

Flight Plan

STS-135/ULF-7

(FDO L-35_Jul8 Trajectory)

**Mission Operations Directorate
Operations Division**

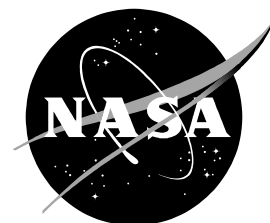
**Final
June 17, 2011**

**Launch Date: Fri. July 08, 2011 GMT
Launch Time: 189/15:26:46 GMT
July 08, 11:26:46 EDT**

For the latest working copy of the Flight Plan, visit
http://modspops.jsc.nasa.gov/mod/DO/DO4/Joint/135_ULF7/default.aspx

National Aeronautics and
Space Administration

Lyndon B. Johnson Space Center
Houston, Texas



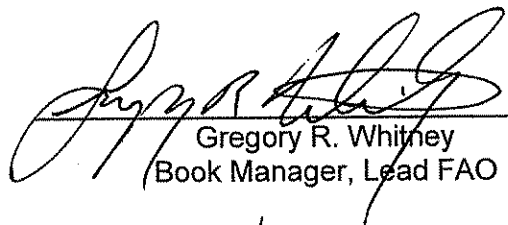
Verify this is the correct version for the pending operation (training, simulation or flight).
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MISSION OPERATIONS DIRECTORATE

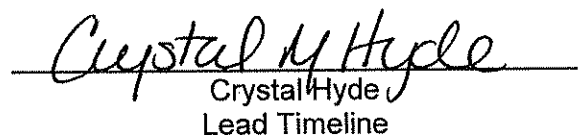
FLIGHT PLAN
STS-135

FINAL
June 17, 2011

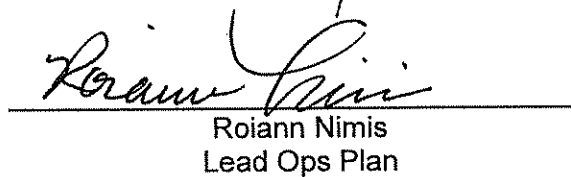
PREPARED BY:



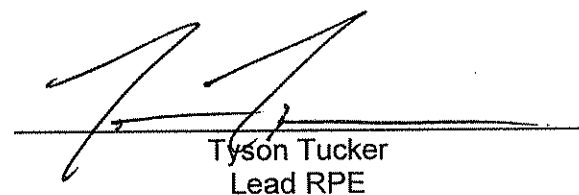
Gregory R. Whitney
Book Manager, Lead FAO



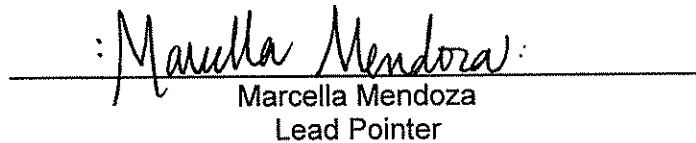
Crystal Hyde
Lead Timeline



Rolann Nimis
Lead Ops Plan

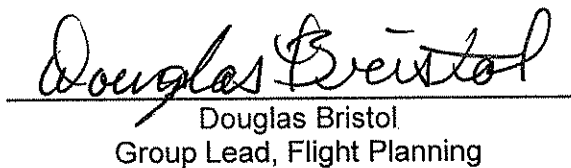


Tyson Tucker
Lead RPE

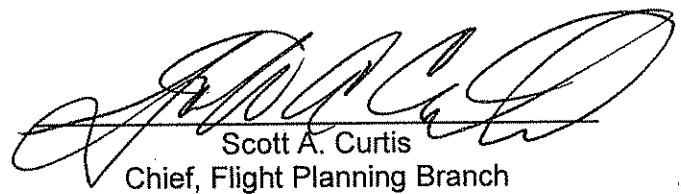


Marcella Mendoza
Lead Pointer

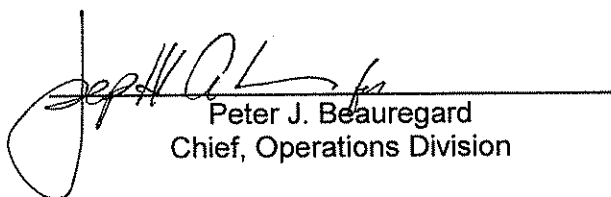
APPROVED BY:



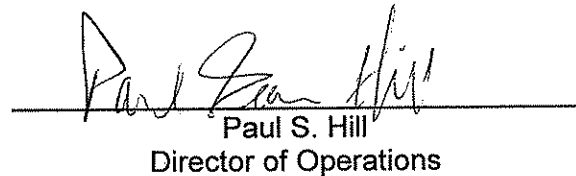
Douglas Bristol
Group Lead, Flight Planning



Scott A. Curtis
Chief, Flight Planning Branch



Peter J. Beauregard
Chief, Operations Division



Paul S. Hill
Director of Operations

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482#: FLT PLN-02185

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Lead Pointer	DO4/M. Mendoza	281-483-0787
Lead Ops Planner	DO4/R. Nimis	281-244-1178
Lead RPE	DO4/T. Tucker	281-244-2482

FLIGHT PLAN
STS-135

LIST OF EFFECTIVE PAGES

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iv	*	135/FIN	2-44	135/FIN
v	*	135/FIN	3-1	135/FIN
vi	*	135/FIN	3-2	135/FIN
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* – Omit from flight book

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INTRODUCTION

The STS-135 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 contained 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-17462-135, STS-135 Flight Requirements Document
- NSTS-37326, Shuttle Crew Scheduling Constraints
- NSTS-21558, ISS-ULF7 Mission Integration Plan

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-135 Flight Plan is based on a launch date of July 08, 2011, at 15:26:46 GMT (11:26:46 EDT). Orbiter inertial attitudes are expressed relative to a mean of 1950 (M50) reference frame.

The following SCSC Exceptions have been submitted in order to meet Category 1 objectives:

None

The Flight Plan and previously published, non-flown sections listed below are available on the following Space Shuttle Flight Planning web site:

http://modspops.isc.nasa.gov/mod/DO/DO4/Joint/135_ULF7/default.aspx

Non-flown sections that are no longer published:

- ISS Commanding Pages
- Attitude Timeline
- Ku-Band Antenna Masking Plan
- Timeline Walkthrough
- Flight Plan Notes

OVERVIEW TIMELINE

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STS-135/ULF 7

Overview Timeline 12+0+2

GMT L/O: 189/15:26:46
July 8, 2011

		15 16 17 18 19 20 21 22 23 190/0 1 2 3																				
		00/0 1 2 3 4 5 6 7 8 9 10 11 12																				
FD01	STS												Post Insertion	NC1	P/TV	On-Orbit S/U	RMS C/O					
	Orb Att												ASC -ZLV-XVV	NC1							-ZLV-XVV	
		NC-1 0/03:40 ^																				
		GMT 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 191/0 1 2 3																				
		MET 13 14 15 16 17 18 19 20 21 22 23 01/0 1 2 3 4 5 6 7 8 9 10 11 12																				
FD02	STS												OBSS UNBRTH/ STBD SRVY	Meal	NOSE CAP/ PORT SRVY	OBSS	ODS TOOL	LDRI	NC3			
	Orb Att												-ZLV-XVV	NC2	Solar Inertial (Survey)						-ZLV-XVV	
		NC-2 0/18:42 ^																				
		NC-3 1/05:58 ^																				
		GMT 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 192/0 1 2 3																				
		MET 13 14 15 16 17 18 19 20 21 22 23 02/0 1 2 3 4 5 6 7 8 9 10 11 12																				
FD03	STS												RNDZ		Hatch Open	OBSS Unberth						
	Orb Att												-ZLV-XVV	-ZLV+YVV	RNDZ		Bias -XLV-ZVV (TEA)					
		NH 1/18:44 ^ TI 1/21:05 ^																				
		NC-4 1/19:32 ^ Docking ~ 1/23:43 ^																				
		GMT 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 193/0 1 2 3																				
		MET 13 14 15 16 17 18 19 20 21 22 23 03/0 1 2 3 4 5 6 7 8 9 10 11 12																				
FD04	STS												MPLM Install	Meal	MPLM Hatch Open		EVA RVW					
	Orb Att												MDDK Transfer	MDDK Transfer		O2 Cnfg	Bias -XLV-ZVV (TEA)					
		GMT 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 194/0 1 2 3																				
		MET 13 14 15 16 17 18 19 20 21 22 23 04/0 1 2 3 4 5 6 7 8 9 10 11 12																				
FD05	STS												MPLM Transfer	Meal	MPLM Transfer		EVA (Pump Module & RRM)	POST				
	Orb Att												Pre EVA	Bias -XLV-ZVV (TEA)								
		GMT 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 195/0 1 2 3																				
		MET 13 14 15 16 17 18 19 20 21 22 23 05/0 1 2 3 4 5 6 7 8 9 10 11 12																				
FD06	STS												MPLM Transfer (F1*)	MPLM	Meal	MPLM Transfer	P.A.O.	MPLM XFER				
	Orb Att												MPLM Transfer	Bias -XLV-ZVV (TEA)								
		GMT 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 196/0 1 2 3																				
		MET 13 14 15 16 17 18 19 20 21 22 23 06/0 1 2 3 4 5 6 7 8 9 10 11 12																				
FD07	STS												MPLM Transfer	P.A.O.	MPLM XFER	Meal	P.A.O.	Off Duty (4:00)				
	Orb Att												Bias -XLV-ZVV (TEA)									
		GMT 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 197/0 1 2 3																				
		MET 13 14 15 16 17 18 19 20 21 22 23 07/0 1 2 3 4 5 6 7 8 9 10 11 12																				
FD08	STS												MPLM Transfer	O.C.	MPLM XFER	O.C.	Meal	Crew Conf	MPLM TRANSFER			
	Orb Att												Bias -XLV-ZVV (TEA)									
		GMT 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 198/0 1 2 3																				
		MET 13 14 15 16 17 18 19 20 21 22 23 08/0 1 2 3 4 5 6 7 8 9 10 11 12																				
FD09	STS												MPLM XFER	CPA Install, Rack Config, MDDK Xfer	Meal	P.A.O.	MDDK Transfer	Off Duty (2:45)				
	Orb Att												Bias -XLV-ZVV (TEA)									
		GMT 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 199/0 1 2 3																				
		MET 13 14 15 16 17 18 19 20 21 22 23 09/0 1 2 3 4 5 6 7 8 9 10 11 12																				
FD10	STS												MDDK Xfer, O2 Rcfq	Meal	MPLM Uninstall	Hatch	RNDZ					
	Orb Att												MPLM Hatch Close	Meal	MDDK Xfer, DCB	Hatch	Bias -XLV-ZVV (TEA)					
		GMT 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 200/0 1 2 3																				
		MET 13 14 15 16 17 18 19 20 21 22 23 10/0 1 2 3 4 5 6 7 8 9 10 11 12																				
FD11	STS	Undock	Flyaround	Post Undk Cnfg	Meal	RCC Late Inspection			OBSS	RMS												
	Orb Att	Undock	Flyaround	-ZLV+YVV	Solar Inertial (Survey)			Bias -ZLV-XVV														
		Undocking 9/14:33 ^																				
		GMT 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 201/0 1 2 3																				
		MET 13 14 15 16 17 18 19 20 21 22 23 11/0 1 2 3 4 5 6 7 8 9 10 11 12																				
FD12	STS	SEP 3	FCS C/O	P.SSO	RCS, PILOT, DUMP	Meal	P.A.O.	Brief	Cabin Stow L-1 Comm Checks													
	Orb Att	SEP 3	-ZLV-XVV	DPLY	-ZLV+YVV	Bias -ZLV-XVV																
		Sep 3 10/13:08 ^ ^ PSSC Deploy 10/15:45																				
		GMT 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 202/0 1 2 3																				
		MET 13 14 15 16 17 18 19 20 21 22 23 12/0 1 2 3 4 5 6 7 8 9 10 11 12																				
FD13	STS	IMU	D/O Prep			Ent																
	Orb Att	-ZLV	IMU	-XSI	Comm	Ent																
		KSC D/O Burn 11/18:36 ^ ^ Landing 11/19:40																				

* Focused Inspection would be planned for the morning of FD06 if required

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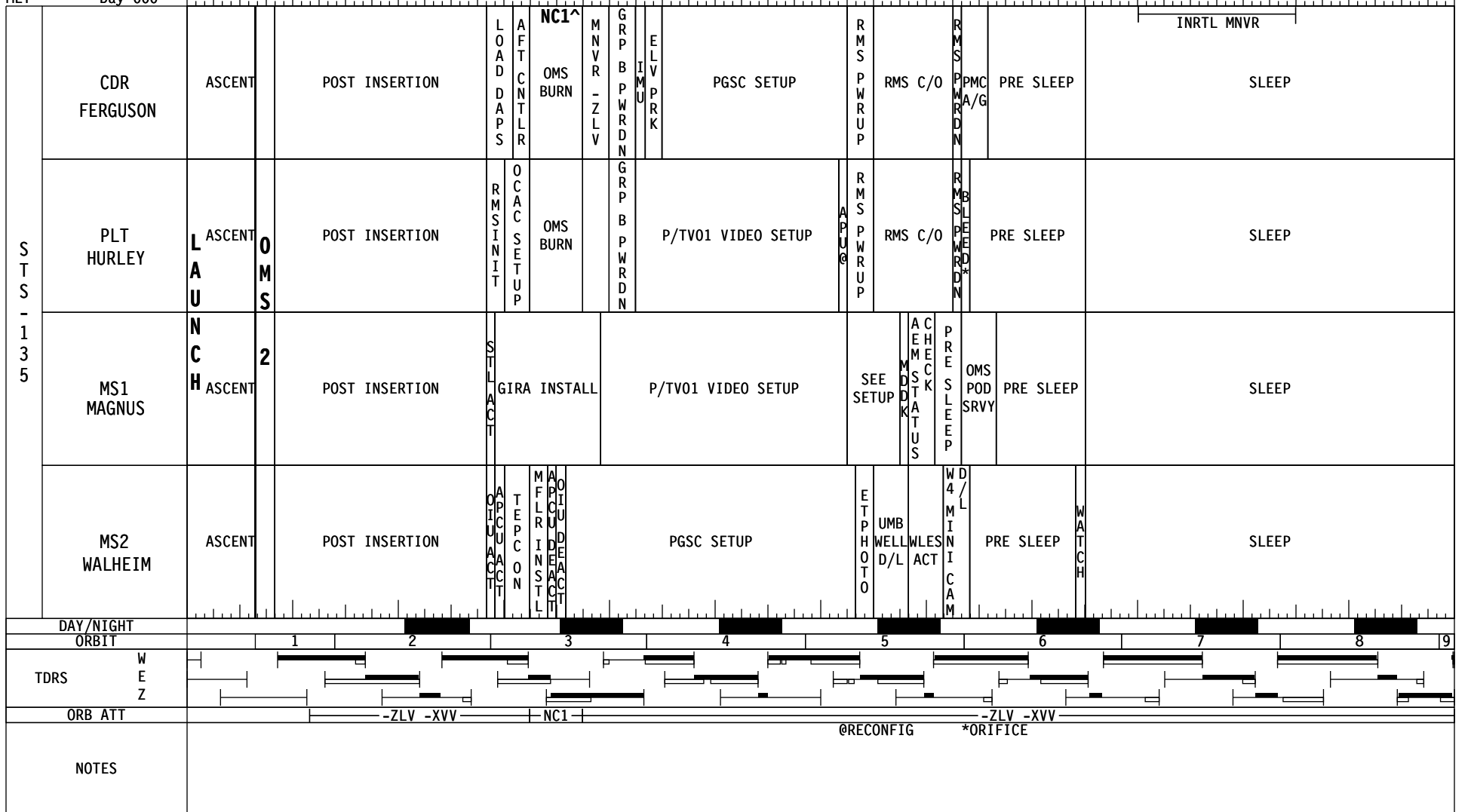
SUMMARY TIMELINE

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FD01

GMT 07/08/11 (189)

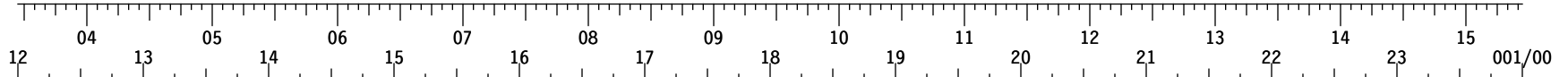
MET Day 000



FD02

GMT 07/09/11 (190)

MET Day 000



STS-135	CDR FERGUSON	SLEEP	POST SLEEP	OMS BURN	POST SLEEP	OBSS UNBERTH	MNV R STBD	STBD WING SURVEY	MEAL	NSOURVECYAP	
	PLT HURLEY	SLEEP	POST SLEEP	OMS BURN	POST SLEEP	OBSS UNBERTH		STBD WING SURVEY	MEAL	NSOURVECYAP	
	MS1 MAGNUS	SLEEP	POST SLEEP		FCMS OPS	POST SLEEP	ERG SETUP	STBD WING SURVEY	MEAL	NSOURVECYAP	
	MS2 WALHEIM	SLEEP	POST SLEEP	GOLF	POST SLEEP	POST SLEEP	ERG SETUP	FILTER CLEAN	CRYO 02 SNSR CK	CWC SETUP	MEAL
DAY/NIGHT ORBIT		9	10	11	12	13	14	15	16		
TDRS WEZ		[Timeline of TDRS operations]									
ORB ATT		-ZLV -XVV			NC2	-ZLV -XVV		BIAS +YSI		BIAS +XSI	
NOTES		^B POD HTR RCFG & SHELL HTR ACT *CRYSTALLIZATION %MANUAL									

FD02

GMT 07/09/11 (190)

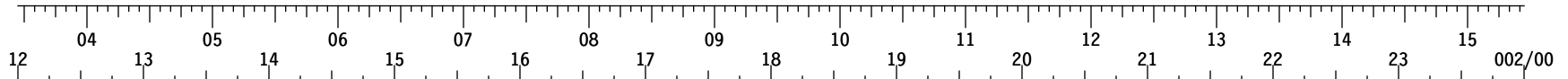
MET Day 001

		001/00		01		02		03		04		05		06		07		08		09		10		11		12	
STS-135	CDR FERGUSON	NOSE CAP SURVEY	PORT SURVY	MNVR PORT	PORT WING SURVEY			MNVR -ZLV	OBSS BERTH	DOCKING%	C/L CMR INSTL	ODS RING EXT	PRE SLEEP	+X RCS BURN	NC3^	MNVR -ZLV	FUT LOAD	PRE SLEEP	PMC A/G	PRE SLEEP	SLEEP						
	PLT HURLEY	NOSE CAP SURVEY	PORT WING SURVEY			OBSS BERTH			IMU	RNDZ TOOLS C/O		PRE SLEEP	+X RCS BURN	PRE SLEEP			SLEEP										
	MS1 MAGNUS	NOSE CAP SURVEY	PORT WING SURVEY			VEH SA I M I O N	LDRI DOWNLINK		DOCKING%	C/L CMR INSTL	ODS RING EXT	COND CWC S/U	A/L PREP	ACHEM CHECK STATUS	PRE SLEEP			SLEEP									
	MS2 WALHEIM	VEH SA I M I O N	MDDK XFER PREP			Q2	EVA PRP XFER TO ISS	OM 2D-DTK	MHEC	RNDZ TOOLS C/O		QCA #	HTRC/O	A/L PREP	PRE SLEEP			SLEEP									
DAY/NIGHT ORBIT																											
TDRS WEZ																											
ORB ATT				BIAS -YSI				-ZLV -XVV						NC3													
NOTES		*CNTLR SWAP						%MECH-INIT #48 Mbps																			
								^PREP-RNDZ C/O																			

FD03

GMT 07/10/11 (191)

MET Day 001



STS-135	CDR FERGUSON	SLEEP	^MNR	POST SLEEP	GRBPWRUP	NH^	NC4^	Ti^	ISS RNDZ OPS	APPROACH T/L
	PLT HURLEY	SLEEP	POST SLEEP	GRBPWRUP	ISS RNDZ OPS	APPROACH T/L	DOCKING*			
	MS1 MAGNUS	SLEEP	POST SLEEP	POST SLEEP	TRANSFER UPDATE	ISS RNDZ OPS				
	MS2 WALHEIM	SLEEP	POST SLEEP	SIMO INIT	POST SLEEP	SIMO TERM	POST SLEEP	RNDZ OPS	TRIDAR^	ISS RNDZ OPS



NOTES

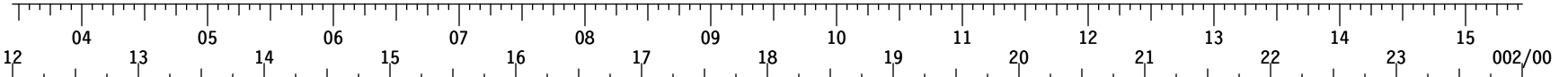
*REG RCNFG #2 Mbps ^ACT RNDZ DEACT%

DOCKING 001/23:43*

FD03

GMT 07/10/11 (191)

MET Day 001

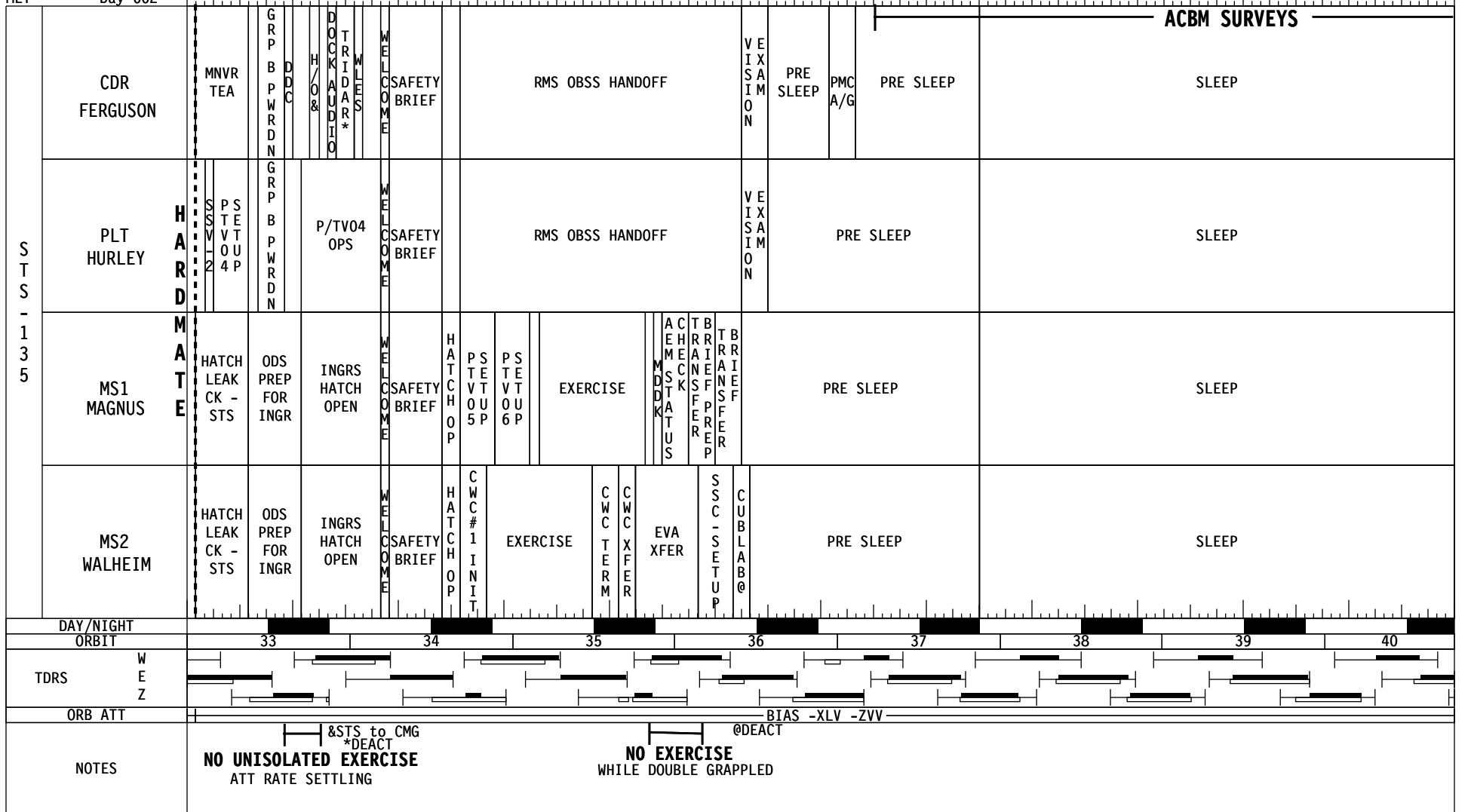


ISS	ISS CDR BORISENKO	SLEEP		POST SLEEP		DPC	PW	VELO			MEAL		DOCKING*						
	FE-1 SAMOKUTYAEV	SLEEP		POST SLEEP		DPC	PW	VELO			MEAL								
	FE-3 GARAN	SLEEP		POST SLEEP		DPC	PW	W N D C L S	^ I M N S U	T2	ARED			WRM WNK SMPL	MEAL	T I M E R	P A R A V 2 L		
	FE-4 VOLKOV	SLEEP		POST SLEEP		DPC	PW				P/TV RPM VRFY S/U	MEAL		P E R I O D M	1 0 0 0 M	P A R A V 2 L			
	FE-5 FURUKAWA	SLEEP		POST SLEEP		DPC	PW	V R C E L L I O C	CEVIS		T2	P/TV RPM VRFY S/U		MEAL	P E R I O D M	4 0 0 M	P A P T R V C H	P C S P /	
	FE-6 FOSSUM	SLEEP		POST SLEEP		DPC	PW	ARED			CEVIS	WRS WPA SMPL		P/TV RPM VRFY S/U	MEAL	P E R I O D M	8 0 0 M	R P M D L	C A M D S
	DAY/NIGHT	■		■		■		■		■		■		■		■			
DAILY ORBIT	14		15		16		1		2		3		4		5				
TDRS AVAIL	■		■		■		■		■		■		■		■				
ISS TLM	122		112		122		142												
ORBIT	25		26		27		28		29		30		31		32				
NOTES											^SALIVA		DOCKING 191/15:09*						

FD03

GMT 07/10/11 (191)

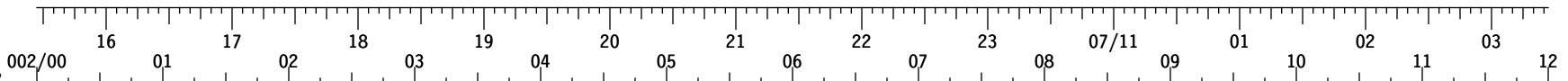
MET Day 002



FD03

GMT 07/10/11 (191)

MET Day 002

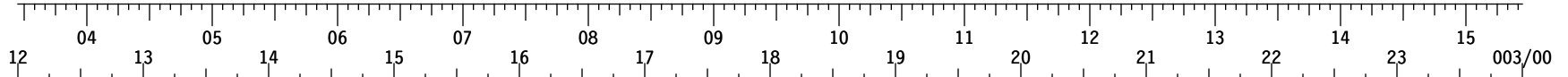


ISS	ISS CDR BORISENKO			CSAFETY BRIEF	T2	PW	DPC	PRE SLEEP-ISS	SLEEP															
	FE-1 SAMOKUTYAEV			CSAFETY BRIEF	ARED	PW	DPC	PRE SLEEP-ISS	SLEEP															
	FE-3 GARAN	HATCH LEAK CK ISS	INGRS HATCH OPEN	CSAFETY BRIEF	SSRMS OBSS HANDOFF		PW	PRE SLEEP-ISS	SLEEP															
	FE-4 VOLKOV			CSAFETY BRIEF	VELO		PW DPC	PRE SLEEP-ISS	SLEEP															
	FE-5 FURUKAWA			CSAFETY BRIEF	SSRMS OBSS HANDOFF			PRE SLEEP-ISS	SLEEP															
	FE-6 FOSSUM	HATCH LEAK CK ISS	INGRS HATCH OPEN	CSAFETY BRIEF	SODF EMER DEPLOY	EVA XFER		PW	PRE SLEEP-ISS	SLEEP														
	DAY/NIGHT	[Day/Night Cycle Bar]																						
DAILY ORBIT	[Daily Orbit Cycle Bar]																							
TDRS AVAIL	[TDRS Availability Bar]																							
ISS TLM	142			112			122			112			122											
ORBIT	33			34			35			36			37			38			39			40		
NOTES	<p style="text-align: center;"> NO UNISOLATED EXERCISE ATT RATE SETTLING </p> <p style="text-align: center;"> NO EXERCISE WHILE DOUBLE GRAPPLED </p>																							

FD04

GMT 07/11/11 (192)

MET Day 002



STS-135	CDR FERGUSON	SLEEP	POST SLEEP	P/TV06 ROBOTICS	PRLA OPEN	MDDK XFER	MEAL	MPLM VEST PRESS	MPLM VEST INGRS CNFG	MPLM ACT							
	PLT HURLEY	SLEEP	POST SLEEP	DOUG SETUP	SSRMS GRAPL	MPLM UNBERTH/INSTALL	MPLM INSTL	MPLM	MUNGR APPL	MDDK XFER	MEAL	STS 02 P/B CONFIG					
	MS1 MAGNUS	SLEEP	POST SLEEP	SSRMS GRAPL	MPLM UNBERTH/INSTALL	VERIF	MPLM INSTL	CBM1 STG	CA BOLT STG &	MUNGR APPL	CHANDN CWC	MEAL	MPLM VEST INGRS CNFG	CPA RMV			
	MS2 WALHEIM	SLEEP	POST SLEEP	APC UACT	PLYBK OPS	DC DI KU	CWC #2 INIT	TRP ANA STE	MDDK XFER	CWC TERM	CWC #3 INIT	MDDK XFER	CWC TERM	PMA3 CVR RVW	MEAL	TOOL VERIF	MDDK XFER
DAY/NIGHT ORBIT		40	41	42	43	44	45	46	47	48							
TDRS WEZ		[Timeline bars for TDRS WEZ]															
ORB ATT		[Timeline bars for ORB ATT]															
ISS TDRS AVAIL		[Timeline bars for ISS TDRS AVAIL]															
Notes		<p style="text-align: center;"> NO T2 MPLM MNVR FROM BERTH TO PRE-INSTL </p> <p style="text-align: center;"> NO EXERCISE MPLM INSTL/BOLT LOAD </p>															

FD04

GMT 07/11/11 (192)

MET Day 002

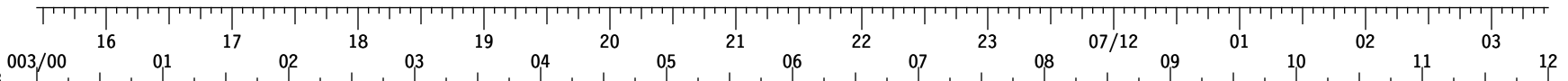


ISS	ISS CDR BORISENKO	SLEEP	POST SLEEP	PWDPC	PW	VELO	MEAL								
	FE-1 SAMOKUTYAEV	SLEEP	POST SLEEP	PWDPC	PW	VELO	MEAL								
	FE-3 GARAN	SLEEP	POST SLEEP	DPC	PW	CEVIS	MDDK XFER	E_LK PREP	PMA3 CVR RVW	MEAL	STS 02 P/B CONFIG				
	FE-4 VOLKOV	SLEEP	POST SLEEP	PWDPC	PW	T2	MEAL								
	FE-5 FURUKAWA	SLEEP	POST SLEEP	DPC	PW	ARED	VERIF	CBCS POWER DOWN	MPLM VEST PRESS	MEAL	MDDK XFER				
	FE-6 FOSSUM	SLEEP	POST SLEEP	DPC	CEVIS	PW	WHC-UR/IF-R&R	E_LK PREP	PMA3 CVR RVW	MEAL	TOOL VERIF	MDDK XFER			
DAY/NIGHT															
DAILY ORBIT	13	14	15	1	2	3	4	5	6						
TDRS AVAIL															
ISS TLM	122			142			122			112 122					
ORBIT	40	41	42	43	44	45	46	47	48						
NOTES	<p style="text-align: center;">*CAMCORDER CONFIG</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">NO T2</td> <td style="text-align: center;">NO EXERCISE</td> </tr> <tr> <td style="text-align: center;">MPLM MNVR FROM BERTH TO PRE-INSTL</td> <td style="text-align: center;">MPLM INSTL/ BOLT LOAD</td> </tr> </table> <p style="text-align: right;">*CAMCORDER CONFIG</p>											NO T2	NO EXERCISE	MPLM MNVR FROM BERTH TO PRE-INSTL	MPLM INSTL/ BOLT LOAD
NO T2	NO EXERCISE														
MPLM MNVR FROM BERTH TO PRE-INSTL	MPLM INSTL/ BOLT LOAD														

FD04

GMT 07/11/11 (192)

MET Day 003

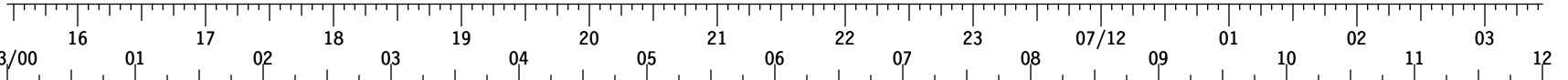


STS-135	CDR FERGUSON	MPLM ACT PART 1	I I M N V S T A L L	MPLM ACT II	M I P N L G M R E S S	EXERCISE	I M U	EVA 1 PROC RVW	PRE SLEEP	PMC A/G	PRE SLEEP	RRM AND ISS EXTERNAL SURVEYS				SLEEP
	PLT HURLEY	EXERCISE	LIQH XFER	MDDK XFER			I L L O N	EVA 1 PROC RVW			PRE SLEEP				SLEEP	
	MS1 MAGNUS	MPLM VEST CPA RMV	I I M N V S T A L L	V E L S O S I E B O U T	M I P N L G M R E S S	A C H E M E S T A T U S	T B R R I E N S F P R E P	EVA 1 PROC RVW			PRE SLEEP				SLEEP	
	MS2 WALHEIM	MDDK XFER	C W C # 4 I N I T	EXERCISE	C W C T E R M	C W C X F F E R	M I C R O X F R	P / T V O 1 S / U	EVA 1 PROC RVW			PRE SLEEP				SLEEP
DAY/NIGHT ORBIT		48	49	50	51	52	53	54	55	56						
TDRS W E Z		[Timeline bars for TDRS W E Z]														
ORB ATT		[Timeline bars for ORB ATT]														
ISS TDRS AVAIL		[Timeline bars for ISS TDRS AVAIL]														
Notes		*STS 02 P/B CONFIG														

FD04

GMT 07/11/11 (192)

MET Day 003

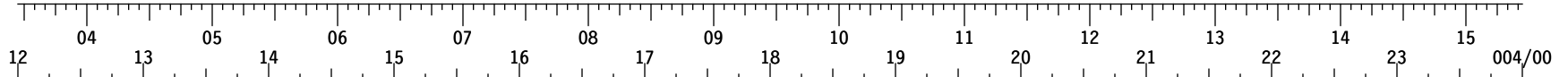


ISS	ISS CDR BORISENKO	T2		PW		DPC	PW	PRE SLEEP-ISS	SLEEP									
	FE-1 SAMOKUTYAEV	AK-1M		T2		PW		DPC	PW	PRE SLEEP-ISS	SLEEP							
	FE-3 GARAN	HEMVA-PPREC		ARED		EVA 1 PROC RVW		DPC	PW	PRE SLEEP-ISS	RXN		SLEEP					
	FE-4 VOLKOV	VELO		PW		DPC	PW	PRE SLEEP-ISS	SLEEP									
	FE-5 FURUKAWA	MDDK XFR	CEVIS	SODF BOOK U/D	EVA 1 PROC RVW		DPC	PW	PRE SLEEP-ISS	SLEEP								
	FE-6 FOSSUM	MDDK XFER	ARED	HEMVA-PPREC	EVA CAMERA CNFG	EVA 1 PROC RVW	DPC	PW	PRE SLEEP-ISS	RXN		SLEEP						
	DAY/NIGHT	6		7		8		9		10		11		12		13		14
DAILY ORBIT	6		7		8		9		10		11		12		13		14	
TDRS AVAIL	6		7		8		9		10		11		12		13		14	
ISS TLM	122		112		122		142		122		122		122		122		122	
ORBIT	48	49	50	51	52	53	54	55	56									
NOTES	*STS 02 P/B CONFIG																	

FD05

GMT 07/12/11 (193)

MET Day 003

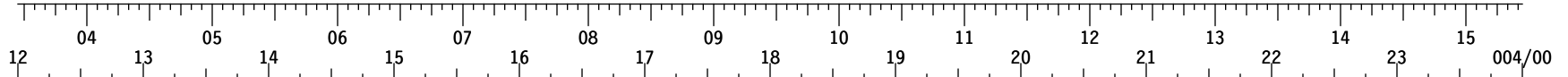


STS-135	CDR FERGUSON	SLEEP	POST SLEEP	ISLE EVA PREP	EMU PURGE	ISLE EMU PREBREATHE	C-LK DPRS	MPLM XFER	MEAL	MPLM XFER					
	PLT HURLEY	SLEEP	POST SLEEP	IMU	INHIBIT	MPLM XFER	ZSR XFER	MPLM XFER	CWC #5 INIT	MPLM XFER	CWC TERM	CWC XFER	DOUG SETUP	SSRMS SUPPORT	
	MS1 MAGNUS	SLEEP	POST SLEEP	TURPAD	ANASTFER	POST SLEEP	MPLM RACK PVT INSTL	MPLM XFER	RSNT-I	SSRMS SUPPORT					
	MS2 WALHEIM	SLEEP	POST SLEEP	GOL	MDK	MPLM XFER	ZSR XFER	MPLM XFER	P/TV 07 S/U	IVA PREP	ORMATE ^	IVA PREP	EVA 1 (6:30)	EVA-IVA-SUPPORT	
DAY/NIGHT ORBIT		56	57	58	59	60	61	62	63	64					
TDRS W E Z		[TDRS activity bars]													
ORB ATT		[ORB ATT activity bars]										BIAS -XLV -ZVV			
ISS TDRS AVAIL		[ISS TDRS AVAIL activity bars]													
Notes												^ PREP NO UNISOLATED EXERCISE EVA on ESP-2			

FD05

GMT 07/12/11 (193)

MET Day 003

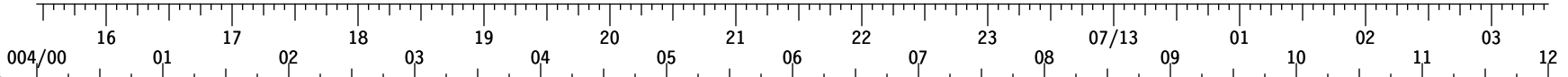


ISS	ISS CDR BORISENKO	SLEEP	POST SLEEP	PW	VELO	MPLM XFER	MEAL							
	FE-1 SAMOKUTYAEV	SLEEP	POST SLEEP	PW	T2	MPLM XFER	ARED MEAL							
	FE-3 GARAN	SLEEP	POST SLEEP	ISLE EVA PREP		ISLE EMU PREBREATHE	C-LK DPRS	SSRMS SETUP	EVA 1 (6:30)		RMV PM FRAM ESP2	XFER PM FRAM PLB	INSTL PM FRAM LMC	REF MRVA RRLMMC
	FE-4 VOLKOV	SLEEP	POST SLEEP	PW	ARED	MPLM XFER	MEAL							
	FE-5 FURUKAWA	SLEEP	POST SLEEP	EVA INH	ISLE EVA PREP		ISLE EMU PREBREATHE	C-LK DPRS	T2	MEAL				
	FE-6 FOSSUM	SLEEP	POST SLEEP	ISLE EVA PREP		ISLE EMU PREBREATHE	C-LK DPRS	INSTALL COLTS	EVA 1 (6:30)		RMV PM FRAM ESP2	XFER PM FRAM PLB	INSTL PM FRAM LMC	REF MRVA RRLMMC
	DAY/NIGHT	[Bar chart showing day/night cycle]												
DAILY ORBIT	[Bar chart showing orbit data]													
TDRS AVAIL	[Bar chart showing TDRS availability]													
ISS TLM ORBIT	122							112						
	56	57	58	59	60	61	62	63	64					
NOTES	<p style="text-align: right;">*CAMCORDER CONFIG []</p> <p style="text-align: center;">NO UNISOLATED EXERCISE EVA on ESP-2</p>													

FD05

GMT 07/12/11 (193)

MET Day 004

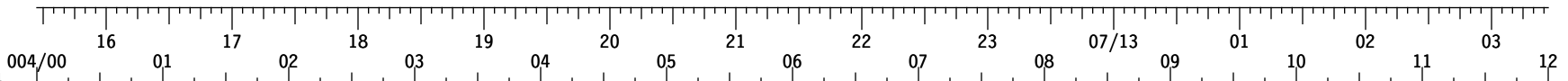


STS-135	CDR FERGUSON	MPLM XFER		C-LK RPRS	POST EVA	PRE SLEEP	PMC A/G	PRE SLEEP	ISS EXTERNAL SURVEYS			SLEEP					
	PLT HURLEY	SSRMS SUPPORT	CWC #6 INIT	FILTER INSP	CWC TERM	CWC XFER	MEMPHOTO	ILLON	PRE SLEEP			SLEEP					
	MS1 MAGNUS	SSRMS SUPPORT	RSNTR	MPLM XFER	CHEM STATUS	PRE SLEEP	BRIEF PREP	TRAINEF	PRE SLEEP			SLEEP					
	MS2 WALHEIM	EVA-IVA-SUPPORT			MDK	ORMATE+	MICROACT	MICROACT	PRE SLEEP			SLEEP					
DAY/NIGHT ORBIT		64		65		66		67		68		69		70		71	
TDRS W E Z		[Timeline]		[Timeline]		[Timeline]		[Timeline]		[Timeline]		[Timeline]		[Timeline]		[Timeline]	
ORB ATT		[Timeline]		[Timeline]		[Timeline]		[Timeline]		[Timeline]		[Timeline]		[Timeline]		[Timeline]	
ISS TDRS AVAIL		[Timeline]		[Timeline]		[Timeline]		[Timeline]		[Timeline]		[Timeline]		[Timeline]		[Timeline]	
Notes		NO UNISOLATED EXERCISE EVA on ELC-2															

FD05

GMT 07/12/11 (193)

MET Day 004

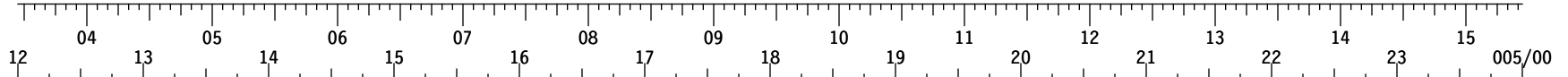


ISS	ISS CDR BORISENKO		ARED	MPLM XFER	PW	PRE SLEEP-ISS	SLEEP				
	FE-1 SAMOKUTYAEV			MPLM XFER	PW	PRE SLEEP-ISS	SLEEP				
	FE-3 GARAN	XFER RRM FRAM EOTP	INS EOTP	ORMATE INSTALL ELC2	EVA GET AHEAD	EVA CLNUP INGRESS	POST EVA	PS	HE MV SA - PP OM SC T	PS	SLEEP
	FE-4 VOLKOV		T2	MPLM XFER	PW	PRE SLEEP-ISS	SLEEP				
	FE-5 FURUKAWA			ARED		POST EVA	PRE SLEEP-ISS	SLEEP			
	FE-6 FOSSUM	XFER RRM FRAM EOTP	INS EOTP	SSRMS CLEANUP	EVA GET AHEAD	EVA CLNUP INGRESS	POST EVA	PS	HE MV SA - PP OM SC T	PS	SLEEP
	DAY/NIGHT	[Bar chart showing day/night cycle]									
DAILY ORBIT	[Bar chart showing orbit data]										
TDRS AVAIL	[Bar chart showing TDRS availability]										
ISS TLM	112										
ORBIT	64	65	66	67	68	69	70	71			
NOTES	*RMV RRM FRAM LMC *CAMCORDER CONFIG NO UNISOLATED EXERCISE EVA on ELC-2										

FD06

GMT 07/13/11 (194)

MET Day 004



STS-135	CDR FERGUSON	SLEEP	POST SLEEP	MDDK XFER (IF NO FOCUSED INSPECTION)	EXERCISE	ARE D H / O	CREW CHOICE RECORD	MDDK XFER (IF NO FI)	MEAL	CCRHWI CE D / L	MPLM XFER (IF NO FI)	
	PLT HURLEY	SLEEP	POST SLEEP	ILM LCS FI FU	EXERCISE	CWC # 7 INIT	CREW CHOICE RECORD	MDDK XFER (IF NO FI)	MEAL	CWC XFER	MDDK XFER (IF NO FI)	MDDK XFER (IF NO FI)
	MS1 MAGNUS	SLEEP	POST SLEEP	TURP ADNA STEER	POST SLEEP	EXERCISE	MPLM XFER (IF NO FI)	CREW CHOICE RECORD	MPLM XFER (IF NO FI)	MEAL	MPLM XFER (IF NO FI)	
	MS2 WALHEIM	SLEEP	POST SLEEP	LOG	MDDK	MPLM XFER (IF NO FOCUSED INSPECTION)	CREW CHOICE RECORD	MPLM XFER (IF NO FI)	MEAL	MICRO ACT	MPLM XFER (IF NO FI)	
DAY/NIGHT ORBIT		72	73	74	75	76	77	78	79			
TDRS W E Z		[TDRS activity bars]										
ORB ATT		BIAS -XLV -ZVV										
ISS TDRS AVAIL		[ISS activity bars]										
Notes		NO EXERCISE IF FI IS REQ (LCS FI)										

FD06

GMT 07/13/11 (194)

MET Day 004

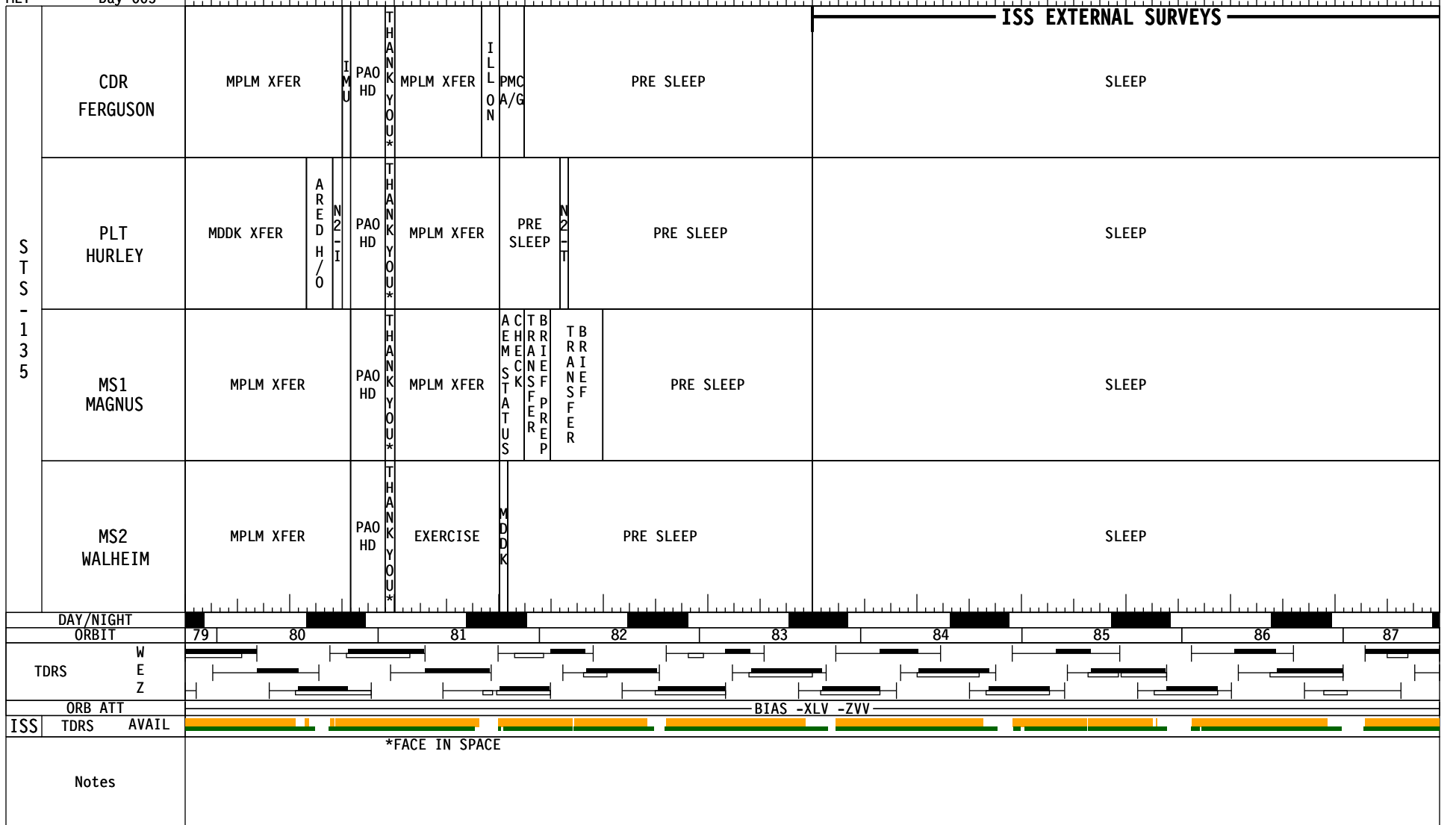


ISS	ISS CDR BORISENKO	SLEEP	POST SLEEP	PWDPC	PW	VELO	MPLM XFER			MEAL						
	FE-1 SAMOKUTYAEV	SLEEP	POST SLEEP	PWDPC	PW		T2	VELO		MEAL						
	FE-3 GARAN	SLEEP	POST SLEEP	PWDPC	EVA PHS/S	EVA PHS/UC	EVA PHS/C	EVA PHS/SUB	EVA PHS/D/E	PW	POST EVA W/H2O	ARED	CREW CHOICE RECORD	T2	MEAL	MPLM XFER
	FE-4 VOLKOV	SLEEP	POST SLEEP	PWDPC		T2	PW	MPLM XFER			MEAL					
	FE-5 FURUKAWA	SLEEP	POST SLEEP	PWDPC	PW	HAMP/	U	CEVIS	MPLM XFER			PULL	MEAL	MPLM XFER		
	FE-6 FOSSUM	SLEEP	POST SLEEP	PWDPC	PW	EVA PHS/SUB	EVA PHS/CMO		ARED	EVA CMRA	MPLM XFER	CREW CHOICE RECORD	MPLM XFER	MEAL	MPLM XFER	
	DAY/NIGHT	[Bar chart showing day/night cycle]														
DAILY ORBIT	[Bar chart showing orbit data]															
TDRS AVAIL	[Bar chart showing TDRS availability]															
ISS TLM ORBIT	72	73	74	75	76	77	78	79								
NOTES	NO EXERCISE IF FI IS REQ (LCS FI)															

FD06

GMT 07/13/11 (194)

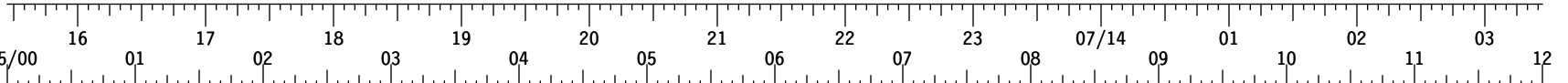
MET Day 005



FD06

GMT 07/13/11 (194)

MET Day 005

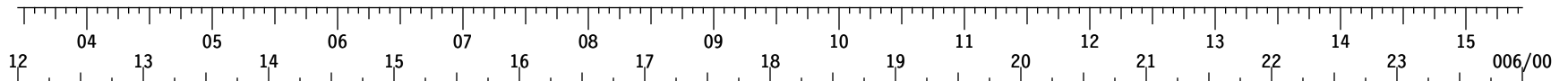


ISS	ISS CDR BORISENKO		T2	PW	DPC	PRE SLEEP-ISS	SLEEP		
	FE-1 SAMOKUTYAEV				PWDPC	PRE SLEEP-ISS	SLEEP		
	FE-3 GARAN		MPLM XFER	PW	DPC	PRE SLEEP-ISS	SLEEP		
	FE-4 VOLKOV		VELO	MPLM XFER	PW	DPC	PRE SLEEP-ISS	SLEEP	
	FE-5 FURUKAWA	MPLM XFER	PA O S / U	ARED	PA O - D	PW	DPC	PRE SLEEP-ISS	SLEEP
	FE-6 FOSSUM		MPLM XFER	CEVIS	PW	DPC	PRE SLEEP-ISS	SLEEP	
	DAY/NIGHT	[Shaded]		[Shaded]		[Shaded]		[Shaded]	
DAILY ORBIT	6	7	8	9	10	11	12	13	14
TDRS AVAIL	[Green]		[Green]		[Green]		[Green]		[Green]
ISS TLM	122			112			122		
ORBIT	79	80	81	82	83	84	85	86	87
NOTES									

FD07

GMT 07/14/11 (195)

MET Day 005

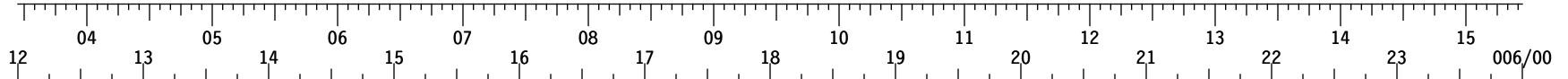


STS-135	CDR FERGUSON	SLEEP	POST SLEEP	I MU	MPLM XFER	EXERCISE	MPLM XFER	PAO HD	MPLM XFER	MEAL	PAO HD	OFF DUTY	PFC OCA	OFF DUTY							
	PLT HURLEY	SLEEP	POST SLEEP	CWC #9 INIT	POST SLEEP	I L L O S U	C W C T E R M	POST SLEEP	C I N C I T #10	EXERCISE	C W C T E R M	C W C X F E R	P W R #1 FILL	P W R #2 FILL	P W R #3 FILL	P W R X F E R	MEAL	PAO HD	OFF DUTY	PFC OCA	OFF DUTY
	MS1 MAGNUS	SLEEP	POST SLEEP	T U R P A D M N A D S T D F E K	POST SLEEP	MPLM XFER	MPLM XFER	PAO HD	EXERCISE	MEAL	PAO HD	OFF DUTY									
	MS2 WALHEIM	SLEEP	POST SLEEP	EXERCISE	MPLM XFER	MEAL	PAO HD	OFF DUTY													
DAY/NIGHT ORBIT		87	88	89	90	91	92	93	94	95											
TDRS W E Z		[TDRS activity bars]																			
ORB ATT		BIAS -XLV -ZVV																			
ISS TDRS AVAIL		[ISS TDRS AVAIL bars]																			
Notes																					

FD07

GMT 07/14/11 (195)

MET Day 005

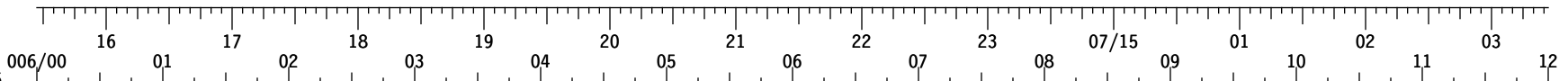


ISS	ISS CDR BORISENKO	SLEEP	POST SLEEP	DPC	PW				PMC	VELO	MEAL	OFF DUTY	T2
	FE-1 SAMOKUTYAEV	SLEEP	POST SLEEP	DPC	PW					T2	PMC	MEAL	OFF DUTY
	FE-3 GARAN	SLEEP	POST SLEEP	DPC	PW	RFTA R&R	RFTA STOW	MPLM XFER		ARED	MEAL	PAO S / U	OFF DUTY
	FE-4 VOLKOV	SLEEP	POST SLEEP	DPC	PW	ARED	VELO	PFC	PMC		MEAL	OFF DUTY	
	FE-5 FURUKAWA	SLEEP	POST SLEEP	DPC	PW	N L P I N S	MPLM XFER	ARED	PAO S / U	MPLM XFER	MEAL	OFF DUTY	
	FE-6 FOSSUM	SLEEP	POST SLEEP	DPC	PW	T2	MPLM XFER				MEAL	OFF DUTY	
	DAY/NIGHT	[Bar chart showing day/night cycles]											
DAILY ORBIT	14	15	1	2	3	4	5	6	7				
TDRS AVAIL	[Bar chart showing TDRS availability]												
ISS TLM ORBIT	87	122	89	90	91	122	92	93	94	95			
NOTES													

FD07

GMT 07/14/11 (195)

MET Day 006

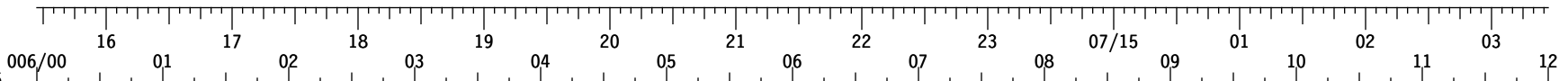


STS-135	CDR FERGUSON	OFF DUTY	AC EH ME C S T A T U S	PRE SLEEP	PMC A/G	PRE SLEEP	SLEEP				
	PLT HURLEY	OFF DUTY				PRE SLEEP	SLEEP				
	MS1 MAGNUS	OFF DUTY	PFC OCA	OFF DUTY	T B R A I N E S F E R E P	T B R A I N E S F E R	PRE SLEEP	SLEEP			
	MS2 WALHEIM	OFF DUTY	PFC OCA	OFF DUTY	M D D K		PRE SLEEP	SLEEP			
DAY/NIGHT ORBIT		95	96	97	98	99	100	101	102	103	
TDRS	W E Z	[Timeline of TDRS events]									
ORB ATT		BIAS -XLV -ZVV									
ISS	TDRS AVAIL	[Timeline of ISS/TDRS availability]									
Notes											

FD07

GMT 07/14/11 (195)

MET Day 006

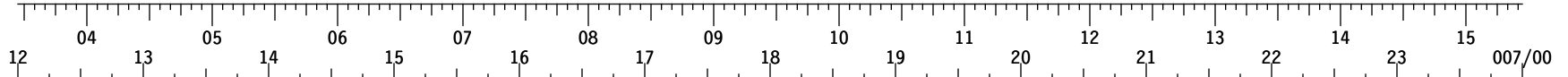


ISS	ISS CDR BORISENKO	T2	OFF DUTY	PW	DPC	PRE SLEEP-ISS	SLEEP		
	FE-1 SAMOKUTYAEV	OFF DUTY	VELO	PW	DPC	PRE SLEEP-ISS	SLEEP		
	FE-3 GARAN	OFF DUTY	CEVIS	PW	DPC	PRE SLP	SLEEP		
	FE-4 VOLKOV	OFF DUTY		PW	DPC	PRE SLEEP-ISS	SLEEP		
	FE-5 FURUKAWA	OFF DUTY	T2	PW	DPC	PRE SLP	PRE SLEEP-ISS	SLEEP	
	FE-6 FOSSUM	OFF DUTY	ARED		DPC	PRE SLEEP-ISS	SLEEP		
	DAY/NIGHT	[Bar]		[Bar]		[Bar]		[Bar]	
DAILY ORBIT	7	8	9	10	11	12			
TDRS AVAIL	[Bar]	[Bar]	[Bar]	[Bar]	[Bar]	[Bar]	[Bar]		
ISS TLM	122		112		122				
ORBIT	95	96	97	98	99	100	101	102	103
NOTES									

FD08

GMT 07/15/11 (196)

MET Day 006

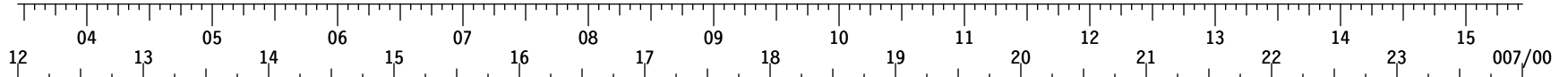


STS-135	CDR FERGUSON	SLEEP	POST SLEEP	EXERCISE	MPLM XFER	MPLM XFER	PAO HD	MPLM XFER	PAO HD	MEAL	CREW CONF	CREW PHOTO	MPLM XFER					
	PLT HURLEY	SLEEP	POST SLEEP	IMU	EXERCISE	PWR #4 FILL	PWR #5 FILL	PWR #6 FILL	PWR XFER	CWC-I S/U	PAO HD	FILTER INSPECT	N2 I	PAO HD	MEAL	CREW CONF	CREW PHOTO	MPLM XFER
	MS1 MAGNUS	SLEEP	POST SLEEP	TURP ADM TRANSFER	POST SLEEP	MPLM XFER	EXERCISE	MPLM XFER	PTV08 S/U	PSR TVY08 EXT	MPLM XFER	PAO HD	MEAL	CREW CONF	CREW PHOTO	MPLM XFER		
	MS2 WALHEIM	SLEEP	POST SLEEP	ISS EMU C/O PREP	ISS EMU C/O	EMU RESIZE	POST EVA XFER	PAO HD	MEAL	CREW CONF	CREW PHOTO	NALC TIVATION	EXERCISE					
DAY/NIGHT ORBIT		103	104	105	106	107	108	109	110									
TDRS W E Z		[Timeline bars for TDRS W E Z]																
ORB ATT		[Timeline bars for ORB ATT]																
ISS TDRS AVAIL		[Timeline bars for ISS TDRS AVAIL]																
Notes		*CHANGE																

FD08

GMT 07/15/11 (196)

MET Day 006

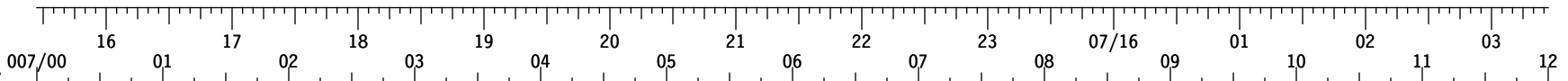


ISS	ISS CDR BORISENKO	SLEEP	POST SLEEP	P W	DPC	PW	VELO			MEAL	CREW CONF	CP RH EO WT O	T2						
	FE-1 SAMOKUTYAEV	SLEEP	POST SLEEP	P W	DPC	PW	ARED		MEAL	CREW CONF	CP RH EO WT O	VELO							
	FE-3 GARAN	SLEEP	POST SLEEP	S H I V A	DPC	PW	MPLM XFER		WATER PLC	MPLM XFER	ARED	MEAL	CREW CONF	CP RH EO WT O	P A O S / U	CL AR C N F G	MY CO P R E P	MY CO	PW
	FE-4 VOLKOV	SLEEP	POST SLEEP	P W	DPC	PW	T2			VELO	MEAL	CREW CONF	CP RH EO WT O						
	FE-5 FURUKAWA	SLEEP	POST SLEEP	S H I V A	DPC	PW	ARED		MPLM XFER	P A O S / U	MPLM XFER	T2	MEAL	CREW CONF	CP RH EO WT O	MPLM XFR			
	FE-6 FOSSUM	SLEEP	POST SLEEP	S H I V A	DPC	PW	WATER PLC	ISS EMU C/O PREP	PGT C/O	CEVIS	ISS EMU C/O	EMU RESIZE		POST EVA XFER	MEAL	CREW CONF	CP RH EO WT O	ARED	
DAY/NIGHT																			
DAILY ORBIT																			
TDRS AVAIL																			
ISS TLM		122			122														
ORBIT		103		104		105		106		107		108		109		110			
NOTES																			

FD08

GMT 07/15/11 (196)

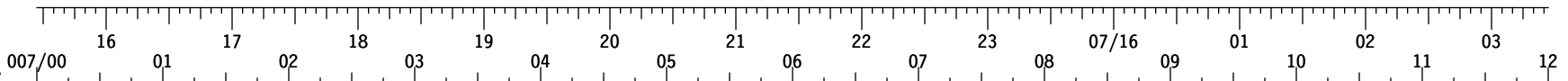
MET Day 007



STS-135	CDR FERGUSON	MPLM XFER	MYCORVW	PRE SLEEP	PMC A/G	PRE SLEEP	SLEEP
	PLT HURLEY	MPLM XFER	CFWCL-I #1	CFWCL-I #2	CWC-I XFER	MYCORVW	SLEEP
	MS1 MAGNUS	MPLM XFER	ACHMSTAK	PRE SLEEP	TBRINFREP	TBRINFREP	SLEEP
	MS2 WALHEIM	EXERCISE	MICRO XFER	MPLM GLA SCAV			SLEEP
DAY/NIGHT ORBIT							
TDRS W E Z							
ORB ATT							
ISS	TDRS AVAIL						
Notes							

FD08

GMT 07/15/11 (196)



MET Day 007

ISS	ISS CDR BORISENKO		PW	DPC	PRE SLEEP-ISS	SLEEP	
	FE-1 SAMOKUTYAEV	VELO	PW	DPC	PRE SLEEP-ISS	SLEEP	
	FE-3 GARAN	T2	PW	DPC	PRE SLEEP-ISS	SLEEP	
	FE-4 VOLKOV		PW	DPC	PRE SLEEP-ISS	SLEEP	
	FE-5 FURUKAWA	MPLM XFR	MYCO	PW	DPC	PRE SLEEP-ISS	SLEEP
	FE-6 FOSSUM	ARED	MYCO	PW	DPC	PRE SLEEP-ISS	SLEEP
DAY/NIGHT							
DAILY ORBIT							
TDRS AVAIL							
ISS TLM		122		122			
ORBIT		111	112	113	114	115 116 117 118	
NOTES							

FD09

GMT 07/16/11 (197)

MET Day 007

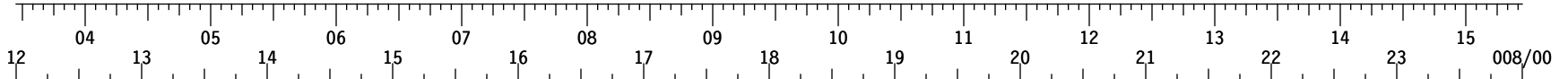


STS-135	CDR FERGUSON	MYCOSMPL	POST SLEEP	VEIXAMU VISION	MPLM XFER	FESI MDDK XFER	MPLM-VEST CPA-INSTL	EXERCISE	FESI MEAL	PAO HD	MDDK XFER	OFF DUTY						
	PLT HURLEY	MYCOSMPL	POST SLEEP	VEIXAMU VISION	CFWCL-I #3	CFWCL-I #4	CFWCL-I #5	CWC-I XFER	MPLM XFER	EXERCISE	CFWCL-I #6	CFWCL-I #7	CFWCL-I #8	CWC-I XFER	MEAL	PAO HD	GLACIER STS TRANSFER	OFF DUTY
	MS1 MAGNUS		POST SLEEP	TRPT ADN STFE R	POST SLEEP	VEIXAMU VISION	EXERCISE	MPLM-VEST CPA-INSTL	MPLM XFER	MPLM RACK CONFIG	MEAL	MDDK XFER	RASV ACT	OFF DUTY				
	MS2 WALHEIM	LOG	POST SLEEP	VEIXAMU VISION	MPLM XFER	EXERCISE	MPLM XFER	MDDK XFER	MEAL	MPLM GLA SCAV	GPL ACTV IER	OFF DUTY						
DAY/NIGHT ORBIT			118	119	120	121	122	123	124	125	126							
TDRS WEZ			[Timeline bars for TDRS WEZ]															
ORB ATT			[Timeline bars for ORB ATT]															
ISS TDRS AVAIL			BIAS -XLV -ZVV [Timeline bars for ISS TDRS AVAIL]															
Notes																		

FD09

GMT 07/16/11 (197)

MET Day 007

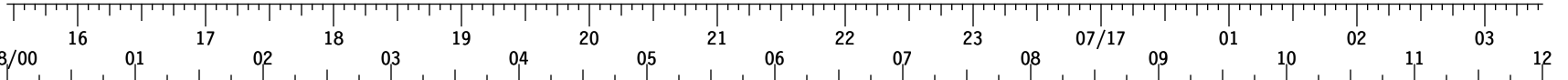


ISS	ISS CDR BORISENKO	POST SLEEP	PW	DPC	T2		VELO	MEAL		PW		
	FE-1 SAMOKUTYAEV	POST SLEEP	PW	DPC		ARED		MEAL		VELO		
	FE-3 GARAN	POST SLEEP	DPC	PW	MYCOINS	MPLM XFER	ARED	MEAL	BPSMU T/D	CEVIS	PW	
	FE-4 VOLKOV	POST SLEEP	PW	DPC		VELO		MEAL		T2	PW	
	FE-5 FURUKAWA	POST SLEEP	DPC	PW		MPLM XFER		MEAL	PAO/D	ARED	CEVIS	
	FE-6 FOSSUM	POST SLEEP	DPC	PW	GC/DMS	MPLM RACK PVT RMV	MPLM XFER	T2	MEAL	GLACIER ISS TRANSFER	PW	ARED
	DAY/NIGHT DAILY ORBIT TDRS AVAIL											
ISS TLM ORBIT	118	119	120	121	122	123	124	125	126			
NOTES												

FD09

GMT 07/16/11 (197)

MET Day 008

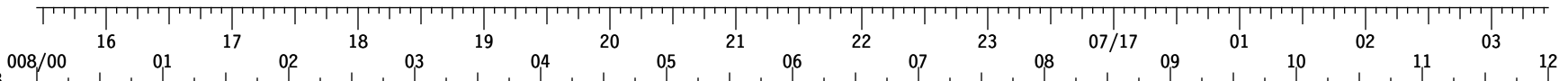


STS-135	CDR FERGUSON	OFF DUTY	PMC A/G	PRE SLEEP	SLEEP	POST SLEEP	
	PLT HURLEY	OFF DUTY		PRE SLEEP	SLEEP	POST SLEEP	
	MS1 MAGNUS	OFF DUTY	ACH MECK STATU S	PRE SLEEP	SLEEP	POST SLEEP	
	MS2 WALHEIM	OFF DUTY	MDDK	PRE SLEEP	SLEEP	POST SLEEP	
DAY/NIGHT ORBIT							
TDRS	W E Z						
ORB ATT							
ISS	TDRS AVAIL						
Notes							

FD09

GMT 07/16/11 (197)

MET Day 008

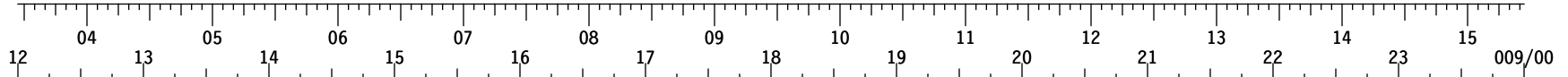


ISS	ISS CDR BORISENKO	PW	DPC	PRE SLEEP-ISS	SLEEP	POST SLEEP			
	FE-1 SAMOKUTYAEV	PW	DPC	PRE SLEEP-ISS	SLEEP	POST SLEEP			
	FE-3 GARAN	PW	DPC	PRE SLEEP-ISS	SLEEP	POST SLEEP			
	FE-4 VOLKOV	PW	DPC	PRE SLEEP-ISS	SLEEP	POST SLEEP			
	FE-5 FURUKAWA	CEVIS	PW	DPC	PRE SLEEP-ISS	SLEEP	POST SLEEP		
	FE-6 FOSSUM	ARED	DPC	PRE SLEEP-ISS	SLEEP	POST SLEEP			
	DAY/NIGHT								
DAILY ORBIT									
TDRS AVAIL									
ISS TLM	122	112	122						
ORBIT	126	127	128	129	130	131	132	133	134
NOTES									

FD10

GMT 07/17/11 (198)

MET Day 008

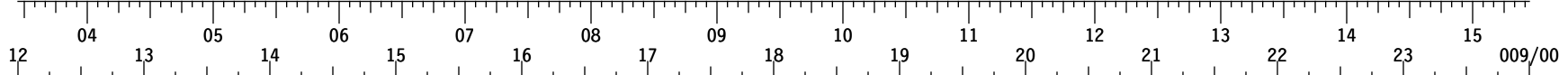


STS-135	CDR FERGUSON	POST SLEEP	MPLM DEACT	MPLM VEST DEMATE	MPLM VEST DEPRESS	MEAL	MDDK XFER	PRLA	EXERCISE	FAREWELL	CHEMCK	C/L CAMR INST	OBS*	H20#		
	PLT HURLEY	POST SLEEP	MN2 UI	EXERCISE	MDDK XFER	STS 02 P/B TEARDOWN	MEAL	SSRMS MPLM GRAPL	SSRMS MPLM UNINSTL	MPLM UNGRPL	PTV05 DACT	PTV04 OPS	C/L CAMR INST	OBS*	RNDZ TOOLS	
	MS1 MAGNUS	POST SLEEP	MPLM DEACT	MPLM VEST DEMATE	GLCRP/TV	EXERCISE	MEAL	DOUG SETUP	SSRMS MPLM GRAPL	SSRMS MPLM UNINSTL	MPLM UNGRPL	TRAIN FFER	FAREWELL	HATCH CLOSE	HATCH LEAK CHECK	
	MS2 WALHEIM	POST SLEEP	TRP ADNSTFER	CFWCL-I #9	CFWCL-I #10	CFWCL-I #11	CFWCL-I #12	CFWCL-I #13	CFWCL-I #14	CWC-I XFER	CHANGECOUT	PRLA	TRAIN FFER	FAREWELL	HATCH CLOSE	HATCH LEAK CHECK
DAY/NIGHT ORBIT	134	135	136	137	138	139	140	141	142							
TDRS WEZ	[Timeline bars for TDRS WEZ]															
ORB ATT	BIAS -XLV -ZVV															
ISS TDRS AVAIL	[Timeline bars for ISS TDRS AVAIL]															
Notes	<p style="text-align: center;"> NO EXERCISE MPLM UNINSTALL/ BOLT UNLOADING </p> <p style="text-align: center;"> NO T2 BACK OFF TO BERTH </p> <p style="text-align: right;"> &SHELL HTR ACT MNVR TO UNDOCK* NOMINAL CONFIG# %DEACT </p>															

FD10

GMT 07/17/11 (198)

MET Day 008

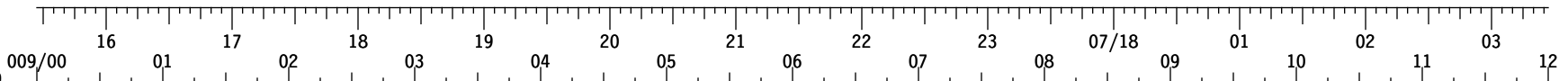


ISS	ISS CDR BORISENKO	POST SLEEP	PW	DPC	PW	T2			VELO	MEAL	FAREWELL				PW											
	FE-1 SAMOKUTYAEV	POST SLEEP	PW	DPC	PW	T2			VELO	MEAL	FAREWELL				PW											
	FE-3 GARAN	POST SLEEP	PW	DPC	BD L R O W O D	BO L P O R O D	ARED			STS 02 P/B TEARDOWN	WATER PLC	MEAL	CBM DEMATE	RT R R / D	DCB RVW	DCB PACK	DCB XFR	FAREWELL	HATCH CLOSE	CEVIS						
	FE-4 VOLKOV	POST SLEEP	PW	DPC	PW	VELO			MDDK XFER	T2	MEAL	MDDK XFER	FAREWELL				PW									
	FE-5 FURUKAWA	POST SLEEP	PW	DPC	BS L / O U O D	BO L P O R O D	BD L R O W O D	BO L P O R O D	ST W	BL D ST W	CEVIS	MPLM VEST DEPRESS			MEAL	V S W	MDDK XFER	ARED	FAREWELL	R S W	BPSMU STOW	ST W	PW			
	FE-6 FOSSUM	POST SLEEP	PW	DPC	WATER PLC			BD L R O W O D	S L V S T W	BL D ST W	MDDK XFER	ARED	MEAL	CBM DEMATE	DCB RVW	DCB PACK	FAREWELL	HATCH CLOSE	T2							
DAY/NIGHT																										
DAILY ORBIT																										
TDRS AVAIL																										
ISS TLM		112			122						142						122									
ORBIT		134			135			136			137			138			139			140			141			142
NOTES															NO EXERCISE MPLM UNINSTALL/ BOLT UNLOADING *CAMCORDER CONFIG			NO T2 BACK OFF TO BERTH			*CAMCORDER CONFIG			*MSS-RWS CABLE-D		

FD10

GMT 07/17/11 (198)

MET Day 009

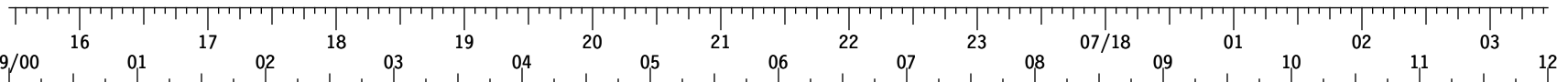


STS-135	CDR FERGUSON	PCS ACT	PRE SLEEP	PMC A/G	PRE SLEEP	SLEEP	POST SLEEP	
	PLT HURLEY	RNDZ TOOLS	PRE SLEEP		SLEEP	POST SLEEP		
	MS1 MAGNUS	PRE SLEEP	APCU ACT	PRE SLEEP	APCU ACT	PRE SLEEP	SLEEP	POST SLEEP
	MS2 WALHEIM	RNDZ TOOLS	PRE SLEEP		SLEEP	POST SLEEP		
DAY/NIGHT ORBIT								
TDRS W E Z								
ORB ATT								
NOTES		&SHELL HTR DEACT BIAS -XLV -ZVV						

FD10

GMT 07/17/11 (198)

MET Day 009



ISS	ISS CDR BORISENKO	PW	DPC	PRE SLEEP-ISS	SLEEP				POST SLEEP	
	FE-1 SAMOKUTYAEV	PW	DPC	PRE SLEEP-ISS	SLEEP				POST SLEEP	
	FE-3 GARAN	CE E H S	PW	DPC	PRE SLEEP-ISS	SLEEP				PS
	FE-4 VOLKOV	PW	DPC	PRE SLEEP-ISS	SLEEP				POST SLEEP	
	FE-5 FURUKAWA	PW	DPC	PRE SLEEP-ISS	SLEEP				B H S P POST SLEEP	
	FE-6 FOSSUM	T 2	PW	DPC	PRE SLEEP-ISS	SLEEP				B H S P POST SLEEP
	DAY/NIGHT									
DAILY ORBIT										
TDRS AVAIL										
ISS TLM	122	112	122							
ORBIT	142	143	144	145	146	147	148	149		
NOTES										

FD11

GMT 07/18/11 (199)

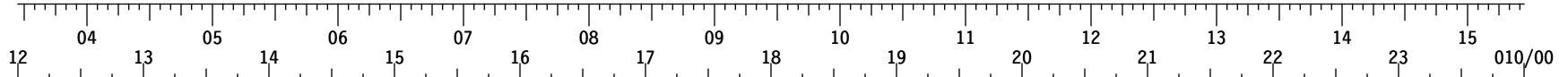
MET Day 009

		12	04	13	05	14	06	15	07	16	08	17	09	18	10	19	20	11	21	12	22	13	14	23	15	010/00
STS-135	CDR FERGUSON	POST SLEEP	GRPBWRUP	MNVR UNDOCK	UNDOCK OPS	FLYAROUND/SEP	SEP1^ SEP2^	GRPBWRUP	MNVR DUMP	CAB TEMP	MEAL	MNVR STBD	STBD WING SRVY-LATE	MNVR NOSE	NOSE CAP SURVEY	PT WING SVY	MNVR PORT	PORT WING SURVEY	MNVR -ZLV	OBSS BERTH	RMS PWRDN					
	PLT HURLEY	POST SLEEP	GRPBWRUP	POST SLEEP	UNDOCK OPS	FLYAROUND/SEP	UNDOCKING	GRPBWRUP	SHMVR 4B	COMM 1	MEAL	FLAT FIELD	STBD WING SRVY-LATE	NOSE CAP SURVEY	PORT WING SURVEY	OBSS BERTH	RMS PWRDN									
	MS1 MAGNUS	POST SLEEP	MVS	P/TV 03 S/U	FLYAROUND/SEP	P/TV03 UNDOCK		GRPBWRUP	CTE ANDR COWC	FOBP/TV	MEAL	STBD WING SRVY-LATE	NOSE CAP SURVEY	PORT WING SURVEY	LDR1 DOWNLINK	ACHEMCK STATUS	RMS PWRDN									
	MS2 WALHEIM	POST SLEEP	TRIDAR ACT	UNDOCK OPS	FLYAROUND/SEP	*		SOR DEACT	TRIDAR %	SIMO INIT	FOB INIT/MIX	SIMO TERM	MEAL	EMU INSTL	EVA UNPACK & STOW	PST ISS EVA ENT PREP	EXERCISE	NLP VAC TERM	NFBRICT							
DAY/NIGHT ORBIT	150	151	152	153	154	155		156	157																	
DRS WEZ	[Timeline bars for DRS WEZ]																									
ORB ATT	-BIAS -XLV -ZVV -XLV +ZVV FLYAROUND/SEP BIAS -ZLV +YVV BIAS +YSI BIAS +XSI BIAS -YSI -ZLV -XVV																									
NOTES	#CMG to STS %DEACT %SHELL HTR ACT *CHANGE																									
	*UNDOCKING 009/14:33																									

FD11

GMT 07/18/11 (199)

MET Day 009

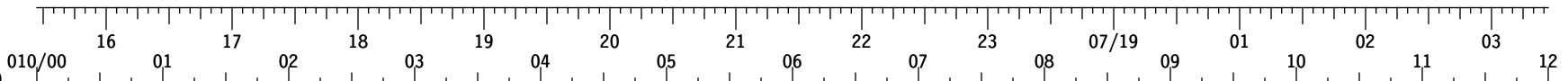


ISS	ISS CDR BORISENKO	POST SLEEP	PW	DPC	T2											MEAL						ARED						PW	
	FE-1 SAMOKUTYAEV	POST SLEEP	PW	DPC											VELO	MEAL						T2						PW	
	FE-3 GARAN	PS	PS ME AT 2 UP	PS DPC	PW	CS RR EV WY	PDC ME AP 2 ART	* UNDOCKING					PMA2 PT1	PMA2 PT2	PMA2 PT3						MEAL						T2	ARED	PW
	FE-4 VOLKOV	POST SLEEP	PW	DPC											MEAL						VELO	T2						PW	
	FE-5 FURUKAWA	POST SLEEP	PW	DPC	ARED	SR RV WY	DU CT - RM V	GC / DM S						RS PT R	T2	MEAL	TO CA	CSA O2 CAL	VR CT AN 1 CAM	RS PT R	TO CA						PW		
	FE-6 FOSSUM	POST SLEEP	PW	DPC	CR W SR VY	PDC ME AP 2 ART	UV NI DD KE O						AU DC FG	BS PT SM WU	ARED	MEAL	WHC MAN FILL	WHC MAINTENANCE PLC					CEVIS	PW					
DAY/NIGHT																													
DAILY ORBIT																													
TDRS AVAIL																													
ISS TLM		142										112					122												
ORBIT		150	151					152	153					154					155					156	157				
NOTES		♦AR-CDRA LTL-DSCNCT ⊕SODF-EVA-UPDATE *UNDOCKING 199/05:59																											

FD11

GMT 07/18/11 (199)

MET Day 010

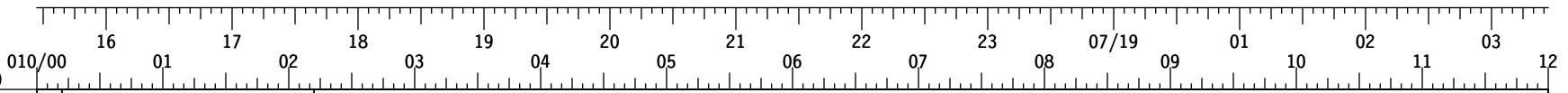


STS-135	CDR FERGUSON	RMS PWRDN	PRE SLEEP	PMCA/G	PRE SLEEP	SLEEP	POST SLEEP	
	PLT HURLEY	RMS PWRDN	PRE SLEEP		PRE SLEEP	SLEEP	POST SLEEP	
	MS1 MAGNUS	RASV TERM	PRE SLEEP	APC	PRE SLEEP	SLEEP	POST SLEEP	
	MS2 WALHEIM	FXOTBRCT SMPLE	PRE SLEEP	PLYBK OPS	PRE SLEEP	SLEEP	POST SLEEP	
DAY/NIGHT ORBIT								
TDRS W E Z								
ORB ATT								
ISS TDRS AVAIL								
Notes		&SHELL HTR DEACT #48 Mbps						

FD11

GMT 07/18/11 (199)

MET Day 010



ISS	ISS CDR BORISENKO	D P C	PRE SLEEP-ISS								SLEEP
	FE-1 SAMOKUTYAEV	D P C	PRE SLEEP-ISS								SLEEP
	FE-3 GARAN	D P C	PRE SLEEP-ISS								SLEEP
	FE-4 VOLKOV	D P C	PRE SLEEP-ISS								SLEEP
	FE-5 FURUKAWA	D P C	PRE SLEEP-ISS								SLEEP
	FE-6 FOSSUM	D P C	PRE SLEEP-ISS								SLEEP
	DAY/NIGHT										
DAILY ORBIT											
TDRS AVAIL											
ISS TLM		122									
ORBIT		157	158	159	160	161	162	163	164	165	
NOTES											

FD12

GMT 07/19/11 (200)

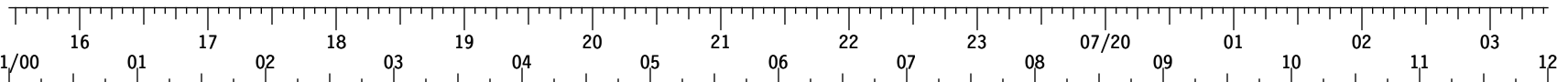
MET Day 010

		12	13	14	15	16	17	18	19	20	21	22	23	15 011/00							
STS-135	CDR FERGUSON	POST SLEEP	SEP3^ +X RCS BURN MNV R -ZLV	POST SLEEP	FCS C/O	DPLY PICOSAT DEPLOY	RCS HOT MNV R DUMP	PILOT OPS	MEAL	PAO EVENT	D/O BRIEF	EXERCISE	CABIN STOW	ACHECKS STATUS							
	PLT HURLEY	POST SLEEP	+X RCS BURN IMU	POST SLEEP	FCS C/O	PICOSAT DEPLOY MNV R DPLY	RCS HOT MNM STOW	PILOT OPS	MEAL	PAO EVENT	D/O BRIEF	COM 2 CABIN STOW	MLA L-1 COMM CHK	EXERCISE	DFR L-1 COMM CHK	CABIN STOW					
	MS1 MAGNUS	POST SLEEP		FCS C/O P/TV	EXERCISE	PTV 10 S/U	PTV 10 OPS	PAO S/U	COND INIT	CABIN STOW	COND TERM	MEAL	PAO EVENT	D/O BRIEF	EVS NIE TDT REUYOP	CABIN STOW	BRIC P/TV	BRIC ACT	ERG STOW	CCHEO WICE D/L	CABIN STOW
	MS2 WALHEIM	POST SLEEP	WO/C BA % POST SLEEP	FILTER CLEAN	FCS C/O	PICOSAT DEPLOY MPLM @	RCS HOT MPLM @	EXERCISE	MEAL	PAO EVENT	D/O BRIEF	CABIN STOW	BRIC ACT	CABIN STOW	WLES DEACT	PGSC STOW	ACCT I	ACCT I	ACCT I	ACCT I	ACCT I
DAY/NIGHT ORBIT	165	166	167	168	169	170	171	172	173												
TDRS W E Z	[Timeline bars for TDRS W E Z]																				
GND	[Timeline bars for GND]																				
ORB ATT	SEP3 -ZLV -XVV -YLV +ZVV -ZLV +YVV -ZLV -XVV																				
NOTES	*HEATER ACT %2 Mbps @SHELL HTR ACT ^PREP-RNDZ C/O *ON POWER ON# SHELL HTR DEACT&																				

FD12

GMT 07/19/11 (200)

MET Day 011

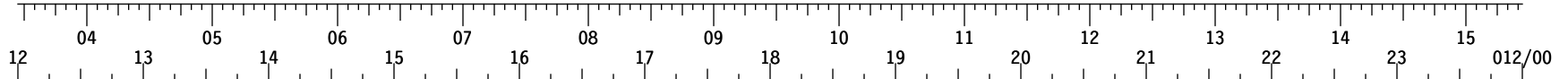


STS-135	CDR FERGUSON	ENROUTE PMCA/G	PRE SLEEP	SLEEP	POST SLEEP						
	PLT HURLEY	CABIN STOW	PRE SLEEP	SLEEP	POST SLEEP						
	MS1 MAGNUS	CABIN STOW SSV DEACT KUSTOW	PRE SLEEP	SLEEP	POST SLEEP						
	MS2 WALHEIM		PRE SLEEP	SLEEP	POST SLEEP						
DAY/NIGHT ORBIT			173	174	175	176	177	178	179	180	181
TDRS W E Z			[Timeline of TDRS events represented by horizontal bars]								
ORB ATT			-ZLV -XVV								
NOTES		@COOLING CNFG									

FD13

GMT 07/20/11 (201)

MET Day 011



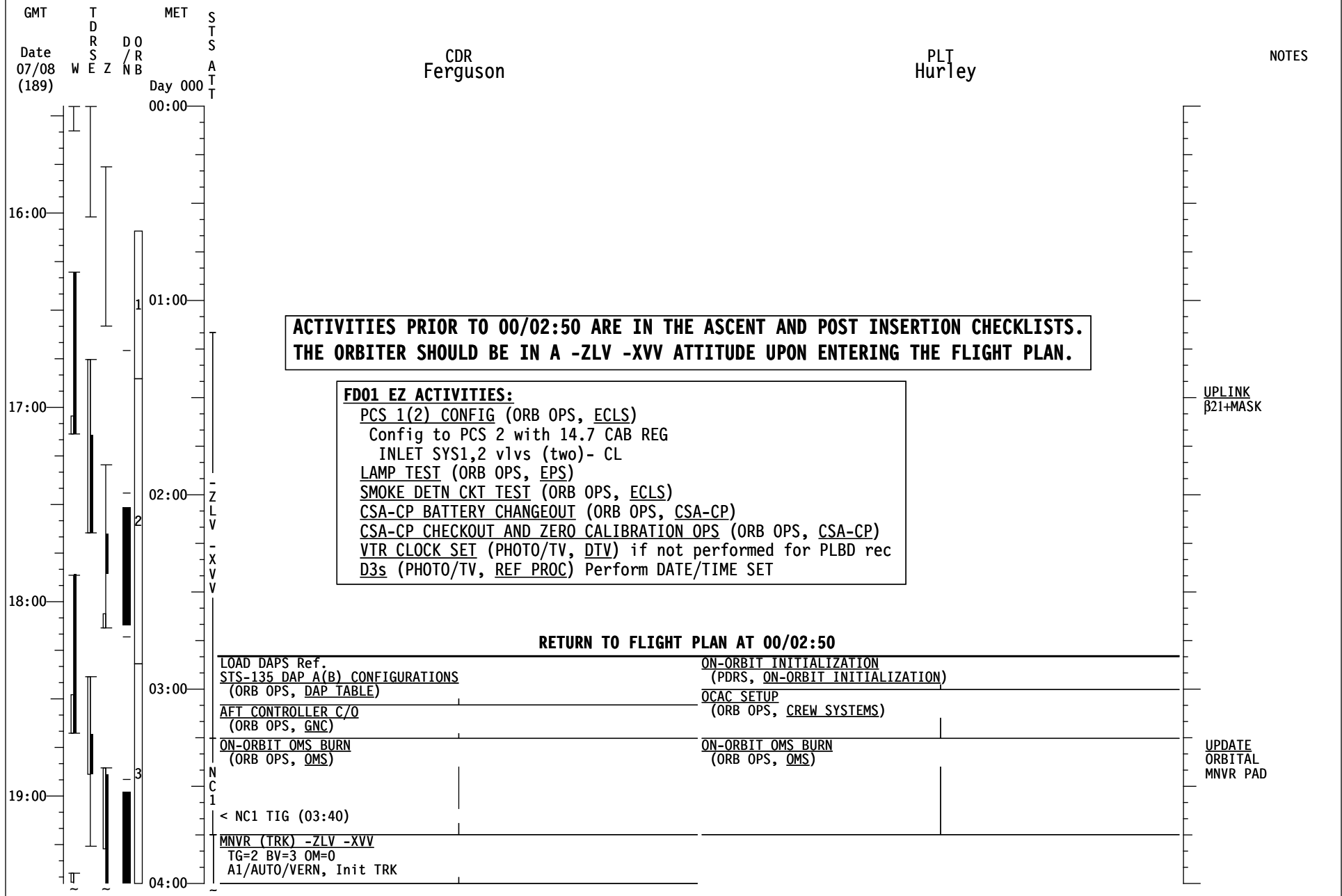
STS-135	CDR FERGUSON	POST SLEEP	PMC A/G	POST SLEEP	GRPB PWRUP	IMU ALIGN & VERIF	TRK-XSSI	DEORBIT PREP											
	PLT HURLEY	POST SLEEP			GRPB PWRUP	POST SLEEP	OCASTOW	DEORBIT PREP											
	MS1 MAGNUS	POST SLEEP			GIRASTOW	ACHMECK STILL STATUS	MFLM RDRS MVL	DEORBIT PREP											
	MS2 WALHEIM	POST SLEEP			CUBLAB@	TEPC PWRDN	PGSCA STOW PART II	W PARTCH	DEORBIT PREP										
DAY/NIGHT ORBIT		181		182		183		184		185		186		187		188			
TDRS	WEZ	[Timeline bars for TDRS, WEZ, and ORB ATT]																	
ORB ATT		-ZLV -XVV -XSI IMU COMM DO ENTRY																	
NOTES		@DEACT ^STRAIN GAGE ENABLE *ENTRY PREP *DEORBIT TIG ~011/18:36 *LANDING ~011/19:40																	

DETAILED TIMELINE

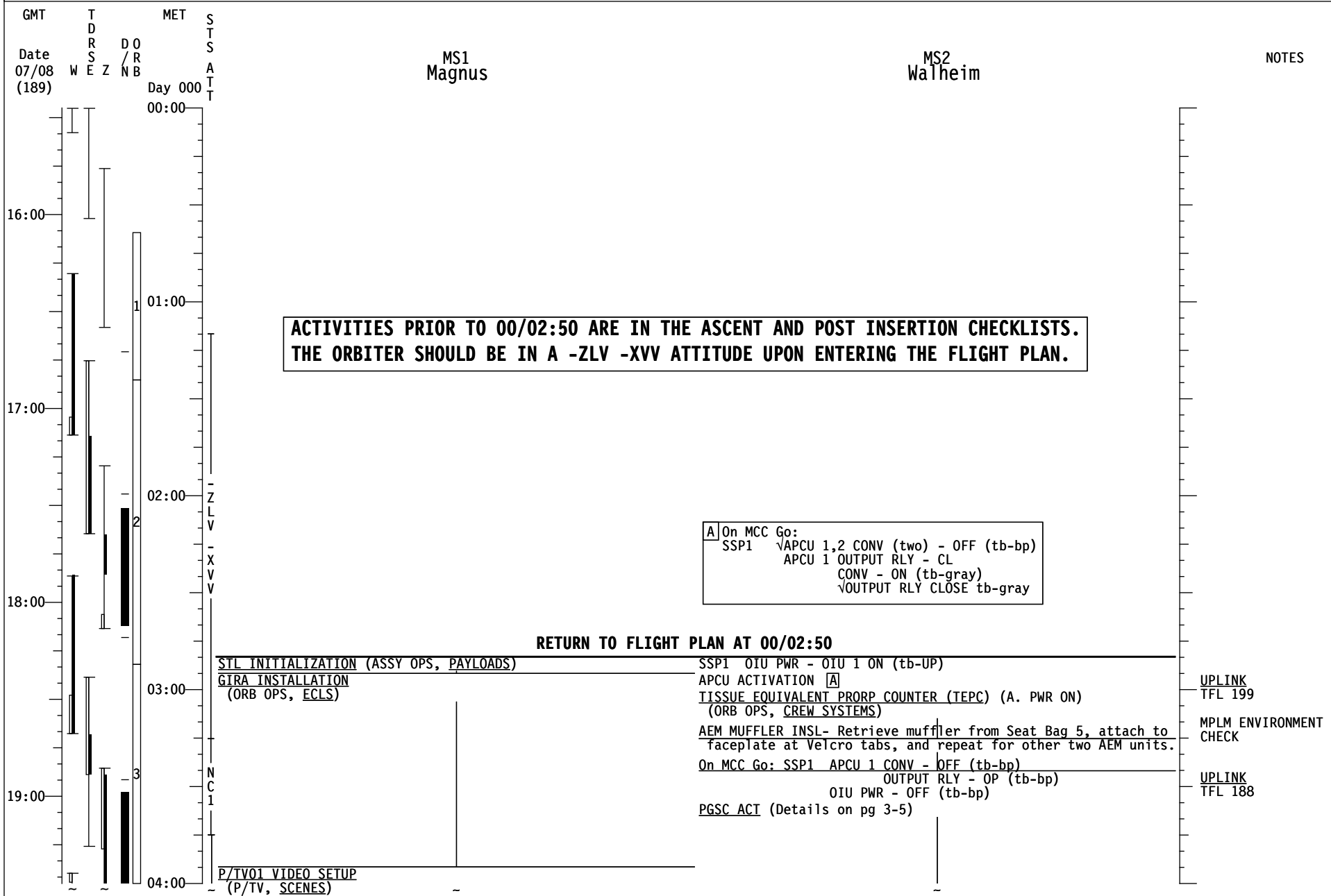
DETAILED
TIMELINE

DETAILED TIMELINE

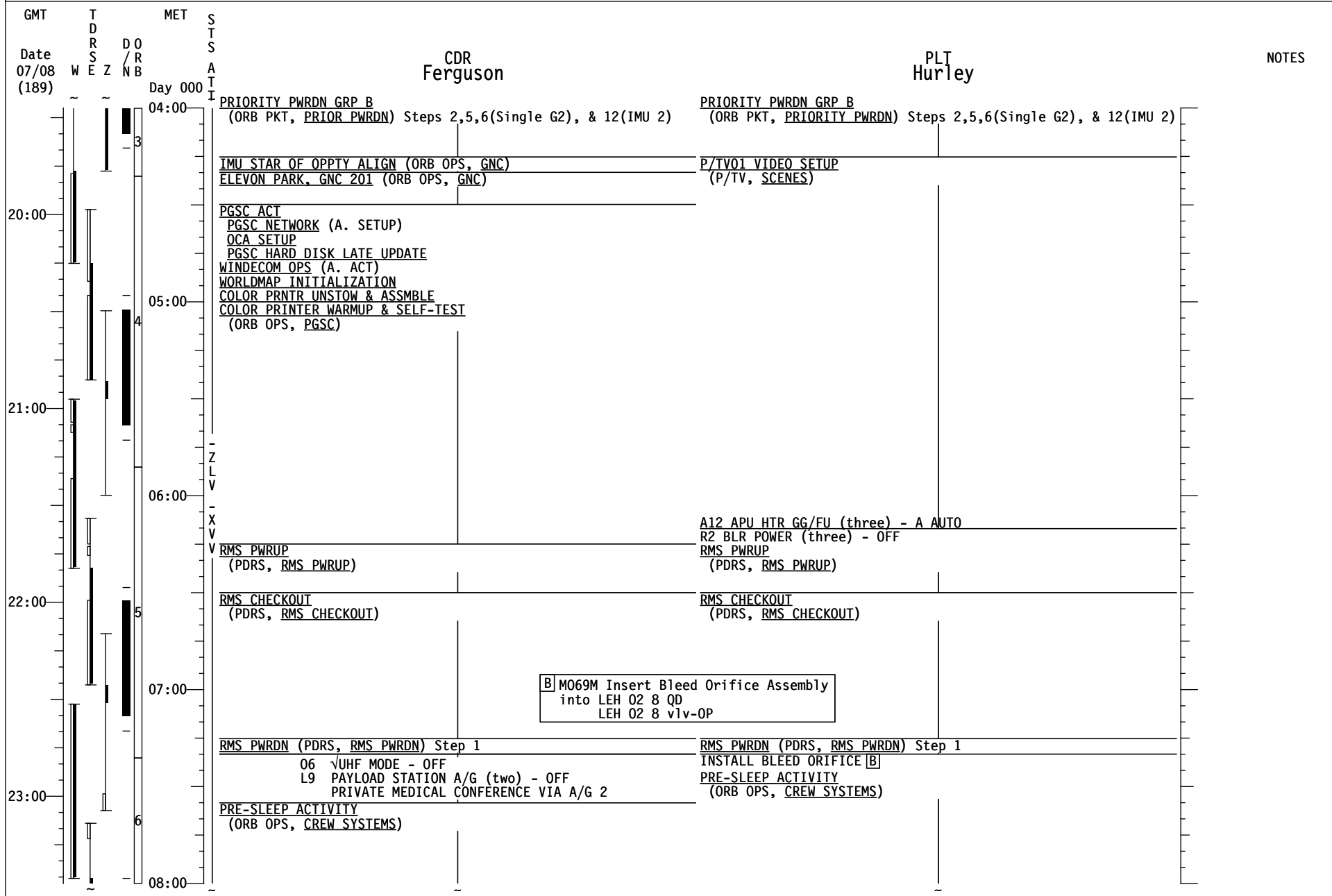
STS-135/ULF7 FD01



STS-135/ULF7 FD01



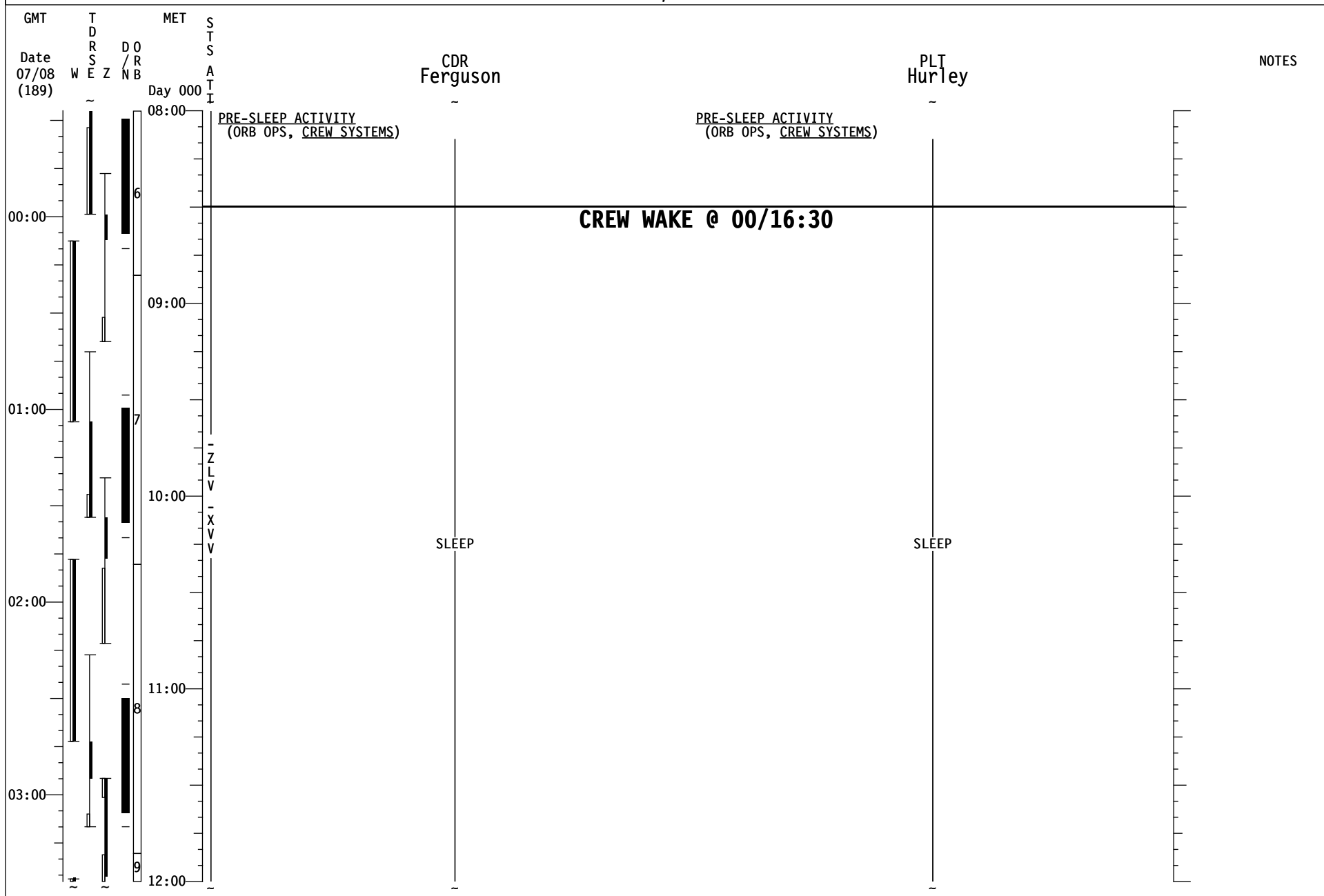
STS-135/ULF7 FD01



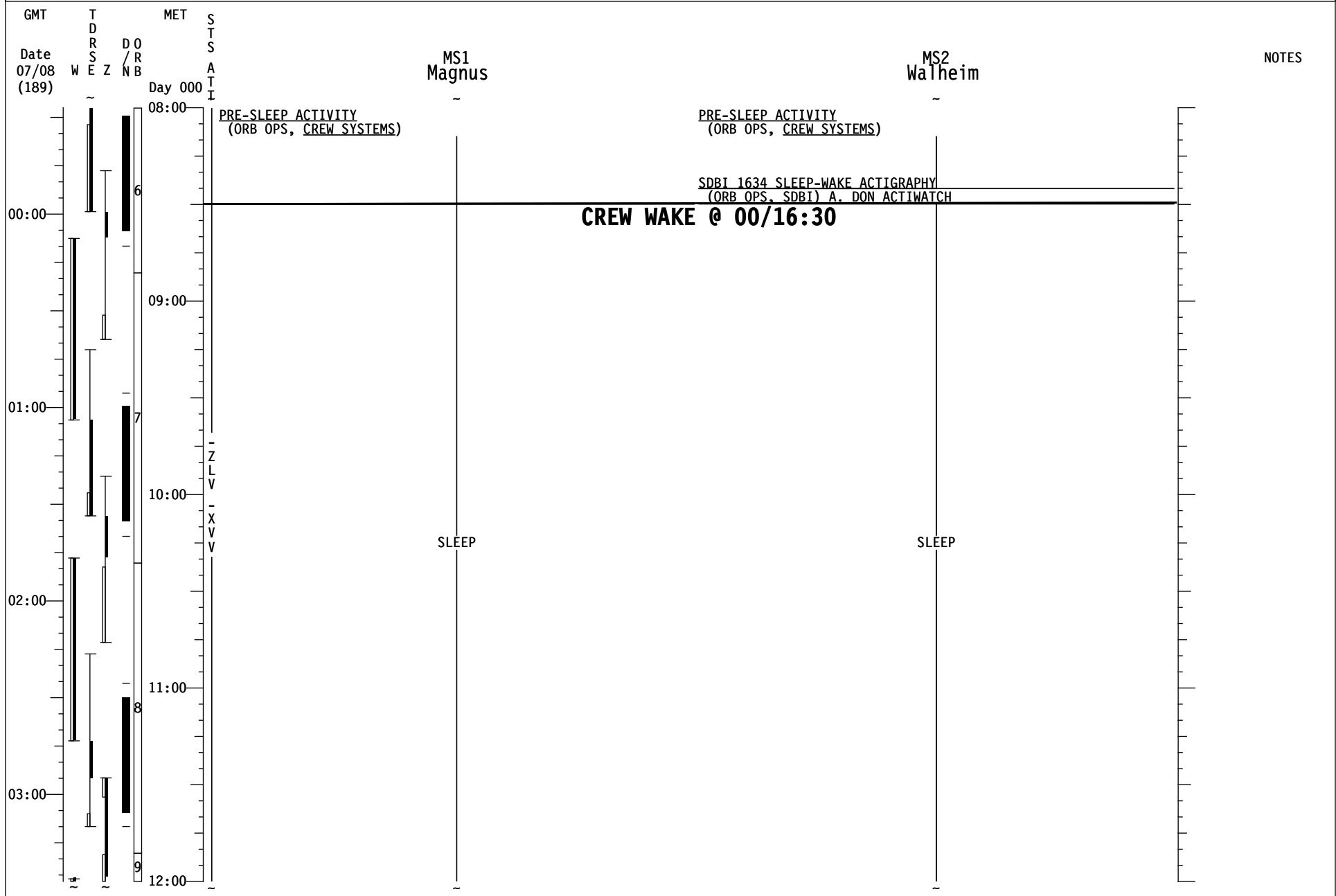
STS-135/ULF7 FD01

GMT	TDRS	MET	SATS	MS1 Magnus	MS2 Walheim	NOTES
Date 07/08 (189)	W E Z	Day 000	A T I			
04:00	3			<u>P/TV01 VIDEO SETUP</u> (P/TV, SCENES)		
20:00						<u>PGSC ACT</u> <u>PGSC NETWORK (A. SETUP)</u> <u>OCA SETUP</u> <u>PGSC HARD DISK LATE UPDATE</u> <u>WINDECOM OPS (A. ACT)</u> <u>WORLDMAP INITIALIZATION</u> <u>COLOR PRNTR UNSTOW & ASSMBLE</u> <u>COLOR PRINTER WARMUP & SELF-TEST</u> (ORB OPS, PGSC)
05:00	4					
21:00						
06:00						
22:00	5			<u>SHUTTLE EMER EYEWASH SETUP</u> After GIRA INSTALL, unstow and fill one drink container; label "FOR EYE RINSE ONLY". Attach on or near galley.	<u>IMAGE FILE XFER (PHOTO/TV, D2Xs)</u> Perform DCS FILE TO HARD DRIVE for ET HH Photo	
				<u>CGBA UNIT #1,2 STATUS CHECK (CC), STL STATUS CHECK (CC)</u> <u>AEM UNIT #1,2,3 CHECK (Cue Card)</u>	<u>UMBILICAL WELL TPS CAMERA IMAGERY DOWNLOADING</u> (ORB OPS, PGSC)	
07:00				<u>PRE-SLEEP ACTIVITY</u> (ORB OPS, CREW SYSTEMS)	<u>WLES ACTIVATION & CHECKOUT</u> (ORB OPS, WLE SENSORS)	
23:00				<u>P/TV08 EXTERNAL SRVY (SETUP) Step 1</u> <u>P/TV08 EXTERNAL SRVY (OPS)</u> (P/TV, SCENES) Item 1, OMS Pod Srvy Best Lighting (07:15-07:58)	<u>DIGITAL VIA VTR</u> (Cue Card, DIGITAL PLAYBACK) W4 Mini-Cam KU TDRW (07:05-07:58) Gimbal flip @ 7:29	
	6			<u>PRE-SLEEP ACTIVITY</u> (ORB OPS, CREW SYSTEMS)	<u>PRE-SLEEP ACTIVITY</u> (ORB OPS, CREW SYSTEMS)	
08:00						

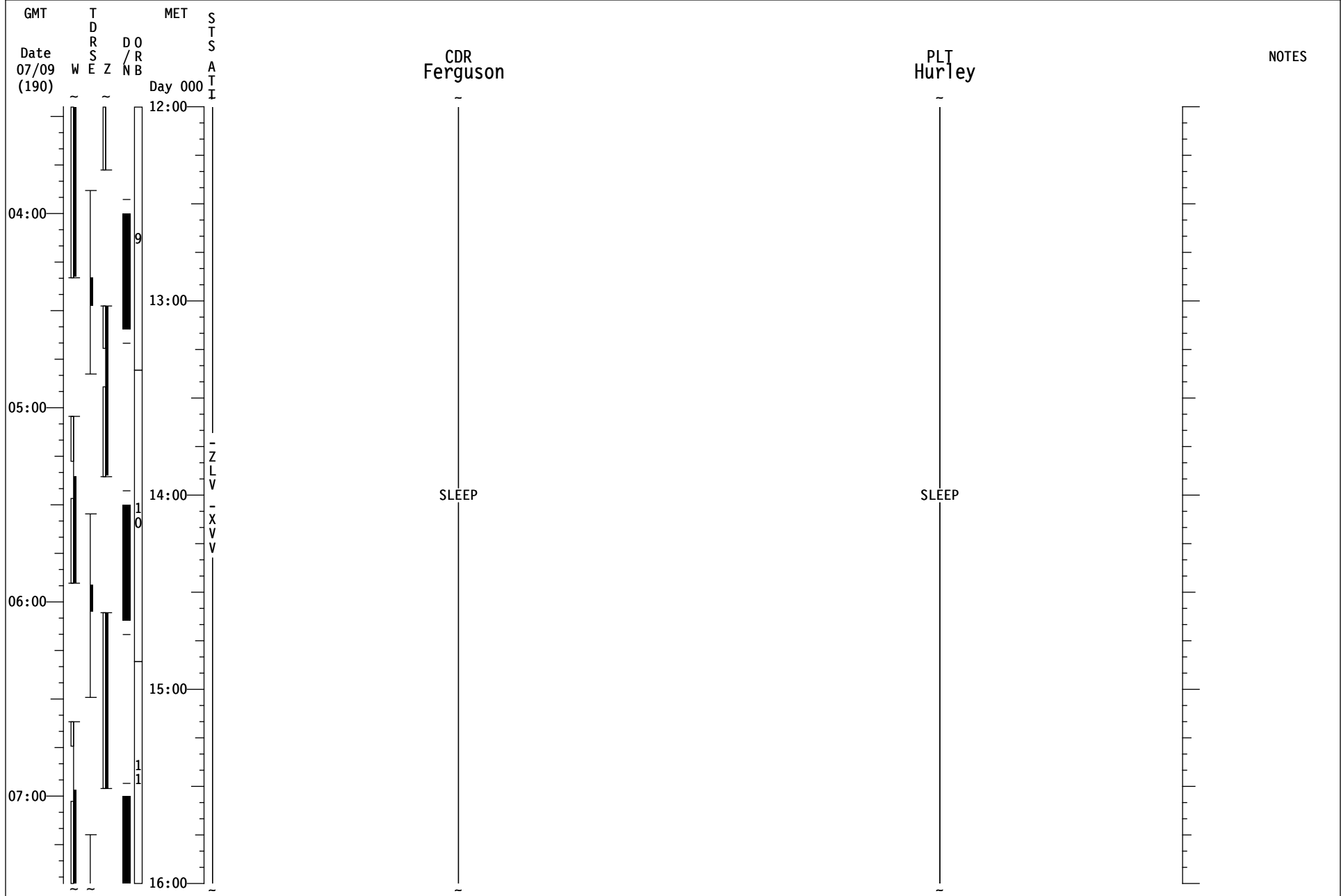
STS-135/ULF7 FD01



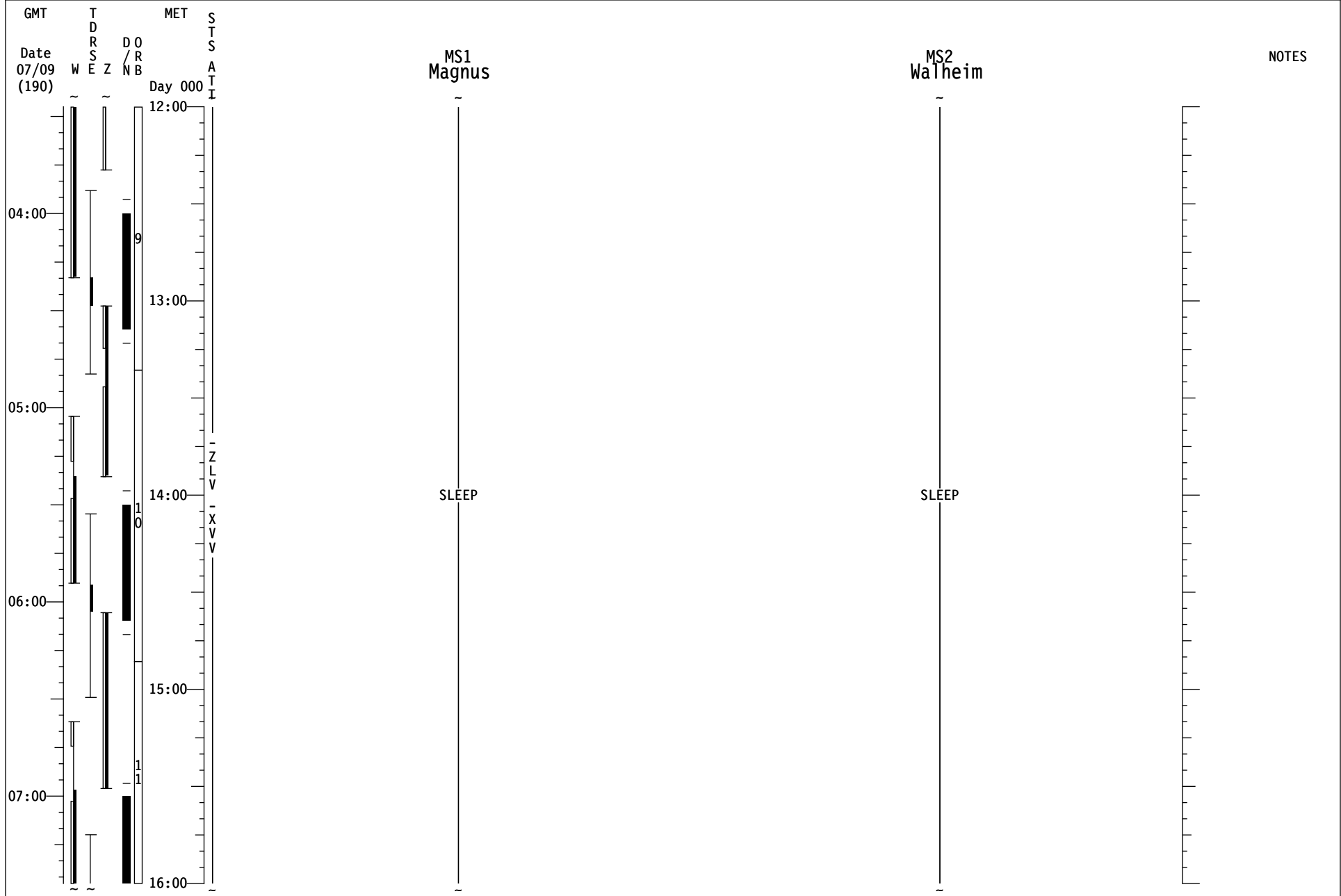
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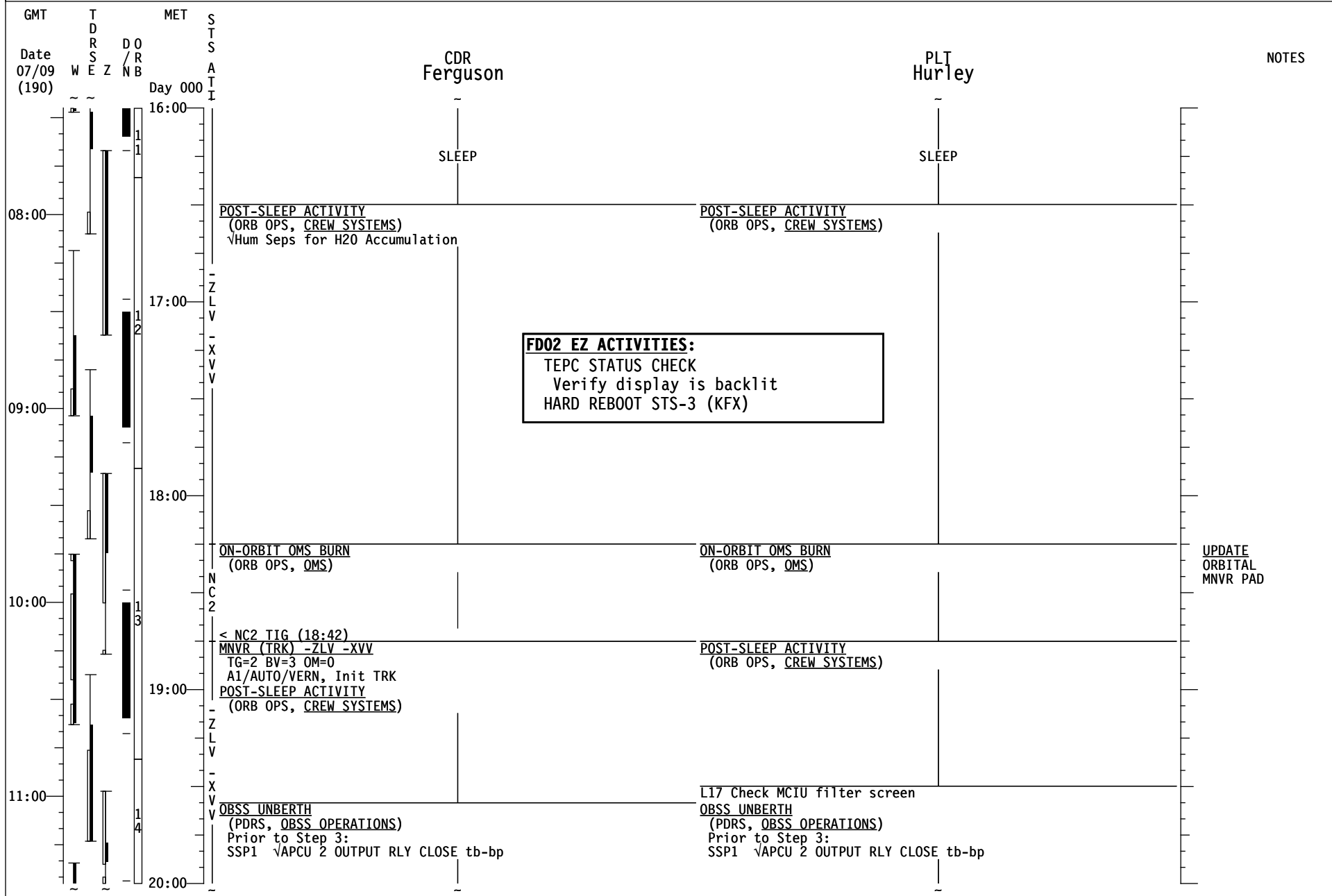
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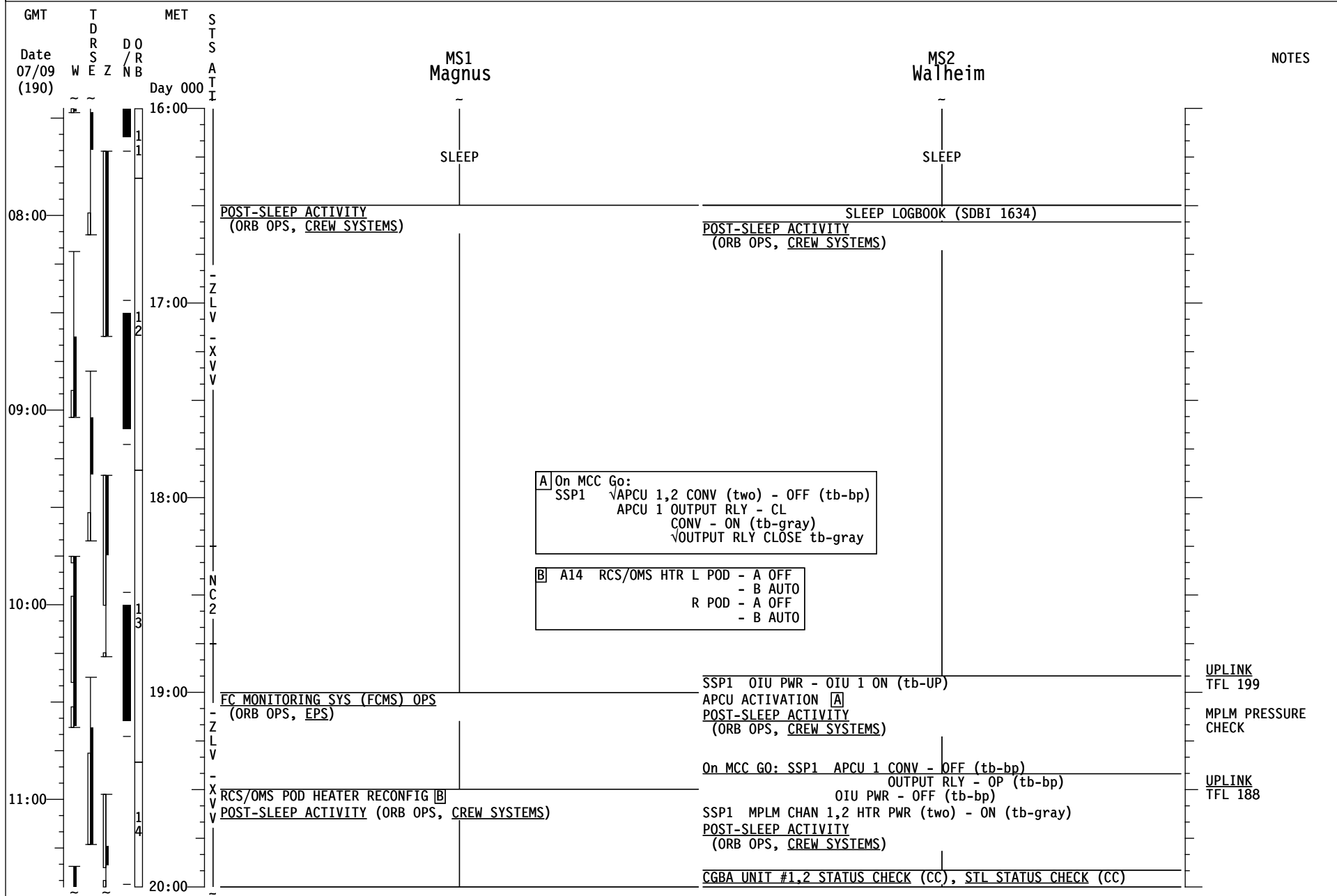
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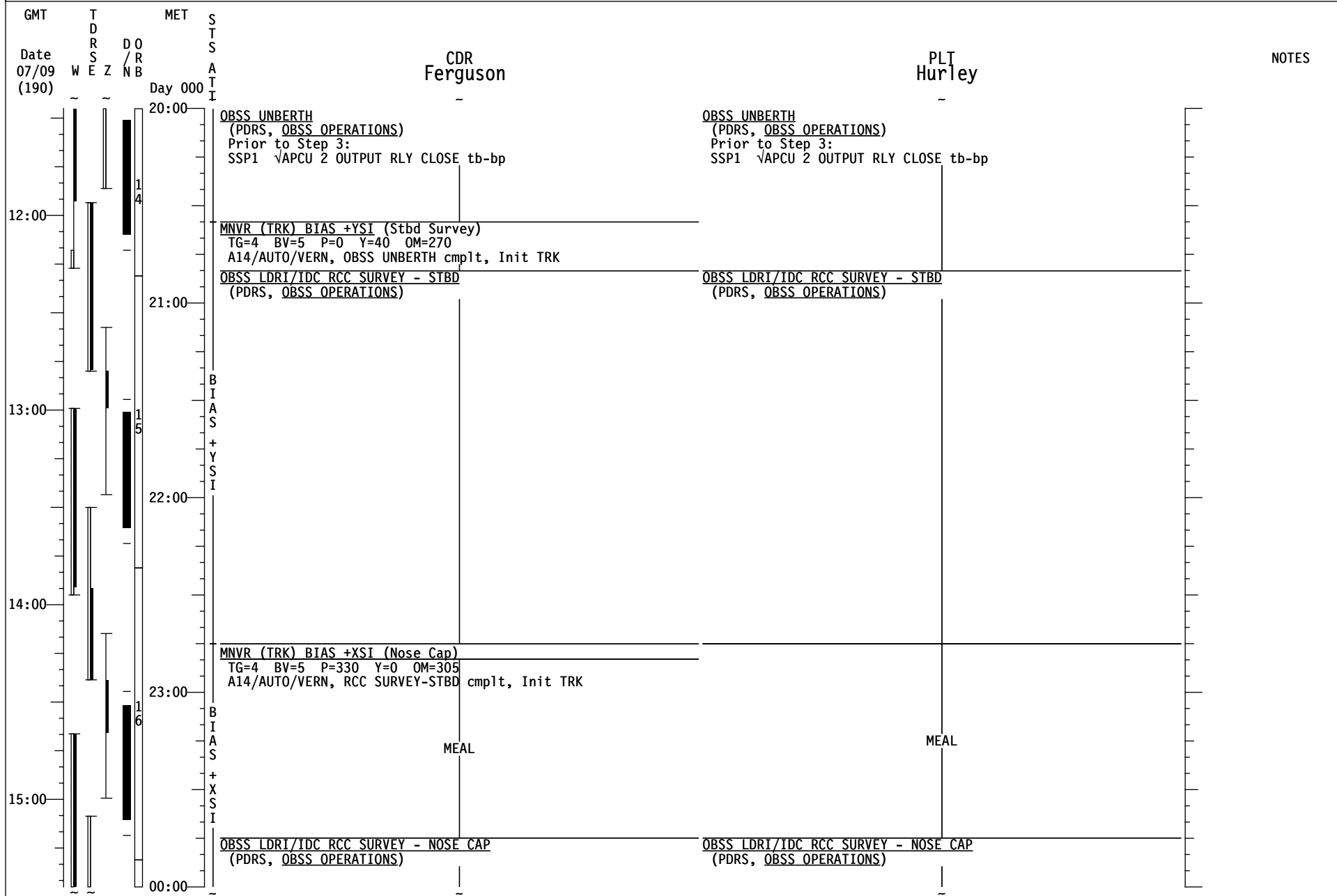
STS-135/ULF7 FD02



STS-135/ULF7 FD02



STS-135/ULF7 FD02



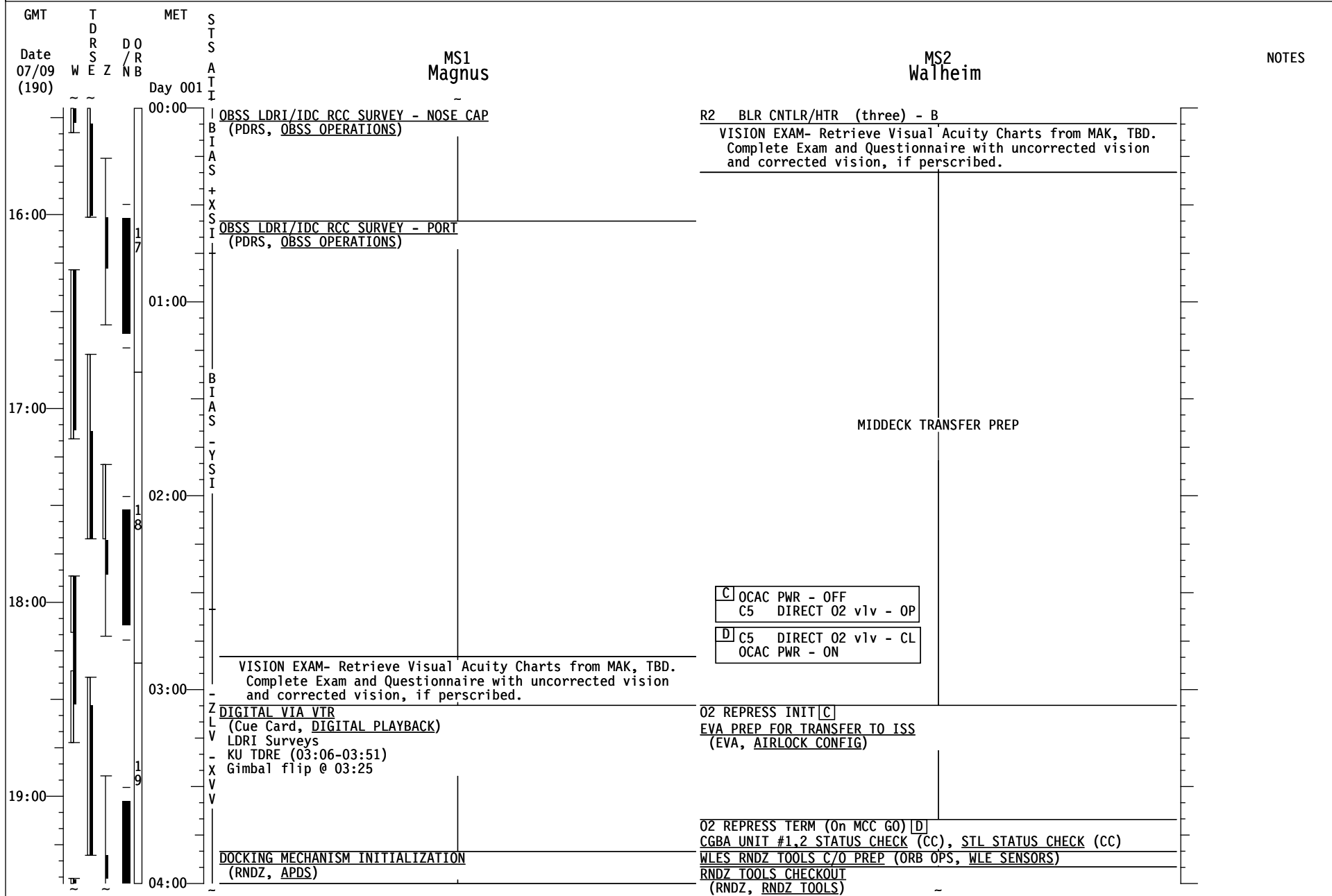
STS-135/ULF7 FD02

GMT	T D R S W E Z	MET Day 000	S T S A T I	MS1 Magnus	MS2 Walheim	NOTES
Date 07/09 (190)	W E Z	D O R / N B	S T S A T I	20:00	20:00	
				14	<p><u>CYCLE ERGOMETER OPS</u> (ORB OPS, CREW SYS) ERGOMETER SETUP</p>	<p><u>CYCLE ERGOMETER OPS</u> (ORB OPS, CREW SYS) ERGOMETER SETUP</p>
12:00				<p><u>P/TV09 MIDDECK PAYLOADS</u> (P/TV, SCENES) Item 5 Video</p>	<p><u>CUBE LAB MODULE-7 ACTIVATION</u> (ASSY OPS, PAYLOADS) All Trays in LMA Packs 1 and 2; ONLY activate Syringes with "FD2" labeled arrows on back of trays.</p>	
				<p><u>OBSS LDRI/IDC RCC SURVEY - STBD</u> (PDRS, OBSS OPERATIONS)</p>	<p><u>CUBE LAB MODULE-8 ACTIVATION</u> (ASSY OPS, PAYLOADS) <u>BRICK SYNERGE UNSTOW</u> (ASSY OPS, PAYLOADS) ML86B:C cb MNC EXT ARLK HTR LN ZN 1,2 (two) - c1 <u>FILTER CLEANING</u> (IFM, SCHEDULED MAINTENANCE)</p>	
13:00			B I A S + Y S I		<p><u>CUBE LAB MODULE-8 CRYSTALLIZATION</u> (ASSY OPS, PAYLOADS)</p>	
					<p><u>CRYO 02 TK HTR SNSR CK</u> (ORB OPS, EPS)</p>	
14:00					<p><u>SHUTTLE/ISS H2O CONTAINER FILL</u> (ORB OPS, ECLS) Perform EQUIP PREP and WATER TRANSFER HOSE PURGE Ref. MSG XXX</p>	
15:00			B I A S + X S I	MEAL	MEAL	
23:00						
00:00						
				<p><u>OBSS LDRI/IDC RCC SURVEY - NOSE CAP</u> (PDRS, OBSS OPERATIONS)</p>	<p><u>SSPI MPLM CHAN 1,2 HTR PWR</u> (two) - OFF (tb-bp) <u>FUEL CELL PURGE - MANUAL</u> (ORB OPS, EPS)</p>	

STS-135/ULF7 FD02

GMT	TDRS W E Z	MET DOB NB	S T S A T I	CDR Ferguson	PLT Hurley	NOTES
Date 07/09 (190)		Day 001				
00:00			B I A S	OBSS LDRI/IDC RCC SURVEY - NOSE CAP (PDRS, OBSS OPERATIONS)	OBSS LDRI/IDC RCC SURVEY - NOSE CAP (PDRS, OBSS OPERATIONS)	
16:00			X S I	OBSS LDRI/IDC RCC SURVEY - PORT (PDRS, OBSS OPERATIONS)	OBSS LDRI/IDC RCC SURVEY - PORT (PDRS, OBSS OPERATIONS)	
				When RCC SURVEY-PORT step 3 complete: MNVR (TRK) BIAS -YSI (Port Survey) TG=4 BV=5 P=0 Y=323 OM=10, A14/AUTO/VERN, Init TRK		
01:00				OBSS LDRI/IDC RCC SURVEY - PORT (PDRS, OBSS OPERATIONS)		
17:00			B I A S - Y S I			
02:00						
18:00				MNVR (TRK) -ZLV -XVV TG=2 BV=3 OM=0 A14/AUTO/VERN, RCC-SURVEY-PORT Step 14 cmlt, Init TRK		
03:00			Z L V - X V V	OBSS BERTH (PDRS, OBSS OPERATIONS)	OBSS BERTH (PDRS, OBSS OPERATIONS)	
19:00						
04:00				DOCKING MECHANISM INITIALIZATION (RNDZ, APDS)	IMU STAR OF OPPTY ALIGN (ORB OPS, GNC) RNDZ TOOLS CHECKOUT (RNDZ, RNDZ TOOLS)	UPLINK TFL 192

STS-135/ULF7 FD02

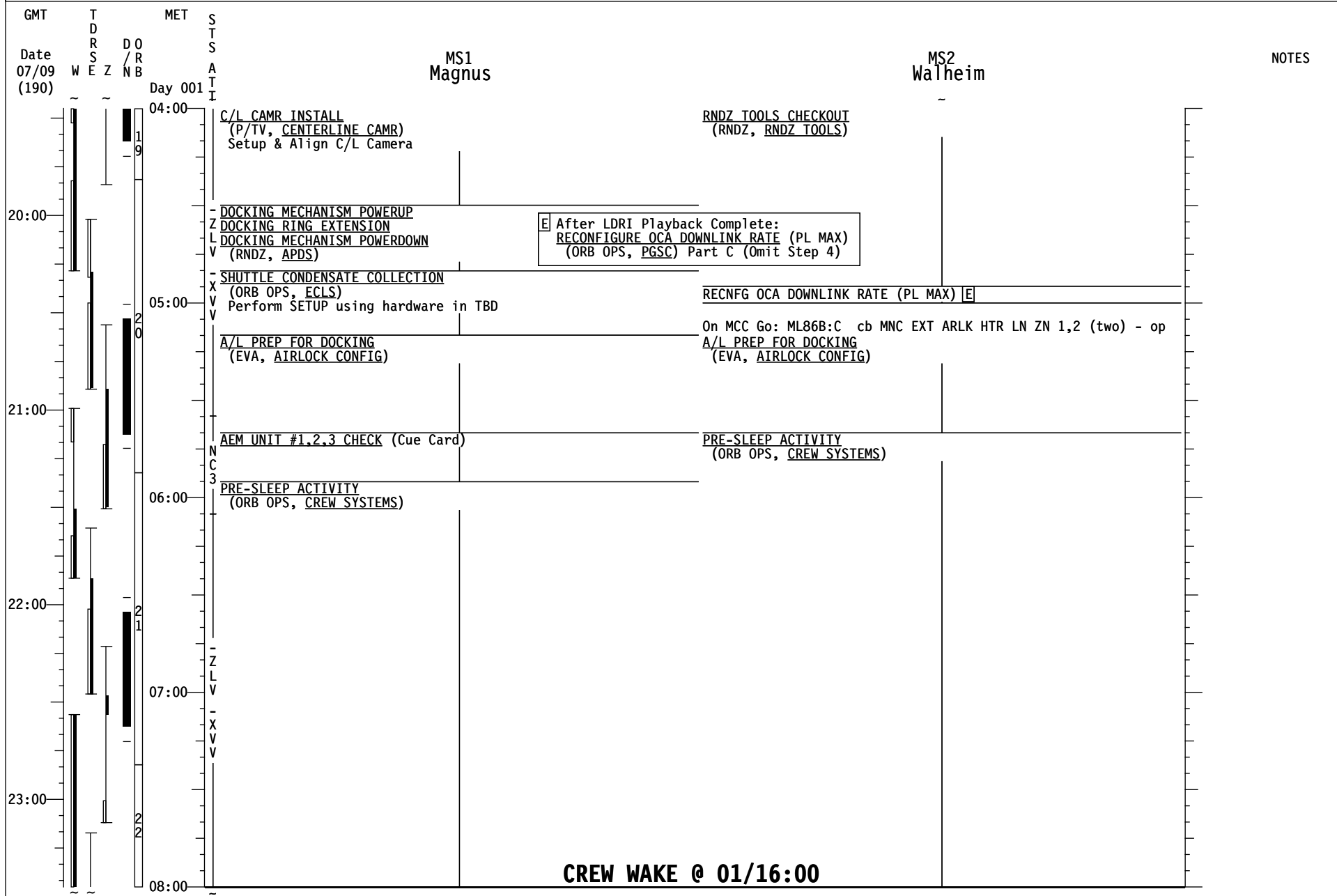


STS-135/ULF7 FD02

GMT	TDRS W E Z	MET Day 001	S T S A T I	CDR Ferguson	PLT Hurley	NOTES
04:00				C/L CAMR INSTALL (P/TV, CENTERLINE CAMR) Setup & Align C/L Camera	RNDZ TOOLS CHECKOUT (RNDZ, RNDZ TOOLS)	
20:00				- DOCKING MECHANISM POWERUP Z DOCKING RING EXTENSION L DOCKING MECHANISM POWERDOWN V (RNDZ, APDS)		
05:00				- PRE-SLEEP ACTIVITY (ORB OPS, CREW SYSTEMS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYSTEMS)	UPLINK TFL 188
21:00				ON-ORBIT +X RCS BURN, MM 202 (ORB OPS, RCS)	ON-ORBIT +X RCS BURN, MM 202 (ORB OPS, RCS)	UPDATE ORBITAL MNVR PAD
06:00				<NC3 TIG (05:58)		
22:00				MNVR (TRK) -ZLV -XVV TG=2 BV=3 OM=0 A1/AUTO/VERN, Init TRK	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYSTEMS)	
				FUTURE LOAD MNVR (TRK) -ZLV +YVV (Dump) TG=2 BV=3 OM=270 A1/AUTO/VERN (1/16:20), Init TRK		
				PRE-SLEEP ACTIVITY (ORB OPS, CREW SYSTEMS)		
				06 √UHF MODE - OFF L9 PAYLOAD STATION A/G (two) - OFF PRIVATE MEDICAL CONFERENCE VIA A/G 2		
07:00				PRE-SLEEP ACTIVITY (ORB OPS, CREW SYSTEMS)		
23:00						
08:00						

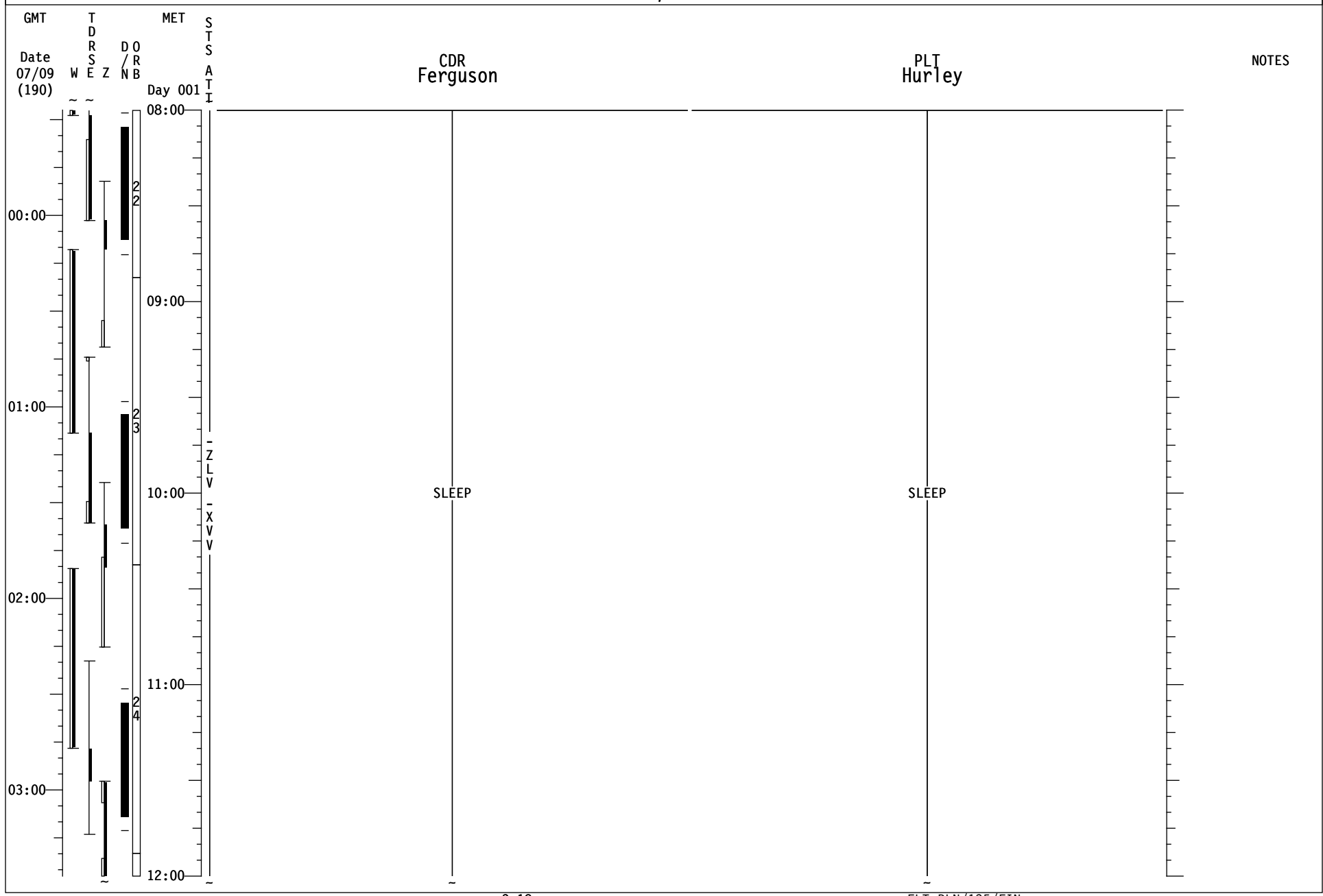
CREW WAKE @ 01/16:00

STS-135/ULF7 FD02

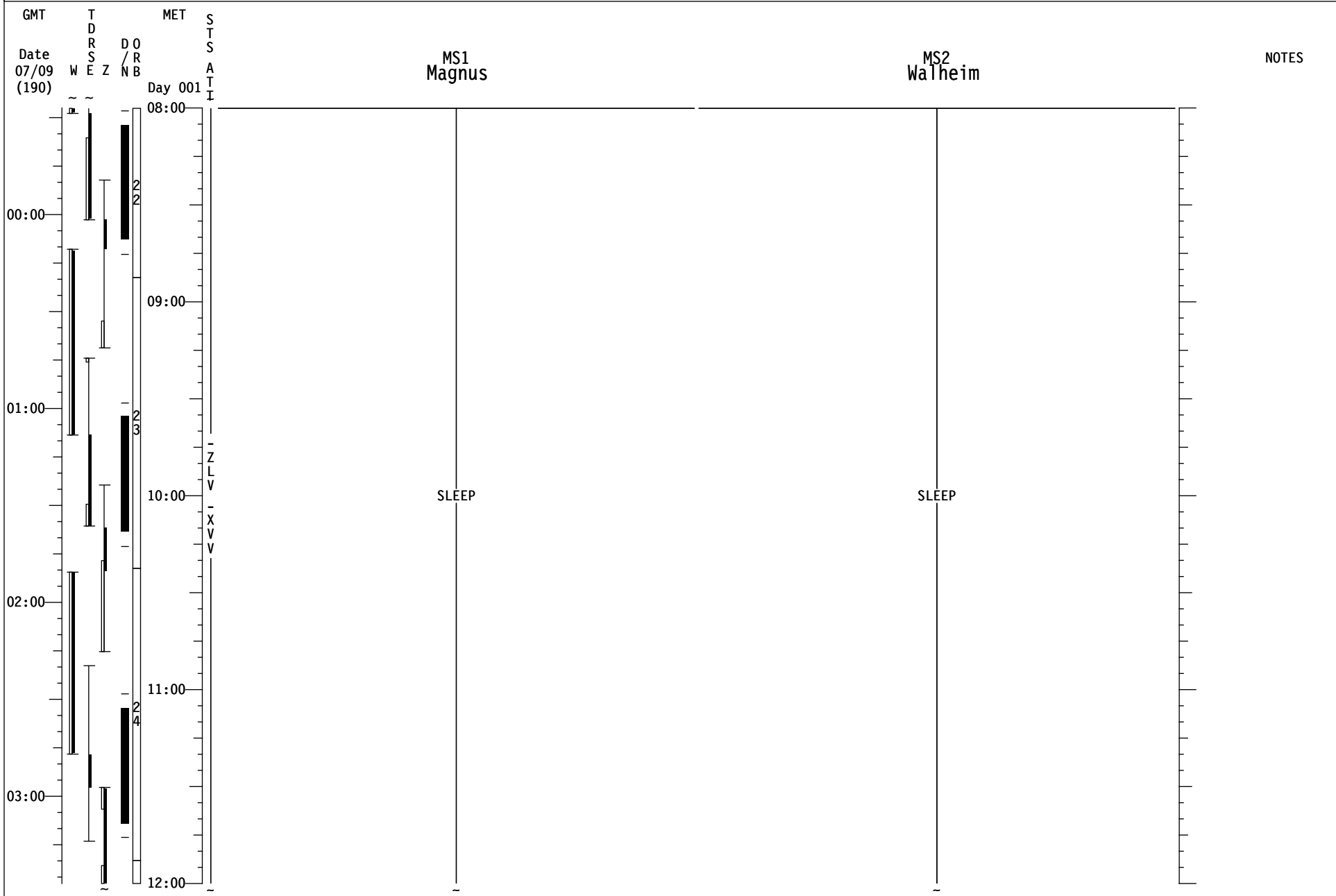


CREW WAKE @ 01/16:00

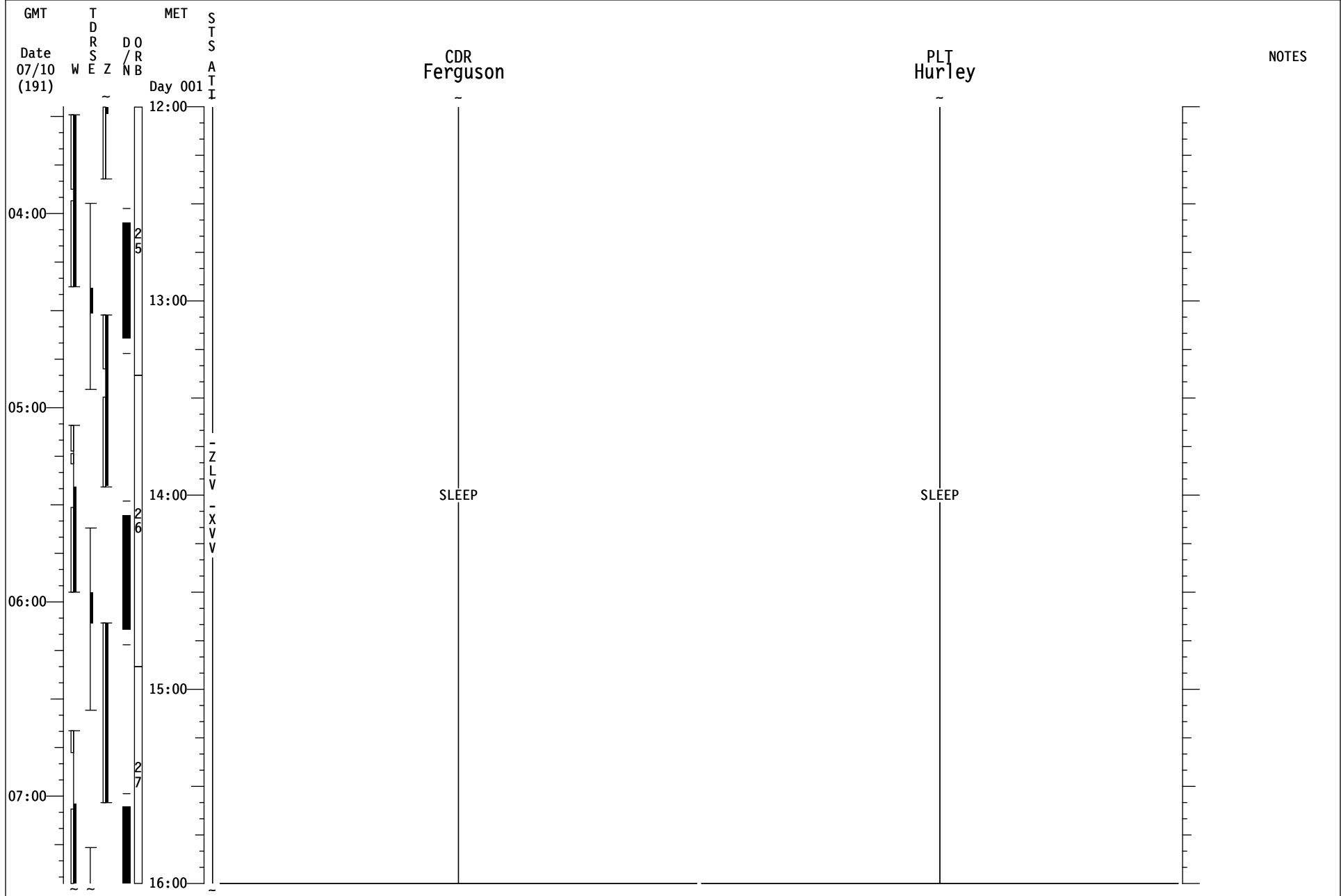
STS-135/ULF7 FD02



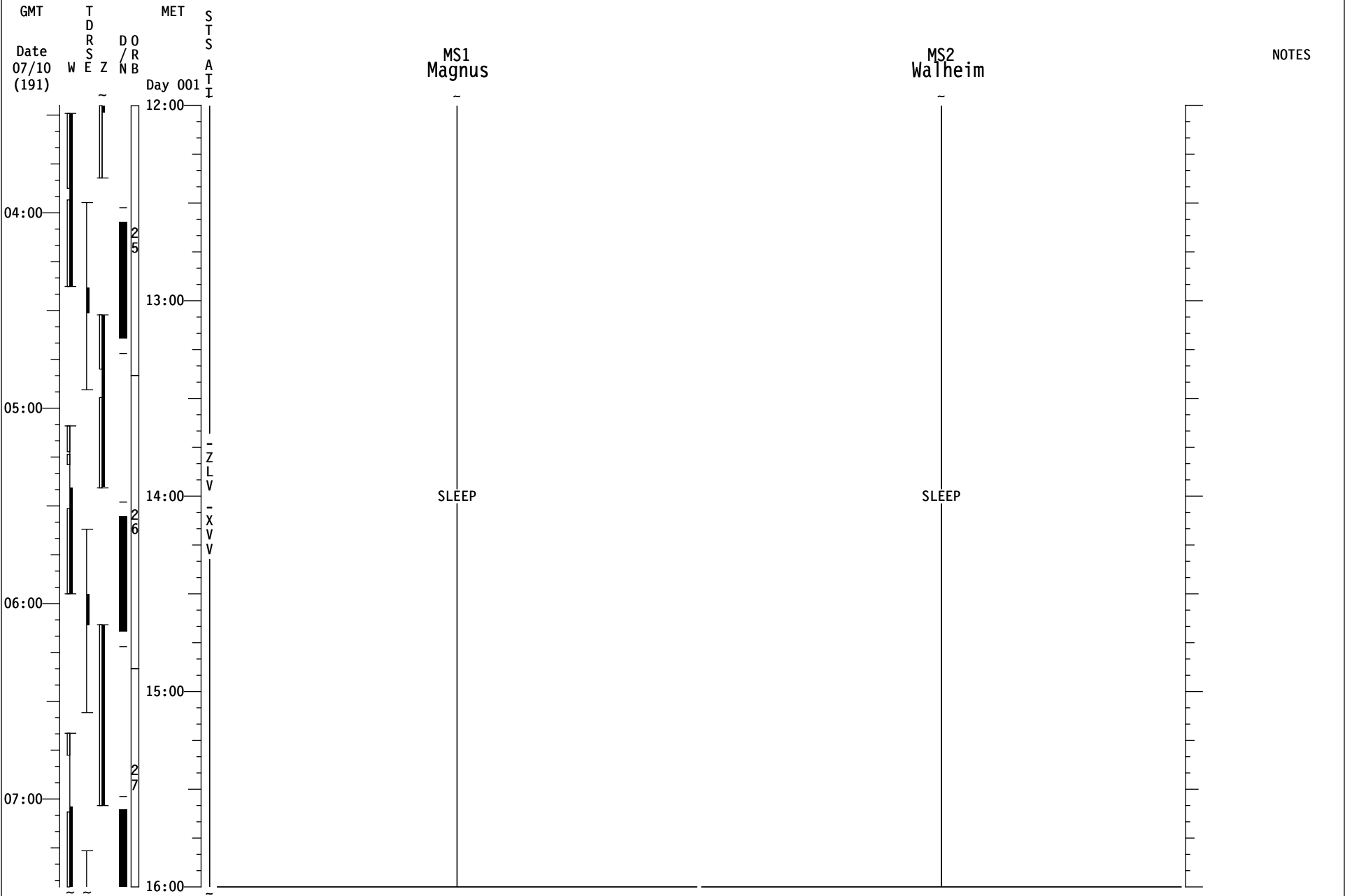
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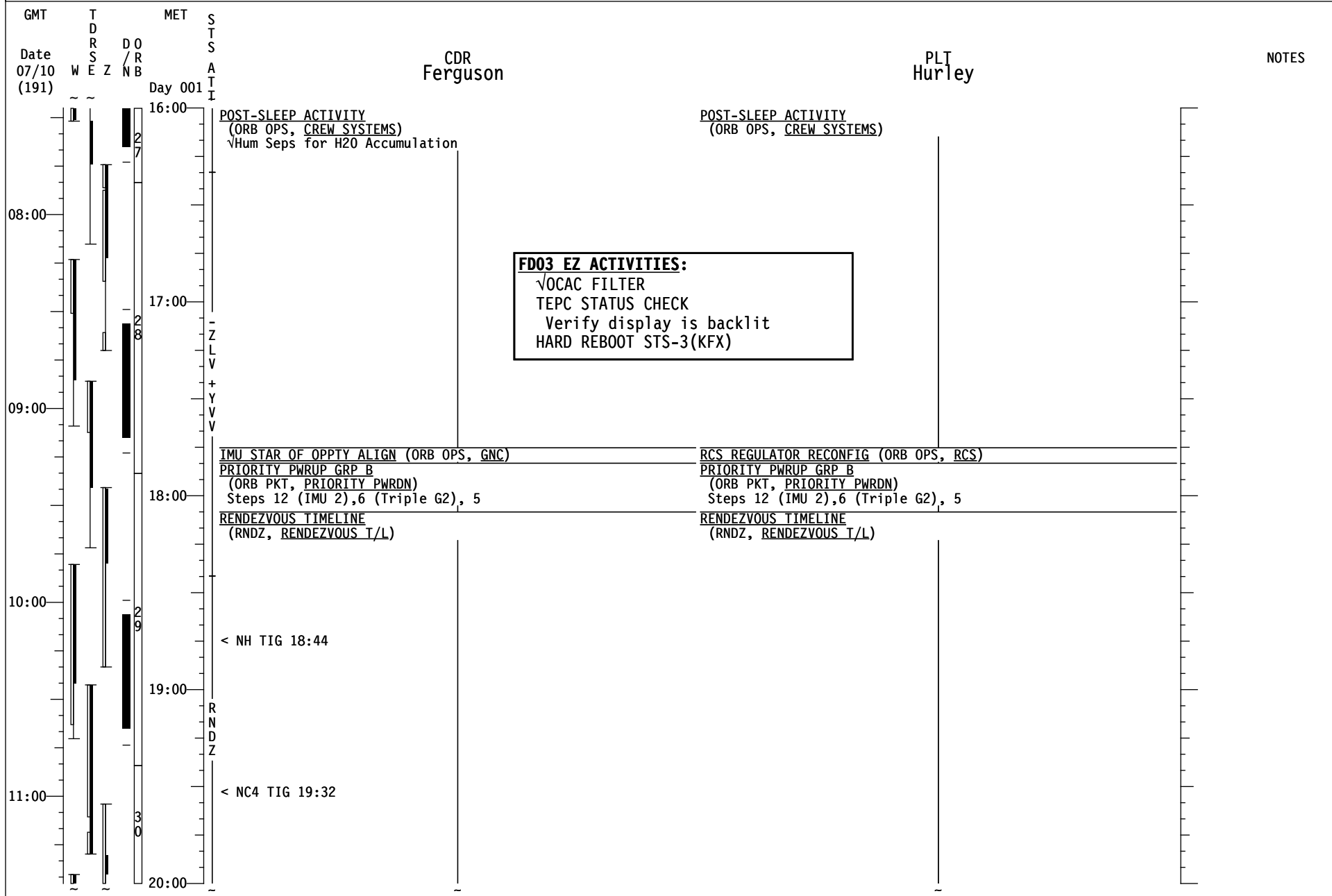
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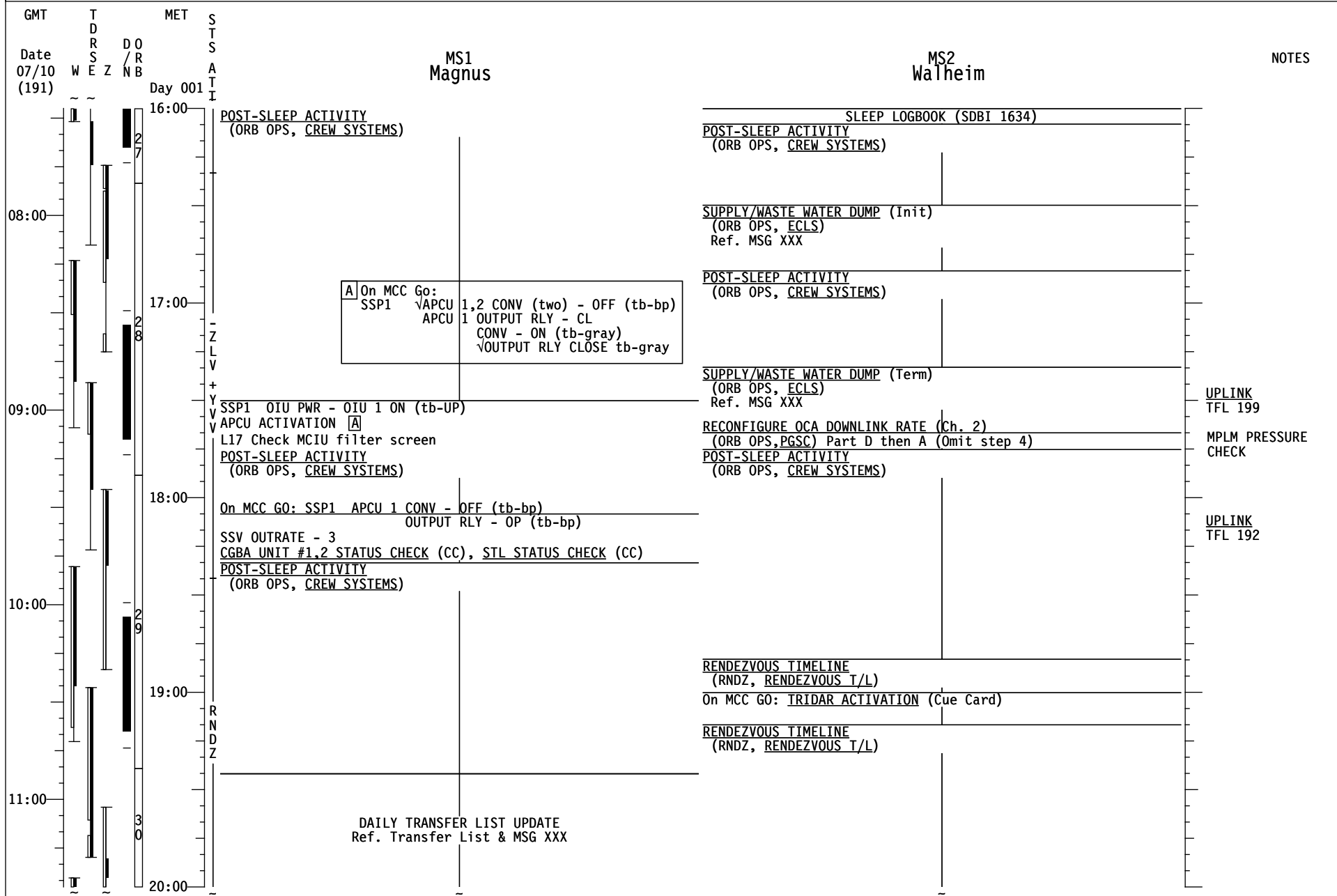
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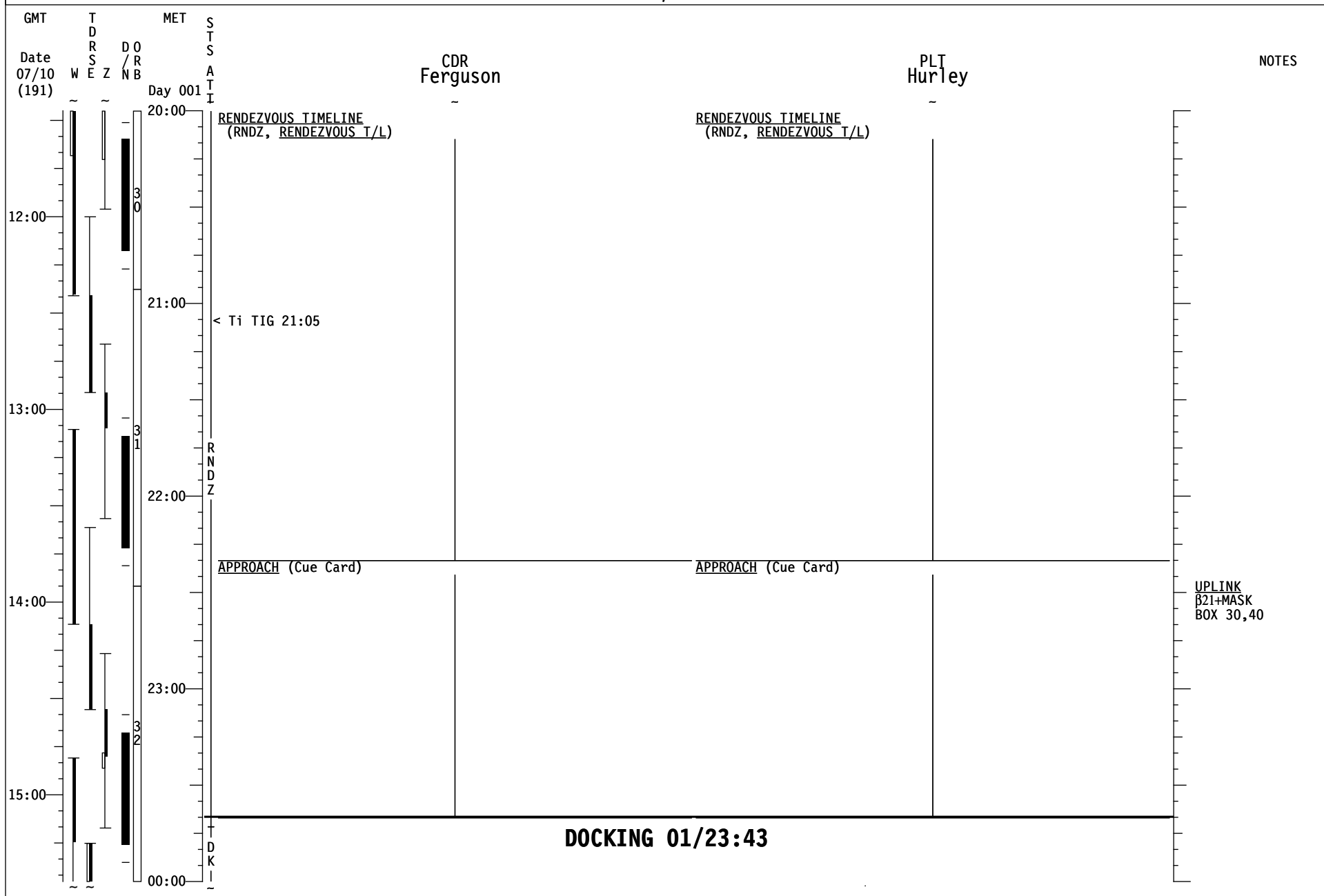
STS-135/ULF7 FD03



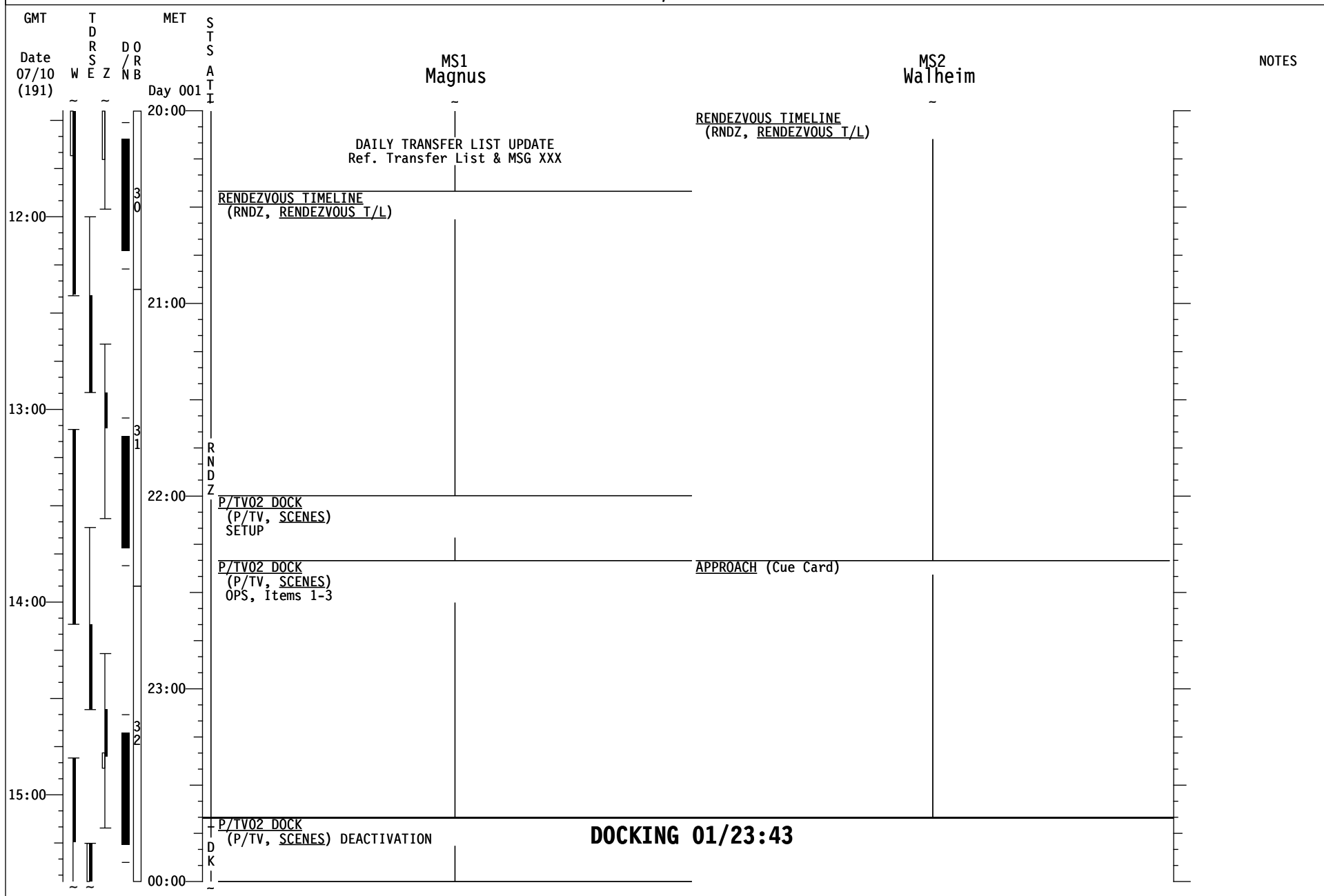
STS-135/ULF7 FD03



STS-135/ULF7 FD03



STS-135/ULF7 FD03



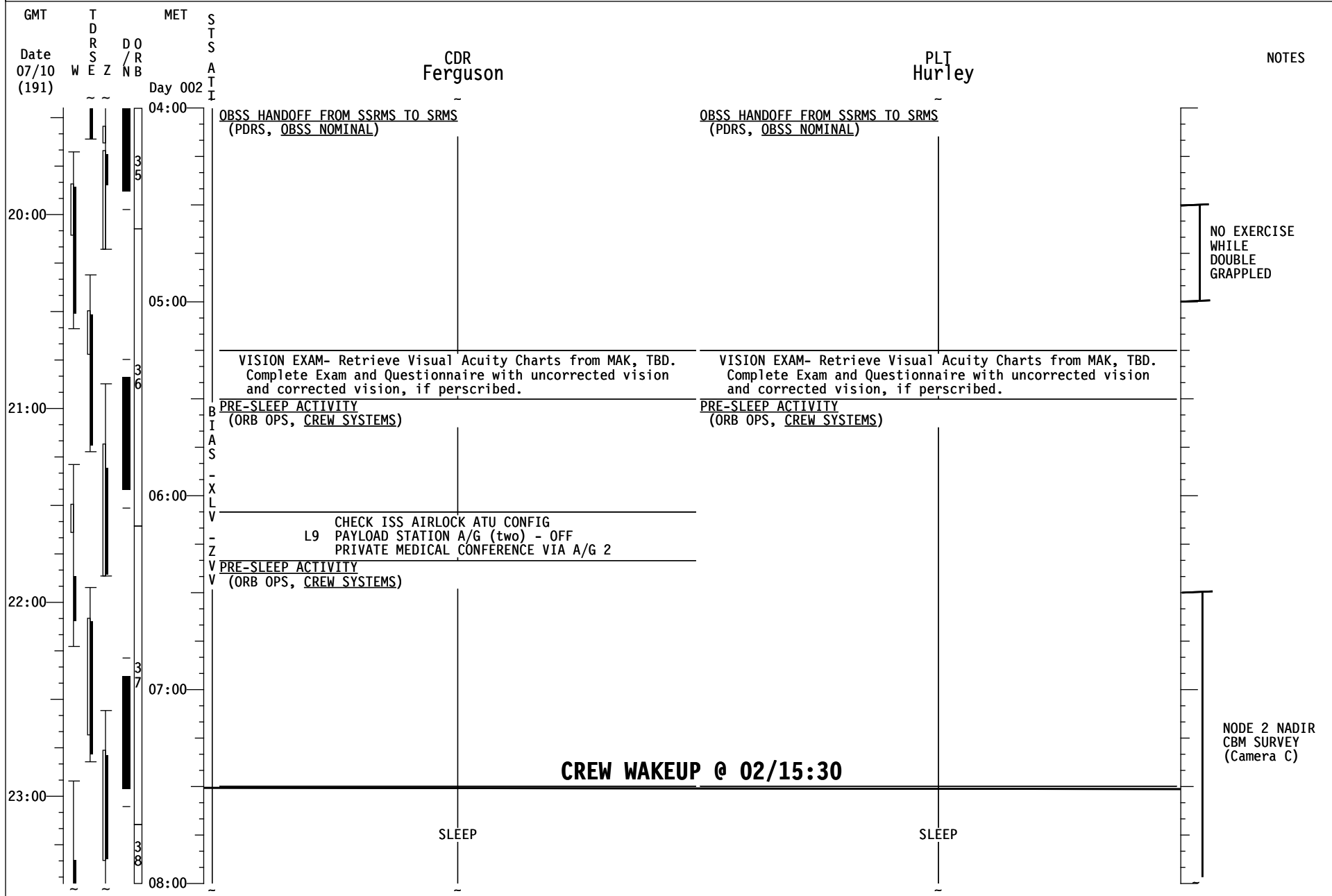
STS-135/ULF7 FD03

GMT	TDRS W E Z	MET DO R N B	S T S A T I	CDR Ferguson	PLT Hurley	NOTES
Date 07/10 (191)		Day 002				
16:00				MNVR (TRK) BIAS -XLV -ZVV (Mated TEA) TG=2 BV=5 P=161.91 Y=359.93 OM=174.12 Init TRK, DAP: FREE > 2 sec, then DAP: A12/AUTO/VERN	SSV OUTFATE - 2 P/TV04 ISS INTERNAL OPS (HC) (P/TV, SCENES) SETUP	UPLINK TFL 184
				When MNVR complete and rates damped: PRIORITY PWRDN GRP B (ORB PKT, PRIOR PWRDN) Step 6 (Single G2) [B], Step 12 (IMU 2) 06 S TRK PWR -Z - OFF	When MNVR complete and rates damped: PRIORITY PWRDN GRP B (ORB PKT, PRIOR PWRDN) Step 6 (Single G2) [B], Step 12 (IMU 2) 06 S TRK PWR -Z - OFF	UPLINK B21+MASK BOX 40,50
				When ISS is GO for deadband collapse, DAP: B13		NO UNISOLATED EXERCISE IN DAP: B13
				When ISS is GO for attitude cntrl, DAP: FREE DAP: A12/FREE/VERN Reload DAP: B12 JOINT OPS: 6.109 HARDLINE ICOM AUDIO Steps 1,5,6 TRIDAR DEACTIVATION (Cue Card)	P/TV04 INGRESS/EGRESS (P/TV, SCENES) OPS Ingress, Item 1	
17:00				B WLES DOCK/UNDOCK RECOVERY (ORB OPS, WLE SENSORS)	[B] In Step 3 of G2 SET CONTRACTION VMCC or pause -4 min (DAP Settling) DAP: as req'd	
				WELCOME	WELCOME	
				SAFETY BRIEFING	SAFETY BRIEFING	
18:00				OBSS HANDOFF FROM SSRMS TO SRMS (PDRS, OBSS NOMINAL)	OBSS HANDOFF FROM SSRMS TO SRMS (PDRS, OBSS NOMINAL)	
19:00						
04:00						

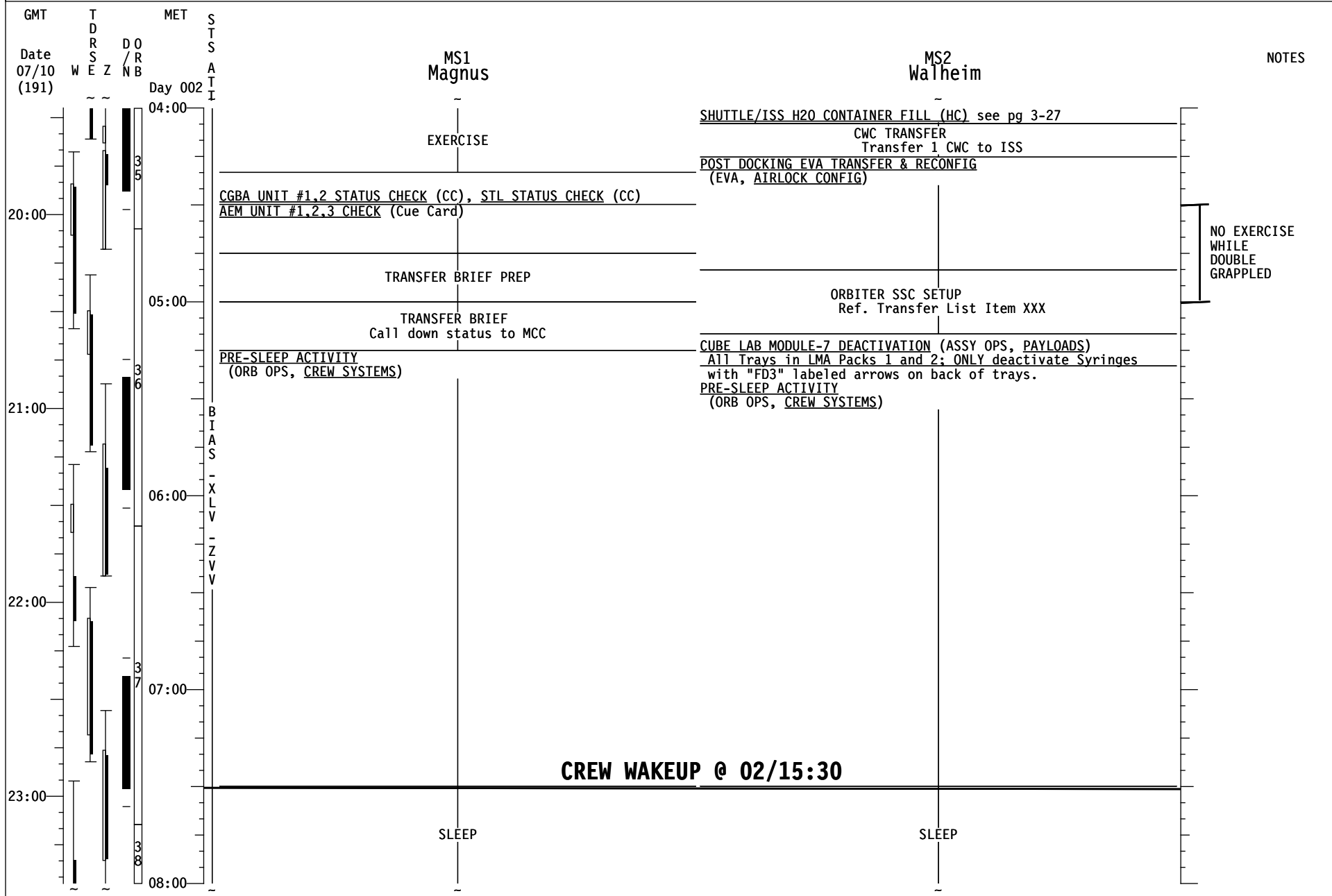
STS-135/ULF7 FD03

GMT	TDRS W E Z	MET Day 002	S T S A T I	MS1 Magnus	MS2 Walheim	NOTES
00:00				POST DOCKING HATCH LEAK CHECK (RDNZ, APDS)	POST DOCKING HATCH LEAK CHECK (RDNZ, APDS)	
16:00				AIRLOCK PREP FOR INGRESS - AIRLOCK FAN ACTIVE (RNDZ, APDS)	AIRLOCK PREP FOR INGRESS - AIRLOCK FAN ACTIVE (RNDZ, APDS)	
01:00				JOINT OPS: 2.104 HATCH OPENING & STS/ISS DUCT INSTL Verify ISS complete through step 2.4 Perform steps 3-9	JOINT OPS: 2.104 HATCH OPENING & STS/ISS DUCT INSTL Verify ISS complete through step 2.4 Perform steps 3-9	NO UNISOLATED EXERCISE IN DAP: B13
17:00			B I A S	WELCOME	WELCOME	
02:00			X L V	SAFETY BRIEFING	SAFETY BRIEFING	
18:00			Z V	JOINT OPS: 2.104 HATCH OPENING & STS/ISS DUCT INSTL Perform steps 10-15; MCC-H will perform Steps 10.1, 12-13, and 16-18	JOINT OPS: 2.104 HATCH OPENING & STS/ISS DUCT INSTL Perform steps 10-15; MCC-H will perform Steps 10.1, 12-13, and 16-18	
			V	P/TV05 ISS INTERNAL OPS (HC) (P/TV, SCENES) SETUP	SHUTTLE/ISS H2O CONTAINER FILL (HC) (ORB OPS, ECLS) Perform CWC FILL #1, Ref. MSG XXX	
03:00				P/TV06 ROBOTICS (P/TV, SCENES) SETUP		
19:00				EXERCISE	EXERCISE	
04:00					SHUTTLE/ISS H2O CONTAINER FILL (HC) (ORB OPS, ECLS) Perform FILL TERMINATION	

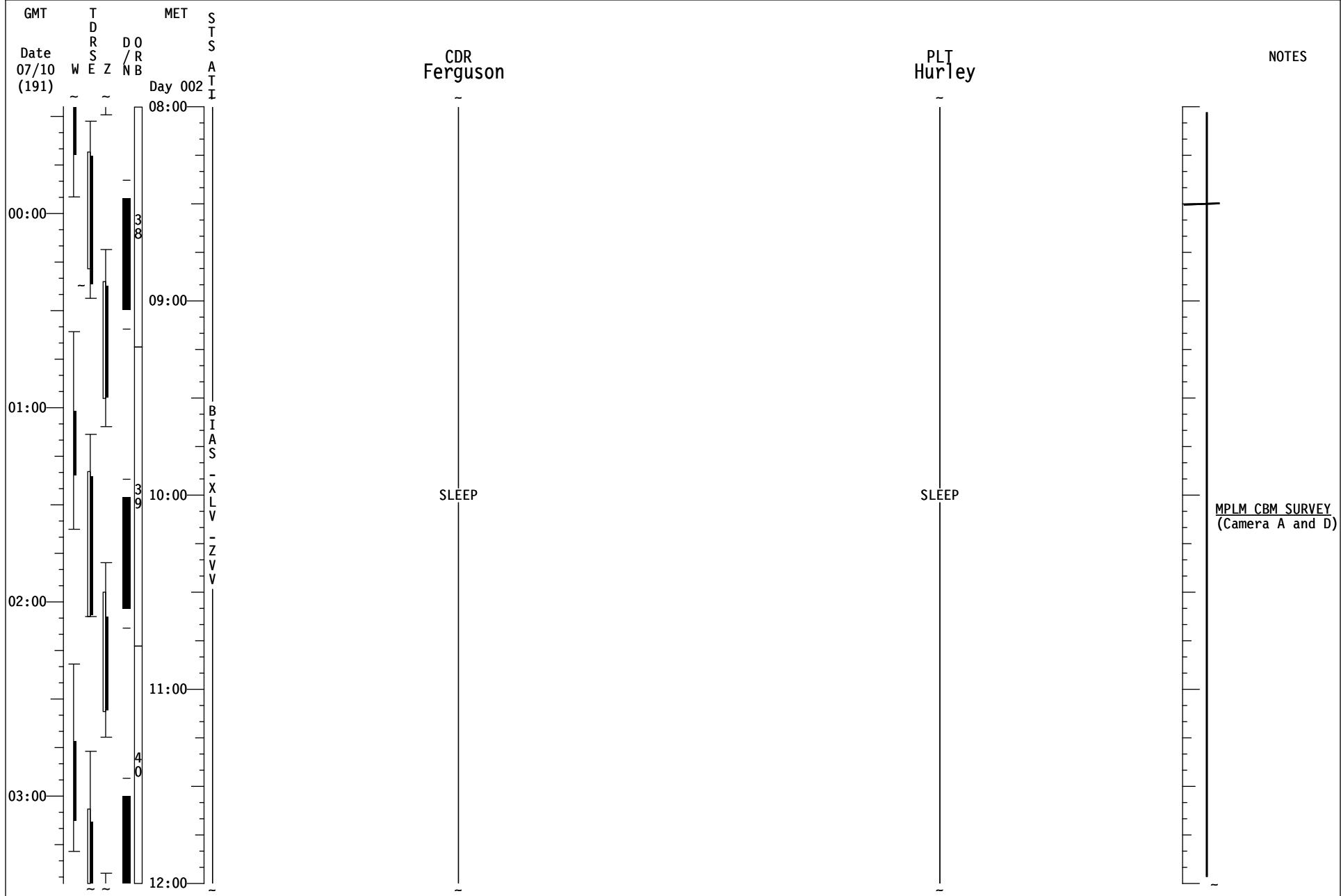
STS-135/ULF7 FD03



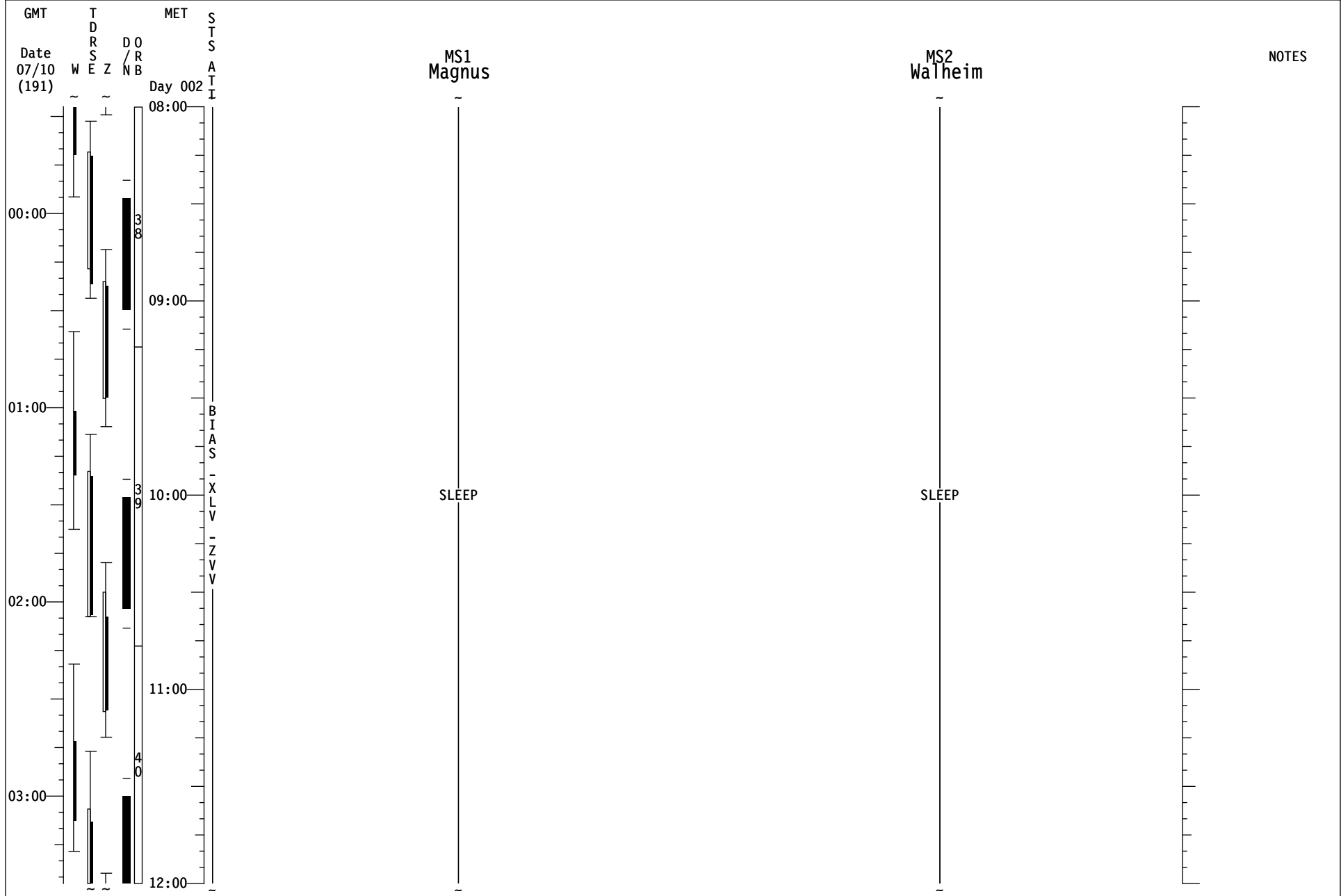
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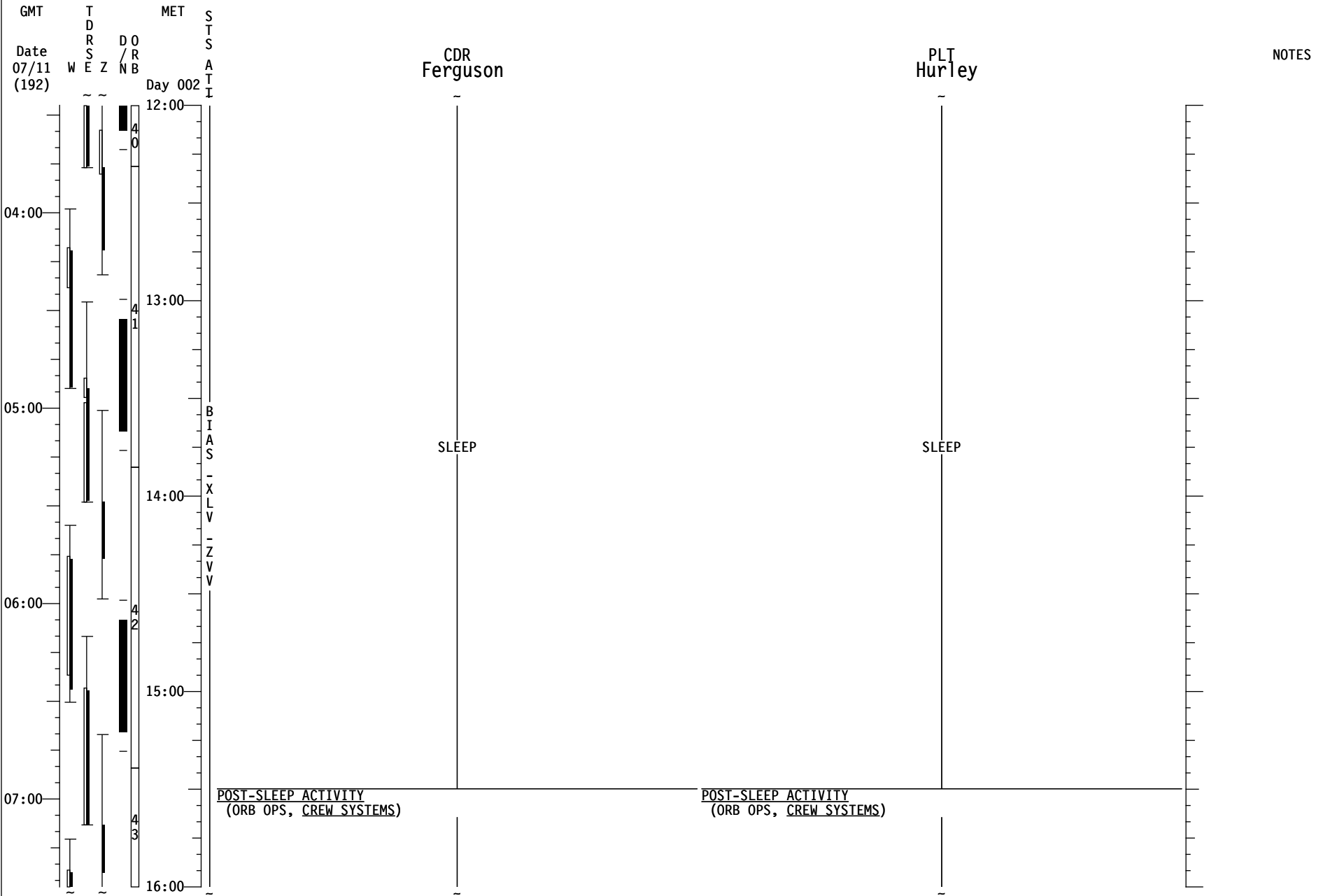
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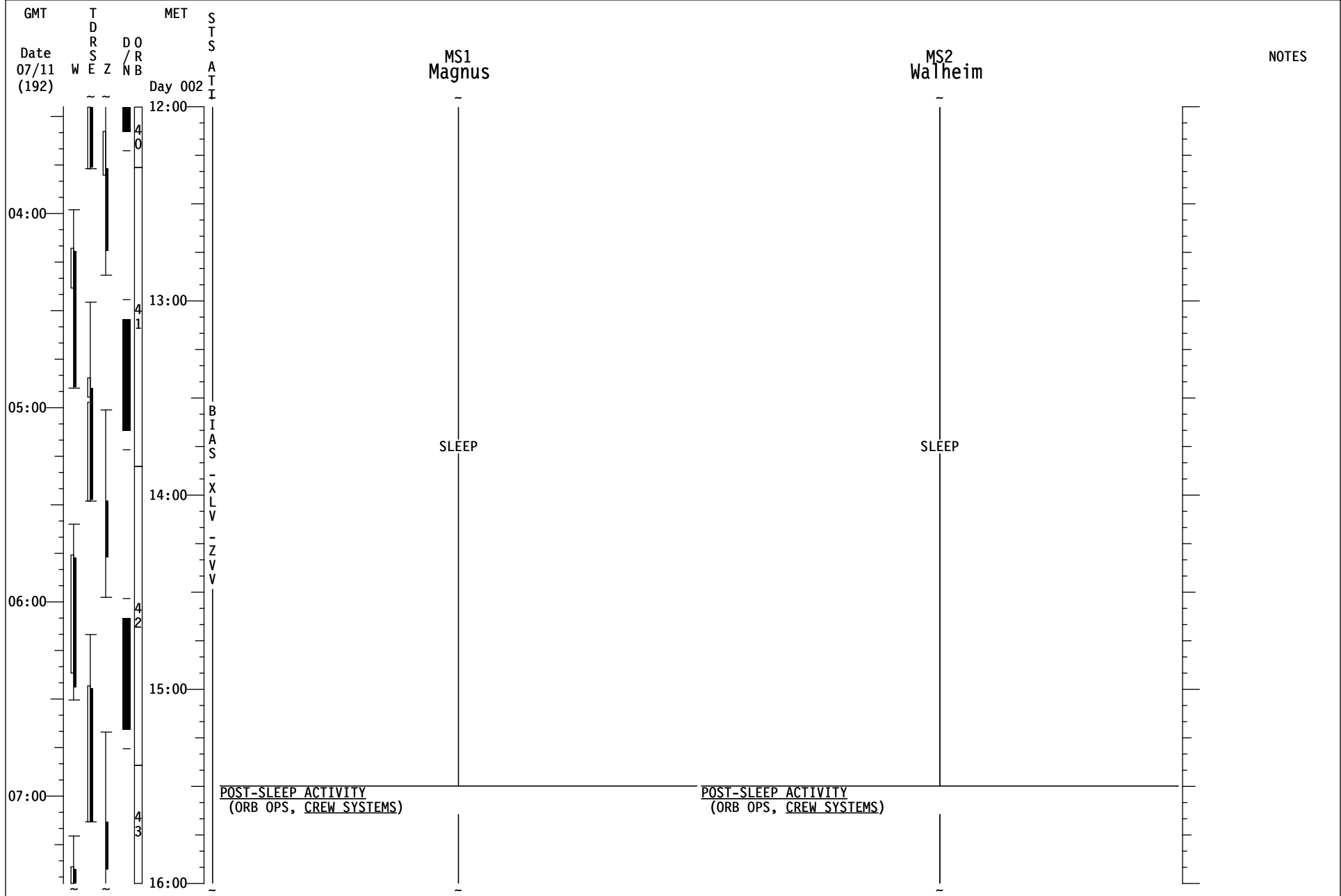
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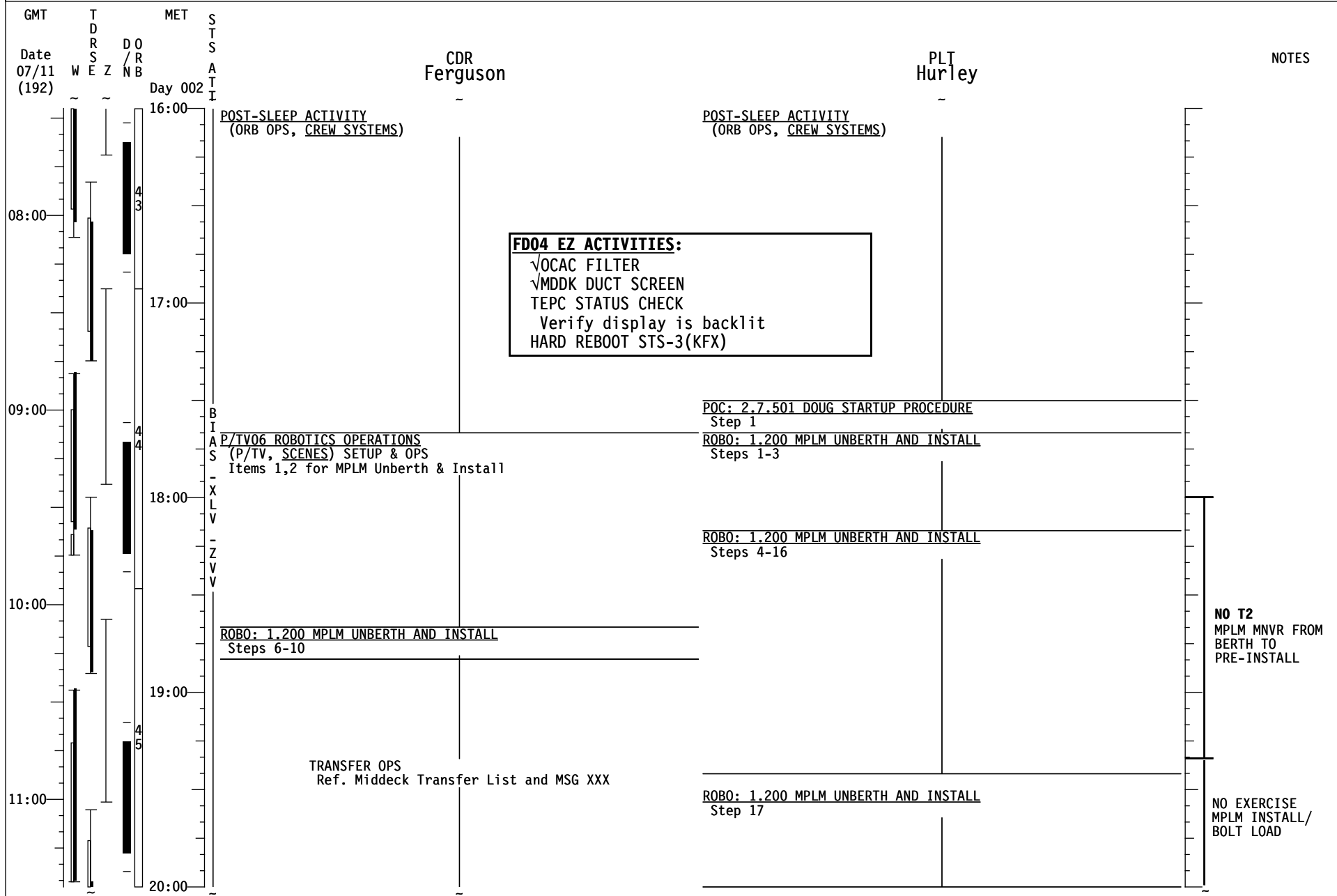
STS-135/ULF7 FD04



STS-135/ULF7 FD04

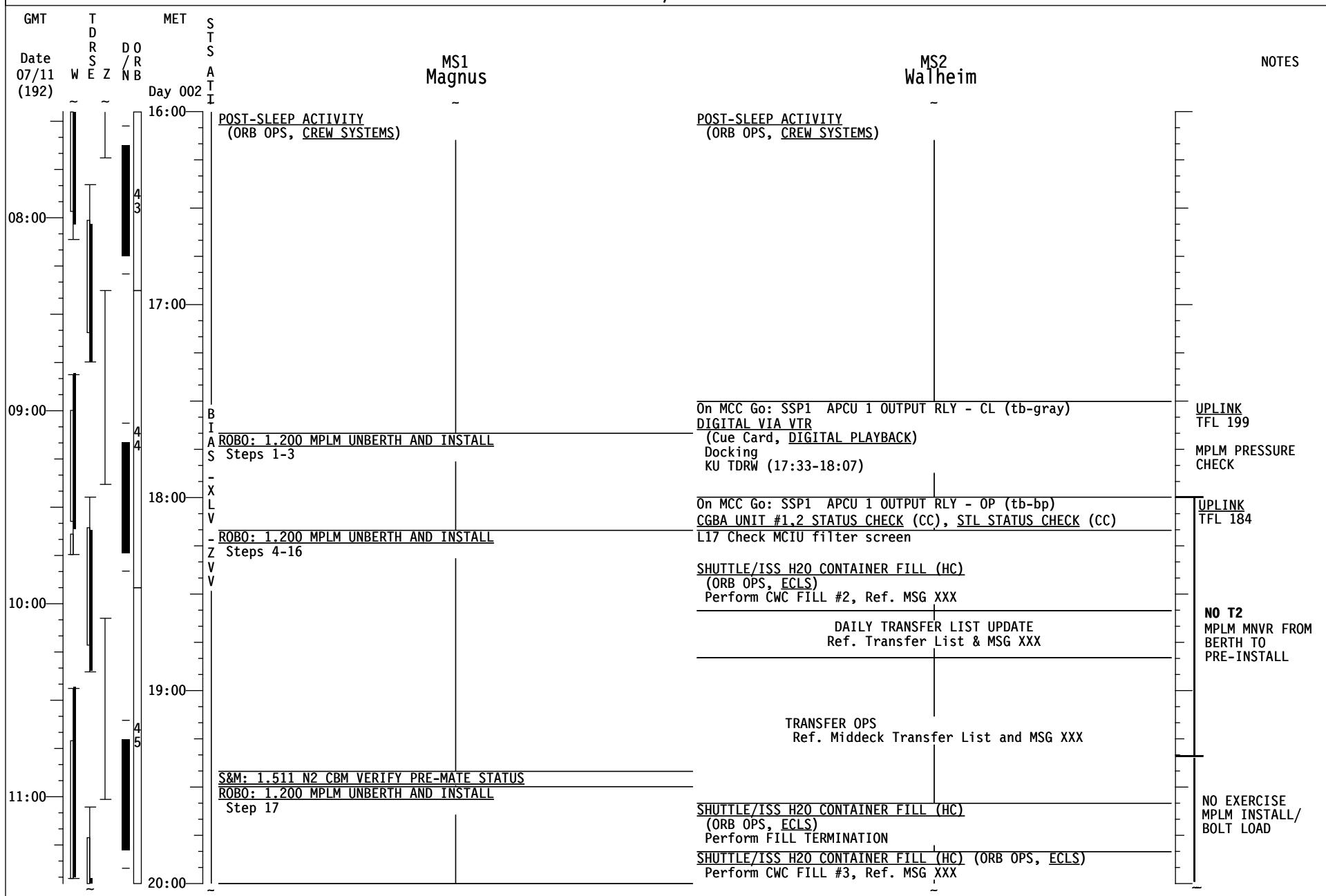


STS-135/ULF7 FD04

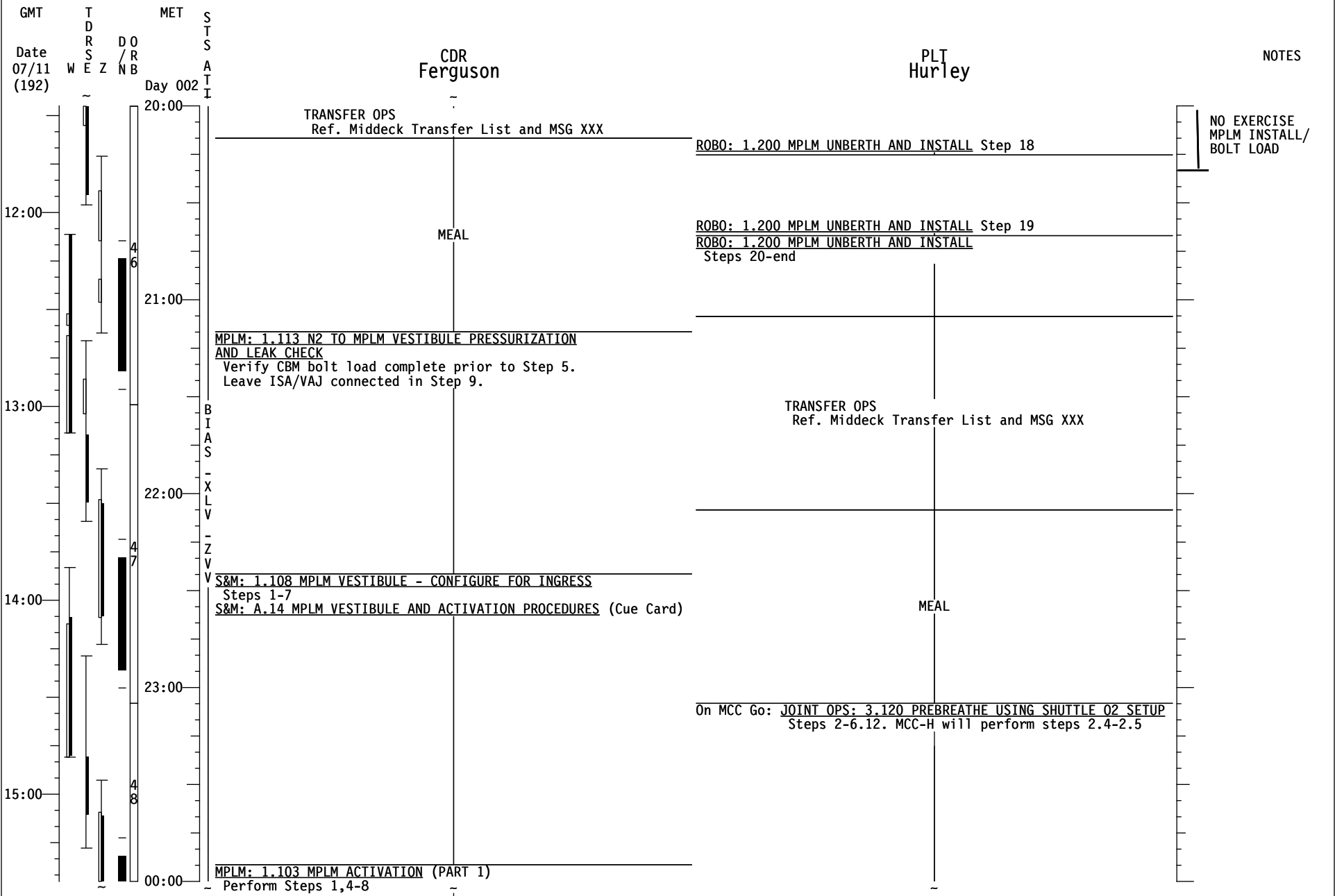


FD04 EZ ACTIVITIES:
 ✓OCAC FILTER
 ✓MDDK DUCT SCREEN
 TEPC STATUS CHECK
 Verify display is backlit
 HARD REBOOT STS-3(KFX)

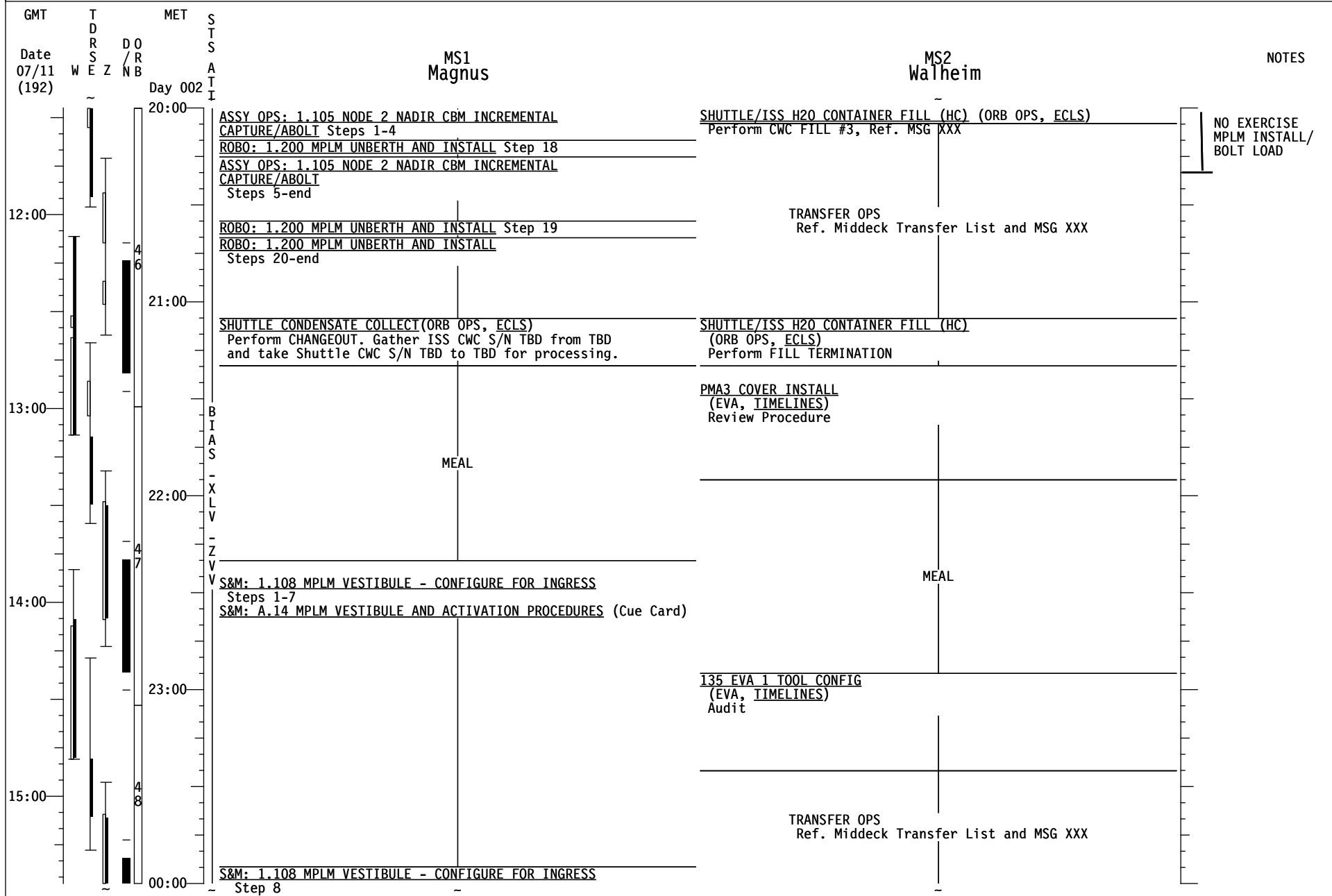
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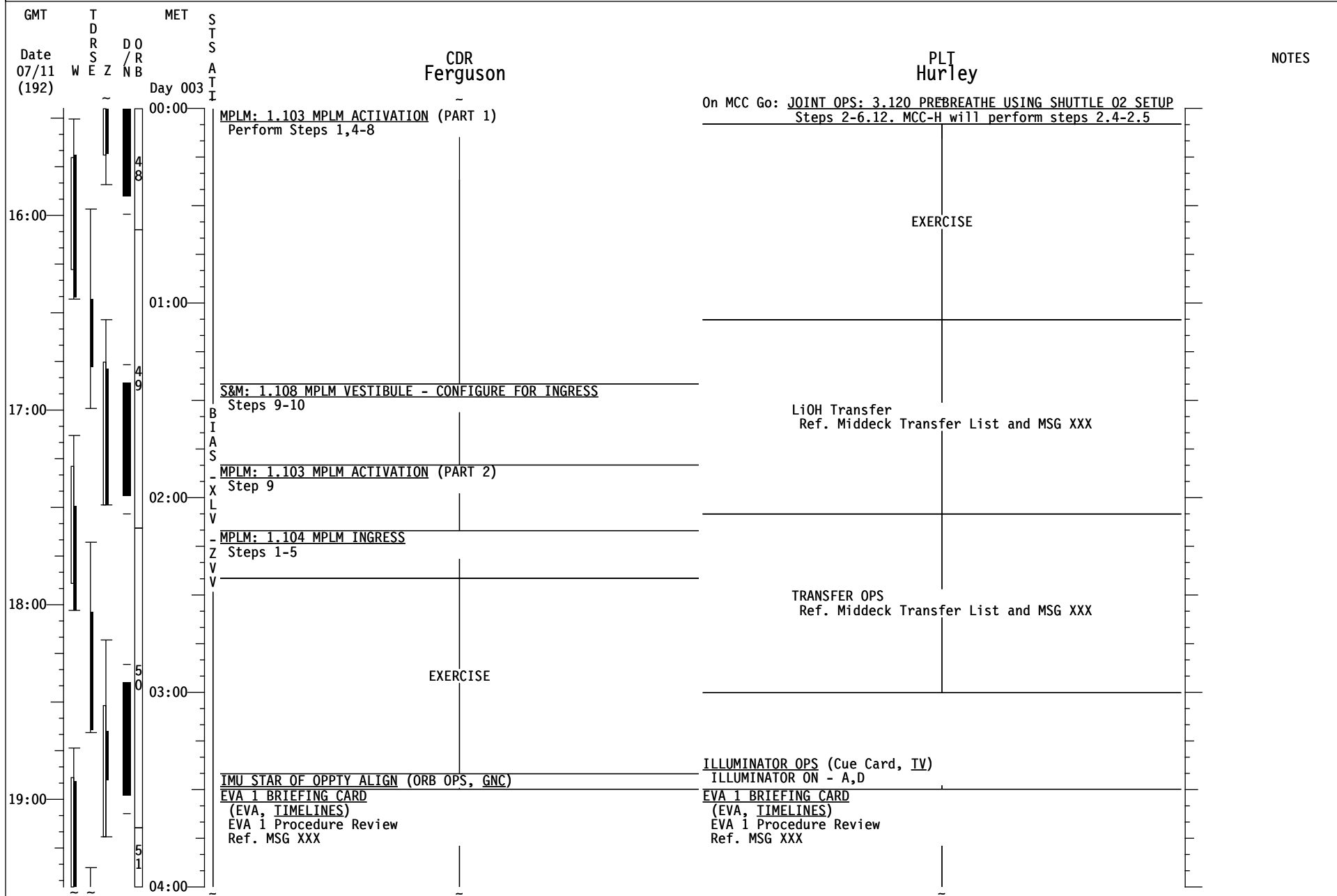
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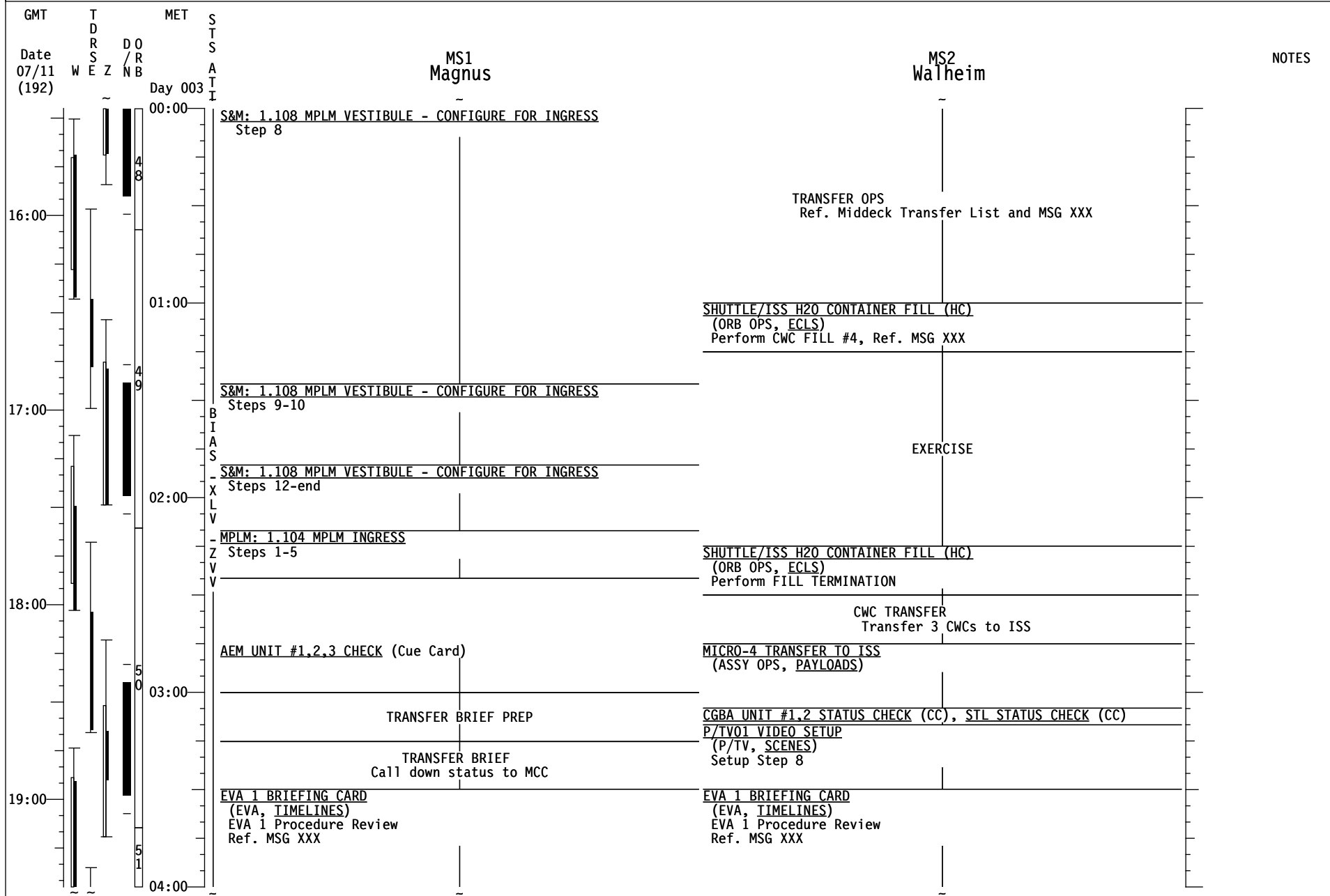
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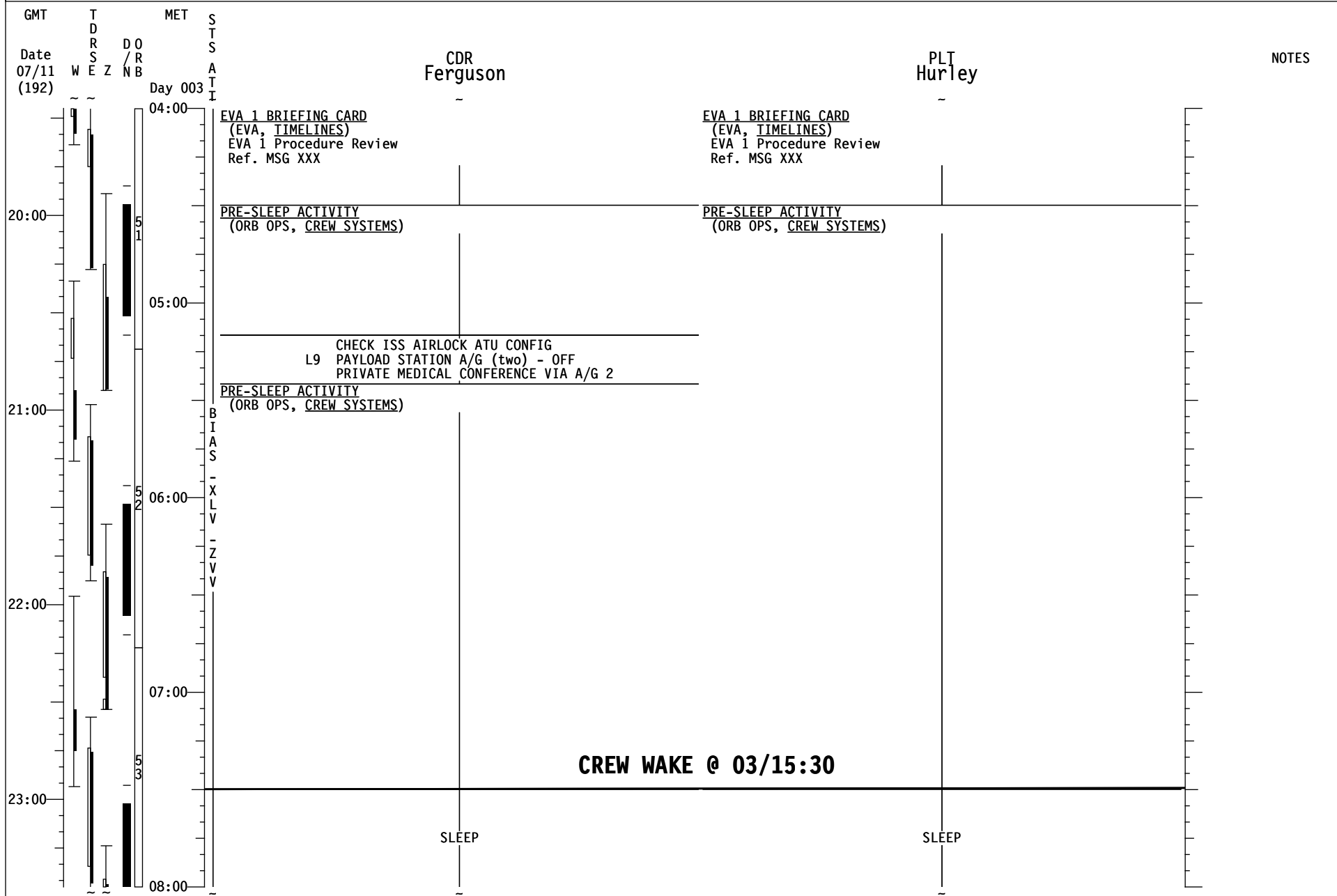
STS-135/ULF7 FD04



STS-135/ULF7 FD04



STS-135/ULF7 FD04

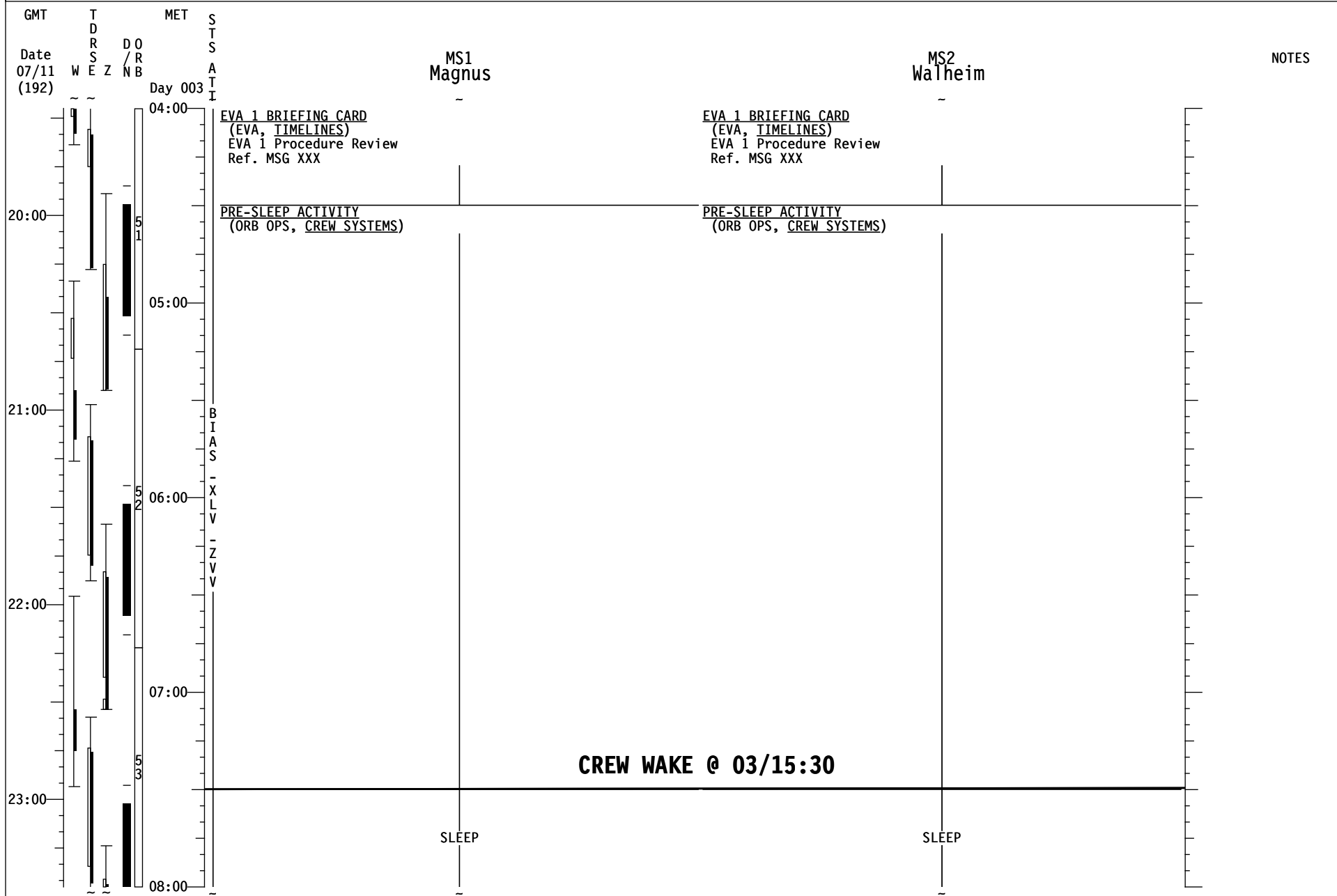


CREW WAKE @ 03:15:30

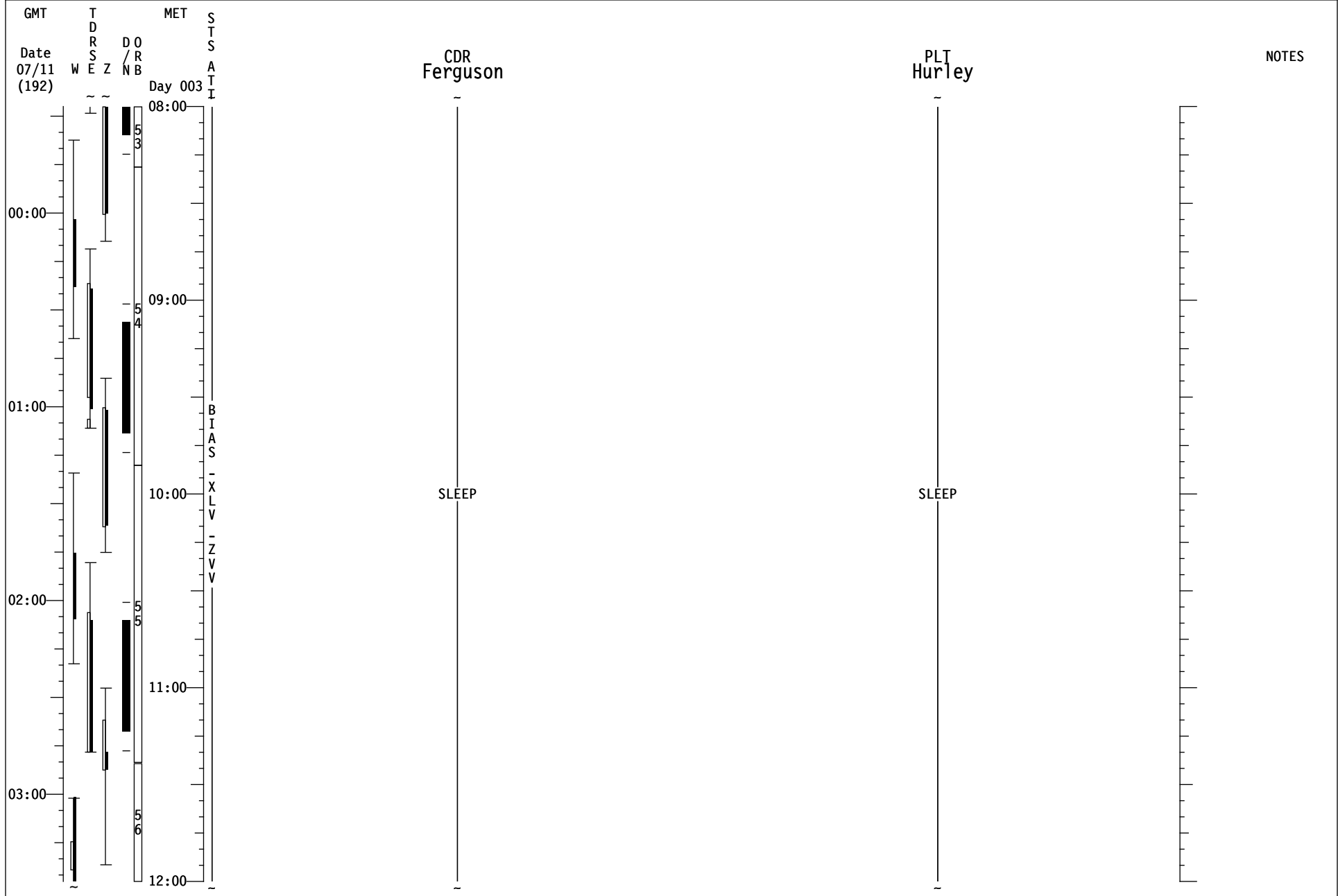
SLEEP

SLEEP

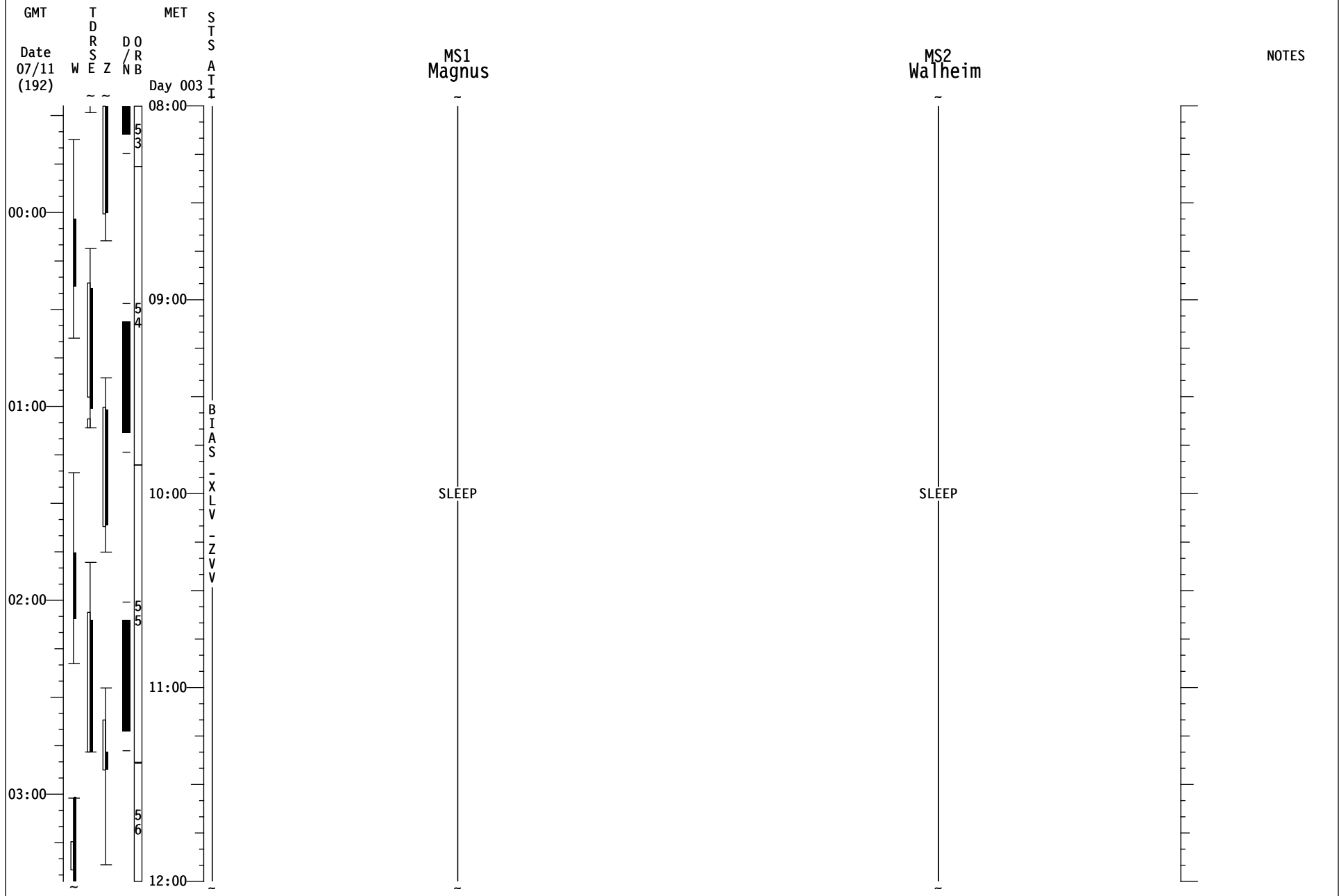
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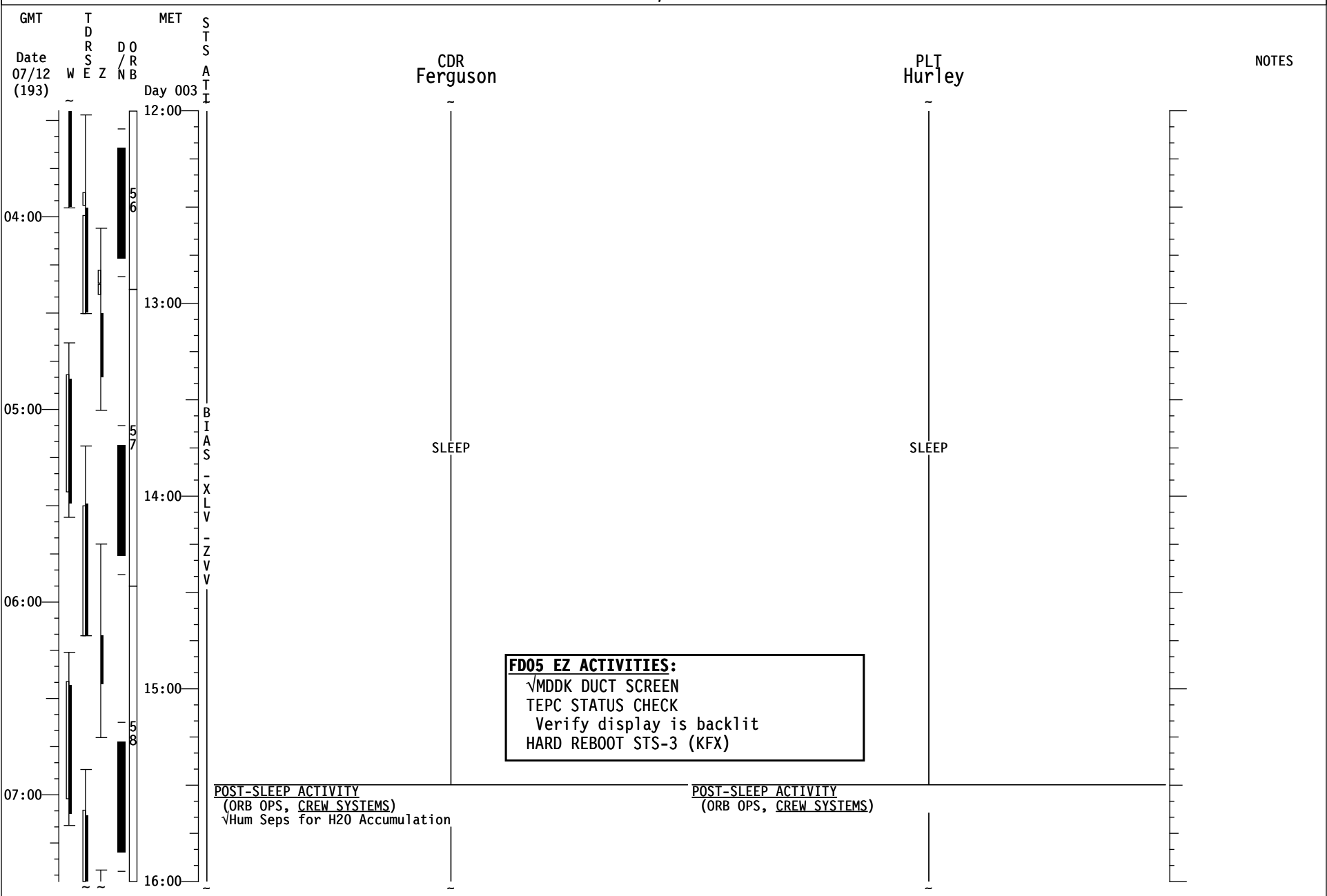
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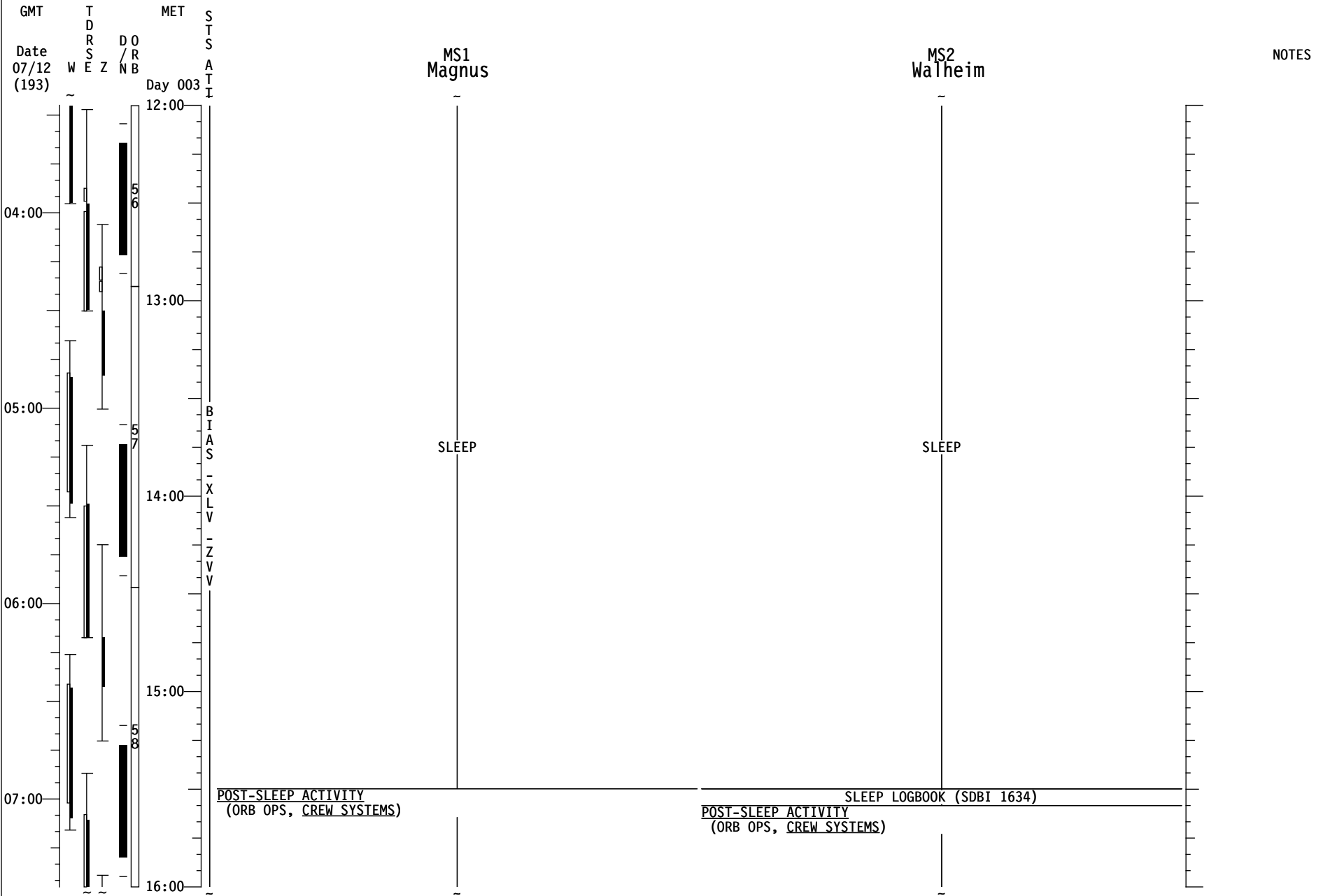
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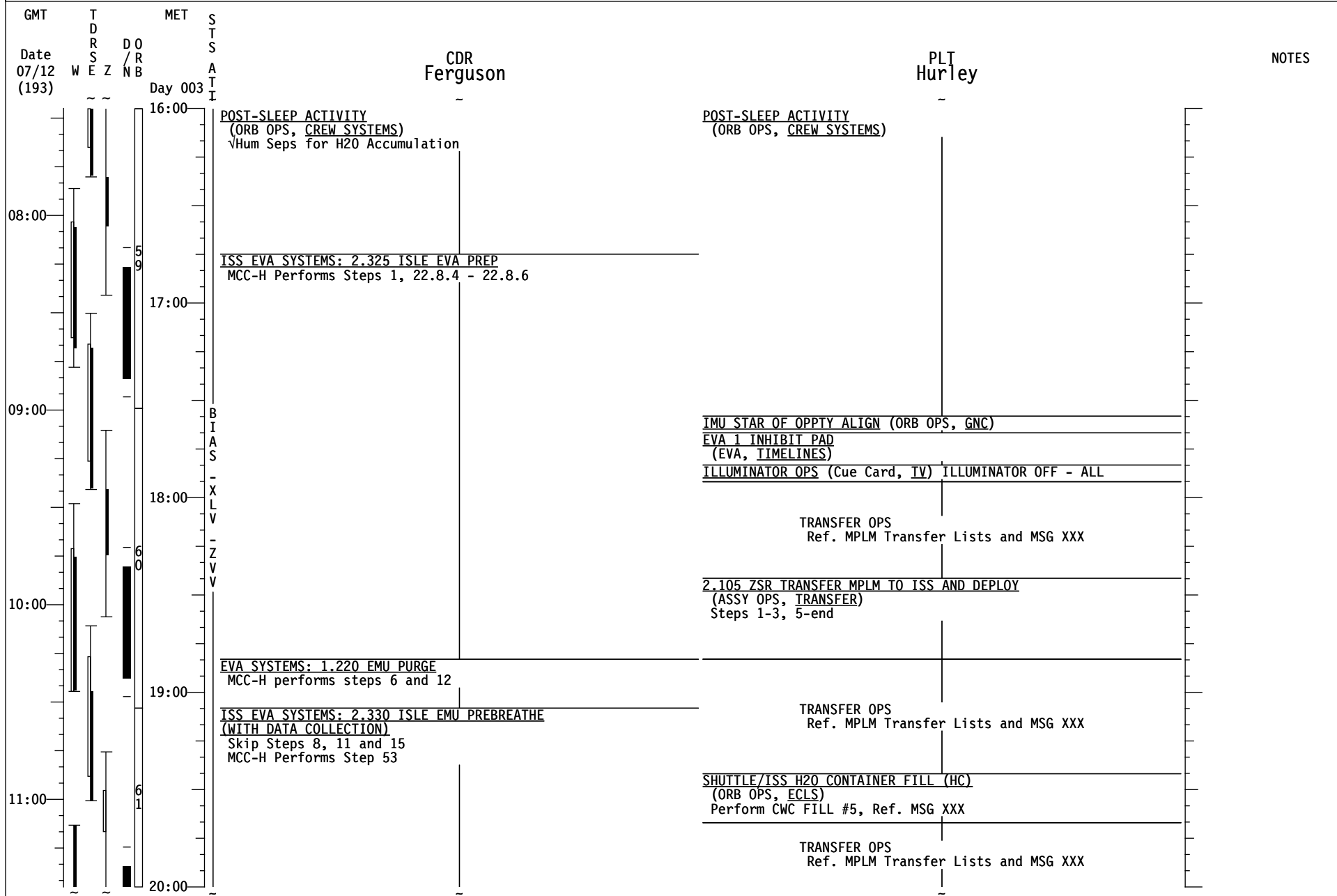
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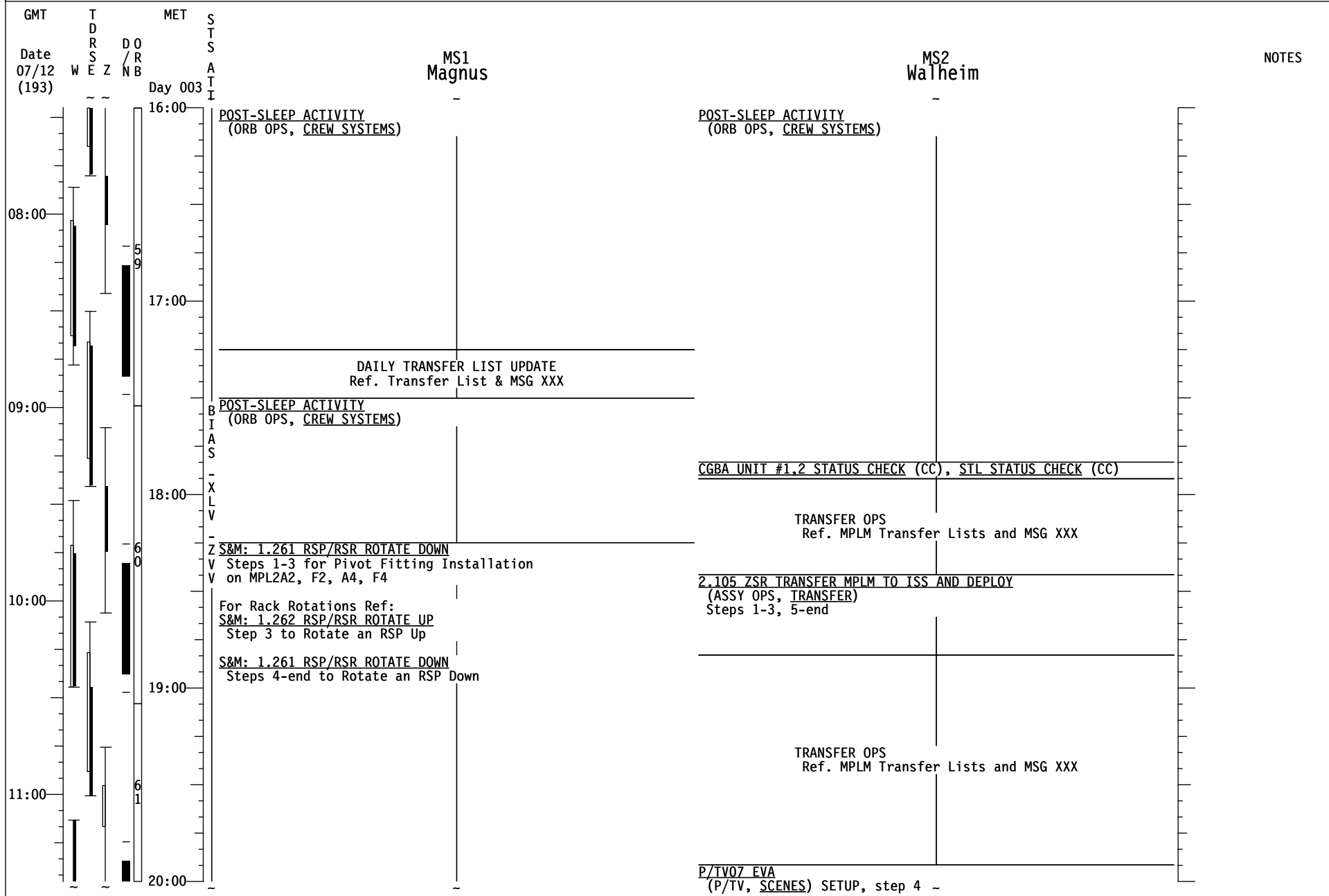
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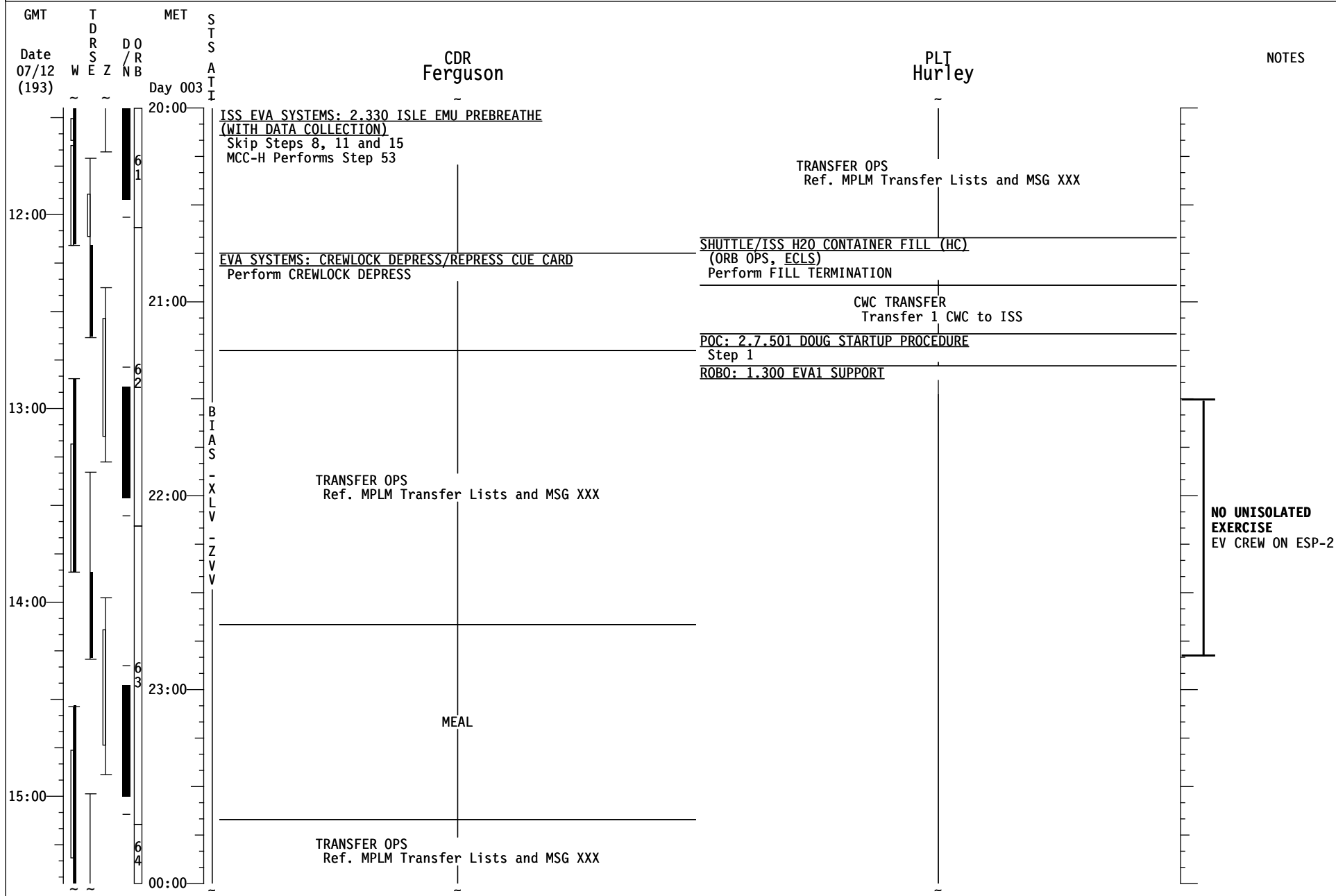
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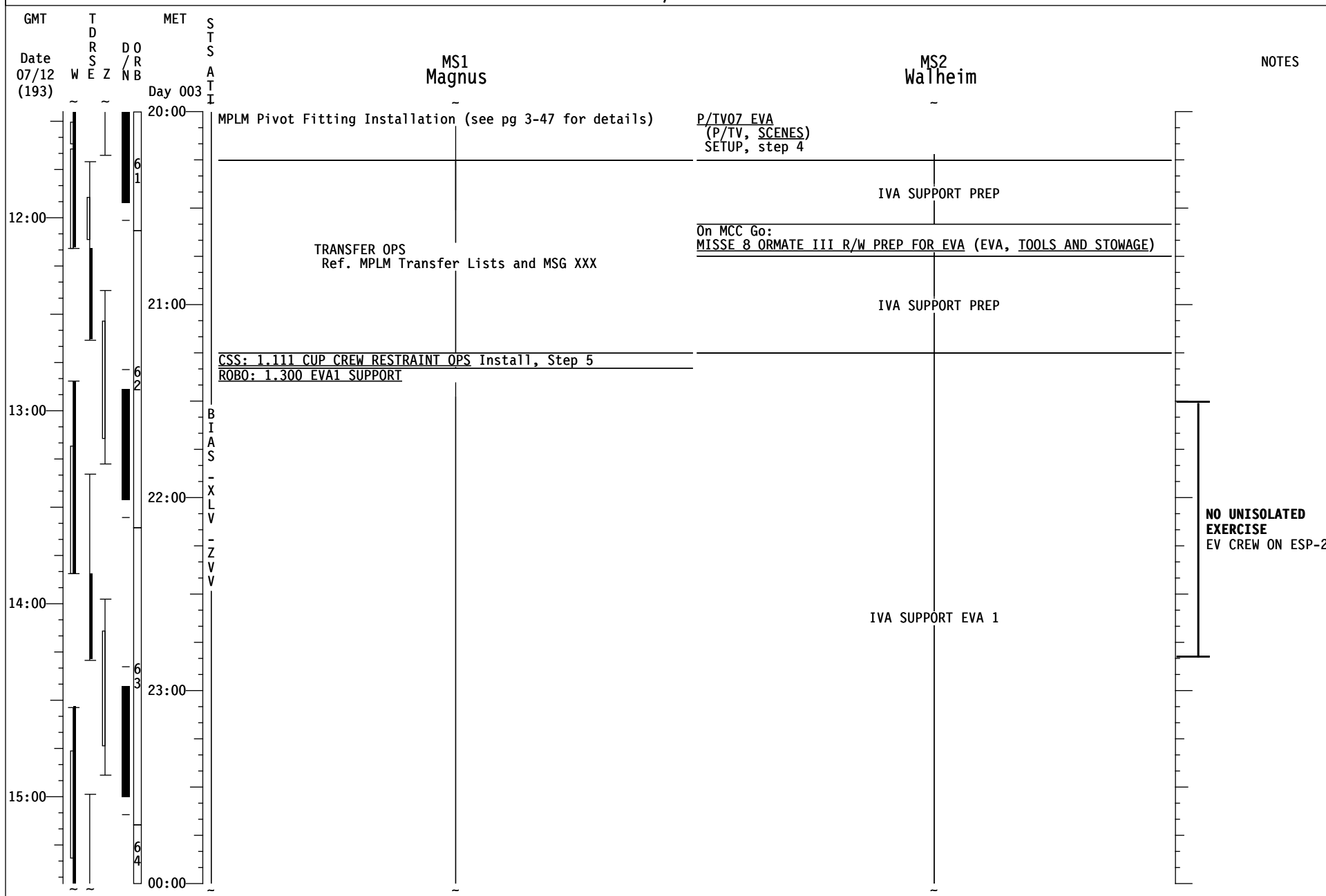
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STS-135/ULF7 FD05



STS-135/ULF7 FD05

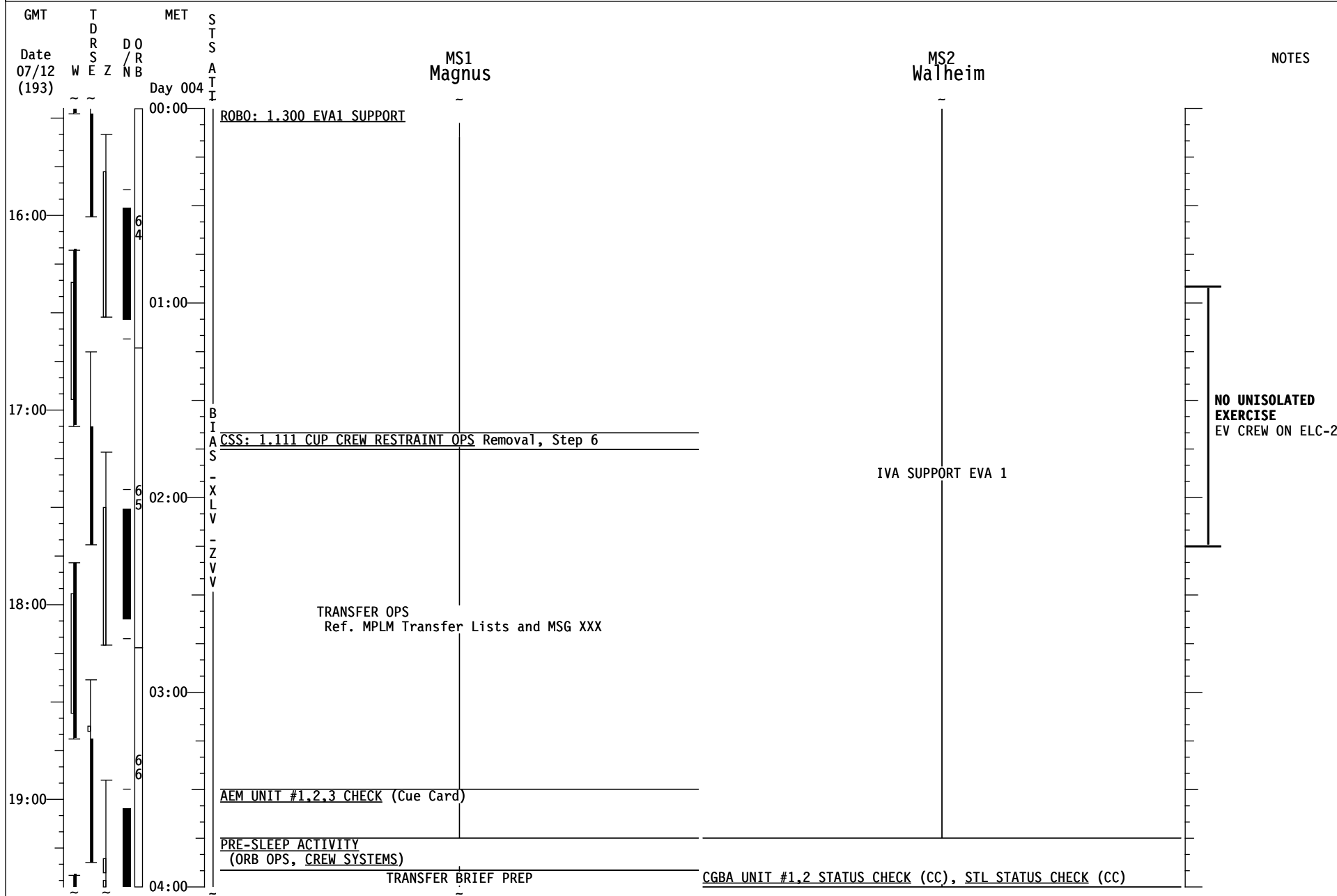


NO UNISOLATED EXERCISE
EV CREW ON ESP-2

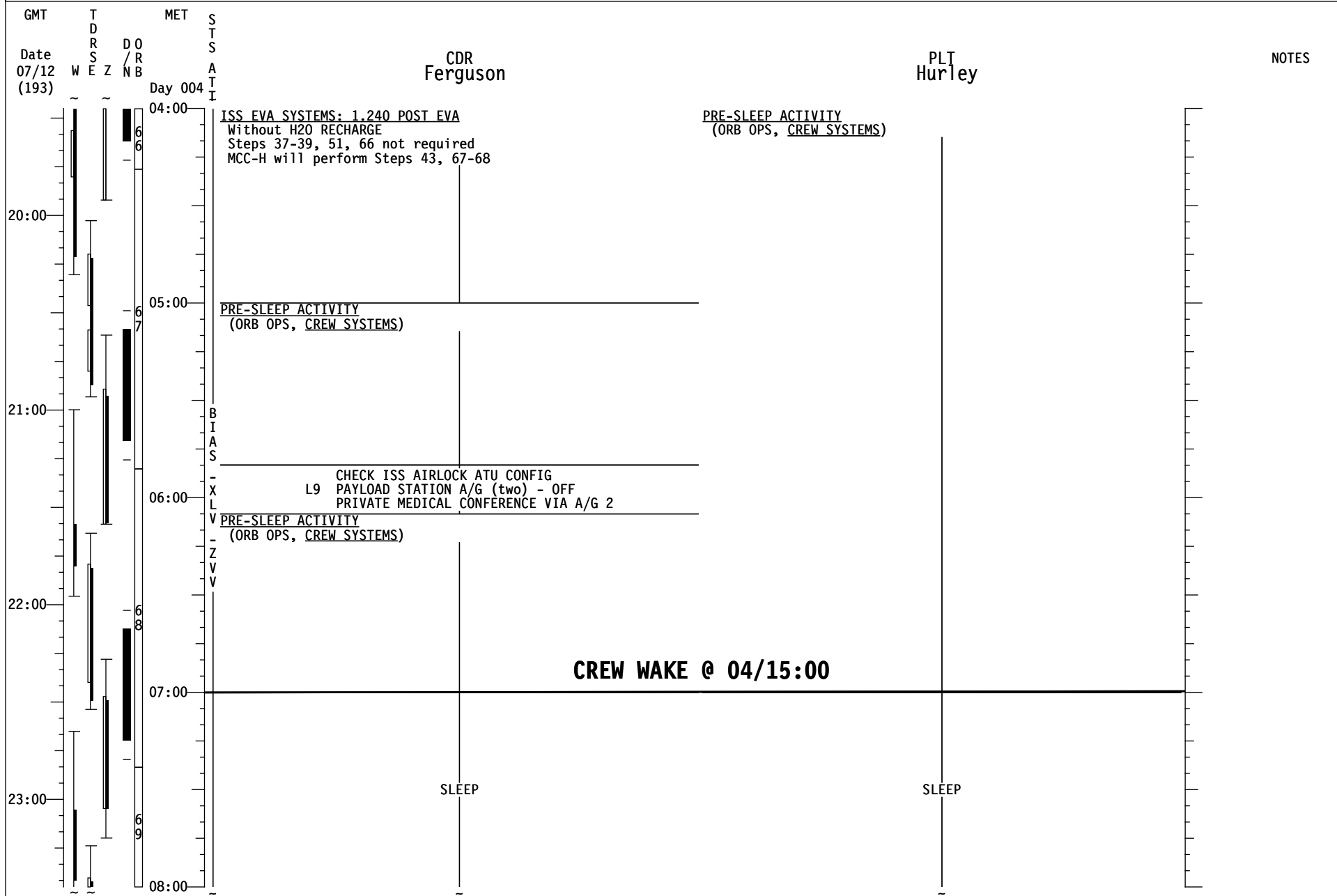
STS-135/ULF7 FD05

GMT	T D R S W E Z	MET D O R N B	S T S A T I	CDR Ferguson	PLT Hurley	NOTES
Date 07/12 (193)		Day 004				
16:00		64			<u>ROBO: 1.300 EVA1 SUPPORT</u>	
17:00			B I A S		<u>SHUTTLE/ISS H2O CONTAINER FILL (HC)</u> (ORB OPS, ECLS) Perform CWC FILL #6, Ref. MSG XXX	NO UNISOLATED EXERCISE EV CREW ON ELC-2
			X L V	TRANSFER OPS Ref. MPLM Transfer Lists and MSG XXX	<u>FILTER CLEANING</u> (IFM, SCHEDULED MAINTENANCE) Inspect filters and clean as necessary	
18:00		65	Z V V			
					<u>SHUTTLE/ISS H2O CONTAINER FILL (HC)</u> (ORB OPS, ECLS) Perform FILL TERMINATION	
					CWC TRANSFER Transfer 1 CWC to ISS	
19:00		66			<u>P/TV09 MIDDECK PAYLOADS</u> (ASSY OPS, PAYLOADS) Item 4 Photos	
				<u>EVA SYSTEMS: CREWLOCK DPRS/RPRS CUE CARD</u> Perform CREWLOCK REPRESS	<u>ILLUMINATOR OPS (Cue Card, TV)</u> ILLUMINATOR ON - A,D	
04:00						

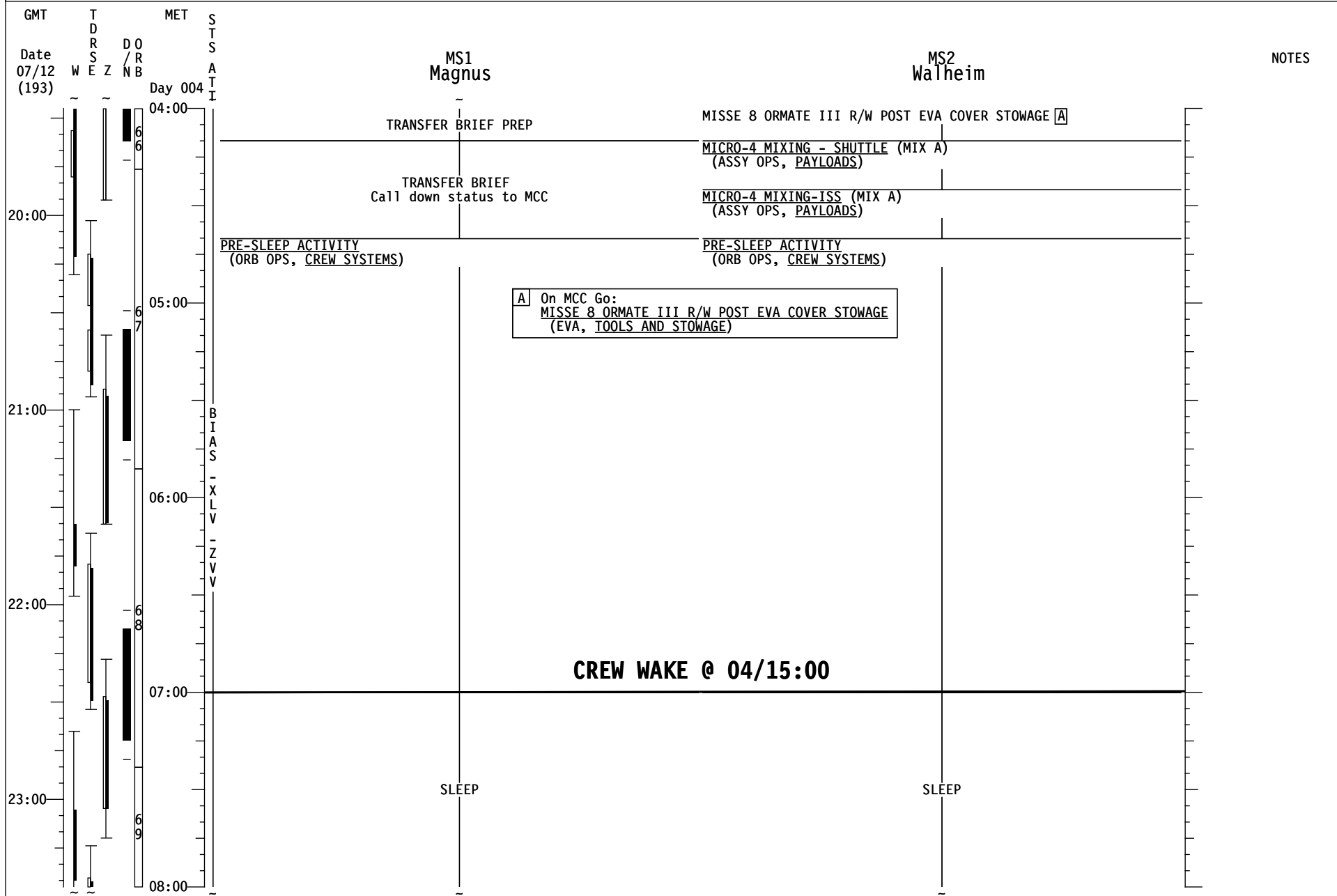
STS-135/ULF7 FD05



STS-135/ULF7 FD05

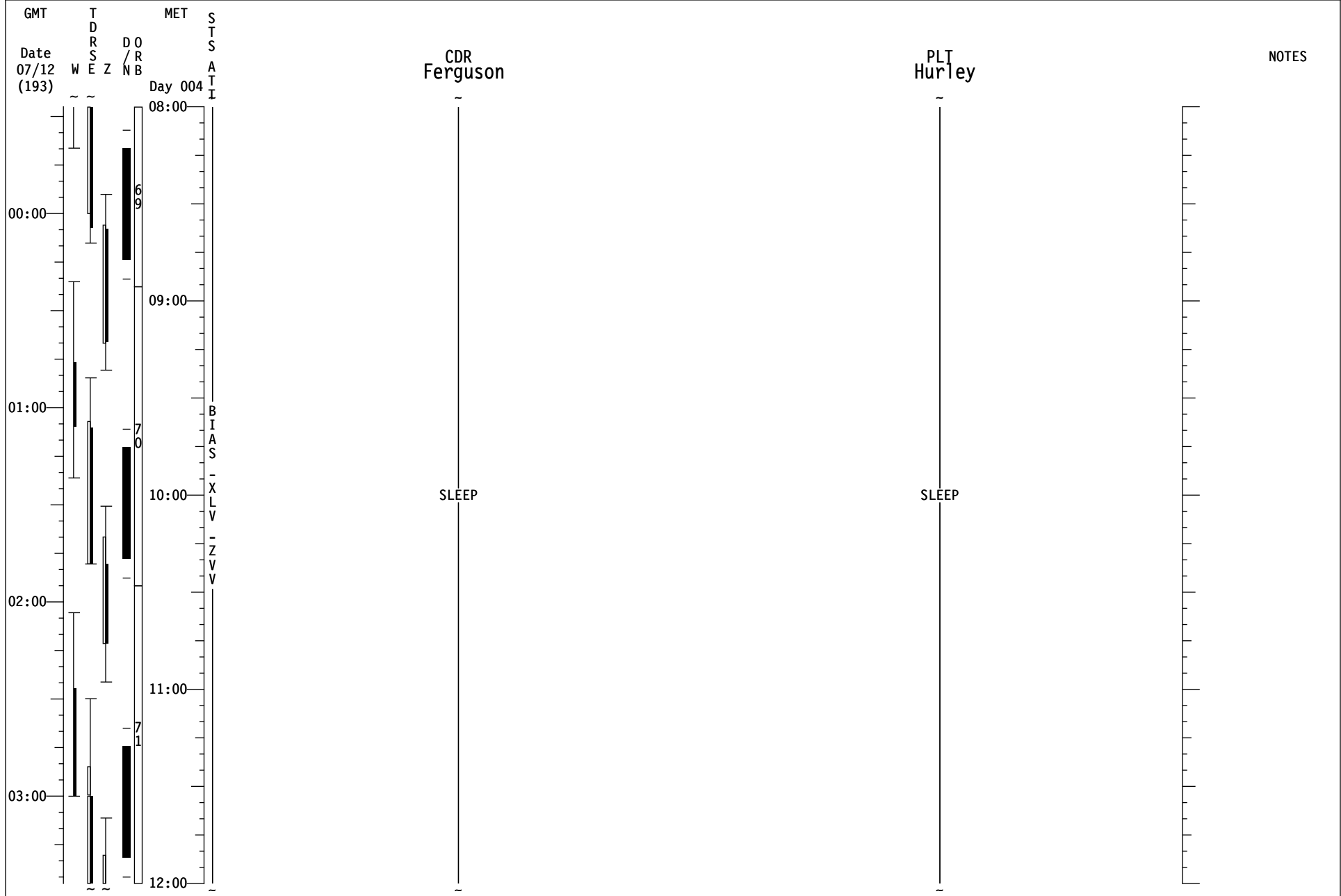


STS-135/ULF7 FD05

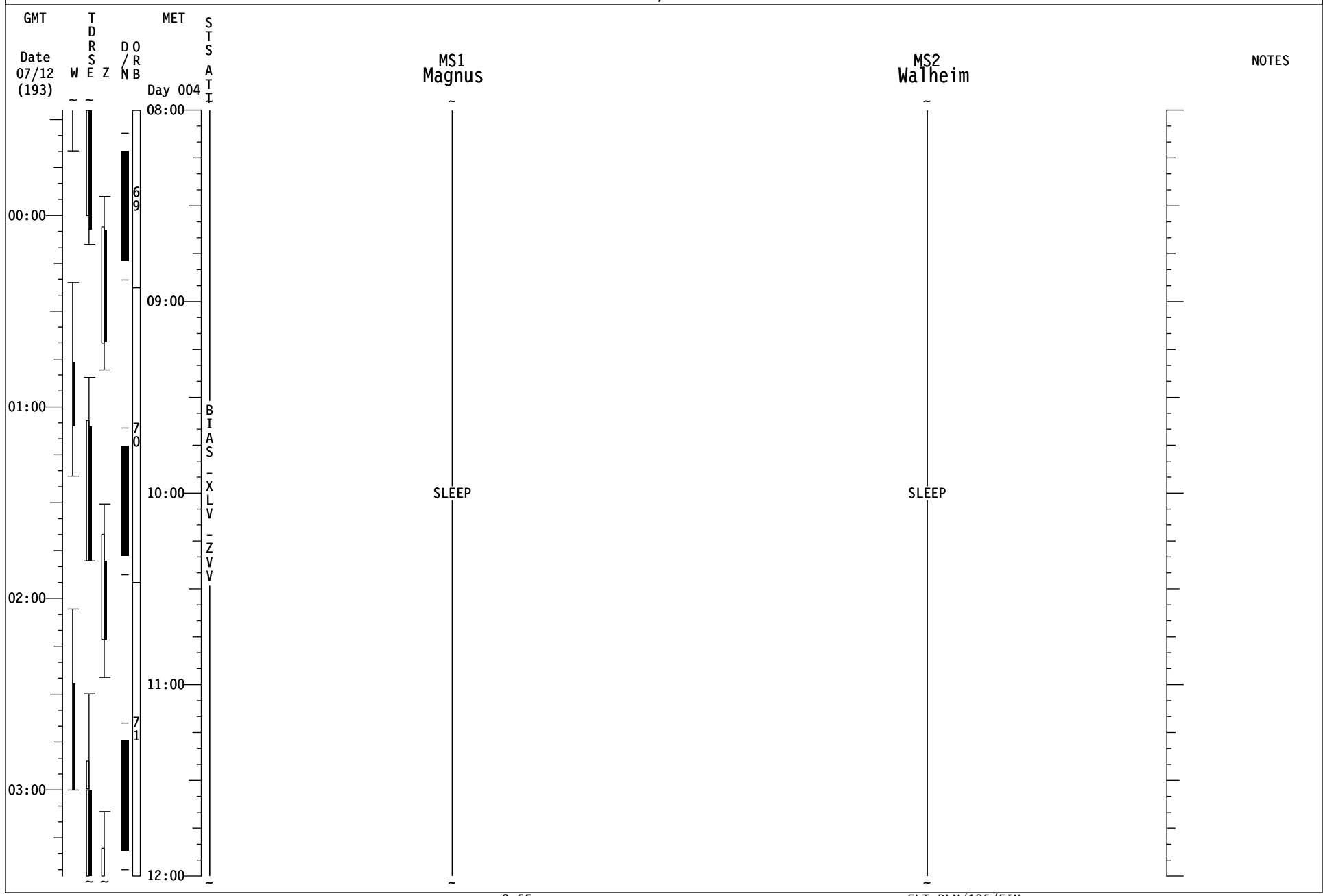


CREW WAKE @ 04/15:00

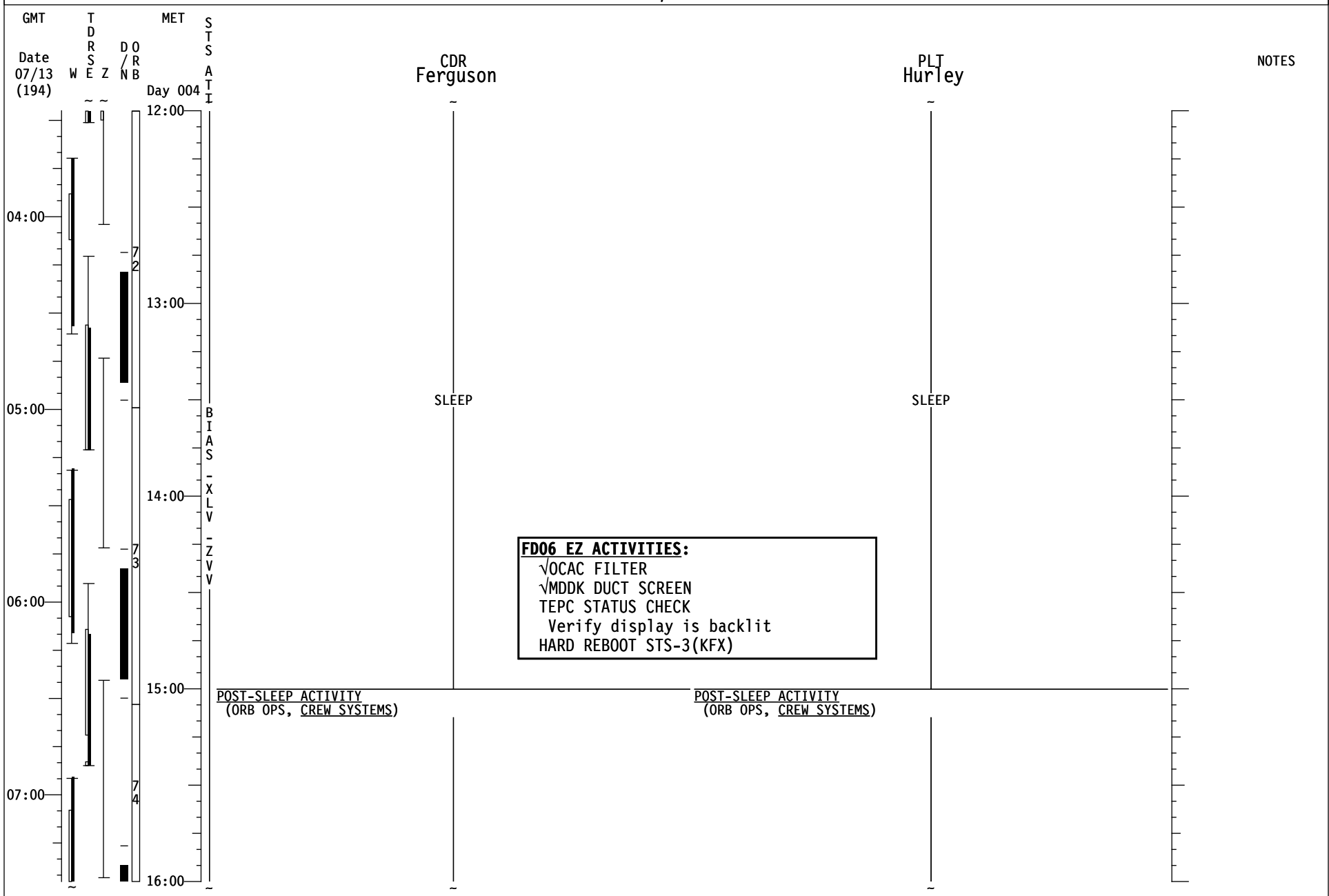
STS-135/ULF7 FD05



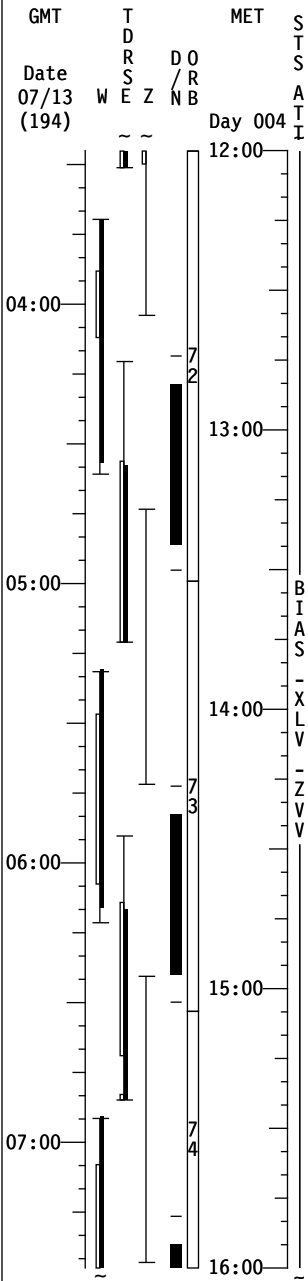
STS-135/ULF7 FD05



STS-135/ULF7 FD06



STS-135/ULF7 FD06



MS1
Magnus

MS2
Walheim

NOTES

SLEEP

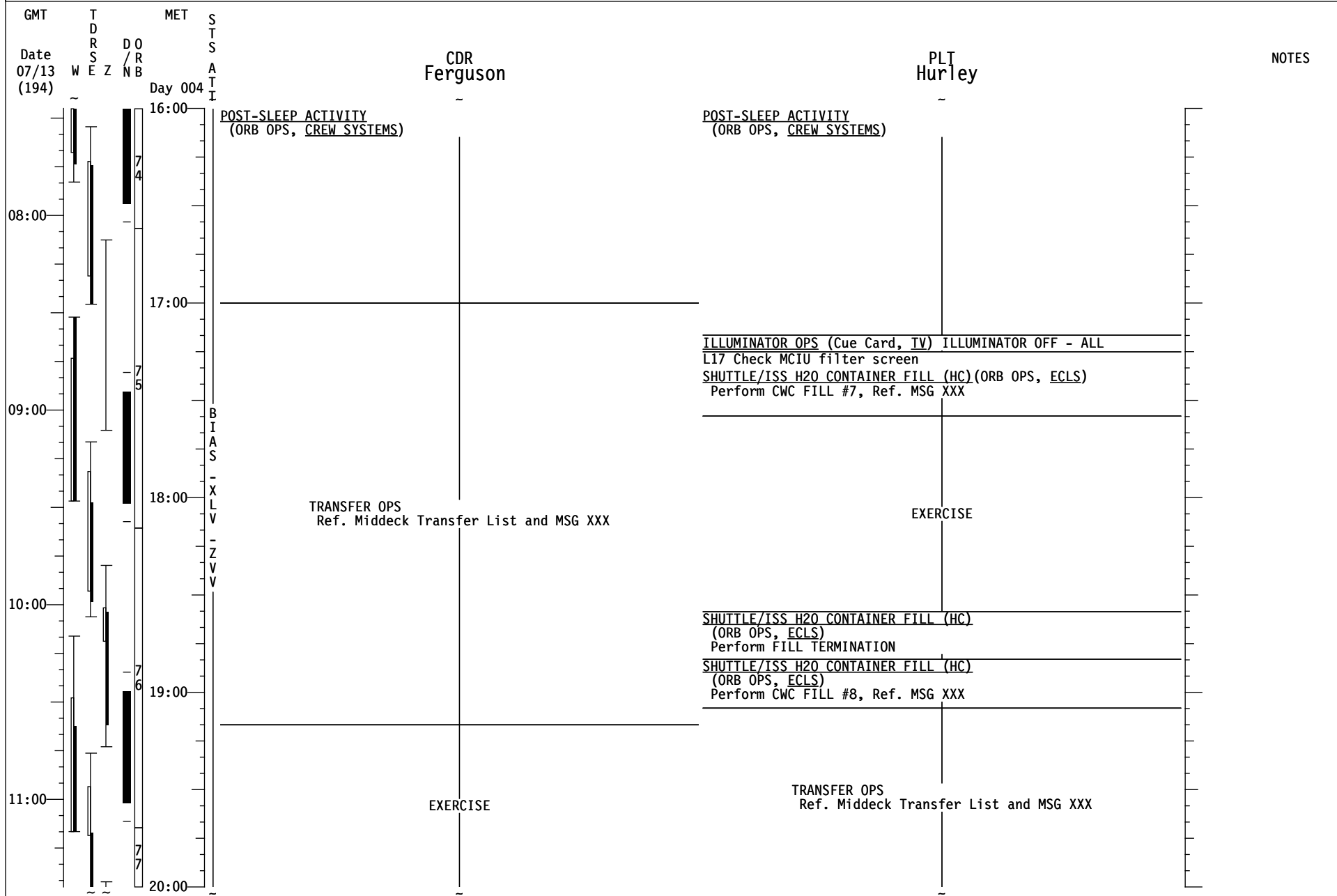
SLEEP

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYSTEMS)

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYSTEMS)

SLEEP LOGBOOK (SDBI 1634)

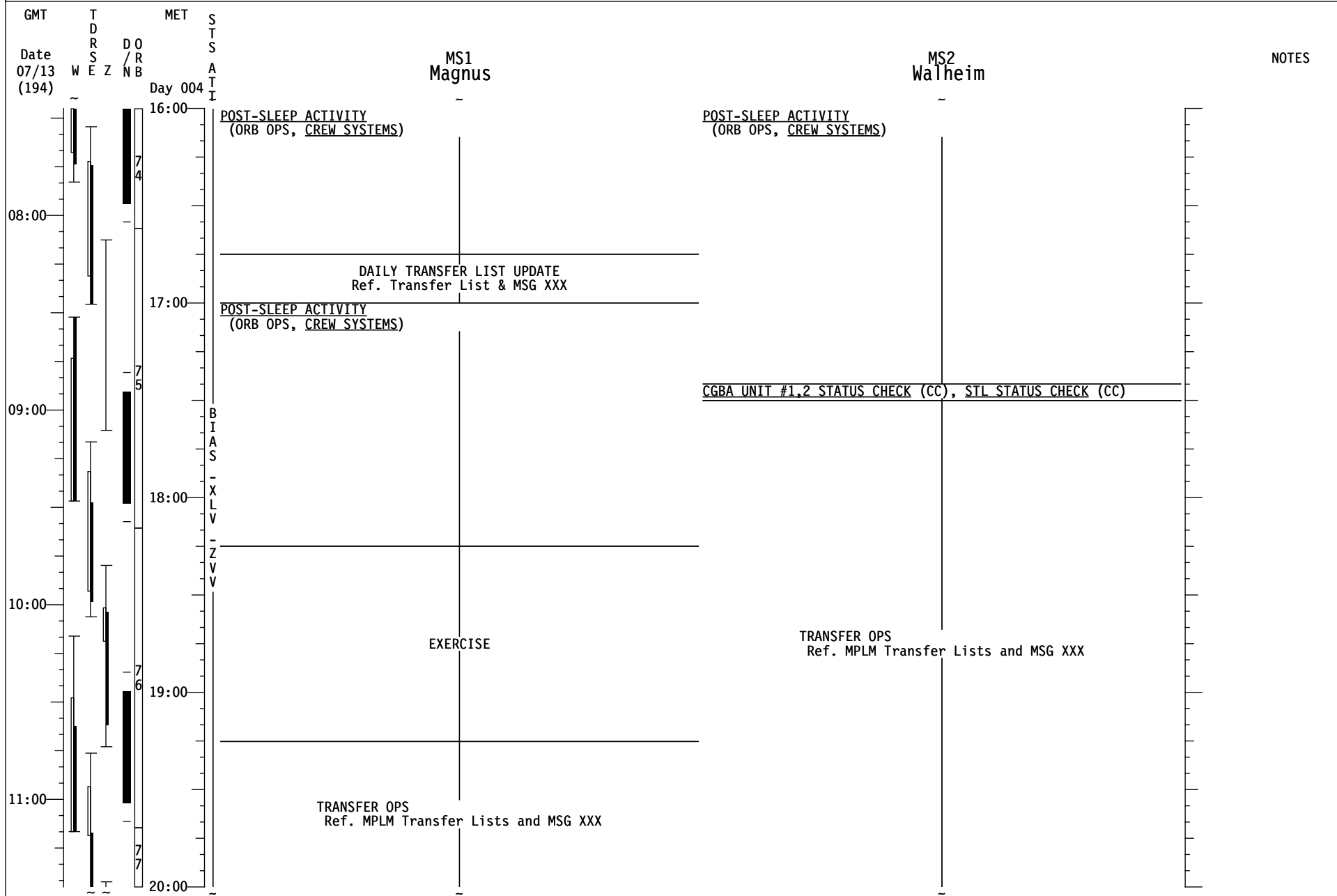
STS-135/ULF7 FD06



ILLUMINATOR OPS (Cue Card, IV) ILLUMINATOR OFF - ALL
 L17 Check MCIU filter screen
 SHUTTLE/ISS H2O CONTAINER FILL (HC) (ORB OPS, ECLS)
 Perform CWC FILL #7, Ref. MSG XXX

SHUTTLE/ISS H2O CONTAINER FILL (HC)
 (ORB OPS, ECLS)
 Perform FILL TERMINATION
 SHUTTLE/ISS H2O CONTAINER FILL (HC)
 (ORB OPS, ECLS)
 Perform CWC FILL #8, Ref. MSG XXX

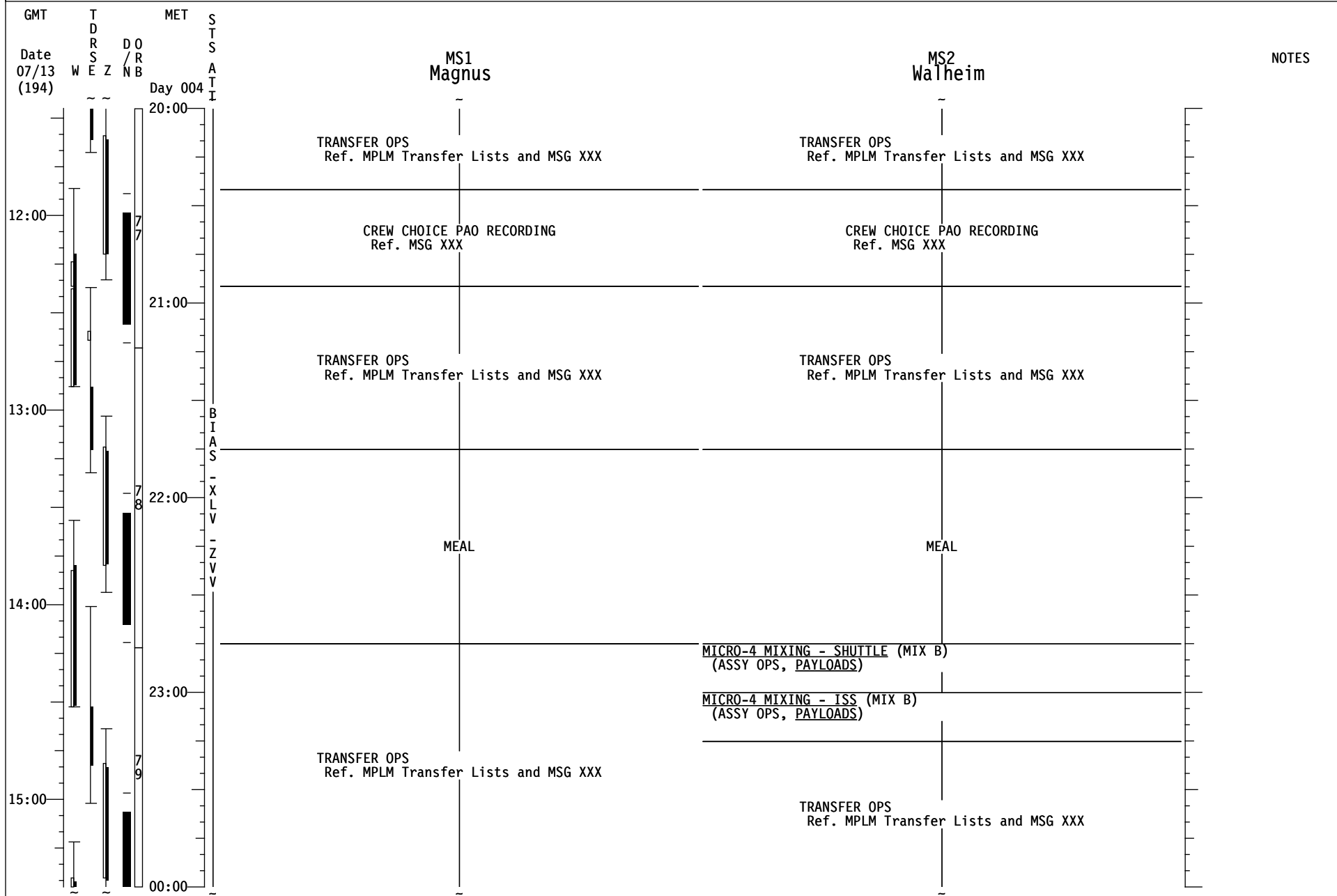
STS-135/ULF7 FD06



STS-135/ULF7 FD06

GMT	TDRS W E Z	MET Day 004	S T S A T I	CDR Ferguson	PLT Hurley	NOTES
20:00				EXERCISE	TRANSFER OPS Ref. Middeck Transfer List and MSG XXX	
				ARED FAMILIARIZATION Ref. MSG XXX	SHUTTLE/ISS H2O CONTAINER FILL (HC) (ORB OPS, ECLS) Perform FILL TERMINATION	
12:00				CREW CHOICE PAO RECORDING Ref. MSG XXX	SUPPLY H2O DUMP USING FES (ORB OPS, ECLS) Step 1 using FES Pri B	
				TRANSFER OPS Ref. Middeck Transfer List and MSG XXX	TRANSFER OPS Ref. Middeck Transfer List and MSG XXX	
13:00						
22:00				MEAL	MEAL	
14:00				CREW CHOICE DOWNLINK KU AVAIL TDRW: 22:23-23:04 Gimbal flip @ 22:55 Ref. MSG XXX	CWC TRANSFER Transfer 2 CWCs to ISS	
23:00				TRANSFER OPS Ref. MPLM Transfer Lists and MSG XXX	TRANSFER OPS Ref. Middeck Transfer List and MSG XXX	
15:00					SUPPLY WATER DUMP USING FES (ORB OPS, ECLS) Step 2 w/FES Pri B req'd	
00:00					TRANSFER OPS Ref. Middeck Transfer List and MSG XXX	

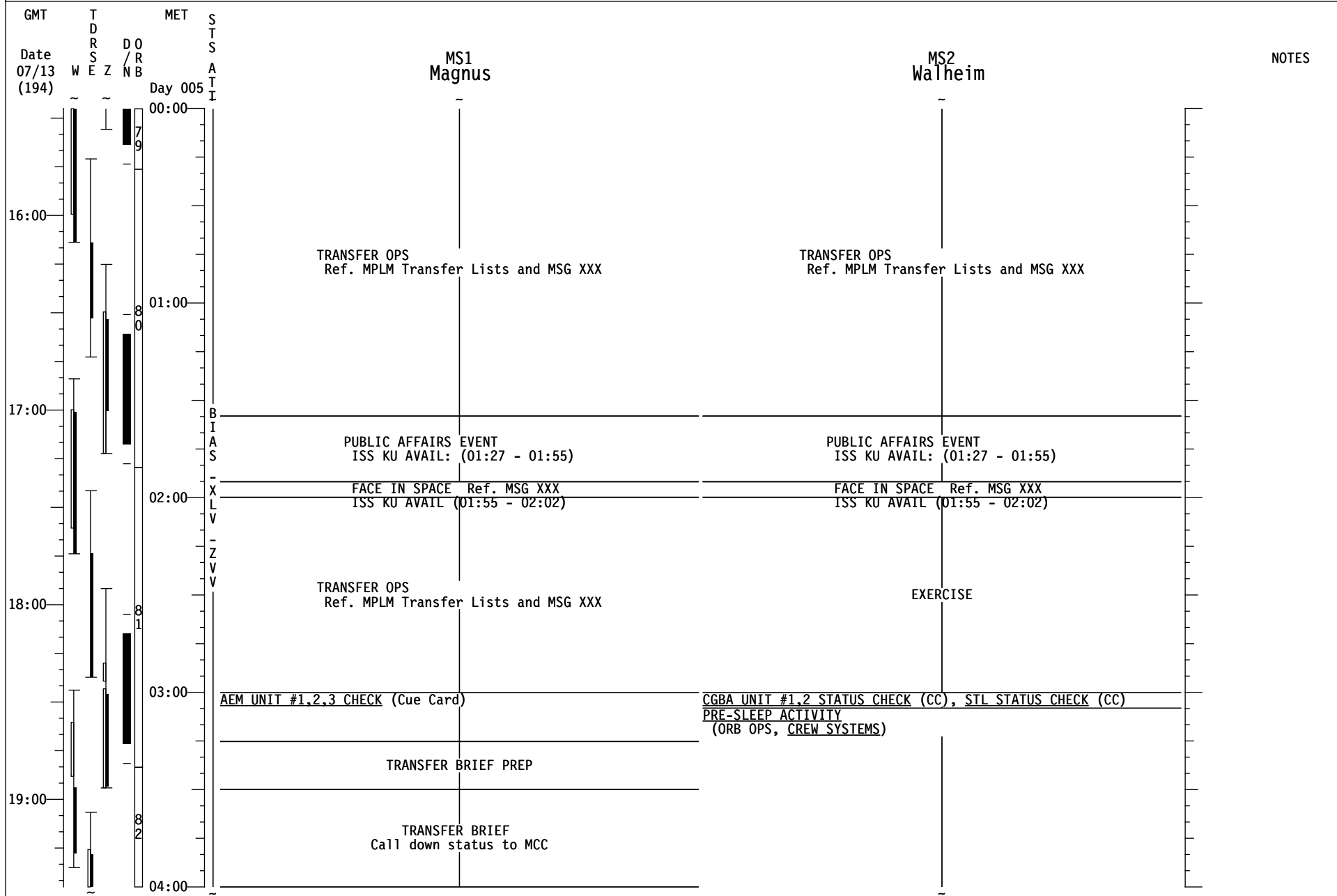
STS-135/ULF7 FD06



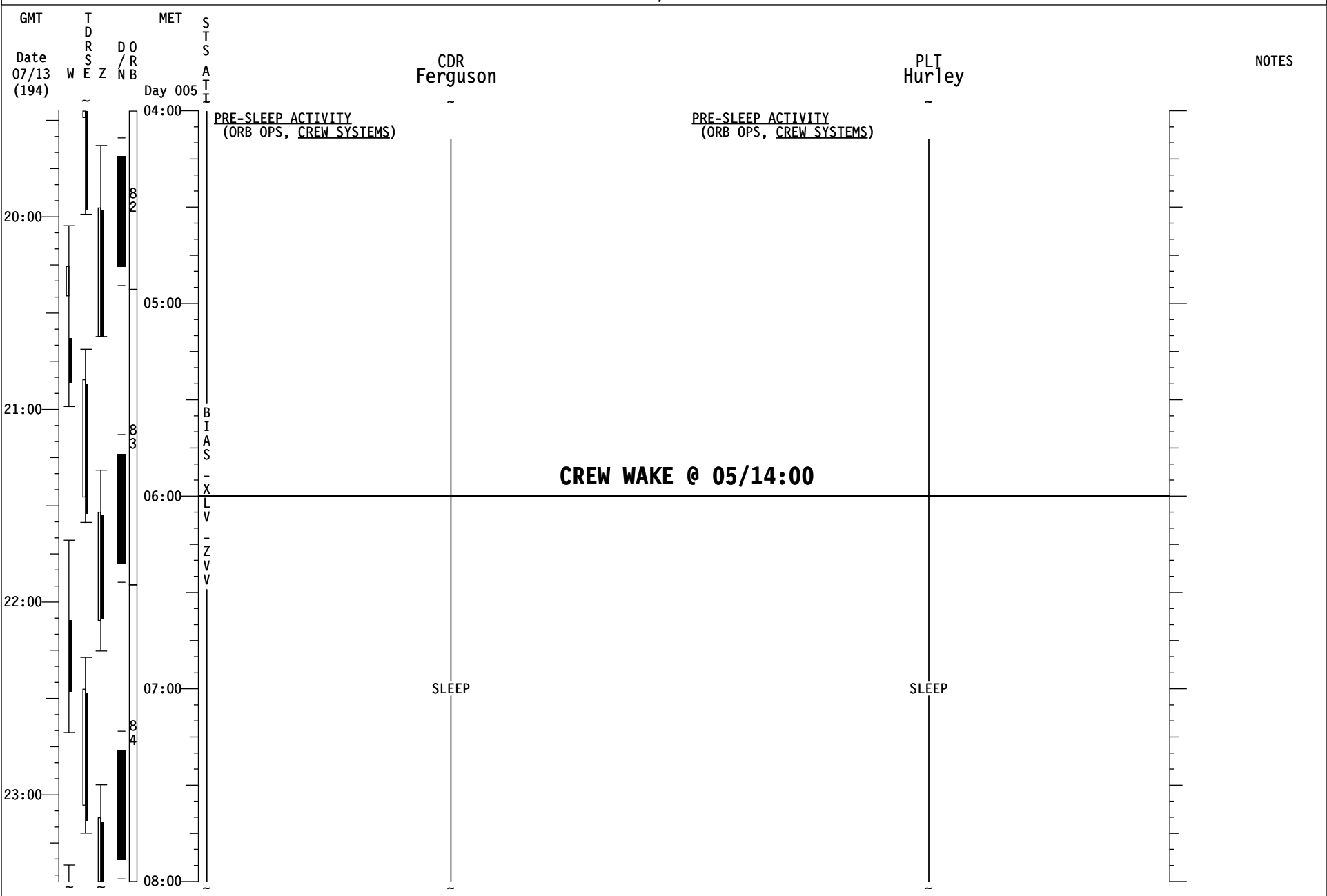
STS-135/ULF7 FD06

GMT	TDRS W E Z	MET Day 005	S T S A T I	CDR Ferguson	PLT Hurley	NOTES
00:00						
16:00				TRANSFER OPS Ref. MPLM Transfer Lists and MSG XXX	TRANSFER OPS Ref. Middeck Transfer List and MSG XXX	
				<div style="border: 1px solid black; padding: 2px; display: inline-block;"> A) N2 REPRESS USING P/L N2 VLVS (ORB OPS, ECLS) Steps 2-7 MCC will TMBU S/W FDA, H/W FDA already INH. </div>		
					ARED FAMILIARIZATION Ref. MSG XXX	
17:00				<div style="border: 1px solid black; padding: 2px; display: inline-block;"> N2 REPRESS INIT A </div>		
				<div style="border: 1px solid black; padding: 2px; display: inline-block;"> IMU STAR OF OPPTY ALIGN (ORB OPS, GNC) </div>		
				PUBLIC AFFAIRS EVENT ISS KU AVAIL: (01:27 - 01:55)	PUBLIC AFFAIRS EVENT ISS KU AVAIL: (01:27 - 01:55)	
				FACE IN SPACE Ref. MSG XXX ISS KU AVAIL (01:55 - 02:02)	FACE IN SPACE Ref. MSG XXX ISS KU AVAIL (01:55 - 02:02)	
18:00				TRANSFER OPS Ref. MPLM Transfer Lists and MSG XXX	TRANSFER OPS Ref. MPLM Transfer Lists and MSG XXX	
				<div style="border: 1px solid black; padding: 2px; display: inline-block;"> ILLUMINATOR OPS (Cue Card, IV) ILLUMINATOR ON - A,D </div>		
				CHECK ISS AIRLOCK ATU CONFIG L9 PAYLOAD STATION A/G (two) - OFF PRIVATE MEDICAL CONFERENCE VIA A/G 2	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYSTEMS)	
				<div style="border: 1px solid black; padding: 2px; display: inline-block;"> PRE-SLEEP ACTIVITY (ORB OPS, CREW SYSTEMS) </div>		
19:00				<div style="border: 1px solid black; padding: 2px; display: inline-block;"> B) N2 REPRESS USING P/L N2 VLVS (ORB OPS, ECLS) On MCC go, perform steps 8-12 MCC will TMBU S/W FDA. Do not ENA H/W. </div>		
					<div style="border: 1px solid black; padding: 2px; display: inline-block;"> N2 REPRESS TERM (On MCC GO) B </div>	
				<div style="border: 1px solid black; padding: 2px; display: inline-block;"> PRE-SLEEP ACTIVITY (ORB OPS, CREW SYSTEMS) </div>		
04:00						

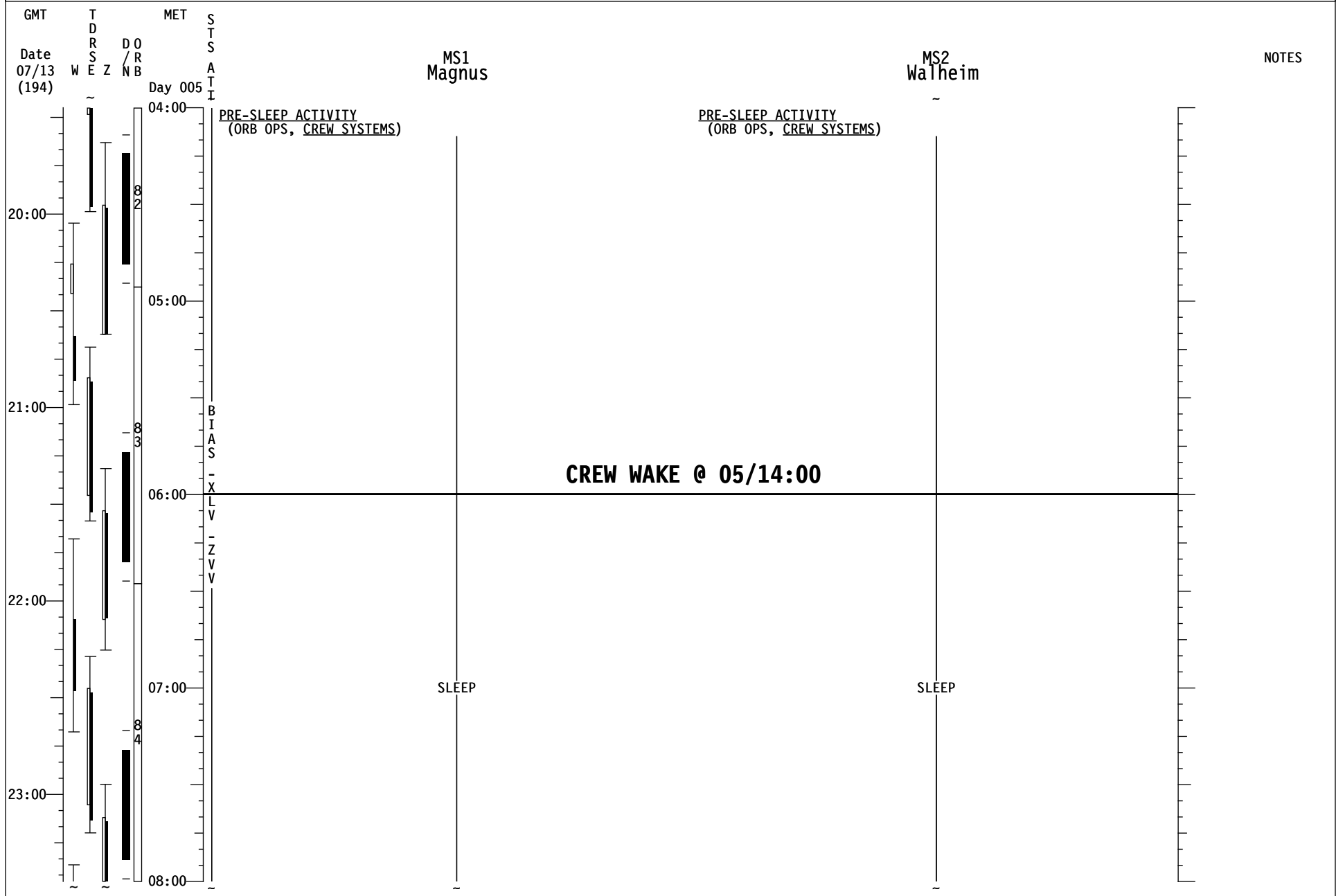
STS-135/ULF7 FD06



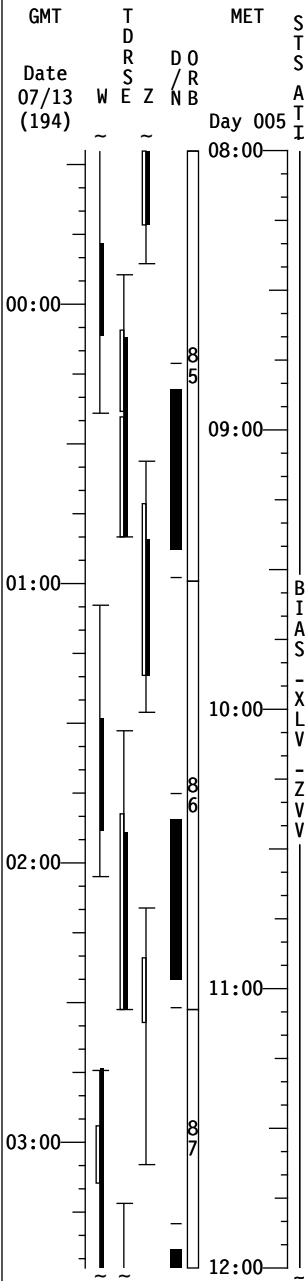
STS-135/ULF7 FD06



STS-135/ULF7 FD06



STS-135/ULF7 FD06



CDR
Ferguson

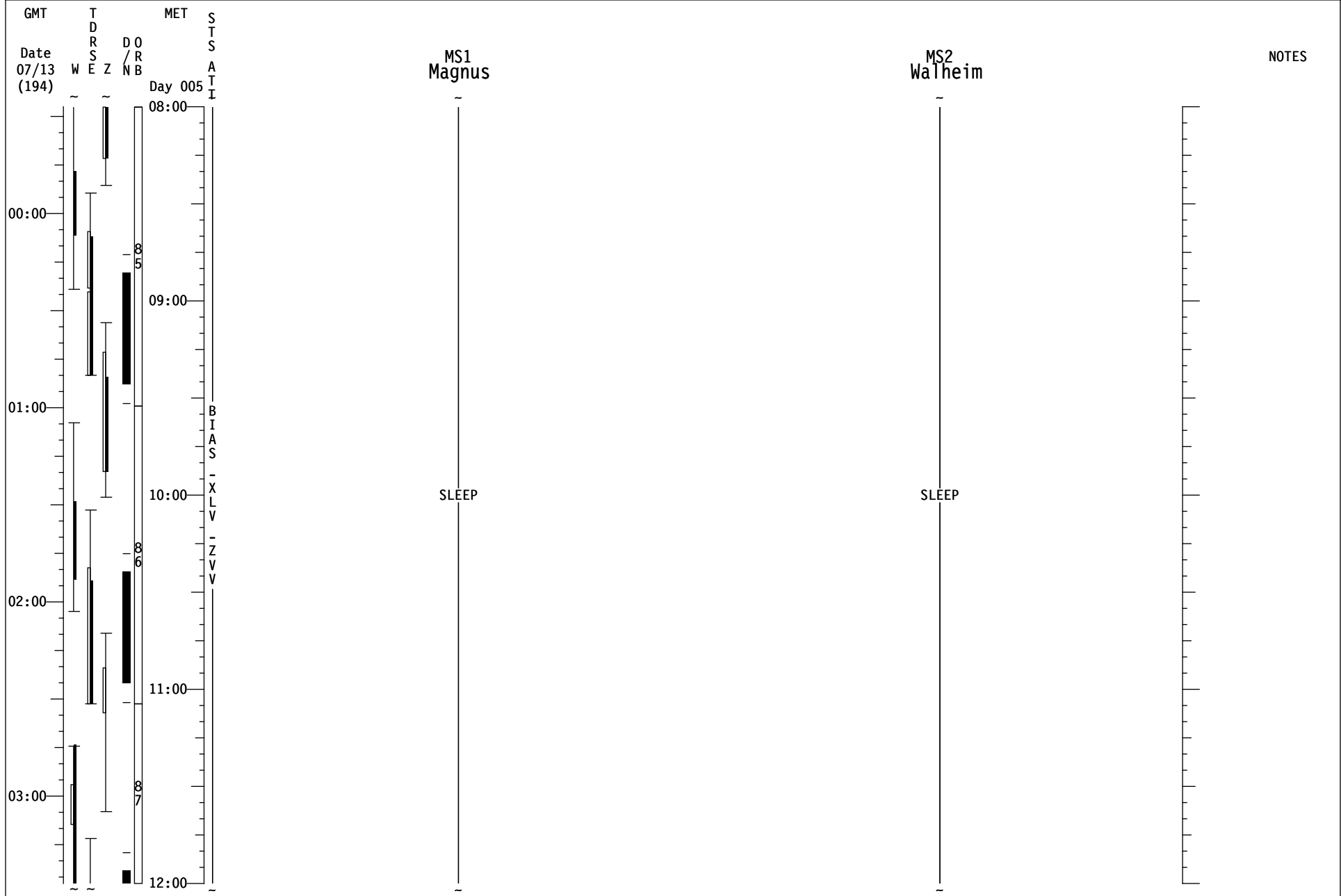
PLT
Hurley

NOTES

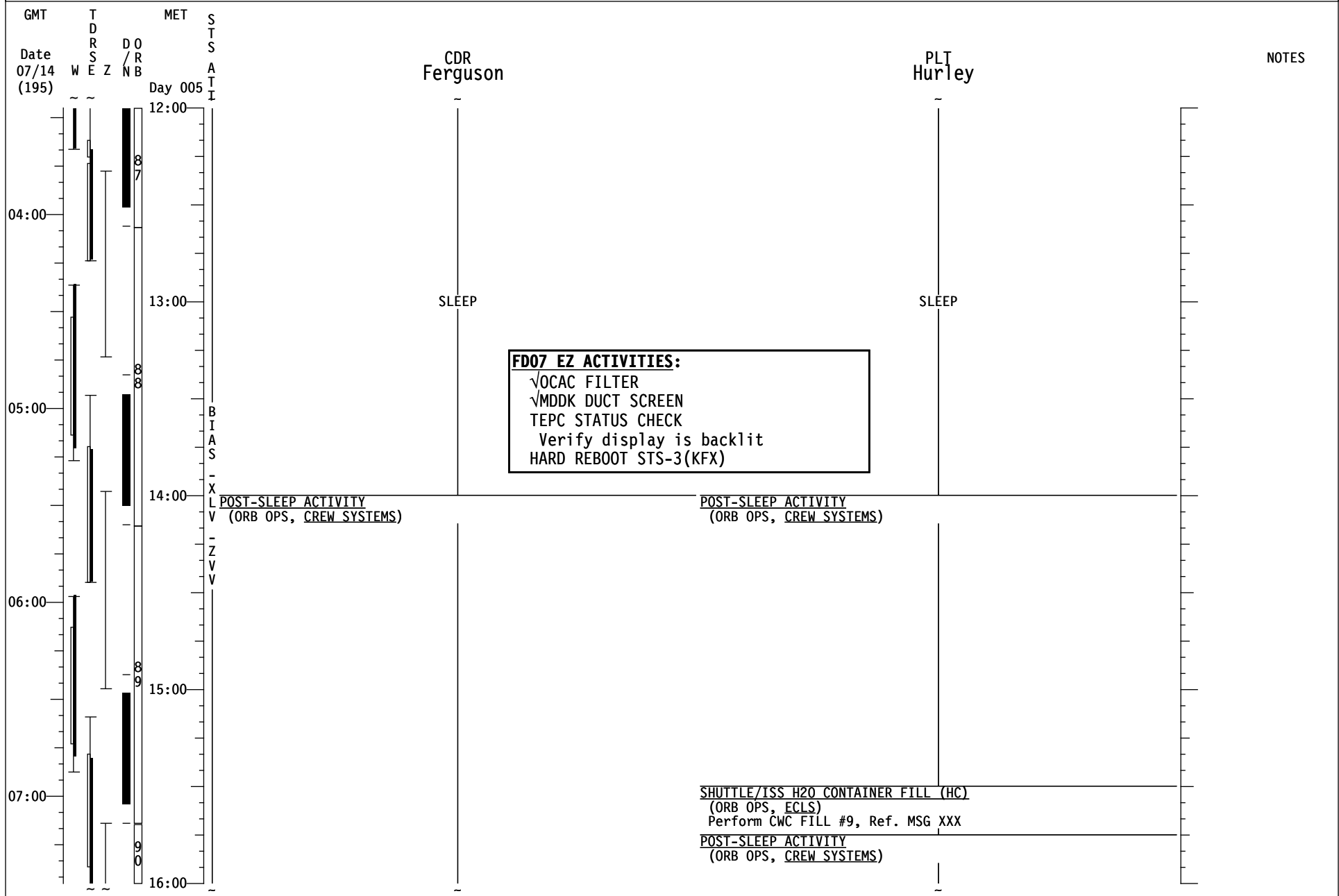
SLEEP

SLEEP

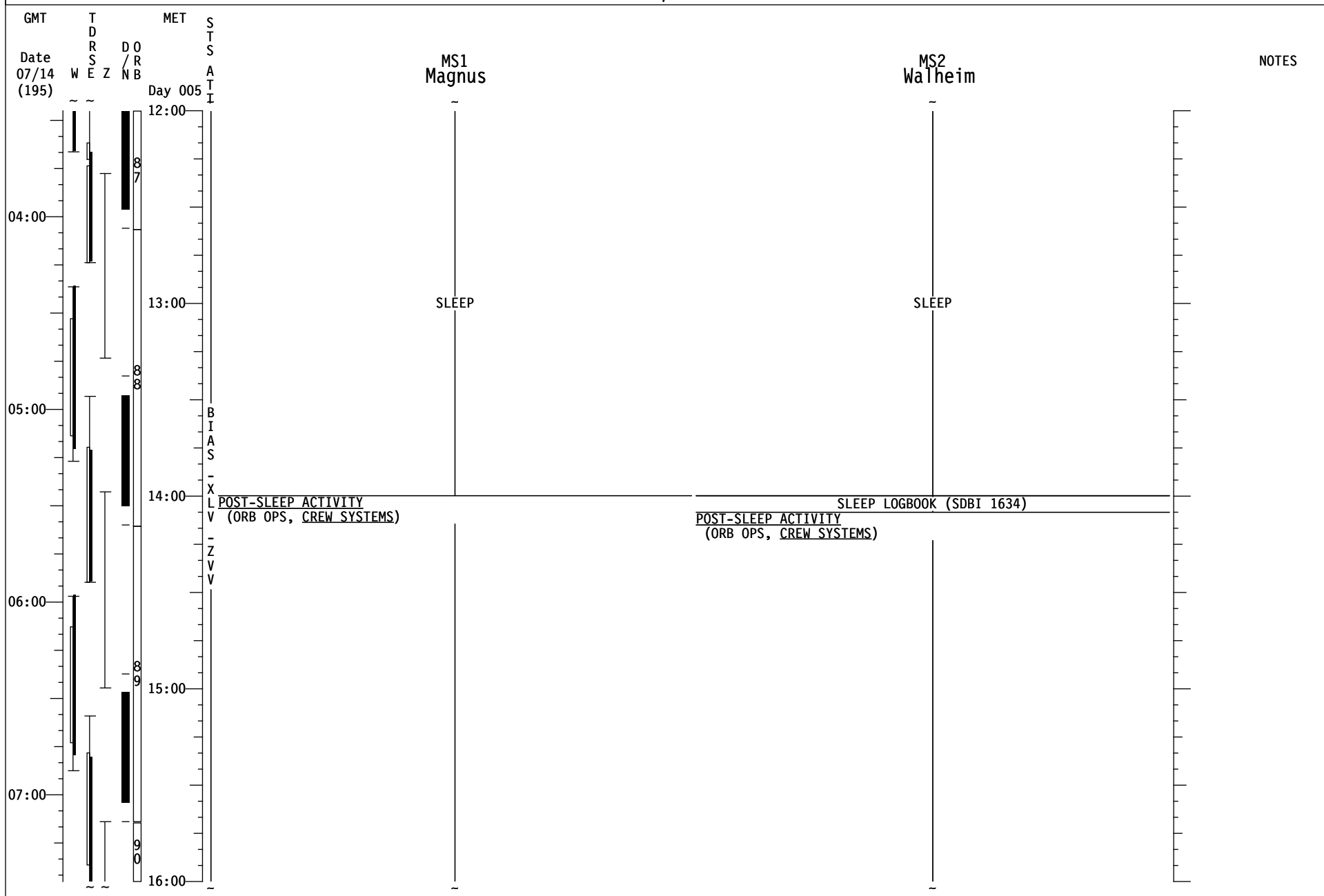
STS-135/ULF7 FD06



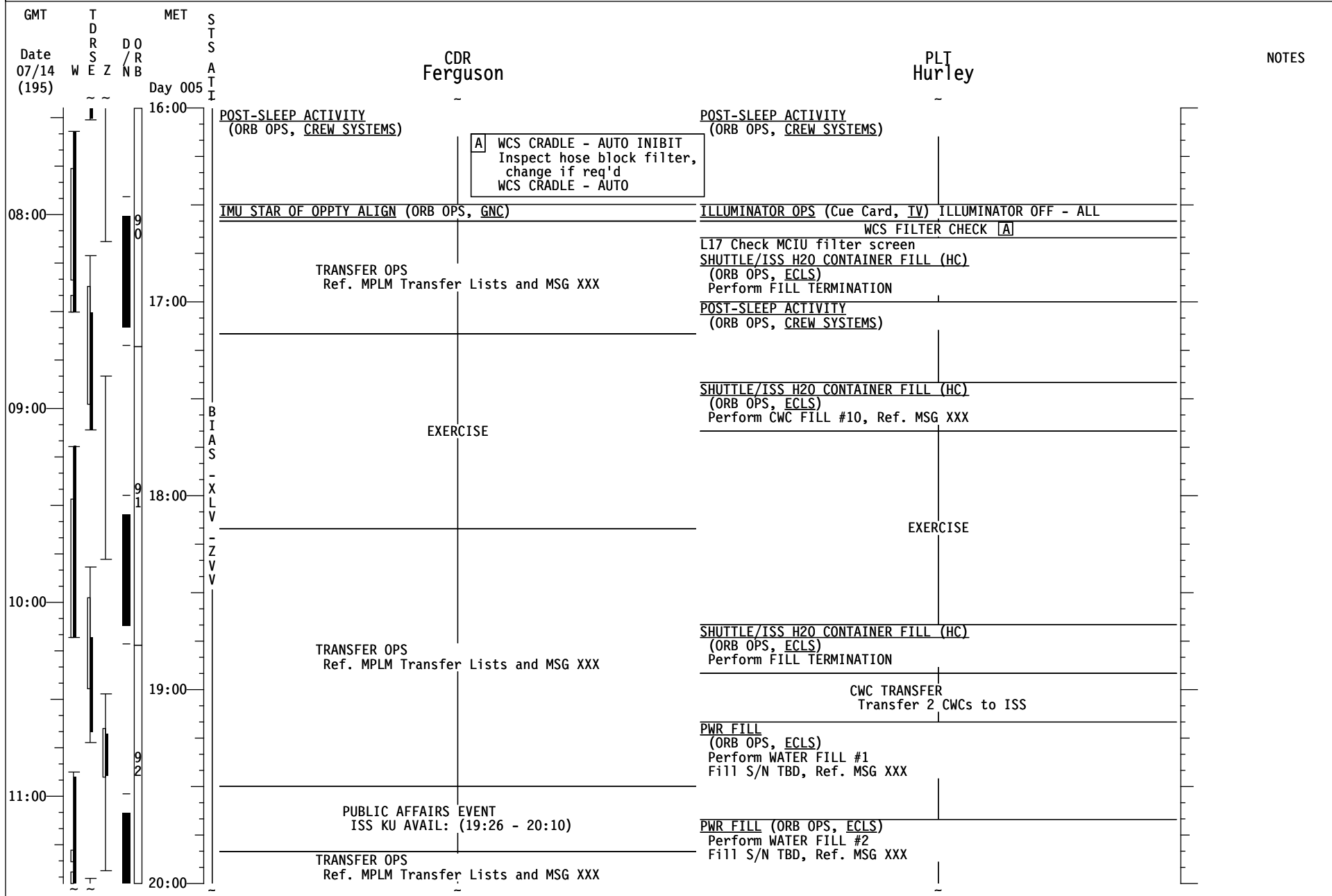
STS-135/ULF7 FD07



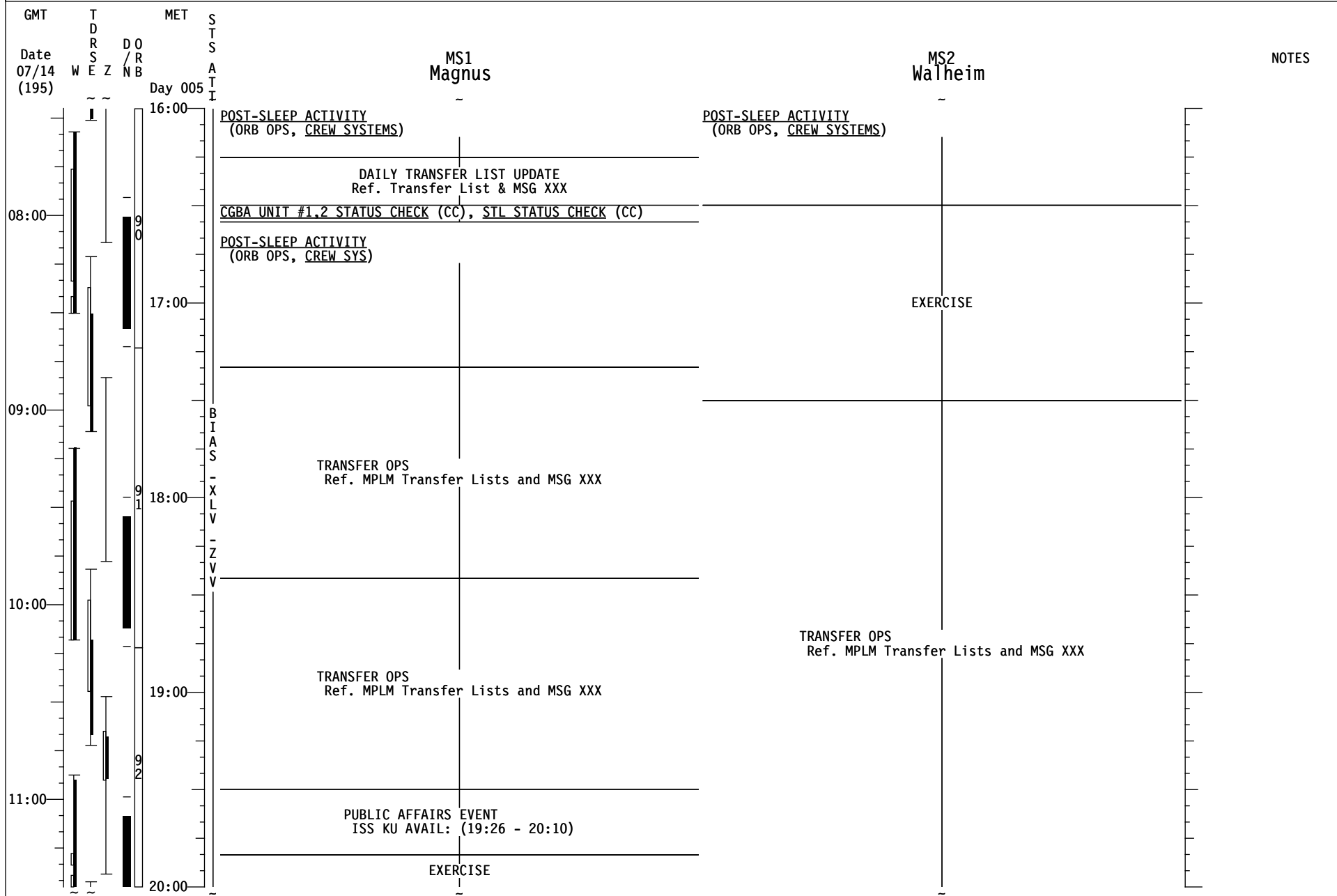
STS-135/ULF7 FD07



STS-135/ULF7 FD07



STS-135/ULF7 FD07



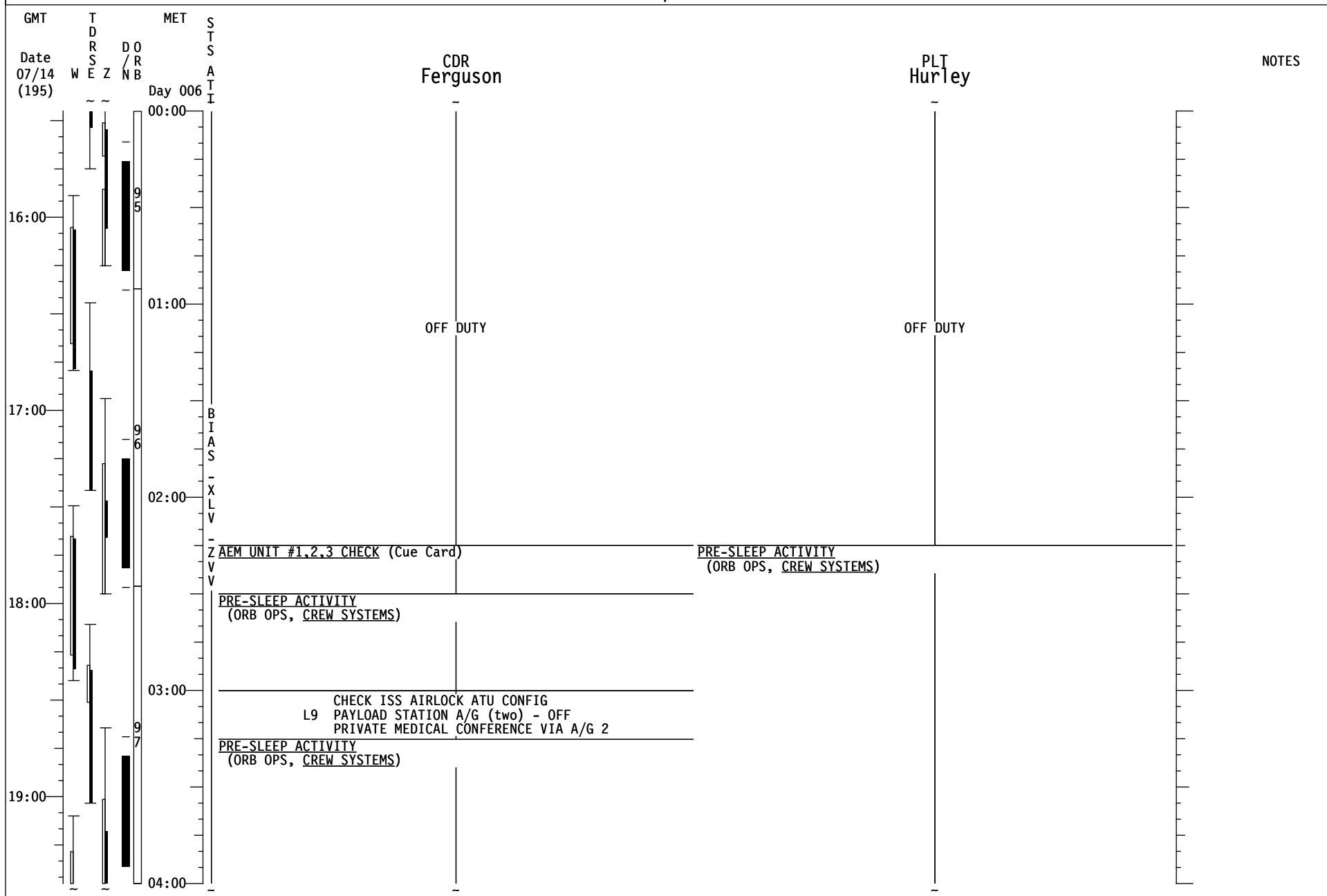
STS-135/ULF7 FD07

GMT	T D R S W E Z	MET Day 005	S T S A T I	CDR Ferguson	PLT Hurley	NOTES
20:00						
						<p><u>PWR FILL (ORB OPS, ECLS)</u> Perform WATER FILL #2 Fill S/N TBD, Ref. MSG XXX</p> <p><u>PWR FILL (ORB OPS, ECLS)</u> Perform WATER FILL #3 Fill S/N TBD, Ref. MSG XXX</p>
12:00				TRANSFER OPS Ref. MPLM Transfer Lists and MSG XXX		
						PWR TRANSFER Transfer 3 PWRs to ISS
13:00				MEAL	MEAL	
22:00				PUBLIC AFFAIRS EVENT ISS KU AVAIL: (21:54 - 22:21)	PUBLIC AFFAIRS EVENT ISS KU AVAIL: (21:54 - 22:21)	
14:00				OFF DUTY		
23:00				Private Family Conference [B] ISS KU AVAIL (22:49 - 23:32)	OFF DUTY	
				<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> [B] PFC to be performed using S-Band via Public Call 4 for audio and Ku-band for Video. Please call down SSC preference before the conference and make sure that all applications except Netmeeting have been closed. </div>		
15:00				OFF DUTY		
						Private Family Conference [B] ISS KU AVAIL (23:34 - 00:04)
00:00					OFF DUTY	

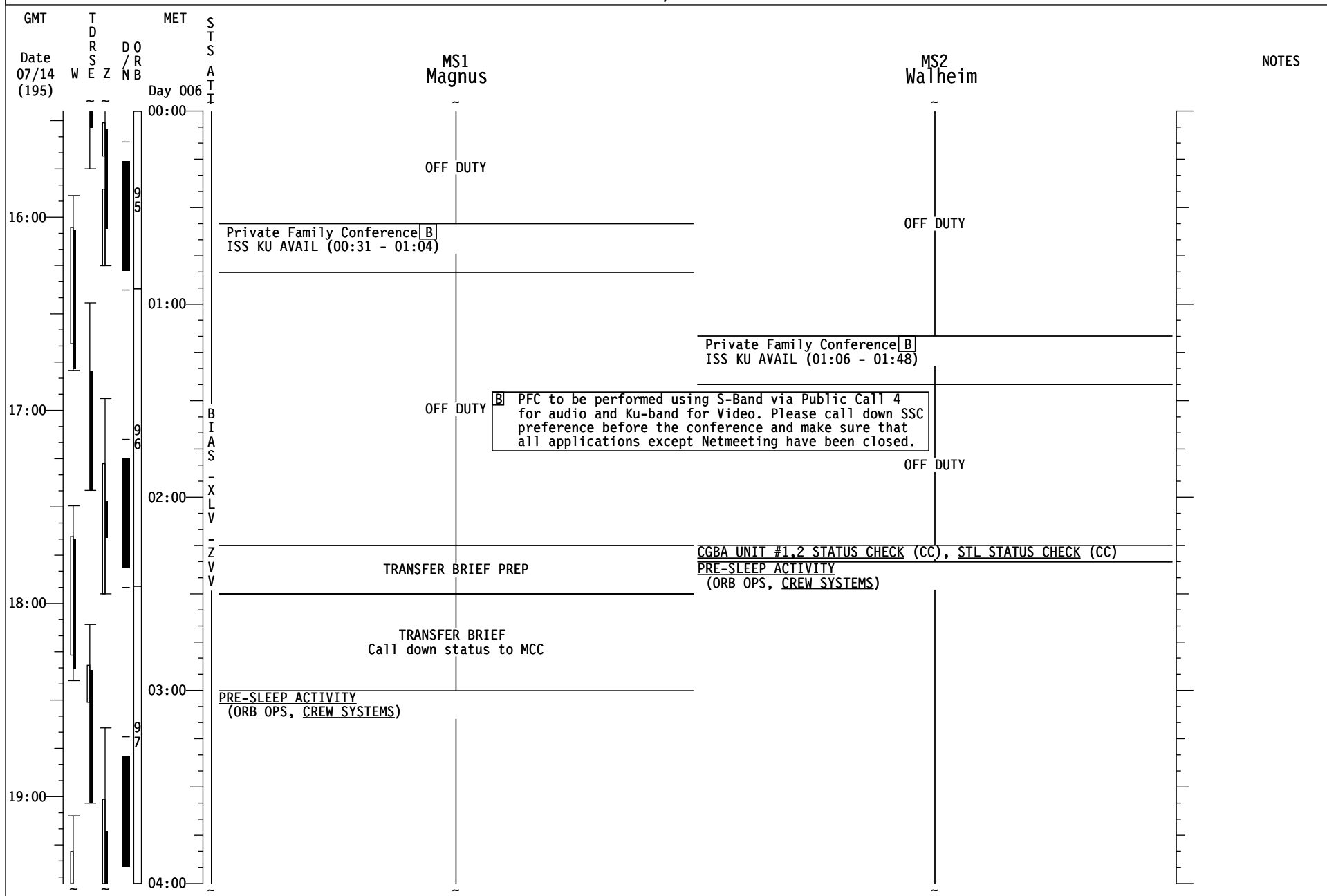
STS-135/ULF7 FD07

GMT	TDRS W E Z	MET	S T S A T I	NOTES
Date 07/14 (195)		Day 005		
		20:00		
				MS1 Magnus
				EXERCISE
				MS2 Walheim
				TRANSFER OPS Ref. MPLM Transfer Lists and MSG XXX
12:00				
		21:00		
				MEAL
13:00			B I A S	
		22:00	X L V	
				PUBLIC AFFAIRS EVENT ISS KU AVAIL: (21:54 - 22:21)
14:00			Z V V	
		23:00		
				OFF DUTY
15:00				
		00:00		

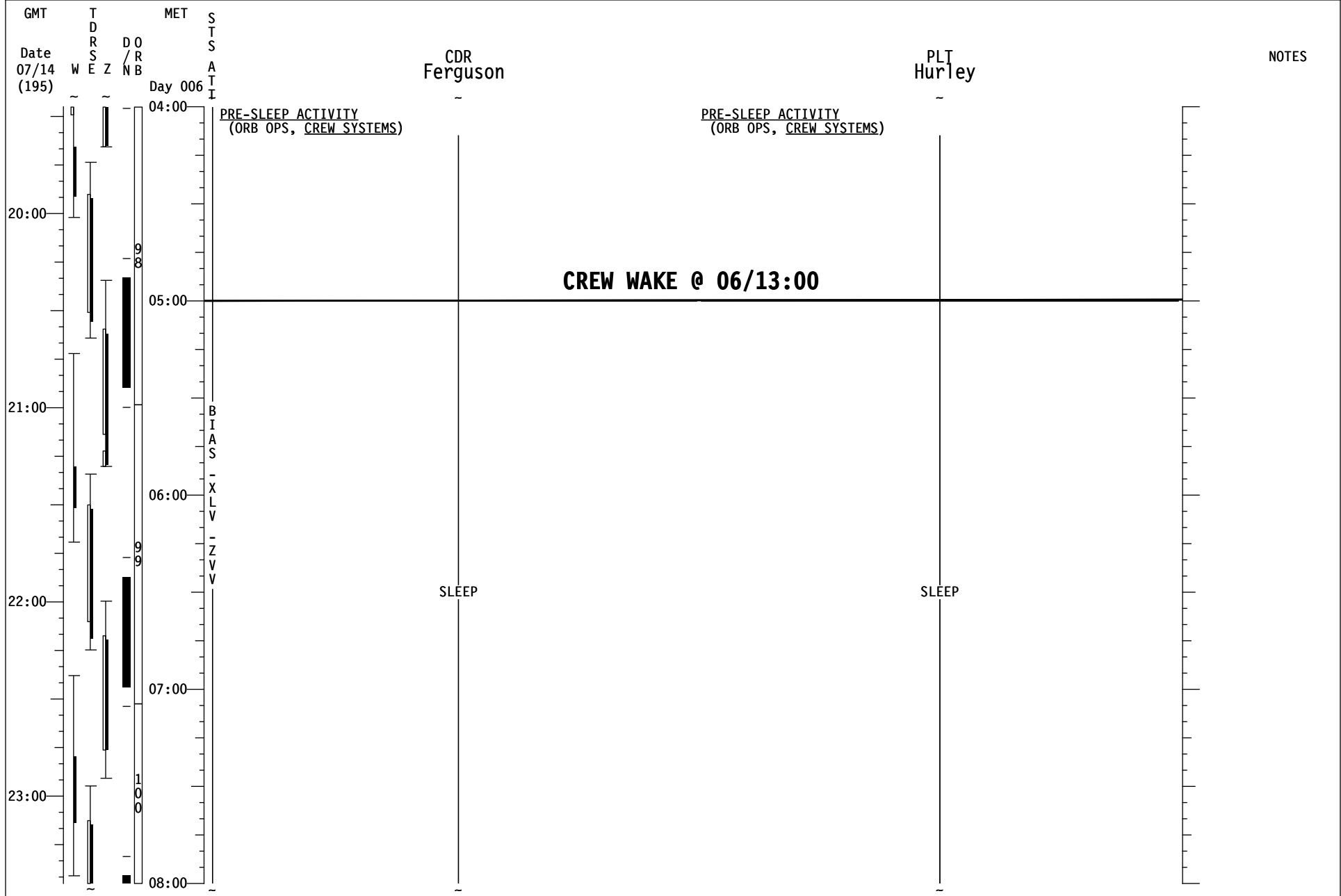
STS-135/ULF7 FD07



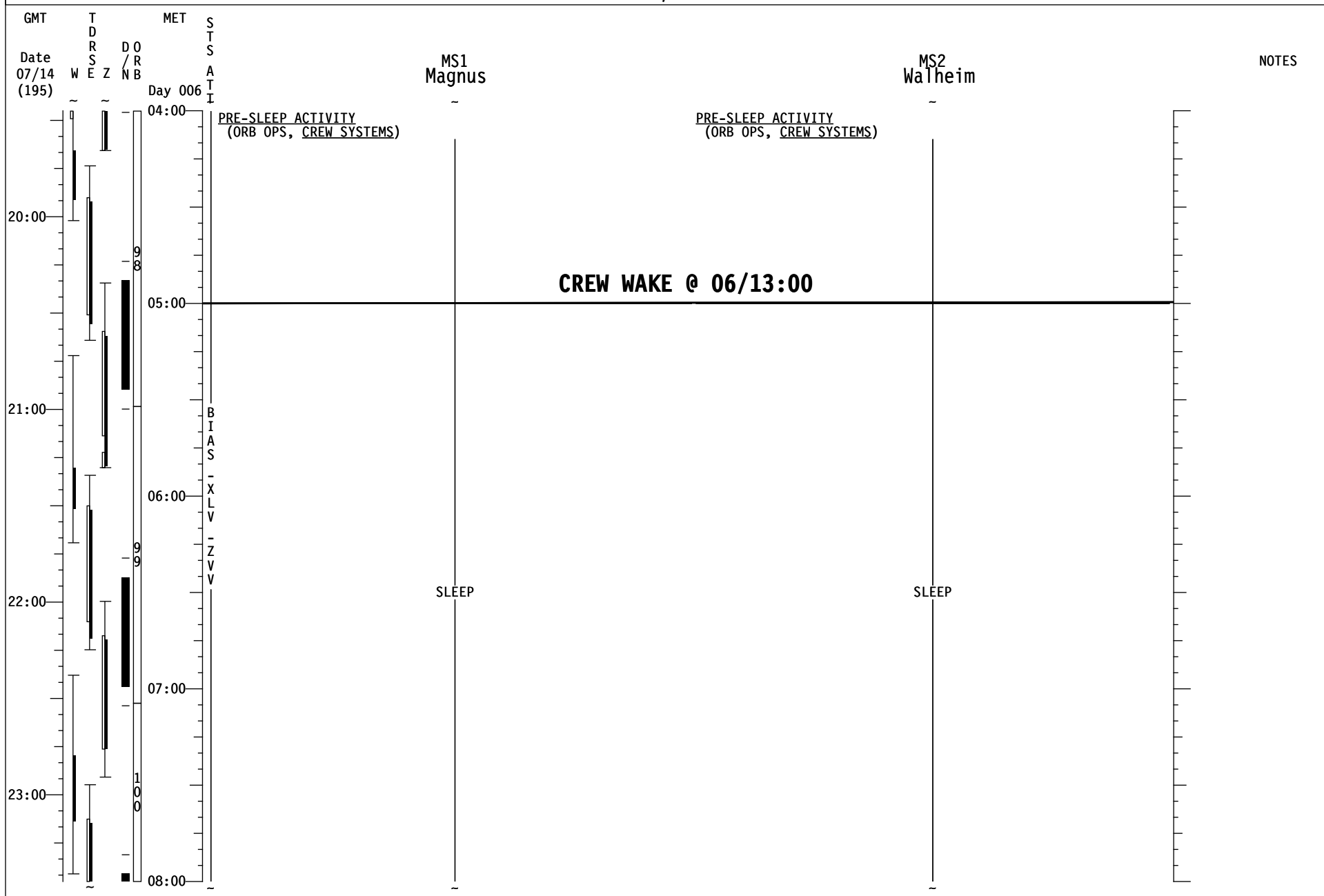
STS-135/ULF7 FD07



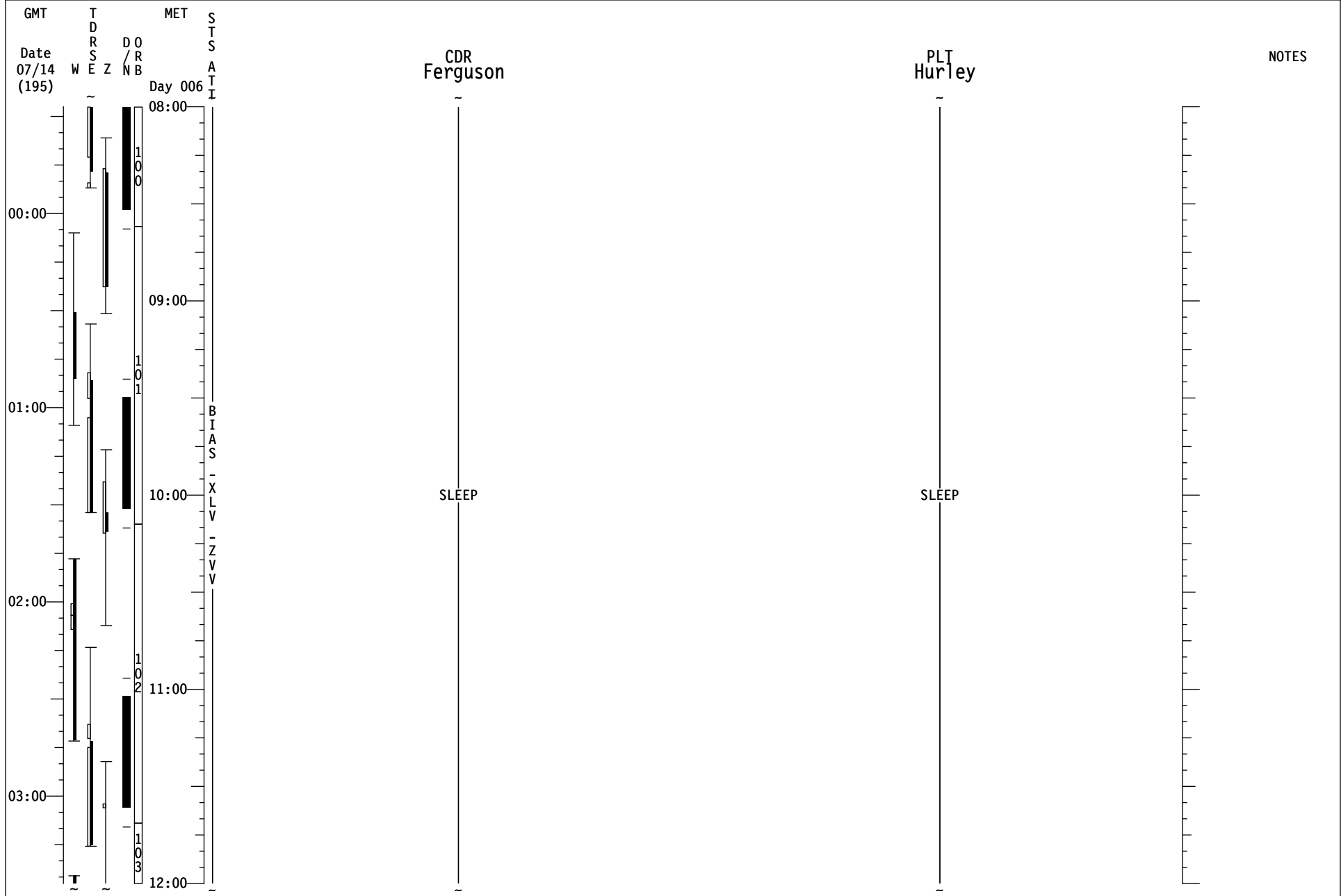
STS-135/ULF7 FD07



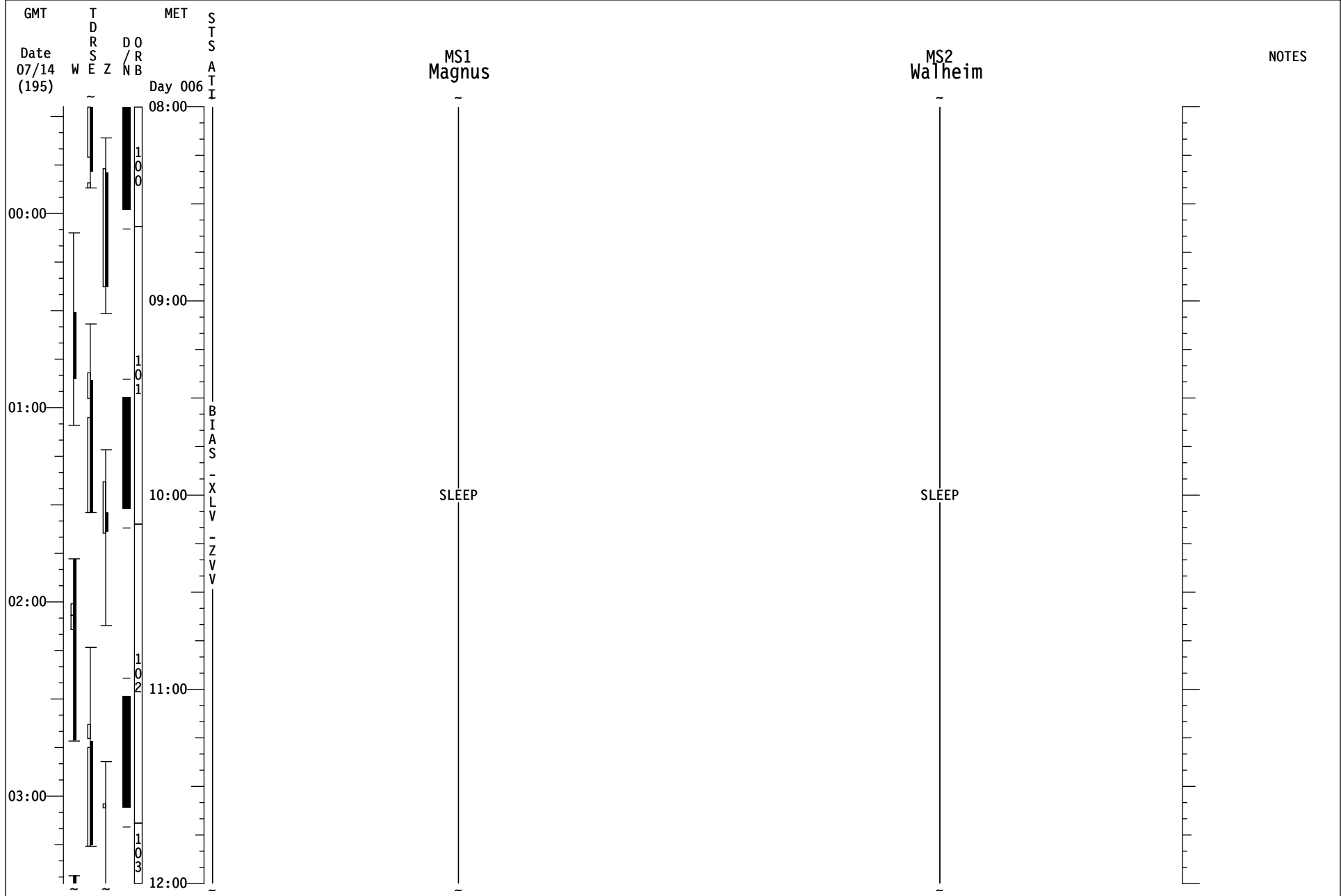
STS-135/ULF7 FD07



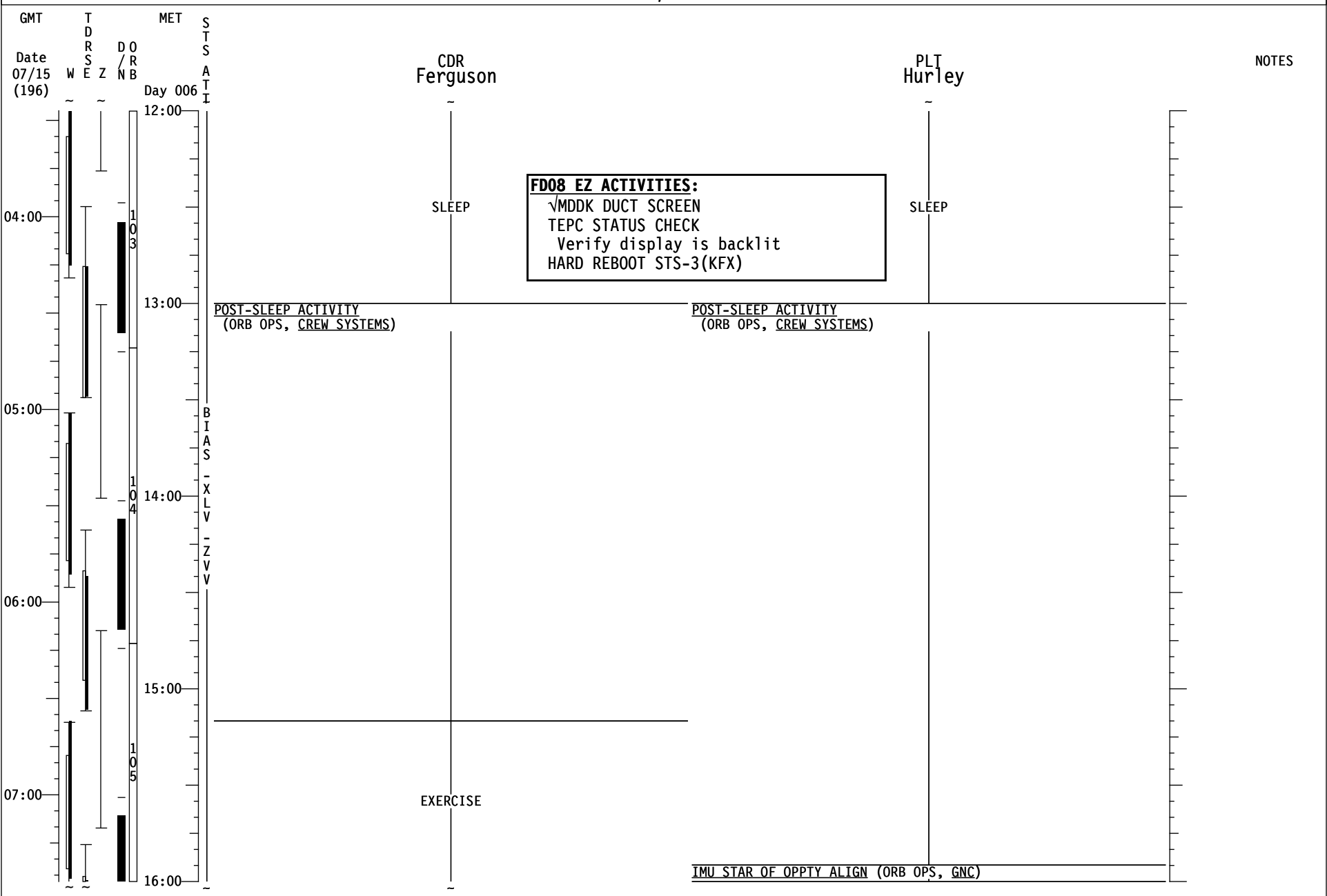
STS-135/ULF7 FD07



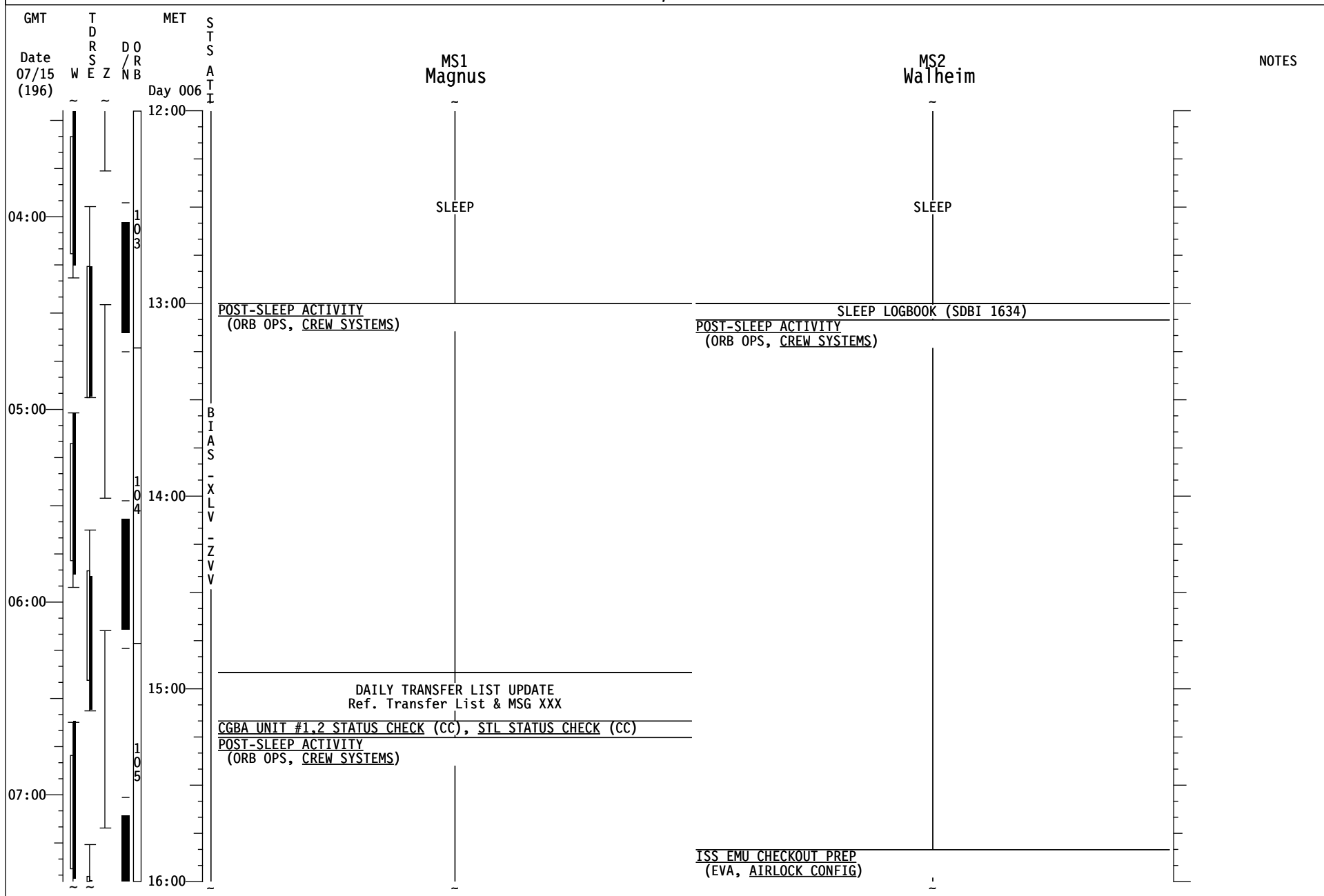
STS-135/ULF7 FD07



STS-135/ULF7 FD08



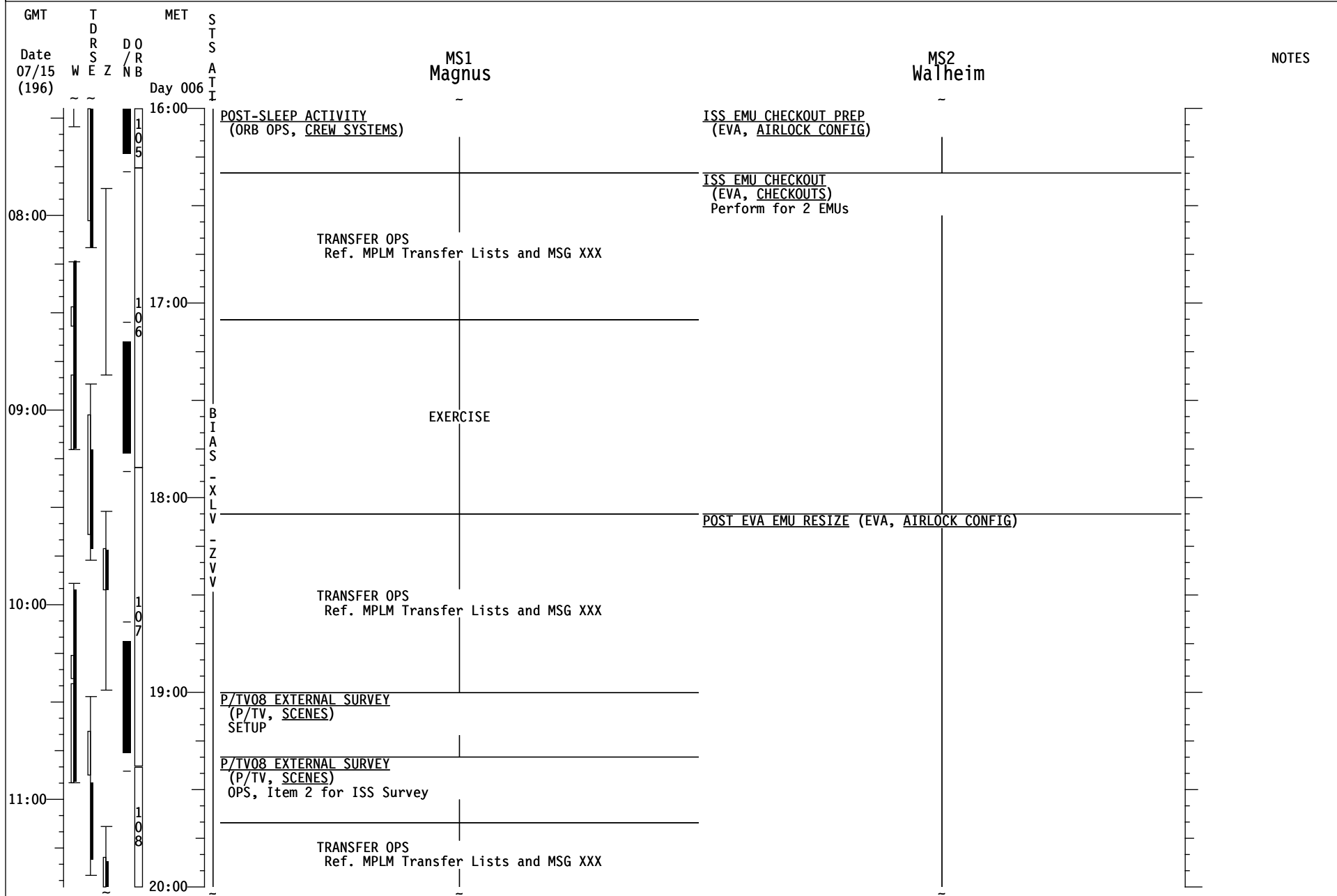
STS-135/ULF7 FD08



STS-135/ULF7 FD08

GMT	T D R S W E Z	MET Day 006	S T S A T I	CDR Ferguson	PLT Hurley	NOTES
				EXERCISE		
08:00					EXERCISE	
				TRANSFER OPS Ref. MPLM Transfer Lists and MSG XXX	<u>PWR FILL</u> (ORB OPS, ECLS) Perform WATER FILL #4 Fill S/N TBD, Ref. MSG XXX	
09:00					<u>PWR FILL</u> (ORB OPS, ECLS) Perform WATER FILL #5 Fill S/N TBD, Ref. MSG XXX	
					<u>PWR FILL</u> (ORB OPS, ECLS) Perform WATER FILL #6 Fill S/N TBD, Ref. MSG XXX	
10:00				TRANSFER OPS Ref. MPLM Transfer Lists and MSG XXX	PWR TRANSFER Transfer 3 PWRs to ISS	
					<u>CWC-I FILL</u> (ORB OPS, ECLS) Parts A-C Ref. MSG XXX	
11:00				PUBLIC AFFAIRS EVENT ISS KU AVAIL: (19:14 - 19:49)	PUBLIC AFFAIRS EVENT ISS KU AVAIL: (19:14 - 19:49)	
				TRANSFER OPS Ref. MPLM Transfer Lists and MSG XXX	<u>FILTER CLEANING</u> (IFM, SCHEDULED MAINTENANCE) Inspect filters and clean as necessary	
20:00						

STS-135/ULF7 FD08



STS-135/ULF7 FD08

GMT	T D R S W E Z	MET Day 006	S T S A T I	CDR Ferguson	PLT Hurley	NOTES
20:00						
				TRANSFER OPS Ref. MPLM Transfer Lists and MSG XXX	FILTER CLEANING (IFM, SCHEDULED MAINTENANCE) Inspect filters and clean as necessary	
12:00						
				PUBLIC AFFAIRS EVENT ISS KU AVAIL: (20:09 - 20:54)	PUBLIC AFFAIRS EVENT ISS KU AVAIL: (20:09 - 20:54)	
13:00				MEAL	MEAL	
22:00						
				CREW CONFERENCE ISS KU AVAIL (21:51 - 22:32) (22:34 - 23:06)	CREW CONFERENCE ISS KU AVAIL (21:51 - 22:32) (22:34 - 23:06)	
14:00						
				CREW PHOTO	CREW PHOTO	
23:00						
15:00				TRANSFER OPS Ref. MPLM Transfer Lists and MSG XXX	TRANSFER OPS Ref. MPLM Transfer Lists and MSG XXX	
00:00						

FILTER CLEANING
(IFM, SCHEDULED MAINTENANCE)
Inspect filters and clean as necessary

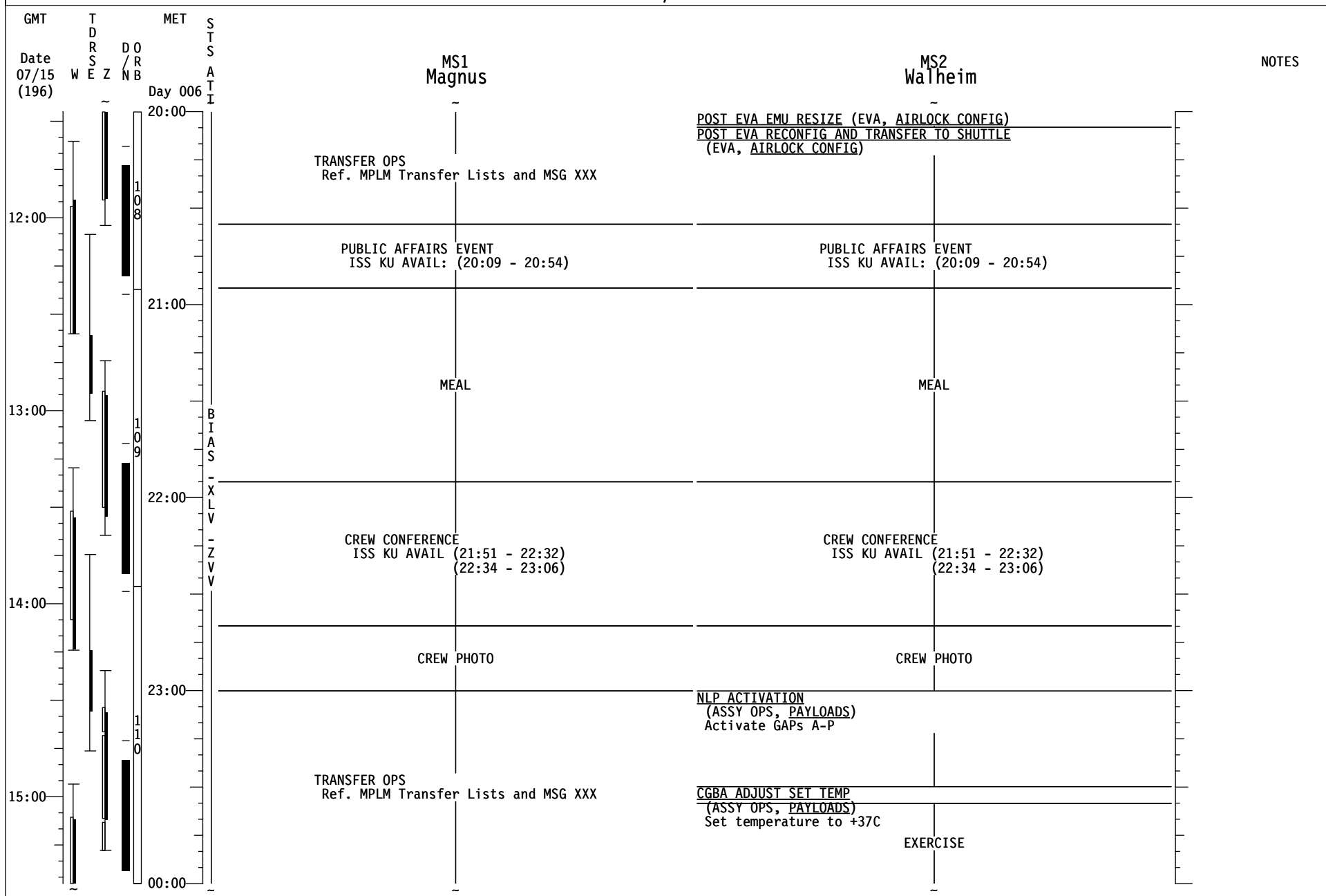
N2 REPRESS INIT [A]

[A] N2 REPRESS USING P/L N2 VLVS
(ORB OPS, ECLS) Steps 3-7
MCC will TMBU S/W FDA,
H/W FDA already INH.

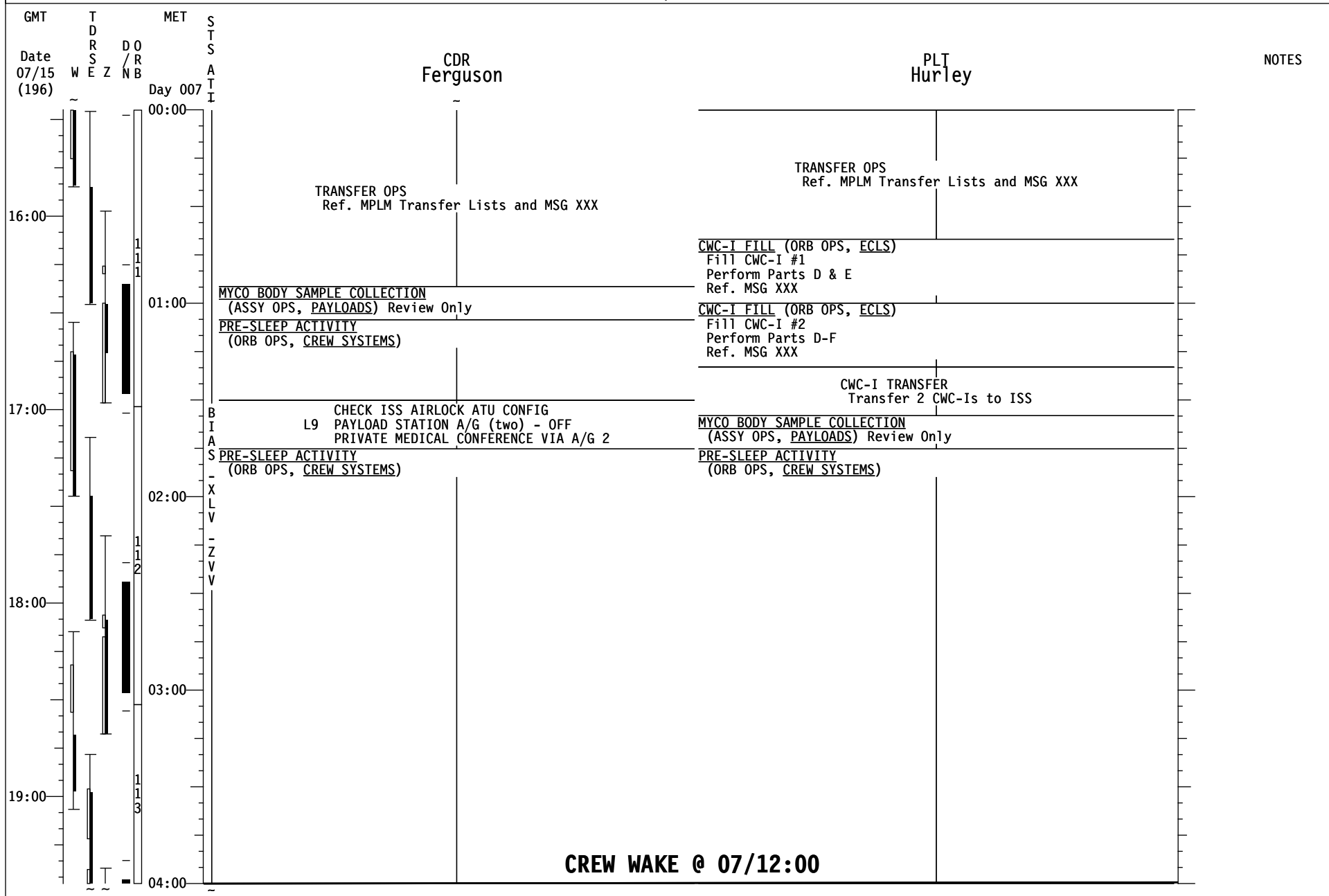
[B] N2 REPRESS USING P/L N2 VLVS
(ORB OPS, ECLS)
On MCC go, perform steps 8-12
MCC will TMBU S/W FDA.
Do not ENA H/W.

N2 REPRESS TERM (On MCC GO) [B]

STS-135/ULF7 FD08

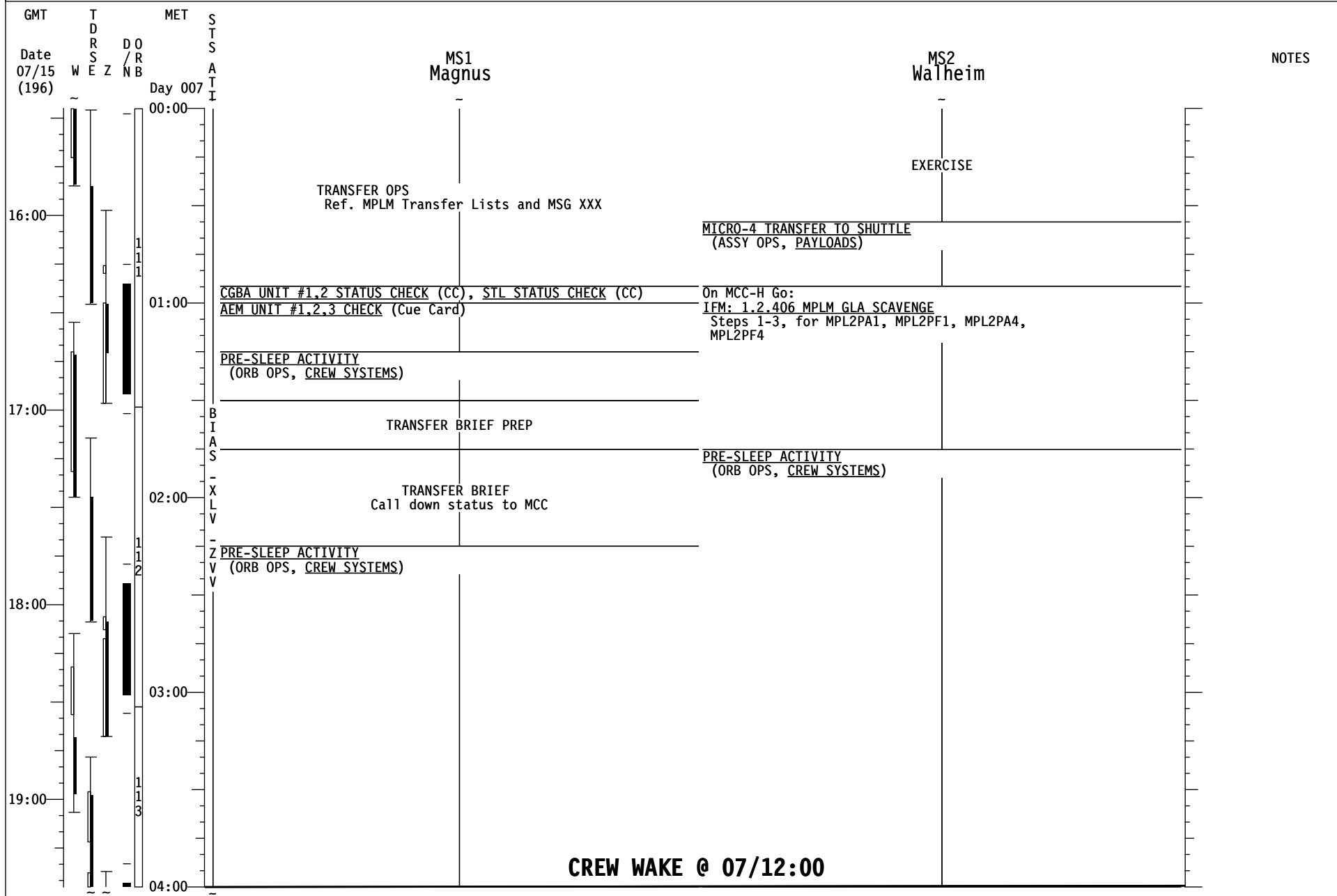


STS-135/ULF7 FD08



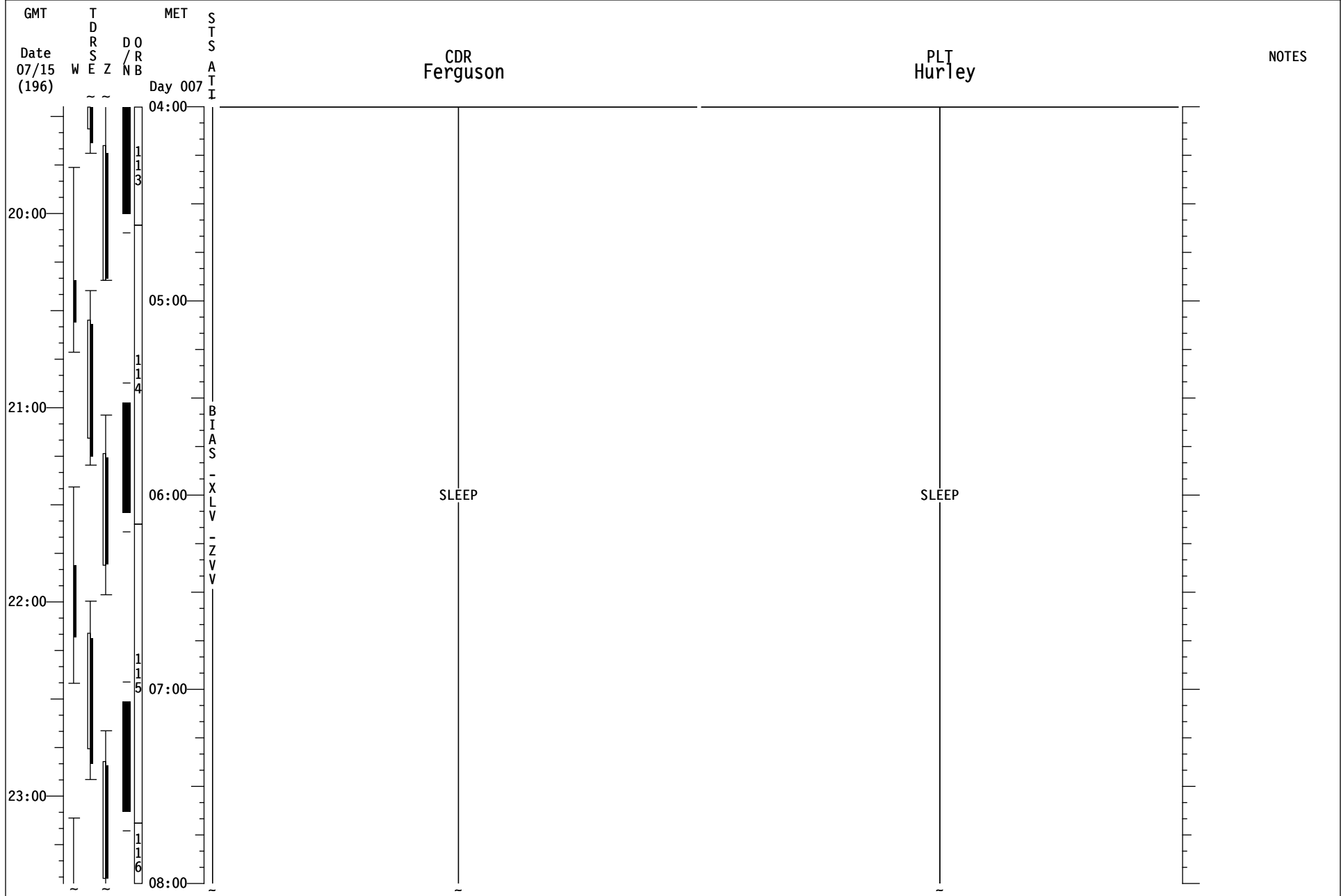
CREW WAKE @ 07/12:00

STS-135/ULF7 FD08

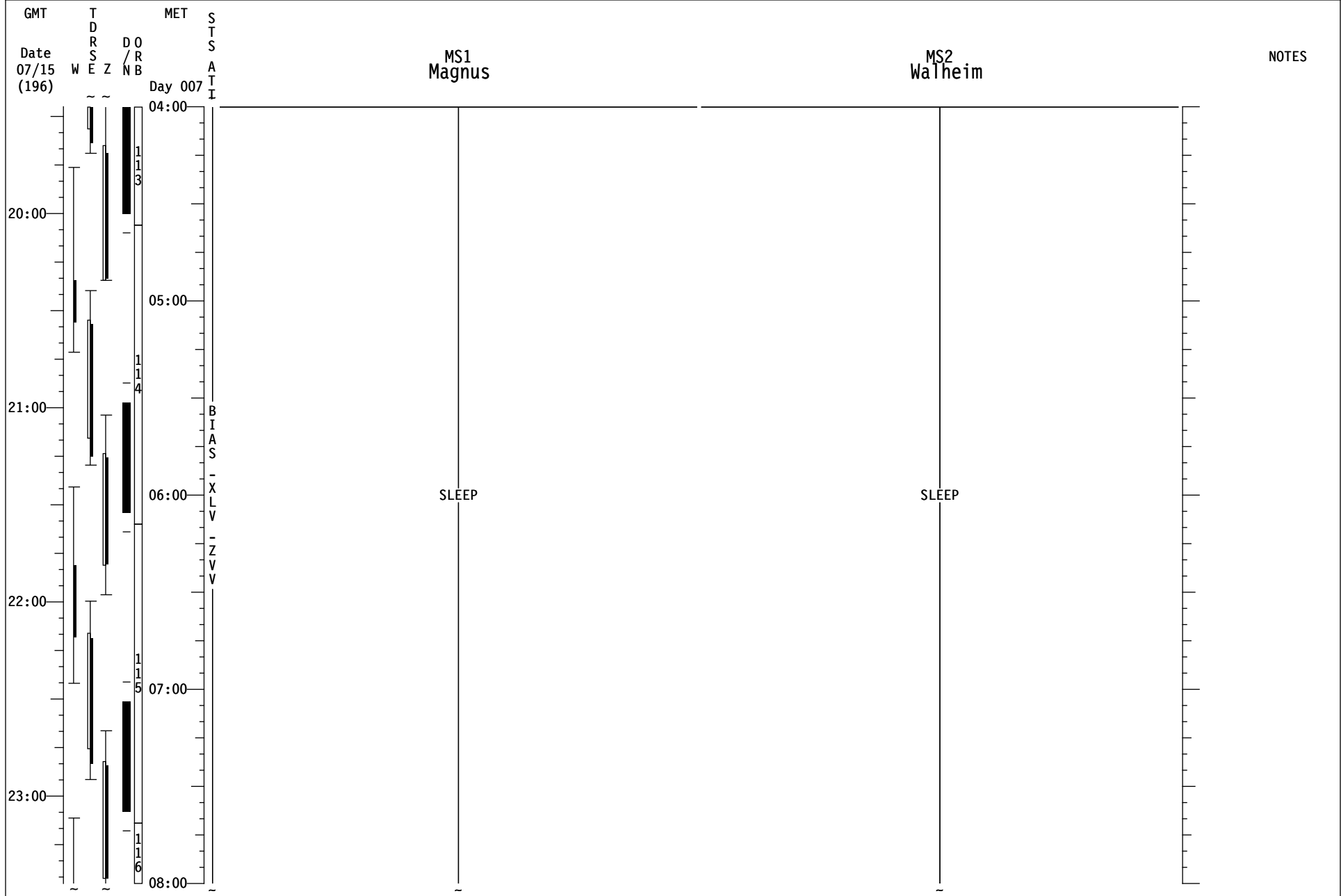


CREW WAKE @ 07/12:00

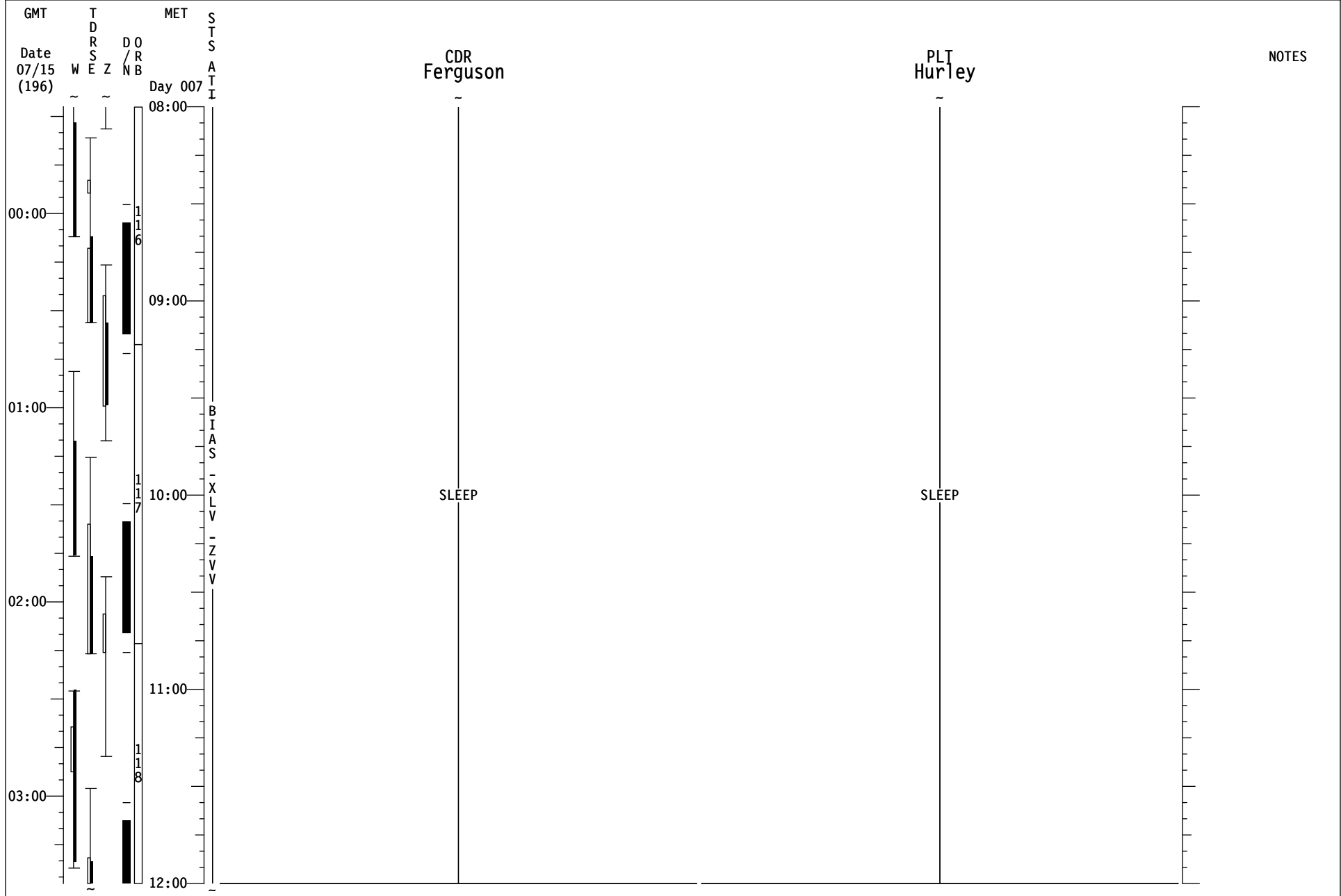
STS-135/ULF7 FD08



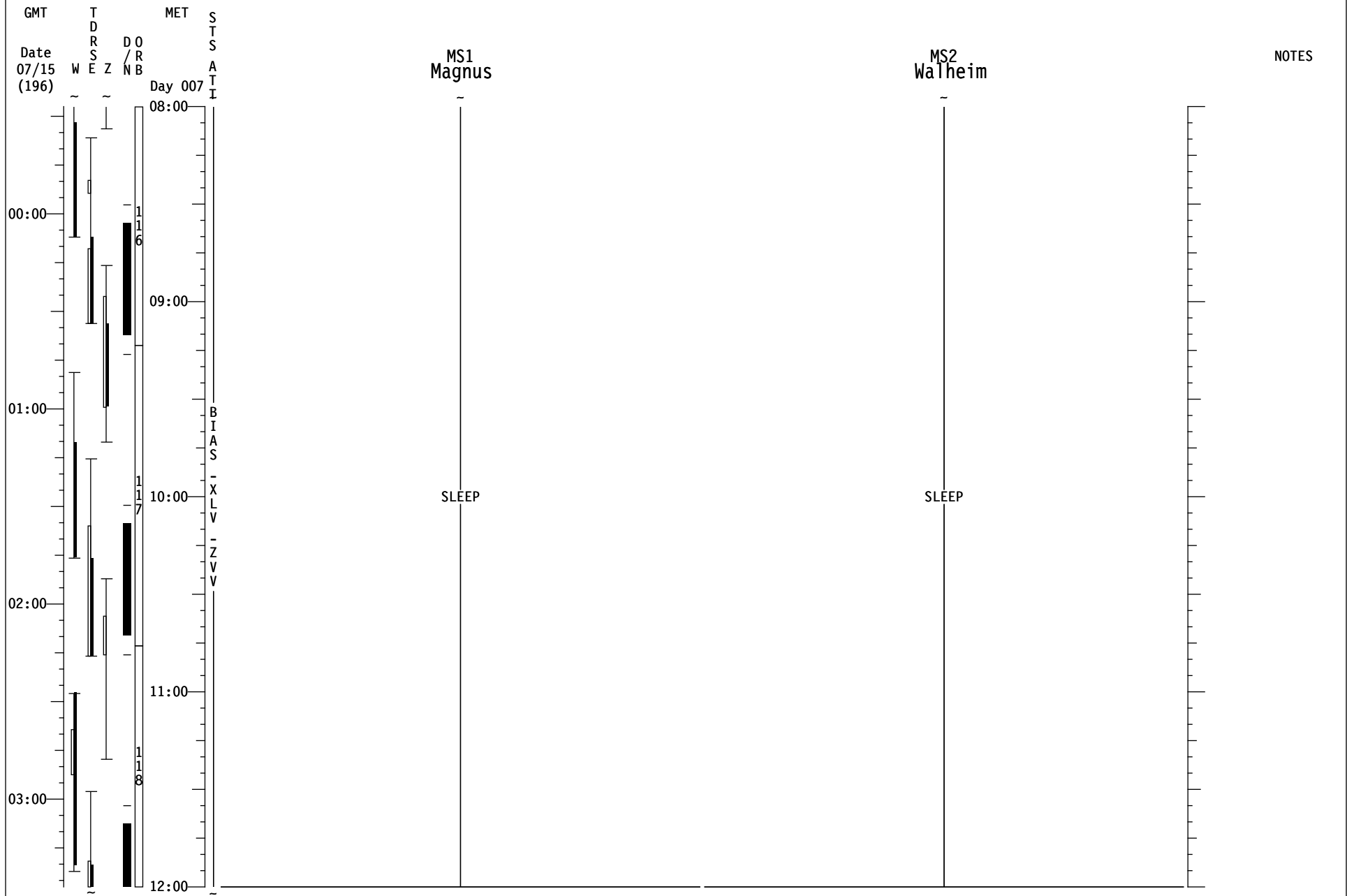
STS-135/ULF7 FD08



STS-135/ULF7 FD08



STS-135/ULF7 FD08



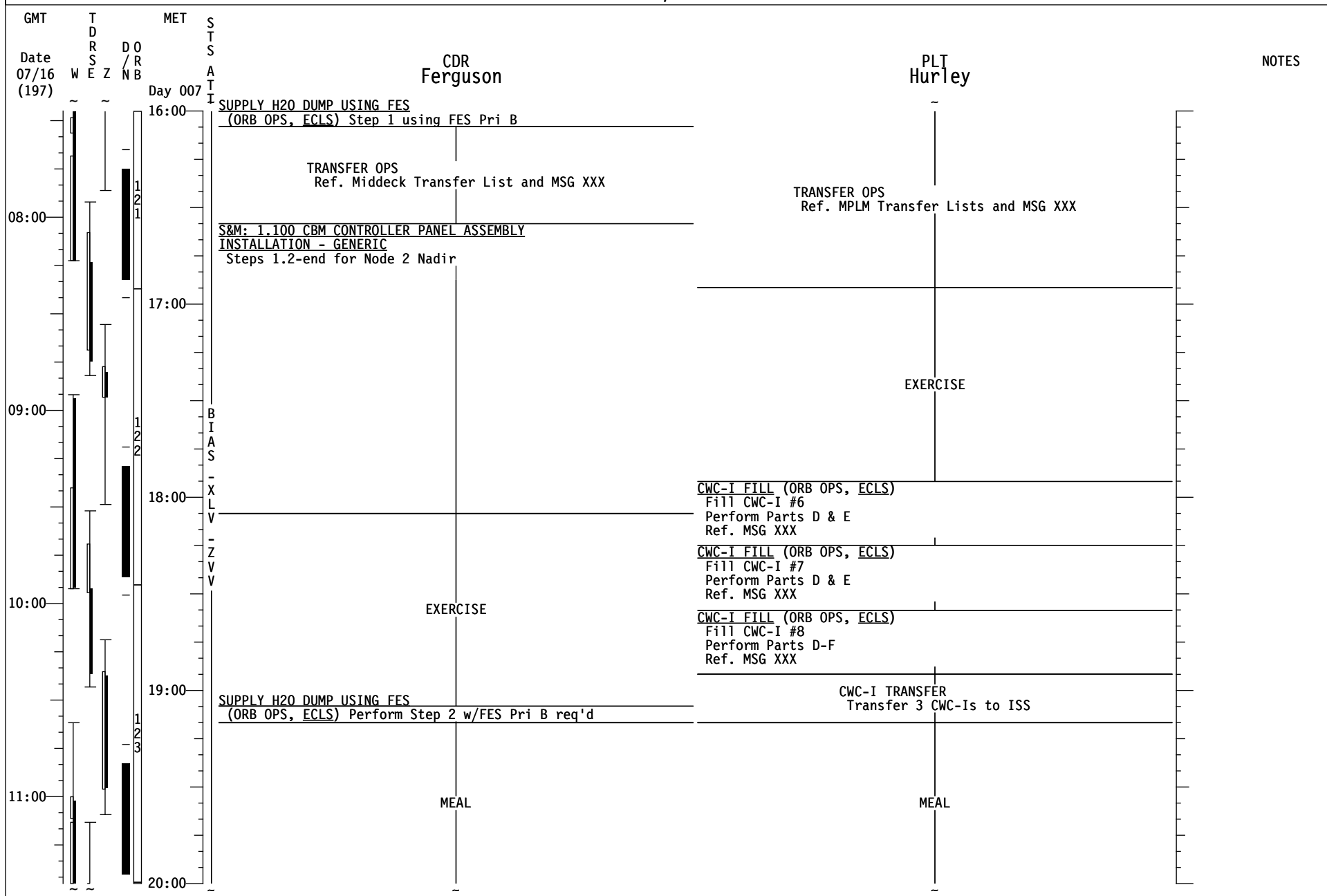
STS-135/ULF7 FD09

GMT	T D R S W E Z	MET Day 007	S T S A T I	CDR Ferguson	PLT Hurley	NOTES
07/16 (197)						
12:00	1118			<u>MYCO BODY SAMPLE COLLECTION</u> (ASSY OPS, <u>PAYLOADS</u>) At step 6.1, hand Myco Kit to FE-3, FE-5 or FE-6 for MELFI insertion	<u>MYCO BODY SAMPLE COLLECTION</u> (ASSY OPS, <u>PAYLOADS</u>) At step 6.1, hand Myco Kit to FE-3, FE-5 or FE-6 for MELFI insertion	
04:00				<u>POST-SLEEP ACTIVITY</u> (ORB OPS, <u>CREW SYSTEMS</u>)	<u>POST-SLEEP ACTIVITY</u> (ORB OPS, <u>CREW SYSTEMS</u>)	
				<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> FD09 EZ ACTIVITIES: ✓OCAC FILTER ✓MDDK DUCT SCREEN <u>TEPC (ORB OPS, CREW SYSTEMS)</u> CHECK STATUS HARD REBOOT STS-3(KFX) </div>		
05:00	1119					
06:00	1120			VISION EXAM- Retrieve Visual Acuity Charts from MAK, TBD. Complete Exam and Questionnaire with uncorrected vision and corrected vision, if perscribed.	L17 Check MCIU filter screen VISION EXAM- Retrieve Visual Acuity Charts from MAK, TBD. Complete Exam and Questionnaire with uncorrected vision and corrected vision, if perscribed.	
				<u>IMU STAR OF OPPTY ALIGN (ORB OPS, GNC)</u>	<u>CWC-I FILL (ORB OPS, ECLS)</u> Fill CWC-I #3 Perform Parts D & E Ref. MSG XXX	
07:00	1121			TRANSFER OPS Ref. MPLM Transfer Lists and MSG XXX	<u>CWC-I FILL (ORB OPS, ECLS)</u> Fill CWC-I #4 Perform Parts D & E Ref. MSG XXX	
					<u>CWC-I FILL (ORB OPS, ECLS)</u> Fill CWC-I #5 Perform Parts D & E Ref. MSG XXX	
16:00	1121				CWC-I TRANSFER Transfer 3 CWC-Is to ISS	
				TRANSFER OPS Ref. MPLM Transfer Lists and MSG XXX		

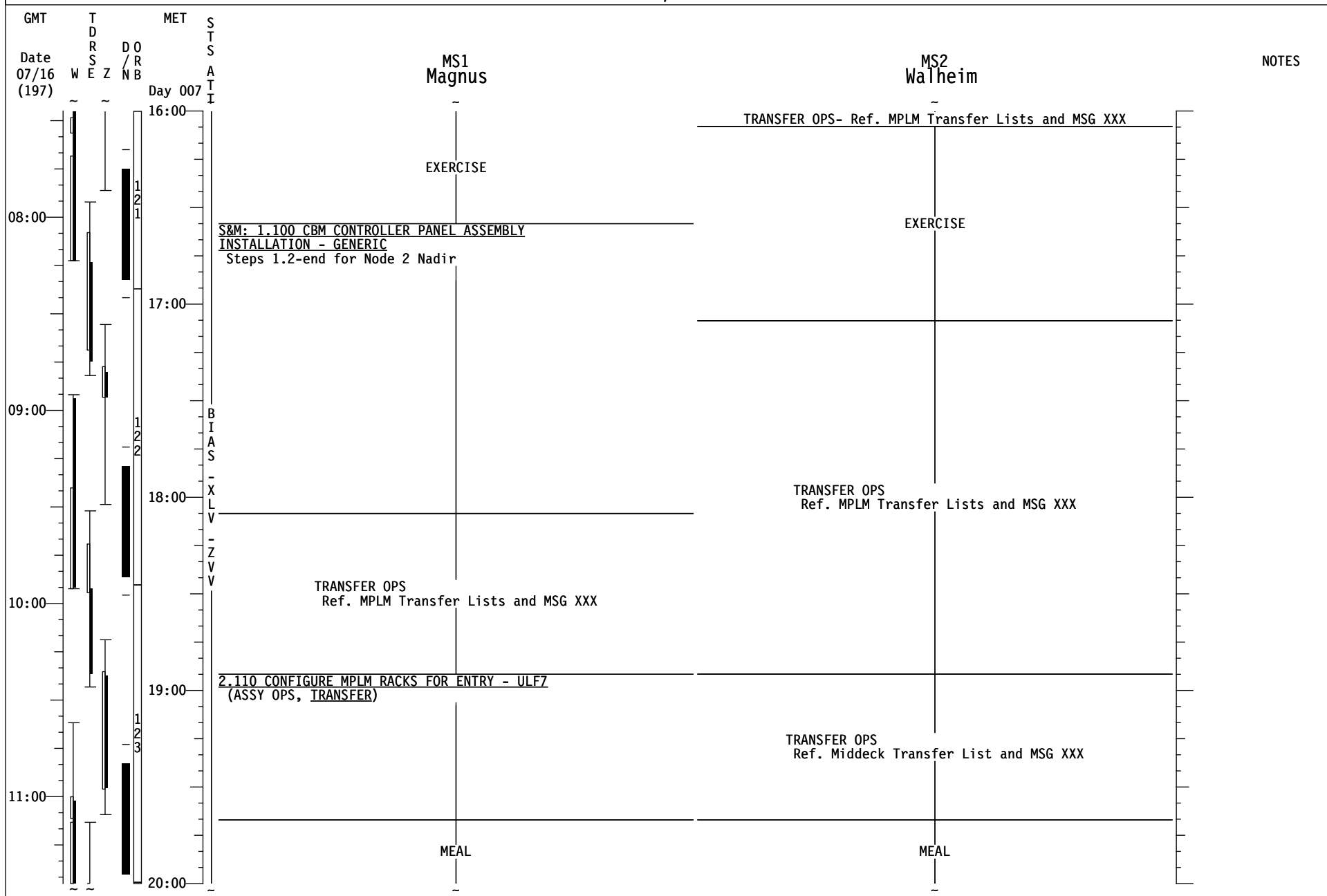
STS-135/ULF7 FD09

GMT	TDRS W E Z	MET Day 007	S T S A T I	MS1 Magnus	MS2 Walheim	NOTES
Date 07/16 (197)	~	D O R R S E Z N B	1118	POST-SLEEP ACTIVITY (ORB OPS, CREW SYSTEMS)	SLEEP LOGBOOK (SDBI 1634)	
				POST-SLEEP ACTIVITY (ORB OPS, CREW SYSTEMS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYSTEMS)	
04:00						
05:00			1119			
06:00			1200	DAILY TRANSFER LIST UPDATE Ref. Transfer List & MSG XXX	CGBA UNIT #1,2 STATUS CHECK (CC), STL STATUS CHECK (CC)	
				P/TV09 MIDDECK PAYLOADS (P/TV, SCENES) OPS Item 6 for STL POST-SLEEP ACTIVITY (ORB OPS, CREW SYSTEMS)	VISION EXAM- Retrieve Visual Acuity Charts from MAK, TBD. Complete Exam and Questionnaire with uncorrected vision and corrected vision, if perscribed.	
07:00			1201	VISION EXAM- Retrieve Visual Acuity Charts from MAK, TBD. Complete Exam and Questionnaire with uncorrected vision and corrected vision, if perscribed.	TRANSFER OPS- Ref. MPLM Transfer Lists and MSG XXX	
				EXERCISE		
16:00						

STS-135/ULF7 FD09



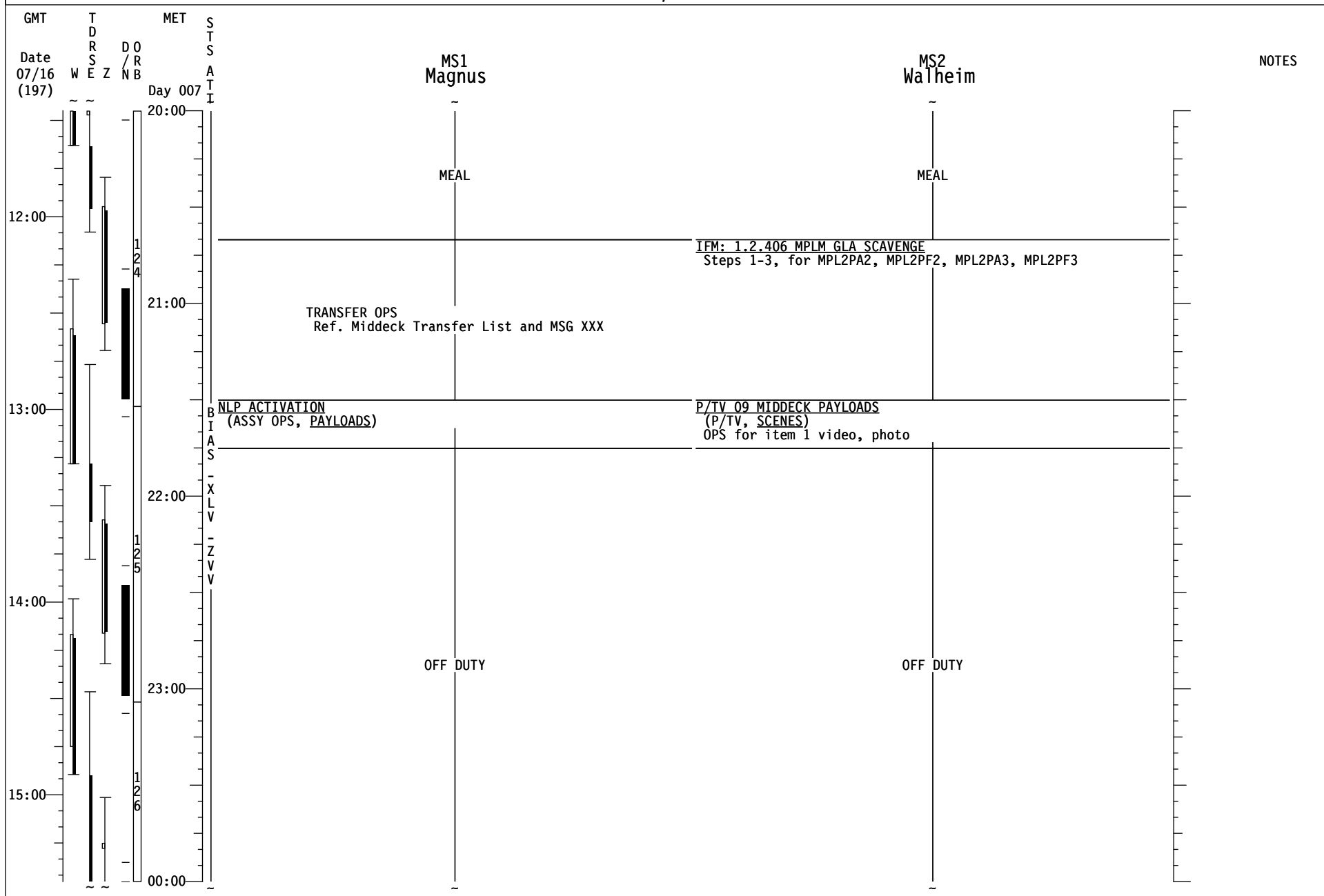
STS-135/ULF7 FD09



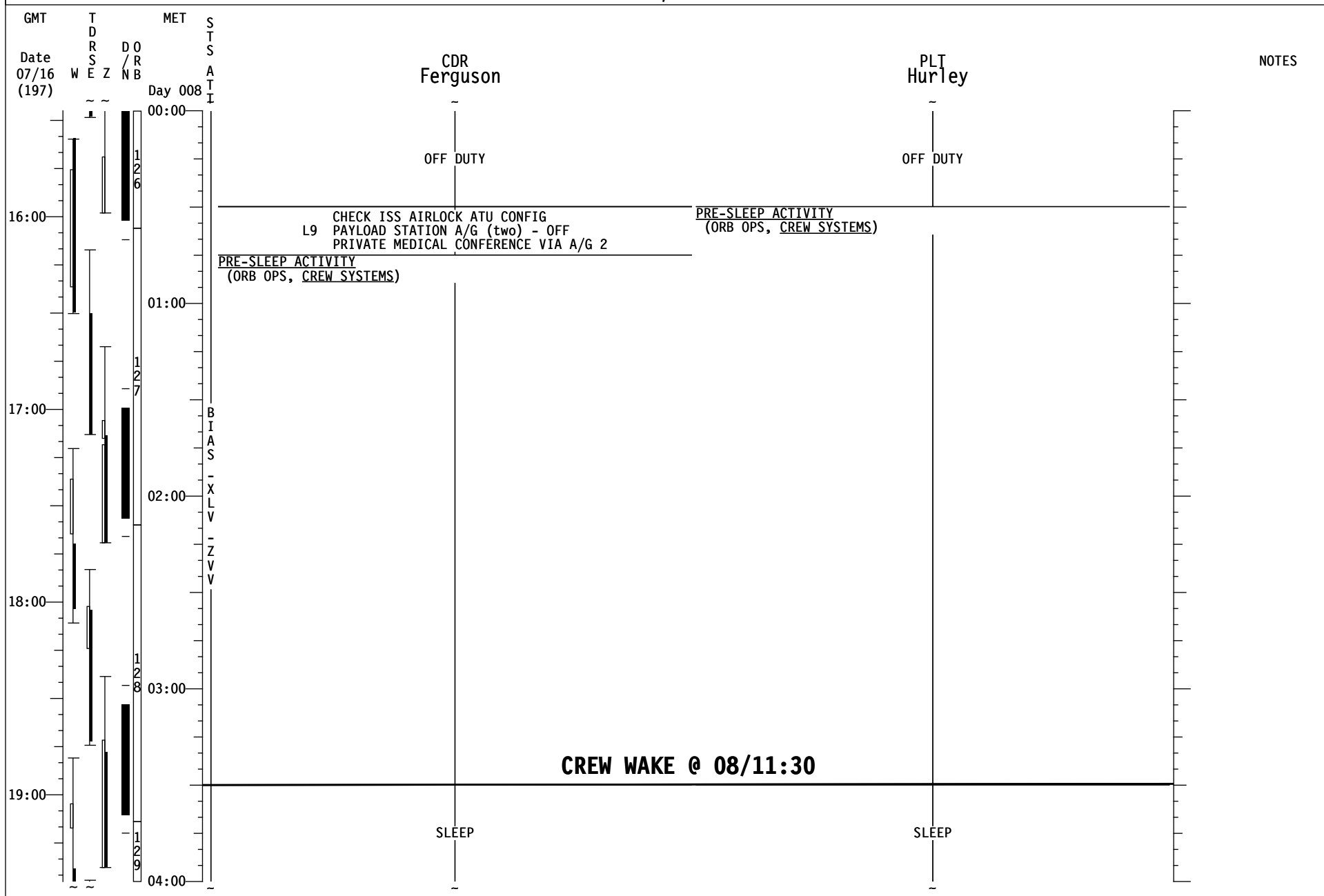
STS-135/ULF7 FD09

GMT	TDRS W E Z	MET Day 007	S T S A T I	CDR Ferguson	PLT Hurley	NOTES
Date 07/16 (197)	D O R N B	20:00	I	MEAL	MEAL	
				PUBLIC AFFAIRS EVENT ISS KU AVAIL: (19:55 - 20:32)	PUBLIC AFFAIRS EVENT ISS KU AVAIL: (19:55 - 20:32)	
12:00	124				GLACIER SWAP - SHUTTLE (ASSY OPS, PAYLOADS)	
		21:00		TRANSFER OPS Ref. Middeck Transfer List and MSG XXX		
13:00	125		B I A S			
		22:00	X L V			
14:00	126		Z V V			
		23:00		OFF DUTY	OFF DUTY	
15:00						
		00:00				

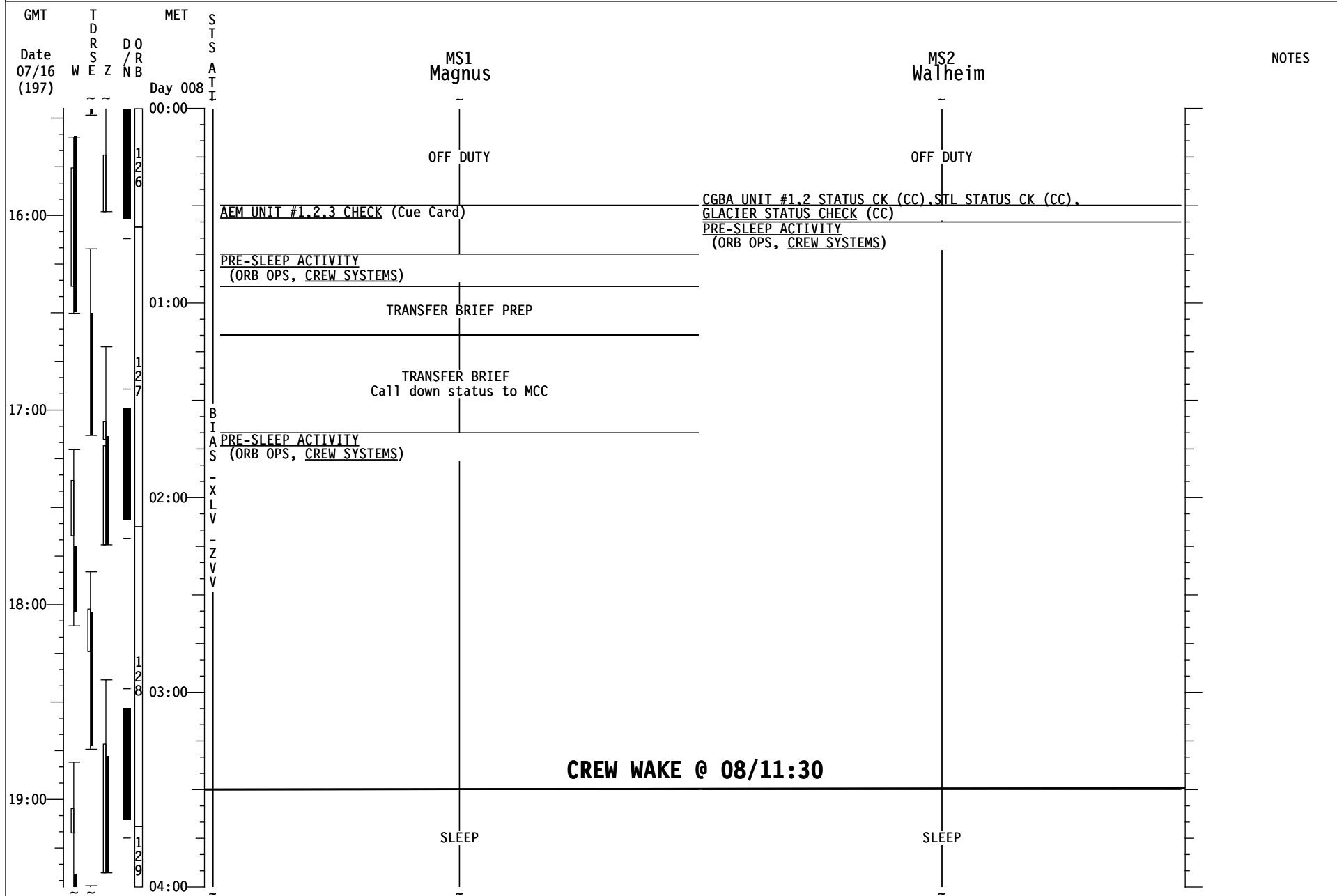
STS-135/ULF7 FD09



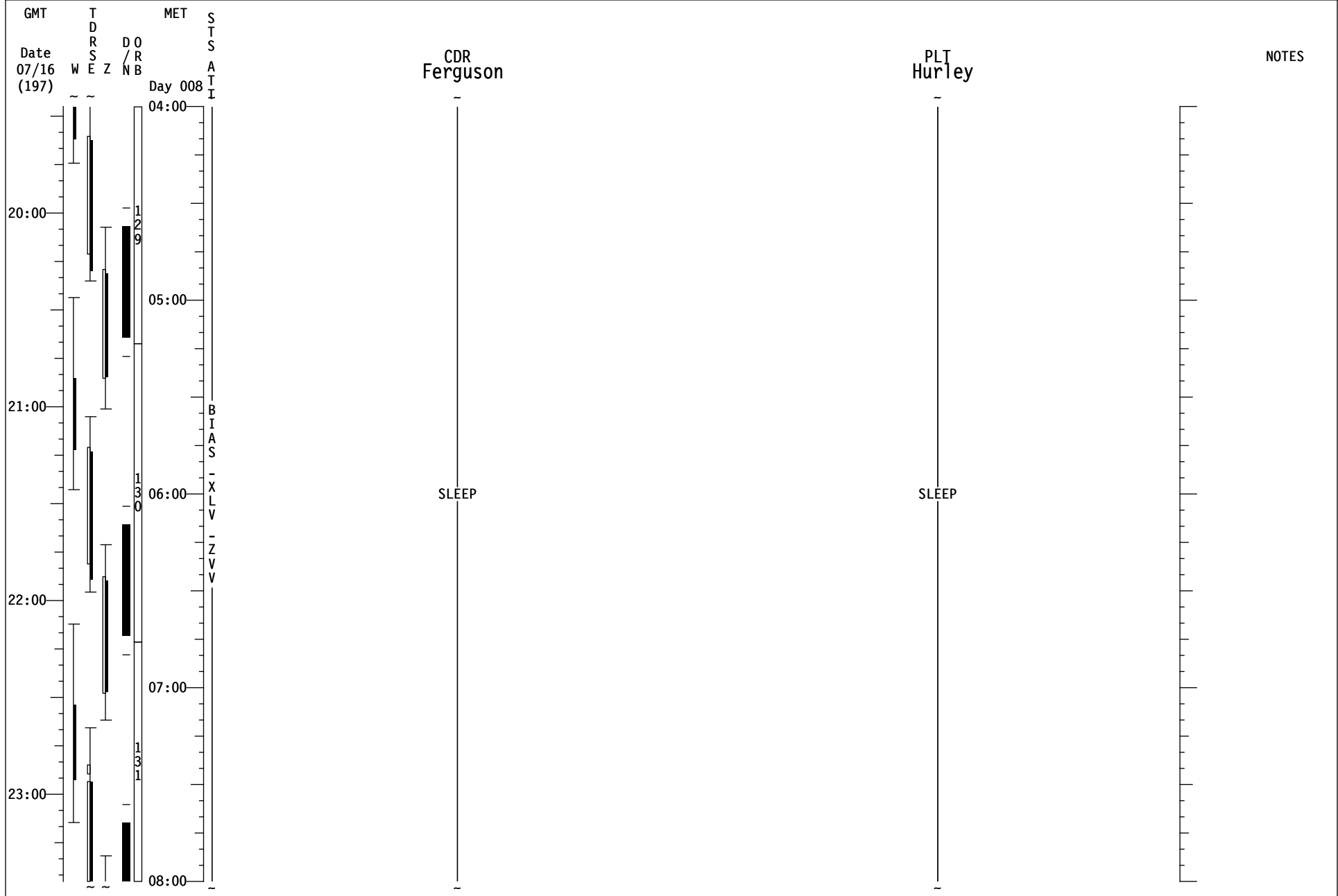
STS-135/ULF7 FD09



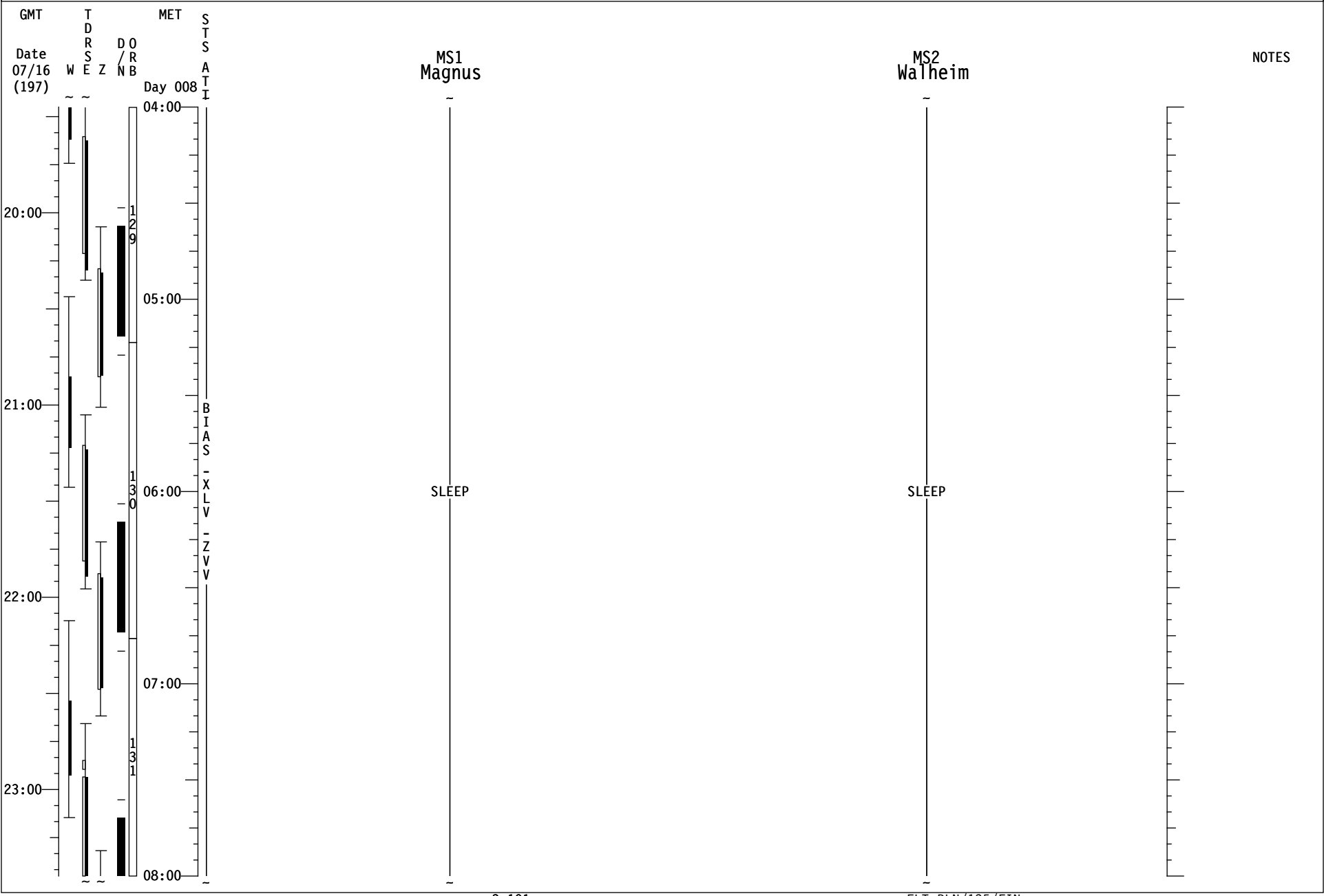
STS-135/ULF7 FD09



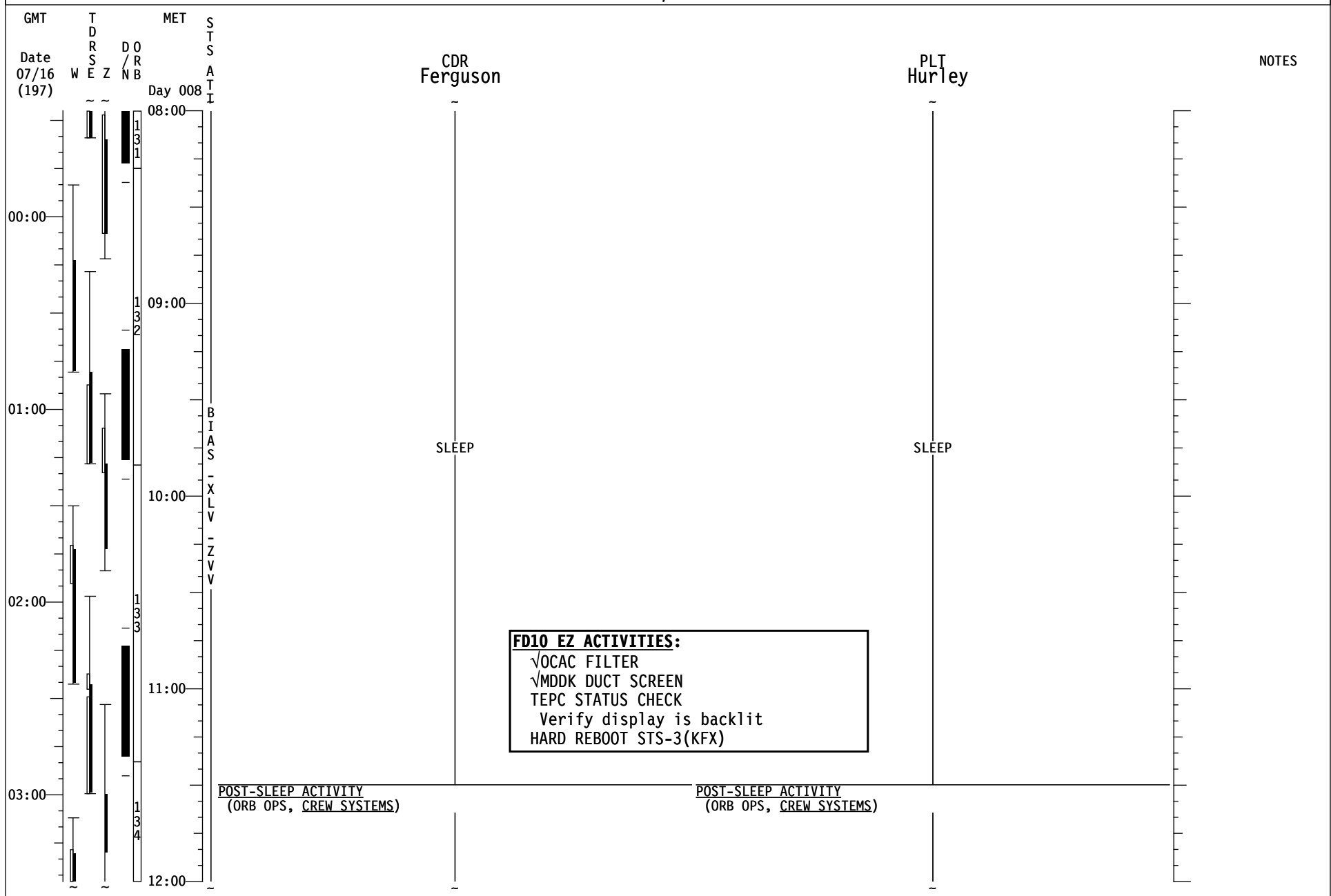
STS-135/ULF7 FD09



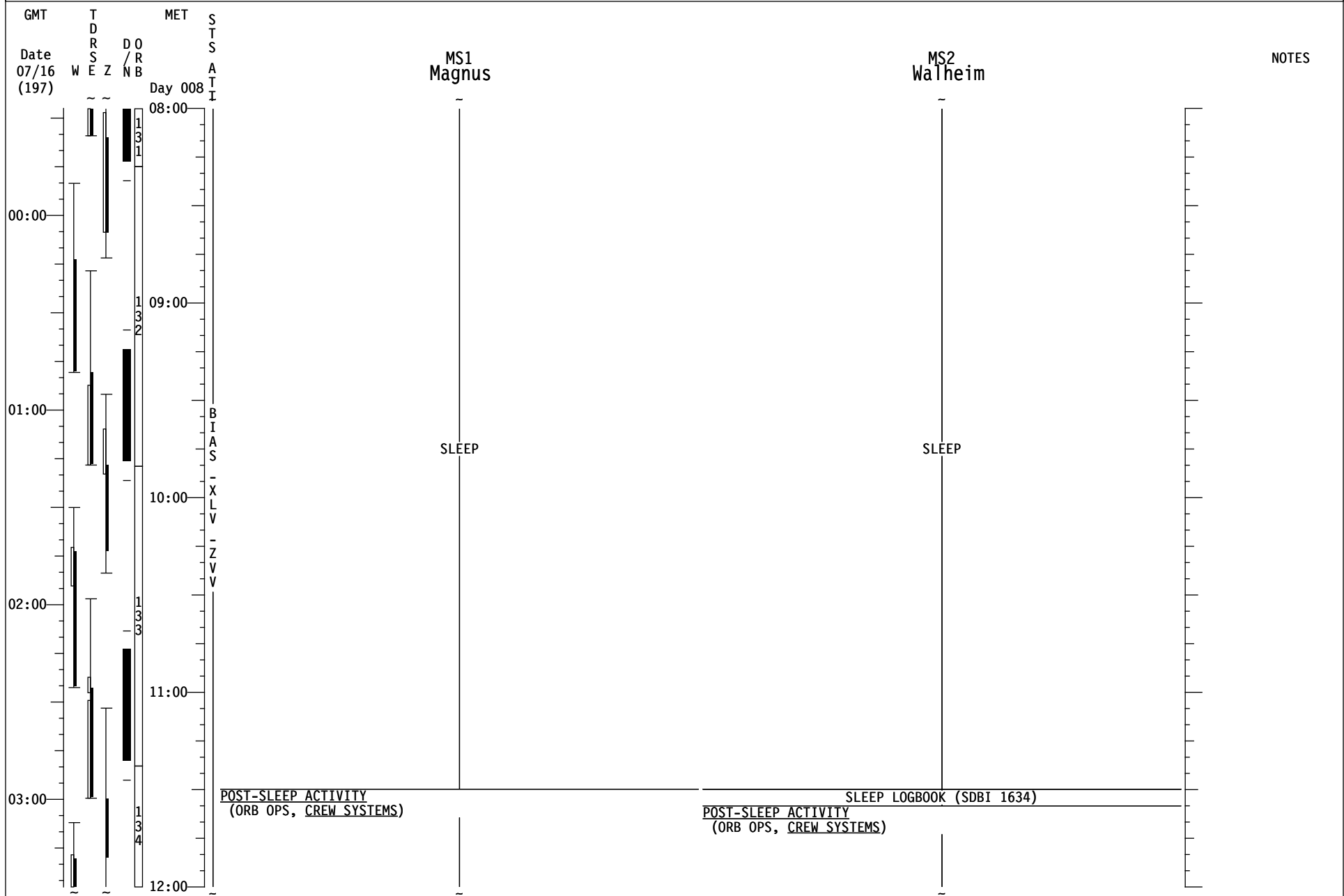
STS-135/ULF7 FD09



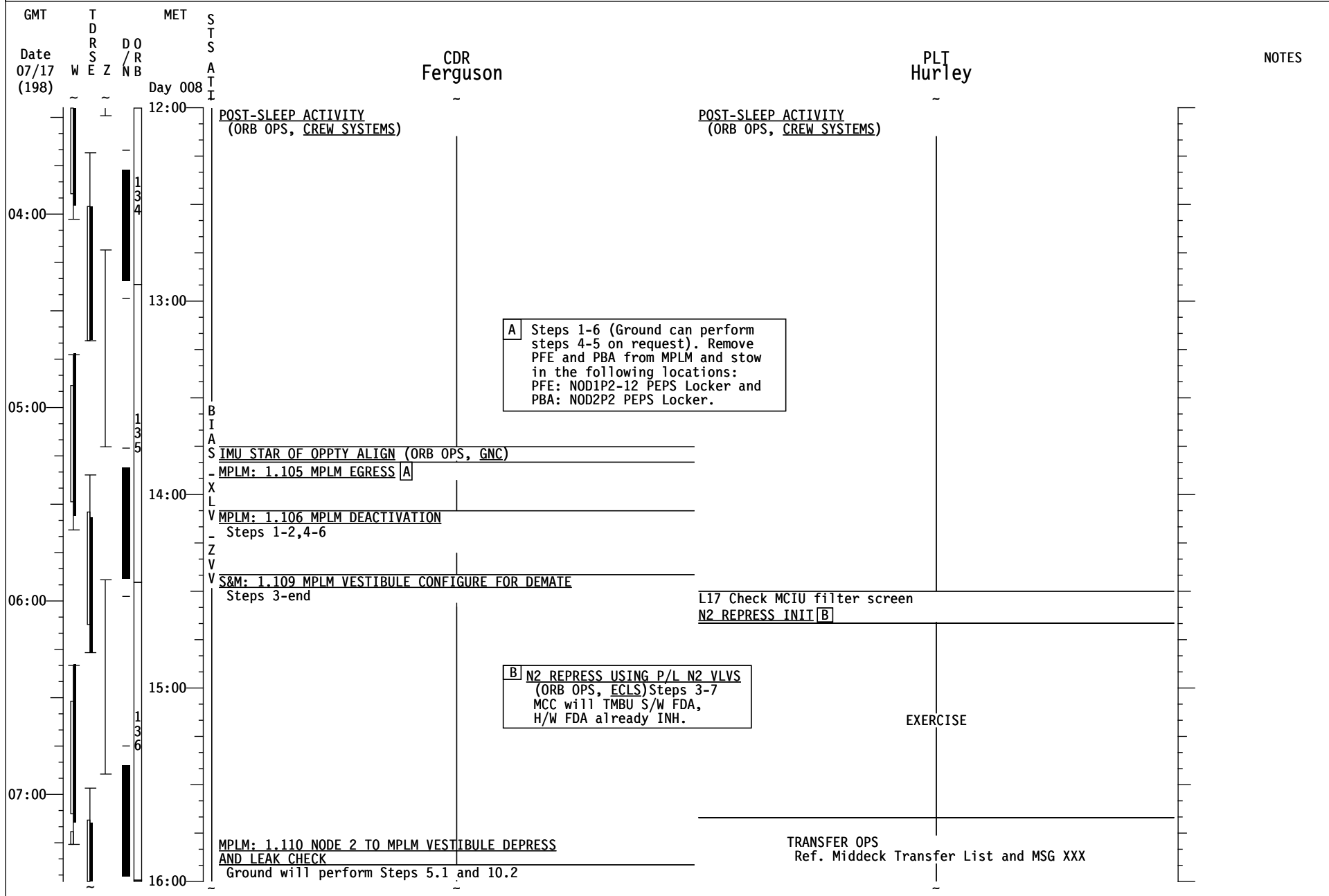
STS-135/ULF7 FD10



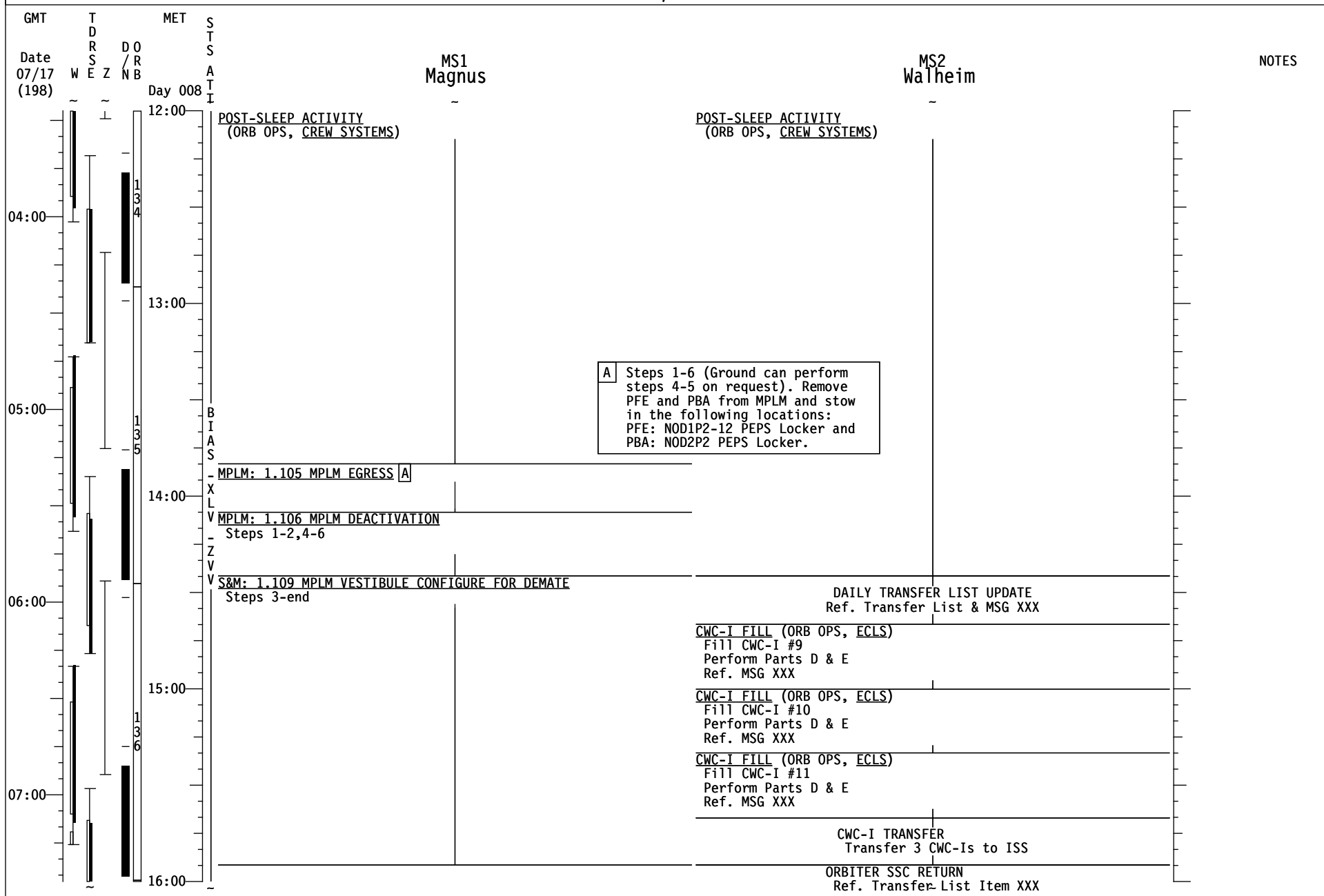
STS-135/ULF7 FD10



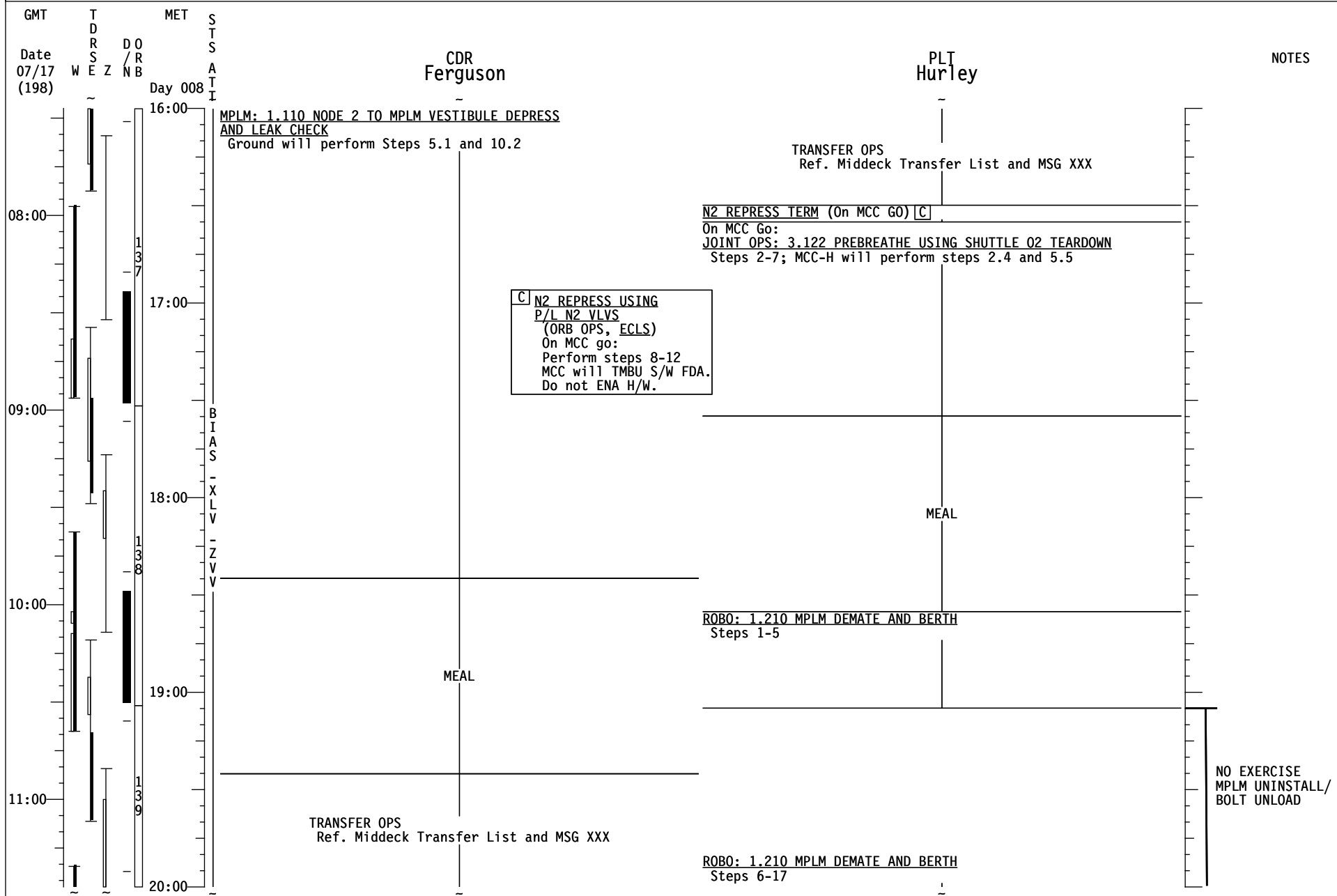
STS-135/ULF7 FD10



STS-135/ULF7 FD10



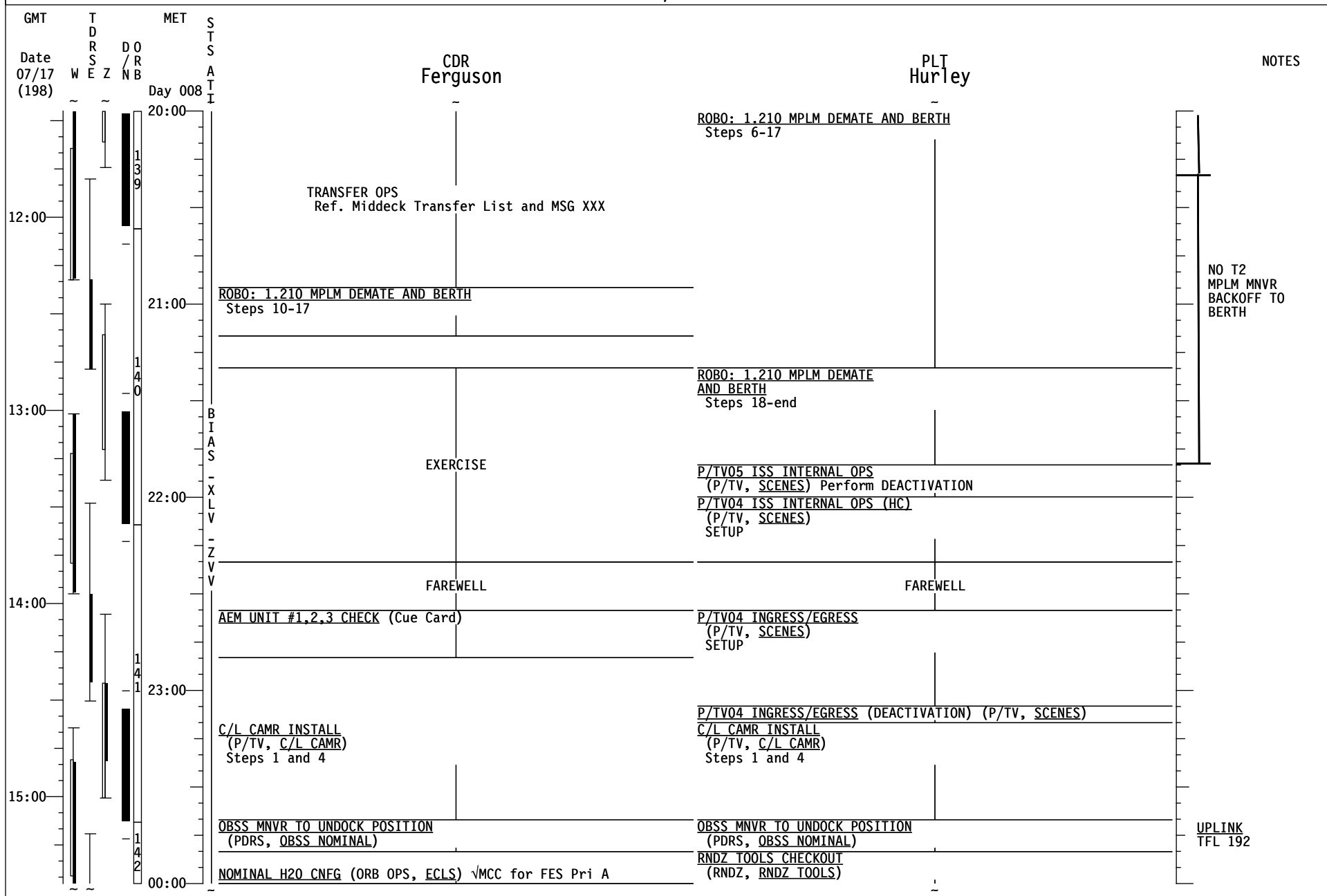
STS-135/ULF7 FD10



STS-135/ULF7 FD10

GMT	T D R S W E Z	MET D O R B N B	S T S A T I	MS1 Magnus	MS2 Walheim	NOTES
07/17 (198)		Day 008				
16:00						
				<u>P/TV09 MIDDECK PAYLOADS</u> (P/TV, SCENES) Ops for Item 1 Video, Photo	<u>ORBITER SSC RETURN</u> Ref. Transfer List Item XXX	
08:00					<u>CGBA UNIT #1,2 STATUS CK (CC), STL STATUS CK (CC),</u> <u>GLACIER STATUS CHECK (CC)</u>	
				EXERCISE	TRANSFER OPS Ref. Middeck Transfer List and MSG XXX	
17:00						
09:00						
				MEAL	EXERCISE	
18:00						
				<u>POC: 2.7.501 DOUG STARTUP PROCEDURE</u> Step 1		
10:00				<u>ROBO: 1.210 MPLM DEMATE AND BERTH</u> Steps 1-5		
19:00					MEAL	
11:00					<u>CWC-I FILL (ORB OPS, ECLS)</u> Fill CWC-I #12 Perform Parts D & E Ref. MSG XXX	NO EXERCISE MPLM UNINSTALL/ BOLT UNLOAD
				<u>ROBO: 1.210 MPLM DEMATE AND BERTH</u> Steps 6-17	<u>CWC-I FILL (ORB OPS, ECLS)</u> Fill CWC-I #13 Perform Parts D & E Ref. MSG XXX	
20:00						

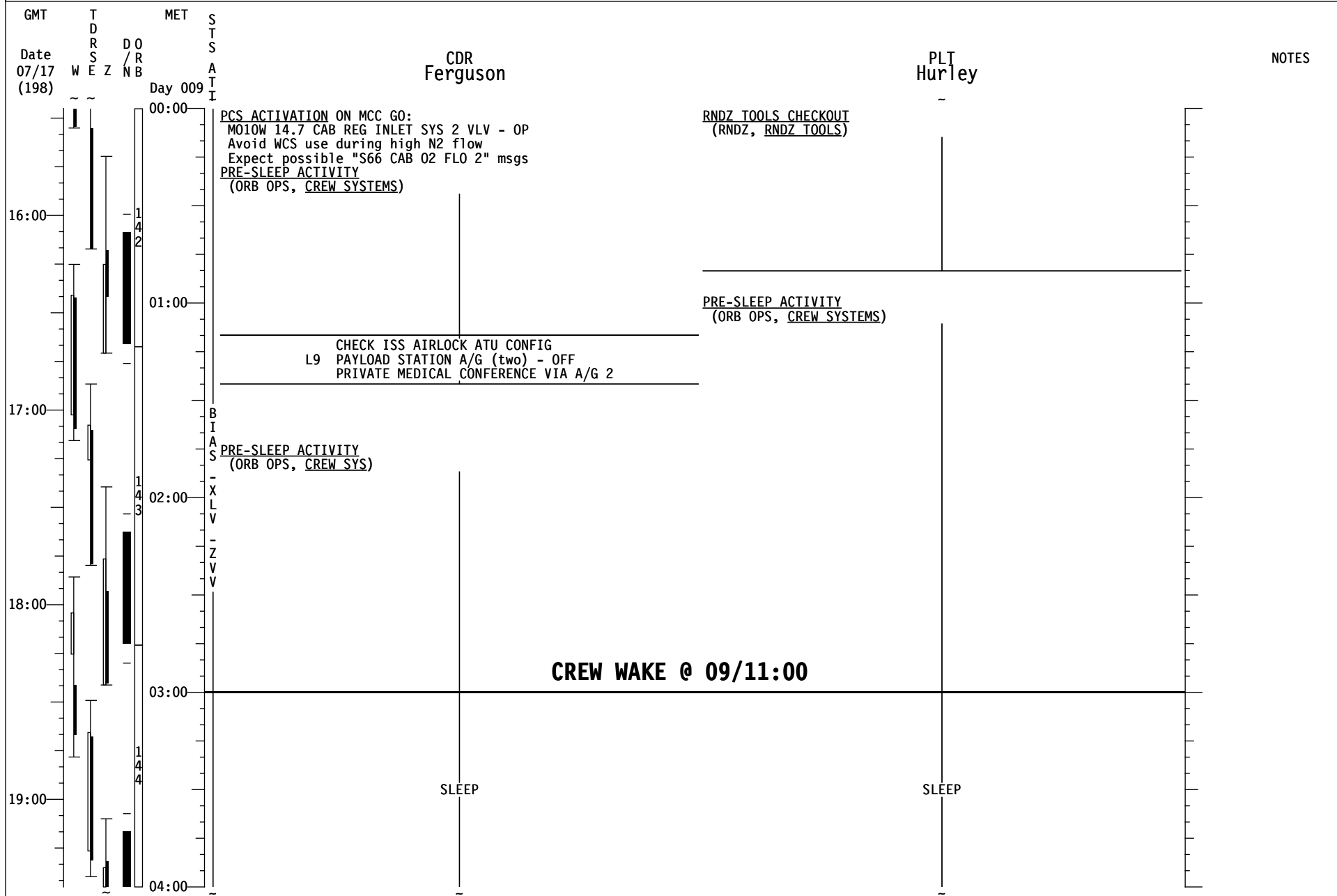
STS-135/ULF7 FD10



STS-135/ULF7 FD10

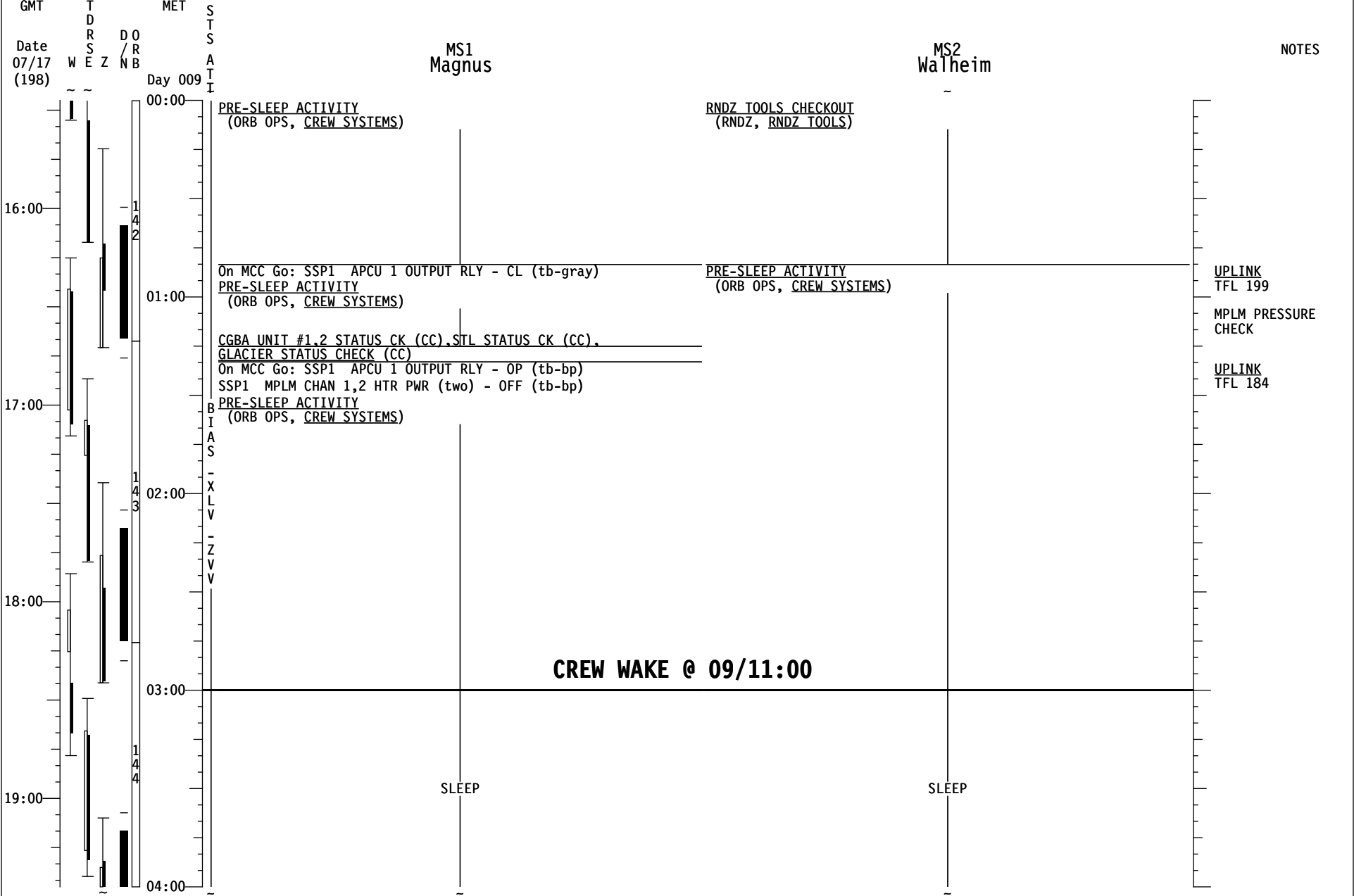
GMT	T D R S W E Z	MET Day 008	S T S A T I	MS1 Magnus	MS2 Walheim	NOTES
07/17 (198)						
12:00				ROBO: 1.210 MPLM DEMATE AND BERTH Steps 6-17	CWC-I FILL (ORB OPS, ECLS) (See Details on Pg 3-107) CWC-I FILL (ORB OPS, ECLS) Fill CWC-I #14 Perform Parts D-F Ref. MSG XXX	NO T2 MPLM MNVR BACKOFF TO BERTH
					CWC-I TRANSFER Transfer 3 CWC-Is to ISS	
					SHUTTLE CONDENSATE COLLECTION (ORB OPS, ECLS) Perform CHANGEOUT. Gather empty Shuttle CWC S/N TBD from TBD and take ISS CWC S/N TBD to TBD for processing.	
				ROBO: 1.210 MPLM DEMATE AND BERTH Steps 10-17		
13:00				ROBO: 1.210 MPLM DEMATE AND BERTH Steps 18-end		
				SSP1 MPLM CHAN 1,2 HTR PWR (two) - ON (tb-gray)	TRANSFER BRIEF PREP	
14:00				TRANSFER BRIEF Call down status to MCC	TRANSFER BRIEF Call down status to MCC	
				FAREWELL	FAREWELL	
				JOINT OPS: 4.102 STS/ISS DUCT RMVL & HATCH CLOSING MCC-H can perform steps 2 & 3 on crew request	JOINT OPS: 4.102 STS/ISS DUCT RMVL & HATCH CLOSING MCC-H can perform steps 2 & 3 on crew request	
15:00				JOINT OPS: 4.104 ODS VEST/PMA DPRS & HATCH LEAK CHECK	JOINT OPS: 4.104 ODS VEST/PMA DPRS & HATCH LEAK CHECK	
00:00					RNDZ TOOLS CHECKOUT (RNDZ, RNDZ TOOLS)	

STS-135/ULF7 FD10

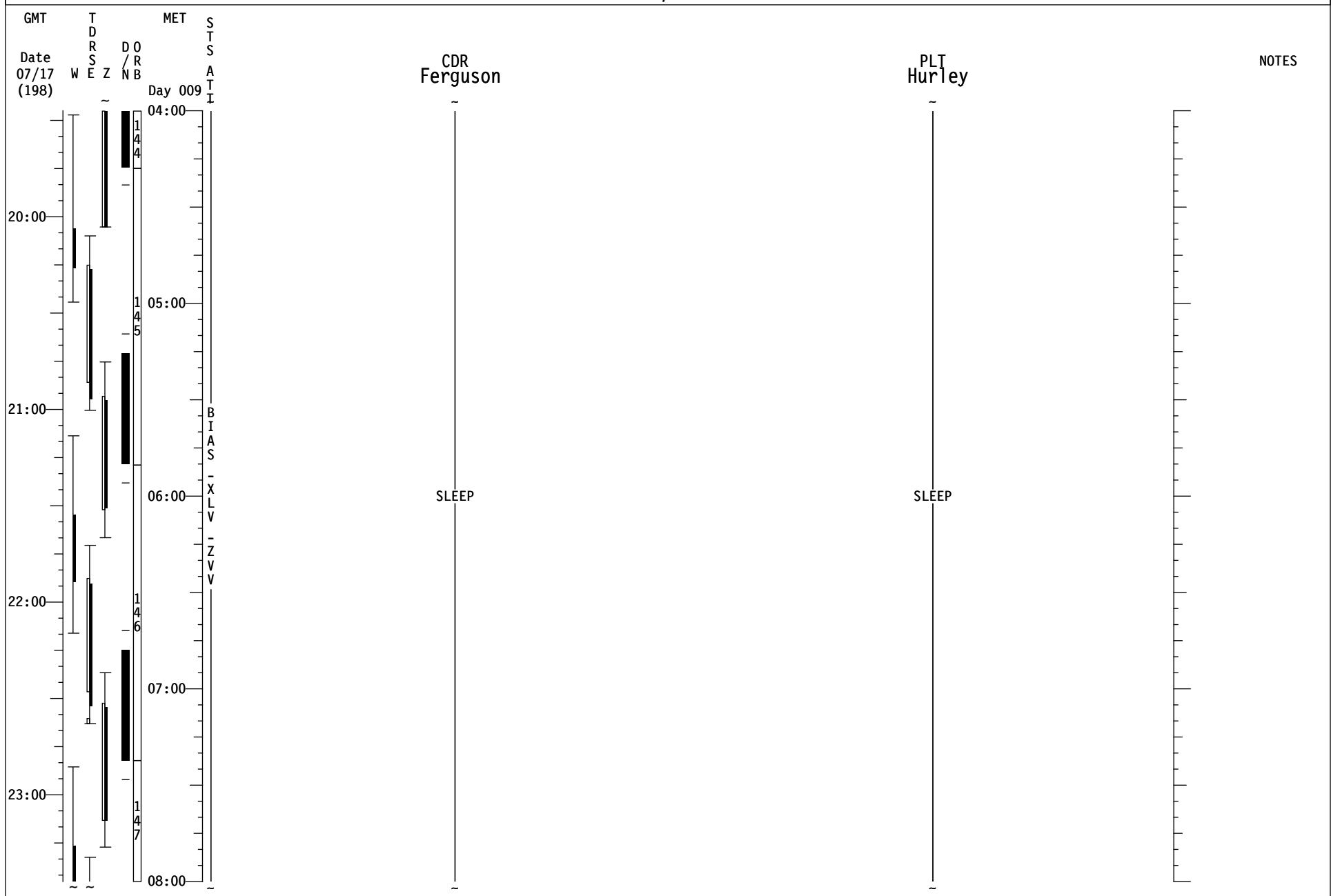


CREW WAKE @ 09/11:00

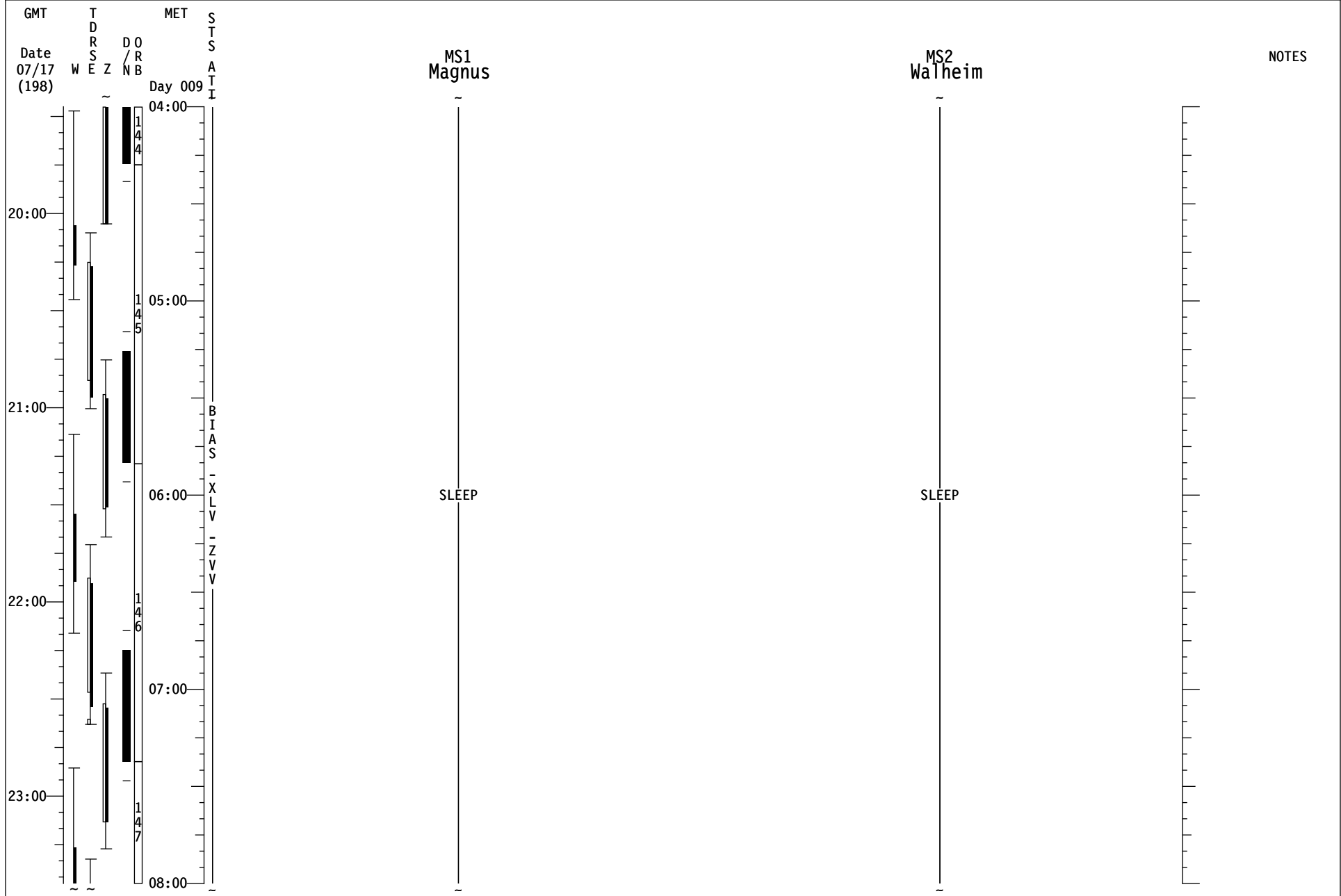
STS-135/ULF7 FD10



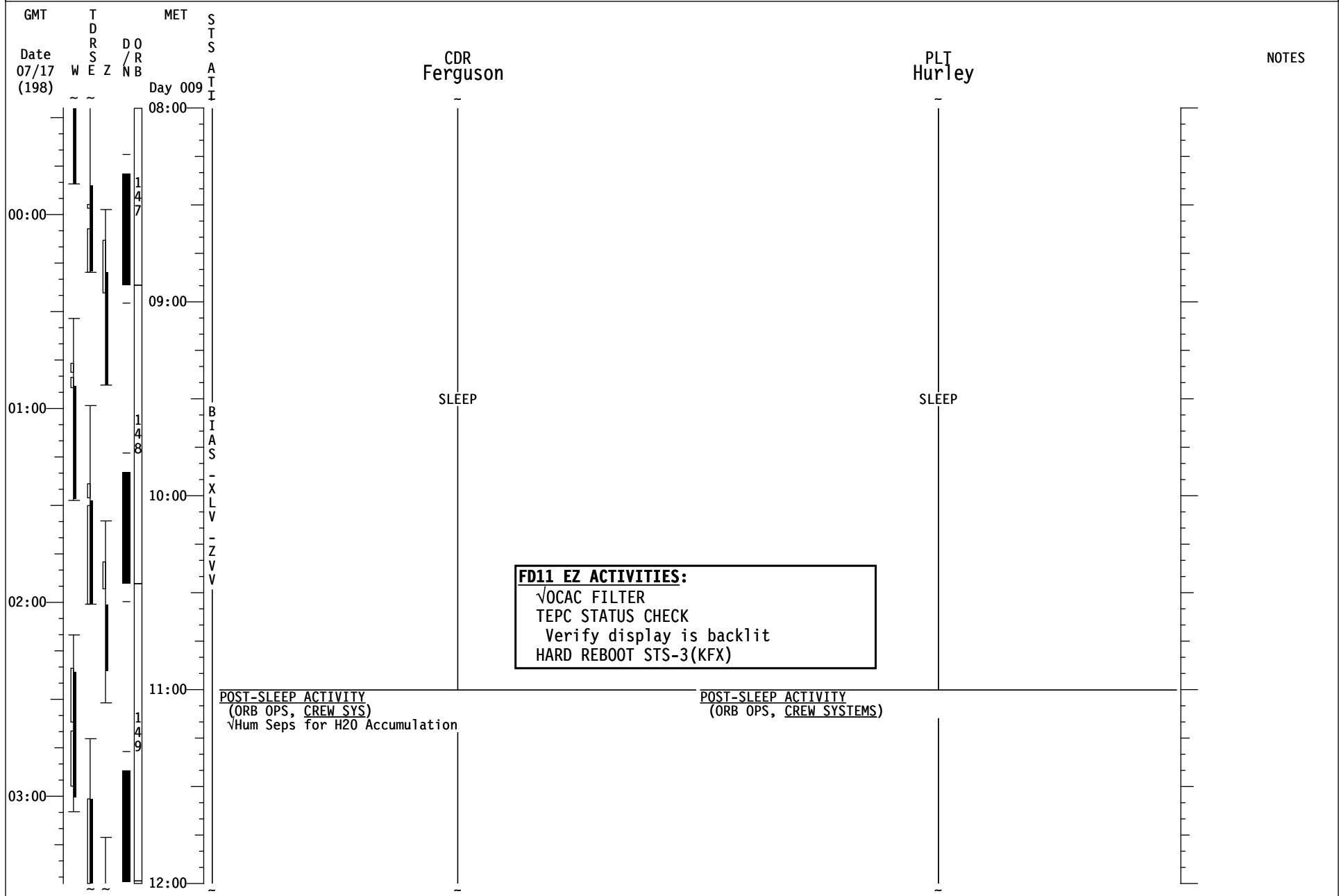
STS-135/ULF7 FD10



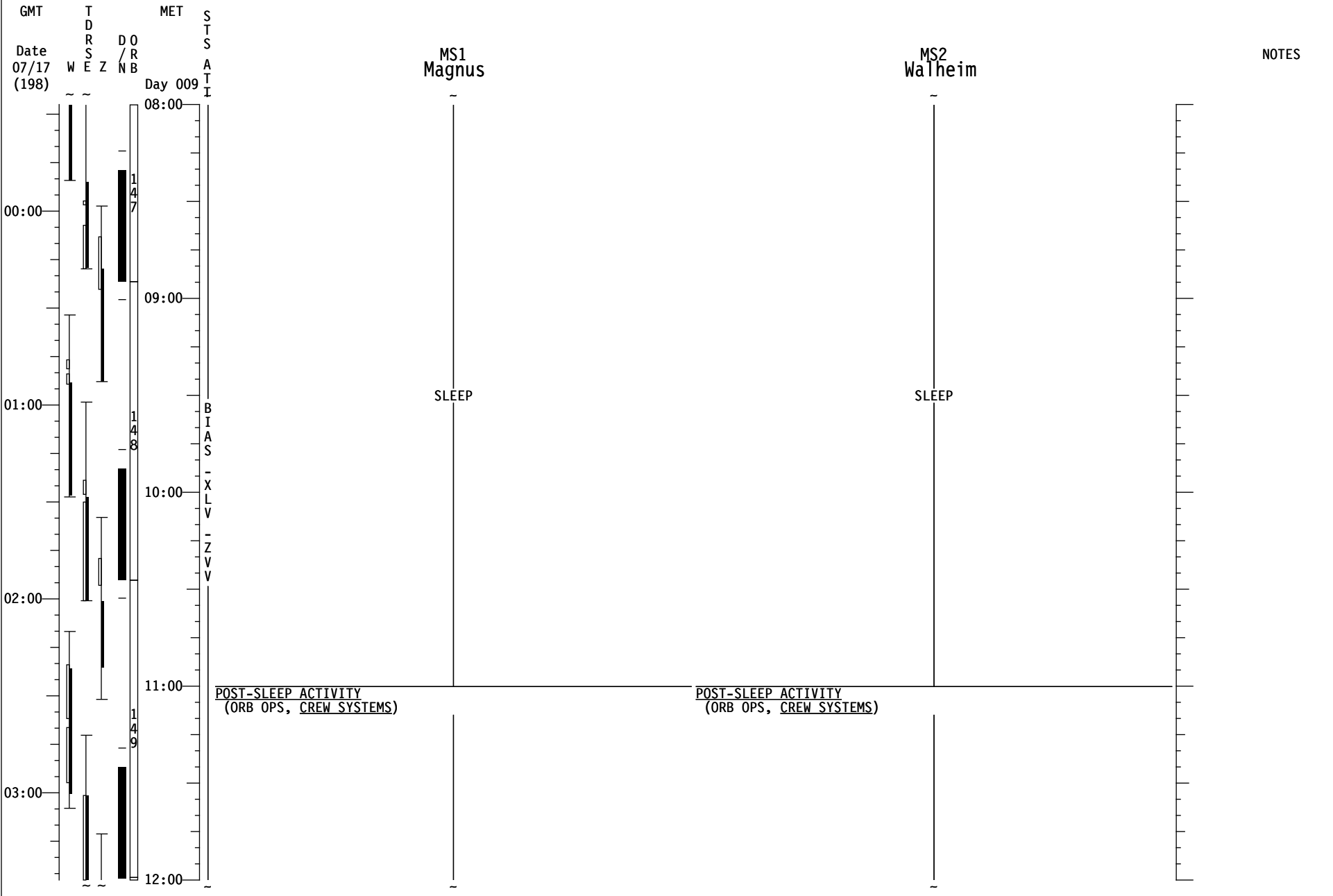
STS-135/ULF7 FD10



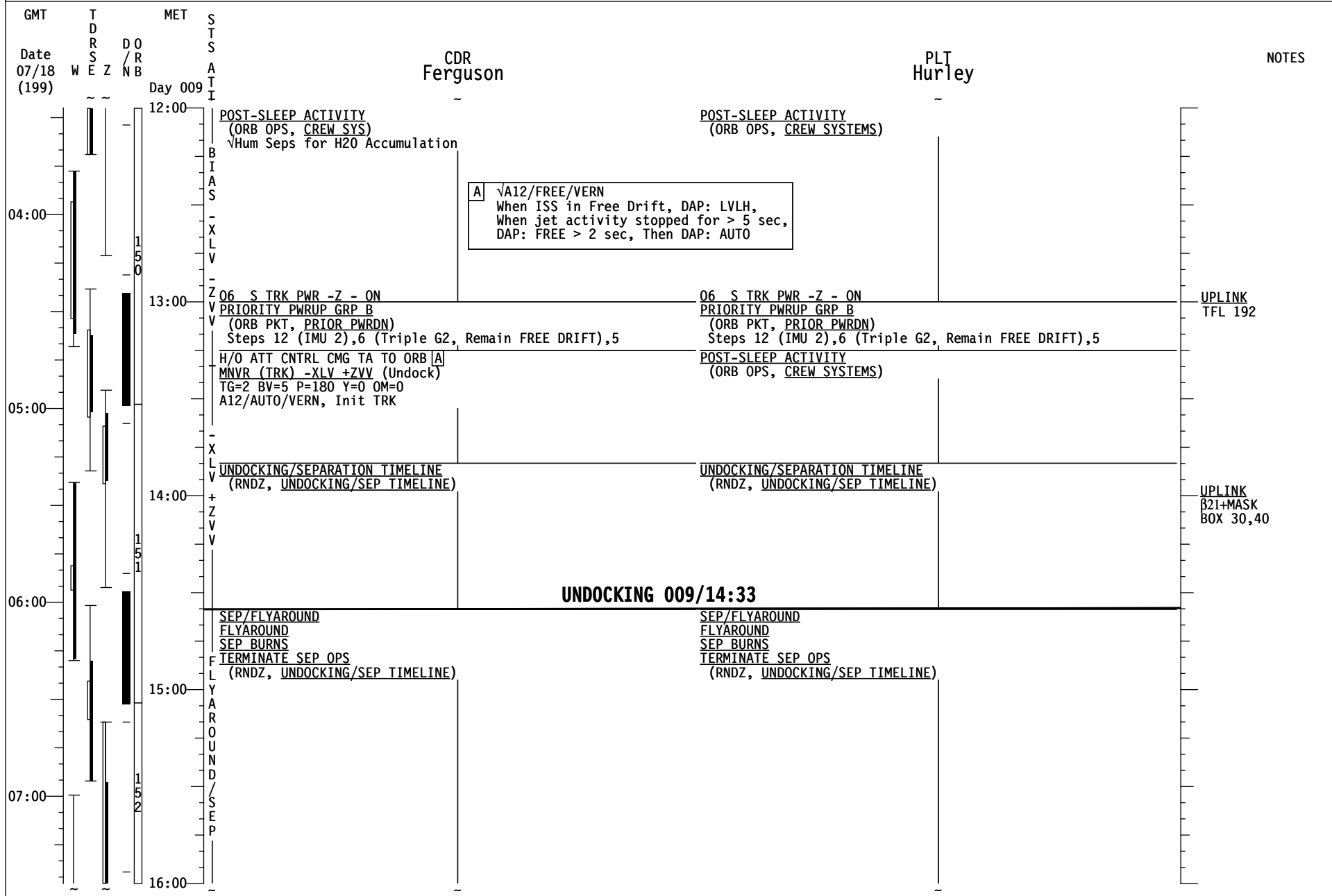
STS-135/ULF7 FD11



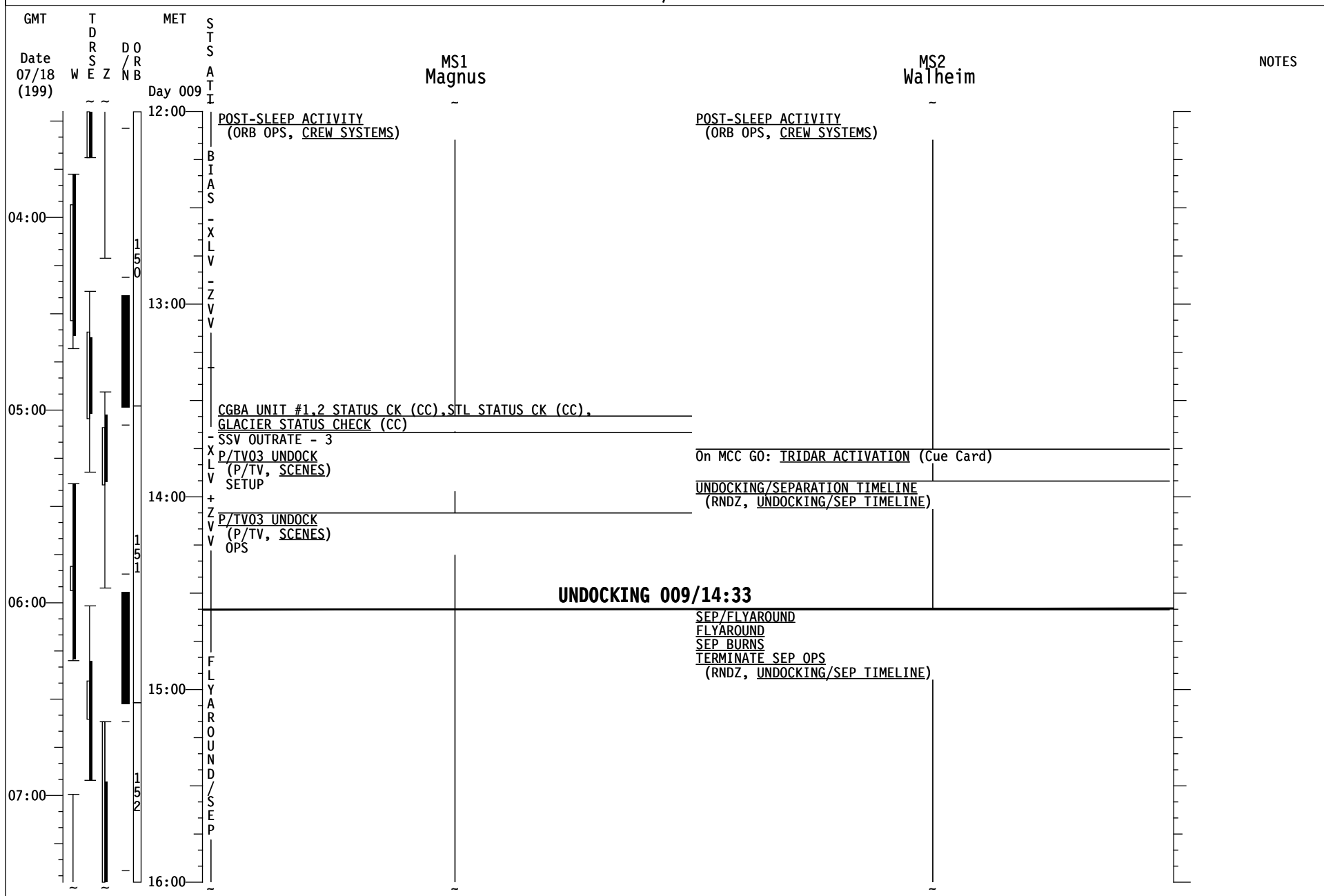
STS-135/ULF7 FD11



STS-135/ULF7 FD11



STS-135/ULF7 FD11



STS-135/ULF7 FD11

GMT	TDRS W E Z	MET Day 009	S T S A T I	CDR Ferguson	PLT Hurley	NOTES
				SEP/FLYAROUND (Details on Pg 3-115)	SEP/FLYAROUND (Details on Pg 3-115)	
08:00				PRIORITY PWRDN GRP B (ORB PKT, PRIOR PWRDN) Steps 5,6 (Single G2),9,12 (IMU 2)	PRIORITY PWRDN GRP B (ORB PKT, PRIOR PWRDN) Steps 5,6 (Single G2),9,12 (IMU 2)	UPLINK β21+MASK
				MNVR (TRK) BIAS -ZLV +YVV (Dump) TG=2 BV=5 P=90 Y=0 OM=290 A1/AUTO/VERN, Init TRK	IMU STAR OF OPPTY ALIGN (ORB OPS, GNC)	UPLINK TFL 188
17:00				CABIN TEMP CONTROLLER RECNFG 2(1) (ORB OPS, ECLS)	HEATER RECONFIG-CONFIG B (ORB OPS, EPS) COMM STRING I C/O (PART A) (ORB OPS, COMM/INST)	
09:00				MEAL	MEAL	
18:00				MEAL	MEAL	
10:00				MNVR (TRK) BIAS +YSI (Stbd Survey) TG=4 BV=5 P=0 Y=40 OM=275 A14/AUTO/VERN Init TRK	OBSS MNVR TO FLAT FIELD (PDRS, OBSS NOMINAL)	
				OBSS LDRI/IDC RCC SURVEY - STBD (PDRS, OBSS OPERATIONS)	OBSS LDRI/IDC RCC SURVEY - STBD (PDRS, OBSS OPERATIONS)	
19:00						
11:00						
20:00						

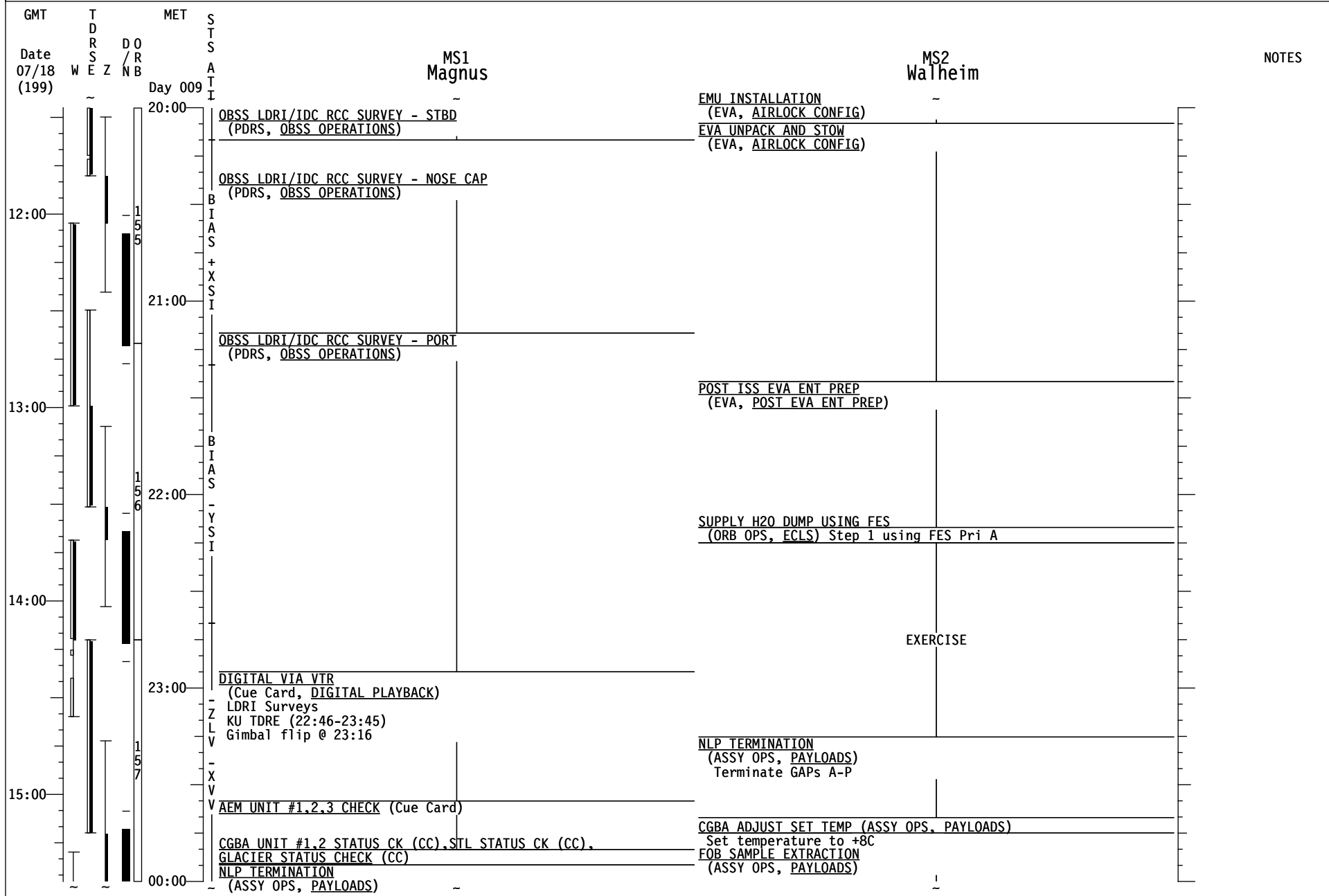
STS-135/ULF7 FD11

GMT	TDRS W E Z	MET Day 009	S T S A T I	MS1 Magnus	MS2 Walheim	NOTES
08:00				P/TV03 UNDOCK (P/TV, SCENES) OPS	SEP/FLYAROUND (Details on Pg 3-115)	
				P/TV03 UNDOCK (P/TV, SCENES) DEACTIVATION	JOINT OPS: 6.106 SSOR DEACTIVATION	
				SHUTTLE CONDENSATE COLLECTION (ORB OPS, ECLS) Perform TEARDOWN	TRIDAR DEACTIVATION (Cue Card)	
09:00				SSP1 MPLM CHAN 1,2 HTR PWR (two) - ON (tb-gray)	SUPPLY/WASTE WATER DUMP (Init) (ORB OPS, ECLS) Ref. MSG XXX	
				P/TV09 MIDDECK PAYLOADS (P/TV, SCENES) OPS Item 3	FOB MIXING (ASSY OPS, PAYLOADS)	
10:00				MEAL		
					SUPPLY/WASTE WATER DUMP (Term) (ORB OPS, ECLS) Ref. MSG XXX	
11:00				OBSS LDRI/IDC RCC SURVEY - STBD (PDRS, OBSS OPERATIONS)		
					MEAL	
20:00					EMU INSTALLATION (EVA, AIRLOCK CONFIG)	

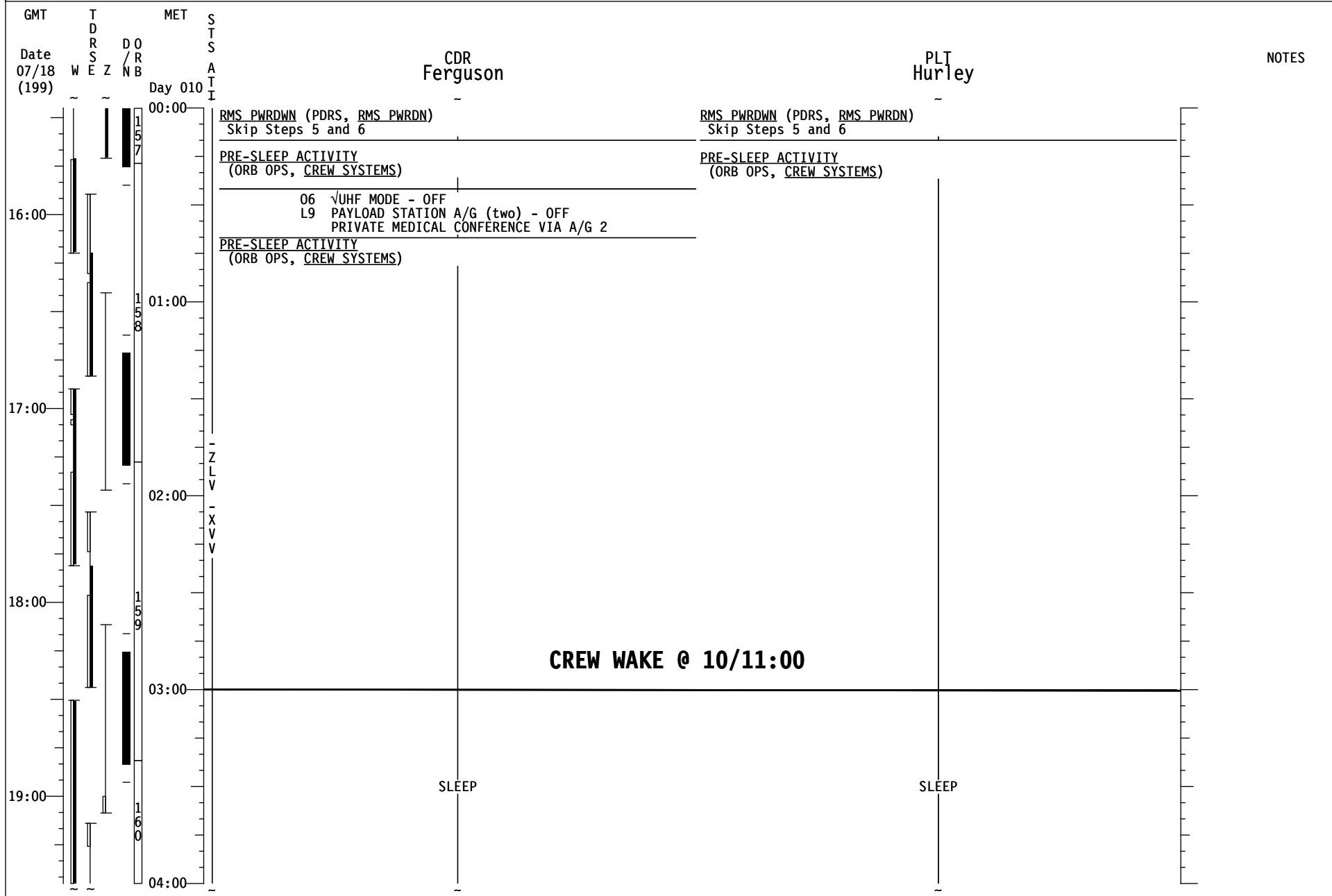
STS-135/ULF7 FD11

GMT	TDRSZ	MET	SATS	CDR Ferguson	PLT Hurley	NOTES
Date 07/18 (199)	W E Z	Day 009	Day 009			
12:00	155		BIAS	OBSS LDRI/IDC RCC SURVEY - STBD (PDRS, OBSS OPERATIONS) MNVR (TRK) BIAS +XSI (Nose Cap) TG=4 BV=5 P=330 Y=0 OM=335 A14/AUTO/VERN, RCC SURVEY-STBD cmlt, Init TRK	OBSS LDRI/IDC RCC SURVEY - STBD (PDRS, OBSS OPERATIONS)	
13:00	156		BIAS	OBSS LDRI/IDC RCC SURVEY - NOSE CAP (PDRS, OBSS OPERATIONS)	OBSS LDRI/IDC RCC SURVEY - NOSE CAP (PDRS, OBSS OPERATIONS)	
14:00	156		BIAS	OBSS LDRI/IDC RCC SURVEY - PORT (PDRS, OBSS OPERATIONS) When RCC SURVEY-PORT Step 3 complete: MNVR (TRK) BIAS -YSI (Port Survey) TG=4 BV=5 P=0 Y=323 OM=350, A14/AUTO/VERN, Init TRK	OBSS LDRI/IDC RCC SURVEY - PORT (PDRS, OBSS OPERATIONS)	
15:00	157		BIAS	OBSS LDRI/IDC RCC SURVEY - PORT (PDRS, OBSS OPERATIONS)		
			YSI	MNVR (TRK) -ZLV -XVV TG=2 BV=3 OM=0 A14/AUTO/VERN, RCC-SURVEY-PORT Step 12 cmlt, Init TRK		
			ZLV	OBSS BERTH (PDRS, OBSS OPERATIONS)	OBSS BERTH (PDRS, OBSS OPERATIONS)	
			XVV			
00:00				RMS PWRDWN (PDRS, RMS PWRDN) Skip Steps 5 and 6	RMS PWRDWN (PDRS, RMS PWRDN) Skip Steps 5 and 6	

STS-135/ULF7 FD11



STS-135/ULF7 FD11

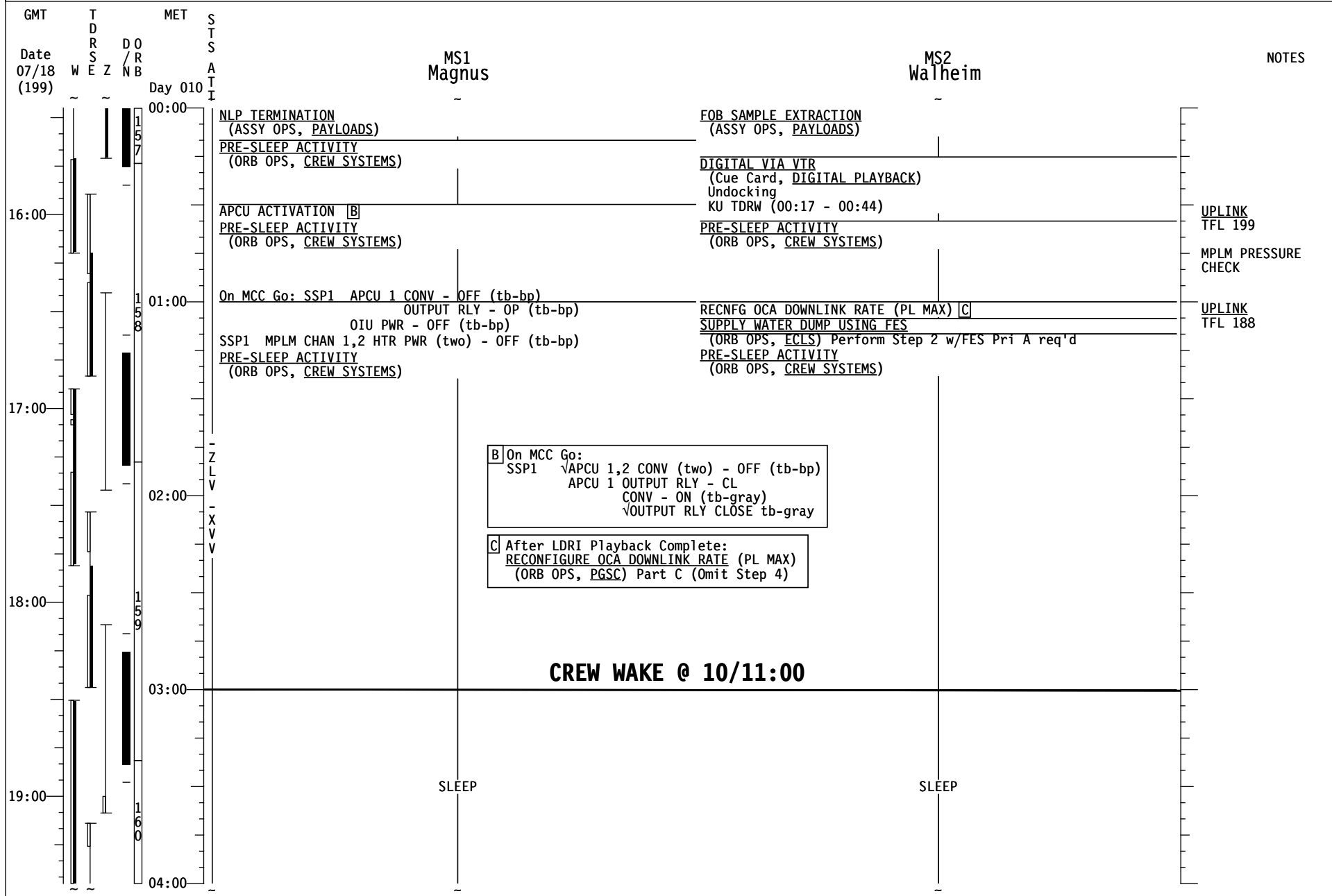


CREW WAKE @ 10/11:00

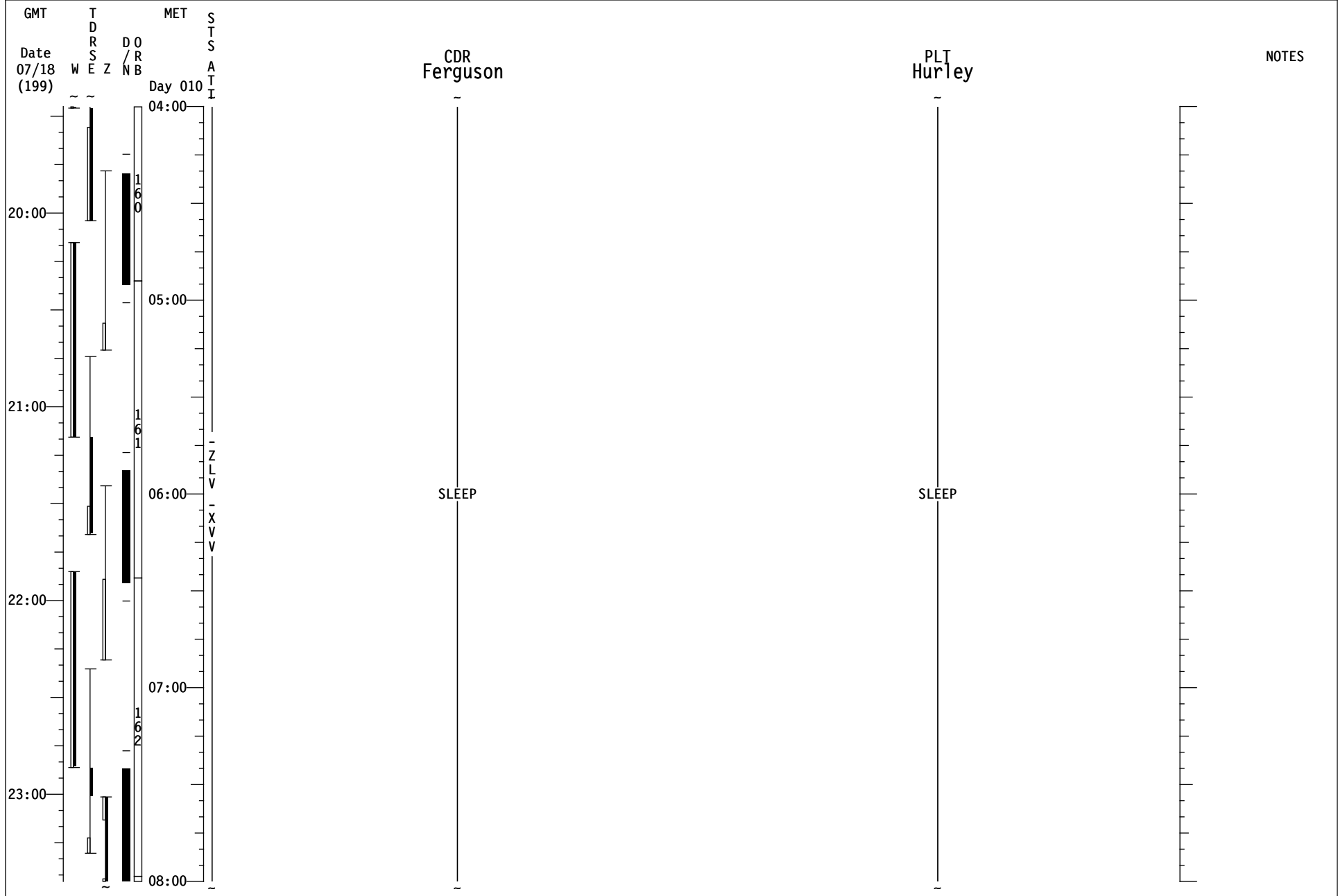
SLEEP

SLEEP

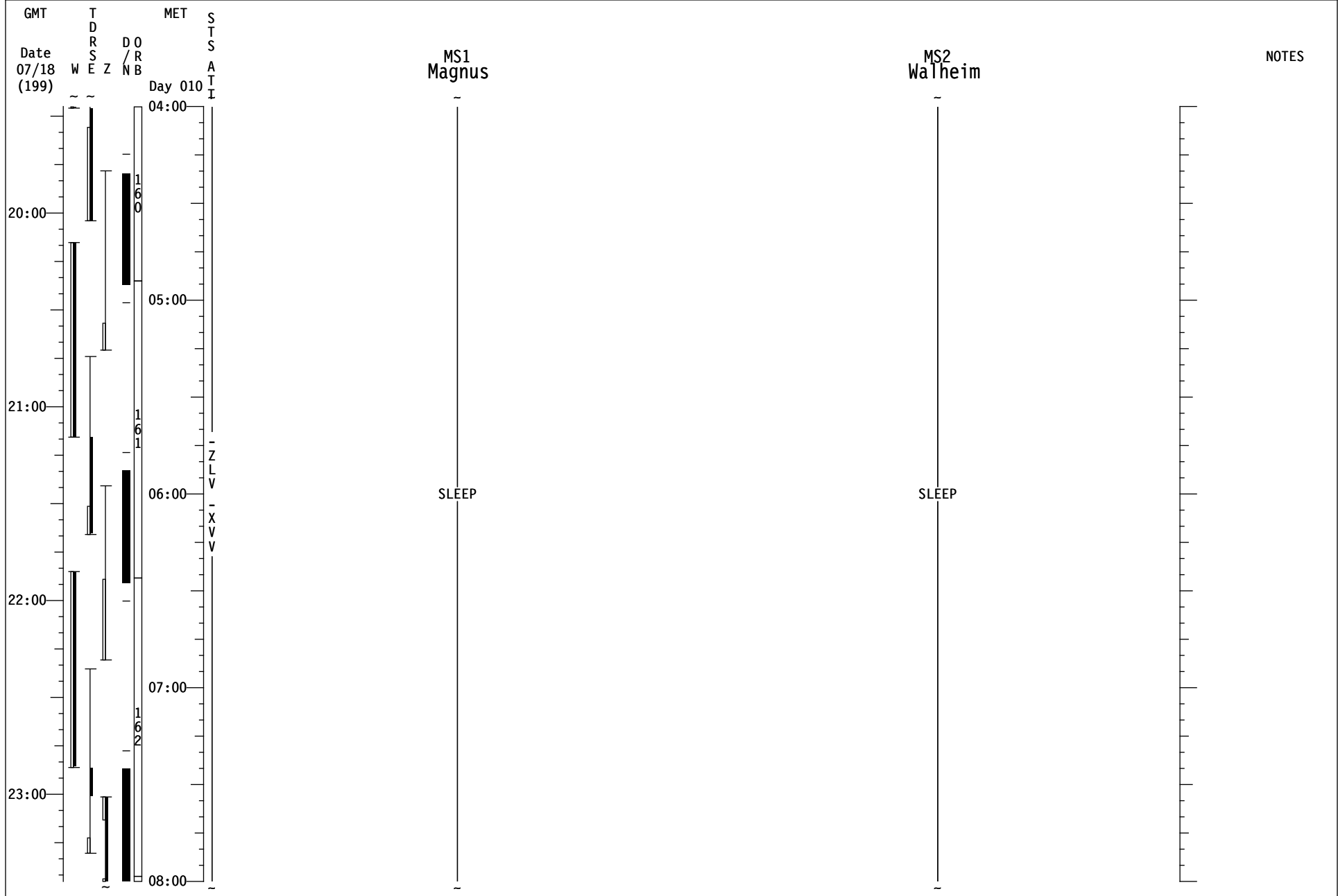
STS-135/ULF7 FD11



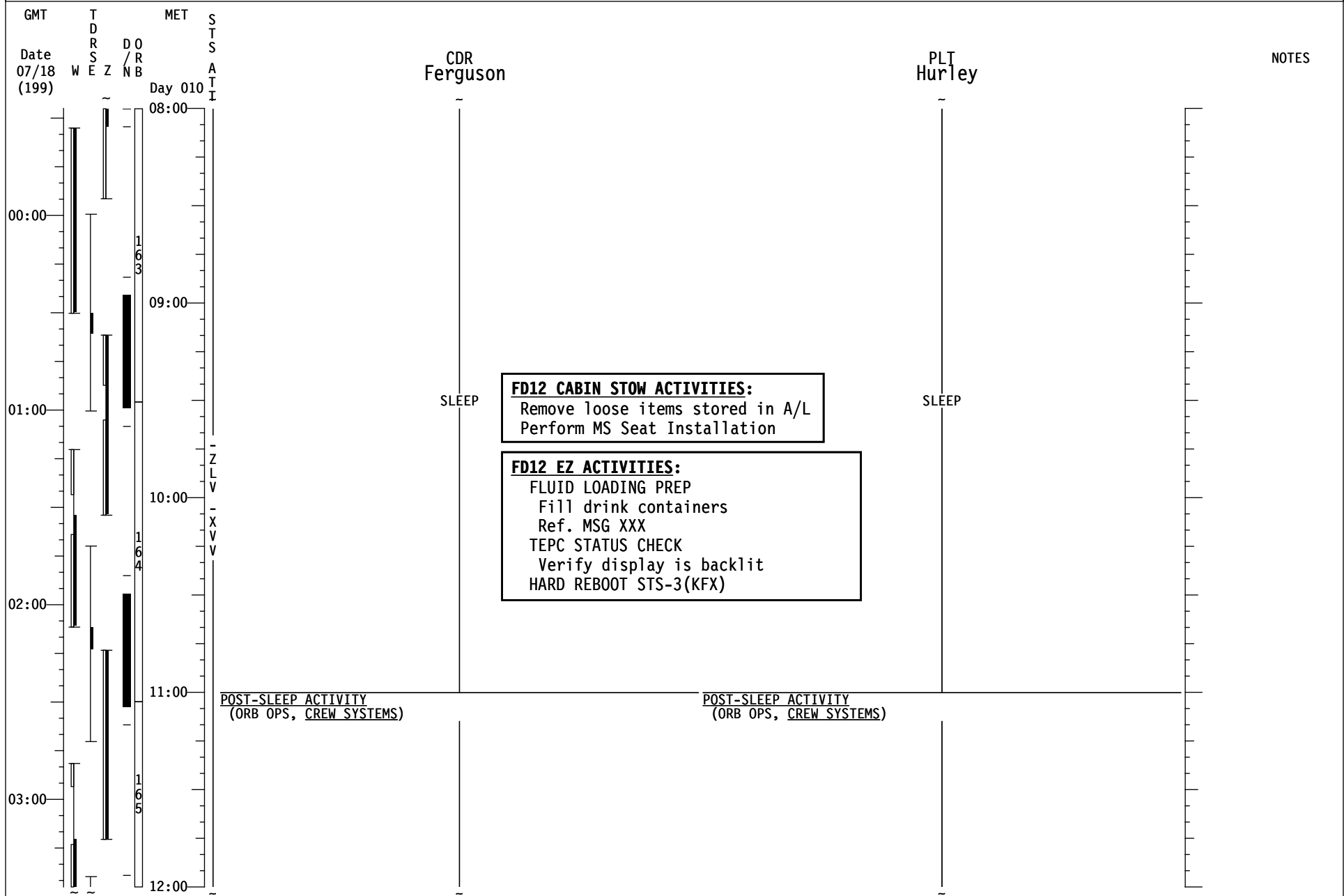
STS-135/ULF7 FD11



STS-135/ULF7 FD11



STS-135/ULF7 FD12



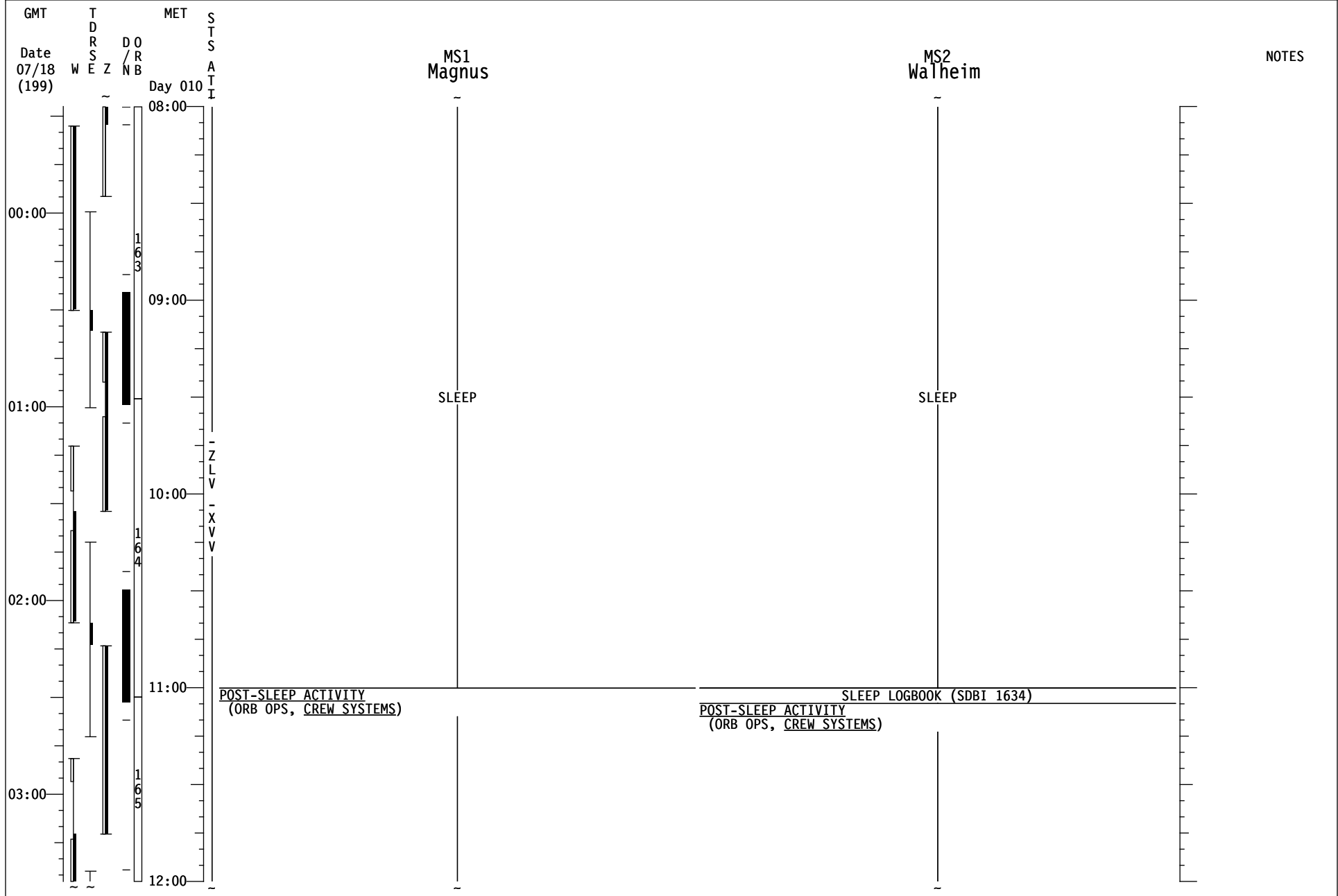
FD12 CABIN STOW ACTIVITIES:
 Remove loose items stored in A/L
 Perform MS Seat Installation

FD12 EZ ACTIVITIES:
 FLUID LOADING PREP
 Fill drink containers
 Ref. MSG XXX
 TEPC STATUS CHECK
 Verify display is backlit
 HARD REBOOT STS-3(KFX)

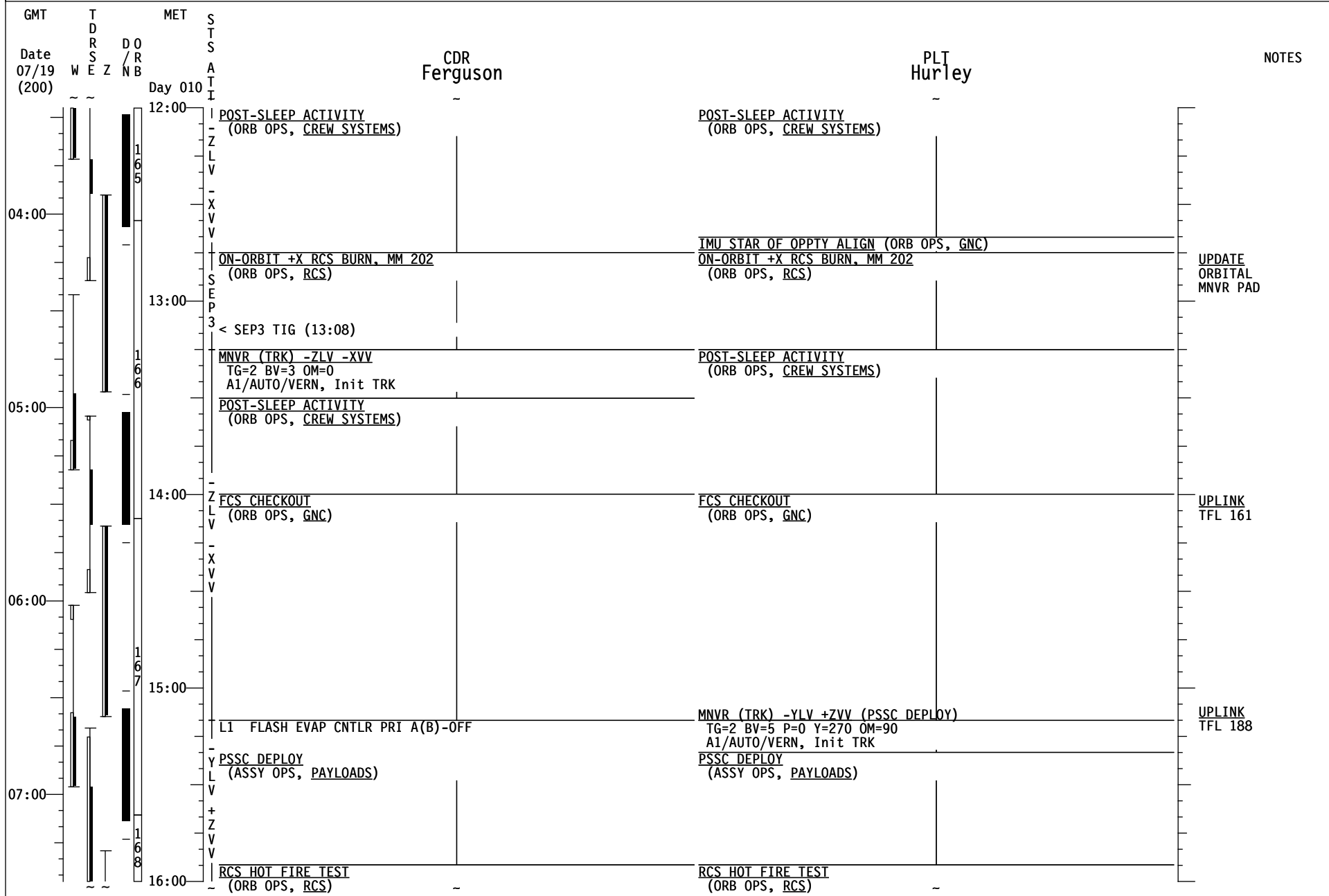
POST-SLEEP ACTIVITY
 (ORB OPS, CREW SYSTEMS)

POST-SLEEP ACTIVITY
 (ORB OPS, CREW SYSTEMS)

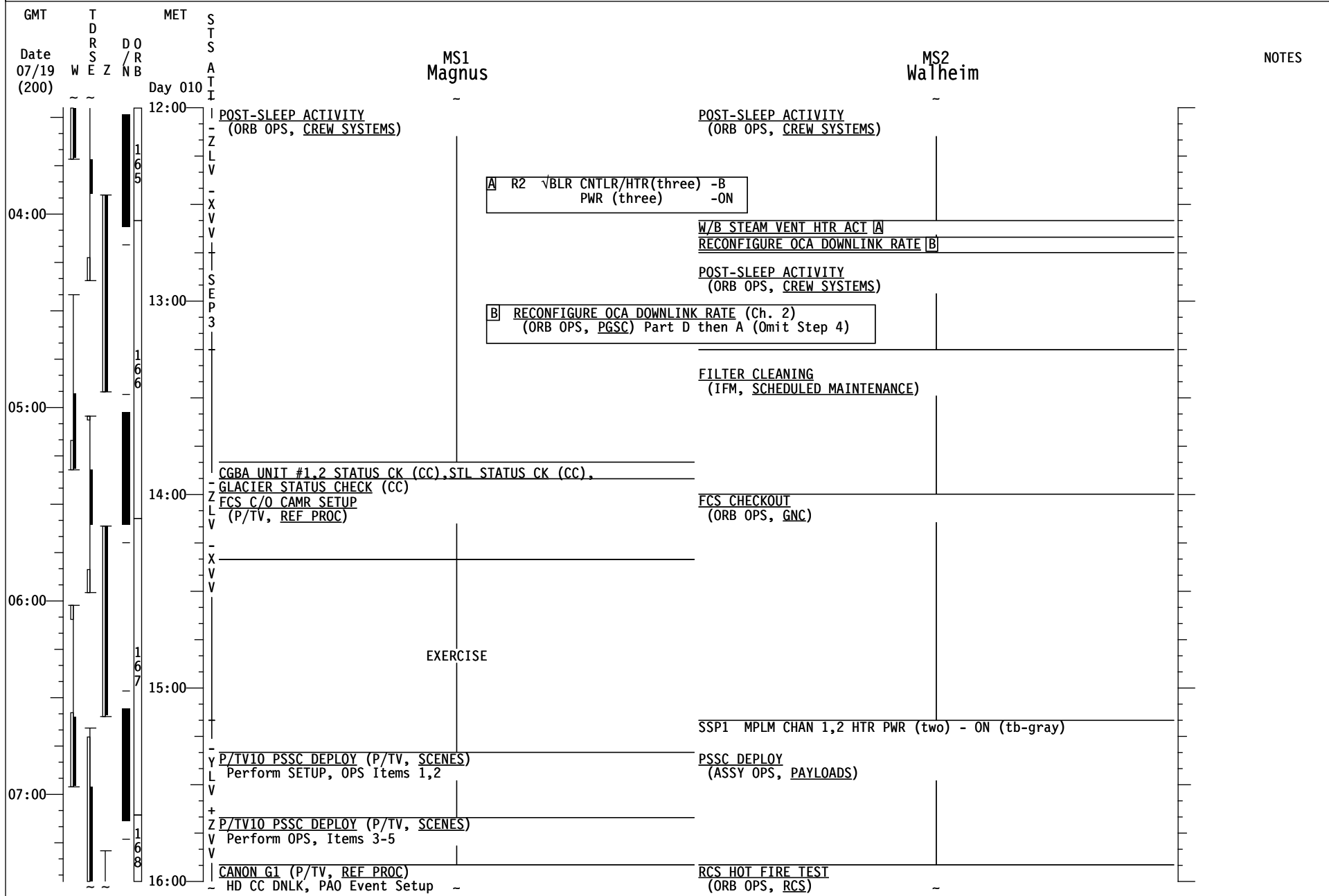
STS-135/ULF7 FD12



STS-135/ULF7 FD12



STS-135/ULF7 FD12



STS-135/ULF7 FD12

GMT	TDRS W E Z	MET DO R NB	S T S A T I	CDR Ferguson	PLT Hurley	NOTES
Date 07/19 (200)		Day 010				
16:00				RCS HOT FIRE TEST (ORB OPS, RCS)	RCS HOT FIRE TEST (ORB OPS, RCS)	
				MNVR (TRK) -ZLV +YVV (Dump) IG=2 BV=3 OM=270 A1/AUTO/VERN, Init TRK PILOT WITH RHC (FOR A31p PGSC) (ORB OPS, PGSC)	RMS PWRDN (PDRS, RMS PWRDN)Steps 3,5-7 PILOT WITH RHC (FOR A31p PGSC) (ORB OPS, PGSC)	
08:00			Z L V + Y V V			
17:00						
09:00				MNVR (TRK) -ZLV -XVV TG=2 BV=3 OM=0 A1/AUTO/VERN, Init TRK	On MCC Go: L1 FES PRI A - ON	
18:00				MEAL	MEAL	
10:00			Z L V - X V V			
				PUBLIC AFFAIRS EVENT KU AVAIL TDRE (18:25 - 18:46) (18:52 - 19:21)	PUBLIC AFFAIRS EVENT KU AVAIL TDRE (18:25 - 18:46) (18:52 - 19:21)	
19:00						
				DEORBIT PREP BRIEFING	DEORBIT PREP BRIEFING	
11:00					COMM STRING 1 C/O (PART B) (ORB OPS, COMM/INST)	
				EXERCISE	CABIN CONFIG/STOW	
20:00						

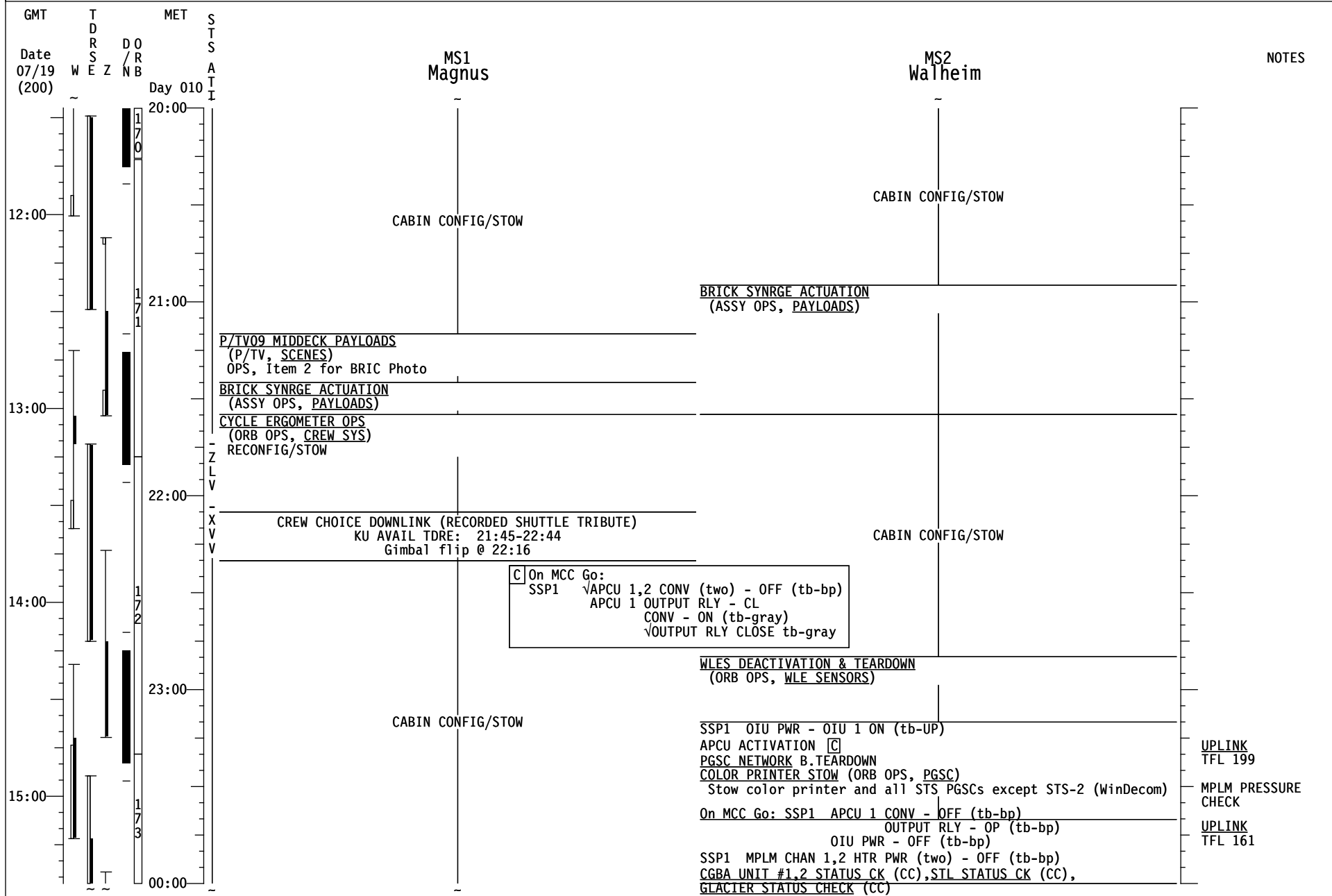
STS-135/ULF7 FD12

GMT	TDRS W E Z	MET DO RNB	S T S A T I	MS1 Magnus	MS2 Walheim	NOTES
Date 07/19 (200)		Day 010				
16:00				<u>CANON G1</u> (P/TV, REF PROC) HD CC DNLK, PAO Event Setup	<u>RCS HOT FIRE TEST</u> (ORB OPS, RCS)	
					<u>WLES RNDZ TOOLS C/O PREP</u> (ORB OPS, WLE SENSORS)	
08:00				<u>CWC OVERBOARD DUMP</u> (Init) (ORB OPS, ECLS) Ref. MSG XXX		
				CABIN CONFIG/STOW	EXERCISE	
17:00				<u>CWC OVERBOARD DUMP</u> (Term) (ORB OPS, ECLS) Ref. MSG XXX		
09:00				MEAL	MEAL	
18:00				PUBLIC AFFAIRS EVENT KU AVAIL TDRE (18:25 - 18:46) (18:52 - 19:21)	PUBLIC AFFAIRS EVENT KU AVAIL TDRE (18:25 - 18:46) (18:52 - 19:21)	
10:00				DEORBIT PREP BRIEFING	DEORBIT PREP BRIEFING	
19:00				<u>MINI-CAM</u> (P/TV, REF PROC) ENTRY VIDEO SETUP	CABIN CONFIG/STOW	
11:00				CABIN CONFIG/STOW		
20:00						

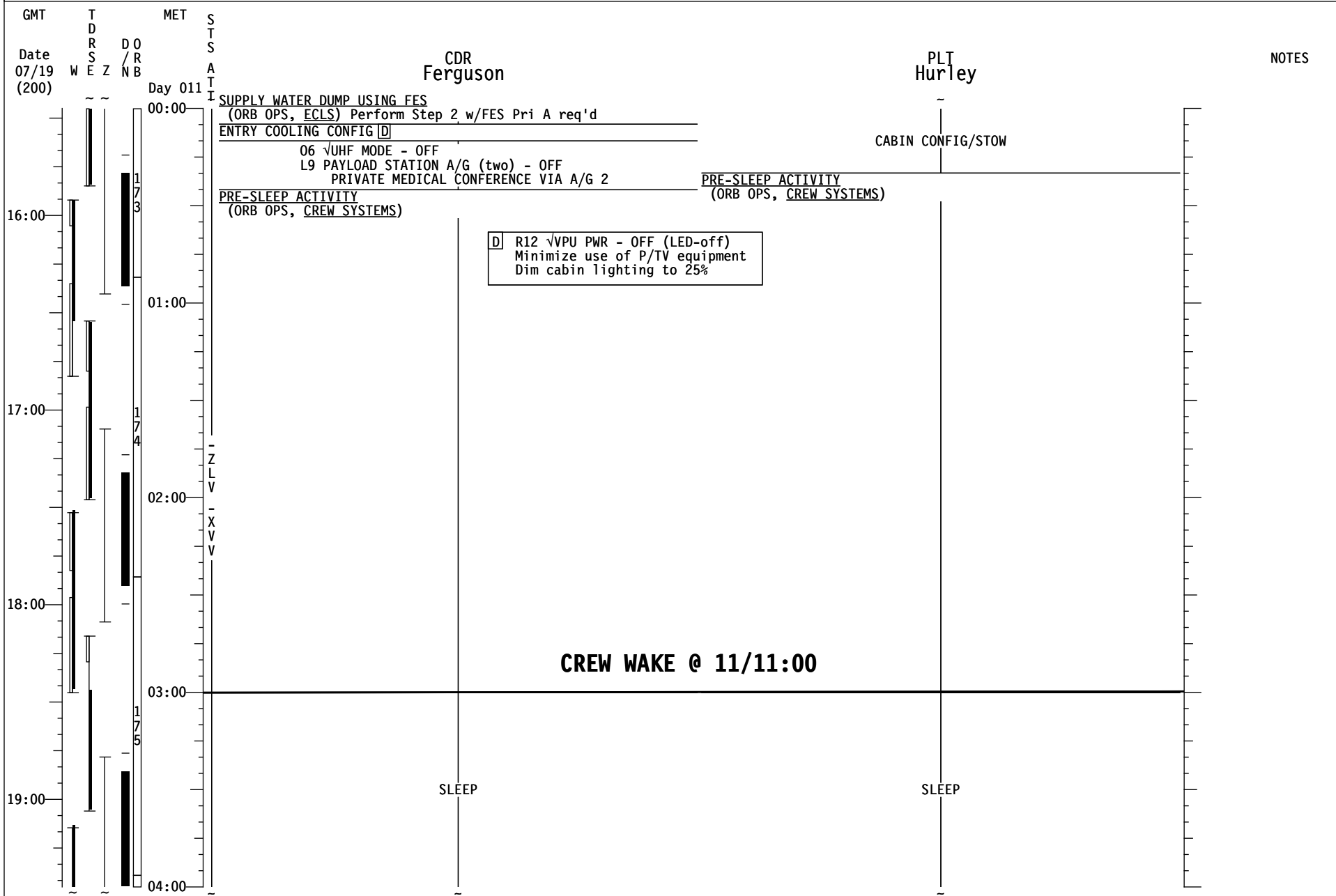
STS-135/ULF7 FD12

GMT	T D R S W E Z	MET Day 010	S T S A T I	CDR Ferguson	PLT Hurley	NOTES
20:00	170			EXERCISE	CABIN CONFIG/STOW	
12:00				SUPPLY H2O DUMP USING FES (ORB OPS, ECLS) Step 1 using FES Pri B	LANDING-1 COMM C/O (ORB OPS, COMM/INST) MLA (20:24-20:32)	
13:00	171				EXERCISE	
22:00				CABIN CONFIG/STOW	LANDING-1 COMM C/O (ORB OPS, COMM/INST) DFR (21:54-22:03)	
14:00	172				CABIN CONFIG/STOW	
23:00					CABIN CONFIG/STOW	
15:00	173			AEM UNIT #1,2,3 CHECK (Cue Card)		
00:00				A6L MADS STRAIN GAGE - ON		

STS-135/ULF7 FD12



STS-135/ULF7 FD12

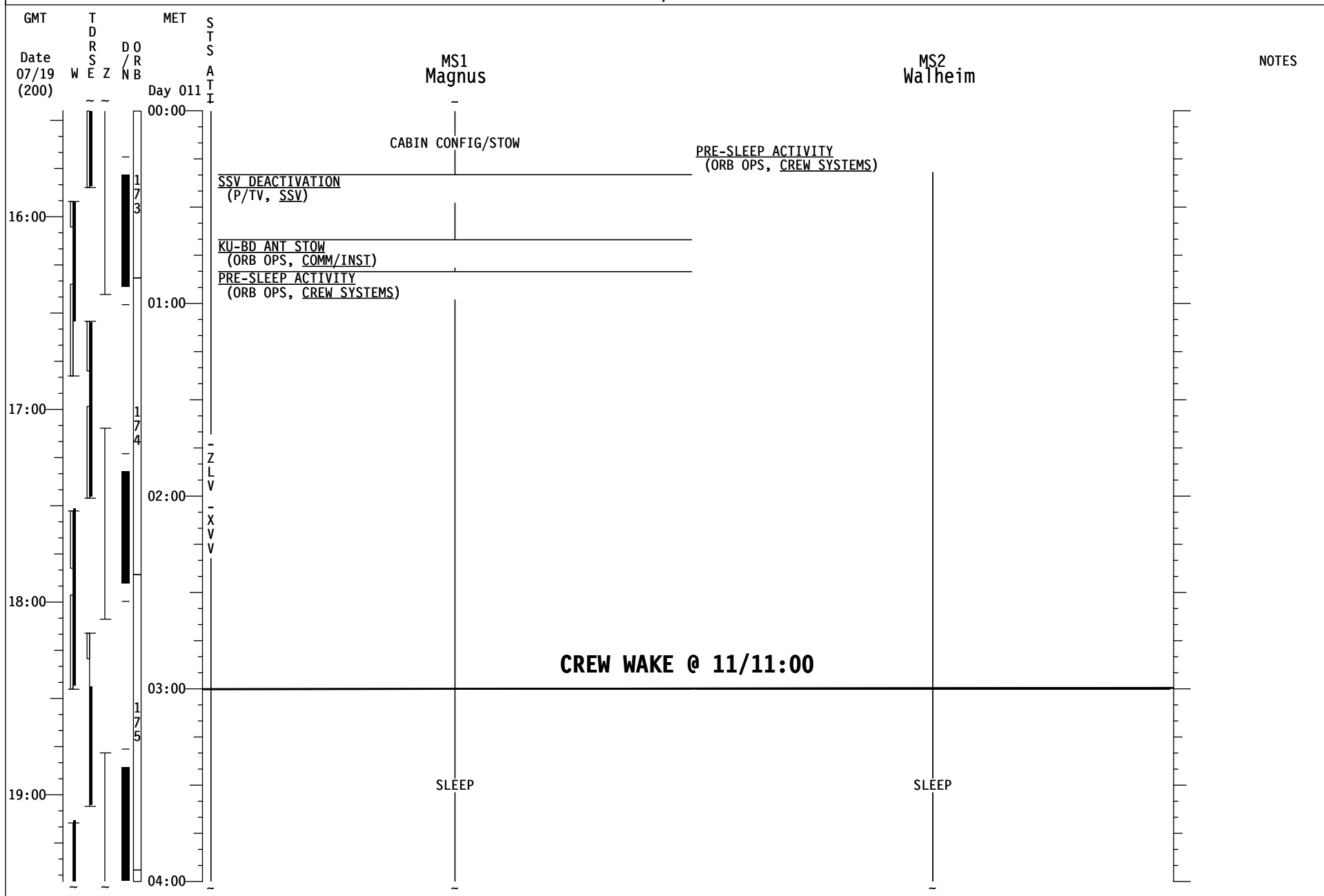


CREW WAKE @ 11/11:00

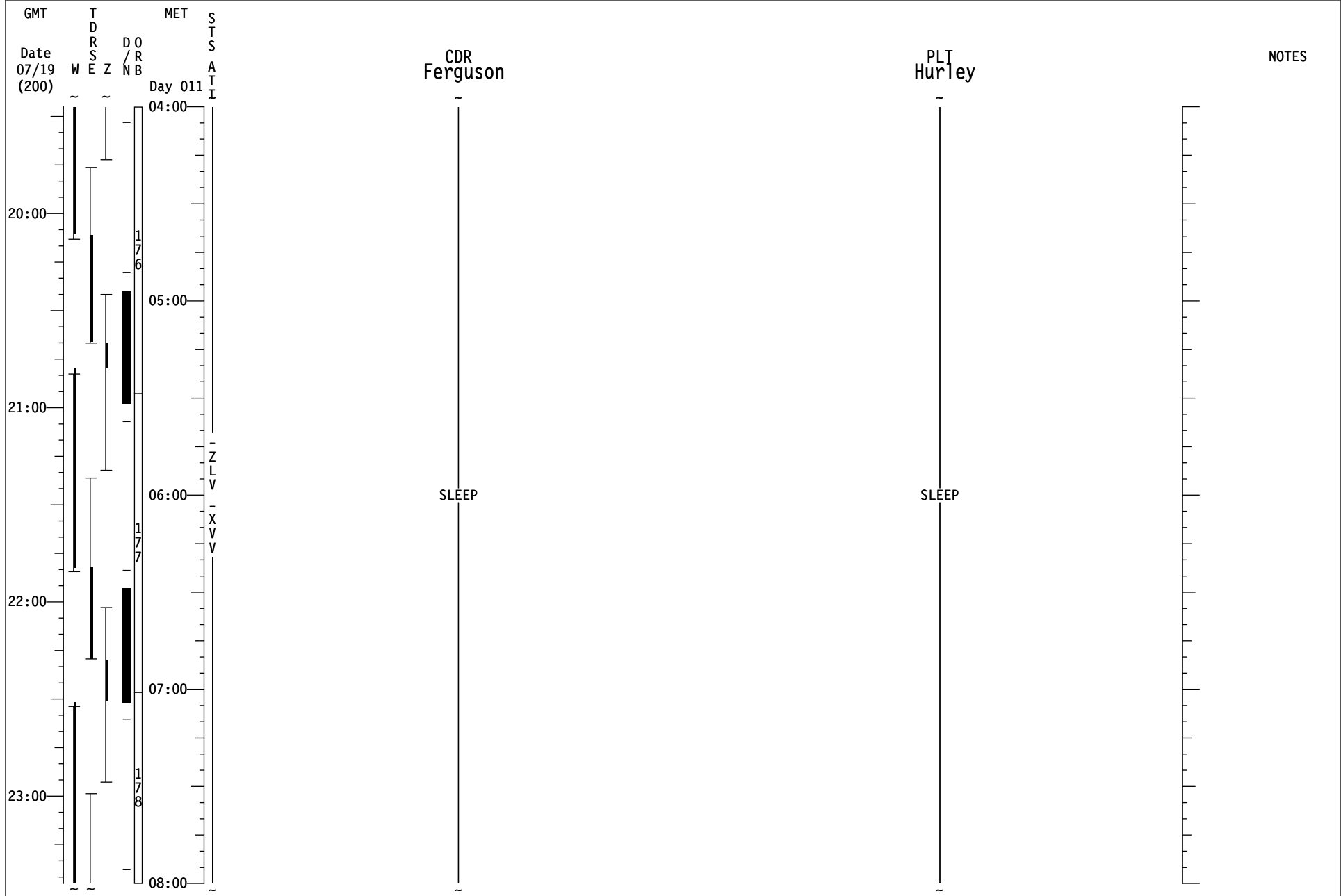
SLEEP

SLEEP

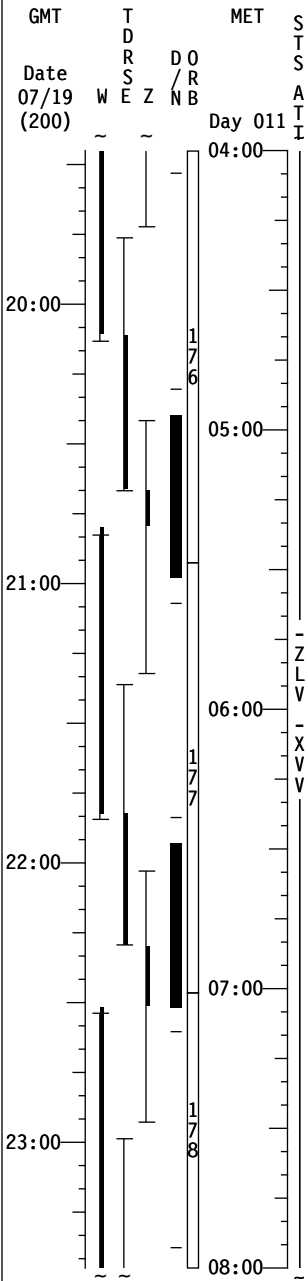
STS-135/ULF7 FD12



STS-135/ULF7 FD12



STS-135/ULF7 FD12



MS1
Magnus

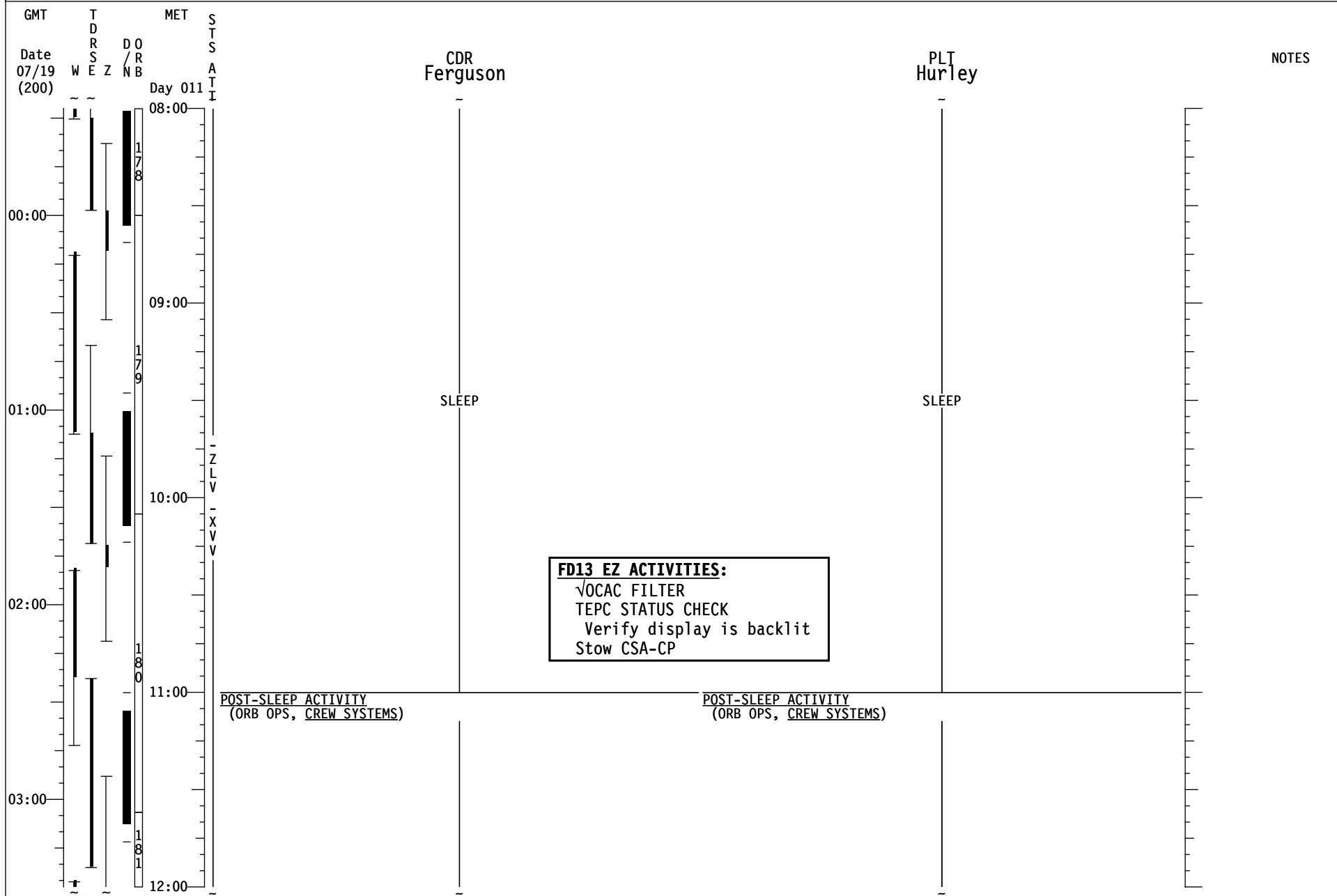
MS2
Walheim

NOTES

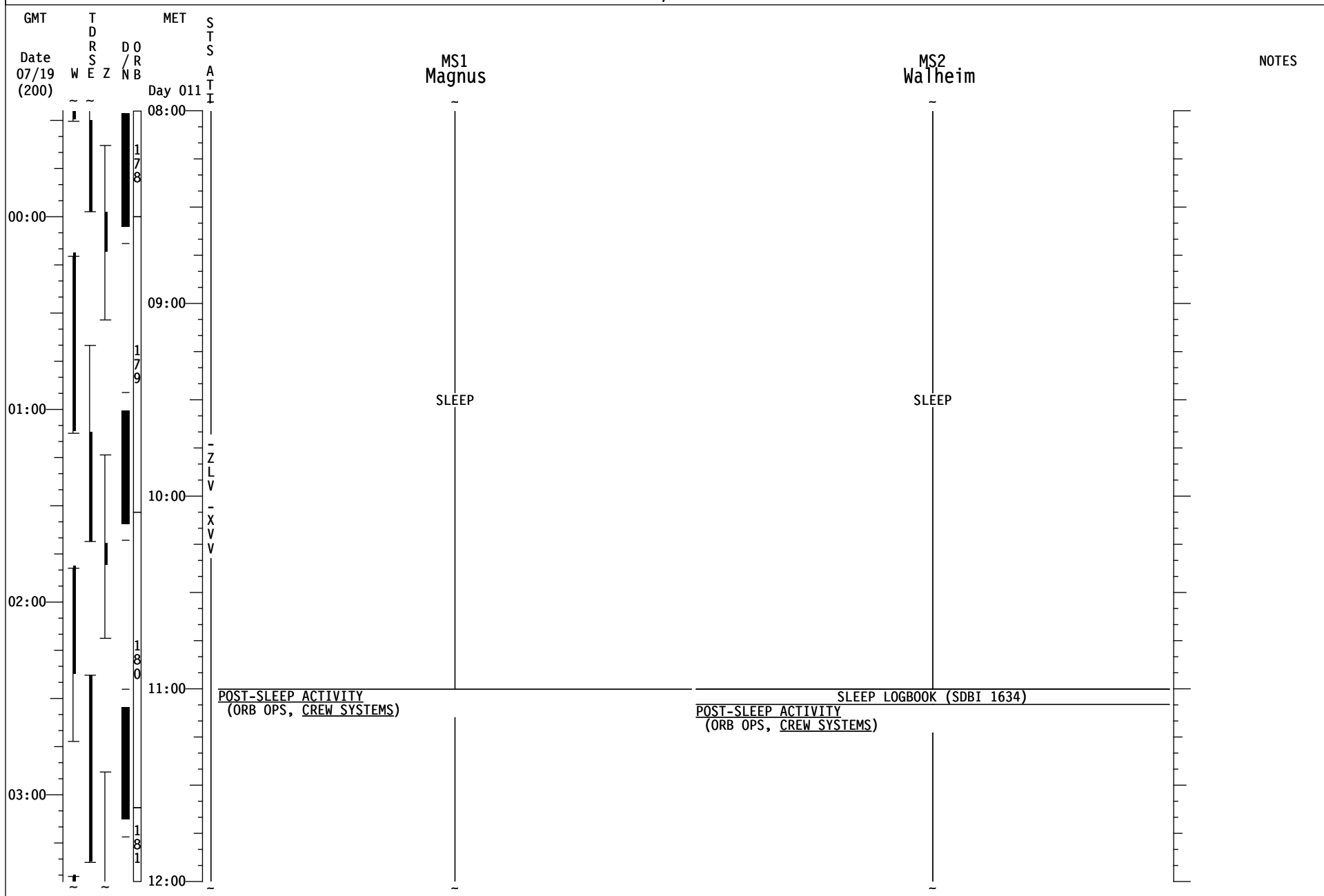
SLEEP

SLEEP

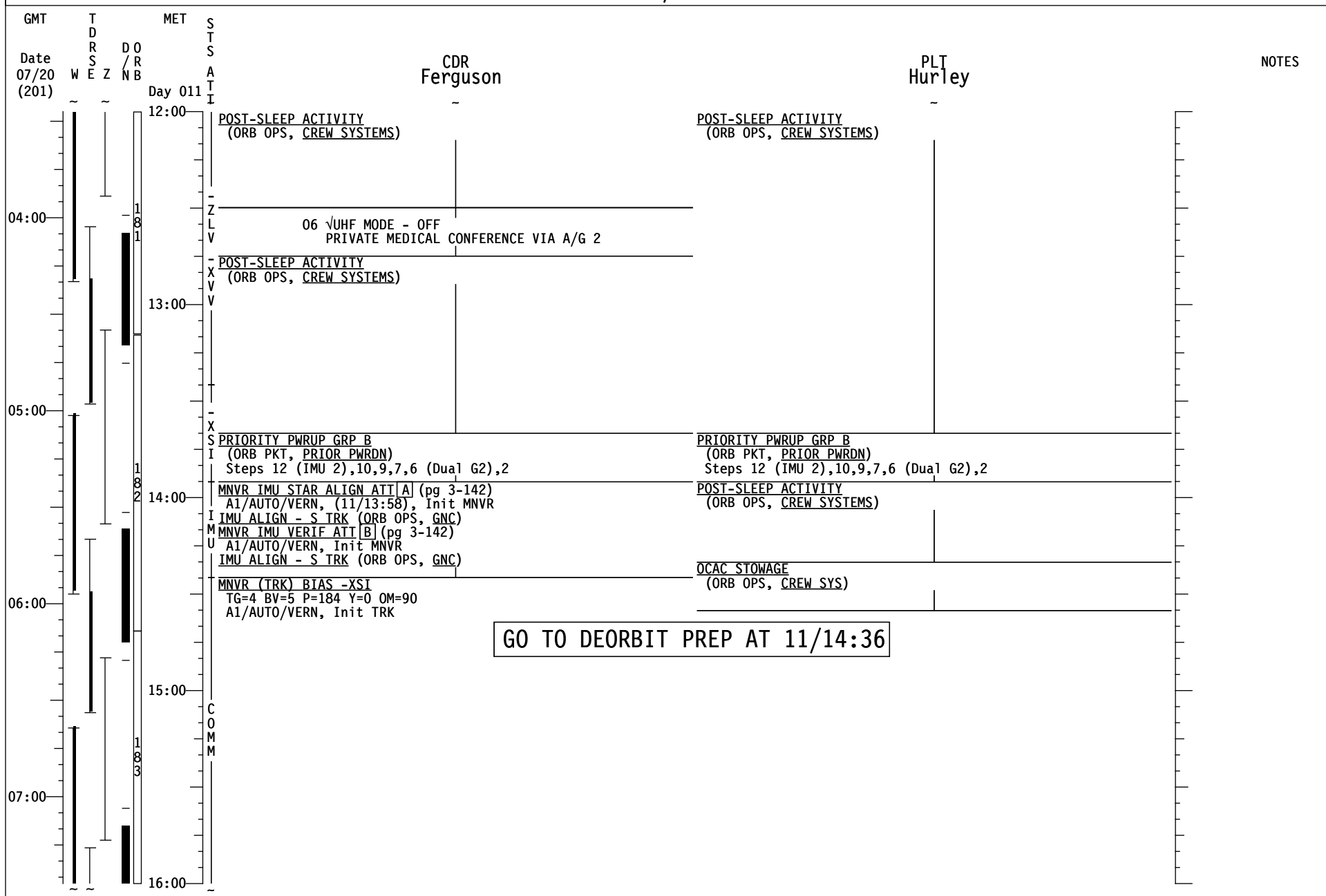
STS-135/ULF7 FD13



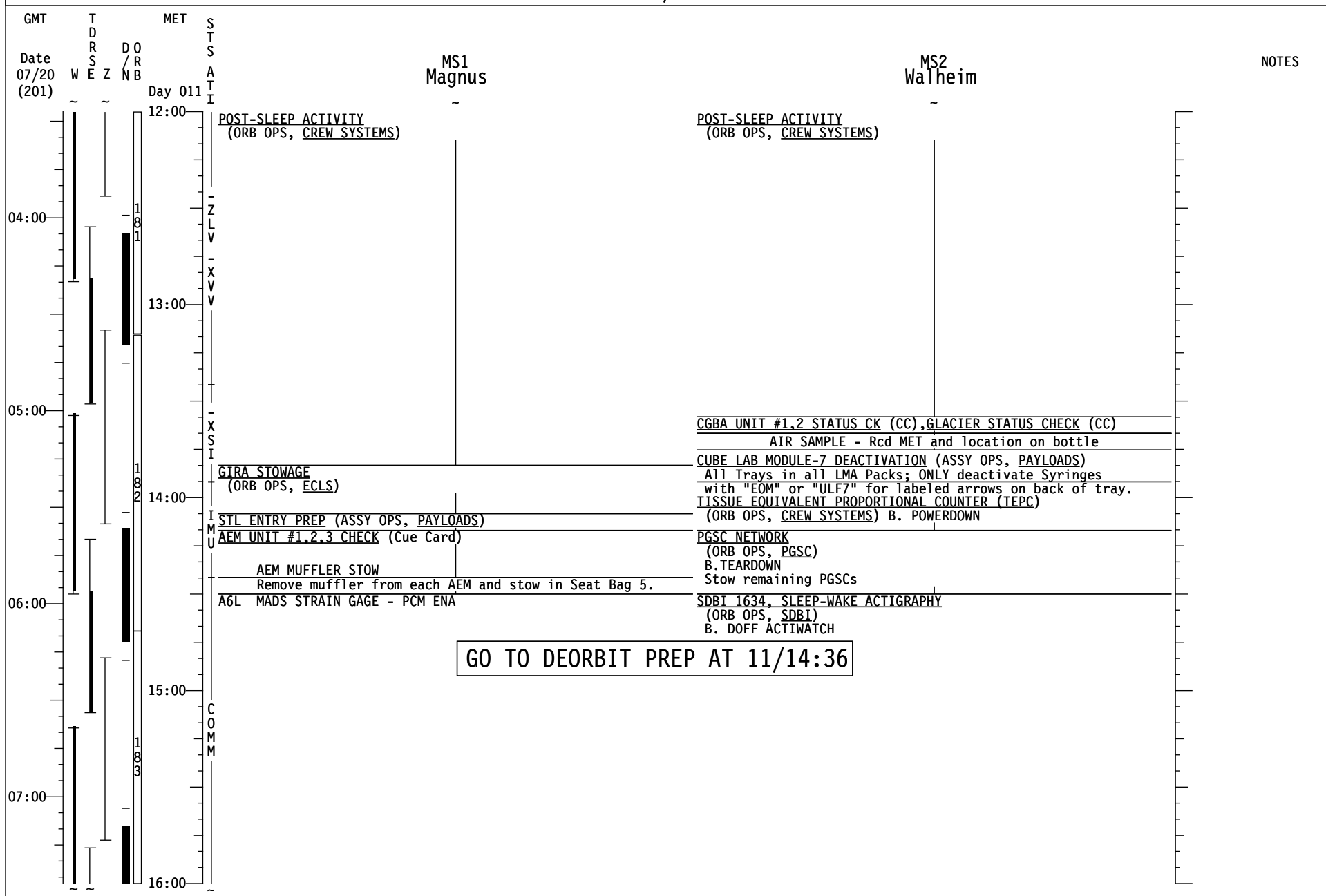
STS-135/ULF7 FD13



STS-135/ULF7 FD13



STS-135/ULF7 FD13



A	<u>IMU STAR ALIGN PAD</u>		
ID: -Y: 30 ANTARES MET (11/13:52 TO 11/14:42)			
ID: -Z: 16 ACHERNAR MET (11/14:07 TO 11/14:52)			
ANG DIFF: 88.9			
DUAL S TRKR <u>ALIGNMENT</u>		2nd ATTITUDE (SINGLE S TRKR) -Z: 30 -Y: 16	
R 20	R 282	114	
P 344	P 326	352	
Y 319	Y 324	325	
REQD ID:			
-Y: ____, -Z: ____, ANG ERR ____, ____, ____,			
ANG: 1 2 3			
ΔX () ____, ____, () ____, ____, () ____, ____,			
ΔY () ____, ____, () ____, ____, () ____, ____,			
ΔZ () ____, ____, () ____, ____, () ____, ____,			
EXECUTION TIME: __/__:__ MET			

B	<u>IMU VERIFICATION STAR ALIGN PAD</u>		
ID: -Y: 27 DENEK MET (11/14:18 TO 11/15:11)			
-Z: 54 DIPHDA MET (11/14:13 TO 11/15:03)			
ANG DIFF: 83.7			
DUAL S TRKR <u>ALIGNMENT</u>		2nd ATTITUDE (SINGLE S TRKR) -Z: 27 -Y: 54	
R 15	R 305	92	
P 283	P 262	293	
Y 44	Y 47	58	
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			



FLIGHT PLAN

STS
135