1.0 0 0 9 VERN

0.2 0 10 RATE NORM

0.2 0 11 VERN

1 12 JET OPT P

1 13 Y

0 14 CNTL ACCEL

CAP/51-I/O/BAS

CAP/51-I/O/FIN

A6

TOP

(reduced copy)



A5



TOP

DAP A6

PURPOSE:

LOSS OF VERN  
(TAIL ONLY)

A6

0.1 0	1	TRANSLATION	
		PULSE	
ROTATION			
0.2 0 0	2	DSC RT	NORM
0.2 0 0	3		VERN
0.1 0	4	PULSE	NORM
0.0 1 0	5		VERN
.0 0 0	6	COMP	NORM
.0 0 0	7		VERN
DEADBAND			
5.0 0	8	ATT	NORM
1.0 0 0	9		VERN
RATE			
0.2 0	10		NORM
.0 2 0	11		VERN
3	12	JET OPT	P
3	13		Y
0	14	CNTL ACCEL	

CAP/51-I/O/BAS

CAP/51-I/O/BAS



TOP



A7



A6



TOP



DAP A7

PURPOSE: RMS OPS

A7

0.0 2	1	TRANSLATION	
		PULSE	
ROTATION			
0.1 0 0	2	DSC RT	NORM
0.1 5 0	3		VERN
0.0 4	4	PULSE	NORM
0.0 0 2	5		VERN
.0 0 0	6	COMP	NORM
.0 0 0	7		VERN
DEADBAND			
3.0 0	8	ATT	NORM
1.0 0 0	9		VERN
RATE			
0.2 0	10		NORM
.1 0 0	11		VERN
3	12	JET OPT	P
3	13		Y
2	14	CNTL ACCEL	

CAP/51-I/O/BAS

CAP/51-I/O/FIN



TOP



A8





TOP

A7

DAP A8

PURPOSE:

PRE/POST DEPLOY

0.1 0

1 TRANSLATION PULSE

0.5 0 0

2 ROTATION DSC RT NORM

0.2 0 0

3 VERN

0.1 0

4 PULSE NORM

0.0 1 0

5 VERN

.0 0 0

6 COMP NORM

.0 0 0

7 VERN

DEADBAND

3.0 0 0

8 ATT NORM

1.0 0 0

9 VERN

0.2 0

10 RATE NORM

.0 2 0

11 VERN

1

12 JET OPT P

1

13 Y

0

14 CNTL ACCEL

CAP/51-I/O/BAS

CAP/51-I/O/BAS

+

+

+

A9

TOP

TOP

+

A8

+

+

DAP A9

PURPOSE:

RENDEZVOUS

0.1 0

1 TRANSLATION PULSE

0.2 0 0

2 ROTATION DSC RT NORM

0.2 0 0

3 VERN

0.1 0

4 PULSE NORM

0.0 1 0

5 VERN

.0 0 0

6 COMP NORM

.0 0 0

7 VERN

DEADBAND

2.0 0 0

8 ATT NORM

1.0 0 0

9 VERN

0.2 0

10 RATE NORM

.0 2 0

11 VERN

1

12 JET OPT P

1

13 Y

0

14 CNTL ACCEL

CAP/51-I/O/FIN

CAP/51-I/O/FIN

+

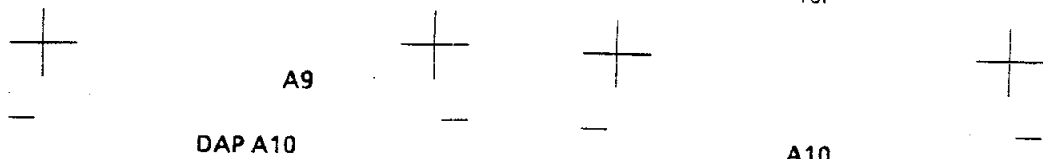
+

+

A10

TOP

(reduced copy)



A9

PURPOSE:  
PROX OPS

TOP

A10

0.0 5 1 TRANSLATION PULSE

0.2 0 0 2 DSC RT NORM  
 0.2 0 0 3 VERN  
 0.1 0 0 4 PULSE NORM  
 0.0 1 0 5 VERN  
 .0 0 0 6 COMP NORM  
 .0 0 0 7 VERN

2.0 0 8 DEADBAND ATT NORM  
 1.0 0 0 9 VERN

0.2 0 10 RATE NORM  
 .0 2 0 11 VERN

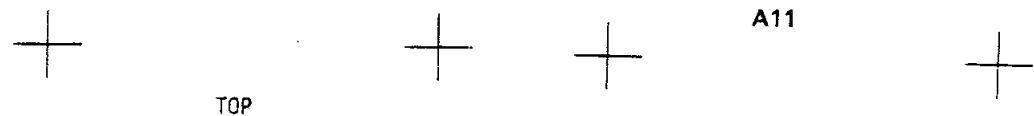
1 12 JET OPT P  
 1 13 Y

0 14 CNTL ACCEL



CAP/51-I/O/FIN

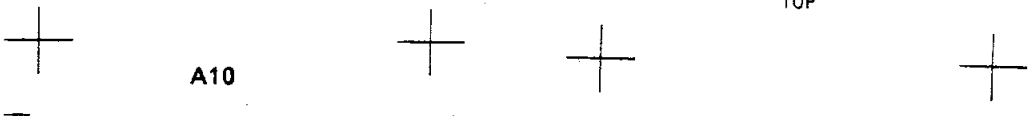
CAP/51-I/O/FIN



A11

TOP

TOP



A10

DAP A11

PURPOSE: (Blank)

A11

1 TRANSLATION PULSE

2 DSC RT NORM  
 3 VERN  
 4 PULSE NORM  
 5 VERN  
 6 COMP NORM  
 7 VERN

8 DEADBAND ATT NORM  
 9 VERN

10 RATE NORM  
 11 VERN

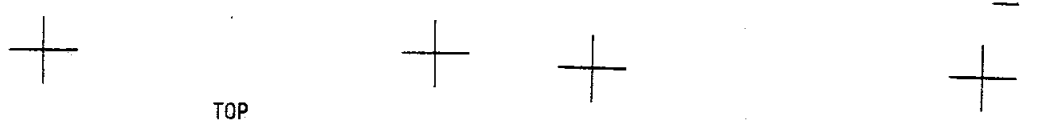
12 JET OPT P  
 13 Y

14 CNTL ACCEL



CAP/51-I/O/FIN

CAP/51-I/O/FIN



TOP

TOP

A11

DAP                      PURPOSE

- B1 - NOMINAL  
      PRCS IMU ALIGN  
      OMS & RCS BURNS
- B2 - LOSS OF VERN  
      (TAIL ONLY)
- B3 - LOSS OF VERN  
      (NOSE & TAIL)  
      GG MNVR
- B4 - SSUS DEPLOY
- B5 - COAS CAL
- B6 - RENDEZVOUS
- B7 - PROX OPS
- B8 - RMS/SYNCOM F3  
      DEPLOY
- B9 - RMS/SYNCOM F3 SINGLE  
      JOINT DEPLOY
- B10 - (Blank)

CAP/51-I/O/FIN

CAP/51-I/O/FIN A

B1

TOP

TOP

DAP B1

B1

PURPOSE:

NOMINAL  
PRCS IMU ALIGN  
OMS & RCS BURNS

TRANSLATION			
PULSE	15	0.0	2
ROTATION			
DSC RT NORM	16	0.5	0 0
VERN	17	0.2	0 0
PULSE NORM	18	0.0	4
VERN	19	0.0	0 2
COMP NORM	20	.0	0 0
VERN	21	.0	0 0
DEADBAND			
ATT NORM	22	3.0	0
VERN	23	1.0	0 0
RATE			
NORM	24	0.2	0
VERN	25	.0	2 0
JET OPT			
P	26		1
Y	27		1
CNTL ACCEL	28		0

CAP/51-I/O/BAS

CAP/51-I/O/BAS

B2

TOP

(reduced copy)

B1

DAP B2

PURPOSE:  
LOSS OF VERN  
(TAIL ONLY)

CAP/51-I/O/BAS

TOP

B2

DAP B3

PURPOSE:  
LOSS OF VERN  
(NOSE & TAIL)  
GG MNVR

CAP/51-I/O/BAS

TOP

B2

TRANSLATION				
PULSE	15		0.0	2
ROTATION				
DSC RT	NORM 16		0.2	0 0
VERN	17		0.2	0 0
PULSE	NORM 18		0.0	4
VERN	19		0.0	0 2
COMP	NORM 20		.0	0 0
VERN	21		.0	0 0
DEADBAND				
ATT	NORM 22		3.0	0
VERN	23		1.0	0 0
RATE	NORM 24		0.2	0
VERN	25		.0	2 0
JET OPT	P 26			3
	Y 27			3
CNTL ACCEL	28			0
CAP/51-I/O/BAS				

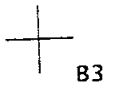
B3

TOP

B3

TRANSLATION				
PULSE	15		0.0	2
ROTATION				
DSC RT	NORM 16		0.2	0 0
VERN	17		0.2	0 0
PULSE	NORM 18		0.0	4
VERN	19		0.0	0 2
COMP	NORM 20		.0	0 0
VERN	21		.0	0 0
DEADBAND				
ATT	NORM 22		3.0	0
VERN	23		1.0	0 0
RATE	NORM 24		0.2	0
VERN	25		.0	2 0
JET OPT	P 26			1
	Y 27			1
CNTL ACCEL	28			0
CAP/51-I/O/BAS				

B4



B3

DAP B4

PURPOSE:

SSUS: DEPLOY

CAP/51-I/O/BAS



TOP



DAP B5

PURPOSE:

COAS CAL

CAP/51-I/O/BAS



TOP

(reduced copy)



TOP



B4

TRANSLATION  
PULSE 15 0.0 2

ROTATION

DSC RT	NORM	16	0.2	0	0
	VERN	17	0.0	0	8
PULSE	NORM	18	0.0	0	4
	VERN	19	0.0	0	2
COMP	NORM	20	0.0	0	0
	VERN	21	0.0	0	0

DEADBAND

ATT	NORM	22	0.3	0
	VERN	23	0.1	0

RATE	NORM	24	0.2	0
	VERN	25	0.1	0

JET OPT	P	26	3
	Y	27	3

CNTL ACCEL 28 0

CAP/51-I/O/FIN



B5

TOP

B4



B5

TRANSLATION  
PULSE 15 0.0 2

ROTATION

DSC RT	NORM	16	0.2	0	0
	VERN	17	0.0	1	6
PULSE	NORM	18	0.0	0	4
	VERN	19	0.0	0	2
COMP	NORM	20	0.0	0	0
	VERN	21	0.0	0	0

DEADBAND

ATT	NORM	22	3.0	0
	VERN	23	0.0	3

RATE	NORM	24	0.2	0
	VERN	25	0.2	0

JET OPT	P	26	3
	Y	27	3

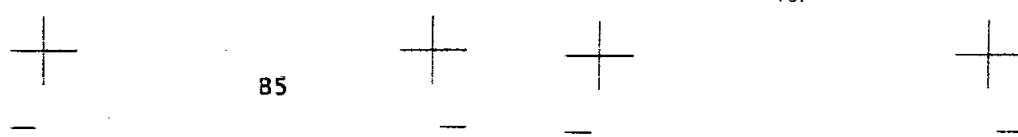
CNTL ACCEL 28 0

CAP/51-I/O/BAS



B6



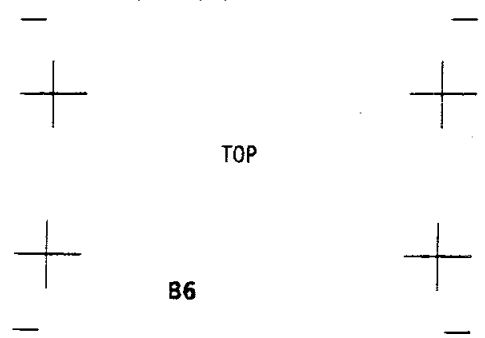


85

DAP 86

PURPOSE:  
RENDEZVOUS

CAP/51-I/O/FIN



TOP

B6

DAP 87

PURPOSE:  
PROX OPS

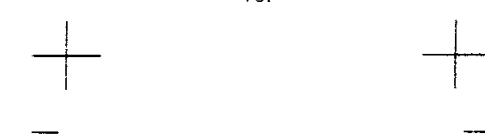
CAP/51-I/O/FIN



TOP

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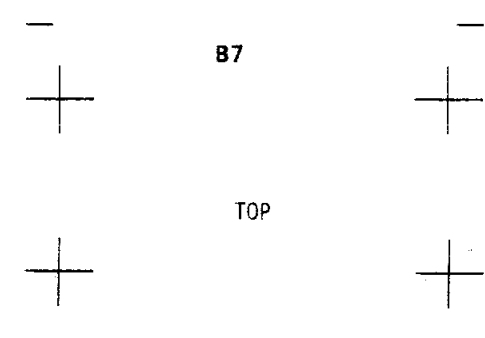
TOP



B6

TRANSLATION				
PULSE	15		0.0	5
ROTATION				
DSC RT	NORM 16		0.5	0 0
	VERN 17		0.2	0 0
PULSE	NORM 18		0.0	4
	VERN 19		0.0	0 2
COMP	NORM 20		.0	0 0
	VERN 21		.0	0 0
DEADBAND				
ATT	NORM 22		2.0	0
	VERN 23		1.0	0 0
RATE				
	NORM 24		0.2	0
	VERN 25		.0	2 0
JET OPT	P 26			1
	Y 27			1
CNTL ACCEL	28			0

CAP/51-I/O/FIN



B7

TOP

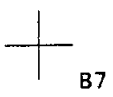
B7

TRANSLATION				
PULSE	15		0.0	1
ROTATION				
DSC RT	NORM 16		0.2	0 0
	VERN 17		0.2	0 0
PULSE	NORM 18		0.0	4
	VERN 19		0.0	0 2
COMP	NORM 20		.0	0 0
	VERN 21		.0	0 0
DEADBAND				
ATT	NORM 22		2.0	0
	VERN 23		1.0	0 0
RATE				
	NORM 24		0.2	0
	VERN 25		.0	2 0
JET OPT	P 26			1
	Y 27			1
CNTL ACCEL	28			0

CAP/51-I/O/FIN



B8



B7



TOP



DAP B8

B8

PURPOSE:  
RMS/SYNCOM F3 DEPLOY

TRANSLATION				
PULSE	15		0.0	2
ROTATION				
DSC RT	NORM	16	0.1	0 0
	VERN	17	0.1	5 0
PULSE	NORM	18	0.0	4
	VERN	19	0.0	0 2
COMP	NORM	20		0 0
	VERN	21	.0	0 0
DEADBAND				
ATT	NORM	22	3.0	0
	VERN	23	1.0	0 0
RATE				
	NORM	24	0.2	0
	VERN	25	.0	1 0
JET OPT				
	P	26		3
	Y	27		3
CNTL ACCEL	28			5

CAP/51-I/O/FIN

CAP/51-I/O/FIN



TOP



B9



B8



TOP



DAP B9

B9

PURPOSE:  
RMS/SYNCOM F3 SINGLE  
JOINT DEPLOY

TRANSLATION				
PULSE	15		0.0	2
ROTATION				
DSC RT	NORM	16	0.1	0 0
	VERN	17	0.1	5 0
PULSE	NORM	18	0.0	4
	VERN	19	0.0	0 2
COMP	NORM	20		0 0
	VERN	21	.0	0 0
DEADBAND				
ATT	NORM	22	3.0	0
	VERN	23	1.0	0 0
RATE				
	NORM	24	0.2	0
	VERN	25	.1	0 0
JET OPT				
	P	26		3
	Y	27		3
CNTL ACCEL	28			3

CAP/51-I/O/FIN A

CAP/51-I/O/FIN A



TOP



B10





B9



DAP B10

PURPOSE: (Blank)

B10

TRANSLATION PULSE 15

ROTATION DSC RT NORM 16 VERN 17 PULSE NORM 18 VERN 19 COMP NORM 20 VERN 21

DEADBAND ATT NORM 22 VERN 23

RATE NORM 24 VERN 25

JET OPT P 26 Y 27

CNTL ACCEL 28

CAP/51-I/O/ FIN A

CAP/51-I/O/ FIN A



B11

TOP



B10

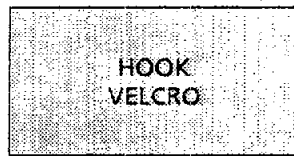
CAP/51-I/O/ FIN A



TOP



TOP  
BACK COVER 'DAP BOOK'



CAP/51-I/O/BAS



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ATTITUDE TIMELINES

Attitude Timeline

NET	MNVR OPTION		DAF	E/S	REMARKS	EVENT
1 0/01:10:00	TRK TGT=2 BV=3( 90.00, 0.00) OM= 0.00	A1 AUTO NORM	DSC 0.200 DB AT 5.00 DB RT 0.20	EARTH 0 90 0 0	LVLH R+ 0 P+180 Y+ 0	PLBD OPENING -ZLV TAIL FWD
2 0/03:50:00 04:01:19	MNVR R+282.00 P+119.00 Y+320.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	SUN 0 95 0 108		IMU ALIGN COAS CAL PAIR A1
3 0/04:15:00 28:14	TRK TGT=2 BV=3( 90.00, 0.00) OM=180.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	EARTH 0 90 0 0	LVLH R+180 P+ 0 Y+ 0	-ZLV NOSE FWD
4 0/08:47:01 57:29	MNVR R+ 89.97 P+ 97.31 Y+ 10.08	A8 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	SUN 0 90 0 296		ASC DEPLOY
5 0/09:40:01 47:22	MNVR R+130.00 P+ 27.00 Y+338.00	A8 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	SUN 0 166 0 248		SEP BURN
6 0/09:55:01 56:23	TRK TGT=2 BV=3( 90.00, 0.00) OM=180.00	A8 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	EARTH 0 90 0 0	LVLH R+180 P+ 0 Y+ 0	PAYLOAD VIEWING
7 0/10:06:01 18:49	TRK TGT=2 BV=5(245.00, 32.00) OM= 20.00	A8 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	EARTH 0 111 0 146	LVLH R+ 21 P+ 25 Y+ 31	WINDOW PROTECT
8 0/10:22:01	CANCEL	A8 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	SUN 0 91 0 156	INRTL R+293 P+ 13 Y+ 64	INRTL HOLD FOR PKM
9 0/10:31:00 44:25	TRK TGT=2 BV=3( 90.00, 0.00) OM= 90.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	EARTH 0 90 0 360	LVLH R+ 0 P+180 Y+270	-ZLV -YVV
10 0/11:30:00 39:05	MNVR R+282.00 P+119.00 Y+320.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	SUN 0 94 0 108		IMU ALIGN PAIR A1
11 0/11:50:00 12:03:57	TRK TGT=2 BV=3( 90.00, 0.00) OM=180.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	EARTH 0 90 0 0	LVLH R+180 P+ 0 Y+ 0	-ZLV NOSE FWD
12 0/22:10:00 20:32	MNVR R+282.00 P+119.00 Y+320.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	SUN 0 94 0 108		IMU ALIGN PAIR A1

Attitude Timeline

MET	MNVR OPTION		DAP	E/S	REMARKS	EVENT
1 0/22:30:00 40:23	TRK TGT=2 BV=3( 90.00, 0.00) OM=270.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	EARTH 0 90 φ 360	LVLH R+ 0 P+180 Y+ 90	-ZLV +YVV
2 1/00:13:25 23:16	MNVR R+ 94.54 P+ 96.84 Y+ 10.66	A8 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	SUN 0 90 φ 291		RUSSAT DEPLOY
3 1/00:57:25 01:04:47	MNVR R+132.00 P+ 28.00 Y+334.00	A8 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	SUN 0 165 φ 229		SEP BURN
4 1/01:12:25 14:18	TRK TGT=2 BV=3( 90.00, 0.00) OM=180.00	A8 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	EARTH 0 90 φ 0	LVLH R+180 P+ 0 Y+ 0	PAYLOAD VIEWING
5 1/01:23:25 36:13	TRK TGT=2 BV=5(245.00, 32.00) OM= 20.00	A8 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	EARTH 0 111 φ 146	LVLH R+ 21 P+ 25 Y+ 31	WINDOW PROTECT
6 1/01:39:25	CANCEL	A8 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	SUN 0 89 φ 159	INRTL R+292 P+ 10 Y+ 66	INRTL HOLD FOR PKM
7 1/01:50:00 02:03:10	TRK TGT=2 BV=3( 90.00, 0.00) OM= 90.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	EARTH 0 90 φ 360	LVLH R+ 0 P+180 Y+270	-ZLV -YVV
8 1/08:55:00 09:04:10	MNVR R+282.00 P+119.00 Y+320.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	SUN 0 94 φ 108		IMU ALIGN PAIR A1
9 1/09:15:00 28:37	TRK TGT=2 BV=3( 90.00, 0.00) OM=180.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	EARTH 0 90 φ 0	LVLH R+180 P+ 0 Y+ 0	-ZLV NOSE FWD
10 1/21:10:00 21:21	MNVR R+282.00 P+119.00 Y+320.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	SUN 0 93 φ 108		IMU ALIGN PAIR A1
11 1/21:30:00 39:05	TRK TGT=2 BV=3( 90.00, 0.00) OM= 0.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	EARTH 0 90 φ 0	LVLH R+ 0 P+180 Y+ 0	-ZLV TAIL FWD
12 1/23:27:33 34:26	MNVR R+336.29 P+290.57 Y+ 66.40	A8 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	SUN 0 71 φ 185		SYNCOM DEPLOY

Attitude Timeline

MET	MNVR OPTION		DRP	E/S	REMARKS	EVENT
1 1/23:50:33 56:21	MNVR R+125.00 P+ 16.00 Y+325.00	A8 AUTO NORM	DSC 0.500 DB AT 3.00 DB RT 0.20	SUN θ 169 φ 167		SEP BURN
2 2/00:05:33 06:08	TRK TGT=2 BV=3( 90.00, 0.00) OM=180.00	A8 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	EARTH θ 90 φ 0	LVLH R+180 P+ 0 Y+ 0	PAYLOAD VIEWING
3 2/00:16:33 30:54	TRK TGT=2 BV=5(252.00, 9.00) OM= 7.00	A8 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	EARTH θ 108 φ 171	LVLH R+ 6 P+ 18 Y+ 9	WINDOW PROTECT
4 2/00:32:33	CANCEL	A8 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	SUN θ 96 φ 176	INRTL R+310 P+331 Y+ 51	INRTL HOLD FOR PKM
5 2/00:40:00 54:12	TRK TGT=2 BV=3( 90.00, 0.00) OM=180.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	EARTH θ 90 φ 0	LVLH R+180 P+ 0 Y+ 0	-ZLV NOSE FWD
6 2/05:35:00 44:52	MNVR R+142.00 P+ 38.00 Y+306.00	B1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	SUN θ 144 φ 173		NC-1
7 2/06:20:00 33:33	MNVR R+183.00 P+256.00 Y+ 24.00	B1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	SUN θ 59 φ 342		NH-1
8 2/07:00:00 06:13	TRK TGT=2 BV=3( 90.00, 0.00) OM= 90.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	EARTH θ 90 φ 360	LVLH R+ 0 P+180 Y+270	-ZLV -YVV
9 2/07:50:00 59:03	MNVR R+282.00 P+119.00 Y+320.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	SUN θ 93 φ 108		IMU ALIGN PAIR A1
10 2/08:10:00 21:45	TRK TGT=2 BV=3( 90.00, 0.00) OM= 90.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	EARTH θ 90 φ 360	LVLH R+ 0 P+180 Y+270	-ZLV -YVV
11 2/18:35:00 44:29	MNVR R+282.00 P+119.00 Y+320.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	SUN θ 92 φ 107		IMU ALIGN PAIR A1
12 2/18:55:00 19:07:38	TRK TGT=2 BV=3( 90.00, 0.00) OM= 90.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	EARTH θ 90 φ 360	LVLH R+ 0 P+180 Y+270	-ZLV -YVV

Attitude Timeline

MET	MNVR OPTION		DAP	E/S	REMARKS	EVENT
1 3/06:24:00	RCS BURN (IF REQD)	B1 MAN NORM	DSC 0.500 DB AT 3.00 DB RT 0.20			NC-2
2 3/06:45:00 54:18	MNVR R+282.00 P+119.00 Y+320.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	SUN θ 92 φ 107		IMU ALIGN PAIR A1
3 3/07:05:00 17:20	TRK TGT=2 BV=3( 90.00, 0.00) OM= 90.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	EARTH θ 90 φ 360	LVLH R+ 0 P+180 Y+270	-ZLV -YVV
4 3/17:25:00 34:16	MNVR R+282.00 P+119.00 Y+320.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	SUN θ 92 φ 107		IMU ALIGN PAIR A1
5 3/17:45:00 57:19	TRK TGT=2 BV=3( 90.00, 0.00) OM= 90.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	EARTH θ 90 φ 360	LVLH R+ 0 P+180 Y+270	-ZLV -YVV
6 4/03:30:00 39:16	MNVR R+145.00 P+ 26.00 Y+289.00	B1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	SUN θ 131 φ 144		NPC
7 4/05:18:00	RCS BURN (IF REQD)	B1 MAN NORM	DSC 0.500 DB AT 3.00 DB RT 0.20			NC-3
8 4/05:20:00 26:35	TRK TGT=2 BV=3( 90.00, 0.00) OM= 90.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	EARTH θ 90 φ 360	LVLH R+ 0 P+180 Y+270	-ZLV -YVV
9 4/07:10:00 19:29	MNVR R+282.00 P+119.00 Y+320.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	SUN θ 91 φ 107		IMU ALIGN PAIR A1
10 4/07:30:00 42:41	TRK TGT=2 BV=3( 90.00, 0.00) OM= 90.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	EARTH θ 90 φ 360	LVLH R+ 0 P+180 Y+270	-ZLV -YVV
11 4/17:50:00 59:28	MNVR R+282.00 P+119.00 Y+320.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	SUN θ 91 φ 107		IMU ALIGN PAIR A1
12 4/18:10:00 22:40	TRK TGT=2 BV=3( 90.00, 0.00) OM= 90.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	EARTH θ 90 φ 0	LVLH R+ 0 P+180 Y+270	-ZLV -YVV

Attitude Timeline

MET	MNVR OPTION	DAP	E/S	REMARKS	EVENT
1 5/05:44:00	RCS BURN (IF REQD)	B1 MAN NORM	DSC 0.500 DB AT 3.00 DB RT 0.20		NC-4
2 5/06:00:00 09:18	MNVR R+282.00 P+119.00 Y+320.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	SUN θ 90 φ 107	IMU ALIGN PAIR A1
3 5/06:20:00 32:22	TRK TGT=2 BV=3( 90.00, 0.00) OM= 90.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	EARTH θ 90 φ 360	LVLH R+ 0 P+180 Y+270 -ZLV -YVV
4 5/16:45:00 54:53	MNVR R+282.00 P+119.00 Y+320.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	SUN θ 90 φ 106	IMU ALIGN PAIR A1
5 5/17:05:00 18:19	TRK TGT=2 BV=3( 90.00, 0.00) OM= 90.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	EARTH θ 90 φ 360	LVLH R+ 0 P+180 Y+270 -ZLV -YVV
6 5/18:43:00	RCS BURN(IF REQD)	A9 MAN NORM	DSC 0.200 DB AT 2.00 DB RT 0.20		NH-2
7 5/19:05:00 09:51	MNVR R+112.00 P+129.00 Y+ 67.00	B6 AUTO NORM	DSC 0.500 DB AT 2.00 DB RT 0.20	SUN θ 59 φ 229	NSR
8 5/19:30:00 33:18	TRK TGT=1 BV=3( 90.00, 0.00) OM= 0.00	B6 AUTO NORM	DSC 0.500 DB AT 2.00 DB RT 0.20	EARTH θ 0 φ 0	LVLH R+ 0 P+270 Y+ 0 SYNCOM TRK
9 5/20:33:00 38:59	MNVR R+130.00 P+ 15.00 Y+305.00	B6 AUTO NORM	DSC 0.500 DB AT 2.00 DB RT 0.20	SUN θ 146 φ 149	NC-5
10 5/20:53:00 58:59	TRK TGT=1 BV=3( 90.00, 0.00) OM= 0.00	B6 AUTO NORM	DSC 0.500 DB AT 2.00 DB RT 0.20	EARTH θ 0 φ 0	LVLH R+ 0 P+270 Y+ 0 SYNCOM TRK
11 5/21:21:00	RCS BURN(IF REQD)	A9 MAN NORM	DSC 0.200 DB AT 2.00 DB RT 0.20		NCC
12 5/21:25:00	TRK TGT=1 BV=3( 90.00, 0.00) OM= 0.00	A9 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	EARTH θ 0 φ 0	LVLH R+ 0 P+270 Y+ 0 SYNCOM TRK



Attitude Timeline

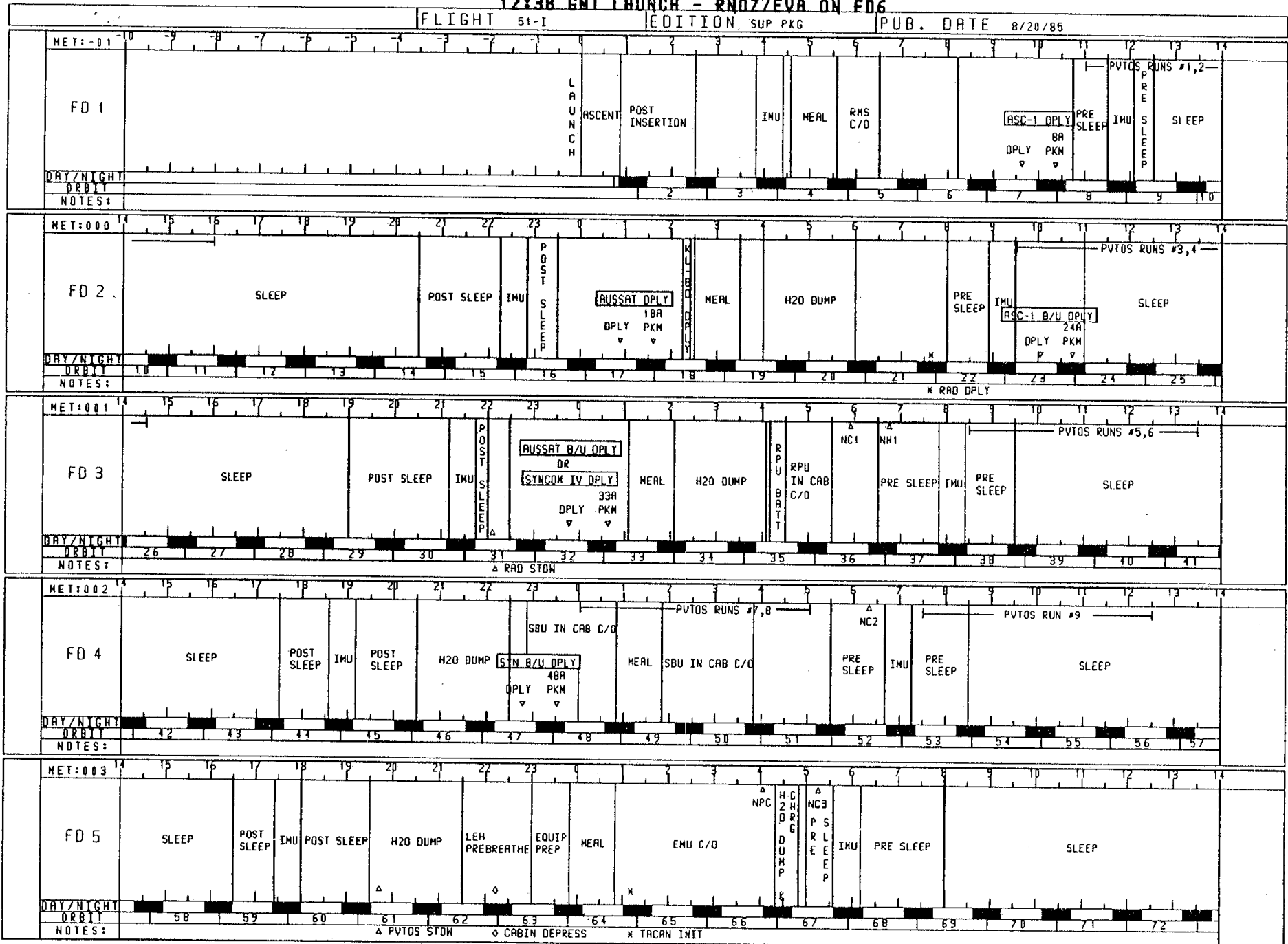
MET	MNVR OPTION		DAP	E/S	REMARKS	EVENT
1 5/22:00:00	MNVR R+121.00 P+305.00 Y+ 3.00	A9 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	SUN 0 112 0 35		TI
2 5/22:22:00 27:28	TRK TGT=1 BV=3( 90.00, 0.00) OM= 0.00	B6 AUTO NORM	DSC 0.500 DB AT 2.00 DB RT 0.20	EARTH 0 0 0 0	LVLH R+ 0 P+270 Y+ 0	SYNCOM TRK
3 5/22:41:00	RCS BURNS	A9 MAN NORM	DSC 0.200 DB AT 2.00 DB RT 0.20			MC 1 THRU 4
4 5/23:39:00 54:00	TRK TGT=2 BV=2(180.00, 0.00) OM= 0.00	A10 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	EARTH 0 180 0 0	LVLH R+ 0 P+ 90 Y+ 0	VBAR
5 6/00:20:00	CANCEL	B7 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	SUN 0 103 0 342	INRTL R+ 30 P+112 Y+297	INERTIAL STATIONKEEPING
6 6/02:20:00 30:11	TRK TGT=2 BV=3( 90.00, 0.00) OM= 90.00	B8 AUTO VERN	DSC 0.150 DB AT 1.00 DB RT 0.10	EARTH 0 90 0 360	LVLH R+ 0 P+180 Y+270	-ZLV -YVV EVA ATTITUDE
7 6/05:20:00 37:57	MNVR R+302.00 P+340.00 Y+ 33.00	B8 AUTO VERN	DSC 0.150 DB AT 1.00 DB RT 0.10	SUN 0 119 0 180		SYNCOM RE-DEPLOY
8 6/06:15:00	RCS BURN	A10 AUTO NORM	DSC 0.200 DB AT 2.00 DB RT 0.20			RCS SEP
9 6/06:20:00 34:41	TRK TGT=4 BV=5(120.00, 40.00) OM=108.00	A10 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	SUN 0 111 0 45	INRTL R+125 P+291 Y+323	EVA BRAKEOUT ATTITUDE
10 6/08:00:00 08:55	MNVR R+282.00 P+119.00 Y+320.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	SUN 0 89 0 106		IMU ALIGN PAIR A1
11 6/08:20:00 34:01	TRK TGT=2 BV=3( 90.00, 0.00) OM=180.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	EARTH 0 90 0 0	LVLH R+180 P+ 0 Y+ 0	-ZLV NOSE FWD
12 6/17:15:00 25:59	MNVR R+282.00 P+119.00 Y+320.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	SUN 0 89 0 106		IMU ALIGN PAIR A1

## Attitude Timeline

NET	MNVR OPTION		DAP	E/S	REMARKS	EVENT
1 6/17:35:00 48:15	TRK TGT=2 BV=3( 90.00, 0.00) OM=180.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	EARTH 0 90 0 0	LVLH R+180 P+ 0 Y+ 0	-ZLV NOSE FWD
2 6/19:45:00 59:59	MNVR R+ 66.00 P+173.00 Y+ 36.00	B1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	SUN 0 21 0 250		ORBIT ADJUST
3 6/20:20:00 30:22	MNVR R+320.00 P+ 8.00 Y+ 51.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	SUN 0 109 0 131		CREW CONF ATT
4 6/21:55:00	CANCEL	A3 MAN NORM	DSC 0.200 DB AT 5.00 DB RT 0.20	SUN 0 109 0 131	INRTL R+320 P+ 8 Y+ 51	RCS HOT FIRE
5 6/23:00:00 13:53	TRK TGT=2 BV=3( 90.00, 0.00) OM=180.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	EARTH 0 90 0 0	LVLH R+180 P+ 0 Y+ 0	-ZLV NOSE FWD
6 7/07:00:00 10:44	MNVR R+282.00 P+119.00 Y+320.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	SUN 0 88 0 106		IMU ALIGN PAIR A1
7 7/07:20:00 33:26	TRK TGT=2 BV=3( 90.00, 0.00) OM=180.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	EARTH 0 90 0 0	LVLH R+180 P+ 0 Y+ 0	-ZLV NOSE FWD
8 7/17:40:00 50:23	MNVR R+282.00 P+119.00 Y+320.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	SUN 0 88 0 106		IMU ALIGN PAIR A1
9 7/18:00:00 07:38	TRK TGT=4 BV=5(184.00, 0.00) OM= 90.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	SUN 0 176 0 189	INRTL R+209 P+ 12 Y+343	TAIL SUN RAD COLD SOAK
10 7/20:38:00 46:48	MNVR R+291.00 P+304.00 Y+ 21.00	A1 AUTO VERN	DSC 0.200 DB AT 1.00 DB RT 0.02	SUN 0 105 0 221		DEORBIT IMU ALIGN
11 7/21:00:00 03:44	MNVR R+ 50.00 P+293.00 Y+ 76.00	B1 AUTO NORM	DSC 0.500 DB AT 3.00 DB RT 0.20	SUN 0 72 0 121		DEORBIT IMU VERIF
12 7/21:20:00 23:06	MNVR R+ 58.00 P+184.00 Y+ 59.00	B1 AUTO NORM	DSC 0.500 DB AT 3.00 DB RT 0.20	SUN 0 40 0 219		DEORBIT BURN

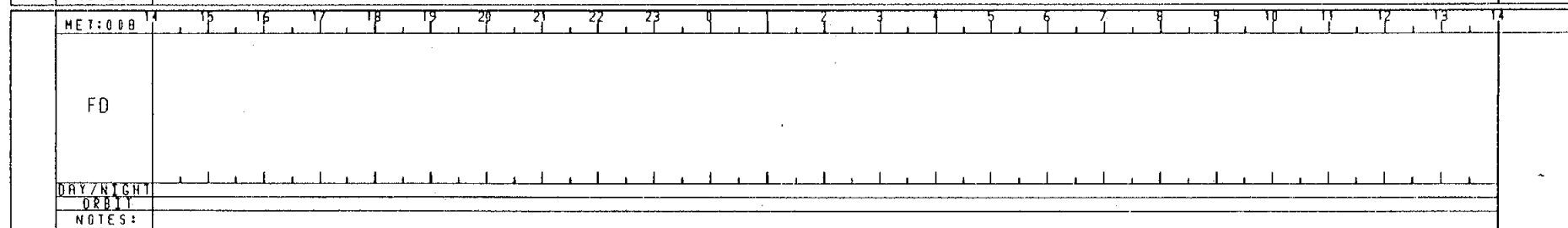
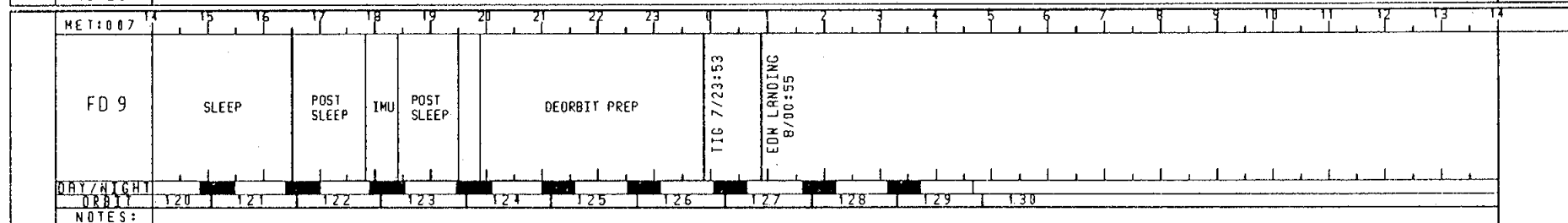
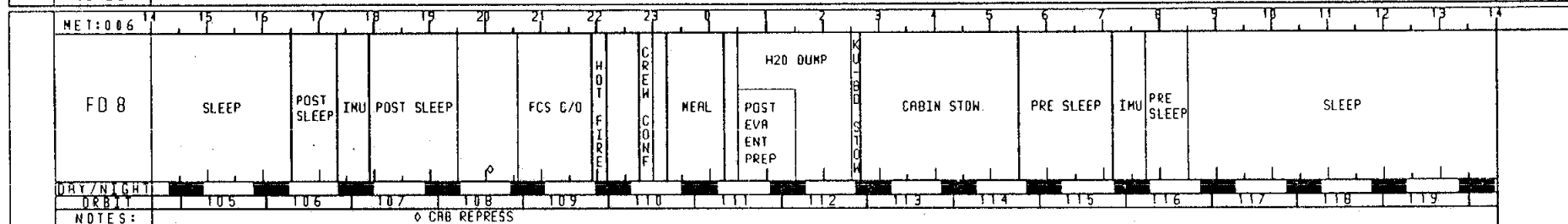
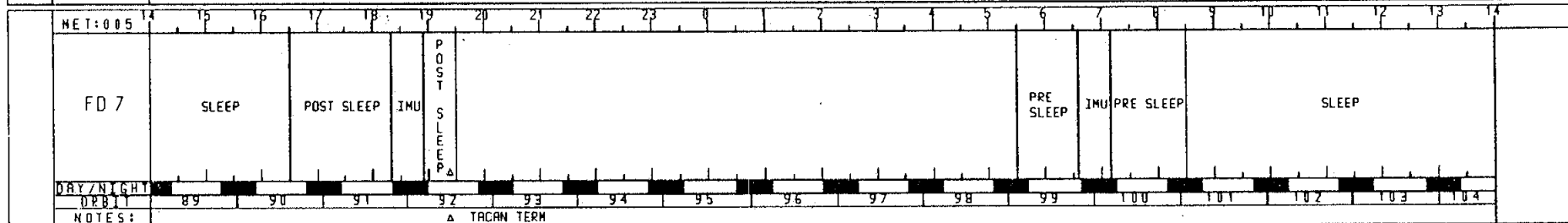
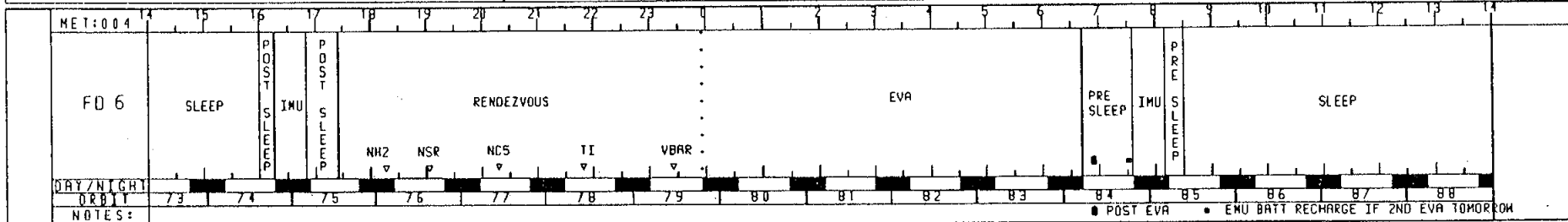
OVERVIEW

12:38 GMT LAUNCH - RND7/EVA ON FD6



12:38 GMT LAUNCH - RNDZ/EVA ON FD6

FLIGHT 51-I EDITION SUP PKG PUB. DATE 8/20/85



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SUMMARY TIMELINE

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12:38 GMT LAUNCH - RNDZ/EVA ON FD6

GMT (D:H:M)	MET (D:H:M)	CDT (D:H:M)	FD/ DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE	
239:00:38 / 239:12:38	002:12:00 / 003:00:00	238:19:38 / 239:07:38	03 / 238 CDT	4.7		AUGUST 26, 1985	51-1	SUP PKG	8/20/85	
CDT :238 FD 03										
MET :002			CDT:239	FD 04						
STS	SLEEP									
PL										
DAY/NIGHT										
ORBIT	40	41	42	43	44	45	46	47	48	
GSTDN COVERAGE	-RGO -ACN -DKR	-GMM	-RGO -DKR -ACN	-DKR -MAD -MAX	-CAN	-YAR -CAN -CAN	-MIL -DKR -MAD -MAX	-MIL -BDR -DKR	-MIL -MLX -BDR -DKR	-GOS -MLX -MIL -BDR
TORS E H										
ATTITUDE										
NOTES:										

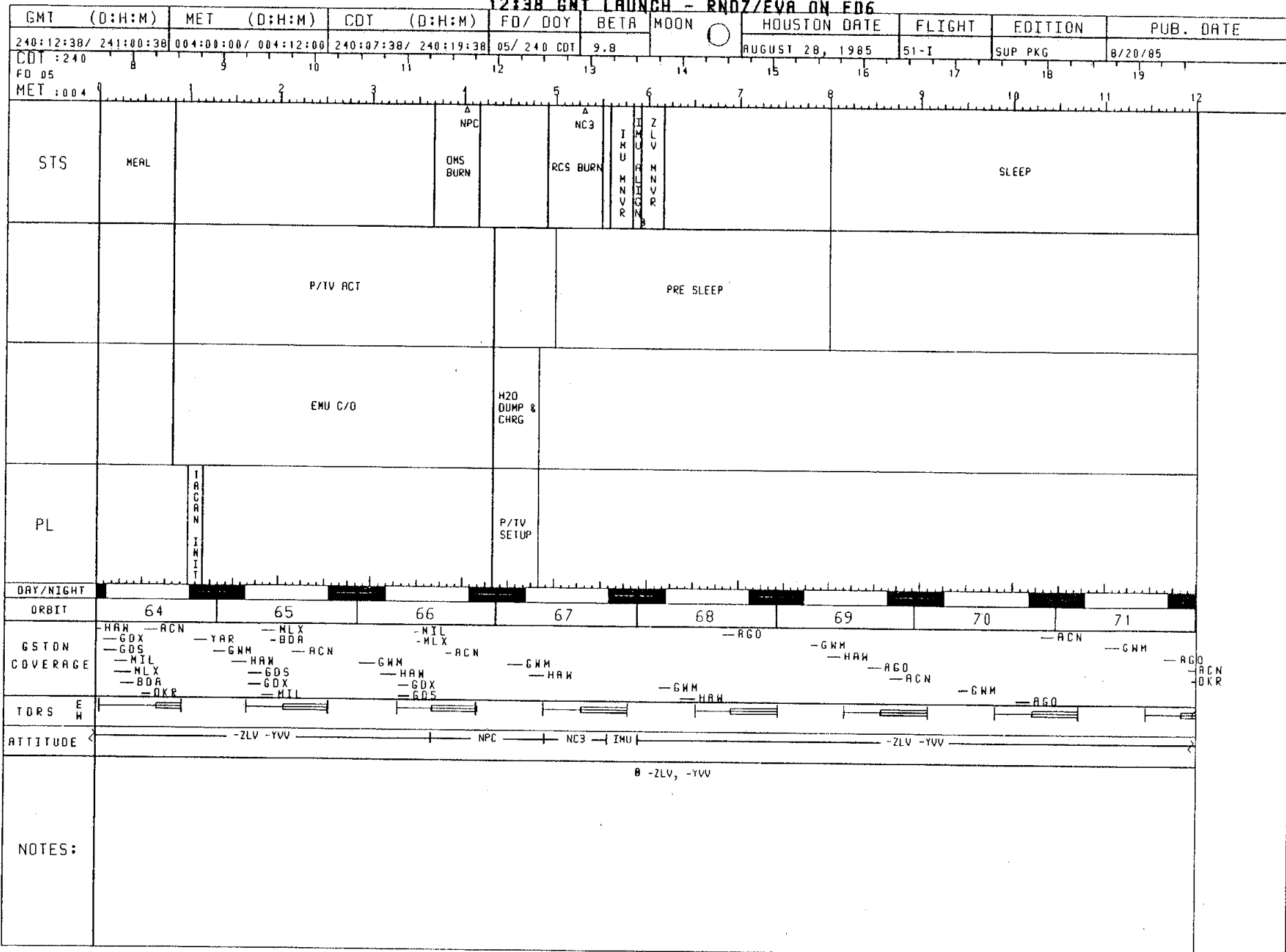
12:38 GMT LAUNCH - RND7/EVR ON FD6

GMT (D:H:M)	MET (D:H:M)	CDT (D:H:M)	FD/ DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE
239:12:38/ 240:00:38	003:00:00/ 003:12:00	239:07:38/ 239:19:38	04/ 239 CDT	6.4	☉	AUGUST 27, 1985	51-I	SUP PKG	8/20/85
CDT : 239 FD 04									
MET : 003									
STS	MEAL				NC2 RCS BURN	IMU MNV R MNV R	ZLV MNV R		SLEEP
									PRE SLEEP
	P/TV ACT								
		P/TV ACT							
PL	SBU IN CABIN C/O								
		SBU IN CABIN C/O							
DAY/NIGHT									
ORBIT	48	49	50	51	52	53	54	55	56
GSTDN COVERAGE	-DKR -ACN	-NLX -BDA -YAR -HAW -GDX -GDS -MIL	-ACN -YAR -GWM -HAW -GDS	-GDX -MIL -NLX -ACN	-GDX	-GWM -HAW -AGO	-ACN -GWM -HAW -AGO -ACN	-GWM -HAW -AGO -ACN	-ACN -GWM -AGO
TDRS									
ATTITUDE			-ZLV -YVV			NC2	IMU		-ZLV -YVV
NOTES:									θ -ZLV, -YVV

12:38 GMT LAUNCH - RNDZ/EVA ON FD6

GMT (D:H:M)	MET (D:H:M)	CDT (D:H:M)	FD/DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE		
240:00:38 / 240:12:38	003:12:00 / 004:00:00	239:19:38 / 240:07:38	04 / 239 CDT	8.0	☉	AUGUST 27, 1985	51-I	SUP PKG	8/20/85		
CDT: 239 FD 04											
MET: 003											
STS	SLEEP			IMU HNVVR	ZLV MNVVR	RMS PWRUP	H2O DUMP SURVEY	RMS PWRON	10.2 PREP DEPRESS	WEAL	
					POST SLEEP		SUPPLY H2O DUMP		LEH PREBREATHE		
							FLTR IFM		P/TV SETUP	P/TV ACT	
PL						PVT DSS STO H				EQUIP PREP	
DAY/NIGHT	[Day/Night Cycle Diagram]										
ORBIT	56	57	58	59	60	61	62	63			
GSTDN COVERAGE	-GWH -AGO -ACN -DKR	-GWH -DKR -MAX	-MAD	-DKR -MAD -MAX	-YAR -CAN	-MIL -BDA -DKR -MAD -MAX	-MIL -MLX -BDA -DKR -MAX -MAD -MAX	-YAR -CAN	-CAN -HAW -ACN -GOS -GOS -MIL -MLX -BDA	-YAR -HAW	
TDRS E H	[TDRS Coverage Diagram]										
ATTITUDE	-ZLV -YVV IMU -ZLV -YVV										
NOTES:	0 -ZLV, -YVV 0 FILTER CLEANING 0 DTD 0325 WASTE AND SUPPLY WATER DUMPS 0 10.2 CONFIG										

### 12:38 GMT LAUNCH - RNDZ/EVA ON ED6



12:38 GMT LAUNCH - RND7/EVA ON FD6

GMT (D:H:M)	MET (D:H:M)	CDT (D:H:M)	FD/DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE
241:00:38 / 241:12:38	004:12:00 / 005:00:00	240:19:38 / 241:07:38	05 / 240 CDT	11.9	☉	AUGUST 28, 1985	51-I	SUP PKG	8/20/85
<p>CDT: 240 FD 05 MET: 004</p> <p>CDT: 241 FD 06</p>									
STS	SLEEP		IMU MULTI MNUVR	ZLV MNUVR	NH2 NSR	NCS	TI	VBAR	35 FT SK
	POST SLEEP				RENDEZVOUS				
			P/TV ACT						
					EVA PREP				
PL			RCSE TEMP		P/TV SETUP		P/TV ACT		
DAY/NIGHT									
DRBIT	72	73	74	75	76	77	78	79	
GSDN COVERAGE	ACN DKR	GWH AGD DKR	MAD CAN	BOA DKR MAX MAD	CAN MIL MLX BDA DKR MAX MAD	YAR CAN	CAN GDS GDX MIL MLX BDA DKR	YAR HAW GDX GDS MIL MLX BDA	DKR ACN YAR
TORS									
ATTITUDE	-ZLV -YVV		IMU	-ZLV -YVV		RENDEZVOUS			
NOTES:	8 -ZLV, -YVV								

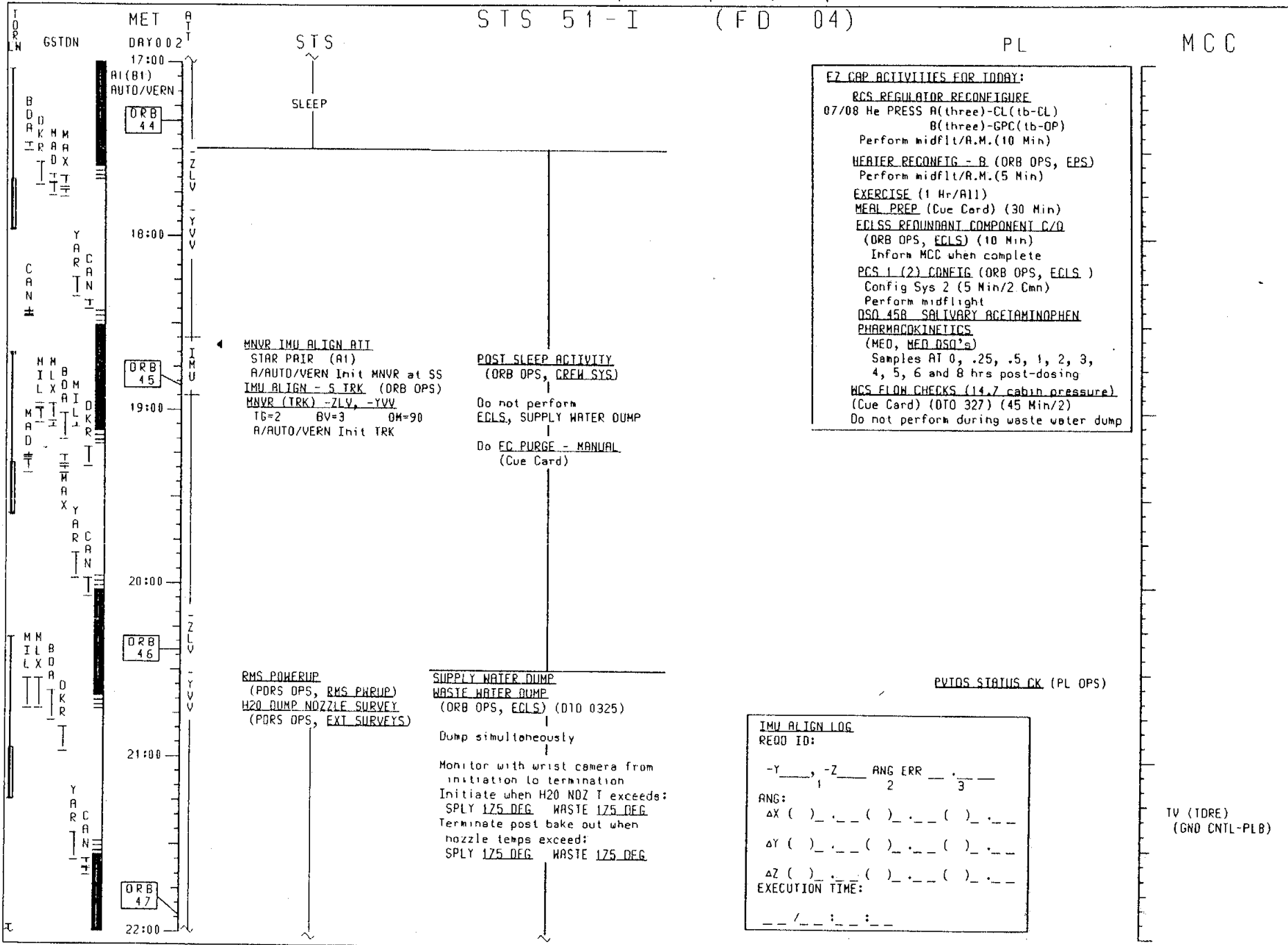
12:38 GMT LAUNCH - RNDZ/EVA ON FD6

GMT (D:H:M)	MET (D:H:M)	CDT (D:H:M)	FD/ DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE	
241:12:38 / 242:00:38	005:00:00 / 005:12:00	241:07:38 / 241:19:38	06 / 241 CDT	13.4	☉	AUGUST 29, 1985	51-I	SUP PKG	8/20/85	
CDT : 241 FD 06										
MET : 005										
STS	RENDEZVOUS					IMU	ZLV	SLEEP		
	STABLE INERTIAL SK									
	P/TV ACT							PRE SLEEP		
	EVA					ARRIVAL	POST EVA	EMU BATT RECHARGE		
PL	EVA SUPPORT					ASK	TEMP			
DAY/NIGHT	[Day/Night Cycle Bar]									
ORBIT	80	81	82	83	84	85	86	87		
GSTDN COVERAGE	YAR -GMM -BDA -ACN	-YAR -GMM -MIL -ACN	-GMM -HAN -AGO	-GMM -HAN -AGO	-GMM -HAN -AGO	-GMM -HAN -AGO	-GMM -HAN -AGO	-GMM -HAN -AGO	-GMM -HAN -AGO	-GMM -HAN -AGO
TDRS E H	[TDRS Coverage Bars]									
ALTITUDE	RENDEZVOUS -ZLV-YVV/FREE DRFT - DPLY SEP BAKEDUT - IMU -ZLV +XVV									
NOTES:	8 -ZLV, +XVV ● EMU BATT RECHARGE IF 2ND EVA TOMORROW									

DETAILED TIMELINE

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**EZ CAP ACTIVITIES FOR TODAY:**

RCS REGULATOR RECONFIGURE  
 07/08 He PRESS A(three)-CL(tb-CL)  
 B(three)-GPC(tb-OP)  
 Perform midflt/A.M.(10 Min)

HEATER RECONFIG - B (ORB OPS, EPS)  
 Perform midflt/A.M.(5 Min)

EXERCISE (1 Hr/A11)

MEAL PREP (Cue Card) (30 Min)

ECLSS REDUNDANT COMPONENT C/D  
 (ORB OPS, ECLS) (10 Min)  
 Inform MCC when complete

PCS 1 (2) CANETG (ORB OPS, ECLS)  
 Config Sys 2 (5 Min/2 Cmn)  
 Perform midflight

DSQ 45A SALIVARY ACETAMINOPHEN  
PHARMACOKINETICS  
 (MED, MED DSQ's)  
 Samples AT 0, .25, .5, 1, 2, 3,  
 4, 5, 6 and 8 hrs post-dosing

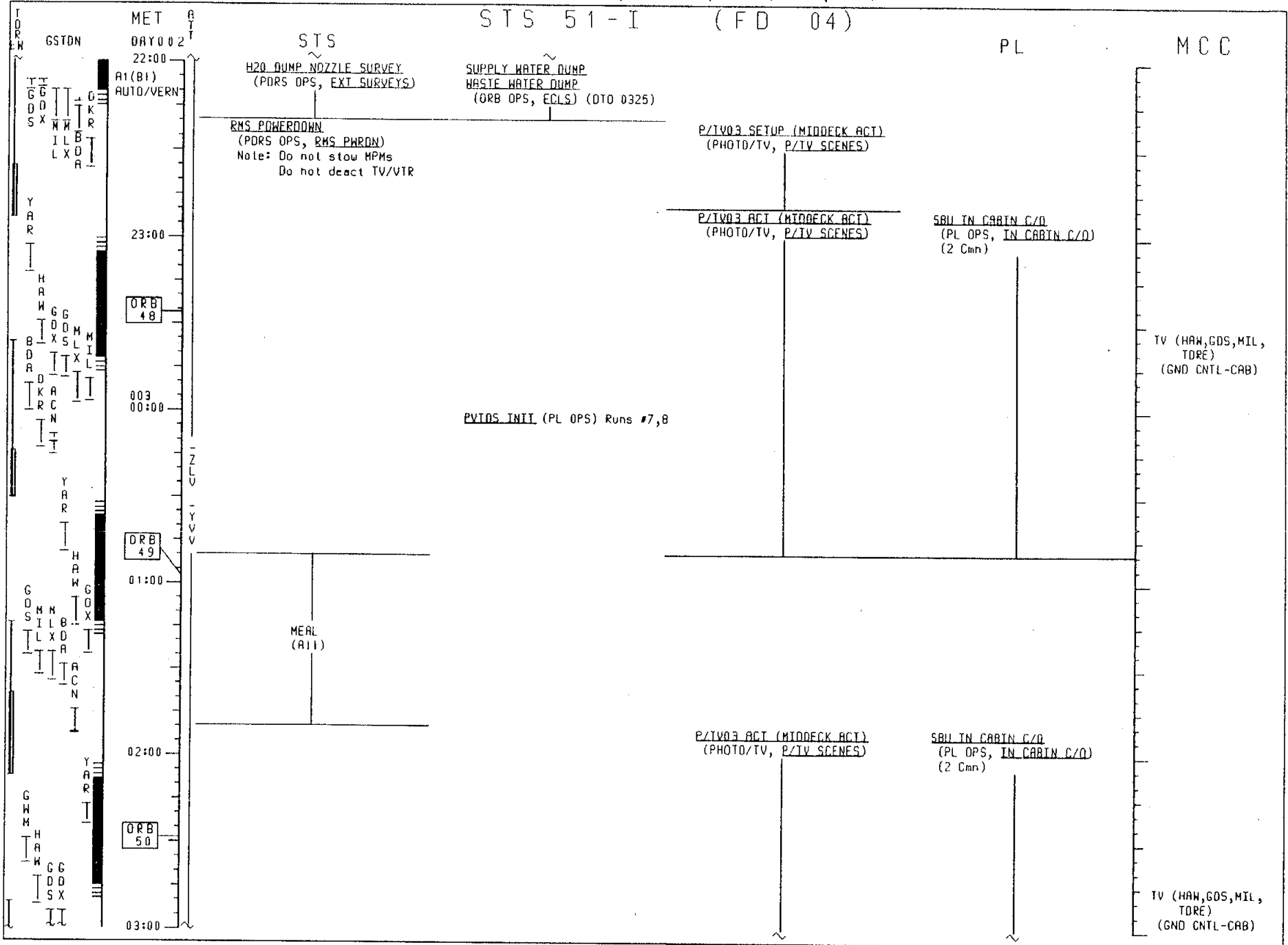
HCS FLOW CHECKS (14.7 cabin pressure)  
 (Cue Card) (OTO 327) (45 Min/2)  
 Do not perform during waste water dump

IMU ALIGN LOG  
 RECD ID:  
 -Y\_\_\_\_, -Z\_\_\_\_ ANG ERR \_\_\_\_  
 1 2 3  
 ANG:  
 ΔX ( ) . ( ) . ( ) .  
 ΔY ( ) . ( ) . ( ) .  
 ΔZ ( ) . ( ) . ( ) .  
 EXECUTION TIME:  
 \_\_ / \_\_ : \_\_ : \_\_

TV (TORE)  
 (GND CNTL-PLB)

12:38 GMT LAUNCH - RNDZ/EVA ON FD6

STS 51-I (FD 04)

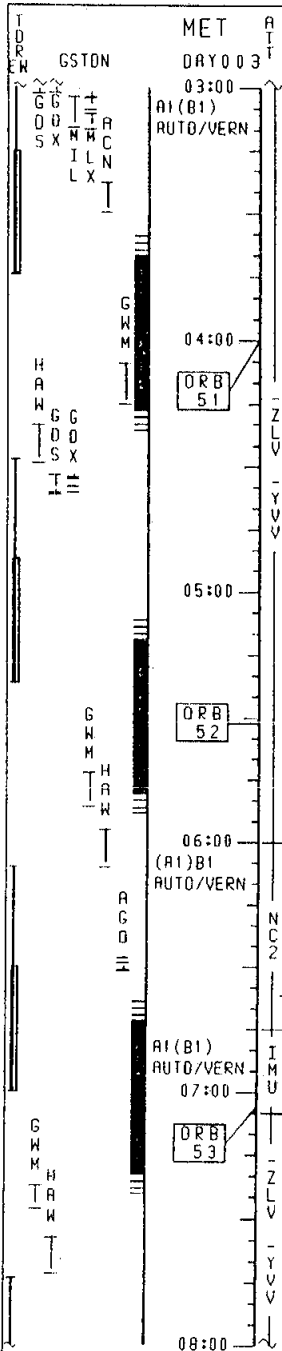


12:38 GMT LAUNCH RNDZ/EVA ON FD6

STS 51-I (FD 04)

PL

MCC



IMU ALIGN LOG  
 RECD ID:  
 -Y \_\_\_\_\_ -Z \_\_\_\_\_ ANG ERR \_\_\_\_\_  
           1          2          3  
 ANG:  
 ΔX ( ) . ( ) . ( ) .  
 ΔY ( ) . ( ) . ( ) .  
 ΔZ ( ) . ( ) . ( ) .  
 EXECUTION TIME:  
 \_ / \_ : \_ : \_

P/TV03 ACT (MTDDECK ACT)  
 (PHOTO/TV, P/TV SCENES)

SRU IN CABIN C/O  
 (PL OPS, IN CABIN C/O)  
 (2 Cmn)

TV (GOS, MIL, TDRE)  
 (GND CNTL-CAB)

PVIOS STATUS CK (PL OPS)

ON-ORBIT RCS BURN  
 (ORB OPS, RCS)  
 (2 Cmn)

◀ NC2 TIG (3/6:24)

PRE SLEEP ACTIVITY  
 (ORB OPS, CREW SYS)

Do not perform  
ECLS, SUPPLY WATER DUMP

MNVR IMU ALIGN AII  
 STAR PRIR (A1)  
 A/AUTO/VERN Init MNVR at SS  
IMU ALIGN - 5 TRK (ORB OPS)  
MNVR (TRK) -ZLV, -YVV  
 TG=2 BV=3 OM=90  
 A/AUTO/VERN Init TRK

UPDATE (GMM)  
RCS BURN PAD  
NC2

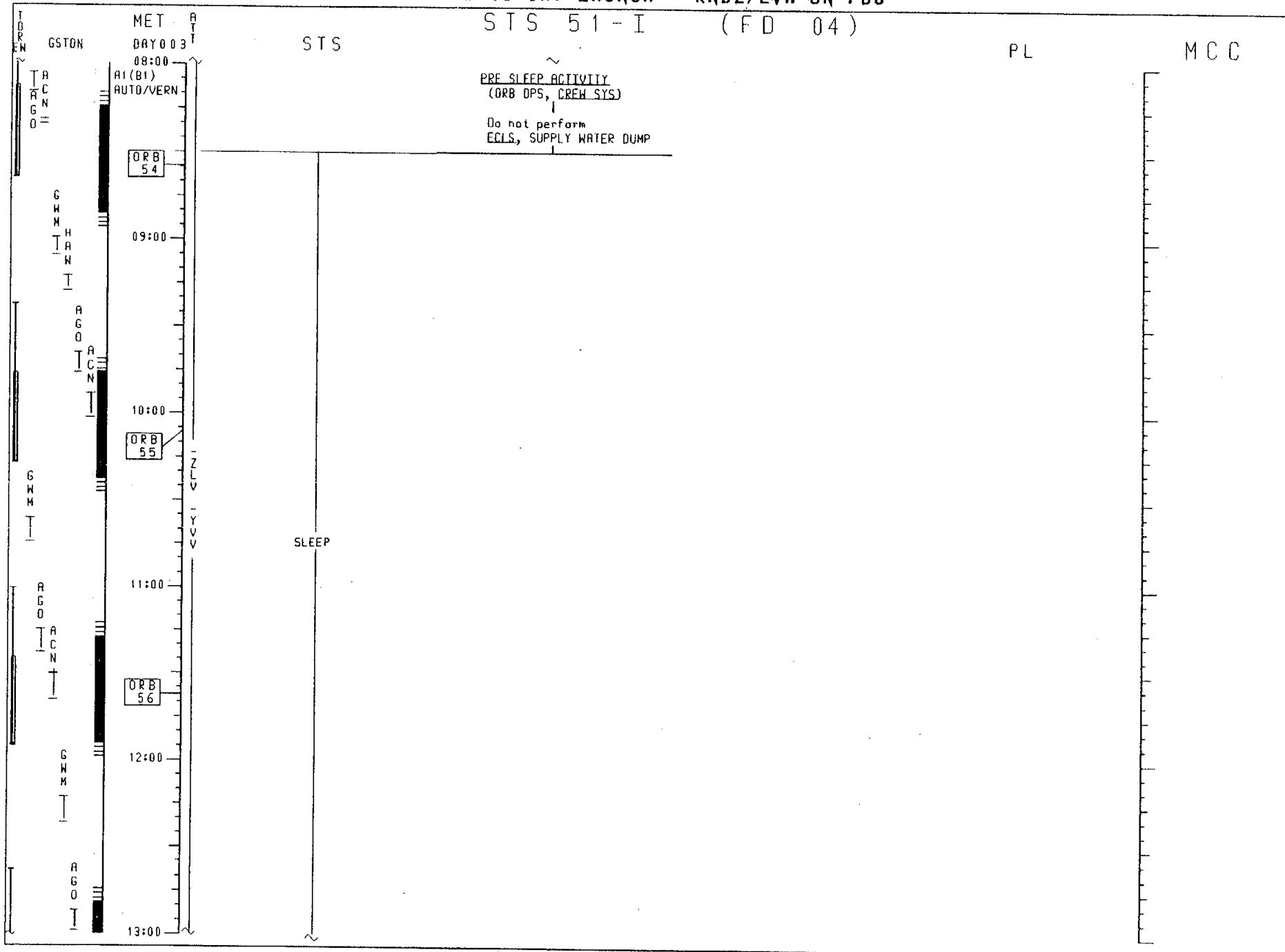
PVIOS INIL (PL OPS) Run #9

12:38 GMT LAUNCH - RNDZ/EVA ON FD6

STS 51-I (FD 04)

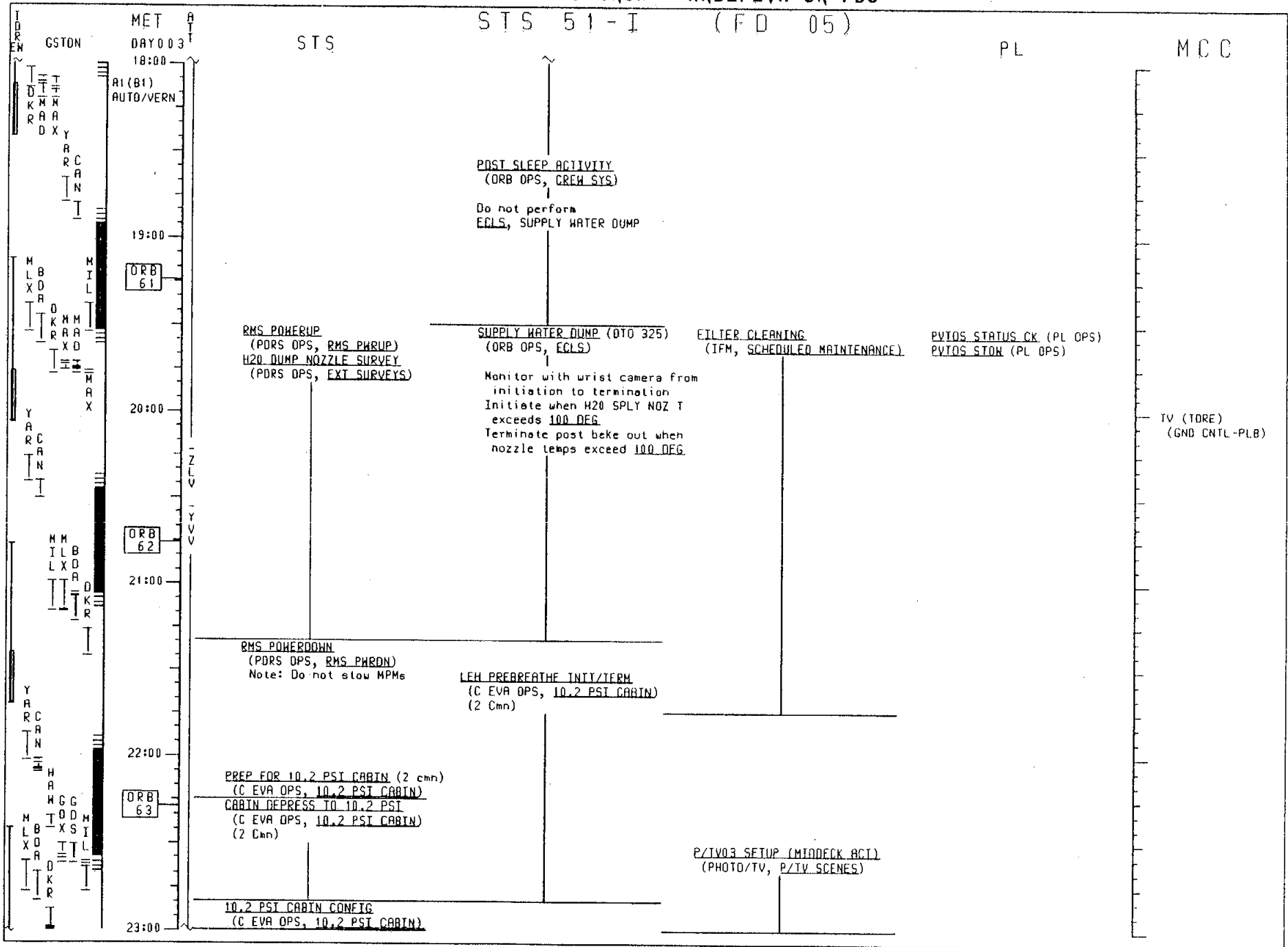
PL

MCC



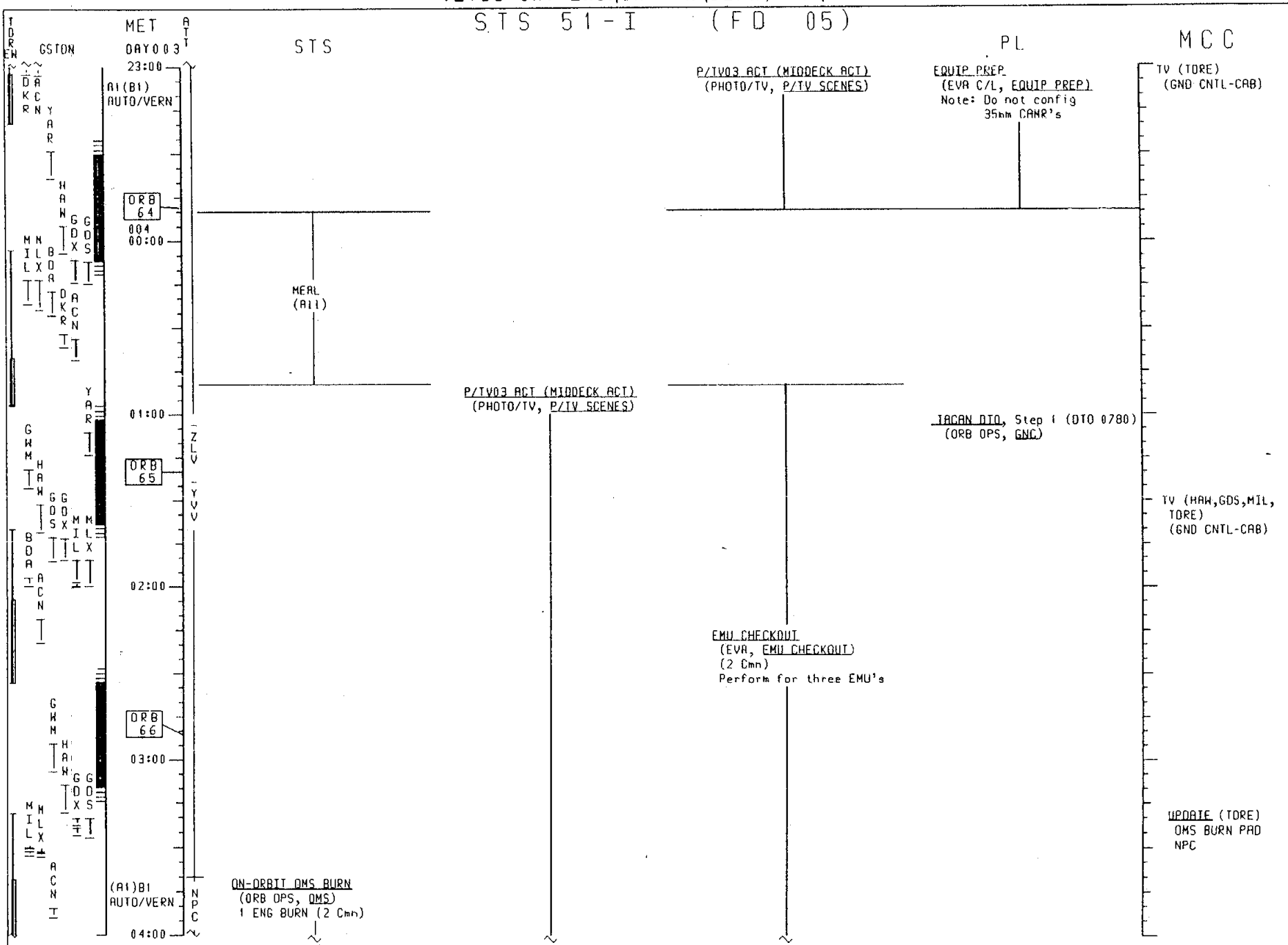


# 12:38 GMT LAUNCH - RNDZ/EVA ON FD6



12:38 GMT LAUNCH - RNDZ/EVA ON FD6

STS 51-I (FD 05)

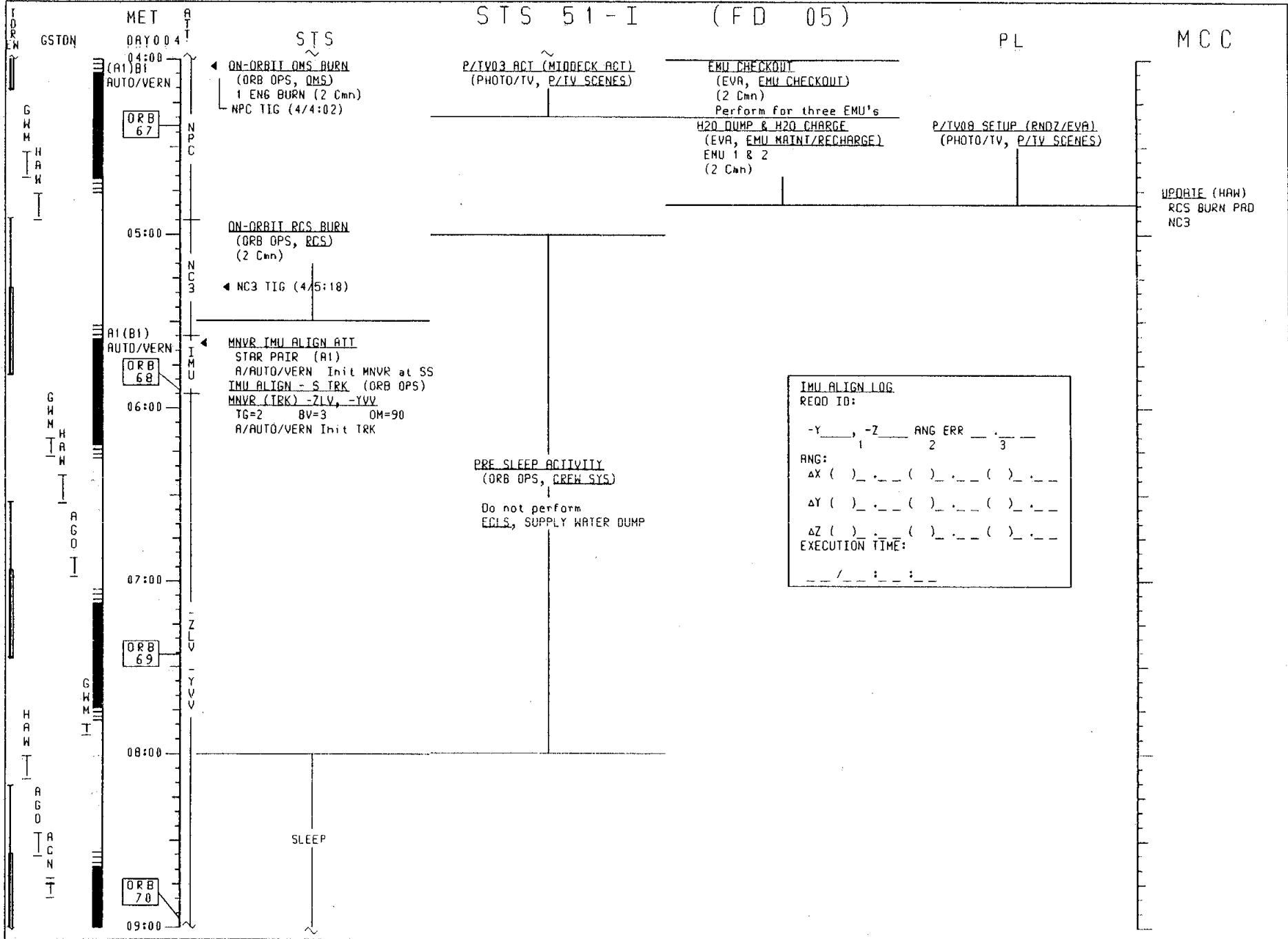


12:38 GMT LAUNCH - RNDZ/EVA ON FD6

STS 51-I (FD 05)

PL

MCC



**IMU ALIGN LOG**

REQD ID: \_\_\_\_\_

-Y \_\_\_\_\_, -Z \_\_\_\_\_ ANG ERR \_\_\_\_\_  
 1 2 3

ANG:

ΔX ( ) \_\_\_\_\_ ( ) \_\_\_\_\_ ( ) \_\_\_\_\_

ΔY ( ) \_\_\_\_\_ ( ) \_\_\_\_\_ ( ) \_\_\_\_\_

ΔZ ( ) \_\_\_\_\_ ( ) \_\_\_\_\_ ( ) \_\_\_\_\_

EXECUTION TIME: \_\_\_\_\_

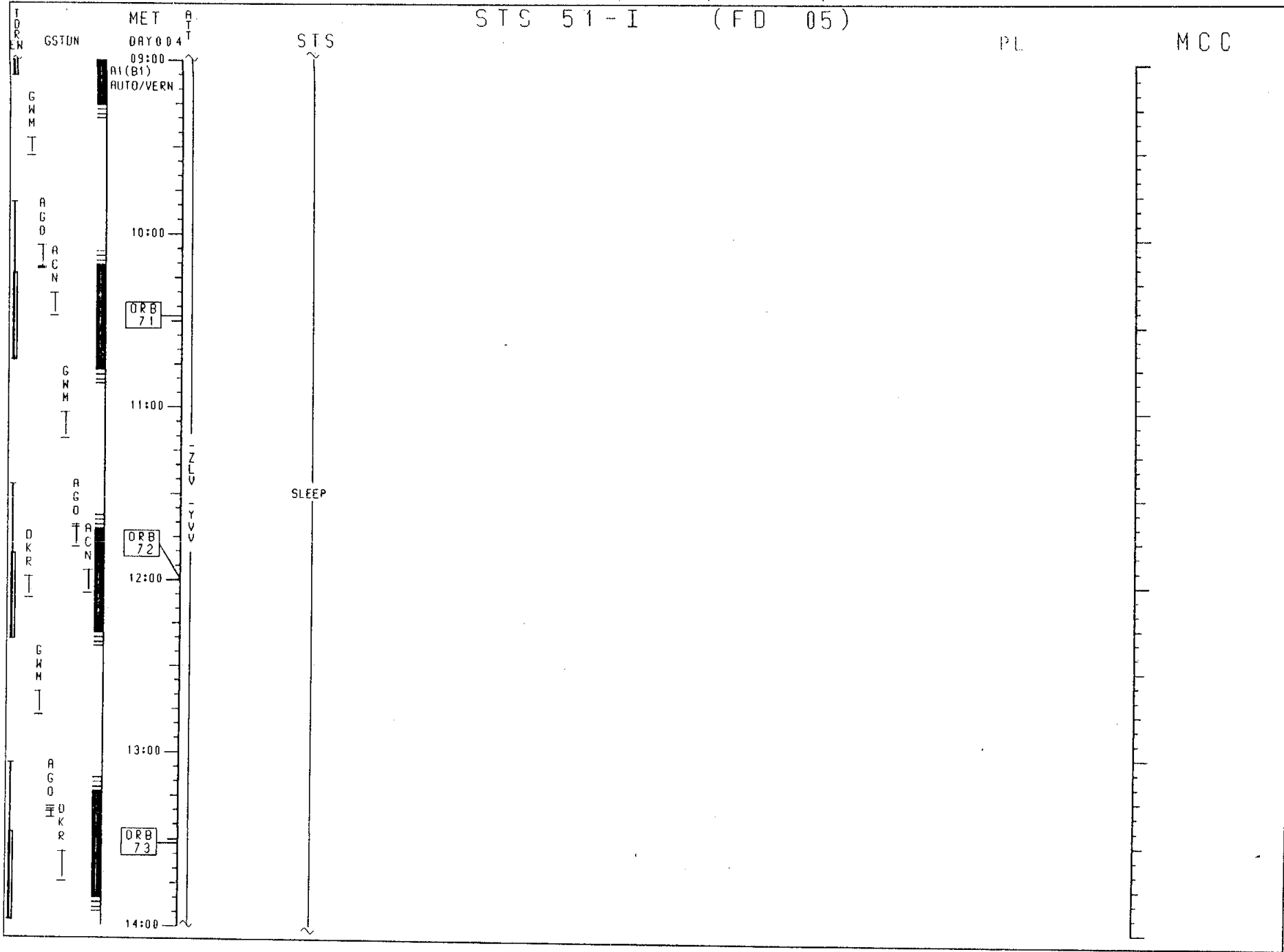


12:38 GMT LAUNCH RNDZ/EVA ON FD6

STS 51-I (FD 05)

PL

MCC

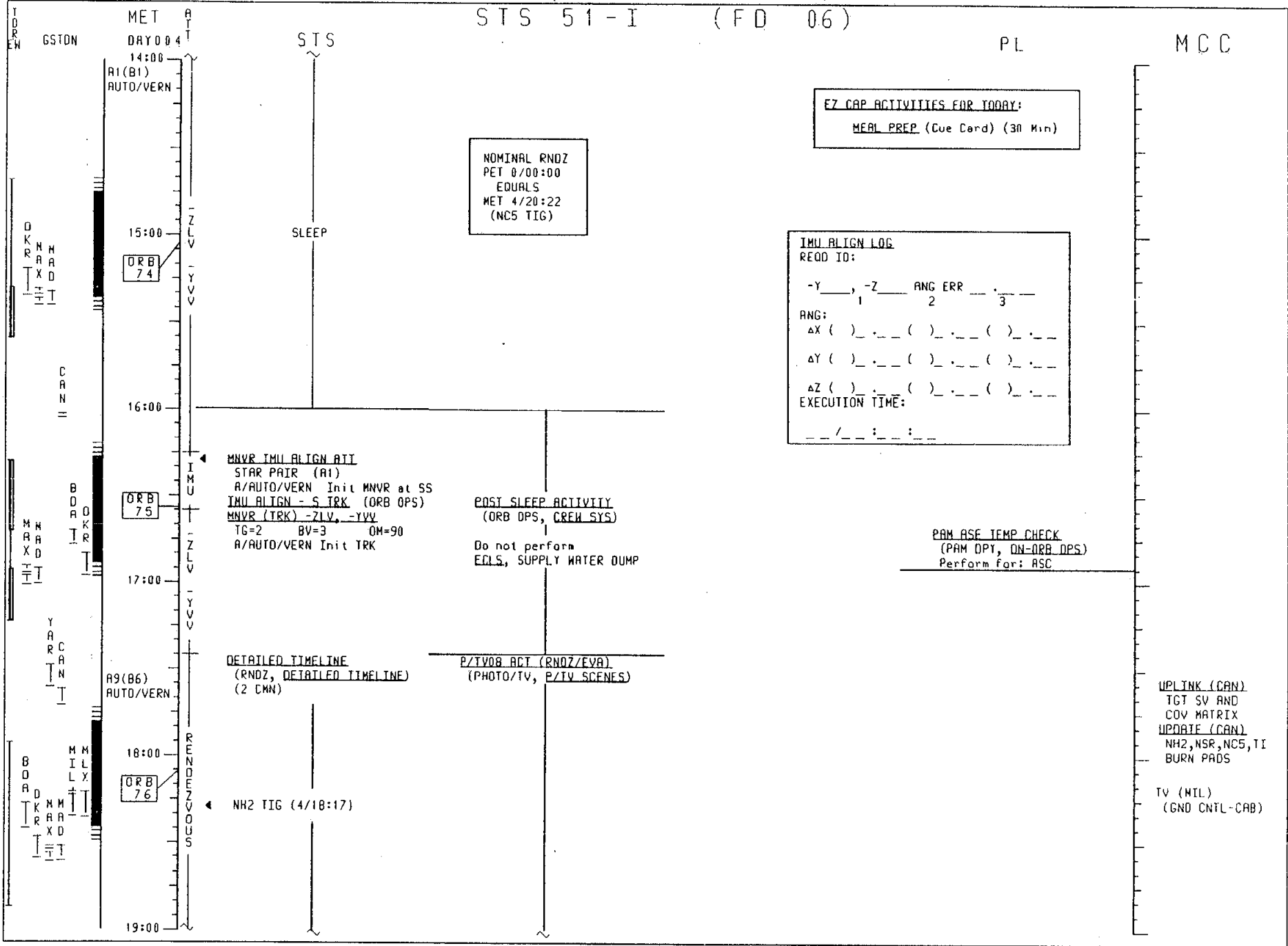


12:38 GMT LAUNCH - RNDZ/EVA ON FD6

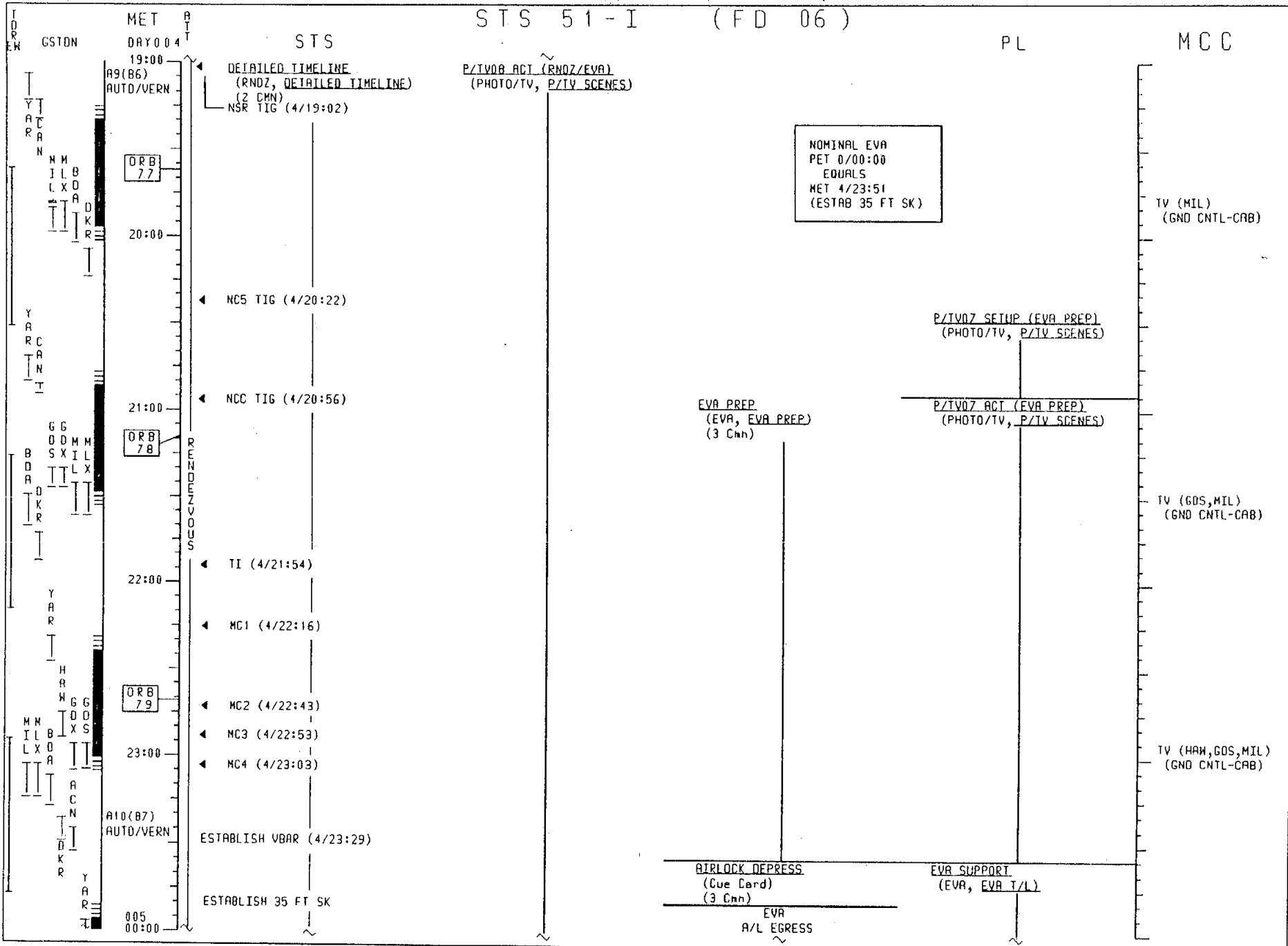
STS 51-I (FD 06)

PL

MCC

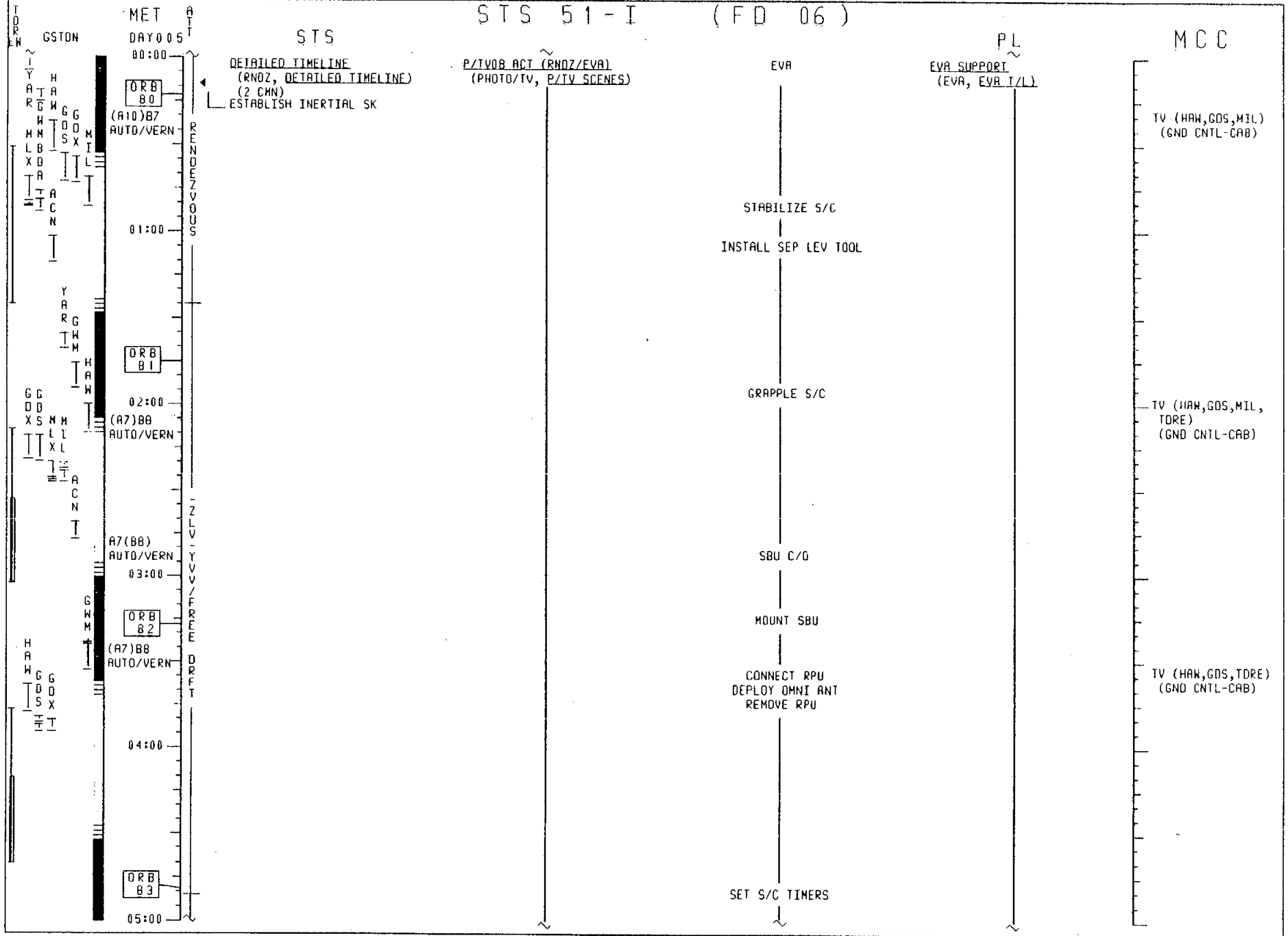


12:38 GMT LAUNCH RNDZ/EVA ON FD6



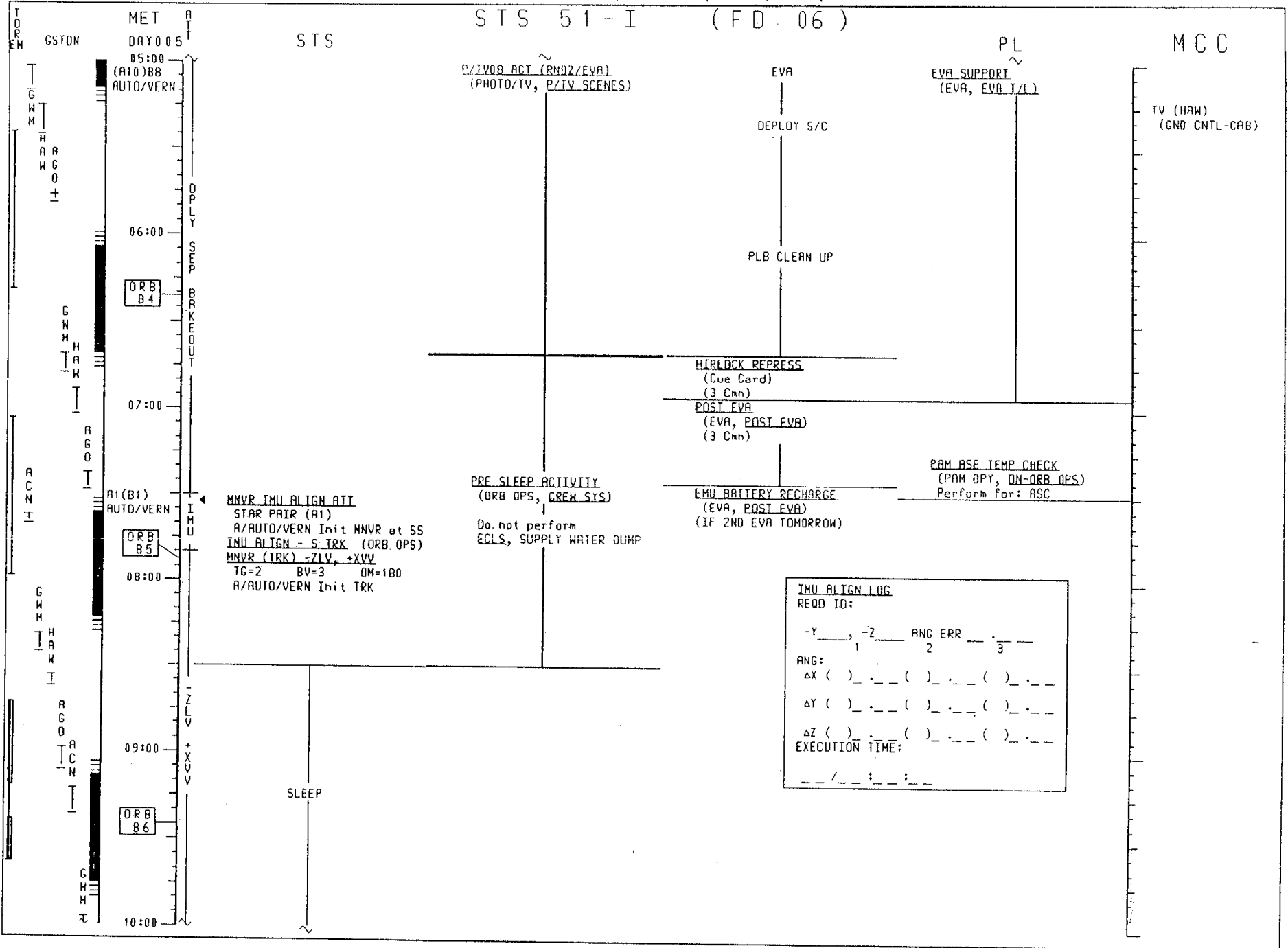
12:38 GMT LAUNCH - RNDZ/EVA ON FD6

STS 51-I (FD 06)



12:38 GMT LAUNCH RNDZ/EVA ON FD6

STS 51-I (FD 06)

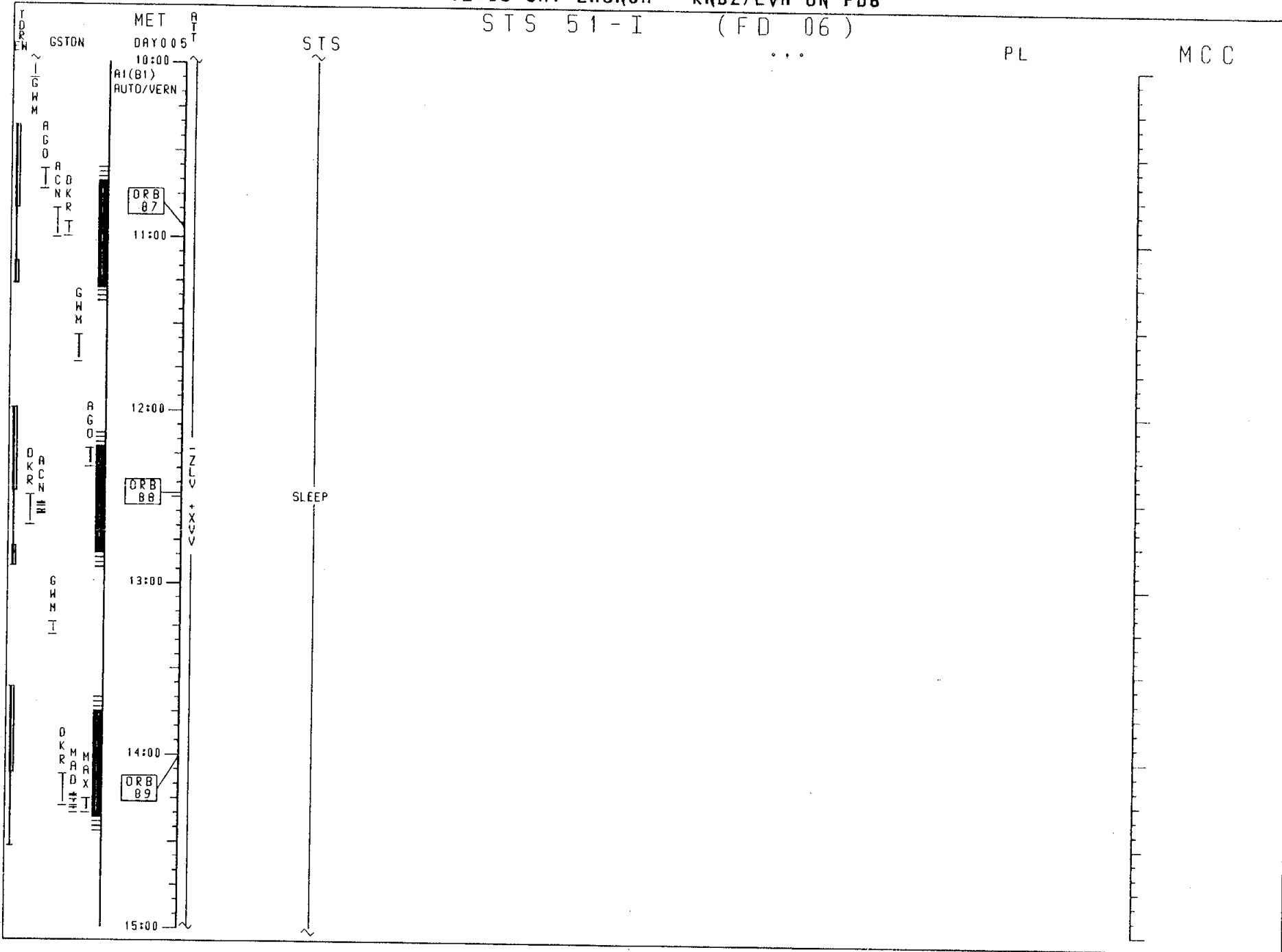


12:38 GMT LAUNCH - RNDZ/EVA ON FD6

STS 51-I (FD 06)

PL

MCC

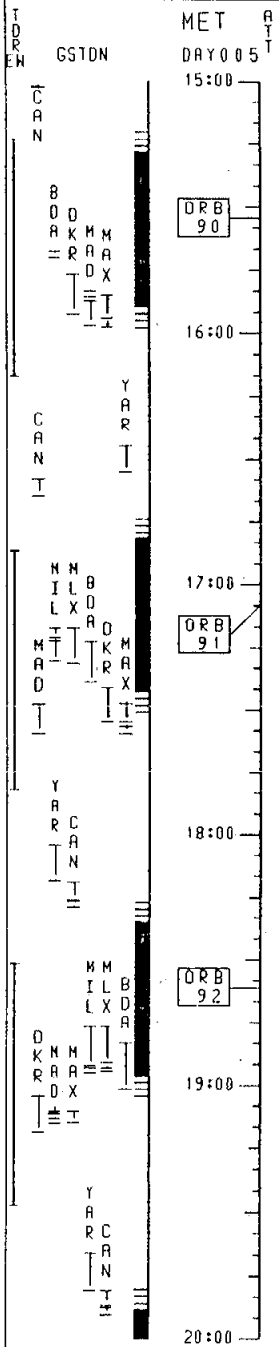


12:38 GMT LAUNCH - RNDZ/EVA ON FD6

STS 51-I (FD 07)

PL

MCC

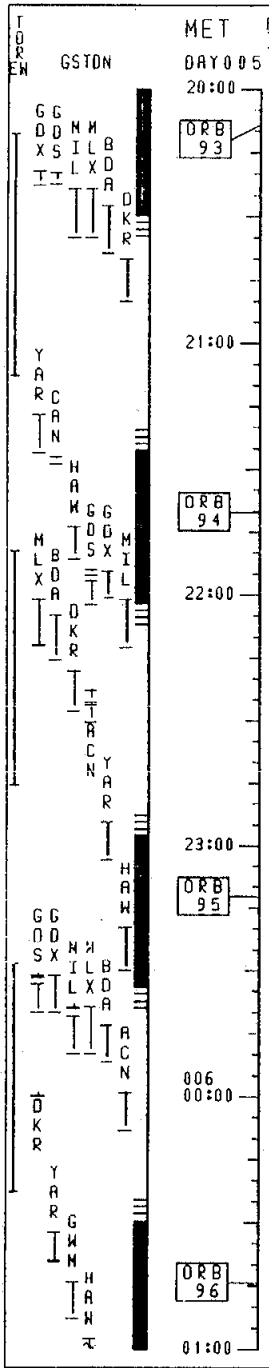


12:38 GMT LAUNCH - RNDZ/EVA ON FD6

STS 51-I (FD 07)

PL

MCC



STS



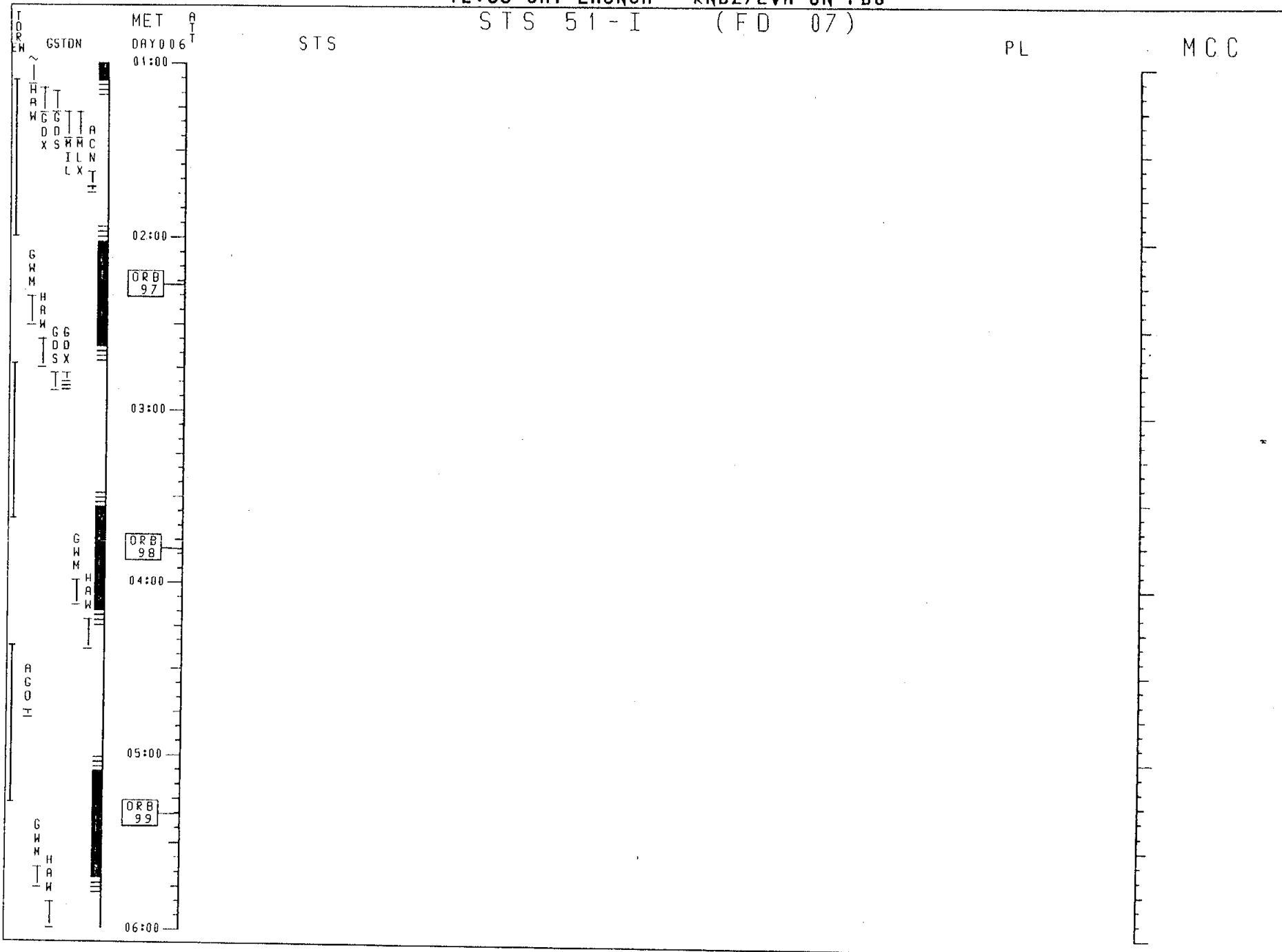
12:38 GMT LAUNCH - RNDZ/EVA ON FD6

STS 51-I (FD 07)

STS

PL

MCC



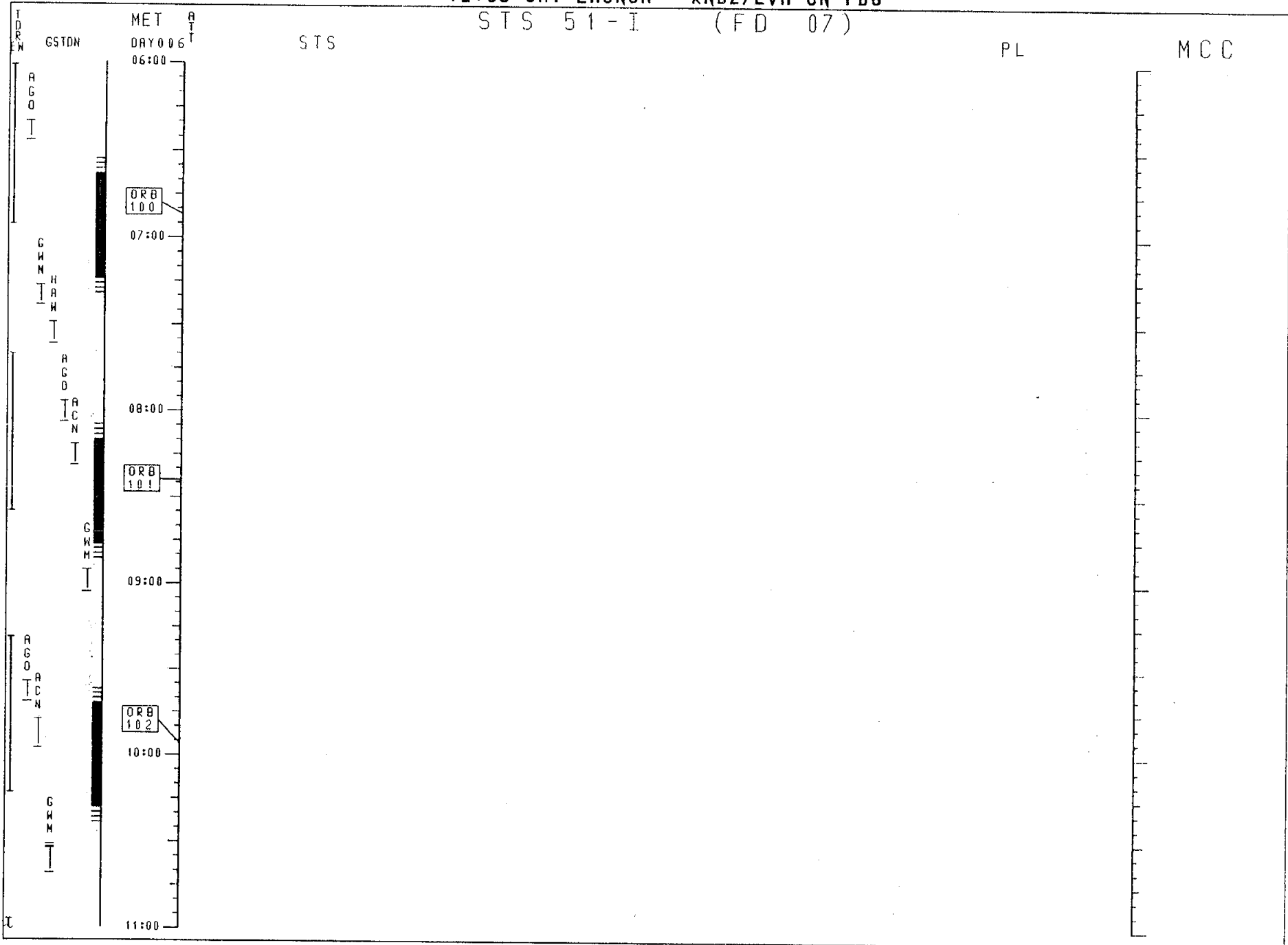
12:38 GMT LAUNCH - RNDZ/EVA ON FD6

STS 51-I (FD 07)

STS

PL

MCC



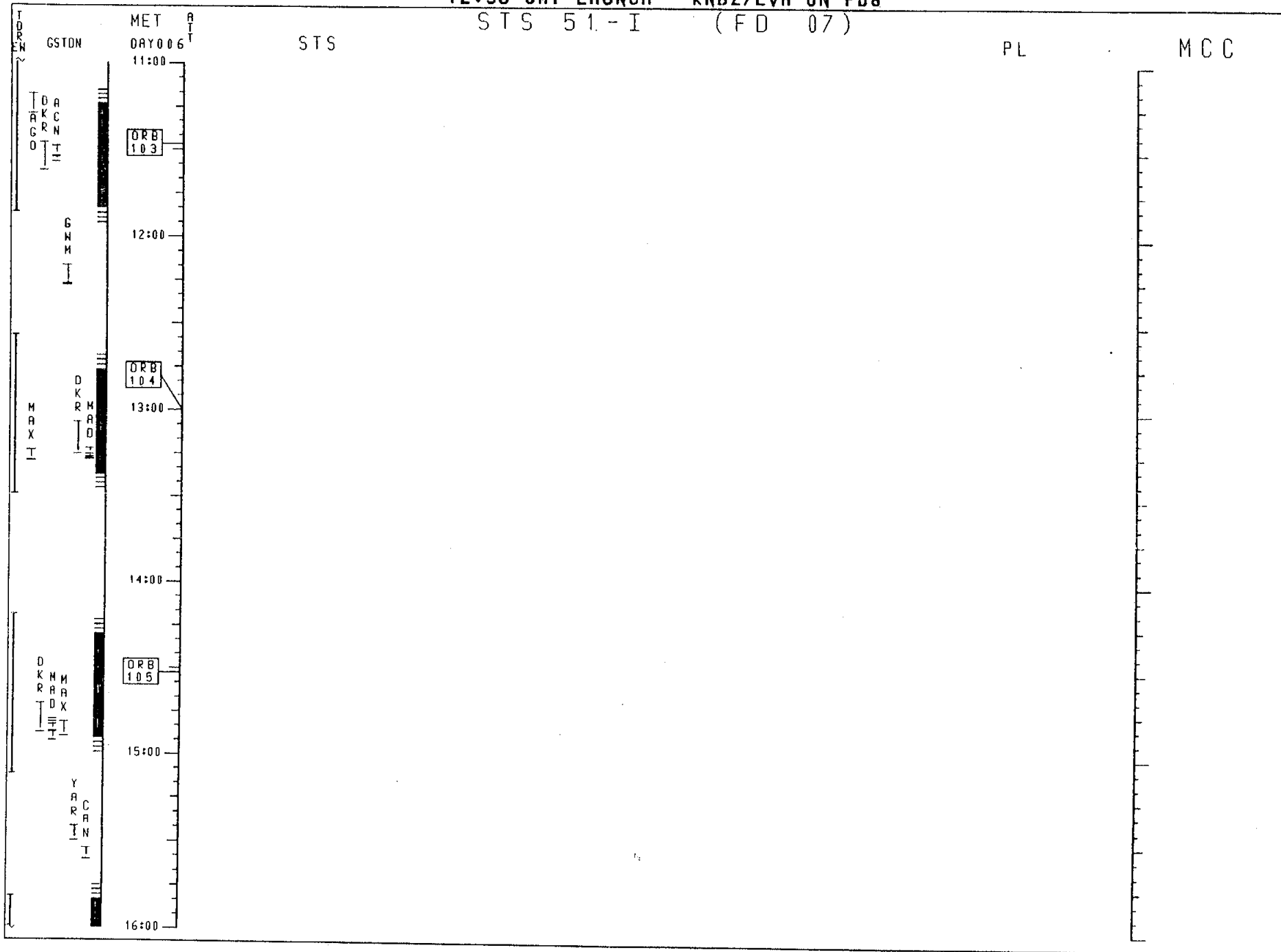
12:38 GMT LAUNCH - RNDZ/EVA ON FD6

STS 51-I (FD 07)

STS

PL

MCC



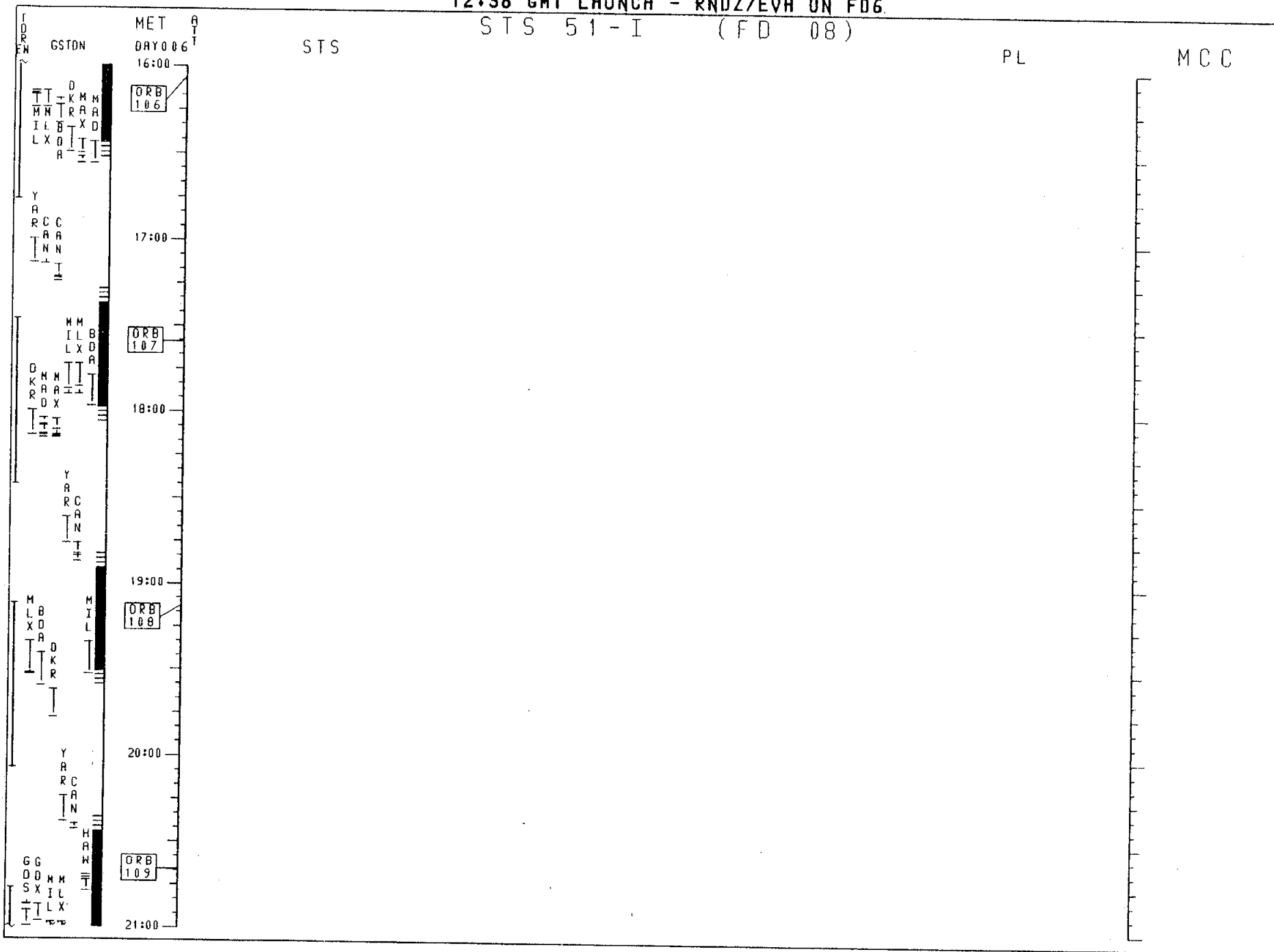
12:38 GMT LAUNCH - RNDZ/EVA ON FD6

STS 51-I (FD 08)

STS

PL

MCC



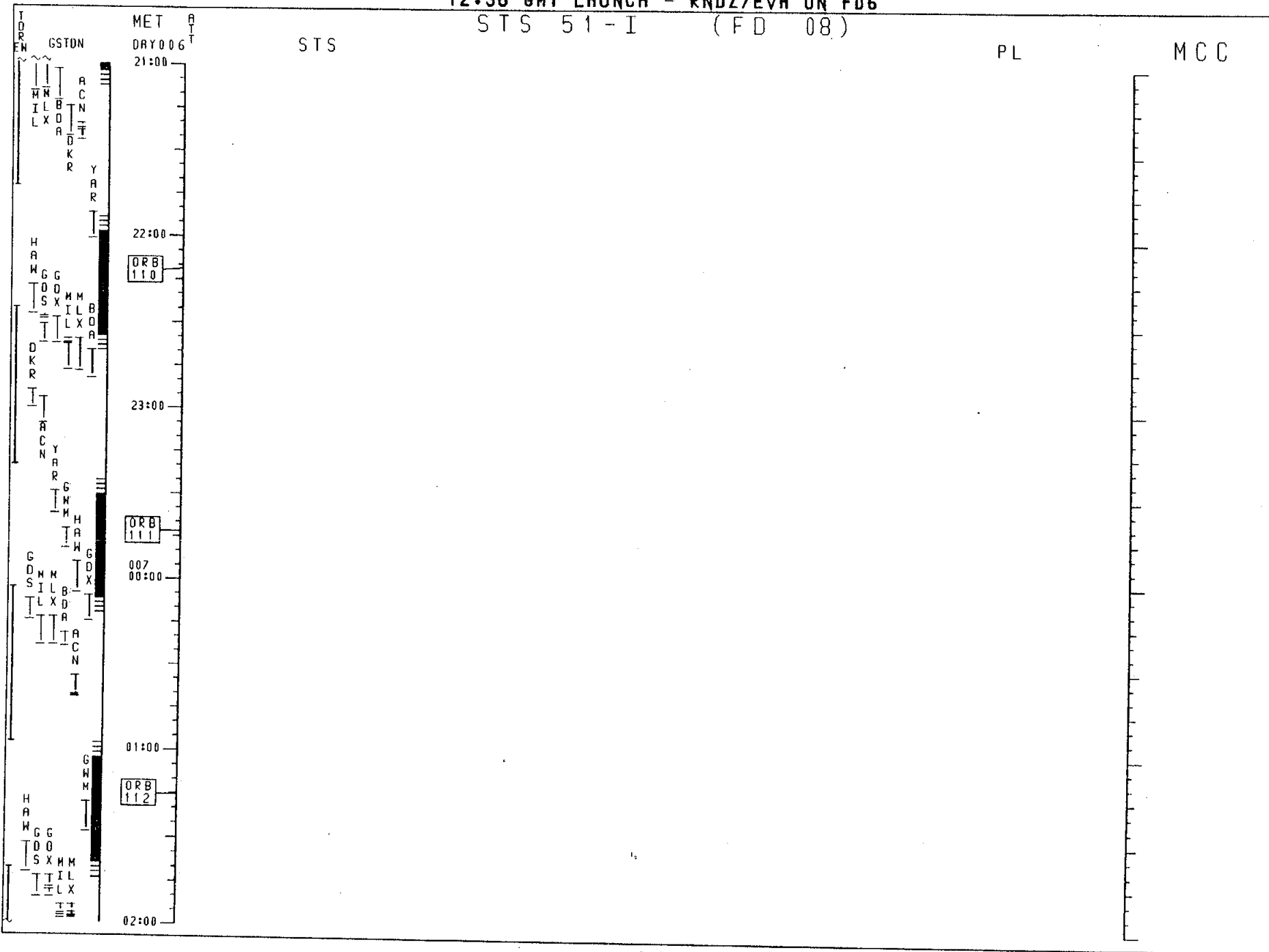
12:38 GMT LAUNCH - RNDZ/EVA ON FD6

STS 51-I (FD 08)

STS

PL

MCC



12:38 GMT LAUNCH - RNDZ/EVA ON FD6

STS 51-I (FD 08)

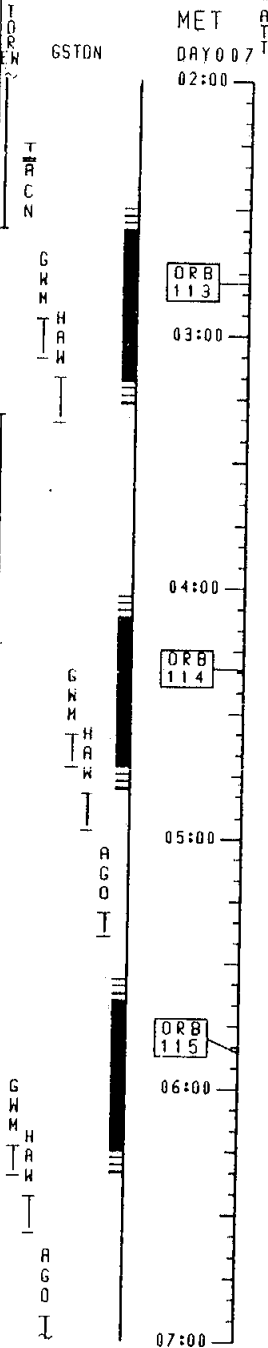
STS

PL

MCC

MET AT  
DAY 007  
02:00

GSTON



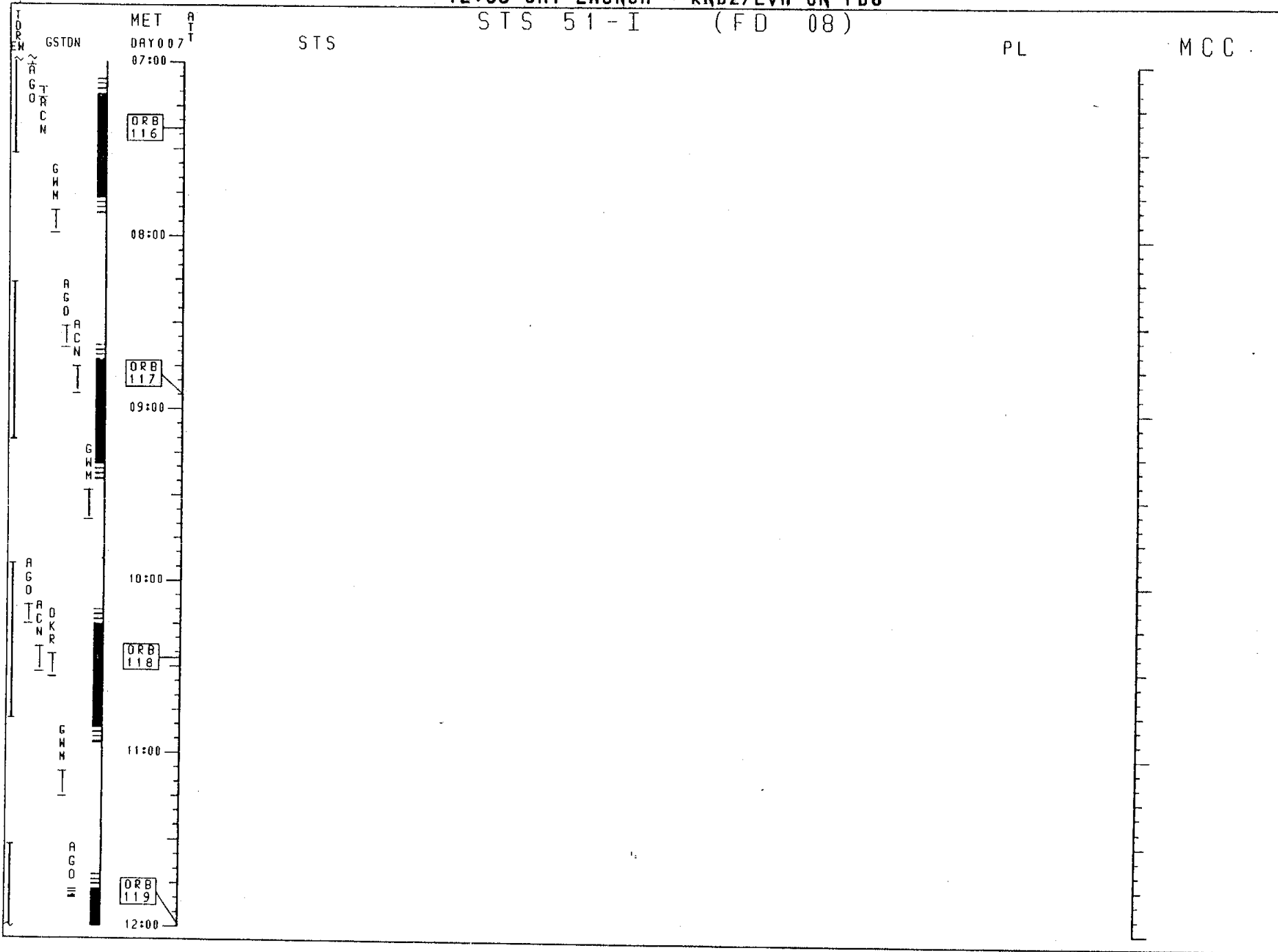
12:38 GMT LAUNCH RNDZ/EVA ON FD6

STS 51-I (FD 08)

STS

PL

MCC

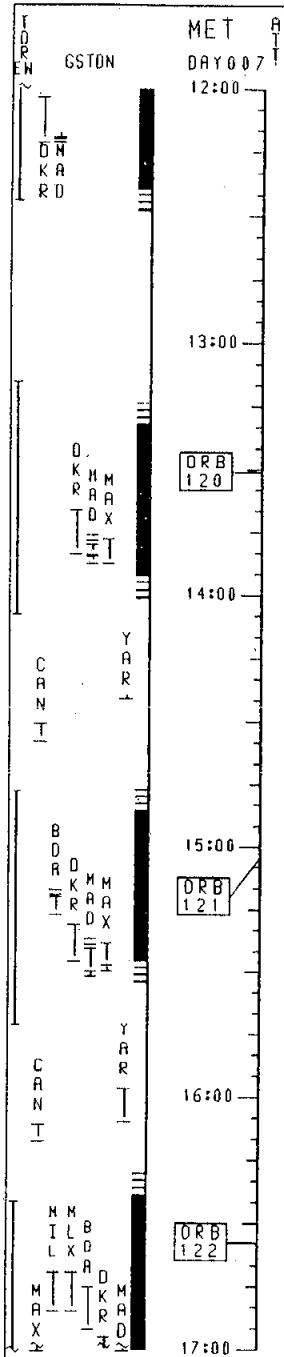


12:38 GMT LAUNCH - RNDZ/EVA ON FD6

STS 51-I (FD 08)

PL

MCC



STS



12:38 GMT LAUNCH - RNDZ/EVA ON FD6

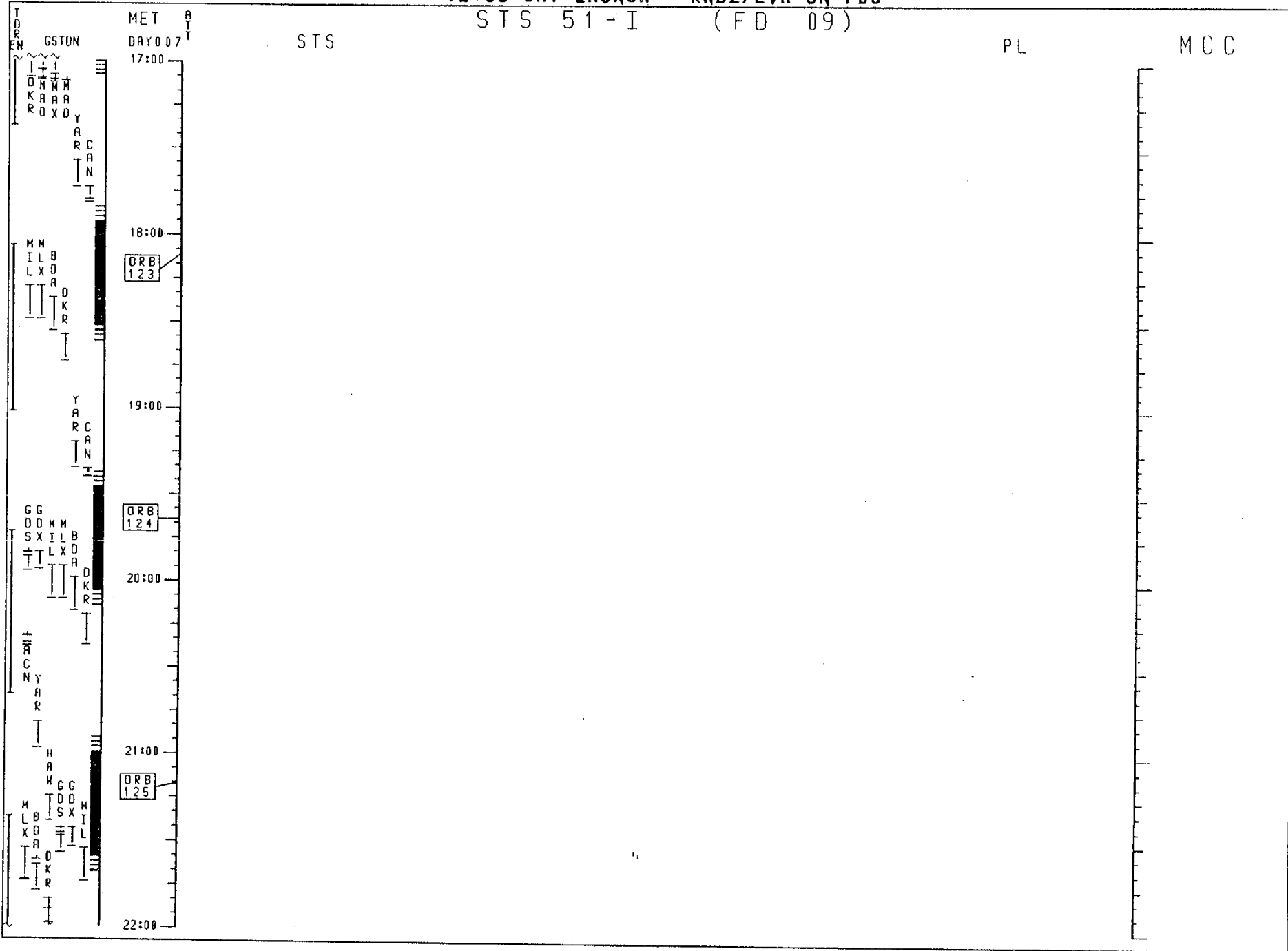
STS 51-I (FD 09)

MET AT  
DAY 007

STS

PL

MCC



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