

Flight Data File Crew Activity Plan STS 61-B (Cycle 3 Trajectory)

Mission Operations Directorate
Operations Division

Final, Revision A
November 15, 1985

<u>EVENT</u>	<u>CST</u>		
Night Launch	18:29	Tue	Nov 26
MORELOS Deploy	01:47	Wed	Nov 27
AUSSAT Deploy	19:20	Wed	Nov 27
SATCOM Deploy	15:57	Thu	Nov 28
EVA 1	16:14	Fri	Nov 29
EVA 2	14:59	Sun	Dec 1
Crew Conference	16:25	Mon	Dec 2
EDW Landing	17:23	Tue	Dec 3



National Aeronautics and
Space Administration

Lyndon B. Johnson Space Center
Houston, Texas

MISSION OPERATIONS DIRECTORATE

STS 61-B CREW ACTIVITY PLAN

FINAL, REVISION A
November 15, 1985

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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, 713-483-2686.

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

Incorporates 482

No: CAP-441

CAP-439B

CAP-442

CAP-443

ACKNOWLEDGMENTS

The following individuals contributed significantly to preparing the STS 61-B Crew Activity Plan:

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STS 61-B CREW ACTIVITY PLAN

LIST OF EFFECTIVE PAGES

FINAL 10/16/85

REV A 11/15/85

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3-10.....	CAP/61-B/FIN A		
3-11.....	CAP/61-B/FIN A		
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STS 61-B CAP CUE CARDS

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A8.....	5-9	CAP/61-B/O/BAS
DAP A9.....	5-9	CAP/61-B/O/BAS
A9.....	5-9	CAP/61-B/O/BAS
DAP A10.....	5-10	CAP/61-B/O/BAS
A10.....	5-10	CAP/61-B/O/BAS
(Blank).....	5-10	CAP/61-B/O/BAS
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B6.....	5-14	CAP/61-B/O/BAS
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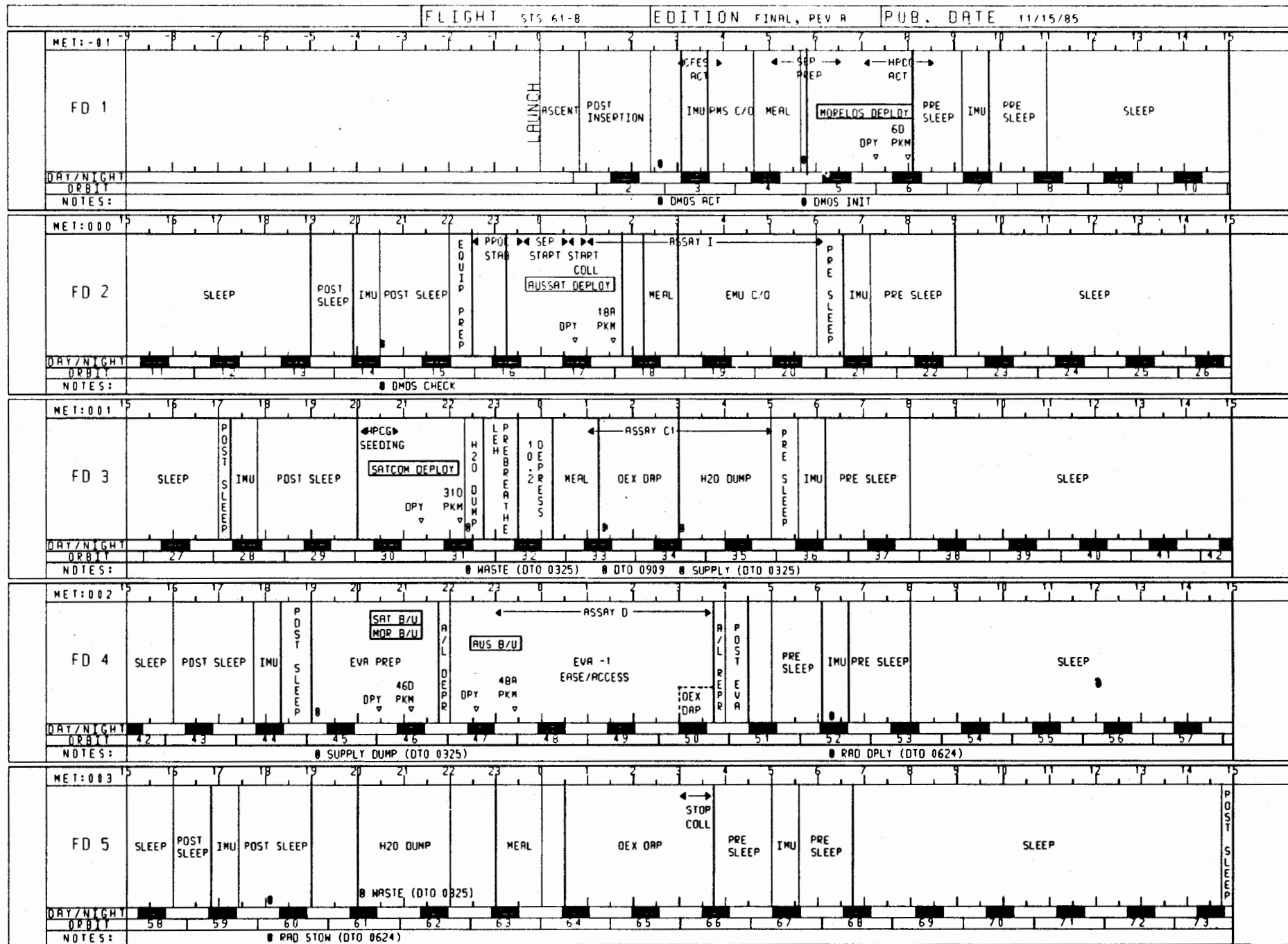
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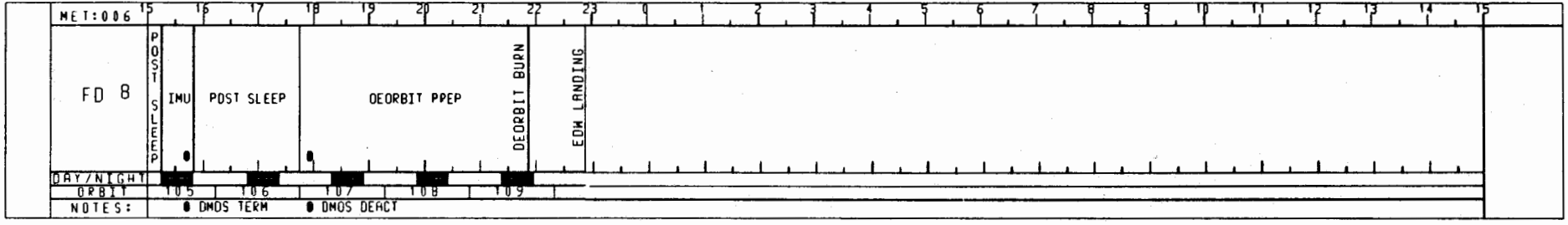
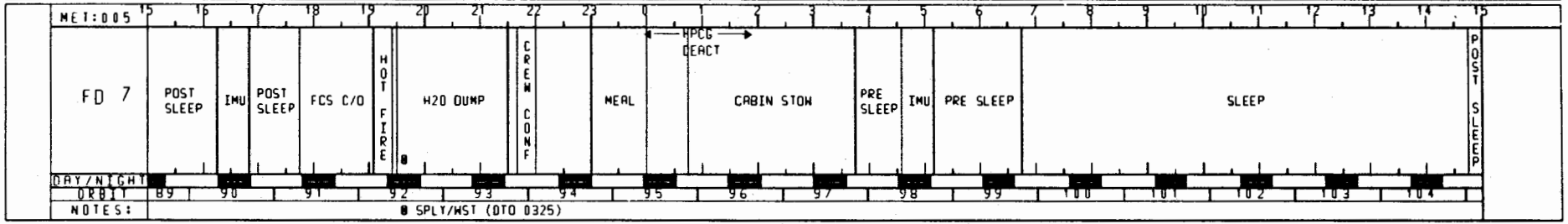
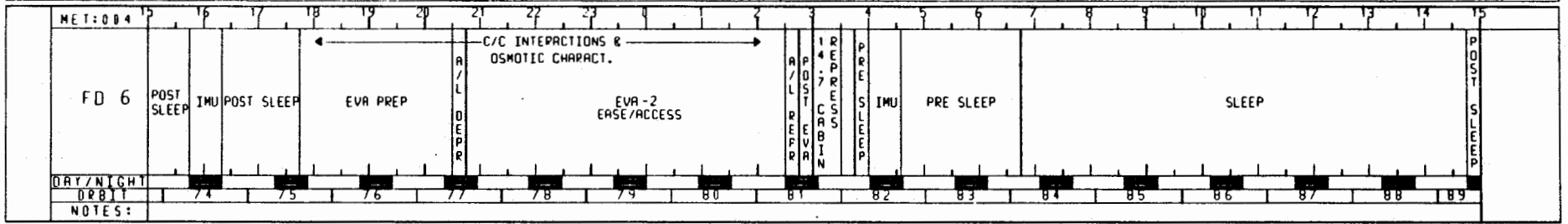
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OVERVIEW

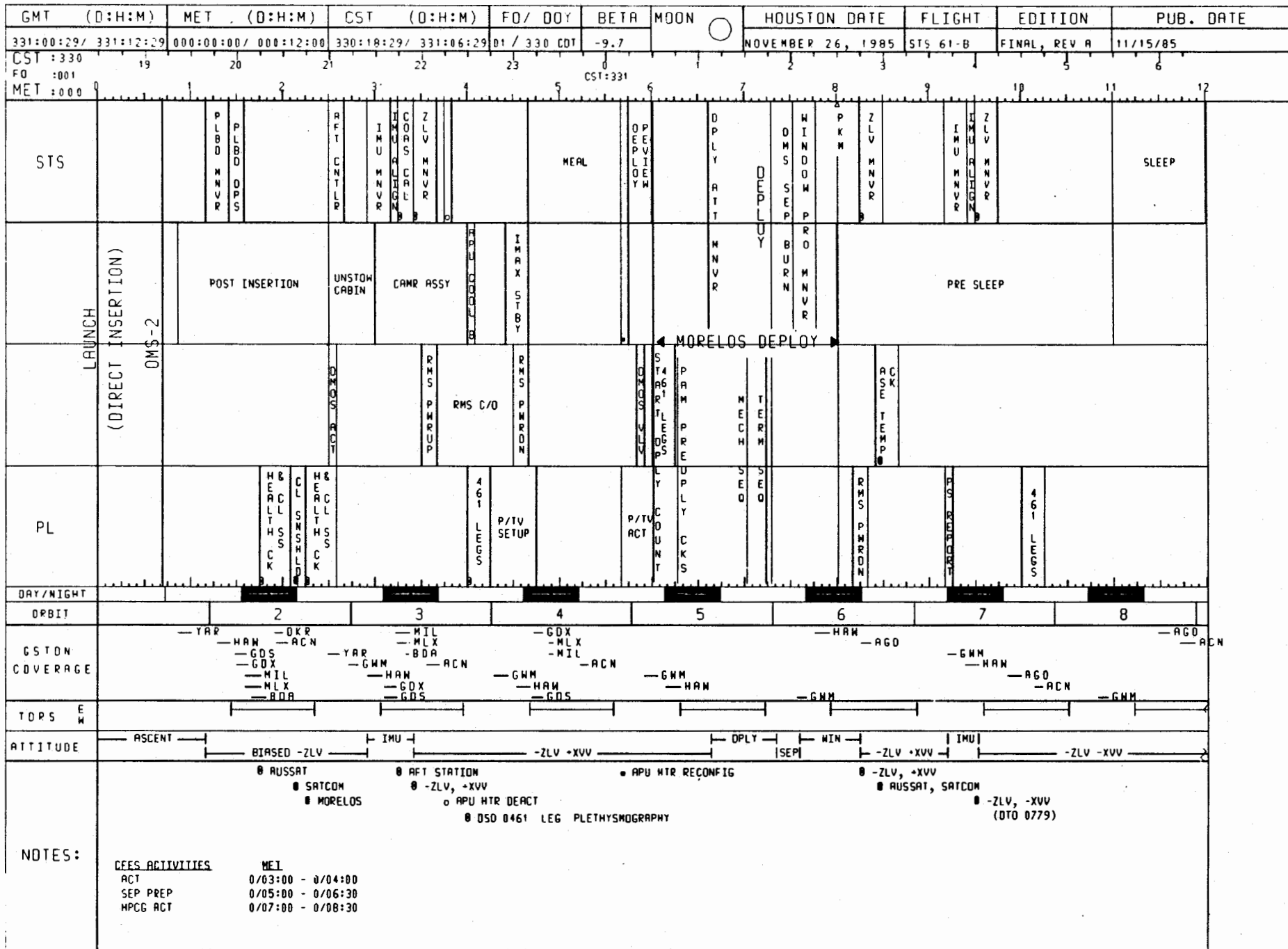




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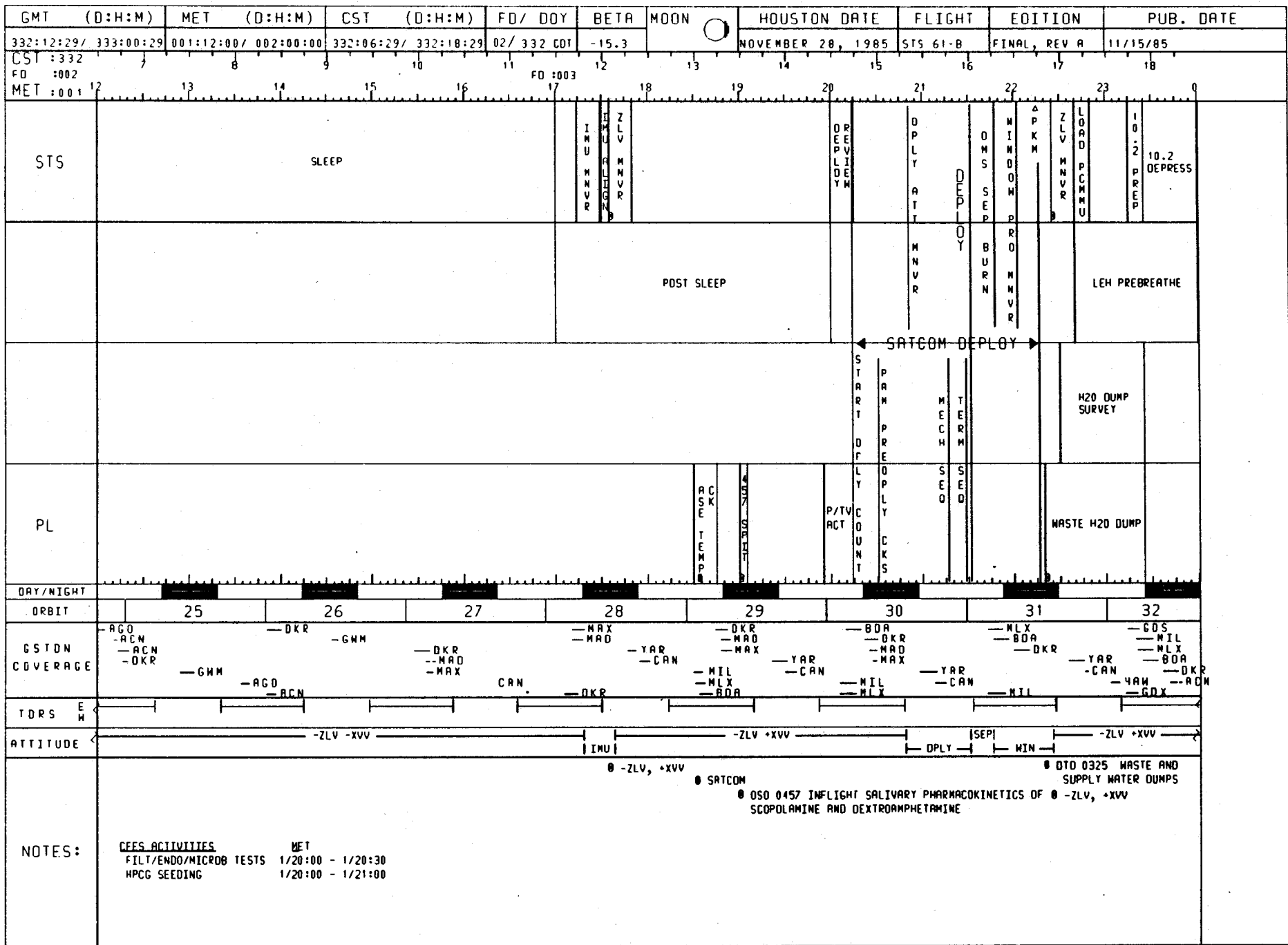
SUMMARY TIMELINE

SUMMARY TIMELINE

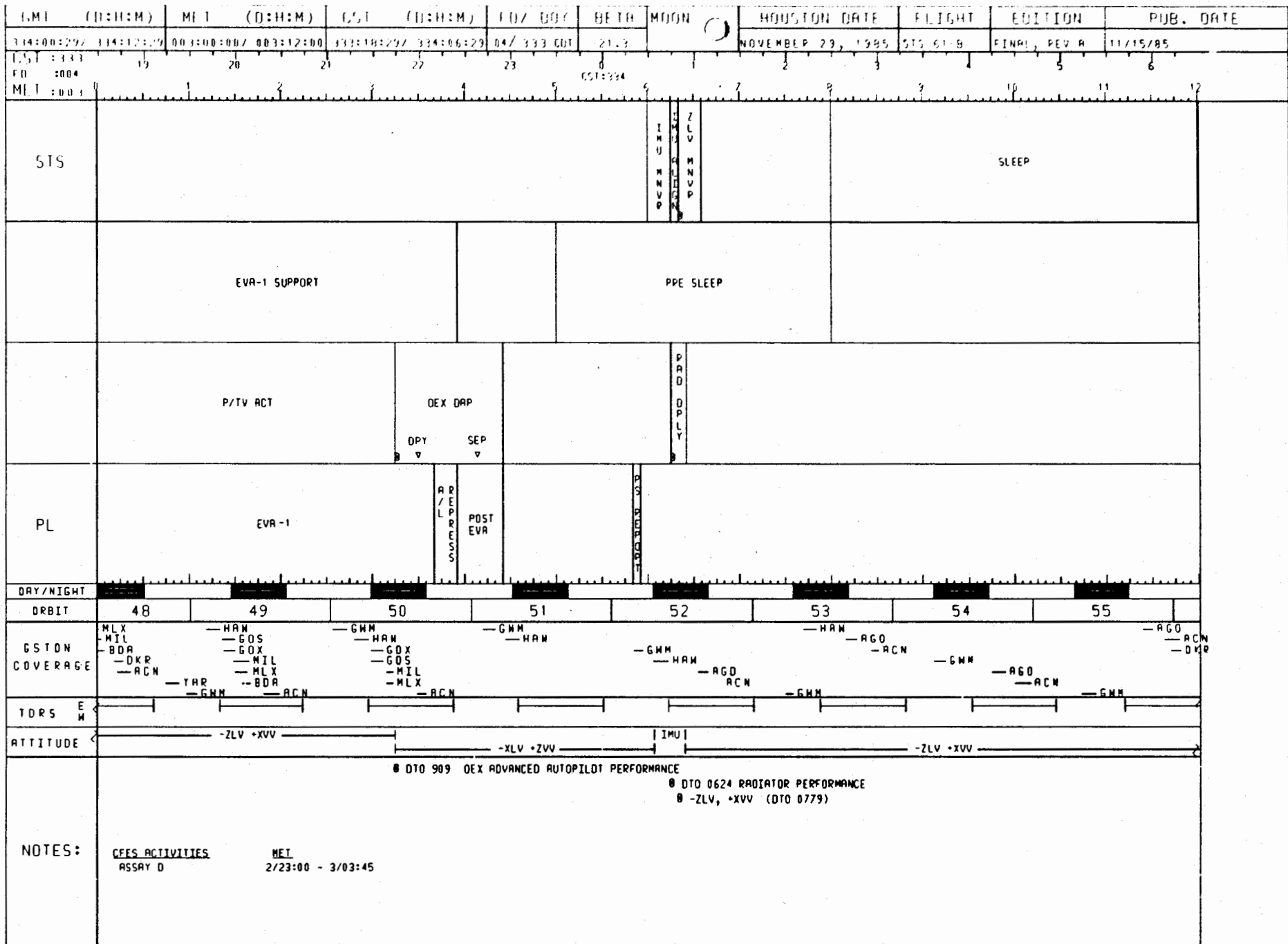


GMT (D:H:M)	MET (D:H:M)	CST (D:H:M)	FD/ DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE	
331:12:29 / 332:00:29	000:12:00 / 001:00:00	331:06:29 / 331:18:29	01 / 331 CDT	-11.4	☉	NOVEMBER 27, 1985	STS 61-B	FINAL, REV A	11/15/85	
CST : 331										
FD : 001						FD : 002				
MET : 000										
STS	SLEEP						IMU MNV R	ZLV MNV R	DEE V L O E Y	
							POST SLEEP			
									←AUS DPT	
								EQUIP PREP	START PREP	
PL								P/TV SETUP	ACT COUNT	
DAY/NIGHT	[Day/Night Cycle]									
ORBIT	9	10	11	12	13	14	15	16		
GSTDN COVERAGE	--GMM	--AGD --ACN --DKR	--GMM	--DKR --MAD --MAX	--CAN	--MAX --YAR --CAN	--DKR --MAD --MAX	--BDA --DKR	--YAR --CAN	--MLX --BDA --DKR
TORS		--AGD --DKR								
ATTITUDE	-ZLV -XVV					IMU		-ZLV -XVV		
NOTES:	<p>• DSO 0457 INFLIGHT SALIVARY PHARMACOKINETICS OF SCOPOLAMINE AND DEXTROANPHETAMINE</p> <p>• -ZLV, -XVV • AUSSAT</p> <p><u>CEFS ACTIVITIES</u> MET</p> <p>FILT/ENDO/MICROB TESTS 0/22:00 - 0/22:30</p> <p>PROC STAB 0/22:30 - 0/23:30</p> <p>SEP START 0/23:30 - 1/00:30</p>									

GMT (D:H:M)	MET (D:H:M)	CST (D:H:M)	FD/DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE															
332:00:29 / 332:12:29	001:00:00 / 001:12:00	331:18:29 / 332:06:29	02 / 331 CDT	-13.4	○	NOVEMBER 27, 1985	STS 61-B	FINAL, REV A	11/15/85															
CST :331	19	20	21	22	23	24	25	26	27															
FD :002	CST:332																							
MET :001	0	1	2	3	4	5	6	7	8	9	10	11	12											
STS	DPLY ATT	DEPLOY	WIND SEP	PKM	ZLV MNVVR	MEAL		IMU MNVVR	ZLV MNVVR		SLEEP													
	MNVVR	BURN	BURN					PRE SLEEP																
	RUSSAT DEPLOY																							
	MECH	TEMP		ACSK	TEMP	EMU C/O																		
PL	SEED	SEED		RMS	PWRDN			P/TV SETUP																
DAY/NIGHT	[Day/Night Cycle Indicators]																							
ORBIT	17			18			19			20			21			22			23			24		
GSTDN COVERAGE	-HAN -ACN -YAR -MLX -GDS -GDX -ACN -GMM -HAN -AGO -ACN -GMM -HAN -HAN -AGO -ACN -GMM -HAN -HAN -AGO -ACN -GMM																							
TDRS	[TDRS Coverage Indicators]																							
ATTITUDE	[Attitude Indicators: OPLY, ISEPI, WIN, -ZLV +XVV, IMU, -ZLV -XVV]																							
NOTES:	<p>⊙ OSO 0457 INFLIGHT SALIVARY PHARMACOKINETICS OF SCOPOLAMINE AND DEXTROAMPHETAMINE</p> <p>⊙ SATCOM</p> <p>⊙ -ZLV, +XVV</p> <p>⊙ -ZLV, -XVV</p> <p>CFES ACTIVITIES</p> <p>SEP START 0/23:30 - 1/00:30</p> <p>START COLL 1/00:30 - 1/01:00</p> <p>ASSAY I 1/01:00 - 1/06:00</p>																							

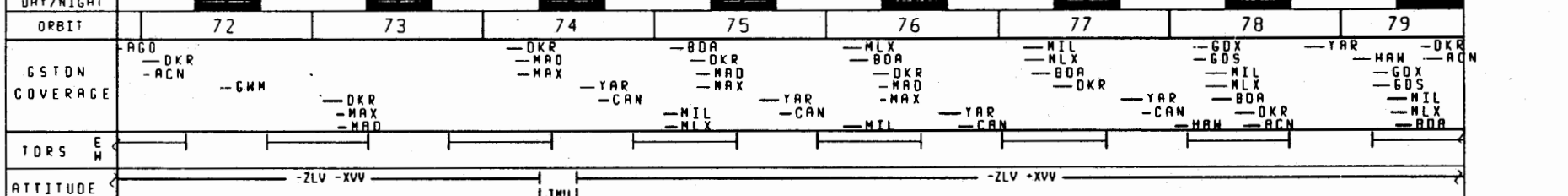
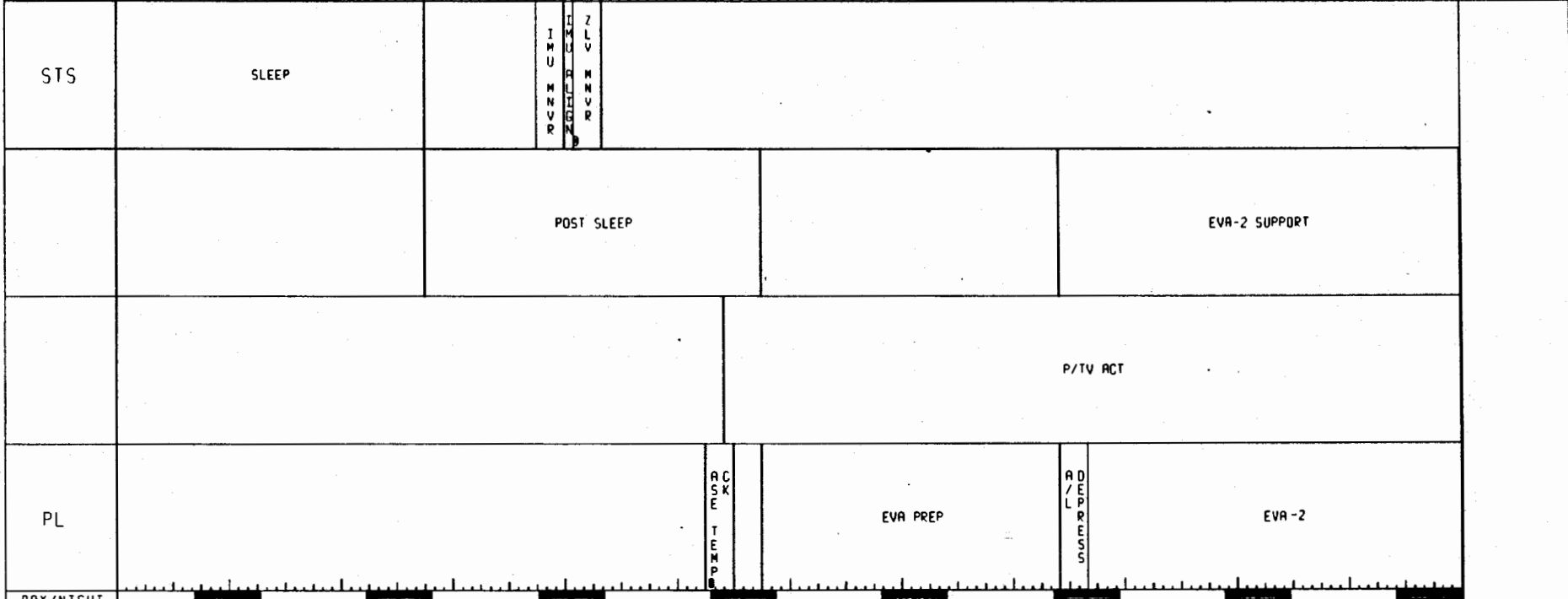


GMT (D:H:M)	MET (D:H:M)	CST (D:H:M)	FB/DOF	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE
333:00:29 / 333:12:29	002:00:00 / 002:12:00	333:18:29 / 333:06:29	03 / 332 COT	-17.3	☉	NOVEMBER 28, 1985	STS 61-B	FINAL, REV A	11/15/85
CST: 332	19	20	21	22	23	0	1	2	3
FD: 003									
MET: 002									
STS	MEAL	DEX DRP	ZLV MNV P	H2O DUMP SURVEY	PMS P M P D N	IMU M N V P	COAS S C A L	ZLV M N V P	SLEEP
PL	GRPA GAS	GRPB GAS	H2O DUMP & CHRG	VTR S E T U P	VTR P L Y B C K	VTR O B J E C T	P/TV S E T U P	W O R K O U T	W O R K O U T
DAY/NIGHT									
ORBIT	32	33	34	35	36	37	38	39	40
GSTDN COVERAGE	-YAR -HAW -GDS -GDX -MIL -MLX -RDR	-DKR -ACN -YAR -GMM	-MLX -MIL -ACN -HAW -GDS -GDX	-ACN -GMM -HAW -GDX -GDS	-GMM -HAW -AGO	-GMM -HAW -AGO	-GMM -HAW -AGO -ACN	-GMM -HAW -AGO	-ACN -GMM -AGO
TORS E M									
ATTITUDE	-ZLV +XVV	DEX DRP		-ZLV +XVV	IMU		-ZLV +XVV		
NOTES:	10.2 CONFIG	DTO 0909 DEX ADVANCED AUTOPILOT PERFORMANCE	FILTER CLEANING	DTO 0909 DEX ADVANCED AUTOPILOT PERFORMANCE	AFT STATION	DSO 0457 INFLIGHT SALIVARY PHARMACOKINETICS OF SCOPOLAMINE AND DEXTROAMPHETAMINE			
			-ZLV, +XVV		-ZLV, +XVV				
			DTO 0325 WASTE AND SUPPLY WATER DUMPS		(DTO 0779)				
	<u>CEES ACTIVITIES</u>	<u>MET</u>							
	ASSAY C1	2/01:00 - 2/05:00							



GMT (D:H:M)	MET (D:H:M)	CST (D:H:M)	FD/ DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE
334:12:29/ 335:00:29	003:12:00/ 004:00:00	334:06:29/ 334:18:29	04/ 334 CDT	-23.4		NOVEMBER 30, 1985	STS 61-B	FINAL, REV A	11/15/85
CST : 334									
FD : 004									
MET : 003									
STS	SLEEP								
PL									
DAY/NIGHT									
ORBIT	56	57	58	59	60	61	62	63	
GSTDN COVERAGE	-GWM -AGO -DKR			-BDA -DKR -MAD -MAX	-MLX -BDA -DKR -MAD -MAX	-MIL -MLX -BDA -DKR -MAD	-GDS -GDY -MIL -MLX -BDA -DKR	-HAW -ACN -YAR	
YDRS E M									
ATTITUDE									
NOTES:	<p>CEES ACTIVITIES MET FILT/ENDO/MICROB TESTS 3/19:00 - 3/19:30</p> <p>0 DSO 0458 SALIVARY ACETAMINOPHEN PHARMACOKINETICS 0 SATCOM 0 -ZLV, +XVV 0 DTD 0325 WASTE AND SUPPLY WATER DUMPS 0 DTD 0624 RADIATOR PERFORMANCE</p>								

GMT (D:H:M)	MET (D:H:M)	CST (D:H:M)	FD/ DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE										
335:00:29/ 335:12:29	004:00:00/ 004:12:00	334:18:29/ 335:06:29	05/ 334 CDT	-25.4	☉	NOVEMBER 30, 1985	STS 61-B	FINAL, REV A	11/15/85										
CST : 334	19	20	21	22	23	CST:335	0	1	2	3	4	5	6	7	8	9	10	11	12
FD : 005																			
MET : 004																			
STS	DEX DAP			ZLV MNV R	I M U M N V R	ZLV MNV R	SLEEP												
	FLTR IFM			PRE SLEEP															
PL	P/TV SETUP			P S R E P O R T															
DAY/NIGHT	[Day/Night Cycle]																		
DRBIT	64	65	66	67	68	69	70	71											
GSTON COVERAGE	-HAW -GDS -GDX -MLX -BDA	-YAR -GMM -HAW -GDX -GDS -MLX	-ACN -GMM -HAW -GDS -GDX -MLX	-GMM -HAW -GDS -GDX	-HAW -AGO -GMM -HAW -AGO -ACN	-HAW -AGO -GMM -HAW -AGO -ACN	-HAW -AGO -GMM -HAW -AGO -ACN	-GMM -HAW -AGO -ACN	-GMM -HAW -AGO -ACN	-GMM -HAW -AGO -ACN	-GMM -HAW -AGO -ACN	-GMM -HAW -AGO -ACN	-GMM -HAW -AGO -ACN	-GMM -HAW -AGO -ACN	-GMM -HAW -AGO -ACN	-GMM -HAW -AGO -ACN	-GMM -HAW -AGO -ACN	-GMM -HAW -AGO -ACN	-GMM -HAW -AGO -ACN
:DRS	[DRS Data]																		
ATTITUDE	DEX DAP			-ZLV -XVV			IMU			-ZLV -XVV									
NOTES:	050 0458 SALIVARY ACETAMINOPHEN PHARMACOKINETICS @ -ZLV, -XVV @ -ZLV, -XVV (DTO 8779) 090 0909 OEX ADVANCED AUTOPILOT PERFORMANCE @ FILTER CLEANING CEES ACTIVITIES NEI STOP COLL 4/03:00 - 4/03:30																		



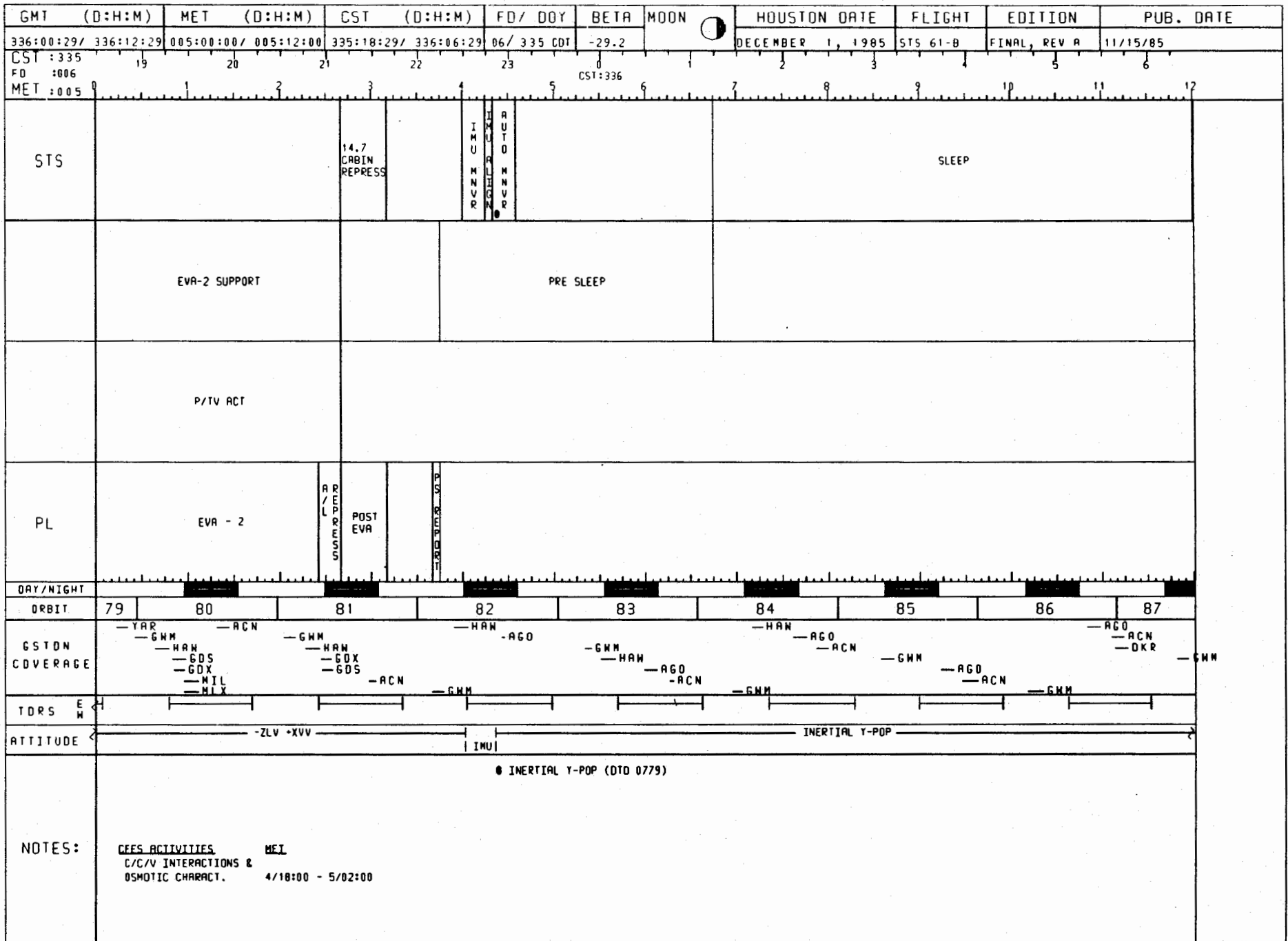
TORS E W

ATTITUDE

• -ZLV, +XVV • SATCOM

NOTES:

CEES ACTIVITIES MET
 FILT/ENDO/MICROB TESTS 4/17:45 - 4/18:15
 C/C/V INTERACTIONS &
 OSMOTIC CHARACT. 4/18:00 - 5/02:00



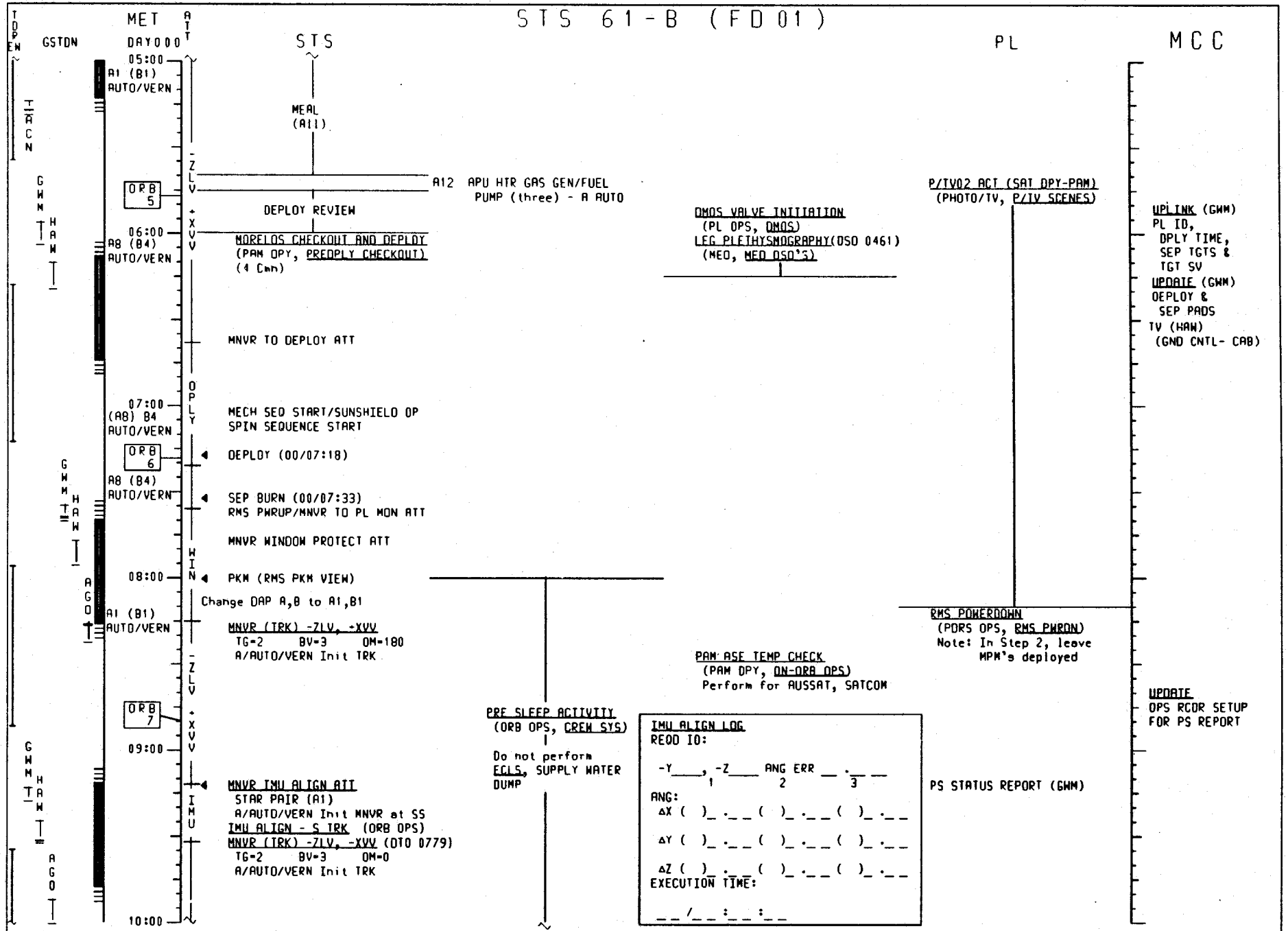
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336:12:29/ 337:00:29	005:12:00/ 006:00:00	336:06:29/ 336:18:29	06/ 336 CDI	-31.3		DECEMBER 2, 1985	STS 61-B	FINAL, REV A	11/15/85	
CST : 336										
FD : 006										
MET : 005										
STS	SLEEP					FCS C/O				
PL										
DAY/NIGHT										
ORBIT	87	88	89	90	91	92	93	94	95	
GSTON COVERAGE	AGO -DKR -MAO		-CAN	-MIL -MLX -BDA	-YAR -CAN	-MAD -YAR -CAN	-YAR -CAN -HAW -GDS -GDX -MIL	-BDA -DKR -ACW	-MIL -MLX -BDA	-HAW -DKR -ACN
TORS E W										
ATTITUDE	INERTIAL Y-POP				IMU	-ZLV +XVV				
NOTES:	CEFS ACTIVITIES		MEI		-ZLV, +XVV		-ZLV, +XVV		-ZLV, +XVV	
	ENDO/MICROB TESTS		5/17:45 - 5/18:15		APU HTR ACT		DTD 0325 SUPPLY AND WASTE WATER DUMPS		SUPPLY; IF REQUIRED, WASTE	
	HPCG DEACT		6/00:00 - 6/02:00				SATCOM			

GMT (D:H:M)	MET (D:H:M)	CST (D:H:M)	FD/ DOY	BETA	MOON	HOUSTON DATE	FLIGHT	EDITION	PUB. DATE									
337:00:29/ 337:12:29	006:00:00/ 006:12:00	336:18:29/ 337:06:29	07/ 336 CDT	-33.4		DECEMBER 2, 1985	STS 61-B	FINAL, REV A	11/15/85									
CST : 336 FD : 007 MET : 006	19	20	21	22	23	0	1	2	3	4	5	6	7	8	9	10	11	12
STS	CABIN STOW			I M U M N V R	Z L V M N V R	SLEEP												
				PRE SLEEP														
PL				G S T O N E N C D R	P O S T O P O S I T I O N													
DAY/NIGHT																		
ORBIT	95	96	97	98	99	100	101	102										
GSTDN COVERAGE	MIL MLX BDA -ACN	-GDX -MIL -MLX -ACN		-HAW -AGO		-HAW -AGO	-ACN	-GMM -HAW -AGO -ACN	-GMM -HAW -AGO -ACN	-GMM -HAW -AGO -ACN	-GMM -HAW -AGO -ACN	-GMM -HAW -AGO -ACN	-GMM -HAW -AGO -ACN	-GMM -HAW -AGO -ACN	-GMM -HAW -AGO -ACN	-GMM -HAW -AGO -ACN	-GMM -HAW -AGO -ACN	-GMM -HAW -AGO -ACN
TDRS E W																		
ATTITUDE	-ZLV -XVV																	
NOTES:	IMU -ZLV, -XVV (DTD 0779)																	

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DETAILED TIMELINE

**DETAILED
TIMELINE**

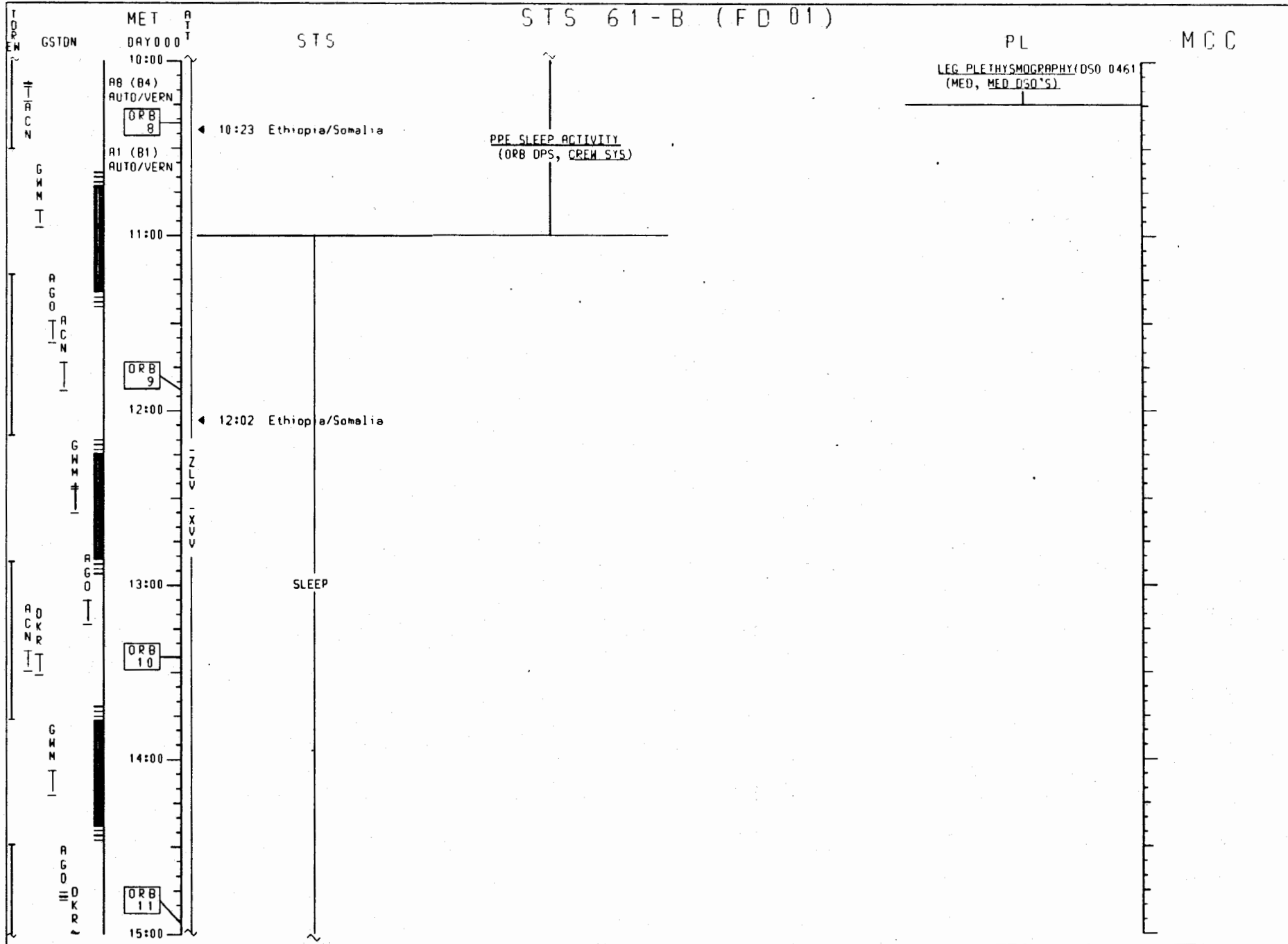


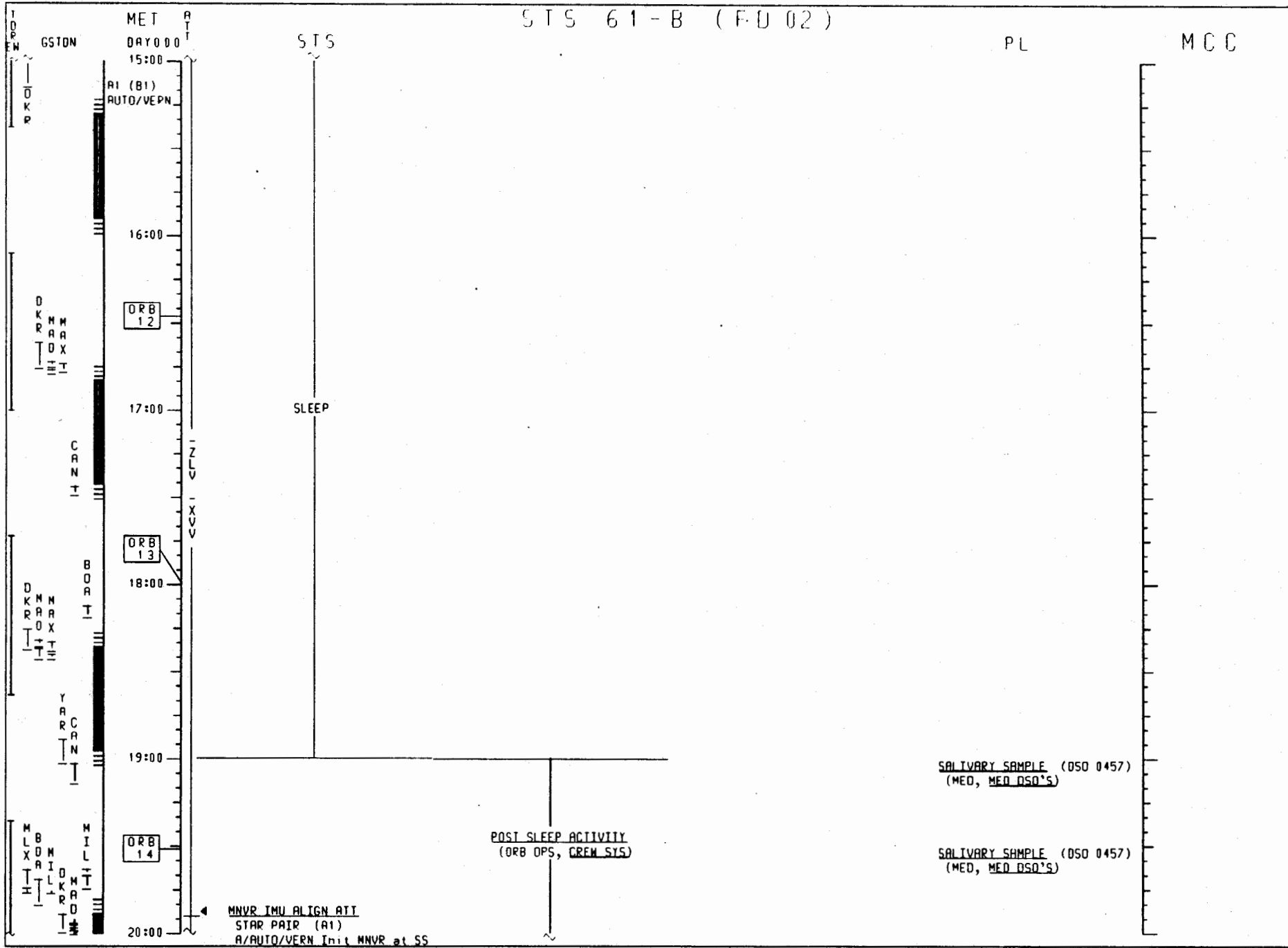
IMU ALIGN LOG
 RECD IO:

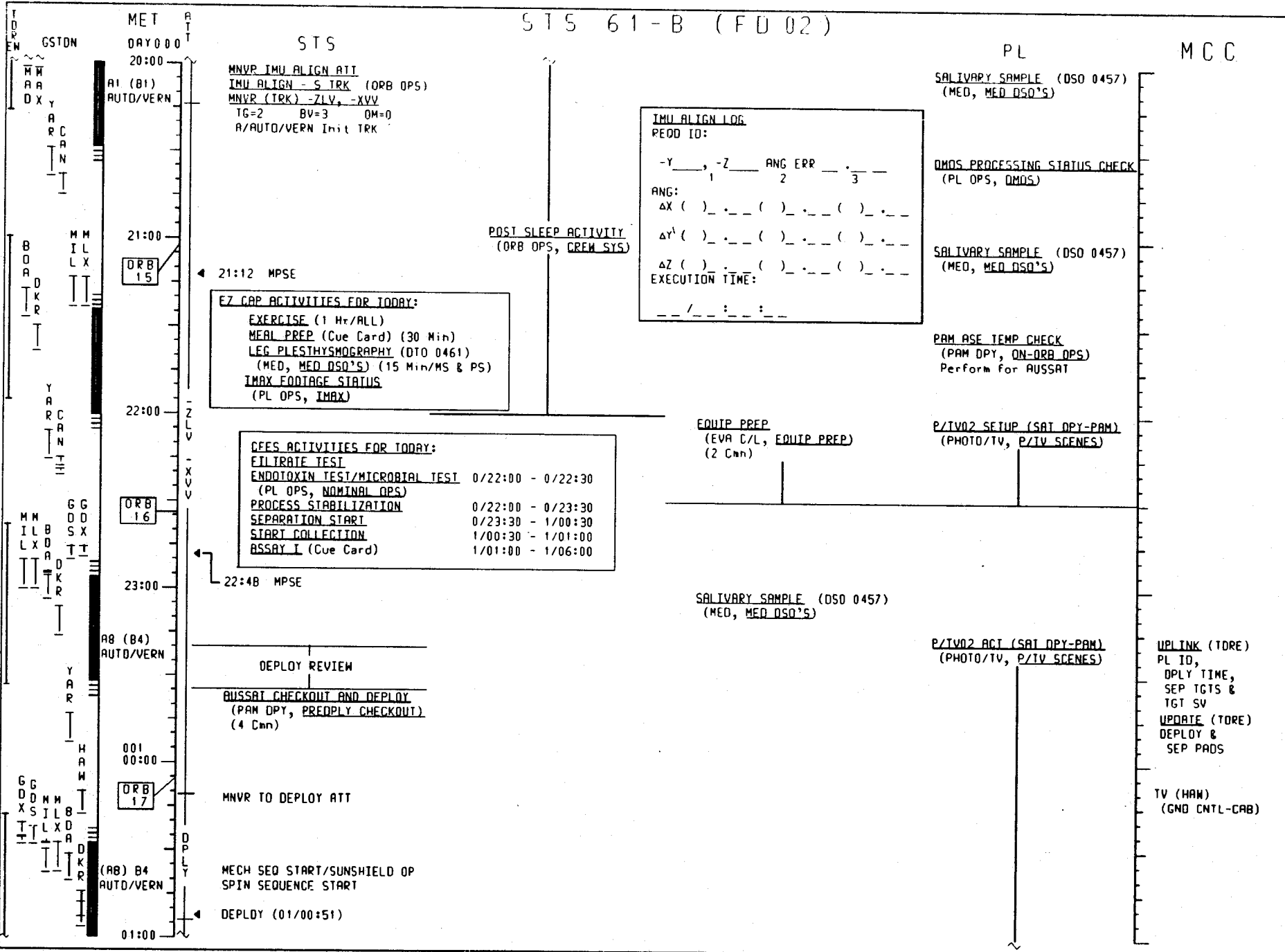
-Y ____ -Z ____ ANG ERR ____
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ANG:
 ΔX () . . . () . . . () . . .
 ΔY () . . . () . . . () . . .
 ΔZ () . . . () . . . () . . .

EXECUTION TIME:
 ____ / ____ : ____ : ____







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

STS

EMU CHECKOUT
(EVA, EMU CHECKOUT)
(2 Cmn)
Perform for 3 EMU's

UPDATE
OPS PCOR SETUP
FOR PS REPORT

PS STATUS REPORT (GMM)

MNVR IMU ALIGN AT
STAR PAIP (A1)
A/AUTO/VERN Init MNVR at SS
IMU ALIGN - S TRK (ORB OPS)
MNVR (TRK) -ZLV, -XVV (DTO 0779)
TG=2 BV=3 OM=0
A/AUTO/VERN Init TRK

SALIVARY SAMPLE (DSO 0457)
(MED, MED DSO'S)

PRE SLEEP ACTIVITY
(ORB OPS, CREW SYS)

IMU ALIGN LOG
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-Y __, -Z __ ANG ERR __
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ΔX () . () . () .
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ΔZ () . () . () .
EXECUTION TIME:
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SALIVARY SAMPLE (DSO 0457)
(MED, MED DSO'S)

ORB 21

A1 (B1)
AUTO/VERN

ORB 22

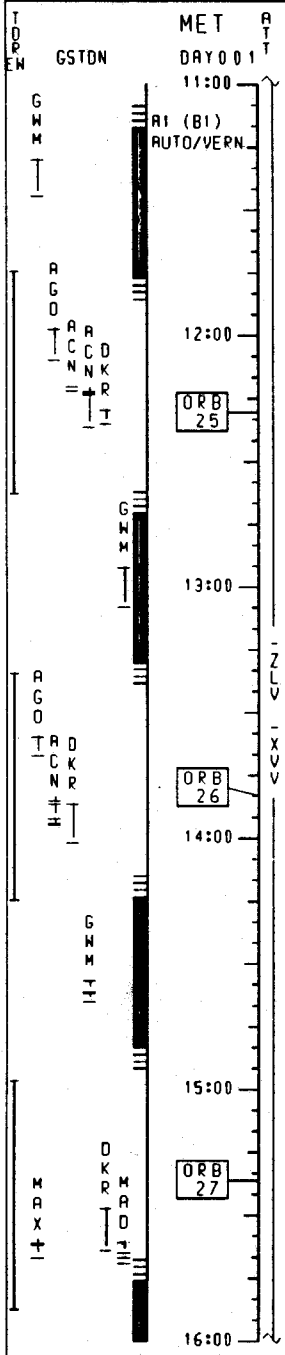
ORB 23

◀ 09:15 Ethiopia/Somalia

SLEEP

ORB 24

◀ 10:52 Ethiopia/Somalia

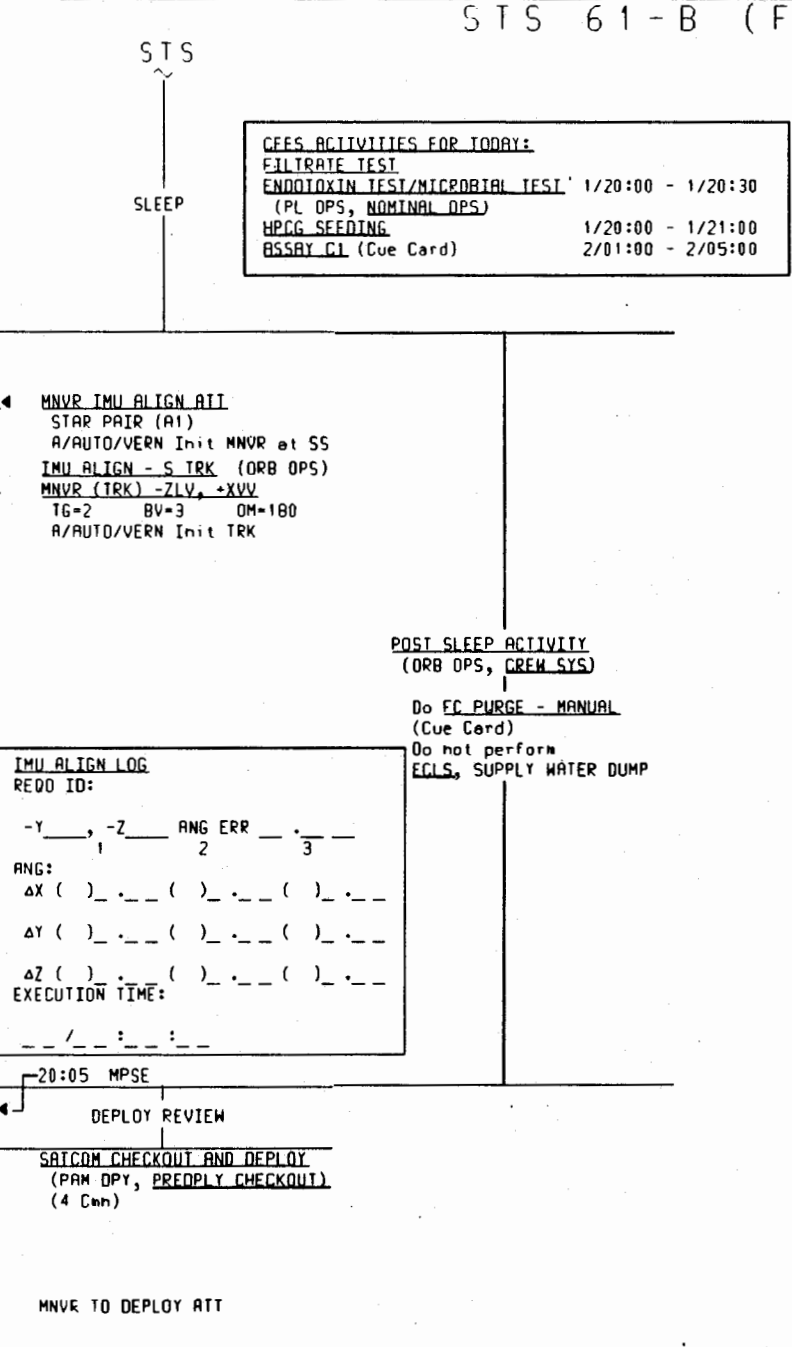


STS

SLEEP

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MET DAY 001
16:00
A1 (B1)
AUTO/VERN
ORB 28
17:00
ORB 29
19:00
ORB 30
20:00
A8 (B4)
AUTO/VERN
21:00



CFES ACTIVITIES FOR TODAY:
FILTRATE TEST
ENDOTOXIN TEST/MICROBIAL TEST 1/20:00 - 1/20:30
 (PL OPS, NOMINAL OPS)
WPCG SEEDING 1/20:00 - 1/21:00
BSSAY CL (Cue Card) 2/01:00 - 2/05:00

EZ CAP ACTIVITIES FOR TODAY:
PCS REGULATOR RECONFIGURE
 07/08 He PPESS A(three)-CL(tb-CL)
 B(three)-GPC(tb-OP)
 Perform midflt/A.M.(10 Min)
HEATER RECONFIG - A (ORB OPS, EPS)
 Perform midflt/A.M.(5 Min)
ECLS REDUNDANT COMPONENT C/O
 (ORB OPS, ECLS) (10 Min)
 Inform MCC when complete
MEAL PREP (Cue Card) (30 Min)
EXERCISE (1 Hr/ALL)
DMOS DAILY STATUS CHECK
 (PL OPS, DMOS)
PCS 1 (2) CONEIG (ORB OPS, ECLS)
 Config Sys 2 (5 Min/2 Cmn)
IMAX FOOTAGE STATUS
 (PL OPS, IMAX)

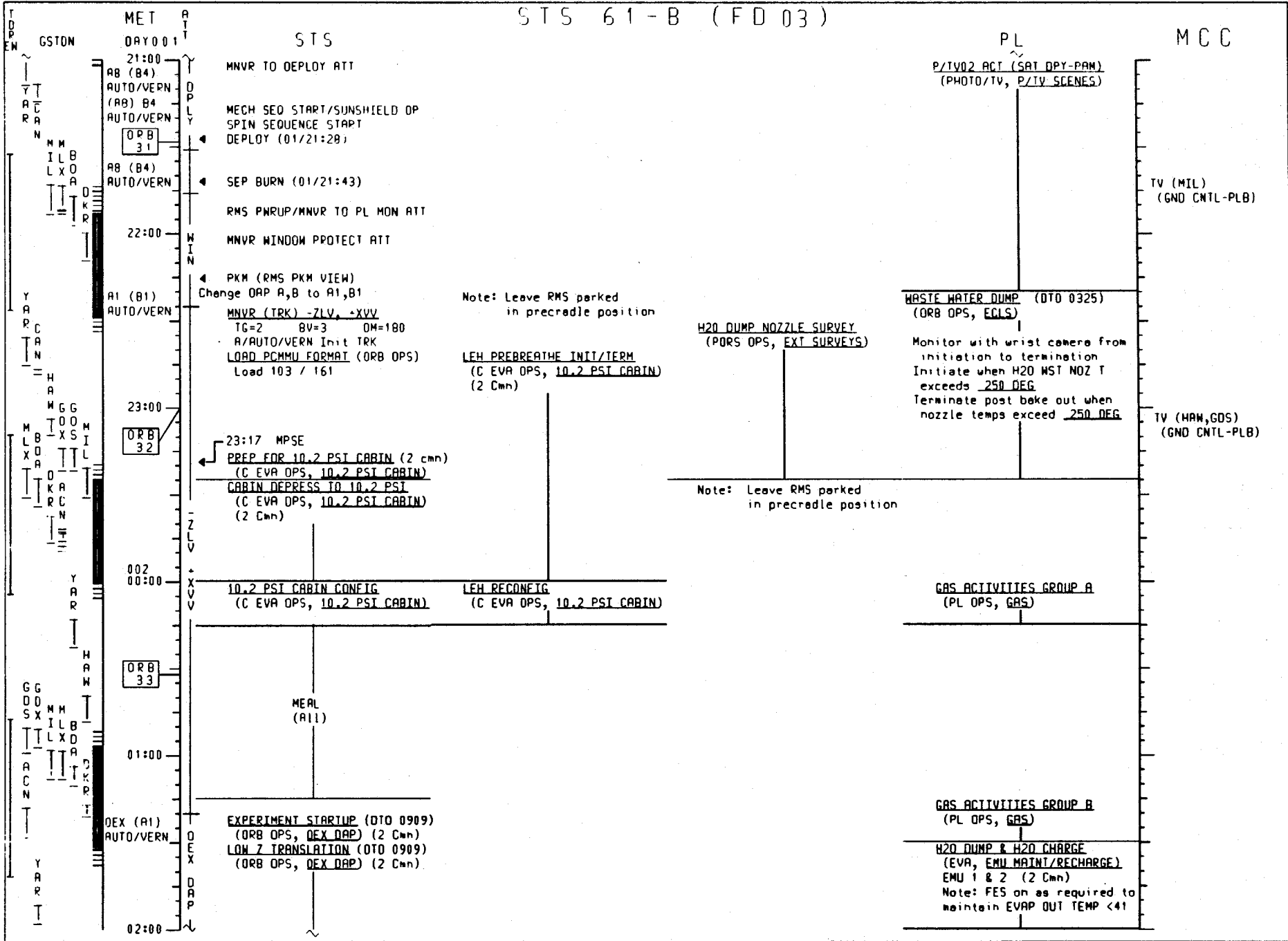
IMU ALIGN LOG
 RECD ID:
 -Y __, -Z __ ANG ERR __
 1 2 3
 ANG:
 ΔX () () ()
 ΔY () () ()
 ΔZ () () ()
 EXECUTION TIME:
 / : :

PAM ASE TEMP CHECK
 (PAM OPY, ON-ORB OPS)
 Perform for SATCOM

SALIVARY SAMPLE (DSO 0457)
 (MED, MED DSO'S)

P/TV02 ACT (SAT OPY-PAM)
 (PHOTO/TV, P/TV SCENES)

UPLINK (TDRE)
 PL ID,
 DPLY TIME,
 SEP TGTS &
 TGT SV
UPDATE (TDRE)
 DEPLOY &
 SEP PADS



MET

DAY 002
02:00
03:00
04:00
05:00
06:00
07:00

STS

LOW Z TRANSLATION (OTO 0909)
(ORB OPS, DEX DAP) (2 Chn)

DISABLED APT RCS (OTO 0909)
(ORB OPS, DEX DAP) (2 Chn)

JET PREFERENCE (OTO 0909)
(ORB OPS, DEX DAP) (2 Chn)

TRANS ACCEL (OTO 0909)
(ORB OPS, DEX DAP) (2 Chn)

DAP: A1/AUTO/VERN
MNVR (TRK) -ZLV, +XVV
TG=2 BV=3 OM=180
A/AUTO/VERN Init TRK
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 NDZ T exceeds 100 DEG
Terminate post bake out when nozzle temps exceed 100 DEG

FILTER CLEANING
(IFM, SCHEDULED MAINTENANCE)

VTR SETUP (02-SATCOM OPY)
(Cue Card, IV/VTR)

VTR PLAYBACK (02-SATCOM OPY)
(Cue Card, IV/VTR)
VTR at HAM (2:15-2:43)
VTR DEACT (Cue Card, IV/VTR)

VTR (HAM,GDS,MIL)

TV (HAM,GDS)
(GND CNTL-PLB)

P/TV#6 SETUP (EVR)
(PHOTO/TV, P/TV SCENES)

UPDATE OPS RCDR SETUP FOR PS REPORT

RMS POWERDOWN
(PDRS OPS, RMS PHRDN)
Note: In Step 2, leave MPM's deployed

MNVR IMU ALIGN ATT
STAR PAIR (A1)
A/AUTO/VERN (05:20) Init MNVR
IMU ALIGN - S TRK (ORB OPS)
ROTATION PULSE (OTO 0909)
(ORB OPS, DEX DAP) (2 Chn)
COAS CALIBRATION (ORB OPS)

PRE SLEEP ACTIVITY
(ORB OPS, CREW SYS)

Do not perform
ECLS, SUPPLY WATER DUMP

PS STATUS REPORT (GMM)

IMU ALIGN LOG
RECD ID: _____

-Y _____ -Z _____ ANG ERR _____
 1 2 3

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

EXECUTION TIME:
___ / ___ : ___

GSTDN
GMM
HMM
ACN
GMM
HMM
GMM
HMM
GMM
HMM

DEX (A1) AUTO/VERN
A1 (B1) AUTO/VERN
A1 (B5) AUTO/VERN
A1 (B1) AUTO/VERN

ORB 34
ORB 35
ORB 36
ORB 37

STS 61-B (FD 03)

STS

PL

MCC

SALIVARY SAMPLE (DSO 0457)
(MED, MED DSO'S)

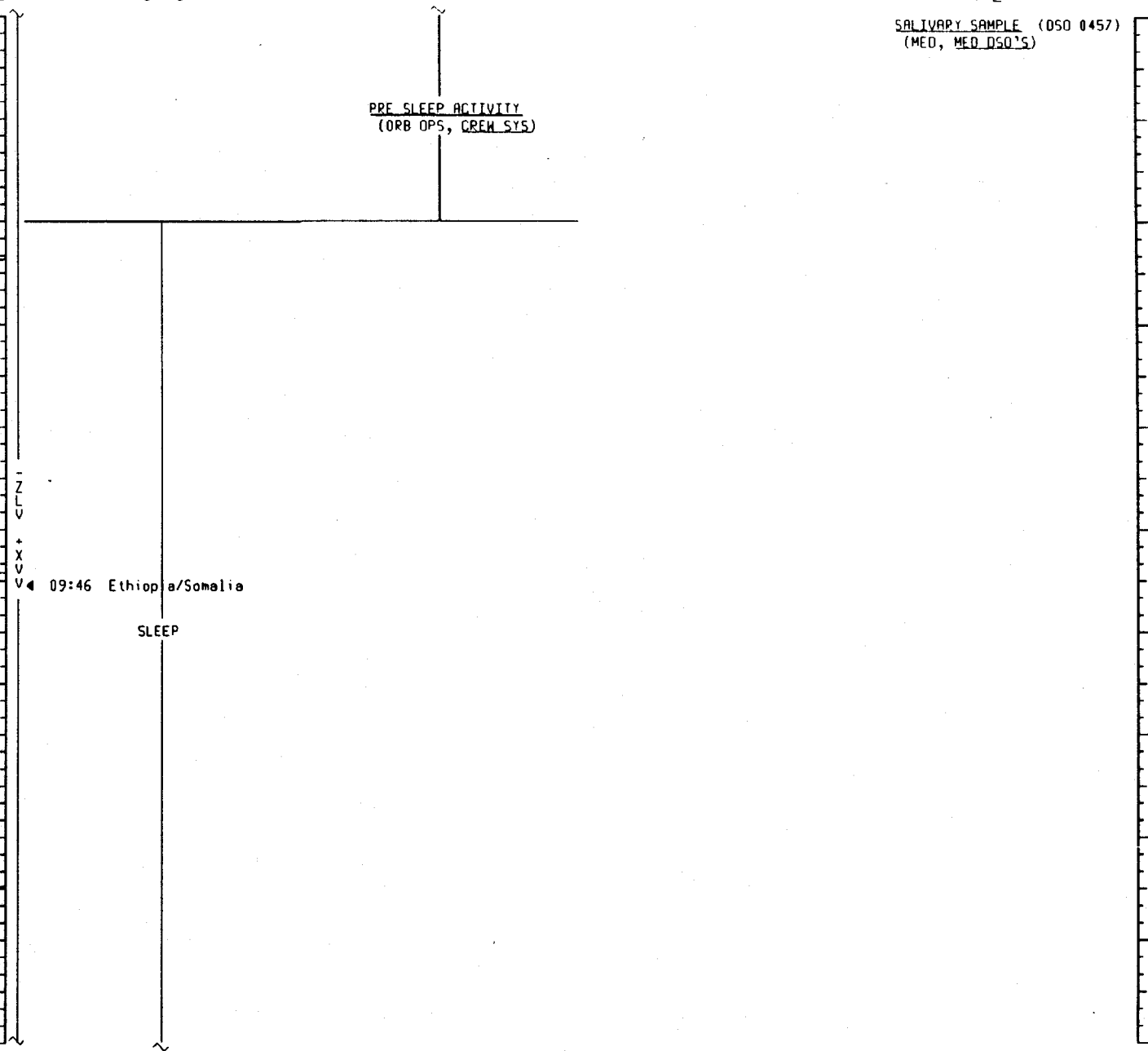
MET DAY 02
07:00
08:00
09:00
10:00
11:00
12:00

Rt (B1)
AUTO/VERN

ORB
38

ORB
39

ORB
40



TIME

GSTON

ATT

HGG
HGA
HGA
NCA

GGA
GGA
NCA

GMA
GGA
NCA

HGA

GGA
NCA

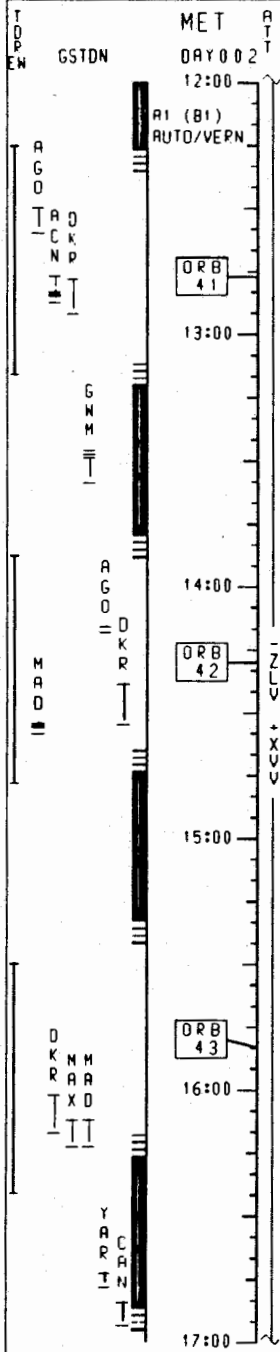
HGA

ZLV
XXVV

09:46 Ethiopia/Somalia

SLEEP

PRE SLEEP ACTIVITY
(ORB OPS, CREW SYS)

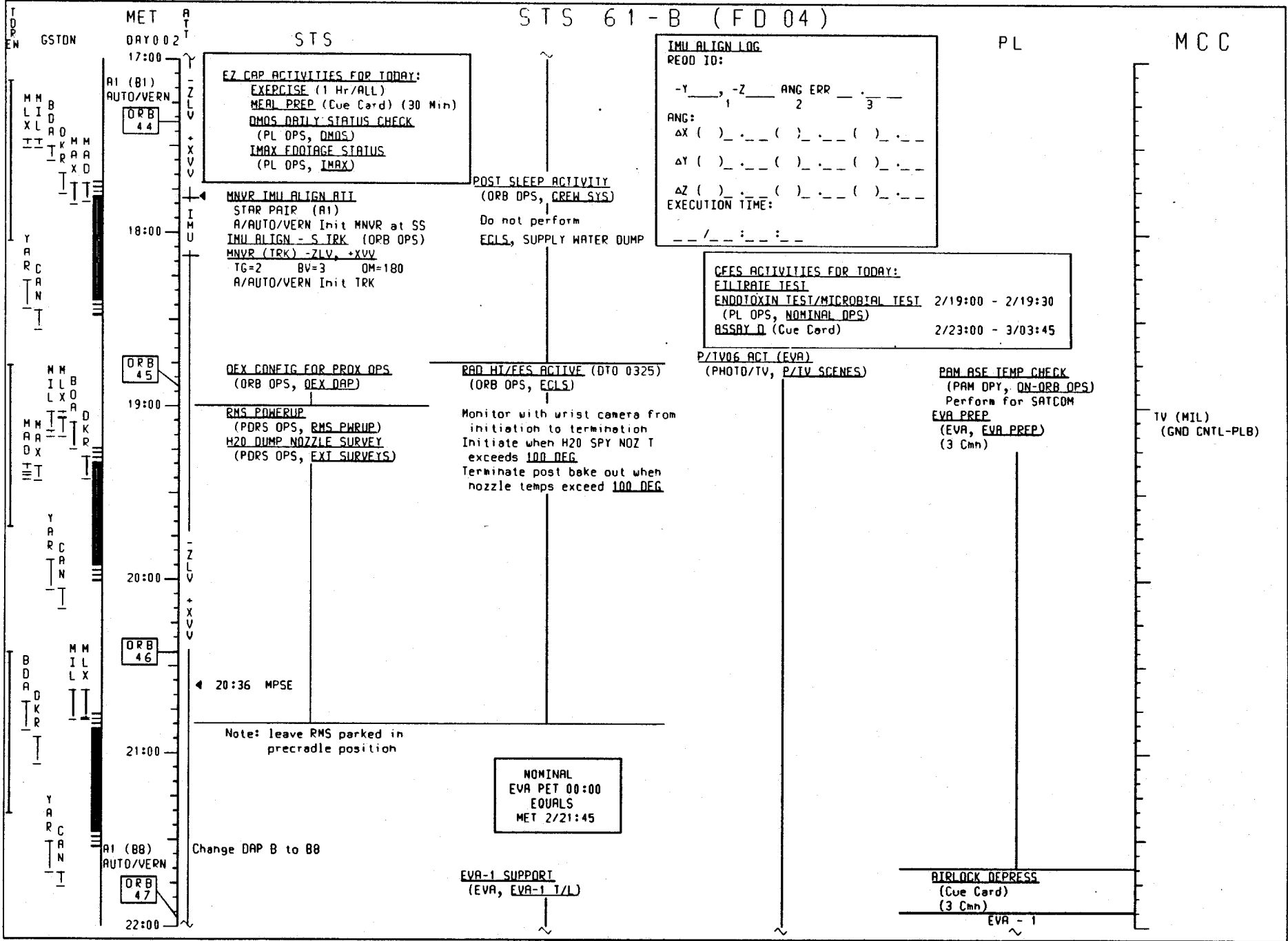


STS

SLEEP

POST SLEEP ACTIVITY
(ORB OPS, CREW SYS)

Do not perform
ECLS, SUPPLY WATER DUMP



STS 61-B (FD 04)

MET
 DAY 002
 17:00
 AI (B1)
 AUTO/VERN
 ORB 44
 18:00
 ORB 45
 19:00
 ORB 46
 20:00
 ORB 47
 AI (B8)
 AUTO/VERN
 21:00
 22:00

STS

EZ CAP ACTIVITIES FOR TODAY:
 EXERCISE (1 Hr/ALL)
 MEAL PREP (Cue Card) (30 Min)
 QMOS DAILY STATUS CHECK
 (PL OPS, QMOS)
 IMAX FOOTAGE STATUS
 (PL OPS, IMAX)

IMU ALIGN LOG
 RECD TO:
 -Y____, -Z____ ANG ERR ____
 1 2 3
 ANG:
 ΔX () . () . () .
 ΔY () . () . () .
 ΔZ () . () . () .
 EXECUTION TIME:
 __ / __ : __ : __

PL

MCC

MNVR IMU ALIGN RTI
 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

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

CEFS ACTIVITIES FOR TODAY:
 FILTRATE TEST
 ENDOTOXIN TEST/MICROBIAL TEST 2/19:00 - 2/19:30
 (PL OPS, NOMINAL OPS)
 ASSAY D (Cue Card) 2/23:00 - 3/03:45

QEX CONFIG FOR PROX OPS
 (ORB OPS, QEX DAP)

RAD HI/FEES ACTIVE (DTO 0325)
 (ORB OPS, ECLS)

P/TVO6 ACT (EVA)
 (PHOTO/TV, P/TV SCENES)

PAM ASE TEMP CHECK
 (PAM OPY, QN-ORB OPS)
 Perform for SATCOM
EVA PREP
 (EVA, EVA PREP)
 (3 Cmn)

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

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

◀ 20:36 MPSE
 Note: leave RMS parked in
 precradle position

NOMINAL
 EVA PET 00:00
 EQUALS
 MET 2/21:45

EVA-1 SUPPORT
 (EVA, EVA-1 T/L)

BIROCK DEPRESS
 (Cue Card)
 (3 Cmn)

EVA - 1

Change DAP B to B8

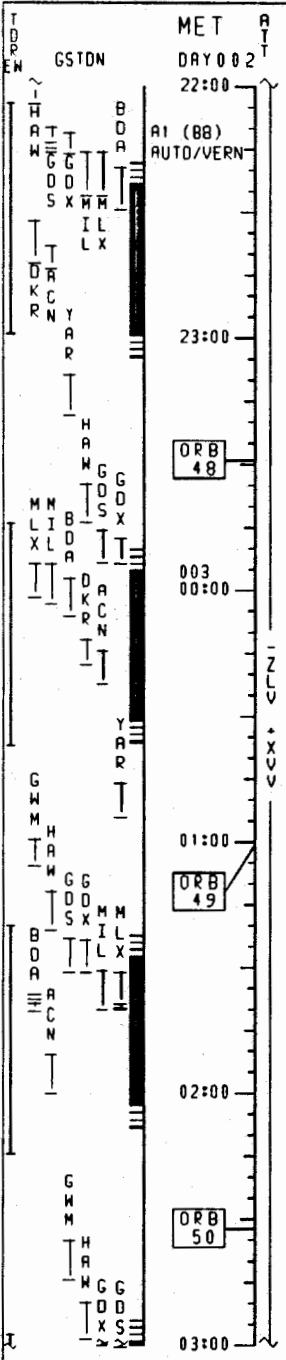
TV (MIL)
 (GND CNTL-PLB)

STS 61-B (FD04)

STS

PL

MCC



EVA-1 SUPPORT
(EVA, EVA-1 T/L)

P/TV06 ACT (EVA)
(PHOTO/TV, P/TV SCENES)

EVA - 1

TV (HAW, GDS, MIL)

TV (HAW, GDS, MIL)

TV (HAW, GDS, MIL)

TV (HAW, GDS, MIL)

GSTON DAY 003

STS

PL

MCC

TV (HAW,GDS,MIL)

03:00
A1 (B8)
AUTO/VERN
A10 (B7)
AUTO/VERN

04:00
ORB 51
A1 (B1)
AUTO/VERN

05:00
ORB 52

06:00
ORB 53

07:00
ORB 53

08:00

X Change DAP A,B to A1,B1

EVA-1 SUPPORT
(EVA, EVA-1 I/L)

P/TV06 ACT (EVA)
(PHOTO/TV, P/TV SCENES)

OPERATIONS I/L
(PROX OPS, OPS I/L)

◀ OPY

◀ DELETED SEP TO 300 FT.

◀ SEP

EVA - 1

AIRBLOCK REPRESS
(Cue Card)
(3 Chn)

POST EVA
(EVA, POST EVA)
(3 Chn)

NOMINAL
PROX OPS PET 00:00
EQUALS
EVA PET 05:55
EQUALS
MET 3/03:45

UPDATE
OPS RCDR SETUP
FOR P5 REPORT

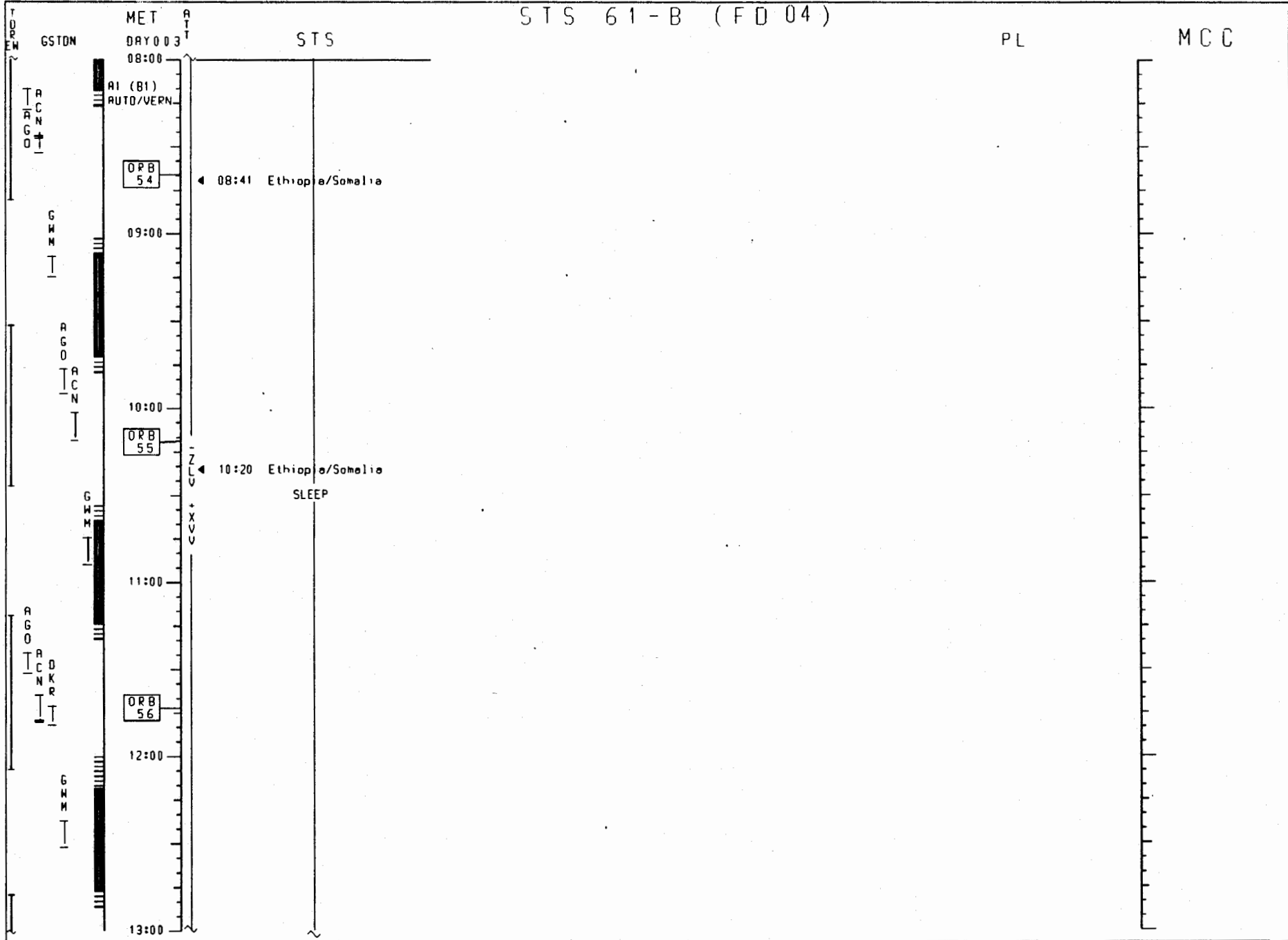
PS STATUS REPORT (GMM)

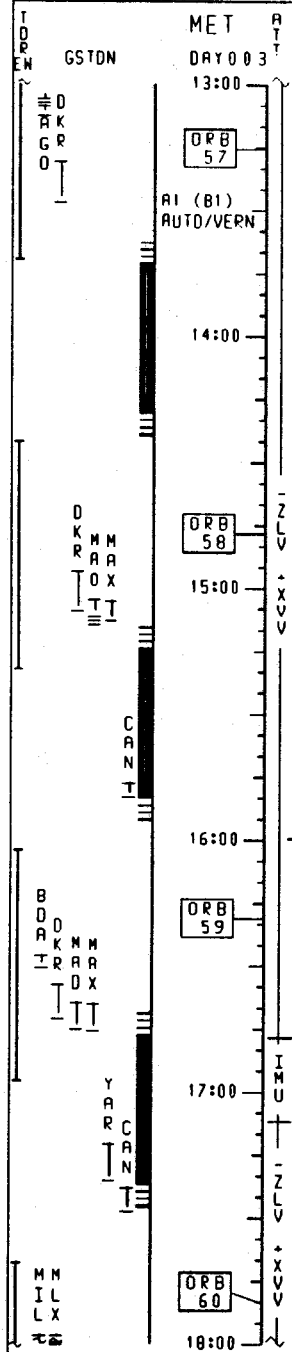
MNVR IMU ALIGN ATT
STAR PAIR (A1)
A/AUTO/VERN Init MNVR at SS
IMU ALIGN - 5 TRK (ORB OPS)
MNVR (TRK) -ZLV, +XVV (DTO 0779)
TG=2 BV=3 OM=180
A/AUTO/VERN Init TRK

PRE SLEEP ACTIVITY
(ORB OPS, CREW SYS)

RAD STOW/DEPLOY (DTO 0624)
(ORB OPS, ECLS)
Step 2

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





MNVR IMU ALIGN ATT
 STAR PAIR (AI)
 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
RAD STOW/DEPLOY (DTC 0624)
 (ORB OPS, ECLS)
 Step 1

POST SLEEP ACTIVITY
 (ORB OPS, CREW SYS)

EZ CAP ACTIVITIES FOR TODAY:

- EXERCISE (1 Hr/ALL)
- MEAL PREP (Cue Card) (30 Min)
- CREW MODULE MEAS (DTC 321)
(Cue Card)
- ALIGNMENT MARKS (1 Hr)
- GAP MEAS (40 Min/2 Cwn)
- TAPE MEAS (20 Min/2 Cwn)
- OMOS DAILY STATUS CHECK
(PL OPS, OMS)
- LEG PLETHYSMOGRAPHY (DSO 0461)
(MED, MED DSO'S) (15 Min/MS & PS)
- IMAX FOOTAGE STATUS
(PL OPS, IMAX)

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

SALIVARY SAMPLE (DSO 0458)
 (MED, MED DSO'S)

SALIVARY SAMPLE (DSO 0458)
 (MED, MED DSO'S)

SALIVARY SAMPLE (DSO 0458)
 (MED, MED DSO'S)

SALIVARY SAMPLE (DSO 0458)
 (MED, MED DSO'S)

MET DAY 003
 18:00
 R1 (B1)
 AUTO/VERN
 19:00
 ORB 61
 19:32 MPSE
 20:00
 ORB 62
 21:00
 21:08 MPSE
 22:00
 ORB 63
 22:44 MPSE
 23:00

TDR
 EN
 GSTON
 MILX
 BDR
 OKR
 YARR
 CAN
 MAD
 H
 YARR
 CAN
 GGD
 MIL
 LXA
 OKR
 YARR
 HAW
 GGD
 MIL
 TLX
 BDR
 OKR

STS

POST SLEEP ACTIVITY
 (ORB OPS, CREW SYS)

CEES ACTIVITIES FOR TODAY:
 FILTRATE TEST
 ENDOTOXIN TEST/MICROBIAL TEST 3/19:00 - 3/19:30
 (PL OPS, NOMINAL OPS)
 STOP COLLECTION 4/03:00 - 4/03:30

EMU MAINT/RECHARGE
 (EVA, EMU MAINT/RECHARGE)
 (2 Cwh)
 Note: FES ON as required
 to maintain EVAP
 OUT TEMP < 41

SALIVARY SAMPLE (OSO 0458)
 (MED, MED DSO'S)

SALIVARY SAMPLE (OSO 0458)
 (MED, MED DSO'S)

PAM ASE TEMP CHECK
 (PAM DPY, ON-ORB OPS)
 Perform for SATCOM

SALIVARY SAMPLE (OSO 0458)
 (MED, MED DSO'S)

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

WASTE WATER DUMP (O10 0325)
 (ORB OPS, ECLS)

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

SALIVARY SAMPLE (OSO 0458)
 (MED, MED DSO'S)

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

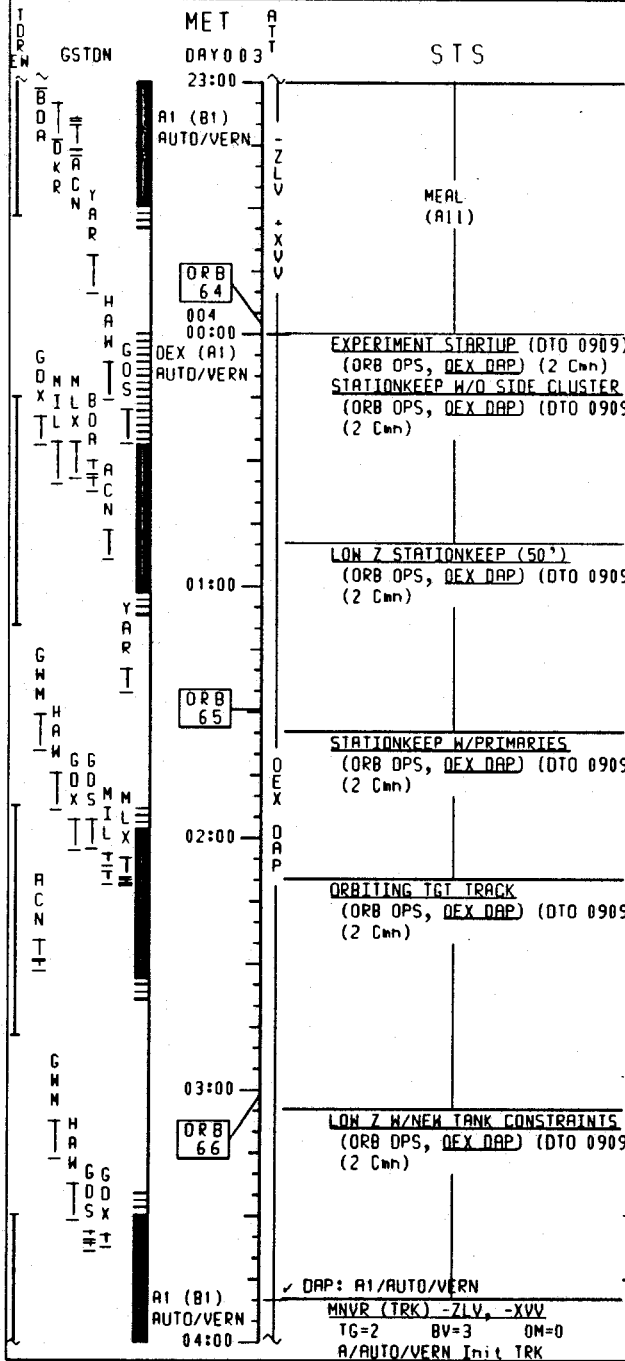
P/TV03 SETUP (MIDDECK ACT)
 (PHOTO/TV, P/TV SCENES)

RMS POWERDOWN
 (PDRS OPS, RMS PWRDN)
 Note: In Step 2, leave
 MPM's deployed

SALIVARY SAMPLE (OSO 0458)
 (MED, MED DSO'S)

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

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



EXPERIMENT STARTUP (OTO 0909)
 (ORB OPS, DEX DAP) (2 Cmn)
 STATIONKEEP W/O SIDE CLUSTER
 (ORB OPS, DEX DAP) (OTO 0909)
 (2 Cmn)

LOW Z STATIONKEEP (50%)
 (ORB OPS, DEX DAP) (OTO 0909)
 (2 Cmn)

STATIONKEEP W/PRIMARIES
 (ORB OPS, DEX DAP) (OTO 0909)
 (2 Cmn)

ORBITING TGT TRACK
 (ORB OPS, DEX DAP) (OTO 0909)
 (2 Cmn)

LOW Z W/NEW TANK CONSTRAINTS
 (ORB OPS, DEX DAP) (OTO 0909)
 (2 Cmn)

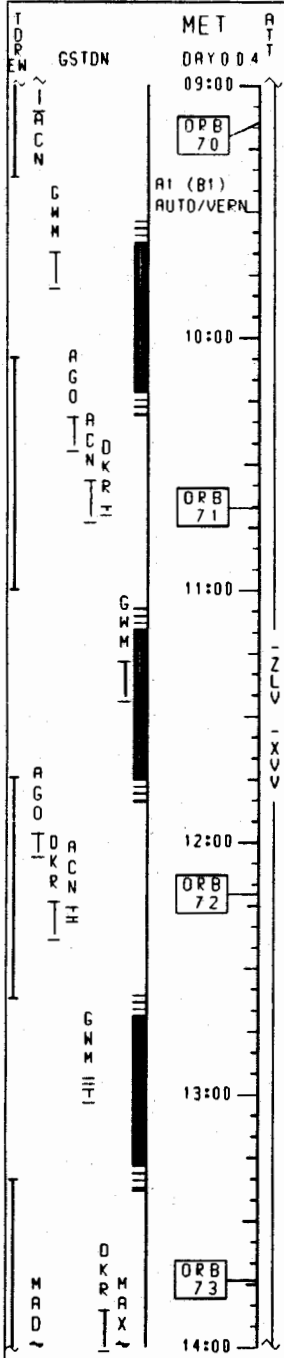
✓ DAP: A1/AUTO/VERN
 MNVR (TRK) -ZLV, -XVV
 TG=2 BV=3 DM=0
 A/AUTO/VERN Init TRK

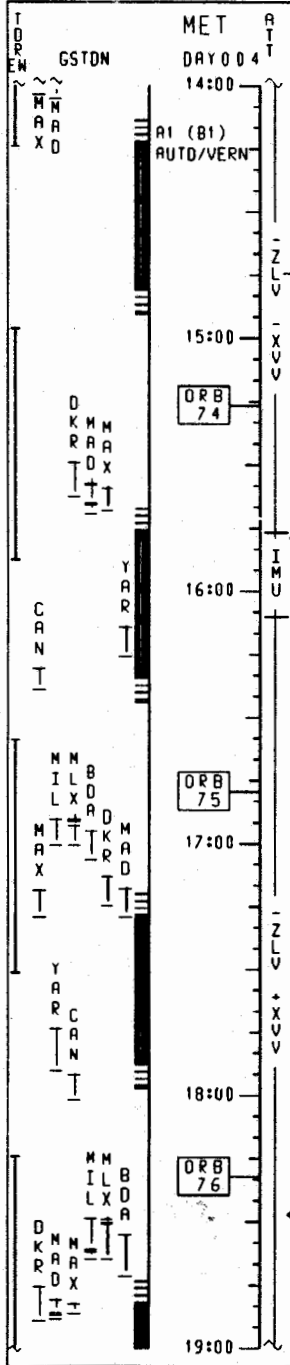
FILTER CLEANING
 (IFM, SCHEDULED MAINTENANCE)

PRE SLEEP ACTIVITY
 (ORB OPS, CREW SYS)

SALIVARY SAMPLE (DSO 0458)
 (MED, MED DSO'S)

P/TV06 SETUP (EVR)
 (PHOTO/TV, P/TV SCENES)





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

POST SLEEP ACTIVITY
(ORB OPS, CREW SYS)

EZ CAP ACTIVITIES FOR TODAY:
EXERCISE (1 Hr/ALL)
MEAL PREP (Cue Card) (30 Min)
DMOS DAILY STATUS CHECK
(PL OPS, DMOS)
IMAX FOOTAGE STATUS
(PL OPS, IMAX)

CEES ACTIVITIES FOR TODAY:
FILTRATE TEST
ENDOTOXIN TEST/MICROBIAL TEST 4/17:45 - 4/18:15
(PL OPS, NOMINAL OPS)
C/C INTERACTIONS &
OSMOTIC CHARAC 4/18:00 - 5/02:00

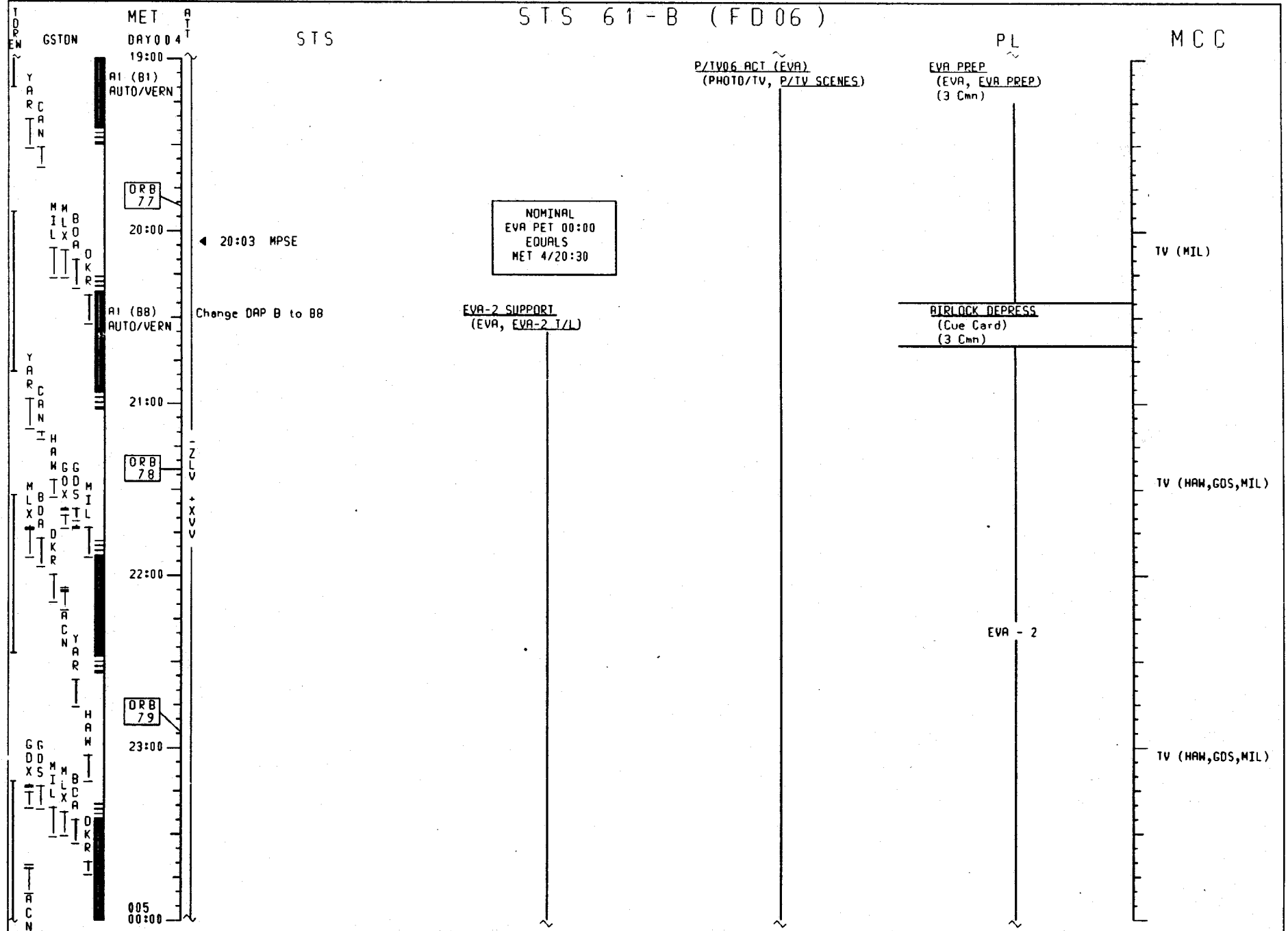
TMU ALIGN LOG
REDD IO:
-Y____, -Z____ ANG ERR ____
 1 2 3
ANG:
 ΔX () . . . () . . . () . . .
 ΔY () . . . () . . . () . . .
 ΔZ () . . . () . . . () . . .
EXECUTION TIME:
_ / _ : _ : _

P/IV06 ACT (EVA)
(PHOTO/TV, P/IV SCENES)

PAM ASE TEMP CHECK
(PAM OPY, ON-ORB OPS)
Perform for SATCOM

EVA PREP
(EVA, EVA PREP)
(3 Cmn)

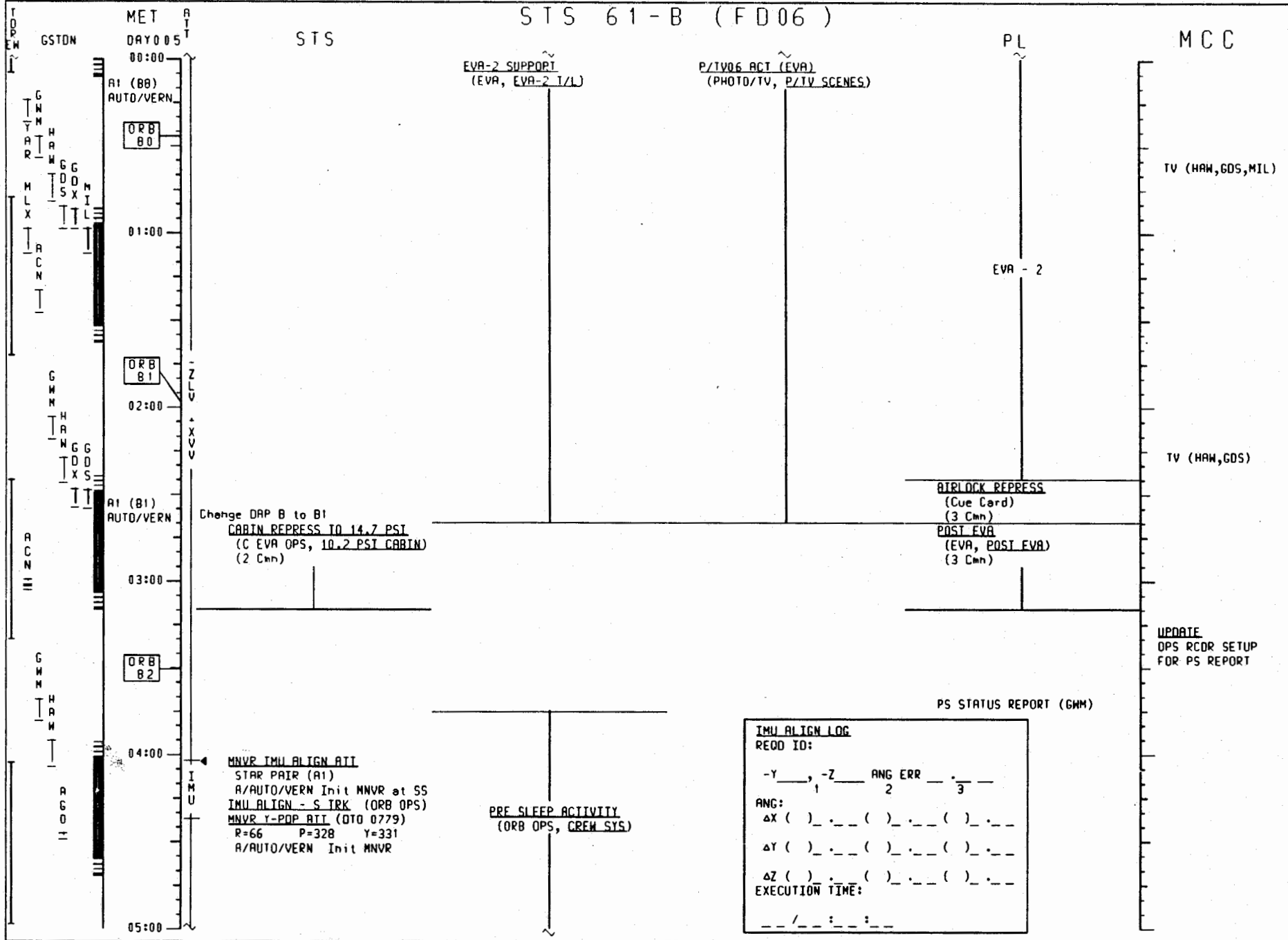
STS 61-B (FD06)

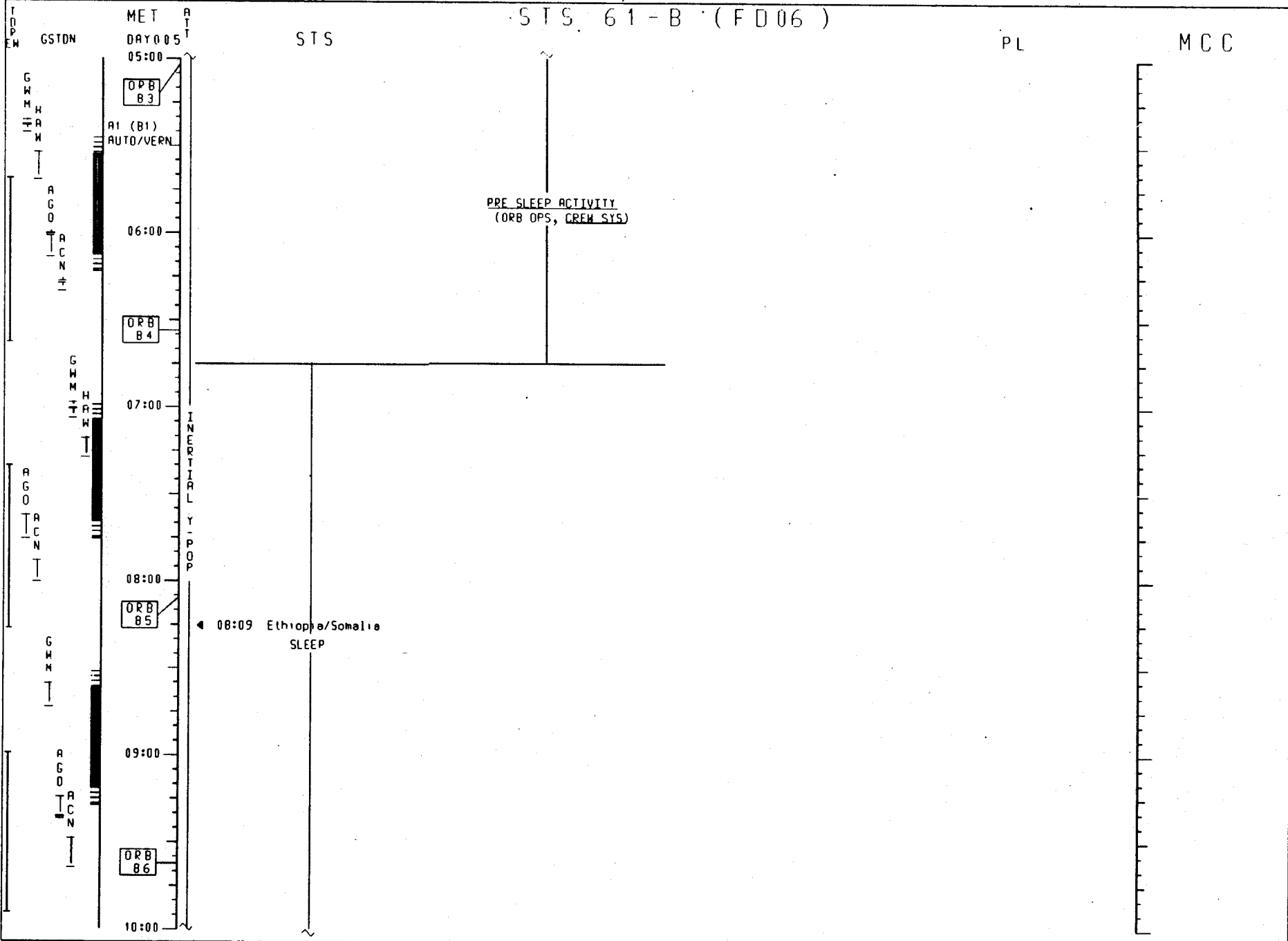


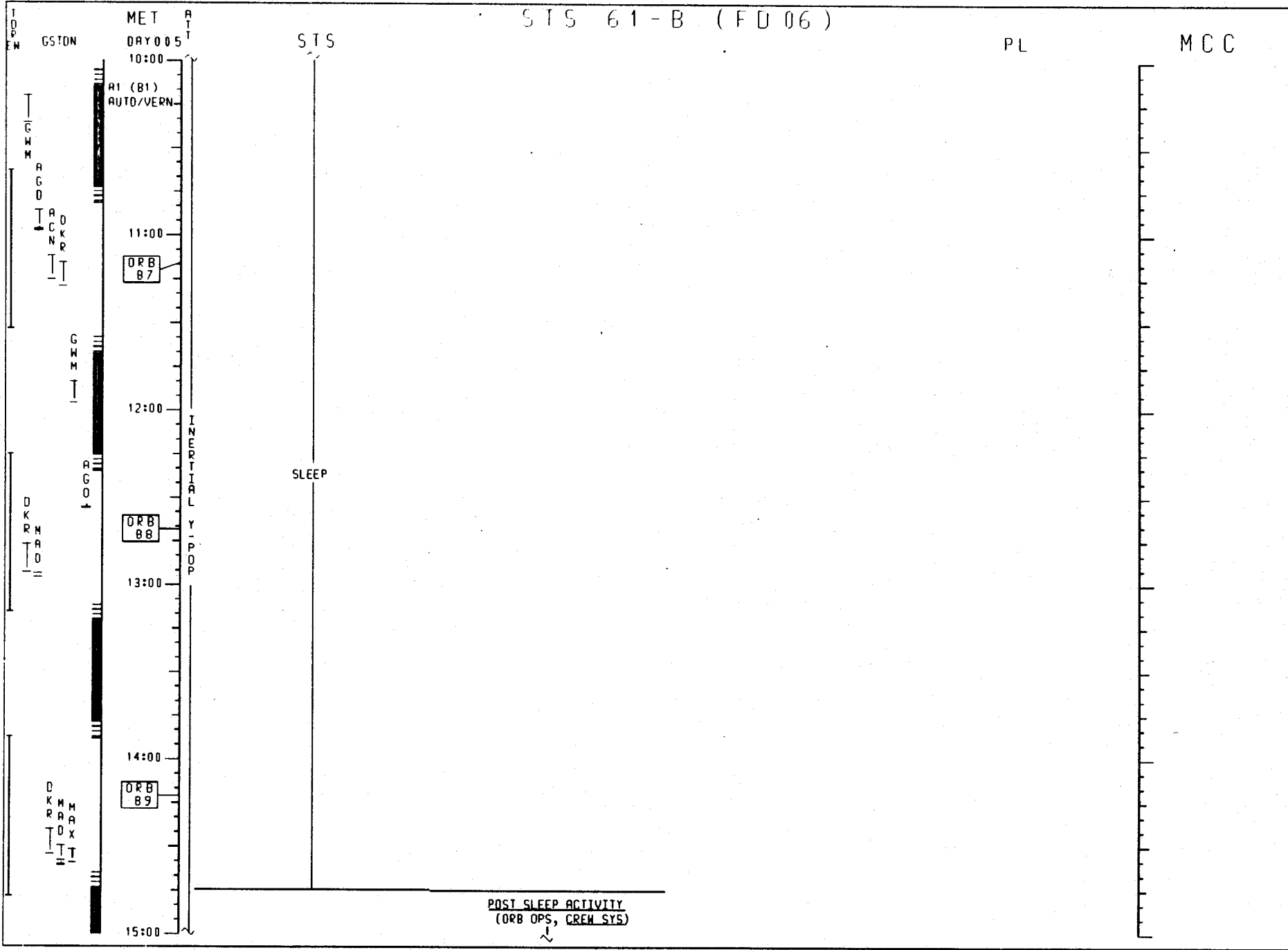
STS 61-B (FD06)

STS

MCC

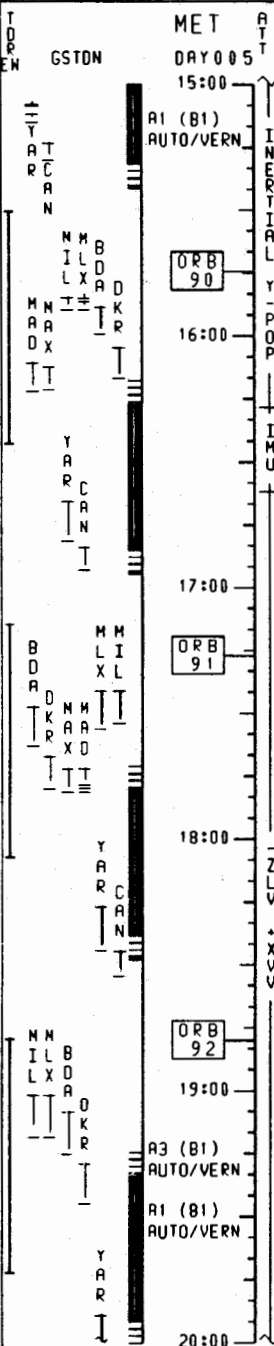






MET DAY 005

GSTON



15:00
16:00
17:00
18:00
19:00
20:00

A1 (B1)
AUTO/VERN

ORB 90

ORB 91

ORB 92

A3 (B1)
AUTO/VERN

A1 (B1)
AUTO/VERN

MNVR IMU ALIGN ATTI
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

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

R2 APU STEAM VENT HTR ACT
BLR CNTLR PWR/HTR(three)-B
CNTLR(three) -ON
FCS CHECKOUT
(ORB OPS, GNC)
(2 Cmn)

18:59 MPSE
RCS HOT FIRE TEST
(ORB OPS, RCS) (2 Cmn)
Config DAP: A1/AUTO/VERN
A3 (B1)
AUTO/VERN
A1 (B1)
AUTO/VERN
MNVR (TRK) -ZLV, +XVV
TG=2 BV=3 OM=180
A/AUTO/VERN Init TRK
RMS POWERUP
(PDRS OPS, RMS PWRUP)
H2O DUMP NOZZLE SURVEY
(PDRS OPS, EXT SURVEYS)

IMU ALIGN LOG
REQD ID:
-Y____, -Z____ ANG ERR ____
 1 2 3
ANG:
 ΔX () _ _ _ () _ _ _ () _ _ _
 ΔY () _ _ _ () _ _ _ () _ _ _
 ΔZ () _ _ _ () _ _ _ () _ _ _
EXECUTION TIME:
_ _ / _ _ : _ _ : _ _

EZ CAP ACTIVITIES FOR TODAY:
EXERCISE (1 Hr/ALL)
MEAL PREP (Cue Card) (30 Min)
QMOS DAILY STATUS CHECK
(PL OPS, QMOS)
LEG PLETHYSMOGRAPHY (DSO 0461)
(MED, MED DSD's) (15 MIN/MS & PS)
IMAX FOOTAGE STATUS
(PL OPS, IMAX)
CREW MODULE MEAS (DTO 321)
(Cue Card)
ALIGNMENT MARKS (1 Hr)
GAP MEAS (40 Min/2 Cmn)
IAPF MEAS (20 Min/2 Cmn)

CEES ACTIVITIES FOR TODAY:
ENDOTOXIN TEST/MICROBIAL TEST 5/17:45 - 5/18:15
(PL OPS, NOMINAL OPS)
HPCG DEACT 6/00:00 - 6/02:00

EMU MAINT/RECHARGE
(EVA, EMU MAINT/RECHARGE)
(2 Cmn)
Note: FES ON as required
to maintain EVAP OUT
TEMP <41

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

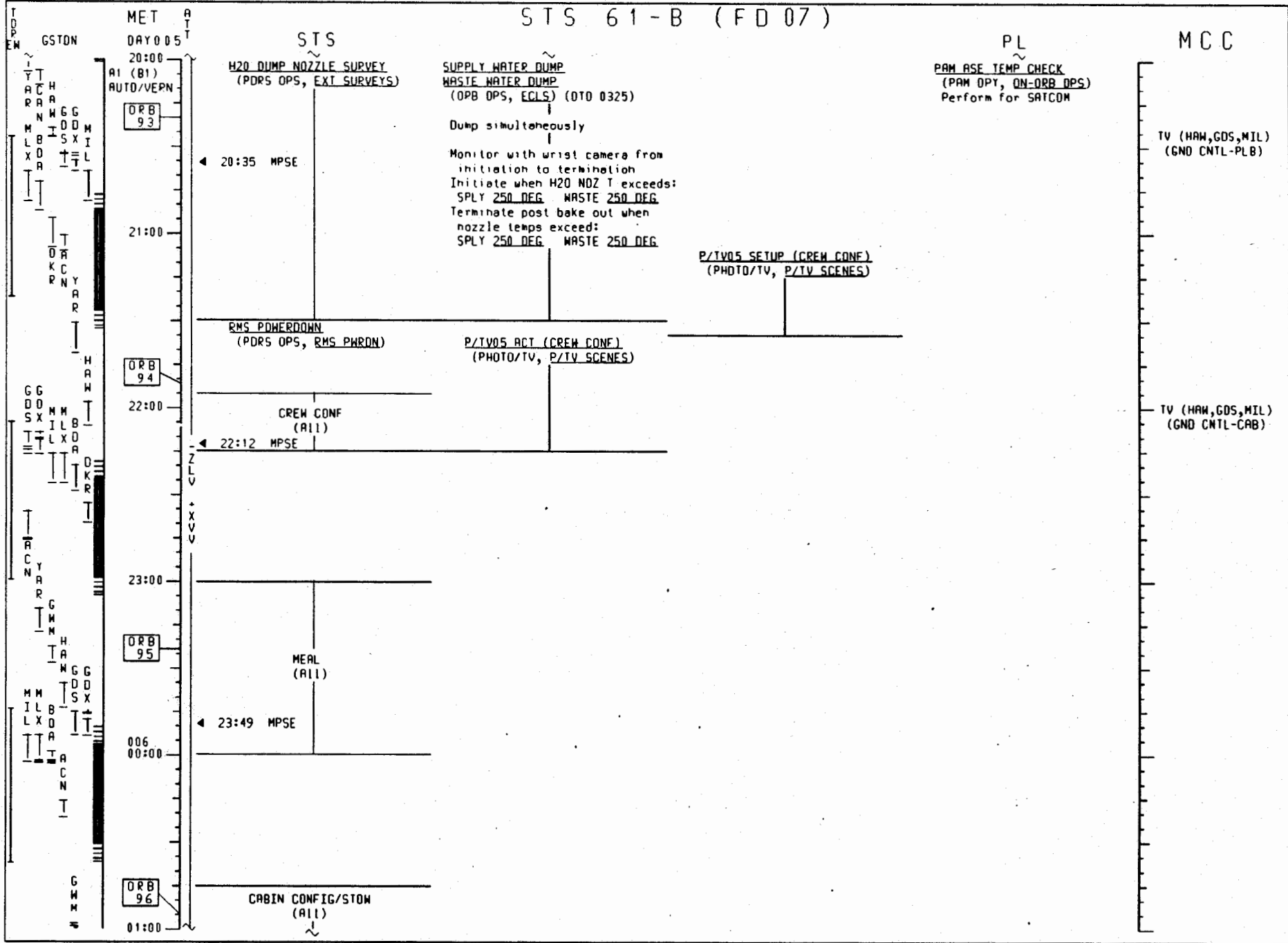
SUPPLY WATER DUMP
WASTE WATER DUMP
(ORB OPS, ECLS) (DTO 0325)

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

PAM ASE TEMP CHECK
(PAM OPY, ON-ORB OPS)
Perform for SATCOM

INFORM CREW
GO FOR APU
COOL OFF

STS 61-B (FD 07)



TOP
EM

GSTON

MET
DAY 006
06:00

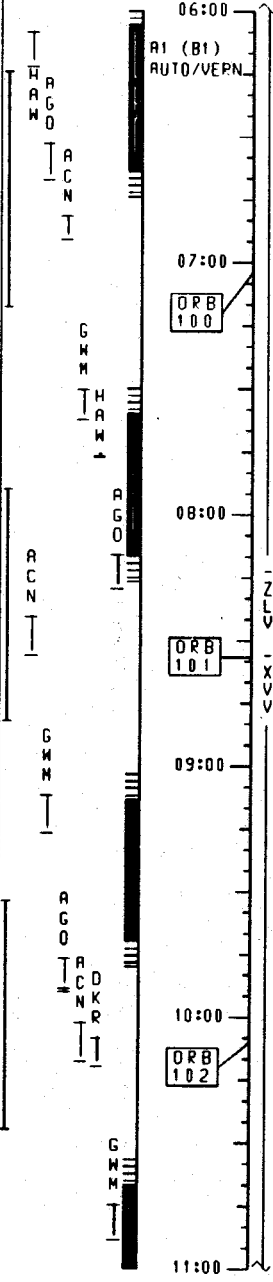
ATT

STS

STS 61-B (FD 07)

PL

MCC



R1 (B1)
AUTO/VEPN

PRE SLEEP ACTIVITY
(ORB OPS, CREW SYS)

07:00

◀ 07:04 Ethiopia/Somalia

ORB
100

08:00

ORB
101

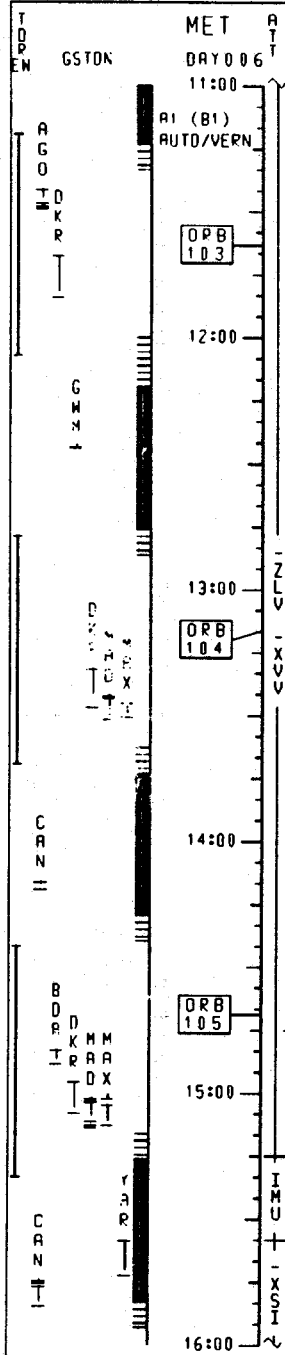
09:00

SLEEP

10:00

ORB
102

11:00



STS

SLEEP

MNVR IMU ALIGN ATT
 STAR PAIR (A1)
 A/AUTO/VERN Init MNVR at SS
IMU ALIGN - S TRK (ORB OPS)
MNVR (TRK) -XST ATT
 P=184 Y=0
 TG=4 BV=5 OM=90
 A/AUTO/VERN Init TRK

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

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

DMOS TERMINATION
 (PL OPS, DMOS)

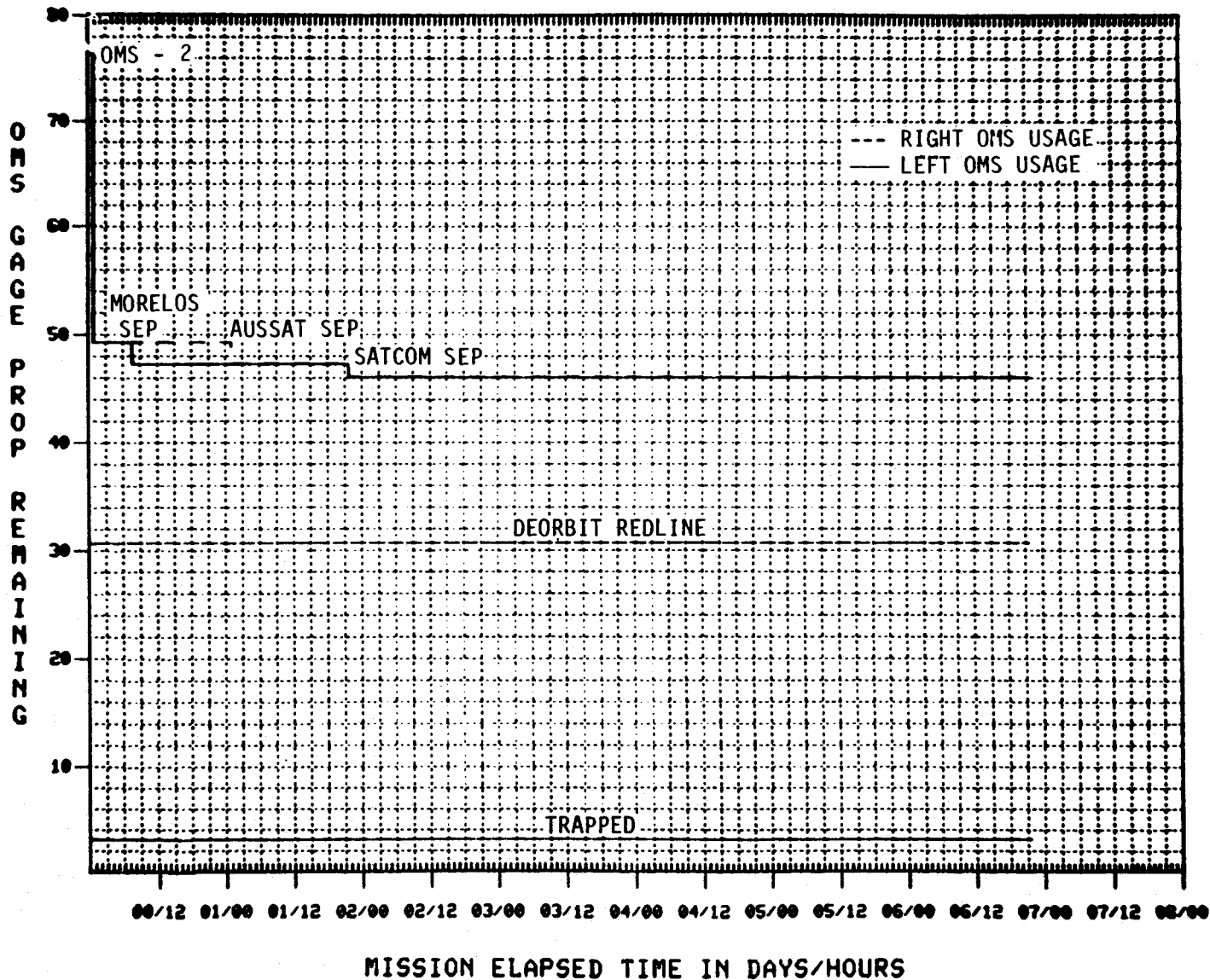
CONSUMABLES CURVES

**CONSUMABLES
CURVES**

CONSUMABLES
CURVES

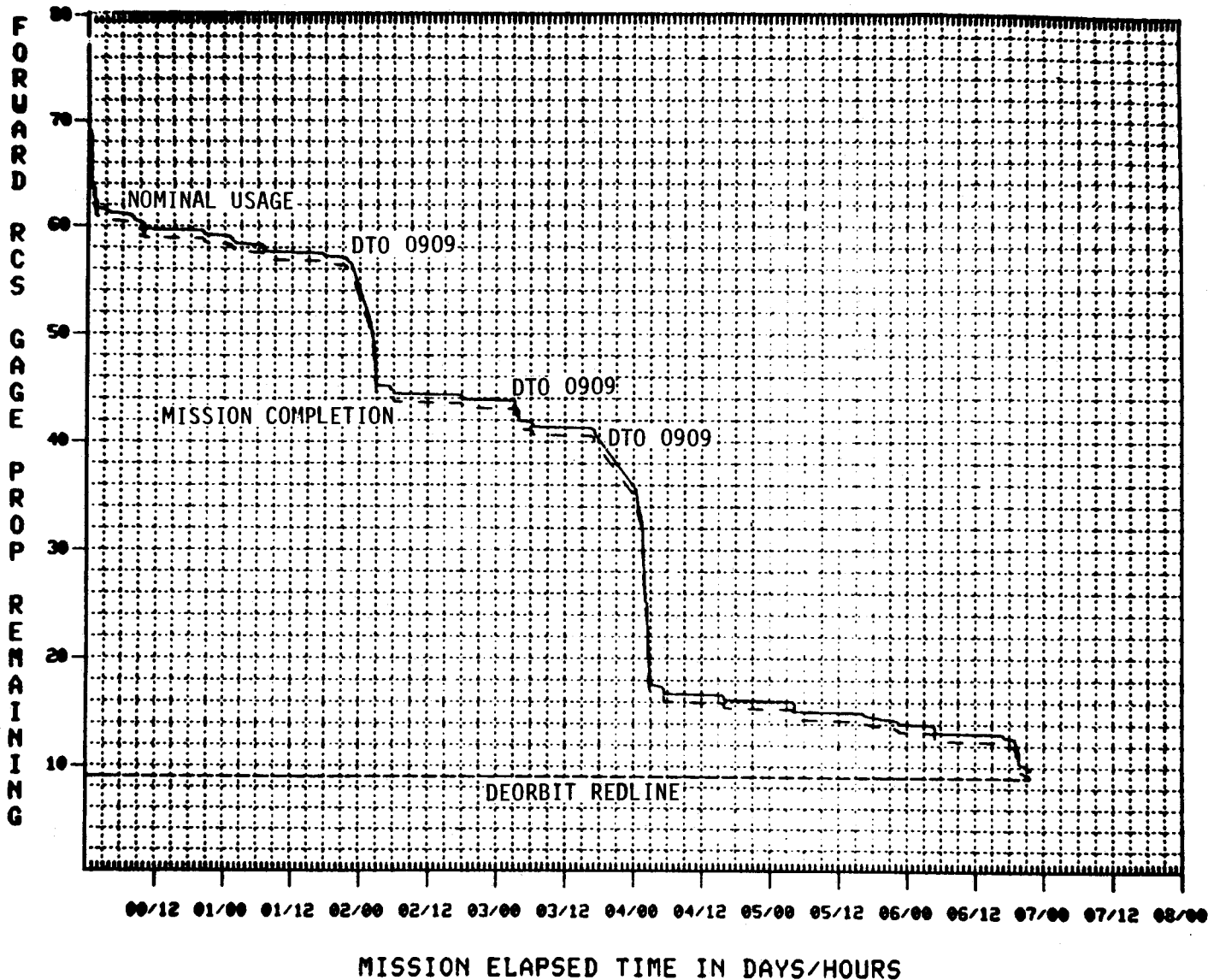
B. A. BIRD
DATA SUBMITTAL J-772 ADD 5
JSC-20376 (CAP) FIN A 11/15/85
CHECKED BY: *Ch. P. [Signature]*

61-B OMS PROP REMAINING(% GAGE)

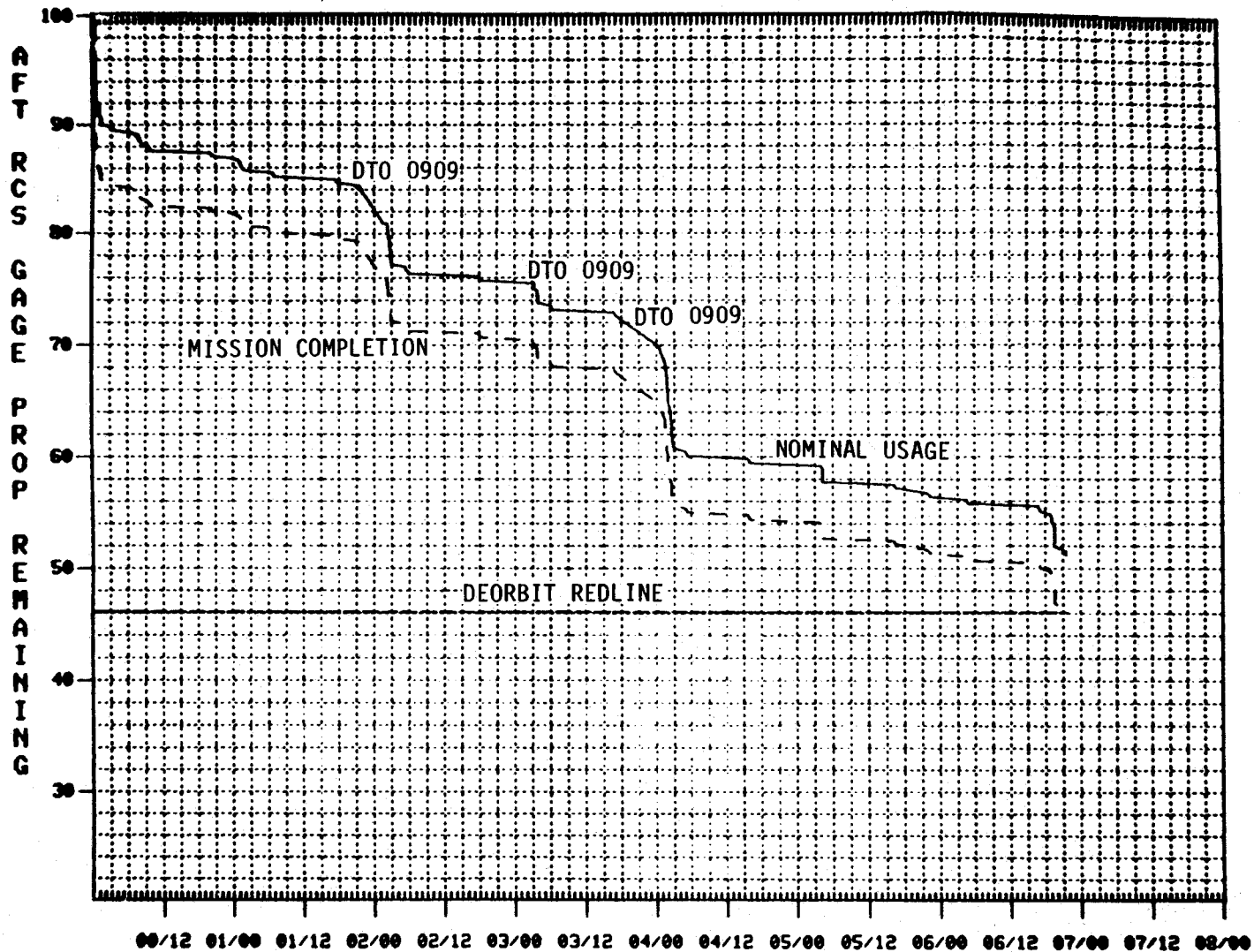


B. A. BIRD
DATA SUBMITTAL J-772 ADD 5
JSC-20376 (CAP) FIN A 11/15/85
CHECKED BY: *[Signature]*

61-B FORWARD RCS PROP REMAINING(% GAGE)



61-B AFT RCS PROP REMAINING(% GAGE)



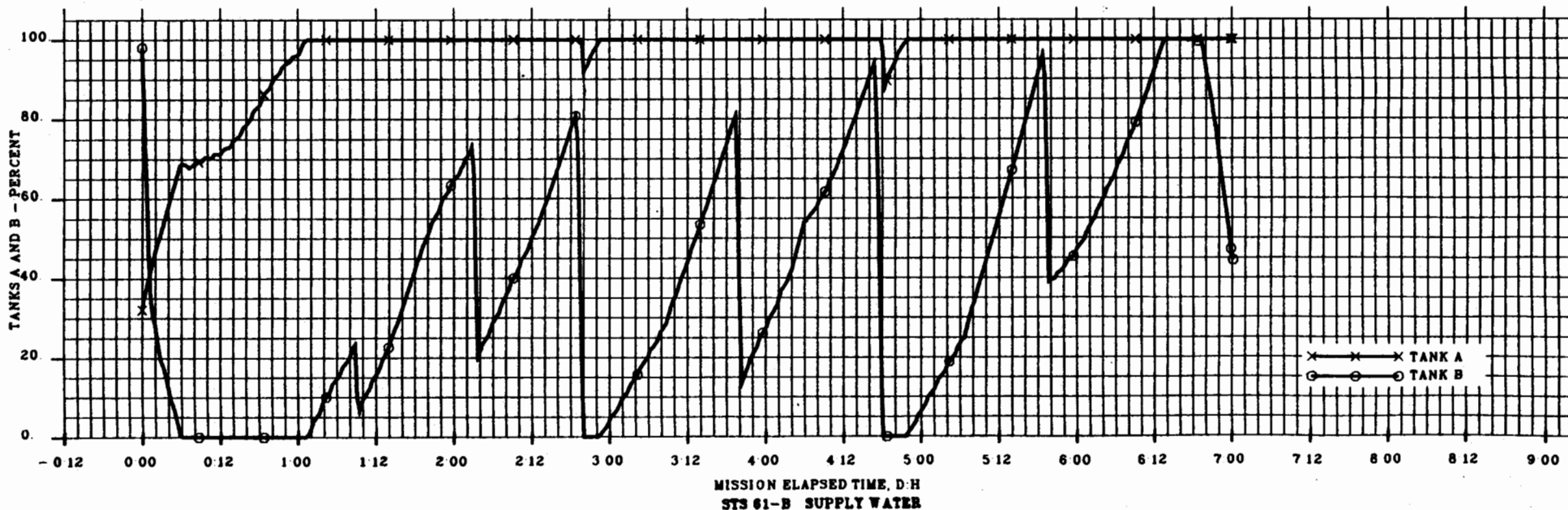
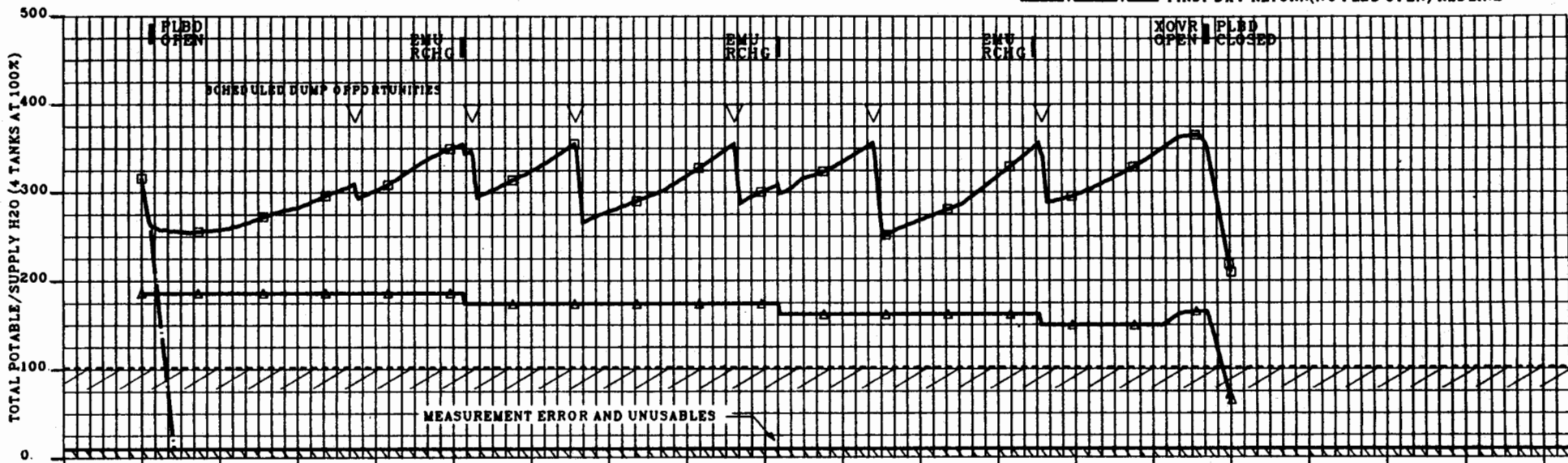
MISSION ELAPSED TIME IN DAYS/HOURS

THOMAS C. LATHROP
 JSC-20376 (CAP) 11/5/85
 DATA CONFIRMED

Thomas C. Lathrop

TRAJECTORY OFF CYCLE 2
 CAP FINAL NOVEMBER 1985
 ANALYSIS DATE 11/4/85

TANKS A-D
 TANKS C+D
 ANYTIME CONTINGENCY DEORBIT REDLINE
 FIRST DAY RETURN(NO PLBD OPEN) REDLINE

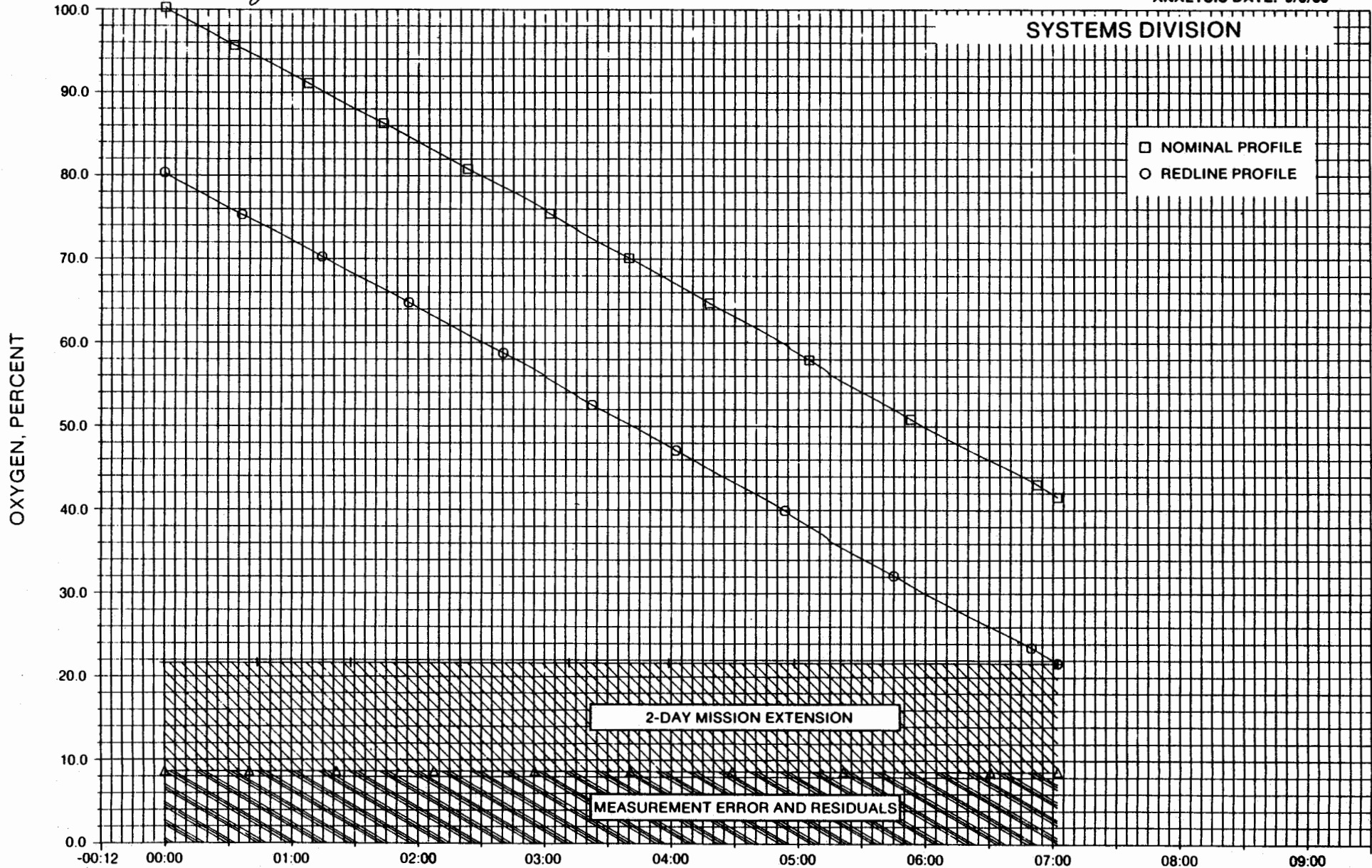


MISSION ELAPSED TIME, D:H
 STS 61-B SUPPLY WATER

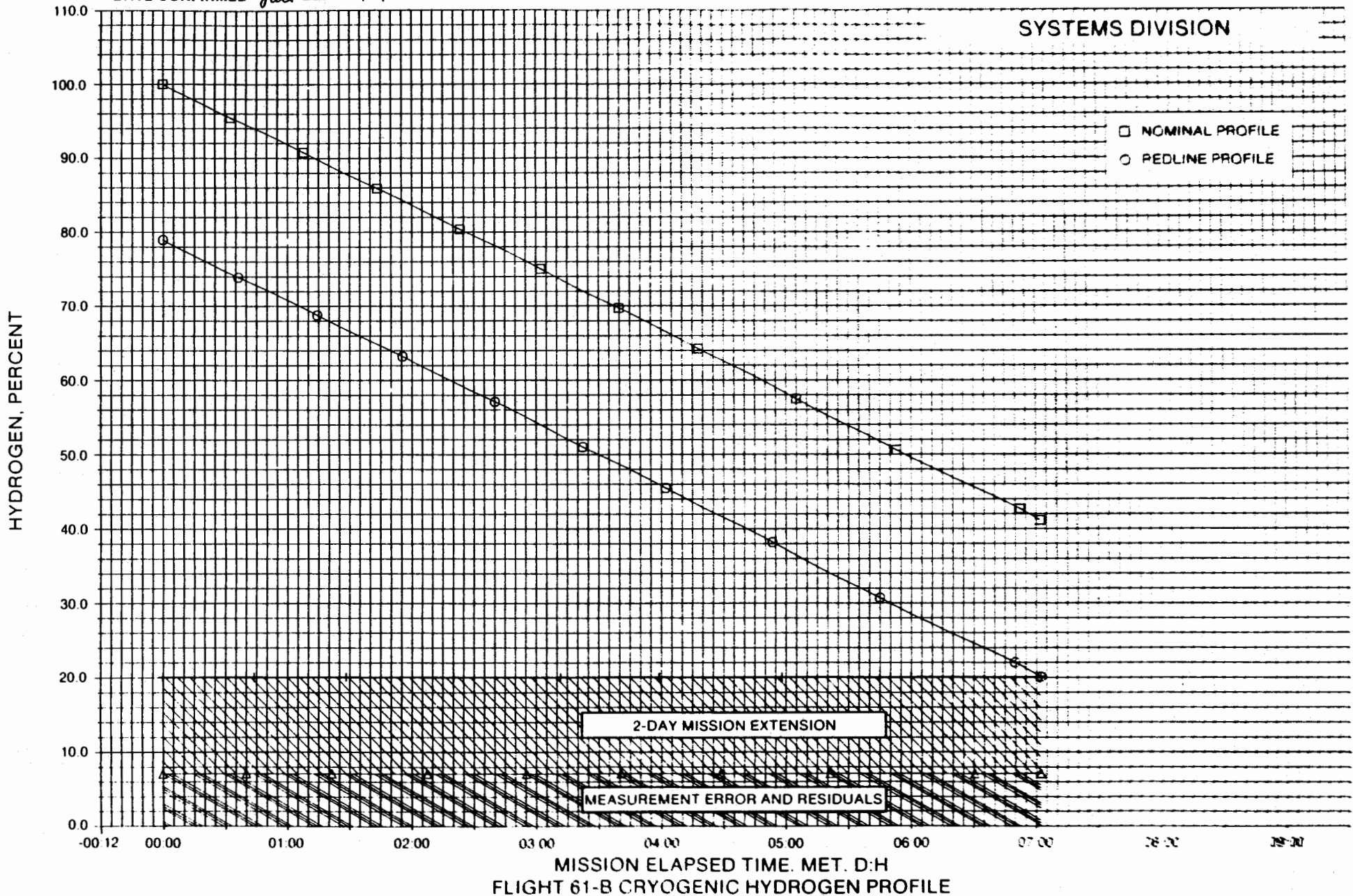
J. NIEDER/DF6
DATA SOURCE: JSC-20376, 7/26/85
DATE CONFIRMED *Gail Clark 9/24/85*

TRAJECTORY: OFF CYCLE 2
CAP: BASIC 7/26/85
ANALYSIS DATE: 9/5/85

SYSTEMS DIVISION



MISSION ELAPSED TIME, MET, D:H
FLIGHT 61-B CRYOGENIC OXYGEN PROFILE



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

STS 61-B DAP BOOK

DAP A CONFIGURATIONS..... 5-2
DAP B CONFIGURATIONS..... 5-3
STS 61-B DAP BOOK..... 5-4

DAP BOOK

DAP A CONFIGURATIONS

	A1*	A2	A3	A4	A5	A6	A7	A8	A9	A10
<u>TRANSLATION</u>										
PULSE ft/sec	0.10	0.10	0.10	0.10	0.10	0.10		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		0.500	0.200	0.200
VERN %/sec	0.200	0.400	0.200	0.008	0.200	0.200		0.200	0.200	0.200
PULSE NORM %/sec	0.10	0.10	0.30	0.10	0.10	0.10		0.10	0.10	0.10
VERN %/sec	0.010	0.010	0.010	0.010	0.050	0.010		0.010	0.010	0.010
COMP NORM %/sec	.00	.00	.00	.00	.00	.00		.00	.00	.00
VERN %/sec	.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	2.00	2.00
VERN (deg)	1.000	1.000	1.000	0.070	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
VERN %/sec	.020	.020	.020	.010	.020	.020		.020	.020	.020
<u>JET OPT</u>										
P	1	1	3	1	1	3		1	1	1
Y	1	1	3	3	1	3		1	1	1
CNTL ACCEL	0	0	0	0	0	0		0	0	0

*I-LOADED OPS-2 DAP Configuration

DAP B CONFIGURATIONS

	B1*	B2	B3	B4	B5	B6	B7	B8	B9
<u>TRANSLATION</u>									
PULSE ft/sec	0.02	0.02	0.02	0.02	0.02	0.05	0.01	0.05	
<u>ROTATION</u>									
DSC RT NORM %/sec	0.500	0.200	0.200	0.200	0.200	0.500	0.200	0.200	
VERN %/sec	0.200	0.200	0.200	0.008	0.016	0.200	0.200	0.200	
PULSE NORM %/sec	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.10	
VERN %/sec	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.010	
COMP NORM %/sec	.00	.00	.00	.00	.00	.00	.00	.00	
VERN %/sec	.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	2.00	
VERN (deg)	1.000	1.000	1.000	0.100	0.033	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	
VERN %/sec	.020	.020	.020	.010	.020	.020	.020	.020	
<u>JET OPT</u>									
P	1	3	1	3	3	1	1	1	
Y	1	3	1	3	3	1	1	1	
<u>CNTLACCEL</u>	0	0	0	0	0	0	0	0	

*I-LOADED OPS-2 DAP Configuration

DAP BOOK

HOOK
VELCRO

CAP/61-B/O/BAS

CAP/61-B/O/BAS

UNIV PTG	
TGT ID = 1	Orbiting Vehicle
= 2	Earth ctr
= 3	Earth tgt
	Input LAT (± 90)
	LON (± 180 , + = East)
	ALT (-3444.0 to 20000.0 nm)
= 4	Sun ctr
= 5	Celestial tgt
	Input RA (0-359.99)
	DEC (± 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
= 2	Nose only
= 3	Tail only

TOP

- | <u>DAP</u> | <u>PURPOSE</u> |
|------------|---|
| A1 | - NOMINAL
IMU ALIGN
LOSS OF VERN
(NOSE & TAIL) |
| A2 | - PTC |
| A3 | - RCS HOT FIRE |
| A4 | - GG |
| A5 | - IMU ALIGN (ROTATING) |
| A6 | - LOSS OF VERN
(TAIL ONLY) |
| A7 | - (Blank) |
| A8 | - PRE/POST DEPLOY |
| A9 | - RENDEZVOUS |
| A10 | - PROX OPS |

CAP/61-B/O/BAS

A1

TOP

DAP A1

A1

PURPOSE:

NOMINAL
IMU ALIGN
LOSS OF VERN
(NOSE & TAIL)

0.1 0	1	TRANSLATION PULSE
0.2 0 0	2	ROTATION 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 0	6	COMP NORM
0.0 0 0	7	VERN
5.0 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/61-B/O/BAS

CAP/61-B/O/BAS

A2

TOP

TOP

A1

DAP A2

PURPOSE:

PTC

A2

TRANSLATION
PULSE

0.1 0 1

ROTATION

0.4 0 0 2

OSC RT NORM

0.4 0 0 3

VERN

0.0 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 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/61-B/O/BAS

CAP/61-B/O/BAS

A3

TOP

TOP

A2

A3

PURPOSE:

RCS HOT FIRE

TRANSLATION
PULSE

0.1 0 1

ROTATION

0.2 0 0 2

OSC RT NORM

0.2 0 0 3

VERN

0.0 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 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/61-B/O/BAS

CAP/61-B/O/BAS

A4

TOP

TOP

A3

DAP A4

A4

PURPOSE:

GG

0.1 0 1 TRANSLATION PULSE

ROTATION

0.2 0 0	2	OSC RT	NORM
0.0 0 0	3	VERN	VERN
0.0 0 1	4	PULSE	NORM
0.0 0 0	5	VERN	VERN
0.0 0 0	6	COMP	NORM
0.0 0 0	7	VERN	VERN

DEADBAND

1.0 0	8	ATT	NORM
0.0 7 0	9		VERN

0.2 0	10	RATE	NORM
0.0 1 0	11		VERN

1	12	JET OPT	P
3	13		Y

0 14 CNTL ACCEL

CAP/61-B/O/BAS

CAP/61-B/O/BAS

TOP

TOP

A5

A4

DAP A5

A5

PURPOSE:

IMU ALIGN (ROTATING)

0.1 0 1 TRANSLATION PULSE

ROTATION

0.2 0 0	2	OSC RT	NORM
0.0 0 0	3	VERN	VERN
0.0 0 1	4	PULSE	NORM
0.0 0 0	5	VERN	VERN
0.0 0 0	6	COMP	NORM
0.0 0 0	7	VERN	VERN

DEADBAND

5.0 0	8	ATT	NORM
1.0 0 0	9		VERN

0.2 0	10	RATE	NORM
0.0 2 0	11		VERN

1	12	JET OPT	P
1	13		Y

0 14 CNTL ACCEL

CAP/61-B/O/BAS

CAP/61-B/O/BAS

TOP

A6

TOP

A5

DAP A6

PURPOSE:
LOSS OF VERN
(TAIL ONLY)

0.1 0

1 TRANSLATION PULSE

0.2 0 0

2 ROTATION
3 OSC RT NORM
4 VERN

0.0 1 0 0 0 0 0 0

5 PULSE NORM
6 VERN

0.0 1 0 0 0 0 0 0

7 COMP NORM
8 VERN

5.0 0 0

DEADBAND
9 ATT NORM
10 VERN

1.0 0 0 0

11 RATE NORM
12 VERN

3 12

JET OPT P
13 Y

0 14

CNTL ACCEL

CAP/61-B/0/BAS

CAP/61-B/0/BAS

A7

TOP

TOP

A6

DAP A7

PURPOSE: (Blank)

A7

1 TRANSLATION PULSE

2 ROTATION
3 OSC RT NORM
4 VERN

5 PULSE NORM
6 VERN

7 COMP NORM
8 VERN

DEADBAND
9 ATT NORM
10 VERN

11 RATE NORM
12 VERN

13 JET OPT P
14 Y

14 CNTL ACCEL

CAP/61-B/0/BAS

CAP/61-B/0/BAS

A8

TOP

TOP

A7

DAP A8

PURPOSE:

PRE/POST DEPLOY

A8

TRANSLATION
PULSE

0.1 0

ROTATION

0.5 0 0	2	OSC RT	NORM
0.2 0 0	3		VERN
0.1 0 0	4	PULSE	NORM
0.0 1 0	5		VERN
0.0 0 0	6	COMP	NORM
.0 0 0	7		VERN

DEADBAND

3.0 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/61-B/O/BAS

CAP/61-B/O/BAS

A9

TOP

TOP

A8

DAP A9

PURPOSE:

RENDEZVOUS

A9

TRANSLATION
PULSE

0.1 0

ROTATION

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

DEADBAND

2.0 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/61-B/O/BAS

CAP/61-B/O/BAS

A10

TOP

TOP

A9

DAP A10

PURPOSE:

PROX OPS

A10

0.0 5 1 TRANSLATION PULSE

0.2 0 0 2 ROTATION 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 0 6 COMP NORM

0.0 0 0 7 VERN

DEADBAND

2.0 0 0 8 ATT NORM

1.0 0 0 9 VERN

0.2 0 0 10 RATE NORM

0.2 0 0 11 VERN

1 12 JET OPT P

1 13 Y

0 14 CNTL ACCEL

CAP/61-B/O/BAS

CAP/61-B/O/BAS

TOP

A10

CAP/61-B/O/BAS

TOP

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 - EVA
- B9 - (Blank)

CAP/61-8/0/FIN A

B1

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	0	0
	VERN	19	0.0	0	0
COMP	NORM	20	0.0	0	0
	VERN	21	0.0	0	0

DEADBAND

ATT	NORM	22	3.0	0	0
	VERN	23	1.0	0	0

RATE	NORM	24	0.2	0	0
	VERN	25	0.2	0	0

JET OPT	P	26		1	
	Y	27		1	

CNTL ACCEL 28 0

CAP/61-8/0/BAS

CAP/61-8/0/BAS

B2

TOP

TOP

B1

DAP B2

PURPOSE:

LOSS OF VERN
(TAIL ONLY)

CAP/61-B/O/BAS

TOP

B2

DAP B3

PURPOSE:

LOSS OF VERN
(NOSE & TAIL)
GG MNVR

CAP/61-B/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	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	0
	VERN	23	1.0	0	0

RATE	NORM	24	0.2	0	0
	VERN	25	0.2	0	0

JET OPT	P	26		1	
	Y	27		1	

CNTL ACCEL 28 0

CAP/61-B/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	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	0
	VERN	23	1.0	0	0

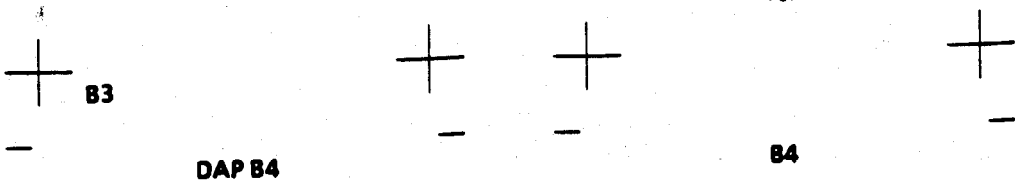
RATE	NORM	24	0.2	0	0
	VERN	25	0.2	0	0

JET OPT	P	26		1	
	Y	27		1	

CNTL ACCEL 28 0

CAP/61-B/O/BAS

B4



DAP B4

PURPOSE:
SSUS DEPLOY

TRANSLATION PULSE 15 0.0 2

ROTATION
DSC RT NORM 16 0.2 0 0
VERN 17 0.0 0 0 0 0
PULSE NORM 18 0.0 0 4
VERN 19 0.0 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 0

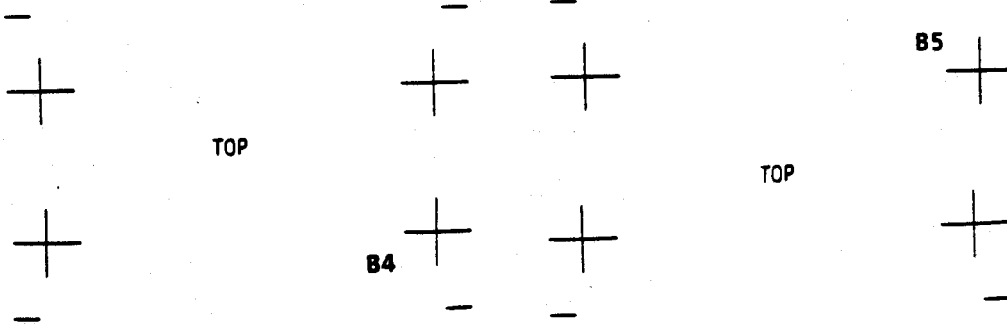
RATE NORM 24 0.2 0
VERN 25 0.1 0

JET OPT P 26 3
Y 27 3

CNTL ACCEL 28 0

CAP/61-B/O/BAS

CAP/61-B/O/BAS



TOP

TOP

DAP B5

PURPOSE:
COAS CAL

TRANSLATION PULSE 15 0.0 2

ROTATION
DSC RT NORM 16 0.2 0 0
VERN 17 0.0 0 0 0 0
PULSE NORM 18 0.0 0 4
VERN 19 0.0 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 3

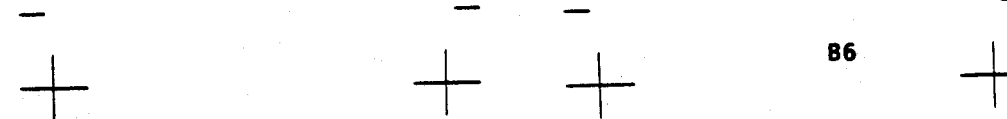
RATE NORM 24 0.2 0
VERN 25 0.2 0

JET OPT P 26 3
Y 27 3

CNTL ACCEL 28 0

CAP/61-B/O/BAS

CAP/61-B/O/BAS



TOP

86

TOP

85

DAP B6

PURPOSE:

RENDEZVOUS

CAP/61-B/O/BAS

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 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

RATE	NORM	24	0.2 0
	VERN	25	.0 2 0

JET OPT	P	26	1
	Y	27	1

CNTL ACCEL	28	0
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CAP/61-B/O/BAS

TOP

86

DAP B7

PURPOSE:

PROX OPS

CAP/61-B/O/BAS

B7

TOP

B7

TRANSLATION PULSE	15	0.0	1
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ROTATION			
DSC RT	NORM	16	0.2 0 0
	VERN	17	0.2 0 0
PULSE	NORM	18	0.0 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

RATE	NORM	24	0.2 0
	VERN	25	.0 2 0

JET OPT	P	26	1
	Y	27	1

CNTL ACCEL	28	0
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CAP/61-B/O/BAS

B8

TOP

TOP

B7

DAP B8

PURPOSE:
EVA

B8

TRANSLATION
PULSE 15 0.0 5

ROTATION
DSC RT NORM 16 0.2 0 0
VERN 17 0.2 0 0 0
PULSE NORM 18 0.1 0 0 0
VERN 19 0.0 1 0 0 0
COMP NORM 20 0.0 0 0 0
VERN 21 0.0 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/61-B/O/FIN A

CAP/61-B/O/FIN A

B9

TOP

TOP

B8

DAP B9

PURPOSE: (Blank)

B9

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/61-B/O/FIN A

CAP/61-B/O/FIN A

TOP

CAP/61-B/O/FIN A

TOP

TOP
BACK COVER 'DAP BOOK'

HOOK
VELCRO

CAP/61-B/O/BAS

ATTITUDE TIMELINE

Attitude Timeline

MET	MNVR OPTION		DAP	E/S	REMARKS	EVENT
1 0/01:10:00	TRK TGT=2 BV=5(90.00, 315.00) OM=180.00	A1 AUTO NORM	DSC .200 DB AT 5.00 DB RT .20	EARTH T 90 P 315	LVLH R+225 P+ 0 Y+ 0	PLBD OPENING BIASED -ZLV
2 0/02:55:00 03:08:52	MNVR R+172.00 P+151.00 Y+ 16.00	A1 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	SUN T 73 P 91	-Y:23 -Z:16	IMU ALIGN COARS CAL PAIR A1
3 0/03:25:00 33:38	TRK TGT=2 BV=3(90.00, .00) OM=180.00	A1 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	EARTH T 90 P 0	LVLH R+180 P+ 0 Y+ 0	-ZLV +XVV
4 0/06:38:00	MNVR R+ TBD P+ TBD Y+ TBD	A8 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	SUN T 115 P 293		MORELOS DEPLOY
5 0/07:21:00	MNVR R+ TBD P+ TBD Y+ TBD	A8 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	SUN T 115 P 293		SEP BURN
6 0/07:36:00	TRK TGT=2 BV=3(90.00, .00) OM=180.00	A8 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	EARTH T 90 P 0	LVLH R+180 P+ 0 Y+ 0	PAYLOAD VIEWING
7 0/07:47:00	TRK TGT=1 BV=5(310.00, .00) OM= TBD	A8 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	EARTH T 90 P 180	LVLH R+TBD P+TBD Y+TBD	WINDOW PROTECT
8 0/08:03:00	CANCEL	A8 MAN VERN	DSC .200 DB AT 1.00 DB RT .02	SUN T 72 P 168	INRTL R+TBD P+TBD Y+TBD	INRTL HOLD FOR PKM
9 0/08:15:00 30:00	TRK TGT=2 BV=3(90.00, .00) OM=180.00	A1 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	EARTH T 90 P 0	LVLH R+180 P+ 0 Y+ 0	-ZLV +XVV
10 0/09:12:00 22:36	MNVR R+172.00 P+151.00 Y+ 16.00	A1 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	SUN T 73 P 91	-Y:23 -Z:16	IMU ALIGN PAIR A1
11 0/09:32:00 46:22	TRK TGT=2 BV=3(90.00, .00) OM= .00	A1 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	EARTH T 90 P 0	LVLH R+ 0 P+180 Y+ 0	-ZLV -XVV
12 0/19:54:00 20:03:30	MNVR R+172.00 P+151.00 Y+ 16.00	A1 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	SUN T 73 P 91	-Y:23 -Z:16	IMU ALIGN PAIR A1

ATTITUDE
TIMELINE

Attitude Timeline

MET	MNVR OPTION		DAP	E/S	REMARKS	EVENT
1 0/20:14:00 28:29	TRK TGT=2 BV=3(90.00, .00) OM= .00	A1 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	EARTH T 90 P 0	LVLH R+ 0 P+180 Y+ 0	-ZLV -XVV
2 1/00:11:00	MNVR R+ TBD P+ TBD Y+ TBD	A8 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	SUN T 114 P 293		AUSSAT DEPLOY
3 1/00:54:00	MNVR R+ TBD P+ TBD Y+ TBD	A8 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	SUN T 114 P 293		SEP BURN
4 1/01:09:00	TRK TGT=2 BV=3(90.00, .00) OM=180.00	A8 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	EARTH T 90 P 0	LVLH R+180 P+ 0 Y+ 0	PAYLOAD VIEWING
5 1/01:20:00	TRK TGT=1 BV=5(310.00, .00) OM= TBD	A8 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	EARTH T 90 P 180	LVLH R+TBD P+TBD Y+TBD	WINDOW PROTECT
6 1/01:36:00	CANCEL	A8 MAN VERN	DSC .200 DB AT 1.00 DB RT .02	SUN T 104 P 15	INRTL R+TBD P+TBD Y+TBD	INRTL HOLD FOR PKM
7 1/01:50:00 02:05:00	TRK TGT=2 BV=3(90.00, .00) OM=180.00	A1 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	EARTH T 90 P 0	LVLH R+180 P+ 0 Y+ 0	-ZLV +XVV
8 1/06:36:00 46:40	MNVR R+172.00 P+151.00 Y+ 16.00	A1 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	SUN T 74 P 91	-Y:23 -Z:16	IMU ALIGN PAIR A1
9 1/06:56:00 07:10:29	TRK TGT=2 BV=3(90.00, .00) OM= .00	A1 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	EARTH T 90 P 0	LVLH R+ 0 P+180 Y+ 0	-ZLV -XVV
10 1/17:18:00 27:19	MNVR R+172.00 P+151.00 Y+ 16.00	A1 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	SUN T 74 P 91	-Y:23 -Z:16	IMU ALIGN PAIR A1
11 1/17:38:00 47:04	TRK TGT=2 BV=3(90.00, .00) OM=180.00	A1 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	EARTH T 90 P 0	LVLH R+180 P+ 0 Y+ 0	-ZLV +XVV
12 1/20:48:00	MNVR R+ TBD P+ TBD Y+ TBD	A8 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	SUN T 113 P 293		SATCOM DEPLOY

Attitude Timeline

MET	MNVR OPTION		DAP	E/S	REMARKS	EVENT
1 1/21:31:00	MNVR R+ TBD P+ TBD Y+ TBD		A8 AUTO VERN DSC .200 DB AT 1.00 DB RT .02	SUN T 113 P 293		SEP BURN
2 1/21:46:00	TRK TGT=2 BV=3(90.00, .00) OM=180.00		A8 AUTO VERN DSC .200 DB AT 1.00 DB RT .02	EARTH T 90 P 0	LVLH R+180 P+ 0 Y+ 0	PAYLOAD VIEWING
3 1/21:57:00	TRK TGT=1 BV=5(310.00, .00) OM= TBD		A8 AUTO VERN DSC .200 DB AT 1.00 DB RT .02	EARTH T 90 P 180	LVLH R+TBD P+TBD Y+TBD	WINDOW PROTECT
4 1/22:13:00	CANCEL		A8 MAN VERN DSC .200 DB AT 1.00 DB RT .02	SUN T 83 P 162	INRTL R+TBD P+TBD Y+TBD	INRTL HOLD FOR PKM
5 1/22:25:00 40:00	TRK TGT=2 BV=3(90.00, .00) OM=180.00		A1 AUTO VERN DSC .200 DB AT 1.00 DB RT .02	EARTH T 90 P 0	LVLH R+180 P+ 0 Y+ 0	-ZLV +XVV
6 2/05:20:00 32:59	MNVR R+172.00 P+151.00 Y+ 16.00		A1 AUTO VERN DSC .200 DB AT 1.00 DB RT .02	SUN T 75 P 90	-Y:23 -Z:16	IMU ALIGN OEX COAS CAL PAIR A1
7 2/05:55:00 06:04:11	TRK TGT=2 BV=3(90.00, .00) OM=180.00		A1 AUTO VERN DSC .200 DB AT 1.00 DB RT .02	EARTH T 90 P 0	LVLH R+180 P+ 0 Y+ 0	-ZLV +XVV
8 2/17:48:00 59:01	MNVR R+172.00 P+151.00 Y+ 16.00		A1 AUTO VERN DSC .200 DB AT 1.00 DB RT .02	SUN T 75 P 90	-Y:23 -Z:16	IMU ALIGN PAIR A1
9 2/18:08:00 17:22	TRK TGT=2 BV=3(90.00, .00) OM=180.00		A1 AUTO VERN DSC .200 DB AT 1.00 DB RT .02	EARTH T 90 P 0	LVLH R+180 P+ 0 Y+ 0	-ZLV +XVV EVA 1
10 3/03:15:00 30:00	TRK TGT=2 BV=2(180.00, .00) OM= .00		A1 AUTO VERN DSC .200 DB AT 1.00 DB RT .02	EARTH T 180 P 0	LVLH R+ 0 P+ 90 Y+ 0	-XLV +ZVV
11 3/06:04:00 18:33	MNVR R+172.00 P+151.00 Y+ 16.00		A1 AUTO VERN DSC .200 DB AT 1.00 DB RT .02	SUN T 75 P 90	-Y:23 -Z:16	IMU ALIGN PAIR A1
12 3/06:24:00 33:30	TRK TGT=2 BV=3(90.00, .00) OM=180.00		A1 AUTO VERN DSC .200 DB AT 1.00 DB RT .02	EARTH T 90 P 0	LVLH R+180 P+ 0 Y+ 0	-ZLV +XVV

Attitude Timeline

MET	MNVR OPTION		DAP	E/S	REMARKS	EVENT
1 3/16:47:00 58:04	MNVR R+172.00 P+151.00 Y+ 16.00	A1 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	SUN T 76 P 89	-Y:23 -Z:16	IMU ALIGN PAIR A1
2 3/17:07:00 16:34	TRK TGT=2 BV=3(90.00, .00) OM=180.00	A1 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	EARTH T 90 P 0	LVLH R+180 P+ 0 Y+ 0	-ZLV +XVV
3 4/03:50:00 04:05:00	TRK TGT=2 BV=3(90.00, .00) OM= .00	A1 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	EARTH T 90 P 0	LVLH R+ 0 P+180 Y+ 0	-ZLV -XVV
4 4/05:03:00 12:29	MNVR R+172.00 P+151.00 Y+ 16.00	A1 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	SUN T 76 P 89	-Y:23 -Z:16	IMU ALIGN PAIR A1
5 4/05:23:00 37:53	TRK TGT=2 BV=3(90.00, .00) OM= .00	A1 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	EARTH T 90 P 0	LVLH R+ 0 P+180 Y+ 0	-ZLV -XVV
6 4/15:46:00 55:23	MNVR R+172.00 P+151.00 Y+ 16.00	A1 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	SUN T 77 P 89	-Y:23 -Z:16	IMU ALIGN PAIR A1
7 4/16:06:00 15:49	TRK TGT=2 BV=3(90.00, .00) OM=180.00	A1 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	EARTH T 90 P 0	LVLH R+180 P+ 0 Y+ 0	-ZLV +XVV EVA 2
8 5/04:02:00 13:17	MNVR R+172.00 P+151.00 Y+ 16.00	A1 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	SUN T 77 P 89	-Y:23 -Z:16	IMU ALIGN PAIR A1
9 5/04:22:00 36:17	MNVR R+ 66.00 P+328.00 Y+331.00	A1 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	SUN T 91 P 212		Y-POP
10 5/16:17:00 31:17	MNVR R+172.00 P+151.00 Y+ 16.00	A1 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	SUN T 77 P 88	-Y:23 -Z:16	IMU ALIGN PAIR A1
11 5/16:37:00 47:05	TRK TGT=2 BV=3(90.00, .00) OM=180.00	A1 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	EARTH T 90 P 0	LVLH R+180 P+ 0 Y+ 0	-ZLV +XVV
12 6/04:33:00 44:28	MNVR R+172.00 P+151.00 Y+ 16.00	A1 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	SUN T 78 P 88	-Y:23 -Z:16	IMU ALIGN PAIR A1

Attitude Timeline

MET	MNVR OPTION		DAP	E/S	REMARKS	EVENT
1 6/04:53:00 05:07:41	TRK TGT=2 BV=3(90.00, .00) OM= .00	A1 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	EARTH T 90 P 0	LVLH R+ 0 P+180 Y+ 0	-ZLV -XVV
2 6/15:15:00 24:21	MNVR R+172.00 P+151.00 Y+ 16.00	A1 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	SUN T 78 P 88	-Y:23 -Z:16	IMU ALIGN PAIR A1
3 6/15:35:00 50:00	TRK TGT=4 BV=5(184.00, .00) OM= 90.00	A1 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	SUN T 176 P 181	INRTL R+191 P+318 Y+ 61	-XSI
4 6/18:53:00 19:07:23	MNVR R+ 2.00 P+ 27.00 Y+291.00	A1 AUTO VERN	DSC .200 DB AT 1.00 DB RT .02	SUN T 39 P 317	-Y:20 -Z:17	IMU
5 6/19:13:00 15:57	MNVR R+ 9.00 P+109.00 Y+339.00	B1 AUTO NORM	DSC .500 DB AT 3.00 DB RT .20	SUN T 42 P 276	-Y:43 -Z:41	VERIF
6 6/19:38:00 41:38	MNVR R+ TBD P+ TBD Y+ TBD	* AUTO *	DSC 0.500 DB AT 3.50 DB RT 0.30	SUN T 108 P 293		DEORBIT BURN ATTITUDE