

Flight Plan

STS-100/6A

For the latest working copy of the Flight Plan, visit
<https://mod.jsc.nasa.gov/do4/flightplan/fp.cfm?id=100>

(STS-100 FRR Trajectory)

Mission Operations Directorate Operations Division

Final
March 16, 2001

EVENT	MET	CENTRAL	GMT
Launch	0 00:00	Thu 04/19/01 14:06:58	109/19:06:58
OMS 2	0 00:44	Thu 04/19/01 14:50:58	109/19:50:58
NC1	0 03:43	Thu 04/19/01 17:49:58	109/22:49:58
NC2	0 15:49	Fri 04/20/01 05:55:58	110/10:55:58
NPC	0 22:18	Fri 04/20/01 12:24:58	110/17:24:58
NC3	1 02:22	Fri 04/20/01 16:28:58	110/21:28:58
NH	1 14:26	Sat 04/21/01 04:32:58	111/09:32:58
NC4	1 15:13	Sat 04/21/01 05:19:58	111/10:19:58
TI	1 16:45	Sat 04/21/01 06:51:58	111/11:51:58
Docking	1 19:06	Sat 04/21/01 09:12:58	111/14:12:58
PMA2 Open (FD3)	1 21:41	Sat 04/21/01 11:47:58	111/16:47:58
EVA1 (SSRMS DPL)	2 17:00	Sun 04/22/01 07:06:58	112/12:06:58
ISS Ingress (FD5)	3 14:20	Mon 04/23/01 04:26:58	113/09:26:58
EVA 2	4 18:20	Tue 04/24/01 08:26:58	114/13:26:58
ISS Ingress (FD6)	5 02:15	Tue 04/24/01 16:21:58	114/21:21:58
EVA 3	6 18:10	Thu 04/26/01 08:16:58	116/13:16:58
ISS Ingress (FD8)	7 02:30	Thu 04/26/01 16:36:58	116/21:36:58
Undocking	8 21:04	Sat 04/28/01 11:10:58	118/16:10:58
Final Sep	8 22:02	Sat 04/28/01 12:08:58	118/17:08:58
Deorbit Burn	10 18:52	Mon 04/30/01 08:58:58	120/13:58:58
KSC Landing	10 19:58	Mon 04/30/01 10:04:58	120/15:04:58

National Aeronautics and
 Space Administration

Lyndon B. Johnson Space Center
 Houston, Texas



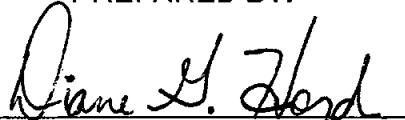
Verify this is the correct version for the pending operation (training, simulation, or flight).
 Electronic copies of FDF books are available. URL: <http://ftpproc.jsc.nasa.gov/fdf>

MISSION OPERATIONS DIRECTORATE

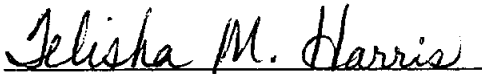
STS-100/6A FLIGHT PLAN

FINAL
March 16, 2001

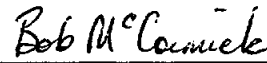
PREPARED BY:



Diane G. Hord
Book Manager, Lead FAO



Telisha Harris
Lead Timeliner

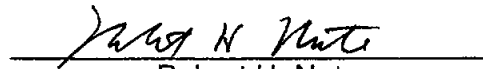


Bob McCormick
Lead Ops Planner


APPROVED BY:




Jennifer Price
Shuttle and Station
Ops Planning Group



Robert H. Nute
Chief, Flight Planning Branch



Larry Davis
Chief, Operations Division



Brock R. Stone
Director of Operations

This document is under the configuration control of the Crew Procedures Control Board (CPCB). All proposed changes must be submitted on JSC Form 482 to DO3/FDF Manager.

Additional distribution of this book for official use must be requested in writing to DO3/FDF Manager. The request must include justification and requester's name, organization, position, and phone number. Contractor requests are made through the NASA or DOD organization supported. Deletions, reduction in quantity, or change of address may be submitted to DO3/FDF Management Office, 281-244-1184.

Incorporates the following:
482#: FLT PLN – 1975

AREAS OF TECHNICAL RESPONSIBILITY

Book Manager/Lead FAO	DO4/D. Hord	281-244-0294
Lead Timeliner	DO4/T. Harris	281-244-1081
Lead Pointer	DO4/D. McKinley	281-244-5890
Lead Ops Planner	DO4/B. McCormick	281-483-5900
Lead RPE	DO4/K. Haase	281-244-0241

FLIGHT PLAN
STS-100/6A

LIST OF EFFECTIVE PAGES

FINAL 03/16/01

Sign Off	* 100/FIN	2-36	100/FIN
ii	* 100/FIN	2-37	100/FIN
iii	* 100/FIN	2-38	100/FIN
iv	* 100/FIN	2-39	100/FIN
v	* 100/FIN	2-40	100/FIN
vi	* 100/FIN	3-1	100/FIN
vii	* 100/FIN	3-2	100/FIN
viii	* 100/FIN	3-3	100/FIN
ix	* 100/FIN	3-4	100/FIN
x	* 100/FIN	3-5	100/FIN
1-1	100/FIN	3-6	100/FIN
1-2	100/FIN	3-7	100/FIN
2-1	100/FIN	3-8	100/FIN
2-2	100/FIN	3-9	100/FIN
2-3	100/FIN	3-10	100/FIN
2-4	100/FIN	3-10A	▽ 100/FIN
2-5	100/FIN	3-10B	▽ 100/FIN
2-6	100/FIN	3-11	100/FIN
2-7	100/FIN	3-12	100/FIN
2-8	100/FIN	3-13	100/FIN
2-9	100/FIN	3-14	100/FIN
2-10	100/FIN	3-15	100/FIN
2-11	100/FIN	3-16	100/FIN
2-12	100/FIN	3-17	100/FIN
2-13	100/FIN	3-18	100/FIN
2-14	100/FIN	3-19	100/FIN
2-15	100/FIN	3-20	100/FIN
2-16	100/FIN	3-21	100/FIN
2-17	100/FIN	3-22	100/FIN
2-18	100/FIN	3-23	100/FIN
2-19	100/FIN	3-24	100/FIN
2-20	100/FIN	3-25	100/FIN
2-21	100/FIN	3-26	100/FIN
2-22	100/FIN	3-27	100/FIN
2-23	100/FIN	3-28	100/FIN
2-24	100/FIN	3-29	100/FIN
2-25	100/FIN	3-30	100/FIN
2-26	100/FIN	3-31	100/FIN
2-27	100/FIN	3-32	100/FIN
2-28	100/FIN	3-33	100/FIN
2-29	100/FIN	3-34	100/FIN
2-30	100/FIN	3-35	100/FIN
2-31	100/FIN	3-36	100/FIN
2-32	100/FIN	3-37	100/FIN
2-33	100/FIN	3-38	100/FIN
2-34	100/FIN	3-39	100/FIN
2-35	100/FIN	3-40	100/FIN

* - Omit from flight book

▽ - Tear-out page

3-41	100/FIN	3-95	100/FIN
3-42	100/FIN	3-96	100/FIN
3-43	100/FIN	3-97	100/FIN
3-44	100/FIN	3-98	100/FIN
3-45	100/FIN	3-99	100/FIN
3-46	100/FIN	3-100	100/FIN
3-47	100/FIN	3-101	100/FIN
3-48	100/FIN	3-102	100/FIN
3-49	100/FIN	3-103	100/FIN
3-50	100/FIN	3-104	100/FIN
3-51	100/FIN	3-105	100/FIN
3-52	100/FIN	3-106	100/FIN
3-53	100/FIN	3-107	100/FIN
3-54	100/FIN	3-108	100/FIN
3-55	100/FIN	3-109	100/FIN
3-56	100/FIN	3-110	100/FIN
3-57	100/FIN	3-111	100/FIN
3-58	100/FIN	3-112	100/FIN
3-59	100/FIN	3-113	100/FIN
3-60	100/FIN	3-114	100/FIN
3-61	100/FIN	3-115	100/FIN
3-62	100/FIN	3-116	100/FIN
3-63	100/FIN	3-117	100/FIN
3-64	100/FIN	3-118	100/FIN
3-65	100/FIN	3-119	100/FIN
3-66	100/FIN	3-120	100/FIN
3-67	100/FIN	3-121	100/FIN
3-68	100/FIN	3-122	100/FIN
3-69	100/FIN	3-123	100/FIN
3-70	100/FIN	3-124	100/FIN
3-71	100/FIN	3-125	100/FIN
3-72	100/FIN	3-126	100/FIN
3-73	100/FIN	3-127	100/FIN
3-74	100/FIN	3-128	100/FIN
3-75	100/FIN	3-129	100/FIN
3-76	100/FIN	3-130	100/FIN
3-77	100/FIN	4-1	100/FIN
3-78	100/FIN	4-2	100/FIN
3-79	100/FIN	4-3	100/FIN
3-80	100/FIN	4-4	100/FIN
3-81	100/FIN	4-5	100/FIN
3-82	100/FIN	4-6	100/FIN
3-83	100/FIN	5-i	* 100/FIN
3-84	100/FIN	5-ii	* 100/FIN
3-85	100/FIN	5-1	* 100/FIN
3-86	100/FIN	5-2	* 100/FIN
3-87	100/FIN	5-3	* 100/FIN
3-88	100/FIN	5-4	* 100/FIN
3-89	100/FIN	5-5	* 100/FIN
3-90	100/FIN	5-6	* 100/FIN
3-91	100/FIN	5-7	* 100/FIN
3-92	100/FIN	5-8	* 100/FIN
3-93	100/FIN	6-1	* 100/FIN
3-94	100/FIN	6-2	* 100/FIN

* - Omit from flight book

6-3 * 100/FIN
6-4 * 100/FIN
6-5 * 100/FIN
6-6 * 100/FIN
6-7 * 100/FIN
6-8 * 100/FIN
7-1 * 100/FIN
7-2 * 100/FIN
7-3 * 100/FIN
7-4 * 100/FIN
7-5 * 100/FIN
7-6 * 100/FIN
8-1 * 100/FIN
CC 8-2 * 100/FIN
CC 8-3 * 100/FIN
CC 8-4 * 100/FIN
CC 8-5 * 100/FIN
8-6 * 100/FIN

* - Omit from flight book

This Page Intentionally Blank

STS-100 FLIGHT PLAN FABRICATED ITEMS

<u>Title</u>	<u>Ref. Page</u>	<u>Item No.</u>
STS-100 DAP A1 THROUGH A8 CONFIGURATIONS	CC 8-2	FLT PLN-1a/100/O/A
STS-100 DAP B1 THROUGH B8 CONFIGURATIONS	CC 8-3	FLT PLN-1aa/100/O/A
STS-100 DAP A9 THROUGH A15 CONFIGURATIONS	CC 8-4	FLT PLN-1b/100/O/B
STS-100 DAP B9 THROUGH B15 CONFIGURATIONS	CC 8-5	FLT PLN-1bb/100/O/B

This Page Intentionally Blank

CONTENTS

PAGE

INTRODUCTION x

OVERVIEW TIMELINE 1-1

SUMMARY TIMELINE 2-1

DETAILED TIMELINE 3-1

STS-100 DAP TABLE 4-1

ATTITUDE TIMELINE 5-1

FLIGHT PLAN WALKTHROUGH WITH RATIONALE 6-1 |

FLIGHT PLAN NOTES 7-1

CUE CARD CONFIGURATION 8-1

INTRODUCTION

The STS-100 Flight 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, Deorbit Prep, and Entry Checklists. The detailed rendezvous and undocking timelines and procedures are contained in the Rendezvous Checklist. The detailed EVA task timelines and procedures are in the EVA Checklist.

This Flight Plan satisfies the mission requirements specified in the following documents:

- NSTS-07700 Vol III, Flight Definition and Requirements Document
- NSTS-17462-100, STS-100 Flight Requirements Document
- NSTS-37326, Shuttle Crew Scheduling Constraints (Rev A)

The timeline formats used in this Flight Plan are based on JSC-19933, Timeline Format Definitions and Standard Notes, Rev C, May 1990.

The STS-100 Flight Plan was based on the FRR Cycle profile and a launch date of April 19, 2001, at 19:06:58 GMT. Orbiter inertial attitudes are expressed relative to a mean of 1950 (M50) reference frame.

The following SCSC Exceptions have been submitted, but not dispositioned. These exceptions are needed to accomplish category 1 mission objectives:

- 100-1 Pre- or Post-Sleep less than 2-hour minimum
- 100-2 Insufficient off-duty time

The Flight Plan and other related mission information are available on the following Space Shuttle Flight Planning web site:

<https://mod.jsc.nasa.gov/do4/flightplan/fp.cfm?id?=100>

OVERVIEW TIMELINE

STS-100 (6A) OVERVIEW TIMELINE (11 day mission; 19:06:58 GMT L/O)

Launch Date: 04/19/01

OVERVIEW
TIMELINE

MET	-10	-11	-12	-13	-14	-15	-16	-17	-18	-19	-20	-21	-22	-23	FD1	0/0	1	2	3	4	5	6	7	8	9	10
STS														ASC	PI	SLEEP										
ISS														SLEEP												
ORB ATT														-ZLV-XVV												

MET	0/10	11	12	13	14	15	16	17	18	19	20	21	22	23	FD2⇒	UNC2	UNC3	UNC4	UNC5	6	7	8	9	10			
STS	SLEEP													EMU, RMS & OSVS C/O, RNDZ Prep	MEAL	10.2	ODS	SLEEP									
ISS	SLEEP													SLEEP													
ORB ATT														-ZLV-XVV													

MET	1/10	11	12	13	14	15	16	17	18	19	20	21	22	23	FD3⇒	UNC4	UTi	UDock	Uhtch op	Uhtch cls	2/0	1	2	3	4	5	6	7	8	9	10
STS	SLEEP													H2O	RENDEZVOUS			PRESS	Xfr	EVA RVW	SLEEP										
ISS	SLEEP													DOCKING PREP			CKS	Xfr	PMA2 Xfer	SLEEP											
ORB ATT	-ZLV-XVV													-Z TGT TRK	+ZLV	BIAS-XLV+ZVV															

MET	2/10	11	12	13	14	15	16	17	18	19	20	21	22	23	FD4⇒	Uhtch op	3/0	1	2	3	4	5	6	7	8	9	10
STS	SLEEP													SLP	EVA 1 (UHF INSTALL/DPLY, SSRMS DPLY)	14.7	SLEEP										
ISS	SLEEP													EVA ASSIST			SSRMS	SLEEP									
ORB ATT														BIAS-XLV+ZVV													

MET	3/10	11	12	13	14	15	16	17	18	19	20	21	22	23	FD5⇒	Uhtch cls	4/0	1	2	3	4	5	6	7	8	9	10	
STS	SLEEP													SSRMS DYN C/O	MPLM Unbrth & Instll	BRF	10.2	MPLM ACT	SLEEP									
ISS	SLEEP													DPC	SSRMS DYN C/O	CBM OPS	XFER	Vestibule Outfitting	SLEEP									
ORB ATT														BIAS-XLV+ZVV														

MET	4/10	11	12	13	14	15	16	17	18	19	20	21	22	23	FD6⇒	Uhtch op	5/0	1	2	3	4	5	6	7	8	9	10	
STS	SLEEP													EVA 2 (SSRMS UMB, VSC RMV, ECOM, DCSU)			14.7	SLEEP										
ISS	SLEEP													DPC	EXP RACK XFERS	SLP DEMATE	EXPI ACT	MPLM XFERS	SLEEP									
ORB ATT														BIAS-XLV+ZVV														

MET	5/10	11	12	13	14	15	16	17	18	19	20	21	22	23	FD7⇒	Uhtch cls	6/0	1	2	3	4	5	6	7	8	9	10			
STS	SLEEP													SLP TO PLB	MEAL	PWR PL XFERS	EVA BRF	10.2	SLEEP											
ISS	SLEEP													DPC	SSRMS LOAD C/O	HDOFF SLP	MEAL	PWR PL XFERS	EVA BRF	MPLM XFER	SLEEP									
ORB ATT														BIAS-XLV+ZVV																

MET	6/10	11	12	13	14	15	16	17	18	19	20	21	22	23	FD8⇒	Uhtch op	7/0	1	2	3	4	5	6	7	8	9	10
STS	SLEEP													EVA 3 (UNSCHEDULED)			14.7	SLEEP									
ISS	SLEEP													DPC	MPLM XFERS	EVA ASSIST	Vest Deoutfit	SLEEP									
ORB ATT														BIAS-XLV+ZVV													

MET	7/10	11	12	13	14	15	16	17	18	19	20	21	22	23	FD9⇒	Uhtch cls	8/0	1	2	3	4	5	6	7	8	9	10	
STS	SLEEP													XFER	VESTIBULE DEOUTFITTING	CREW CONF	CR EW	SLEEP										
ISS	SLEEP													DPC	SSRMS UNLD C/O	MPLM PREP	CREW CONF	PHO TO	SLEEP									
ORB ATT														BIAS-XLV+ZVV														

MET	8/10	11	12	13	14	15	16	17	18	19	20	21	22	23	FD10⇒	Uhtch cls	Uhdock/sep	9/0	1	2	3	4	5	6	7	8	9	10	
STS	SLEEP													RE-BOOST	O2 RPS	MEAL FARE-	UNDK LI	Cbn St	H2O	SLEEP									
ISS	SLEEP													MEAL WELL	UNDK	SLEEP													
ORB ATT														BIAS-XLV+ZVV															

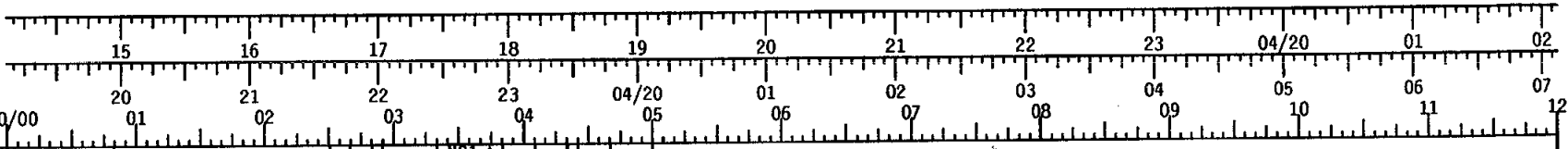
MET	9/10	11	12	13	14	15	16	17	18	19	20	21	22	23	FD11⇒	10/0	1	2	3	4	5	6	7	8	9	10				
STS	SLEEP													FCS C/O	RCS	MEAL	PLT OPS	Cb Stw	LI	Off Duty	SLEEP									
ORB ATT	-ZLV-YVV													-ZLV-YVV																

MET	10/10	11	12	13	14	15	16	17	18	19	20	21	22	23	FD12⇒	Uhtch cls	12/0	1	2	3	4	5	6	7	8	9	10
STS	SLEEP													D/O PREP			KSC LANDING (10/19:58)										
ORB ATT	-ZLV-YVV													IMU	-XSI	COMM/THERMAL											

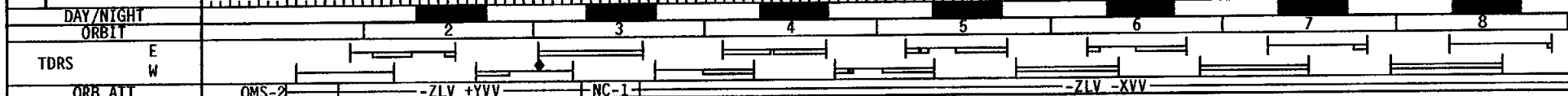
SUMMARY TIMELINE

This Page Intentionally Blank

CT 04/19/01
 GMT 04/19/01
 MET Day 000



STS-100	CDR ROMINGER		POST INSERTION	AFT CO PTCS PRE SLEEP	NCI Δ OMS BURN	MZLV GRWB N	PMC OCA	PS RLEE P	SLEEP	
	PLT ASHBY		POST INSERTION	ERGO S/U LOAD DAPS	OMS BURN	RMS ELV ON	ARC UNFG 1	PRE SLEEP	SLEEP	
	MS1 HADFIELD	LAUNCH	POST INSERTION	P/TV 23 EVA SETUP		PRE SLEEP			SLEEP	
	MS2 PHILLIPS		POST INSERTION	ERGO S/U REBAINT	OMS BURN	PS RLEE P	GRWB N	PRE SLEEP	SLEEP	
	MS3 PARAZYNSKI		POST INSERTION	SEE S/U LAN S/U & LATE UPDT	CPS ORE LIT ON RTP ER	OCA SU	PRE SLEEP	PMC OCA	PS RLEE P	SLEEP
	MS4 GUIDONI		POST INSERTION	TSEPT CUP LAN S/U & LATE UPDT	CPS ORE LIT ON RTP ER	OCA SU	PRE SLEEP			SLEEP
	MS5 LONCHAKOV		POST INSERTION	GIRA INSTALL	MDDK CK	ICB CACT	PRE SLEEP - GIRA			SLEEP

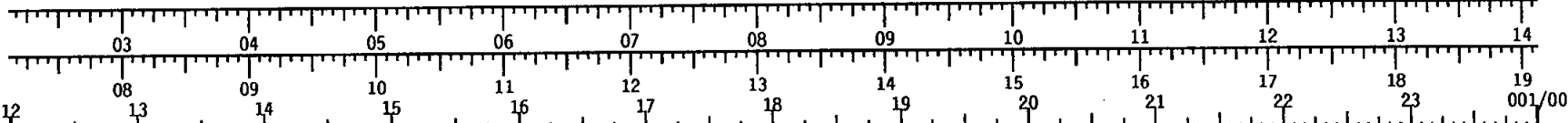


NOTES

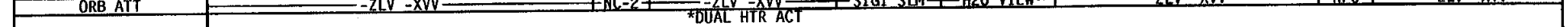
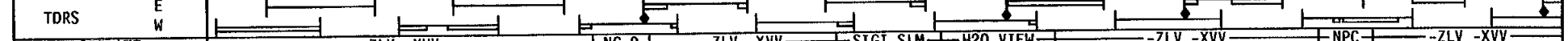
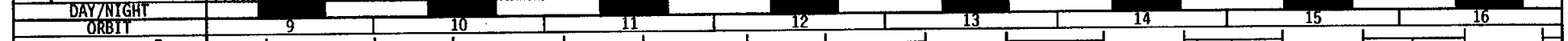
CT 04/20/01

GMT 04/20/01

MET Day 000

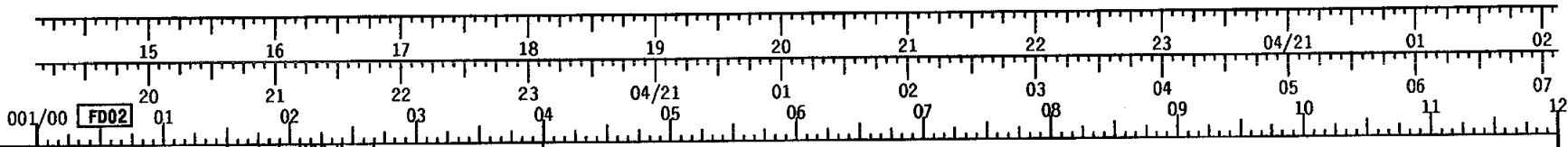


STS-100	CDR ROMINGER	SLEEP	POST SLEEP	OMS BURN	NC2 Δ	-M ZNLV R	CRYO 02 SNSR CK	FILTER CLEAN	CRV-SIGI SLM	MDU V M RP	W I A N S I T T E	W T A E R S R T M E	-M ZNLV R	PS L U B R V E Y	MEAL	RCS BURN	-M ZNLV R	O I U A C T	P R E P	10.2 DEPRSS	C N F G
	PLT ASHBY	SLEEP	POST SLEEP	OMS BURN		RMS S V S	OSVS C/O	FRED SETUP	R P M W S R U P	RMS CHECKOUT	WASTE DUMP SURVEY	PS L U B R V E Y	R P M W S R D N	MEAL	RCS BURN		F W C S B A S N W	P R E P	10.2 DEPRSS	C N F G	
	MS1 HADFIELD	SLEEP	POST SLEEP	A/L PREP	EMU 1,3 C/O	EMU SWAP	EMU 2 C/O	SAFER C/O	RNDZ PGSC S/U	PS L U B R V E Y	RNDZ TOOL C/O	A S P R N	MEAL	R C B O A H W	EVA 1 TOOL CONFIG	MDDK PREP	EMU REMOVE				
	MS2 PHILLIPS	SLEEP	POST SLEEP	OMS BURN	EMU C/O ASSIST	EMU SWAP	EMU C/O ASSIST	PCS SETUP	EXERCISE				MEAL	P/TV18 WVS EVA CAMR							
	MS3 PARAZYNSKI	SLEEP	POST SLEEP	A/L PREP	EMU 1,3 C/O	EMU SWAP	EMU 2 C/O	SAFER C/O	RNDZ PGSC S/U	PS L U B R V E Y	RNDZ TOOL C/O	A S P R N	MEAL	R C B O A H W	EVA 1 TOOL CONFIG	MDDK PREP	EMU REMOVE				
	MS4 GUIDONI	SLEEP	POST SLEEP	OSVS P/TV 07 S/U	SIGI SETUP	OSVS C/O	OSVS C/O	FRED SETUP	A M T A T T C H	RMS CHECKOUT	EXERCISE		MEAL					P/TV 02 S/U PAO			
	MS5 LONCHAKOV	SLEEP	POST SLEEP - GIRA	MDDK CK	EXERCISE	EMU C/O ASSIST	H2O SETUP & INIT				H T 2 O R M		MEAL					H I 2 N O I T		H T 2 O R M	P P G T S V C O S U



NOTES

CT 04/20/01
 GMT 04/20/01
 MET Day 001

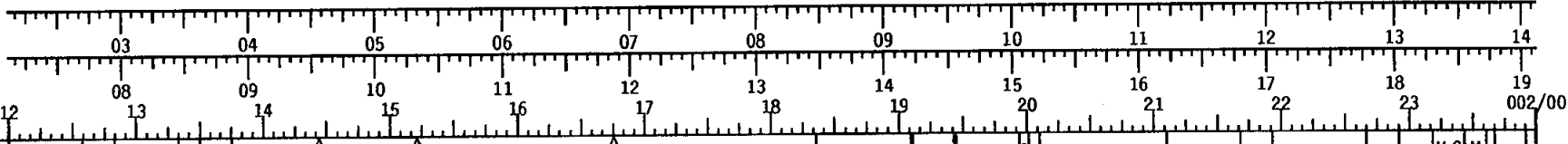


STS-100	CDR ROMINGER	PAO	CTR LINE CAM INST	PRE SLEEP	PMC OCA	OMS BURN	NC3A - M Z N L V R	PRE SLEEP	SLEEP
	PLT ASHBY		CTR LINE CAM INST	EXERCISE		OMS BURN		PRE SLEEP	SLEEP
	MS1 HADFIELD	PAO		ODS RING	PRE SLEEP			SLEEP	
	MS2 PHILLIPS	PAO		PRE SLEEP		OMS BURN		PRE SLEEP	SLEEP
	MS3 PARAZYNSKI			ODS RING	PMC OCA	PRE SLEEP			SLEEP
	MS4 GUIDONI		SIG ICK	SSV P/TV 06 S/U	PRE SLEEP			SLEEP	
	MS5 LONCHAKOV	PR/C T D VR OS BU		MDDK CK	PRE SLEEP - GIRA			SLEEP	
DAY/NIGHT		[Timeline with shaded day/night blocks]							
ORBIT		[Timeline with orbit parameters]							
TDRS E W		[Timeline with TDRS events]							
ORB ATT		-ZLV -XVV NC-3 -ZLV -XVV							
NOTES									

CT 04/21/01

GMT 04/21/01

MET Day 001



STS-100	CDR ROMINGER	POST SLEEP	+M ZN LV R	POST SLEEP	MAINT	GP RW PR UP	NH	NC4	ISS RNDZ	TI	APPROACH T/L	HATCH LEAK CHECK	EXERCISE	PX MFER	HIN 2 OIT 4	HCAL TOCSHET	MAINT	HT 2 OR M
	PLT ASHBY	POST SLEEP	WI AN SITTE	POST SLEEP	WT AER STM			ISS RNDZ			APPROACH T/L	M-X LV L R V	HO LATT	GP RW PR DN	EXERCISE	XFER 3 CWC	MDDK XFER	
	MS1/EV1 HADFIELD	POST SLEEP		EXERCISE				ISS RNDZ			APPROACH T/L		ODS VOL PREP INGR			MDDK XFER	EVA 1 TOOL CONFIG	
	MS2/IV1 PHILLIPS	DSO 493	POST SLEEP		GP RW PR UP			ISS RNDZ			APPROACH T/L	HATCH LEAK CHECK	GP RW PR DN			MDDK XFER	EVA 1 TOOL CONFIG	
	MS3/EV2 PARZYNSKI		POST SLEEP		EXERCISE			ISS RNDZ			APPROACH T/L	PGSC NTWK RCNFG	ODS VOL PREP INGR			MDDK XFER	EVA 1 TOOL CONFIG	
	MS4 GUIDONI	POST SLEEP			EXERCISE											XFER 3 CWC	MDDK XFER	OSVS P/TV 07 S/U
	MS5/IV2 LONCHAKOV	DSO 493	POST SLEEP - GIR	HIN 2 OIT 3	MDDK CK	VSHFT UP	HT 2 OR M	P/TV 20 S/U RNDZ	VHF ACT	CC OH MK M	P/TV20 OPS	ICBC OPS 1-3				PX I F M F I A E A L 2 R X M	MDDK XFER	HCAL TOCSHET

DOCKING * H: A: R: D: M: A: T: E:

DAY/NIGHT	24	25	26	27	28	29	30	31	32
ORBIT	13	14	15	1	2	3	4	5	6
DAILY ORBIT									
TDRS									
ORB ATT		+ZLV +YVV	NH NC-4	-Z TRACK	TI	+ZLV +XVV	DOCKING VBAR	BIAS -XLV +ZVV	

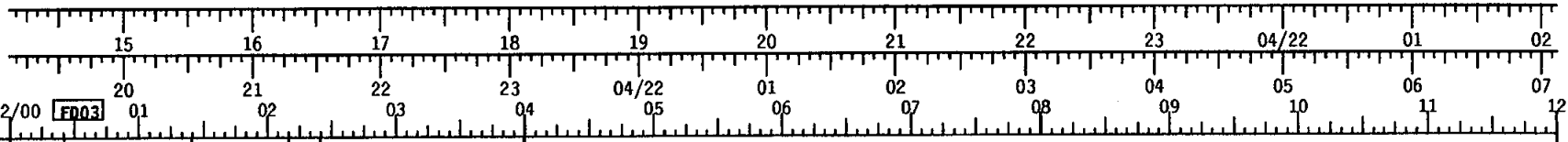
* DOCKING @ MET 1/19:06

NOTES

CT 04/21/01

GMT 04/21/01

MET Day 002



STS-100	CDR ROMINGER		EVA PROC REVW	PRE SLEEP	PMC OCA	PRE SLEEP	SLEEP	
	PLT ASHBY		EVA PROC REVW	PRE SLEEP			SLEEP	
	MS1/EV1 HADFIELD	EMU INSTL	EVA PROC REVW	PRE SLEEP			SLEEP	
	MS2/IV1 PHILLIPS	APC UAG	EVA PROC REVW	PRE SLEEP			SLEEP	
	MS3/EV2 PARAZYNSKI	EMU INSTL	EVA PROC REVW	PRE SLEEP	PMC OCA	PRE SLEEP	SLEEP	
	MS4 GUIDONI	SIG ICK	EVA PROC REVW	PRE SLEEP	XTFA EGUR	XCFA FELR	PRE SLEEP	SLEEP
	MS5/IV2 LONCHAKOV		EVA PROC REVW	PRE SLEEP - GIRA			SLEEP	
DAY/NIGHT	[Shaded bars indicating day/night cycle]							
ORBIT	32	33	34	35	36	37	38	
DAILY ORBIT	6	7	8	9	10	11	12	
TDRS	[Timeline with E, W, S markers and horizontal bars]							
ORB ATT	BIAS -XLV +ZVV							
NOTES								

MET Day 002 002/00 FD03 01 02 03 04 05 06 07 08 09 10 11 12
 GMT 04/21/01 20 21 22 23 04/22 01 02 03 04 05 06 07

EVENT	
ISS	CDR USACHEV XFER EVA PROC REVW XFER H CAL TO CS HE DAR PRE-SLEEP SLEEP
	FE-1 VOSS XFER EVA PROC REVW IMAX S/U LAB BRKT XT FA EGRUP DAR PRE-SLEEP SLEEP
	FE-2 HELMS XFER EVA PROC REVW XFER RWS UOP IFM DAR PRE-SLEEP SLEEP

ISS Mode STANDARD

S	
K	
S	
G	

MPLM ENVIRONMENT CHK DAR MSS POWERUP	<div style="border: 1px solid black; padding: 2px;">IMPLM ENVIRONMENT CHK</div> <div style="border: 1px solid black; padding: 2px;">DAR</div>
--	---

RGS

DAY/NIGHT ORBIT 32 33 34 35 36 37 38 39 40

DAILY ORBIT 5 6 7 8 9 10 11 12 13

ISS ATT	
TDRS	174 275 047

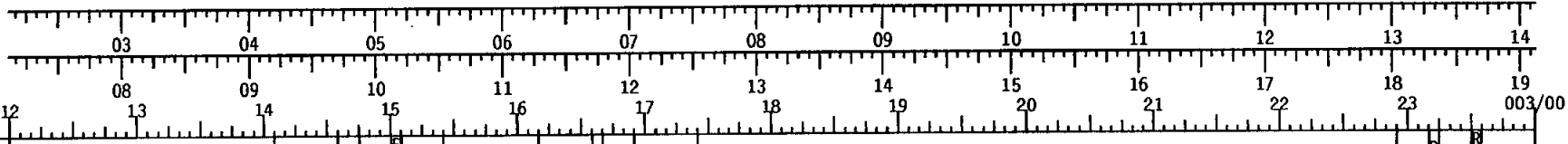
NOTES

MSS PC

CT 04/22/01

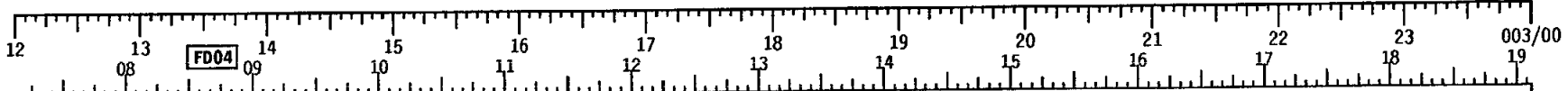
GMT 04/22/01

MET Day 002



STS-100	CDR ROMINGER	POST SLEEP	P/TV 23 EVA SETUP	MAINT	EVA	MATE SLP TO LCA	14.7 REPRS	P/TV23 EVA OPS									
	PLT ASHBY	POST SLEEP	SLP UNBRTH	SLP TRNSLT	SLP INSTALL	EVA 1 SETUP (RMS)	FSEGF CABLE CONNECT (RMS)	UHF ANT INST (RMS)	SSRMS DEPLOY (RMS)				EVA CLNUP (RMS)	EXER CISE			
	MS1/EV1 HADFIELD	POST SLEEP	EVA PREP			FMU PURGE & P/B	EVA 1 SETUP	FSEGF CABLE CONNECT	UHF ANT INST	SSRMS DEPLOY				EVA CLNUP *	PST EVA W H20		
	MS2/IV1 PHILLIPS	POST SLEEP	EVA PREP SUPPORT					EVA 1 SETUP (IV)	FSEGF CABLE CONNECT (IV)	UHF ANT INST (IV)	EVA 1 (6:30)	SSRMS DEPLOY (IV)				EVA CLNUP (IV)	PST EVA SPT
	MS3/EV2 PARAZYNSKI	POST SLEEP	EVA PREP			EMU PURGE & P/B	EVA 1 SETUP	FSEGF CABLE CONNECT	UHF ANT INST	SSRMS DEPLOY				EVA CLNUP *	PST EVA W H20		
	MS4 GUIDONI	POST SLEEP	SLP UNBRTH	SLP TRNSLT	SLP INSTALL	EVA 1 SETUP (RMS)	FSEGF CABLE CONNECT (RMS)	UHF ANT INST (RMS)	SSRMS DEPLOY (RMS)				EVA CLNUP (RMS)	SIGICK			
	MS5/IV2 LONCHAKOV	POST SLEEP - GIRA	ICBC OPS 4-6	MATE SLP TO LCA	MDDK CK	HI 2 N O I T	HT 2 E O R M	ICBC OPS 7	HI 2 N O I T	ICBC OPS 8	HT 2 E O R M	EXERCISE					
DAY/NIGHT ORBIT	40	41	42	43	44	45	46	47	48								
DAILY ORBIT	14	15	16	1	2	3	4	5	6								
TDRS	[Timeline diagram showing TDRS activity]																
ORB ATT	BIAS -XLV +ZVV																
NOTES	*DUAL HTR ACT *BAG FILL *SSR2 COMM CHECK																

MET Day 002
 GMT 04/22/01

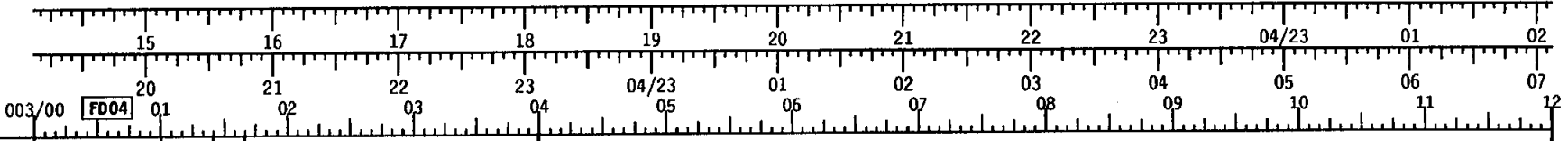


EVENT		ISS UNBERTH												ISS TRANSLATION		MATE SLP TO LCA		ISSLP INSTALL		FSEGF CABLE CONNECT		UHF ANTENNA INSTALL		ISSRMS DEPLOY		POST E
ISS	CDR USACHEV	POST-SLEEP	DPC	ISS DAILY MAINT			EXERCISE			MEAL		ISS DAILY MAINT														
	FE-1 VOSS	POST-SLEEP	DPC	RCHECK	IMAX OPS 1-2		SSRMS PROCEDURE REVW		STNRH MIB	MEAL	KPLUM	UHF INS	SENFRA	IMAX OPS 3-4	UHF RM		EXERCISE		SAFE	SSRMS BOOM RAISE						
	FE-2 HELMS	POST-SLEEP	DPC	EXERCISE			SSRMS PROCEDURE REVW	ISS DAILY MAINT	MEAL											SSRMS BOOM RAISE						
ISS Mode		STANDARD																								
ISS	PPS-SA-MOVE													IPPS-SA-MOVE								IPPS-SA-SUN-TRK				
	PPS-SA-LOCK													IPPS-SA-LOCK												
ISS	MATE SLP TO LCA	MATE SLP TO LCA																								
	DPC	DPC																								
ISS	EVA INHIB	EVA INHIB																								
	GO-JACKBOLT RELEASE	GO-JACKBOLT RELEASE																								
ISS	SSSR2-417.1MHZ-PWRUP	SSSR2-417.1MHZ-PWRUP																								
	MSS POWERUP	MSS POWERUP																								
ISS	EVA PUBLIC CALL SWAP	EVA PUBLIC CALL SWAP																								
	ISS&MCC-EV VOICE CHK	ISS&MCC-EV VOICE CHK																								
RGS		RGS																								
DAY/NIGHT		DAY/NIGHT																								
ORBIT		40	41	42	43	44	45	46	47	48																
DAILY ORBIT		13	14	15	1	2	3	4	5	6																
ISS ATT		Bias +ZLV +XVV TEA																								
TDRS	174	TDRS 174																								
	275	TDRS 275																								
TDRS	047	TDRS 047																								
		φEVACOM												*SSRMS POWER						*COMM CHK						
NOTES		NOTES																								

CT 04/22/01

GMT 04/22/01

MET Day 003



S
T
S
-
1
0
0

S T S - 1 0 0	CDR ROMINGER	EXERCISE	PRE SLEEP	PMC OCA	PRE SLEEP	SLEEP	SVS GROUND OPS		
	PLT ASHBY	EXER CISE	PRE SLEEP	R P I O M W L N S R I L D I U N M	PRE SLEEP	SLEEP			
	MS1/EV1 HADFIELD	PST EVA W H2O	B A T T		PRE SLEEP	SLEEP			
	MS2/IV1 PHILLIPS	PST EVA SPT	AUX BATT CHRG INIT		PRE SLEEP	SLEEP			
	MS3/EV2 PARAZYNSKI	PST EVA W H2O	B A T T	PRE SLEEP	PMC OCA	PRE SLEEP	SLEEP		
	MS4 GUIDONI		P/TV 21 S/U INT OPS	O S V S	PRE SLEEP	SLEEP			
	MS5/IV2 LONCHAKOV		MDDK CK		PRE SLEEP - GIRA	SLEEP			
DAY/NIGHT ORBIT		48	49	50	51	52	53	54	55
DAILY ORBIT		6	7	8	9	10	11	12	13
TDRS		[Timeline diagram showing E, W, S activity]							
ORB ATT		BIAS -XLV +ZVV							
NOTES									

MET Day 003 003/00 **F004** 01 02 03 04 05 06 07 08 09 10 11 12
 GMT 04/22/01 20 21 22 23 04/23 01 02 03 04 05 06 07

EVENT		POST EVA W/H20									
ISS	CDR USACHEV			DAR	PRE-SLEEP			SLEEP			
	FE-1 VOSS	SSRMS BOOM RAISE	VDU ROUTNG TEST	V I D E O	IMAX FILM RELOAD	DAR	PRE-SLEEP			SLEEP	
	FE-2 HELMS	SSRMS BOOM RAISE	VDU ROUTNG TEST	V I D E O		DAR	PRE-SLEEP			SLEEP	

ISS Mode STANDARD

SSR	
U	
SSR	
REG	

MCR	SSSR2-417.1MHZ-PWRDN MSS POWERDOWN	HSSSR2-417.1MHZ-PWRDN MSS POWERDOWN MSS POWERDOWN MSS POWERDOWN									
	SSRMS SW REDUN STRNG DAR	SSRMS SW REDUN STRNG DAR									
	SSRMS JEU DIAGNOSTIC	SSRMS JEU DIAGNOSTIC									
	SSRMS BRAKE TEST MSS POWERUP	SSRMS BRAKE TEST									

RGS										
DAY/NIGHT										
ORBIT	48	49	50	51	52	53	54	55	56	
DAILY ORBIT	6	7	8	9	10	11	12	13	14	

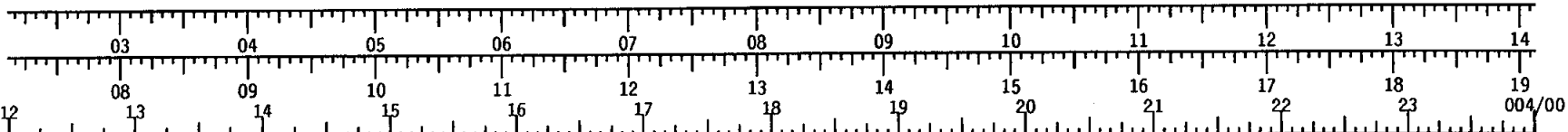
ISS ATT	Bias +ZLV +XVV TEA									
TDRS	174									
	275									
	047									

NOTES

CT 04/23/01

GMT 04/23/01

MET Day 003



STS-100	CDR ROMINGER	POST SLEEP	HO APTECH	WEL COME	SFTY BRIEF	REP 14-17	EXERCISE	MEAL	IMAX S/U LAB INTRNL	EVA PROC REVW	HO ATT											
	PLT ASHBY	POST SLEEP	P/TV 22 S/U DOCK OPS	WEL COME	SFTY BRIEF	EXERCISE	XFER CWC FROM ISS	MDDK XFER	OSVS INSTL SCRIPT	MEAL	MDDK XFER	P/TV 21 S/U PAO	PAO	PROC REVW								
	MS1/EV1 HADFIELD	POST SLEEP		WEL COME	SFTY BRIEF	FR SELG	SSRMS JOINT TEST (Monitor from ISS)	MAN MODE C/O (Monitor from ISS)	ACU APTO	MDDK XFER	EMU REMOVE	MDDK XFER	MEAL	EVA 2 TOOL CONFIG	SAFER C/O	P/TV 21 S/U PAO	PAO	MP DR DEK	PROC REVW			
	MS2/IV1 PHILLIPS	POST SLEEP	POST SLEEP	POST SLEEP	WEL COME	SFTY BRIEF	LIH CHNG OUT	AUX BATT CHRG TERM	IMAX OPS 5	EXERCISE	N1 NADIR PREP MATE	MEAL	CBM BOLT LOADING	SAFER C/O	MDDK PREP	PROC REVW						
	MS3/EV2 PARAZYNSKI	POST SLEEP		AR PS RR UM PS	SV IRE W	WEL COME	SFTY BRIEF	FR SELG	SSRMS JOINT TEST (Monitor from STS)	MAN MODE C/O (Monitor from STS)	ACU APTO	AI CNBS MPT	GRAPEL	ROEU*	MPLM UNBRTH	MPLM INSTL	UNGRP	RP MR DN	MEAL	P/TV 21 S/U PAO	PAO	PROC REVW
	MS4 GUIDONI	POST SLEEP		OC SVI	WEL COME	SFTY BRIEF	MDDK XFER				AI CNBS MPT	GRAPEL	ROEU*	MPLM UNBRTH	MPLM INSTL	UNGRP			MEAL		OSVS	PROC REVW
	MS5/IV2 LONCHAKOV	POST SLEEP - GIRA	MDDK CK	HO APTECH	WEL COME	SFTY BRIEF	LIH CHNG OUT	XFER 3 CWC	HI 2 N OIT 7	ICBC OPS 9-10	HT 2 OR M	HI 2 N OIT 8	EMU REMOVE	HT 2 OR M	ICBC OPS 11-12	MEAL	XFER 2 CWC	IMAX S/U LAB INTRNL	PROC REVW			

DAY/NIGHT	56	57	58	59	60	61	62	63
ORBIT	14	15	1	2	3	4	5	6
DAILY ORBIT								



BIAS -XLV +ZVV

*DUAL HTR ACT *DEMATE

NOTES

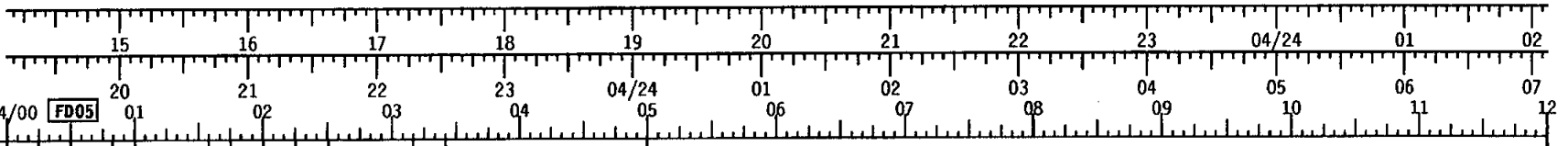
MET Day 003 12 13 14 15 16 17 18 19 20 21 22 23 004/00
 GMT 04/23/01 08 09 10 11 12 13 14 15 16 17 18 19

EVENT		MPLM GRAPPLE (INST)																		H/O A
ISS	CDR USACHEV	POST-SLEEP	DPC	ISS DAILY MAINT	HOP AP TCH	WEL COME	SFTY BRIEF	EXERCISE		ISS DAILY MAINT	MEAL	IWIS OPS DTO 261	IWIS OPS DTO 261	MPLM EQUIP S/U	CBCS REMOVE	VESTIBULE PRESS CK	EVA PROC REVW	H/O A		
	FE-1 VOSS	POST-SLEEP	DPC	EXERCISE	RCH WEL SECK	WEL COME	SFTY BRIEF	FR SEL G	SSRMS JOINT TEST	MAN MODE C/O	AC UA T P O	MEAL	IMAX OPS 6-8	IMAX FILM RELOAD	MPLM EQUIP S/U	CBCS REMOVE	VESTIBULE PRESS CK		EVA PROC REVW	
	FE-2 HELMS	POST-SLEEP	DPC	EXERCISE	SAN G	WEL COME	SFTY BRIEF	FR SEL G	SSRMS JOINT TEST	MAN MODE C/O	AC UA T P O	N1 NADIR PREP MATE	MEAL	C A P I 2	AN CU T S	CBM BOLT LOADING	PPC ILH TAG CNE HE		V I D E O	EVA PROC REVW
ISS Mode		STANDARD																		H/O A
S/S	H/O ATT CNTL TO ORB																		H/O A	
	PPS-SA-MOVE PPS-SA-LOCK																		PPS-SA-MOVE PPS-SA-LOC	
M/C	DPC MPLM ENVIRONMENT CHK OIU FORMAT CHANGE N1 NADIR PREP MATE CBM BOLT LOADING MASS PROP U/L MSS POWERDOWN HOATT																		MASS PROP U/L MSS P HOATT	
	DPC MPLM ENVIRONMENT CHK OIU FORMAT CHANGE N1 NADIR PREP MATE CBM BOLT LOADING MASS PROP U/L MSS POWERDOWN HOATT																		MASS PROP U/L MSS P HOATT	
RGS		Bias +ZLV +XVV TEA																		
DAY/NIGHT		ORBIT																		
ORBIT		56	57	58	59	60	61	62	63											
DAILY ORBIT		14	15	1	2	3	4	5	6											
ISS ATT																				
TDRS	174																			
	275																			
NOTES	047																			
																			OCBMVRF	VESTI VESTI

CT 04/23/01

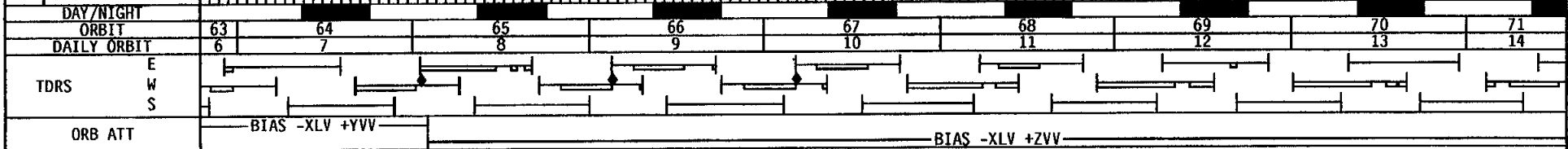
GMT 04/23/01

MET Day 004



STS-100

CDR ROMINGER	MWNA VSTR RTTE	WIAN SITT	HCAL TCSH	PREP	10.2 DEPRSS	CNFG	WTAE RFTM	-M XN LV R	HO ATT	PRE SLEEP	PMC OCA	PRE SLEEP	SLEEP
PLT ASHBY	PRE OV CW	P/TV18 EVA CMR S/U	PREP	10.2 DEPRSS	CNFG					PRE SLEEP		PRE SLEEP	SLEEP
MS1/EV1 HADFIELD	PRE OV CW	P/N BIT		EVA 2 TOOL CONFIG	P/E BR M	EMU INSTL				PRE SLEEP		PRE SLEEP	SLEEP
MS2/IV1 PHILLIPS	PRE OV CW			EVA 2 TOOL CONFIG						PRE SLEEP		PRE SLEEP	SLEEP
MS3/EV2 PARAZYNSKI	PRE OV CW	P/N BIT		EVA 2 TOOL CONFIG	P/E BR M	EMU INSTL			PRE SLEEP	PMC OCA		PRE SLEEP	SLEEP
MS4 GUIDONI	PRE OV CW	XFA GUP	XCFA ELRL	SIG ICK	MPLM ACT I				PRE SLEEP	MA PCT MI		PRE SLEEP	SLEEP
MS5/IV2 LONCHAKOV	PRE OV CW		HCAL TCSH		MDDK CK					PRE SLEEP - GIRA		PRE SLEEP	SLEEP



NOTES

MET Day 004 004/00 FD05 01 02 03 04 05 06 07 08 09 10 11 12
 GMT 04/23/01 20 21 22 23 04/24 01 02 03 04 05 06 07

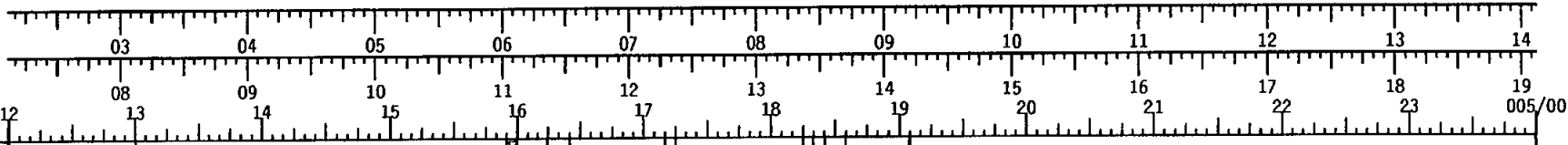
EVENT																																	
ISS	MNVN WASTE MPLM ACT I -XLV MNVR H/O ATT CNTL TO ISS MPLM ACT II	<div style="display: flex; justify-content: space-between;"> <div style="width: 15%;">MNVN WASTE</div> <div style="width: 15%; border-bottom: 1px solid black;">IMPLM ACT I</div> <div style="width: 15%; border-bottom: 1px solid black;">-XLV MNVR</div> <div style="width: 15%; border-bottom: 1px solid black;">H/O ATT CNTL TO ISS</div> <div style="width: 15%; border-bottom: 1px solid black;">IMPLM ACT II</div> </div>																															
	CDR USACHEV	VESTIBULE OUTFITTING	DAR	PRE-SLEEP							SLEEP																						
	FE-1 VOSS	VESTIBULE OUTFITTING	DAR	PRE-SLEEP							SLEEP																						
	FE-2 HELMS	<table border="1" style="border-collapse: collapse; width: 100%;"> <tr> <td style="text-align: center;">X F R P</td> <td style="text-align: center;">T A U U</td> <td style="text-align: center;">H C G C S P H E</td> <td style="text-align: center;">A L T O C S</td> <td style="text-align: center;">C C A A O P S</td> <td style="text-align: center;">E X E R C I S E</td> <td style="text-align: center;">H O A T T</td> </tr> </table>	X F R P	T A U U	H C G C S P H E	A L T O C S	C C A A O P S	E X E R C I S E	H O A T T	DAR	PRE-SLEEP							SLEEP															
X F R P	T A U U	H C G C S P H E	A L T O C S	C C A A O P S	E X E R C I S E	H O A T T																											
ISS Mode		STANDARD																															
SUN																																	
PPS	PPS-SA-SUN-TRK																																
MSS	MSS POWERDOWN																																
MCA	MCA AUTO SEQ LIST CH																																
HO	HO ATT																																
DAR	DAR																																
MSS	MSS POWERUP																																
RGS		Bias +ZLV +XVY TEA																															
DAY/NIGHT		<table border="1" style="width: 100%; border-collapse: collapse; font-size: 8px;"> <tr> <td style="width: 10%;">63</td><td style="width: 10%;">64</td><td style="width: 10%;">65</td><td style="width: 10%;">66</td><td style="width: 10%;">67</td><td style="width: 10%;">68</td><td style="width: 10%;">69</td><td style="width: 10%;">70</td><td style="width: 10%;">71</td><td style="width: 10%;"></td><td style="width: 10%;"></td> </tr> <tr> <td style="text-align: center;">61</td><td style="text-align: center;">7</td><td style="text-align: center;">8</td><td style="text-align: center;">9</td><td style="text-align: center;">10</td><td style="text-align: center;">11</td><td style="text-align: center;">12</td><td style="text-align: center;">13</td><td style="text-align: center;">14</td><td></td><td></td> </tr> </table>										63	64	65	66	67	68	69	70	71			61	7	8	9	10	11	12	13	14		
63	64	65	66	67	68	69	70	71																									
61	7	8	9	10	11	12	13	14																									
ORBIT																																	
DAILY ORBIT																																	
ISS ATT																																	
TDRS	174 275 047																																
NOTES																																	

MSS PC

CT 04/24/01

GMT 04/24/01

MET Day 004



STS-100	CDR ROMINGER	SLEEP	POST SLEEP	EVA 1 MACHINIST	FILTER CLEAN	EXERCISE	14.7 REPRS	P/TV23 EVA OPS					
	PLT ASHBY	SLEEP	POST SLEEP	P/TV 23 EVA SETUP	EXERCISE	RP MWR SUP	EVA 2 SETUP (RMS)	J400 PANEL RECNFG (RMS)	SUV LN IPIE NWS T	-View SSRMS Demate		DCSU XFER (RMS)	EVA 2 CLEAN UP
	MS1/EV1 HADFIELD	SLEEP	POST SLEEP	EVA PREP	EMU PURGE & P/B	POE SPRS	EVA 2 SETUP	JR 4 C ON OF G	STBD ECOM RMVL	FSEGF UMB RLS	HARDWARE STOW	DCSU XFER ASSIST	EVA 2 CLEAN UP
	MS2/IV1 PHILLIPS	SLEEP	POST SLEEP	EVA PREP SUPPORT	AS/W LEEP		EVA 2 SETUP (IV)	J400 PANEL RECNFG (IV)	FSEGF UMB RLS (IV)	HARDWARE STOW (IV)	DCSU XFER (IV)	EVA 2 CLEAN UP	EVA 2 (6:30)
	MS3/EV2 PARAZYNSKI	SLEEP	POST SLEEP	EVA PREP	EMU PURGE & P/B	POE SPRS	EVA 2 SETUP	J400 PANEL RECNFG	FU S M E B G F	VSC RMVL	HARDWARE STOW	DCSU XFER	EVA 2 CLEAN UP
	MS4 GUIDONI	SLEEP	POST SLEEP	EXERCISE	OSVS		EVA 2 SETUP (RMS)	J400 PANEL RECNFG (RMS)	SUV LN IPIE NWS T	-View SSRMS Demate		DCSU XFER (RMS)	EVA 2 CLEAN UP
	MS5/IV2 LONCHAKOV	SLEEP	POST SLEEP - GIRA	MDDK CK	HI 2 N OIT 9	HT 2 OR M		ICBC OPS 13	HI 2 N OIT 10	HT 2 OR M	ICBC OPS 14		
DAY/NIGHT													
ORBIT	71	72	73	74	75	76	77	78	79				
DAILY ORBIT	14	15	1	2	3	4	5	6	7				
TDRS	EWS												
ORB ATT	BIAS -XLV +ZVV												
NOTES	*DUAL HTR ACT												

MET Day 004 12 13 14 15 16 17 18 19 20 21 22 23 005/00
 GMT 04/24/01 08 09 10 11 12 13 14 15 16 17 18 19

EVENT		EVA 2 SETUP														EVA 2 SETUP		J400 PANEL RECNGF		STBD ECOM REMOVAL		FSEGF UMB RLS		VSC REMOVAL		HARDWARE STOW		IDCSU TRANSF	
ISS	CDR USACHEV	SLEEP	POST-SLEEP	DPC	MPLM S/U FOR XFER	RSP-F1 XFER & FENCE	RSP-F3 XFER & FENCE	EXERCISE	MEAL	MPLM XFER	ISS DAILY MAINT *		MPLM XFER *																
	FE-1 VOSS	SLEEP	POST-SLEEP	DPC	MPLM S/U FOR XFER	RSP-F1 XFER & FENCE	RSP-F3 XFER & FENCE	EXERCISE	MEAL	MPLM XFER	SLP DENT FROM LCA	MNVR TO OVRNGT POSN	MPLM XFER ⊕																
	FE-2 HELMS	SLEEP	POST-SLEEP	DPC	RCHWSECK	EXERCISE	IMAX OPS 9-10	ISS INHIB	MEAL	P D G F *	P I D N G H *	P D G F *	SLP DENT FROM LCA	MNVR TO OVRNGT POSN	V I D E O	⊗													
ISS Mode		STANDARD																											
SBD	PPS-SA-MOVE		PPS-SA-MOVE														PPS-SA-LOCK		PPS-SA-SUN-TRK				PPS-SI						
	MSS POWERUP		MSS POWERUP														MSS POWERUP												
	DPC SSSR1-414.2MHZ-PWRUP		DPC SSSR1-414.2MHZ-PWRUP																										
RGS		RGS																											
DAY/NIGHT		DAY/NIGHT																											
ORBIT		ORBIT																											
DAILY ORBIT		DAILY ORBIT																											
ISS ATT		ISS ATT																											
TDRS		TDRS																											
NOTES		NOTES														*EVACOM		*PWRDN TO OFF		*OP BASE CHANGE		*ENA-REDUNDANT STRING		*ENA-PRIMARY STRING		*REDUNDANT STRING		*ESP-RPC-INH-FOR-EVA	

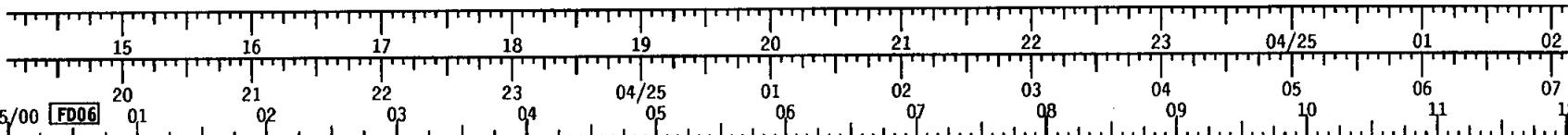
CT 04/24/01

GMT 04/24/01

MET Day 005

005/00 F006

S
T
S
-
1
0
0

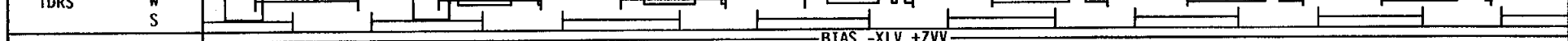


CDR ROMINGER	P/TV23 EVA OPS			PRE SLEEP	HOP APTE CNH	REG OP	14 7 R S	PMC OCA	JOINT MEAL	PRE SLEEP	SLEEP
PLT ASHBY	EVA 2 CLEAN UP	R M S R D N	B E A C G O M M	PRE SLEEP					JOINT MEAL	PRE SLEEP	SLEEP
MS1/EV1 HADFIELD	EVA 2 CLEAN UP * *	I N G R S	R E P R S	PST EVA W H2O	B A T T				JOINT MEAL	PRE SLEEP	SLEEP
MS2/IV1 PHILLIPS	EVA 2 CLEAN UP			POST EVA SUPPORT	AUX BATT CHRG INIT				JOINT MEAL	PRE SLEEP	SLEEP
MS3/EV2 PARAZYNSKI	EVA 2 CLEAN UP * *	I N G R S	R E P R S	PST EVA W H2O	B A T T		PMC OCA		JOINT MEAL	PRE SLEEP	SLEEP
MS4 GUIDONI	EVA 2 CLEAN UP	P/TV 24 EXT S/U	P/TV 24 EXT OPS	PRE SLEEP	S I G N I C K	X T F A G E R U P	X C F A E L R		JOINT MEAL	PRE SLEEP	SLEEP
MS5/IV2 LONCHAKOV	P/TV 21 S/U INT OPS	MDDK CK	PFC	PRE SLEEP	HOP APTE CNH				JOINT MEAL	PRE SLEEP - GIRA	SLEEP

DAY/NIGHT

ORBIT 79 80 81 82 83 84 85 86 87

DAILY ORBIT 7 8 9 10 11 12 13 14 15



ORB ATT BIAS -XLV +ZVV

NOTES

* SSSR1
COMM
CHK

* SSSR2
COMM
CHK

MET Day 005 005/00 **FD06** 01 02 03 04 05 06 07 08 09 10 11 12
 GMT 04/24/01 20 21 22 23 04/25 01 02 03 04 05 06 07

ISS	CDR USACHEV	EXP1 RK XFER	EXP RK 1 UMB MATE	EXP 2 RK XFER	H O A P T E C N H	DAR	JOINT MEAL	PRE-SLEEP	SLEEP
	FE-1 VOSS	EXP1 RK XFER	EXP RK 1 UMB MATE	EXP 2 RK XFER	IMAX FILM RELOAD	X T F A E G D A R U P I	JOINT MEAL	PRE-SLEEP	SLEEP
	FE-2 HELMS	IMAX OPS 12	MPLM XFER	IMAX OPS 13	EXP1 RK ACT & C/O	R A C D A R K K	JOINT MEAL	PRE-SLEEP	SLEEP

ISS Mode STANDARD

S K S R	ISS Mode	STANDARD

MCC	ISS&MCC-EV VOICE CHK	ISS&MCC-EV VOICE CHK
	SSSR1-414.2MHZ-PWRDN	SSSR1-414.2MHZ-PWRDN
SSSR2-414.2MHZ-PWRUP	SSSR2-414.2MHZ-PWRUP	
SSSR2 414.2MHZ-PWRDN	SSSR2 414.2MHZ-PWRDN	
MSS POWERDOWN	MSS POWERDOWN	
RACK CONFIG	RACK CONFIG	
DAR	DAR	
MASS PROP U/L	MASS PROP U/L	
MSS POWERUP	MSS POWERUP	

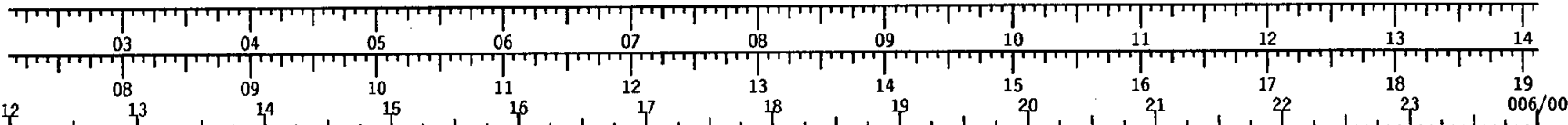
RGS	DAY/NIGHT	ORBIT	79	80	1081	1082	1083	1084	1085	1086	1087
DAILY ORBIT	ISS ATT		6	7	8	9	10	11	12	13	14
TORS	174	275	047	Bias +ZLV +XV V TEA							

NOTES	*COMM CHK	*COMM CHK	*FIRE INDICATOR TESTING
-------	-----------	-----------	-------------------------

CT 04/25/01

GMT 04/25/01

MET Day 005



STS-100

CDR ROMINGER	SLEEP	POST SLEEP	CABIN TEMP	HTRCS	IMAX S/U LAB INTRNL	EXERCISE	IMAX S/U LAB INTRNL	PAO	MEAL	CGBA XFER	EVA PROC REVW					
PLT ASHBY	SLEEP	POST SLEEP	P/TV 22 S/U DOCK OPS	MPLM XFER	EXERCISE	MPLM XFER	P/TV 21 S/U PAO	MEAL	MPLM XFER	EVA PROC REVW						
MS1/EV1 HADFIELD	SLEEP	POST SLEEP	RPMW S/UP	SUPLN	SLP MNVR TO H/O POSN (Monitor from ISS)	SLP RETR FROM SSRMS	SLP H/O: SSRMS/SRMS (Monitor from ISS)	BERTH SLP IN PLB	SUPLN	RPMW S/UP	MEAL	SAFER C/O	EVA 3 TOOL CNFG	MDDK PREP	EVA PROC REVW	
MS2/IV1 PHILLIPS	SLEEP	POST SLEEP	DSO 493	LIOH CHNG OUT	AUX BATT CHRG	MPLM XFER	IMAX OPS 14-15	BA T REMOVE	EMU	IMAX OPS 16	IMAX FILM RELOAD	MPLM XFER	MEAL	IMAX OPS 17-18	LR A & M R P	EVA PROC REVW
MS3/EV2 PARAZYNSKI	SLEEP	POST SLEEP	ASPRN	SLP MNVR TO H/O POSN (Monitor from STS)	SLP RETR FROM SSRMS	SLP H/O: SSRMS/SRMS (Monitor from STS)	BERTH SLP IN PLB	SUPLN	RPMW S/UP	MEAL	SAFER C/O	EVA 3 TOOL CNFG	MDDK PREP	EVA PROC REVW		
MS4 GUIDONI	SLEEP	POST SLEEP	MOSVIS	EXERCISE	MPLM XFER	XFER ALL CWCS	XFER CWC FROM MPLM	MEAL	PAO	STES009 XFER	STES010 XFER	EVA PROC REVW				
MS5/IV2 LONCHAKOV	SLEEP	POST SLEEP - GIRA	DSO 493	LIOH CHNG OUT	MDDK CK	IMAX S/U LAB INTRNL	ICBC OPS 15-18	BA T REMOVE	EMU	MPLM XFER	IMAX S/U LAB INTRNL	MEAL	CPCG H XFER	PAO	MPLM XFER	EVA PROC REVW

DAY/NIGHT	87	88	89	90	91	92	93	94
ORBIT	15	16	1	2	3	4	5	6



*DUAL HTR ACT

NOTES

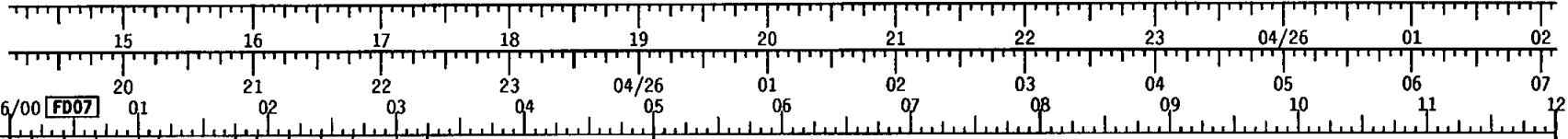
MET Day 005 12 13 14 15 16 17 18 19 20 21 22 23 006/00
 GMT 04/25/01 08 09 10 11 12 13 14 15 16 17 18 19

EVENT		ISLP RETR FROM SSRMS													BERTH SLP IN PLB		SLP UNGRAPPLE		IRMS POWERDOWN	
ISS	CDR USACHEV	SLEEP	POST-SLEEP	DPC	ISS DAILY MAINT	EXERCISE	MPLM XFER			ISS DAILY MAINT	MEAL	MPLM XFER	PAO	MPLM XFER	EVA PROC REVW					
	FE-1 VOSS	SLEEP	POST-SLEEP	DPC	RCH WHE ECK	IMAX S/U LAB BRKT	SLP MNVR TO H/O POSN	SLP H/O: SSRMS/SRMS			DIAG LEES CALIB	MON SLP BERTH	MEAL	STES009 XFER	CGBA XFER	EVA PROC REVW				
	FE-2 HELMS	SLEEP	POST-SLEEP	DPC	MPLM XFER		SLP MNVR TO H/O POSN	SLP H/O: SSRMS/SRMS			DIAG LEES CALIB	MEAL	AV UI TO BO	CPCG H XFER	STES010 XFER	EVA PROC REVW				
ISS Mode		STANDARD																		
SBD	PPS-SA-MOVE														PPS-SA-M		PPS-S			
	PPS-SA-LOCK																			
MCC	MSS POWERUP	MSS POWERUP																		
	DPC	DPC																		
RGS		DAY/NIGHT																		
ORBIT		1087	1088	1089	1090	1091	1092	1093	1094											
DAILY ORBIT		14	15	1	2	3	4	5	6											
ISS ATT		Bias +ZLV +XVV TEA																		
TDRS	174																			
	275																			
	047																			
NOTES		*C/O *C/O *CAPTURE																		

CT 04/25/01

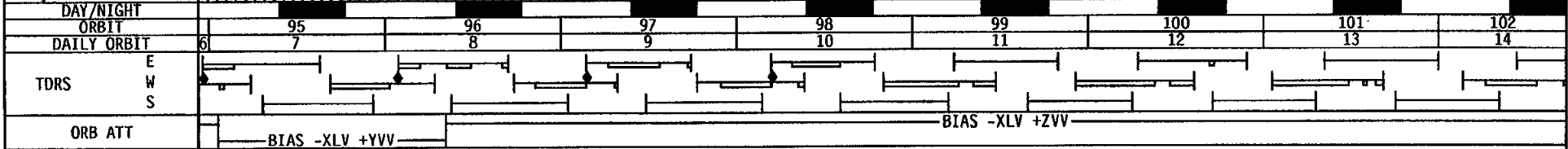
GMT 04/25/01

MET Day 006



STS-100

CDR ROMINGER	H ON ATT M NI V TRO S I N I T H C A L T O C S H E P R E P	10.2 DEPRSS	C N F G	S T E M R L V R - M N V R H O A T T	P S R L E E P P M C O C A	PRE SLEEP	SLEEP	
PLT ASHBY	EVA PROC REVW	P/TV18 EVA CMR S/U	P R E P	10.2 DEPRSS	C N F G	PRE SLEEP	P F C PRE SLEEP	SLEEP
MS1/EV1 HADFIELD	EVA PROC REVW	P I N I T	EVA 3 TOOL CNFG	P T E B R M	EMU INSTL	PRE SLEEP	SLEEP	
MS2/IV1 PHILLIPS	EVA PROC REVW	EVA 3 TOOL CNFG			PRE SLEEP		SLEEP	
MS3/EV2 PARAZYNSKI	EVA PROC REVW	P I N I T	EVA 3 TOOL CNFG	P T E B R M	EMU INSTL	PRE SLEEP	P M C O C A PRE SLEEP	SLEEP
MS4 GUIDONI	EVA PROC REVW	X T F A G E R U P X C F A F E L R L S A C T O R	C M D / T L M T S T	S D E S O A C T	S I G I C K	PRE SLEEP		SLEEP
MS5/IV2 LONCHAKOV	EVA PROC REVW	H C A L T O C S H E	EXERCISE		PRE SLEEP - GIRA		SLEEP	



NOTES

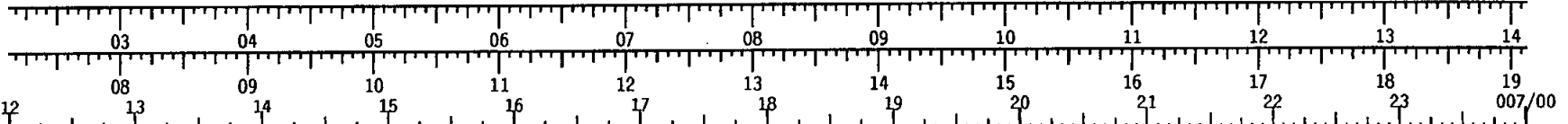
MET Day 006 006/00 FD07 01 02 03 04 05 06 07 08 09 10 11 12
 GMT 04/25/01 20 21 22 23 04/26 01 02 03 04 05 06 07

EVENT											
ISS	H/O ATT CNTL TO ORB MNVR SIMO -XLV MNVR H/O ATT CNTL TO ISS	<div style="display: flex; justify-content: space-between;"> <div style="width: 15%;">H/O ATT CNTL TO ORB MNVR SIMO</div> <div style="width: 15%; border-top: 1px solid black;">XLV MNVR</div> <div style="width: 70%;">H/O ATT CNTL TO ISS</div> </div>									
	CDR USACHEV	HOATT	EXERCISE	ISS DAILY MAINT	HOATT	DAR	PRE-SLEEP	SLEEP			
	FE-1 VOSS	EVA PROC REVW	XTFA REG RUP	H C A L T O C S P H E	EXERCISE	DAR	PRE-SLEEP	SLEEP			
FE-2 HELMS	EVA PROC REVW	CPCG ACT	MPLM XFER	EXERCISE	DAR	PRE-SLEEP	SLEEP				
ISS Mode		STANDARD									
SSB	H/O ATT CNTL TO ORB	H/O ATT CNTL TO ORB									
	PPS-SA-SUN-TRK	PPS-SA-SUN-TRK									
MCM	HOATT MSS POWERDOWN HO ATT DAR MSS POWERUP	<div style="display: flex; justify-content: space-between;"> <div style="width: 15%;">HOATT</div> <div style="width: 15%; border-top: 1px solid black;">MSS POWERDOWN</div> <div style="width: 15%; border-top: 1px solid black;">HO ATT</div> <div style="width: 15%; border-top: 1px solid black;">DAR</div> <div style="width: 40%; border-top: 1px solid black;">MSS POWERUP</div> </div>									
	RGS	Bias +ZLV +XVV TEA									
DAY/NIGHT	ORBIT										
DAILY ORBIT	1095	1096	1097	1098	1099	1100	101	102			
ISS ATT	7	8	9	10	11	12	13	14			
TDRS	174	275	047								
NOTES	vEVA PROC REVW										

CT 04/26/01

GMT 04/26/01

MET Day 006



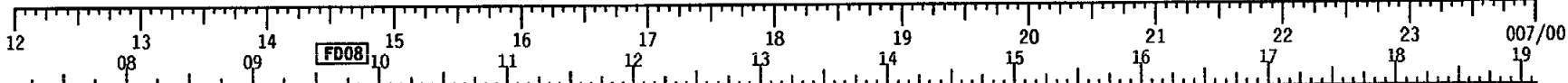
STS-100	CDR ROMINGER	SLEEP	POST SLEEP	P/TV 23 EVA SETUP	POST SLEEP	HEAVY DUTY	MAINT	EVA	AVIATION	EXERCISE	DAPI 13	14.7 REPRS	P/TV23 EVA OPS	P/TV23 EVA OPS
	PLT ASHBY	SLEEP	POST SLEEP	RMS SETUP	UNBRTH	A/L OSVS CALIB	AVILEW						RMS EVA SUPPORT	
	MS1/EV1 HADFIELD	SLEEP	POST SLEEP		EVA PREP	EMU PURGE & P/B	POSTS	EGRS					UNSCHEDULED EVA 3	
	MS2/IV1 PHILLIPS	SLEEP	POST SLEEP	DSO 493	ASW/LEEP	EVA PREP SUPPORT							EVA SUPPORT	EVA 3 (6:30)
	MS3/EV2 PARAZYNSKI	SLEEP	POST SLEEP		EVA PREP	EMU PURGE & P/B	POSTS	EGRS					UNSCHEDULED EVA 3	
	MS4 GUIDONI	SLEEP	POST SLEEP	MCIS	UNBRTH	A/L OSVS CALIB	AVILEW						RMS EVA SUPPORT	
	MS5/IV2 LONCHAKOV	SLEEP	POST SLEEP - GIRA	DSO 493									ICBC OPS 19	
DAY/NIGHT														
ORBIT	102	103	104	105	106	107	108	109	110					
DAILY ORBIT	14	15	1	2	3	4	5	6	7					
TDRS	E													
	W													
	S													
ORB ATT														
NOTES														

*DUAL HTR ACT

*FES DUMP

BIAS -XLV +ZVV

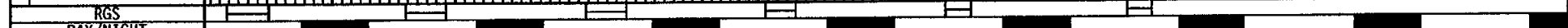
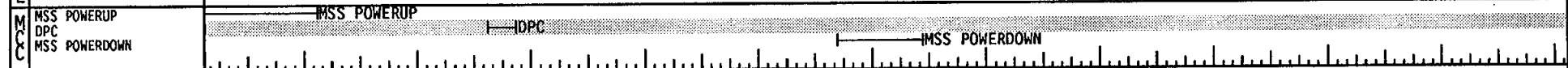
MET Day 006



ISS	CDR USACHEV	SLEEP	POST-SLEEP	DPC	ISS DAILY MAINT					EXERCISE	Δ	ISS DAILY MAINT		MEAL			EXERCISE		
	FE-1 VOSS	SLEEP	POST-SLEEP	DPC	RCHW	APV	UNW	AG/L	UBNE	A/L INSTL DRY RUN	AVU CALIB	ASCU	SSBR	SVR	MPLM XFER	TORSO ACT	MEAL	DOSMAP ACTIVATION	IMAX FILM RELOAD
	FE-2 HELMS	SLEEP	POST-SLEEP	DPC	APV	UNW	AG/L	UBNE	A/L INSTL DRY RUN	AVU CALIB	ASCU	SSBR	SVR	MPLM XFER	IMAX OPS 21	MEAL	MPLM XFER	IMAX OPS 22	MPLM XFER

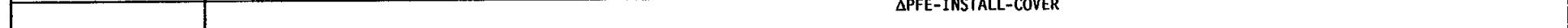
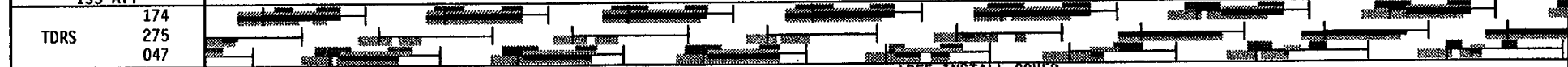
ISS Mode STANDARD

MSS																		



DAY/NIGHT	102	103	104	105	106	107	108	109	110
-----------	-----	-----	-----	-----	-----	-----	-----	-----	-----

DAILY ORBIT	14	15	1	2	3	4	5	6	7
-------------	----	----	---	---	---	---	---	---	---

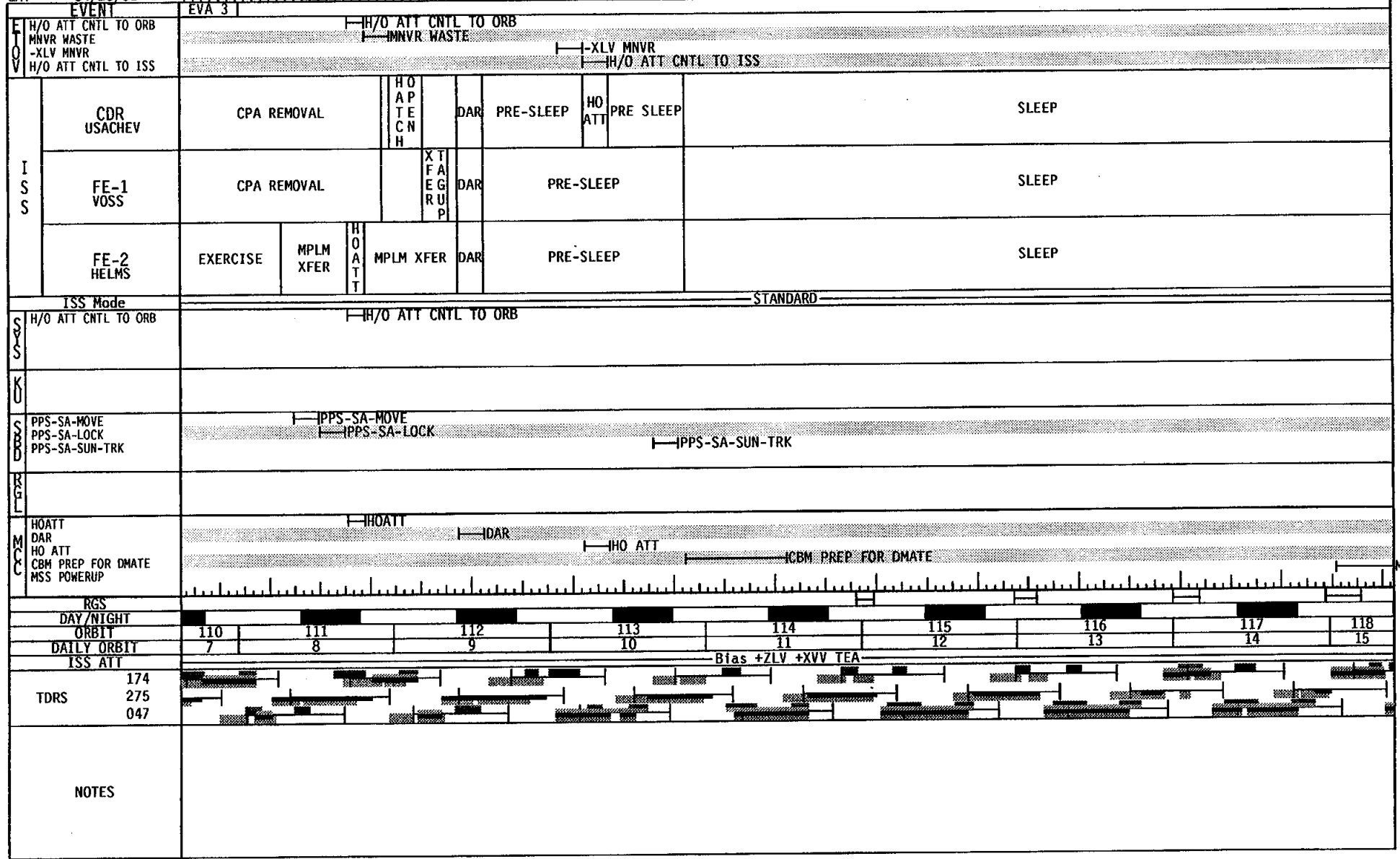


NOTES

MET Day 007 007/00

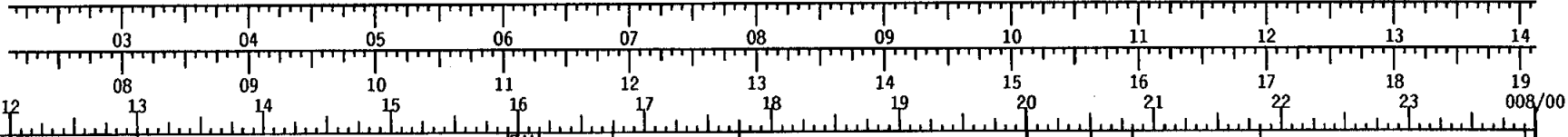
FD08

GMT 04/26/01

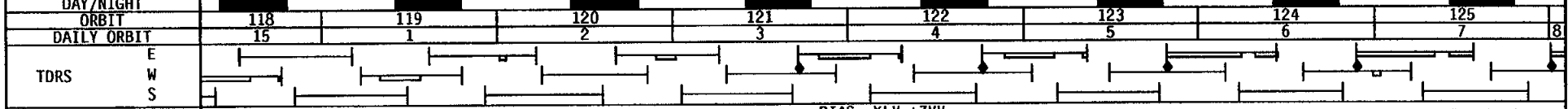


MSS PC

CT 04/27/01
 GMT 04/27/01
 MET Day 007



STS-100	CDR ROMINGER	SLEEP	POST SLEEP	FCMS OPS	EXERCISE		P/TV 21 S/U PAO	PAO	MEAL	
	PLT ASHBY	SLEEP	POST SLEEP	P/TV 22 S/U DOCK OPS	FCMS OPS	MDDK XFER	EXERCISE	MDDK XFER	MEAL	MDDK XFER PAO MDDK XFER P/TV 21 S/U PAO
	MS1/EV1 HADFIELD	SLEEP	POST SLEEP		SSRMS UNLD TEST CNFG (Monitor from ISS)		UNLDED C/O - INITIAL (Monitor from ISS)	EMU REMOVE PAO	MEAL	MDDK XFER EXERCISE
	MS2/IV1 PHILLIPS	SLEEP	POST SLEEP	DSO 493	AUX BATT CHRG TERM	EXERCISE	IMAX OPS 26-28	IMAX FILM RELOAD	MEAL	NI NADIR CBM DEMATE PAO MDDK XFER
	MS3/EV2 PARAZYNSKI	SLEEP	POST SLEEP			SSRMS UNLD TEST CNFG (Monitor from STS)		UNLDED C/O - INITIAL (Monitor from STS)	MEAL	MPLM UNINSTL MPLM BERTH
	MS4 GUIDONI	SLEEP	POST SLEEP		MPLM DEACT	VESTIBILE DEOUTFITNG	CBCS S/U & C/O	VESTIBILE DEPRESS	MEAL	MPLM UNINSTL MPLM BERTH
	MS5/IV2 LONCHAKOV	SLEEP	POST SLEEP - GIRA	DSO 493			ICBC OPS 20	EXERCISE	EMU REMOVE	MEAL



ORB ATT BIAS -XLV +ZVV

*DUAL HTR ACT *MATE *HTR ACT *FES DU

NOTES

MET Day 007

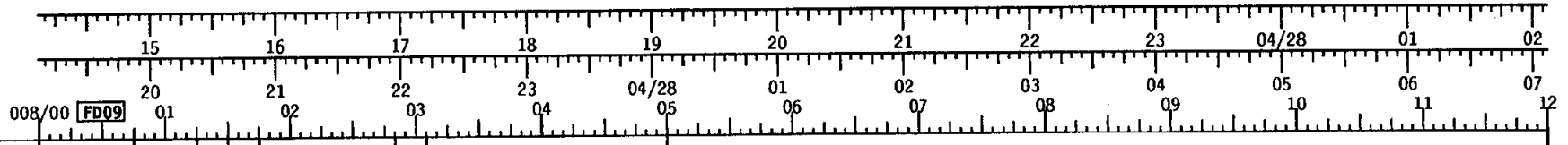
FD09

008/00

GMT 04/27/01

EVENT		08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 19																							
ISS	CDR USACHEV	SLEEP	POST-SLEEP	DPC	MPLM FINAL CLOSEOUT	MPLM EGRS	MPLM DEACT	VESTIBILE DEOUTFITNG	CBCS S/U & C/O	VESTIBULE DEPRESS	MEAL	ISS DAILY MAINT	EXERCISE												
	FE-1 VOSS	SLEEP	POST-SLEEP	DPC	MPLM FINAL CLOSEOUT	SSRMS UNLD TEST CNFG			UNLDED C/O - INITIAL	MEAL	IMAX S/U LAB BRKT	IMAX OPS 24-25	IMAX FILM RELOAD												
	FE-2 HELMS	SLEEP	POST-SLEEP	DPC	R T W H S E C K	S U S N R S M T S W	SSRMS UNLD TEST CNFG			UNLDED C/O - INITIAL	V I D E O	MEAL	N1 NADIR CBM DEMATE	PAO	MDDK XFER	S S T R O M W S *									
ISS Mode		STANDARD																							
SBS																									
MCC	MSS POWERUP	MSS POWERUP																							
	DPC	DPC																							
MSS POWERDOWN	MSS P																								
RGS																									
DAY/NIGHT ORBIT	118	119	120	121	122	123	124	125	126																
DAILY ORBIT	15	16	1	2	3	4	5	6	7																
ISS ATT	Bias +ZLV +XVV TEA																								
TDRS	174																								
	275																								
	047																								
NOTES																									

CT 04/27/01
 GMT 04/27/01
 MET Day 008

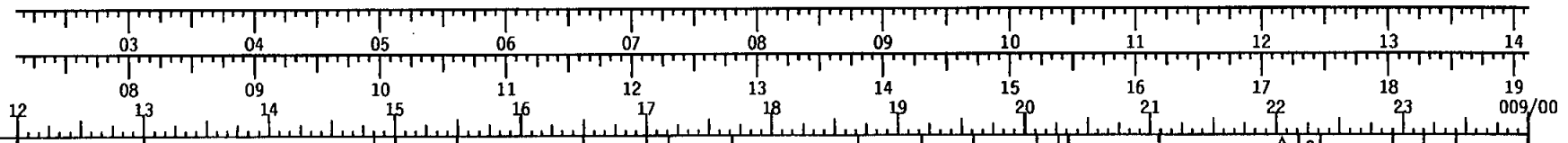


STS-100	CDR ROMINGER	CREW CONF	CREW PHOTO	PFC	PRE SLEEP	PMC OCA	PRE SLEEP	ISS EXTERNAL SURVEY		REBOOST CAMERA SETUP	SLEEP
	PLT ASHBY	CREW CONF	CREW PHOTO		I O L N L U M		PRE SLEEP				SLEEP
	MS1/EV1 HADFIELD	CREW CONF	CREW PHOTO			PFC	PRE SLEEP				SLEEP
	MS2/IV1 PHILLIPS	CREW CONF	CREW PHOTO	EMU XFER TO ISS			PFC	PRE SLEEP			SLEEP
	MS3/EV2 PARAZYNSKI	CREW CONF	CREW PHOTO	EMU XFER TO ISS			PMC OCA	PRE SLEEP			SLEEP
	MS4 GUIDONI	CREW CONF	CREW PHOTO	X T F A E G R U P	X C F A E L R L	S I G N I F I C A N T		PRE SLEEP			SLEEP
	MS5/IV2 LONCHAKOV	CREW CONF	CREW PHOTO			IMAX S/U LAB INTRNL		PRE SLEEP - GIRA			SLEEP
DAY/NIGHT											
ORBIT		126	127	128	129	130	131	132	133		
DAILY ORBIT		8	9	10	11	12	13	14	15		
TDRS											
ORB ATT										BIAS -XLV +ZVV	
NOTES											

MET Day 008 008/00 FD09 01 02 03 04 05 06 07 08 09 10 11 12
 GMT 04/27/01 20 21 22 23 04/28 01 02 03 04 05 06 07

E V E N T											
I S S	CDR USACHEV	CREW CONF	CREW PHOTO		DAR	PRE-SLEEP	SLEEP				
	FE-1 VOSS	CREW CONF	CREW PHOTO	X T F A E G R U P	IMAX S/U LAB INTRNL	DAR	PRE-SLEEP	SLEEP			
	FE-2 HELMS	CREW CONF	CREW PHOTO		EXERCISE	DAR	PRE-SLEEP	SLEEP			
ISS Mode					STANDARD						
S S S											
S S S											
S S S											
M C R	MSS POWERDOWN	MSS POWERDOWN									
M C R	DAR	DAR									
M C R	MSS POWERUP	MSS P									
RGS											
DAY/NIGHT											
ORBIT	126	127	128	129	130	131	132	133			
DAILY ORBIT	7	8	9	10	11	12	13	14			
ISS ATT	Bias +ZLV +XVV TEA										
TDRS	174	[Gantt chart showing activity bars]									
TDRS	275	[Gantt chart showing activity bars]									
TDRS	047	[Gantt chart showing activity bars]									
NOTES											

CT 04/28/01
 GMT 04/28/01
 MET Day 008



STS-100	CDR ROMINGER	SLEEP	POST SLEEP	HO ATT	MNVR RE BOOST	ISS AUTO REBOOST	-XLV MNVR	HO ATT	MEAL	FARE WELL	HATCH CLOSE	HO ATT	UNDOCK OPS	SEP	COMM 1	CABIN STOW	+MZN LVROT	INSIM IOT	FILTER CLEAN
	PLT ASHBY	SLEEP	POST SLEEP	IO LN IUM	MDDK XFER			P/TV 21 S/U INT OPS	MEAL	FARE WELL	GP RW PR UP	UNDOCK OPS			GP RW PR BDN	PR MWR SDN	EXERCISE	CS AT BOW N	
	MS1/EV1 HADFIELD	SLEEP	POST SLEEP	PMDZ PGSC S/U		RNDZ TOOL C/O	MDDK XFER	O2 N2 LINE CNCT	MEAL	FARE WELL	CTR LINE CAM INST	ODS VEST/PMA LEAK CK	UNDOCK OPS	OD IE UACT	CABIN STOW				
	MS2/IV1 PHILLIPS	SLEEP	POST SLEEP	DSO 493	P/TV 25 ISS DYN S/U	P/P TSV 25	MDDK XFER	EXERCISE	MEAL	FARE WELL	GP RW PR UP	P/TV 20 S/U RNDZ	P/TV 20 OPS	GP RW PR BDN	CABIN STOW				
	MS3/EV2 PARAZYNSKI	SLEEP	POST SLEEP	RNDZ PGSC S/U		RNDZ TOOL C/O	MDDK XFER		MEAL	FARE WELL	CTR LINE CAM INST	ODS VEST/PMA LEAK CK	UNDOCK OPS	CCR /A LMM OVE	CABIN STOW				
	MS4 GUIDONI	SLEEP	POST SLEEP	MDDK XFER			FIN XFR TAG	X C FREL	MEAL	FARE WELL	S A S C T O R		HL AUD B/O	UNDOCK OPS	PCS DEACT	SD SE A I C T	S I G I T I C K	CABIN STOW	
	MS5/IV2 LONCHAKOV	SLEEP	POST SLEEP - GIRA	DSO 493	MDDK XFER			O2 N2 LINE CNCT	MEAL	FARE WELL	HATCH CLOSE	EXERCISE		ICBC OPS 23-26	CABIN STOW				

UNDOCKING

DAY/NIGHT	ORBIT	134	135	136	137	138	139	140	141			
DAILY ORBIT		15	16	1	2	3	4	5	6	7		
TDRS	EWS	[Timeline bars for TDRS events]										
ORB ATT		BIAS -XLV +ZVV			BIAS -XLV +ZVV			BIAS -XLV +ZVV		UNDOCK	SEP	+ZLV +YVV

NOTES

* UNDOCK AT MET 8/21:04

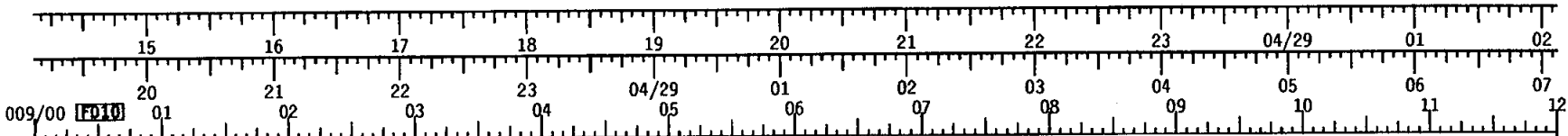
MET Day 008 12 13 14 15 16 17 18 19 20 21 22 23 009/00
 GMT 04/28/01 08 09 10 11 12 13 14 15 16 17 18 19

EVENT		H/O ATT CNTL TO ORB												UNDOCK OPS					
ISS	CDR USACHEV	SLEEP	POST-SLEEP	DPC	IWIS OPS DTO 261		IWIS OPS DTO 261	H/O ATT	O2 N2 LINE CNCT	MEAL	FARE WELL	HATCH CLOSE	PMA PRP DCK	H/O ATT	LK CK	PMA2 DEPART CONFIG	OFF-DUTY		
	FE-1 VOSS	SLEEP	POST-SLEEP	DPC	RCHW ECK	MDDK XFER			FIN XFR TAG	MEAL	FARE WELL	IMAX OPS 30-31	EXERCISE			EXERCISE	OFF-DUTY		
	FE-2 HELMS	SLEEP	POST-SLEEP	DPC	H/O ATT	MDDK XFER				MEAL	FARE WELL	ISS DAILY MAINT			▽		OFF-DUTY		
ISS Mode		STANDARD												PROXIMITY OPERATIONS		STANDARD			
SYS	PMA PREP FOR DOCK													PMA PREP FOR DOCK		IACS-PMA2-DPRT-CNFG			
	ACS-PMA2-DPRT-CNFG																		
SBD	ISS MODE-PROX-XTION													ISS MODE-PROX-XTION					
	C&DH-UNDOCK-CNFG													C&DH-UNDOCK-CNFG					
RGL	ACS-PRE-DPRT-CNFG													ACS-PRE-DPRT-CNFG					
	PPS-SA-LOCK													PPS-SA-LOCK					
MCC	PPS-SA-SUN-TRK													PPS-SA-SUN-TRK		IACS-ATT-CCDB-CHG			
	ACS-ATT-CCDB-CHG															IACS-POST-DPRT-CNFG			
RGS	ACS-POST-DPRT-CNFG															IACS-POST-DPRT-CNFG			
	ISS MODE-STND-XTION															IACS-POST-DPRT-CNFG			
MCC	MSS POWERUP	MSS POWERUP																	
	DPC	DPC																	
MCC	HOATT	HOATT																	
	MSS POWERDOWN	MSS POWERDOWN																	
ORBIT		134	135	136	137	138	139	140	141										
DAILY ORBIT		15	1	2	3	4	5	6	7										
ISS ATT		Bias +ZLV +XVV TEA												Drift		Snap/Hold		Bias +ZLV +XVV TEA	
TDRS	174																		
	275																		
NOTES	047																		
		φSSRMS P/TV S/U												▲FARE WELL		VAR-DEACT-RACK			
		●SSRMS P/TV S/U																	

CT 04/28/01

GMT 04/28/01

MET Day 009

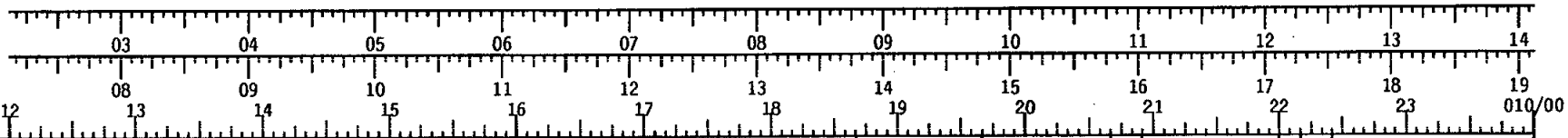


STS-100	CDR ROMINGER	EXERCISE	PMC OCA	PRE SLEEP	SLEEP					
	PLT ASHBY	ST - M H R IE Z N 2 C M R L V O F O M V R G		PRE SLEEP	SLEEP					
	MS1/EV1 HADFIELD	CABIN STOW		PRE SLEEP	SLEEP					
	MS2/IV1 PHILLIPS	CABIN STOW		PRE SLEEP	SLEEP					
	MS3/EV2 PARAZYNSKI	CABIN STOW	PMC OCA	PRE SLEEP	SLEEP					
	MS4 GUIDONI	CABIN STOW		PRE SLEEP	SLEEP					
	MS5/IV2 LONCHAKOV	CABIN STOW		PRE SLEEP - GIRA	SLEEP					
DAY/NIGHT	[Timeline with shaded blocks]									
ORBIT	141	142	143	144	145	146	147	148	149	
DAILY ORBIT	7	8	9	10	11	12	13	14	15	
TDRS	[Timeline with horizontal bars]					[Timeline with horizontal bars]				
ORB ATT	[Timeline with horizontal bars]					[Timeline with horizontal bars]				
NOTES	[Empty space for notes]									

CT 04/29/01

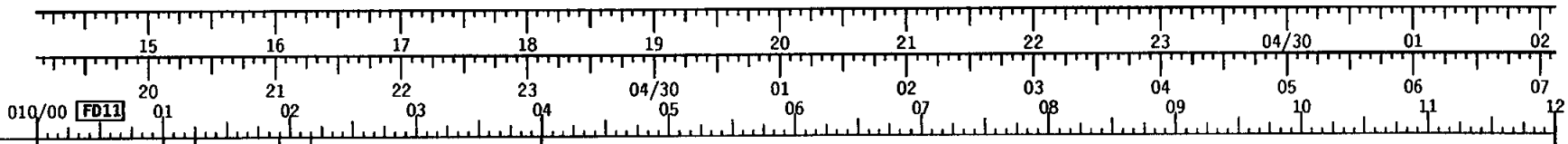
GMT 04/29/01

MET Day 009



STS-100	CDR ROMINGER	POST SLEEP	FCS C/O	RCS HF	OPS 2	CABIN STOW	D/O BRIEF	MEAL	PILOT OPS	EXERCISE	LC-OMM	OFF-DUTY	COM M 2	LC-OMM	OFF-DUTY
	PLT ASHBY	POST SLEEP	FCS C/O	RCS HF		CABIN STOW	D/O BRIEF	MEAL	PILOT OPS	OFF-DUTY	LC-OMM	EXERCISE		LC-OMM	OFF-DUTY
	MS1 HADFIELD	POST SLEEP	POST EVA ENT PREP			EXERCISE	D/O BRIEF	MEAL	CABIN STOW	OFF-DUTY					
	MS2 PHILLIPS	DSO 493	POST SLEEP	POST SLEEP	FCS C/O	RCS HF	CABIN STOW	D/O BRIEF	MEAL	CABIN STOW	OFF-DUTY	EXERCISE	OFF DUTY		
	MS3 PARAZYNSKI		POST SLEEP	POST EVA ENT PREP		CABIN STOW	D/O BRIEF	MEAL	CABIN STOW	OFF-DUTY					
	MS4 GUIDONI		POST SLEEP	EXERCISE	FRED STOW	CABIN STOW	D/O BRIEF	MEAL	PDE/TACT/OT 6	SIGI ENTRY CONFIG	CABIN STOW	OFF DUTY			
	MS5 LONCHAKOV	DSO 493	POST SLEEP - GIRA	MCIU	EXERCISE	CABIN STOW	D/O BRIEF	MEAL	CABIN STOW	OFF-DUTY					
DAY/NIGHT		149	150	151	152	153	154	155	156	157					
ORBIT															
TDRS	E W														
ORB ATT															
GND															
NOTES		*VENT HTR ACT													

CT 04/29/01
 GMT 04/29/01
 MET Day 010



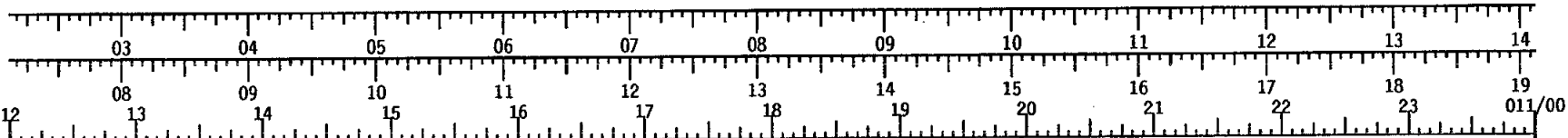
S
T
S
-
1
0
0

CDR ROMINGER	OFF-DUTY	- M Z N L V V R	PRE SLEEP	PMC A/G	PRE SLEEP	SLEEP		
PLT ASHBY	OFF-DUTY		PRE SLEEP			SLEEP		
MS1 HADFIELD	OFF-DUTY	K S U T O W	PRE SLEEP			SLEEP		
MS2 PHILLIPS	OFF DUTY	ERGO STOW	PRE SLEEP			SLEEP		
MS3 PARAZYNSKI	OFF-DUTY		PRE SLEEP	PMC A/G	PRE SLEEP	SLEEP		
MS4 GUIDONI	OFF DUTY	ERGO STOW	PRE SLEEP			SLEEP		
MS5 LONCHAKOV	OFF-DUTY		PRE SLEEP - GIRA			SLEEP		
DAY/NIGHT ORBIT	157	158	159	160	161	162	163	164
TDRS E W								
ORB ATT	-ZLV -XVV					-ZLV -YVV		
GND		-GDS -GDS	-GDS -GDS -MIL -MIL -MIL	-GDS -MIL	-GDS -MIL -MIL	-GDS		
NOTES								

CT 04/30/01

GMT 04/30/01

MET Day 010



STS-100	CDR ROMINGER	POST SLEEP	PMC A/G	IMU MNR	IMU & VERIF	-M XN SV IR	DEORBIT PREP	D/O BURN	LANDING
	PLT ASHBY	POST SLEEP			PSETT VUOP	STANK C	GPWRUP		
	MS1 HADFIELD	POST SLEEP							
	MS2 PHILLIPS	POST SLEEP	DSO 493			GPWRUP			
	MS3 PARAZYNSKI	POST SLEEP	PMC A/G	POST SLEEP	PDSGETT	SPRNT			
	MS4 GUIDONI	POST SLEEP			SPRGEIP	WINDECSTOW			
	MS5 LONCHAKOV	POST SLEEP - GIRA	DSO 493		HASOUTDOCIW	ISCTBOCW			
DAY/NIGHT ORBIT									
TDRS									
ORB ATT									
GND									
NOTES	<p>*DEACT</p> <div style="border: 1px solid black; padding: 5px; display: inline-block;">LANDING: KSC 10/19:58</div>								

This Page Intentionally Blank

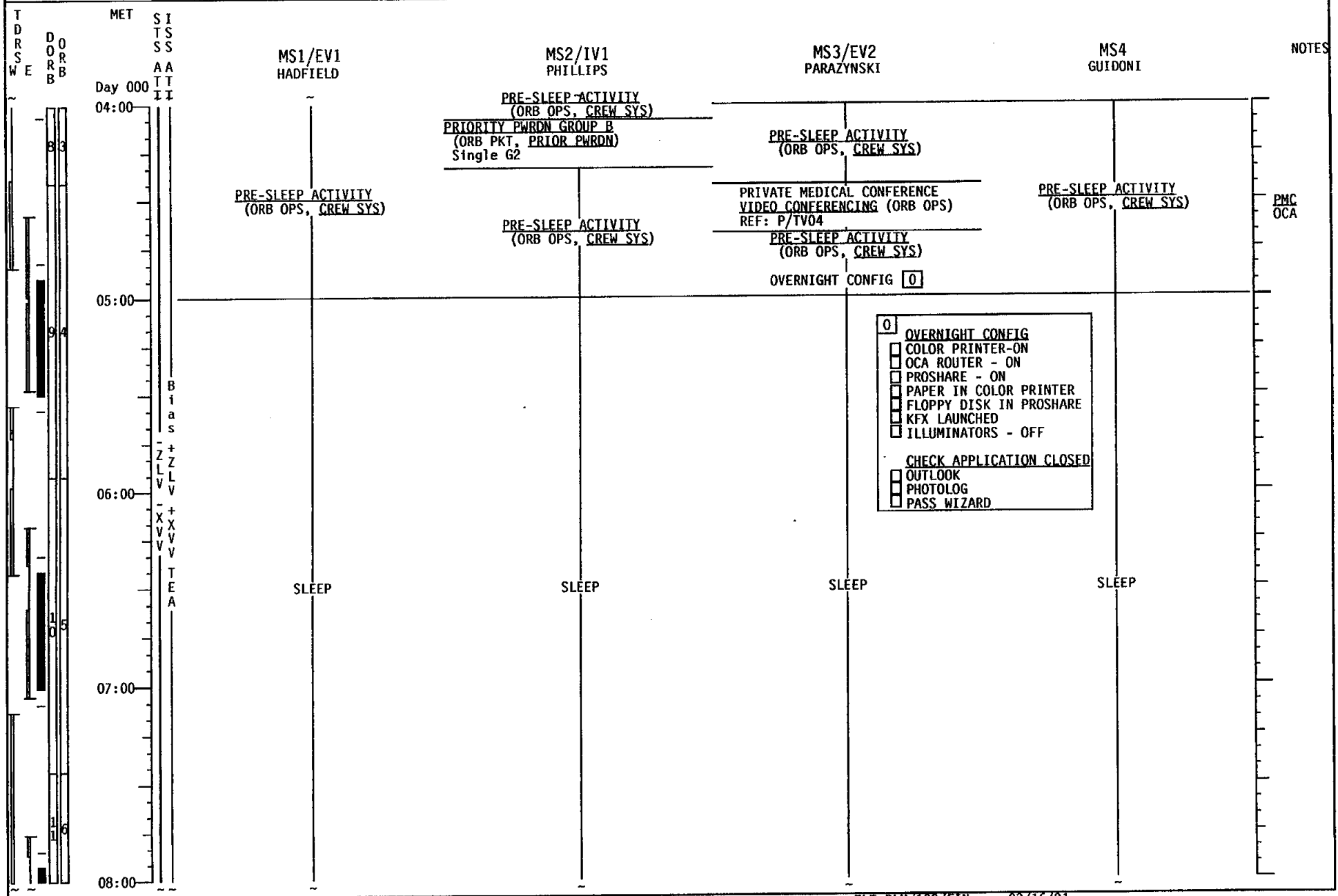
DETAILED TIMELINE

DETAILED
TIMELINE

STS-100 (FD 01)

TDRS WE	DOORB	MET	SISS	CDR ROMINGER	PLT ASHBY	MS5/IV2 LONCHAKOV	MCC	NOTES
		Day 000	AA TT II					
		04:00		<u>PRIORITY PWRDN GROUP B</u> (ORB PKT, <u>PRIOR PWRDN</u>) Single G2	<u>ELEVON PARK, GNC 201</u> (ORB OPS, GNC)			
				<u>PRIVATE MEDICAL CONFERENCE</u> <u>VIDEO CONFERENCING</u> (ORB OPS) REF: P/TV04	<u>APU FDI RECONFIGS</u> R2 BLR PWR (three)-OFF A12 APU HTR GG/FU PMP(three)-A/AUTO	<u>PRE-SLEEP ACTIVITY</u> (ORB OPS, CREW SYS)		
				<u>PRE-SLEEP ACTIVITY</u> (ORB OPS, CREW SYS) √ Humidity SEPS for Water Accumulation	<u>PRE-SLEEP ACTIVITY</u> (ORB OPS, CREW SYS)	<u>GALLEY OVERNIGHT CONEIG</u> (ORB OPS, GIRA)		<u>PMC</u> <u>OCA</u>
		05:00						
			Bias					
			+ZLV					
		06:00						
			+XVV					
			TEA					
				SLEEP	SLEEP	SLEEP		
		07:00						
		08:00						

STS-100 (FD 01)



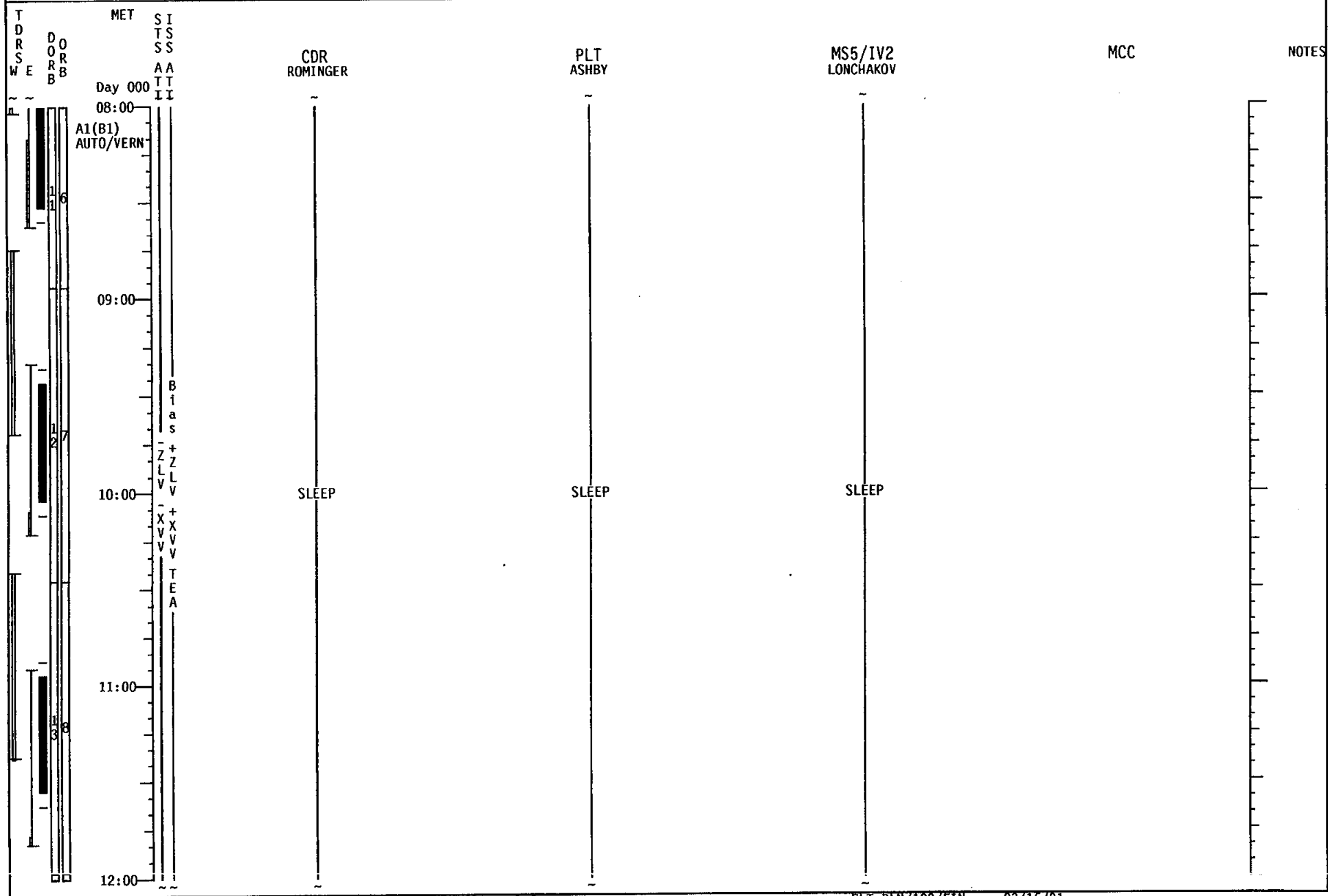
0 OVERNIGHT CONFIG

- COLOR PRINTER - ON
- OCA ROUTER - ON
- PROSHARE - ON
- PAPER IN COLOR PRINTER
- FLOPPY DISK IN PROSHARE
- KFX LAUNCHED
- ILLUMINATORS - OFF

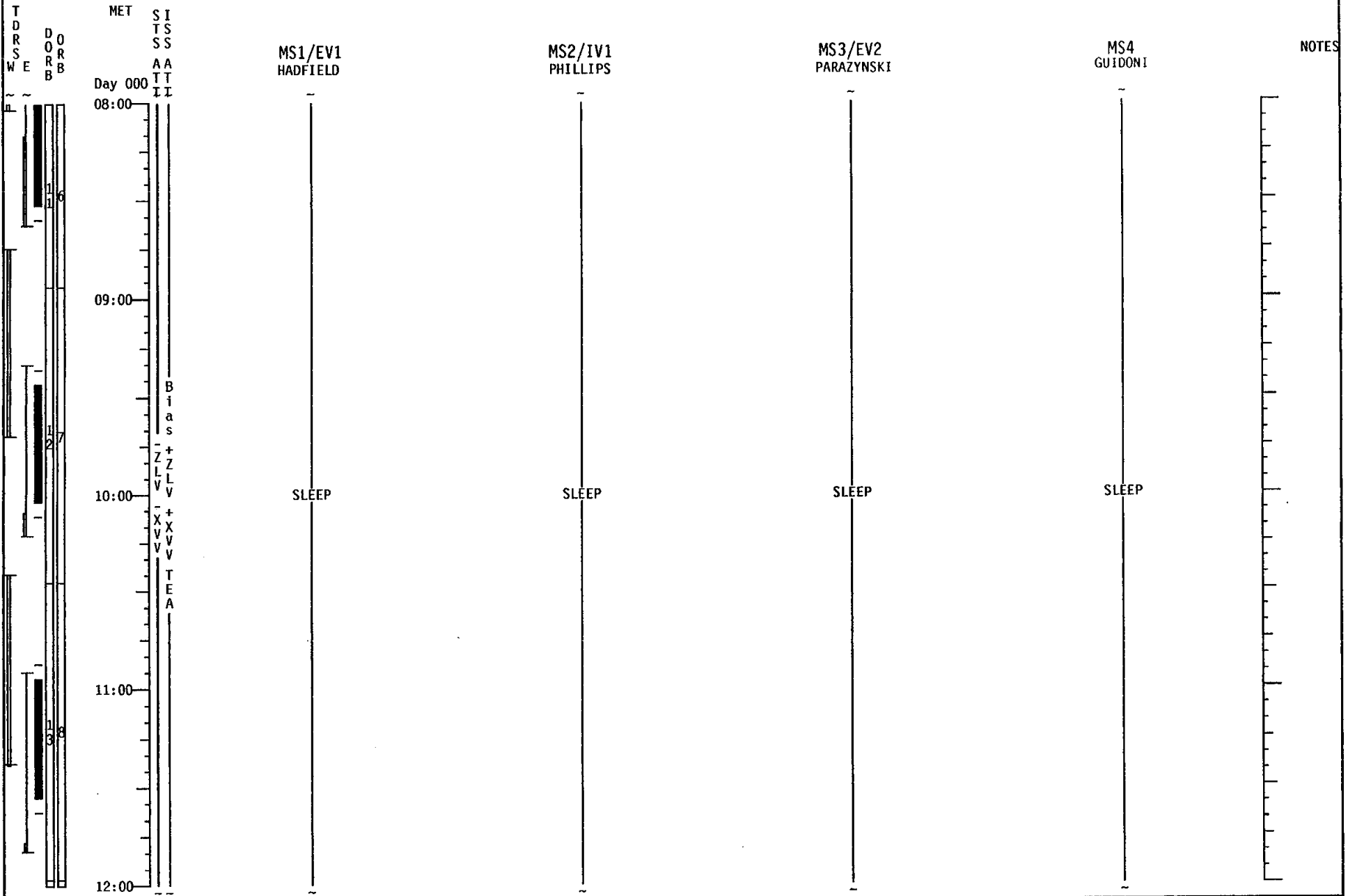
CHECK APPLICATION CLOSED

- OUTLOOK
- PHOTOLOG
- PASS WIZARD

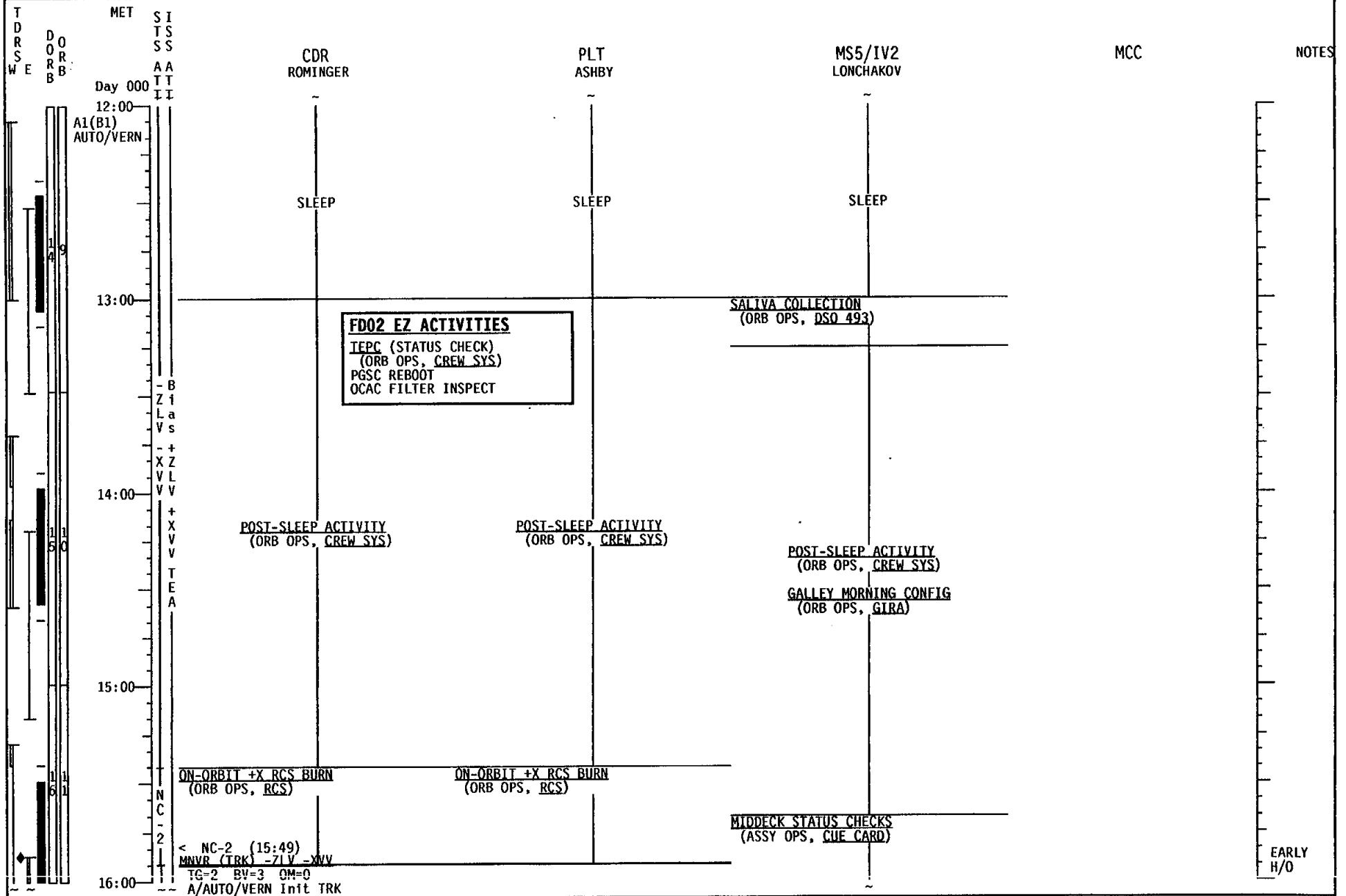
STS-100 (FD 01)



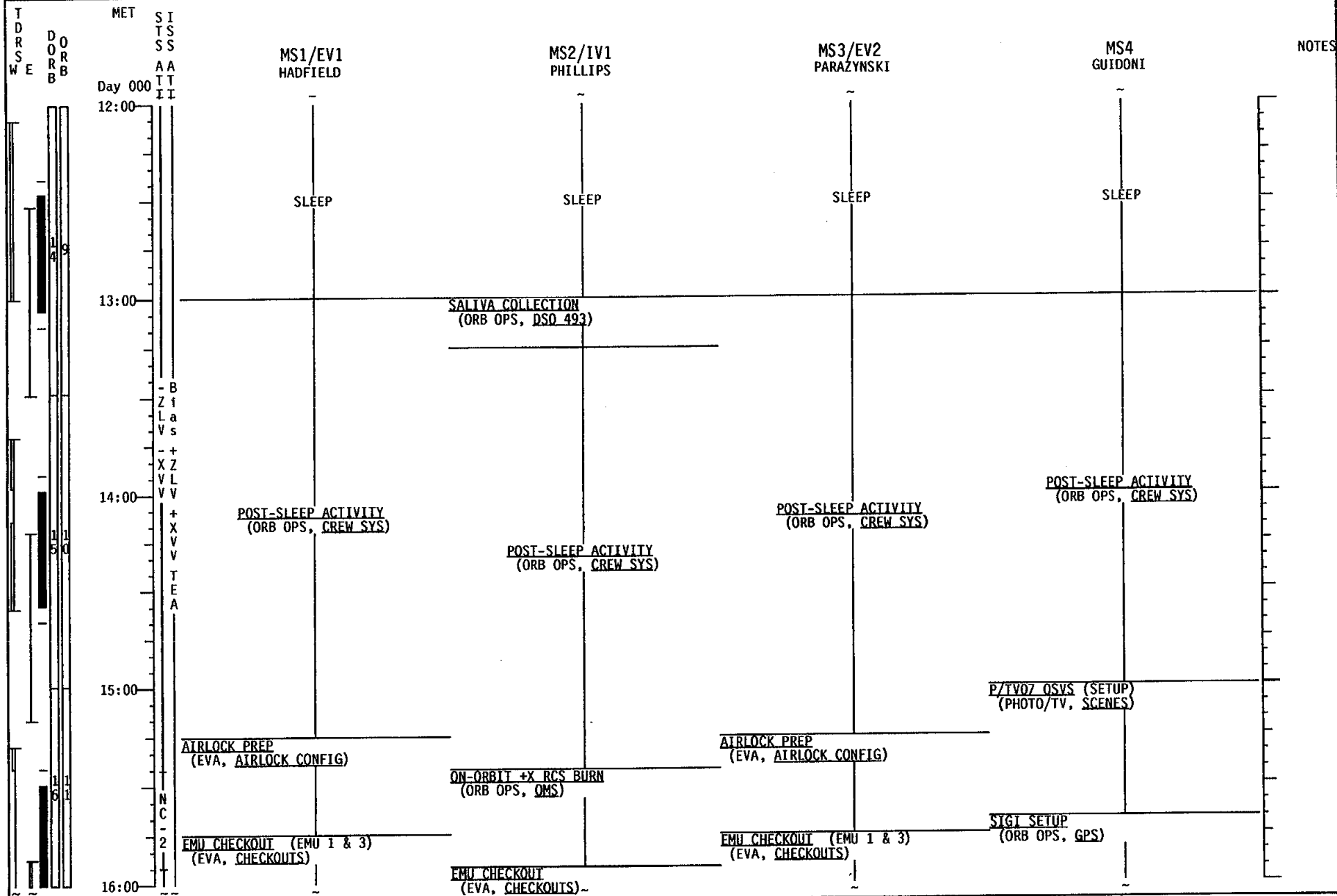
STS-100 (FD 01)



STS-100 (FD 02)



STS-100 (FD 02)



A SLM

1. IMU ALIGN

Perform IMU ALIGN-S TRK (ORB OPS, GNC)

-Z: 37 AVAIL: 0/17:41 to 0/18:25
-Y: 64 AVAIL: 0/17:48 to 0/18:39
ANG SEP: 90.2

When IMU Align complete:

GNC 22 S TRK/COAS CNTL

-Y STAR TRKR - TERM/IDLE ITEM 9 EXEC (*)

2. SLM DATA TAKES

GNC 22 S TRK/COAS CNTL

CRT Clear Star Table **ITEM 20 EXEC**

Acquire Star

SLM 1&2 STAR ID: 37

SLM 3&4 STAR ID: 64

C3 **DAP:FREE**

CRT Verify star in table
Clear Star Table **ITEM 20 EXEC**
Verify Star in table

C3 **DAP:AUTO**

GNC UNIV PTG

CRT Load Next Attitude

	SLM#2	SLM#3	SLM#4
R=	285.98	100.21	104.21
P=	317.24	150.97	150.81
Y=	88.97	0.81	0.78

Init MNVR **ITEM 18 EXEC**

When in Att:

Repeat Step 2 for SLM 2, 3, & 4

3. RESELECT -Y STAR TRACKER

GNC 22 S TRK/COAS CNTL

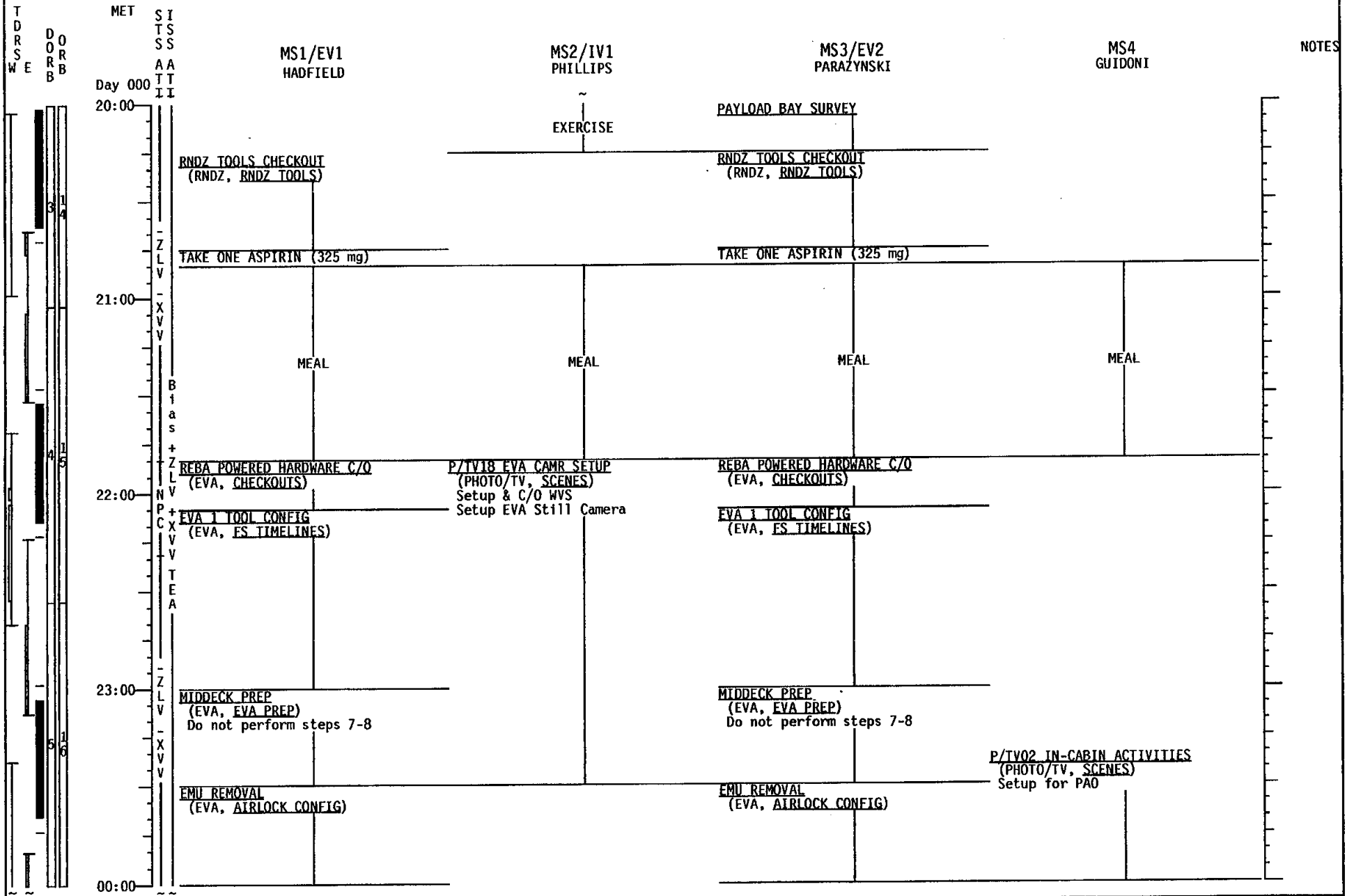
-Y STAR TRKR - STAR TRK **ITEM 3 EXEC (*)**

THIS PAGE INTENTIONALLY BLANK

STS-100 (FD 02)

TDRS WE	DOORB	MET Day 000	SITSS AA TT II	MS1/EV1 HADFIELD	MS2/IV1 PHILLIPS	MS3/EV2 PARAZYNSKI	MS4 GUIDONI	NOTES
		16:00		EMU CHECKOUT (EMU 1 & 3) (EVA, CHECKOUTS)	EMU CHECKOUT (EVA, CHECKOUTS)	EMU CHECKOUT (EMU 1 & 3) (EVA, CHECKOUTS)	SIGI SETUP (ORB OPS, GPS)	
							OSVS PWRUP (PDRS, OSVS OPS)	
							OSVS CHECKOUT (PDRS, OSVS CHECKOUT)	
		17:00					OSVS PWRDN (PDRS, OSVS OPS)	
							FRED SETUP (ORB OPS, FRED)	
				EMU CHECKOUT (EMU SWAP) (EVA, CHECKOUTS) EMU 3 to MDDK EMU 2 to A/L	EMU CHECKOUT (EMU SWAP) (EVA, CHECKOUTS) EMU 3 to MDDK EMU 2 to A/L	EMU CHECKOUT (EMU SWAP) (EVA, CHECKOUTS) EMU 3 to MDDK EMU 2 to A/L		
							ATTITUDE MATCH UPDATE (ORB OPS, GPS)	
		18:00		EMU CHECKOUT (EMU 2) (EVA, CHECKOUTS)	EMU CHECKOUT (EVA, CHECKOUTS)	EMU CHECKOUT (EMU 2) (EVA, CHECKOUTS)	RMS CHECKOUT (PDRS, RMS C/O)	
		19:00		SAFER CHECKOUT (EVA, CHECKOUTS)	PCS SETUP-SHUTTLE (JOINT OPS, COMM/DATA) Install PCS Harddrive into PCS	SAFER CHECKOUT (EVA, CHECKOUTS)		
							EXERCISE	
				PGSC SETUP (RNDZ, RNDZ TOOLS)		PGSC SETUP (RNDZ, RNDZ TOOLS)		
					EXERCISE			
		20:00		PAYLOAD BAY SURVEY				

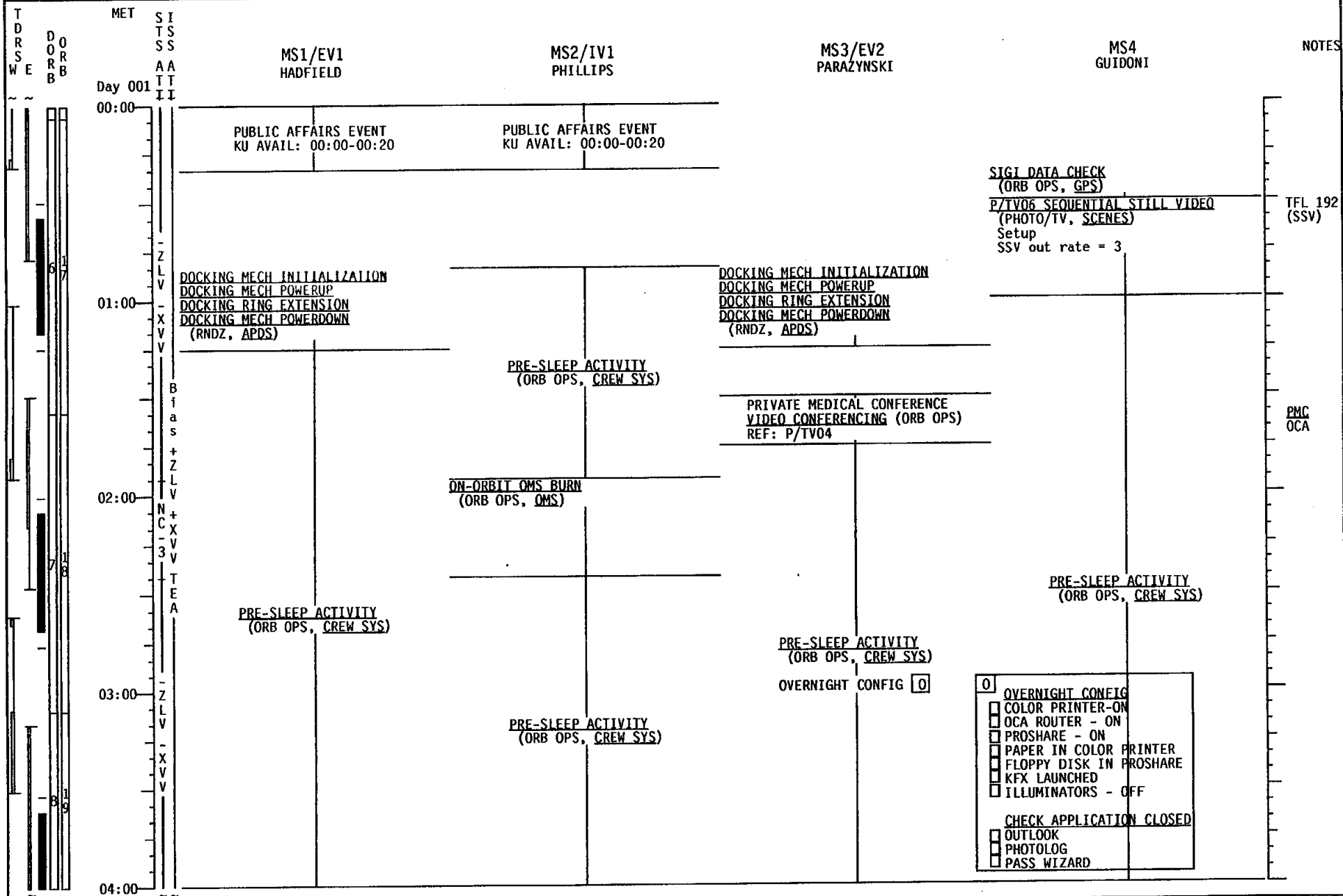
STS-100 (FD 02)



STS-100 (FD 02)

TDRS WE	DORB	MET	SITS	CDR ROMINGER	PLT ASHBY	MS5/IV2 LONCHAKOV	MCC	NOTES
		Day 001	AA TT II					
		00:00		PUBLIC AFFAIRS EVENT KU AVAIL: 00:00-00:20		P/TV08 ICBC3D (AUDIO RCDR SETUP) (PHOTO/TV, SCENES)		
				P/TV19 C/L CAMR INSTALLATION (PHOTO/TV, SCENES)	P/TV19 C/L CAMR INSTALLATION (PHOTO/TV, SCENES)			
						MIDDECK STATUS CHECKS (ASSY OPS, CUE CARD)		
		01:00		PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	EXERCISE			TFL 192 (SSV)
				PRIVATE MEDICAL CONFERENCE VIDEO CONFERENCING (ORB OPS) REF: P/TV04				EARLY H/O PMC OCA
		02:00		ON-ORBIT OMS BURN (ORB OPS, OMS)	ON-ORBIT OMS BURN (ORB OPS, OMS)			
				< NC-3 (1/02:22)				
				MNVR (TRK) -ZLV -XVV TG=2 BV=3 OM=0 A/AUTO/VERN Init TRK		PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)		
						GALLEY OVERNIGHT CONFIG (ORB OPS, GIRA)		
		03:00		PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)			
				√ Humidity SEPS for Water Accumulation				
		04:00						

STS-100 (FD 02)



- OVERNIGHT CONFIG

 - COLOR PRINTER - ON
 - OCA ROUTER - ON
 - PROSHARE - ON
 - PAPER IN COLOR PRINTER
 - FLOPPY DISK IN PROSHARE
 - KFX LAUNCHED
 - ILLUMINATORS - OFF

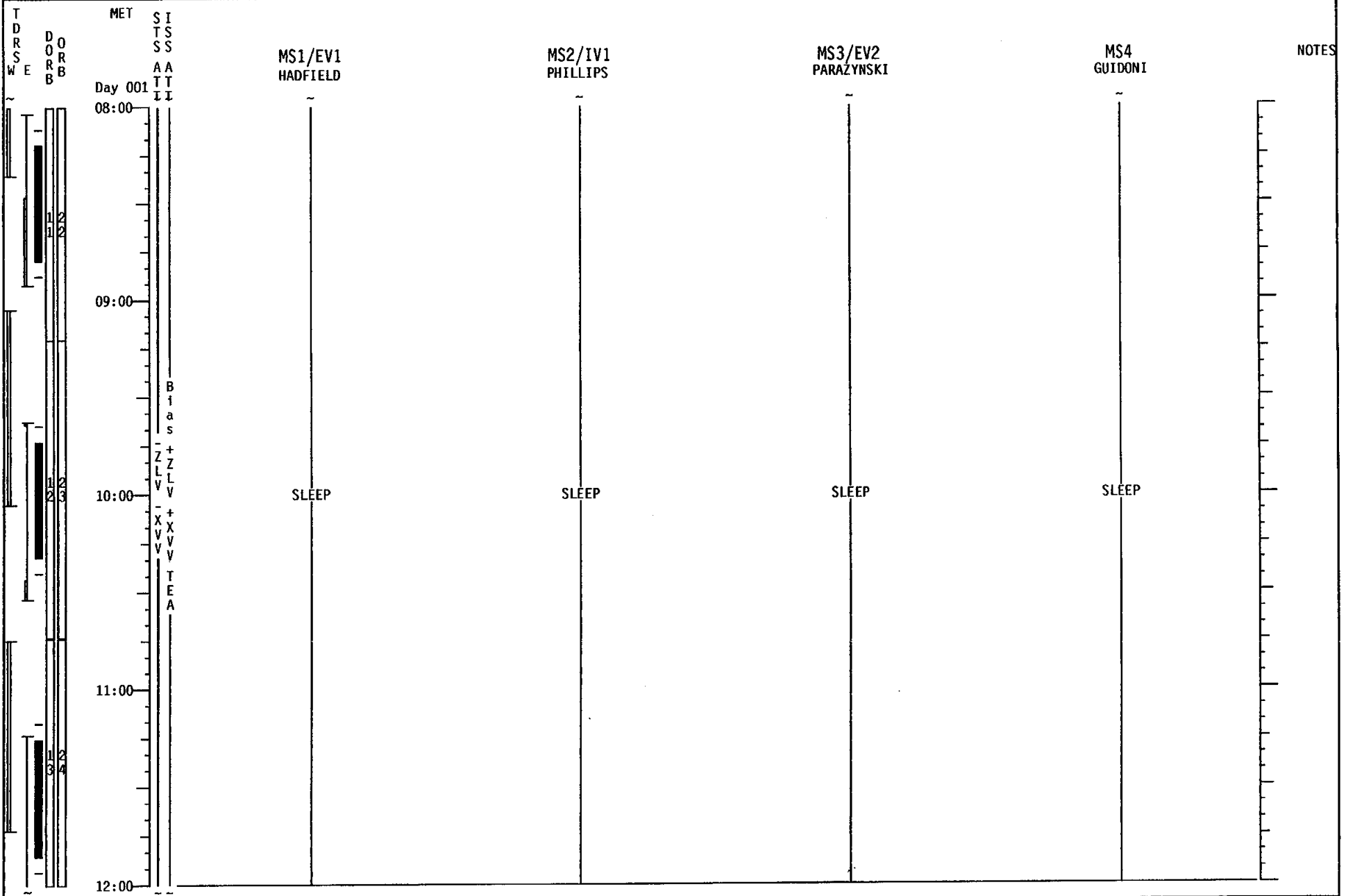
CHECK APPLICATION CLOSED

 - OUTLOOK
 - PHOTOLOG
 - PASS WIZARD

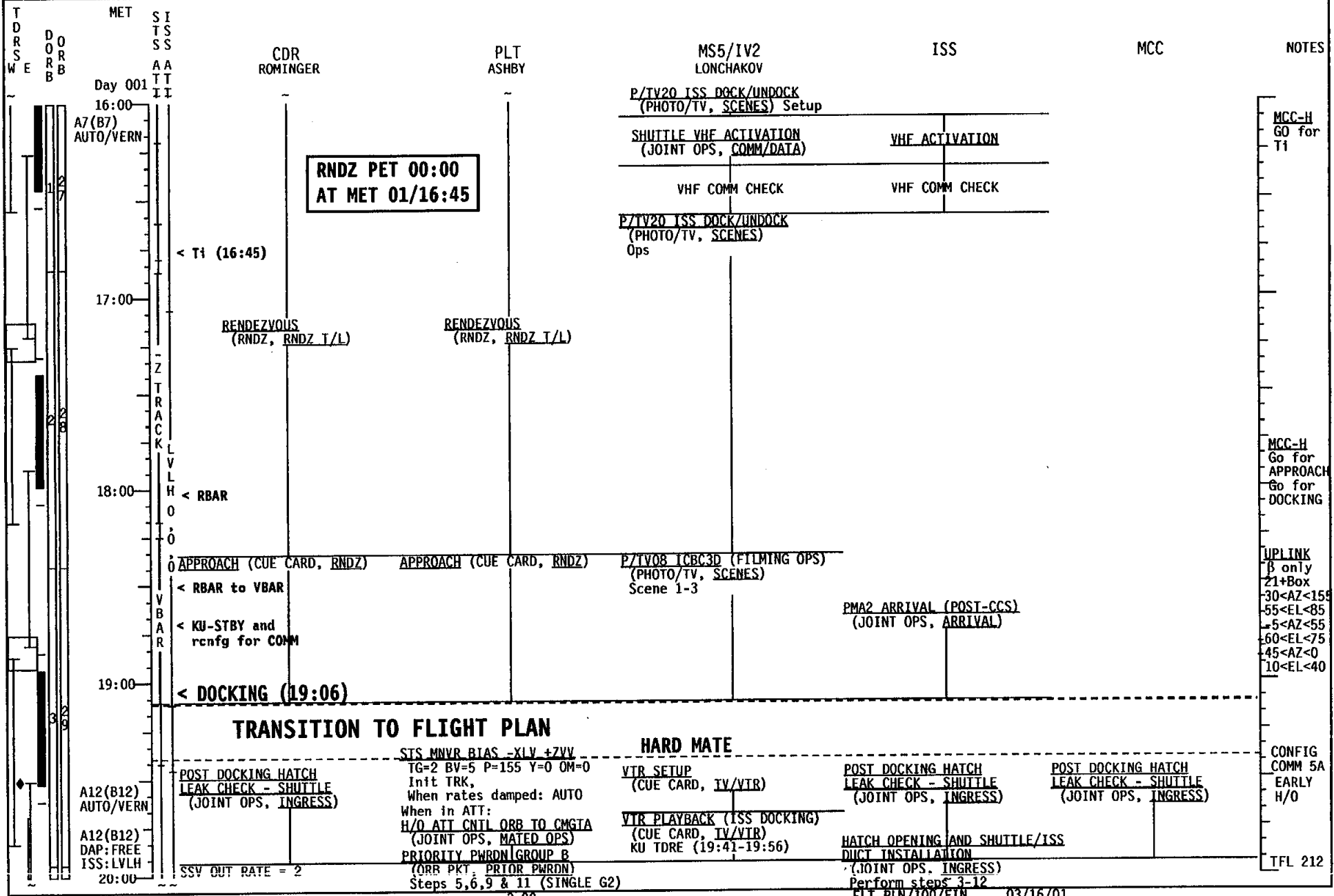
STS-100 (FD 02)

TDRS WE	DORB	MET	SIS SS AA TT II	CDR ROMINGER	PLT ASHBY	MS5/IV2 LONCHAKOV	MCC	NOTES
<div style="font-size: small;"> Day 001 04:00 A1(B1) AUTO/VERN 05:00 06:00 07:00 08:00 </div>	<div style="font-size: x-small;"> Bias +ZZ -LLV +XVV -VVA TEA </div>			SLEEP	SLEEP	SLEEP		

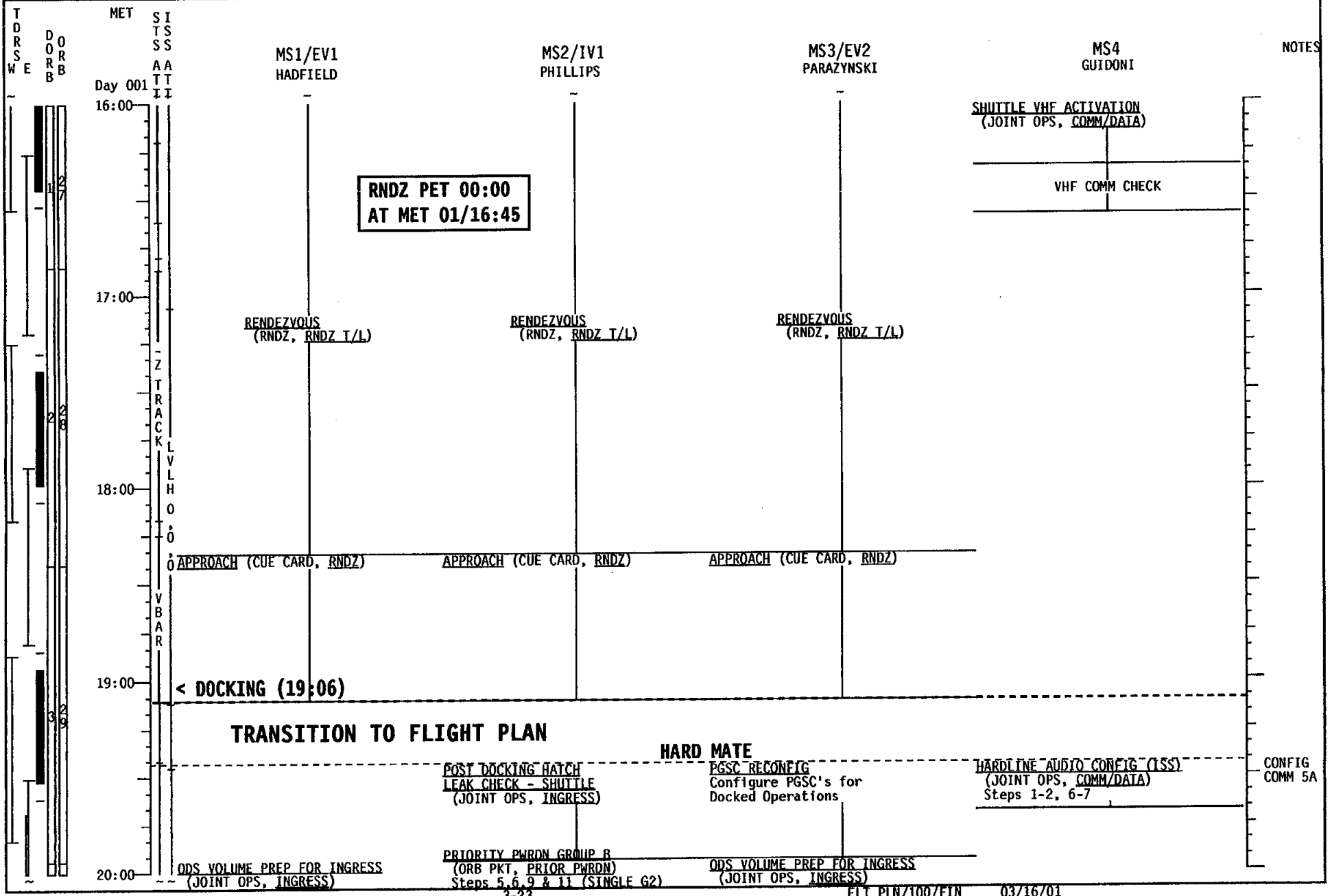
STS-100 (FD 02)



STS-100 (FD 03)



STS-100 (FD 03)



STS-100 (FD 03)

TDRS WE	DORB	MET	SI TS SS AA TT II	CDR ROMINGER	PLT ASHBY	MS5/IV2 LONCHAKOV	ISS	MCC	NOTES
		Day 001	20:00	SSV OUT RATE = 2	PRIORITY PWRDN GROUP B (ORB PKT, PRIOR PWRDN) Steps 5,6,9 & 11 (SINGLE G2)		HATCH OPENING AND SHUTTLE/ISS DUCT INSTALLATION (JOINT OPS, INGRESS) Perform steps 3-12		
				EXERCISE				MPLM ENVIRONMENT CHECK (MPLM, NOMINAL)	TFL 184
			21:00		EXERCISE		TRANSFER		TFL 212 EARLY H/O
				ON ISS CREW GO: HATCH OPENING AND SHUTTLE/ISS DUCT INSTALLATION (JOINT OPS, INGRESS) Perform steps 13,14,19-24		ON ISS CREW GO: HATCH OPENING AND SHUTTLE/ISS DUCT INSTALLATION (JOINT OPS, INGRESS) Perform steps 13,14,19-24	CLOSE LAB FWD HATCH PER DECAL		
			22:00		XFER 3 FILLED CWC BAGS	TRANSFER IMAX FILM			
				SHUTTLE/ISS H2O CONT FILL (ORB OPS, ECLS) INIT #4 MCC:CWC Samples & Additives	MIDDECK TRANSFERS (TRANSFER LIST, FD3)	MIDDECK TRANSFERS (TRANSFER LIST, FD3)			EARLY H/O
			23:00						
				CLOSE ODS HATCH PER DECAL ODS EQ VLV (one) - OFF		CLOSE ODS HATCH PER DECAL ODS EQ VLV (one) - OFF			
				10.2 PSI MAINTENANCE (EVA, 10.2 PSI CABIN)		MIDDECK STATUS CHECKS (ASSY OPS, CUE CARD)			
				SHUTTLE/ISS H2O CONT FILL (ORB OPS, ECLS) TERM			ON STS CREW GO: HATCH OPENING AND SHUTTLE/ISS DUCT INSTALLATION (JOINT OPS, INGRESS) Perform steps 3-5		
			00:00				TRANSFER		

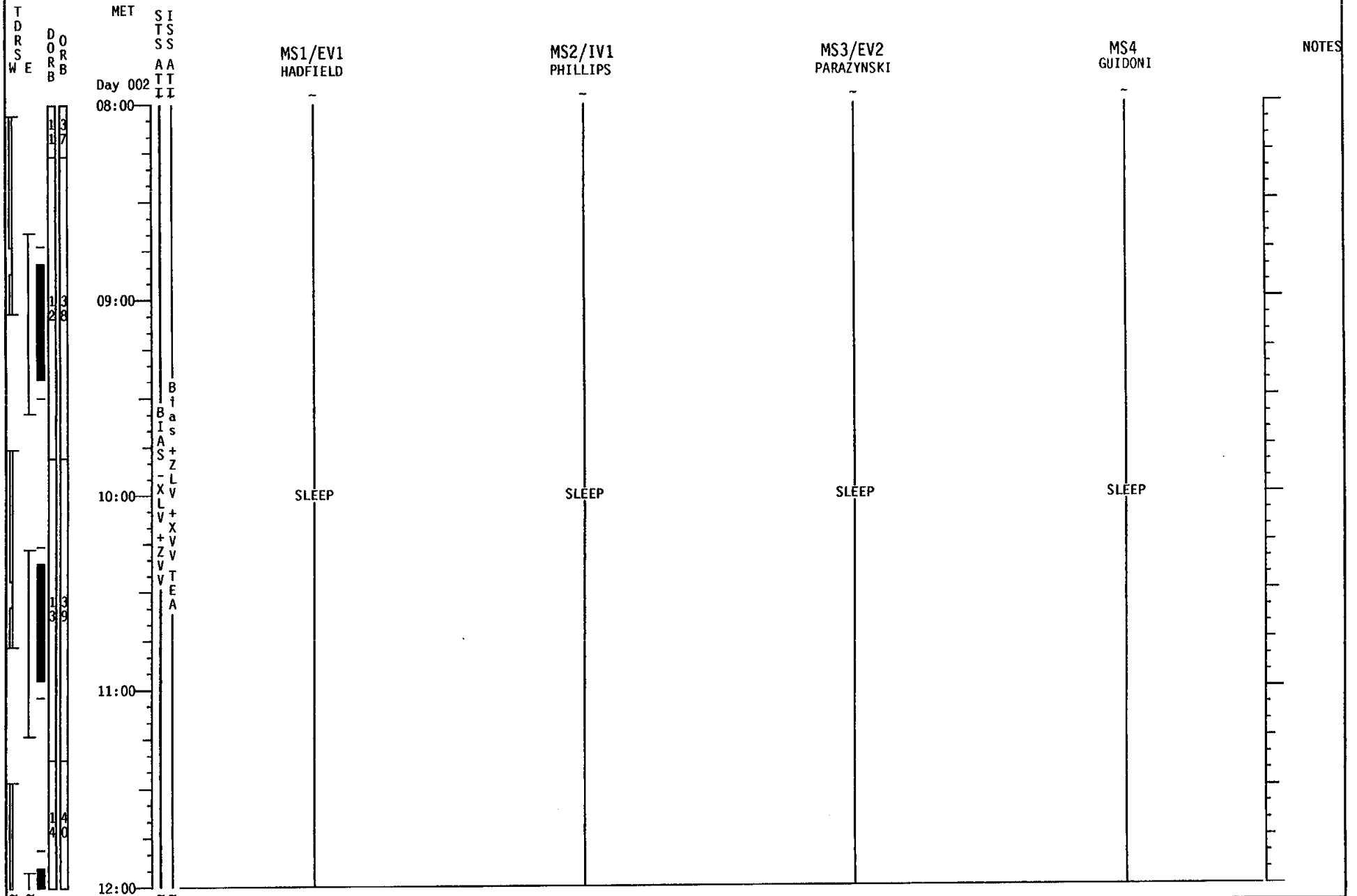
STS-100 (FD 03)

	MET	SI TS SS AA TT II	MS1/EV1 HADFIELD	MS2/IV1 PHILLIPS	MS3/EV2 PARAZYNSKI	MS4 GUIDONI	NOTES
TDRS WE BORB 3 4 5 6 3 2	Day 001 20:00 21:00 22:00 23:00 00:00	+Z LV +X VV B I A S X L V +Z LV +X VV T E A	<p><u>ODS VOLUME PREP FOR INGRESS</u> (JOINT OPS, INGRESS)</p> <hr/> <p><u>APCU ACT</u> (ASSY OPS, <u>APCU</u>) ACT <u>APCU 2</u></p> <hr/> <p><u>APCU DEACT</u> (ASSY OPS, <u>APCU</u>) DEACT <u>APCU 2</u></p> <hr/> <p><u>MIDDECK TRANSFERS</u> (TRANSFER LIST, <u>FD3</u>)</p> <hr/> <p><u>EVA 1 TOOL CONFIG</u> (EVA, <u>ES TIMELINES</u>)</p>	<p><u>PRIORITY PWRDN GROUP B</u> (ORB PKT, <u>PRIOR PWRDN</u>) Steps 5,6,9 & 11 (SINGLE G2)</p> <hr/> <p><u>APCU ACT</u> (ASSY OPS, <u>APCU</u>) ACT <u>APCU 2</u></p> <hr/> <p><u>APCU DEACT</u> (ASSY OPS, <u>APCU</u>) DEACT <u>APCU 2</u></p> <hr/> <p><u>MIDDECK TRANSFERS</u> (TRANSFER LIST, <u>FD3</u>)</p> <hr/> <p><u>EVA 1 TOOL CONFIG</u> (EVA, <u>ES TIMELINES</u>)</p>	<p><u>ODS VOLUME PREP FOR INGRESS</u> (JOINT OPS, INGRESS)</p> <hr/> <p><u>MIDDECK TRANSFERS</u> (TRANSFER LIST, <u>FD3</u>)</p> <hr/> <p><u>EVA 1 TOOL CONFIG</u> (EVA, <u>ES TIMELINES</u>)</p>	<p>XFER 3 FILLED CWC BAGS</p> <hr/> <p><u>MIDDECK TRANSFERS</u> (TRANSFER LIST, <u>FD3</u>)</p> <hr/> <p><u>P/TVOZ QSYS</u> (SETUP) (PHOTO/TV, <u>SCENES</u>)</p>	

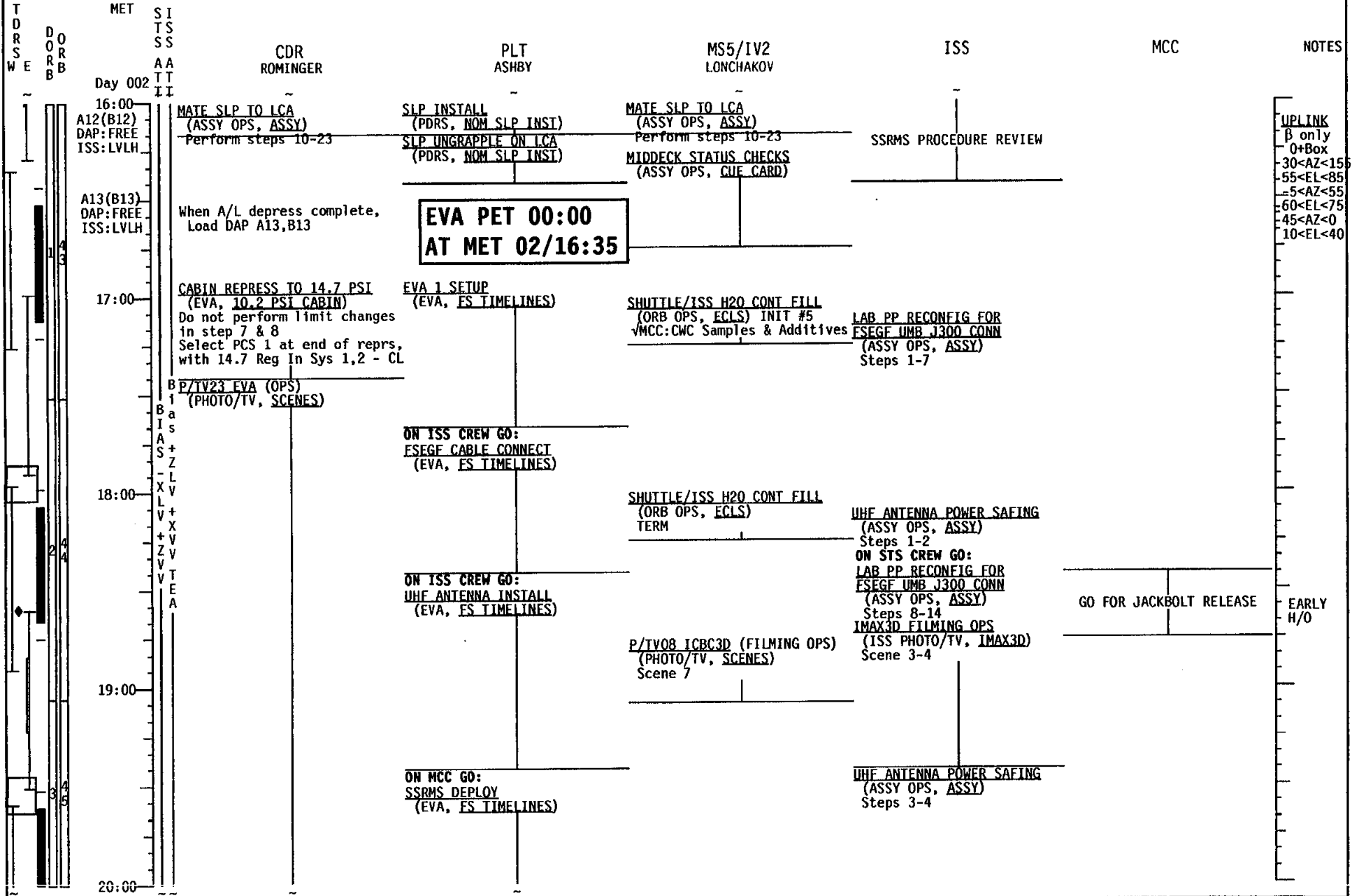
STS-100 (FD 03)

	MET	SI TS SS	CDR ROMINGER	PLT ASHBY	MS5/IV2 LONCHAKOV	ISS	MCC	NOTES
TDRS W E DORB 6 7 8 9 01:03 02:03 03:03 04:03	Day 002 00:00 A12 (B12) DAP: FREE ISS: LVLH	AA TT II						
			EVA PROCEDURE REVIEW REF: EVA BRIEFING CARD (EVA, ES TIMELINES)	EVA PROCEDURE REVIEW REF: EVA BRIEFING CARD (EVA, ES TIMELINES)	EVA PROCEDURE REVIEW REF: EVA BRIEFING CARD (EVA, ES TIMELINES)	TRANSFER	MPLM ENVIRONMENT CHECK (MPLM, NOMINAL)	EARLY H/O TFL 184
	01:00					EVA PROCEDURE REVIEW		TFL 212
		B f A S + Z L - X V L + X V + Z V V T E A	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)			TRANSFER		
	02:00					CLOSE PMA2 APAS HATCH, MPEV - CL CLOSE LAB FWD HATCH PER DECAL <u>TRANSFER TAGUP</u> Coordinate with transfer counterpart		EARLY H/O PMC OCA
			PRIVATE MEDICAL CONFERENCE VIDEO CONFERENCING (ORB OPS) REF: P/TV04	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS) GALLEY OVERNIGHT CONEIG (ORB OPS, GIRA)		DAILY ACTIVITY REPORT DAILY ACTIVITY REPORT	
	03:00							
			PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)			PRE-SLEEP		EARLY H/O
	04:00							

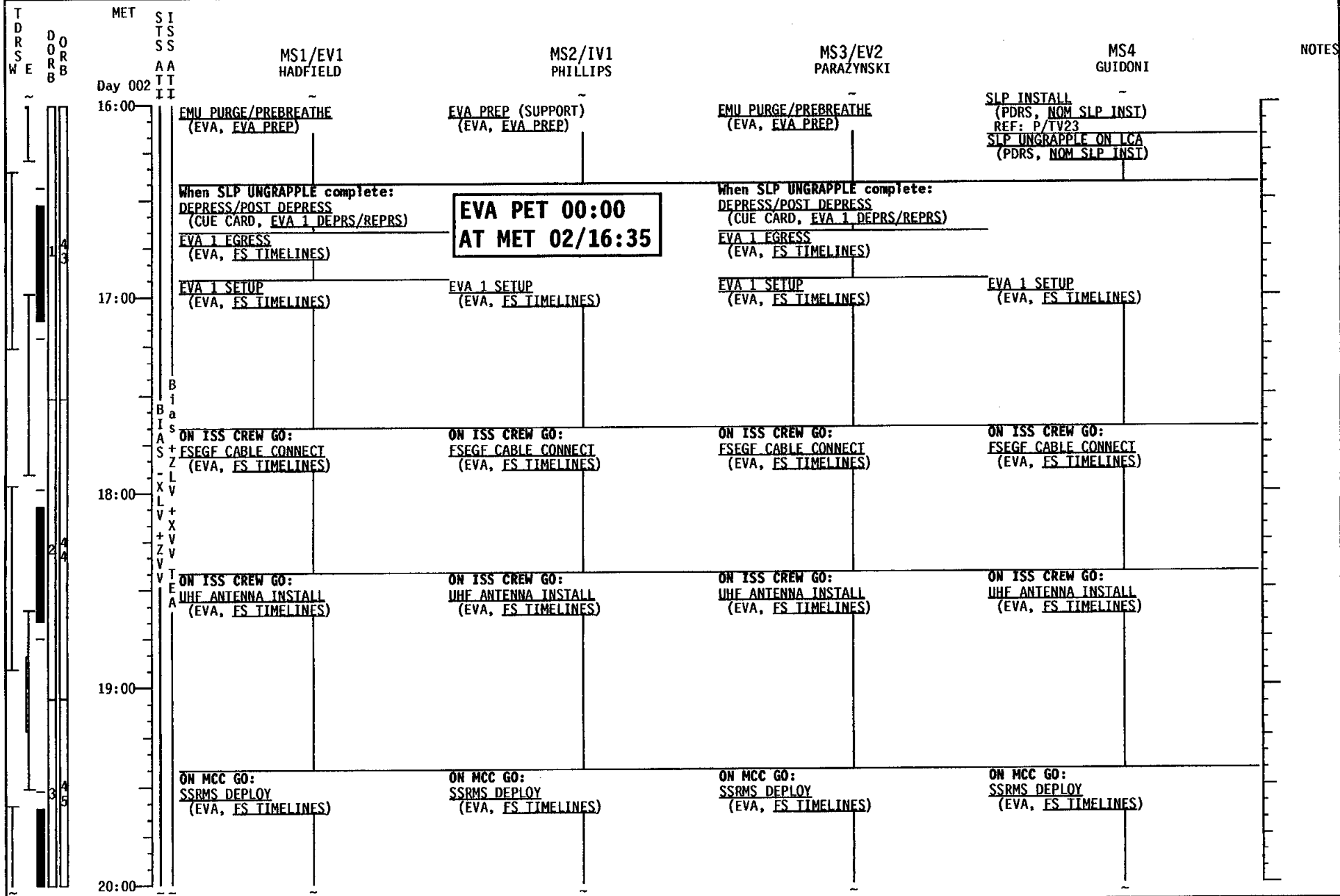
STS-100 (FD 03)



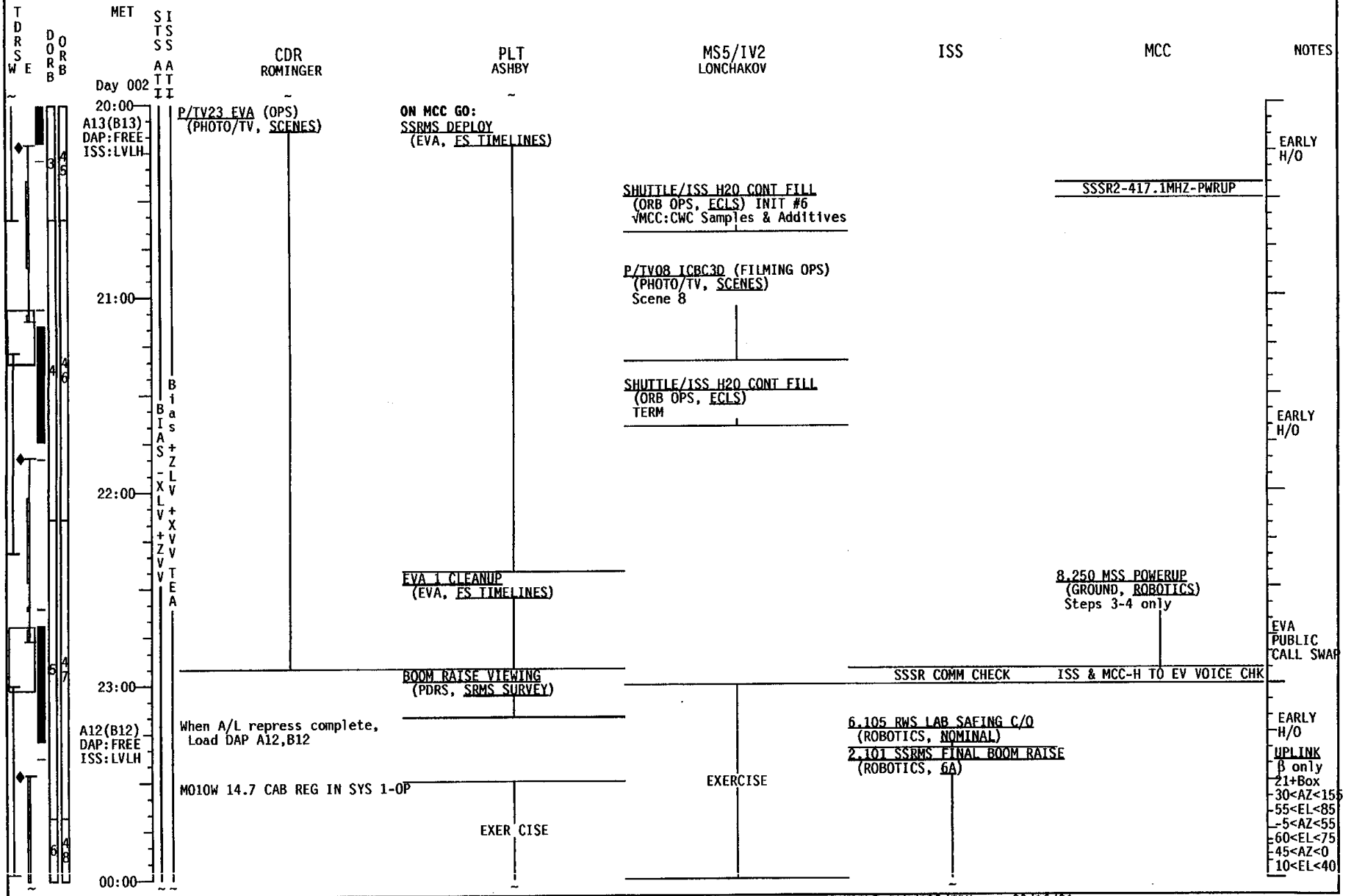
STS-100 (FD 04)



STS-100 (FD 04)



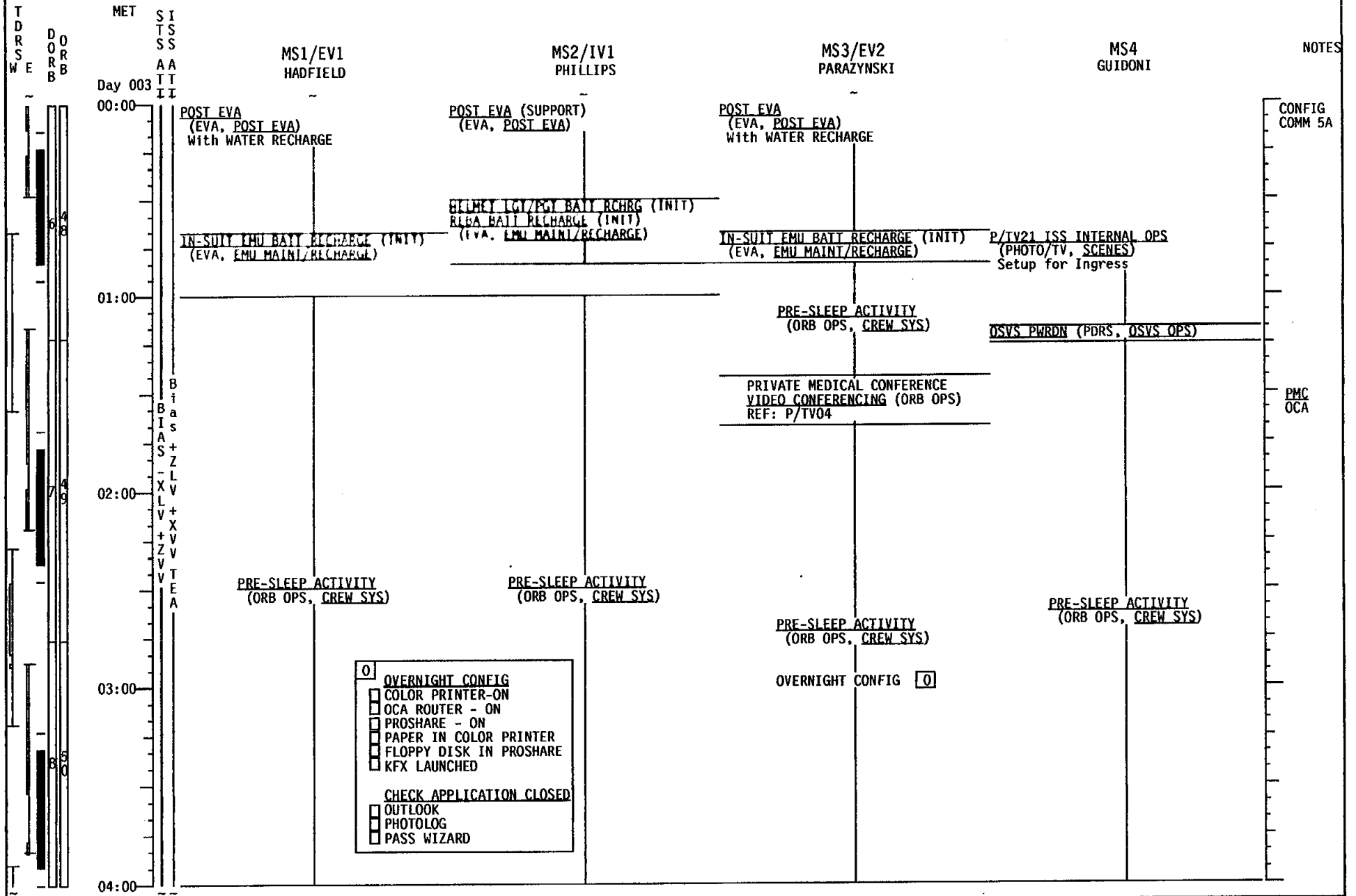
STS-100 (FD 04)



STS-100 (FD 04)

TDRS WE	DOORB	MET	SITS	CDR ROMINGER	PLT ASHBY	MS5/IV2 LONCHAKOV	ISS	MCC	NOTES
		Day 003	AA TT II						
		00:00			EXERCISE		2.101 SSRMS FINAL BOOM RAISE (ROBOTICS, 6A)	SSSR2-417.1MHZ-PWRDN	CONFIG COMM 5A
		A12 (B12) DAP: FREE ISS: LVLH		EXERCISE		MIDDECK STATUS CHECKS (ASSY OPS, CUE CARD)	2.105 VDU ROUTING TEST FROM FSEGE (ROBOTICS, 6A)		
		01:00		PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)		6.617 MSS VIDEO DEROUTING (ROBOTICS, NOMINAL)		EARLY H/O
				PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	ON ISS CREW GO: (Boom Raise cmlt) RMS PWRDN (PDRS, RMS PWRDN) Do not stow MPM's				
				PRIVATE MEDICAL CONFERENCE VIDEO CONFERENCING (ORB OPS) REF: P/TV04	ILLUMINATOR OPS (CUE CARD, ILLUM OPS) A7 Camr A,B,C,D & Elbow Illum-ON			8.260 MSS POWERDOWN (GROUND, ROBOTICS) Step 1	PMC OCA
		02:00					DAILY ACTIVITY REPORT	8.107 SSRMS SWITCH TO REDUNDANT (PRIME) STRING (ROBOTICS, CORRECTIVE)	
								6.402 SSRMS JEU DIAGNOSTICS (ROBOTICS, NOMINAL)	
								6.401 SSRMS JOINT BRAKE TES (ROBOTICS, NOMINAL)	
				PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)		8.260 MSS POWERDOWN (GROUND, ROBOTICS) Steps 2-4, repeat step 4 to powerdown second RWS	
		03:00					PRE-SLEEP		EARLY H/O
		04:00							

STS-100 (FD 04)



STS-100 (FD 04)

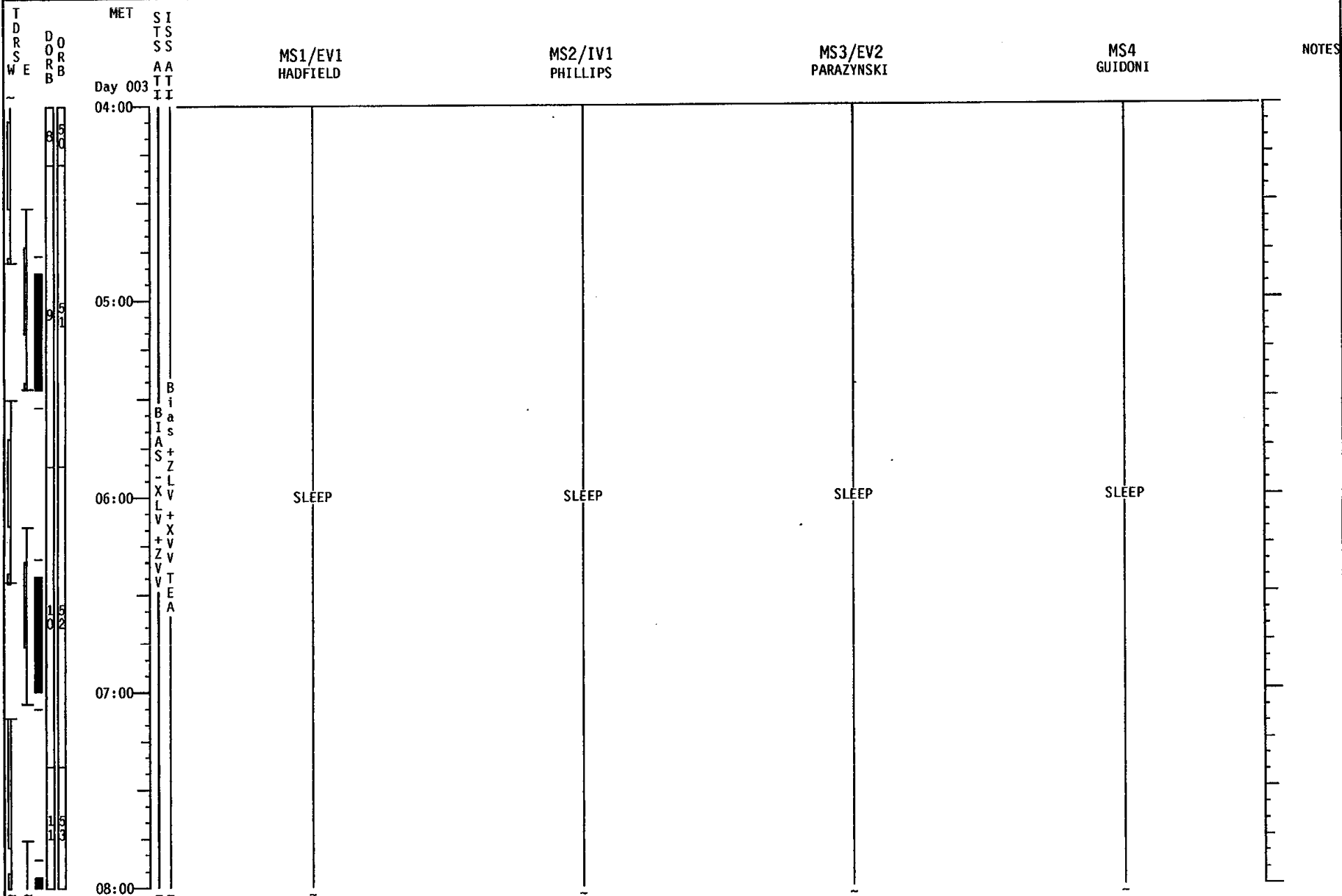
TDRS WE	DORB	MET	SI TS SS AA TT II	CDR ROMINGER	PLT ASHBY	MS5/IV2 LONCHAKOV	ISS	MCC	NOTES
		Day 003							
		04:00							
		A12(B12)							
		DAP: FREE							
		ISS: LVLH							
		05:00							
			B						
			i						
			a						
			s						
			I						
			A						
			S						
			+						
			Z						
			L						
		06:00	-	SLEEP	SLEEP	SLEEP	SLEEP		
			X						
			V						
			L						
			+						
			X						
			V						
			+						
			Z						
			V						
			V						
			T						
			E						
			A						
		07:00							
		08:00							

SVS
GROUND
OPS

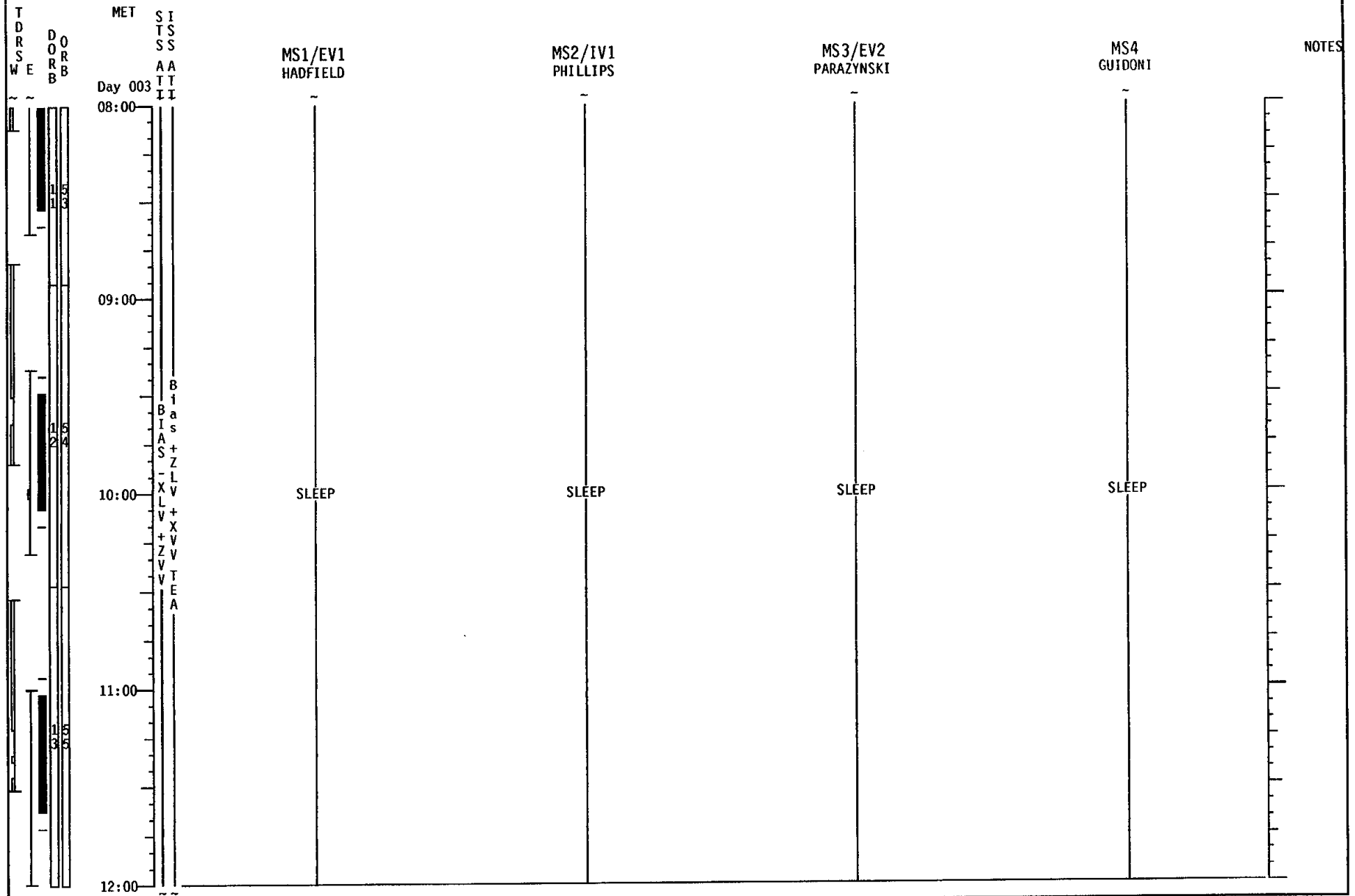
EARLY
H/O

EARLY
H/O

STS-100 (FD 04)



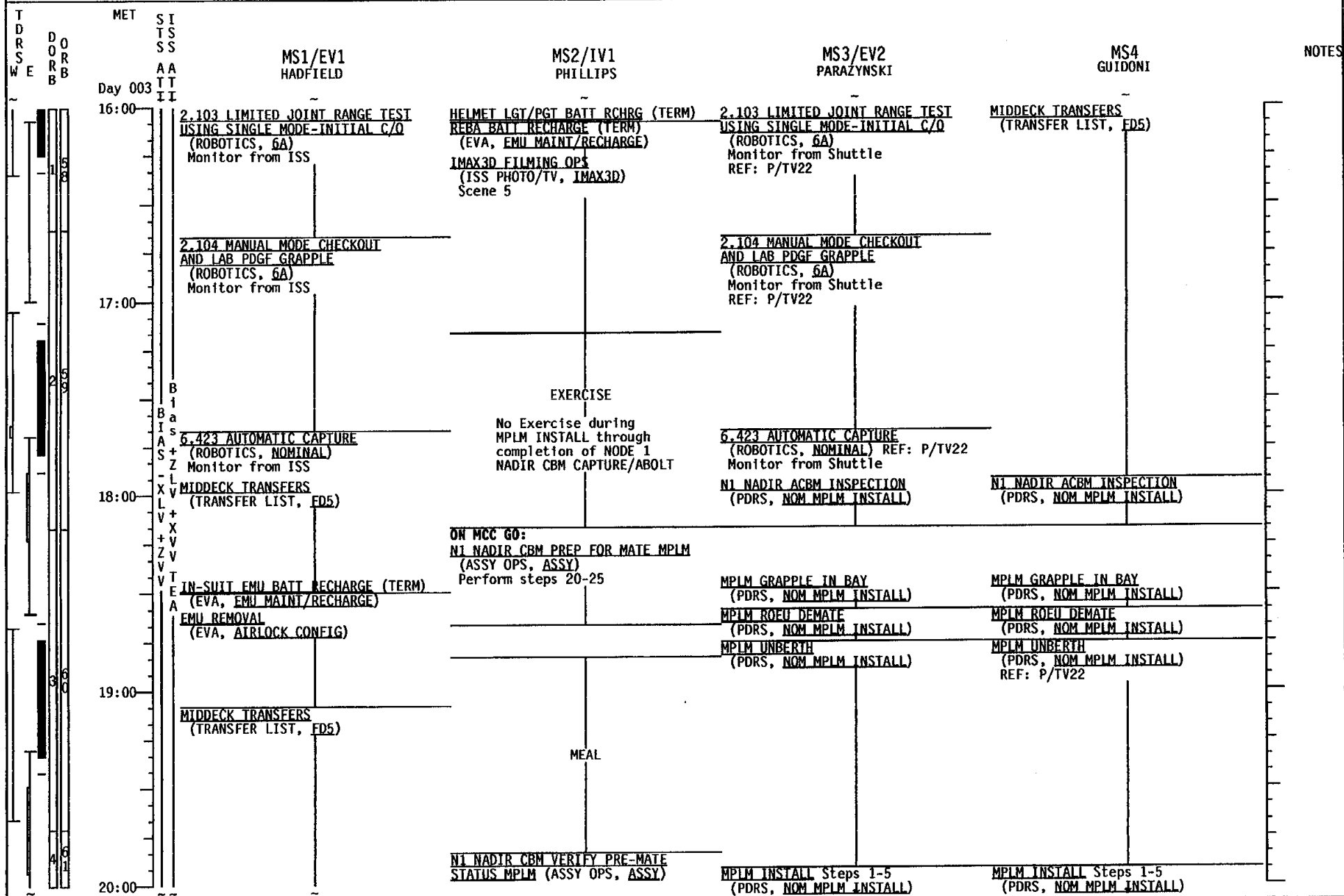
STS-100 (FD 04)



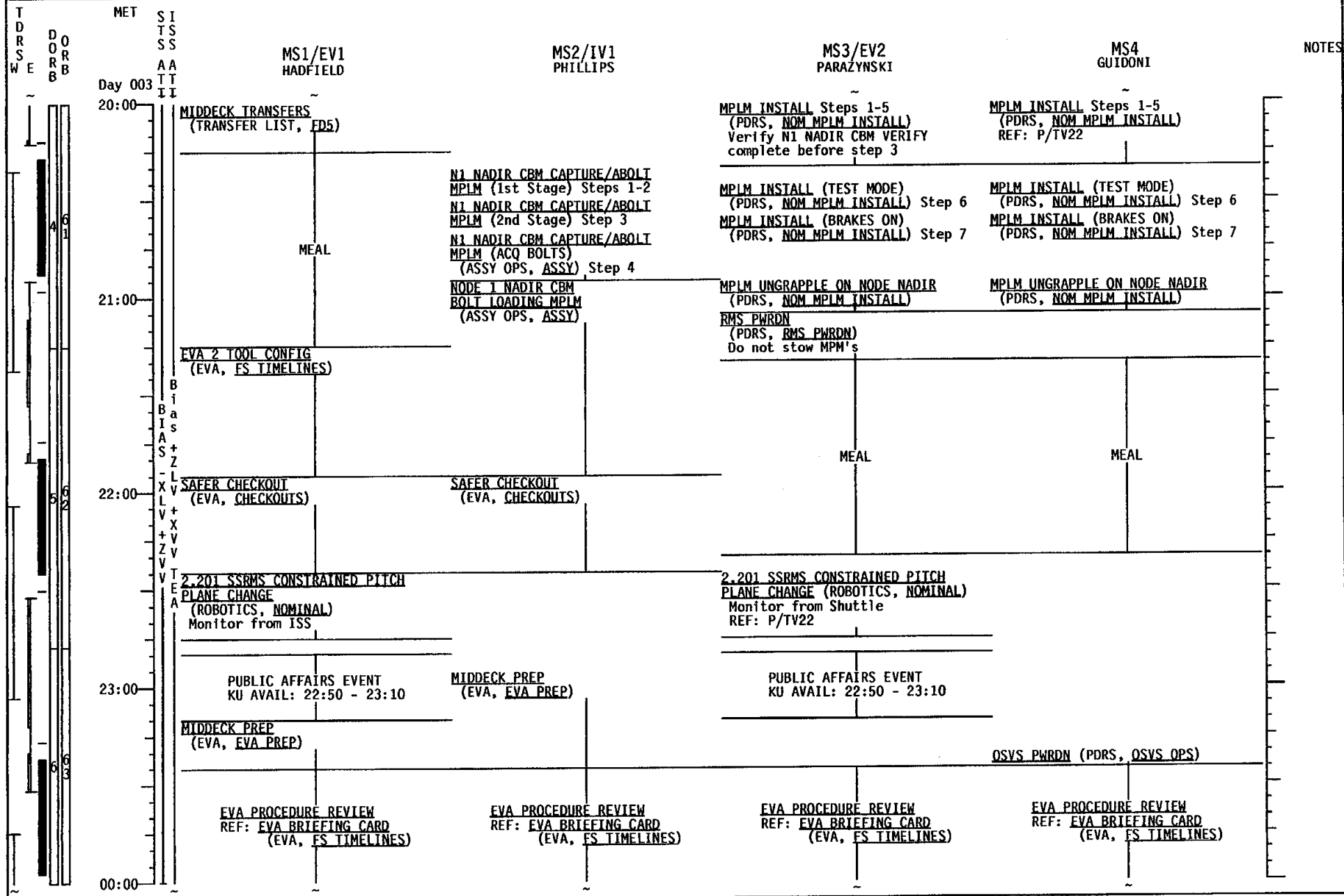
STS-100 (FD 05)

TDRS WE	DORB	MET	SITS	CDR ROMINGER	PLT ASHBY	MS5/IV2 LONCHAKOV	ISS	MCC	NOTES
		Day 003	AA						
		12:00	TT			SALIVA COLLECTION (ORB OPS, DSO 493)			
		A12(B12) DAP: FREE ISS: LVLH	II	FD05 EZ ACTIVITIES IEPC (STATUS CHECK) (ORB OPS, CREW SYS) OCAC FILTER INSPECT PGSC REBOOT					
							POST-SLEEP		
		13:00		POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS) GALLEY MORNING CONFEG (ORB OPS, GIRA)	DAILY PLANNING CONFERENCE	MPLM ENVIRONMENT CHECK (MPLM, NOMINAL)	TFL 184
									TFL 212
		14:00				MIDDECK STATUS CHECKS (ASSY OPS, CUE CARD)		OIU FORMAT CHANGE	
								N1 NADIR CBM PREP FOR MATE MPLM (ASSY OPS, ASSY)	
				M010W 14.7 CAB REG IN SYS 1-OP HATCH OPENING AND SHUTTLE/ISS DUCT INSTALLATION (JOINT OPS, INGRESS) A Skip steps 9-11, 21-24	E/TV22 DOCKED OPS (PHOTO/TV, SCENES) Setup for SSRMS & RMS OPS	HATCH OPENING AND SHUTTLE/ISS DUCT INSTALLATION (JOINT OPS, INGRESS) Skip steps 9-11, 21-24	HATCH OPENING AND SHUTTLE/ISS DUCT INSTALLATION (JOINT OPS, INGRESS) Skip steps 9-11, 21-24	Perform steps 1-19	
				WELCOME	WELCOME	WELCOME	WELCOME		CONFIG COMM 2A
		15:00		SAFETY BRIEFING	SAFETY BRIEFING	SAFETY BRIEFING	SAFETY BRIEFING		
				M010W 14.7 CAB REG IN SYS 1-OP CABIN REPRESS TO 14.7 PSI (EVA, 10.2 PSI CABIN) Perform steps 7 & 8 only	EXERCISE No Exercise during MPLM INSTALL through completion of NODE 1 NADIR CBM CAPTURE/ABOLT	EMU LIQH CHANGEOUT (EVA, EMU MAINT/RECHARGE)	2.102 LEE RELEASE OF PASSIVE FSEGE (ROBOTICS, 6A)		
						XFER 3 FILLED CWC BAGS	2.103 LIMITED JOINT RANGE TEST USING SINGLE MODE-INITIAL C/O (ROBOTICS, 6A)		
		16:00							

STS-100 (FD 05)



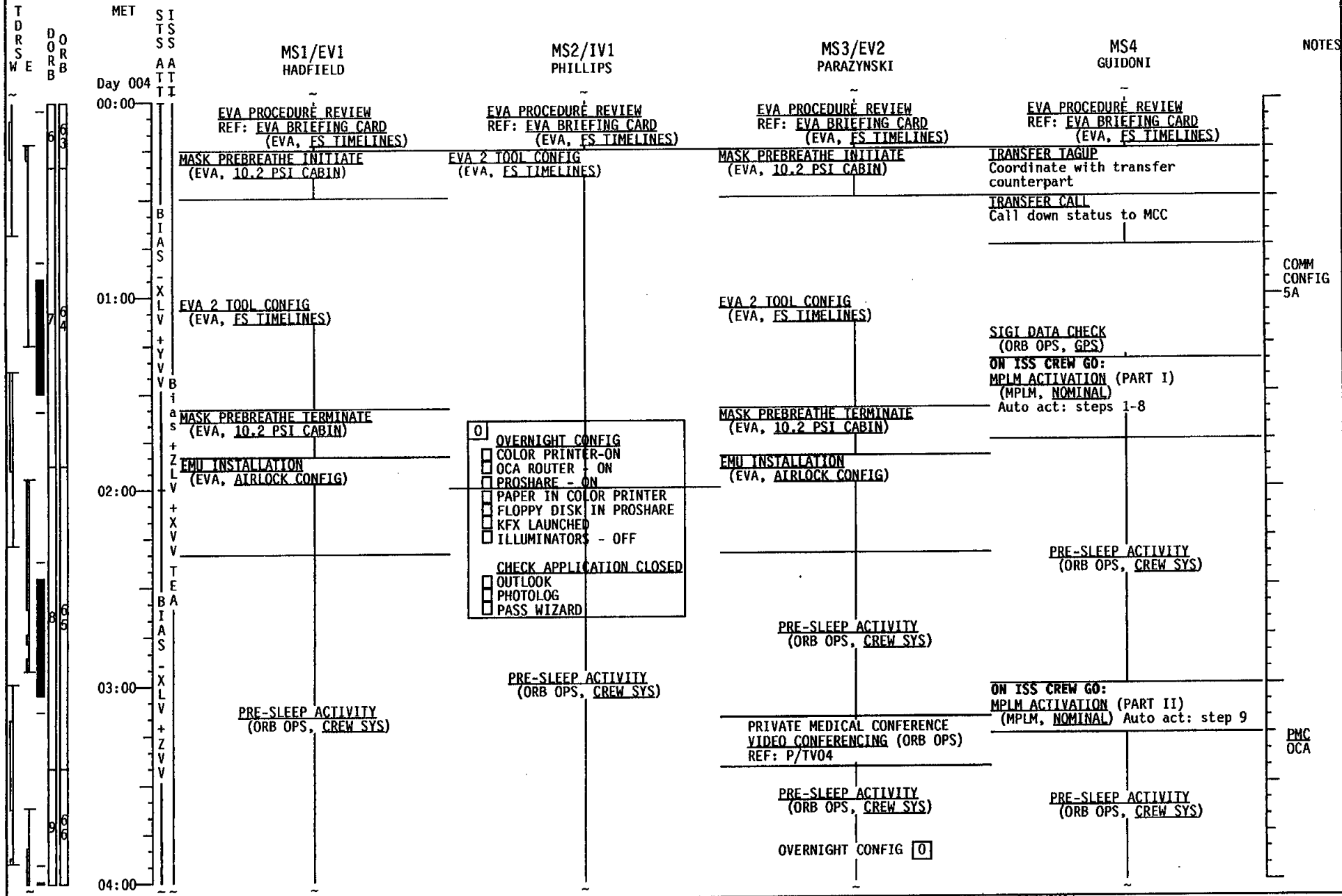
STS-100 (FD 05)



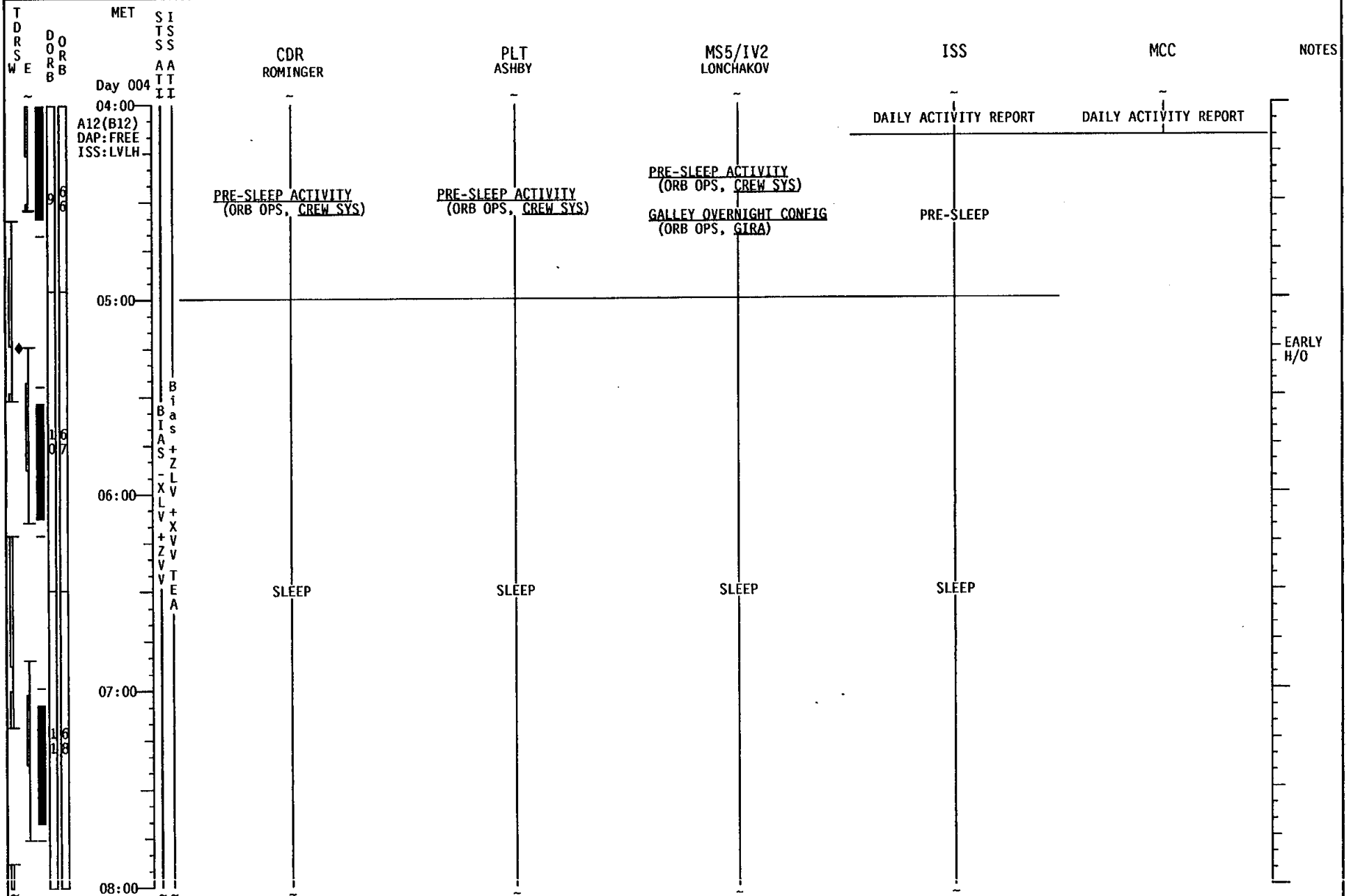
STS-100 (FD 05)

T D R S W E	MET	SI T S S AA T T T I	CDR ROMINGER	PLT ASHBY	MS5/IV2 LONCHAKOV	ISS	MCC	NOTES
	Day 004							
	00:00		MNVR (TRK) WATER DUMP ATT TG=2 BV=5 P=155 Y=0 OM=270 A/AUTO/VERN (4/00:00) Init TRK	EVA PROCEDURE REVIEW REF: EVA BRIEFING CARD (EVA, FS TIMELINES)	EVA PROCEDURE REVIEW REF: EVA BRIEFING CARD (EVA, FS TIMELINES)	NODE 1 TO MPLM VESTIBULE OUTFITTING (MPLM, NOMINAL)	8.260 MSS POWERDOWN (GROUND, ROBOTICS) Repeat step 4 to powerdown second RWS	
			SUPPLY/WASTE WATER DUMP (ORB OPS, ECLS) Init Waste Dump when in ATT	P/TV18 EVA CAMR SETUP (PHOTO/TV, SCENES) EVA STILL CAMERA				
			ISS INTERIM EGRESS (JOINT OPS, EGRESS)		ISS INTERIM EGRESS (JOINT OPS, EGRESS)	ISS INTERIM EGRESS (JOINT OPS, EGRESS)		
			PREP FOR 10.2 PSI CABIN (EVA, 10.2 PSI CABIN)	PREP FOR 10.2 PSI CABIN (EVA, 10.2 PSI CABIN)		NODE 1 TO MPLM VESTIBULE OUTFITTING (MPLM, NOMINAL)		COMM CONFIG 5A
	01:00		CABIN DEPRESS TO 10.2 PSI (EVA, 10.2 PSI CABIN)	CABIN DEPRESS TO 10.2 PSI (EVA, 10.2 PSI CABIN)				
					MIDDECK STATUS CHECKS (ASSY OPS, CUE CARD)			
			10.2 PSI CABIN CONFIG (EVA, 10.2 PSI CABIN)	10.2 PSI CABIN CONFIG (EVA, 10.2 PSI CABIN)				
			SUPPLY/WASTE WATER DUMP (ORB OPS, ECLS) Terminate Waste Dump					EARLY H/O
	02:00		MNVR (TRK) BIAS -XLV +ZVV + TG=2 BV=5 P=155 Y=0 OM=0 A/AUTO/VERN Init TRK					
			When in ATT: H/O ATT CNTL ORB TO CMGTA (JOINT OPS, MATED OPS)					
			PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)			
	03:00		PRIVATE MEDICAL CONFERENCE VIDEO CONFERENCING (ORB OPS) REF: P/TV04		GALLEY OVERNIGHT CONFIG (ORB OPS, GIRA)			PMC OCA
			PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)					EARLY H/O
	04:00					DAILY ACTIVITY REPORT	DAILY ACTIVITY REPORT	

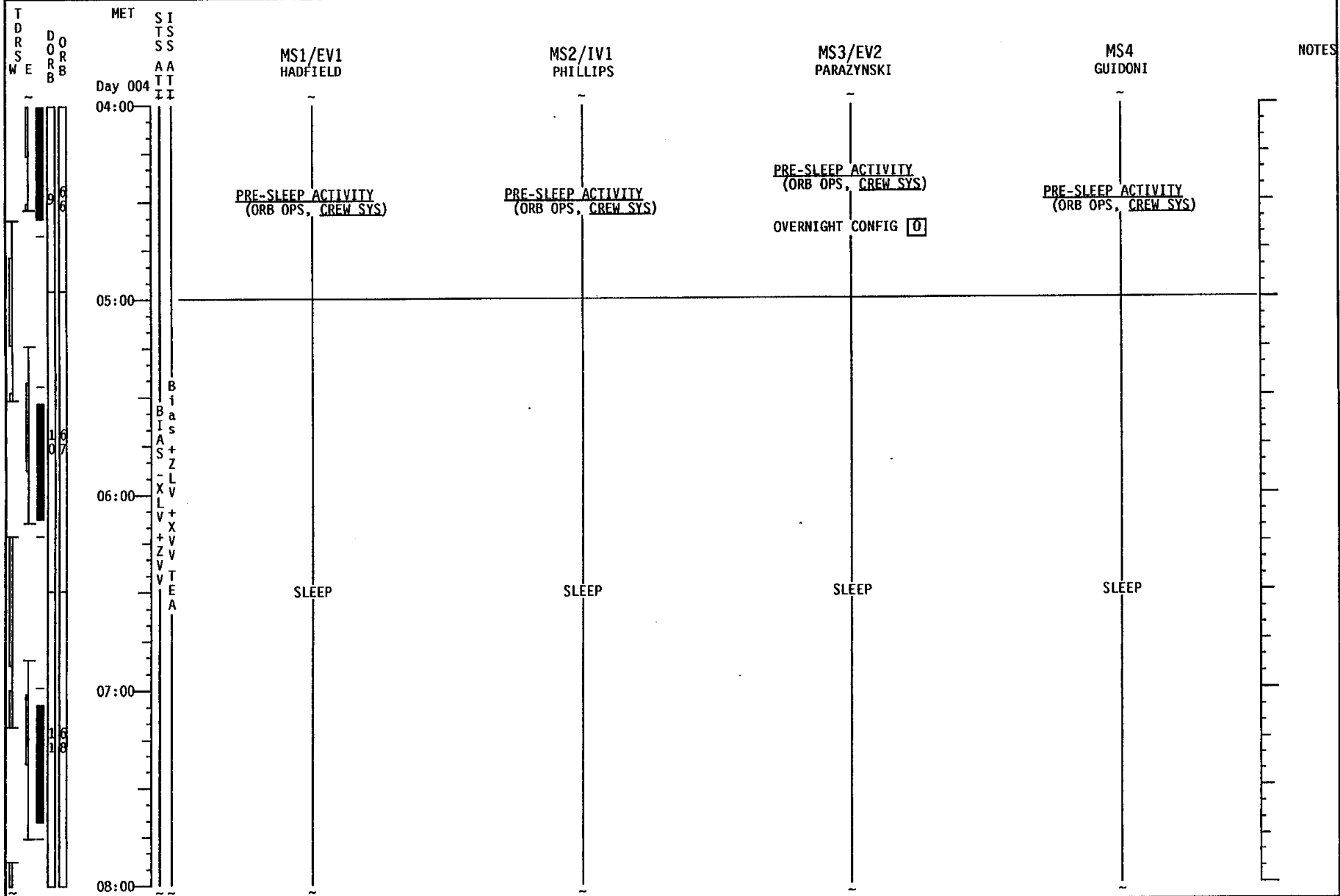
STS-100 (FD 05)



STS-100 (FD 05)

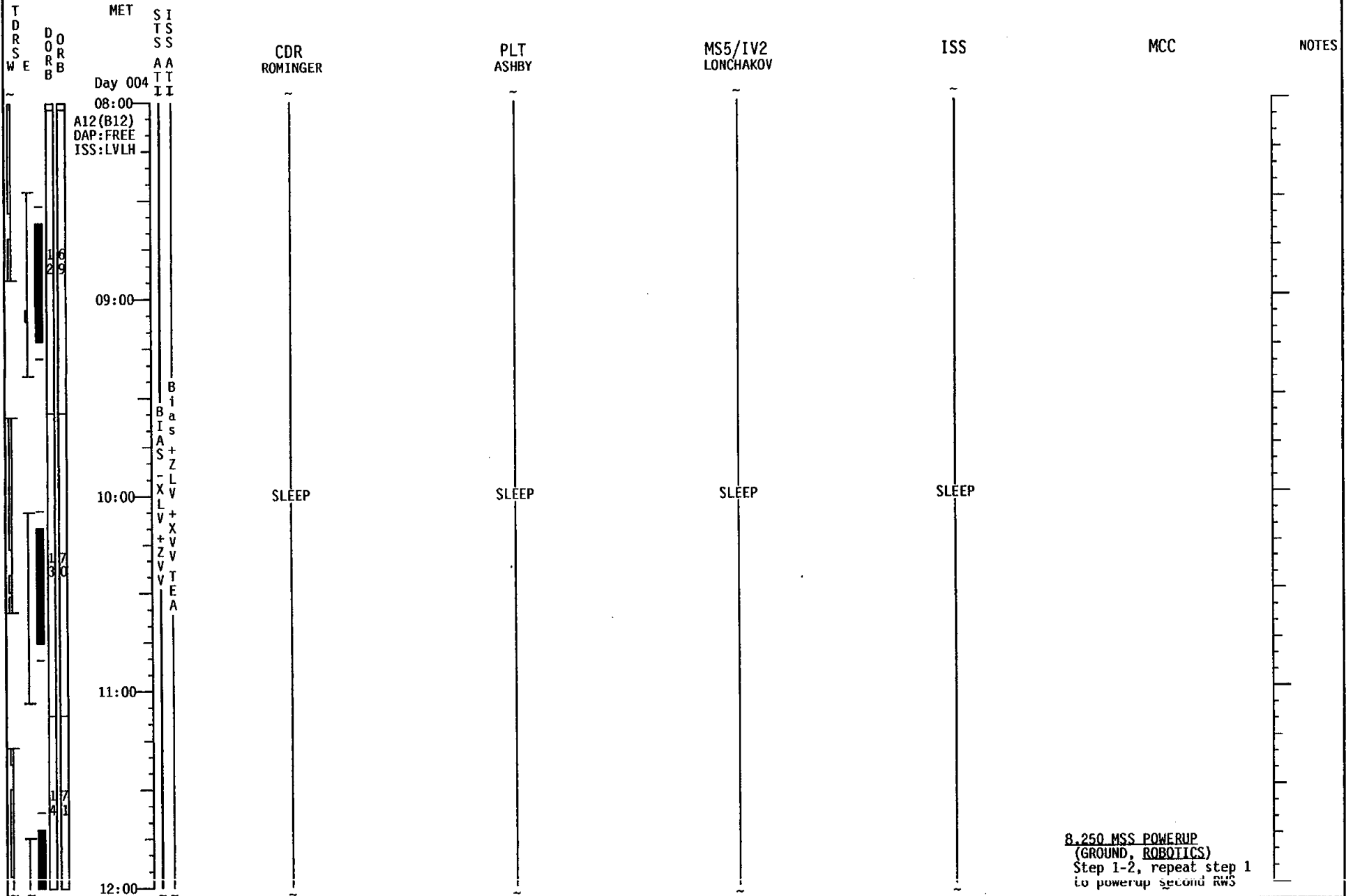


STS-100 (FD 05)

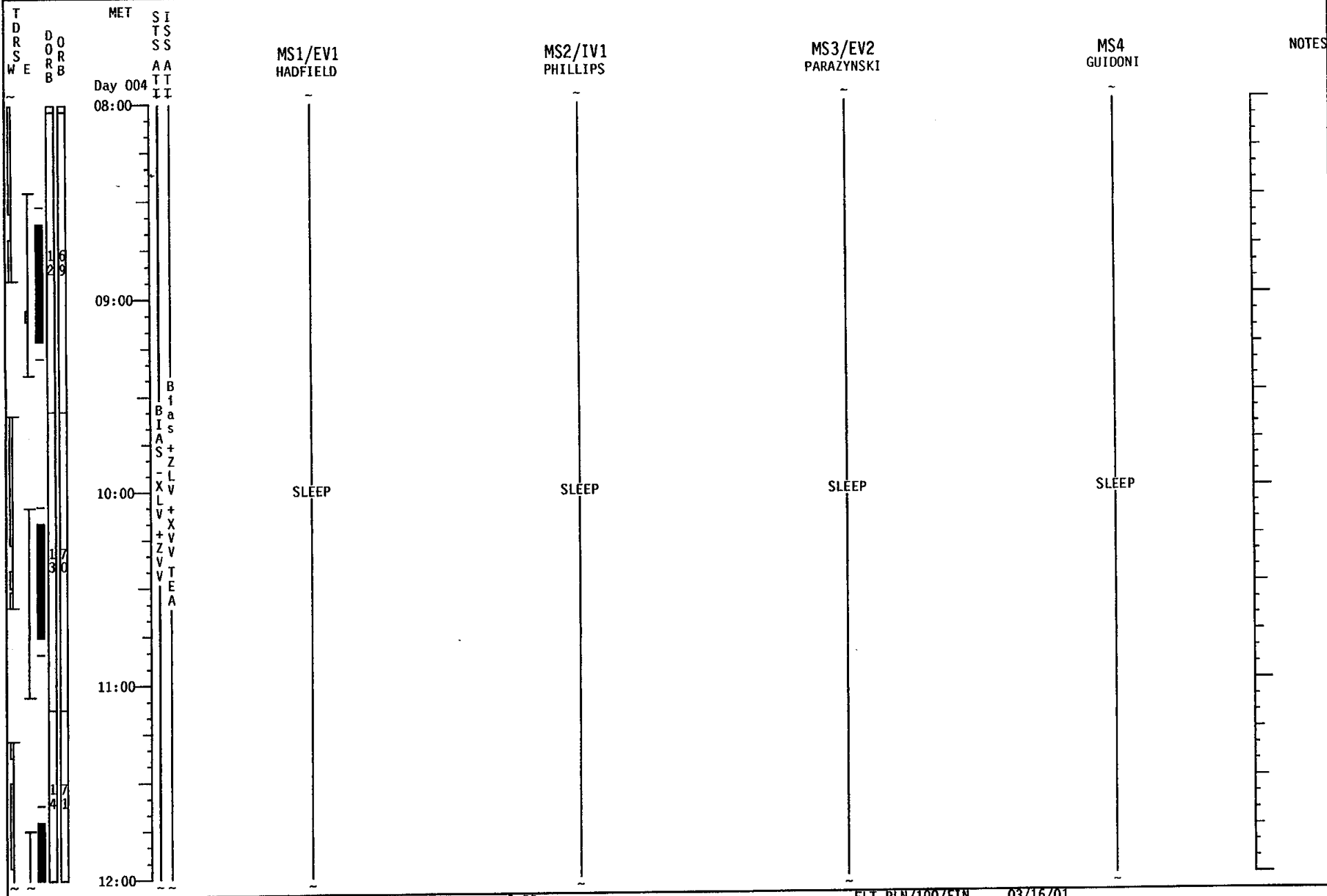


TDRS WE DOORB
 MET Day 004
 04:00
 05:00
 06:00
 07:00
 08:00
 S I T S S A A T T I I
 B i B A S + Z L V - X V L V + X V V T E A
 1106
 1107
 1108

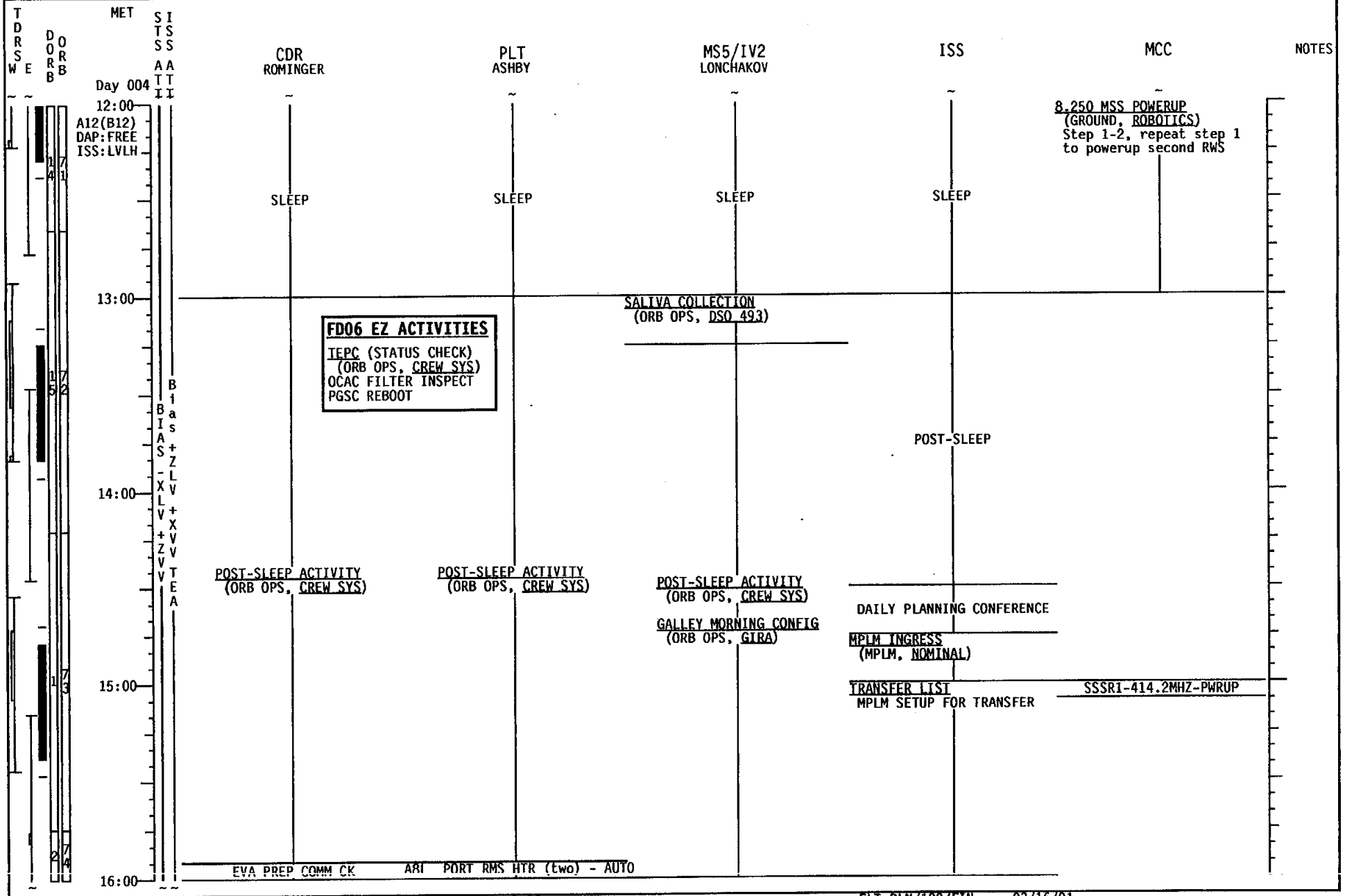
STS-100 (FD 05)



STS-100 (FD 05)

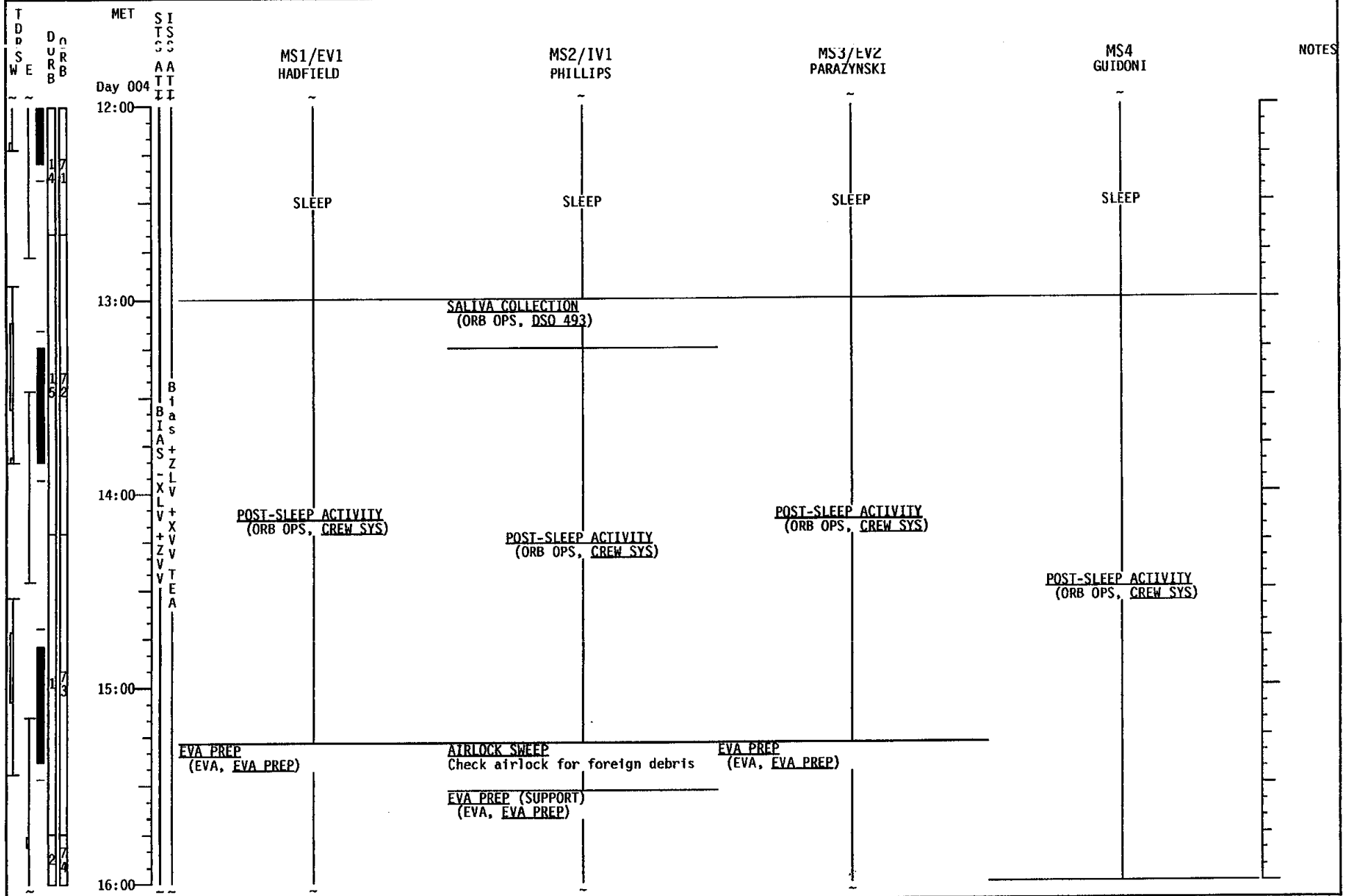


STS-100 (FD 06)

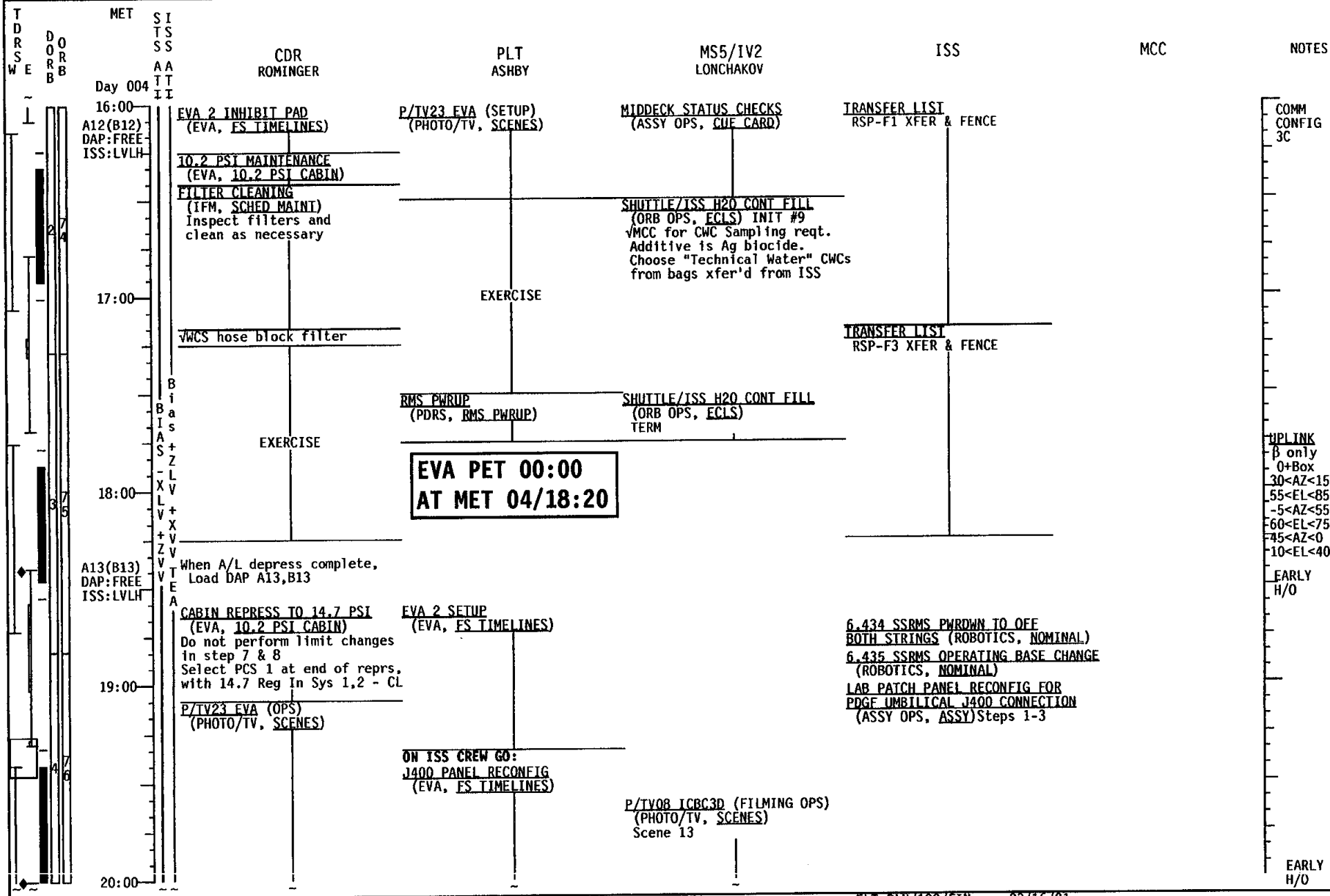


FD06 EZ ACTIVITIES
 TEPC (STATUS CHECK)
 (ORB OPS, CREW SYS)
 OCAC FILTER INSPECT
 PGSC REBOOT

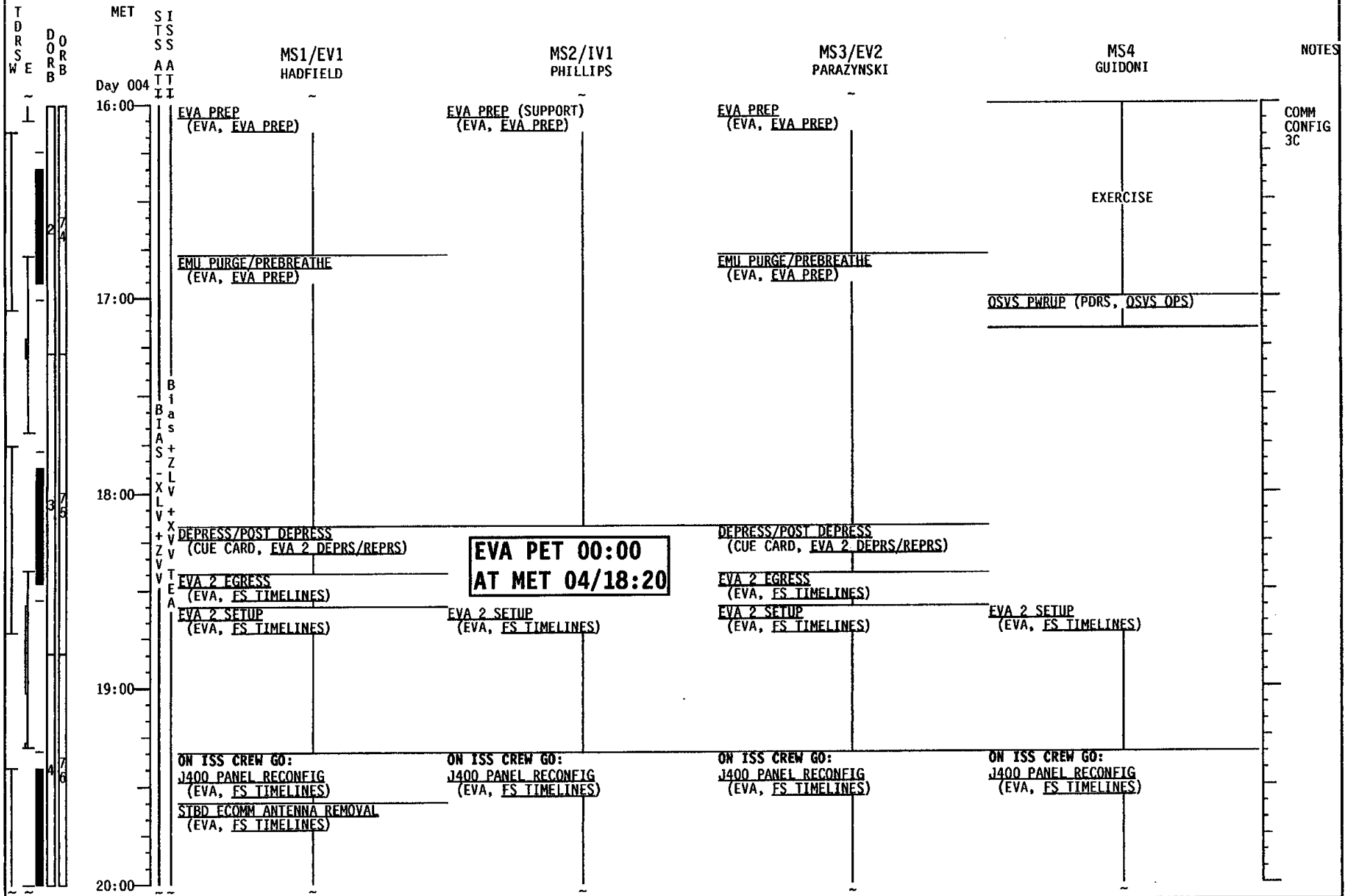
STS-100 (FD 06)



STS-100 (FD 06)

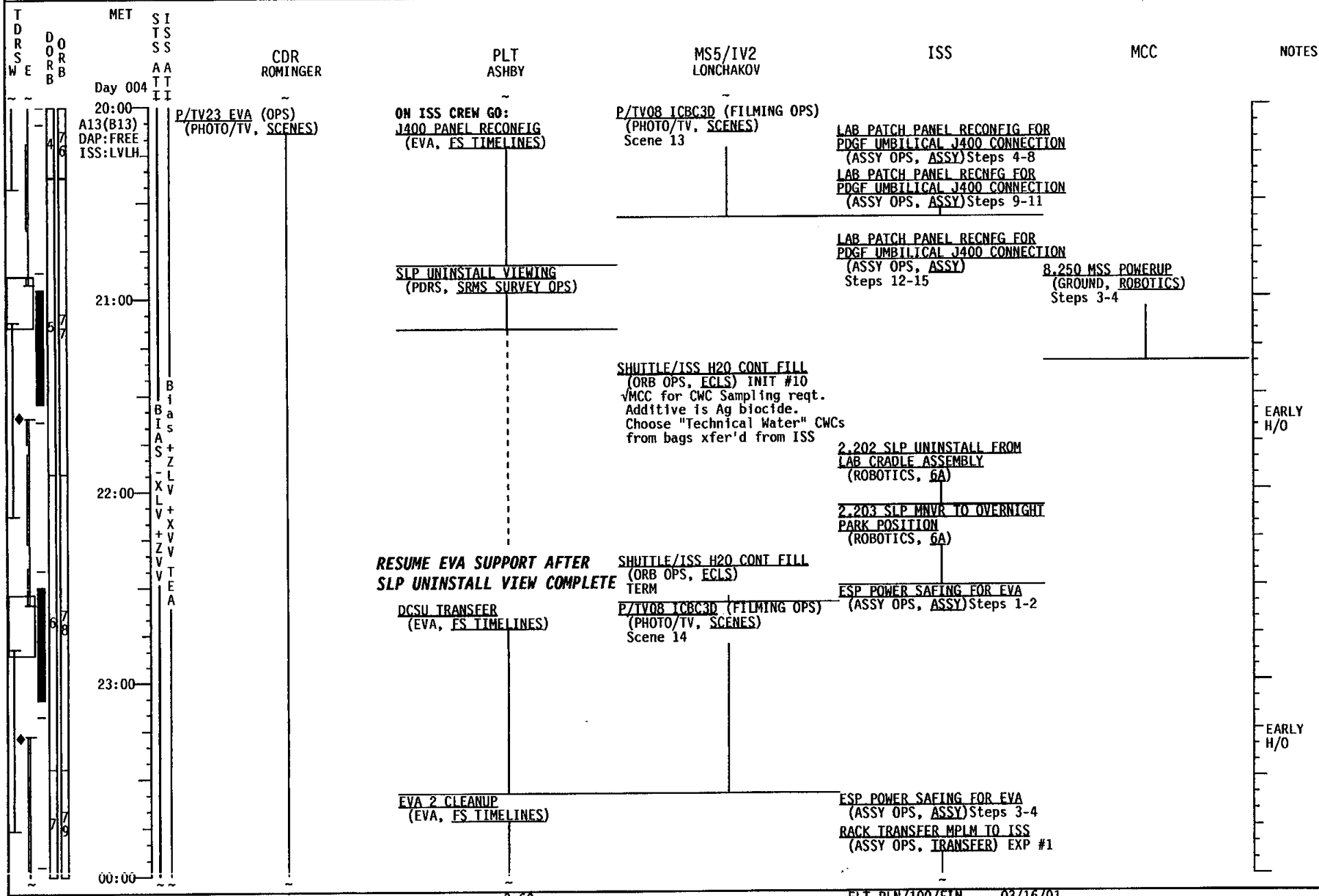


STS-100 (FD 06)

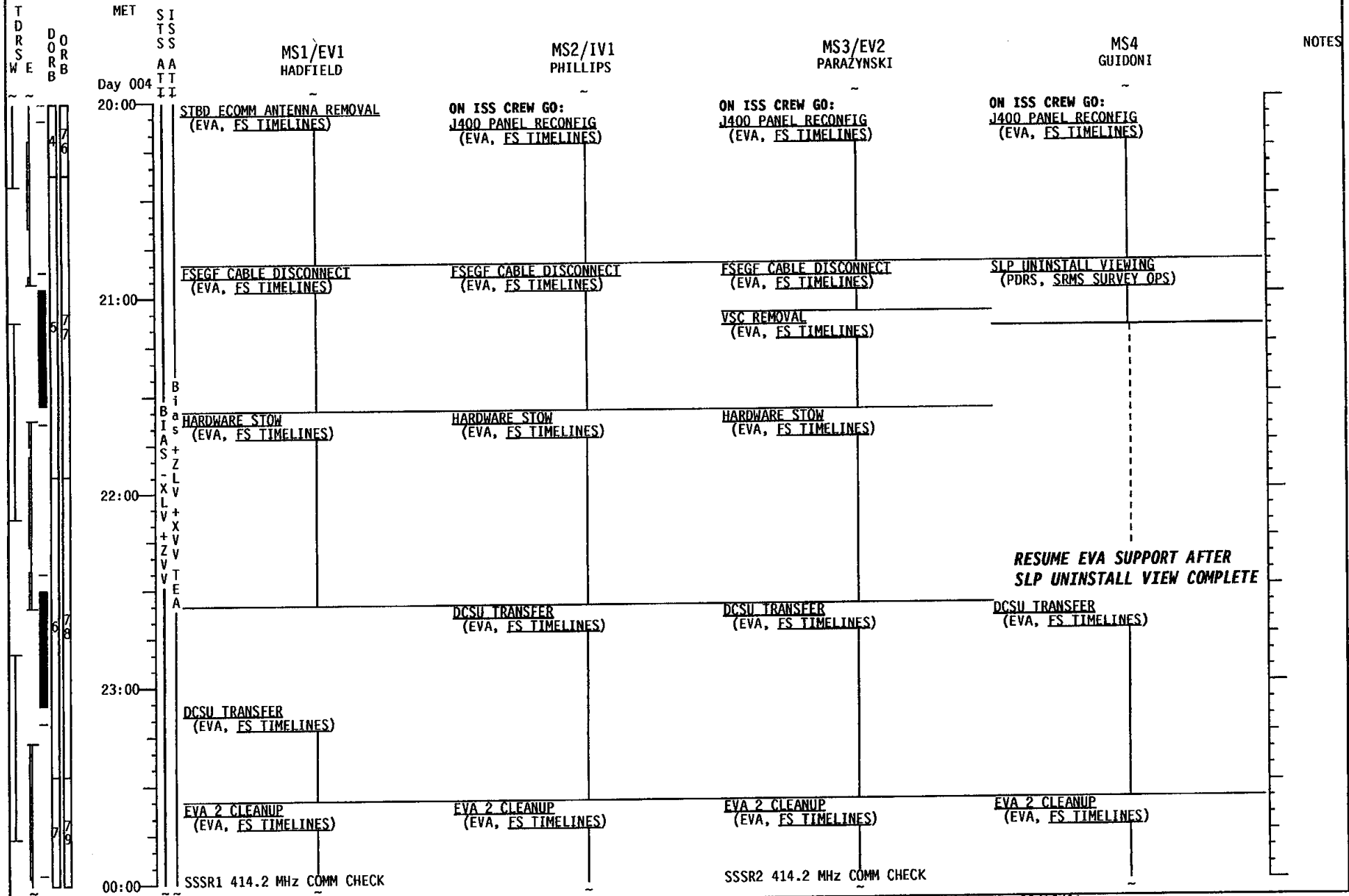


**EVA PET 00:00
AT MET 04/18:20**

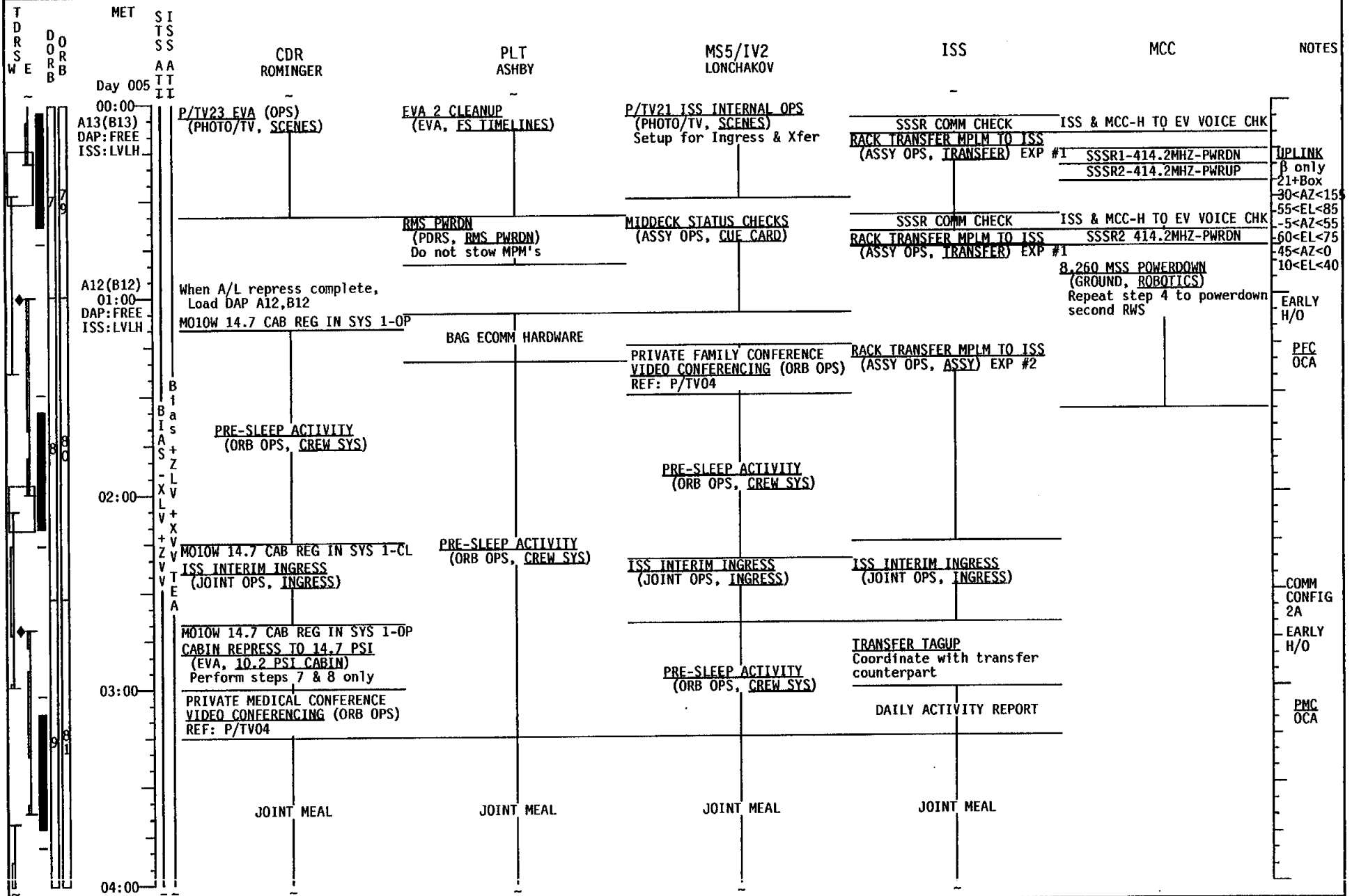
STS-100 (FD 06)



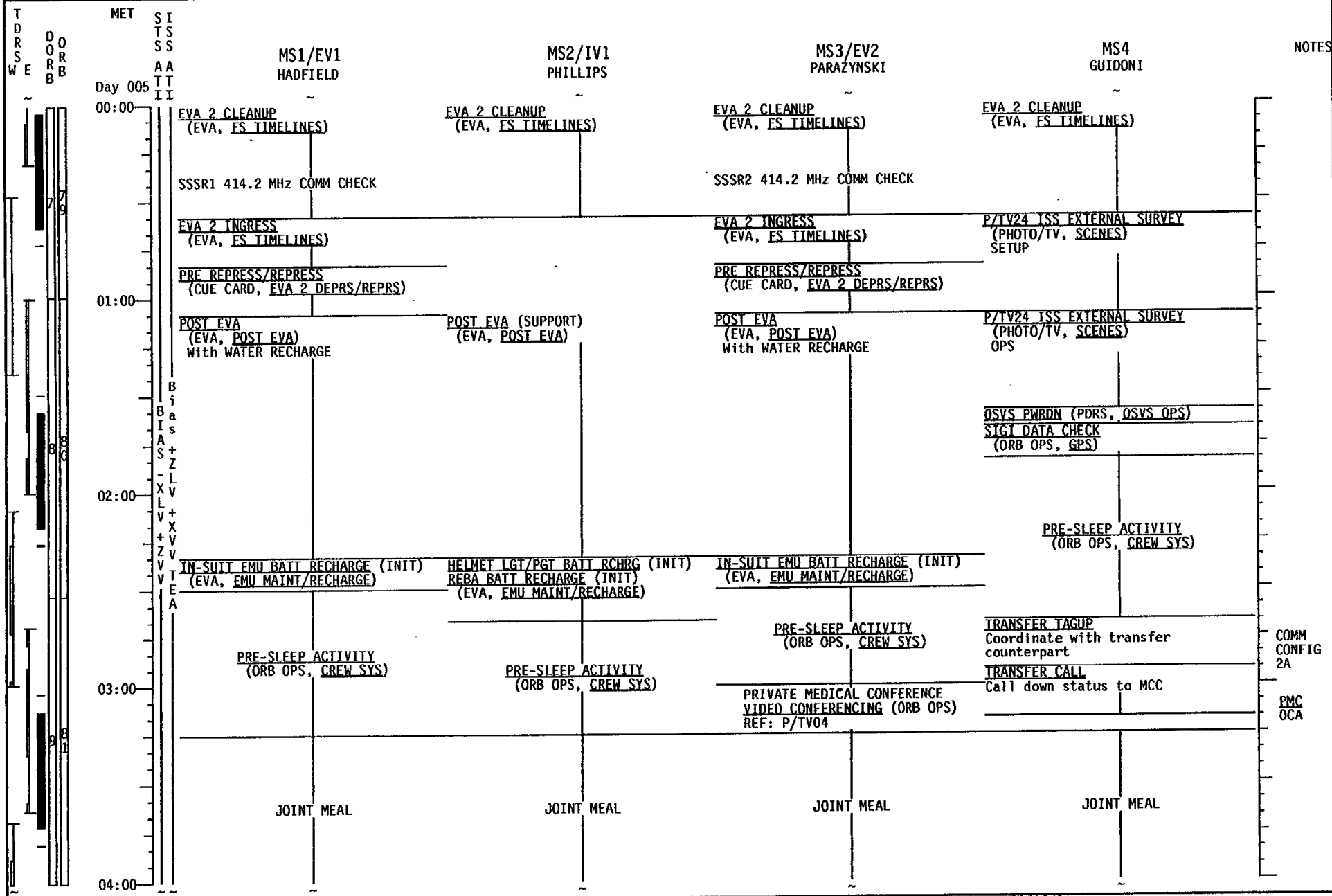
STS-100 (FD 06)



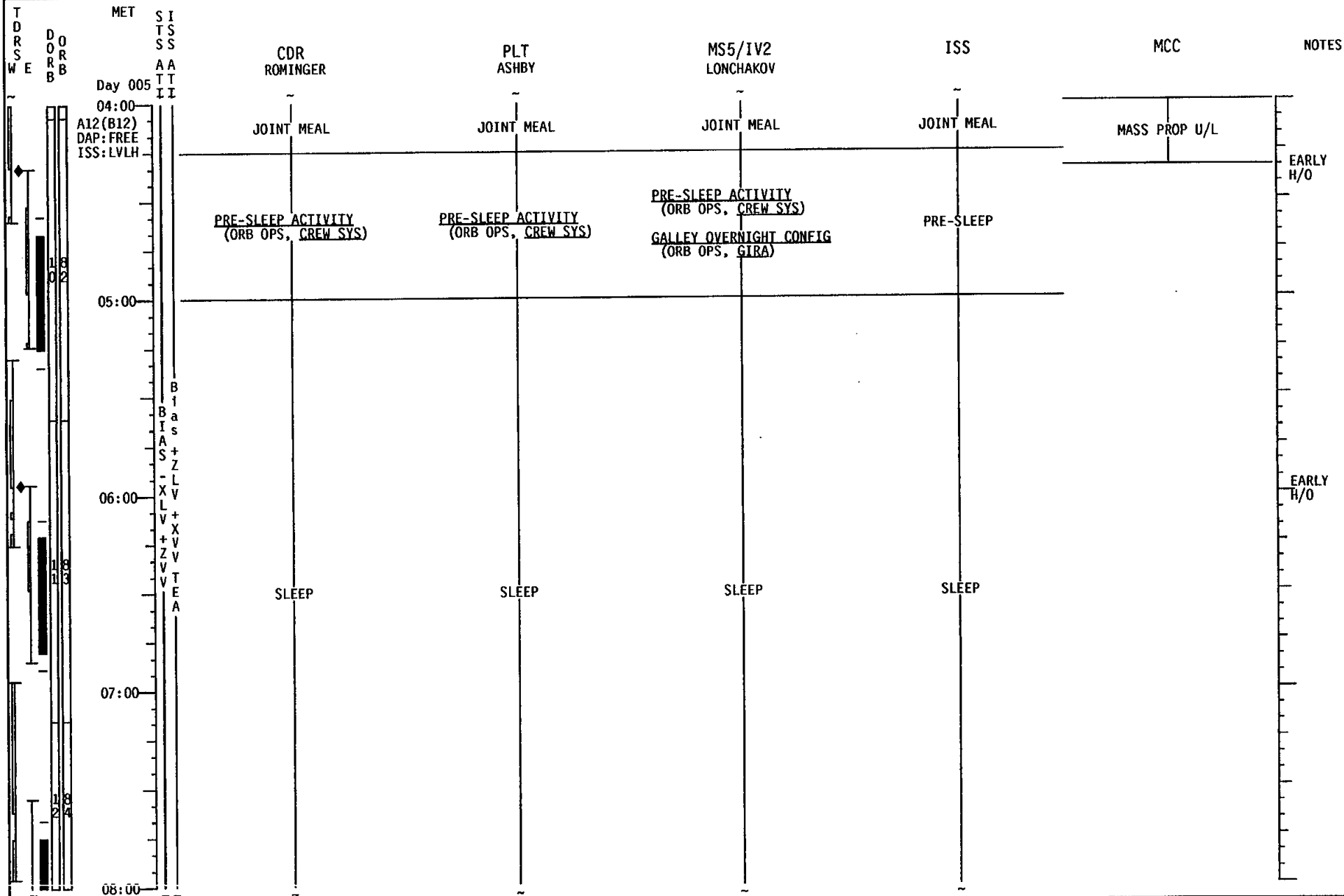
STS-100 (FD 06)



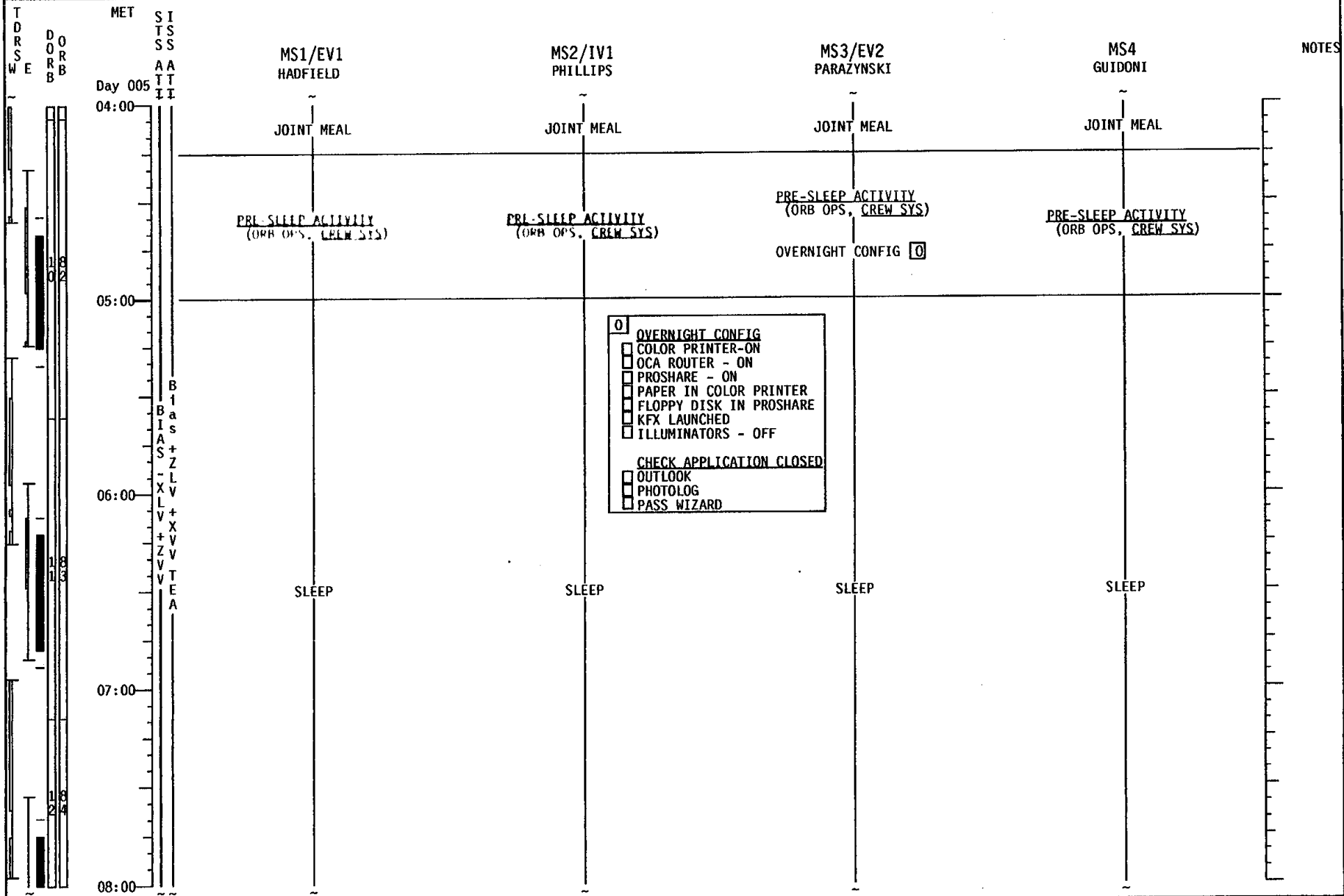
STS-100 (FD 06)



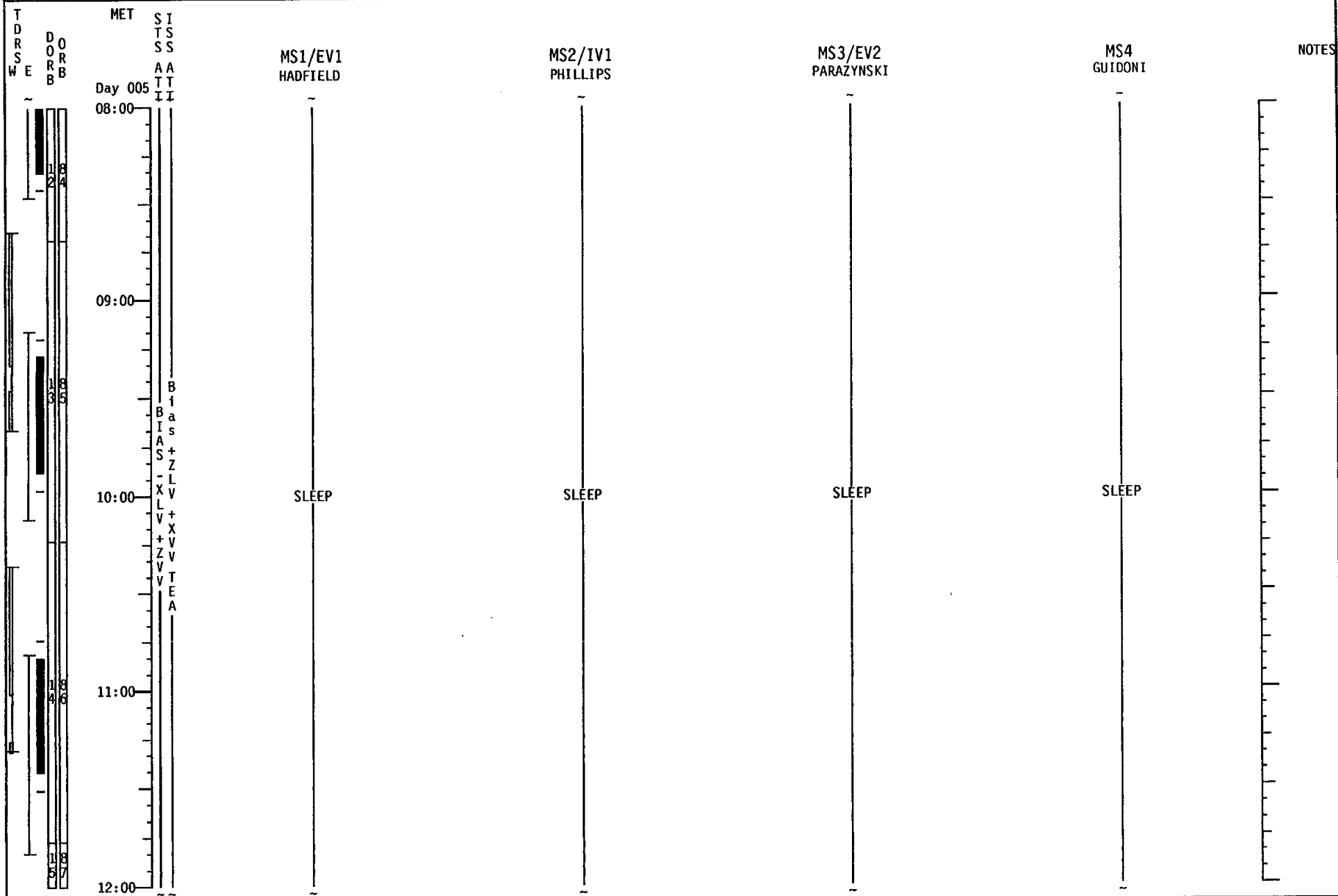
STS-100 (FD 06)



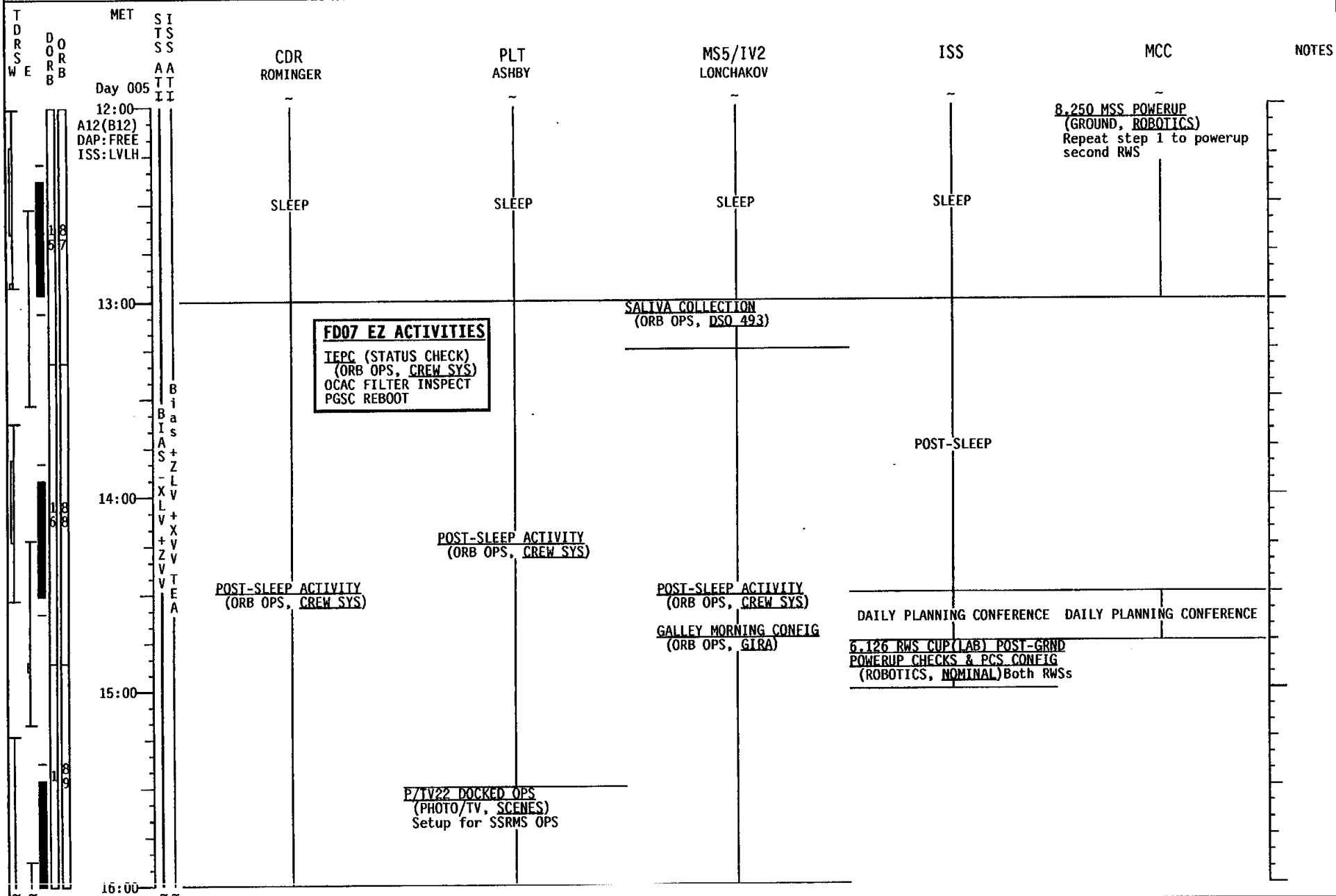
STS-100 (FD 06)



STS-100 (FD 06)



STS-100 (FD 07)



STS-100 (FD 07)

T D R S W E	D O R B	MET	SI T S S A A I T I I	CDR ROMINGER	PLT ASHBY	MS5/IV2 LONCHAKOV	ISS	MCC	NOTES	
		Day 005								
		16:00		CABIN TEMP CNTLR RECONFIG L1 CABIN TEMP - FULL WARM (TRANSFER LIST, FDZ) MD44F Pin CAB TEMP CNTLR act link to secondary act L1 CABIN TEMP CNTLR - 2 L1 CABIN TEMP - adj rotary as desired HEATER RECONFIG-CONFIG B (ORB OPS, EPS) RCS REGULATOR RECONFIG (ORB OPS, RCS) IMAX3D CAMERA SETUP (ISS PHOTO/TV, IMAX3D) Setup Lights for LAB interior shots			EMU LIOH CHANGEOUT (EVA, EMU MAINT/RECHARGE) MIDDECK STATUS CHECKS (ASSY OPS, CUE CARD)		ON STS CREW GO (SRMS in viewing posn): 2.301 SLP MNVR TO HANDOFF POSITION (ROBOTICS, 6A)	
		17:00			EXERCISE	IMAX3D CAMERA SETUP (ISS PHOTO/TV, IMAX3D) Setup Lights for LAB interior shots				
						MPLM TRANSFERS (TRANSFER LIST, FDZ)				
						P/TV08 ICBC3D (FILMING OPS) (PHOTO/TV, SCENES) Scene 15-18			EARLY H/O	
		18:00						ON STS CREW GO: 2.302 SLP HANDOFF FROM SSRMS TO SRMS (ROBOTICS, 6A)		
				EXERCISE						
		19:00				IN-SUIT EMU BATT RECHARGE (TERM) (EVA, EMU MAINT/RECHARGE) EMU REMOVAL (EVA, AIRLOCK CONFIG)			EARLY H/O	
						MPLM TRANSFERS (TRANSFER LIST, FDZ)				
		20:00						6.403 SSRMS LEE DIAGNOSTCS (ROBOTICS, NOMINAL) 6.422 LEE CHECKOUT (ROBOTICS, NOMINAL)		

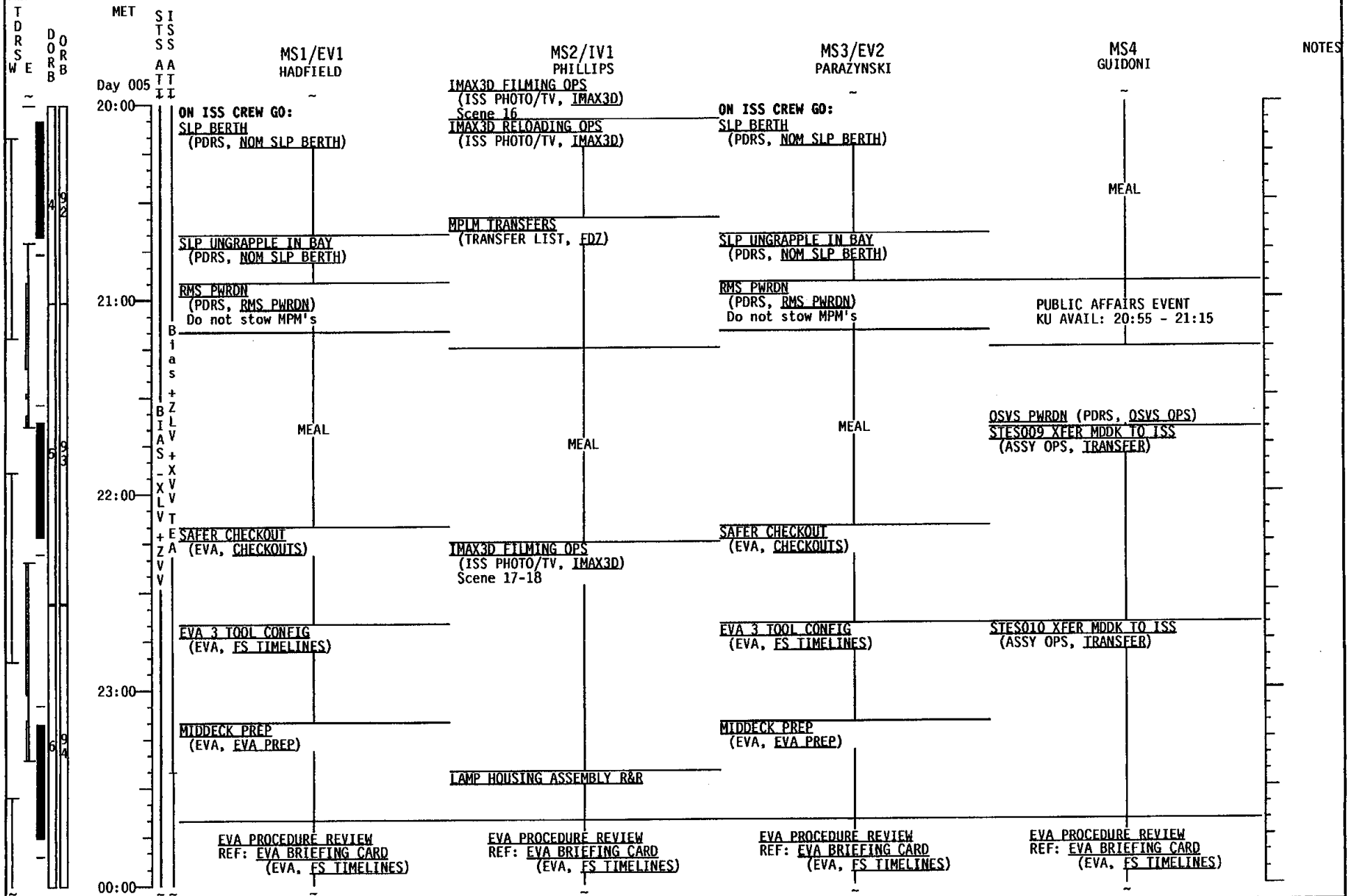
STS-100 (FD 07)

	MET	SI SS AA TT II	MS1/EV1 HADFIELD	MS2/IV1 PHILLIPS	MS3/EV2 PARAZYNSKI	MS4 GUIDONI	NOTES
TDRS WE DORB 189 20 31 42	Day 005 16:00 17:00 18:00 19:00 20:00	B i B a s + Z - L V + X V + Z V V T E A	TAKE ONE ASPIRIN (325 mg) ON STS CREW GO (SRMS in viewing posn): 2.301 SLP MNVR TO HANDOFF <u>POSITION</u> (ROBOTICS, 6A) Monitor from ISS	EMU LIOH CHANGEOUT (EVA, EMU MAINT/RECHARGE) HELMET LGT/PGT BATT RCHRG (TERM) REBA BATT RECHARGE (TERM) (EVA, EMU MAINT/RECHARGE) MPLM TRANSFERS (TRANSFER LIST, FDZ)	TAKE ONE ASPIRIN (325 mg) ON STS CREW GO (SRMS in viewing posn): 2.301 SLP MNVR TO HANDOFF <u>POSITION</u> (ROBOTICS, 6A) Monitor from Shuttle Ref: P/TV22	EXERCISE	
			ON ISS CREW GO: SLP RETRIEVE FROM SSRMS (PDRS, NOM SLP BERTH)	IMAX3D FILMING OPS (ISS PHOTO/TV, IMAX3D) Scene 14-15	ON ISS CREW GO: SLP RETRIEVE FROM SSRMS (PDRS, NOM SLP BERTH)		MPLM TRANSFERS (TRANSFER LIST, FDZ)
			ON STS CREW GO: 2.302 SLP HANDOFF FROM SSRMS TO SRMS (ROBOTICS, 6A) Monitor from ISS		ON STS CREW GO: 2.302 SLP HANDOFF FROM SSRMS TO SRMS (ROBOTICS, 6A) Monitor from Shuttle REF: P/TV22		
				IN-SUIT EMU BATT RECHARGE (TERM) (EVA, EMU MAINT/RECHARGE) EMU REMOVAL (EVA, AIRLOCK CONEIG)			XFER ALL FILLED CWC BAGS
			ON ISS CREW GO: SLP BERTH (PDRS, NOM SLP BERTH)	IMAX3D FILMING OPS (ISS PHOTO/TV, IMAX3D) Scene 16	ON ISS CREW GO: SLP BERTH (PDRS, NOM SLP BERTH)		XFER EMPTY CWC BAGS FROM MPLM
						MEAL	

STS-100 (FD 07)

	MET	SISS AA TT II	CDR ROMINGER	PLT ASHBY	MS5/IV2 LONCHAKOV	ISS	MCC	NOTES
TDRS WE DORB Day 005 20:00 A12(B12) DAP:FREE ISS:LVLH 4 9 2 21:00 B i a s + B Z I L V A S + X V L V T E + Z V V 22:00 23:00 6 9 4 00:00			IMAX3D CAMERA SETUP (ISS PHOTO/TV, IMAX3D) Setup camera for LAB interior shots	MPLM TRANSFERS (TRANSFER LIST, FDZ) P/TV21 ISS INTERNAL OPS (PHOTO/TV, SCENES) Setup for PAO	MPLM TRANSFERS (TRANSFER LIST, FDZ) IMAX3D CAMERA SETUP (ISS PHOTO/TV, IMAX3D) Setup camera for LAB interior shots	6.421 LEE CALIBRATION (ROBOTICS, NOMINAL) MONITOR SLP BERTHING IN PLB		
			PUBLIC AFFAIRS EVENT KU AVAIL: 20:55 - 21:15 MEAL	MEAL	MEAL CPCG-H XFER MDDK TO ISS (ASSY OPS, TRANSFER)	ON STS CREW GO (SLP berthing complete): 6.423 AUTO CAPTURE (ROBOTICS, NOMINAL) 6.421 LEE CALIBRATION 6.617 HSS VIDEO DEROUTING (ROBOTICS, NOMINAL) CPCG-H XFER MDDK TO ISS STES009 XFER MDDK TO ISS (ASSY OPS, TRANSFER)		EARLY H/O
			CGBA XFER MDDK TO ISS (ASSY OPS, TRANSFER)	MPLM TRANSFERS (TRANSFER LIST, FDZ)	PUBLIC AFFAIRS EVENT KU AVAIL: 22:40 - 23:00 MPLM TRANSFERS (TRANSFER LIST, FDZ)	CGBA XFER MDDK TO ISS STES010 XFER MDDK TO ISS (ASSY OPS, TRANSFER)		EARLY H/O
			EVA PROCEDURE REVIEW REF: EVA BRIEFING CARD (EVA, ES TIMELINES)	EVA PROCEDURE REVIEW REF: EVA BRIEFING CARD (EVA, ES TIMELINES)	EVA PROCEDURE REVIEW REF: EVA BRIEFING CARD (EVA, ES TIMELINES)	EVA PROCEDURE REVIEW REF: EVA 3 BRIEFING CARD (EVA, ES TIMELINES)		

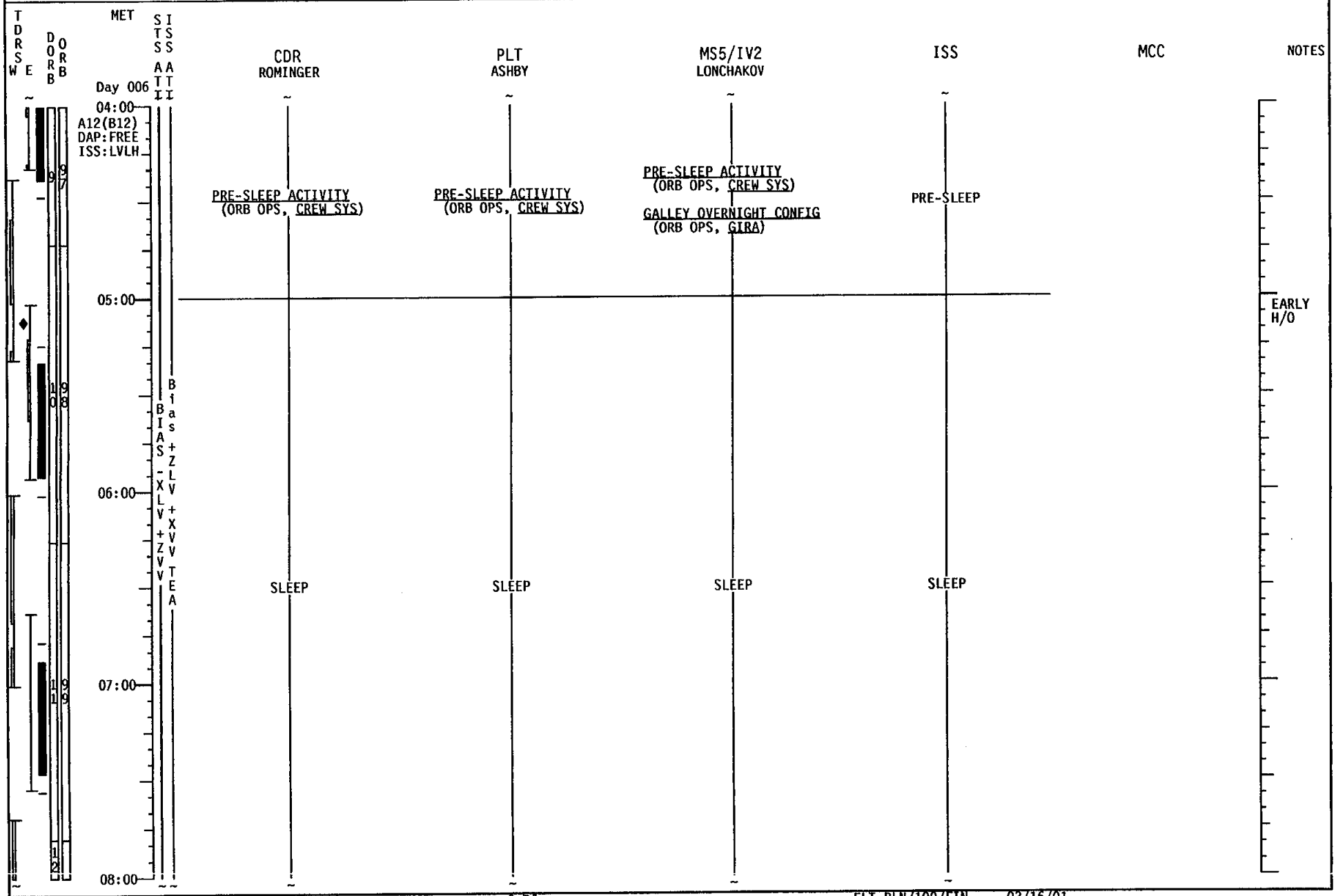
STS-100 (FD 07)



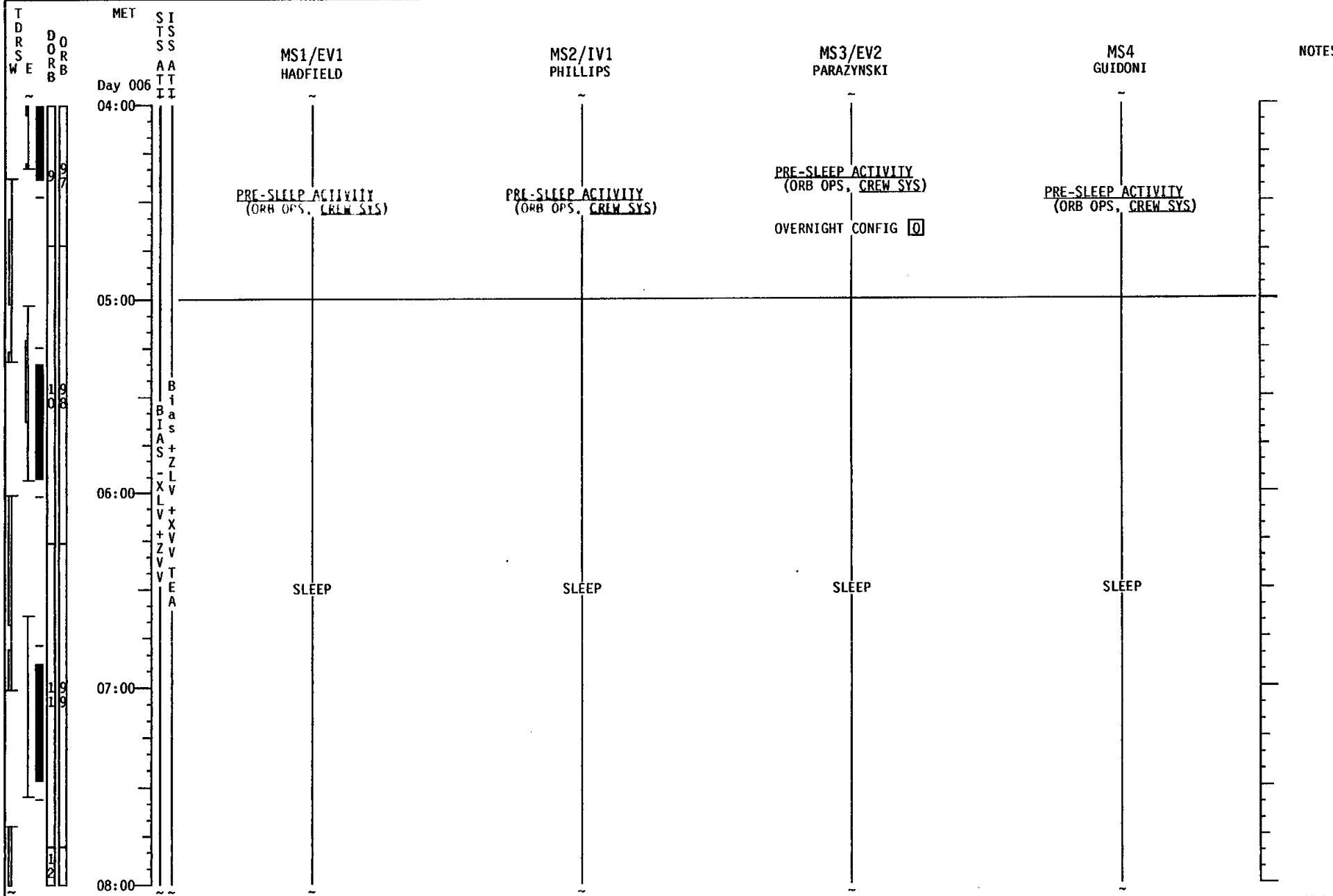
STS-100 (FD 07)

T D R S E	D O R B	MET	SISS	CDR ROMINGER	PLT ASHBY	MS5/IV2 LONCHAKOV	ISS	MCC	NOTES
		Day 006	AA TT II						
		00:00		H/O ATT CNTL CMGTA TO ORB (JOINT OPS, MATED OPS)	EVA PROCEDURE REVIEW REF: EVA BRIEFING CARD (EVA, FS TIMELINES)	EVA PROCEDURE REVIEW REF: EVA BRIEFING CARD (EVA, FS TIMELINES)	H/O ATT CNTL CMGTA TO ORB (JOINT OPS, MATED OPS)	H/O ATT CNTL CMGTA TO ORB (JOINT OPS, MATED OPS)	EARLY H/O
		A12(B12) AUTO/VERN ISS:DRIFT		MNVR (TRK) WATER DUMP ATT TG=2 BV=5 P=155 Y=0 OM=270 A/AUTO/VERN (6/00:10) Init TRK					
				SUPPLY/WASTE WATER DUMP (ORB OPS, ECLS) Initiate SIMO Dump	P/TV18 EVA CAMR SETUP (PHOTO/TV, SCENES) EVA STILL CAMERA		TRANSFER TAGUP Coordinate with transfer counterpart	8,260 MSS POWERDOWN (GROUND, ROBOTICS) Repeat step 4 to powerdown second RWS	
				ISS INTERIM EGRESS (JOINT OPS, EGRESS)		ISS INTERIM EGRESS (JOINT OPS, EGRESS)	ISS INTERIM EGRESS (JOINT OPS, EGRESS)		
		01:00		PREP FOR 10.2 PSI CABIN (EVA, 10.2 PSI CABIN)	PREP FOR 10.2 PSI CABIN (EVA, 10.2 PSI CABIN)				COMM CONFIG 5A
				CABIN DEPRESS TO 10.2 PSI (EVA, 10.2 PSI CABIN)	CABIN DEPRESS TO 10.2 PSI (EVA, 10.2 PSI CABIN)				
						EXERCISE			
				10.2 PSI CABIN CONFIG (EVA, 10.2 PSI CABIN)	10.2 PSI CABIN CONFIG (EVA, 10.2 PSI CABIN)				EARLY H/O
		02:00		SUPPLY/WASTE WATER DUMP (ORB OPS, ECLS) + Terminate SIMO Dump					
				MNVR (TRK) BIAS -XLV +ZVV TG=2 BV=5 P=155 Y=0 OM=0 A/AUTO/VERN Init TRK					
				When in ATT: H/O ATT CNTL ORB TO CMGTA (JOINT OPS, MATED OPS)			When in ATT: H/O ATT CNTL ORB TO CMGTA (JOINT OPS, MATED OPS)	When in ATT: H/O ATT CNTL ORB TO CMGTA (JOINT OPS, MATED OPS)	
				PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	DAILY ACTIVITY REPORT	DAILY ACTIVITY REPORT	
		03:00		PRIVATE MEDICAL CONFERENCE VIDEO CONFERENCING (ORB OPS) REF: P/TV04		GALLEY OVERNIGHT CONFIG (ORB OPS, GIRA)			PMC OCA
				PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRIVATE FAMILY CONFERENCE VIDEO CONFERENCING (ORB OPS) REF: P/TV04		PRE-SLEEP		EARLY H/O
					PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)				PEC OCA
		04:00							

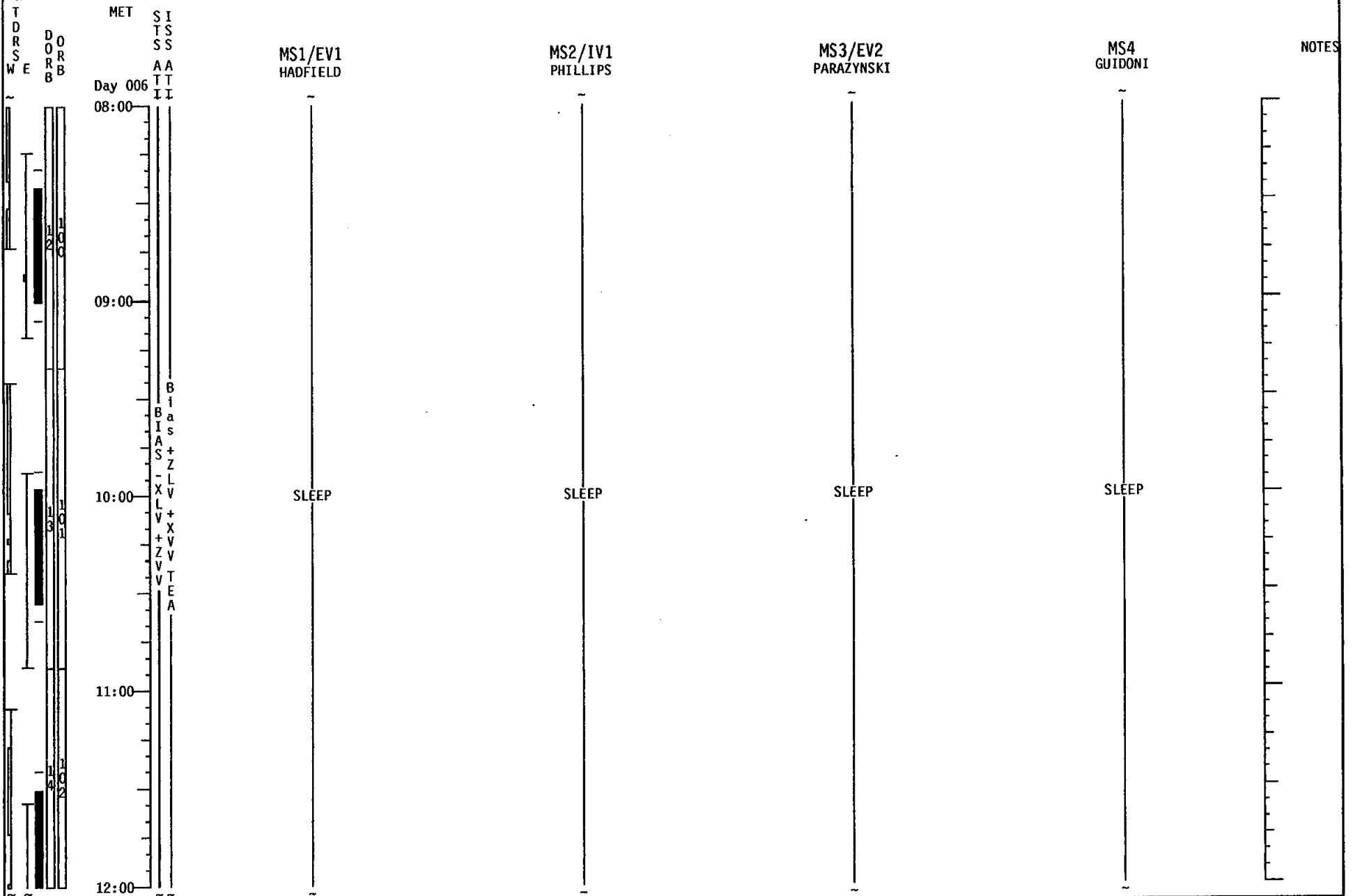
STS-100 (FD 07)



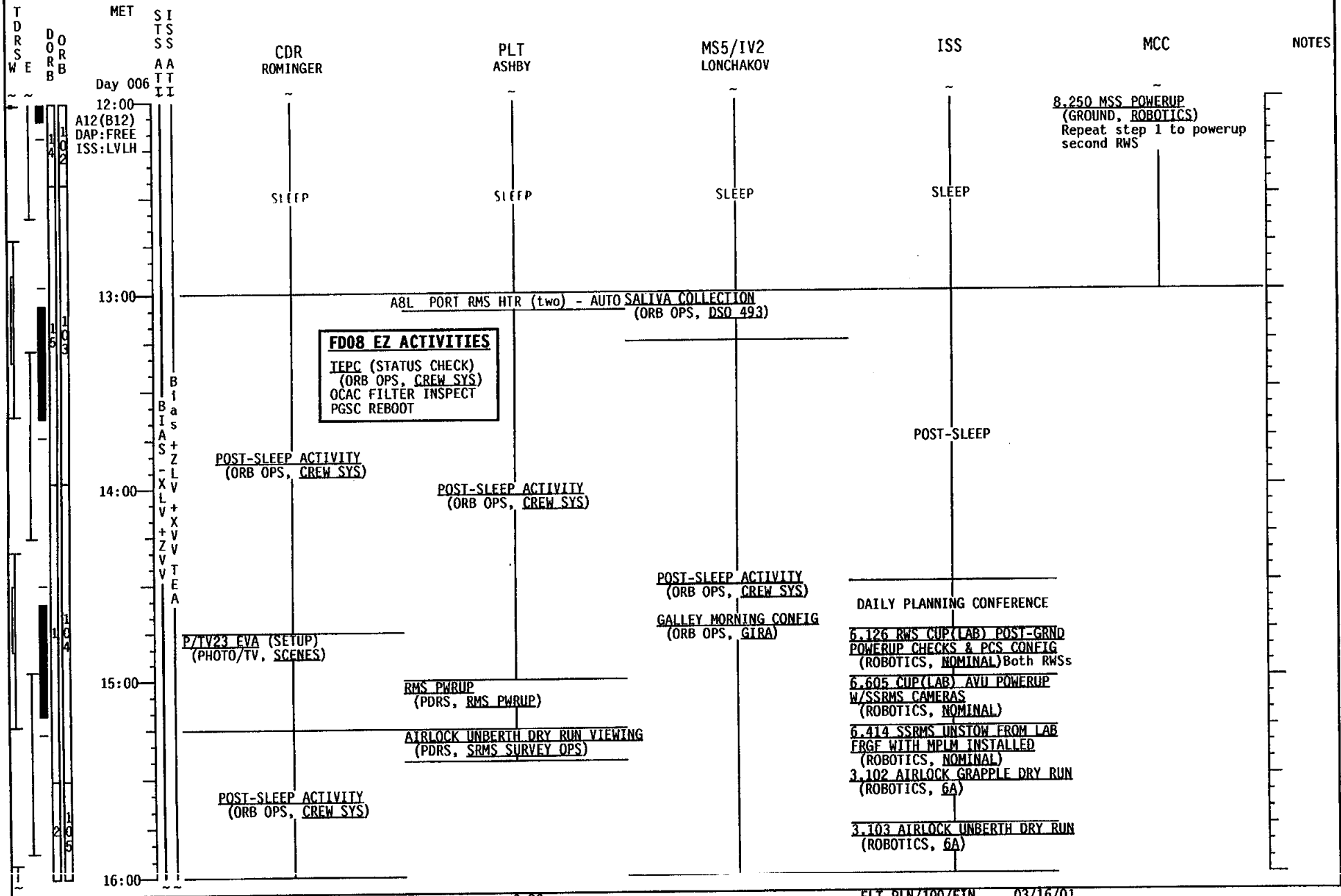
STS-100 (FD 07)



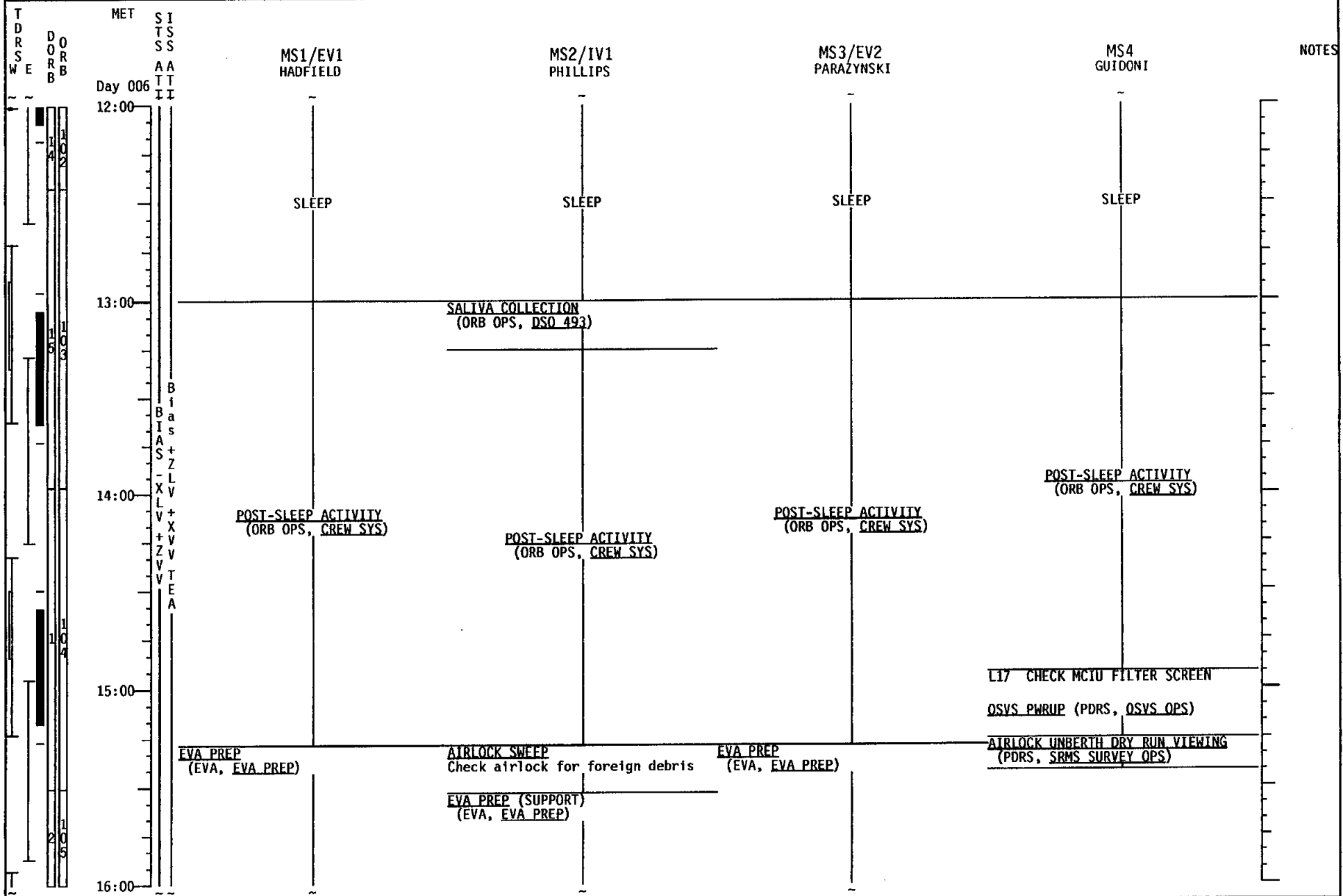
STS-100 (FD 07)



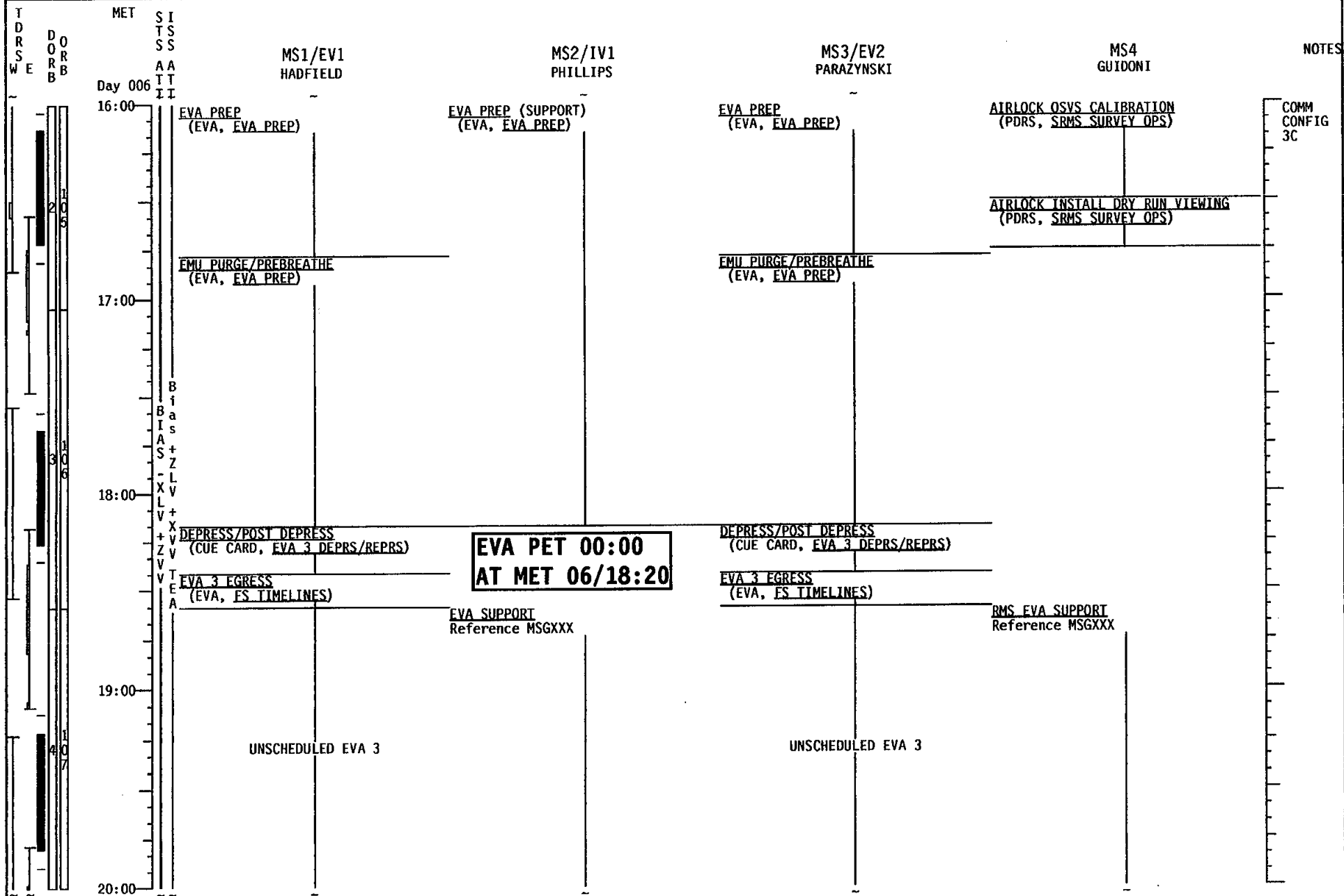
STS-100 (FD 08)



STS-100 (FD 08)



STS-100 (FD 08)



STS-100 (FD 08)

TDRS WE	DORB	MET	SIS SS AA TT TT	CDR ROMINGER	PLT ASHBY	MS5/IV2 LONCHAKOV	ISS	MCC	NOTES
		Day 006	20:00	P/TV23 EVA (OPS) (PHOTO/TV, SCENES)	RMS EVA SUPPORT Reference MSGXXX				
		A13(B13) DAP:FREE ISS:LVLH							
			21:00						
			22:00			P/TV08 ICBC3D (FILMING OPS) (PHOTO/TV, SCENES) Scene 19			EARLY H/O
			23:00						EARLY H/O
				SUPPLY WATER DUMP USING FES (ORB OPS, ECLS) Step 2, FES req'd P/TV23 EVA (OPS) (PHOTO/TV, SCENES)					
			00:00						

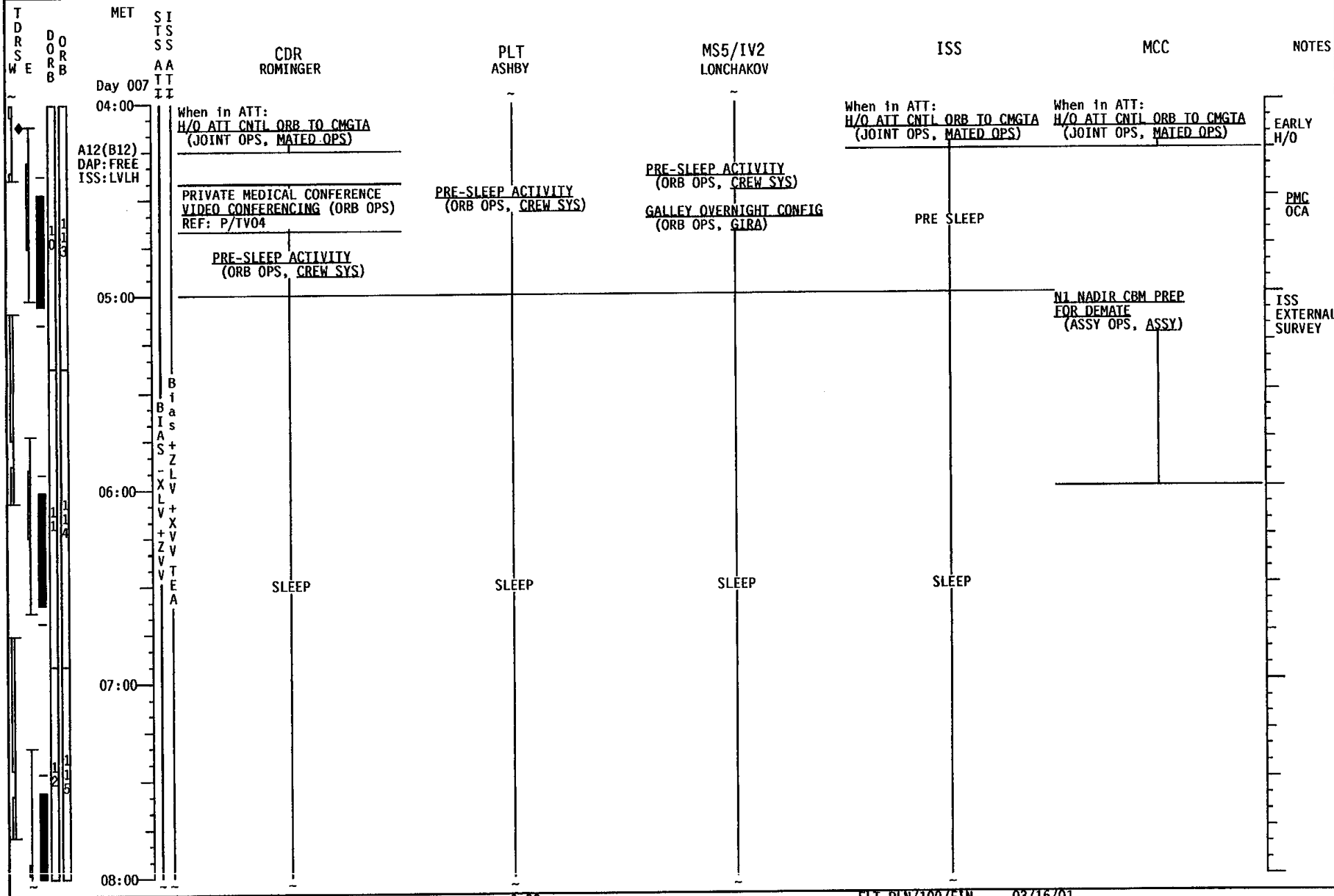
STS-100 (FD 08)

TDRS WE	DORB	MET	SIS SS AA TT II				NOTES
		Day 006		MS1/EV1 HADFIELD	MS2/IV1 PHILLIPS	MS3/EV2 PARAZYNSKI	MS4 GUIDONI
		20:00			<u>EVA SUPPORT</u> Reference MSGXXX		<u>RMS EVA SUPPORT</u> Reference MSGXXX
		21:00					
		22:00	B I A S + Z L V + X V V T E A	UNSCHEDULED EVA 3		UNSCHEDULED EVA 3	
		23:00					
		00:00					

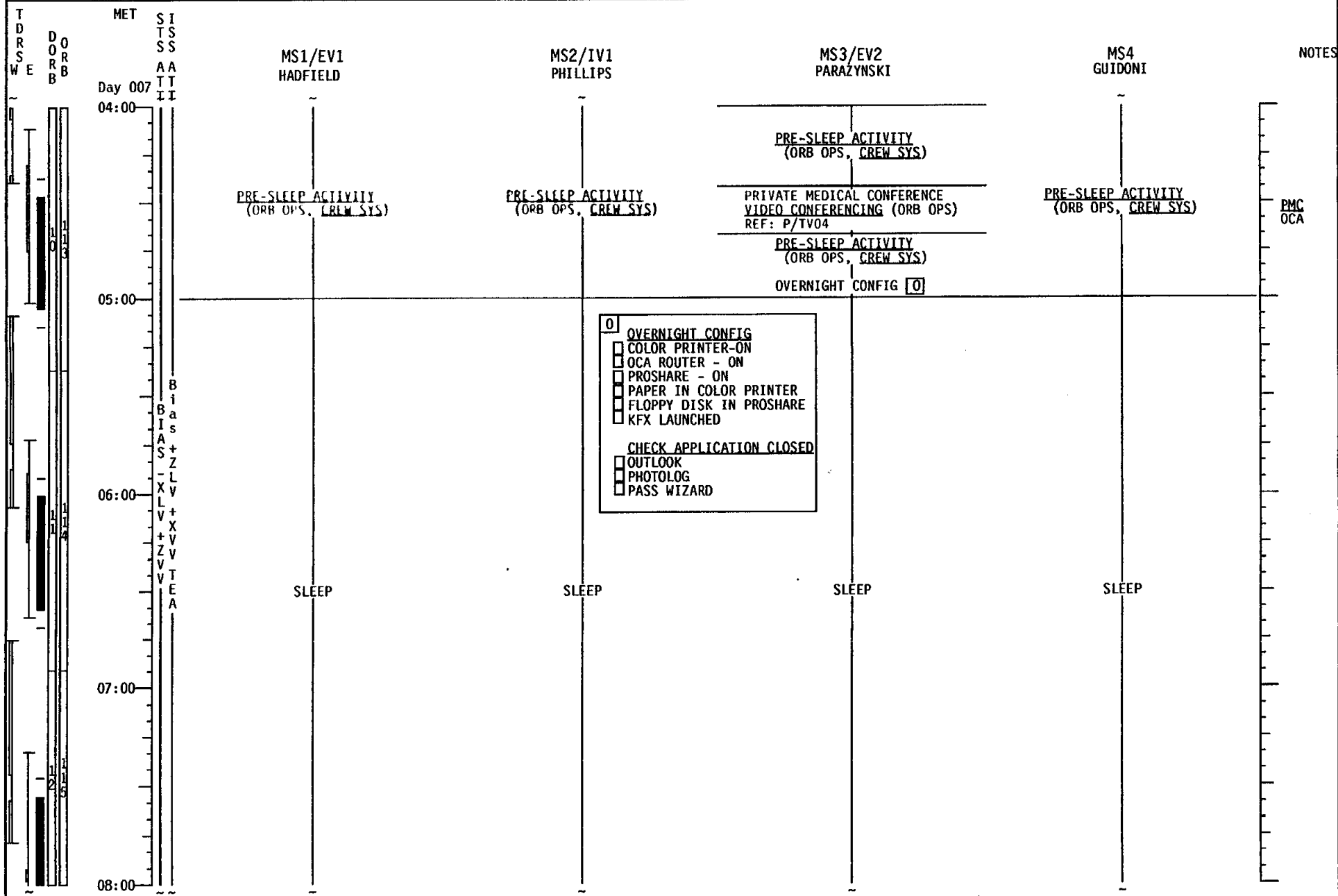
STS-100 (FD 08)

TDRS WE	DORRB	MET	SISS	CDR ROMINGER	PLT ASHBY	MS5/IV2 LONCHAKOV	ISS	MCC	NOTES
		Day 007	AA TT II						
		00:00			<u>RMS EVA SUPPORT</u> Reference MSGXXX	<u>P/TV02 IN-CABIN ACTIVITIES</u> (PHOTO/TV, SCENES) Setup for DTO 262	<u>NODE 1 TO MPLM VESTIBULE</u> <u>DEQUETTILING</u> (MPLM, NOMINAL) Perform step 16 only		<u>UPLINK</u> B only 21+Box 30<AZ<155 55<EL<85 -5<AZ<55 60<EL<75 45<AZ<0 10<EL<40
		A13(B13) DAP:FREE ISS:LVLH							
			B I A S	<u>PRE-SLEEP ACTIVITY</u> (ORB OPS, CREW SYS)	<u>RMS PWRDN</u> (PDRS, RMS PWRDN) Do not stow MPM's				
		01:00		When A/L repress complete, Load DAP A12,B12		<u>EXERCISE</u>			EARLY H/O
		A12(B12) DAP:FREE ISS:LVLH	X L V	<u>MO10W 14.7 CAB REG IN SYS 1-0P</u>		Ref: <u>ERGOM PEDALING FREQ TEST</u> (ORB OPS, DTO 262)			
			+ Z V V B	<u>PRE-SLEEP ACTIVITY</u> (ORB OPS, CREW SYS)	<u>P/TV21 ISS INTERNAL OPS</u> (PHOTO/TV, SCENES) Setup for Ingress & MPLM Closeout				
			a	<u>MO10W 14.7 CAB REG IN SYS 1-CL</u>					
			s	<u>H/O ATT CNTL CMGTA TO ORB</u> (JOINT OPS, MATED OPS)				<u>H/O ATT CNTL CMGTA TO ORB</u> (JOINT OPS, MATED OPS)	
			Z	When DTO 262 complete:	<u>ILLUMINATOR OPS</u> (CUE CARD, ILLUM OPS)				
		02:00	L V	<u>MNVR (TRK) WATER DUMP ATT</u> TG=2 BV=5 P=155 Y=0 OM=270	A7 Camr A,B,C,D & Elbow Illum-ON				
		A12(B12) AUTO/VERN ISS:DRIFT	+ X V	<u>A/AUTO/VERN (7/02:00) Init TRK</u> <u>ISS INTERIM INGRESS</u> (JOINT OPS, INGRESS)	<u>SUPPLY/WASTE WATER DUMP</u> (ORB OPS, ECLS) Init Waste Dump when in ATT	<u>ISS INTERIM INGRESS</u> (JOINT OPS, INGRESS)	<u>ISS INTERIM INGRESS</u> (JOINT OPS, INGRESS)		
			T E B I A S	<u>MO10W 14.7 CAB REG IN SYS 1-0P</u> <u>CABIN REPRESS TO 14.7 PSI</u> (EVA, 10.2 PSI CABIN) Perform steps 7 & 8 only			<u>TRANSFER TAGUP</u> Coordinate with transfer counterpart		EARLY H/O
			X L V		<u>PRE-SLEEP ACTIVITY</u> (ORB OPS, CREW SYS)			<u>DAILY ACTIVITY REPORT</u>	
		03:00	+ Y V V	<u>PRE-SLEEP ACTIVITY</u> (ORB OPS, CREW SYS)		<u>PRE-SLEEP ACTIVITY</u> (ORB OPS, CREW SYS)		<u>DAILY ACTIVITY REPORT</u>	
					<u>SUPPLY/WASTE WATER DUMP</u> (ORB OPS, ECLS) Terminate Waste Dump	<u>GALLEY OVERNIGHT CONFIG</u> (ORB OPS, GIRA)			
				<u>MNVR (TRK) BIAS -XLV +ZVV</u> TG=2 BV=5 P=155 Y=0 OM=0	<u>PRE-SLEEP ACTIVITY</u> (ORB OPS, CREW SYS)		<u>PRE-SLEEP</u>		COMM CONFIG 2A
		04:00		<u>A/AUTO/VERN Init TRK</u>					

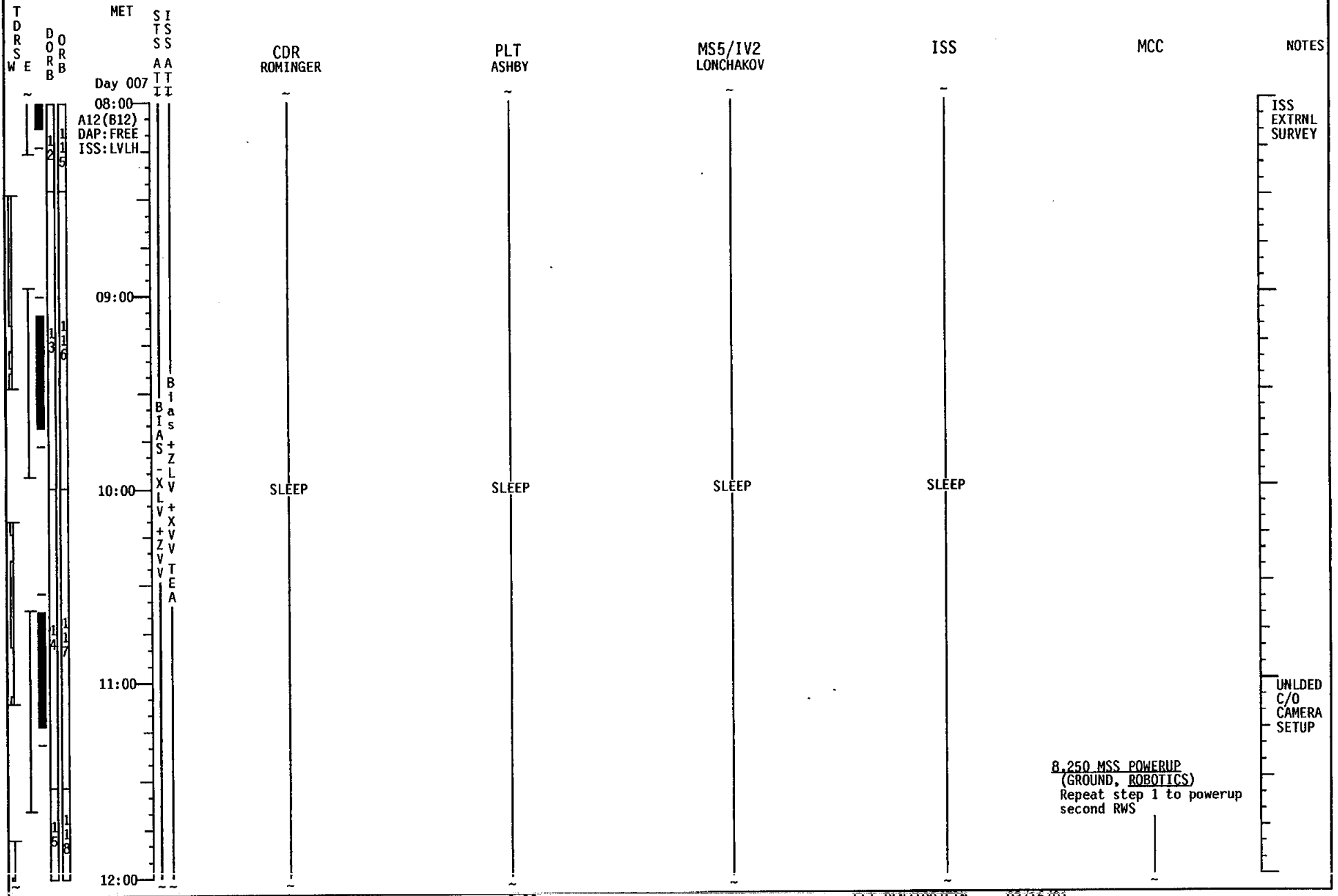
STS-100 (FD 08)



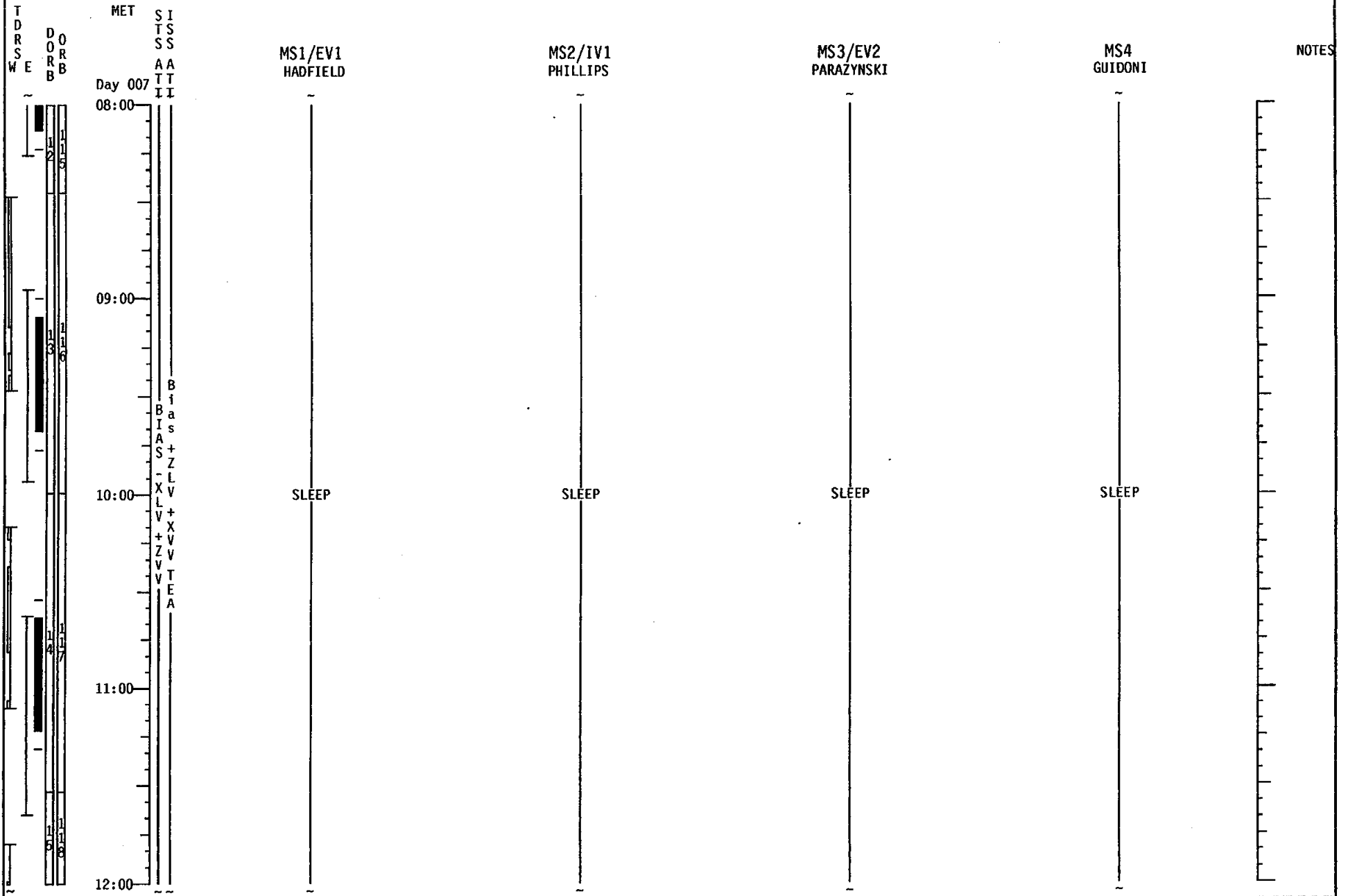
STS-100 (FD 08)



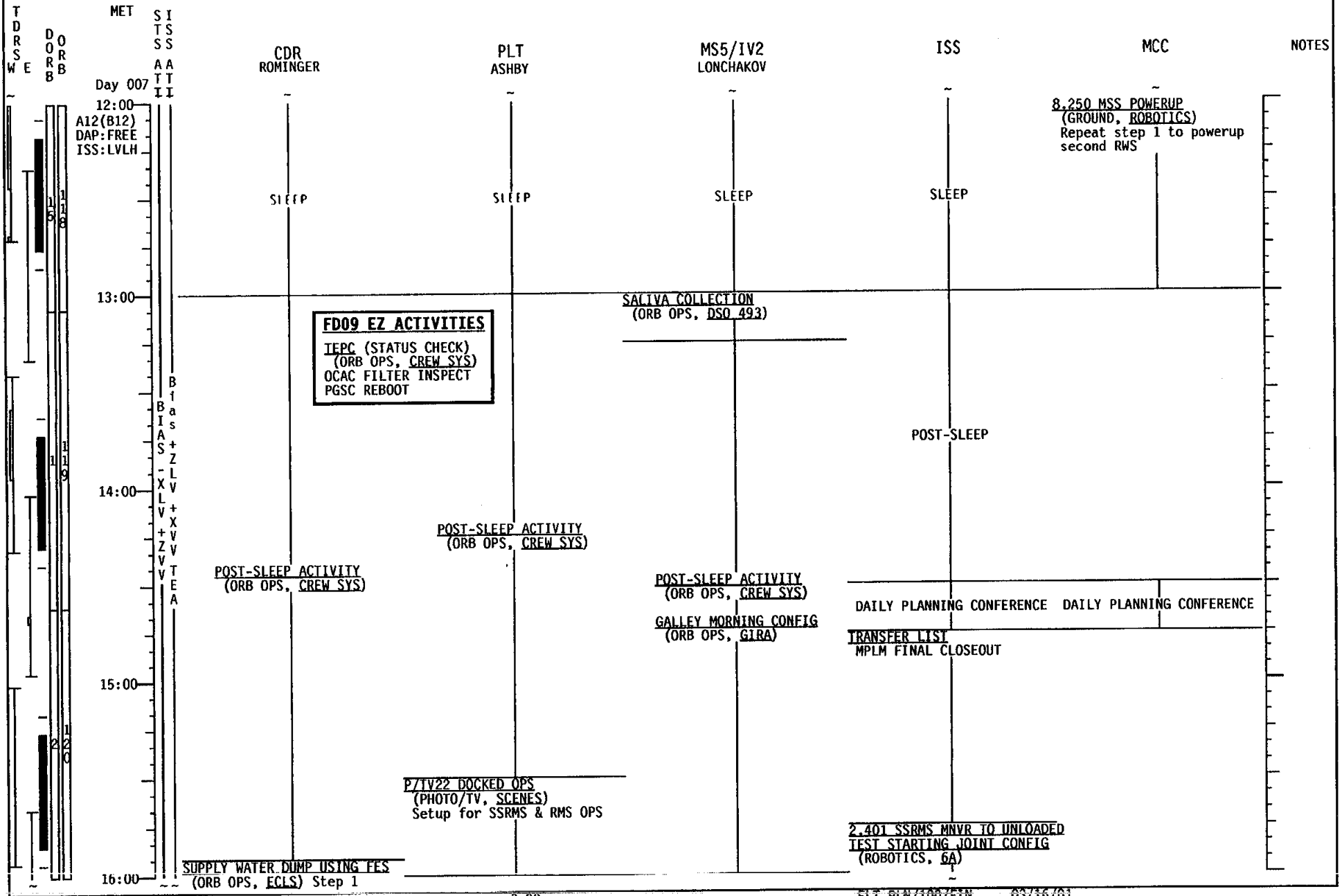
STS-100 (FD 08)



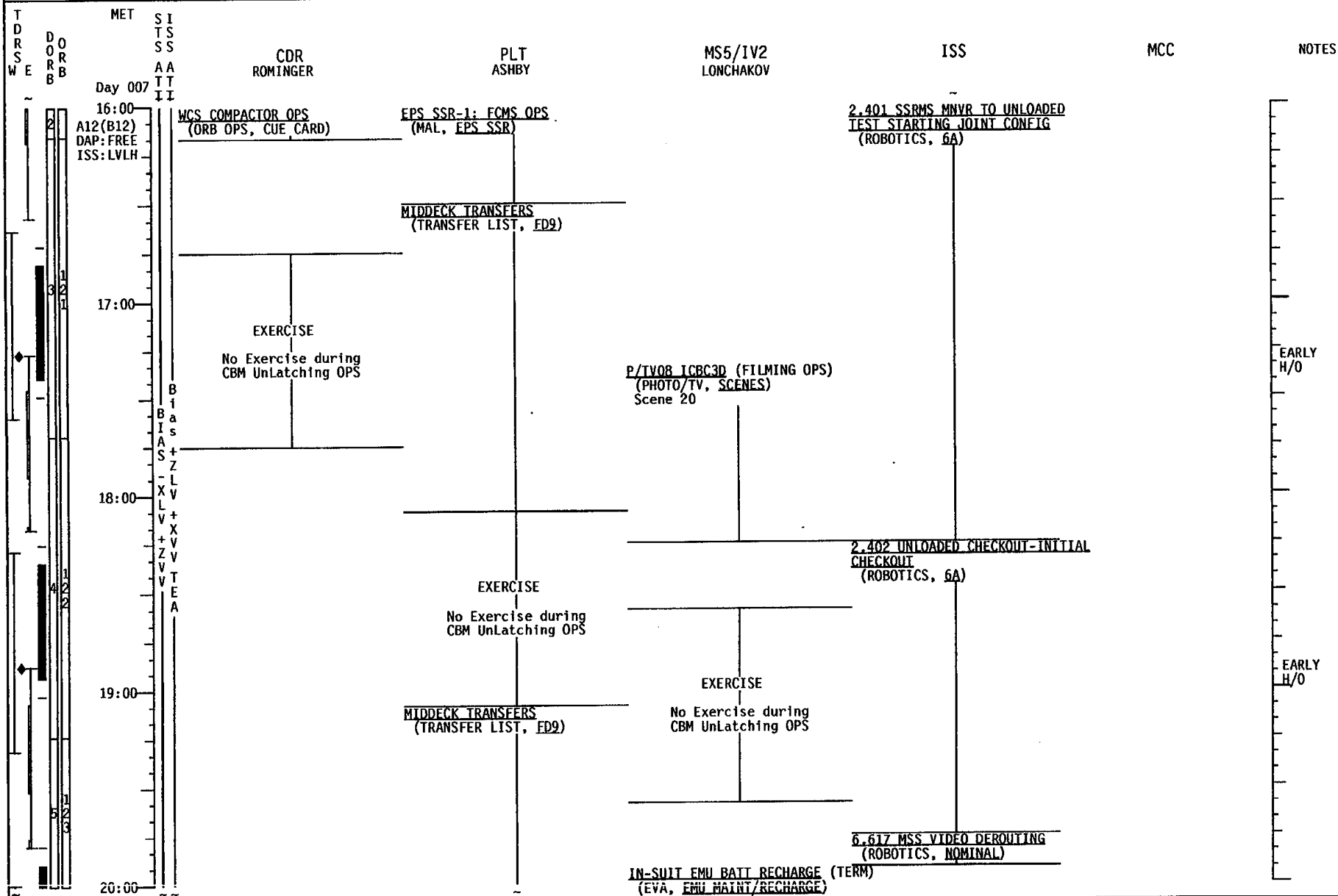
STS-100 (FD 08)



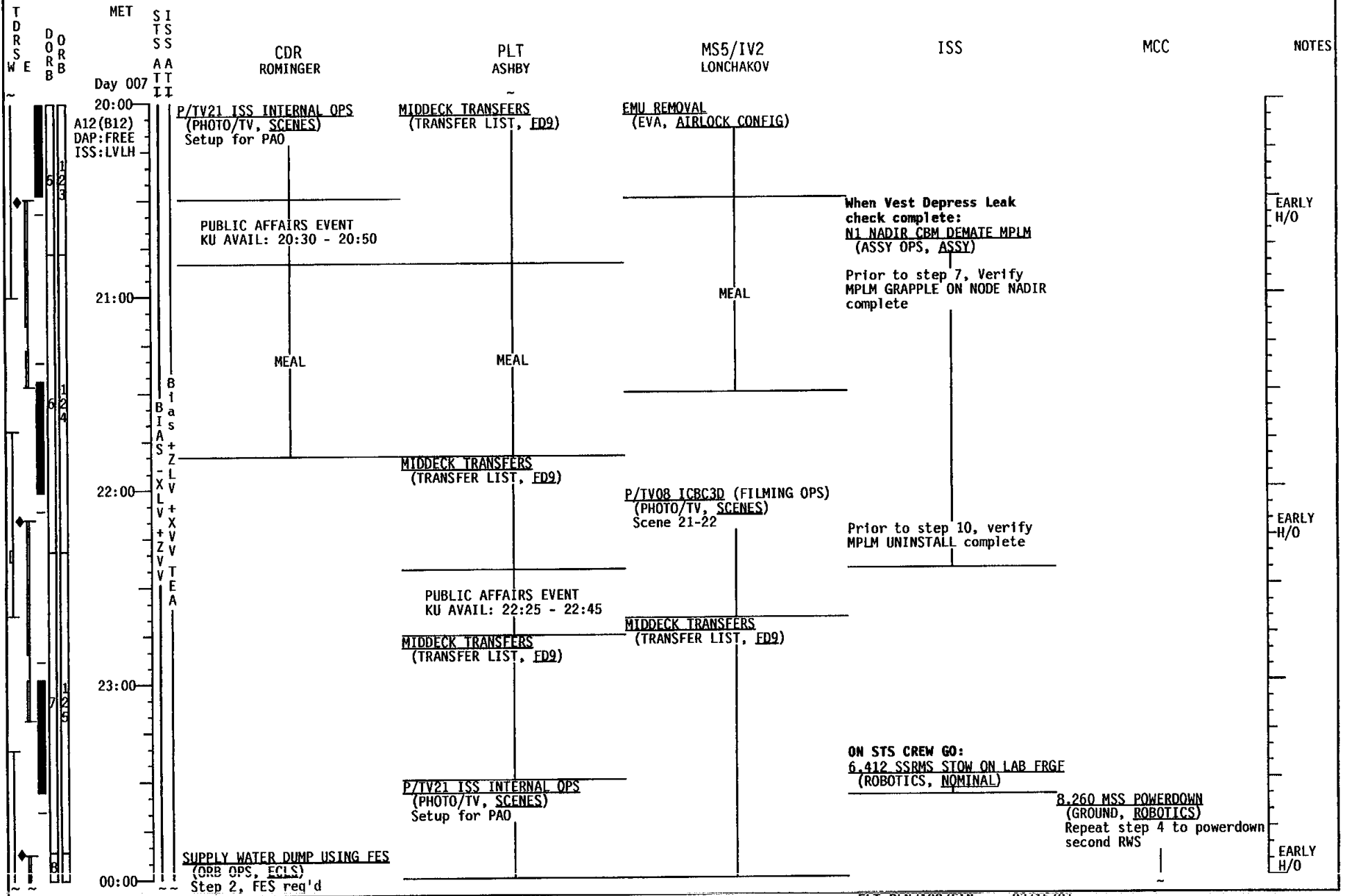
STS-100 (FD 09)



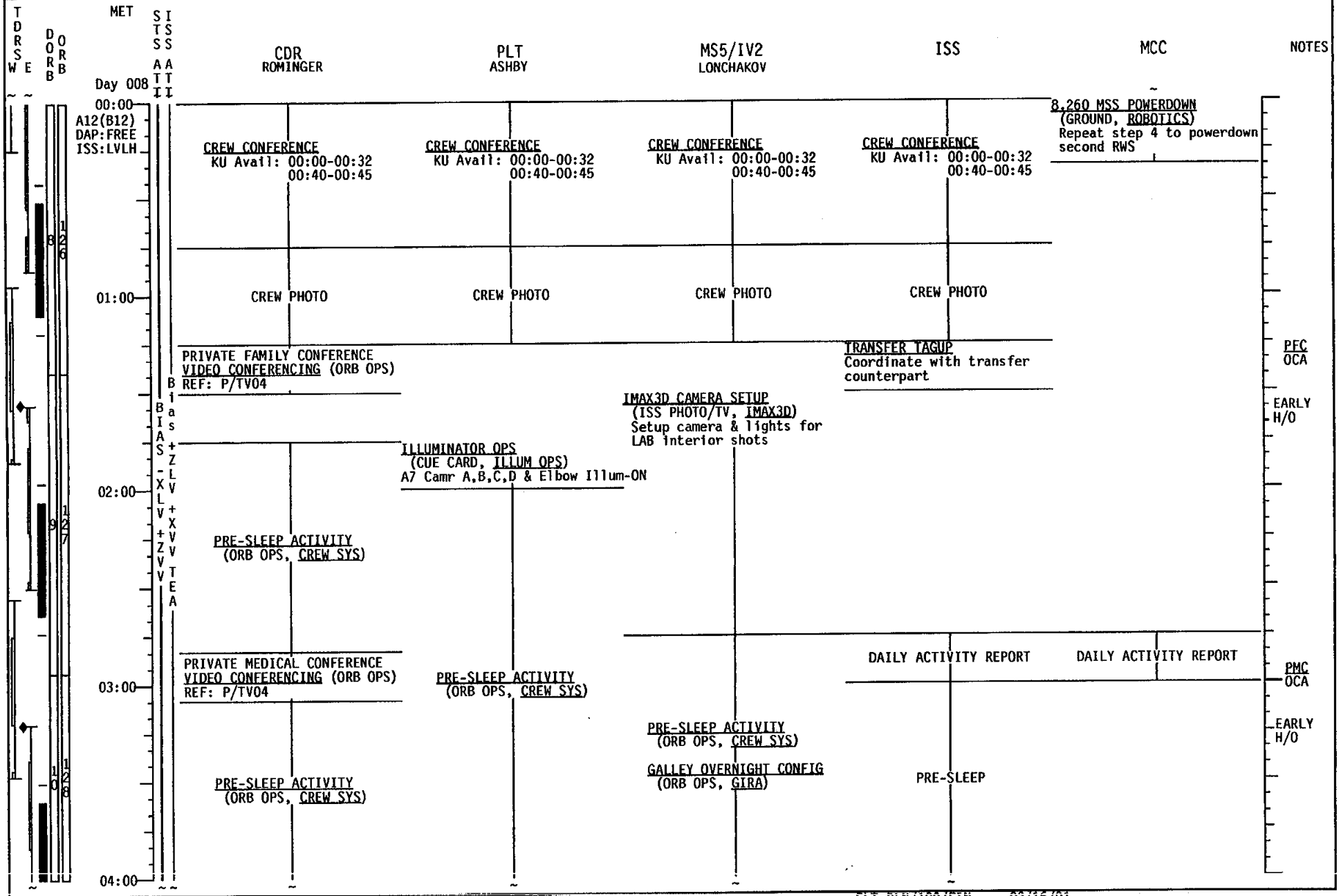
STS-100 (FD 09)



STS-100 (FD 09)



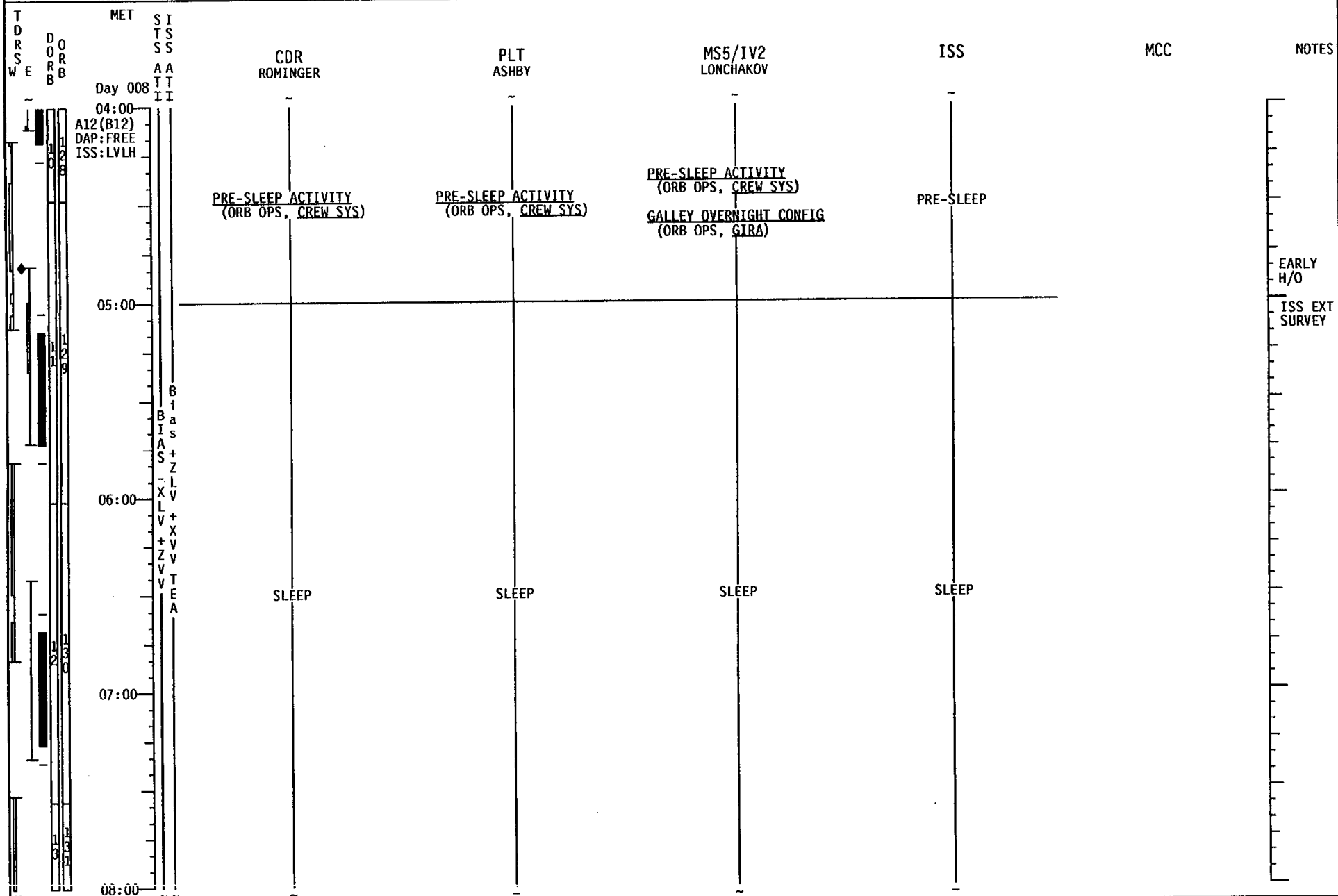
STS-100 (FD 09)



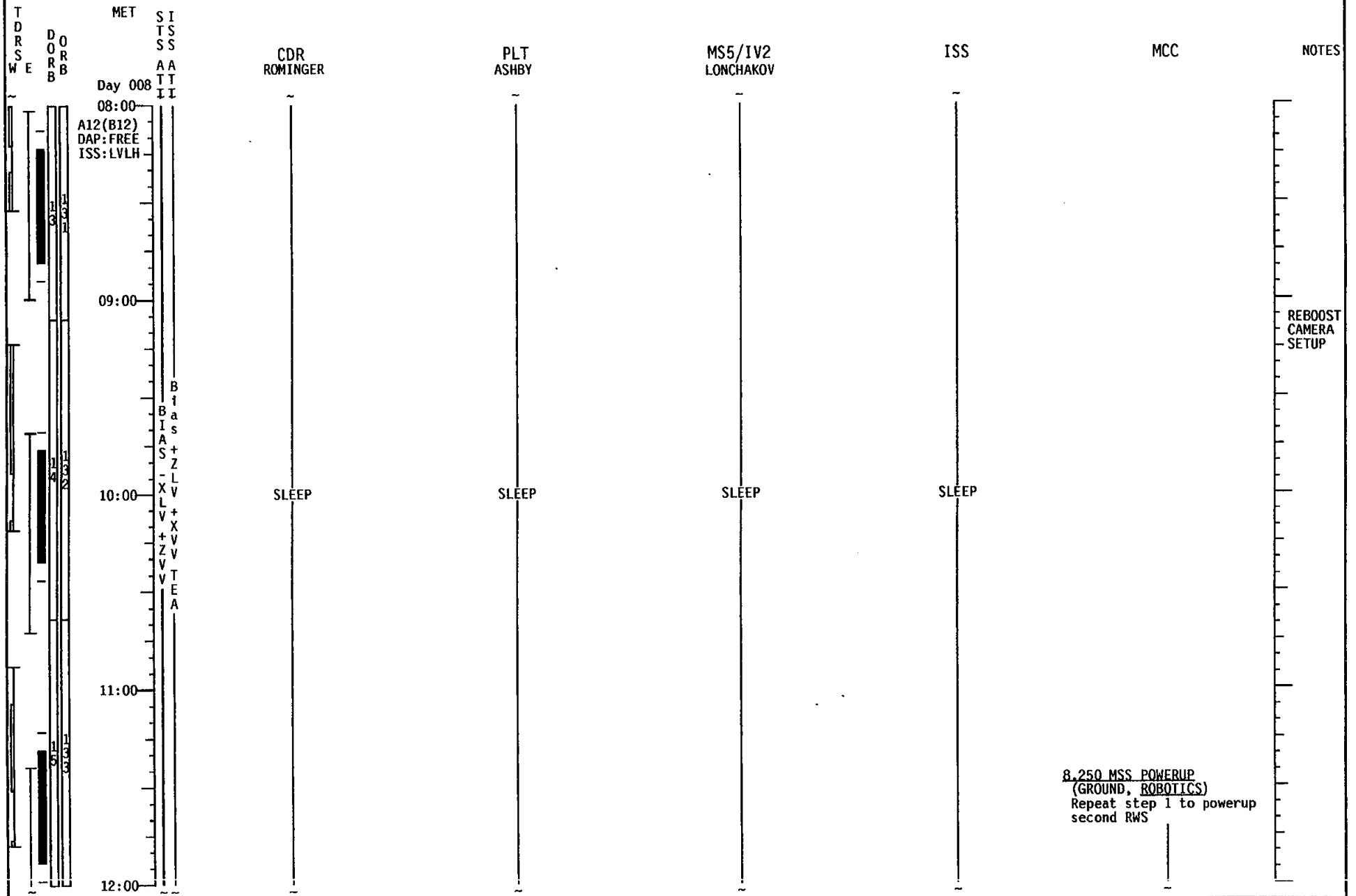
STS-100 (FD 09)

	MET	SI TS SS AA TT II	MS1/EV1 HADFIELD	MS2/IV1 PHILLIPS	MS3/EV2 PARAZYNSKI	MS4 GUIDONI	NOTES
TDRS WE DOORB 11026 11027 11028 11029 11030	Day 008 00:00 01:00 02:00 03:00 04:00	B i B A S + Z L - X V L v + X V V + Z V V T E A	<p><u>CREW CONFERENCE</u> KU Avail: 00:00-00:32 00:40-00:45</p> <p>CREW PHOTO</p> <p><u>PRIVATE FAMILY CONFERENCE</u> <u>VIDEO CONFERENCING (ORB OPS)</u> REF: P/TV04</p> <p><u>PRE-SLEEP ACTIVITY</u> (ORB OPS, CREW SYS)</p>	<p><u>CREW CONFERENCE</u> KU Avail: 00:00-00:32 00:40-00:45</p> <p>CREW PHOTO</p> <p><u>MIDDECK TRANSFERS</u> (TRANSFER LIST, FD9) Transfer EMU to ISS</p> <p><u>PRE-SLEEP ACTIVITY</u> (ORB OPS, CREW SYS)</p> <p><u>PRIVATE FAMILY CONFERENCE</u> <u>VIDEO CONFERENCING (ORB OPS)</u> REF: P/TV04</p> <p><u>PRE-SLEEP ACTIVITY</u> (ORB OPS, CREW SYS)</p>	<p><u>CREW CONFERENCE</u> KU Avail: 00:00-00:32 00:40-00:45</p> <p>CREW PHOTO</p> <p><u>MIDDECK TRANSFERS</u> (TRANSFER LIST, FD9) Transfer EMU to ISS</p> <p><u>PRE-SLEEP ACTIVITY</u> (ORB OPS, CREW SYS)</p> <p><u>PRIVATE MEDICAL CONFERENCE</u> <u>VIDEO CONFERENCING (ORB OPS)</u> REF: P/TV04</p> <p><u>PRE-SLEEP ACTIVITY</u> (ORB OPS, CREW SYS)</p> <p>OVERNIGHT CONFIG <input type="checkbox"/></p>	<p><u>CREW CONFERENCE</u> KU Avail: 00:00-00:32 00:40-00:45</p> <p>CREW PHOTO</p> <p><u>TRANSFER TAGUP</u> Coordinate with transfer counterpart</p> <p><u>TRANSFER CALL</u> Call down status to MCC</p> <p><u>SIGI DATA CHECK</u> (ORB OPS, GPS)</p> <p><u>PRE-SLEEP ACTIVITY</u> (ORB OPS, CREW SYS)</p>	<p>PEC OCA</p> <p>PMC OCA</p> <p>PEC OCA</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <input type="checkbox"/> OVERNIGHT CONFIG <input type="checkbox"/> COLOR PRINTER-ON <input type="checkbox"/> OCA ROUTER - ON <input type="checkbox"/> PROSHARE - ON <input type="checkbox"/> PAPER IN COLOR PRINTER <input type="checkbox"/> FLOPPY DISK IN PROSHARE <input type="checkbox"/> KFX LAUNCHED <input type="checkbox"/> CHECK APPLICATION CLOSED <input type="checkbox"/> OUTLOOK <input type="checkbox"/> PHOTOLOG <input type="checkbox"/> PASS WIZARD </div>

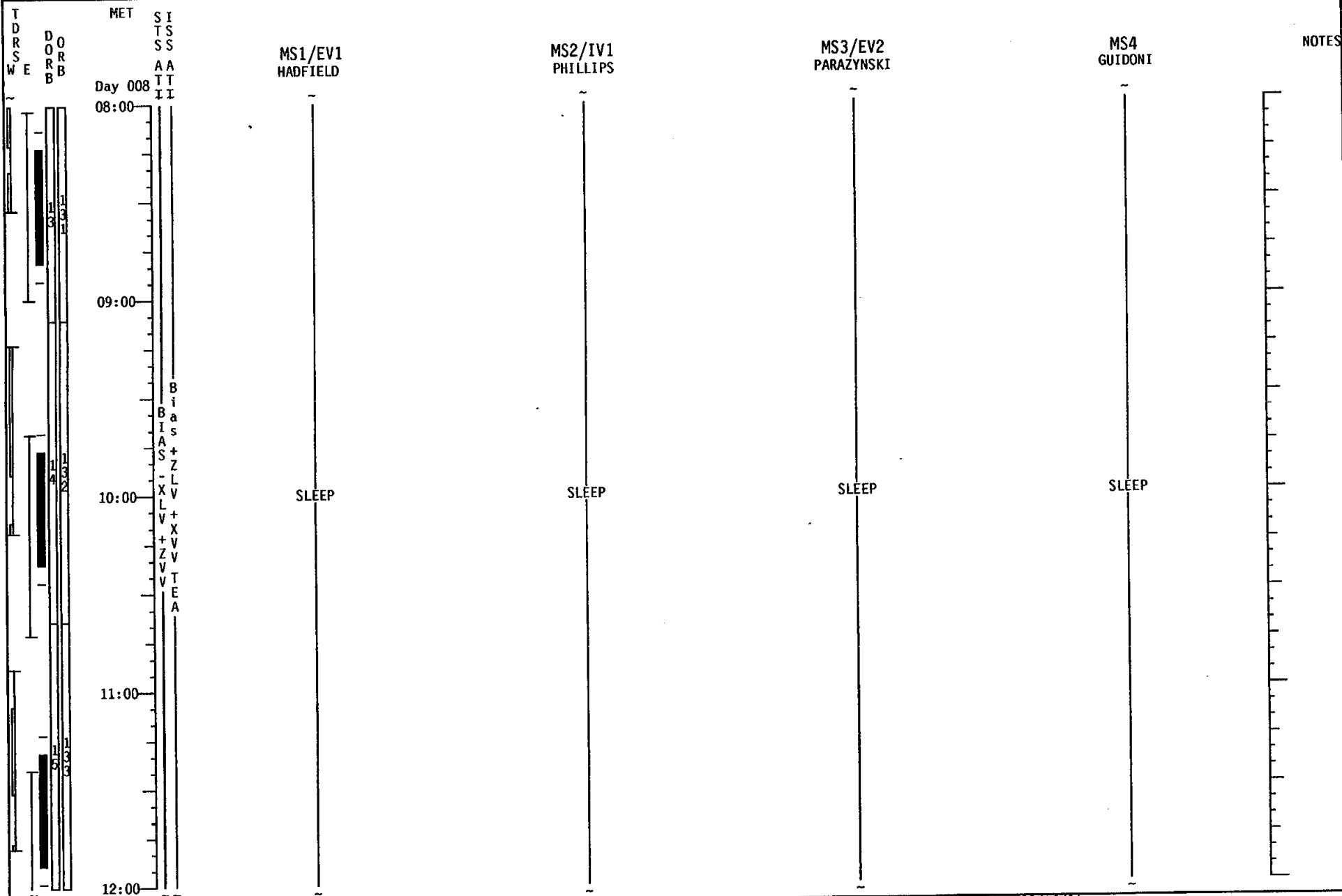
STS-100 (FD 09)



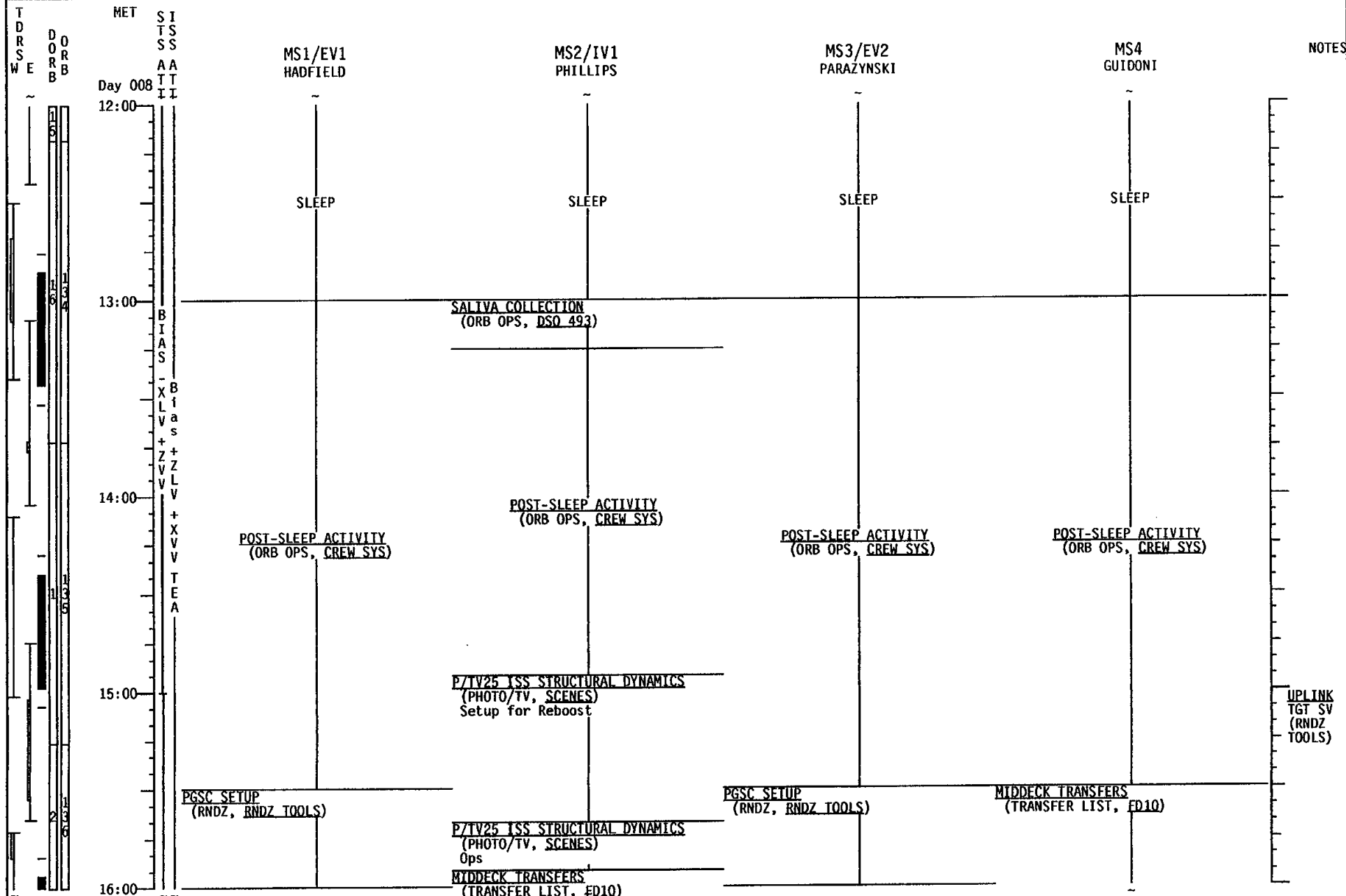
STS-100 (FD 09)



STS-100 (FD 09)



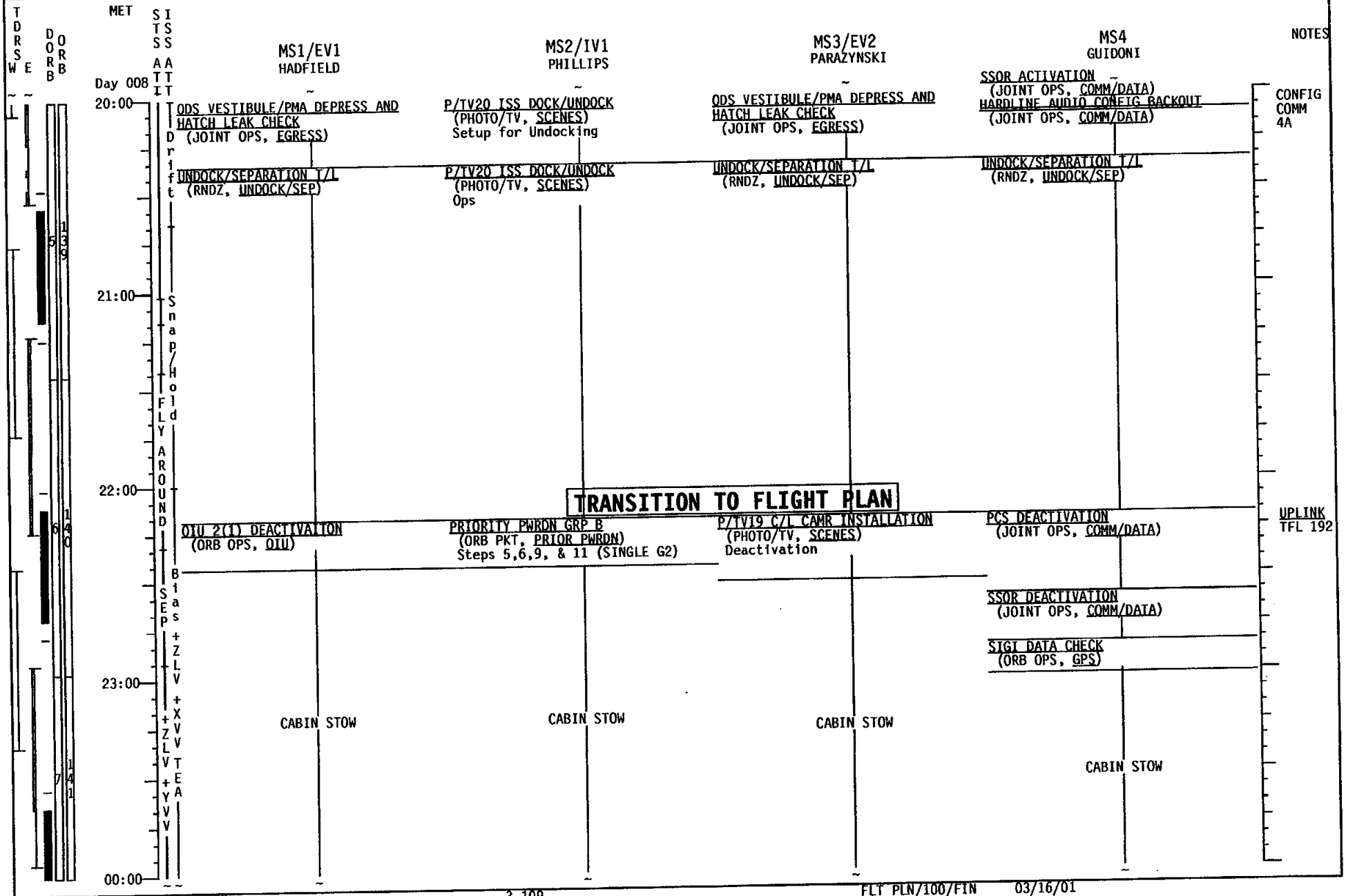
STS-100 (FD 10)



STS-100 (FD 10)

	MET	SISS AA TT II	CDR ROMINGER	PLT ASHBY	MS5/1V2 LONCHAKOV	ISS	MCC	NOTES
<p style="text-align: center;">T D R S W E</p> <p style="text-align: center;">D O R B</p> <p style="text-align: center;">1 2 3 4 5</p>	<p>Day 008</p> <p>16:00</p> <p>A12 (B12) AUTO/VERN ISS:DRIFT</p> <p>17:00</p> <p>A12 (B12) DAP:FREE ISS:LVLH</p> <p>18:00</p> <p>19:00</p> <p>20:00</p>	<p>B I A S</p> <p>+ Z L A V S</p> <p>+ X V L V T E A</p> <p>+ Z V V</p>	<p>AUTO REBOOST (ORB OPS, REBOOST)</p> <p>Verify no EXERCISE in progress</p> <p>Verify IWIS activated</p> <p><u>MNVR (TRK) BIAS -XLV +ZVV</u> TG=2 BV=5 P=155 Y=0 OM=0 A/AUTO/VERN Init TRK</p> <p>When in ATT: <u>H/O ATT CNTL ORB TO CMGTA</u> (JOINT OPS, MATED OPS)</p> <p>MEAL</p> <p>FARE WELL</p> <p><u>SHUTTLE/ISS DUCT REMOVAL & HATCH CLOSING</u> (JOINT OPS, EGRESS)</p>	<p>MIDDECK TRANSFERS (TRANSFER LIST, ED10)</p> <p><u>P/TV21 ISS INTERNAL OPS</u> (PHOTO/TV, SCENES) Setup for Egress</p> <p>MEAL</p> <p>FARE WELL</p> <p><u>PRIORITY PWRUP GROUP B</u> (ORB PKT, PRIOR PWRDN) Steps 5,6,9, & 11 (DUAL G2)</p>	<p>MIDDECK TRANSFERS (TRANSFER LIST, ED10)</p> <p><u>O2 & N2 SYS OUTFITTING</u> LAB1 TO PMA2 (ASSY OPS, ASSY)</p> <p>MEAL</p> <p>FARE WELL</p> <p><u>SHUTTLE/ISS DUCT REMOVAL & HATCH CLOSING</u> (JOINT OPS, EGRESS)</p> <p>EXERCISE</p>	<p><u>IWIS OPS DTO 261</u> (ASSY OPS, DTO/DSO)</p> <p>When in ATT: <u>H/O ATT CNTL ORB TO CMGTA</u> (JOINT OPS, MATED OPS)</p> <p>MEAL</p> <p>FARE WELL</p> <p><u>SHUTTLE/ISS DUCT REMOVAL & HATCH CLOSING</u> (JOINT OPS, EGRESS)</p> <p><u>PMA PREP FOR DOCKING</u> (JOINT OPS, INGRESS) Perform steps 1-13 Wait for Shuttle crew call before performing step 14</p>	<p>When in ATT: <u>H/O ATT CNTL ORB TO CMGTA</u> (JOINT OPS, MATED OPS)</p> <p>MEAL</p> <p>FARE WELL</p>	<p>EARLY H/O</p> <p>EARLY H/O</p>

STS-100 (FD 10)



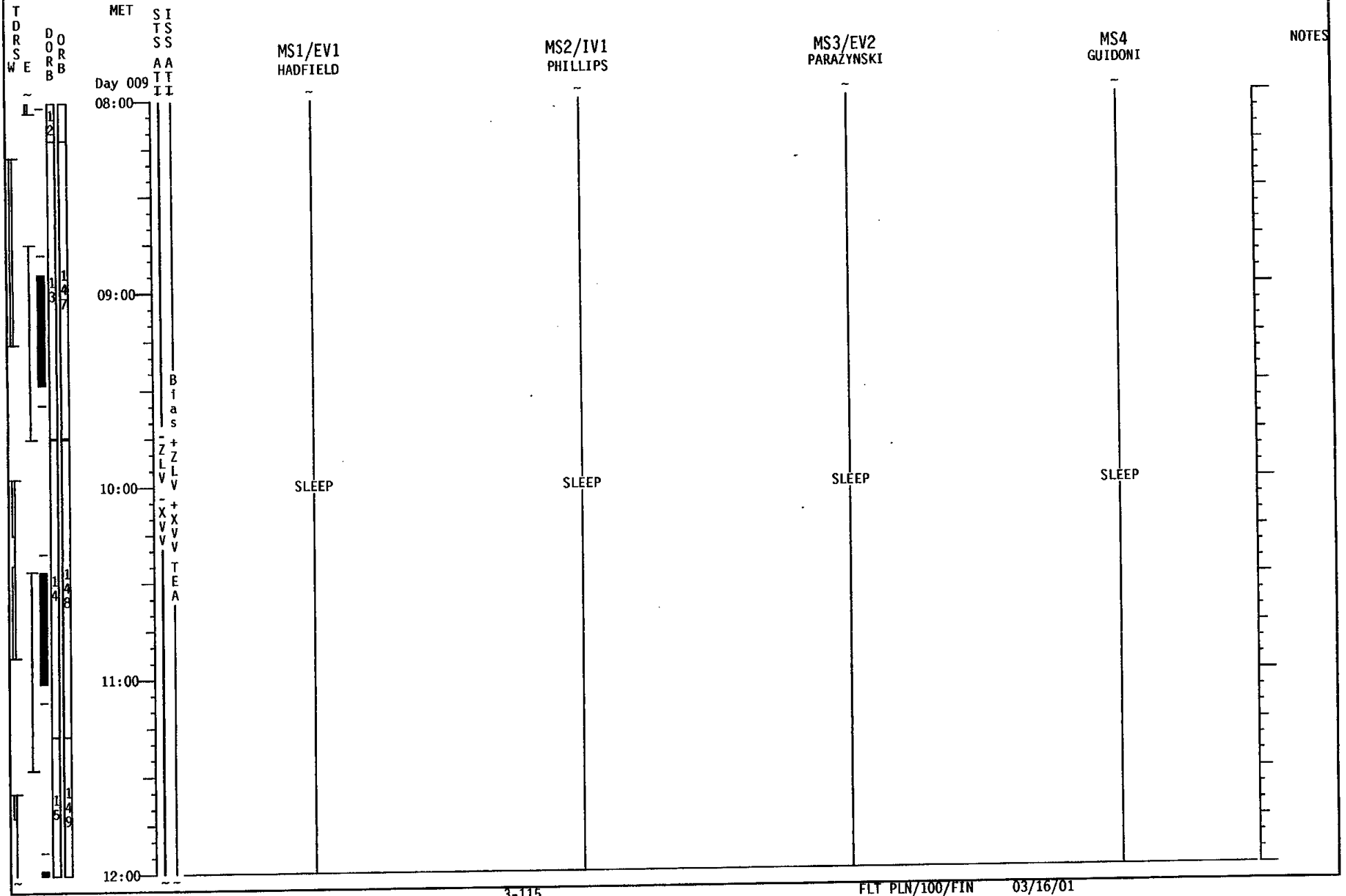
STS-100 (FD 10)

T D R S E	D O R B	MET	S I T S S A A T T I I	MS1/EV1 HADFELD	MS2/IV1 PHILLIPS	MS3/EV2 PARAZYNSKI	MS4 GUIDONI	NOTES
		Day 009						
		04:00						
			B i a s					
		05:00	+ Z L L V					
		06:00	+ X V V V	SLEEP	SLEEP	SLEEP	SLEEP	
			T E A					
		07:00						
		08:00						

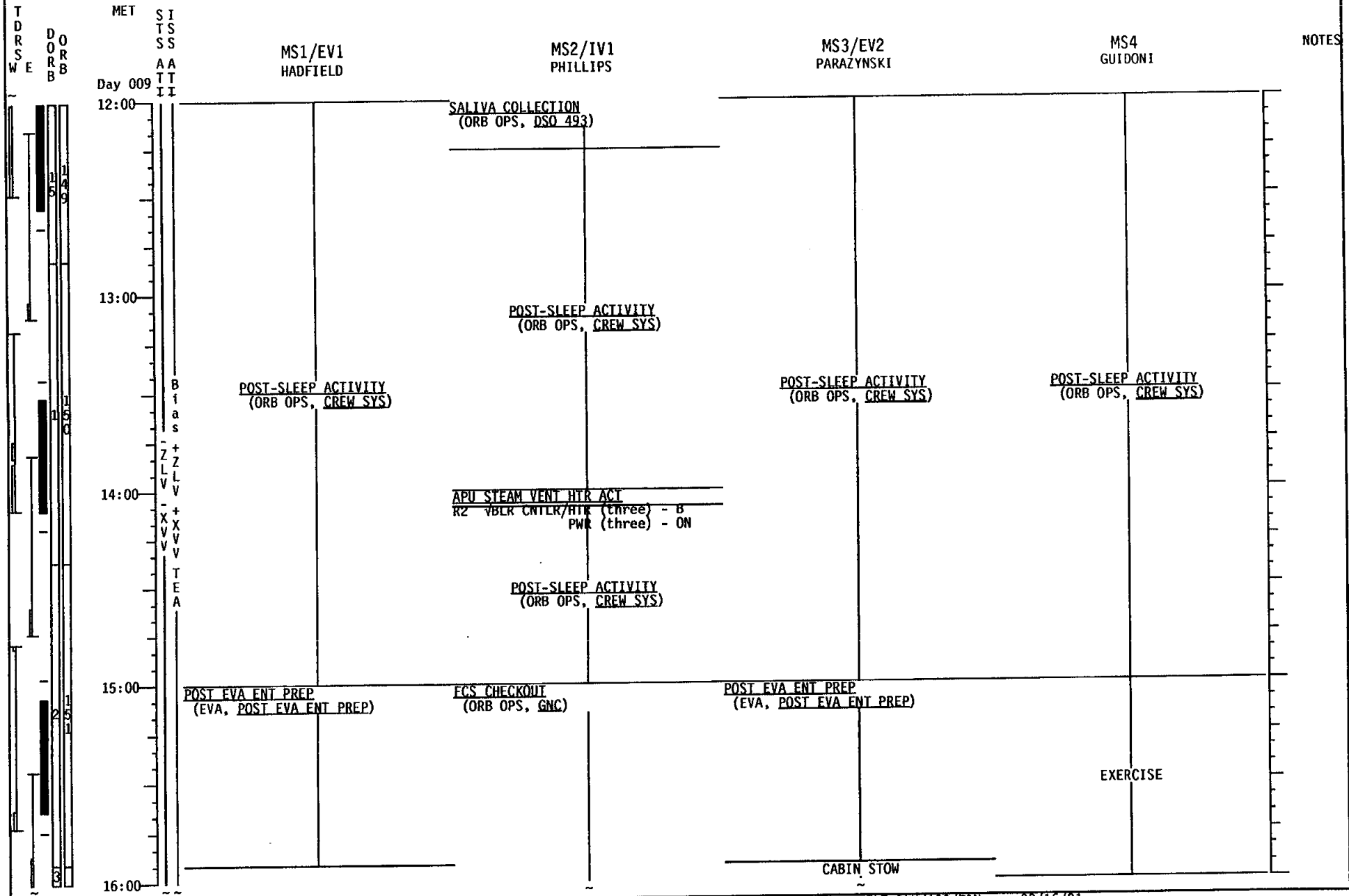
STS-100 (FD 10)

TDRS W E	DORB B	MET Day 009 08:00 A1(B1) AUTO/VERN	SI TS SS AA TT II	CDR ROMINGER	PLT ASHBY	MS5/IV2 LONCHAKOV	MCC	NOTES
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">11:30</div> <div style="margin-bottom: 10px;">11:40</div> <div style="margin-bottom: 10px;">11:50</div> <div style="margin-bottom: 10px;">12:00</div> </div>	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">11:30</div> <div style="margin-bottom: 10px;">11:40</div> <div style="margin-bottom: 10px;">11:50</div> <div style="margin-bottom: 10px;">12:00</div> </div>	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">08:00</div> <div style="margin-bottom: 10px;">09:00</div> <div style="margin-bottom: 10px;">10:00</div> <div style="margin-bottom: 10px;">11:00</div> <div style="margin-bottom: 10px;">12:00</div> </div>	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">Bias</div> <div style="margin-bottom: 10px;">+ZLLV</div> <div style="margin-bottom: 10px;">+XVVV</div> <div style="margin-bottom: 10px;">TEA</div> </div>	SLEEP	SLEEP	SLEEP		<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">11:30</div> <div style="margin-bottom: 10px;">11:40</div> <div style="margin-bottom: 10px;">11:50</div> <div style="margin-bottom: 10px;">12:00</div> </div>

STS-100 (FD 10)



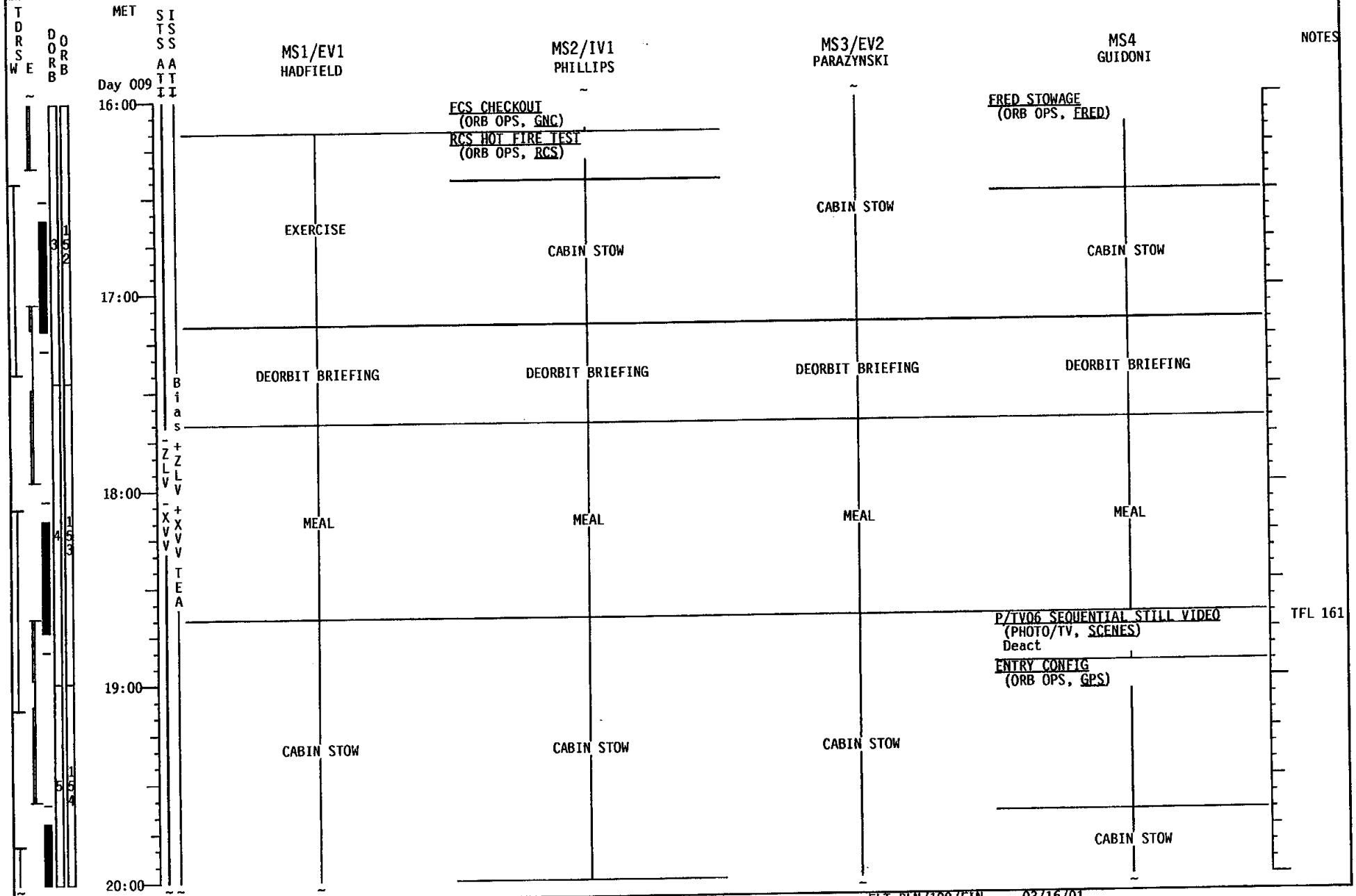
STS-100 (FD 11)



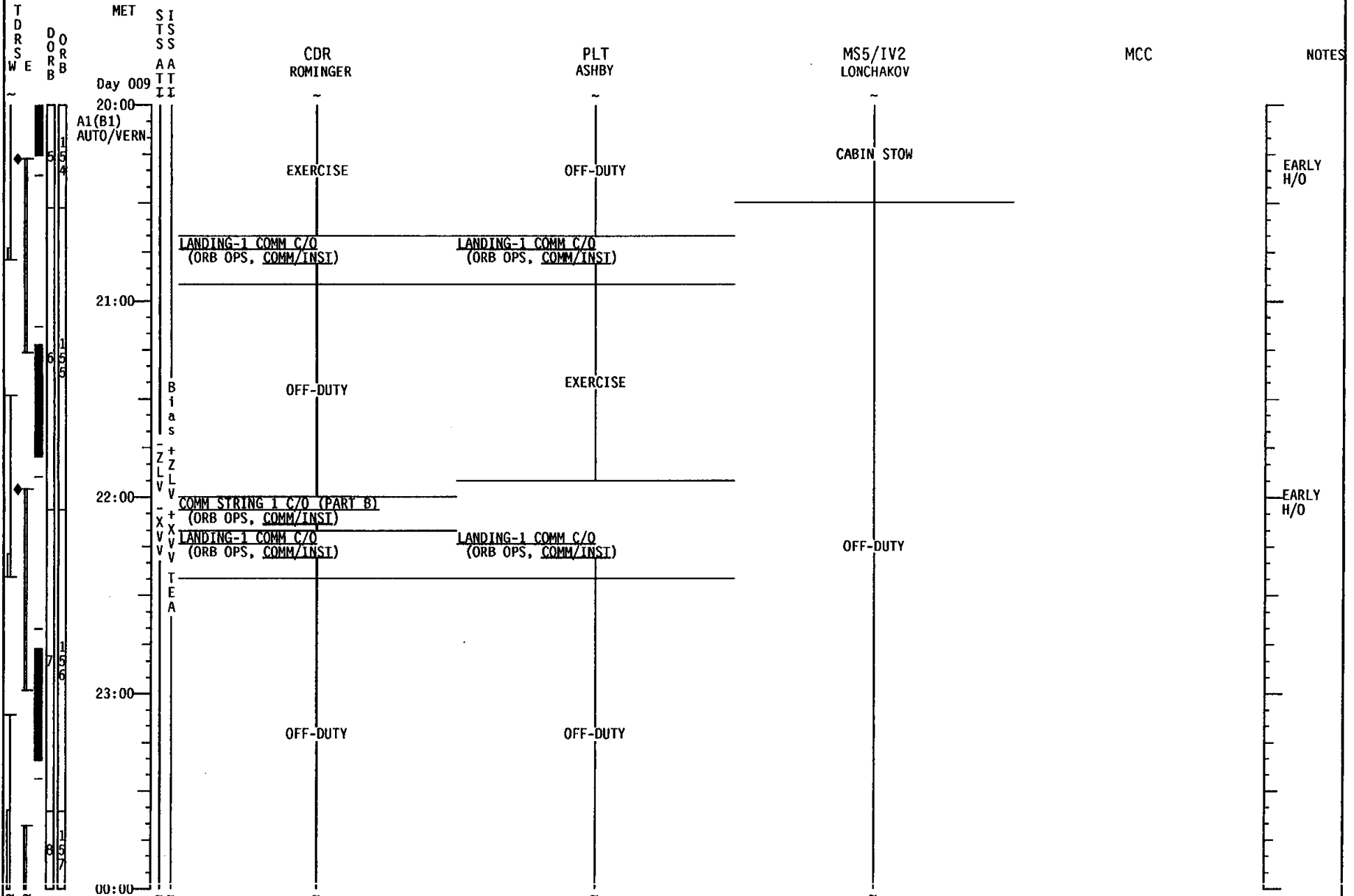
STS-100 (FD 11)

TDRS W E	DORB	MET	SI TS SS AA TT II	CDR ROMINGER	PLT ASHBY	MS5/IV2 LONCHAKOV	MCC	NOTES
		Day 009	16:00 A1(B1) AUTO/VERNL					
				FCS CHECKOUT (ORB OPS, GNC)	FCS CHECKOUT (ORB OPS, GNC)			
				RCS HOT FIRE TEST (ORB OPS, RCS)	RCS HOT FIRE TEST (ORB OPS, RCS) Config DAP A/AUTO/VERN	EXERCISE		
				OPS 2 GPS TEST (ORB OPS, GPS)				
				CABIN STOW	CABIN STOW	CABIN STOW		
			17:00					EARLY H/O
				DEORBIT BRIEFING	DEORBIT BRIEFING	DEORBIT BRIEFING		
			18:00					
				MEAL	MEAL	MEAL		
				PILOT WITH RHC (ORB OPS, PGSC)	PILOT WITH RHC (ORB OPS, PGSC)			EARLY H/O
			19:00					
						CABIN STOW		
				EXERCISE	OFF-DUTY			
			20:00					

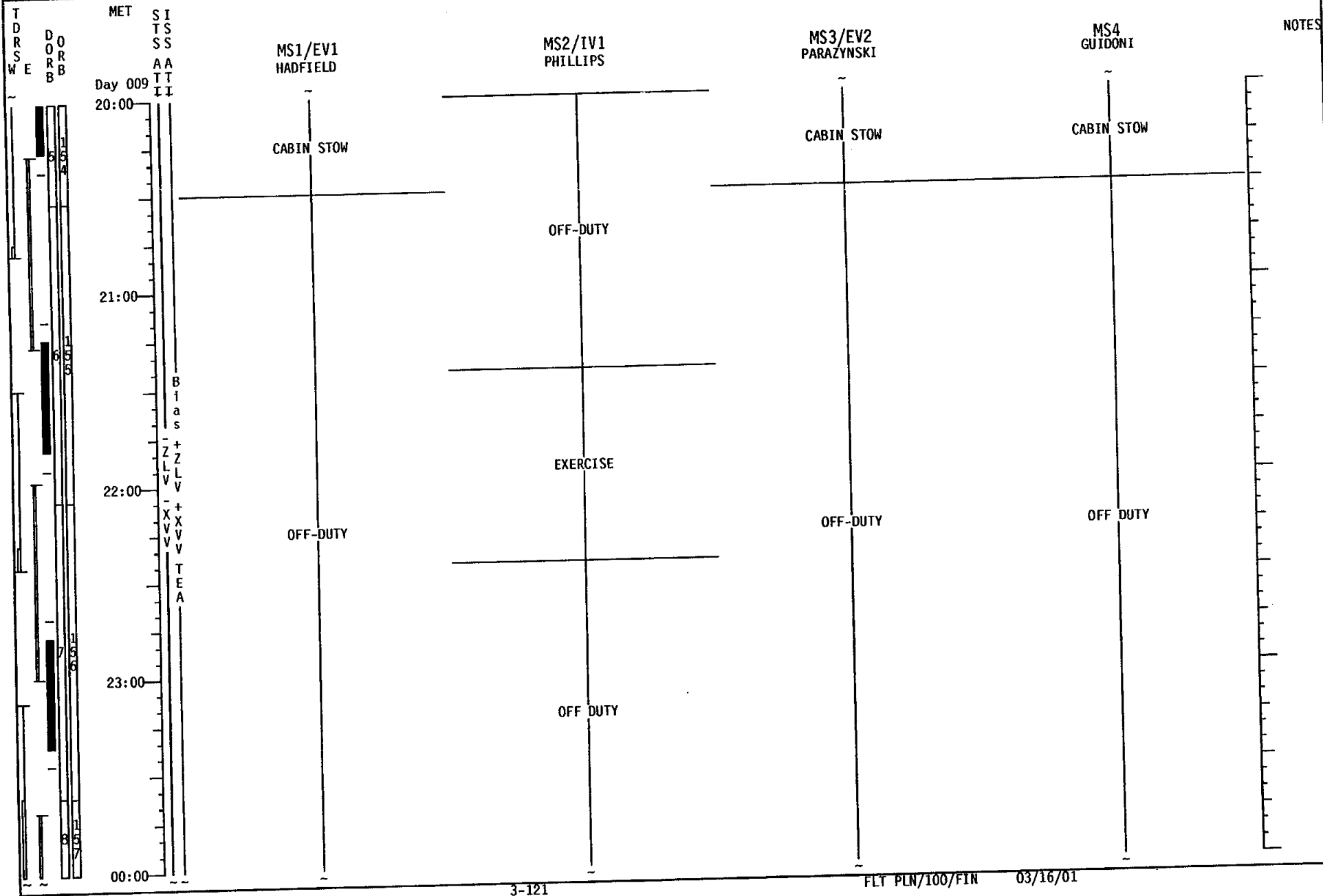
STS-100 (FD 11)



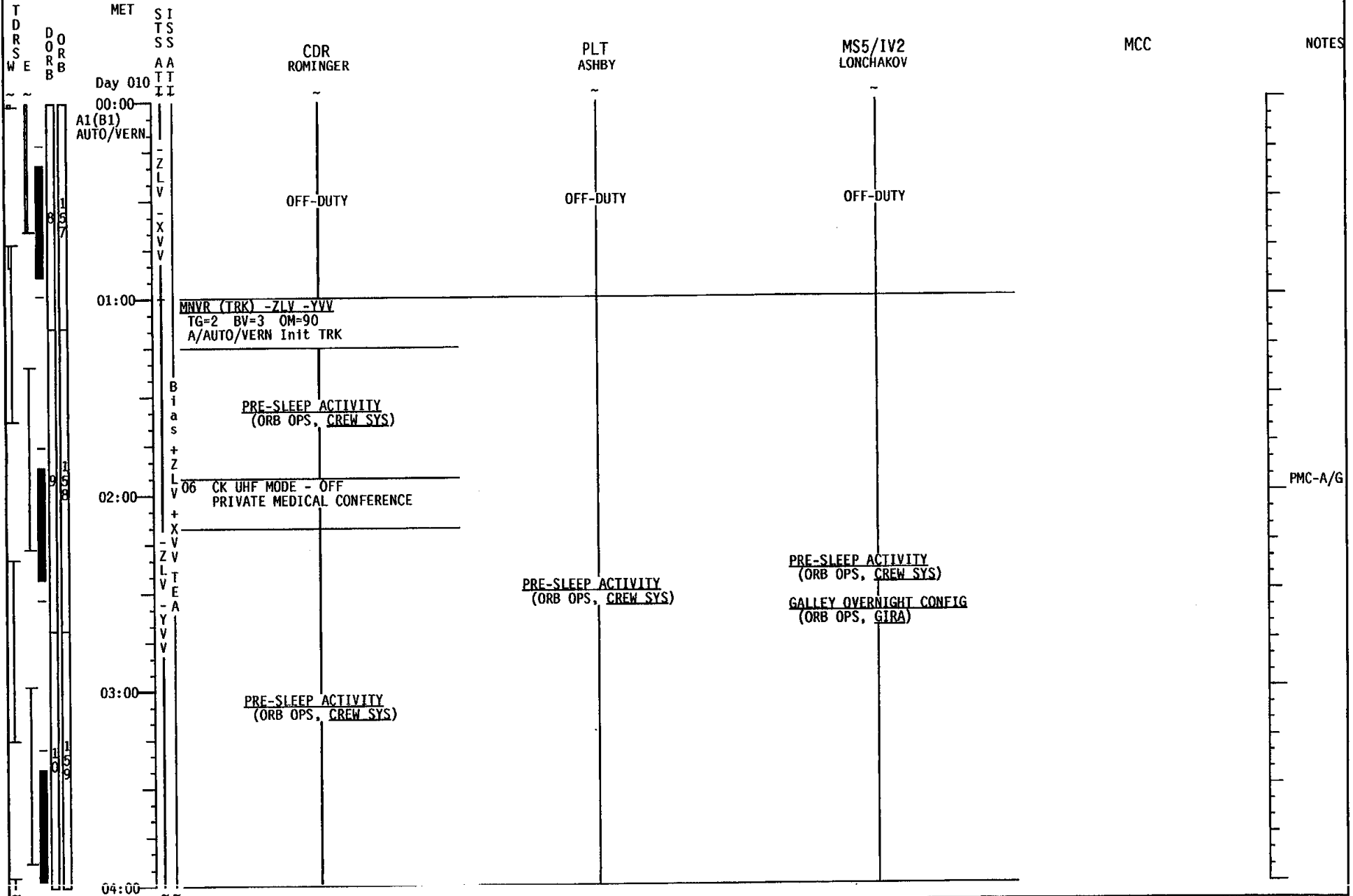
STS-100 (FD 11)



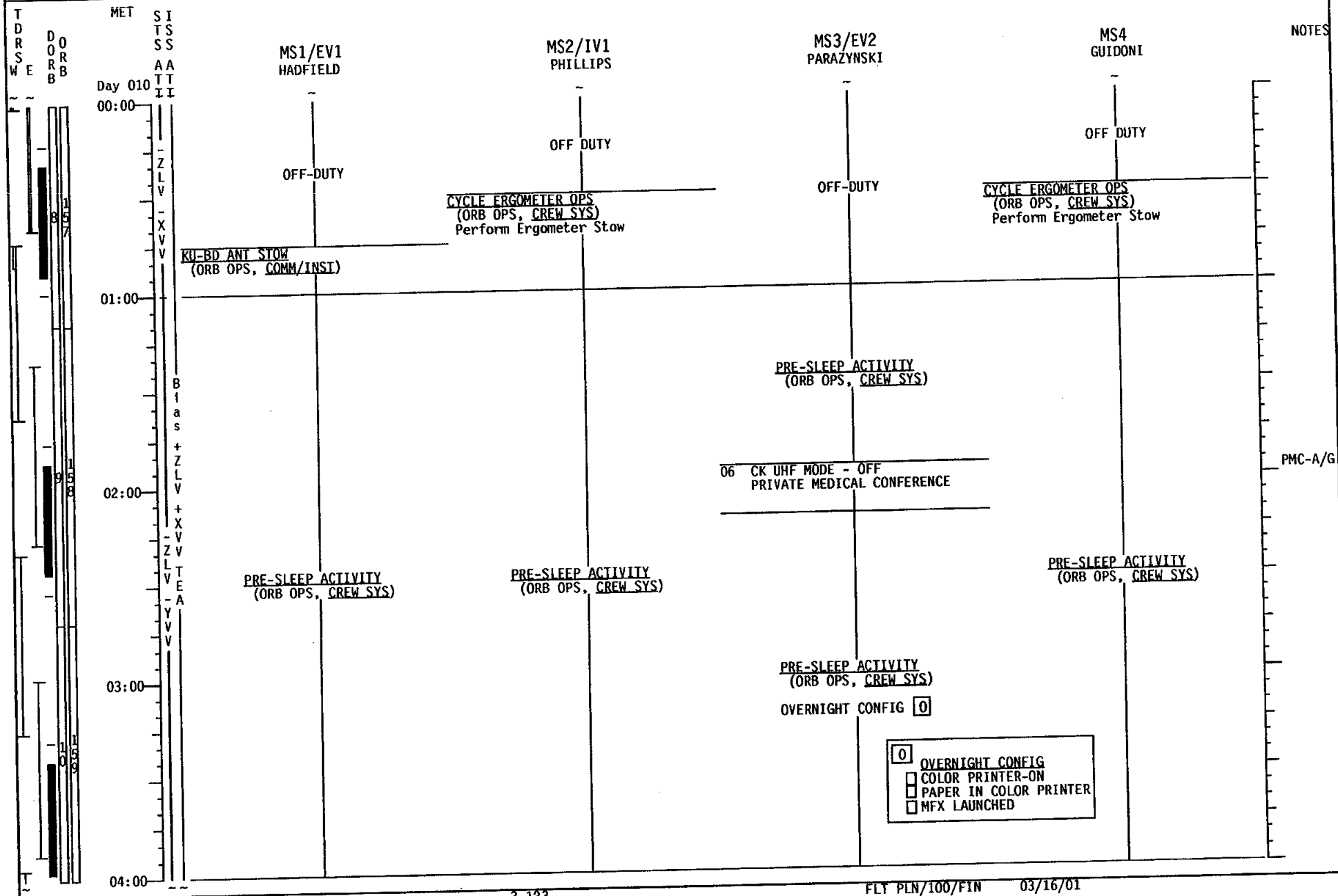
STS-100 (FD 11)



STS-100 (FD 11)



STS-100 (FD 11)



OVERNIGHT CONFIG
 COLOR PRINTER-ON
 PAPER IN COLOR PRINTER
 MFX LAUNCHED

STS-100 (FD 11)

T D R S W E	D O R B	MET	S I T S S A A I T I I	CDR ROMINGER	PLT ASHBY	MS5/IV2 LONCHAKOV	MCC	NOTES		
<p>Day 010</p> <p>04:00</p> <p>A1(B1)</p> <p>AUTO/VERN.</p> <p>05:00</p> <p>06:00</p> <p>07:00</p> <p>08:00</p>		<p>Bias</p> <p>+ZLLV</p> <p>+XVVV</p> <p>TEA</p>		<p>SLEEP</p>		<p>SLEEP</p>		<p>SLEEP</p>		

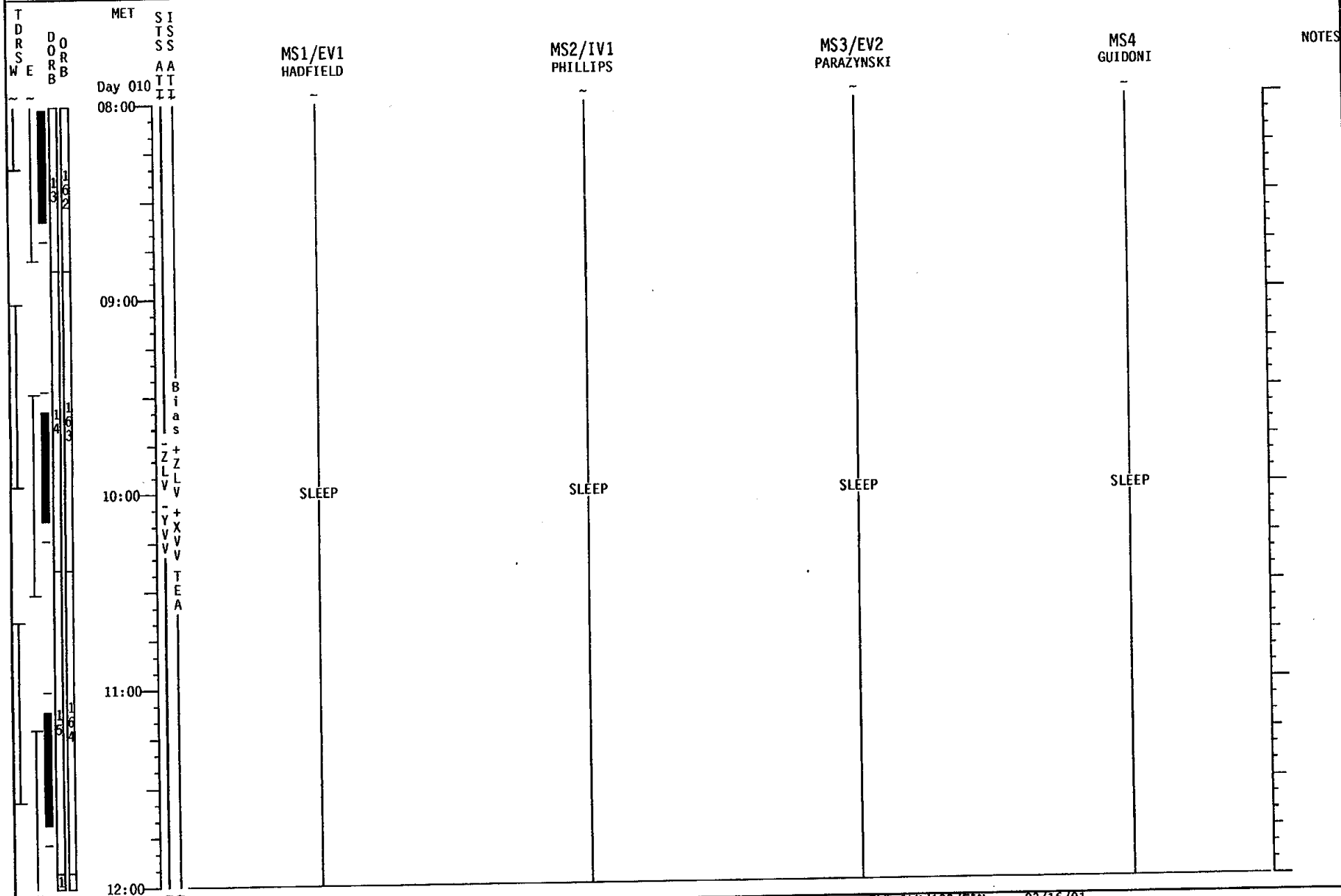
STS-100 (FD 11)

T D R S E	D O R B	MET	SI TS SS AA TT II	MS1/EV1 HADFIELD	MS2/IV1 PHILLIPS	MS3/EV2 PARAZYNSKI	MS4 GUIDONI	NOTES
		Day 010						
		04:00						
		05:00						
		06:00	Bias +Z -Z +L -L +V -V +X -X +V -V +T -T +E -E +A -A	SLEEP	SLEEP	SLEEP	SLEEP	
		07:00						
		08:00						

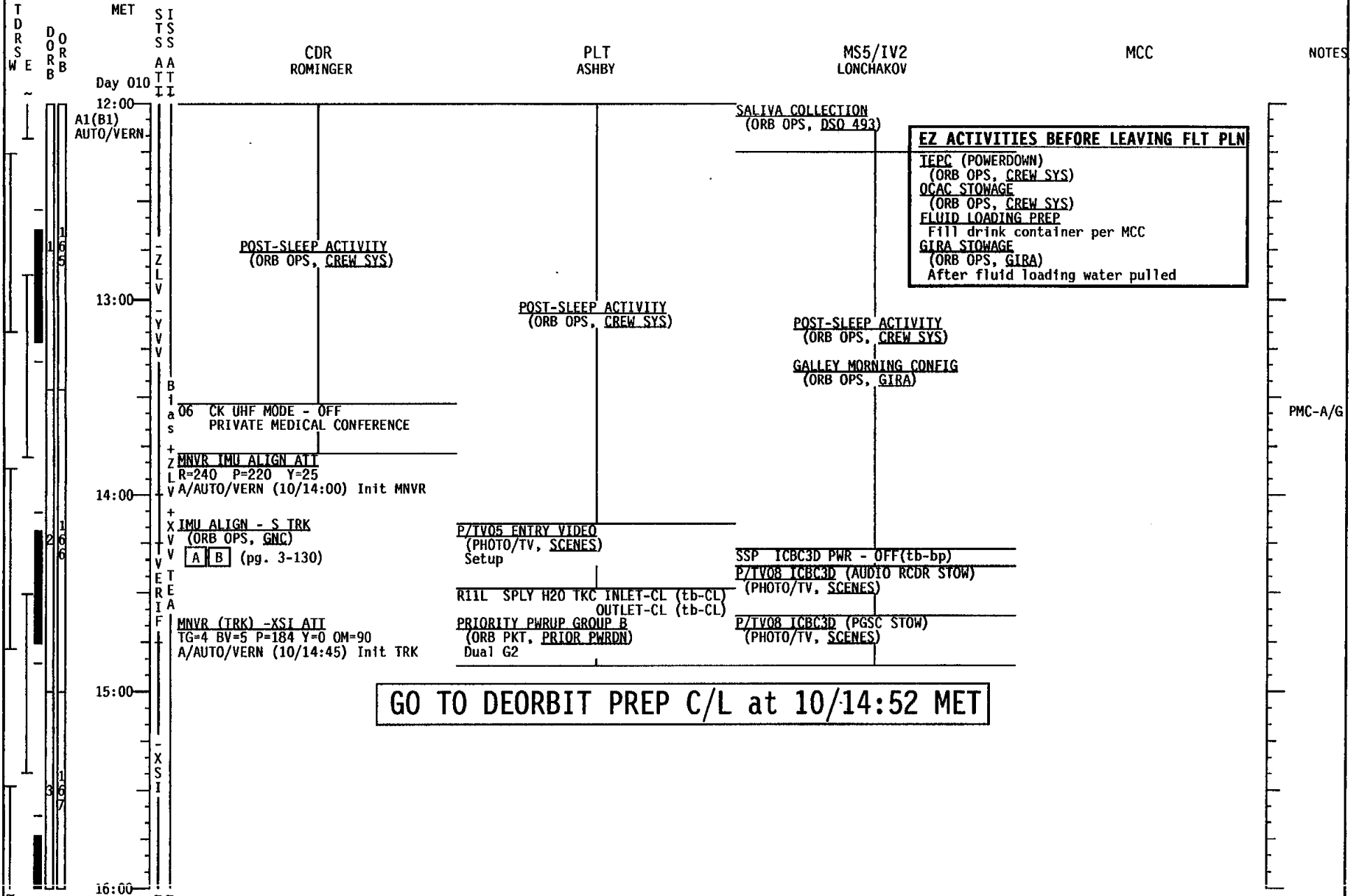
STS-100 (FD 11)

TDRS WSE	DORB	MET	SI TS SS AA TT II	CDR ROMINGER	PLT ASHBY	MS5/IV2 LONCHAKOV	MCC	NOTES
		Day 010 08:00 A1(B1) AUTO/VERN						
		09:00						
			B i a s					
		10:00	- Z L V + Y V V T E A	SLEEP	SLEEP	SLEEP		
		11:00						
		12:00						

STS-100 (FD 11)

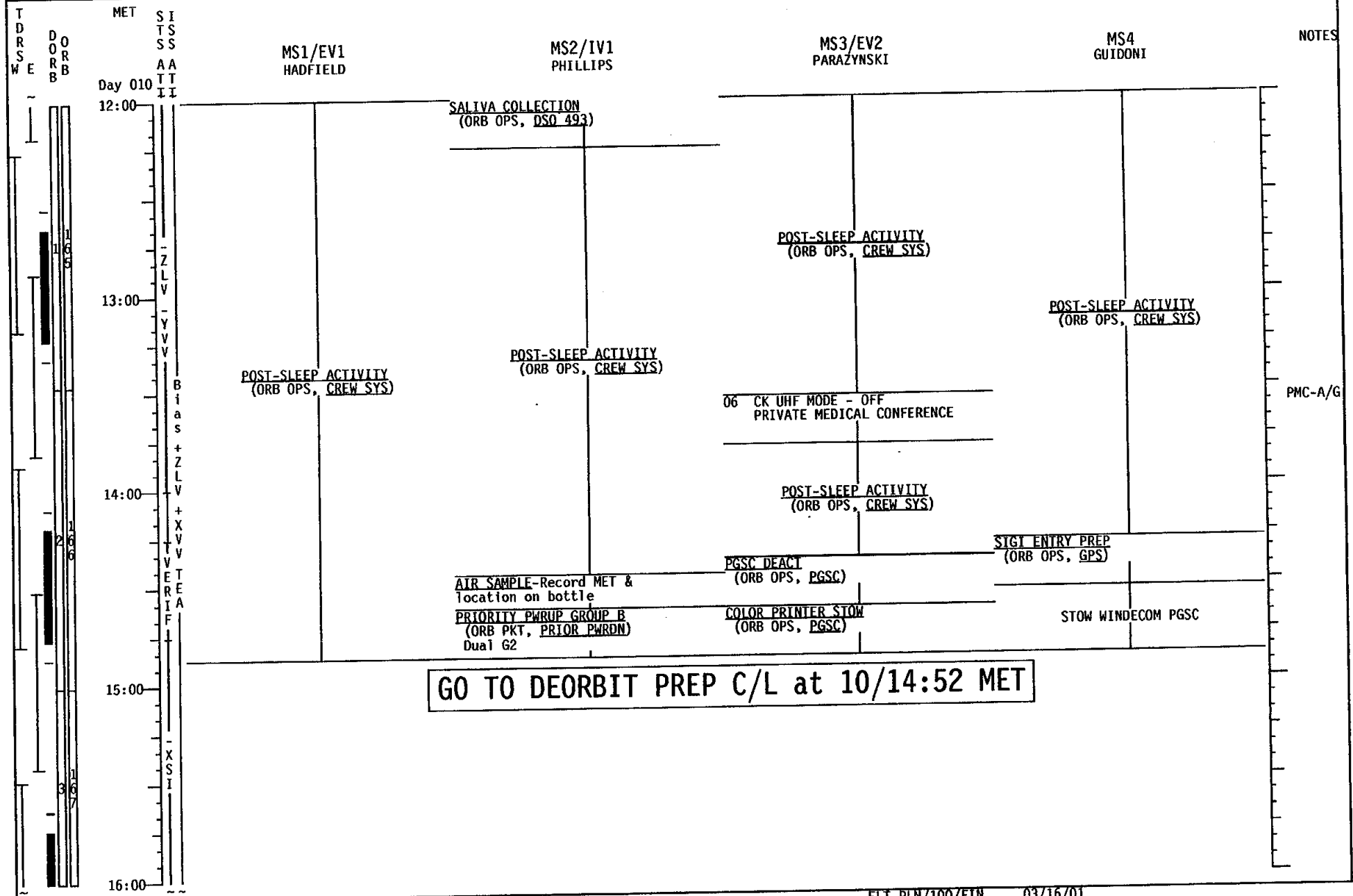


STS-100 (FD 12)

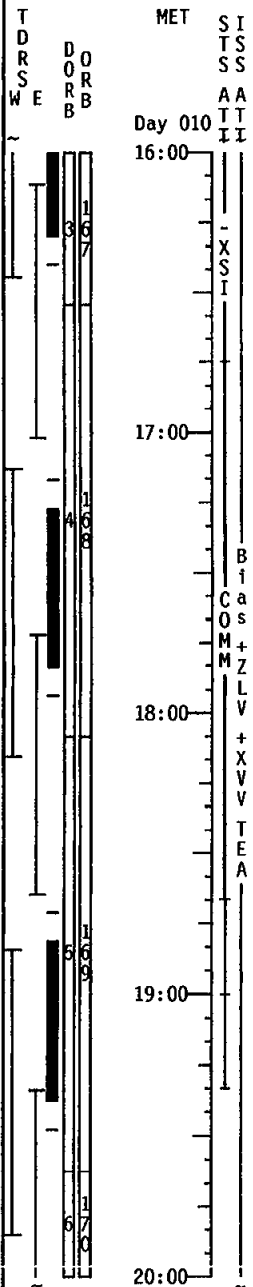


PMC-A/G

STS-100 (FD 12)



STS-100 (FD 12)



CDR
ROMINGER

PLT
ASHBY

MS5/IV2
LONCHAKOV

MCC

NOTES

A	IMU STAR ALIGN		
ID: -Y: 56 SIMMAIL			
MET (10/13:58 TO 10/14:45)			
-Z: 48 ZURENESCHEMAIL			
MET (10/14:08 TO 10/14:53)			
ANG DIFF: 85.2			
DUAL S TRKR ALIGNMENT		2nd ATTITUDE (SINGLE S TRKR)	
		-Z: 56 -Y: 48	
R	240	R	148 324
P	220	P	235 226
Y	25	Y	31 12
REQD ID:			
-Y: ____, -Z: ____, ANG ERR ____, ____, ____,			
ANG: 1 2 3			
ΔX	{ } __. __. __	{ } __. __. __	{ } __. __. __
ΔY	{ } __. __. __	{ } __. __. __	{ } __. __. __
ΔZ	{ } __. __. __	{ } __. __. __	{ } __. __. __
EXECUTION TIME: __/__:__:__ MET			

B	IMU STAR VERIFICATION		
ID: -Y: 57 ACAMAR			
MET (10/14:15 TO 10/15:19)			
-Z: 35 NUNKI			
MET (10/14:18 TO 10/15:08)			
ANG DIFF: 93.6			
DUAL S TRKR ALIGNMENT		2nd ATTITUDE (SINGLE S TRKR)	
		-Z: 57 -Y: 35	
R	242	R	149 331
P	134	P	148 141
Y	10	Y	16 356
REQD ID:			
-Y: ____, -Z: ____, ANG ERR ____, ____, ____,			
ANG: 1 2 3			
ΔX	{ } __. __. __	{ } __. __. __	{ } __. __. __
ΔY	{ } __. __. __	{ } __. __. __	{ } __. __. __
ΔZ	{ } __. __. __	{ } __. __. __	{ } __. __. __
If any ΔX, ΔY, OR ΔZ > 0.1 Check MCC			
EXECUTION TIME: __/__:__:__ MET			

STS-100 DAP TABLE

STS-100
DAP TABLE

**STS-100
DAP TABLE**

<u>DAP</u>	<u>PURPOSE</u>	<u>DAP</u>	<u>PURPOSE</u>
A1	- NOMINAL	B1	- OMS/RCS BURNS
A2	- PTC	B2	- LOSS OF VERN (TAIL ONLY)
A3	- GG	B3	- LOSS OF VERN (ALL)
A4	- PRE/POST DEPLOY	B4	- SSUS DEPLOY
A5	- LOSS OF VERN (ALL)	B5	- COAS/HUD CAL
A6	- LOSS OF VERN (TAIL ONLY)	B6	-
A7	- RNDZ	B7	- RNDZ
A8	- TERMINAL PHASE	B8	- TERMINAL PHASE
A9	- PROX OPS/FLYAROUND	B9	- PROX OPS/FLYAROUND
A10	- DOCKING	B10	- DOCKING
A11	- AUTO REBOOST	B11	-
A12	- MATED STACK & RMS OPS	B12	- MATED STACK & RMS OPS
A13	- A/L DEPRESS ATT CONTROL	B13	- A/L DEPRESS RATE DAMPING
A14	-	B14	-
A15	-	B15	-

DAPs FOR MATED OPS ARE BASED ON ANALYSIS FROM
GNC, PDRS, AND DRAPER LABS

UNIV PTG	
TGT ID	= 1 Orbiting Vehicle = 2 Earth ctr = 3 Earth tgt Input LAT (± 90) LON (± 180 , + = Earth) 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 -Y Star Tracker* = 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

CNTL ACC	= 0 ORBITER ALONE
	= 1 DOCKED VRCS WITH ODS PRESSURIZED
	= 2 DOCKED ALT WITH ODS PRESSURIZED
	= 3 DOCKED VRCS WITH ODS UNPRESSURIZED
	= 4 DOCKED ALT WITH ODS UNPRESSURIZED
	= 5-9 NOT USED

STS-100 DAP A1 THROUGH A8 CONFIGURATIONS

	ITEM #	A1	A2	A3	A4	A5	A6	A7	A8
PRI									
ROT RATE	10(50)	0.2000	0.4000	0.2000	0.5000	0.2000	0.2000	0.2000	0.0500
ATT DB	11(51)	5.00	1.00	0.30	3.00	5.00	5.00	2.00	2.00
RATE DB	12(52)	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
ROT PLS	13(53)	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
COMP	14(54)	.000	.000	.000	.000	.000	.000	.000	.000
P OPTION	15(55)	ALL	ALL	ALL	ALL	ALL	TAIL	ALL	ALL
Y OPTION	16(56)	ALL	ALL	TAIL	ALL	ALL	TAIL	ALL	ALL
TRAN PLS	17(57)	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
ALT									
RATE DB	18(58)	0.200	0.200	0.070	0.200	0.070	0.070	0.100	0.100
JET OPT	19(59)	ALL	ALL	ALL	ALL	ALL	TAIL	ALL	ALL
# JETS	20(60)	2	2	1	2	1	1	2	2
ON TIME	21(61)	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
DELAY	22(62)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
VERN									
ROT RATE	23(63)	0.2000	0.4000	0.0080	0.2000	0.0500	0.0500	0.0160	0.0500
ATT DB	24(64)	1.000	1.000	0.070	1.000	1.000	1.000	1.000	1.000
RATE DB	25(65)	.020	.020	.010	.020	.020	.020	.020	.020
ROT PLS	26(66)	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.050
COMP	27(67)	.000	.000	.000	.000	.000	.000	.000	.000
CNTL ACC	28(68)	0	0	0	0	0	0	0	0
PURPOSE		NOMINAL	PTC	GG	PRE/POST DEPLOY	LOSS OF VERN (ALL)	LOSS OF VERN (TAIL ONLY)	RNDZ	TERMINAL PHASE

STS-100 DAP A9 THROUGH A15 CONFIGURATIONS

	ITEM #	A9	A10	A11	A12	A13	A14	A15
PRI								
ROT RATE	10(50)	0.1300	0.0500	0.1000	0.1000	0.1000	0.2000	0.2000
ATT DB	11(51)	1.00	0.50	10.00	5.00	5.0000	5.00	5.00
RATE DB	12(52)	0.10	0.10	0.20	0.20	0.2000	0.20	0.20
ROT PLS	13(53)	0.10	0.10	0.10	0.04	0.04	0.10	0.10
COMP	14(54)	.000	.000	.000	.000	.000	.000	.000
P OPTION	15(55)	TAIL	TAIL	TAIL	TAIL	TAIL	ALL	ALL
Y OPTION	16(56)	TAIL	TAIL	TAIL	TAIL	TAIL	ALL	ALL
TRAN PLS	17(57)	0.05	0.05	0.10	0.01	0.01	0.10	0.10
ALT								
RATE DB	18(58)	0.100	0.100	0.070	0.070	0.100	0.200	0.200
JET OPT	19(59)	TAIL	TAIL	TAIL	TAIL	TAIL	ALL	ALL
# JETS	20(60)	2	2	3	3	3	2	2
ON TIME	21(61)	0.08	0.08	0.08	0.08	0.08	0.08	0.08
DELAY	22(62)	0.00	0.00	11.60	11.04	11.04	0.00	0.00
VERN								
ROT RATE	23(63)	0.1300	0.0500	0.1000	0.1000	0.0500	0.2000	0.2000
ATT DB	24(64)	1.000	0.500	5.000	3.000	5.000	1.000	1.000
RATE DB	25(65)	.020	.020	.050	.080	.150	.020	.020
ROT PLS	26(66)	0.050	0.050	0.010	0.002	0.002	0.010	0.010
COMP	27(67)	.000	.000	.000	.000	.000	.000	.000
CNTL ACC	28(68)	0	0	1,2*	1	3,4**	0	0
PURPOSE		PROX OPS/ FLY AROUND	DOCKING	AUTO REBOOST	MATED STACK & RMS OPS	A/L DÉPRESS ATT CONTROL		

BOLD-ITALIC indicate a change from the I-load

* 1 for VERN, 2 for ALT

** 3 for VERN, 4 for ALT

STS-100 DAP B1 THROUGH B8 CONFIGURATIONS

	ITEM #	B1	B2	B3	B4	B5	B6	B7	B8
PRI									
ROT RATE	30(50)	0.5000	0.2000	0.2000	0.2000	0.2000	0.5000	0.5000	0.0500
ATT DB	31(51)	3.00	3.00	3.00	0.30	3.00	3.00	2.00	2.00
RATE DB	32(52)	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
ROT PLS	33(53)	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
COMP	34(54)	.000	.000	.000	.000	.000	.000	.000	.000
P OPTION	35(55)	ALL	TAIL	ALL	TAIL	TAIL	ALL	ALL	ALL
Y OPTION	36(56)	ALL	TAIL	ALL	TAIL	TAIL	ALL	ALL	ALL
TRAN PLS	37(57)	0.10	0.02	0.02	0.02	0.02	0.02	0.05	0.05
ALT									
RATE DB	38(58)	0.200	0.070	0.070	0.100	0.200	0.200	0.100	0.100
JET OPT	39(59)	ALL	TAIL	ALL	ALL	ALL	ALL	ALL	ALL
# JETS	40(60)	2	1	1	2	2	2	2	2
ON TIME	41(61)	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
DELAY	42(62)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
VERN									
ROT RATE	43(63)	0.2000	0.2000	0.2000	0.0080	0.0160	0.2000	0.2000	0.0500
ATT DB	44(64)	1.000	1.000	1.000	0.100	0.033	1.000	1.000	1.000
RATE DB	45(65)	.020	.020	.020	.010	.020	.020	.020	.020
ROT PLS	46(66)	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.020
COMP	47(67)	.000	.000	.000	.000	.000	.000	.000	.000
CNTL ACC	48(68)	0	0	0	0	0	0	0	0
PURPOSE		OMS/RCS BURNS	LOSS OF VERN (TAIL ONLY)	LOSS OF VERN (ALL)	SSUS DEPLOY	COAS/HUD CAL		RNDZ	TERMINAL PHASE

STS-100 DAP B9 THROUGH B15 CONFIGURATIONS

	ITEM #	B9	B10	B11	B12	B13	B14	B15
PRI								
ROT RATE	30(50)	0.1300	0.0500	0.5000	0.1000	0.1000	0.5000	0.5000
ATT DB	31(51)	1.00	0.50	3.00	5.00	40.00	3.00	3.00
RATE DB	32(52)	0.10	0.10	0.20	0.20	0.20	0.20	0.20
ROT PLS	33(53)	0.04	0.04	0.04	0.04	0.04	0.04	0.04
COMP	34(54)	.000	.000	.000	.000	.000	.000	.000
P OPTION	35(55)	TAIL	TAIL	ALL	TAIL	TAIL	ALL	ALL
Y OPTION	36(56)	TAIL	TAIL	ALL	TAIL	TAIL	ALL	ALL
TRAN PLS	37(57)	0.01	0.01	0.02	0.01	0.01	0.02	0.02
ALT								
RATE DB	38(58)	0.100	0.100	0.200	0.070	0.100	0.200	0.200
JET OPT	39(59)	TAIL	TAIL	ALL	TAIL	TAIL	ALL	ALL
# JETS	40(60)	2	2	2	3	3	2	2
ON TIME	41(61)	0.08	0.08	0.08	0.08	0.08	0.08	0.08
DELAY	42(62)	0.00	0.00	0.00	11.04	11.04	0.00	0.00
VERN								
ROT RATE	43(63)	0.1300	0.0500	0.2000	0.1000	0.0500	0.2000	0.2000
ATT DB	44(64)	1.000	0.500	1.000	3.000	40.000	1.00	1.00
RATE DB	45(65)	.020	.020	.020	.080	.050	.020	.020
ROT PLS	46(66)	0.020	0.020	0.002	0.002	0.002	0.002	0.002
COMP	47(67)	.000	.000	.000	.000	.000	.000	.000
CNTL ACC	48(68)	0	0	0	2	3,4**	0	0
PURPOSE		PROX OPS/ FLY AROUND	DOCKING		MATED STACK & RMS OPS	A/L DEPRESS RATE DAMPING		

BOLD-ITALIC indicate a change from the I-load

** 3 for VERN, 4 for ALT

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

This Page Intentionally Blank

ATTITUDE TIMELINE

ATTITUDE
TIMELINE

Attitude Timeline

MET/GMT	MNVR OPTION	DAP	E/S	REF ATT/REMARKS	EVENT
1 000/00:44:00 MET 109/19:50:58 GMT	INRTL R=324.00 MNVR P= 69.00 Y=327.00	TRN RATE 0.5000 AUTO DB AT 3.50 R 189 PRI DB RT 0.20 P 98	SUN R 189 P 98	LVLH EQUIV R= 0.00 P= 16.00 Y= 0.00	OMS-2 (2 OMS) Posi Heads Up dV = 79.7 fps TIG 00/00:44:21
2 000/00:46:00 MET 109/19:52:58 GMT					STS-100 Launch 19 April 2001 19:06:58 GMT
3 000/01:12:00 MET 20:30 109/20:18:58 GMT 27:28	TGT=2 BV=3 P= 90.00 Y= 0.00 OM=270.00	A1 RATE 0.2000 AUTO DB AT 1.000 R 0 VERN DB RT 0.020 P 90	EARTH R 0 P 90	LVLH R= 0.00 P=180.00 Y= 90.00	-ZLV +YVV FLBD, SOPA When available, config A1/VERN
4 000/03:20:00 MET 30:44 109/22:26:58 GMT 37:42	INRTL R=324.00 MNVR P= 69.00 Y=327.00	A1 RATE 0.2000 AUTO DB AT 1.000 R 189 VERN DB RT 0.020 P 98	SUN R 189 P 98	LVLH EQUIV R= 0.00 P= 16.00 Y= 0.00	NC-1 (2 OMS) Posi Heads Up dV = 137.3 fps TIG 00/03:43:00
5 000/03:50:00 MET 04:01:22 109/22:56:58 GMT 23:08:20	TGT=2 BV=3 P= 90.00 Y= 0.00 OM= 0.00	A1 RATE 0.2000 AUTO DB AT 1.000 R 360 VERN DB RT 0.020 P 90	EARTH R 360 P 90	LVLH R= 0.00 P=180.00 Y= 0:00	-ZLV -XVV
6 000/15:25:00 MET 39:57 110/10:31:58 GMT 46:55	INRTL R=135.00 MNVR P= 47.00 Y=345.00	A1 RATE 0.2000 AUTO DB AT 1.000 R 9 VERN DB RT 0.020 P 72	SUN R 9 P 72	LVLH EQUIV R=180.00 P=349.00 Y= 0.00	NC-2 (+X RCS) Posi Heads Down dV = 3 fps TIG 00/15:49:12
7 000/15:55:00 MET 16:09:53 110/11:01:58 GMT 16:51	TGT=2 BV=3 P= 90.00 Y= 0.00 OM= 0.00	A1 RATE 0.2000 AUTO DB AT 1.000 R 0 VERN DB RT 0.020 P 90	EARTH R 0 P 90	LVLH R= 0.00 P=180.00 Y= 0.00	-ZLV -XVV
8 000/17:35:00 MET 49:55 110/12:41:58 GMT 56:53	INRTL R=180.71 MNVR P= 58.92 Y= 0.30	A1 RATE 0.2000 AUTO DB AT 1.000 R 331 VERN DB RT 0.020 P 74	SUN R 331 P 74	-Y:64 AOS 17:48 LOS 18:39 -Z:37 AOS 17:41 LOS 18:25	IMU Align SLM #1 PAIR AOS 17:48 LOS 18:25
9 000/17:55:00 MET 18:02:30 110/13:01:58 GMT 09:28	INRTL R=285.98 MNVR P=317.24 Y= 88.97	A1 RATE 0.2000 AUTO DB AT 1.000 R 14 VERN DB RT 0.020 P 62	SUN R 14 P 62		SLM #2 90 deg rotation about -Z ST
10 000/18:07:00 MET 14:32 110/13:13:58 GMT 21:30	INRTL R=100.21 MNVR P=150.97 Y= 0.81	A1 RATE 0.2000 AUTO DB AT 1.000 R 18 VERN DB RT 0.020 P 148	SUN R 18 P 148		SLM #3 Min MNVR for -Z:64 offset 2 deg
11 000/18:20:00 MET 20 110/13:26:58 GMT 27:18	INRTL R=104.21 MNVR P=150.81 Y= 0.78	A1 RATE 0.2000 AUTO DB AT 1.000 R 14 VERN DB RT 0.020 P 148	SUN R 14 P 148		SLM #4 4 deg MNVR to -Z:64
12 000/18:30:00 MET 38:17 110/13:36:58 GMT 45:15	TGT=2 BV=3 P= 90.00 Y= 0.00 OM=270.00	A1 RATE 0.2000 AUTO DB AT 1.000 R 0 VERN DB RT 0.020 P 90	EARTH R 0 P 90	LVLH R= 0.00 P=180.00 Y= 90.00	H2O Dump Viewing Attitude

*** ALL ATTITUDES IN MEAN OF 1950 ***
*** PYR EULER SEQUENCE ***

Attitude Timeline

MET/GMT	MNVR OPTION	DAF	E/S	REF ATT/REMARKS	EVENT
13 000/19:30:00 MET 37:30 110/14:36:58 GMT 44:28	TGT=2 BV=3 P= 90.00 Y= 0.00 OM= 0.00	A1 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	EARTH R 0 P 90	LVLH R= 0.00 P=180.00 Y= 0.00	-ZLV -XVV
14 000/21:50:00 MET 110/16:56:58 GMT					NPC +X RCS dV = 1.9 fps TIG 0/22:18:03 OOP
15 000/22:19:00 MET 110/17:25:58 GMT	TGT=2 BV=3 P= 90.00 Y= 0.00 OM= 0.00	A1 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	EARTH R 0 P 90	LVLH R= 0.00 P=180.00 Y= 0.00	-ZLV -XVV
16 001/01:55:00 MET 02:09:59 110/21:01:58 GMT 16:57	INRTL R=139.00 MNVR P= 50.00 Y=340.00	A1 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	SUN R 5 P 77	LVLH EQUIV R= 180.0 P= 344.00 Y= 0.00	NC-3 (2 OMS) Posi Heads Down dV = 85.75 fps TIG 01/02:22:00
17 001/02:25:00 MET 39:59 110/21:31:58 GMT 46:57	TGT=2 BV=3 P= 90.00 Y= 0.00 OM= 0.00	A1 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	EARTH R 360 P 90	LVLH R= 0.00 P=180.00 Y= 0.00	-ZLV -XVV
18 001/12:35:00 MET 50:00 111/07:41:58 GMT 56:58	TGT=2 BV=5 P=270.00 Y= 0.00 OM=270.00	A1 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	EARTH R 180 P 90	LVLH R= 0.00 P= 0.00 Y=270.00	+ZLV +YVV Water Dump SOFA
19 001/14:20:00 MET 111/09:26:58 GMT					NH Place Hold TIG 1/14:26:00
20 001/15:05:00 MET 12:35 111/10:11:58 GMT 19:33	INRTL R=354.00 MNVR P=305.00 Y= 43.00	A7 RATE 0.2000 AUTO DB AT 2.00 ALT DB RT 0.100	SUN R 356 P 37	LVLH EQUIV R= 0.00 P= 16.00 Y= 0.00	NC-4 (2 OMS) Posi Heads Up dV = 61.0 fps TIG 01/15:13:00
21 001/15:15:00 MET 18:48 111/10:21:58 GMT 25:46	TGT=2 BV=1 P= 0.00 Y= 0.00 OM= 0.00 WIA A/AUTO/VERN	B7 RATE 0.5000 AUTO DB AT 2.00 ALT DB RT 0.100	EARTH R 86 P 0	LVLH R= 0.00 P=270.00 Y= 0.00	-Z Target Track
22 001/15:19:00 MET 16:11:05 111/10:25:58 GMT 11:18:03	TGT=2 BV=5 P=335.00 Y= 0.00 OM= 0.00	A7 RATE 0.0080 AUTO DB AT 1.000 VERN DB RT 0.020	EARTH R 180 P 25	LVLH R= 0.00 P=295.00 Y= 0.00	-Z Target Track
23 001/16:12:00 MET 35:09 111/11:18:58 GMT 42:07	TGT=2 BV=5 P= 0.00 Y= 0.00 OM= 0.00	A7 RATE 0.0180 AUTO DB AT 1.000 VERN DB RT 0.020	EARTH R 189 P 0	LVLH R= 0.00 P= 0.00 Y= 0.00	-Z Target Track
24 001/16:37:00 MET 43:12 111/11:43:58 GMT 50:10	INRTL R=353.00 MNVR P=305.00 Y= 37.00	A7 RATE 0.2000 AUTO DB AT 2.00 ALT DB RT 0.100	SUN R 5 P 36	LVLH EQUIV R= 0.00 P= 16.00 Y= 354.0	TI (L OMS) Posi Heads Up dV = 8.8 fps TIG 01/16:45:10

*** ALL ATTITUDES IN MEAN OF 1950 ***
*** PYR EULER SEQUENCE ***

Attitude Timeline

MET/GMT	MNVR OPTION	DAP	E/S	REF ATT/REMARKS	EVENT	
25 001/16:48:00 MET 51:54 111/11:54:58 GMT 58:52	TGT=2 BV=5 P= 0.00 Y= 0.00 OM= 0.00 WIA A/AUTO/VERN(ALT)	B7 AUTO DB AT 2.00 ALT DB RT 0.100	RATE 0.5000 DB AT 2.00 DB RT 0.100	EARTH R 145 P 0	LVLH R= 0.00 P=270.00 Y= 0.00	-Z Target Track
26 001/16:52:00 MET 18:07:00 111/11:58:58 GMT 13:13:58	TGT=2 BV=5 P=270.00 Y= 0.00 OM= 0.00	A7 AUTO DB AT 1.000 VERN DB RT 0.020	RATE 0.0200 DB AT 1.000 DB RT 0.020	EARTH R 180 P 90	LVLH R= 0.00 P= 0.00 Y= 0.00	-Z Target Track
27 001/18:10:00 MET 111/13:16:58 GMT	TGT=2 BV=5 P=270.00 Y= 0.00 OM= 0.00	A8 AUTO DB AT 1.000 VERN DB RT 0.020	RATE 0.0500 DB AT 1.000 DB RT 0.020	EARTH R 180 P 90	LVLH R= 0.00 P= 0.00 Y= 0.00	+ZLV +XVV Establish RBAR after MC4
28 001/18:15:10 MET 26:42 111/13:22:08 GMT 33:40	TGT=2 BV=2 P=180.00 Y= 0.00 OM= 0.00	A9 AUTO DB AT 1.00 PRI DB RT 0.10	RATE 0.1300 DB AT 1.00 DB RT 0.10	EARTH R 0 P 180	LVLH R= 0.00 P= 90.00 Y= 0.00	+Rbar to +Vbar
29 001/19:06:00 MET 111/14:12:58 GMT	FREE DRIFT Config DAP:A12 for Att Cntl					DOCKING
30 001/19:25:00 MET 29:10 111/14:31:58 GMT 36:08	TGT=2 BV=5 P=155.00 Y= 0.00 OM= 0.00	A12 AUTO DB AT 3.000 VERN DB RT 0.080	RATE 0.1000 DB AT 3.000 DB RT 0.080	EARTH R 0 P 155	LVLH R= 0.00 P=115.00 Y= 0.00	BIAS -XLV +ZVV
31 001/19:30:00 MET 111/14:36:58 GMT	Free Drift					Handover of Att Cntrl to ISS
32 003/23:50:00 MET 113/18:56:58 GMT	A/AUTO/VERN					Handover of Att Cntrl to Orbiter
33 004/00:00:00 MET 15:00 113/19:06:58 GMT 21:58	TGT=2 BV=5 P=155.00 Y= 0.00 OM= 0.00	A12 AUTO DB AT 3.000 VERN DB RT 0.080	RATE 0.1000 DB AT 3.000 DB RT 0.080	EARTH R 0 P 155	LVLH R= 90.00 P= 90.00 Y= 25.00	Bias -XLV +YVV Waste Dump
34 004/02:00:00 MET 15:00 113/21:06:58 GMT 21:58	TGT=2 BV=5 P=155.00 Y= 0.00 OM= 0.00	A12 AUTO DB AT 3.000 VERN DB RT 0.080	RATE 0.1000 DB AT 3.000 DB RT 0.080	EARTH R 0 P 155	LVLH R= 0.00 P=115.00 Y= 0.00	Bias -XLV +ZVV Docked TEA
35 004/02:15:00 MET 113/21:21:58 GMT	Free Drift					Handover of Att Cntrl to ISS
36 006/00:00:00 MET 115/19:06:58 GMT	A/AUTO/VERN					Handover of Att Cntrl to Orbiter

*** ALL ATTITUDES IN MEAN OF 1950 ***
*** PYR EULER SEQUENCE ***

Attitude Timeline

MET/GMT	MNVR OPTION	DAP	E/S	REF ATT/REMARKS	EVENT
37 006/00:10:00 MET 25:00 115/19:16:58 GMT 31:58	TGT=2 BV=5 P=155.00 Y= 0.00 OM=270.00	A12 RATE 0.1000 AUTO DB AT 3.000 VERN DB RT 0.080	EARTH R 360 P 155	LVLH R= 90.00 P= 90.00 Y= 25.00	Bias -XLV +ZVV Simo Dump
38 006/02:10:00 MET 25:00 115/21:16:58 GMT 31:58	TGT=2 BV=5 P=155.00 Y= 0.00 OM= 0.00	A12 RATE 0.1000 AUTO DB AT 3.000 VERN DB RT 0.080	EARTH R 360 P 155	LVLH R= 0.00 P=115.00 Y= 0.00	Bias -XLV +ZVV Docked TEA
39 006/02:25:00 MET 115/21:31:58 GMT	Free Drift				Handover of Att Cntrl to ISS
40 007/01:50:00 MET 116/20:56:58 GMT	A/AUTO/VERN				Handover of Att Cntrl to Orbiter
41 007/02:00:00 MET 15:00 116/21:06:58 GMT 21:58	TGT=2 BV=5 P=155.00 Y= 0.00 OM=270.00	A12 RATE 0.1000 AUTO DB AT 3.000 VERN DB RT 0.080	EARTH R 0 P 155	LVLH R= 90.00 P= 90.00 Y= 25.00	Bias -XLV +YVV Waste Dump
42 007/03:55:00 MET 04:10:00 116/23:01:58 GMT 16:58	TGT=2 BV=5 P=155.00 Y= 0.00 OM= 0.00	A12 RATE 0.1000 AUTO DB AT 3.000 VERN DB RT 0.080	EARTH R 0 P 155	LVLH R= 0.00 P=115.00 Y= 0.00	Bias -XLV +ZVV Docked TEA
43 007/04:10:00 MET 116/23:16:58 GMT	Free Drift				Handover of Att Cntrl to ISS
44 008/14:50:00 MET 118/09:56:58 GMT	A/AUTO/VERN				Handover of Att Cntrl to Orbiter
45 008/15:00:00 MET 30:00 118/10:06:58 GMT 36:58	TGT=2 BV=5 P=174.00 Y= 0.00 OM=180.00	A12 RATE 0.1000 AUTO DB AT 3.000 VERN DB RT 0.080	EARTH R 360 P 174	LVLH R=180.00 P= 84.00 Y= 0.00	Bias -XLV -ZVV -Z VRCS Reboost
46 008/16:30:00 MET 17:00:00 118/11:36:58 GMT 12:06:58	TGT=2 BV=5 P=155.00 Y= 0.00 OM= 0.00	A12 RATE 0.1000 AUTO DB AT 3.000 VERN DB RT 0.080	EARTH R 360 P 155	LVLH R= 0.00 P=115.00 Y= 0.00	BIAS -XLV +ZVV
47 008/17:00:00 MET 118/12:06:58 GMT	Free Drift				Handover of Att Cntrl to ISS
48 008/21:01:00 MET 118/16:07:58 GMT					Free Drift for Undocking at 8/21:04:00

*** ALL ATTITUDES IN MEAN OF 1950 ***
*** FYR EULER SEQUENCE ***

Attitude Timeline

MET/GMT	MNVR OPTION	DAP		E/S	REF ATT/REMARKS	EVENT
49 008/21:09:00 MET 118/16:15:58 GMT	TGT=2 BV=5 P=155.00 Y= 0.00 OM= 0.00	A9 AUTO VERN	RATE 0.0800 DB AT 1.000 DB RT 0.020	EARTH R 360 P 155	LVLH R= 0.00 P=115.00 Y= 0.00	Move Away Track Config A/AUTO/VERN at 75 ft
50 008/21:29:00 MET 118/16:35:58 GMT	LVLH FREE ROTATION ROTR ABOUT +Y AXIS RATE=0.130 UNDOCK +20 MIN	A9 LVLH VERN	RATE 0.1300 DB AT 1.000 DB RT 0.020		LVLH R= 0.00 P=115.00 Y= 0.00	Flyaround Twice Orb Rate to -Rbar
51 008/21:38:00 MET 118/16:44:58 GMT		A9 LVLH VERN	RATE 0.1300 DB AT 1.000 DB RT 0.020	EARTH R 360 P 85	LVLH R= 0.00 HOLD P=185.20 Y= 0.00	LVLH Hold +X RCS Burns
52 008/21:39:00 MET 43:44 118/16:45:58 GMT 50:42	TGT=2 BV=5 P= 0.00 Y= 0.00 OM=350.00	A9 AUTO PRI	RATE 0.3000 DB AT 1.00 DB RT 0.10	EARTH R 249 P 0	LVLH R=350.00 P=270.00 Y= 0.00	Manerver to IMAX Filming Attitude
53 008/21:48:00 MET 49:17 118/16:54:58 GMT 56:15	TGT=2 BV=1 P= 0.00 Y= 0.00 OM= 0.00	A9 AUTO VERN	RATE 0.1300 DB AT 1.000 DB RT 0.020	EARTH R 329 P 0	LVLH R= 0.00 P=270.00 Y= 0.00	End of Filming Mnvr to -Vbar Viewing
54 008/21:50:00 MET 118/16:56:58 GMT	LVLH FREE ROTATION ROTR ABOUT +Y AXIS RATE=0.130	A9 LVLH VERN	RATE 0.1300 DB AT 1.000 DB RT 0.020		LVLH R= 0.00 P=270.00 Y= 0.00	Flyaround Twice Orb Rate to +Rbar
55 008/22:02:00 MET 118/17:08:58 GMT		A9 LVLH VERN	RATE 0.1300 DB AT 1.000 DB RT 0.020	EARTH R 180 P 94	LVLH R= 0.00 HOLD P= 3.60 Y= 0.00	LVLH Hold -X RCS Burns Final Sep
56 008/22:55:00 MET 23:02:30 118/18:01:58 GMT 09:28	TGT=2 BV=5 P=270.00 Y= 0.00 OM=270.00 IN ZONE X	A1 AUTO VERN	RATE 0.2000 DB AT 1.000 DB RT 0.020	EARTH R 180 P 90	LVLH R= 0.00 P= 0.00 Y=270.00	+ZLV +YVV Water Dump SOPA
57 009/00:20:00 MET 35:00 118/19:26:58 GMT 41:58	TGT=2 BV=3 P= 90.00 Y= 0.00 OM= 0.00	A1 AUTO VERN	RATE 0.2000 DB AT 1.000 DB RT 0.020	EARTH R 360 P 90	LVLH R= 0.00 P=180.00 Y= 0.00	-ZLV -XVV
58 010/01:00:00 MET 07:30 119/20:06:58 GMT 14:28	TGT=2 BV=3 P= 90.00 Y= 0.00 OM= 90.00	A1 AUTO VERN	RATE 0.2000 DB AT 1.000 DB RT 0.020	EARTH R 360 P 90	LVLH R= 0.00 P=180.00 Y=270.00	-ZLV -YVV Thermal
59 010/14:00:00 MET 06:32 120/09:06:58 GMT 13:30	INRTL R=240.00 MNVR P=220.00 Y= 25.00	A1 AUTO VERN	RATE 0.2000 DB AT 1.000 DB RT 0.020	SUN R 166 P 98	-Y:56 13:58 14:45 -Z:48 14:08 14:53	IMU ALIGN PAIR AOS: 14:08 LOS: 14:45
60 010/14:15:00 MET 22:12 120/09:21:58 GMT 29:10	INRTL R=242.00 MNVR P=134.00 Y= 10.00	A1 AUTO VERN	RATE 0.2000 DB AT 1.000 DB RT 0.020	SUN R 237 P 127	-Y:57 14:15 15:19 -Z:35 14:18 15:08	IMU VERIF PAIR AOS: 14:18 LOS: 15:08

*** ALL ATTITUDES IN MEAN OF 1950 ***
*** PYR EULER SEQUENCE ***

Attitude Timeline

MET/GMT	MNVR OPTION	DAF	E/S	REF ATT/REMARKS	EVENT
61 010/14:45:00 MET 52:09 120/09:51:58 GMT 59:07	TGT=4 RA= 37.013 BV=5 DEC= 14.633N P=184.00 Y= 0.00 OM= 90.00	A1 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	SUN R 180 P 176	INRTL R=320.17 P=158.12 Y=326.88	-XSI D/O PREP Beta = -28 deg
62 010/16:45:00 MET 54:49 120/11:51:58 GMT 12:01:47	INRTL R= 62.00 MNVR P=129.00 Y=335.00	A1 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	SUN R 89 P 150		COMM ATT
63 010/18:40:00 MET 45:45 120/13:46:58 GMT 52:43	INRTL R=324.00 MNVR P=300.00 Y= 28.00	TRN RATE 0.5000 AUTO DB AT 3.50 PRI DB RT 0.20	SUN R 59 P 36	LVLH EQUIV R= 0.00 P=196.00 Y= 0.00	D/O Burn Retro Head Down dV = TBD TIG 10/18:52:00
64 010/19:00:00 MET 02:50 120/14:06:58 GMT 09:48	INRTL R=325.00 MNVR P= 8.00 Y=334.00	TRN RATE 0.5000 AUTO DB AT 3.50 PRI DB RT 0.20	SUN R 148 P 67		EI-5 INRTL
65 010/19:20:00 MET 120/14:26:58 GMT		TRN RATE 0.5000 LVLH DB AT 3.50 PRI DB RT 0.20	EARTH R 179 P 119	LVLH R= 0.02 HOLD P= 29.43 Y= 2.58	EI-5 LVLH

*** ALL ATTITUDES IN MEAN OF 1950 ***
*** PYR EULER SEQUENCE ***

This Page Intentionally Blank

STS-100 FLIGHT PLAN WALKTHROUGH (WITH RATIONALE)

I

STS-100 FLIGHT PLAN WALKTHROUGH
(WITH RATIONALE)**Flight Day 1**

- Standard FD01 activities
- Setups completed for PGSCs (OCA, network, color printer)
- The crew goes to sleep 5 hours after launch to support early docking on FD03 and to support the nominal EOM landing time
- ICBC activation for heaters
- REBA battery recharge init
- Ergometer setup

Flight Day 2

- Checkouts of the three EMUs and two SAFERs on shuttle and other EVA setup and config tasks in support of the EVA on FD04. This includes the Wireless Video System (WVS). Other FD02 checkouts include RMS (using FRED), OSVS, and RNDZ tools
- First setup of the CWC equipment. Three CWC bags will be filled by FD03 before Docking so they can be transferred during PMA airlock ops on FD03
- The first PAO Event is scheduled for this day for the CDR and Umberto Guidoni. This event is a VIP call from the Italian Space Agency (ASI)
- APCUs are briefly activated for an internal environment check of the MPLM
- A SIGI-CRV Star Line Maneuver is scheduled on this day in support of DTO 700-22
- Orbiter cabin depress to 10.2 psia followed by RNDZ prep activities including Centerline Camera Install and ODS Ring Extension. RNDZ burns NC-2, NPC and NC-3 are scheduled
- SSV is set up
- ICBC PGSC and Recorder setup
- OIU activated
- The EMUs are removed from the airlock to facilitate PMA transfers after docking
- The crew will sleep shift 1 hour earlier and will sleep 8 hours to support docking the following morning
- On ISS, the CBCS (centerline camera) is installed on the Node Nadir hatch window in preparation for the MPLM install. Note: This can be done anytime before the MPLM Install on FD05. Lab Closeout panels are removed in preparation of rack transfers from the MPLM to the Lab. Additionally, the interior electronics of the Early Comm System are torn down and temp stowed to be returned to Earth via the orbiter

Flight Day 3

- The first waste dump will be performed on the morning of this day. FDO would like this dump to be scheduled as close to the first rendezvous burn as possible to minimize trajectory dispersions
- Docking is not required to occur over a Russian Ground Site. There are no lighting constraints; however, docking will occur 10 minutes sooner than originally planned to prevent the Sun from being in the crew's line of sight to the Station. The beta angle for the mission is low, hence the sun-in-eyes problem. After docking, a leak check will be performed on the ODS
- The shuttle maneuvers the stack into the nominal docked attitude. Once in attitude, attitude control will be handed over to ISS. ISS will maintain attitude control during the entire docked timeframe using the Lab CMGs. However, it is assumed that if shuttle has the prop, they will perform any maneuvers reqd
- PGSC Network Reconfig scheduled after docking gives the crew some additional time to adjust the location of any PGSC for the docked timeframe

- The hatches are not opened between the ISS and shuttle on FD03. Instead, items are transferred to and from the ISS via the PMA. One item, a PGT (Pistol Grip Tool) needed for the EVA on FD04 is placed in the PMA from the ISS side. The PMA is then depressed to 10.2 psia and opened from the shuttle side for retrieval. The shuttle crew then places early transfer items into the PMA, which is repressed to 14.7 (or to Station pressure level) and the items retrieved by the Station crew. Transferred items to ISS include: CWCs; PCS; SSC; ODF; IMAX film etc
- The EVA crewmembers have additional time for EVA 1 tool config and to replace the EMUs in the airlock (after the PMA transfers are complete). Just before Presleep, the entire shuttle crew participates in a 1-hour EVA procedure review
- MS4 (Guidoni) tallies the FD03 transfers, confers with Voss on ISS via the comm system, and calls the MCC with these findings

Flight Day 4

- While the EVA crew prepares for the EVA, Ashby and Guidoni powerup the RMS, unberth the SpaceLab Pallet (SLP) from the orbiter payload bay, and mate it to the Lab Cradle Assembly (LCA) on the Lab. The LCA was installed on 5A.1. The EVA crew will not exit the airlock until the SLP is mated onto the LCA, or until all attempts to mate the SLP to the LCA have failed. Note: the springs in the LCA capture latches are stiffer than expected resulting in more force being necessary to trigger the READY-TO-LATCH indicator. 3/4 RTL indicators are required. If the RMS Operators are unable to mate the SLP, the EVA crew will translate to the LCA and assist guiding the SLP into place
- 14.7 psia repress occurs shortly after Hadfield and Parazynski exit the airlock
- Comm config change for hatches closed, EVA ops (3A)
- The most important task during EVA 1 is SSRMS deploy. This is the prime mission objective since the SSRMS is required for ISS airlock installation on flight 7A. The first task of the EVA is to connect the SLP to Lab power via FSEGF cables. The power source (keep-alive power) is required for SSRMS heaters to prevent component freezing. Two strings for keep-alive power are desired; however, only one functioning string is required to proceed with other mission objectives. Since two additional EVAs are planned (one scheduled, one unscheduled), obtaining the second string is highly likely
- The second task is to remove the UHF antenna from the SLP and install it on the Lab. This task, although lower priority than SSRMS, is done first to remove it from SLP, thus reducing the possibility of damage (kicking, scrapes, etc) by the EVA crew performing SSRMS activities
- SSRMS deploy includes the initial boom raise and unfolding the SSRMS from the SpaceLab pallet by first removing the jackbolts and superbolts pinning the arm to the SLP. Once the first jackbolt is turned, the SSRMS is no longer safe to return to Earth in the payload bay. A "GO" is required from MCC before bolt removal commences

Activity	Duration	Constraints/Description
FSEGF Cable Connect	00:45	Required to provide power to the SLP and SSRMS heaters. Risk of freezing SSRMS components if heaters not supplied keep-alive power.
UHF Antenna Install	01:00	Done before SSRMS Deploy to prevent accidental damage from EVA crew during deploy tasks.
SSRMS Deploy	03:00	Prime mission objective. Once jackbolts are loosened, SSRMS is no-go for return to PLB and return to Earth.

- Once keep-alive power to the SSRMS is established, the ISS crew enables SSRMS heaters. Four (TBR) hours of keep-alive power are required before the second boom raise, scheduled immediately post EVA 1, is performed. Note, the EVA crew is physically unable to provide enough torque to do the second boom raise manually
- ISS crew (Voss) monitors EVA and enables/disables inhibits as needed

- The ISS crew powers up the SSRMS and Robotic Work Stations (RWS) in preparation for the second boom raise. Simple, nondynamic checkouts of the SSRMS will precede the actual boom raise
- The shuttle crew maneuvers the RMS into a viewing position for the SSRMS boom raise
- Upon completion of the second boom raise, the ISS crew performs a Video Distribution Unit (VDU) routing test of the SSRMS cameras
- Nominal Post EVA activities
- Comm config changed for hatches open (5A)
- CWC water fills continue; plan to fill as many CWCs as possible during joint phase

Flight Day 5

- Hatch open, Welcome Ceremony, Safety Briefing
- A dynamic checkout of the SSRMS is performed. The first task is Latching End Effector (LEE) release of the passive FSEGF. A single mode limited joint range test is next. The pitch, roll and yaw of the shoulder, elbow and wrist joints are tested. The LEE mechanism is tested. A single joint maneuver is performed, as well. The next test is the walkoff of the SSRMS from the SLP. The SSRMS grapples a Lab PDGF (Power, Data Grapple Fixture) while the other LEE remains connected to the active FSEGF on the SLP (which is still providing the power for the SSRMS heaters)
- While the SSRMS checkout occurs, other shuttle crewmembers perform EVA follow-up tasks including LiOH changeouts and battery charge terms
- APCUs are activated again to perform another MPLM internal environmental check prior to transfer to ISS
- The petals for the Node 1 NADIR CBM are opened as late as possible before the SEAL C/O using the RMS. After the SEAL C/O, the RMS will grapple the MPLM and start the MPLM Install PDRS procedure
- RMS grapples the MPLM, the ROEU disconnect is complete, and MPLM is unberthed from the payload bay
- The MPLM Install procedure and the CBM procedures are interrelated. The procedures reference each other to hold at certain steps until step such-and-such of the other procedure is completed
- Once Acquire Nuts is complete, CBM Bolt Loading begins at which point the RMS is safe to ungrapple the MPLM. During Bolt Loading, the ISS crew sets up MPLM Ingress Equipment and removes the Centerline Berthing Camera System (CBCS) from the Node nadir hatch window. Upon completion of Bolt Loading, the ISS crew performs a Vestibule Leak Check lasting 1 hour. Vestibule Outfitting follows:
 - Vestibule Outfitting duration is 4 hours. Two hours are used for removing the 4 motor controllers which significantly block the hatch/transfer ops if not removed. Other tasks include removing the MLI cover, power and air flow connections, and finally hatch opening
 - MPLM AUTO ACTIVATION PART I starts during the VESTIBULE OUTFITTING procedure and includes enabling smoke detectors and starting the MPLM cabin fan
 - MPLM ACTIVATION PART II opens IMV valves, closes Positive Pressure Relief Valves (PPRV), turns on MPLM internal lights, MCA sampling
 - MPLM Activation performed by shuttle crew, Outfitting performed by ISS crew
 - When MPLM activation and outfitting is complete, MPLM Ingress can start; however, Outfitting is not completed until the start of ISS presleep, so Ingress is done the following day
- Following the MPLM Install activities on shuttle, the shuttle crew focuses on EVA 2 preparations (FD06)
- Additionally, the SSRMS performs a pitch plane change to allow access to the J400 panel on the Lab during EVA 2. A pitch plane change occurs when both LEEs are grappled, but the booms of the SSRMS move up or down. In this case, up, away from the J400 panels.
- PAO Event with Ashby, Hadfield, Phillips, and Helms
- Five CWCs transfer to ISS
- ISS crew performs IWIS ops during MPLM Install
- The hatches to ISS will be closed in the afternoon to allow the EVA crewmembers to perform their pre-breathe activities

- The cabin is depressed to 10.2, and the EMUs are installed back in the airlock

Flight Day 6

- The prime tasks for this day are EVA 2 and transferring EXPRESS racks and generic soft stow transfers from the MPLM to the Lab
- EVA 2 begins by supplying power to the PDGF which the SSRMS is grappling. Since the SLP is returning on the shuttle and is the current power source for SSRMS heaters, the EVA crew routes power to the PDGF via cables under the J400 panel on the Lab. Once power is supplied and verified, Hadfield disconnects the FSEGF cables that supply power to the SSRMS via the SLP. Meanwhile, Parazynski removes the Video Signal Converter (VSC) from the SLP. The VSC was used to observe the SSRMS walkoff from the SLP and is no longer needed on the SLP. Rather than returning the VSC to Earth, it will be stowed on Station as a spare. While the EVA crew stow hardware in the PLB, the SSRMS lifts the SLP from the LCA and maneuvers the SLP to a safe overnight position for the RMS to install/stow the DCSU on the Lab. Unless the SSRMS moves to a safe position, there is a risk of the two arms colliding during the DCSU install

Activity	Duration	Constraints/Description
J400 Panel Reconfig	01:30	SSRMS must pitch plane out of area for EVA crew access. J400 supplies power to PDGF that SSRMS grappled during SLP walkoff
FSEGF Umbilical Release	00:45	Done after J400 panel reconfig, or all power to SSRMS heaters removed and risk of freezing SSRMS components. Switches power supply from SLP to Lab PDGF
VSC Removal	00:30	Removed from SLP and stowed on ISS as a spare. VSC on SLP no longer needed once walkoff complete
Hardware Stow	01:00	While SSRMS maneuvers SLP to overnight position, EVA crew stows tools in PLB. Removes EVA crew from moving SSRMS area
DCSU Transfer	01:00	Stowage of critical spare to external ISS. SSRMS must be in a safe, overnight position for RMS to access stow location

- After the EVA, the standard post EVA activities are scheduled and the hatches are opened
- PHOTO/TV 24, performed post-EVA, is external shots of the ISS using out-the-window camera shots
- On ISS during EVA 2, the crew ingresses MPLM for the first time and sets up for transfers. Soft stowage on the fences of RSPs F1 and F3 are removed and transferred first, after which, the fences are collapsed. These activities are necessary to open the translation path for the EXPRESS and ARIS-ICE racks. The ISS crew continues to remove generic transfer items, until the EVA crew is ready for SLP demate. Once the SSRMS is in a safe position, the ISS crew begins EXPRESS rack 1 transfer. Since the powered middeck payloads are installed in EXP rack 1, it is transferred first and installed in the Lab. Later, Helms performs EXP rack 1 Activation and Checkout. During crew sleep, the POIC at MSFC will conduct ground commanded testing and checkouts in preparation for the payload transfers the next day. Once EXP rack 1 is installed, the ISS crew transfers the ARIS-ICE rack. Setup of the ARIS rack will be performed during 6A stage ops

- The rack transfers desire three ISS crewmembers, but only two crewmembers are absolutely required; preferably Usachev and Voss, as Helms is busy monitoring EVA activities. The third crewmember is scheduled to help with the rack, but will only be useful as a spotter when the rack is being moved between modules
- During the Sortie Cleanup activity of the EVA, the two EVA crewmembers will perform comm checks with the Station to test the Space-to-Space Station radio
- The Regulator-CL and Regulator-OP activities are part of the 14.7 repress activities
- Comm is reconfigured for hatches open

Flight Day 7

- The prime objective today is to perform the SLP handoff between the two robotic arms and to transfer the powered middeck payloads
- The RMS is moved to the same position used to view the SLP uninstall from ISS. The SSRMS maneuvers the SLP to the handoff position and brakes. The RMS maneuvers in and grapples the SLP, then brakes. The SSRMS then ungrapples and moves away. The RMS then berths the SLP in the PLB. The two arms are purposely choreographed so that only one arm moves at a time. While the SLP is being berthed, the SSRMS performs more diagnostics and LEE Checkout and Calibration. The SSRMS cameras are used to view the SLP berth
- Once SSRMS/RMS/SLP activities are complete, the crews begin transferring the middeck powered payloads. Since the payloads are Y-cabled together in the middeck, two are transferred at one time. The first set includes STES-009 and CPG-H. The second set is STES-010 and CGBA. One shuttle crewmember and one Station crewmember are needed for each transfer. The shuttle crew is responsible for disconnecting the payloads from the middeck and transferring the payloads to EXPRESS rack 1 in the Lab. The ISS crew is responsible for proper installation and activation of the payload in the rack
- Midflight reconfigs are scheduled
- Post EVA LiOH changeout and Auxiliary Battery termination occur early in the day
- Two options exist for the latter half of FD07:
 - If a third EVA is required (FD08), then the crew prepares by performing SAFER C/O, Middeck Prep and Procedure Review prior to the EVA team getting on the masks. The hatches are closed and the orbiter depressed to 10.2 psia. The EMUs are installed in the airlock. Comm is reconfigured for hatches closed
 - If the third EVA is not required, then the hatches remain open and MPLM transfers continue.
- Orbiter resumes attitude control to maneuver for another waste dump, then maneuvers the stack back to the docked attitude and hands control back to Station CMGs
- Two PAO events: the first is with the CDR and Phillips (US media) and the second event is Russian with Lonchakov (MS5) and the ISS CDR (Usachev)
- Two CWCs are transferred to ISS

Flight Day 8

- If required, EVA 3 is done. Otherwise, MPLM transfers continue
- The SSRMS is powered, and in preparation for airlock transfer on 7A, the arm is used in a dry run of the airlock installation positions. The RMS is used to view the dry run
- On ISS the crew performs DOSMAP and TORSO activation (passive radiation experiments)
- On ISS before Presleep, the crew performs 2 hours of Vestibule Deoutfitting in preparation for MPLM Uninstall the next day. The crew reinstalls the CBM motor controllers so that the OSOs in the MCC can ground command testing of the CBM during crew sleep. The testing is a requirement. MPLM transfers continue during this time; however, the motor controllers significantly reduce the size of the items able to pass through the hatch
- PLB camera illuminators powered on for ISS External Survey during crew sleep. Before wakeup, the PLB cameras are oriented for SSRMS Checkout viewing the next day
- ISS crew continues MPLM transfers during EVA. Otherwise, both crews busy with MPLM transfers

Flight Day 9

- Checkout of the SSRMS continues. Extended joint range tests, Tip Speed, Braking Distance, and Auto Sequences are tested. "Unloaded, Dynamic Checkout"
- While SSRMS checkouts occur, other crewmembers close out and egress the MPLM, complete Vestibule Deoutfitting part II (disconnecting cables, replacing MLI), and depress the vestibule in preparation for MPLM Uninstall
- Vestibule Depress, N1 Nadir CBM Demate, and RMS are closely choreographed. CBM ops do not begin until the 30-minute leak check (post Vestibule Depress) is complete. RMS grapple of MPLM can occur during CBM ops; however, CBM ops can only proceed so far until the RMS grapples (otherwise the MPLM would float off into space). Once grappled, CBMs release the MPLM and the MPLM is uninstalled and berthed in the PLB. The CBM petals are then closed and the nadir port CBM deactivated
- ISS crew sets up CBCS prior to MPLM uninstall
- If third EVA done, battery terminations and EMU temp stow in middeck completed
- FCMS C/O is scheduled on this day, but can be moved to another day if necessary
- WCS compaction
- A Canadian PAO event with the CDR and Hadfield
- A crew photo and PAO crew conference including both crews is scheduled before Presleep
- PLB camera illuminator powered on for an overnight ISS External Survey. Following survey, the PLB cameras are adjusted for viewing the Reboost

Flight Day 10

- The first task of the day is to perform Auto Reboost of the stack. Prior to the maneuver to reboost attitude, attitude control will be handed over from the ISS to the shuttle. Upon completion of reboost, attitude control is handed back to the CMGs
- On ISS, the crew is configuring IWIS for Reboost
- Shuttle crew prepares for Undock later today by performing RNDZ PGSC Setup and Tool Checkout
- Both crews make O2-N2 line connections in preparation for the Airlock on 7A. Of four lines to be connected, two lines must be done while the orbiter is docked while the vestibule is pressurized. The remaining two connections can be done during 6A stage
- A final Transfer Tagup is done with subsequent call to MCC with tallies
- After lunch, crews say Farewell and close hatches between vehicles. Centerline camera is installed and comm is reconfigured
- Attitude control will be handed over to shuttle prior to undocking. Undock is from the nominal docked TEA attitude
- Undock, 1 rev flyaround and sep
- Undock config: PGSCs, cameras, comm, power etc, torn down
- Simo dump after undocking
- Comm switched to Comm String 1
- Cabin stow
- ISS Off Duty

Flight Day 11

- FCS C/O, RCS Hotfire, Deorbit Briefing
- L-1 Comm check
- Cabin Stow
- Off-Duty
- PILOT ops
- SSV Deact
- SIGI Entry Config
- Ku Stow
- PAO event with Hadfield, Parazynski, Guidoni, Lonchakov
- Comm switched back to Comm string 2
- Ergometer stowed

Flight Day 12

- Landing day
- PGSCs deact; color printer stowed
- ICBC deact, PGSC and Audio equipment stowed
- SIGI Prep for entry
- Deorbit Prep and landing at KSC

FLIGHT PLAN NOTES

FLIGHT PLAN NOTES
(CONSTRAINTS AND GUIDELINES)

A. FLIGHT DESCRIPTION

Orbiter: OV105/Endeavour
 Launch Window: 10 min
 Inclination: 51.6°
 Insertion Altitude: 173 nm
 ISS RNDZ Altitude: 215 nm
 Duration: 11 + 1 + 2 days

B. MAJOR EVENTS

FLIGHT PLAN
NOTES

<u>EVENT</u>	<u>MET</u>	<u>HOU</u> <u>DATE</u>	<u>CDT</u>	<u>GMT</u>	<u>DV (FT/S)</u>	<u>HP/HA</u>
LAUNCH	00/00:00	04/19/01	14:06:58	109/19:06:58	—	—
OMS 2	00/00:44	04/19/01	14:50:58	109/19:50:58	79.7	85/176
NC1	00/03:43	04/19/01	17:49:58	109/22:49:58	137.3	162/176
NC2	00/15:49	04/20/01	05:55:58	110/10:55:58	3.0	163/176
NPC	00/22:18	04/20/01	12:24:58	110/17:24:58	1.9	163/176
NC3	01/02:22	04/20/01	16:28:58	110/21:28:58	85.8	176/312
NH	01/14:26	04/21/01	04:32:58	111/09:32:58	0.0	176/213
NC4	01/15:13	04/21/01	05:19:58	111/10:19:58	61.0	208/214
TI	01/16:45	04/21/01	06:51:58	111/11:51:58	8.8	210/217
DOCK	01/19:06	04/21/01	09:12:58	111/14:12:58	—	211/219
ISS INGRESS (FD3)	01/21:41	04/21/01	11:47:58	111/16:47:58	—	—
EVA 1 (SSRMS DPL)	02/17:00	04/22/01	07:06:58	112/12:06:58	—	—
ISS INGRESS (FD4)	03/14:20	04/23/01	04:26:58	113/09:26:58	—	—
EVA 2	04/18:20	04/24/01	08:26:58	114/13:26:58	—	—
ISS INGRESS (FD6)	05/02:15	04/24/01	16:21:58	114/21:21:58	—	—
EVA 3	06/18:10	04/26/01	08:16:58	116/13:16:58	—	—
ISS INGRESS (FD8)	07/02:30	04/26/01	16:36:58	116/21:36:58	—	—
UNDOCK	08/21:04	04/28/01	11:10:58	118/16:10:58	—	210/218
FINAL SEP	08/22:02	04/28/01	12:08:58	118/17:08:58	3.0	209/217
DEORBIT	10/18:52	04/30/01	08:58:58	120/13:58:58	TBD	—
LANDING	10/19:58	04/30/01	10:04:58	120/15:04:58	—	—

C. LANDING OPPORTUNITIES

		<u>Landing Orbit No.</u>	<u>Site</u>	<u>Local Time</u>	<u>MET</u>
Nominal	Primary	170	KSC	10:04	10/19:58
	1 Rev Late	171	KSC	11:40	10/21:34
	Weather Alt	172	EDW	12:46	10/22:40
1 Day Late	Primary	185	KSC	09:08	11/19:02
	1 Rev Late	186	KSC	10:45	11/20:39
	Weather Alt	187	EDW	12:16	11/22:10
2 Day Late	Primary	200	KSC	08:13	12/18:07
	1 Rev Late	201	KSC	09:49	12/19:43
	Weather Alt	202	EDW	11:21	12/21:15
3 Days Late	Primary	216	KSC	08:54	13/18:48
	1 Rev Late	217	KSC	10:31	13/20:25
	Weather Alt	218	EDW	12:01	13/21:55

D. CREW

CDR – Kent Rominger
 PLT/RMS – Jeff Ashby
 MS1/EV1 – Chris Hadfield
 MS2/IV1 – John Phillips
 MS3/EV2 – Scott Parazynski
 MS4/RMS – Umberto Guidoni
 MS5/IV2 – Yuri Lonchakov

E. COMMUNICATIONS

The Summary Timeline contains several databands for Ground site and TDRS events. The TDRS band reflects the three TDRS satellites that will be used for orbiter coverage. (East, West and Z) and their longitudinal position. The data shown contain Ku band coverage (unshaded bars) as well as TDRS SHO schedule (solid bars). The SHO schedule depicts early handovers and Z satellite coverage.

The RGS band contains the AOS/LOS of the Russian Ground Sites used by the FGB and SM. The data displayed is a summation of AOS/LOS times of all the ground sites on each respective pass.

Shuttle

TDRS Support: East (47° W), West (171° W), Z (85° E)
 Ground Sites (*): MIL, BDA, GDS, and WLP
 Contingency RTS: DGS, GTS, HTS, MIL, BDA, OTS, VTS, and NHS

(*) Lead time for site callup – 2 hr (GSTDN), 4 hr (SGLS/RTS)

FGB/SM

Communication to/from MCC–M through Russian Ground Sites

F. PAYLOADS

1. LAUNCH PACKAGE (LP) 6A

The LP flown on mission 6A consists of the Multi–Purpose Logistics Module (MPLM); Spacelab Logistics Pallet (SLP); IMAX Cargo Bay Camera 3D (ICBC3D); Direct Current Switching Unit (DCSU) critical spare; two Assembly Power Converter Units (APCUs) in the orbiter cargo bay; and ISS equipment, supplies, and ISS utilization middeck payloads in the orbiter crew compartment.

The MPLM is a pressurized module that carries to orbit LAB payload EXPRESS racks, Resupply/Return Stowage Platforms (RSPs), and Resupply Stowage Racks (RSRs). The racks store ISS supplies, spare hardware, stowage locations, and the ISS ergometer. A keel camera target is attached to the MPLM to aid in berthing in the cargo bay.

The SLP is the platform that carries the Space Station Remote Manipulator System (SSRMS) and the Ultrahigh Frequency (UHF) antenna.

The ICBC3D will fly in the cargo bay in support of the ISS-6A complement and be used to record mission scenes including rendezvous; docking; SLP and MPLM transfer to ISS and back to the cargo bay; EVA 1 and EVA 2 activities; and other external mission scenes. ISS-6A also carries IMAX film for the internal IMAX camera. These scenes include views of element transfer between cargo bay and the ISS, and EVA activities from the LAB window, in addition to internal scenes.

Unique LP equipment, such as special EVA tools to support assembly operations and the ISS Portable Computer System (PCS) will be stowed in the crew compartment. Two APCUs, configured for primary power (configuration B), will also be installed in the orbiter and utilized on this flight.

2. 6A RETURN COMPLEMENT

The EVA tools and support equipment that are launched in the orbiter middeck for EVA on-orbit usage shall be replaced into middeck lockers for return to Earth. IMAX film will also return to Earth. The cargo bay return complement includes the MPLM and the SLP with the Space Station Remote Manipulator System (SSRMS) jackbolts stowed in the quiver on the SLP.

3. IMAX CARGO BAY CAMERA3D (ICBC3D)

The ICBC3D payload is a 65mm color 3D motion picture camera system. The system consists of a camera, lens turret assembly, and film magazine containing 5400 ft of film. The camera system is housed in an insulated pressurized enclosure with a movable lens window cover, and is mounted in the cargo bay on a Get-Away Special (GAS) beam or other certified shuttle carrier. The camera system is operated from the Aft Flight Deck (AFD) with a Payload and General Support Computer (PGSC). The dc power for heating and camera operation will be supplied by the orbiter. An audio recorder with microphones supplied by the customer will be used in the crew compartment in conjunction with the camera system. A payload-supplied light level measurement unit will be used by the crew to aid in setting IMAX camera aperture f-stops.

G. ON-ORBIT DETAILED TEST OBJECTIVES (DTOs)

1. INTERNATIONAL SPACE STATION ON-ORBIT LOADS VALIDATION (DTO 261)

The purpose of these tests is to excite and measure the structural dynamics of the ISS and to use the results to validate critical areas of the on-orbit loads prediction models. Test 1 will obtain photogrammetric measurement of PV arrays. Test 2 will obtain photogrammetric measurements of the radiator. Both tests will obtain acceleration and dynamic strain measurements in Node 1, US Lab, and Russian modules as they are added to the configuration.

2. ON-ORBIT BICYCLE ERGOMETER LOADS MEASUREMENT (DTO 262)

Uncertainty in combined Shuttle/ISS natural frequencies requires some conservatism in the application of the measured bicycle ergometer loads. The purpose of this DTO is to reduce this conservatism and thus reduce predicted

structural loads from crew exercise on the ergometer by measuring joined shuttle/ISS natural frequencies by using the bicycle ergometer as the natural frequency excitation source.

3. SSRMS DYNAMIC MODEL VALIDATION (DTO 264)

During planned SSRMS handling of payloads, a brief pause is requested at a specific planned SSRMS geometric configuration in the operation's preplanned trajectory. At this configuration, crew inputs to SSRMS motion will be commanded, followed by an SSRMS brakes on command. This will be performed three times to excite two lateral bending modes and one torsion mode of the SSRMS. The SSRMS data system in the end effector will be active to measure the SSRMS transient load response. Two flights are chosen to assess SSRMS dynamic characteristics while attached to a light (SLP) and a heavy (Airlock) payload.

4. SINGLE STRING GLOBAL POSITIONING SYSTEM (DTO 700-14)

The purpose of this experiment is to demonstrate the performance and operations of the GPS during orbiter ascent, entry, and landing phases utilizing a modified military GPS receiver processor and the existing orbiter GPS antennas.

5. CREW RETURN VEHICLE (CRV) INTEGRATED GLOBAL POSITIONING SYSTEM/INERTIAL NAVIGATION SYSTEM (SIGI) (DTO 700-22)

CRV SIGI is intended to be the primary navigation source for the ISS CRV. The ability of the CRV SIGI to determine position, velocity, time, and attitude is the focus of the DTO and GPS attitude will not be determined. This DTO is almost identical to DTO 700-15; the primary difference being that a CRV SIGI is flown rather than a shuttle SIGI and ascent performance will not be included.

6. CROSSWIND LANDING PERFORMANCE (DTO 805)

The purpose of this DTO is to demonstrate the capability to perform a manually controlled landing in the presence of a crosswind.

H. DETAILED SUPPLEMENTAL OBJECTIVES

1. MONITORING LATENT VIRUS REACTIVATION AND SHEDDING IN ASTRONAUTS (DSO 493)

The objective of this DSO is to determine the frequency of induced reactivation of latent viruses, latent virus shedding, and clinical disease after exposure to the physical, physiological, and psychological stressors associated with space flight.

Space flight-induced alterations in the immune response will become increasingly important on long-duration mission, with one focus being the potential for reactivation and dissemination (shedding) of latent viruses. An example of a latent virus is herpes simplex type-1 (HSV-1), which infects 70 to 80 percent of all adults. Its manifestation is classically associated with the presence of cold sores, pharyngitis, and tonsillitis, and is usually acquired through contact with the saliva, skin, or mucous membranes of an infected individual. However, many recurrences are asymptomatic, resulting in shedding of the virus. Twenty subjects have studied for Epstein-Barr virus. Three additional viruses will be focused upon with an increase in subject allotment.

2. INDIVIDUAL SUSCEPTIBILITY TO POST-SPACEFLIGHT ORTHOSTATIC INTOLERANCE (DSO 496)

This activity is performed pre/post-flight only.

3. SPACEFLIGHT AND IMMUNE FUNCTION (DSO 498)

This activity is performed pre/post-flight only.

4. EYE MOVEMENTS AND MOTION PERCEPTION INDUCED BY OFF-VERTICAL AXIS ROTATION (OVAR) AT SMALL ANGLES OF TILT AFTER SPACEFLIGHT (DSO 499)

This activity is performed pre/post-flight only.

I. HUMAN EXPLORATION AND DEVELOPMENT OF SPACE (HEDS) TECHNOLOGY DEMONSTRATION (HTD)

1. MICRO-WIRELESS INSTRUMENTATION SYSTEM (MICRO WIS) HEDS TECHNOLOGY DEMONSTRATION (HTD 1403) (OBJECTIVE 3 ONLY)

HTD 1403 will demonstrate the operational utility and functionality of MICRO-WIS on-orbit, initially in the crew cabin of the orbiter, and then in the ISS. The MICRO-WIS sensor/transmitter will provide important real-time temperature measurements. The MICRO-WIS sensor/recorder will provide recorded temperature readings for post-flight evaluation. Objective 3 will demonstrate the MICRO-WIS recorder system in an on-orbit, external space environment. No crew involvement is required.

CUE CARD CONFIGURATION

CUE CARD
CONFIG

CUE CARD CONFIG

TOP

**PILE
VELCRO**

**PILE
VELCRO**

STS-100 DAP A1 THROUGH A8 CONFIGURATIONS

	ITEM #	A1	A2	A3	A4	A5	A6	A7	A8
PRI									
ROT RATE	10(50)	0.2000	0.4000	0.2000	0.5000	0.2000	0.2000	0.2000	0.0500
ATT DB	11(51)	5.00	1.00	0.30	3.00	5.00	5.00	2.00	2.00
RATE DB	12(52)	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
ROT PLS	13(53)	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
COMP	14(54)	.000	.000	.000	.000	.000	.000	.000	.000
P OPTION	15(55)	ALL	ALL	ALL	ALL	ALL	TAIL	ALL	ALL
Y OPTION	16(56)	ALL	ALL	TAIL	ALL	ALL	TAIL	ALL	ALL
TRAN PLS	17(57)	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
ALT									
RATE DB	18(58)	0.200	0.200	0.070	0.200	0.070	0.070	0.100	0.100
JET OPT	19(59)	ALL	ALL	ALL	ALL	ALL	TAIL	ALL	ALL
# JETS	20(60)	2	2	1	2	1	1	2	2
ON TIME	21(61)	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
DELAY	22(62)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
VERN									
ROT RATE	23(63)	0.2000	0.4000	0.0080	0.2000	0.0500	0.0500	0.0160	0.0500
ATT DB	24(64)	1.000	1.000	0.070	1.000	1.000	1.000	1.000	1.000
RATE DB	25(65)	.020	.020	.010	.020	.020	.020	.020	.020
ROT PLS	26(66)	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.050
COMP	27(67)	.000	.000	.000	.000	.000	.000	.000	.000
CNTL ACC	28(68)	0	0	0	0	0	0	0	0
PURPOSE		NOMINAL	PTC	GG	PRE/POST DEPLOY	LOSS OF VERN (ALL)	LOSS OF VERN (TAIL ONLY)	RNDZ	TERMINAL PHASE

FLT PLN-1a/100/O/A

HINGE

TOP
HINGED AT BOTTOM OF
'STS-100 DAP A1 THROUGH A8 CONFIGURATIONS'

HINGE

STS-100 DAP B1 THROUGH B8 CONFIGURATIONS

	ITEM #	B1	B2	B3	B4	B5	B6	B7	B8
PRI									
ROT RATE	30(50)	0.5000	0.2000	0.2000	0.2000	0.2000	0.5000	0.5000	0.0500
ATT DB	31(51)	3.00	3.00	3.00	0.30	3.00	3.00	2.00	2.00
RATE DB	32(52)	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
ROT PLS	33(53)	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
COMP	34(54)	.000	.000	.000	.000	.000	.000	.000	.000
P OPTION	35(55)	ALL	TAIL	ALL	TAIL	TAIL	ALL	ALL	ALL
Y OPTION	36(56)	ALL	TAIL	ALL	TAIL	TAIL	ALL	ALL	ALL
TRAN PLS	37(57)	0.10	0.02	0.02	0.02	0.02	0.02	0.05	0.05
ALT									
RATE DB	38(58)	0.200	0.070	0.070	0.100	0.200	0.200	0.100	0.100
JET OPT	39(59)	ALL	TAIL	ALL	ALL	ALL	ALL	ALL	ALL
# JETS	40(60)	2	1	1	2	2	2	2	2
ON TIME	41(61)	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
DELAY	42(62)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
VERN									
ROT RATE	43(63)	0.2000	0.2000	0.2000	0.0080	0.0160	0.2000	0.2000	0.0500
ATT DB	44(64)	1.000	1.000	1.000	0.100	0.033	1.000	1.000	1.000
RATE DB	45(65)	.020	.020	.020	.010	.020	.020	.020	.020
ROT PLS	46(66)	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.020
COMP	47(67)	.000	.000	.000	.000	.000	.000	.000	.000
CNTL ACC	48(68)	0	0	0	0	0	0	0	0
PURPOSE		OMS/RCS BURNS	LOSS OF VERN (TAIL ONLY)	LOSS OF VERN (ALL)	SSUS DEPLOY	COAS/HUD CAL		RNDZ	TERMINAL PHASE

FLT PLN-1aa/100/O/A

**HOOK
VELCRO**

**HOOK
VELCRO**

TOP
BACK OF 'STS-100 DAP A1 THROUGH A8 CONFIGURATIONS'

**PILE
VELCRO**

**PILE
VELCRO**

STS-100 DAP A9 THROUGH A15 CONFIGURATIONS

	ITEM #	A9	A10	A11	A12	A13	A14	A15
PRI								
ROT RATE	10(50)	0.1300	0.0500	0.1000	0.1000	0.1000	0.2000	0.2000
ATT DB	11(51)	1.00	0.50	10.00	5.00	5.0000	5.00	5.00
RATE DB	12(52)	0.10	0.10	0.20	0.20	0.2000	0.20	0.20
ROT PLS	13(53)	0.10	0.10	0.10	0.04	0.04	0.10	0.10
COMP	14(54)	.000	.000	.000	.000	.000	.000	.000
P OPTION	15(55)	TAIL	TAIL	TAIL	TAIL	TAIL	ALL	ALL
Y OPTION	16(56)	TAIL	TAIL	TAIL	TAIL	TAIL	ALL	ALL
TRAN PLS	17(57)	0.05	0.05	0.10	0.01	0.01	0.10	0.10
ALT								
RATE DB	18(58)	0.100	0.100	0.070	0.070	0.100	0.200	0.200
JET OPT	19(59)	TAIL	TAIL	TAIL	TAIL	TAIL	ALL	ALL
# JETS	20(60)	2	2	3	3	3	2	2
ON TIME	21(61)	0.08	0.08	0.08	0.08	0.08	0.08	0.08
DELAY	22(62)	0.00	0.00	11.60	11.04	11.04	0.00	0.00
VERN								
ROT RATE	23(63)	0.1300	0.0500	0.1000	0.1000	0.0500	0.2000	0.2000
ATT DB	24(64)	1.000	0.500	5.000	3.000	5.000	1.000	1.000
RATE DB	25(65)	.020	.020	.050	.080	.150	.020	.020
ROT PLS	26(66)	0.050	0.050	0.010	0.002	0.002	0.010	0.010
COMP	27(67)	.000	.000	.000	.000	.000	.000	.000
CNTL ACC	28(68)	0	0	1,2*	1	3,4**	0	0
PURPOSE		PROX OPS/ FLY AROUND	DOCKING	AUTO REBOOST	MATED STACK & RMS OPS	A/L DEPRESS ATT CONTROL		

BOLD-ITALIC indicate a change from the I-load

* 1 for VERN, 2 for ALT

** 3 for VERN, 4 for ALT

FLT PLN-1b/100/O/B

HINGE

TOP
 BACK OF 'STS-100 DAP B1 THROUGH B8 CONFIGURATIONS'
 HINGED AT BOTTOM OF
 'STS-100 DAP A9 THROUGH A15 CONFIGURATIONS'

HINGE
 STS-100 DAP B9 THROUGH B15 CONFIGURATIONS

	ITEM #	B9	B10	B11	B12	B13	B14	B15
PRI								
ROT RATE	30(50)	0.1300	0.0500	0.5000	0.1000	0.1000	0.5000	0.5000
ATT DB	31(51)	1.00	0.50	3.00	5.00	40.00	3.00	3.00
RATE DB	32(52)	0.10	0.10	0.20	0.20	0.20	0.20	0.20
ROT PLS	33(53)	0.04	0.04	0.04	0.04	0.04	0.04	0.04
COMP	34(54)	.000	.000	.000	.000	.000	.000	.000
P OPTION	35(55)	TAIL	TAIL	ALL	TAIL	TAIL	ALL	ALL
Y OPTION	36(56)	TAIL	TAIL	ALL	TAIL	TAIL	ALL	ALL
TRAN PLS	37(57)	0.01	0.01	0.02	0.01	0.01	0.02	0.02
ALT								
RATE DB	38(58)	0.100	0.100	0.200	0.070	0.100	0.200	0.200
JET OPT	39(59)	TAIL	TAIL	ALL	TAIL	TAIL	ALL	ALL
# JETS	40(60)	2	2	2	3	3	2	2
ON TIME	41(61)	0.08	0.08	0.08	0.08	0.08	0.08	0.08
DELAY	42(62)	0.00	0.00	0.00	11.04	11.04	0.00	0.00
VERN								
ROT RATE	43(63)	0.1300	0.0500	0.2000	0.1000	0.0500	0.2000	0.2000
ATT DB	44(64)	1.000	0.500	1.000	3.000	40.000	1.00	1.00
RATE DB	45(65)	.020	.020	.020	.080	.050	.020	.020
ROT PLS	46(66)	0.020	0.020	0.002	0.002	0.002	0.002	0.002
COMP	47(67)	.000	.000	.000	.000	.000	.000	.000
CNTL ACC	48(68)	0	0	0	2	3,4**	0	0
PURPOSE		PROX OPS/ FLY AROUND	DOCKING		MATED STACK & RMS OPS	A/L DEPRESS RATE DAMPING		

BOLD-ITALIC indicate a change from the I-load
 ** 3 for VERN, 4 for ALT

FLT PLN-1bb/100/O/B

**HOOK
VELCRO**

**HOOK
VELCRO**

This Page Intentionally Blank

FLIGHT DATA FILE
Distribution
100 FLT PLN FS FIN

** JSC **

AP/LEAD PAO
CB/CHIEF, ASTRONAUT OFF.
CB/FLIGHT CREW (7)
DA2/STONE, B.R.
DA8/LEAD ISS FD (4)
DA8/LEAD STS FD (4)
DA82/ACTION CENTER
DF23/LEAD CATO (3)
DF24/INCO FDF REP (6)
DF25/LEAD DPS (3)
DF25/LEAD ODIN (3)
DF52/LEAD MMACS (3)
DF53/LEAD OSO (3)
DF62/LEAD GNC (3)
DF63/LEAD PROP (3)
DF64/ADCO (3)
DF74/PHALCON LIBRARY (5)
DF83/LEAD ECLSS (3)
DF84/THOR LIBRARY (3)
DM3/LEAD RNDZ (3)
DM3/LEAD TOPO (3)
DO13/HSG-H LIBRARY (3)
DO13/HSG-M LIBRARY (2)
DO13/HSG-MTLO
DO13/MSR LIBRARY (2)
DO13/TTI LIBRARY (2)
DO353/FDF MNGR/RESERVE (15)
DO4/FAO TEAM (30)
DO4/LEAD FAO (15)
DO4/LEAD OPS PLANNER (6)
DO4/MUTE, R.H.
DO4/POINTING (3)
DO4/SHUTTLE FLT PLANNING (3)
DO45/LIBRARY (2)
DO5/LEAD ACO/PLO (6)
DT32/TEAM LEAD
DT34/CONTROL PROP
DT35/DPS/NAV LIBRARY (3)
DT36/SHUTTLE SYSTEMS
DT37/CARGO SYSTEMS
DT37/SHUTTLE COMMUNICATIONS
DX22/LEAD PDRS (4)
DX25/RMS TRAINING GROUP (3)

DX32/PERSON, S. (4)
DX34/PHOTO/TV
GP23/STIC (3)
MER/30 LIBRARY
MT3/1PT
NC62/MORAN, S. (2)
OM2/CONSOLE SUPPORT (2)
OV/LEAD ISS GC
OV/LEAD SHUTTLE GC
SD24/SURGEON (3)
ZR1/USAF TECHNICAL LIBRARY (3)

** JSC OFFSITE **

LOCKHEED-MARTIN-HOUSTON
C42/DYKE-EIZHBLATH, J. (9)

BOEING-HOUSTON
13100 SPACE CENTER BLVD.
HOUSTON, TX 77059
HS-22/FLIGHT/STAGE MANAGER
HS-22/OPERATIONS LEAD

** POUCH MAIL **

NASA KSC
KSC/KSC TECH LIBRARY-D (2)
TA-E-A/CREW QUARTERS
XA-E1/GRINTER, K.

** U.S. MAIL **

BOEING-HUNTINGTON BEACH
5301 BOLSA AVENUE
HUNTINGTON BEACH, CA 92647
H019-F754/GOOSSENS, M.H.

BOEING-CALIFORNIA
5301 BOLSA AVE. BLDG 17-7
7D-45 HUNTINGTON BEACH
CA 92647-2099
H017-D415/MUHAR, M.M.
H017-D416/SINCLAIR, G.M.
H017-D307/WARD, J.
H019-E7522/FERGUS, E.M.

HAMILTON STANDARD
BRADLEY FIELD RD.
WINDSOR LOCKS, CT 06096
1A-2-X65/AUMAN, J.

NASA GSFC-AL
116 JETPLEX CIRCLE
MADISON, AL 35758
442/OLSON, K.

=====
Total 216
(03/22/01 - FERNANCA)

NOTE
* FOR CHANGES *
* IN DISTRIBUTION *
* OR ADDRESS CORRECTIONS *
* CONTACT THE *
* PROCEDURES MANAGEMENT *
* OFFICE AT MAILCODE D035 *
* OR (281) 244-1184 *
