

Flight Plan

STS-118

OCFR2 Flight Cycle Trajectory
(Modified for 14 day Mission)

Mission Operations Directorate
Operations Division

Basic

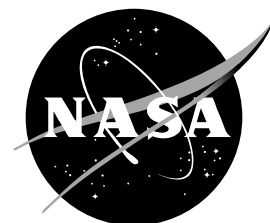
For the latest working copy of the Flight Plan, visit
<http://mod.jsc.nasa.gov/do4/flightplan/main/fp.cfm?id=118>

March 9, 2007

EVENT	FD	MET	LOCAL DATE	CDT	GMT
Launch	1	0/00:00	05/01/2007	10:27	121/15:27
OBSS Survey	2	0/18:00	05/02/2007	04:27	122/09:27
Ti	3	1/17:38	05/03/2007	04:05	123/09:05
ISS Docking	3	1/20:16	05/03/2007	06:43	123/11:43
EVA 1	4	2/18:30	05/04/2007	04:57	124/09:57
EVA 2	6	4/18:30	05/06/2007	04:57	126/09:57
ESP-3 Transfer	7	5/16:30	05/07/2007	02:57	127/07:57
EVA 3	8	6/18:30	05/08/2007	04:57	128/09:57
EVA 4	10	8/17:30	05/10/2007	03:57	130/08:57
Undock	12	10/18:46	05/12/2007	05:13	132/10:13
OBSS Survey	13	11/15:10	05/13/2007	01:37	133/06:37
Landing	15	13/18:49	05/15/2007	05:16	135/10:16

National Aeronautics and
Space Administration

Lyndon B. Johnson Space Center
Houston, Texas



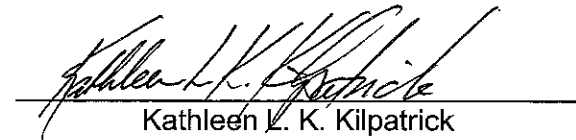
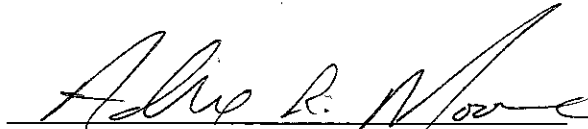
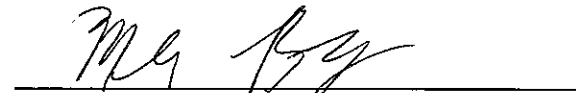
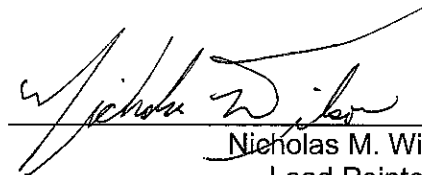
Verify this is the correct version for the pending operation (training, simulation or flight).
Electronic copies of FDF books are available. URL: <http://mod.jsc.nasa.gov/do3/FDF/index.html>

SMS FDF CHANGE NOTIFICATION		SIM PACK	DATE INITIATED 3/12/07	DATE RECEIVED (PMO) 3/13/07
BOOK TITLE STS-118 Flight Plan		BK ISSUE (Ed, Rev, PCN) Basic	SIM PACK NUMBER SIM-450	
Change is for flights (Also give SMS load if load dependent): STS-118/13A.1		SMS UNIQUE? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	DEVELOPMENTAL? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
FABRICATED ITEM CHANGE? <input checked="" type="checkbox"/> NONE <input type="checkbox"/> CUE CARDS <input type="checkbox"/> TRANSPARENCIES <input type="checkbox"/> Other _____				
INSTRUCTIONS TO USER: Replace the following pages in the STS-118/13A.1 Flight Plan Basic: 2-49 & 2-50 3-161 thru 3-166				
AUTHORITY FOR CHANGE* (Approved 482 numbers, approved issue at print shop, supervisors deem mandatory, etc.): Supervisors deem mandatory				
*Refer to Crew Procedures Management Plan				
OTHER AFFECTED FDF BOOKS None		Are all SIM PACKS submitted? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
IMPLEMENTATION REQUIREMENTS		<input type="checkbox"/> Limited Distribution (List in comments)	<input type="checkbox"/> NO EARLIER THAN _____ (Date and/or Sim ID)	
			<input checked="" type="checkbox"/> NO LATER THAN 3/19/07 Sim date (Date and/or Sim ID)	
BOOK MGR (Signature/Date) <i>Mike Schab</i> 3-12-07	SUPERVISOR (If required, Signature/Date) <i>Chris M. Ford</i> 3-13-07	FDF COORD or FDF MGR (Signature/Date) <i>[Signature]</i> 3/13/07		
COMMENTS: For Generic Deorbit Prep sims using STS-118/13A.1 load.				

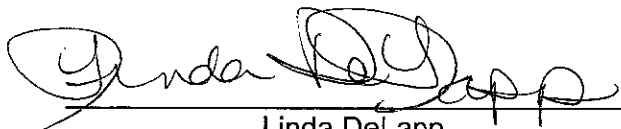
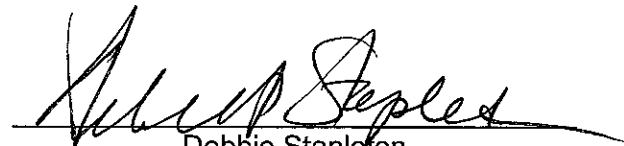
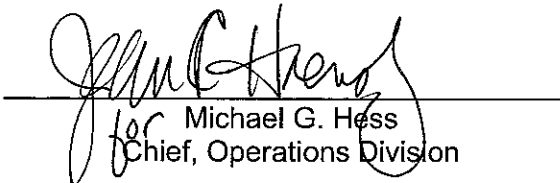
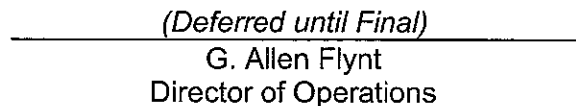
MISSION OPERATIONS DIRECTORATE

FLIGHT PLAN
STS-118BASIC
March 9, 2007

PREPARED BY:

Michael Scheib
Book Manager, Lead FAOKathleen L. K. Kilpatrick
Lead TimelinerAlexander Moore
Lead Ops PlannerMelissa Bestick
Lead RPENicholas M. Wilson
Lead Pointer

APPROVED BY:

Linda DeLapp
Lead, Flight Planning GroupDebbie Stapleton
Chief, Flight Planning BranchMichael G. Hess
Chief, Operations Division
(Deferred until Final)G. Allen Flynt
Director of Operations

This document is under the configuration control of the Crew Procedures Control Board (CPCB). Except for Discrepancy Notices (DN) approved at the flight operations review (FOR), all proposed changes must be submitted via FDF Workflow Crew Procedure Change Request (CR) to DO3/FDF Manager.

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

Incorporates the following:
482#: FLT PLN-2041

AREAS OF TECHNICAL RESPONSIBILITY

Book Manager/Lead FAO	DO4/M. Scheib	281-244-1149
Lead Timeliner	DO4/K. Kilpatrick	281-244-5797
Lead Pointer	DO4/N. Wilson	281-244-0954
Lead Ops Planner	DO4/A. Moore	281-244-0261
Lead RPE	DO4/M. Bestick	281-244-1114

FLIGHT PLAN
STS-118

LIST OF EFFECTIVE PAGES

BASIC 03/09/07

Sign Off	*	118/BAS	2-39	118/BAS
ii.....	*	118/BAS	2-40	118/BAS
iii.....	*	118/BAS	2-41	118/BAS
iv.....	*	118/BAS	2-42	118/BAS
v	*	118/BAS	2-43	118/BAS
vi.....	*	118/BAS	2-44	118/BAS
vii.....	*	118/BAS	2-45	118/BAS
viii.....	*	118/BAS	2-46	118/BAS
1-1		118/BAS	2-47	118/BAS
1-2		118/BAS	2-48	118/BAS
1-3		118/BAS	2-49	118/BAS
1-4		118/BAS	2-50	118/BAS
2-1		118/BAS	3-1	118/BAS
2-2		118/BAS	3-2	118/BAS
2-3		118/BAS	3-3	118/BAS
2-4		118/BAS	3-4	118/BAS
2-5		118/BAS	3-5	118/BAS
2-6		118/BAS	3-6	118/BAS
2-7		118/BAS	3-7	118/BAS
2-8		118/BAS	3-8	118/BAS
2-9		118/BAS	3-9	118/BAS
2-10		118/BAS	3-10	118/BAS
2-11		118/BAS	3-11	118/BAS
2-12		118/BAS	3-12	118/BAS
2-13		118/BAS	3-13	118/BAS
2-14		118/BAS	3-14	118/BAS
2-15		118/BAS	3-15	118/BAS
2-16		118/BAS	3-16	118/BAS
2-17		118/BAS	3-17	118/BAS
2-18		118/BAS	3-18	118/BAS
2-19		118/BAS	3-19	118/BAS
2-20		118/BAS	3-20	118/BAS
2-21		118/BAS	3-21	118/BAS
2-22		118/BAS	3-22	118/BAS
2-23		118/BAS	3-23	118/BAS
2-24		118/BAS	3-24	118/BAS
2-25		118/BAS	3-25	118/BAS
2-26		118/BAS	3-26	118/BAS
2-27		118/BAS	3-27	118/BAS
2-28		118/BAS	3-28	118/BAS
2-29		118/BAS	3-29	118/BAS
2-30		118/BAS	3-30	118/BAS
2-31		118/BAS	3-31	118/BAS
2-32		118/BAS	3-32	118/BAS
2-33		118/BAS	3-33	118/BAS
2-34		118/BAS	3-34	118/BAS
2-35		118/BAS	3-35	118/BAS
2-36		118/BAS	3-36	118/BAS
2-37		118/BAS	3-37	118/BAS
2-38		118/BAS	3-38	118/BAS

* – Omit from flight book

3-39	118/BAS	3-96	118/BAS
3-40	118/BAS	3-97	118/BAS
3-41	118/BAS	3-98	118/BAS
3-42	118/BAS	3-99	118/BAS
3-43	118/BAS	3-100	118/BAS
3-44	118/BAS	3-101	118/BAS
3-45	118/BAS	3-102	118/BAS
3-46	118/BAS	3-103	118/BAS
3-47	118/BAS	3-104	118/BAS
3-48	118/BAS	3-105	118/BAS
3-49	118/BAS	3-106	118/BAS
3-50	118/BAS	3-107	118/BAS
3-51	118/BAS	3-108	118/BAS
3-52	118/BAS	3-109	118/BAS
3-53	118/BAS	3-110	118/BAS
3-54	118/BAS	3-111	118/BAS
3-55	118/BAS	3-112	118/BAS
3-56	118/BAS	3-113	118/BAS
3-57	118/BAS	3-114	118/BAS
3-58	118/BAS	3-115	118/BAS
3-59	118/BAS	3-116	118/BAS
3-60	118/BAS	3-117	118/BAS
3-61	118/BAS	3-118	118/BAS
3-62	118/BAS	3-119	118/BAS
3-63	118/BAS	3-120	118/BAS
3-64	118/BAS	3-121	118/BAS
3-65	118/BAS	3-122	118/BAS
3-66	118/BAS	3-123	118/BAS
3-67	118/BAS	3-124	118/BAS
3-68	118/BAS	3-125	118/BAS
3-69	118/BAS	3-126	118/BAS
3-70	118/BAS	3-127	118/BAS
3-71	118/BAS	3-128	118/BAS
3-72	118/BAS	3-129	118/BAS
3-73	118/BAS	3-130	118/BAS
3-74	118/BAS	3-131	118/BAS
3-75	118/BAS	3-132	118/BAS
3-76	118/BAS	3-133	118/BAS
3-77	118/BAS	3-134	118/BAS
3-78	118/BAS	3-135	118/BAS
3-79	118/BAS	3-136	118/BAS
3-80	118/BAS	3-137	118/BAS
3-81	118/BAS	3-138	118/BAS
3-82	118/BAS	3-139	118/BAS
3-83	118/BAS	3-140	118/BAS
3-84	118/BAS	3-141	118/BAS
3-85	118/BAS	3-142	118/BAS
3-86	118/BAS	3-143	118/BAS
3-87	118/BAS	3-144	118/BAS
3-88	118/BAS	3-145	118/BAS
3-89	118/BAS	3-146	118/BAS
3-90	118/BAS	3-147	118/BAS
3-91	118/BAS	3-148	118/BAS
3-92	118/BAS	3-149	118/BAS
3-93	118/BAS	3-150	118/BAS
3-94	118/BAS	3-151	118/BAS
3-95	118/BAS	3-152	118/BAS

3-153.....	118/BAS
3-154.....	118/BAS
3-155.....	118/BAS
3-156.....	118/BAS
3-157.....	118/BAS
3-158.....	118/BAS
3-159.....	118/BAS
3-160.....	118/BAS
3-161.....	118/BAS
3-162.....	118/BAS
3-163.....	118/BAS
3-164.....	118/BAS
3-165.....	118/BAS
3-166.....	118/BAS
4-i.....*	118/BAS
4-ii.....*	118/BAS
4-1.....*	118/BAS
4-2.....*	118/BAS
4-3.....*	118/BAS
4-4.....*	118/BAS
4-5.....*	118/BAS
4-6.....*	118/BAS
4-7.....*	118/BAS
4-8.....*	118/BAS
4-9.....*	118/BAS
4-10.....*	118/BAS
5-1.....*	118/BAS
5-2.....*	118/BAS
5-3.....*	118/BAS
5-4.....*	118/BAS
5-5.....*	118/BAS
5-6.....*	118/BAS
6-1.....*	118/BAS
6-2.....*	118/BAS
6-3.....*	118/BAS
6-4.....*	118/BAS
6-5.....*	118/BAS
6-6.....*	118/BAS

* – Omit from flight book

This Page Intentionally Blank

CONTENTS

PAGE

INTRODUCTION vi

OVERVIEW TIMELINE 1-1

SUMMARY TIMELINE AND ISS SHORT TERM PLAN 2-1

DETAILED TIMELINE 3-1

ATTITUDE TIMELINE 4-1

FLIGHT PLAN NOTES 5-1

STS-118 KU BAND ANTENNA MASKING PLAN..... 6-1

INTRODUCTION

The STS-118 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-17462-118, STS-118 Flight Requirements Document
- NSTS-37326, Shuttle Crew Scheduling Constraints
- NSTS-21506, ISS 13A.1 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-118 Flight Plan is based on a launch date of May 1, 2007 at 10:27 CDT. 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 other related mission information are available on the following Space Shuttle Flight Planning web site:

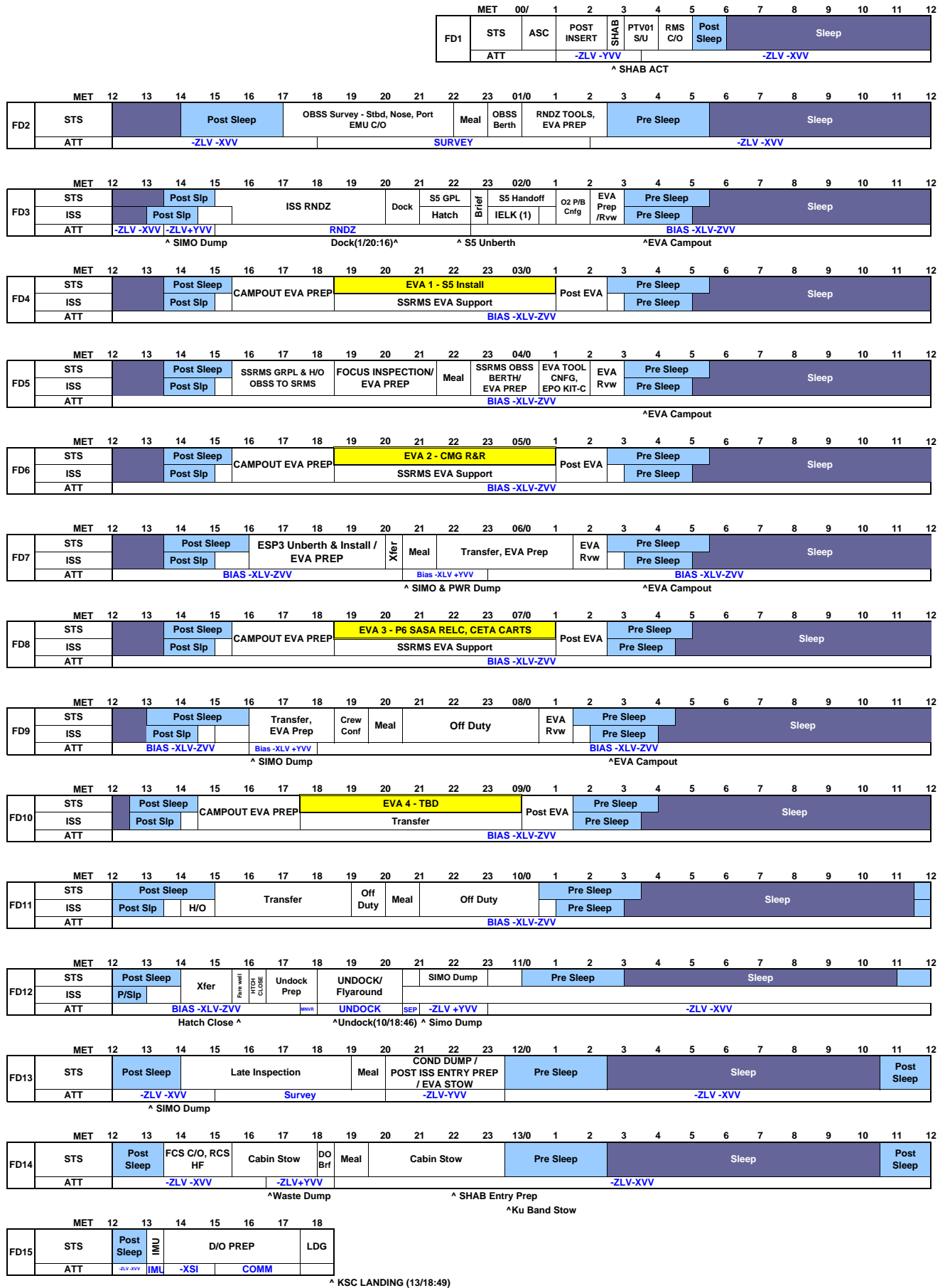
<http://mod.jsc.nasa.gov/do4/flightplan/main/fp.cfm?id=118>

OVERVIEW TIMELINE

This Page Intentionally Blank

STS-118/13A.1 Overview Timeline (14+0+2)

GMT L/O 121/15:27

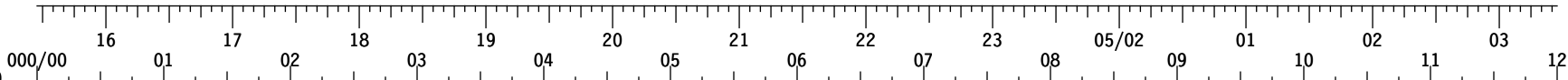


This Page Intentionally Blank

SUMMARY TIMELINE AND ISS SHORT TERM PLAN

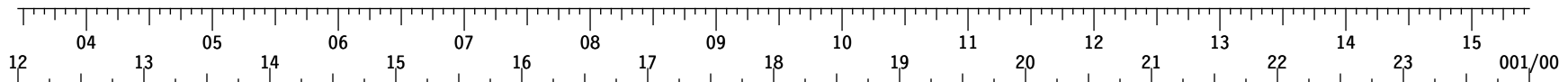
This Page Intentionally Blank

GMT 05/01/07 (121)
 β = -25.31
 MET Day 000



STS-118	FD01	CDR KELLY	ASCENT	POST INSERTION	TEPCON IMCO AFTEV PK	NC1 OMS BURN	GZ -ZLV -XV -VCT	LOAD DAPS	PRE SLEEP	PMCS A/G	WATCH	SLEEP	
		PLT HOBAUGH	ASCENT	POST INSERTION	GRWR PRBN	OMS BURN	GIRA INSTALL		PSRL EEP	PRE SLEEP	WATCH	SLEEP	
		MS1 CALDWELL	ASCENT	POST INSERTION	PGSC SETUP (PART I)	TID SAG ERY	RMW SUP	RMS C/O	RMS #	PRE SLEEP	WATCH	SLEEP	
		MS2 MASTRACCHIO	ASCENT	POST INSERTION	RMS *	PRE SLEEP	RMW SUP	RMS C/O	RMS #	ET PHO TO	EVD /DL EEO	WATCH	SLEEP
		MS3 D. WILLIAMS	ASCENT	POST INSERTION	PGSC SETUP (PART I)		SHAB ACT		WLES S/U	PRE SLEEP	WATCH	SLEEP	
		MS4 MORGAN	ASCENT	POST INSERTION	P/TV01 VIDEO SETUP		SHAB ACT		SSE TUP	PRE SLEEP - SHAB		SLEEP	
		MS5 ANDERSON	ASCENT	POST INSERTION	SEE SETUP	OS CE AT CUP		PRE SLEEP				SLEEP	
STS	DAY/NIGHT	[Day/Night Cycle Bar]											
	ORBIT	[Orbit Cycle Bar]											
	TDRS	W -171	[TDRS Cycle Bar]										
		E -46	[TDRS Cycle Bar]										
		Z -275	[TDRS Cycle Bar]										
	ORB ATT	ASCENT	-ZLV -YVV	NC1					-ZLV -XVV		MNVR	-ZLV -XVV	
NOTES		*INIT #PRECRADLE *RECONFIG *ON-ORBIT INIT *ESP3 HTR ACT											

GMT 05/02/07 (122)
 β = -26.81
 MET Day 000

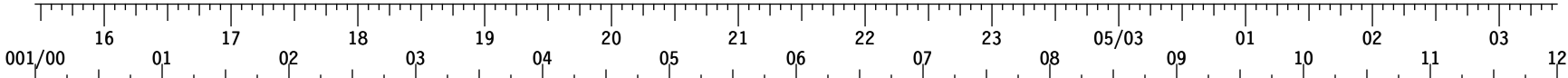


STS - 1 1 8	FD02	SLEEP		POST SLEEP	POST SLEEP	OMS BURN	-ZXLVV	MSNTVRD	XFER PREP	NOSE CAP SURVEY	CRYO 02 SNSR CK	MORB*	FC*	CABIT	-ZXLVV	MEAL	EXER CISE
	PLT/R3 HOBAUGH	SLEEP		POST SLEEP	OMS BURN	CMCLIAN	H2O CWC S/U	OBSS STBD SURVEY	MNOVSRE	MPOVRT	FILTER CLEANING	MEAL	02 RPRS	OMS POD SURV			
	MS1/R1/R2 CALDWELL	SLEEP		POST SLEEP	PGSC SETUP (PART II)	OBSS UNBERTH	OBSS STBD SURVEY	NOSE CAP SURVEY	ERG SETUP	EXERCISE	MEAL	OBSS BERTH	CC/ALMR				
	MS2/R2/R3 MASTRACCHIO	SLEEP		POST SLEEP	OBSS UNBERTH	OBSS STBD SURVEY	OBSS PORT SURVEY	MEAL	H2O C/F	EMU DRINK BAG FILL							
	MS3/R3 D. WILLIAMS	SLEEP		POST SLEEP	PGSC SETUP (PART II)	EMU C/O PREP	EMU C/O	OBSS PORT SURVEY	MEAL	CC/ALMR							
	MS4/R1/R2 MORGAN	SLEEP		POST SLEEP - SHAB	P/TV01 VIDEO SETUP	XFER PREP	NOSE CAP SURVEY	OBSS PORT SURVEY	MEAL	OBSS BERTH	CBTML*	CDATTIMLY					
	MS5 ANDERSON	SLEEP		POST SLEEP	P/TV01 VIDEO SETUP	EMU C/O PREP	EMU C/O	ERG SETUP	XFER PREP	MEAL	EMU DRINK BAG FILL						
DAY/NIGHT ORBIT	9		10	11	12	13	14	15	16	17							
TDRS W	E -46		Z -275														
ORB ATT	-ZLV -XVV		NC2	-ZLV	STBD SURVEY	NOSE	PORT SURVEY	-ZLV -XVV									
NOTES					*INTERCONNECT *B HTR RCFG *OFF					*MANUAL PURGE *CNTLR SWAP	*PHOTO						

GMT 05/02/07 (122)

β = -28.20

MET Day 001



S T S - 1 1 8	FD02	CDR/R3 KELLY	EX IS RE	MC NO VM	LDRI DNLK	PA O*	PRE SLEEP	NC3A RCS BURN	IC Z N L V V	PR E T S L V R	PRE SLEEP	PMC OCA	PRE SLEEP	SLEEP
		PLT/R3 HOBAUGH	FCMS OPS	AP CU	RNDZ TOOLS C/O	CR ML AN		RCS BURN			PRE SLEEP			SLEEP
		MS1/R1/R2 CALDWELL	CC /A LM R		RNDZ TOOLS C/O		EVA TOOL XFER PREP				PRE SLEEP			SLEEP
		MS2/R2/R3 MASTRACCHIO	H 2 O C F I G		EMU XFER PREP		EVA TOOL XFER PREP		EXERCISE		PRE SLEEP			SLEEP
		MS3/R3 D. WILLIAMS	CC /A LM R	ODS RING EXT	HHL C/O		EXERCISE				PRE SLEEP			SLEEP
		MS4/R1/R2 MORGAN		ODS RING EXT	XFER PREP	PA O S /	PA O S /	EXERCISE			PRE SLEEP - SHAB			SLEEP
		MS5 ANDERSON			EMU XFER PREP						PRE SLEEP			SLEEP
S T S	DAY/NIGHT	[Timeline bar with alternating black and white segments]												
	ORBIT	[Timeline bar with alternating black and white segments]												
	TDRS	E -46	[Timeline bar with alternating black and white segments]											
	Z -275	[Timeline bar with alternating black and white segments]												
	ORB ATT	[Timeline bar with alternating black and white segments]												
	NOTES	*EMU DRINK BAG FILL *Crew Choice ØEMU DRINK BAG FILL *ON												

Reference OSTP for S-band Activities

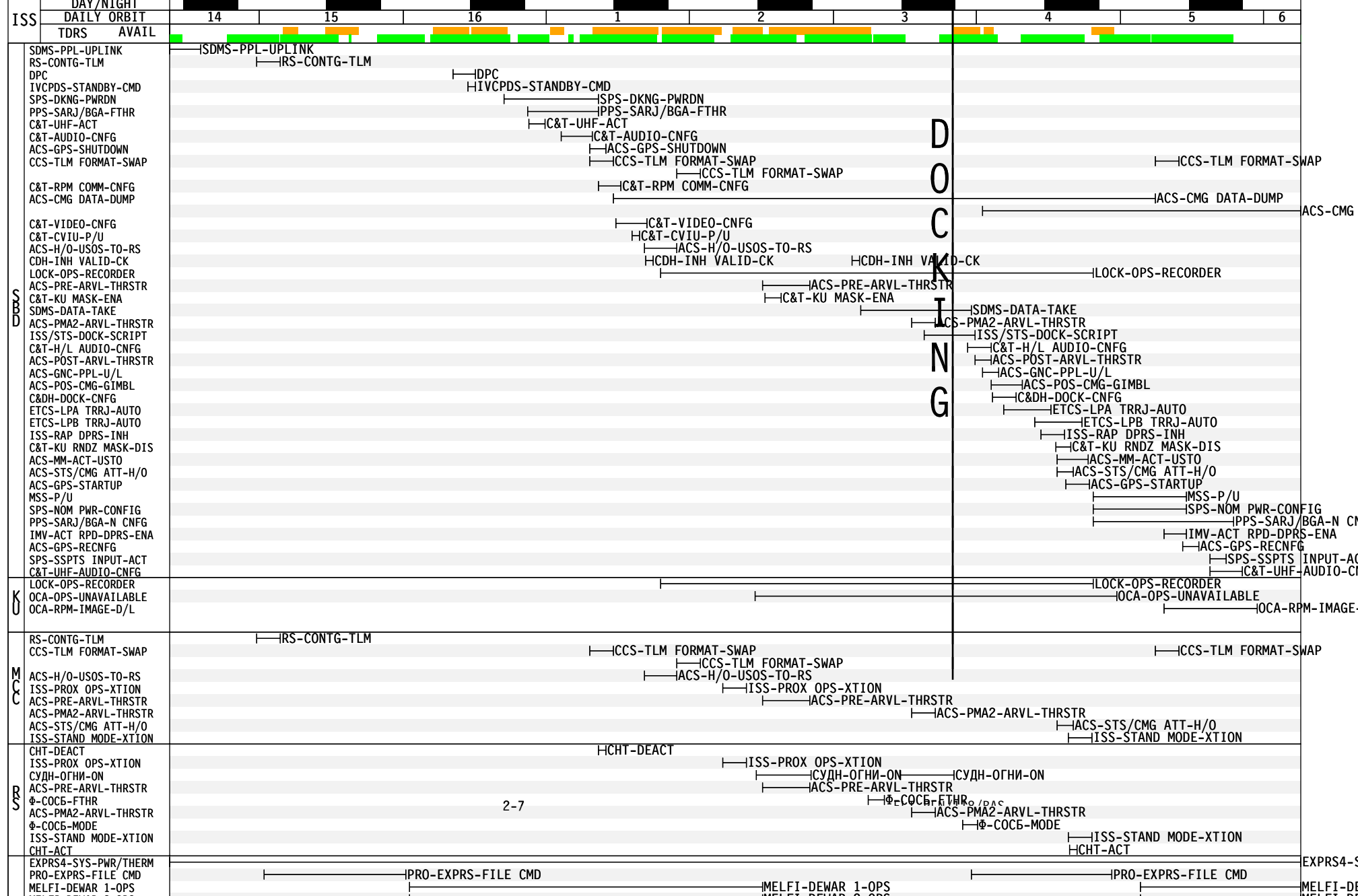
CT 05/02/07 (122) 23 05/03 01 02 03 04 05 06 07 08 09 10

$\beta = -29.48$

MET Day 001 12 13 14 15 16 17 18 19 20 21 22 23 002/00

FD03

GMT 05/03/07 (123) 04 05 06 07 08 09 10 11 12 13 14 15

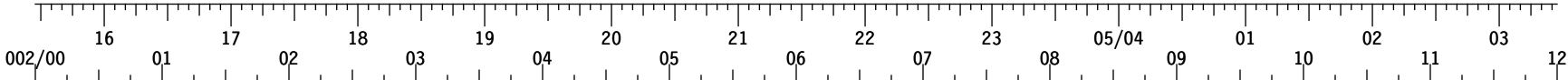


NO EXERCISE
 DURING S5
 HANDOFF OPS

GMT 05/03/07 (123)

β = -30.61

MET Day 002



S T S - 1 1 8	FD03	CDR KELLY	MERLIN SPEGIS S/U	O2 P/B CONFIG	EVA PROC RVW	PRE SLEEP	PMC OCA	PRE SLEEP	SLEEP		
		PLT/M1 HOBAUGH		EXERCISE	PSLR EEP	EVA PROC RVW		PRE SLEEP	SLEEP		
		MS1/R1 CALDWELL	XFER	PLYSBK	PMDIS DATA*	EVA PROC RVW	EVA1 TOOL CNFG	PRE SLEEP	SLEEP		
		MS2/R2/EV1 MASTRACCHIO	E-LK@	RC E/B	EVA TOOL XFR	PRE SLEEP	EVA PROC RVW	EVA1 TOOL CNFG	CAMPOUT MASK P/B	PRE SLEEP	SLEEP - 10.2 PSI
		MS3/EV2 D. WILLIAMS	E-LK@	RC E/B	EVA TOOL XFR	PRE SLEEP	EVA PROC RVW	EVA1 TOOL CNFG	CAMPOUT MASK P/B	PRE SLEEP	SLEEP - 10.2 PSI
		MS4/R2 MORGAN		XFER		XTF AGRUP	EVA PROC RVW	XBF R ERF	PRE SLEEP - SHAB	SLEEP	
U P	MS5/FE-2 ANDERSON	IELK INST & C/O	DOWN*	CCS I A 4	PWR ERK	XTF AGRUP	EVA PROC RVW	PMC	PRE SLEEP	SLEEP (8.5)	
E X P 1 5	ISS CDR YURCHIKHIN	IELK INST & C/O	PREP	EVA DCS CNFG	DPC	EVA PROC RVW	PWR ERK	PRE SLEEP	SLEEP (8.5)		
	FE-1 KOTOV	EXERCISE TVIS			DPC	EVA PROC RVW	PREP	PRE SLEEP	SLEEP (8.5)		
D N	FE-2/M2 S. WILLIAMS	E-LK@	CHECS	PWR ERK	O2 P/B CONFIG	EVA PROC RVW	PWR ERK	PRE SLEEP	SLEEP (8.5)		
S T S	DAY/NIGHT ORBIT	33 34 35 36 37 38 39 40 41									
	TDRS	W -171	[Timeline bars]								
		E -46	[Timeline bars]								
	Z -275	[Timeline bars]									
	ORB ATT SSRMS	BIAS -XLV -ZVV WS1 PDGF1									
	NOTES	*S5 UNGPL *PMDIS @S5 UNGPL *SLEEP WATCH @PREP									

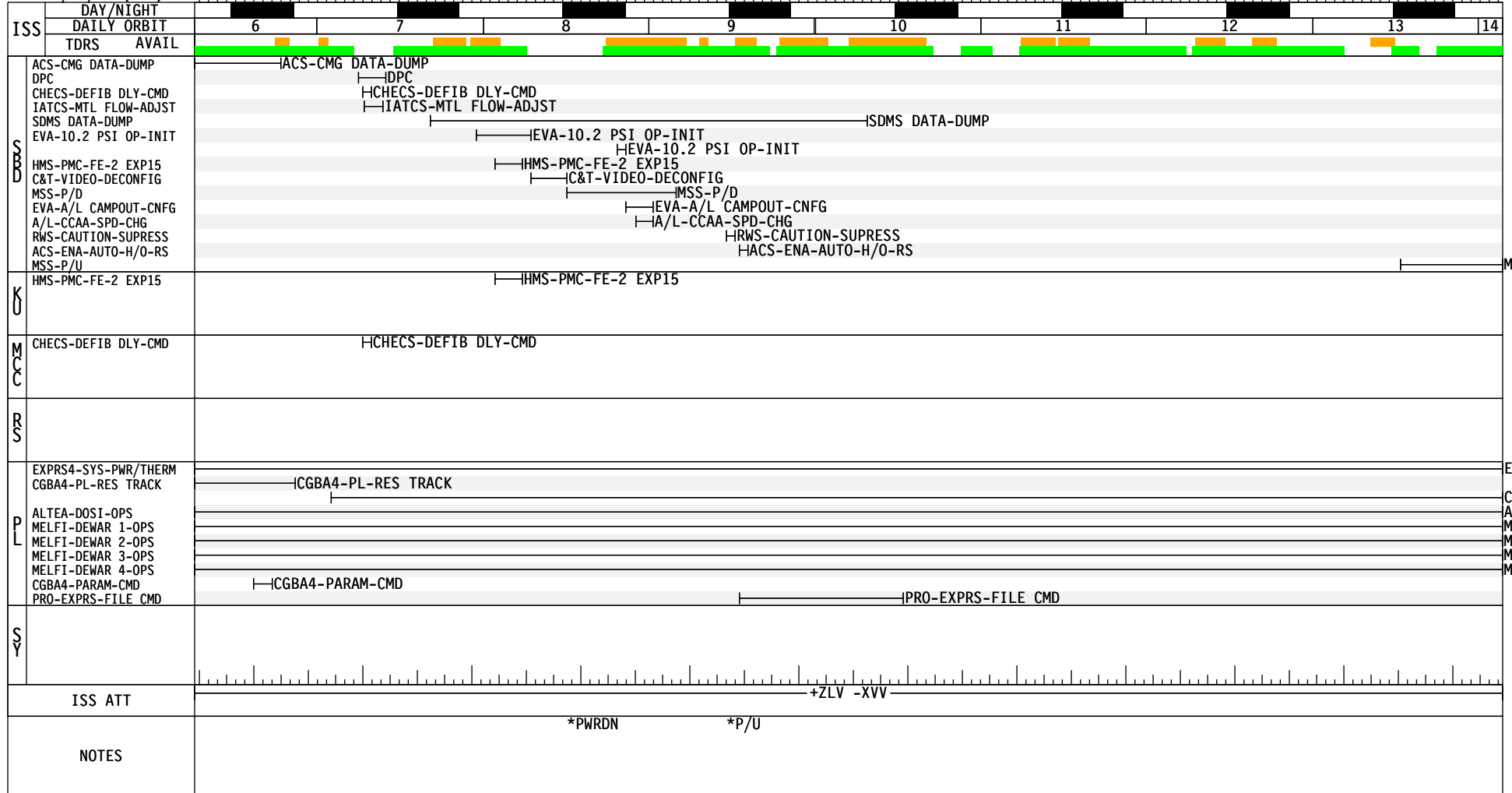
Reference OSTP for S-band Activities

CT 05/03/07 (123)
 $\beta = -30.61$

MET Day 002 002/00

FD03

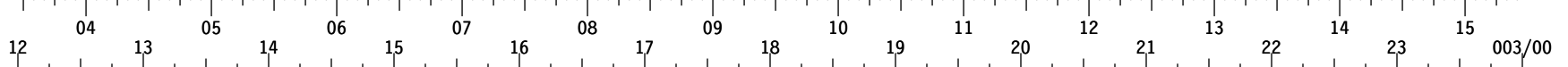
GMT 05/03/07 (123)



NO EXERCISE DURING
SSRMS LOCK RMVL OPS

NO EXERCISE
During PVR
RETRACT

GMT 05/04/07 (124)
β = -31.62
MET Day 002

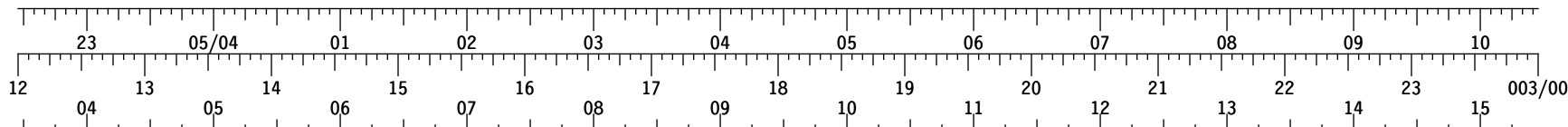


S T S - 1 1 8	FD04 CDR/SUIT IV KELLY	SLEEP	POST SLEEP	PMCS/G	POST SLEEP	HYG BRK/HATCH CLS	CAMP OUT EVA PREP	EMURGE	EMU PBRTHE	C/L DPRS	P/TV07 EVA OPS	MEAL	P/TV07 EVA OPS	EXERCISE	P/TV07 EVA OPS				
	PLT/M1 HOBAUGH	SLEEP	POST SLEEP					RCINAP	EMURGE	EMU PBRTHE	PRE-INSTL	SSRMS LOCK RMVL OPS	SSRMS S5 INSTALL	UNGRP	SSRMS PVRGF VIEW				
	MS1/IV CALDWELL	SLEEP	POST SLEEP							EXERCISE	EVA PREP	IV SUPPORT EVA 1 (6:30)							
	MS2/EV1 MASTRACCHIO	SLEEP - 10.2 PSI	POST SLEEP	HYGN BREAK/PREBRTHE				CAMP OUT EVA PREP	EMURGE	EMU PBRTHE	C/L DPRS	EGRSS	EVA SETUP	S5-S4 LAUNCH LK RMVL	S5 INSTALL	PVRGF RELOC TO KEEL	GHEATED	S5 CLNUP	PVR RTCT
	MS3/EV2 D. WILLIAMS	SLEEP - 10.2 PSI	POST SLEEP	HYGN BREAK/PREBRTHE	14.7 RPRS	10.2 DPRS		CAMP OUT EVA PREP	EMURGE	EMU PBRTHE	C/L DPRS	EGRSS	EVA SETUP	S5-S4 LAUNCH LK RMVL	S5 INSTALL	PVRGF RELOC TO KEEL	GHEATED	S5 CLNUP	PVR RTCT
	MS4/R1 MORGAN	SLEEP	POST SLEEP - SHAB				XUFRDAT	POST SLEEP		XFER	P/TV07 S/U	CINWCT	SHAB CC SETUP		MEAL	CTCWEWNCRCIT	CTCDBA CRTIMMLY	SRMS MNVR PVR	
D N	FE-2/M3 S. WILLIAMS	SLEEP (8.5)	POST SLEEP	HYG BRK/HATCH CLS			CAMP OUT EVA PREP	EMURGE	EMU PBRTHE	PRE-INSTL	SSRMS LOCK RMVL OPS	SSRMS S5 INSTALL	UNGRP	EXERCISE TVIS	PDBCACT	SSRMS WS4 CNFG XLAT			
E X P 1 5	ISS CDR YURCHIKHIN	SLEEP (8.5)	POST SLEEP	PREP WORK	DPC	SLKCKOKL			EXERCISE TVIS			MIDDAY-MEAL	IMS EDIT		H/O				
	FE-1 KOTOV	SLEEP (8.5)	POST SLEEP	PREP WORK	DPC	SLKCKOKL	SDORKYL		XFER	EXERCISE VELO	GLMOVE	MIDDAY-MEAL	SCOLK SOL	COX MNT					
U P	FE-2/M2 ANDERSON	SLEEP (8.5)	POST SLEEP	HYG BRK/HATCH CLS			CAMP OUT EVA PREP	EMURGE	EMU PBRTHE	PRE-INSTL	SSRMS LOCK RMVL OPS	SSRMS S5 INSTALL	UNGRP	SSRMS PVRGF VIEW	H/O	SSRMS WS4 CNFG XLAT			
S T S	DAY/NIGHT ORBIT	41		42		43		44		45		46		47		48			
	TDRS	W -171	E -46	Z -275															
	ORB ATT SSRMS	BIAS -XLV -ZVV WS1 PDGFI																	
NOTES	*OFF *BATT CHRG																		

Reference OSTP for S-band Activities

CT 05/03/07 (123)
 $\beta = -31.62$

MET Day 002
FD04
 GMT 05/04/07 (124)



ISS	DAY/NIGHT	DAILY ORBIT	TDRS	AVAIL	
		14	15	1	2
S B D	MSS-P/U	MSS-P/U			
	C&T-VIDEO-CNFG	C&T-VIDEO-CNFG			
	EVA-HYGIENE-BREAK	EVA-HYGIENE-BREAK			
	ACS-INH-AUTO-H/O-RS	ACS-INH-AUTO-H/O-RS			
	CCS-TLM FORMAT-SWAP	CCS-TLM FORMAT-SWAP			
	C&T-UHF-ACT	C&T-UHF-ACT			
	C&T-AUDIO-CNFG	C&T-AUDIO-CNFG			
	RWS-CAUTION-REENABLE	RWS-CAUTION-REENABLE			
	VDS-VTR-ACT	VDS-VTR-ACT			
	A/L RAPID DPRS-ENA	A/L RAPID DPRS-ENA			
	DPC	DPC			
	A/L-CCAA-SPD-CHG	A/L-CCAA-SPD-CHG			
	ISS-RAP DPRS-INH	ISS-RAP DPRS-INH			
	PPS-PCU WARNING-ENA	PPS-PCU WARNING-ENA			
	EVA1 INHIBIT PAD	EVA1 INHIBIT PAD			
	SPS-PWRDOWN	SPS-PWRDOWN			
	VDS-WETA-ACT	VDS-WETA-ACT			
	ISS-RAP DPRS-ENA	ISS-RAP DPRS-ENA			
	PPS-SARJ/BGA-LOCK	PPS-SARJ/BGA-LOCK			
	ETCS-TRRJ-LOCK	ETCS-TRRJ-LOCK			
VDS-WETA-CONFIG	VDS-WETA-CONFIG				
A/L-10.2 PSI OP-TERM	A/L-10.2 PSI OP-TERM				
PPS-P6PVR RTRCT-PREP	PPS-P6PVR RTRCT-PREP				
ACS-GNC-PPL-U/D	ACS-GNC-PPL-U/D				
PPS-P6 PVR-RETRACT	PPS-P6 PVR-RETRACT				
K U					
	CCS-TLM FORMAT-SWAP	CCS-TLM FORMAT-SWAP			
	EVA1 INHIBIT PAD	EVA1 INHIBIT PAD			
	SPS-PWRDOWN	SPS-PWRDOWN			
M C C					
	NO EXERCISE	NO EXERCISE			
R S					
	EXPRS4-SYS-PWR/THERM	EXPRS4-SYS-PWR/THERM			
	ALTEA-DOSI-OPS	ALTEA-DOSI-OPS			
	MELFI-DEWAR 1-OPS	MELFI-DEWAR 1-OPS			
	MELFI-DEWAR 2-OPS	MELFI-DEWAR 2-OPS			
	MELFI-DEWAR 3-OPS	MELFI-DEWAR 3-OPS			
	MELFI-DEWAR 4-OPS	MELFI-DEWAR 4-OPS			
P L	CGBA4-PL-RES TRACK	CGBA4-PL-RES TRACK			
	PRO-EXPRS-FILE CMD	PRO-EXPRS-FILE CMD			
S Y					
ISS ATT		+ZLV -XVV			FREE DRIFT
NOTES		*P/U 2-11			FLT PLN/118/BAS

003/00
 12 13 14 15 16 17 18 19 20 21 22 23 14 15
 04 05 06 07 08 09 10 11 12 13 14 15
 14 15 1 2 3 4 5 6
 MSS-P/U
 C&T-VIDEO-CNFG
 EVA-HYGIENE-BREAK
 ACS-INH-AUTO-H/O-RS
 CCS-TLM FORMAT-SWAP
 C&T-UHF-ACT
 C&T-AUDIO-CNFG
 RWS-CAUTION-REENABLE
 VDS-VTR-ACT
 A/L RAPID DPRS-ENA
 DPC
 A/L-CCAA-SPD-CHG
 ISS-RAP DPRS-INH
 PPS-PCU WARNING-ENA
 EVA1 INHIBIT PAD
 SPS-PWRDOWN
 VDS-WETA-ACT
 ISS-RAP DPRS-ENA
 PPS-SARJ/BGA-LOCK
 ETCS-TRRJ-LOCK
 VDS-WETA-CONFIG
 A/L-10.2 PSI OP-TERM
 PPS-P6PVR RTRCT-PREP
 ACS-GNC-PPL-U/D
 PPS-P6 PVR-RETRACT
 ISS-RAP DPRS-INH
 PPS-PCU WARNING-ENA
 EVA1 INHIBIT PAD
 SPS-PWRDOWN
 VDS-WETA-ACT
 ISS-RAP DPRS-ENA
 PPS-SARJ/BGA-LOCK
 ETCS-TRRJ-LOCK
 VDS-WETA-CONFIG
 A/L-10.2 PSI OP-TERM
 PPS-P6PVR RTRCT-PREP
 ACS-GNC-PPL-U/D
 PPS-P6 PVR-RETRACT
 NO EXERCISE
 EXPRS4-SYS-PWR/THERM
 ALTEA-DOSI-OPS
 MELFI-DEWAR 1-OPS
 MELFI-DEWAR 2-OPS
 MELFI-DEWAR 3-OPS
 MELFI-DEWAR 4-OPS
 CGBA4-PL-RES TRACK
 PRO-EXPRS-FILE CMD
 FREE DRIFT
 FLT PLN/118/BAS

NO EXERCISE
 During PVR
 RETRACT

GMT 05/04/07 (124)

β = -32.50

MET Day 003

003/00 16 01 17 02 18 03 19 04 20 05 21 06 22 07 23 08 05/05 09 01 10 02 11 03 12

S T S - 1 1 8	FD04 CDR/SUIT IV KELLY	P/TV07 EVA OPS	CR P/L R/S	POST EVA W/O H2O	PS RLE EPE PMC OCA	PRE SLEEP	SLEEP
	PLT HOBAUGH			EXERCISE	OP PC U*	PRE SLEEP	SLEEP
	MS1/IV CALDWELL	IV SUPPORT -EVA 1-				PRE SLEEP	SLEEP
	MS2/EV1 MASTRACCHIO	PVR RTCT	CUCIP LPLN EAGR ANR/S	POST EVA W/H2O		PRE SLEEP	SLEEP
	MS3/EV2 D. WILLIAMS	PVR RTCT	CUCIP LPLN EAGR ANR/S	POST EVA W/H2O		PRE SLEEP	SLEEP
	MS4/R1 MORGAN		RMS #	CWC XFER (2)	EXERCISE	XT FA FR EGR RURE P	PRE SLEEP - SHAB
D N	FE-2/M2 S. WILLIAMS		EXERCISE TVIS	POST EVA W/H2O	BSA INIT DPC	PRE SLEEP	SLEEP (8.5)
E X P 1 5	ISS CDR YURCHIKHIN		EXERCISE VELO	PREP WORK	XT FA FR EGR RURE P	PRE SLEEP	SLEEP (8.5)
	FE-1 KOTOV		PREP WORK	EXERCISE TVIS	EP WRO DER LPK	PRE SLEEP	SLEEP (8.5)
U P	FE-2/M1 ANDERSON		PREP WORK	POST EVA W/H2O	BSA INIT DPC PMC	PRE SLEEP	SLEEP (8.5)
S T S	DAY/NIGHT ORBIT						
	TDRS W -171 E -46 Z -275						
	ORB ATT SSRMS						
NOTES	#PRECRADLE *C/O AND ON WS1 PDGF1 MT XLATE TO WS4 BIAS -XLV -ZVV WS4 PDGF1						

Reference OSTP for S-band Activites

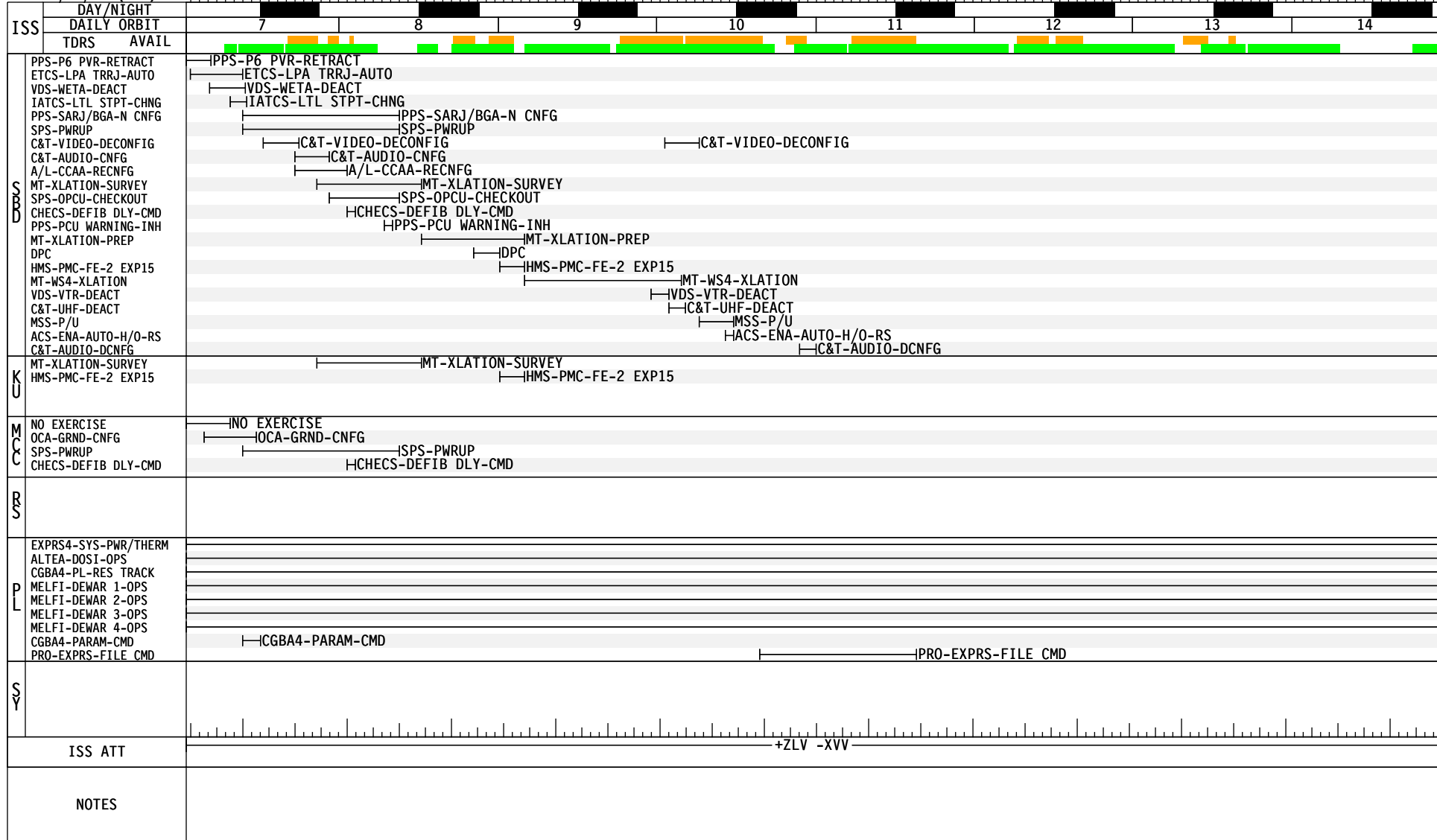
CT 05/04/07 (124)

$\beta = -32.50$

MET Day 003 003/00

FD04

GMT 05/04/07 (124)

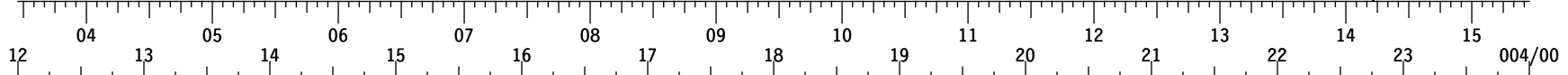


EXPRS4-SYS
ALTEA-DOSI-OPS
CGBA4-PL-RES TRACK
MELFI-DEWAR 1-OPS
MELFI-DEWAR 2-OPS
MELFI-DEWAR 3-OPS
MELFI-DEWAR 4-OPS

NO EXERCISE during OBSS GRPL H/O

NO EXERCISE during OBSS GRPL H/O

GMT 05/05/07 (125)
 β = -33.21
 MET Day 003



S T S - 1 1 8	FD05 CDR/R3 KELLY	SLEEP	POST SLEEP	FI DOUG REVW	UPFRAT	POST SLEEP	EXERCISE	MCRLMIA	FOCUSSED INSPECTION				MEAL	CINWICT#3	CDCBATTITMLY*	CCTBWRM#3	
	PLT/M1 HOBAUGH	SLEEP	POST SLEEP	SSRMS GRPL OBSS UNBT		SSRMS OBSS MNVR H/O	SRSELRMS	SSRMS FI SPPT	PWR#1 FILL	PXWFRER	XFER	MEAL	SSRMS PGPL MNVR OBSS	GRBPSL	SSRMS OBSS BERTH	RELSE	
	MS1/R1 CALDWELL	SLEEP	POST SLEEP	FI DOUG REVW	PGRPL	APCU*	MRL*	GRPL	FOCUSSED INSPECTION				MEAL	RUNSGPL	MRL*	PCRDL	
	MS2/EV MASTRACCHIO	SLEEP	POST SLEEP	MBI EANS TTS OTTX			EMU BATT RCHG INIT	EVA2 TOOL CNFG	METX*	B S A *	XFER	EXERCISE	MEAL	E-LK@	SAFER C/O	TCON O FLG	
	MS3/EV D. WILLIAMS	SLEEP	POST SLEEP	PREP 6B CVRSX			MBI EANS TTS OTTX	EMU BATT RCHG INIT	EVA2 TOOL CNFG	XFER		EXERCISE	MEAL	E-LK@	SAFER C/O	TCON O FLG	
	MS4/R2 MORGAN	SLEEP	POST SLEEP - SHAB	FI DOUG REVW	PGRPL	MRL*	GRPL	FOCUSSED INSPECTION				MEAL	RUNSGPL	MRL*	PCRDL		
D N	FE-2 S. WILLIAMS	SLEEP (8.5)	POST SLEEP	PWROPK	DPC	HANDOVER	EXERCISE TVIS		HANDOVER	MIDDAY-MEAL	RELSE						
E X P 1 5	ISS CDR YURCHIKHIN	SLEEP (8.5)	POST SLEEP	PWROPK	DPC	PWROPK	EXERCISE VELO	HANDOVER	EXERCISE TVIS	MIDDAY-MEAL	PCSS*	HANDOVER					
	FE-1 KOTOV	SLEEP (8.5)	POST SLEEP	PWROPK	DPC	PWROPK	COX MNT	EXERCISE VELO	XFER	MIDDAY-MEAL	EXER CISE TVIS						
U P	FE-2/M2 ANDERSON	SLEEP (8.5)	POST SLEEP	PWROPK	DPC	HANDOVER	SSRMS GRPL OBSS UNBT	SSRMS OBSS MNVR H/O	SRSELRMS	SSRMS FI SPPT	HANDOVER		MIDDAY-MEAL	SSRMS PGPL MNVR OBSS	GRBPSL	SSRMS OBSS BERTH	HANDOVER
S T S	DAY/NIGHT ORBIT	[Timeline bars for Day/Night and Orbit]															
	TDRS	[Timeline bars for TDRS]															
	ORB ATT SSRMS	[Timeline bars for Orb Att SSRMS]															
NOTES	BIAS -XLV -ZVV WS4 PDGF1 *OFF *OBSS MNVR TO H/O *TERM *P/D @PREP *LATCH *EPO PREP *Release *TERM *VIDEO S/U#1 *VIDEO S/U#2																

Reference OSTP for S-band Activites

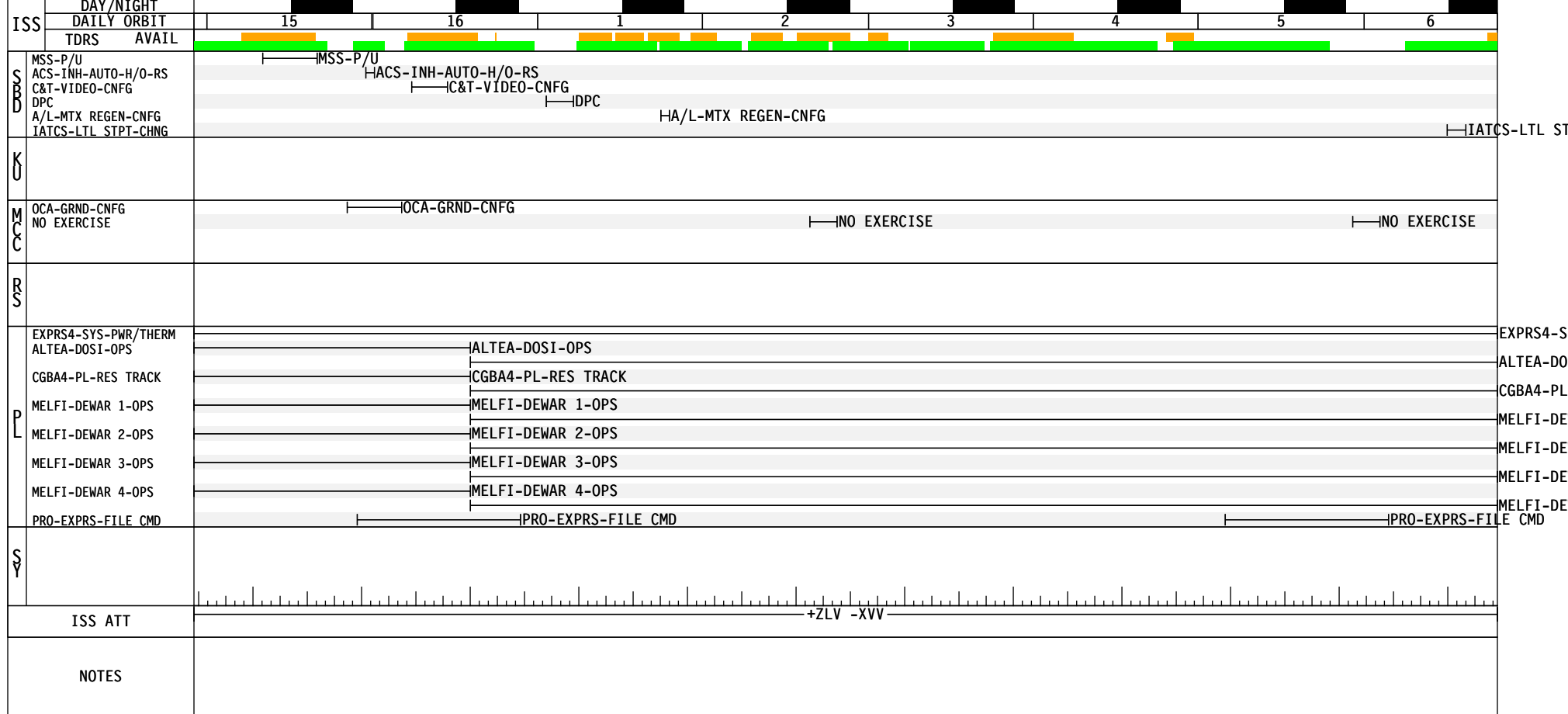
CT 05/04/07 (124)

$\beta = -33.21$

MET Day 003

FD05

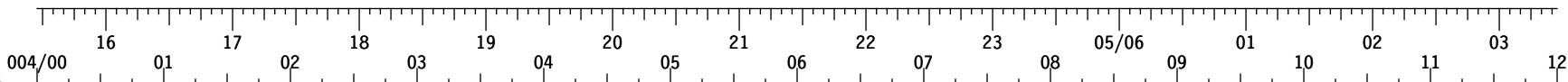
GMT 05/05/07 (125)



GMT 05/05/07 (125)

β = -33.80

MET Day 004



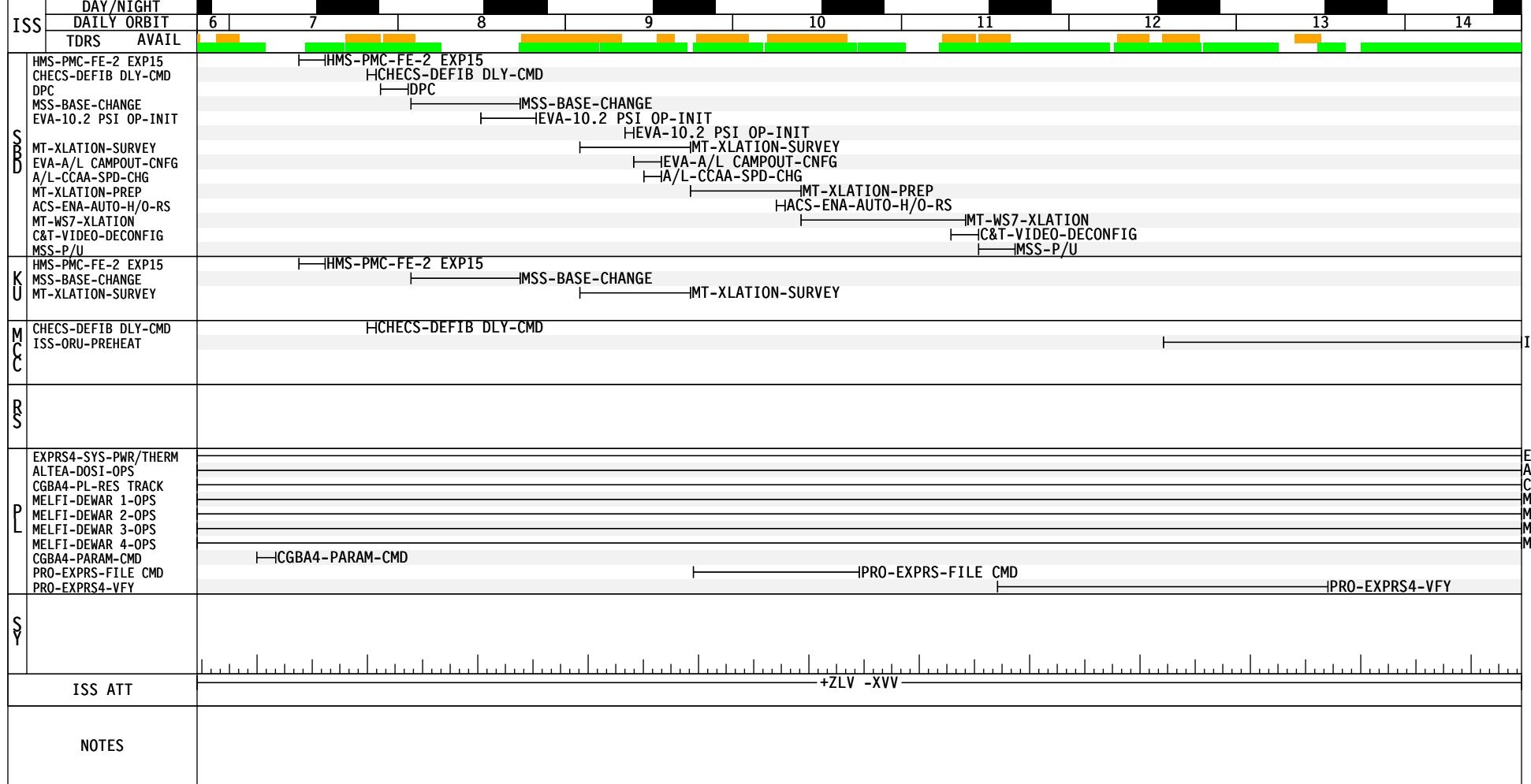
S T S - 1 1 8	FD05	MP RH LO IT NO	AP CU *	CB TM *	S A P C T I S	CB TM *	CM CR MI AN	EVA PROC RVW	PRE SLEEP	PMC A/G	PRE SLEEP	SLEEP
	PLT HOBAUGH	XFER			PS RL EE EP	W/O PDGF1 - LAB	EVA PROC RVW	W/O PDGF1 - LAB	PRE SLEEP		PRE SLEEP	SLEEP
	MS1/R1 CALDWELL	EXERCISE			CX WF CE R	PRE SLEEP	EVA PROC RVW		PRE SLEEP		PRE SLEEP	SLEEP
	MS2/EV MASTRACCHIO	TOOL CNFG	PRE SLEEP	P/TVP/TV 08 S/U	PRE SLEEP	EVA PROC RVW	PRE SLEEP	CAMPOUT MASK P/B	PRE SLEEP		PRE SLEEP	SLEEP - 10.2 PSI
	MS3/EV D. WILLIAMS	TOOL CNFG	EPO XFER	XFER	PRE SLEEP	EVA PROC RVW	PRE SLEEP	CAMPOUT MASK P/B	PRE SLEEP		PRE SLEEP	SLEEP - 10.2 PSI
	MS4/R2 MORGAN	EP PR OP EP	EPO KIT-C VIDEO	PRE SLEEP	EVA PROC RVW	X T F A F R E G E I R U R E P I F	PRE SLEEP - SHAB					SLEEP
D N	FE-2 S. WILLIAMS	PREP WORK	EXERCISE TVIS	W/O PDGF1 - LAB	EVA PROC RVW	W/O PDGF1 - LAB	PRE SLEEP				SLEEP (8.5)	
E X P 1 5	ISS CDR YURCHIKHIN	HO AV NE DR	PREP WORK	DPC	EVA PROC RVW	X T F A F R E G E I R U R E P I F	PRE SLEEP				SLEEP (8.5)	
	FE-1 KOTOV	EXER CISE TVIS	PREP WORK	*DPC	EVA PROC RVW		PRE SLEEP				SLEEP (8.5)	
U P	FE-2 ANDERSON	HO AV NE DR	EPO XFER	PMC	PREP WORK	DPC	EVA PROC RVW	PRE SLEEP			SLEEP (8.5)	
S T S	DAY/NIGHT ORBIT	[Timeline bars for Day/Night Orbit]										
	TDRS W E Z	[Timeline bars for TDRS W E Z]										
	ORB ATT SSRMS	[Timeline bars for ORB ATT SSRMS]										
NOTES	WS4 PDGF1 W/O MT-WS4, SSRMS-LAB BIAS -XLV -ZVV MT-WS7, SSRMS-LAB @PCS P/U *OCA RCNFG *ON*VIDEO S/U#3 *VIDEO STOW											

Reference OSTP for S-band Activities

CT 05/05/07 (125)
 $\beta = -33.80$

MET Day 004 004/00

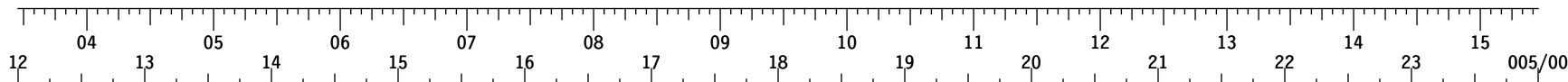
FD05
 GMT 05/05/07 (125)



GMT 05/06/07 (126)

β = -34.27

MET Day 004

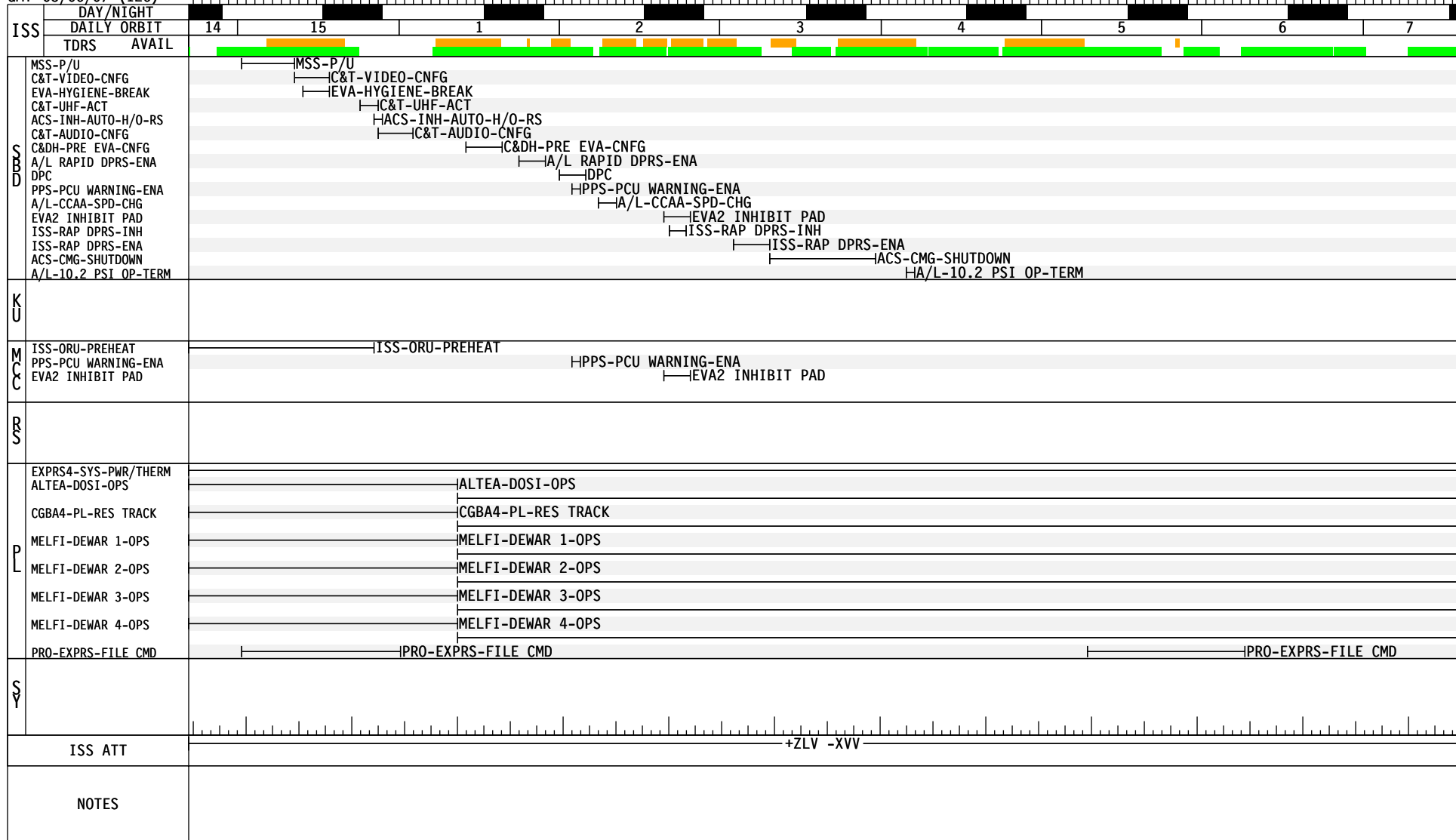


S T S - 1 1 8	FD06 CDR/SUIT IV KELLY	SLEEP	POST SLEEP	PMC S/G	POST SLEEP	HYG BRK/ HATCH CLS	CAMPOUT EVA PREP	EMU UR GE	EMU PBRTHE	C/L DPRS	P/TV07 EVA OPS	MEAL	P/TV07 EVA OPS	P/TV07 EVA OPS			
	PLT/M1 HOBAUGH	SLEEP	POST SLEEP				IP NAC HDB BT	SC CG MI AS	TE PER LIM *	XFER		SSRMS CMG R&R					
	MS1/IV CALDWELL	SLEEP	POST SLEEP					EXERCISE	EVA PREP		IV SUPPORT EVA 2 (6:30)						
	MS2/EV1 MASTRACCHIO	SLEEP - 10.2 PSI	POST SLEEP	HYGN BREAK/ PREBRTHE		CAMPOUT EVA PREP	EMU UR GE	EMU PBRTHE	C/L DPRS	PE GR SS	SETUP	RMV FAILED CMG AT Z1	XFER NEW CMG TO ESP2	RMV NEW CMG FRM ESP2	INSTL NEW CMG3 AT Z1	Z1 SHRD/RTN FAIL CMG	
	MS3/EV2 D. WILLIAMS	SLEEP - 10.2 PSI	POST SLEEP	HYGN BREAK/ PREBRTHE	14.7 RPRS	CAMPOUT EVA PREP	EMU UR GE	EMU PBRTHE	C/L DPRS	PE GR SS	SETUP	RMV FAILED CMG AT Z1	XFER NEW CMG TO ESP2	RMV NEW CMG FRM ESP2	INSTL NEW CMG3 AT Z1	Z1 SHRD/RTN FAIL CMG	
	MS4/R1 MORGAN	SLEEP	POST SLEEP - SHAB			XU FR RD AT	POST SLEEP	XFER		RM S*	P/TV 07 S/U	CIN WCI T#4	EXERCISE	CT WCR #4	WC S*	MEAL	CD CIB AWN TICI ML#5
D N	FE-2 S. WILLIAMS	SLEEP (8.5)	POST SLEEP	HYG BRK/ HATCH CLS	CAMPOUT EVA PREP	EMU UR GE	EMU PBRTHE	C/L DPRS	PE GR SS	EMU UR T	EXERCISE TVIS	MIDDAY-MEAL	EXERCISE TVIS				
E X P 1 5	ISS CDR YURCHIKHIN	SLEEP (8.5)	POST SLEEP	PREP WORK	DPC	OPS LAN P/D	XFER				EXERCISE VELO	MIDDAY-MEAL					
	FE-1 KOTOV	SLEEP (8.5)	POST SLEEP	PREP WORK	DPC		XFER			EXERCISE TVIS	MIDDAY-MEAL		EXERCISE VELO	COX MNT			
U P	FE-2/M2 ANDERSON	SLEEP (8.5)	POST SLEEP	HYG BRK/ HATCH CLS	CAMPOUT EVA PREP	EMU UR GE	EMU PBRTHE	C/L DPRS	PE GR SS	EMU UR T	SSRMS CMG R&R	MIDDAY-MEAL	SSRMS CMG R&R				
S T S	DAY/NIGHT ORBIT	[Timeline bars for Day/Night and Orbit]															
	TDRS W -171 E -46 Z -275	[Timeline bars for TDRS parameters]															
	ORB ATT SSRMS	[Timeline bars for Orbital Attitude and SSRMS]															
NOTES	BIAS -XLV -ZVV MT-WS7, SSRMS-LAB *WARM SHUTDOWN *CMG R&R VIEWING *FILTER CK																

Reference OSTP for S-band Activities

CT 05/05/07 (125)
 $\beta = -34.27$

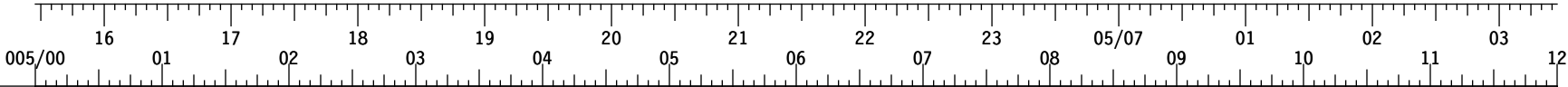
MET Day 004
F006
 GMT 05/06/07 (126)



GMT 05/06/07 (126)

β = -34.61

MET Day 005



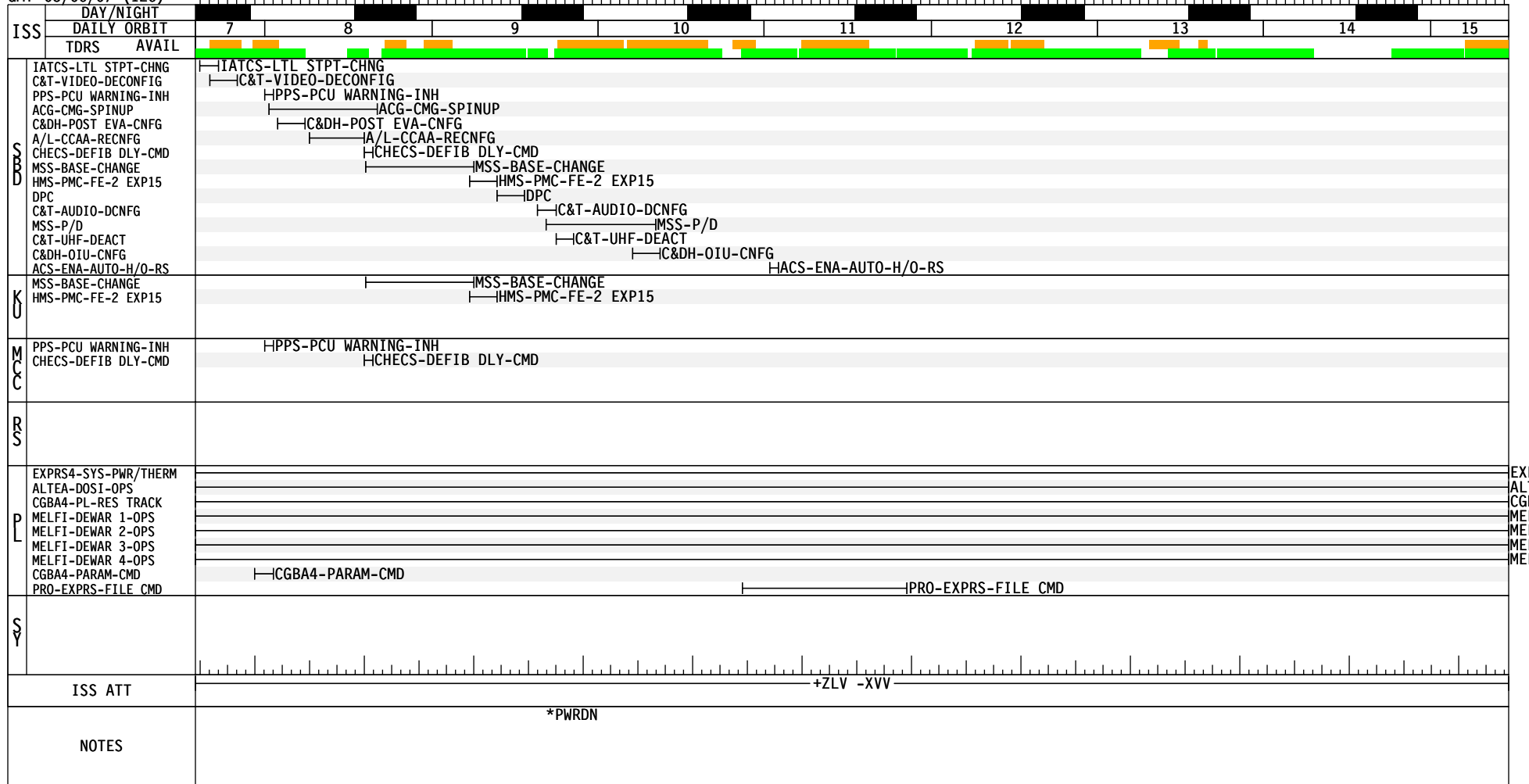
S T S - 1 1 8	FD06 CDR/SUIT IV KELLY	EXERCISE	CR P L R S	POST EVA W/H2O	PRE SLEEP	SLEEP		
	PLT HOBAUGH	SSRMS CMG R&R		N2 XFER INIT	EXERCISE	PRE SLEEP		
	MS1/IV CALDWELL	IV SUPPORT EVA 2		FLTR CLN - INSPECT		SLEEP		
	MS2/EV1 MASTRACCHIO	* CLEAN UP	CIP N L G R P L R S	POST EVA W/H2O		SLEEP		
	MS3/EV2 D. WILLIAMS	⊕ CLEAN UP	CIP N L G R P L R S	POST EVA W/H2O		SLEEP		
	MS4/R1 MORGAN		CR P M R S C D L	CMC XFER (2)	CS W C A P	XT F A E R U R E P F	SLEEP	
D N	FE-2/MS2 S. WILLIAMS	W/O LAB - PDGF2	P W R O L E R P K	CR P L R S	POST EVA W/H2O	PRE SLEEP		
E X P 1 5	ISS CDR YURCHIKHIN	EXERCISE TVIS		EX D L	OPS LAN P/U	PREP WORK	XT F A E R U R P	SLEEP (8.5)
	FE-1 KOTOV	COX MNT	IMS EDIT		N2 XFER INIT	PREP WORK	BSA INIT	SLEEP (8.5)
U P	FE-2/M1 ANDERSON	W/O LAB - PDGF2	P W R O L E R P K	CR P L R S	POST EVA W/H2O	PMCDPC	PRE SLEEP	SLEEP (8.5)
S T S	DAY/NIGHT ORBIT	[Timeline bars for Day/Night and Orbit]						
	TDRS	W -171	[Timeline bars for TDRS W -171]					
		E -46	[Timeline bars for TDRS E -46]					
		Z -275	[Timeline bars for TDRS Z -275]					
	ORB ATT	[Timeline bars for Orb Att]						
	SSRMS	W/O	[Timeline bars for SSRMS]					
NOTES	*Z1 SHRD/RTN FAIL CMG		*BATT CHR					
	@Z1 SHRD/RTN FAIL CMG							
	#PRECRADLE							

Reference OSTP for S-band Activities

CT 05/06/07 (126)
 $\beta = -34.61$

MET Day 005 005/00

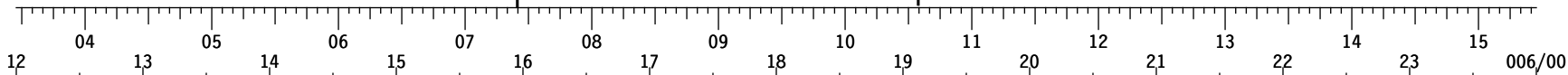
FD06
 GMT 05/06/07 (126)



EXPRS4-SY
 ALTEA-DOS
 CGBA4-PL
 MELFI-DEV
 MELFI-DEV
 MELFI-DEV
 MELFI-DEV
 MELFI-DEV

NO EXERCISE DURING ESP3 OPS

GMT 05/07/07 (127)
 β = -34.76
 MET Day 005



S T S - 1 1 8	FD07 CDR KELLY	SLEEP	LOG	POST SLEEP	P/TV 10 SU*	POST SLEEP	CRIMINO	PWR#2 FILL	PXWFR#6	CINWIT#6	CAS MATE	CTWR#M#6	HOATT	-XYLVV	SIMO INIT	MEAL	SIMO TERM	DUMP PWR	CWC DUMP	-XZLVV	HOATT	CDABITMLY	PAO EDU	
	PLT/M1 HOBAUGH	SLEEP	LOG	POST SLEEP				GH/R/PL	MNVR TO INSTL POSN			UNGPL	SSRMS WS4 CNFG XLAT	CXWFR		MEAL		XFER		EXERCISE		XFER		
	MS1/R2 CALDWELL	SLEEP	LOG	POST SLEEP	EGSRP3L	ESP3 UNBRTH	ESP3 H/O		UNGPL		SRMS SUPPORT			EXERCISE		MEAL		OBSS OSE PRE EVA CFG		XFER		PAO EDU	XFER	
	MS2 MASTRACCHIO	SLEEP	LOG	POST SLEEP				MBIANTTOTTX	EMU BATT RCHG INIT		EVA3 TOOL CNFG		BASA*		XFER		MEAL		EXERCISE		E-LK PREP		EVA3 TOOL CNFG	
	MS3 D. WILLIAMS	SLEEP	LOG	POST SLEEP	XUFRDAT	POST SLEEP		MBIANTTOTTX	EMU BATT RCHG INIT		EVA3 TOOL CNFG		METX#		EMU SWAP	XFER		MEAL		OBSS OSE PRE EVA CFG		E-LK PREP	SEEDS	XFER
	MS4/R1 MORGAN	SLEEP	LOG	POST SLEEP - SHAB	EGSRP3L	ESP3 UNBRTH	ESP3 H/O		UNGPL		CAS MATE		SSRMS WS4 CNFG XLAT		XFER		MEAL		XFER		PTV 05 PAO SU	SEEDS	PAO EDU	SEED* *
D N	FE-2/M3 S. WILLIAMS	SLEEP (8.5)		POST SLEEP	PWROPERK	DPC	PREP WORK							XFER		MIDDAY-MEAL		XFER			TVIS		XFER	
E X P 1 5	ISS CDR YURCHIKHIN	SLEEP (8.5)		POST SLEEP	PWROPERK	DPC	PREP WORK				COX MNT		EXERCISE TVIS		MIDDAY-MEAL					XFER		PAO EDU	VELO	
	FE-1 KOTOV	SLEEP (8.5)		POST SLEEP	PWROPERK	DPC	LAB RLS & MNVR H/O	PREP WORK	RUSSIAN OPS		CSA-CP RSPLY	ETCS	EXERCISE VELO		CSWATACH		MIDDAY-MEAL			IMS EDIT		XFER	TVIS	
U P	FE-2/M2 ANDERSON	SLEEP (8.5)		POST SLEEP	PWROPERK	DPC	LAB RLS & MNVR H/O	PREP WORK		GH/R/PL	MNVR TO INSTL POSN		UNGPL	EMU SWAP	XFER	MIDDAY-MEAL		XFER			PLCK	E-LK PREP	SEEDS	EVA3 TOOL CNFG
S T S	DAY/NIGHT ORBIT																							
	TDRS W -171 E -46 Z -275																							
	ORB ATT SSRMS																							
NOTES																								

*EXERCISE *STOW

Reference OSTP for S-band Activities

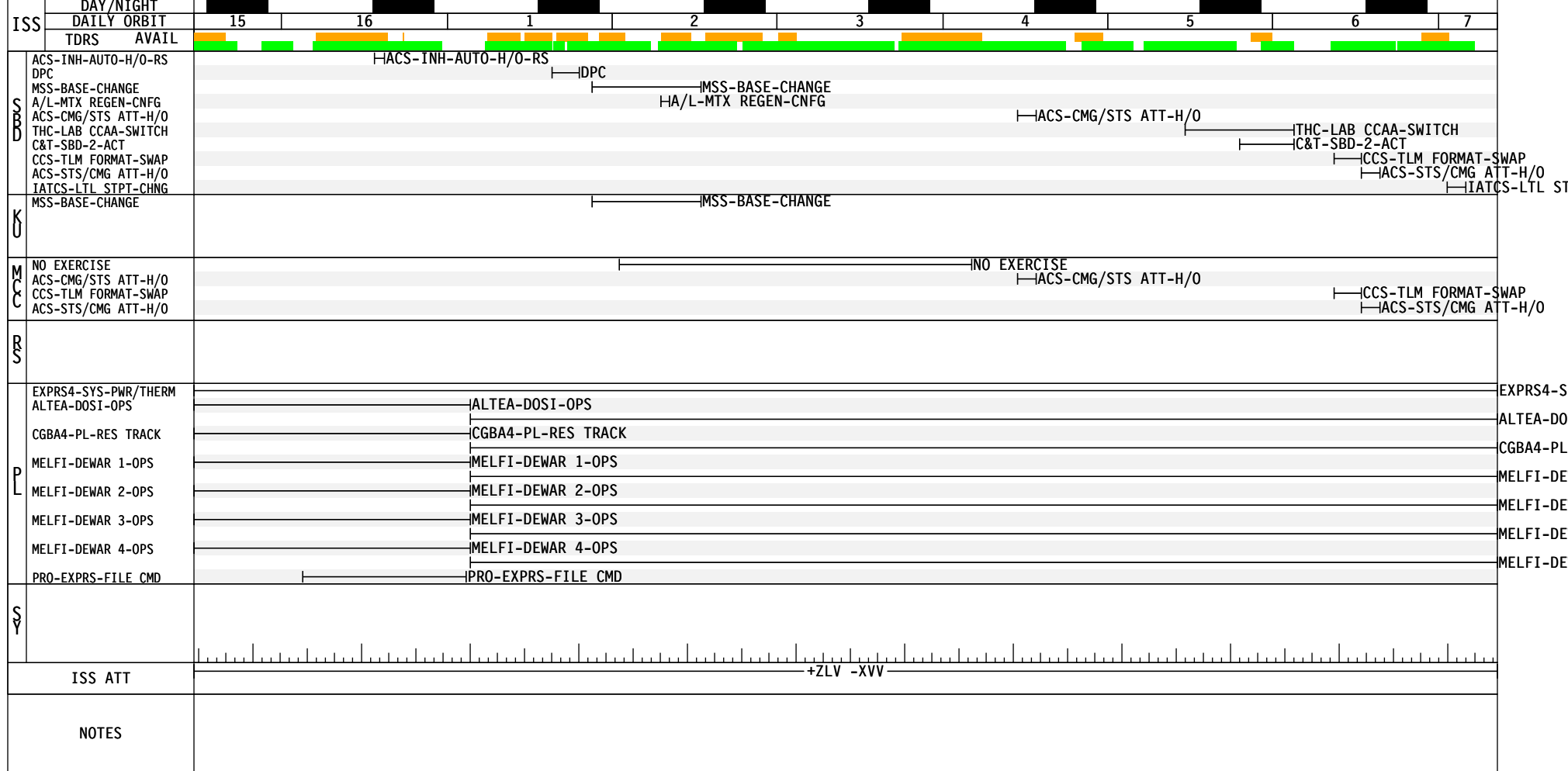
CT 05/06/07 (126)

$\beta = -34.76$

MET Day 005

FD07

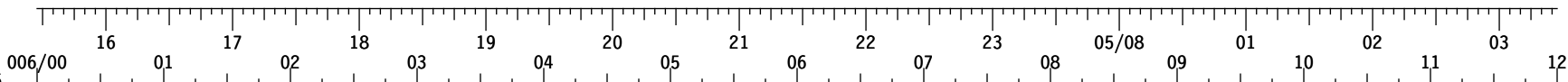
GMT 05/07/07 (127)



GMT 05/07/07 (127)

β = -34.76

MET Day 006



S T S - 1 1 8	FD07 CDR KELLY	WCS*	EXERCISE	CMA	EVA PROC RVW	PMC OCA	PRE SLEEP	SLEEP														
	PLT/M1 HOBAUGH		XFER		EVA PROC RVW		PRE SLEEP	SLEEP														
	MS1/R2 CALDWELL		XFER		EVA PROC RVW		PRE SLEEP	SLEEP														
	MS2 MASTRACCHIO	EVA3 TOOL CNFG	PTV 05 PAO SU	PRE SLEEP	EVA PROC RVW	PRE SLEEP	CAMPOUT MASK P/B TOOL 10.2 CNFG DPRS	PRE SLEEP SLEEP - 10.2 PSI ISS A/L CAMPOUT @ 10.2 psi														
	MS3 D. WILLIAMS		XFER		EVA PROC RVW	EXERCISE	PRE SLEEP	SLEEP														
	MS4/R1 MORGAN	EXERCISE	PEAVOENT	PSRL EEP	EVA PROC RVW	XTFAFR EGEIR RURFP	PRE SLEEP - SHAB	SLEEP														
D N	FE-2/M3 S. WILLIAMS	XFER	PEAVOENT	DPC	EVA PROC RVW	PREP WORK	PRE SLEEP	SLEEP (8.5)														
	ISS CDR YURCHIKHIN	VELO	PWROERK	DPC	EVA PROC RVW	XTFAFR EGEIR RURFP	PRE SLEEP	SLEEP (8.5)														
E X P 1 5	FE-1 KOTOV	TVIS	EXIDL	DPC	EVA PROC RVW	PREP WORK	PRE SLEEP	SLEEP (8.5)														
	FE-2/M2 ANDERSON	EVA3 TOOL CNFG	PWROERK	PMC	PEAVOENT	DPC	EVA PROC RVW	PRE SLEEP	CAMPOUT MASK P/B TOOL 10.2 CNFG DPRS PRE SLEEP SLEEP (8.5) ISS A/L CAMPOUT @ 10.2 psi													
S T S	DAY/NIGHT ORBIT	96		97		98		99		100		101		102		103		104				
	TDRS W -171	-----		-----		-----		-----		-----		-----		-----		-----		-----				
	TDRS E -46	-----		-----		-----		-----		-----		-----		-----		-----		-----				
TDRS Z -275	-----		-----		-----		-----		-----		-----		-----		-----		-----					
ORB ATT SSRMS	WS7 PDGF2										BIAS -XLV -ZVV				MT XLATE TO WS4				WS4 PDGF2			
NOTES	*COMPACT																					

Reference OSTP for S-band Activities

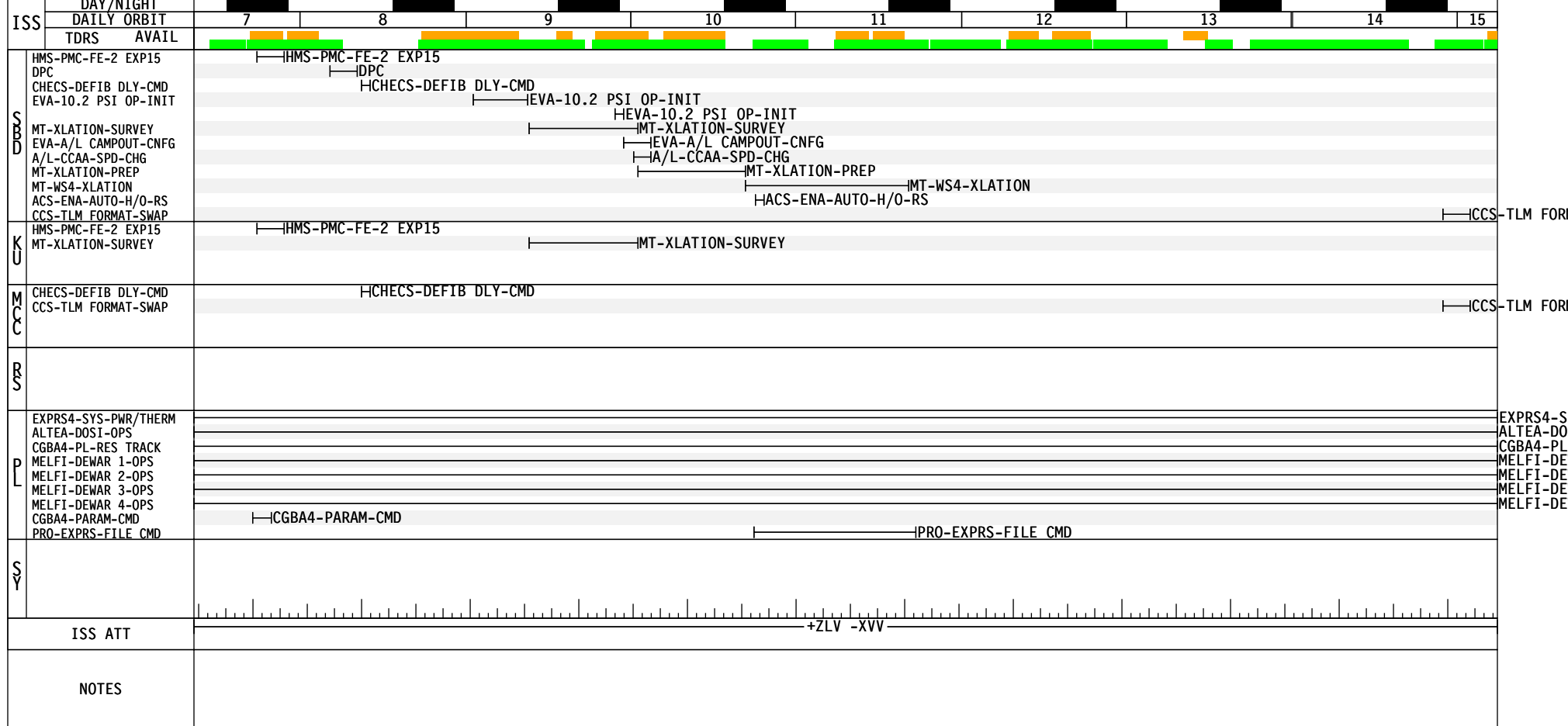
CT 05/07/07 (127)

$\beta = -34.76$

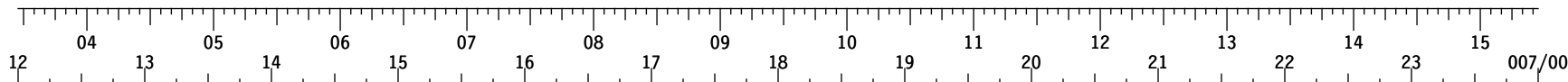
MET Day 006 006/00

FD07

GMT 05/07/07 (127)



GMT 05/08/07 (128)
 β = -34.64
 MET Day 006



S T S - 1 1 8	FD08 CDR/SUIT IV KELLY	SLEEP	POST SLEEP	PMC S/G	POST SLEEP	HYG BRK/ HATCH CLS	CAMPOUT EVA PREP	EMU UR GE	EMU PBRTHE	C/L DPRS	EXERCISE	MEAL	P/TV07 EVA OPS	IMU	P/TV 07 EVA OPS	
	PLT/M1 HOBAUGH	SLEEP	POST SLEEP				IP NA HD BT	CC CO MM AM	EXERCISE	SSRMS MNV SASA SPT	SSRMS SASA RELOC	SSRMS CETA CART RELC	SSRMS SPT			
	MS1/IV CALDWELL	SLEEP	POST SLEEP				EXERCISE	EVA PREP	IV SPPT EVA 3 (6:30)							
	MS2/EV1 MASTRACCHIO	SLEEP - 10.2 PSI	POST SLEEP	HYGN BREAK/ PREBRTHE		CAMPOUT EVA PREP	EMU UR GE	EMU PBRTHE	C/L DPRS	EG RS S	EVA SETUP	P6 SASA RELOCATE	CETA 1 MOVE STBD	CETA 2 MOVE STBD	SASA GIMBL LOCKS	
	MS3 D. WILLIAMS	SLEEP	POST SLEEP				XFER	P/TV 07 S/U	P/TV07 EVA OPS		MEAL	EXERCISE				
	MS4/R1 MORGAN	SLEEP	POST SLEEP - SHAB				XU FR RD AT	POST SLEEP	XFER	RMS*	C I WN C I # 7	CT WE CR # 7	C I WN C I # 8	MEAL	CT WE CR # 8	CD BA TI LY
D N	FE-2/M2 S. WILLIAMS	SLEEP (8.5)	POST SLEEP	HYG BRK/ HATCH CLS	CAMPOUT EVA PREP	EMU UR GE	EMU PBRTHE	C/L DPRS	SSRMS MNV SASA SPT	PL CK	SSRMS SASA RELOC	SSRMS CETA CART RELC	EXER CISE TVIS			
E X P 1 5	ISS CDR YURCHIKHIN	SLEEP (8.5)	POST SLEEP	PREP WORK	DPC CS*	OPS LAN P/D	XFER	EXERCISE TVIS	MIDDAY-MEAL	EXERCISE VELO						
	FE-1 KOTOV	SLEEP (8.5)	POST SLEEP	HYG BRK/ HATCH CLS	CAMPOUT EVA PREP	EMU UR GE	EMU PBRTHE	C/L DPRS	EXERCISE TVIS	MIDDAY-MEAL	IMS EDIT	PW OR ER PK				
U P	FE-2/EV3 ANDERSON	SLEEP (8.5)	POST SLEEP	HYG BRK/ HATCH CLS	CAMPOUT EVA PREP	EMU UR GE	EMU PBRTHE	C/L DPRS	EG RS S	EVA SETUP	P1 BSP & XPDR INSTAL	CETA 1 MOVE STBD	CETA 2 MOVE STBD	P6 XPDR RETRV		
S T S	DAY/NIGHT ORBIT	[ORBIT BAR]														
	TDRS W -171 E -46 Z -275	[TDRS BAR]														
	ORB ATT SSRMS	[ORB ATT BAR]														
NOTES	BIAS -XLV -ZVV WS4 PDGF2 *RECONNECT *P6 SASA RELOC VIEW															

*P1 RBVM F
 ©COX MNT
 ♦EXER CISE

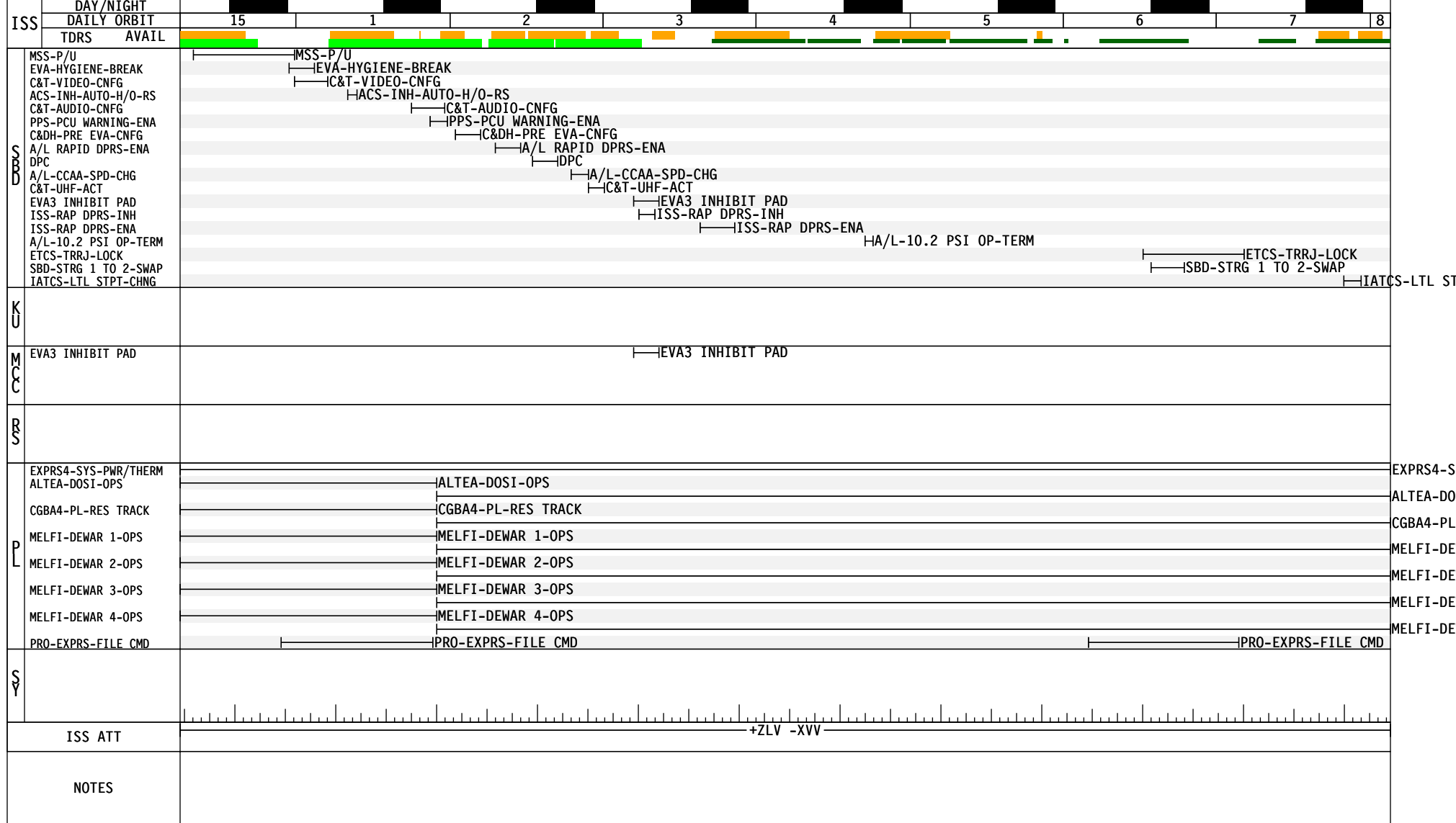
Reference OSTP for S-band Activites

CT 05/07/07 (127)
 $\beta = -34.64$

MET Day 006

FD08

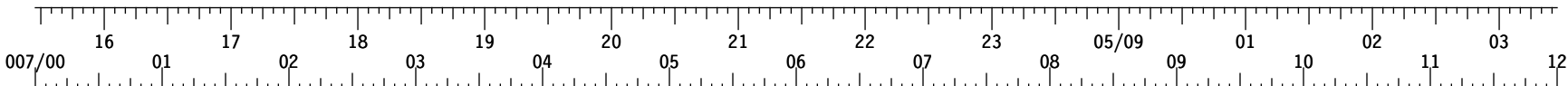
GMT 05/08/07 (128)



GMT 05/08/07 (128)

β = -34.39

MET Day 007



S T S - 1 1 8	FD08	CDR/SUIT IV KELLY	P/TV 07 EVA OPS	CR PL RS	POST EVA W/H2O	PRE SLEEP	SLEEP		
		PLT/M1 HOBAUGH	SSRMS SPT	SSRMS UNDK CNFG	COMM A	PRE SLEEP PMC OCA	SLEEP		
		MS1/IV CALDWELL	IV SPPT EVA 3		COMM	PRE SLEEP	SLEEP		
		MS2/EV1 MASTRACCHIO	P1 RBVM F151 MLI	CUCIP LP/GR LR/RS	CR PL RS	POST EVA W/H2O	PRE SLEEP	SLEEP	
		MS3 D. WILLIAMS		SHAB DEBRS SCREEN CK	PRE SLEEP	EMU - T BSA INIT	PRE SLEEP	SLEEP	
		MS4/R1 MORGAN	RP MR SC DL	EXERCISE	CWC XFER (2)	XTX FAFR EGE RUP REF	PRE SLEEP - SHAB	SLEEP	
D N	FE-2/M2 S. WILLIAMS		SSRMS UNDK CNFG	PW	POST EVA W/H2O	PRE SLEEP	SLEEP (8.5)		
E X P 1 5	ISS CDR YURCHIKHIN	COX MNT	PREP WORK	*	OPS LAN P/U	DB CA ST L	EX FA EG DPC RUP	PRE SLEEP	SLEEP (8.5)
	FE-1 KOTOV	EXER CISE VELO	EX PL LR RS		POST EVA W/H2O	PRE SLEEP	SLEEP (8.5)		
U P	FE-2/EV3 ANDERSON	P6 XPDR RETRV	CUCIP LP/GR LR/RS	CR PL RS	POST EVA W/H2O	PRE SLEEP	SLEEP (8.5)		
S T S	DAY/NIGHT	[Bar chart showing day/night cycle]							
	ORBIT	112 113 114 115 116 117 118 119							
	TDRS	W -171	[Bar chart]						
	E -46	[Bar chart]							
	Z -275	[Bar chart]							
	ORB ATT	BIAS -XLV -ZVV							
	SSRMS	-WS4 PDGF2							
	NOTES	*CDRA CNCT *BATT CHRG							

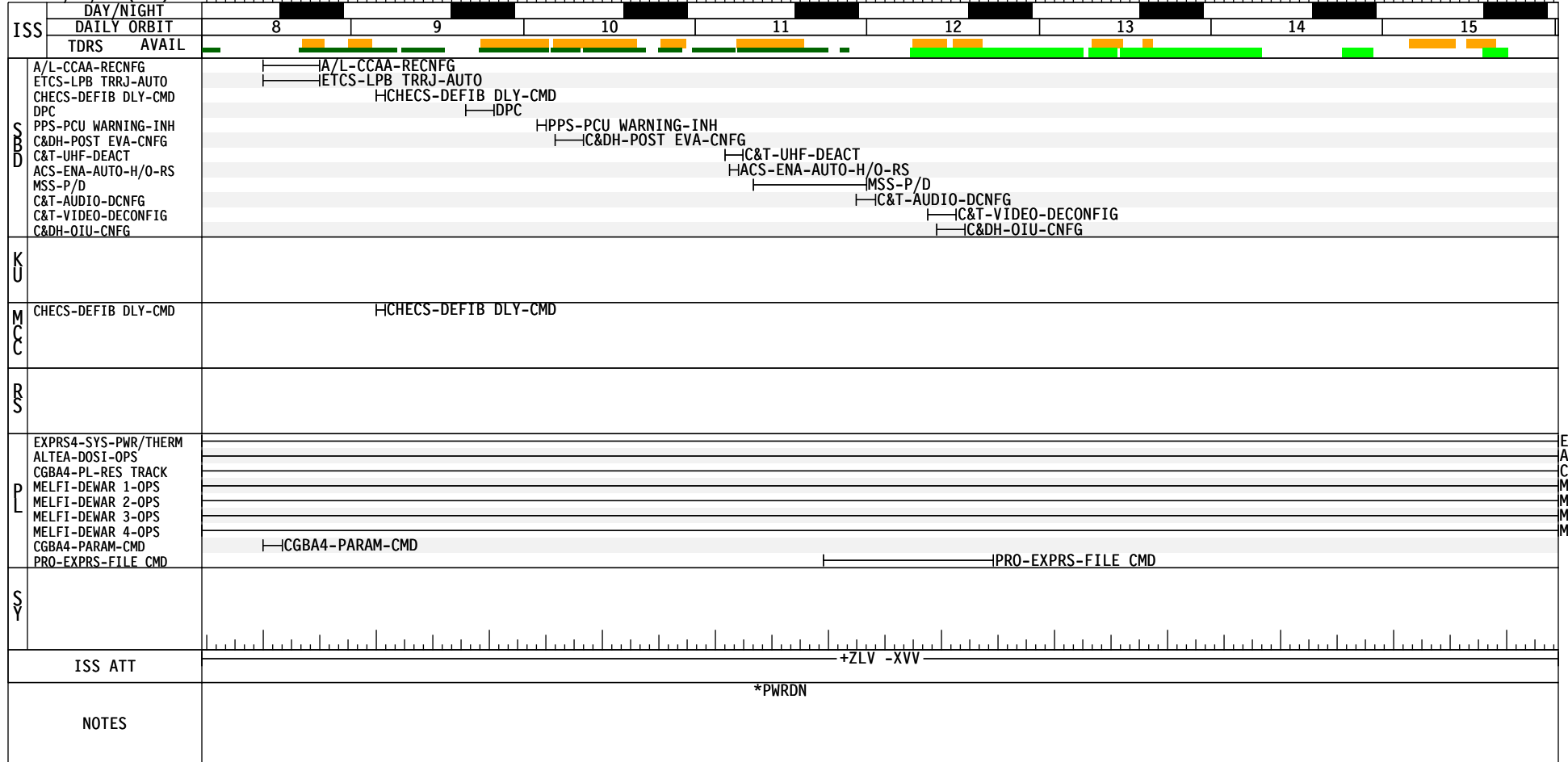
Reference OSTP for S-band Activities

CT 05/08/07 (128)
 $\beta = -34.39$

MET Day 007 007/00

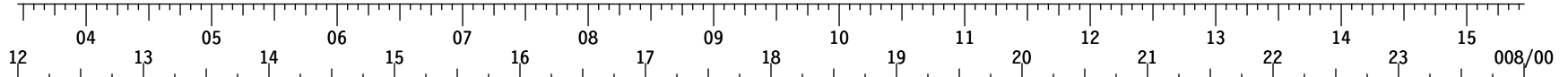
FD08

GMT 05/08/07 (128)



EXPRS4-SYS
 ALTEA-DOSI-OPS
 CGBA4-PL-RES TRACK
 MELFI-DEWAR 1-OPS
 MELFI-DEWAR 2-OPS
 MELFI-DEWAR 3-OPS
 MELFI-DEWAR 4-OPS
 CGBA4-PARAM-CMD
 PRO-EXPRS-FILE CMD

GMT 05/09/07 (129)
 β = -33.97
 MET Day 007



STS	Personnel	Activity	04	05	06	07	08	09	10	11	12	13	14	15	008/00
STS-118	FD09 CDR KELLY	SLEEP	POST SLEEP	H O A L T - X L V V + Y V V	S I M O I N I T	POST SLEEP	S I M O T E R M	C W C D U M P	C W C D U M P	M N Z V V R V	H O A T T	C P R H E O W T O	MEAL	CREW CONF	OFF DUTY
	PLT HOBAUGH	SLEEP	POST SLEEP				C S W W C A P	O C I C U A *	EXERCISE	XFER	P C R L O A S E	C P R H E O W T O	MEAL	CREW CONF	OFF DUTY
	MS1 CALDWELL	SLEEP	POST SLEEP					EXERCISE	EVA4 TOOL CNFG			C P R H E O W T O	MEAL	CREW CONF	OFF DUTY PFC OCA
	MS2 MASTRACCHIO	SLEEP	POST SLEEP					EXERCISE	E-LK@	EVA4 TOOL CNFG	P/TV 05 S/U	C P R H E O W T O	MEAL	CREW CONF	OFF DUTY PFC
	MS3 D. WILLIAMS	SLEEP	POST SLEEP					M B I E A N T T S O T T X	EMU S W A P	EVA4 TOOL CNFG	M E T S * B A X	C P R H E O W T O	MEAL	CREW CONF	OFF DUTY PFC OCA
	MS4 MORGAN	SLEEP	POST SLEEP - SHAB	X U F P R D A T	POST SLEEP	P T V 05 P A O S U	P E E A D V O U E N T	XFER	EXERCISE			C P R H E O W T O	MEAL	CREW CONF	OFF DUTY PFC OCA
EXP 15	DN FE-2 S. WILLIAMS	SLEEP (8.5)	POST SLEEP	PREP WORK	D P C S	I C C S R H E O W I C	EXERCISE TVIS	XFER		P R E P	C P R H E O W T O	MIDDAY-MEAL	CREW CONF	HANDOVER	EXERCISE TVIS
	ISS CDR YURCHIKHIN	SLEEP (8.5)	POST SLEEP	PREP WORK	D P C		EXERCISE TVIS			P R E P	C P R H E O W T O	MIDDAY-MEAL	CREW CONF		EXERCISE VELO
UP	FE-1 KOTOV	SLEEP (8.5)	POST SLEEP	PREP WORK	D P C		XFER	EXERCISE VELO		P R E P	C P R H E O W T O	MIDDAY-MEAL	CREW CONF	COX MNT	EXERCISE TVIS IMS EDIT
	FE-2 ANDERSON	SLEEP (8.5)	POST SLEEP	PREP WORK	D P C S	I C C S R H E O W I C	M B I E A N T T S O T T X	EMU S W A P	E-LK@	EVA4 TOOL CNFG	W C F E T G A	C P R H E O W T O	MIDDAY-MEAL	CREW CONF	HANDOVER
STS	DAY/NIGHT ORBIT	[Bar chart showing day/night cycle]													
	TDRS W E -46 Z -275	[Bar chart showing TDRS activity]													
	ORB ATT SSRMS	BIAS -XLV -ZVV BIAS -XLV +YVV BIAS -XLV -ZVV													
NOTES	*DEACT @PREP *TERM *TERM														

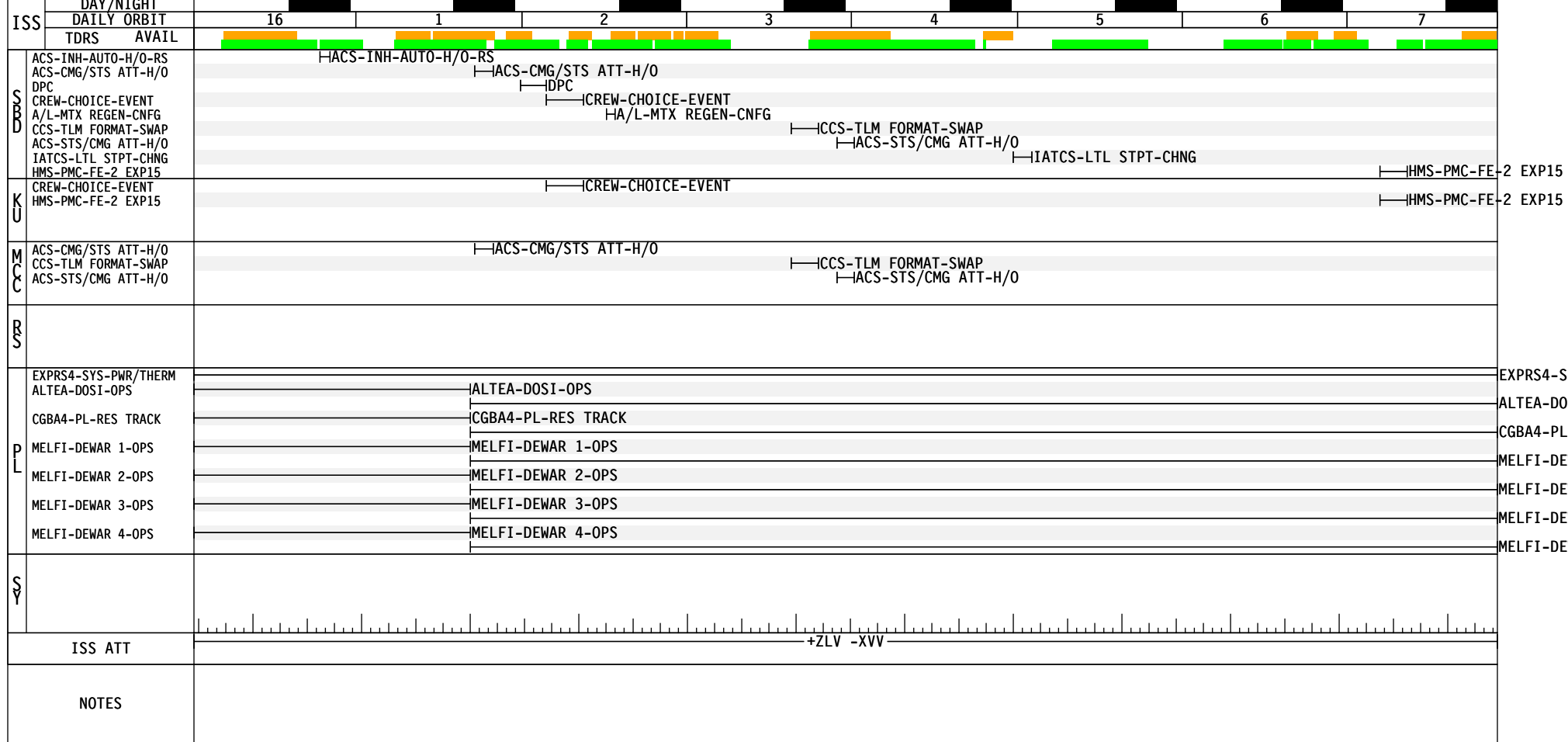
Reference OSTP for S-band Activities

CT 05/08/07 (128)
 $\beta = -33.97$

MET Day 007

FD09

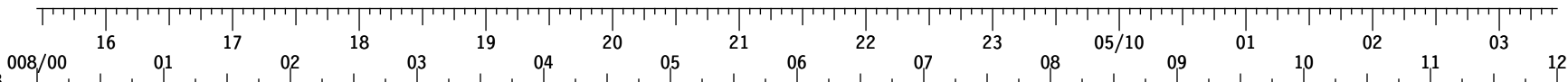
GMT 05/09/07 (129)



GMT 05/09/07 (129)

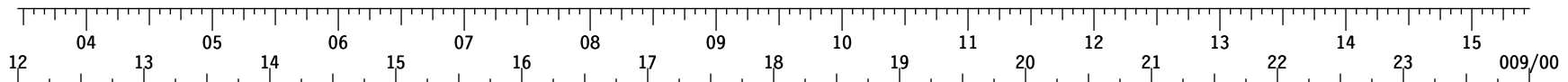
β = -33.38

MET Day 008



S T S - 1 1 8	FD09	CDR KELLY	OFF DUTY	EVA PROC RVW	C P C M L A P	PFC OCA	PRE SLEEP	PMC OCA	PRE SLEEP	SLEEP
		PLT HOBAUGH	*OFF DUTY	EVA PROC RVW	C D B A T I M L Y		PRE SLEEP			SLEEP
		MS1 CALDWELL	OFF DUTY	EVA PROC RVW	PRE SLEEP	W L E S S *		PRE SLEEP		SLEEP
		MS2 MASTRACCHIO	OFF DUTY	EVA PROC RVW				PRE SLEEP		SLEEP
		MS3 D. WILLIAMS	OFF DUTY	EVA PROC RVW	PRE SLEEP		TOOL 10.2 CNFG DPRS CAMPOUT MASK P/B	PRE SLEEP		SLEEP - 10.2 PSI ISS A/L CAMPOUT @ 10.2 psi
		MS4 MORGAN	OFF DUTY	EVA PROC RVW	X T X B F A F R E G E I R U R E P F			PRE SLEEP - SHAB		SLEEP
D N		FE-2 S. WILLIAMS	DPC	EVA PROC RVW	PREP WORK		PRE SLEEP			SLEEP (8.5)
E X P 1 5		ISS CDR YURCHIKHIN	P R E P	DPC	EVA PROC RVW	X T X B F A F R E G E I R U R E P K	PRE SLEEP			SLEEP (8.5)
		FE-1 KOTOV		DPC	EVA PROC RVW	E X D L	PREP WORK	PRE SLEEP		SLEEP (8.5)
U P		FE-2 ANDERSON	⊕	DPC	EVA PROC RVW	PREP WORK	PRE SLEEP	TOOL 10.2 CNFG DPRS CAMPOUT MASK P/B	PRE SLEEP	SLEEP (8.5) ISS A/L CAMPOUT @ 10.2 psi
S T S	DAY/NIGHT ORBIT	[Timeline bars for Day/Night and Orbit]								
	TDRS E -46 Z -275	[Timeline bars for TDRS]								
	ORB ATT SSRMS	[Timeline bars for Orb Att SSRMS]								
NOTES	*OFF DUTY ⊕EXERCISE CEVIS		*ENABLE WS4 PDGF2							

GMT 05/10/07 (130)
 β = -32.67
 MET Day 008



S T S - 1 1 8	FD10 CDR/SUIT IV KELLY	SLEEP	POST SLEEP	PMC S/G	POST SLEEP	COM	HYG BRK/ HATCH CLS	CAMP OUT	EVA	PREP	EMU	PBR	THE	C/L DPRS	EXERCISE	P/TV07	EVA	OPS	MEAL	P/TV07	EVA	OPS	
	PLT HOBAUGH	SLEEP	POST SLEEP											EXERCISE	XFER			MEAL	XFER				
	MS1/IV CALDWELL	SLEEP	POST SLEEP								EVA	PREP						IV	SPT				
	MS2 MASTRACCHIO	SLEEP	POST SLEEP											EXERCISE	XFER			MEAL	XFER				
	MS3/EV1 D. WILLIAMS	SLEEP - 10.2 PSI	POST SLEEP	14.7 RPRS	10.2 DPRS									C/L DPRS	EXERCISE	EVA SETUP	OBSS OSE INSTALL	S3	WETA	INSTALL	-CP1	TBD	CLEAN UP
	MS4 MORGAN	SLEEP	POST SLEEP - SHAB			XU FR D A T					P/TV 07 S/U				XFER				MEAL	XFER			
D N	FE-2 S. WILLIAMS	SLEEP (8.5)	POST SLEEP										C/L DPRS	EXERCISE TVIS	XFER			MIDDAY-MEAL	XFER		EXERCISE TVIS	IMS EDIT	
	ISS CDR YURCHIKHIN	SLEEP (8.5)	POST SLEEP										C/L DPRS	XFER	EXERCISE TVIS	MIDDAY-MEAL	XFER		VELO				
E X P 1 5	FE-1 KOTOV	SLEEP (8.5)	POST SLEEP	PREP WORK	DPCS LAN P/D	OPS LAN P/D	COX MNT							EXERCISE TVIS	XFER			MIDDAY-MEAL	EXERCISE VELO	XFER			
	FE-2/EV3 ANDERSON	SLEEP (8.5)	POST SLEEP	14.7 RPRS	10.2 DPRS								C/L DPRS	EXERCISE	EVA SETUP	OBSS OSE INSTALL	S3	WETA	INSTALL	-CP1	TBD	CLEAN UP	
S T S	DAY/NIGHT	[Bar chart showing day/night cycle]																					
	ORBIT	[Bar chart showing orbit parameters]																					
	TDRS	[Bar chart showing TDRS parameters]																					
	ORB ATT	[Bar chart showing orbit attitude]																					
NOTES	*RECONNECT *OFF BIAS -XLV -ZVV *ON *OPS LAN P																						

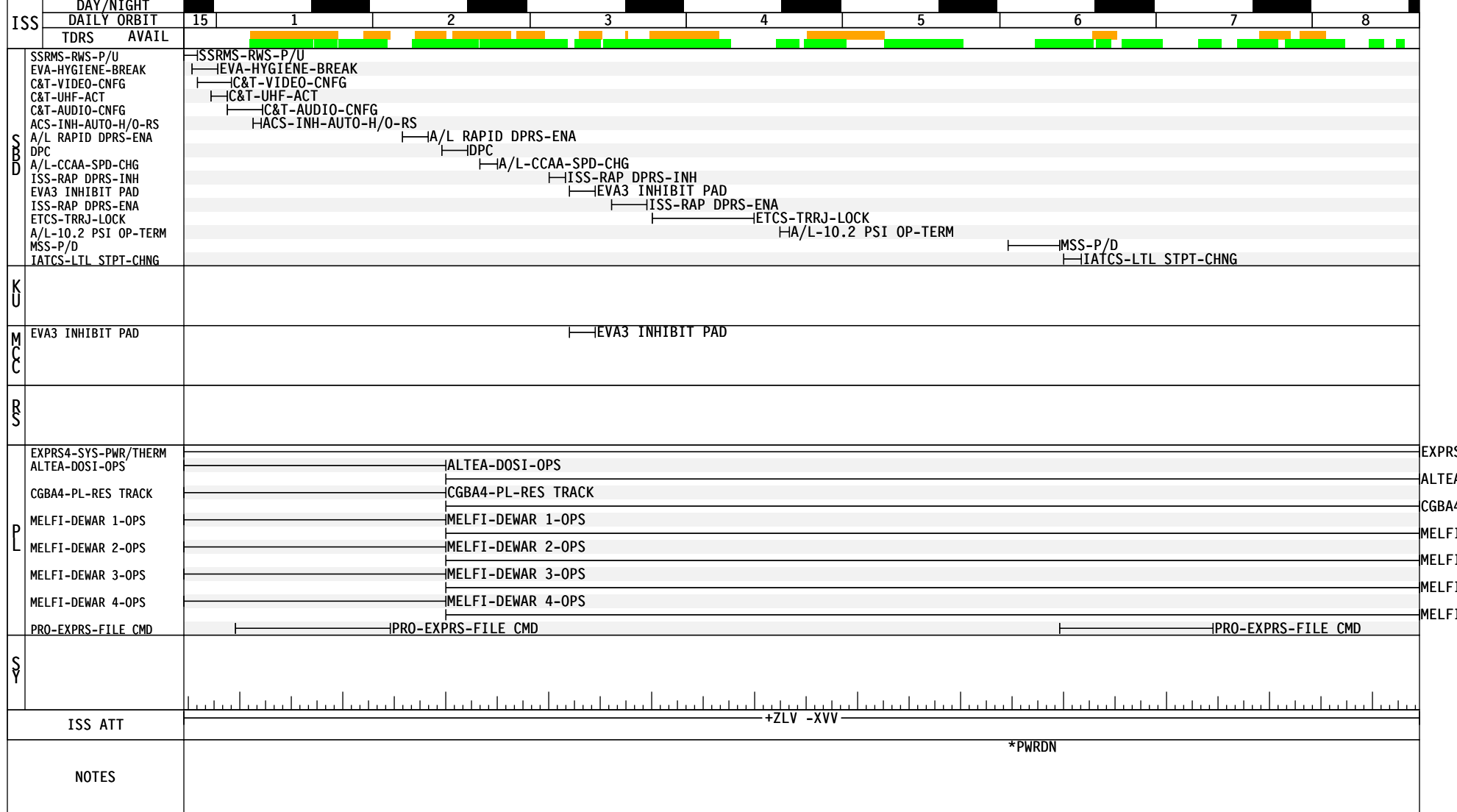
Reference OSTP for S-band Activites

CT 05/09/07 (129)
 $\beta = -32.67$

MET Day 008

FD10

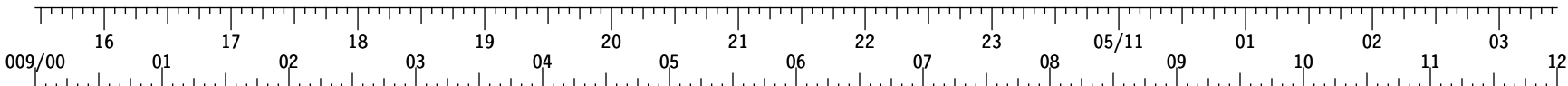
GMT 05/10/07 (130)



GMT 05/10/07 (130)

β = -31.86

MET Day 009



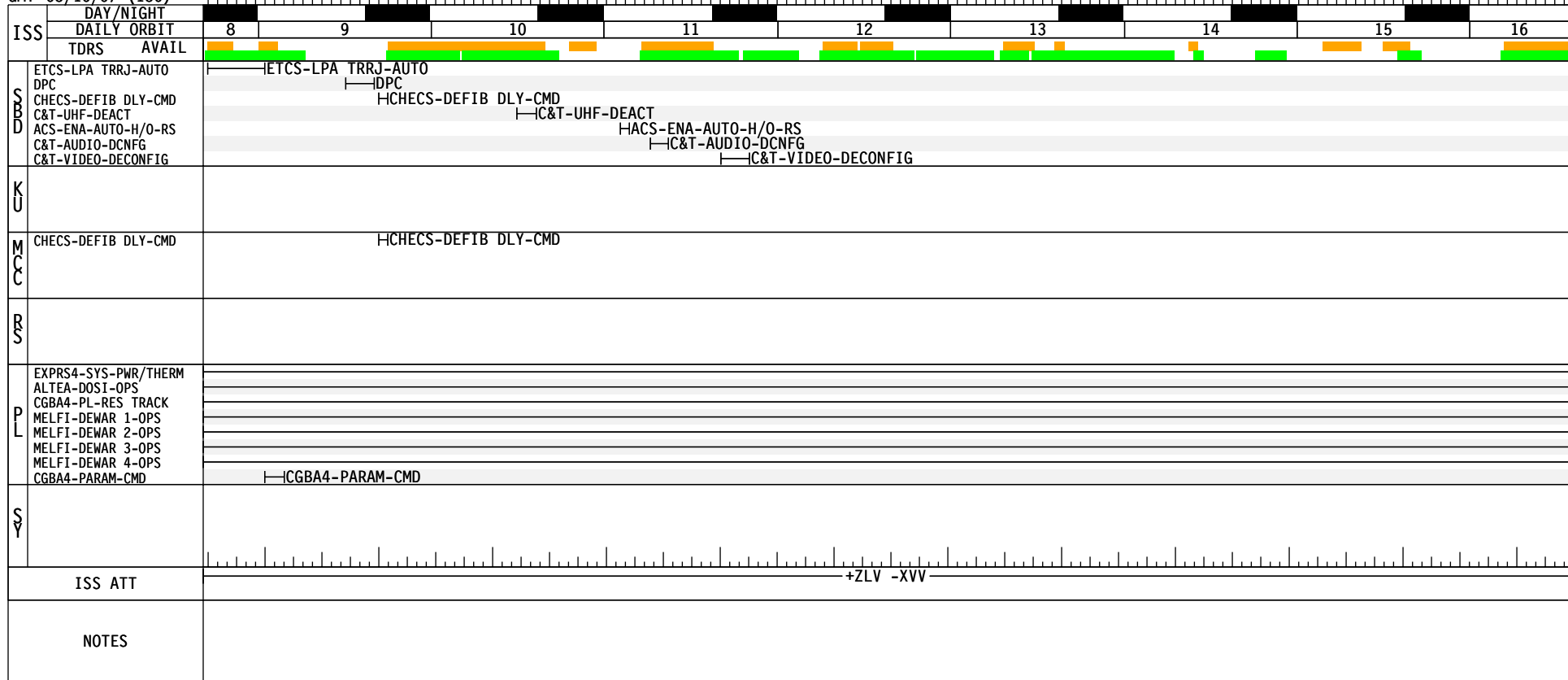
S T S - 1 1 8	FD10 CDR/SUIT IV KELLY	CX WF CE R	FLTR CLN - INSPECT	PRE SLEEP	PMC OCA	PRE SLEEP	SLEEP
	PLT HOBAUGH			PRE SLEEP			SLEEP
	MS1/IV CALDWELL	IV SPT		EXERCISE		PRE SLEEP	SLEEP
	MS2 MASTRACCHIO	CR /P /L /R /S		POST EVA W/H2O		PRE SLEEP	SLEEP
	MS3/EV1 D. WILLIAMS	CR /P /L /R /S		POST EVA W/H2O		PRE SLEEP	SLEEP
	MS4 MORGAN	CDR BAM TIS MLY	XP TFA REG DRU P	XB FR E I F	EXERCISE		PRE SLEEP - SHAB
D N	FE-2 S. WILLIAMS	IE MD SIT	POST EVA W/H2O	EVA ADL		PRE SLEEP	SLEEP (8.5)
E X P 1 5	ISS CDR YURCHIKHIN	VE LO	POST EVA W/H2O			PRE SLEEP	SLEEP (8.5)
	FE-1 KOTOV	OPS LAND P/UL	XT FAG RUP	PREP WORK	DPC	PRE SLEEP	SLEEP (8.5)
U P	FE-2/EV3 ANDERSON	CR /P /L /R /S	POST EVA W/H2O			PRE SLEEP	SLEEP (8.5)
S T S	DAY/NIGHT ORBIT	<p>Day/Night and Orbit schedule bar chart showing alternating day and night periods across days 143 to 151.</p>					
	TDRS W -171 E -46 Z -275	<p>TDRS schedule bar chart showing transmission windows for W-171, E-46, and Z-275 across days 143 to 151.</p>					
	ORB ATT	<p>Orbit Attitude schedule bar chart showing attitude control periods across days 143 to 151.</p>					
	NOTES	BIAS -XLV -ZVV					

Reference OSTP for S-band Activities

CT 05/10/07 (130)
 $\beta = -31.86$

MET Day 009 009/00

FD10
 GMT 05/10/07 (130)

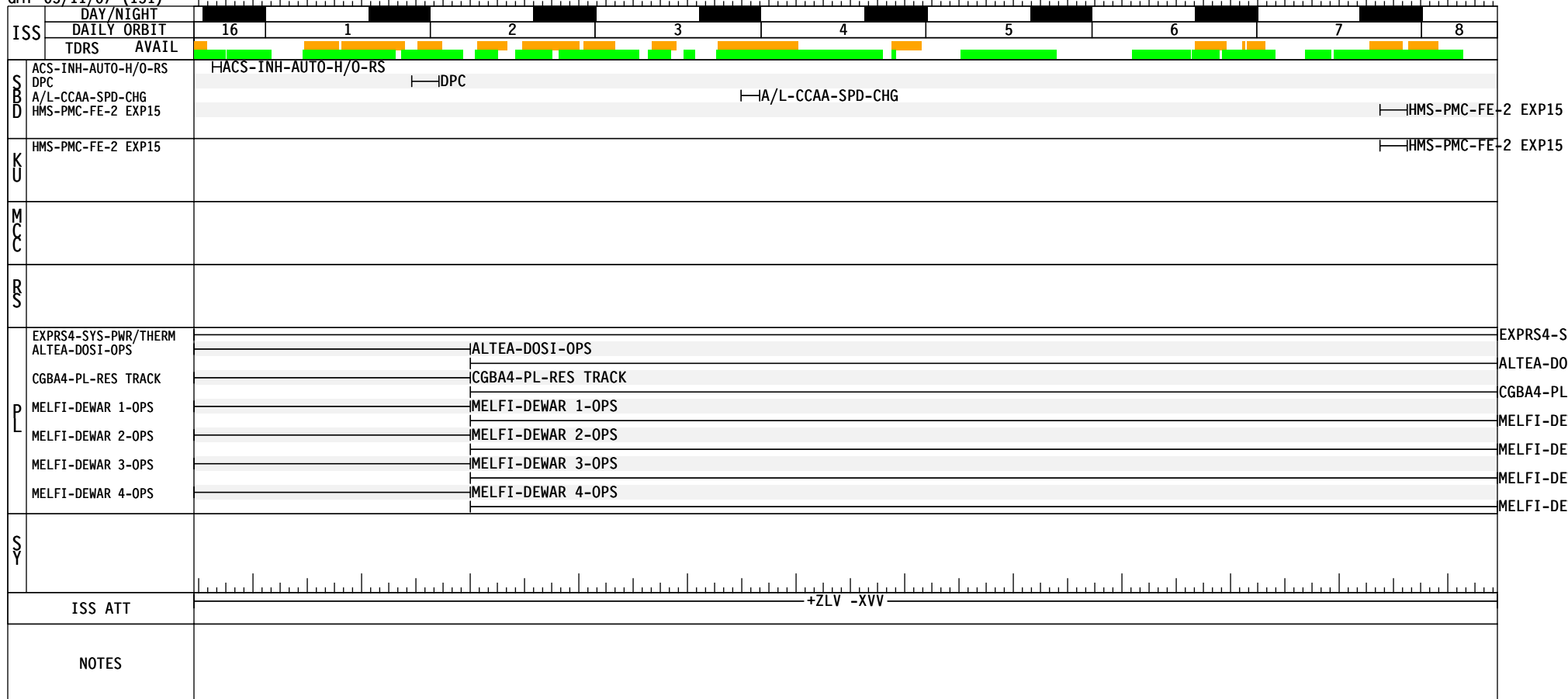


EXPRS4-SYS
 ALTEA-DOSI-OPS
 CGBA4-PL-RES TRACK
 MELFI-DEWAR 1-OPS
 MELFI-DEWAR 2-OPS
 MELFI-DEWAR 3-OPS
 MELFI-DEWAR 4-OPS

Reference OSTP for S-band Activites

CT 05/10/07 (130)
 $\beta = -30.91$

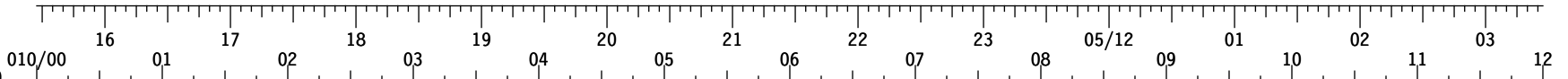
MET Day 009
FD11
 GMT 05/11/07 (131)



GMT 05/11/07 (131)

β = -29.80

MET Day 010



S T S - 1 1 8	FD11	CDR KELLY	OFF DUTY	PRE SLEEP	PMC OCA	PRE SLEEP	SLEEP	FD12	POST SLEEP
		PLT HOBAUGH	OFF DUTY	PRE SLEEP			SLEEP		POST SLEEP
		MS1 CALDWELL	OFF DUTY	PRE SLEEP			SLEEP		POST SLEEP
		MS2 MASTRACCHIO	OFF DUTY	PRE SLEEP			SLEEP		POST SLEEP
		MS3 D. WILLIAMS	OFF DUTY	EXERCISE	PRE SLEEP		SLEEP		POST SLEEP
		MS4 MORGAN	OFF DUTY	XTFAFR TEGEIR RUPF	PRE SLEEP - SHAB		SLEEP		POST SLEEP - SHAB
D N		FE-2 S. WILLIAMS	PMCDPC	PREP WORK	PRE SLEEP		SLEEP (8.5)		POST SLEEP
E X P 1 5		ISS CDR YURCHIKHIN	PWROPERK	XTFAFR TEGERUP	PREP WORK	PRE SLEEP		SLEEP (8.5)	POST SLEEP
		FE-1 KOTOV		DPC	PREP WORK	PRE SLEEP		SLEEP (8.5)	POST SLEEP
U P		FE-2 ANDERSON	*EXDPC	PREP WORK	PRE SLEEP		SLEEP (8.5)		POST SLEEP
S T S	DAY/NIGHT ORBIT								
	TDRS W -171								
	TDRS E -46								
	ORB ATT								
NOTES	*EXERCISE TVIS								
	BIAS -XLV -ZVV								

Reference OSTP for S-band Activites

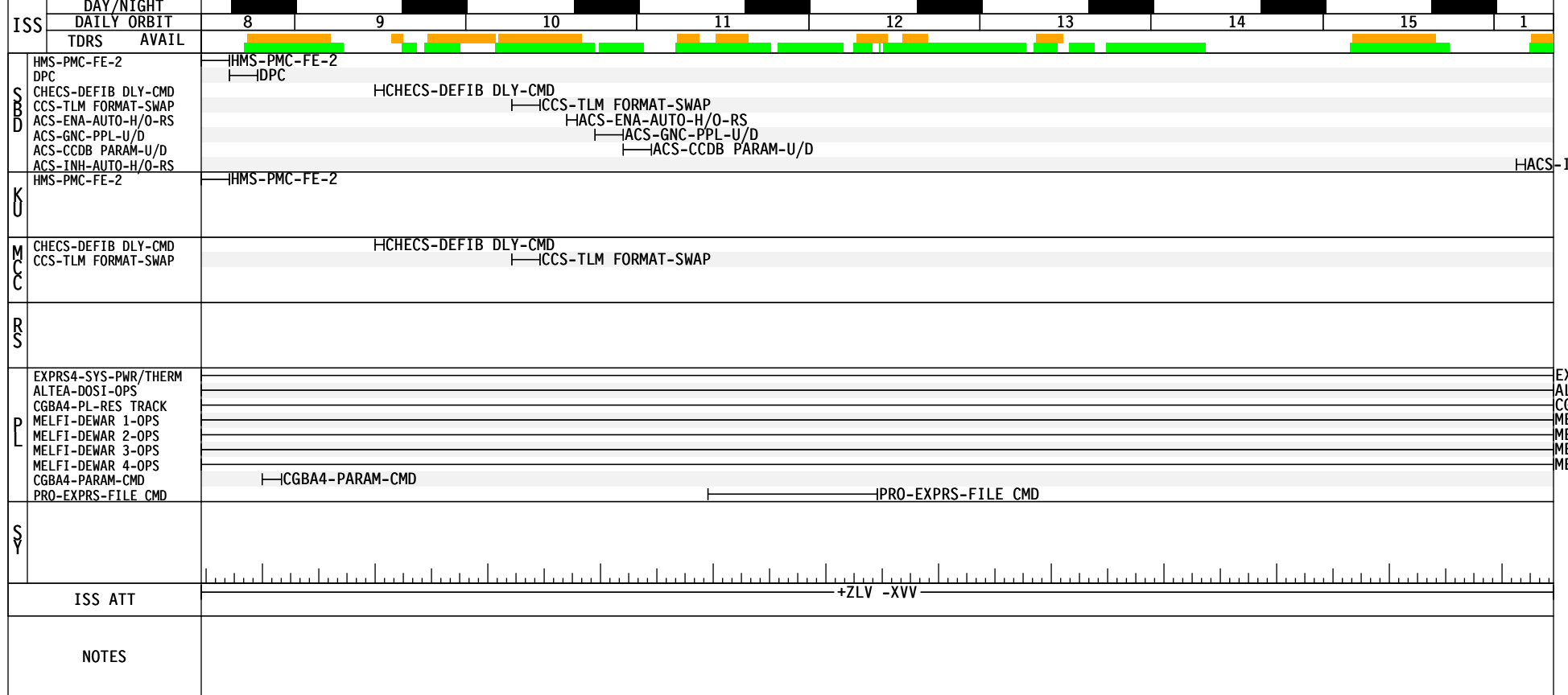
CT 05/11/07 (131)

$\beta = -29.80$

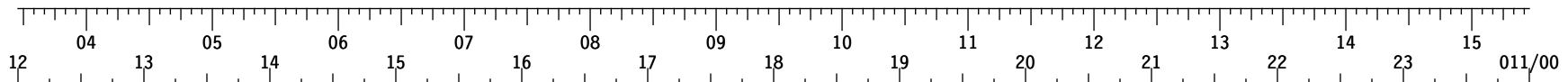
MET Day 010 010/00

FD11

GMT 05/11/07 (131)



GMT 05/12/07 (132)
 β = -28.59
 MET Day 010



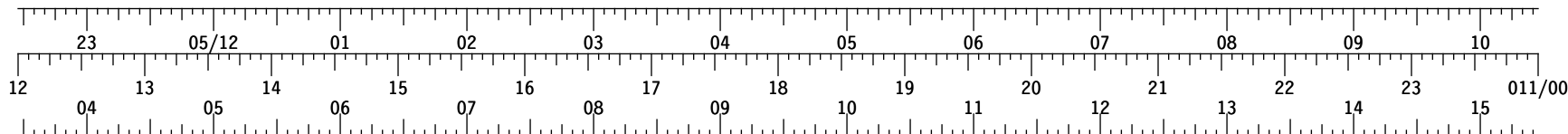
S T S - 1 1 8	FD12	POST SLEEP			O2 TRM	O2 XFER TEARDOWN	EMU XFER TO STS	FAREWELL	HATCH CLOSE	EXERCISE	-XZLVV	UNDOCK OPS	FLYAROUND	SEP1	SEP2	RHCT SR	+ZLVV	CT/IND	MEAL	SIMOTERM	-ZXLVV	MERLINDSCNT CNFG
	PLT HOBAUGH	POST SLEEP			FES*	RNDZ TOOLS C/O	FAREWELL	HATCH CLOSE	OIU*	EXERCISE	GP RP RP	UNDOCK OPS	FLYAROUND			GP RP RP	OSV	SIMOINIT	MEAL		EXERCISE	
	MS1 CALDWELL	POST SLEEP				RNDZ TOOLS C/O	FAREWELL	HATCH CLOSE		EXERCISE		UNDOCK OPS	FLYAROUND			CCD	EELM	ACT	MEAL			PEE ADV OUNT
	MS2 MASTRACCHIO	POST SLEEP				EXERCISE	P/TV 04 S/U	FAREWELL	C/L CAMR INST	ODS LEAK CHECK	ETMNSTL		P/TV UNDOCK OPS						MEAL	EVA TOOL STOW		PEE ADV OUNT
	MS3 D. WILLIAMS	POST SLEEP				XFER	EMU XFER TO STS	FAREWELL	HABLU DO IO	ODS LEAK CHECK		UNDOCK OPS	FLYAROUND				PLBK OPS		MEAL	EVA TOOL STOW	CD BATTIMLY	
	MS4 MORGAN	POST SLEEP - SHAB		XUFRD AT	POST SLEEP	XFER	XTX BFAFR EIGUREP	FAREWELL	FDMPLY	P/TV03 S/U	XFER CLEAN UP	EXERCISE	FLYAROUND			SD SEORCT			MEAL	XFER C/U	PAOS/U	PEE ADV OUNT
D N	FE-2 S. WILLIAMS	POST SLEEP	PREP WORK	DPC	XFER	SPGIS COLD BAG	FAREWELL		EXERCISE	XFER CLEAN UP		FLYAROUND						MEAL	XFER C/U			
E X P 1 5	ISS CDR YURCHIKHIN	POST SLEEP	PREP WORK	DPC	O2 TRM	XTFAEGRUP	FAREWELL		EXERCISE TVIS		UVNIDDEKO	PMA2-DEPRESS	MIDDAY-MEAL	IMS EDIT				EXERCISE VELO	COX MNT			PW RORPK
	FE-1 KOTOV	POST SLEEP	PREP WORK	DPC	XFER		FAREWELL	HATCH CLOSE	EXERCISE VELO		PMA2 DPRT CNFG		MIDDAY-MEAL					EXERCISE TVIS	*			PW RORPK
U P	FE-2 ANDERSON	POST SLEEP	PREP WORK	DPC	XFER		FAREWELL	EXERCISE TVIS	IWIS S/U			IWIS DEACT	MIDDAY-MEAL	PMA2 LK CH		PMA2 LK CH		EXERCISE RED				EXDLPW
S T S	DAY/NIGHT ORBIT	[Timeline bars for Day/Night and Orbit]																				
	TDRS	[Timeline bars for TDRS]																				
	ORB ATT	[Timeline bars for Orb Att]																				
NOTES	BIAS -XLV -ZVV *HTR ACT *ACT *OFF *CONFIG ISS UNMATED OPS *REACTIVATE *UNDOCK (10/18:46) *REG RCNFG *DEACT *CDRA DCNCT																					

Reference OSTP for S-band Activities

CT 05/11/07 (131)
 $\beta = -28.59$

MET Day 010

FD12
 GMT 05/12/07 (132)



ISS	DAY/NIGHT		DAILY ORBIT																																			
			1												2												3											
	TDRS	AVAIL	1 2 3 4 5 6 7 8 9																																			
S D B S			<div style="display: flex; justify-content: space-between;"> 12 13 14 15 16 17 18 19 20 21 22 23 24 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 </div>																																			
			<div style="display: flex; justify-content: space-between;"> 04 05 06 07 08 09 10 11 12 13 14 15 </div>																																			
			<div style="display: flex; justify-content: space-between;"> 04 05 06 07 08 09 10 11 12 13 14 15 </div>																																			
			<div style="display: flex; justify-content: space-between;"> 04 05 06 07 08 09 10 11 12 13 14 15 </div>																																			
			<div style="display: flex; justify-content: space-between;"> 04 05 06 07 08 09 10 11 12 13 14 15 </div>																																			
K			<div style="display: flex; justify-content: space-between;"> 04 05 06 07 08 09 10 11 12 13 14 15 </div>																																			
			<div style="display: flex; justify-content: space-between;"> 04 05 06 07 08 09 10 11 12 13 14 15 </div>																																			
M C C			<div style="display: flex; justify-content: space-between;"> 04 05 06 07 08 09 10 11 12 13 14 15 </div>																																			
			<div style="display: flex; justify-content: space-between;"> 04 05 06 07 08 09 10 11 12 13 14 15 </div>																																			
R S			<div style="display: flex; justify-content: space-between;"> 04 05 06 07 08 09 10 11 12 13 14 15 </div>																																			
			<div style="display: flex; justify-content: space-between;"> 04 05 06 07 08 09 10 11 12 13 14 15 </div>																																			
P L			<div style="display: flex; justify-content: space-between;"> 04 05 06 07 08 09 10 11 12 13 14 15 </div>																																			
			<div style="display: flex; justify-content: space-between;"> 04 05 06 07 08 09 10 11 12 13 14 15 </div>																																			
			<div style="display: flex; justify-content: space-between;"> 04 05 06 07 08 09 10 11 12 13 14 15 </div>																																			
			<div style="display: flex; justify-content: space-between;"> 04 05 06 07 08 09 10 11 12 13 14 15 </div>																																			
			<div style="display: flex; justify-content: space-between;"> 04 05 06 07 08 09 10 11 12 13 14 15 </div>																																			
			<div style="display: flex; justify-content: space-between;"> 04 05 06 07 08 09 10 11 12 13 14 15 </div>																																			
			<div style="display: flex; justify-content: space-between;"> 04 05 06 07 08 09 10 11 12 13 14 15 </div>																																			
S			<div style="display: flex; justify-content: space-between;"> 04 05 06 07 08 09 10 11 12 13 14 15 </div>																																			
			<div style="display: flex; justify-content: space-between;"> 04 05 06 07 08 09 10 11 12 13 14 15 </div>																																			

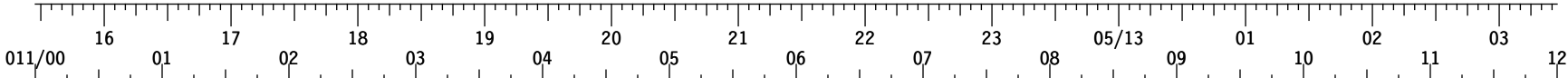
U
N
D
O
C
K

EXPRS4-SY
 ALTEA-DOS
 CGBA4-PL-
 MELFI-DEW
 MELFI-DEW
 MELFI-DEW
 MELFI-DEW

GMT 05/12/07 (132)

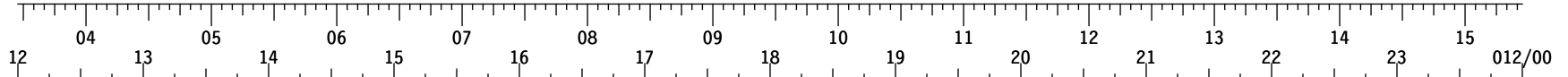
β = -27.30

MET Day 011



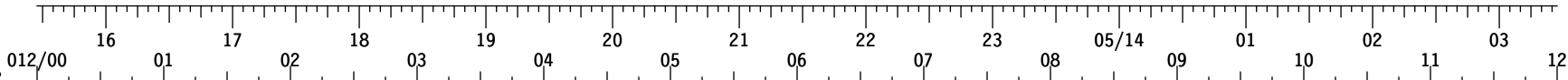
S T S - 1 1 8	FD12	P C S L M A P NC5A MULT AXIS RCS BURN PRE SLEEP PMC OCA PRE SLEEP PRE SLEEP PRE SLEEP PRE SLEEP PRE SLEEP - SHAB PRE SLEEP DAY/NIGHT ORBIT W -171 TDRS E -46 Z -275 ORB ATT NC5 -ZLV -XVV NOTES	PRE SLEEP		SLEEP		FD13	POST SLEEP
	CDR KELLY		PRE SLEEP		SLEEP			POST SLEEP
	PLT HOBAUGH		PRE SLEEP		SLEEP			POST SLEEP
	MS1 CALDWELL		PRE SLEEP		SLEEP			POST SLEEP
	MS2 MASTRACCHIO		PRE SLEEP		SLEEP			POST SLEEP
	MS3 D. WILLIAMS		PRE SLEEP		SLEEP			POST SLEEP
	MS4 MORGAN		PRE SLEEP - SHAB		SLEEP			POST SLEEP - SHAB
MS5 S. WILLIAMS	PRE SLEEP		SLEEP			POST SLEEP		
S T S	DAY/NIGHT	[Timeline with alternating black and white bars]						
	ORBIT	[Timeline with alternating black and white bars]						
	TDRS	[Timeline with alternating black and white bars]						
		[Timeline with alternating black and white bars]						

GMT 05/13/07 (133)
 β = -25.91
 MET Day 011



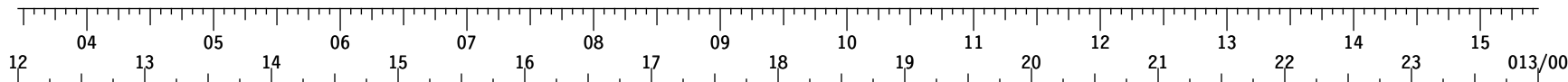
STS - 118	FD13	POST SLEEP		CMS CNT MV B ARD	NOSE CAP SURVEY		FES - I		- + ZLV LVV		MEAL		M C N O V M R M		C O M M 1		EXERCISE		P R E S L E E P		F E E L I N G		- X ZLV LVV		P S L E E P		
	PLT/R3 HOBAUGH	POST SLEEP		OBSS STBD SURVEY		M N O V S R E		M P N O V R T		EXERCISE		MEAL								PRE SLEEP							
	MS1/R1/R2 CALDWELL	POST SLEEP	OBSS UNBERTH	OBSS STBD SURVEY		NOSE CAP SURVEY		EXERCISE		OBSS BERTH		R P M W S R D N		CWC DUMP		CWC DUMP		MEAL				P E A V O E N T		PRE SLEEP			
	MS2/R2/R3 MASTRACCHIO	POST SLEEP	OBSS UNBERTH	OBSS STBD SURVEY				OBSS PORT SURVEY		EXERCISE		MEAL						POST ISS EV ENT PREP		EVA STOW		PRE SLEEP					
	MS3/R3 D. WILLIAMS	POST SLEEP						OBSS PORT SURVEY		EXERCISE		MEAL						C D B A T I M L Y		POST ISS EV ENT PREP		EVA STOW		PRE SLEEP			
	MS4/R1/R2 MORGAN	POST SLEEP - SHAB		EXERCISE		NOSE CAP SURVEY		OBSS PORT SURVEY		OBSS BERTH		R P M W S R D N		MEAL		LDRI DNK		PAO S/U		PRE SLEEP - SHAB							
	MS5 S. WILLIAMS	POST SLEEP		EXERCISE								MEAL		EXERCISE						PRE SLEEP							
STS	DAY/NIGHT	[Timeline with day/night indicators]																									
	ORBIT	183 184 185 186 187 188 189 190																									
	TDRS	W -171 E -46 Z -275																									
ORB ATT	-ZLV -XVV STBD NOSE PORT SURVEY BIAS -ZLV +YVV COMM																										
NOTES																											

GMT 05/13/07 (133)
 β = -24.40
 MET Day 012



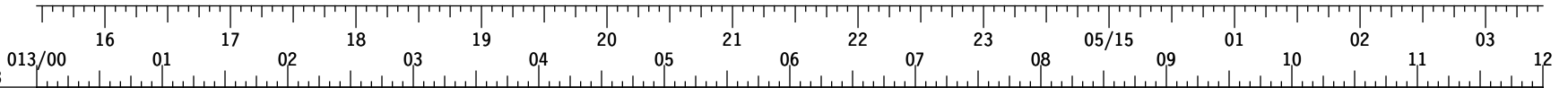
S T S - 1 1 8	FD13	PMC OCA	PS R L E E P	NC6Δ RCS BURN	-- Z X L V V	PRE SLEEP	FD14					LOG	POST SLEEP	
	CDR/R3 KELLY						SLEEP							
	PLT/R3 HOBAUGH					PRE SLEEP	SLEEP					LOG	POST SLEEP	
	MS1/R1/R2 CALDWELL					PRE SLEEP	SLEEP					LOG	POST SLEEP	
	MS2/R2/R3 MASTRACCHIO					PRE SLEEP	SLEEP					LOG	POST SLEEP	
	MS3/R3 D. WILLIAMS					PRE SLEEP	SLEEP					LOG	POST SLEEP	
	MS4/R1/R2 MORGAN					PRE SLEEP - SHAB	SLEEP					LOG	POST SLEEP - SHAB	
MS5 S. WILLIAMS					PRE SLEEP	SLEEP						POST SLEEP		
S T S	DAY/NIGHT	[Timeline with day/night bars]												
	ORBIT	[Timeline with orbit bars]												
	TDRS	W -171	[Timeline with TDRS bars]											
		E -46	[Timeline with TDRS bars]											
	Z -275	[Timeline with TDRS bars]												
	ORB ATT	NC6	[Timeline with orb att bars]										-ZLV -XVV	
	NOTES													

GMT 05/14/07 (134)
 β = -22.78
 MET Day 012



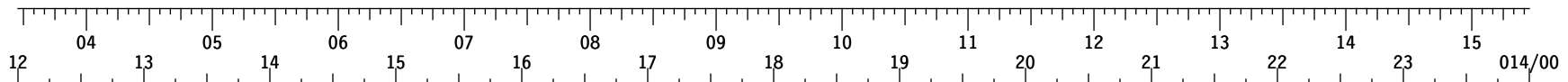
STS - 118	FD14		04		05		06		07		08		09		10		11		12		13		14		15	
	CDR KELLY	POST SLEEP	RCS BURN	P-S L P	FILTER CLEANING	FCS C/O	RCS H/F	PILOT OPS	EXERCISE	EXERCISE	EXERCISE	EXERCISE	EXERCISE	EXERCISE	EXERCISE	EXERCISE	EXERCISE	EXERCISE	EXERCISE	EXERCISE	EXERCISE	EXERCISE	EXERCISE	EXERCISE	EXERCISE	EXERCISE
PLT HOBAUGH	POST SLEEP	RCS BURN	-ZLVV	POST SLEEP	FCS C/O	RCS H/F	PILOT OPS	EXERCISE	EXERCISE	EXERCISE	EXERCISE	EXERCISE	EXERCISE	EXERCISE	EXERCISE	EXERCISE	EXERCISE	EXERCISE	EXERCISE	EXERCISE	EXERCISE	EXERCISE	EXERCISE	EXERCISE	EXERCISE	
MS1 CALDWELL	POST SLEEP			CABIN STOW				SD SE VACT	EXERCISE	CABIN STOW				D/O BRIEF	MEAL	CABIN STOW	EPO VIDEO	CABIN STOW		WDL EASCT	ERG STOW	PRE SLEEP				
MS2 MASTRACCHIO	POST SLEEP			CABIN STOW	FCS C/O	RCS H/F	EXERCISE	CABIN STOW				D/O BRIEF	MEAL	CABIN STOW				LAUNCH ENTRY SUIT CK	RMBNT SEAT S/U	KU STOW	PS RLEE P					
MS3 D. WILLIAMS	POST SLEEP			CABIN STOW		EXERCISE		CABIN STOW				FS MTOK W PAO S/U	D/O BRIEF	MEAL	PE AVO ENCT SA	CABIN STOW		SHAB ENTRY PREP		PGSC STOW PART I	PRE SLEEP					
MS4 MORGAN	POST SLEEP - SHAB			CABIN STOW	EXERCISE		CABIN STOW				D/O BRIEF	MEAL	PE AVO ENCT SA	EPO VIDEO	SHAB ENTRY PREP		EV NITD REYO	KU STOW	PS RLEE P							
MS5 S. WILLIAMS	POST SLEEP			EXERCISE			CABIN STOW				D/O BRIEF	MEAL	CABIN STOW	EXERCISE	LAUNCH ENTRY SUIT CK		RMBNT SEAT S/U	PRE SLEEP								
STS	DAY/NIGHT	[Timeline bars for Day/Night]																								
	ORBIT	[Timeline bars for Orbit]																								
	TDRS	W -171	[Timeline bars for TDRS]																							
		E -46	[Timeline bars for TDRS]																							
	Z -275	[Timeline bars for TDRS]																								
	ORB ATT	OA	-ZLV	-XVV	FCS C/O	-ZLV	-XVV	BIAS	-ZLV	+YVV	-MLA	-MLA	-MLA	-ZLV	-XVV	-DFR	-DFR									
	GND	[Timeline bars for GND]																								
NOTES	*HTR ACT																									

GMT 05/14/07 (134)
 β = -21.10
 MET Day 013



S T S - 1 1 8	FD14	PS RL EE EP	CC M A /G	PRE SLEEP	SLEEP	FD15	WATCH	POST SLEEP		
	CDR KELLY									
	PLT HOBAUGH			PRE SLEEP	SLEEP		WATCH	POST SLEEP		
	MS1 CALDWELL			PRE SLEEP	SLEEP		WATCH	POST SLEEP		
	MS2 MASTRACCHIO			PRE SLEEP	SLEEP		WATCH	POST SLEEP		
	MS3 D. WILLIAMS			PRE SLEEP	SLEEP		WATCH	POST SLEEP		
	MS4 MORGAN			PRE SLEEP	SLEEP		WATCH	POST SLEEP		
MS5 S. WILLIAMS			PRE SLEEP	SLEEP		WATCH	POST SLEEP			
S T S	DAY/NIGHT	[Timeline with day/night indicators]								
	ORBIT	206	207	208	209	210	211	212	213	214
	TDRS	W -171	E -46	Z -275						
	ORB ATT					-ZLV	-XVV			
NOTES										

GMT 05/15/07 (135)
 β = -19.36
 MET Day 013



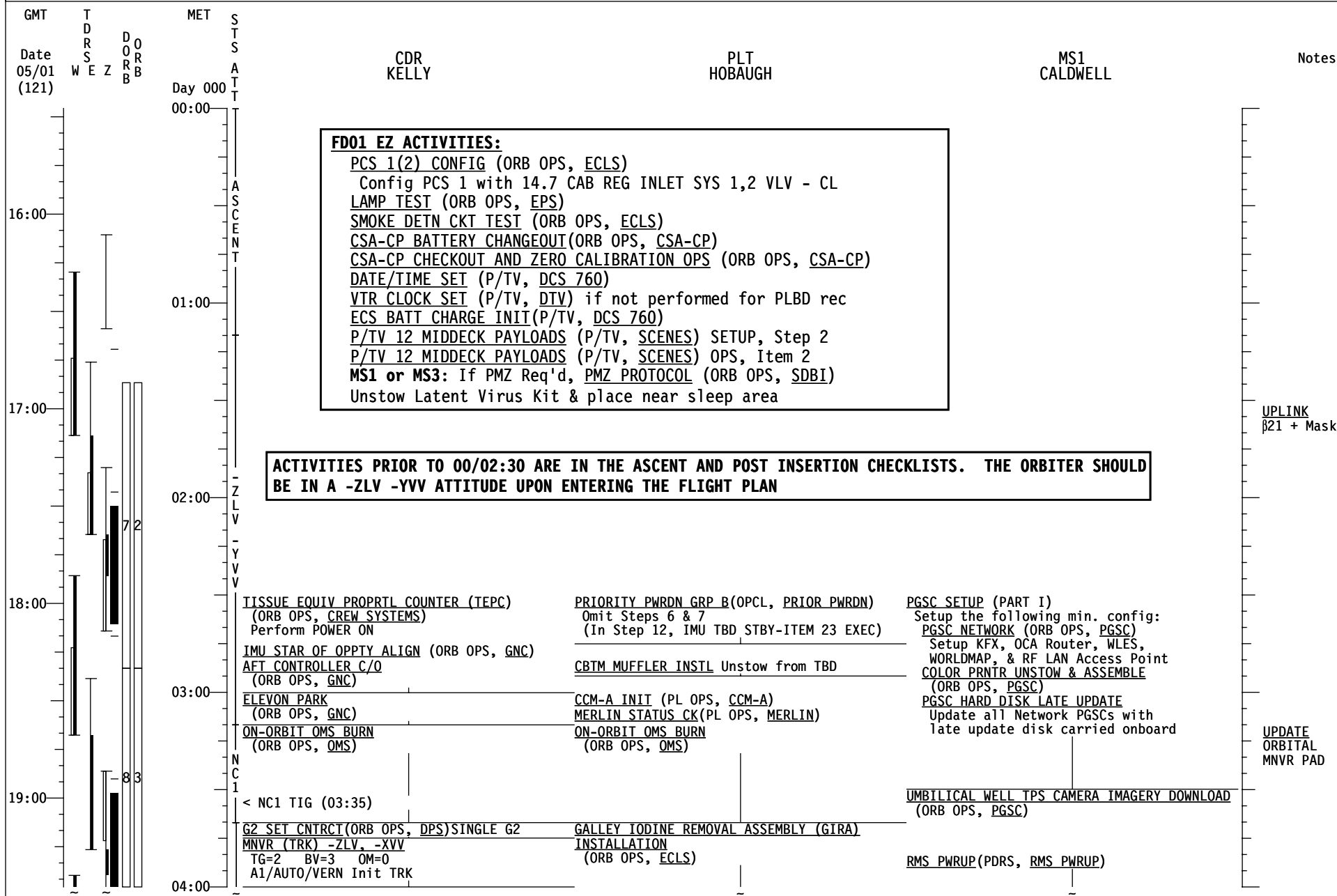
STS-118	FD15	PS OL SE TE P	PM C A/G	PS LE TE P	GP RW RU P	IMU ALIGN & VERIF	T- RX K S I	DEORBIT PREP		
	PLT HOBAUGH	POST SLEEP		CG RW A B	GP PR UR P	GS IT RO AW	POST SLEEP	DEORBIT PREP	D E O R B I T	K S C
	MS1 CALDWELL	POST SLEEP					OST A O C W	DEORBIT PREP		
	MS2 MASTRACCHIO	POST SLEEP						DEORBIT PREP		
	MS3 D. WILLIAMS	POST SLEEP		M U F F L E R		PGSC STOW PART II		DEORBIT PREP		
	MS4 MORGAN	POST SLEEP						DEORBIT PREP		
	MS5 S. WILLIAMS	POST SLEEP						DEORBIT PREP		
STS	DAY/NIGHT	[Timeline with day/night shading]								
	ORBIT	214	215	216	217	218	219	220	221	222
	TDRS	W -171	E -46	Z -275						
	ORB ATT	-ZLV	-XVV	IMU	-XSI	COMM	ENTRY			
NOTES	*ENTRY PREP *POWERDOWN									
	*DEORBIT TIG *KSC LANDING (13/18:49) (13/17:46)									

This Page Intentionally Blank

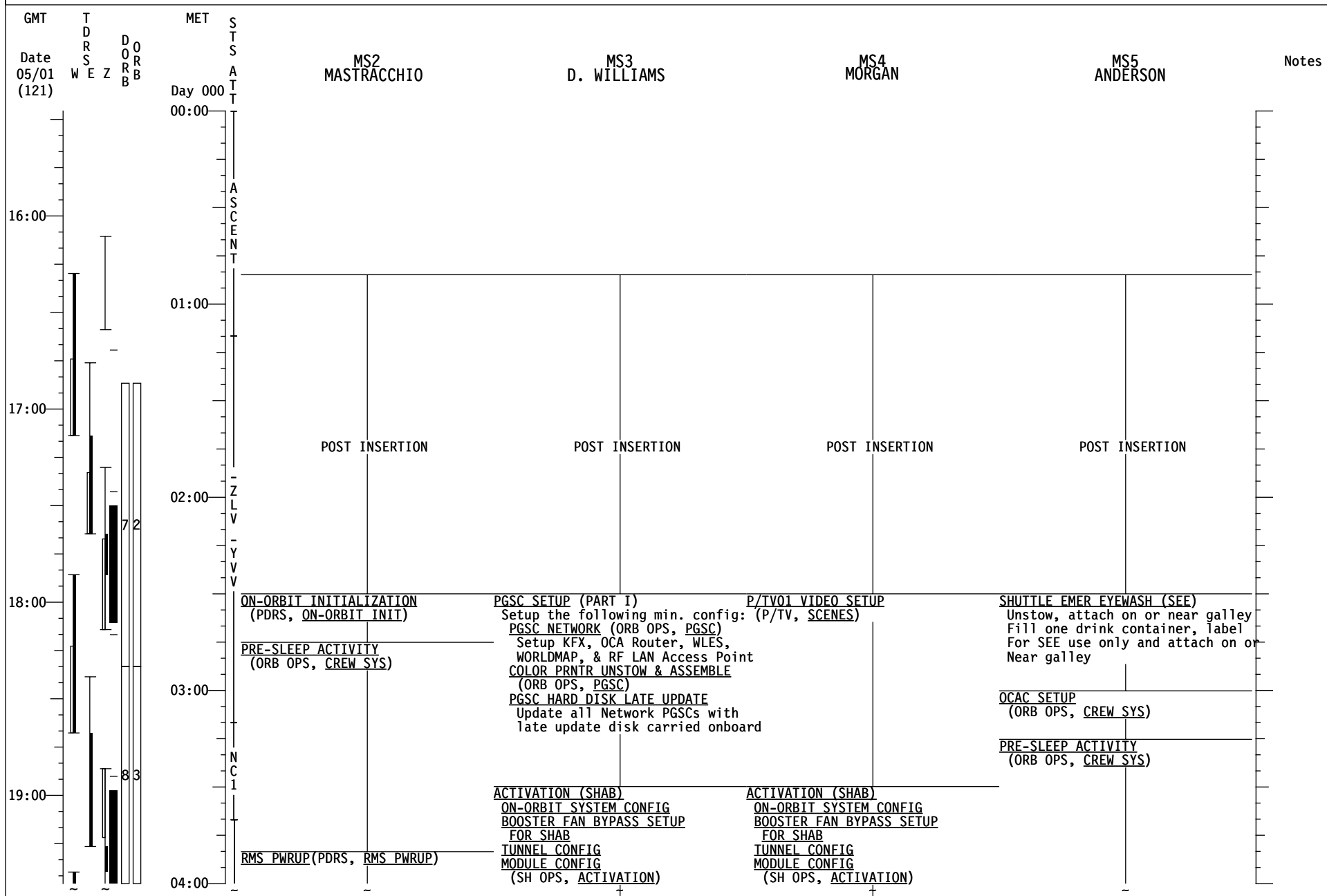
DETAILED TIMELINE

DETAILED
TIMELINE

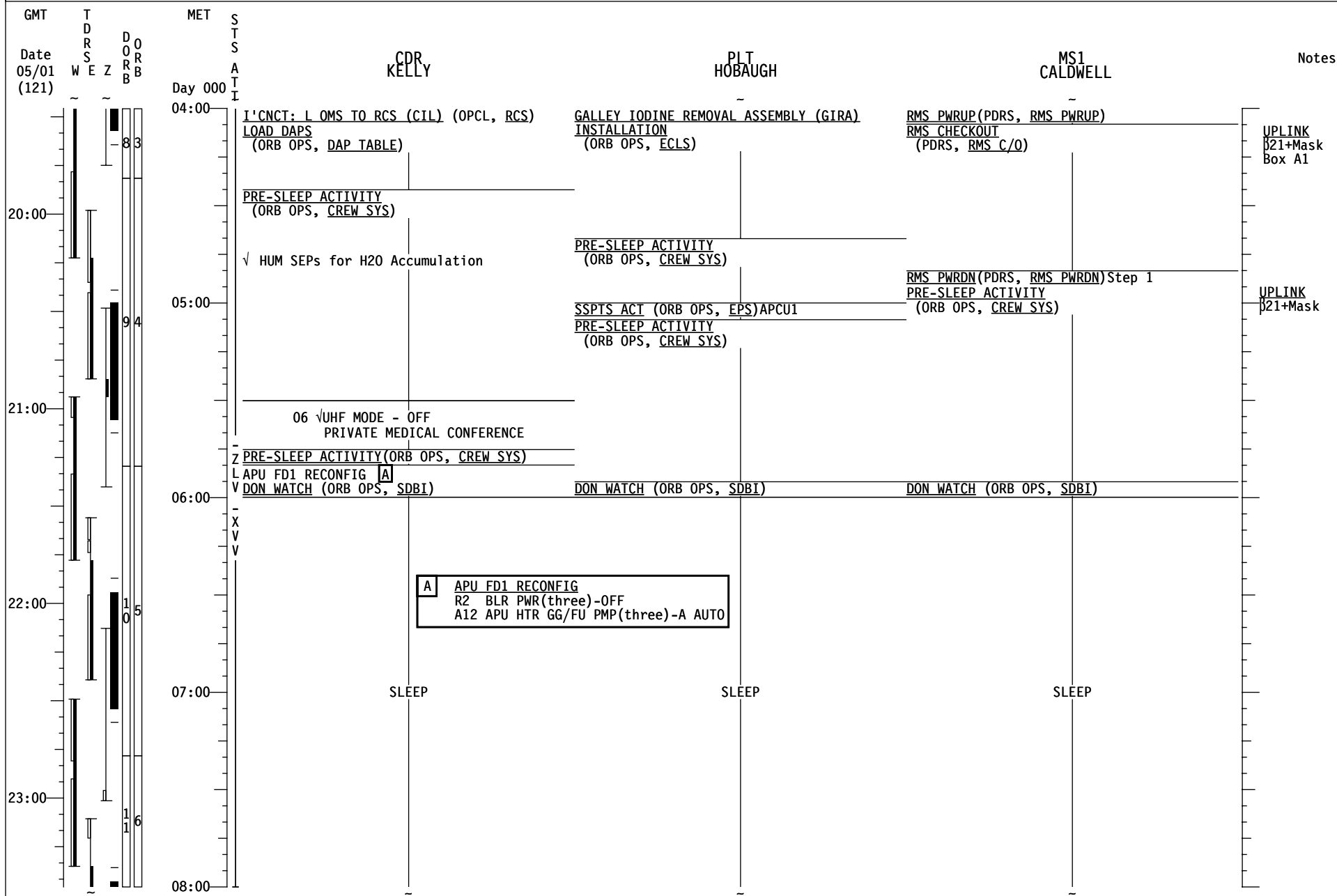
STS-118 FD01



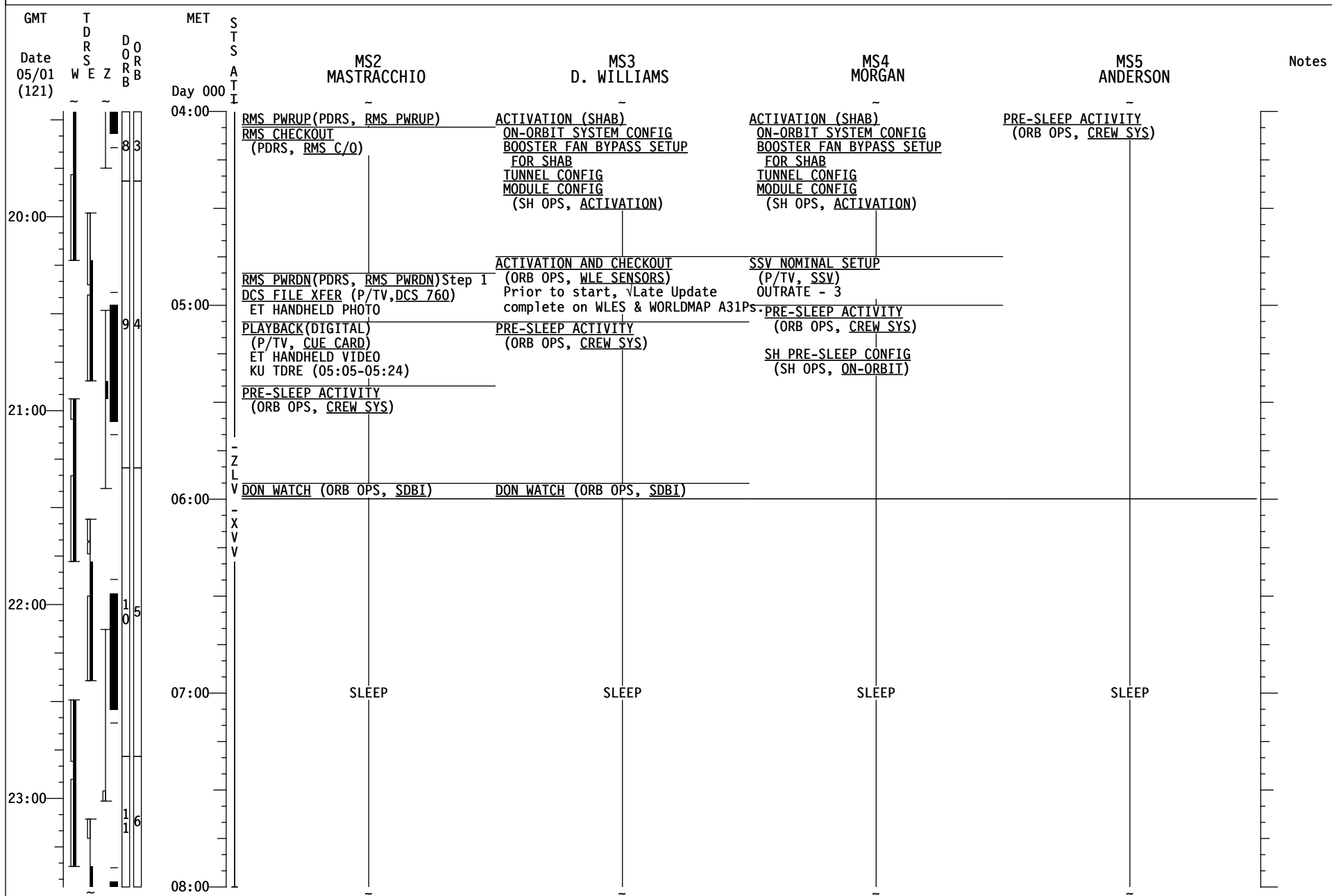
STS-118 FD01



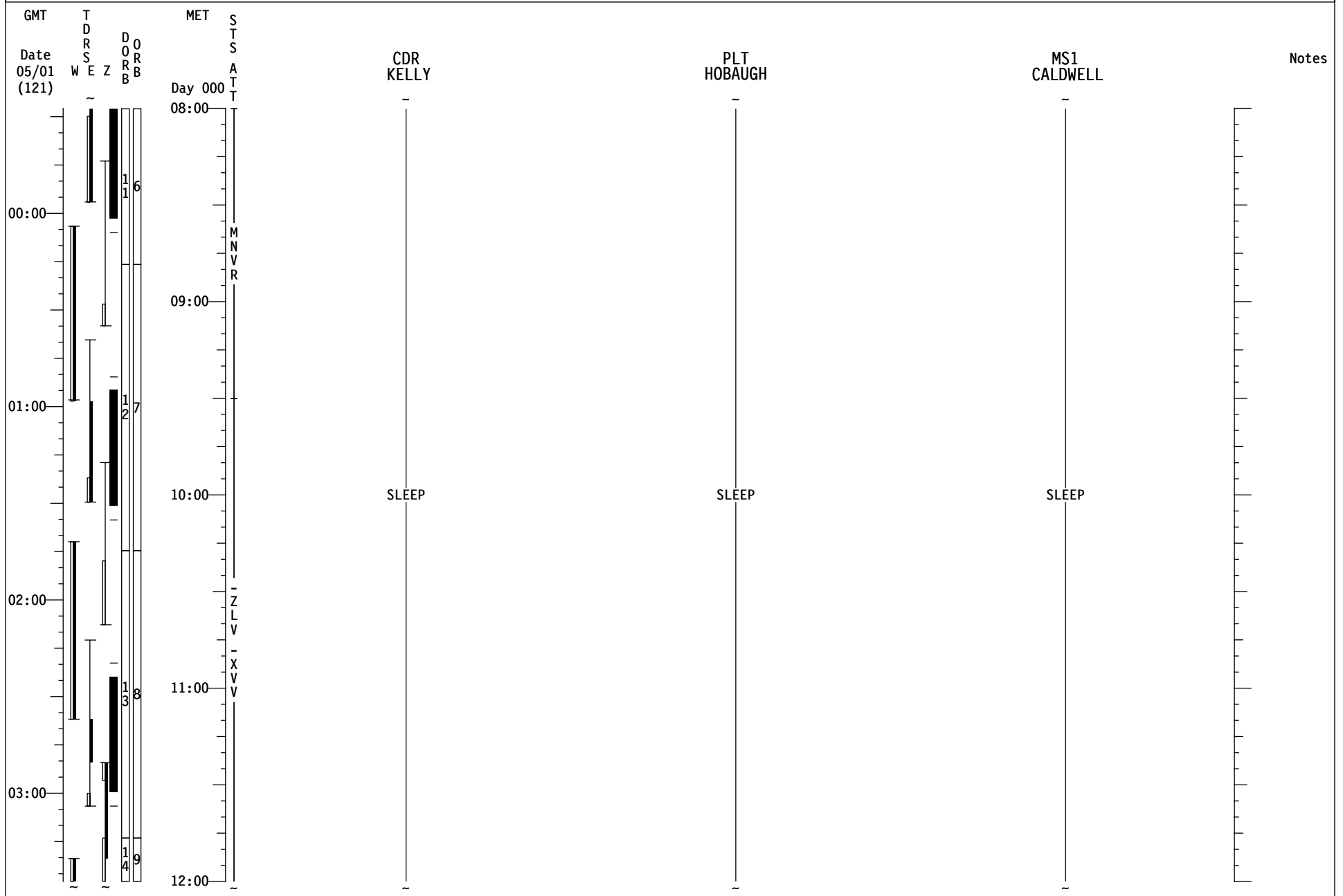
STS-118 FD01



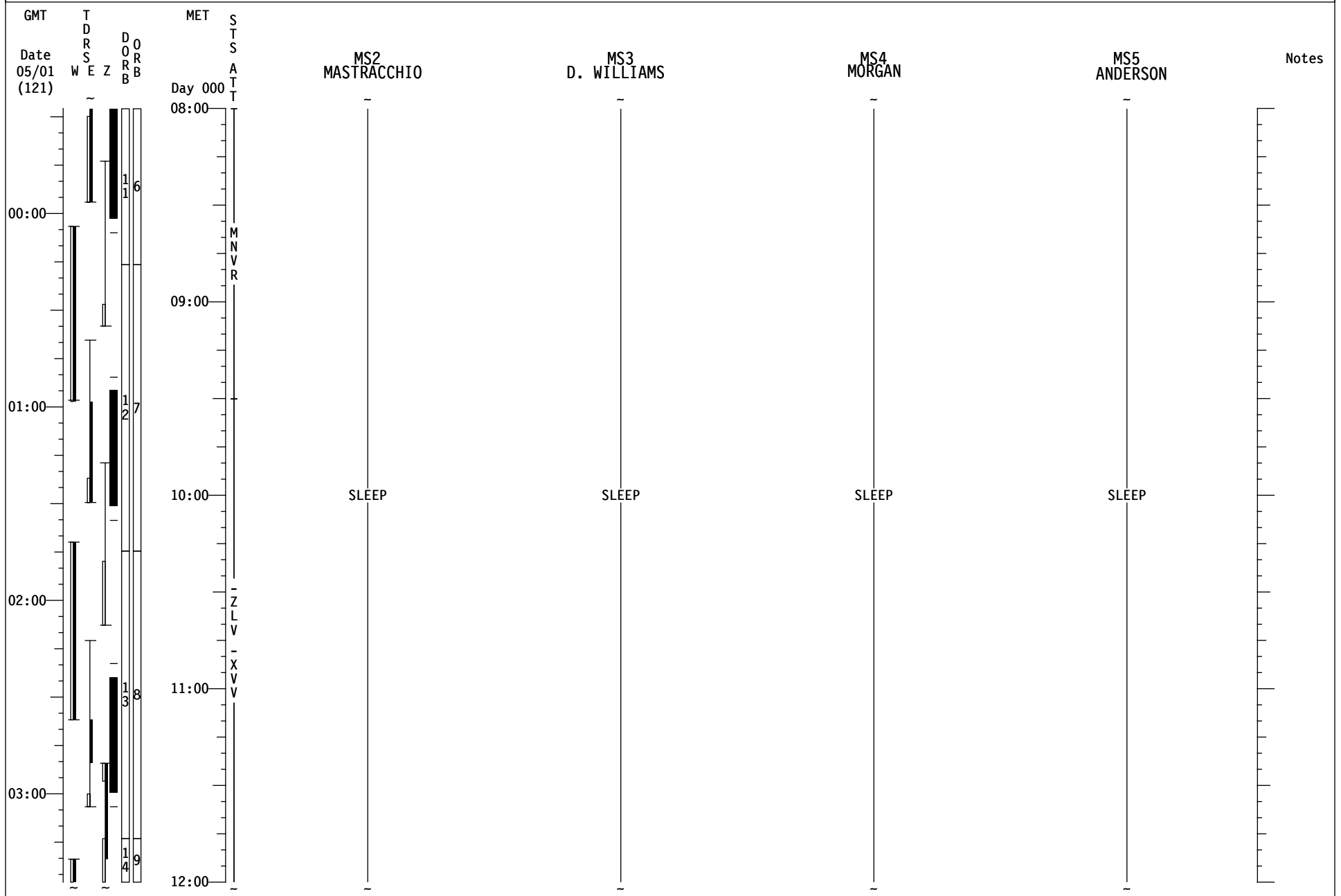
STS-118 FD01



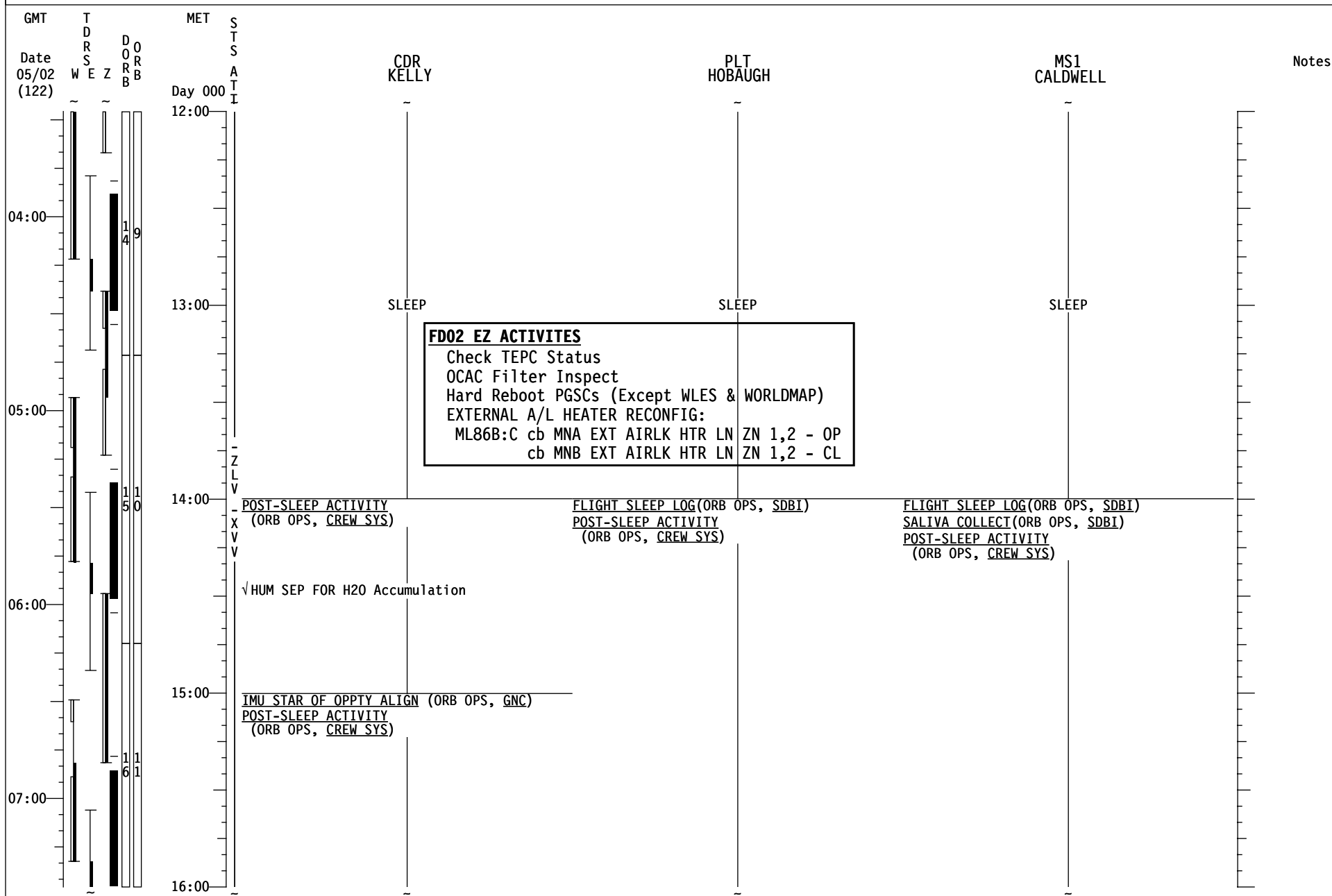
STS-118 FD01



STS-118 FD01

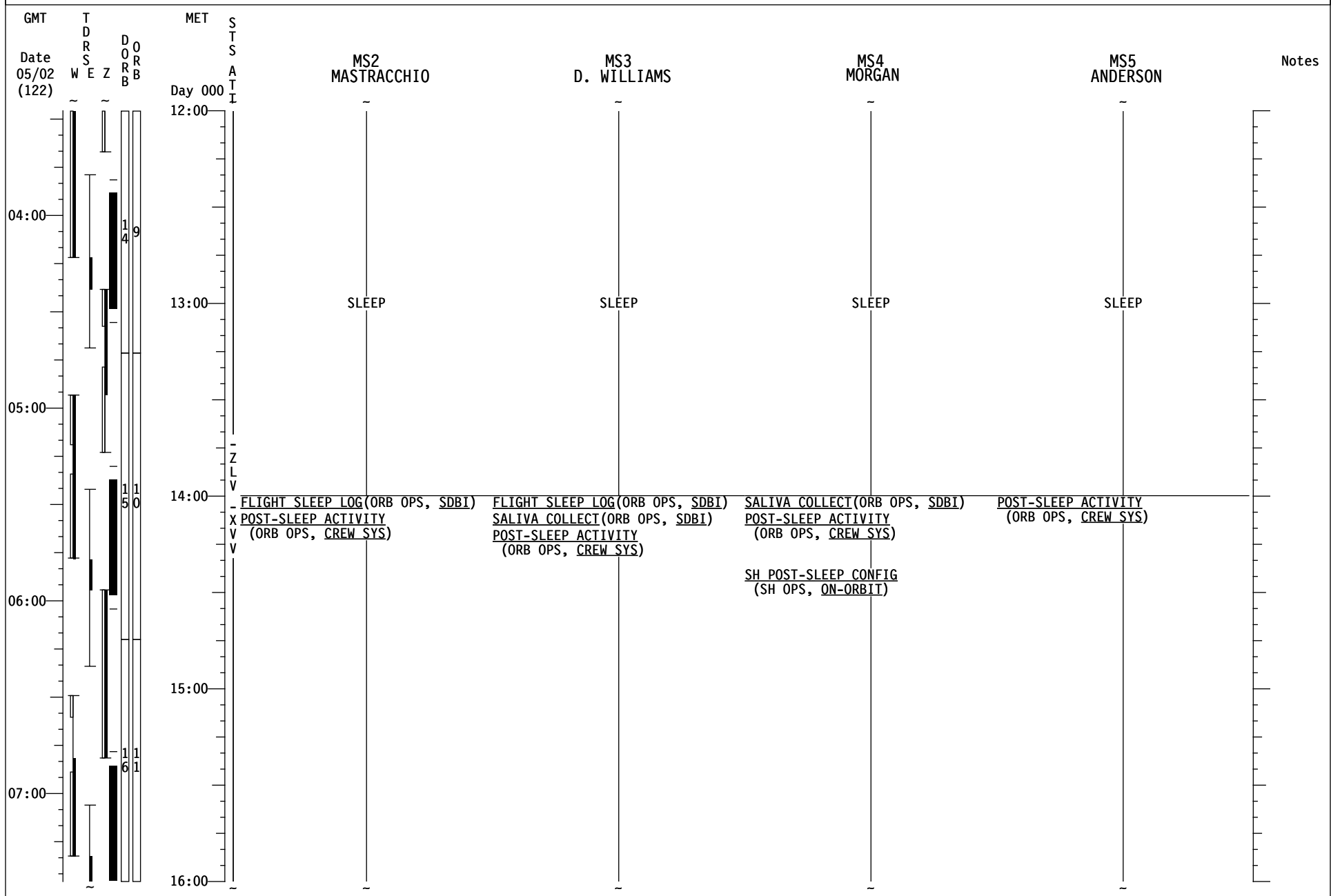


STS-118 FD02



FD02 EZ ACTIVITES
 Check TEPC Status
 OCAC Filter Inspect
 Hard Reboot PGSCs (Except WLES & WORLDMAP)
 EXTERNAL A/L HEATER RECONFIG:
 ML86B:C cb MNA EXT AIRLK HTR LN ZN 1,2 - OP
 cb MNB EXT AIRLK HTR LN ZN 1,2 - CL

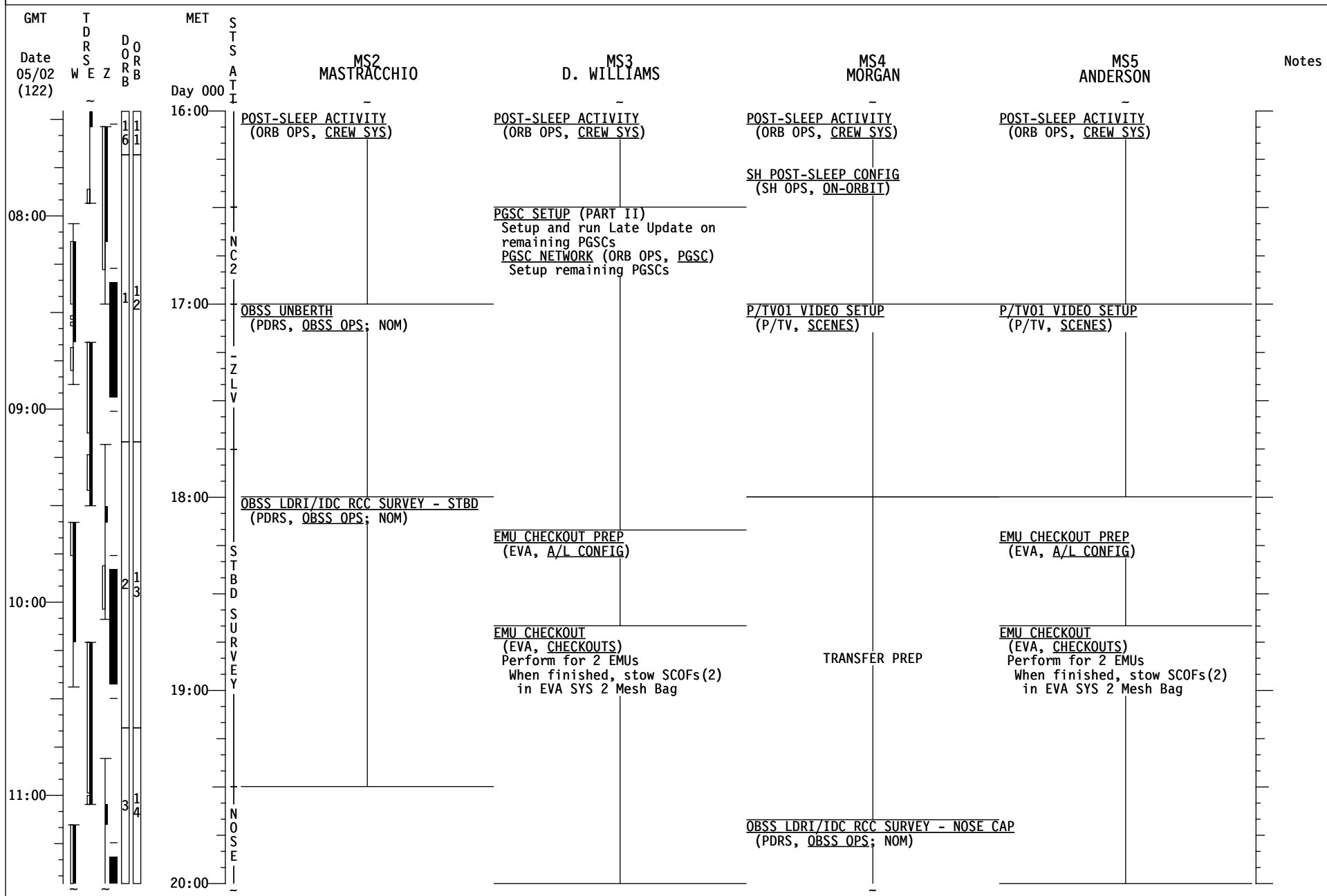
STS-118 FD02



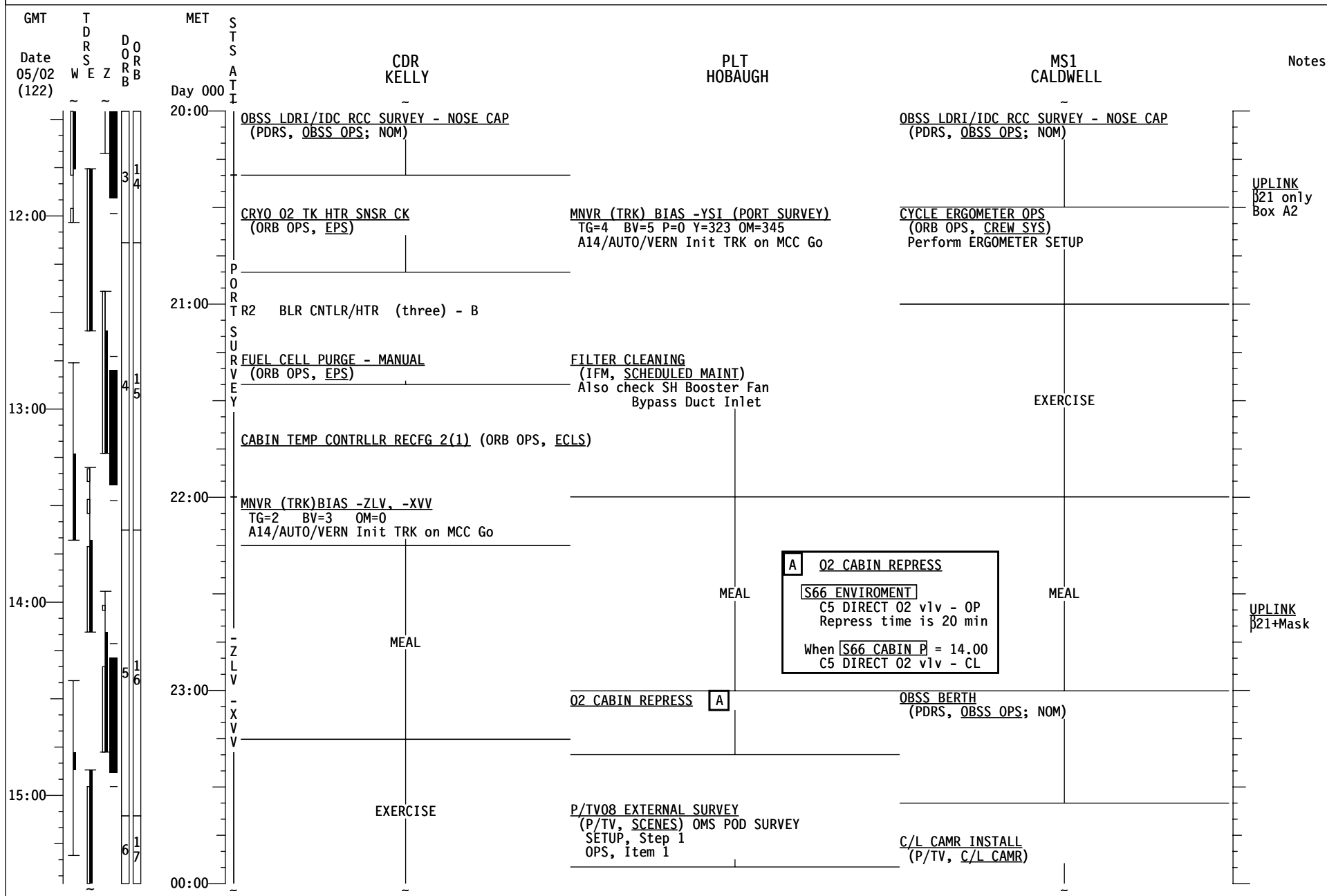
STS-118 FD02

GMT	TDRS W E Z	DORB 1 1	MET Day 000	STS A T I	CDR KELLY	PLT HOBAUGH	MS1 CALDWELL	Notes
16:00		1 1			POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
08:00		1 1			I'CNCT RETURN (OPCL, RCS)	A15 APCU 1 CONV - OFF	PGSC SETUP (PART II) Setup and run Late Update on remaining PGSCs	UPDATE ORBITAL MNVR PAD
		1 2			RCS/OMS POD HTR RECONFIG ON-ORBIT OMS BURN (ORB OPS, OMS)	ON-ORBIT OMS BURN (ORB OPS, OMS)	PGSC NETWORK (ORB OPS, PGSC) Setup remaining PGSCs	
					A A14 RCS/OMS HTR L POD -A OFF -B AUTO	R POD -A OFF -B AUTO		
17:00		1 2			< NC2 TIG (16:57) MNVR (TRK)BIAS -ZLV, +XVY TG=2 BV=3 OM=165 A1/AUTO/VERN Init TRK	CCM-A STATUS CK(PL OPS, CCM-A) MERLIN STATUS CK(PL OPS, MERLIN) SHUTTLE/ISS H2O CNTR FILL (ORB OPS, ECLS) Perform EQUIP PREP and WATER TRANSFER HOSE PURGE Do not perform CWC FILL #1 until after Docking	OBSS UNBERTH (PDRS, OBSS OPS; NOM)	UPLINK β21 only Box A2
09:00					MNVR (TRK) BIAS +YSI (STBD SURVEY) TG=4 BV=5 P=0 Y=40 OM=190 A14/AUTO/VERN Init TRK on MCC Go			
18:00						OBSS LDRI/IDC RCC SURVEY - STBD (PDRS, OBSS OPS; NOM)	OBSS LDRI/IDC RCC SURVEY - STBD (PDRS, OBSS OPS; NOM)	UPLINK β21 only Box A3
10:00		2 3			TRANSFER PREP			
19:00								UPLINK β12 only
11:00		3 4			OBSS LDRI/IDC RCC SURVEY - NOSE CAP (PDRS, OBSS OPS; NOM)	MNVR (TRK) BIAS +XSI (NOSE CAP SURVEY) TG=4 BV=5 P=304 Y=0 OM=240 A14/AUTO/VERN Init TRK on MCC GO	OBSS LDRI/IDC RCC SURVEY - NOSE CAP (PDRS, OBSS OPS; NOM)	
20:00								

STS-118 FD02



STS-118 FD02



A O2 CABIN REPRESS

S66 ENVIROMENT

C5 DIRECT O2 vlv - OP
Repress time is 20 min

When **S66 CABIN P** = 14.00
C5 DIRECT O2 vlv - CL

STS-118 FD02

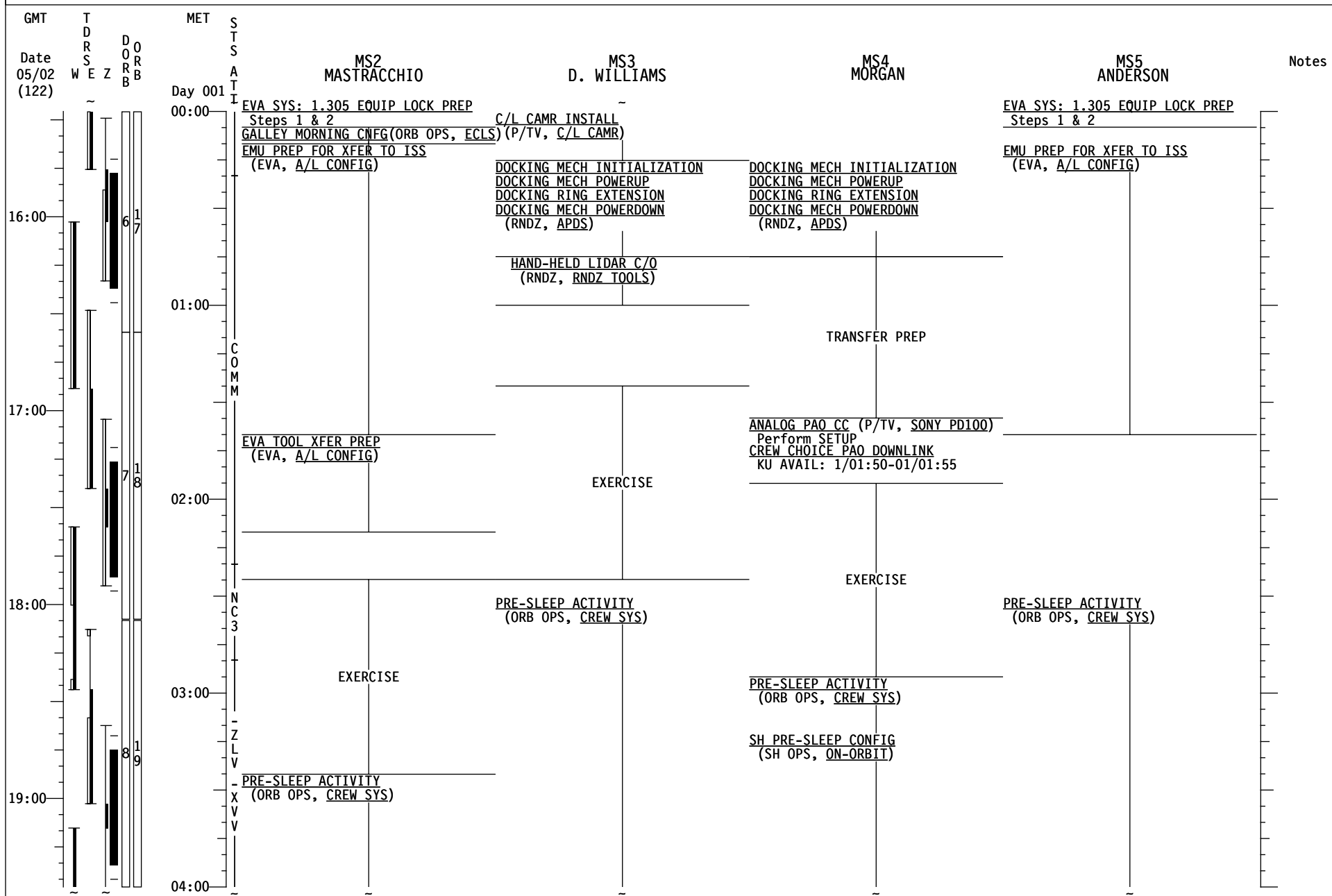
GMT	TDRS WSEZ	DORB	MET Day 000	STS ATTI	MS2 MASTRACCHIO	MS3 D. WILLIAMS	MS4 MORGAN	MS5 ANDERSON	Notes
05/02 (122)			20:00				OBSS LDRI/IDC RCC SURVEY - NOSE CAP (PDRS, OBSS OPS; NOM)		
12:00		3 4			OBSS LDRI/IDC RCC SURVEY - PORT (PDRS, OBSS OPS; NOM)	OBSS LDRI/IDC RCC SURVEY - PORT (PDRS, OBSS OPS; NOM)	OBSS LDRI/IDC RCC SURVEY - PORT (PDRS, OBSS OPS; NOM)	CYCLE ERGOMETER OPS (ORB OPS, CREW SYS) Perform ERGOMETER SETUP	
			21:00	PORT SURVEY					
13:00		4 5						TRANSFER PREP	
			22:00		MEAL	MEAL	MEAL	MEAL	
14:00		5 6							
			23:00				OBSS BERTH (PDRS, OBSS OPS; NOM)	EVA SYS: 1.305 EQUIP LOCK PREP Steps 1 & 2	
15:00		6 7			GALLEY OVERNIGHT CNFG (ORB OPS, ECLS) EVA SYS: 1.305 EQUIP LOCK PREP Steps 1 & 2 Unstow 8 drink bags from EXT A/L Floor Bag. Fill and restow in EVA SYS 2 Mesh Bag.			EVA SYS: 1.305 EQUIP LOCK PREP Steps 1 & 2 Unstow 8 drink bags from EXT A/L Floor Bag. Fill and restow in EVA SYS 2 Mesh Bag.	
			00:00			C/L CAMR INSTALL (P/TV, C/L CAMR)	P/TV11 CBTM (P/TV, SCENES) SETUP, Step 2; OPS CBTM STATUS CHECK (PL OPS, CBTM)		

STS-118 FD02

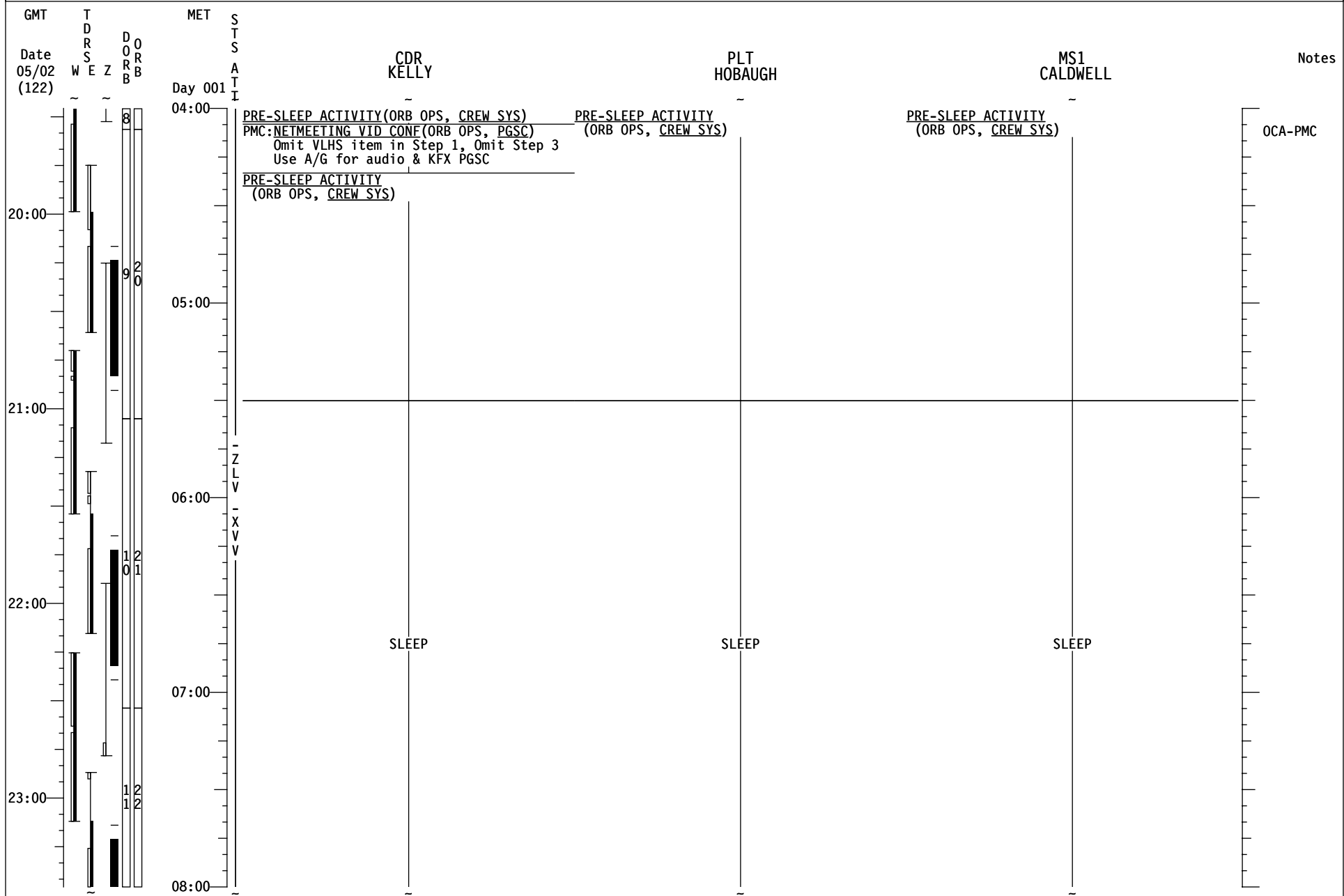
GMT	TDRS W E Z	DORB	MET	S T S A T I	CDR KELLY	PLT HOBBAUGH	MS1 CALDWELL	Notes
Date 05/02 (122)			Day 001					
00:00					EXERCISE	FC MONITORING SYS (FCMS) OPS (ORB OPS, EPS)	C/L CAMR INSTALL (P/TV, C/L CAMR)	
16:00		6 7			MNVR (TRK) SUN TRACK (LDRI Downlink) TG=4 BV=5 P=114 Y=0 OM=125 A1/AUTO/VERN (00:20) Init TRK	A15 VAPCU 2 OUTPUT - OFF APCU 1 CONV - ON		
					PLAYBACK (DIGITAL) (P/TV, CUE CARD) LDRI SURVEYS KU TDRW (00:34-01:26) KU TDRE (01:26-01:40)	RNDZ TOOLS CHECKOUT (RNDZ, RNDZ TOOLS)	RNDZ TOOLS CHECKOUT (RNDZ, RNDZ TOOLS)	
17:00								
		7 8			CREW CHOICE PAO DOWNLINK KU AVAIL: 01/01:50-01/01:55 PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)		EVA TOOL XFER PREP (EVA, A/L CONFIG)	
18:00					ON-ORBIT +X RCS BURN (ORB OPS, RCS)	CCM-A STATUS CK(PL OPS, CCM-A) MERLIN STATUS CK(PL OPS, MERLIN) ON-ORBIT +X RCS BURN (ORB OPS, RCS)		UPDATE ORBITAL MNVR PAD
					< NC3 TIG (02:45)		PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
03:00					I'CNCT: R OMS TO RCS (CIL) (OPCL, RCS) MNVR (TRK) -ZLV, -XVV TG=2 BV=3 OM=0 A1/AUTO/VERN Init TRK	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)		
		8 9			Z PRE-SLEEP ACTIVITY L (ORB OPS, CREW SYS)			
19:00					V FUTURE LOADED MNVR [A] PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)			
					X V V			
					√ HUM SEP for H2O Accumulation			
04:00								

A FUTURE LOADED MNVR (-ZLV +YVV)
 TG=2 BV=3 OM=270
 A1/AUTO/VERN (1/13:15) Init TRK

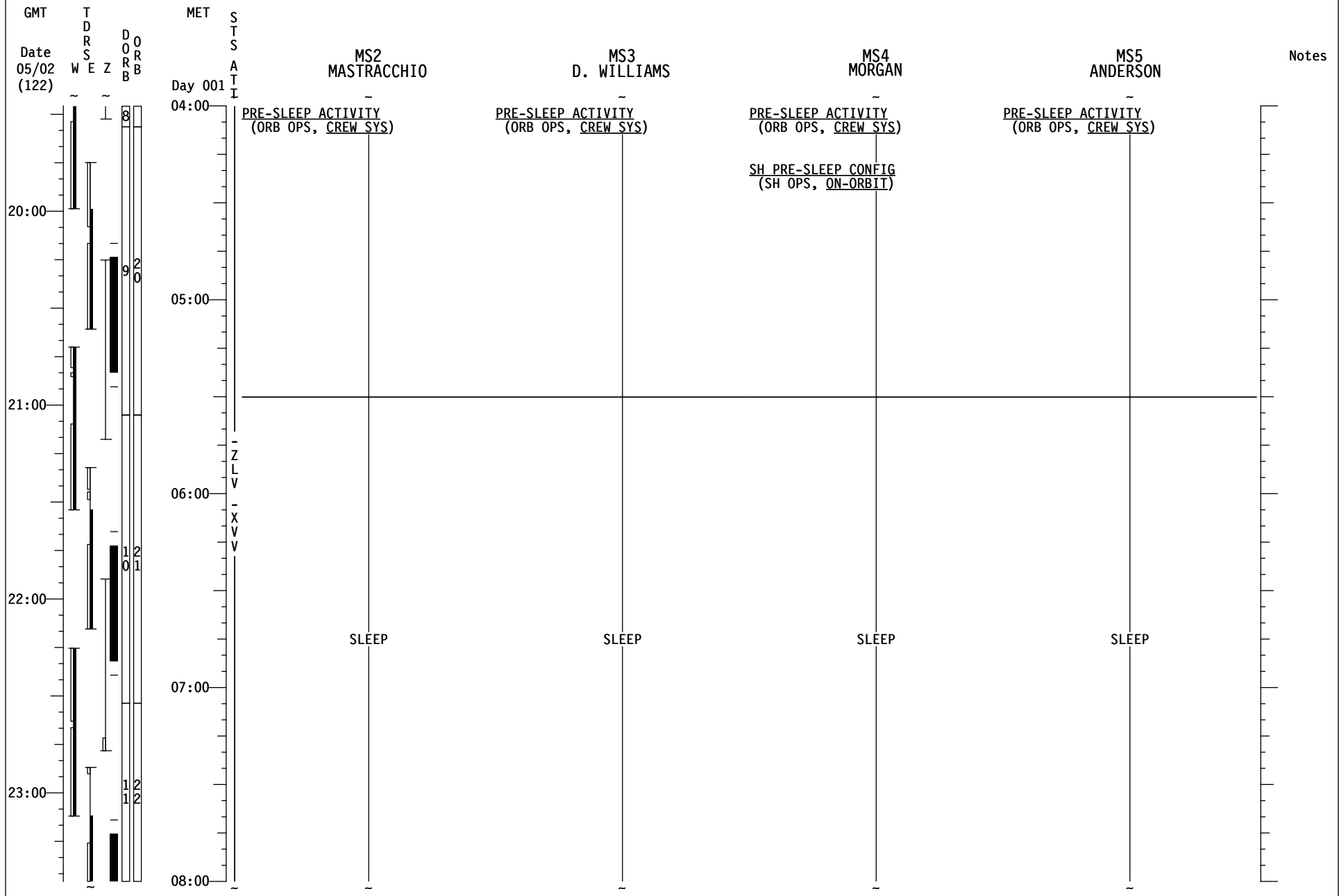
STS-118 FD02



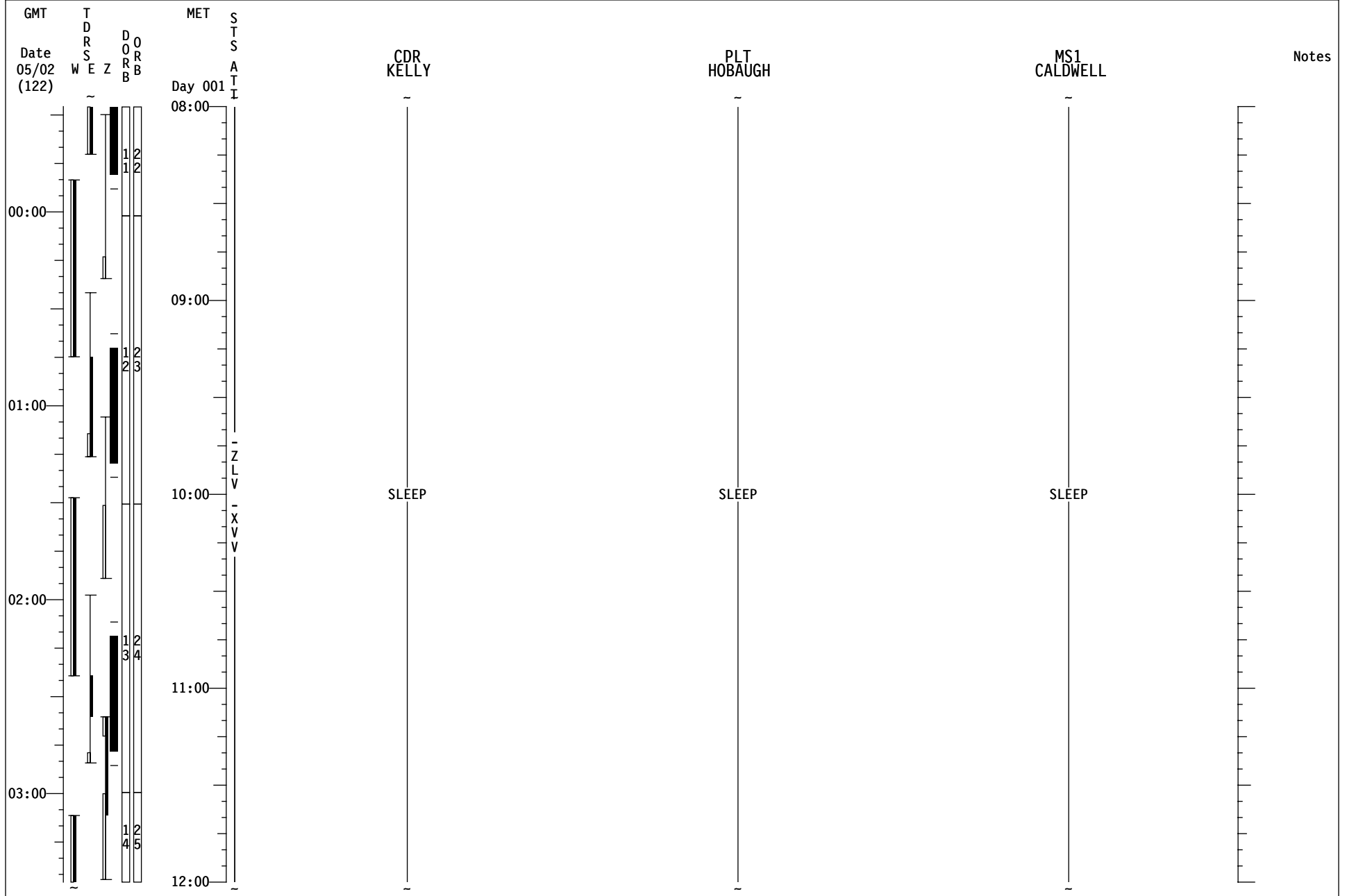
STS-118 FD02



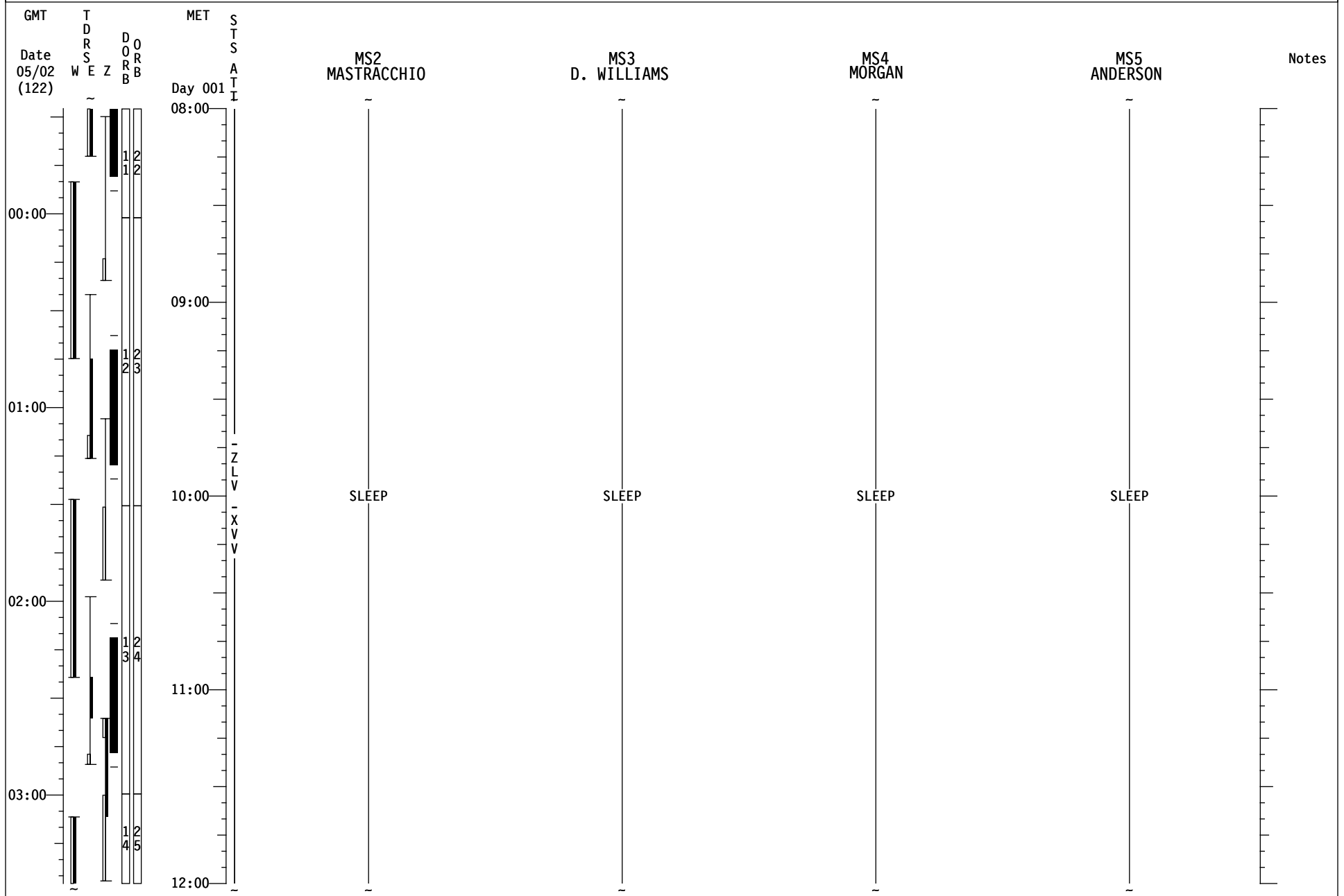
STS-118 FD02



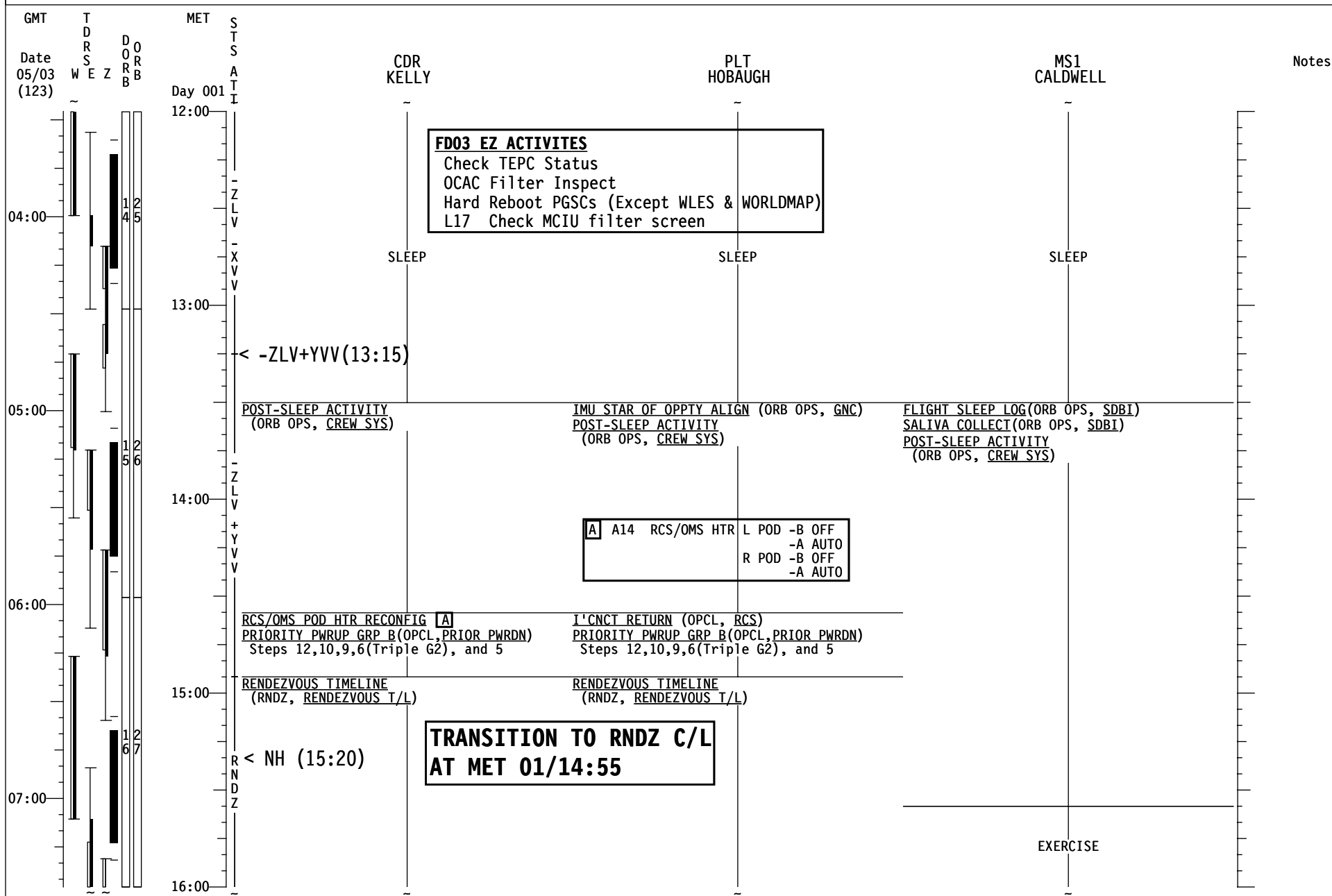
STS-118 FD02



STS-118 FD 02



STS-118 FD03

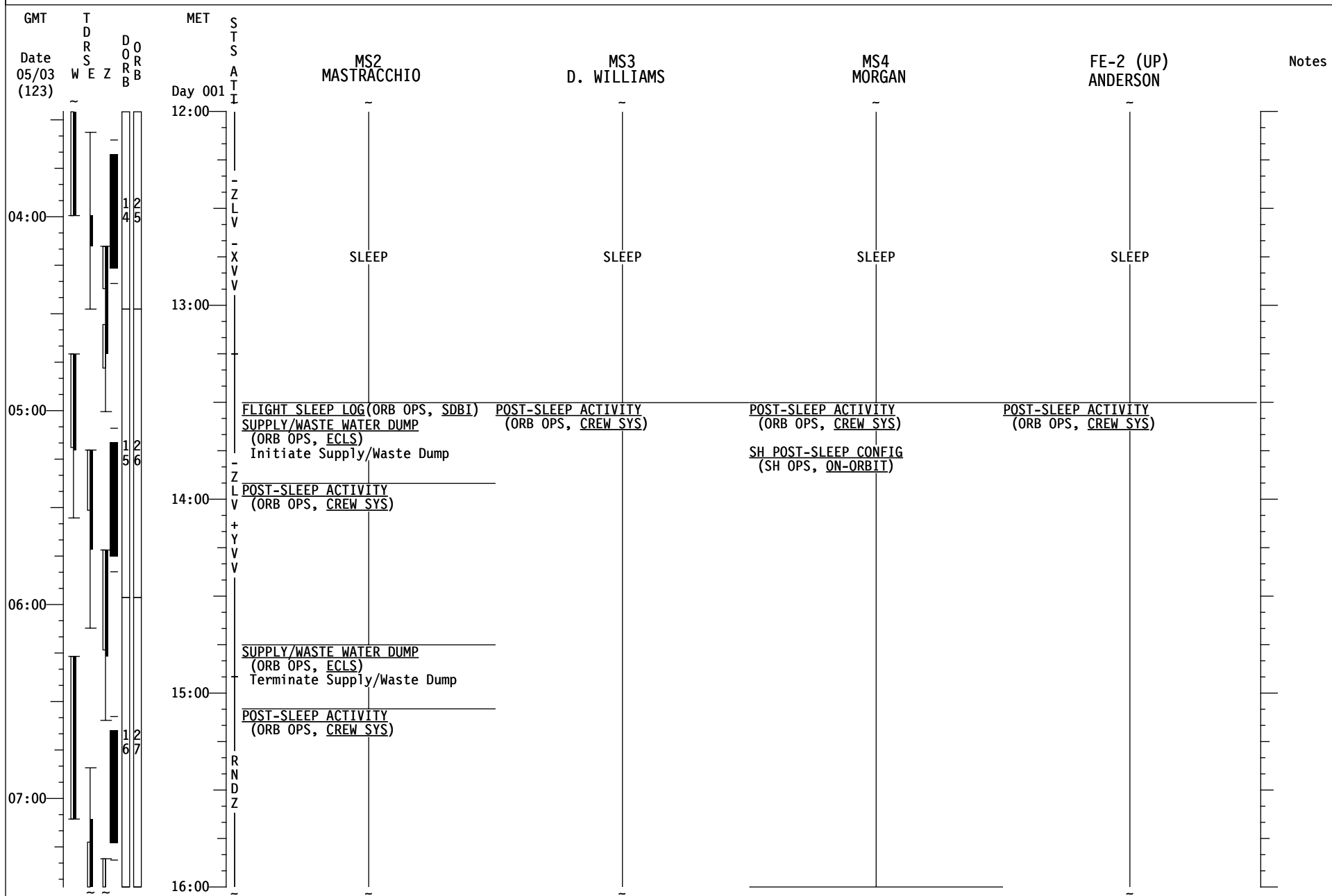


FD03 EZ ACTIVITES
 Check TEPC Status
 OCAC Filter Inspect
 Hard Reboot PGSCs (Except WLES & WORLDMAP)
 L17 Check MCIU filter screen

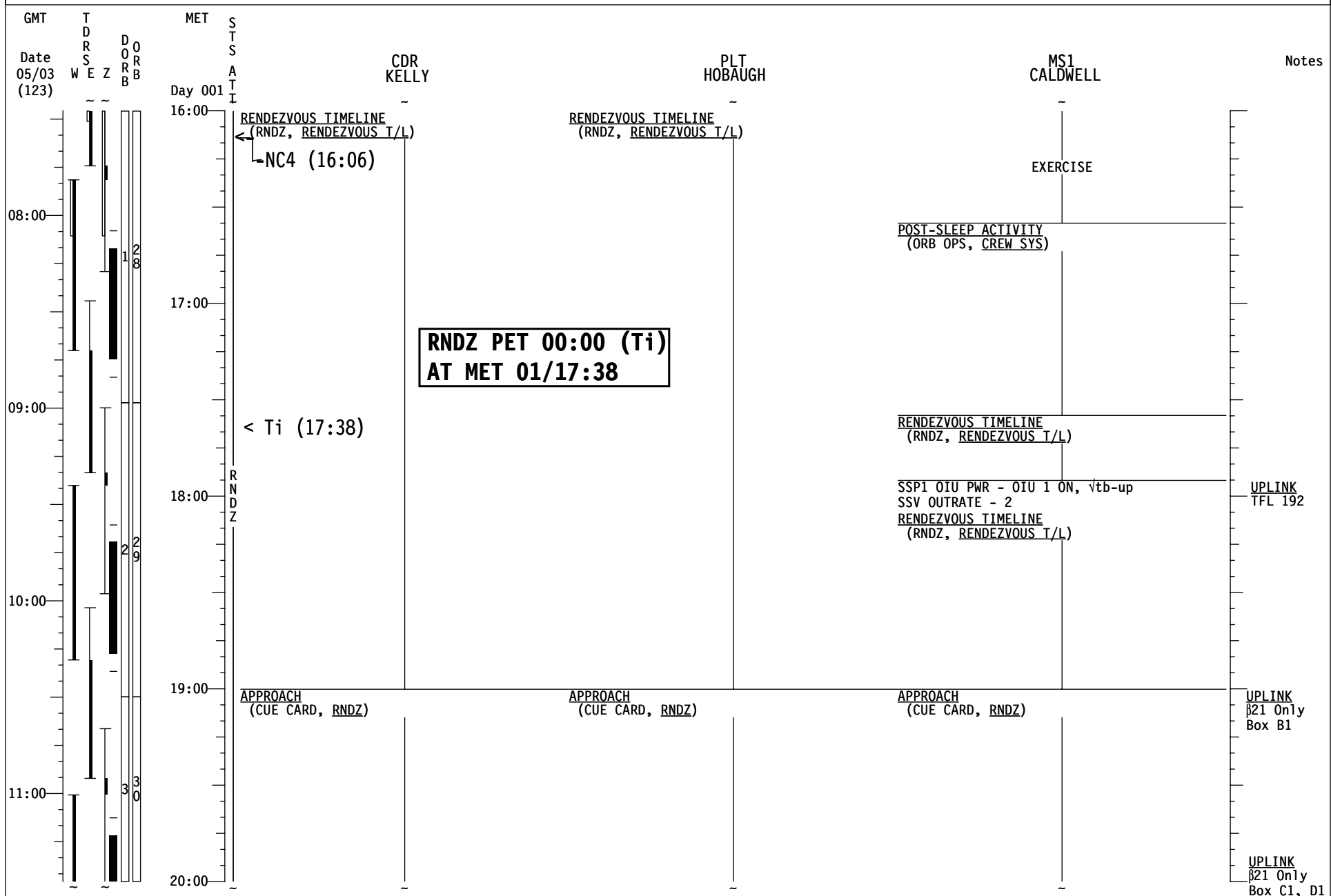
[A] A14 RCS/OMS HTR L POD -B OFF
 -A AUTO
 R POD -B OFF
 -A AUTO

**TRANSITION TO RNDZ C/L
 AT MET 01/14:55**

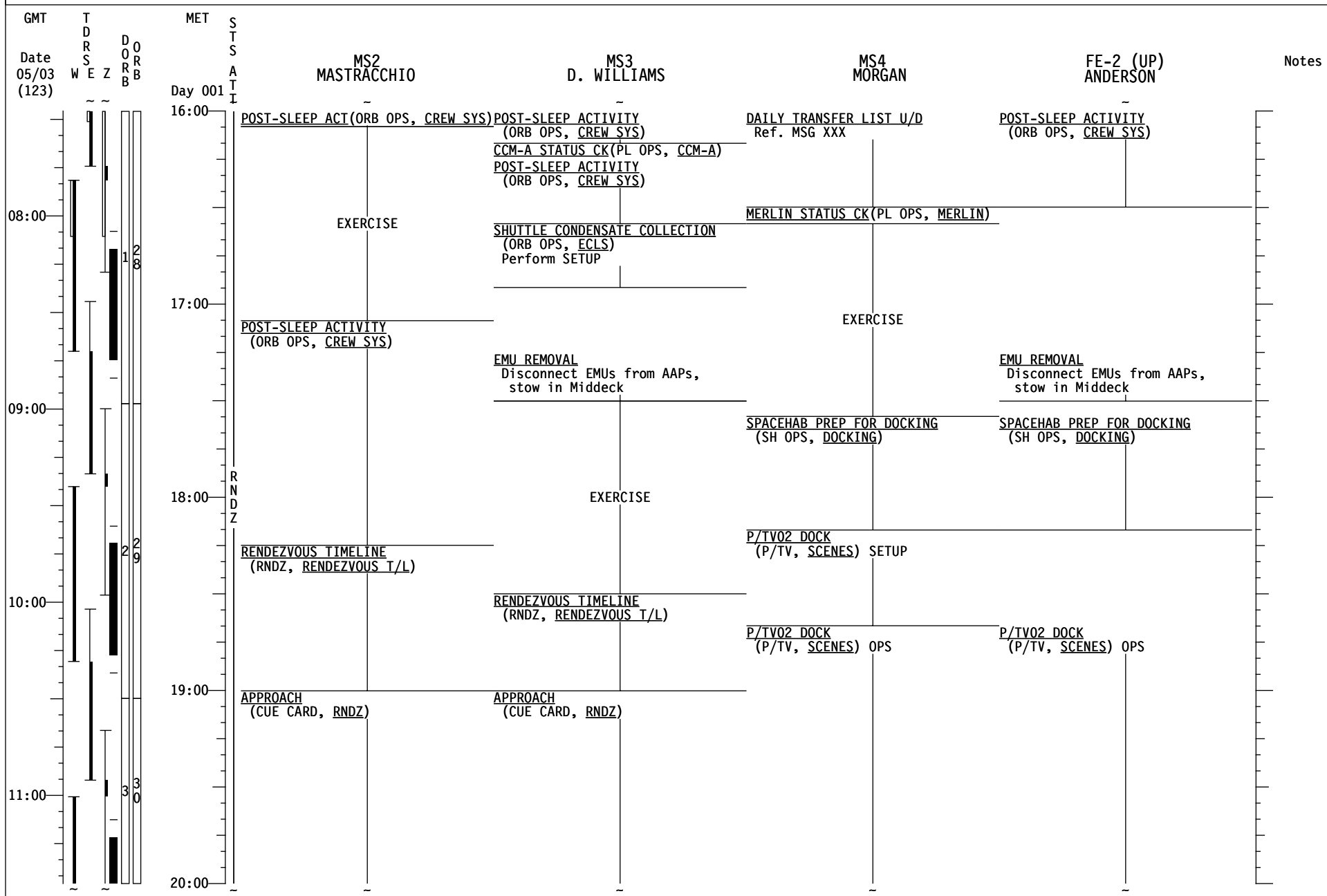
STS-118 FD03



STS-118 FD03



STS-118 FD03



STS-118 FD03

GMT	TDRS WSEZ	DORB	MET	STS ATTI	CDR KELLY	PLT HOBAUGH	MS1 CALDWELL	Notes
Date 05/03 (123)			Day 001					
20:00					APPROACH (CUE CARD, RNDZ)	APPROACH (CUE CARD, RNDZ)	APPROACH (CUE CARD, RNDZ)	
					RETURN TO FLIGHT PLAN			
					DOCKING (20:16)			
					A Note time of DAP:AUTO, MET 1/___:___ At 10 & 20 min after AUTO, DAP:FREE > 2 sec, then DAP:AUTO			
12:00					MNVR (TRK) BIAS -XLV -ZV TG=2 BV=5 P=157 Y=3 OM=179 A12/AUTO/VERN Init TRK DAP:FREE > 2 sec, then DAP:AUTO A	JNT OPS: 6.103 H/L AUDIO CONFIG Perform Steps 1,2,6,7	POST RNDZ PGSC CONFIG Configure PGSCs per EVA/RMS Usage Chart	
21:00					After maneuver complete: PRIORITY PWRDN GRP B(OPCL,PRIOR PWRDN) Steps 6(Single G2) & 12 (In Step 12, IMU 1 STBY-ITEM 21 EXEC) 06 S TRK PWR-Z - OFF	After maneuver complete: PRIORITY PWRDN GRP B(OPCL,PRIOR PWRDN) Steps 6(Single G2) & 12 (In Step 12, IMU 1 STBY-ITEM 21 EXEC) 06 S TRK PWR-Z - OFF	JNT OPS: 6.107 PCS SETUP-SHUTTLE	UPLINK TFL 199
13:00					JNT OPS: 3.111 H/O ATT CTRL ORB TO CMG TA	SSV OUTFATE - 3 JNT OPS: 2.106 HATCH OPEN AND DUCT INSTALL (BYPASS CONFIG) MCC Step 1 complete, Steps 2-11	S5 GRAPPLE (PDRS, NOMINAL S5 OPS)	UPLINK β21 Only Box C1, D2
					L1 FLASH EVAP CNTLR PRI B-OFF		S5 UNBERTH (PDRS, NOMINAL S5 OPS)	
22:00								
					WELCOME	WELCOME	WELCOME	
14:00					SAFETY BRIEF	SAFETY BRIEF	SAFETY BRIEF	
23:00					L1 TOP EVAP HTR DUCT sel - OFF NOZ L,R(two) - OFF	ROBO: 1.100 SSRMS MANEUVER TO S5 PRE-GRAPPLE	S5 HANDOFF (PDRS, NOMINAL S5 OPS)	
						ROBO: 1.110 SSRMS S5 GRAPPLE		
15:00								
						SSPTS OPCU ACT (ORB OPS, EPS) B	S5 UNGRAPPLE (PDRS, NOMINAL S5 OPS)	
					B SSPTS OPCU ACT On MCC Go: Activate OPCU 1 and 2 In Step 3: For OPCU 1 and 2 adjust voltage 17 increments UP for both			
00:00								NO EXERCISE DURING S5 HANDOFF

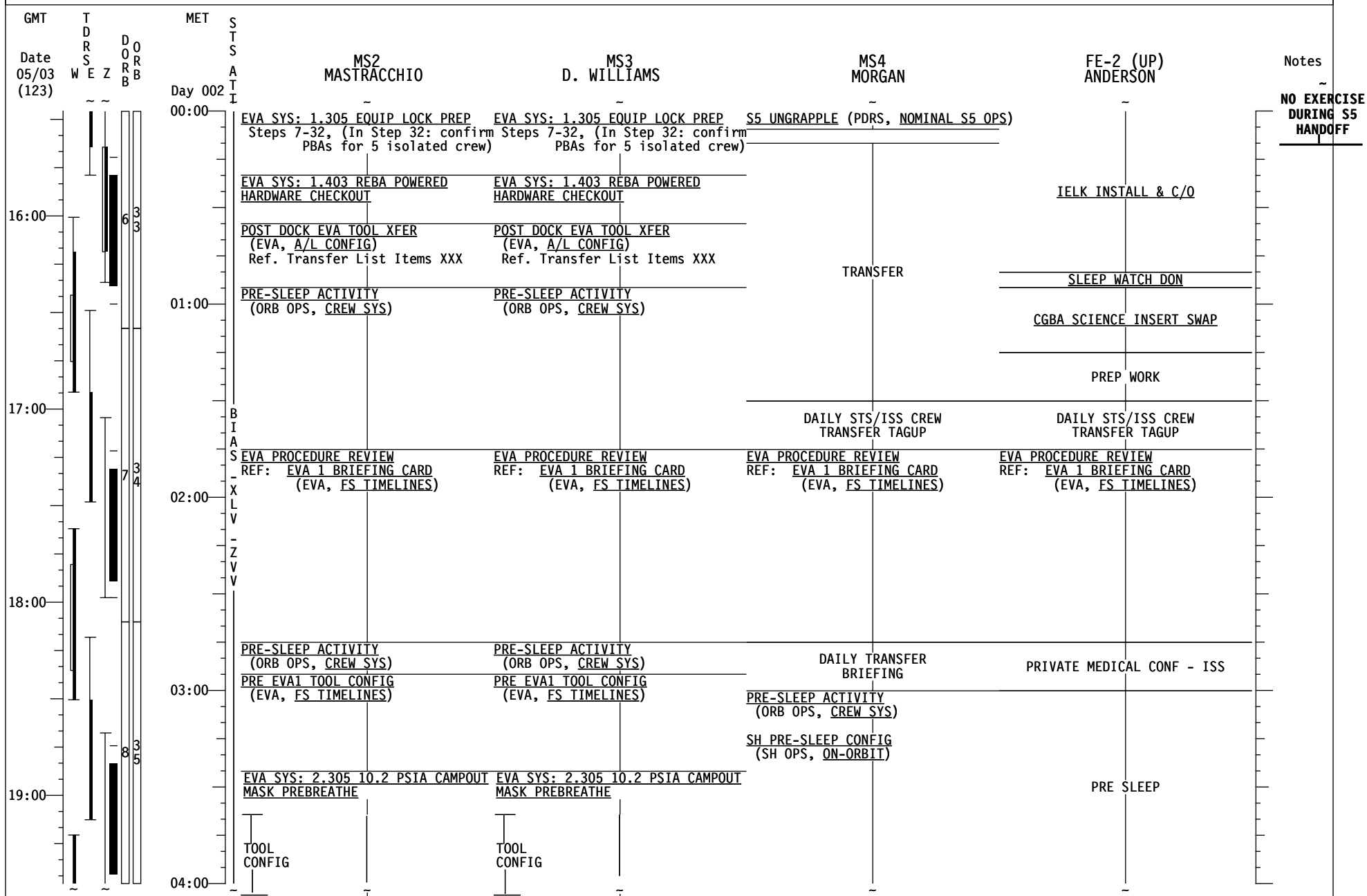
STS-118 FD03

GMT	TDRS WSEZ	DORB	MET	STS ATTI	MS2 MASTRACCHIO	MS3 D. WILLIAMS	MS4 MORGAN	FE-2 (UP) ANDERSON	Notes
Date 05/03 (123)			Day 001						
20:00					APPROACH (CUE CARD, RNDZ)	APPROACH (CUE CARD, RNDZ)	P/TV02 DOCK (P/TV, SCENES) OPS	P/TV02 DOCK (P/TV, SCENES) OPS	
12:00									
21:00					POST DOCKING HATCH LEAK CHECK (RNDZ, APDS)	POST RNDZ PGSC CONFIG Configure PGSCs per EVA/RMS Usage Chart	POST DOCKING HATCH LEAK CHECK (RNDZ, APDS)		
13:00					A/L PREP FOR INGRS-BYPASS CONFG (RNDZ, APDS)	A/L PREP FOR INGRS-BYPASS CONFG (RNDZ, APDS)	P/TV04 INGRESS/EGRESS (P/TV, SCENES) SETUP	P/TV06 S5 UNBERTH (P/TV, SCENES) SETUP	
22:00					S5 GRAPPLE (PDRS, NOMINAL S5 OPS)	JNT OPS: 2.106 HATCH OPEN AND DUCT INSTALL (BYPASS CONFG) MCC Step 1 complete, Steps 2-11	SPACEHAB RECONFIG POST DOCKING (SH OPS, DOCKING)	SPACEHAB RECONFIG POST DOCKING (SH OPS, DOCKING)	
14:00					S5 UNBERTH (PDRS, NOMINAL S5 OPS)				
					WELCOME	WELCOME	WELCOME	WELCOME	
					SAFETY BRIEF	SAFETY BRIEF	SAFETY BRIEF	SAFETY BRIEF	
23:00					S5 HANDOFF (PDRS, NOMINAL S5 OPS)	EMU TRANSFER TO ISS (EVA, A/L CONFG) Install MT EMU on AFT EDDA and WM EMU on FWD EDDA	ISS RPM IMAGE TRANSFER P/TV05 ISS INTERNAL OPS (S/U) (P/TV, SCENES) SETUP: BPSMU and RWS		
15:00						2.003 PMDIS EXPERIMENT OPS Steps 1-26 and 28-33 Crew ID XX	CBTM STATUS CHECK (PL OPS, CBTM)		
00:00					EVA SYS: 1.307 REBA INST/REMOV Installation steps	EVA SYS: 1.307 REBA INST/REMOV Installation steps	S5 UNGRAPPLE (PDRS, NOMINAL S5 OPS)		
					EVA SYS: 1.305 EQUIP LOCK PREP Steps 7-32, (In Step 32: confirm PBAs for 5 isolated crew)	EVA SYS: 1.305 EQUIP LOCK PREP Steps 7-32, (In Step 32: confirm PBAs for 5 isolated crew)		IELK INSTALL & C/O	NO EXERCISE DURING S5 HANDOFF

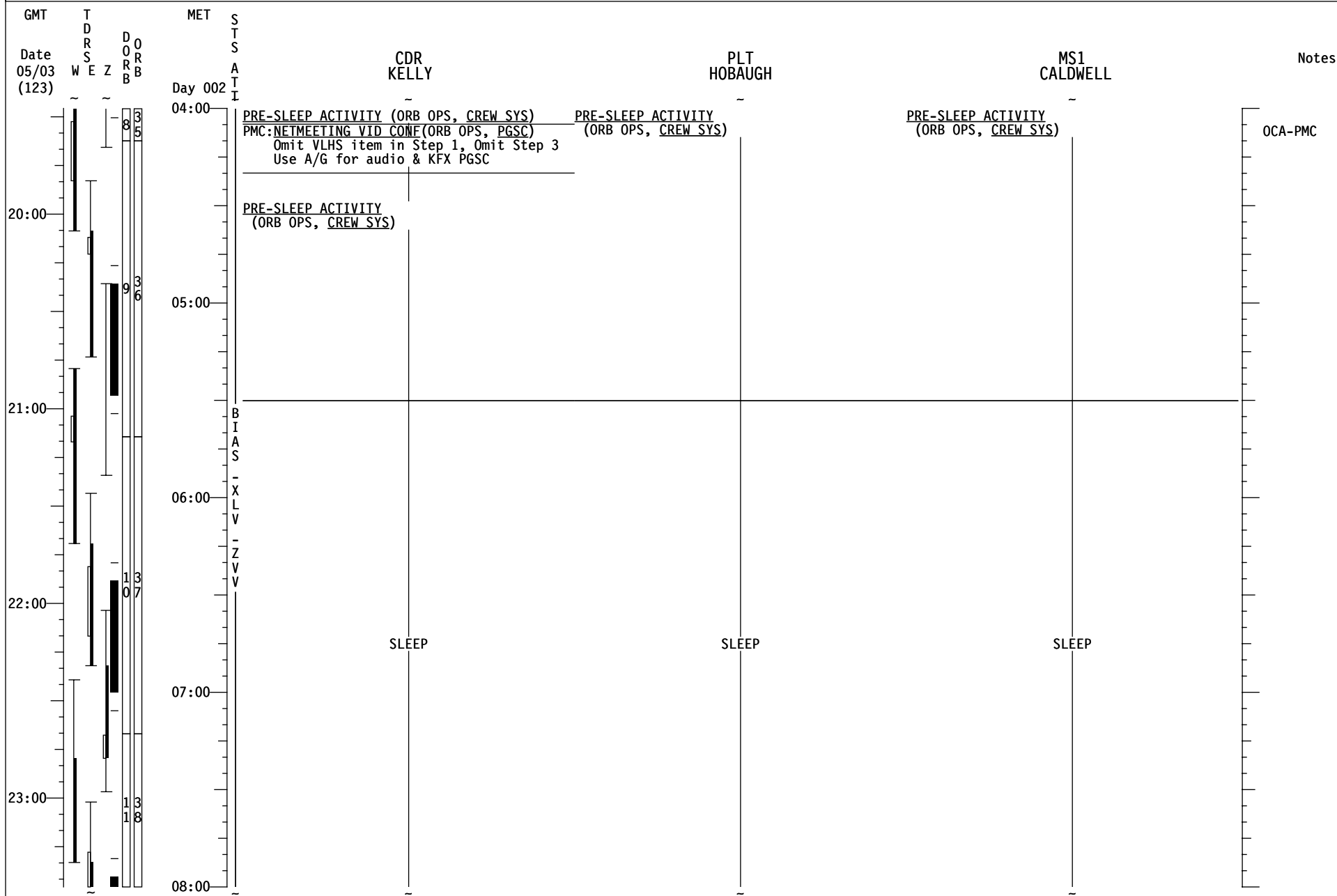
STS-118 FD03

GMT	TDRS WSEZ	DORB DORB	MET Day 002	STS A T I	CDR KELLY	PLT HOBAUGH	MS1 CALDWELL	Notes
00:00								
					CCM-A STATUS CK (PL OPS, CCM-A) MERLIN STATUS CK (PL OPS, MERLIN) MERLIN SPEGIS SETUP (PL OPS, MERLIN)			S5 UNGRAPPLE (PDRS, NOMINAL S5 OPS)
16:00		633			JNT OPS: 3.120 PREBREATHE USING SHUTTLE 02 SETUP		TRANSFER	NO EXERCISE DURING S5 HANDOFF
			01:00			EXERCISE	PLAYBACK (DIGITAL) (P/TV, CUE CARD) DOCKING KU TDRW (00:57-01:18)	
							2.003 PMDIS EXPERIMENT OPS Steps 1-26 and 28-33 Crew ID XX	
17:00						PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)		
					EVA PROCEDURE REVIEW REF: EVA 1 BRIEFING CARD (EVA, FS TIMELINES)	EVA PROCEDURE REVIEW REF: EVA 1 BRIEFING CARD (EVA, FS TIMELINES)	2.006 BURNING A CD WITH PMDIS DATA EVA PROCEDURE REVIEW REF: EVA 1 BRIEFING CARD (EVA, FS TIMELINES)	
		734	02:00					
18:00					PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE EVA1 TOOL CONFIG (EVA, FS TIMELINES)	
			03:00		√ HUM SEP for H2O Accumulation			
19:00		835					PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
04:00								

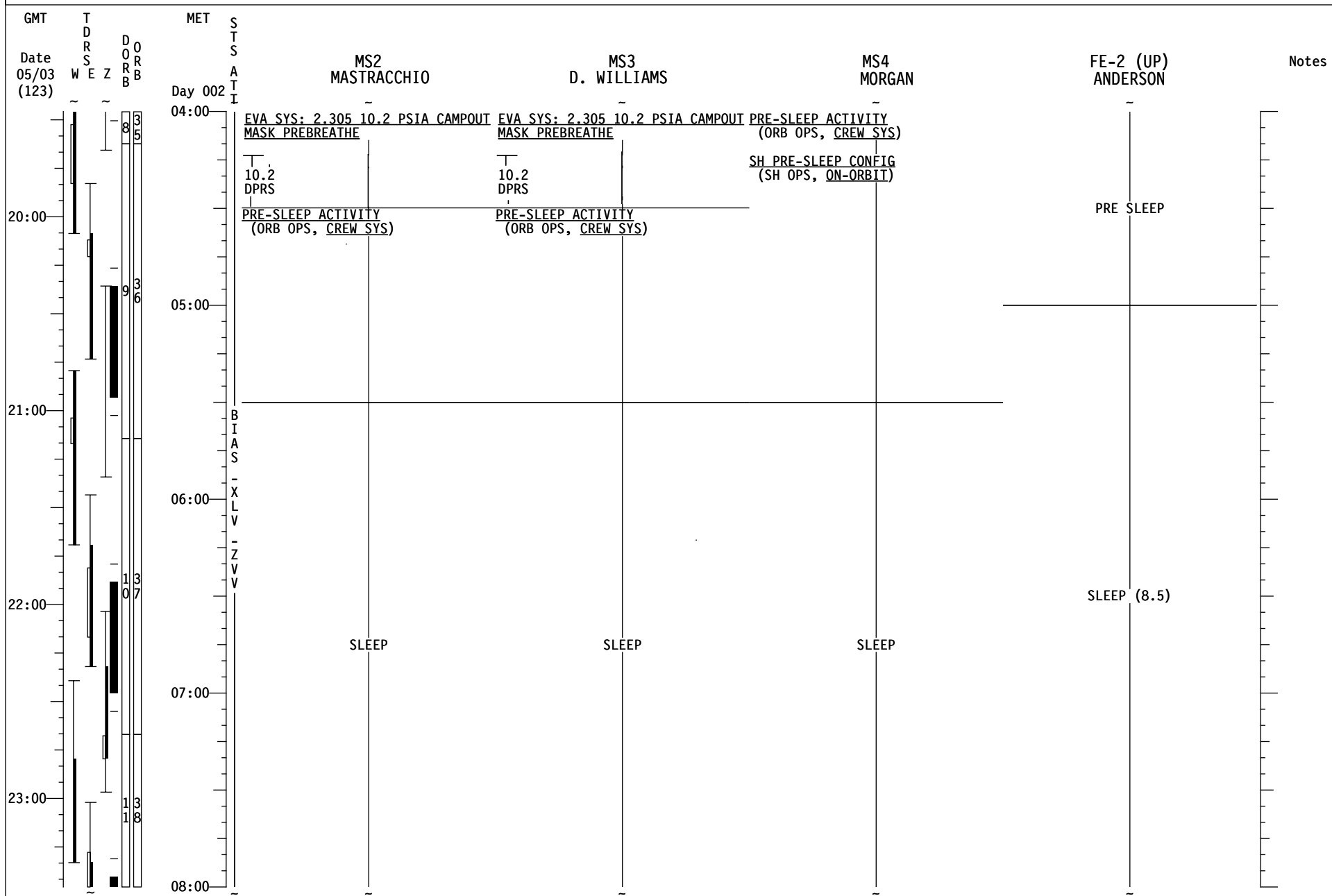
STS-118 FD03



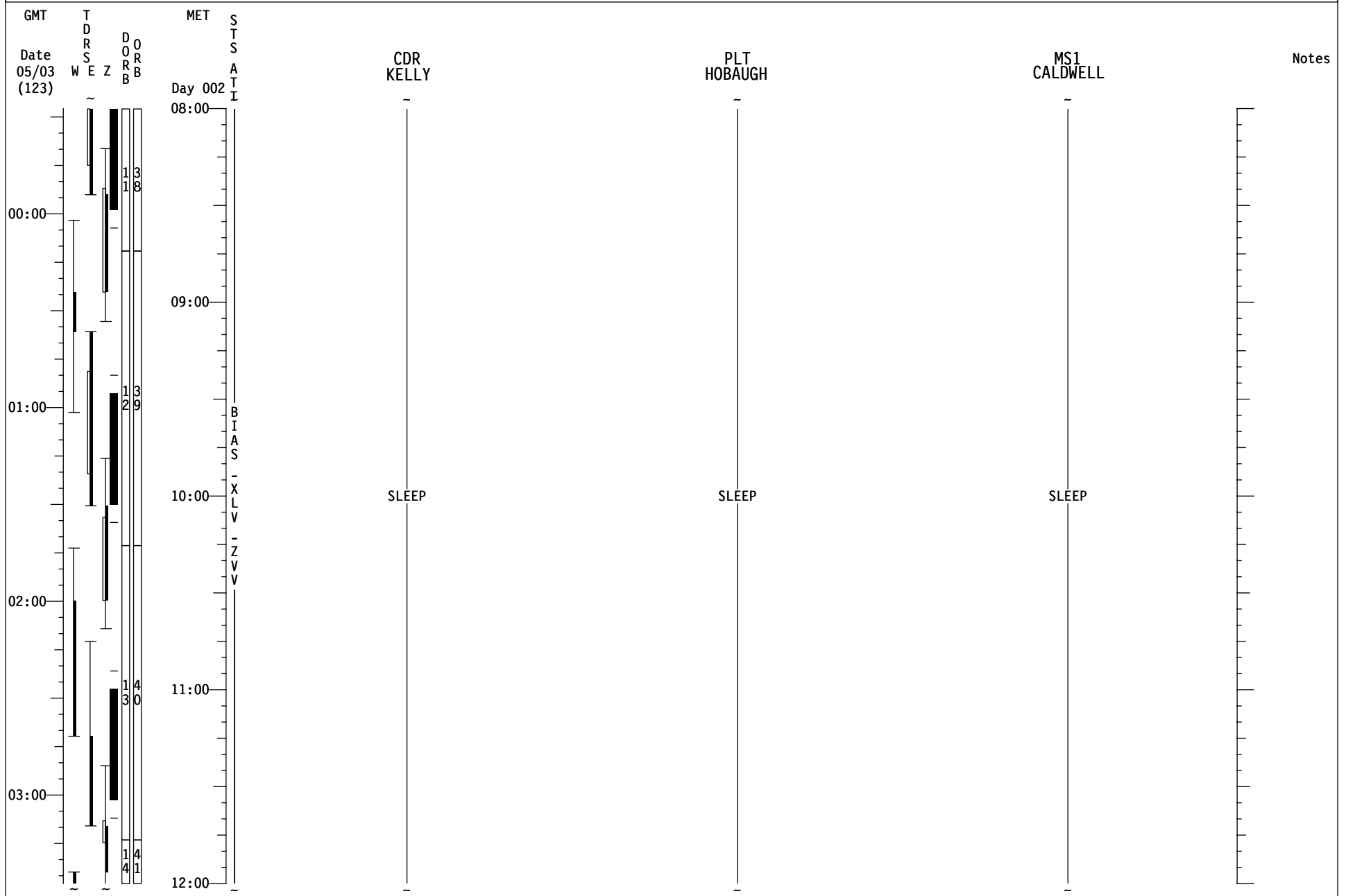
STS-118 FD03



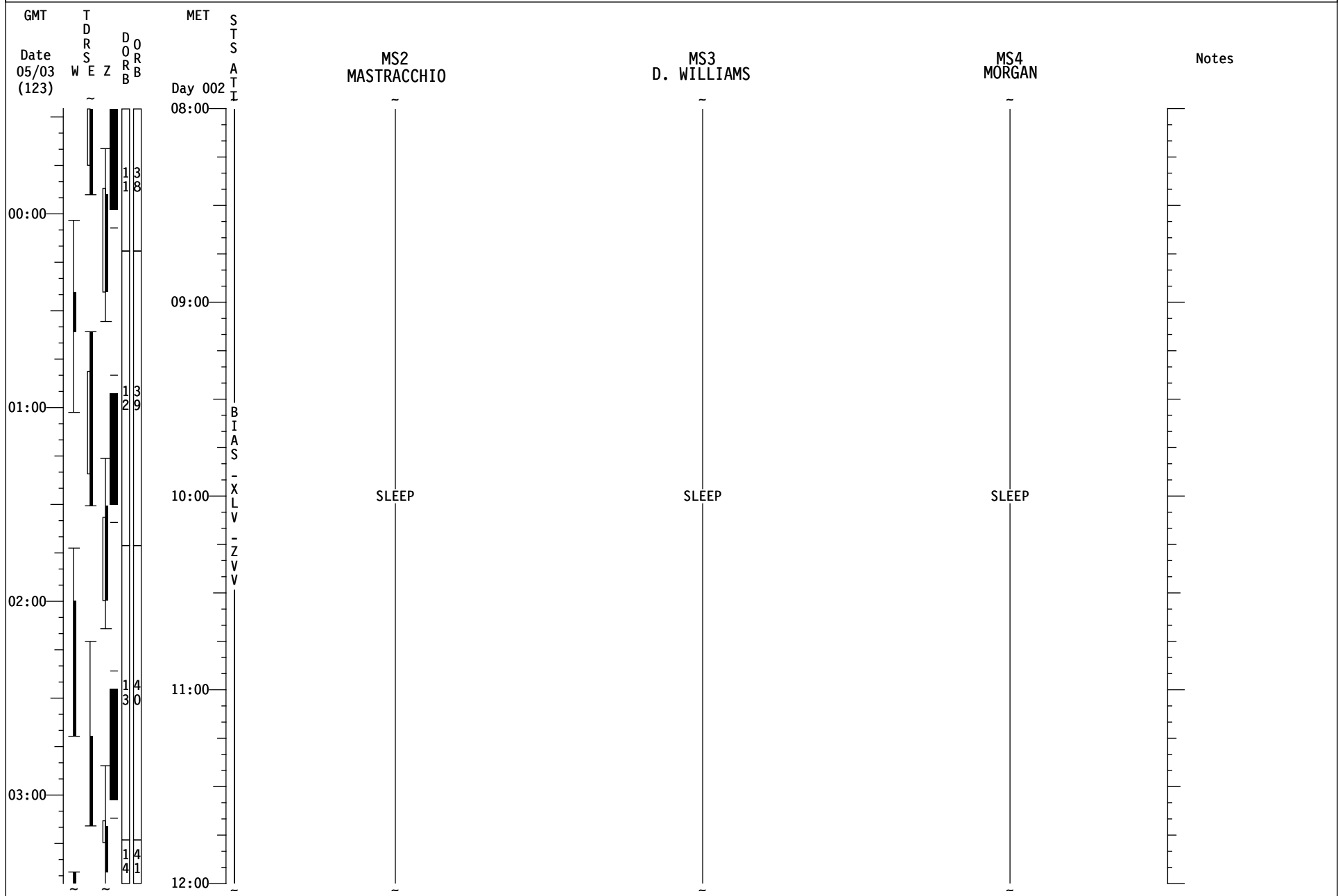
STS-118 FD03



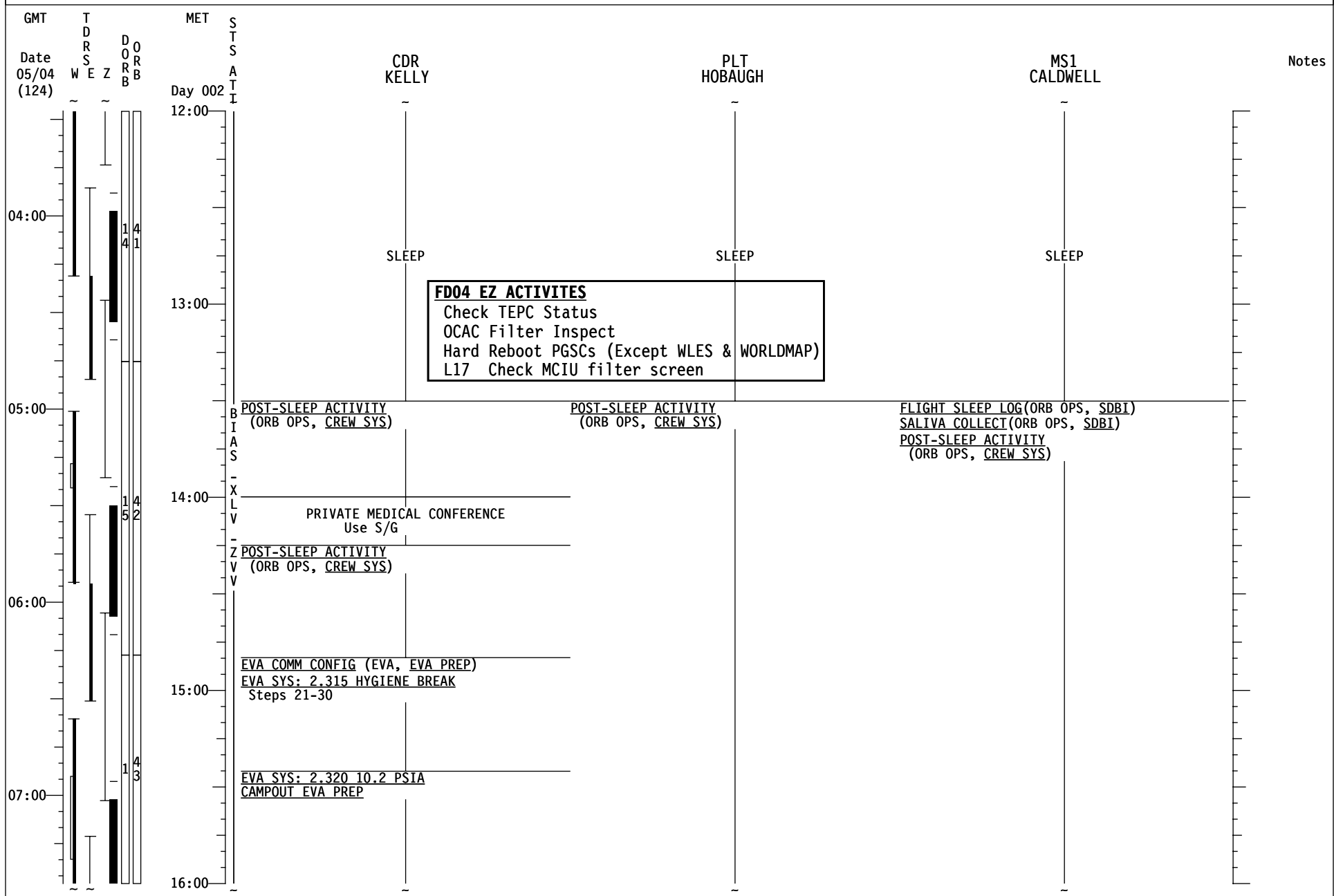
STS-118 FD03



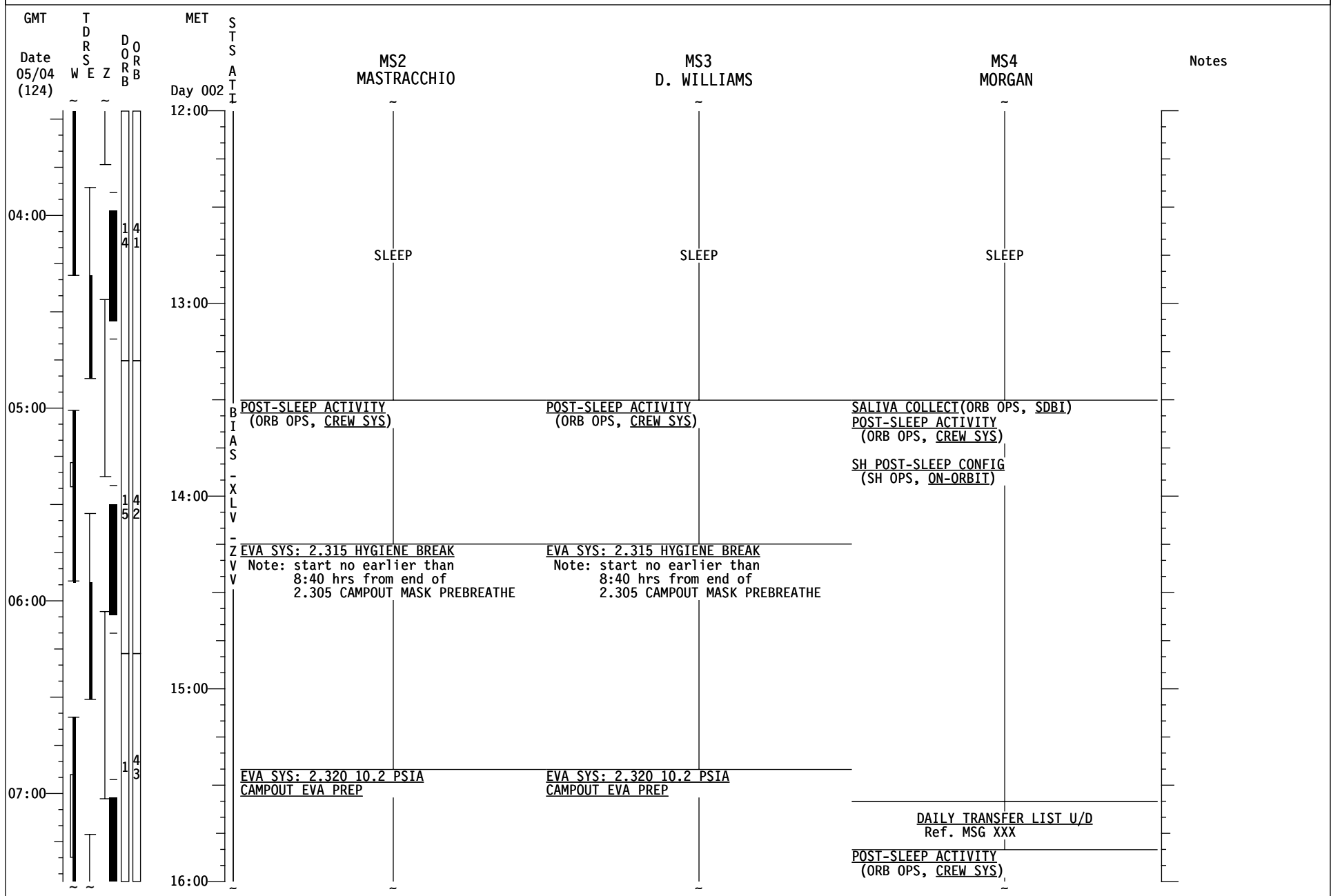
STS-118 FD03



STS-118 FD04



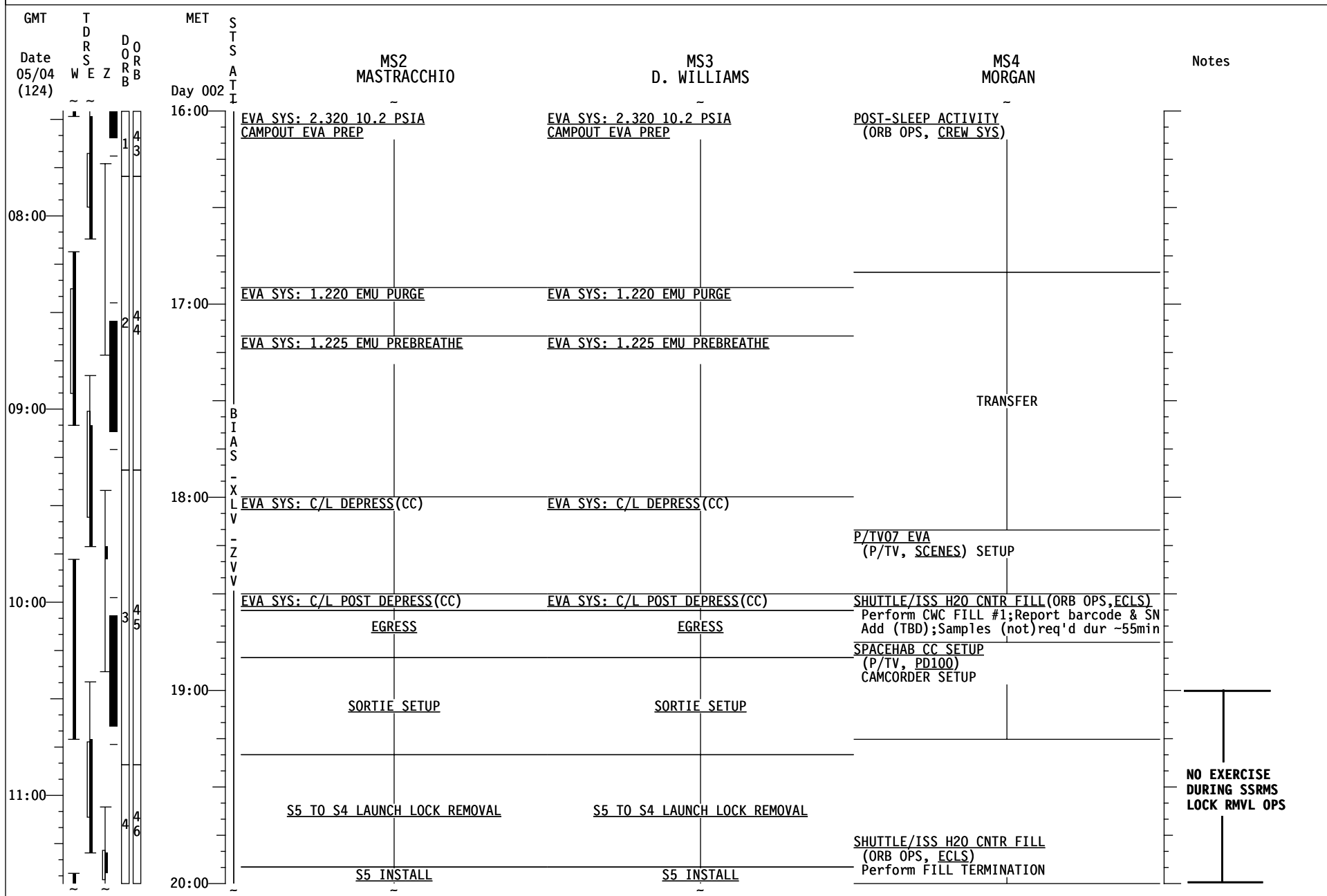
STS-118 FD04



STS-118 FD04

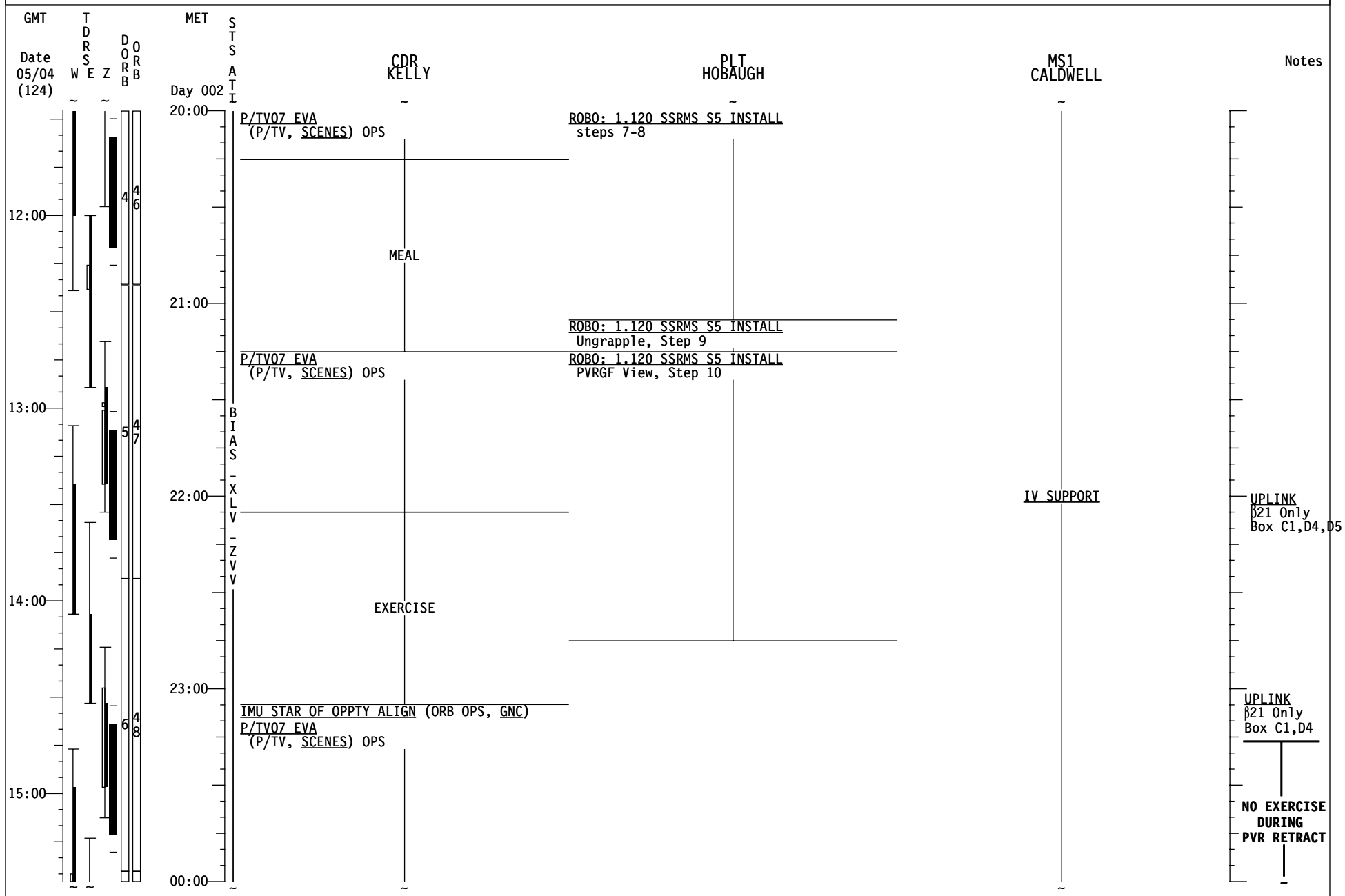
GMT	TDRS W E Z	DORB 1 3 2 4 3 5 4 6	MET Day 002	S T S A T I	CDR KELLY	PLT HOBGAUGH	MS1 CALDWELL	Notes
16:00					EVA SYS: 2.320 10.2 PSIA CAMPOUT EVA PREP	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
08:00						MERLIN STATUS CK(PL OPS, MERLIN) CCM-A STATUS CK(PL OPS, CCM-A) EVA1 INHIBIT PAD (EVA, FS TIMELINES)	EXERCISE	
17:00					EVA SYS: 1.220 EMU PURGE	A15 OPCU1,2 CONV(two) - OFF		
09:00					EVA SYS: 1.225 EMU PREBREATHE	TRANSFER	EVA PREP (EVA, EVA PREP)	
18:00					EVA SYS: C/L DEPRESS(CC)	ROBO: 1.120 SSRMS S5 INSTALL Pre Install Steps 1-3		
10:00					EVA SYS: C/L POST DEPRESS(CC) P/TV07 EVA (P/TV, SCENES) OPS	ROBO: 1.120 SSRMS S5 INSTALL Lock Removal Steps 4-6	IV SUPPORT	UPLINK β21 Only Box C1,D4
11:00								NO EXERCISE DURING SSRMS LOCK RMVL OPS
20:00						ROBO: 1.120 SSRMS S5 INSTALL steps 7-8		

STS-118 FD04



NO EXERCISE
DURING SSRMS
LOCK RMVL OPS

STS-118 FD04



P/TV07 EVA
(P/TV, SCENES) OPS

ROBO: 1.120 SSRMS S5 INSTALL
steps 7-8

MEAL

ROBO: 1.120 SSRMS S5 INSTALL
Ungrapple, Step 9

P/TV07 EVA
(P/TV, SCENES) OPS

ROBO: 1.120 SSRMS S5 INSTALL
PVRGF View, Step 10

IV SUPPORT

UPLINK
β21 Only
Box C1,D4,D5

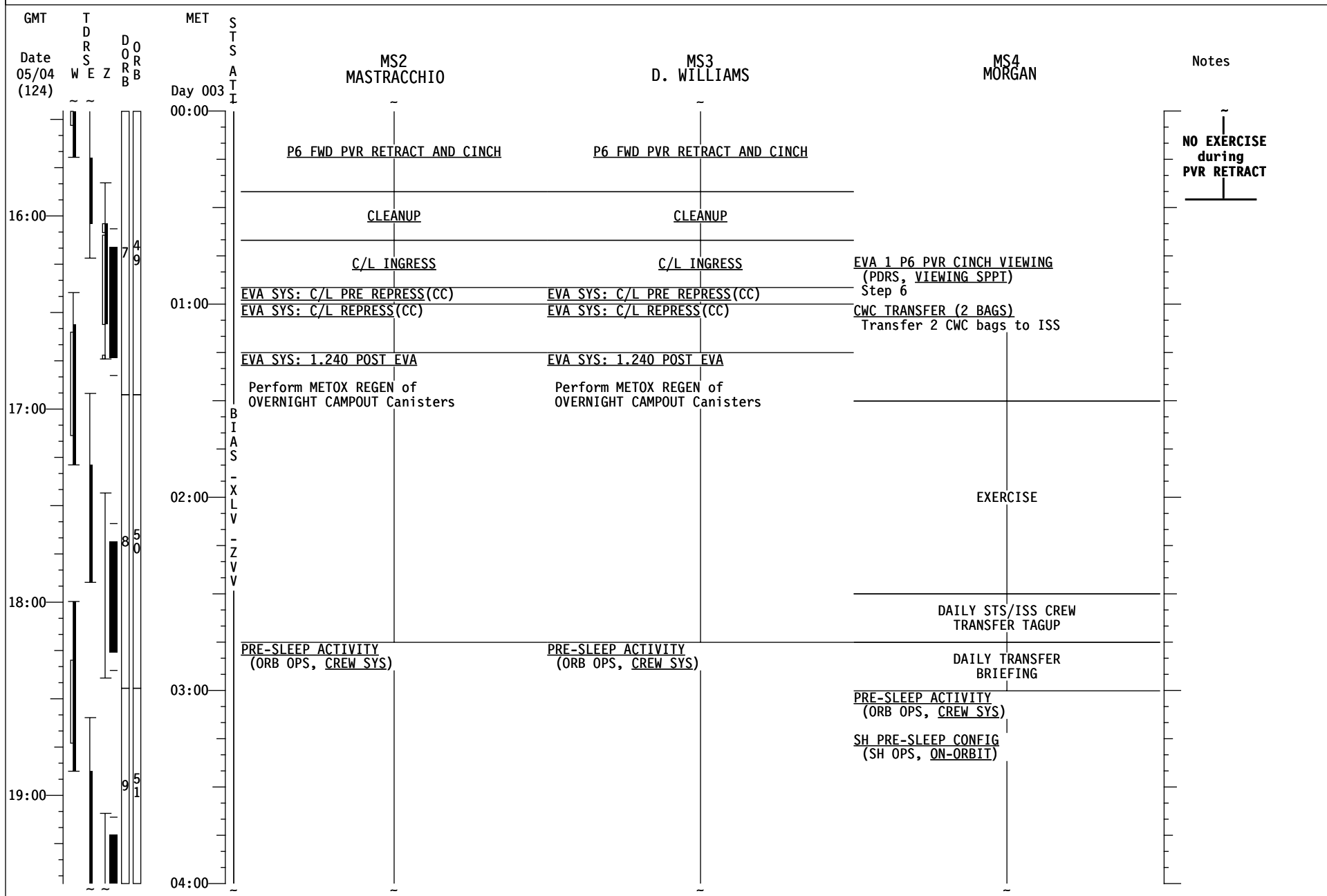
IMU STAR OF OPPTY ALIGN (ORB OPS, GNC)

P/TV07 EVA
(P/TV, SCENES) OPS

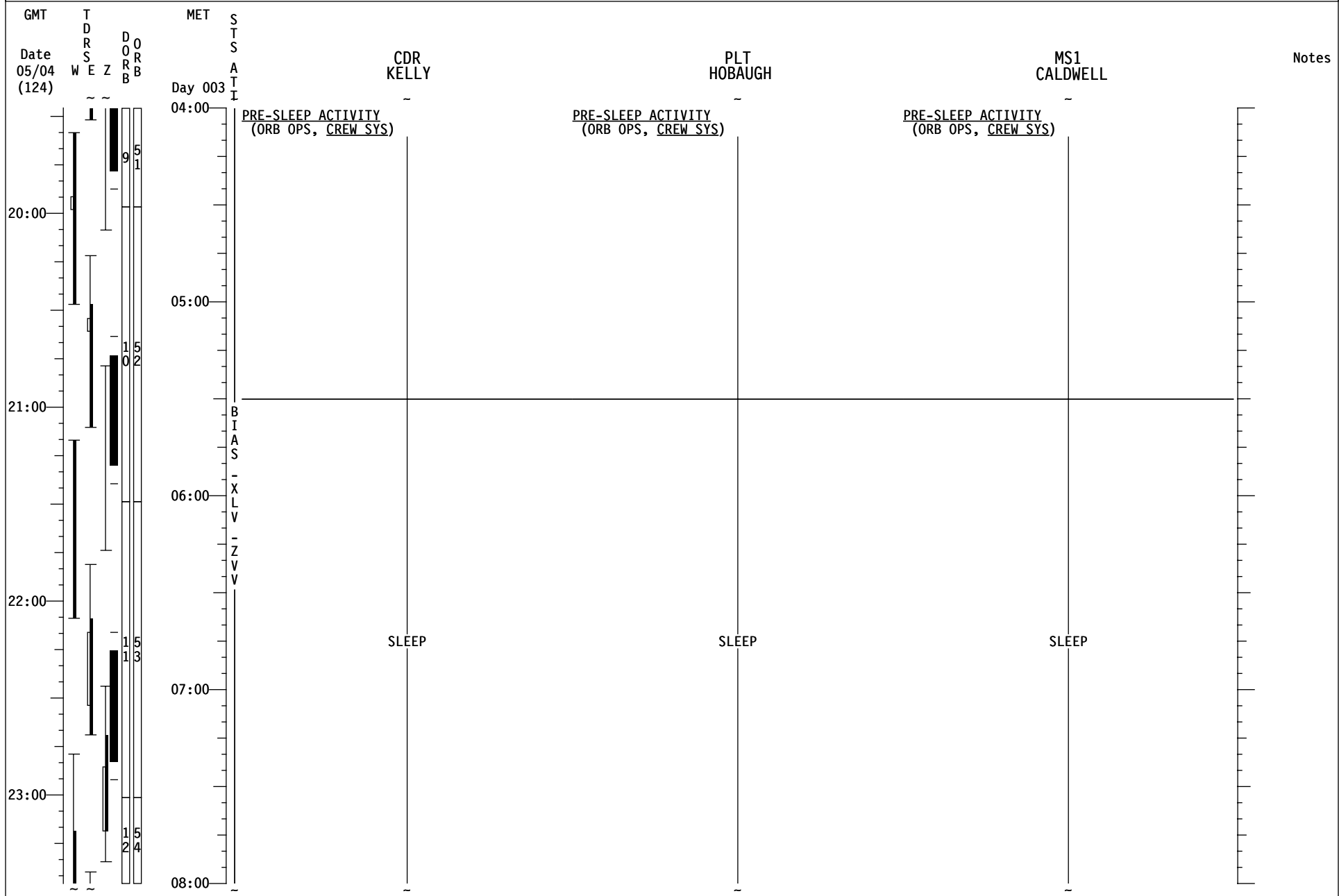
UPLINK
β21 Only
Box C1,D4

NO EXERCISE
DURING
PVR RETRACT

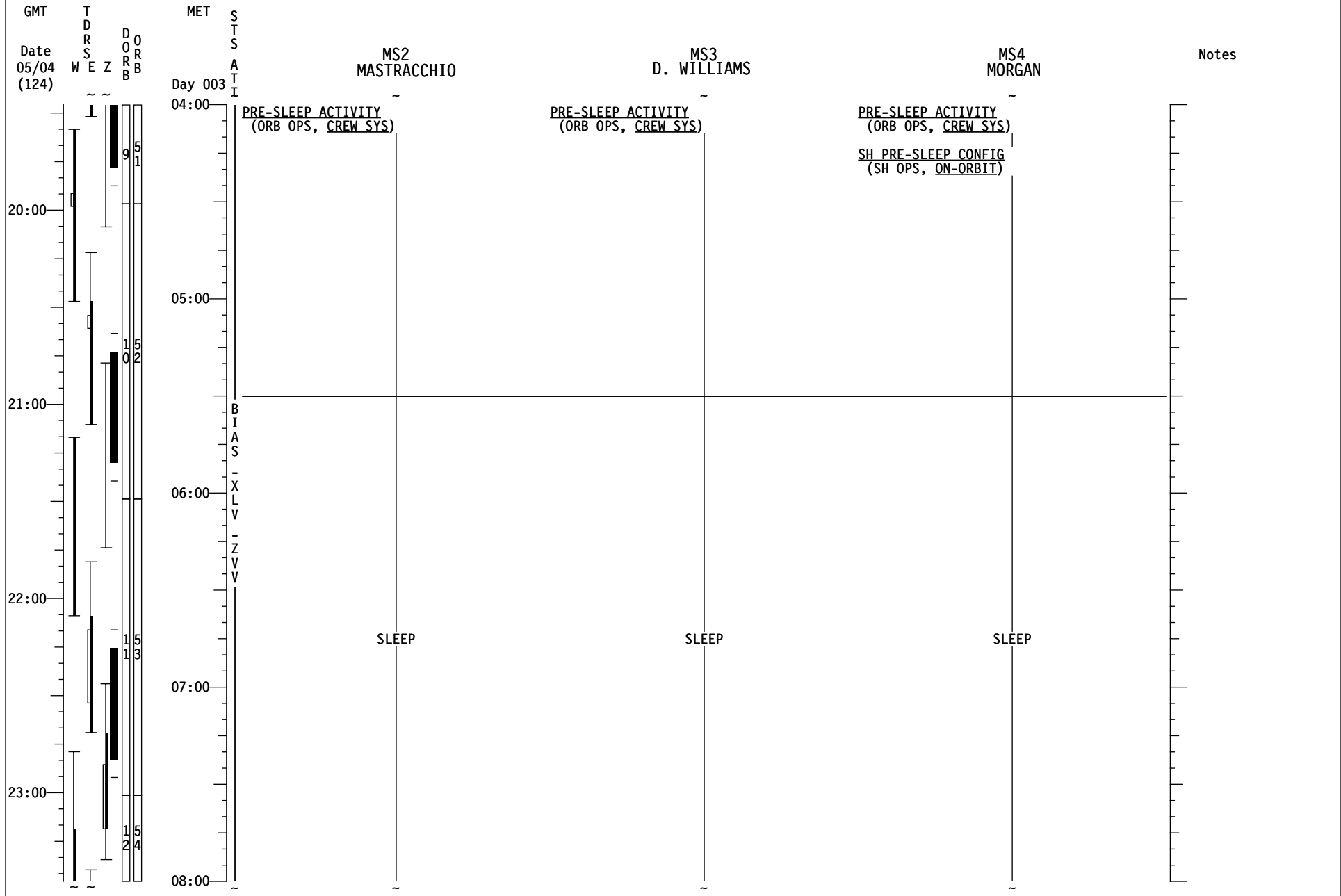
STS-118 FD04



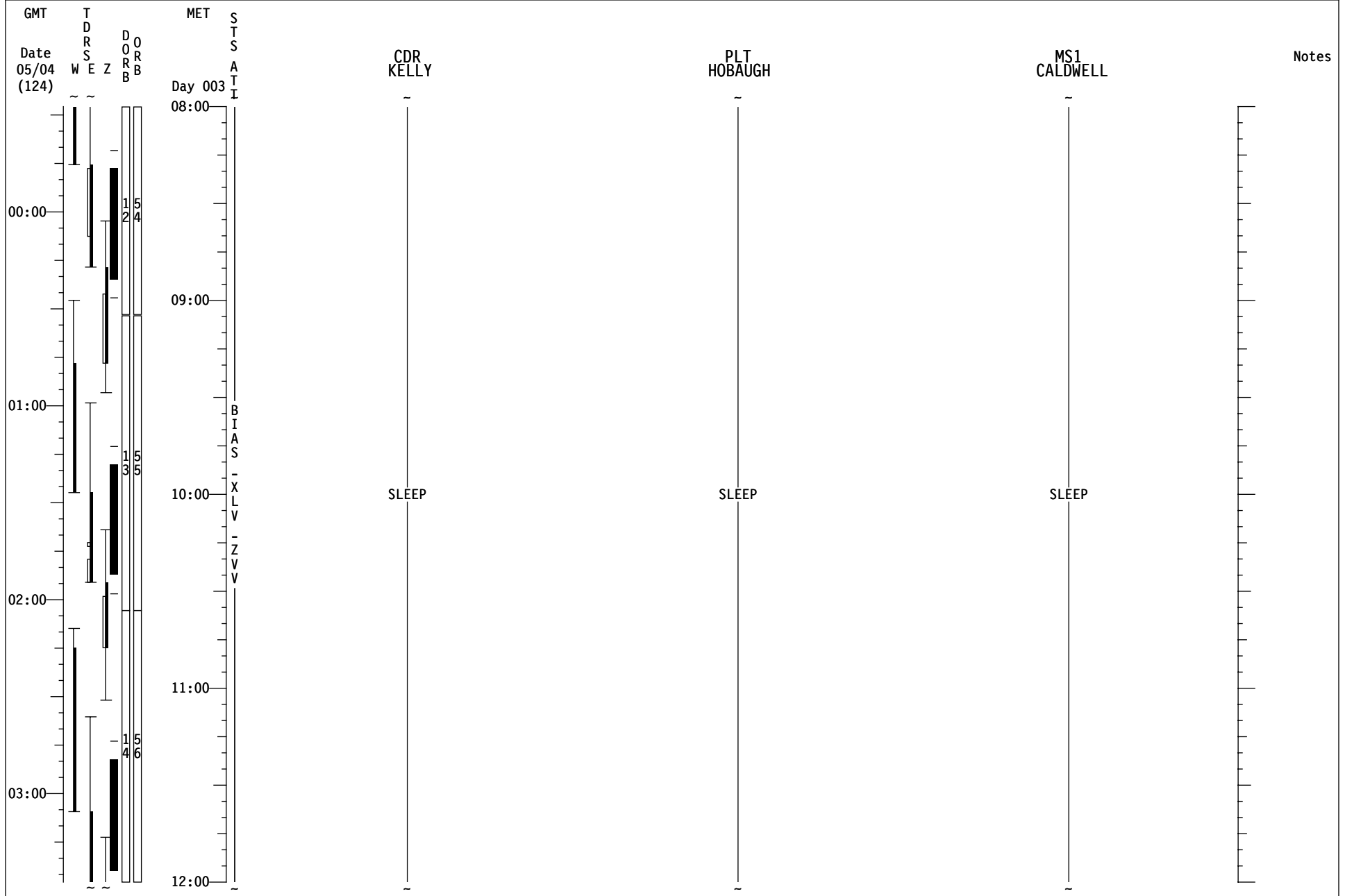
STS-118 FD04



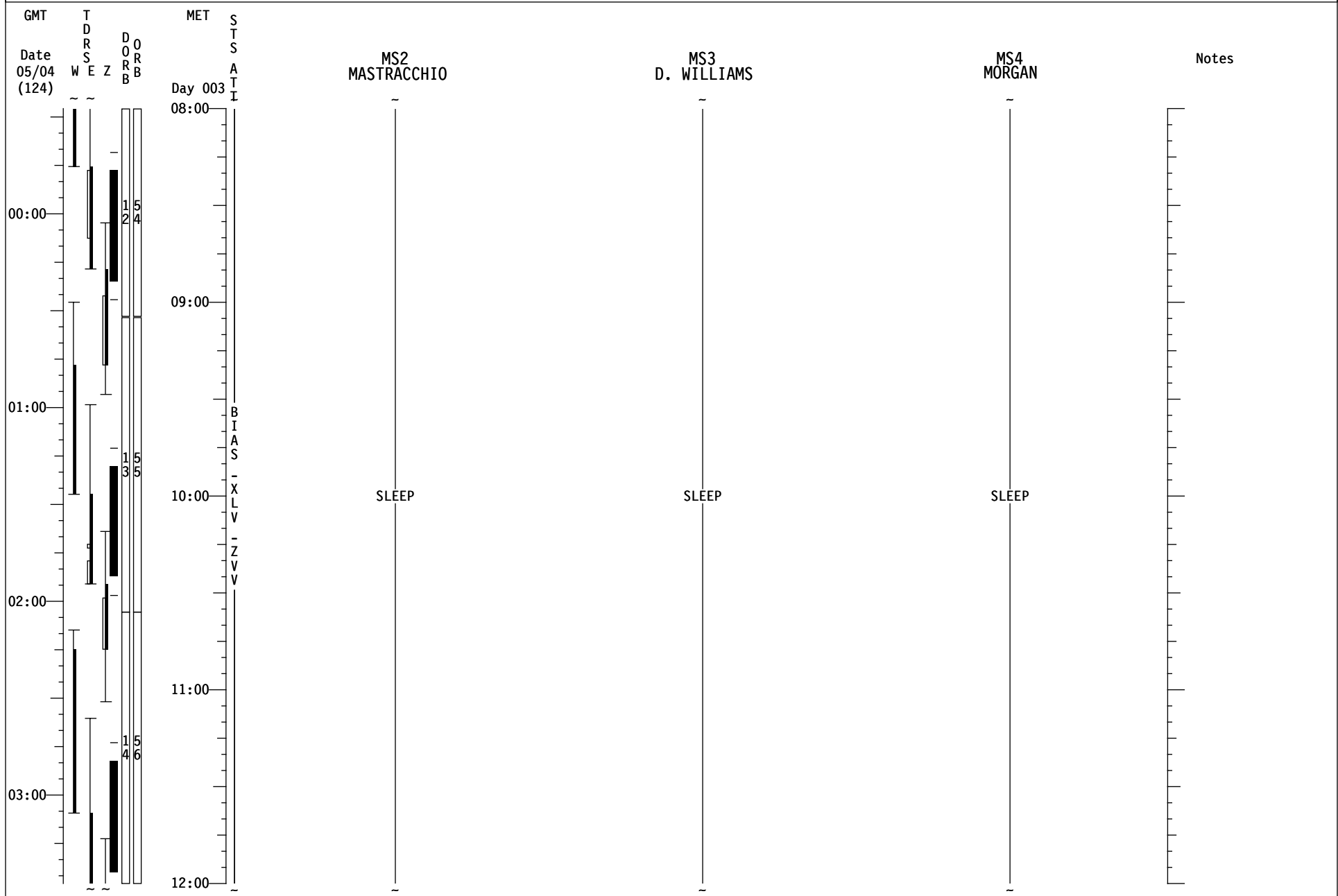
STS-118 FD04



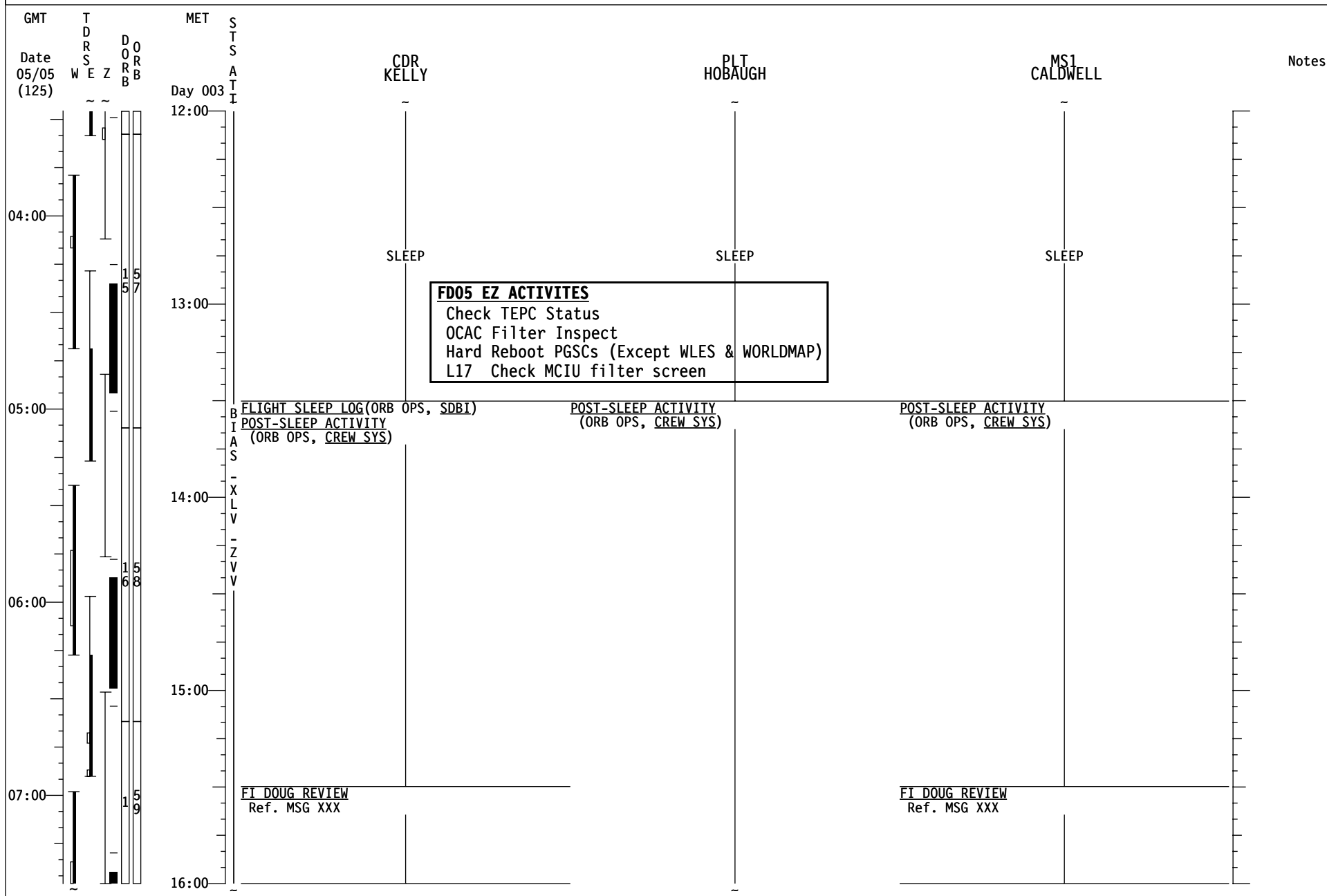
STS-118 FD04



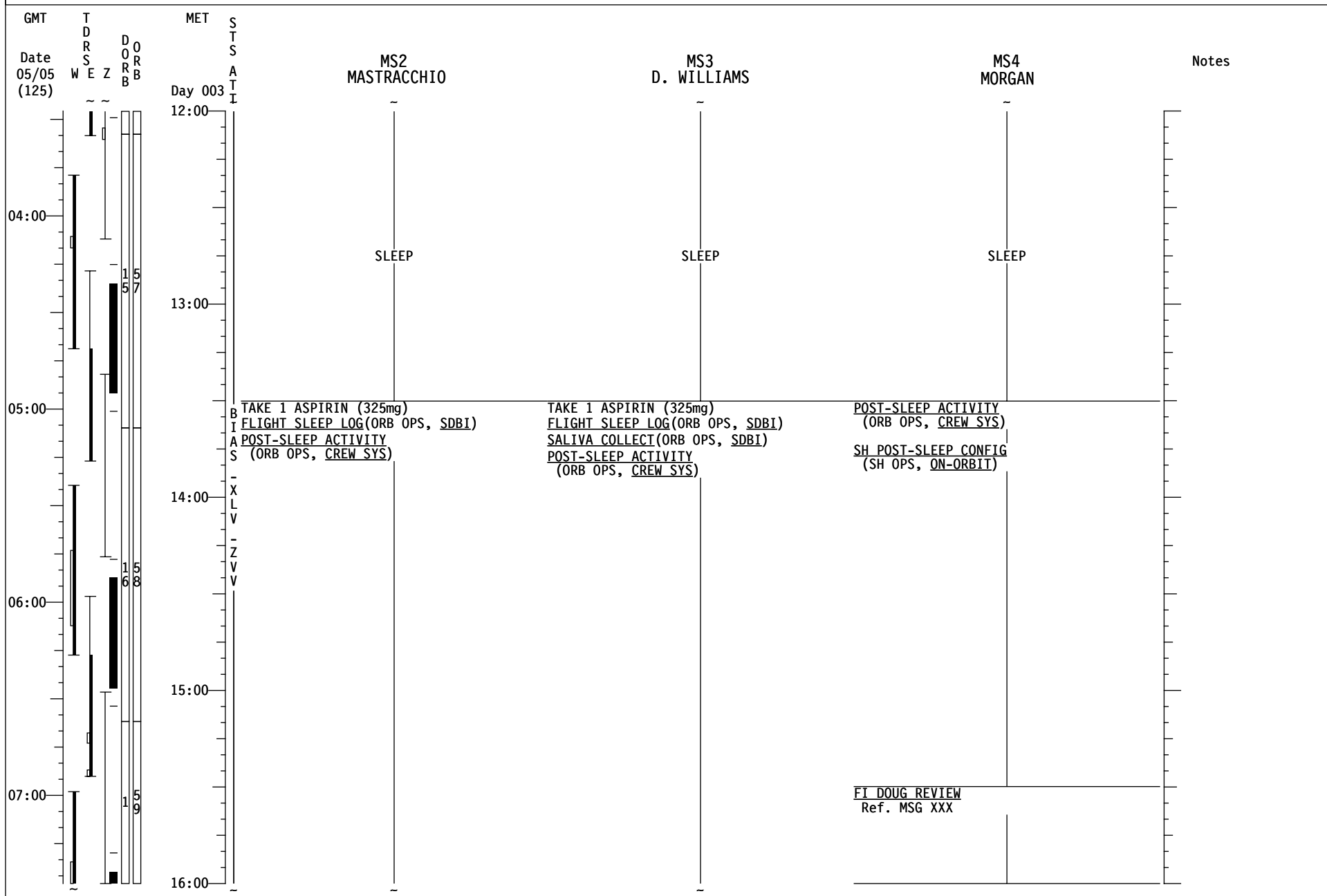
STS-118 FD04



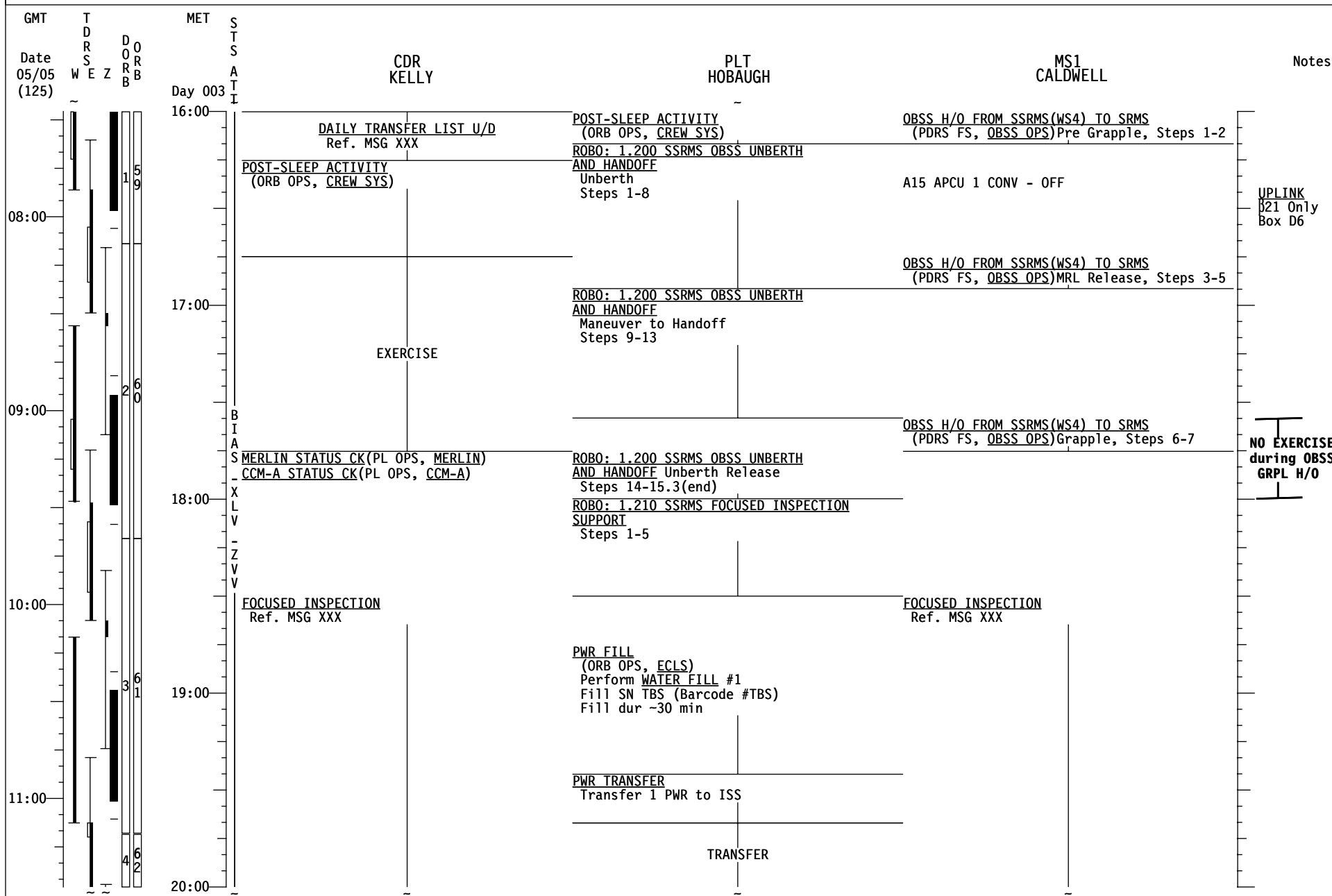
STS-118 FD05



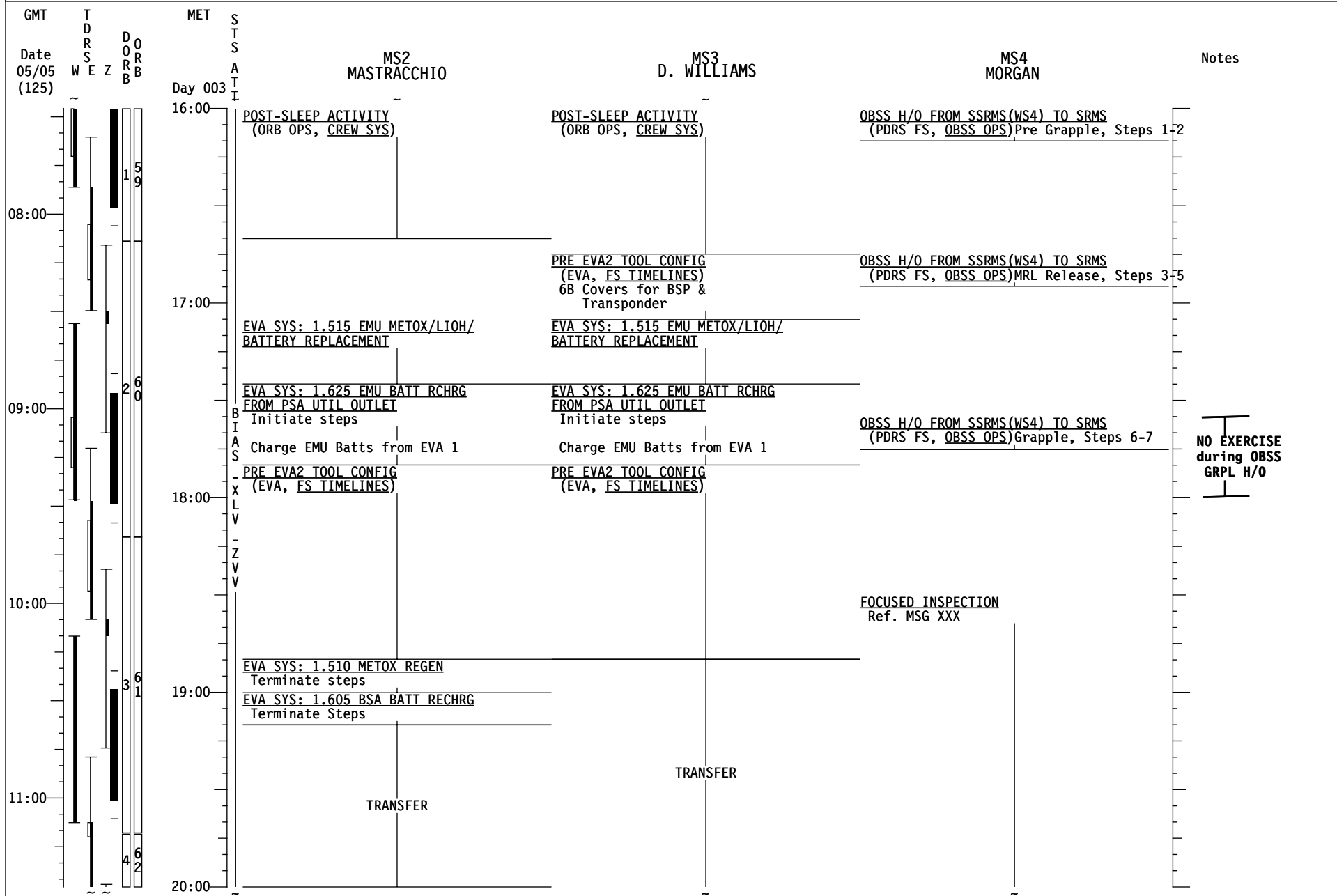
STS-118 FD05



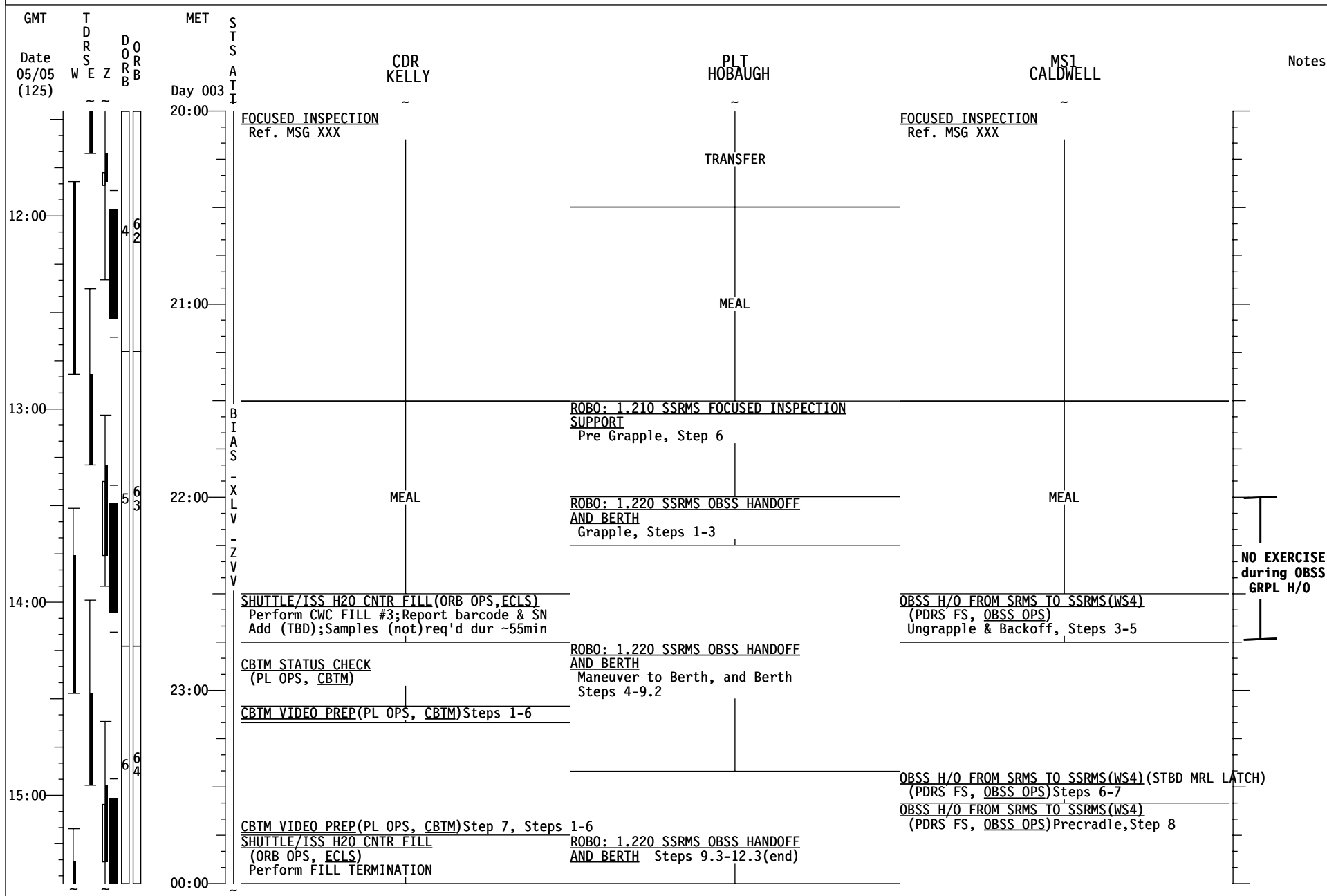
STS-118 FD05



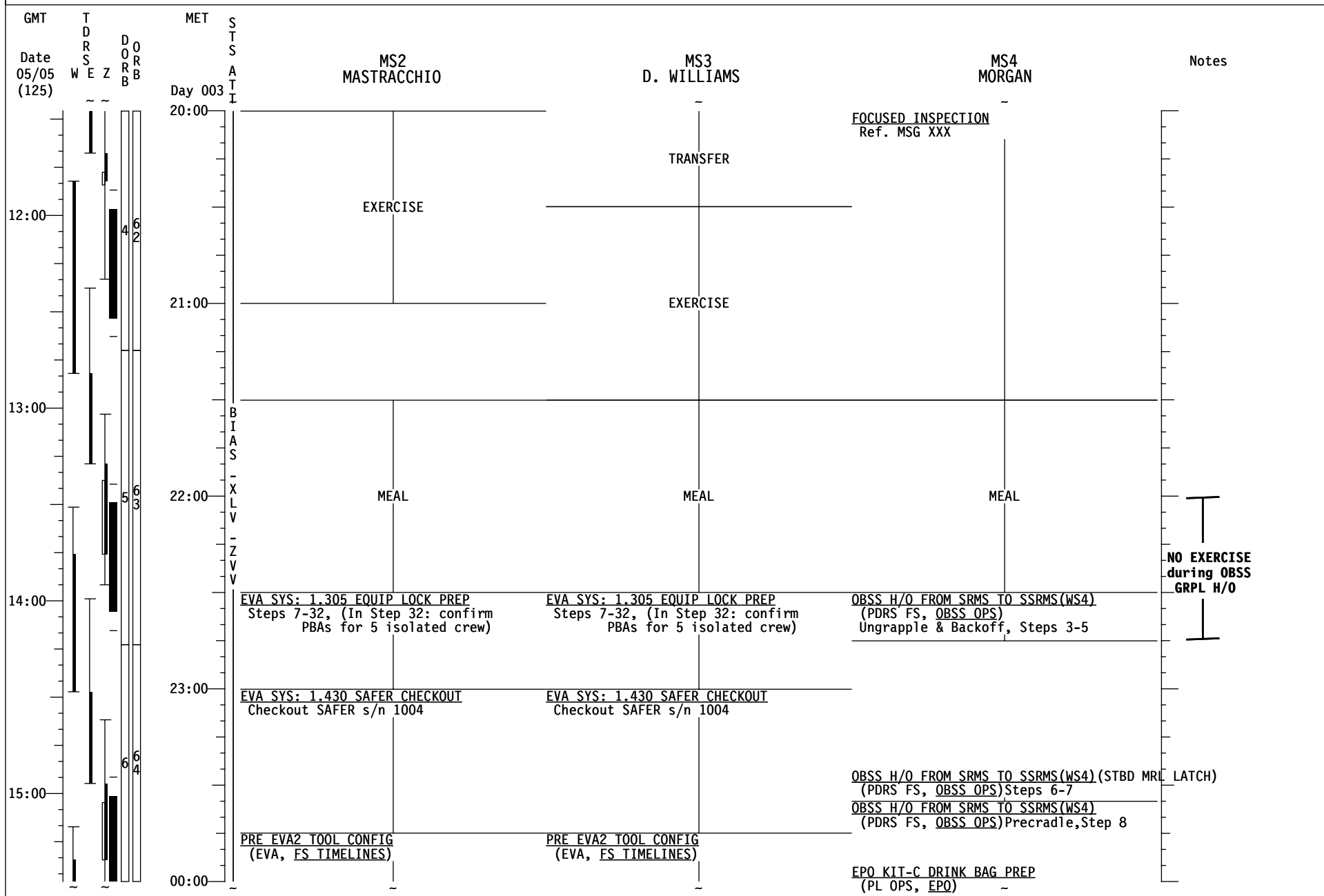
STS-118 FD05



STS-118 FD05



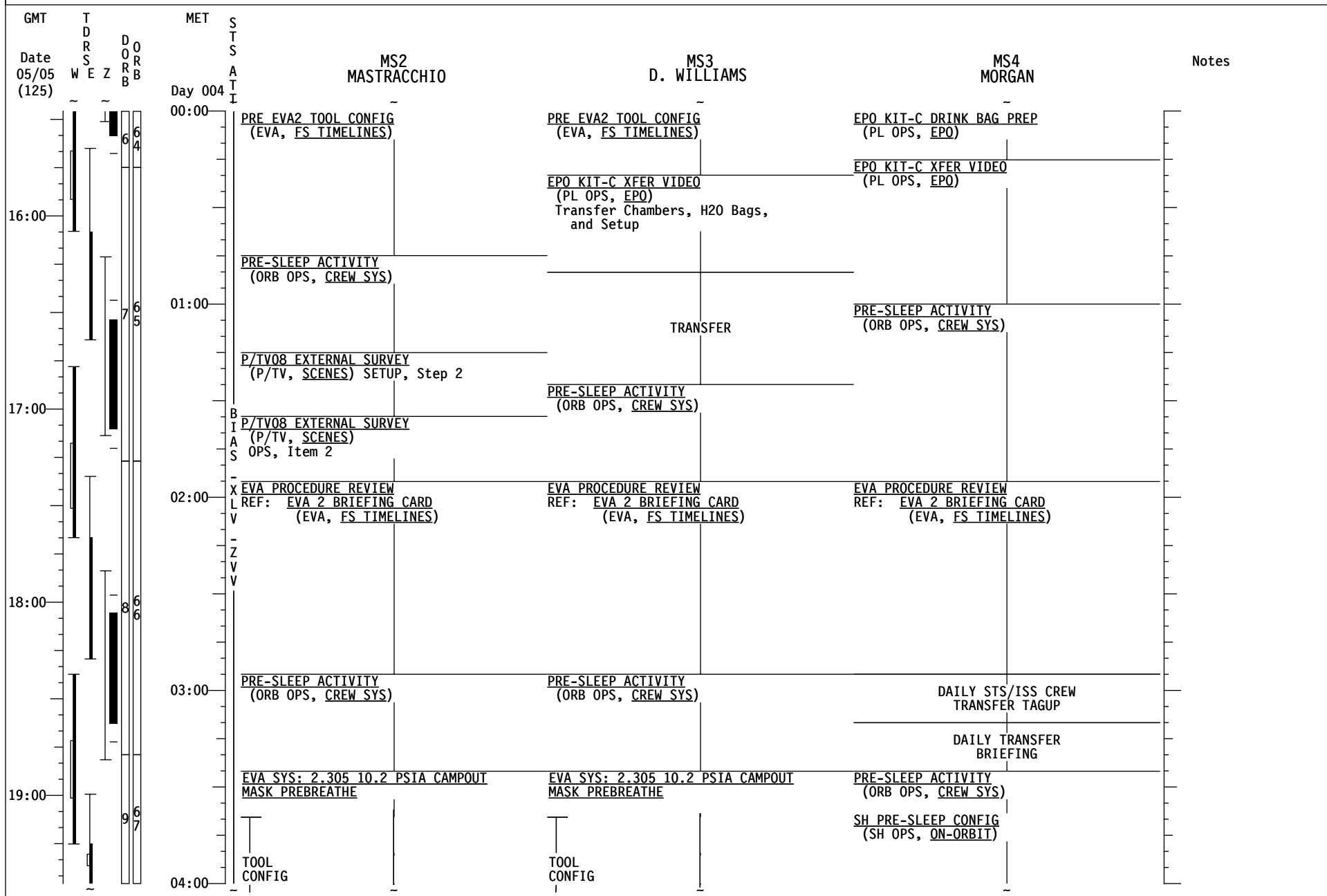
STS-118 FD05



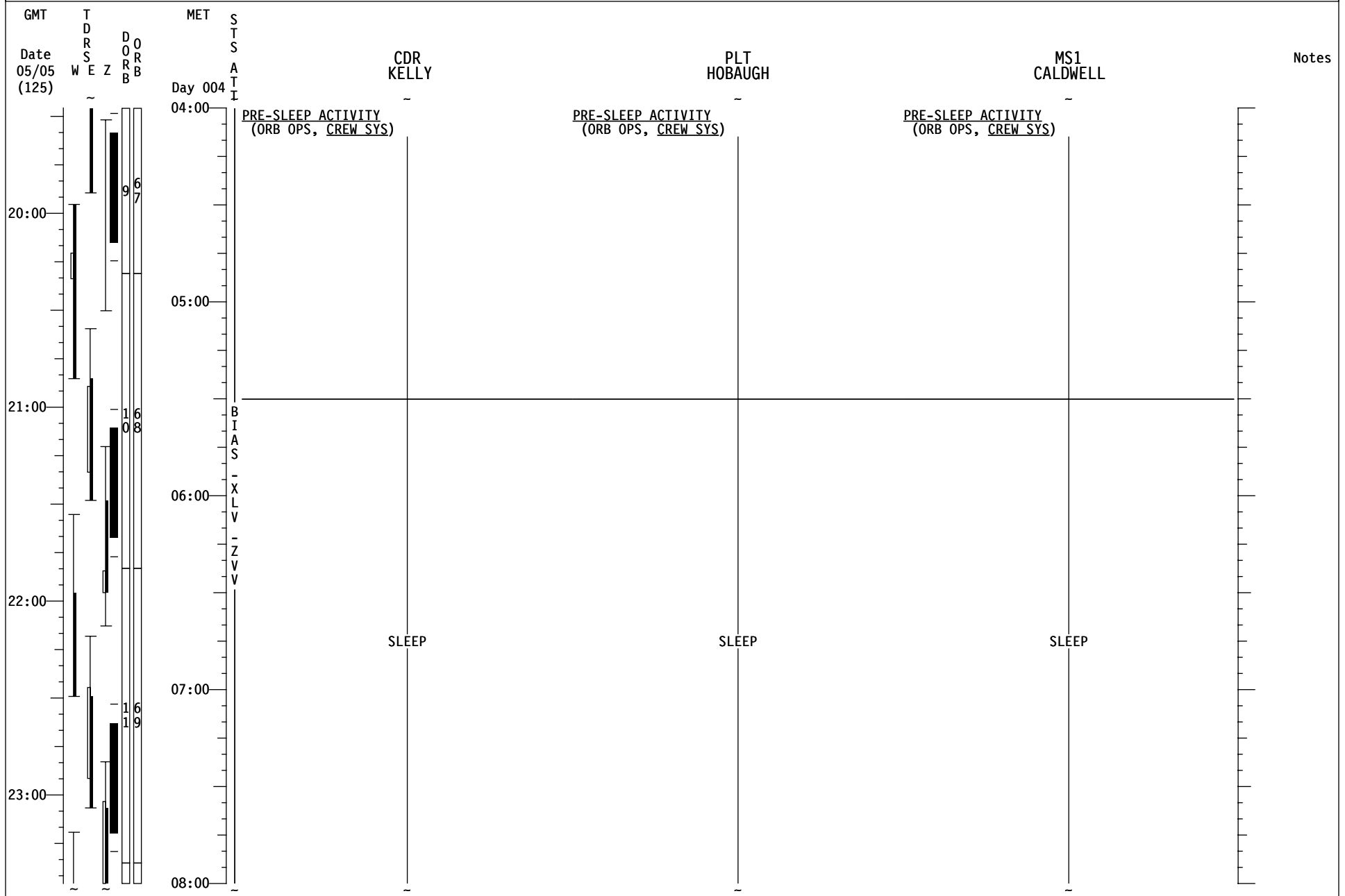
STS-118 FD05

GMT	TDRS W E Z	DORB 6 4	MET Day 004	STS A T I	CDR KELLY	PLT HOBAUGH	MS1 CALDWELL	Notes
00:00					P/TV12 MIDDECK PAYLOADS (P/TV, SCENES) MERLIN PHOTO OPS, Item 1			
16:00					A15 √APCU 2 OUTPUT - OFF APCU 1 CONV - ON			
					CBTM VIDEO PREP(PL OPS, CBTM)Step 7, Steps 1-6	TRANSFER	EXERCISE	
01:00					SPEGIS CANISTER ACT (PL OPS, MERLIN)			
					CBTM VIDEO PREP(PL OPS, CBTM)Step 7			
17:00					PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)		CWC TRANSFER (1 BAG) Transfer 1 CWC bag to ISS	
					ROBO: 1.230 SSRMS WALKOFF PDGF1 TO LAB PDGF Steps x-xx		PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
02:00					S CCM-A STATUS CK(PL OPS, CCM-A) MERLIN STATUS CK(PL OPS, MERLIN)			
					X EVA PROCEDURE REVIEW REF: EVA 2 BRIEFING CARD (EVA, FS TIMELINES)	EVA PROCEDURE REVIEW REF: EVA 2 BRIEFING CARD (EVA, FS TIMELINES)	EVA PROCEDURE REVIEW REF: EVA 2 BRIEFING CARD (EVA, FS TIMELINES)	
18:00					PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)			
					ROBO: 1.230 SSRMS WALKOFF PDGF1 TO LAB PDGF Steps x-xx		PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
03:00					PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)			
19:00					06 √UHF MODE - OFF PRIVATE MEDICAL CONFERENCE			
04:00					PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)			UPLINK β21 Only Box C1,D2

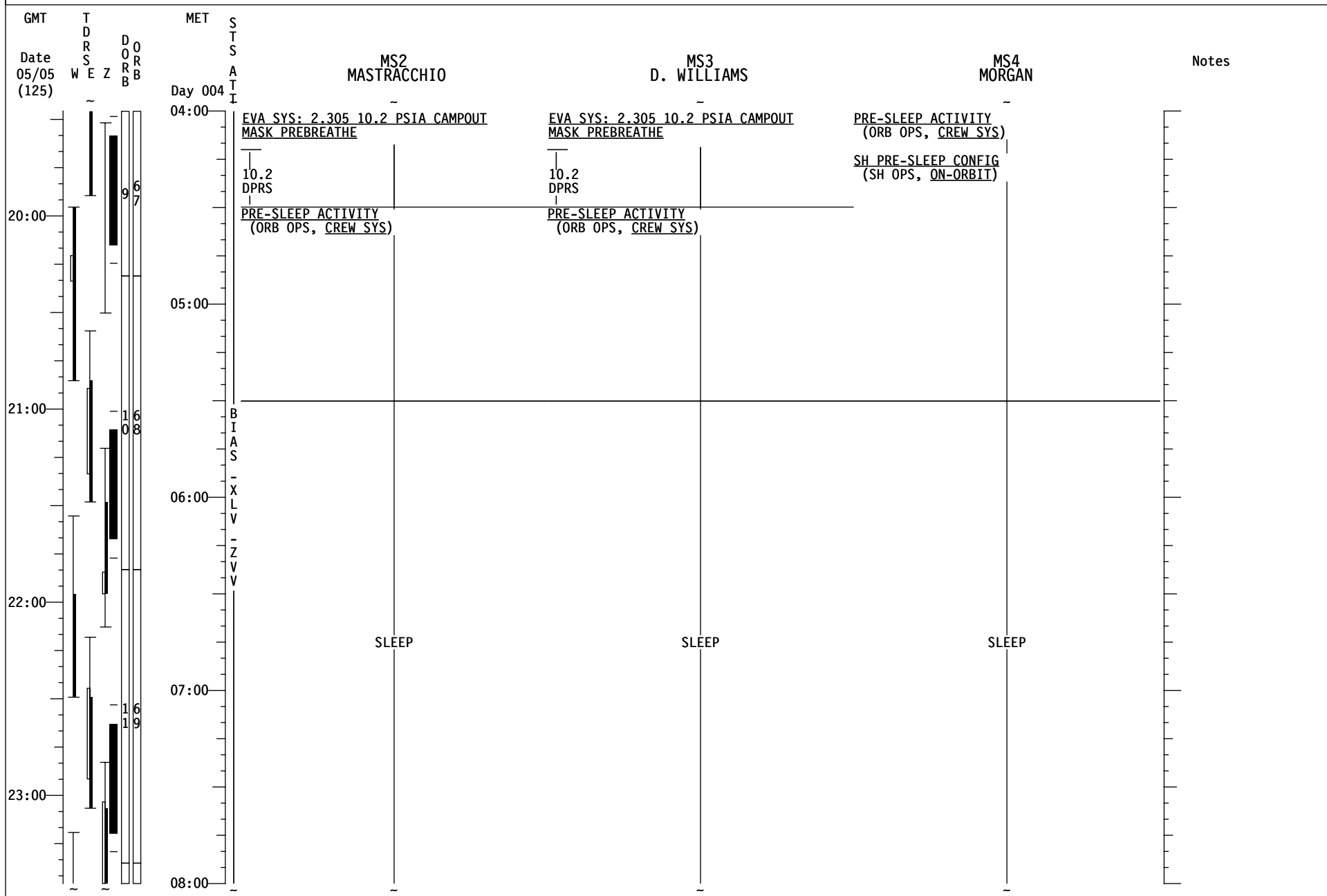
STS-118 FD05



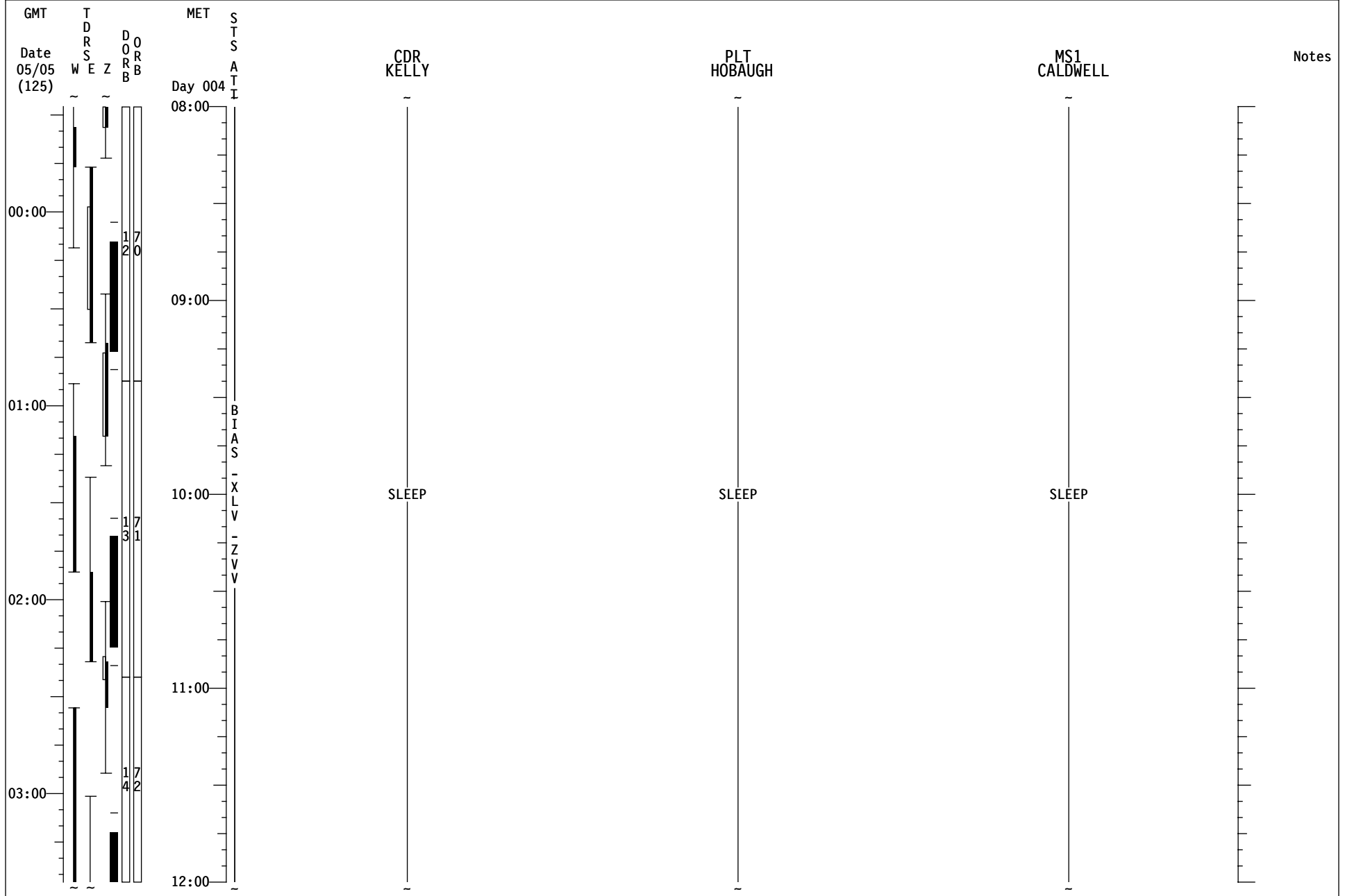
STS-118 FD05



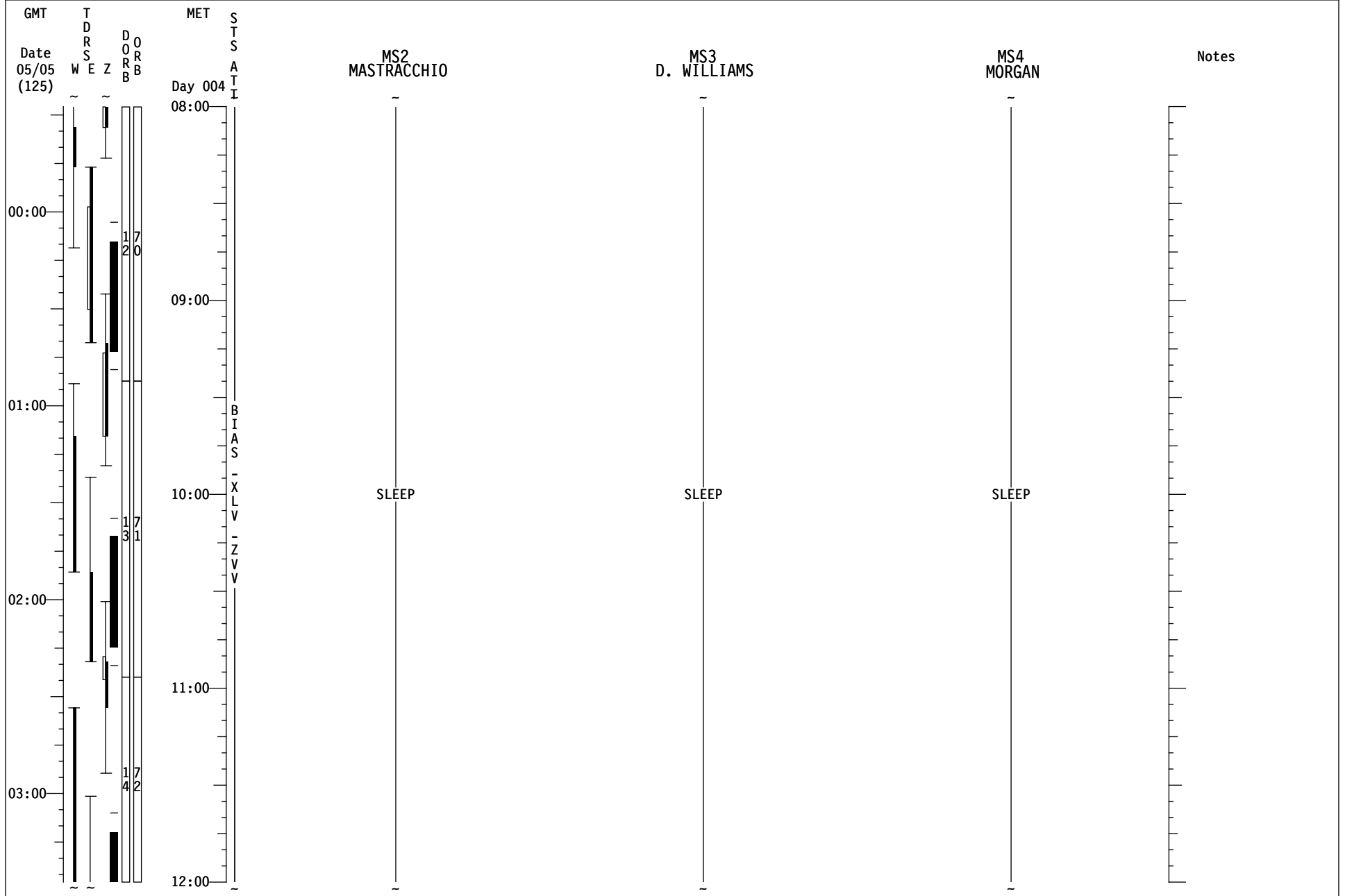
STS-118 FD05



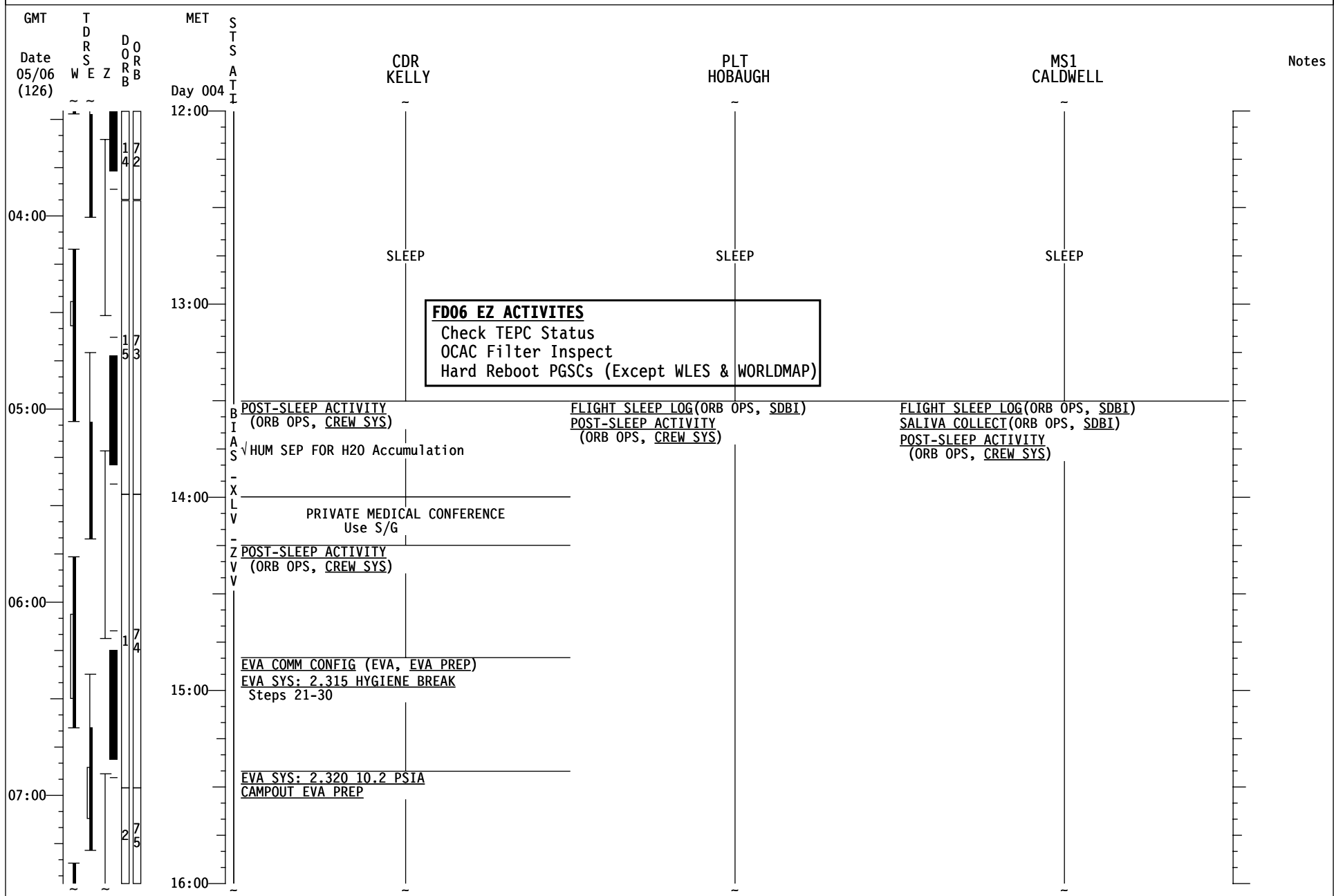
STS-118 FD05



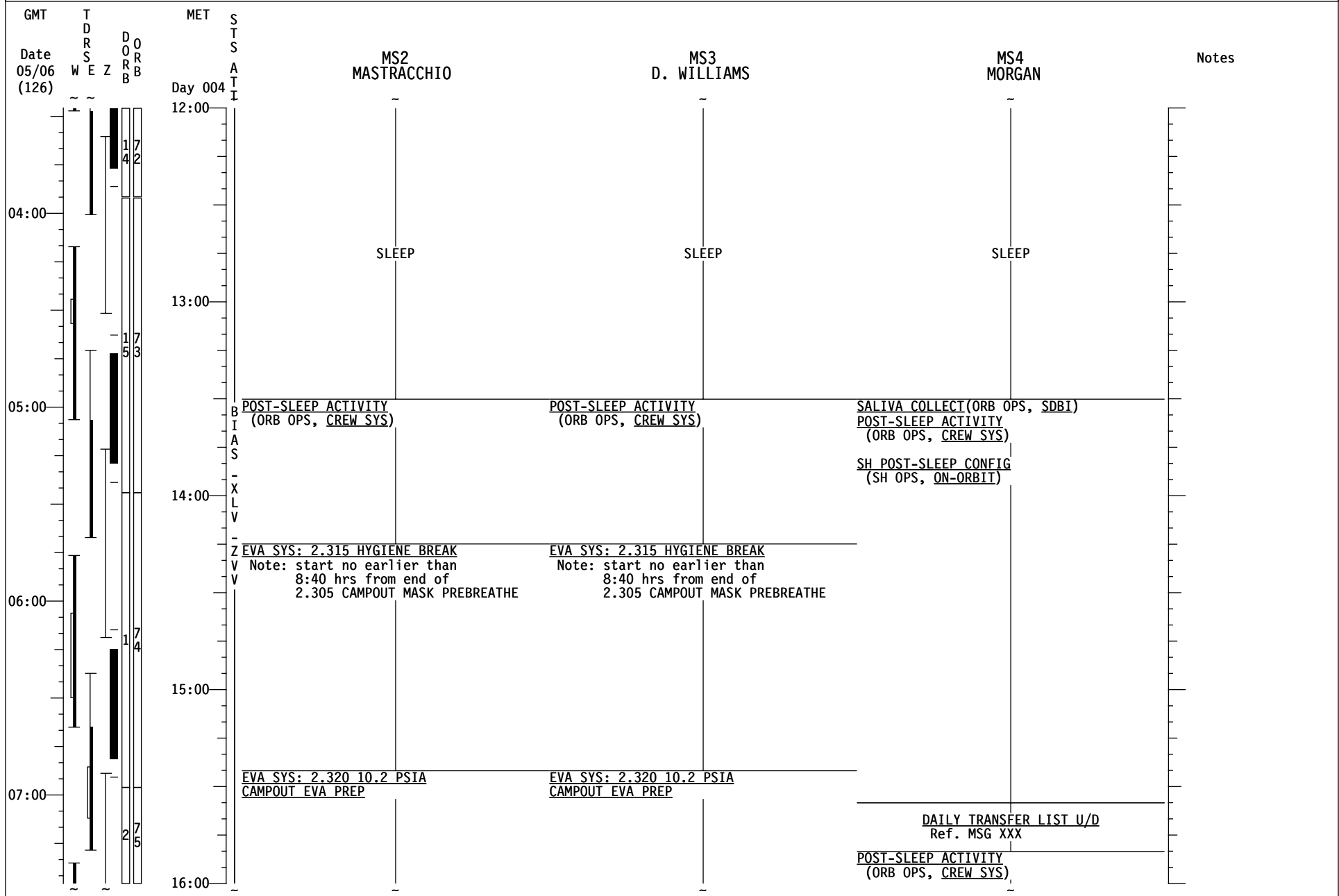
STS-118 FD05



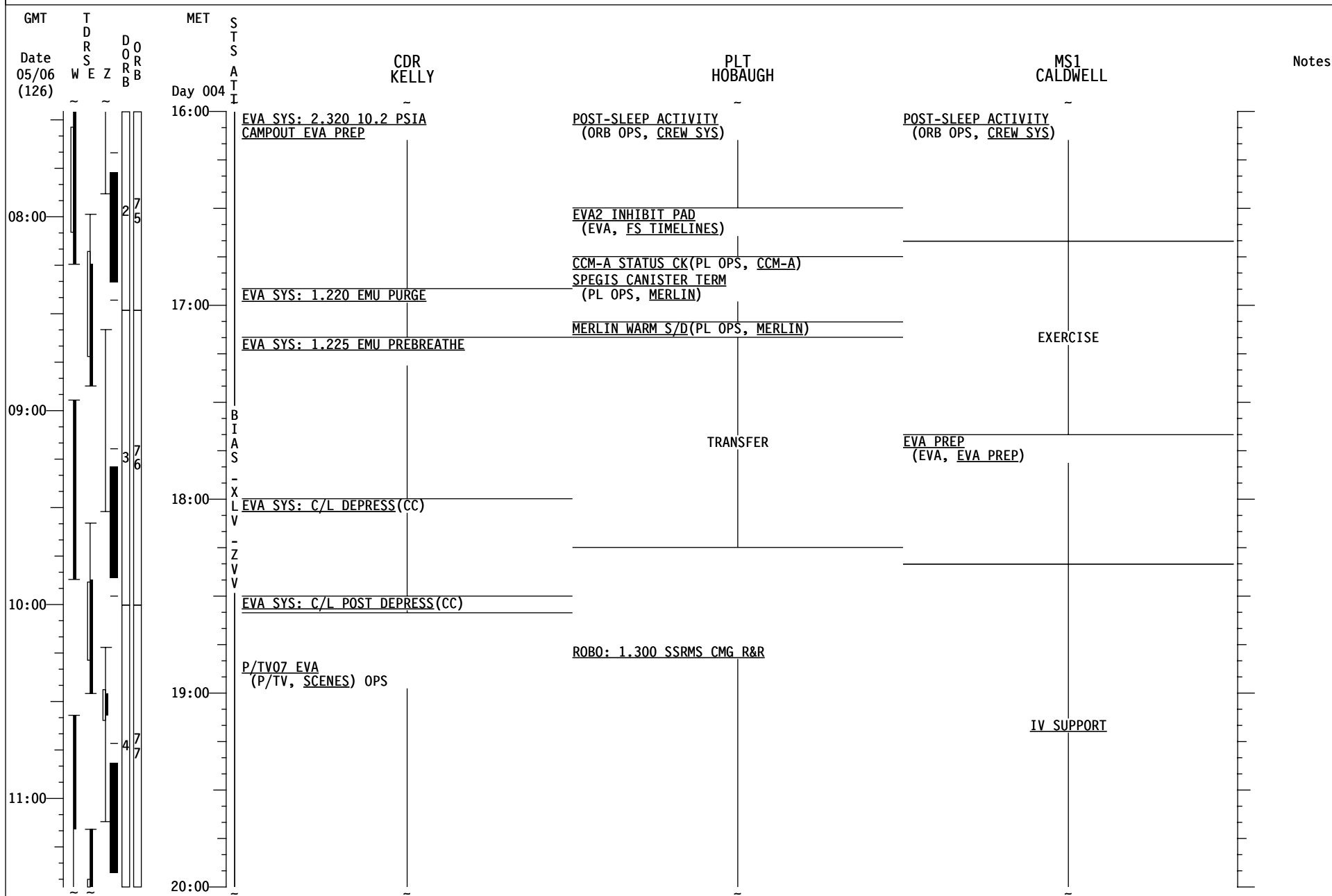
STS-118 FD06



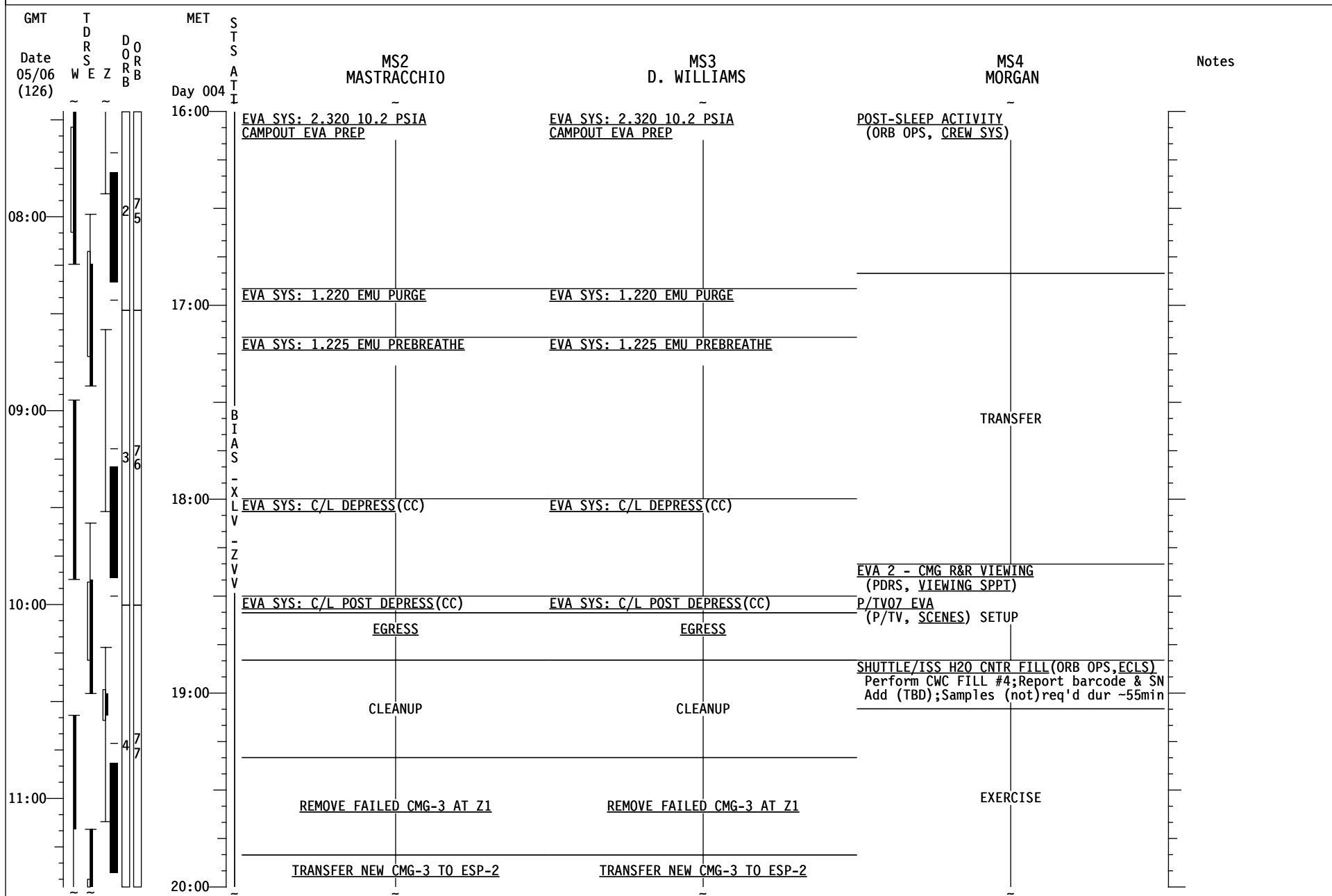
STS-118 FD06



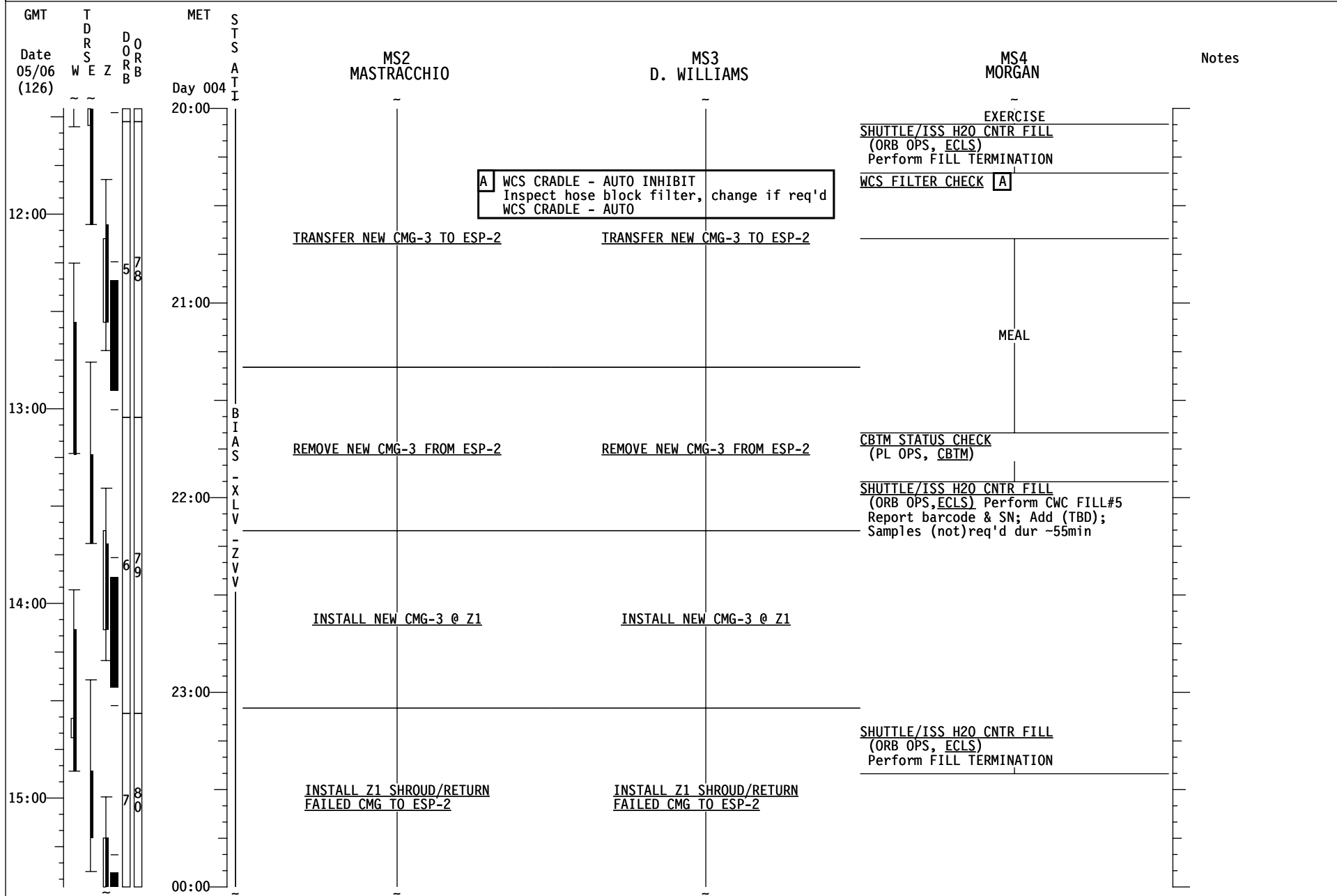
STS-118 FD06



STS-118 FD06



STS-118 FD06



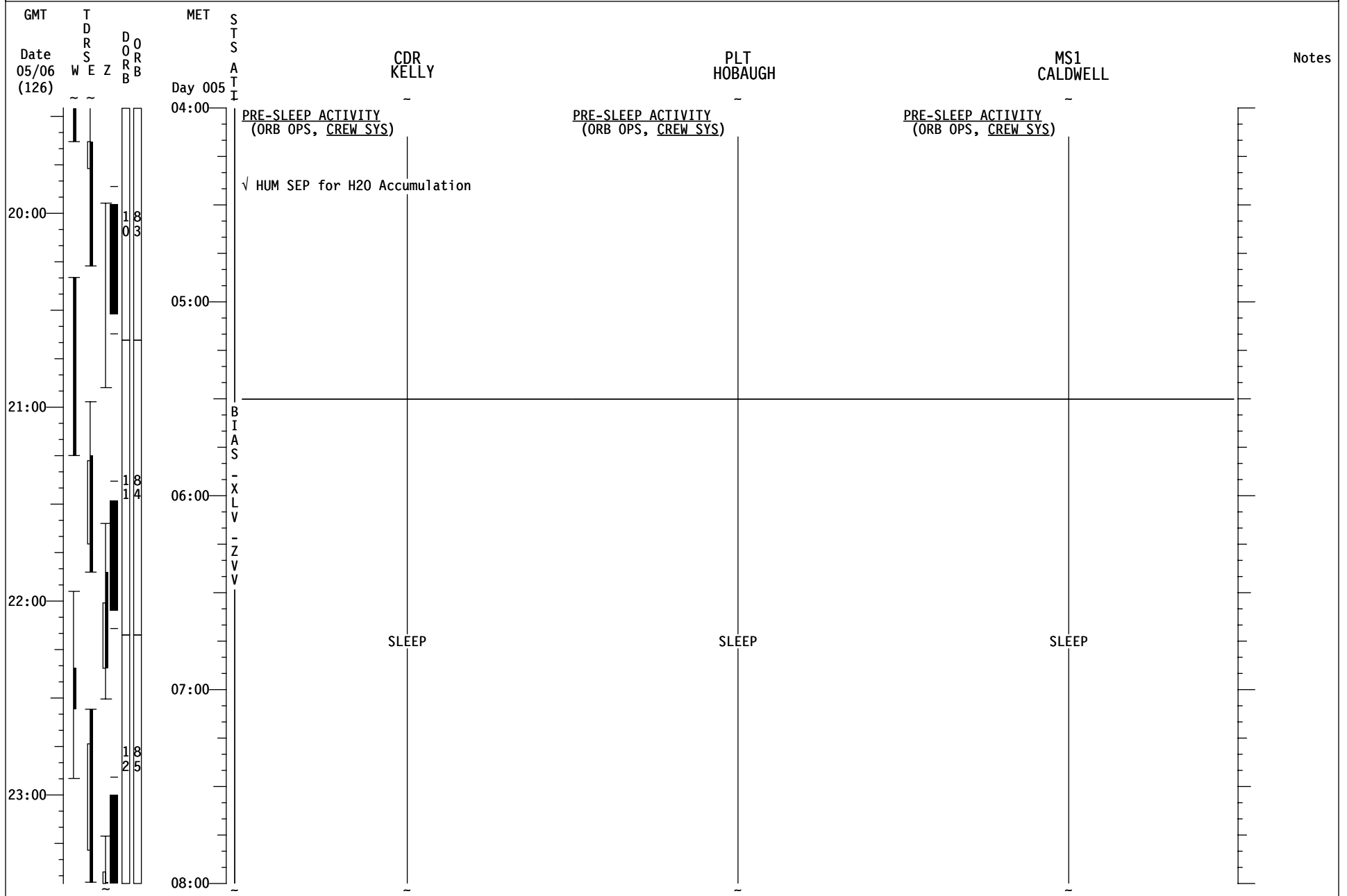
STS-118 FD06

GMT	TDRS W E Z	DORB D O R B	MET Day 005	STS A T I	CDR KELLY	PLT HOBAUGH	MS1 CALDWELL	Notes
00:00						ROBO: 1.300 SSRMS CMG R&R		
16:00					EXERCISE		IV SUPPORT	
01:00					EVA SYS: C/L REPRESS(CC)			
17:00					EVA SYS: 1.240 POST EVA Perform METOX REGEN of OVERNIGHT CAMPOUT Canisters	JNT OPS: 3.102 NITROGEN TRANSFER INIT		
02:00							EVA COMM DECONFIG (EVA, EVA PREP) FILTER CLEANING (IFM, SCHEDULED MAINT) Inspect filters & clean as necessary	
18:00						CCM-A STATUS CK(PL OPS, CCM-A)	Also check SH Booster Fan Bypass duct inlet	
03:00					PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	EXERCISE	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
19:00					√ HUM SEP for H2O Accumulation	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)		
						06 √UHF MODE - OFF PRIVATE MEDICAL CONFERENCE		
04:00						PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)		

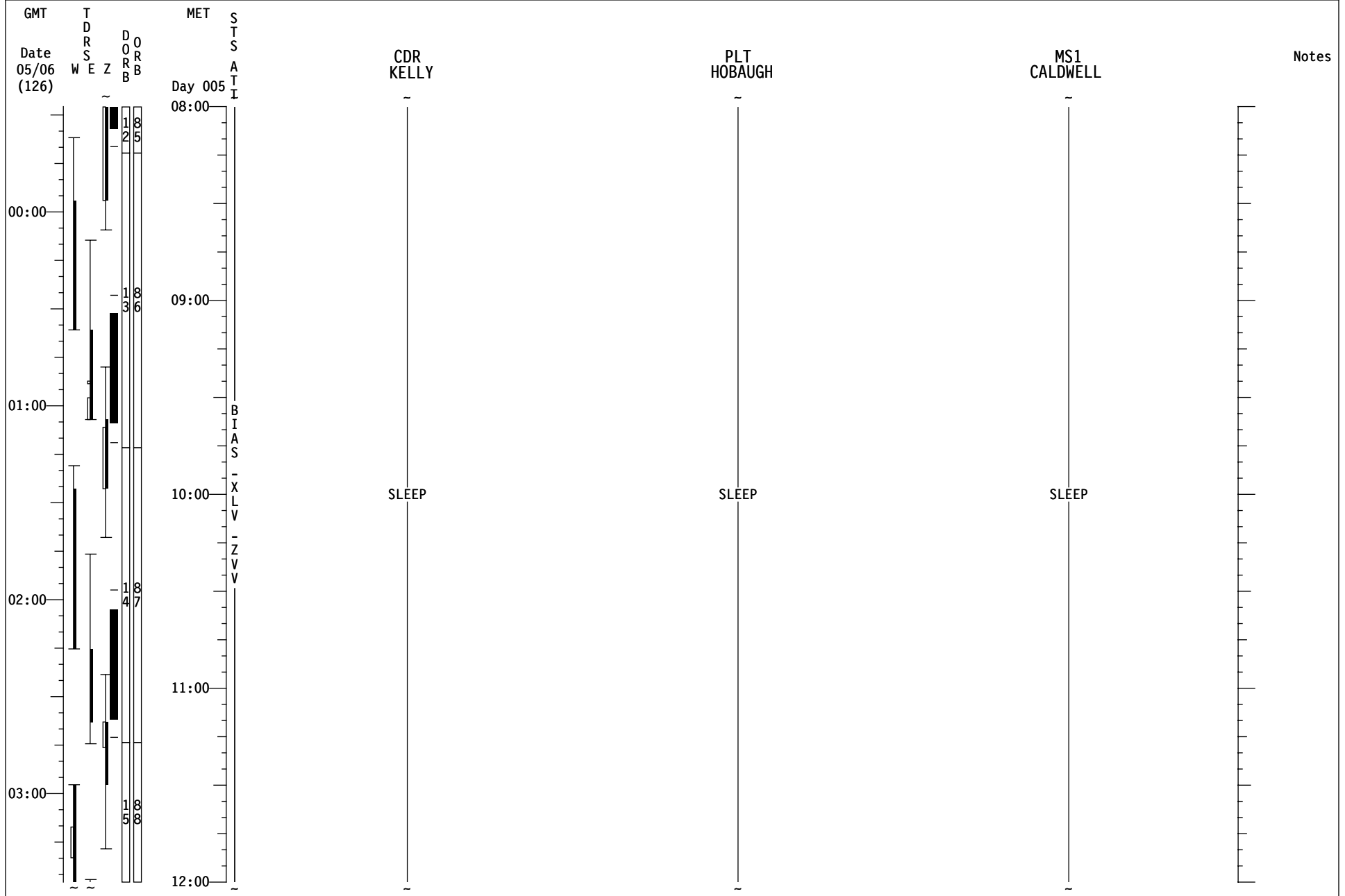
STS-118 FD06

GMT	T D R S E Z	D O R B	MET	S T S	M S 2	M S 3	M S 4	Notes
Date 05/06 (126)	W	E	Day 005	A T I	MASTRACCHIO	D. WILLIAMS	MORGAN	
00:00					<u>INSTALL Z1 SHROUD/RETURN</u> <u>FAILED CMG TO ESP-2</u>	<u>INSTALL Z1 SHROUD/RETURN</u> <u>FAILED CMG TO ESP-2</u>		
16:00					<u>CLEANUP</u>	<u>CLEANUP</u>		
					<u>C/L INGRESS</u>	<u>C/L INGRESS</u>	<u>RMS PWRDN</u> (PDRS, RMS PWRDN) Step 1	
01:00					<u>EVA SYS: C/L PRE REPRESS(CC)</u> <u>EVA SYS: C/L REPRESS(CC)</u>	<u>EVA SYS: C/L PRE REPRESS(CC)</u> <u>EVA SYS: C/L REPRESS(CC)</u>	<u>CWC TRANSFER (2 BAGS)</u> Transfer 2 CWC bags to ISS	
17:00					<u>EVA SYS: 1.240 POST EVA</u> Perform METOX REGEN of OVERNIGHT CAMPOUT Canisters	<u>EVA SYS: 1.240 POST EVA</u> Perform METOX REGEN of OVERNIGHT CAMPOUT Canisters	<u>SHUTTLE CONDENSATE COLLECTION</u> (ORB OPS, ECLS) Perform CHANGEOUT	
02:00								
18:00							<u>DAILY STS/ISS CREW</u> <u>TRANSFER TAGUP</u>	
					<u>PRE-SLEEP ACTIVITY</u> (ORB OPS, CREW SYS)	<u>PRE-SLEEP ACTIVITY</u> (ORB OPS, CREW SYS)	<u>DAILY TRANSFER</u> <u>BRIEFING</u>	
03:00							<u>PRE-SLEEP ACTIVITY</u> (ORB OPS, CREW SYS)	
19:00							<u>SH PRE-SLEEP CONFIG</u> (SH OPS, ON-ORBIT)	
04:00								

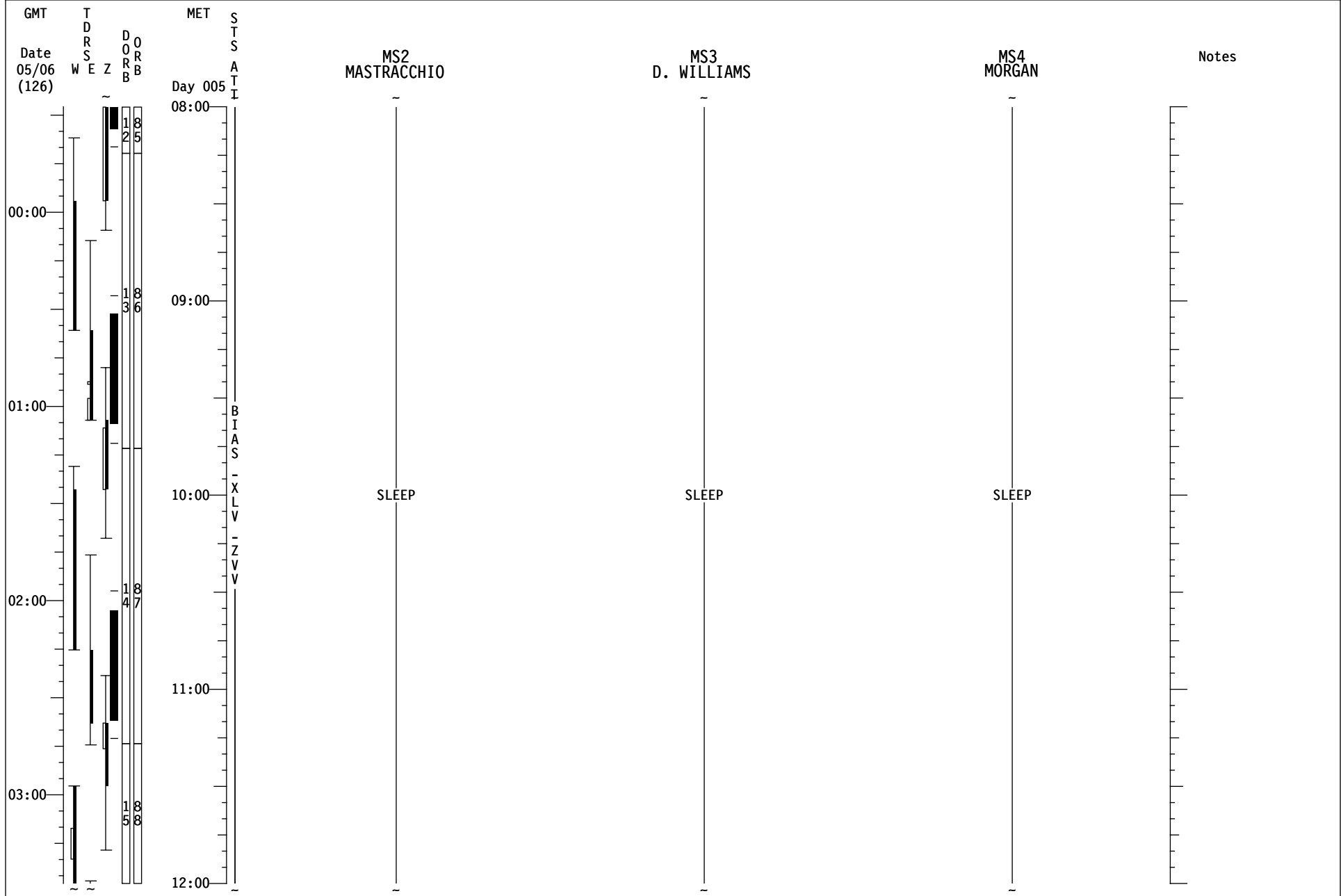
STS-118 FD06



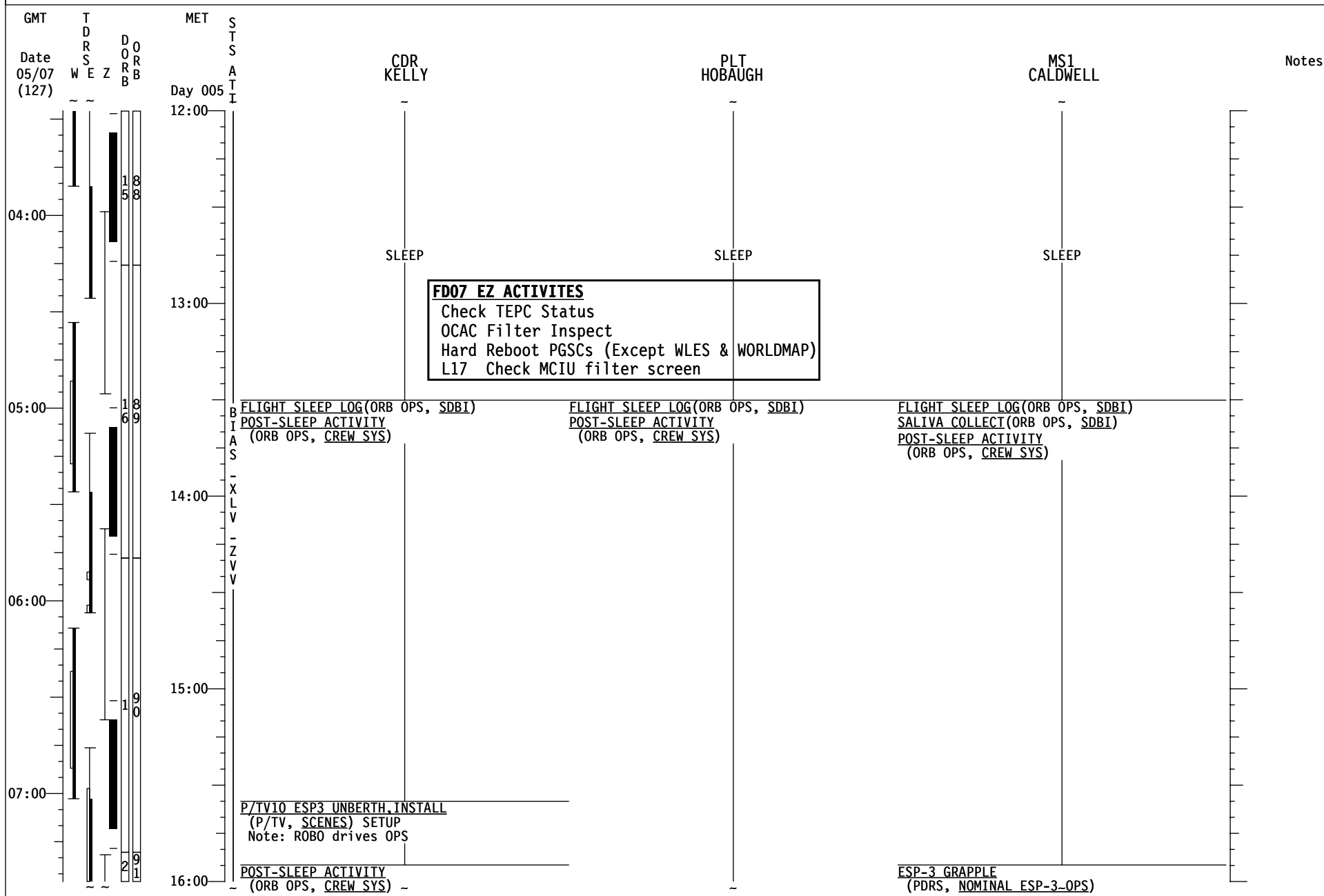
STS-118 FD06



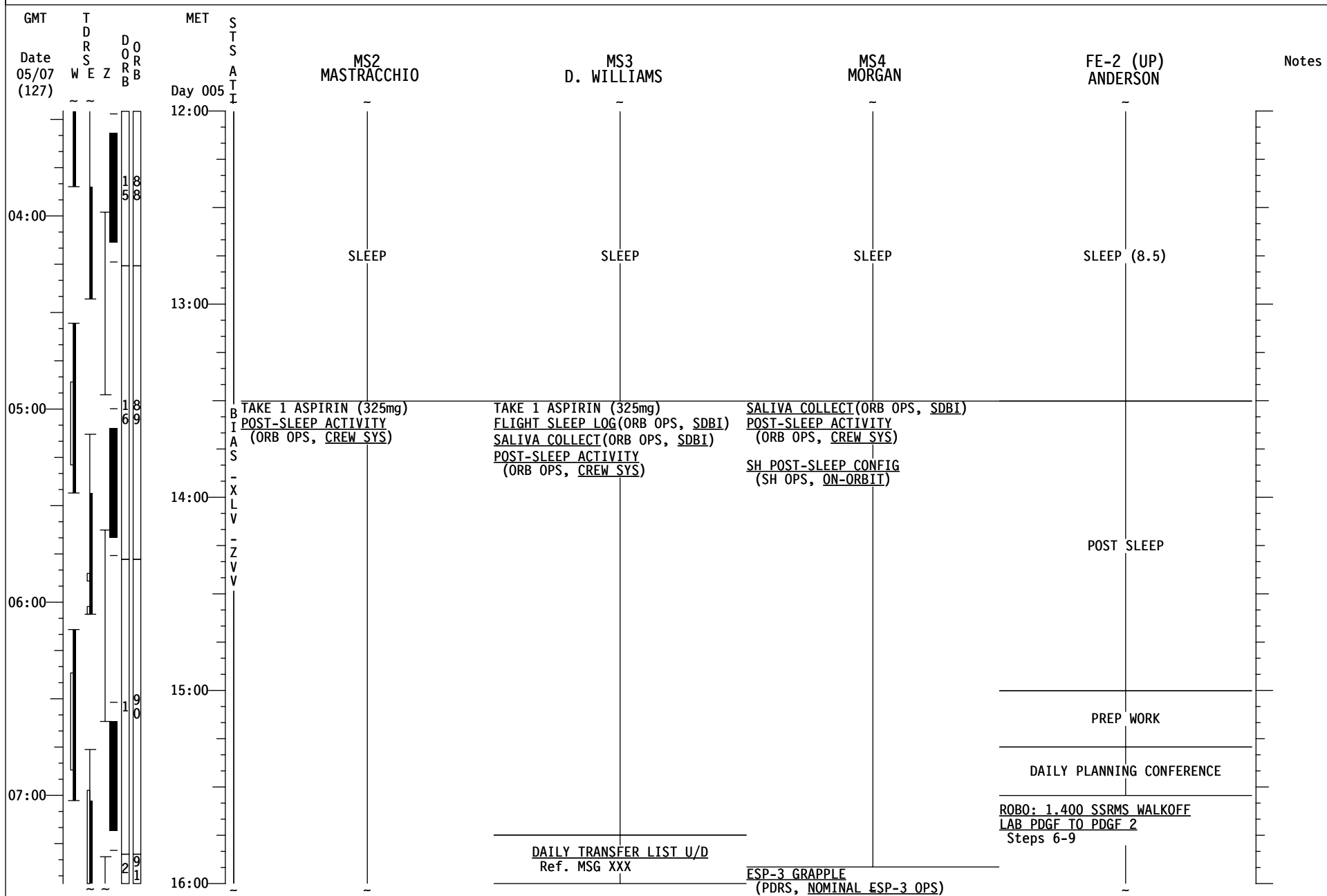
STS-118 FD06



STS-118 FD07



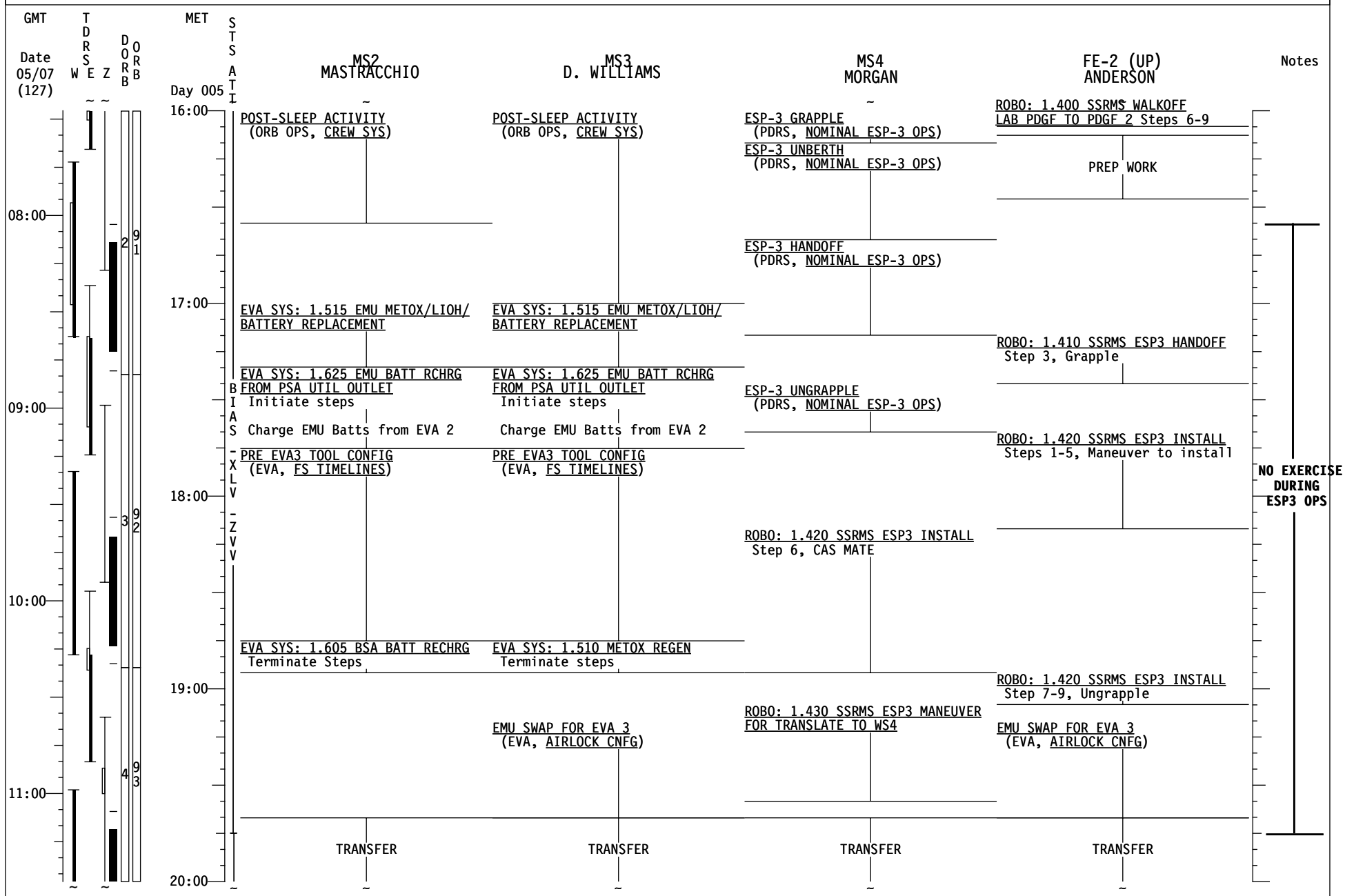
STS-118 FD07



STS-118 FD07

GMT	TDRS W E Z	DORB D O R B	MET Day 005	STS A T T I	CDR KELLY	PLT HOBAUGH	MS1 CALDWELL	Notes
16:00					POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	ESP-3 GRAPPLE (PDRS, NOMINAL ESP-3 OPS)	UPLINK β21 Only Box C1,D1,D7
08:00		2 9 1 1			CCM-A STATUS CK (PL OPS, CCM-A) P/TV12 MIDDECK PAYLOADS (P/TV, SCENES) MERLIN Video OPS, Item 1		ESP-3 UNBERTH (PDRS, NOMINAL ESP-3 OPS)	
17:00					PWR FILL (ORB OPS, ECLS) Perform WATER FILL #2 Fill SN TBS (Barcode #TBS) Fill dur ~30 min	ROBO: 1.410 SSRMS ESP3 HANDOFF Step 3, Grapple		
09:00					PWR TRANSFER - Transfer 1 PWR to ISS	ROBO: 1.420 SSRMS ESP3 INSTALL Steps 1-5, Maneuver to install	ESP-3 UNGRAPPLE (PDRS, NOMINAL ESP-3 OPS)	
18:00		3 9 2 2			SHUTTLE/ISS H2O CNTR FILL (ORB OPS, ECLS) - Perform CWC FILL #6; Report barcode & SN - Add (TBD); Samples (not) req'd dur ~55min		SRMS SUPPORT	NO EXERCISE DURING ESP3 OPS
10:00					ROBO: 1.420 SSRMS ESP3 INSTALL Step 6, CAS MATE			
19:00					SHUTTLE/ISS H2O CNTR FILL (ORB OPS, ECLS) Perform FILL TERMINATION	ROBO: 1.420 SSRMS ESP3 INSTALL Step 7-9, Ungrapple ROBO: 1.430 SSRMS ESP3 MANEUVER FOR TRANSLATE TO WS4		
11:00		4 9 3 3			JNT OPS: 3.110 H/O ATT CNTRL CMG TA TO ORB		EXERCISE	
20:00					MNVR (TRK)BIAS -XLV, +YVV (SIMO DUMP) TG=2 BV=5 P=157 Y=0 OM=193 A12/AUTO/VERN Init TRK A12/AUTO/VERN Hold	CWC TRANSFER (1 BAG) Transfer 1 CWC bag to ISS		

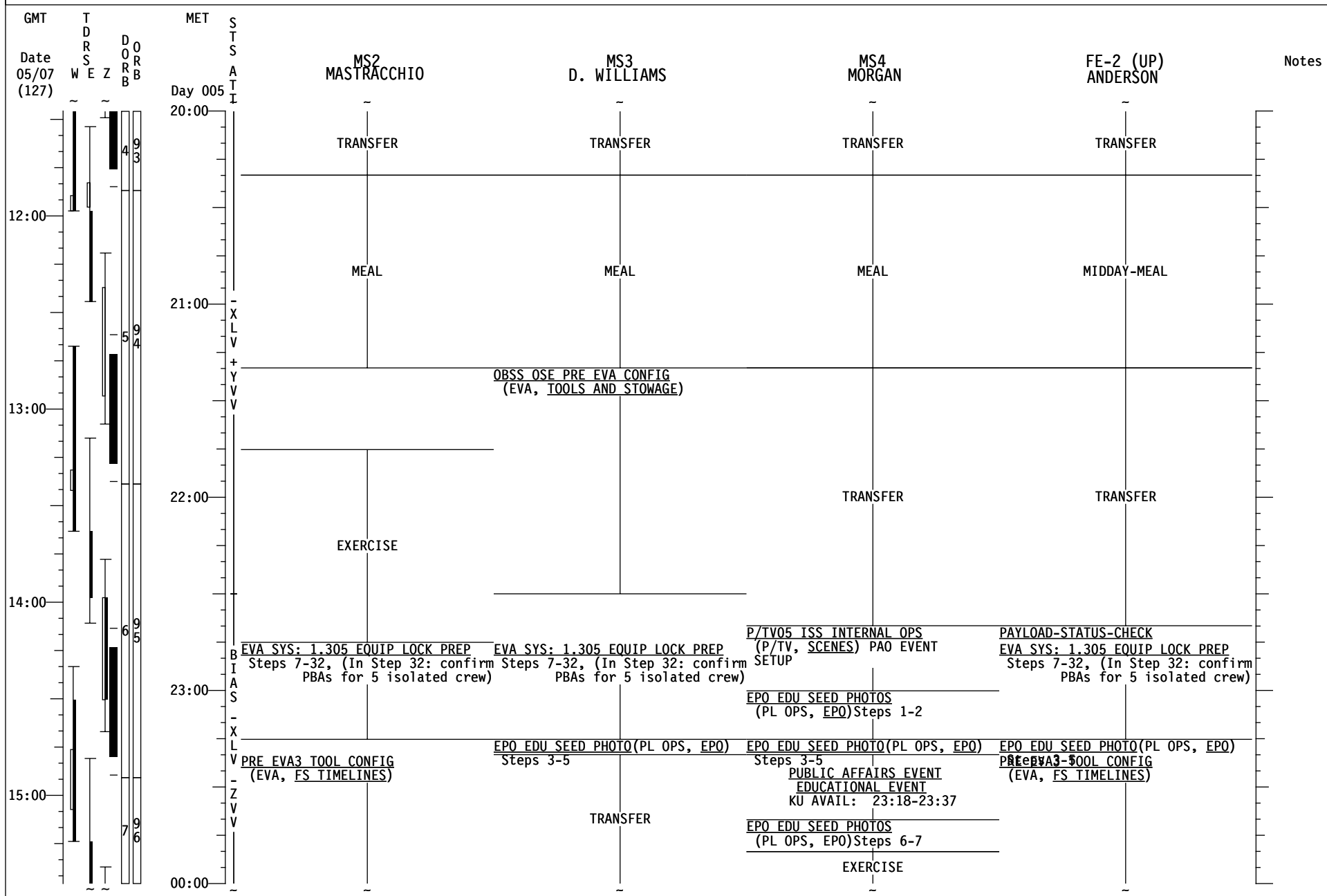
STS-118 FD07



STS-118 FD07

GMT	TDRS WSEZ	DORB	MET	STS ATTI	CDR KELLY	PLT HOBAUGH	MS1 CALDWELL	Notes
Date 05/07 (127)			Day 005					
20:00		493			<u>SUPPLY/WASTE WATER DUMP</u> (ORB OPS, ECLS) Initiate Supply/Waste Dump	<u>CWC TRANSFER (1 BAG) -</u> Transfer 1 CWC bag to ISS		
							EXERCISE	
12:00					MEAL	MEAL	MEAL	
21:00		594			<u>SUPPLY/WASTE WATER DUMP</u> (ORB OPS, ECLS) Terminate Supply/Waste Dump			
							<u>OBSS_OSE PRE EVA CONFIG</u> (EVA, TOOLS AND STOWAGE)	
13:00					<u>PWR DUMP-SUPPLY LINE</u> (ORB OPS, ECLS) Dump SN TBS (Barcode #TBS) Dump dur. -xx min	TRANSFER		
22:00					<u>CWC OVERBOARD DUMP</u> (ORB OPS, ECLS)			
14:00		695			<u>MNVR (TRK) BIAS -XLV -ZVV (TEA)</u> TG=2 BV=5 P=157 Y=3 OM=179 A12/AUTO/VERN Init TRK			
					<u>JNT OPS: 3.111 H/O ATT CTRL</u> ORB TO CMG TA	EXERCISE		
23:00					<u>CBTM STATUS CHECK</u> S (PL OPS, CBTM)		TRANSFER	
15:00		796			<u>PUBLIC AFFAIRS EVENT</u> <u>EDUCATIONAL EVENT</u> KU AVAIL: 23:18-23:37	TRANSFER	<u>PUBLIC AFFAIRS EVENT</u> <u>EDUCATIONAL EVENT</u> KU AVAIL: 23:18-23:37	
00:00							TRANSFER	

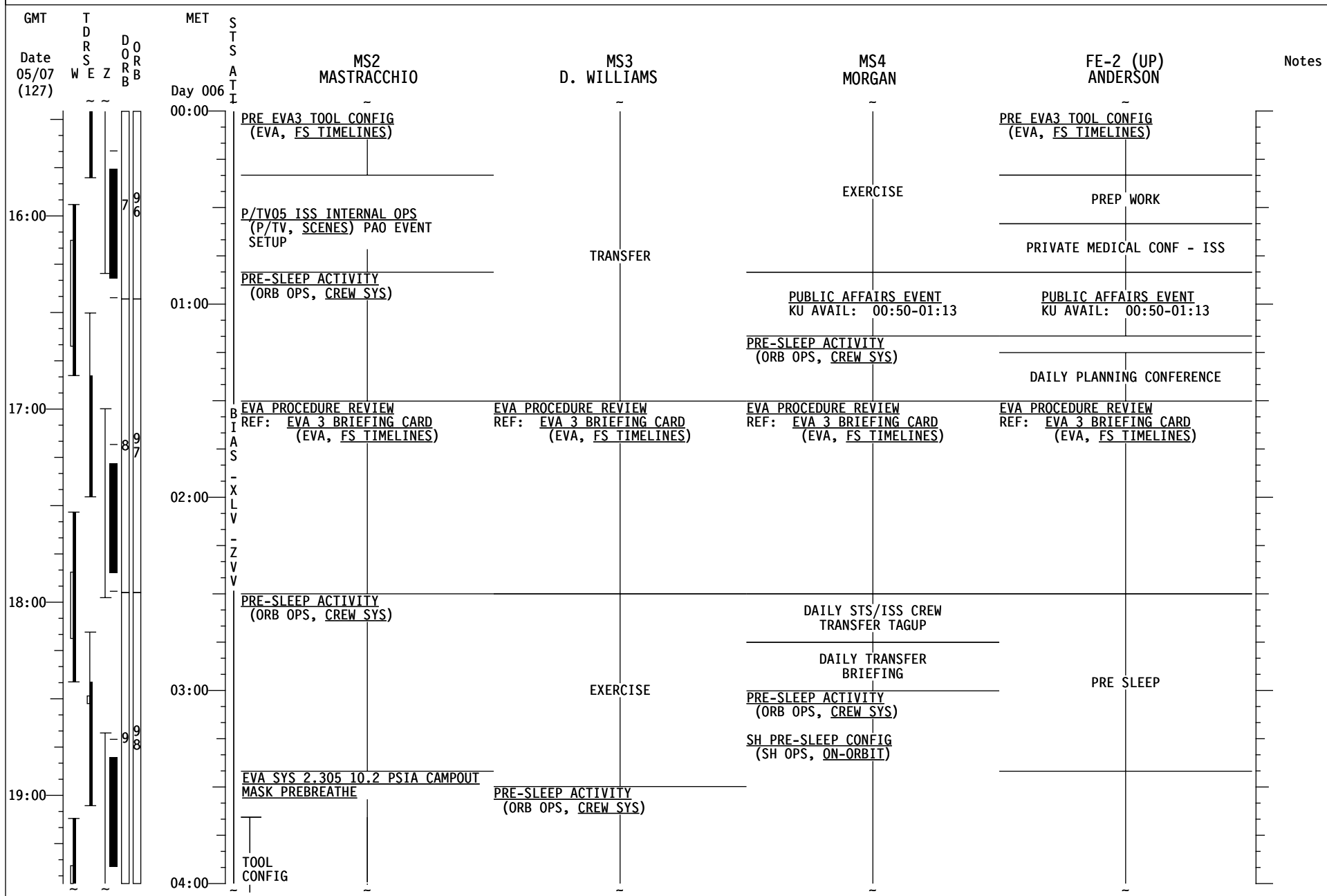
STS-118 FD07



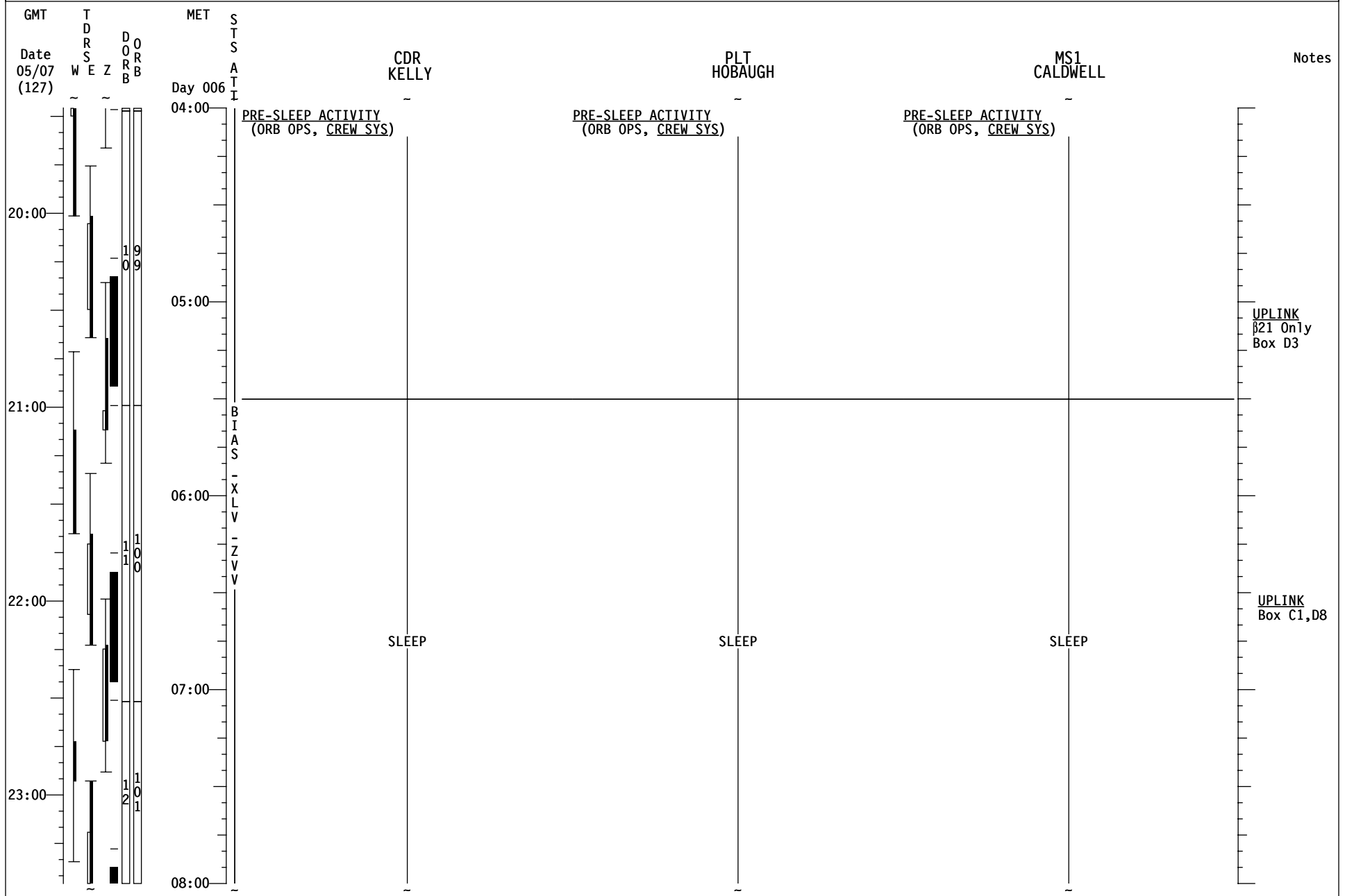
STS-118 FD07

GMT	T D R S E Z	D O R B	MET	S T S	CDR KELLY	PLT HOBAUGH	MS1 CALDWELL	Notes
Date 05/07 (127)	W	E	Day 006	A				
16:00			00:00	I	WCS COMPACTOR OPS (CUE CARD, DUAL-VANE)			
					EXERCISE	TRANSFER	TRANSFER	
17:00					CCM-A STATUS CK(PL OPS, CCM-A)			
					EVA PROCEDURE REVIEW REF: EVA 3 BRIEFING CARD (EVA, FS TIMELINES)	EVA PROCEDURE REVIEW REF: EVA 3 BRIEFING CARD (EVA, FS TIMELINES)	EVA PROCEDURE REVIEW REF: EVA 3 BRIEFING CARD (EVA, FS TIMELINES)	
			02:00					
18:00					PMC:NETMEETING VID CONF(ORB OPS, PGSC) Omit VLHS item in Step 1, Omit Step 3 Use A/G for audio & KFX PGSC	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	OCA-PMC
					PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)			
19:00			03:00					
04:00								

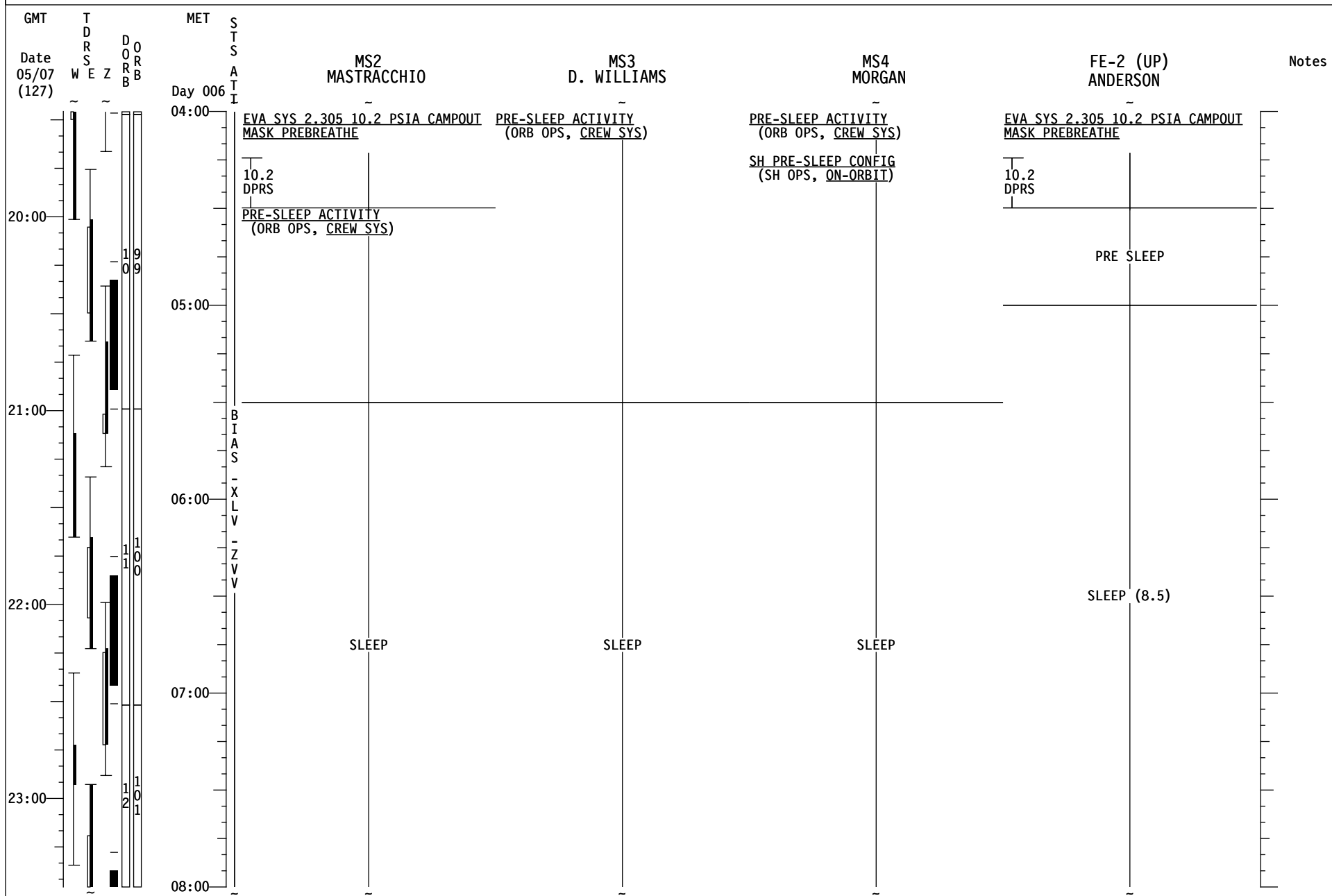
STS-118 FD07



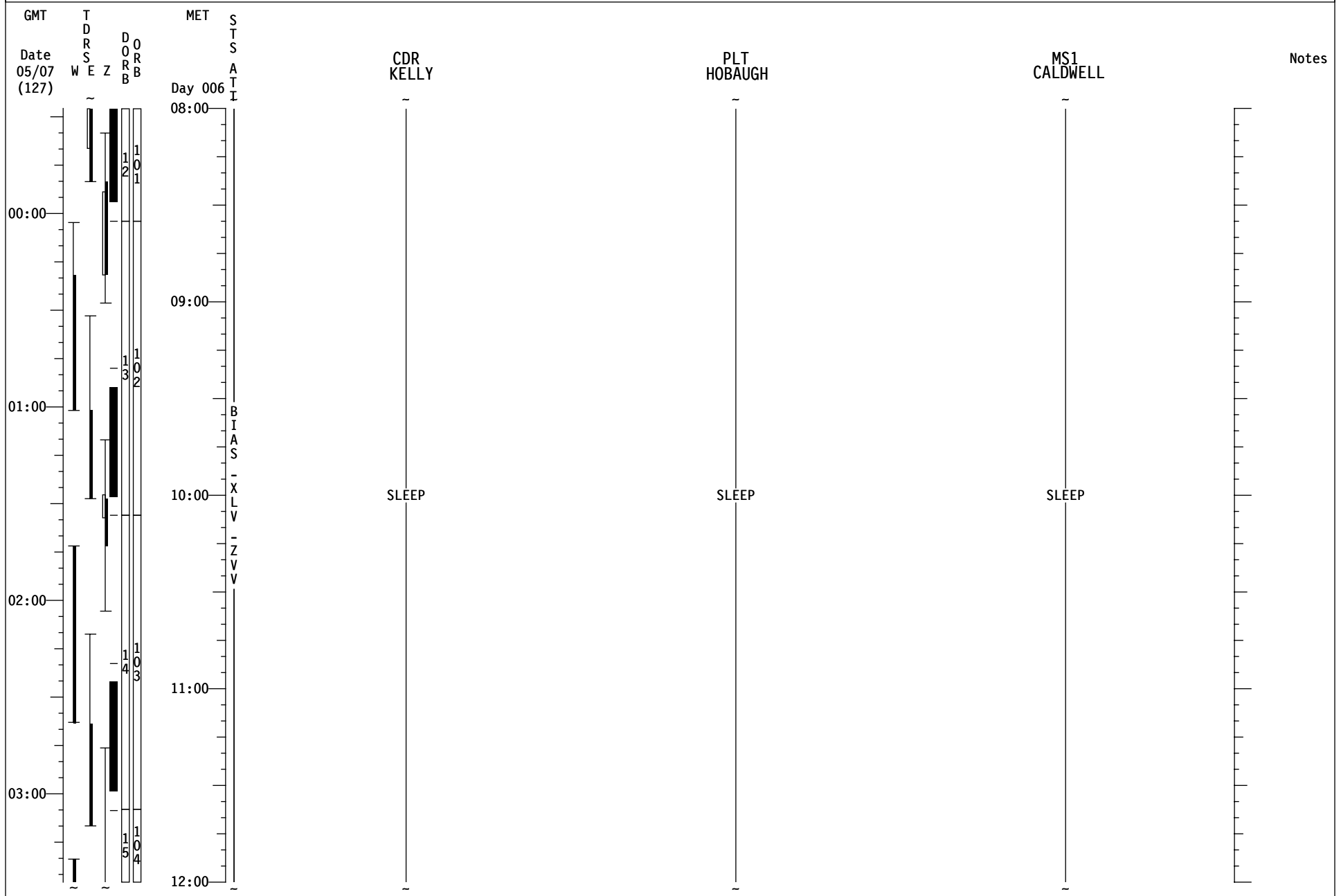
STS-118 FD07



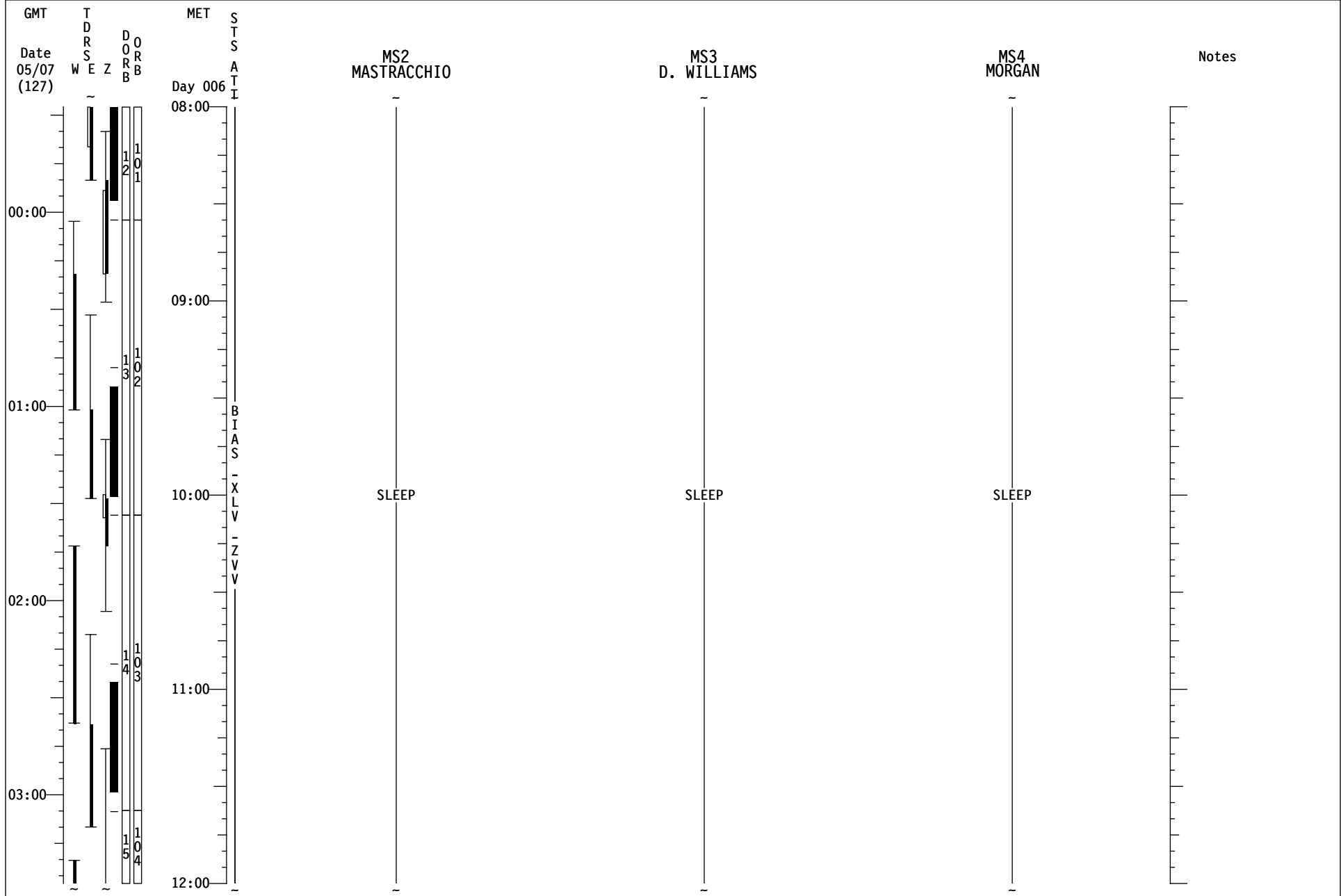
STS-118 FD07



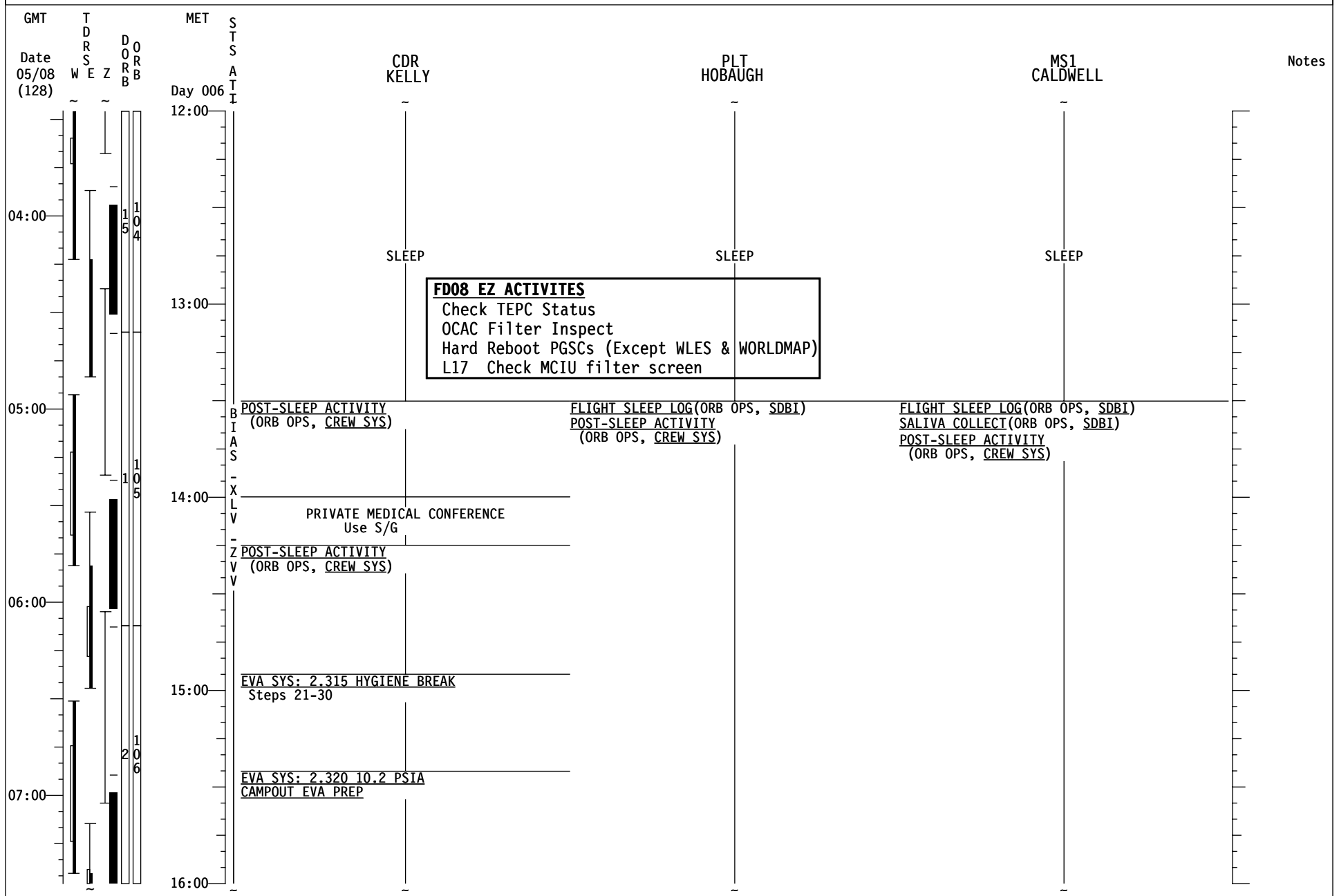
STS-118 FD07



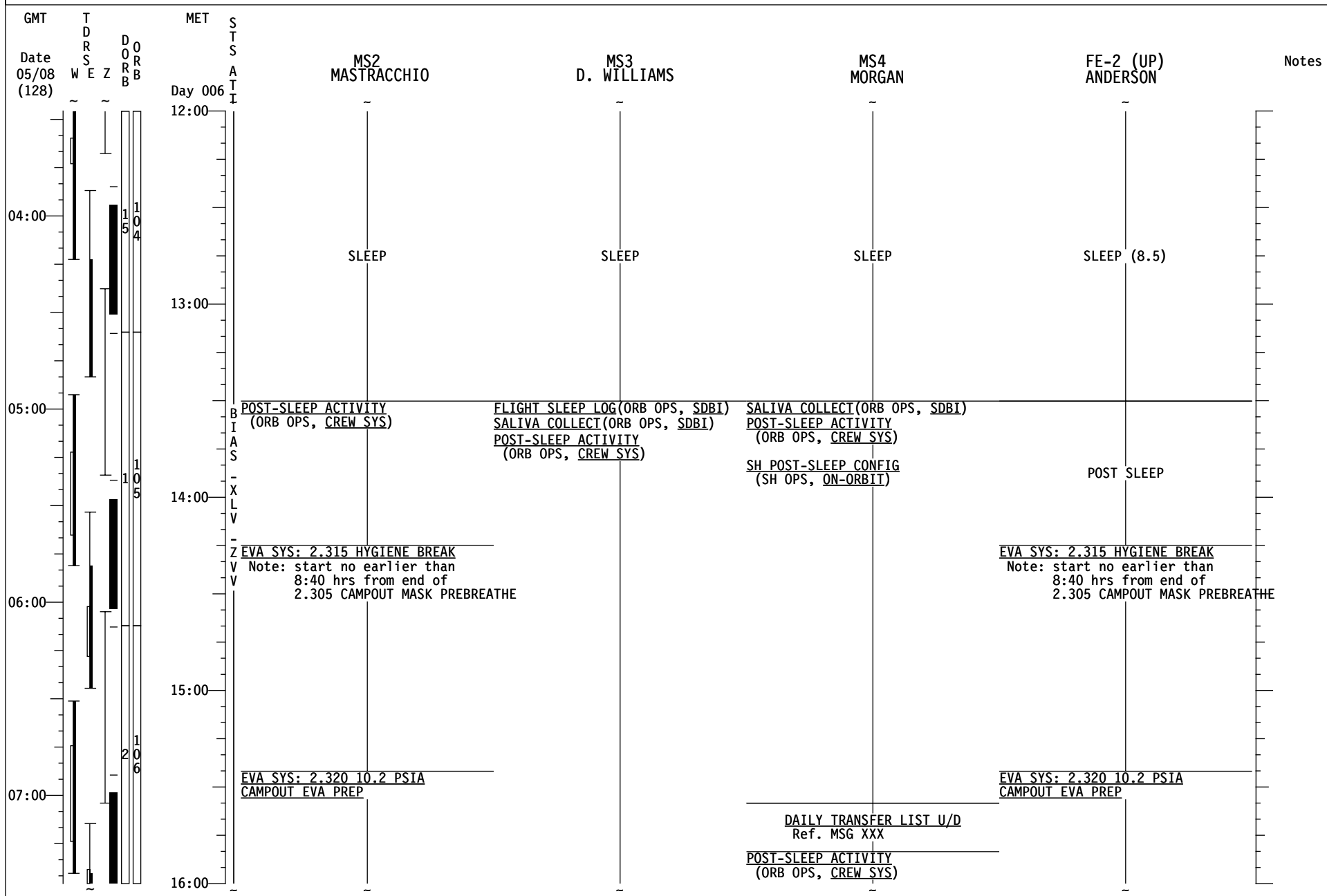
STS-118 FD07



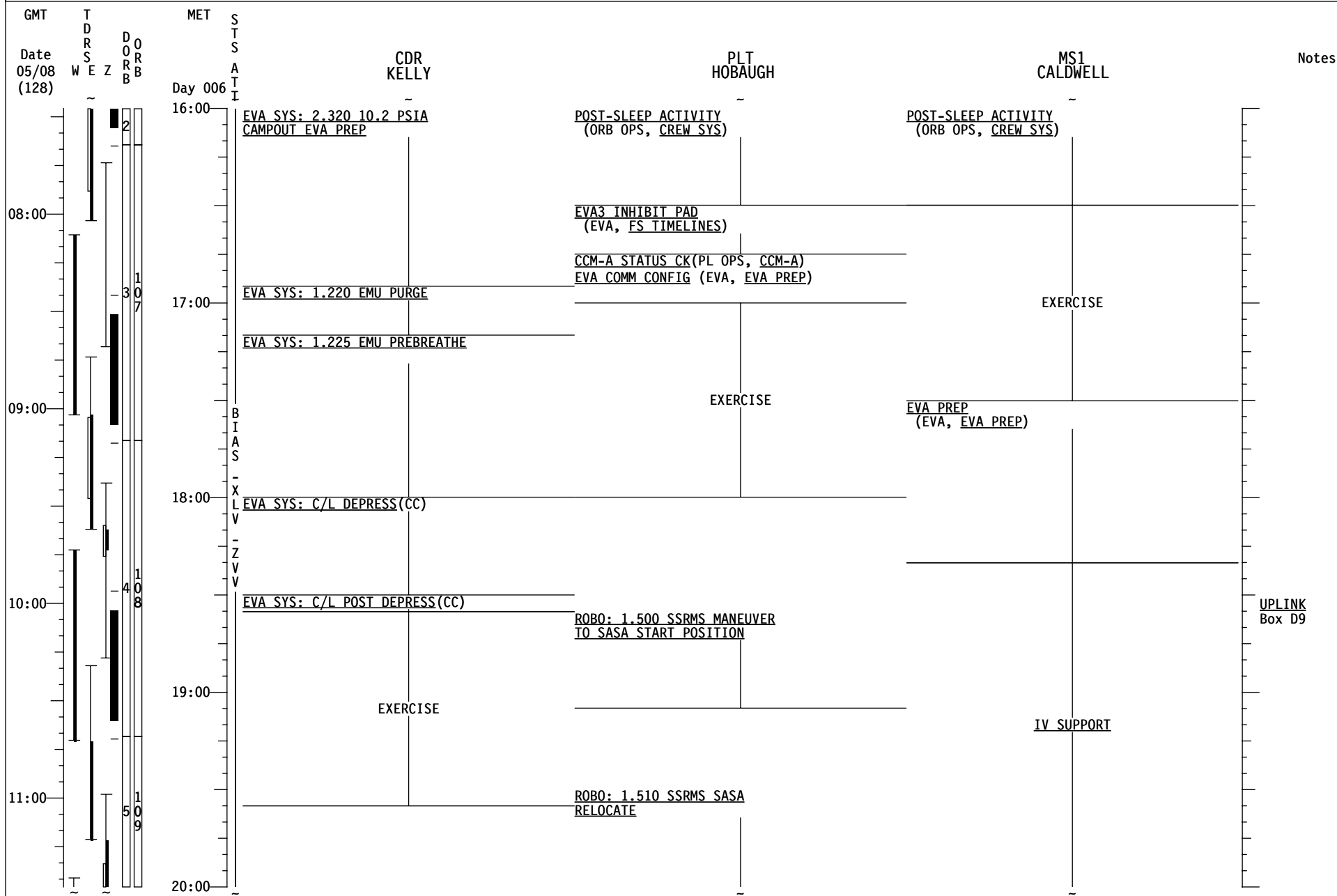
STS-118 FD08



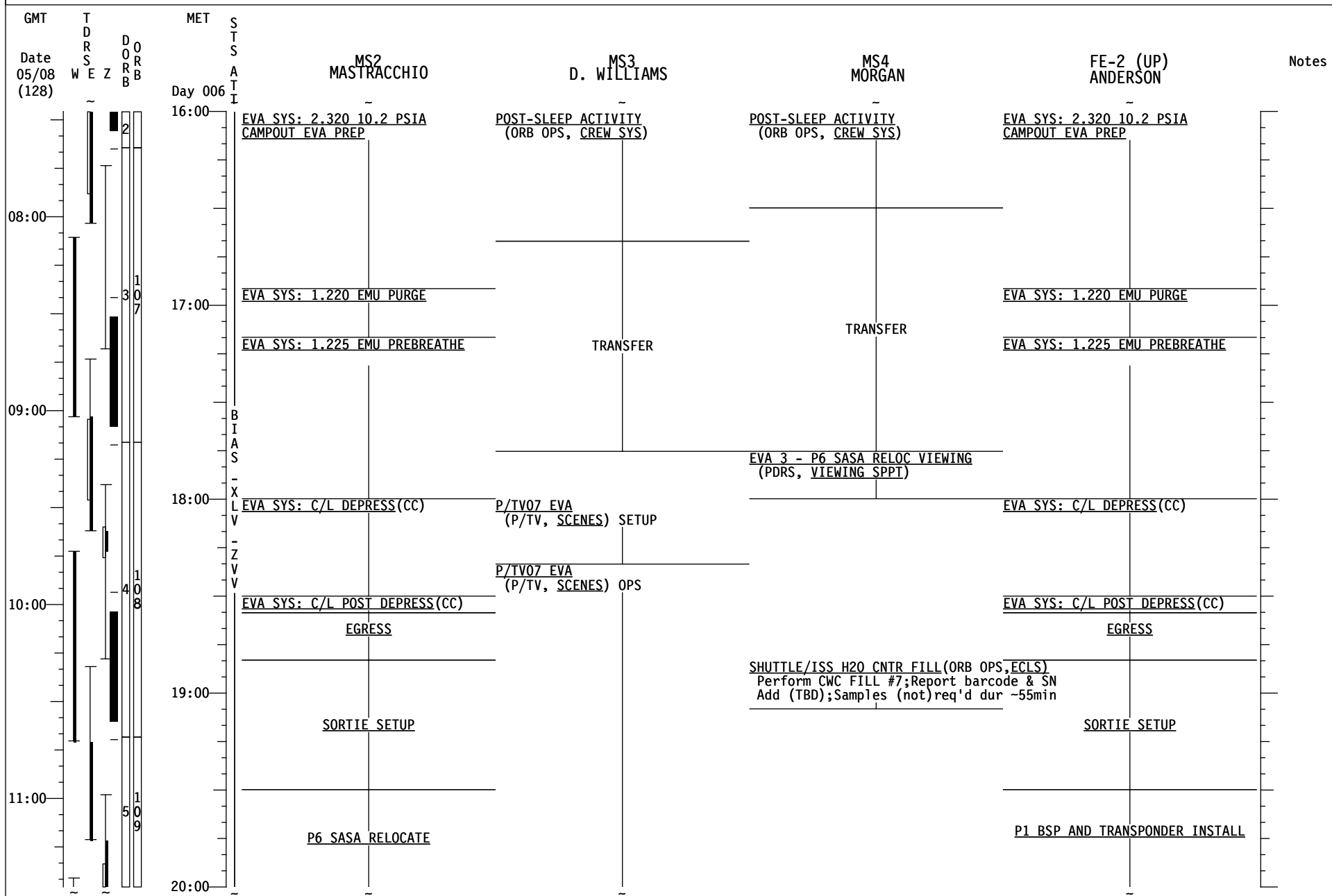
STS-118 FD08



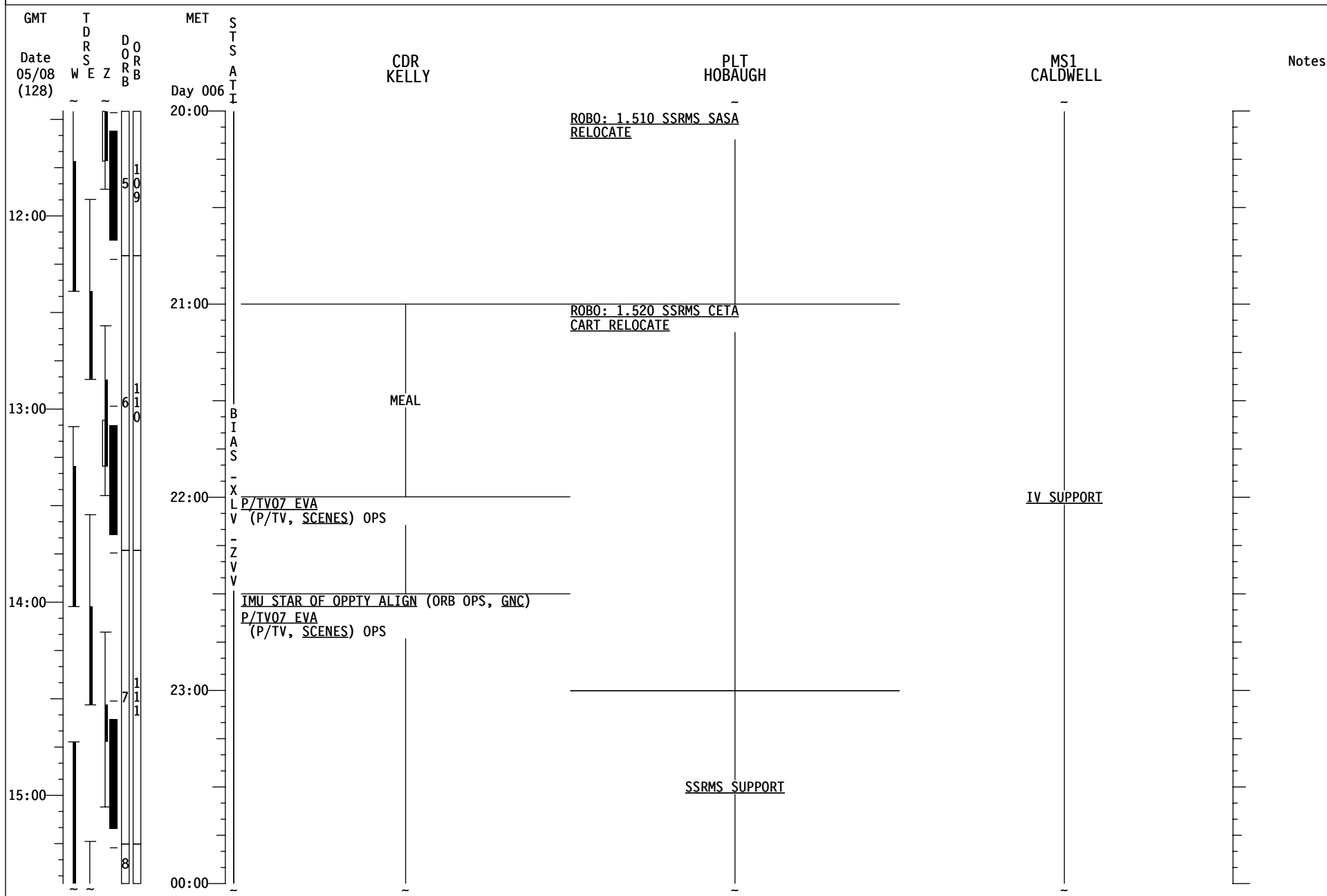
STS-118 FD08



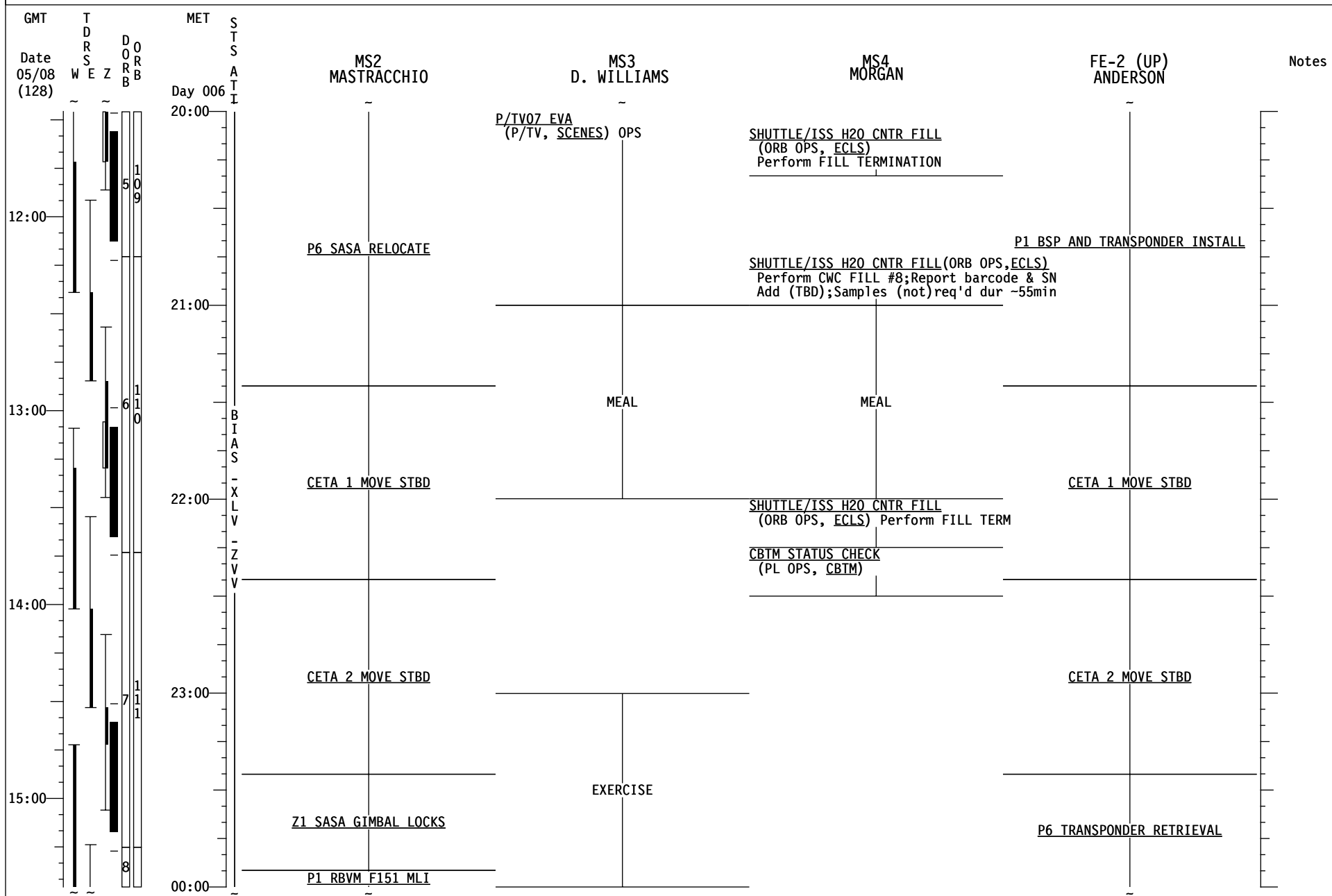
STS-118 FD08



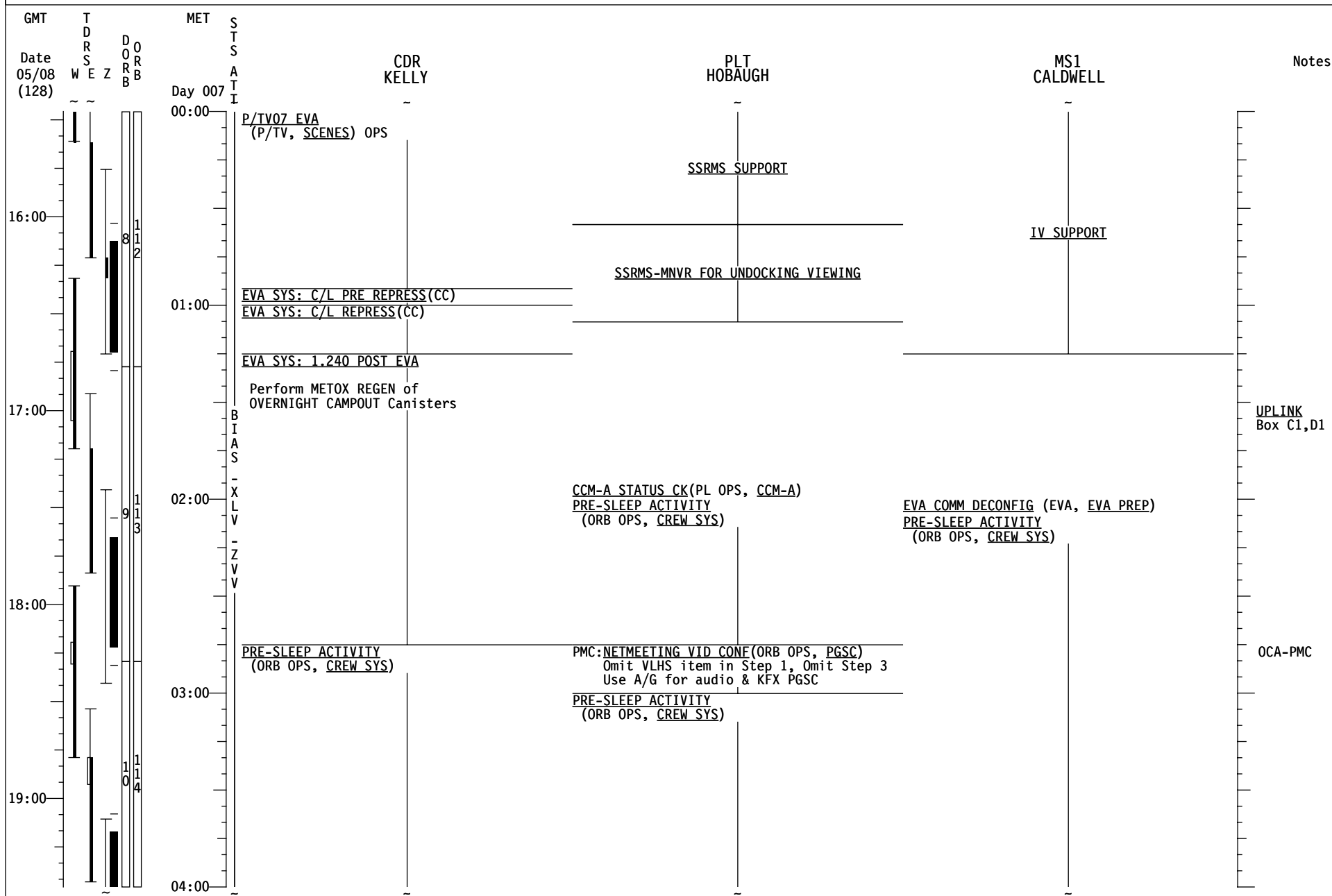
STS-118 FD08



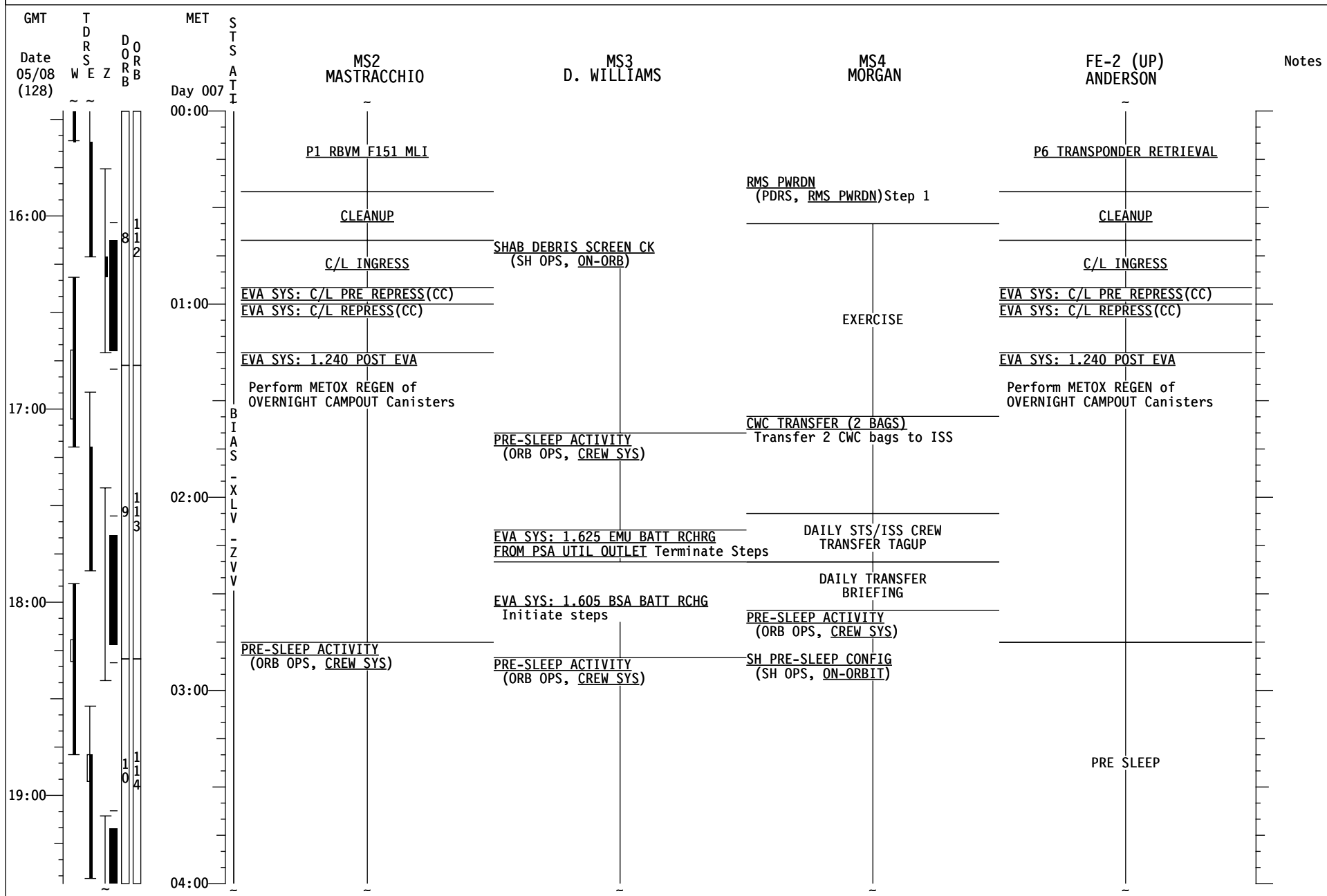
STS-118 FD08



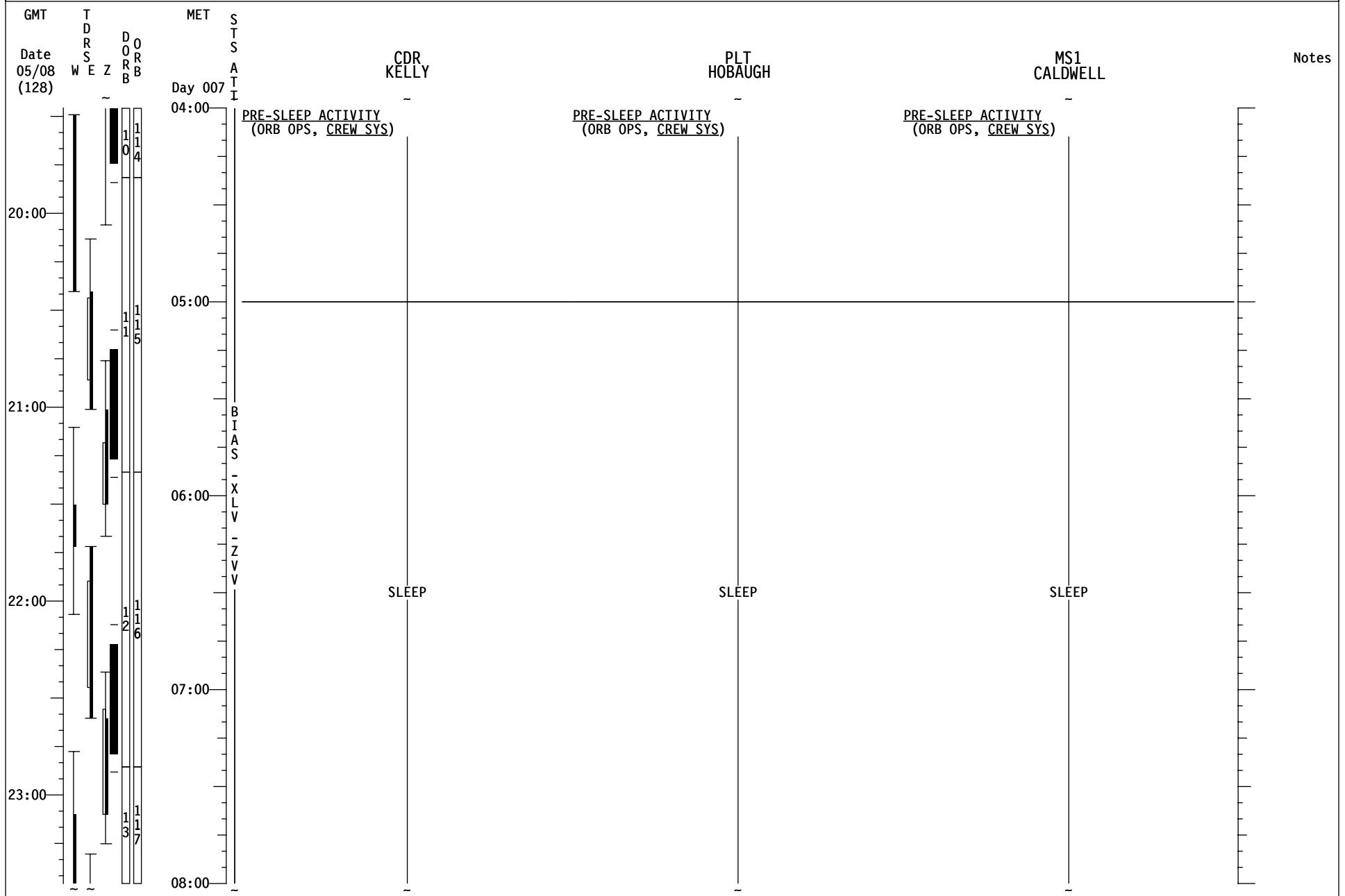
STS-118 FD08



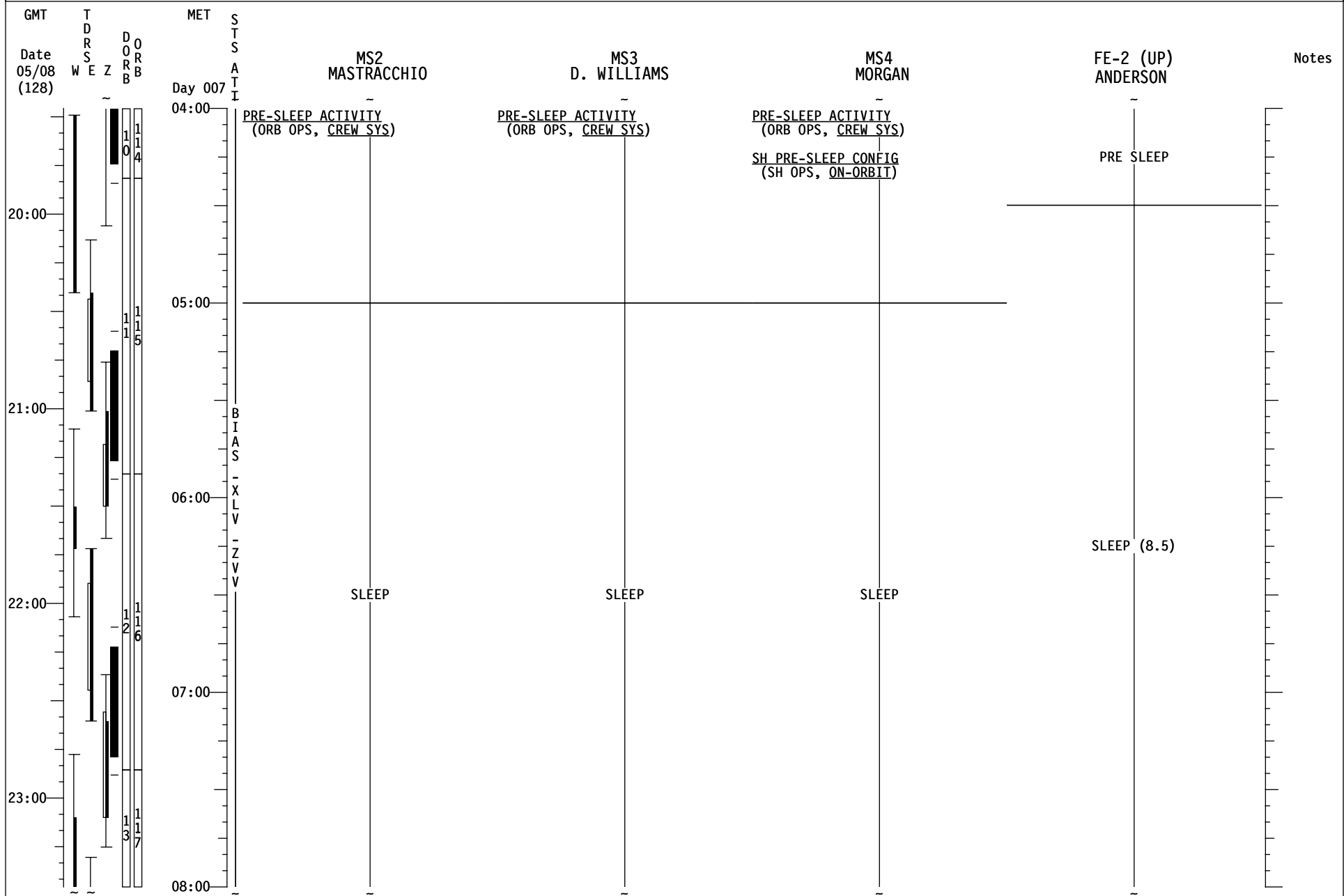
STS-118 FD08



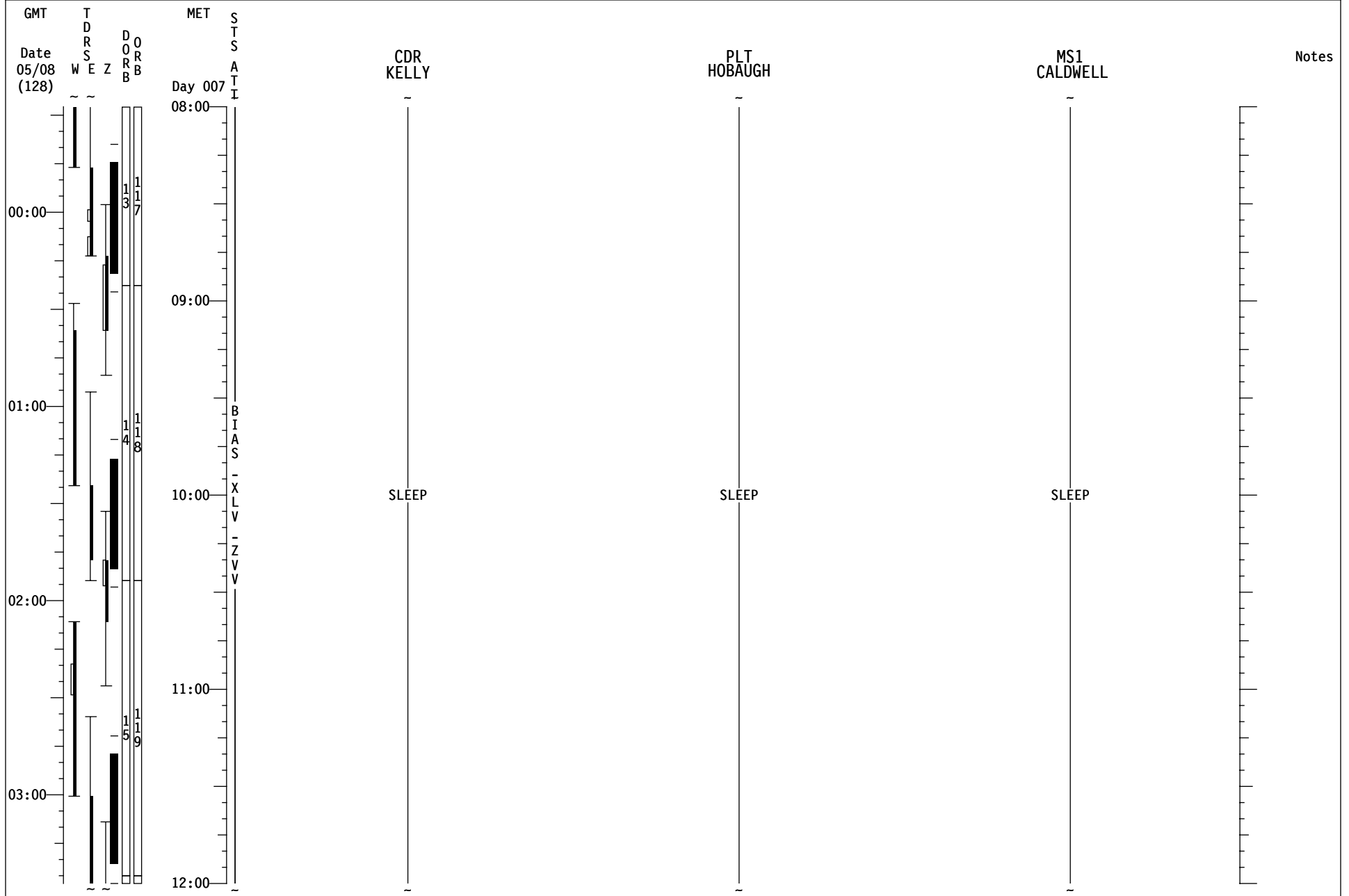
STS-118 FD08



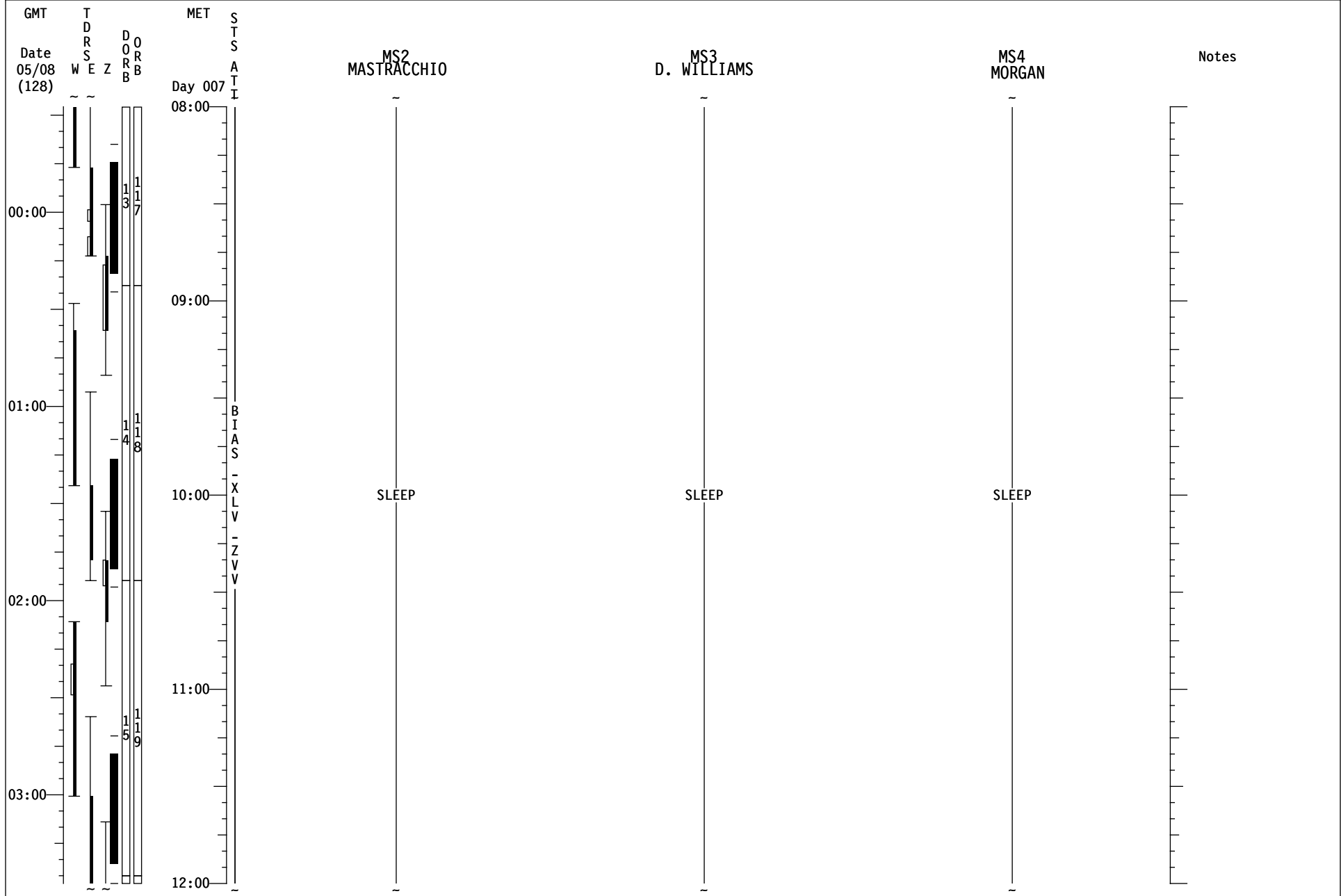
STS-118 FD08



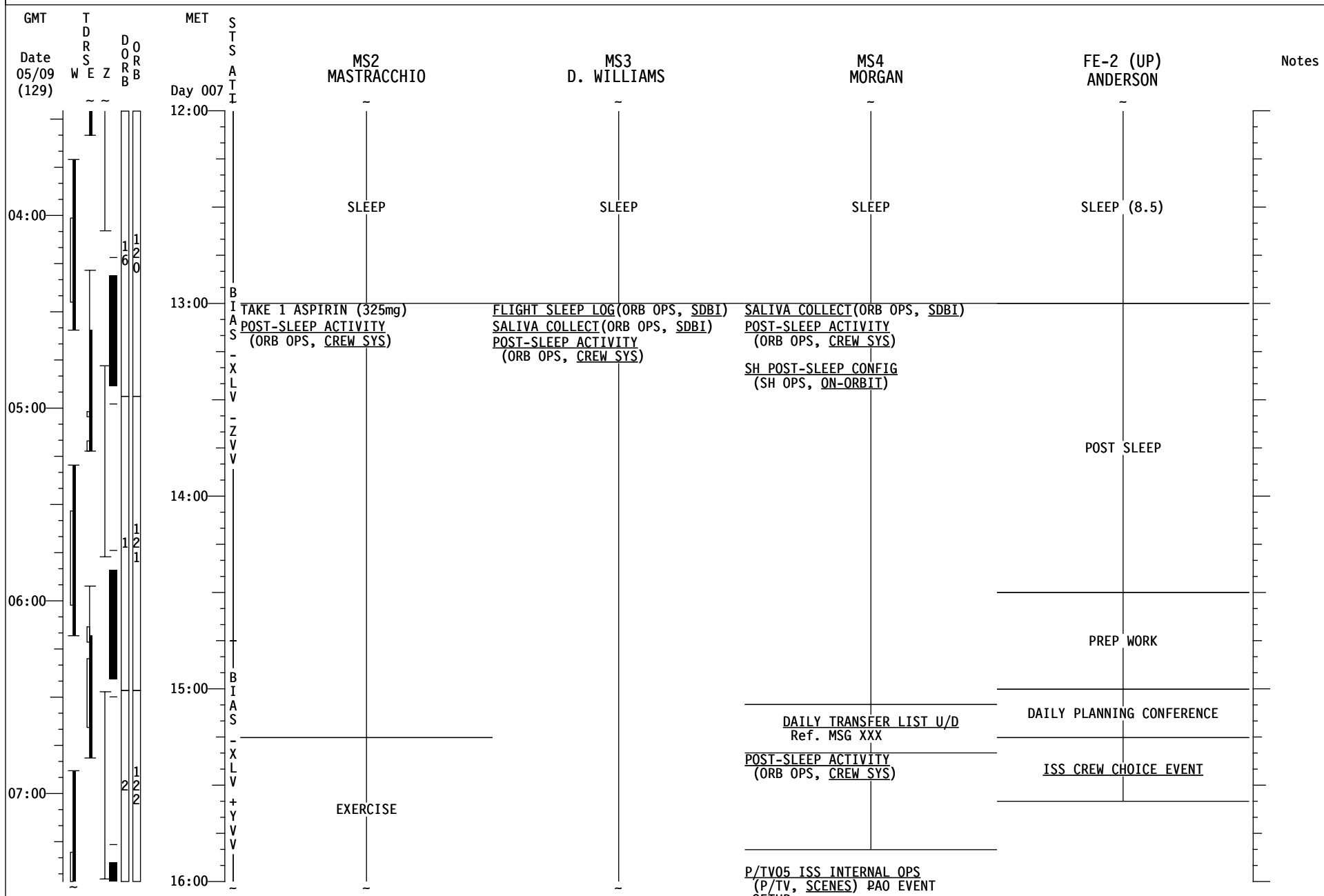
STS-118 FD08



STS-118 FD08



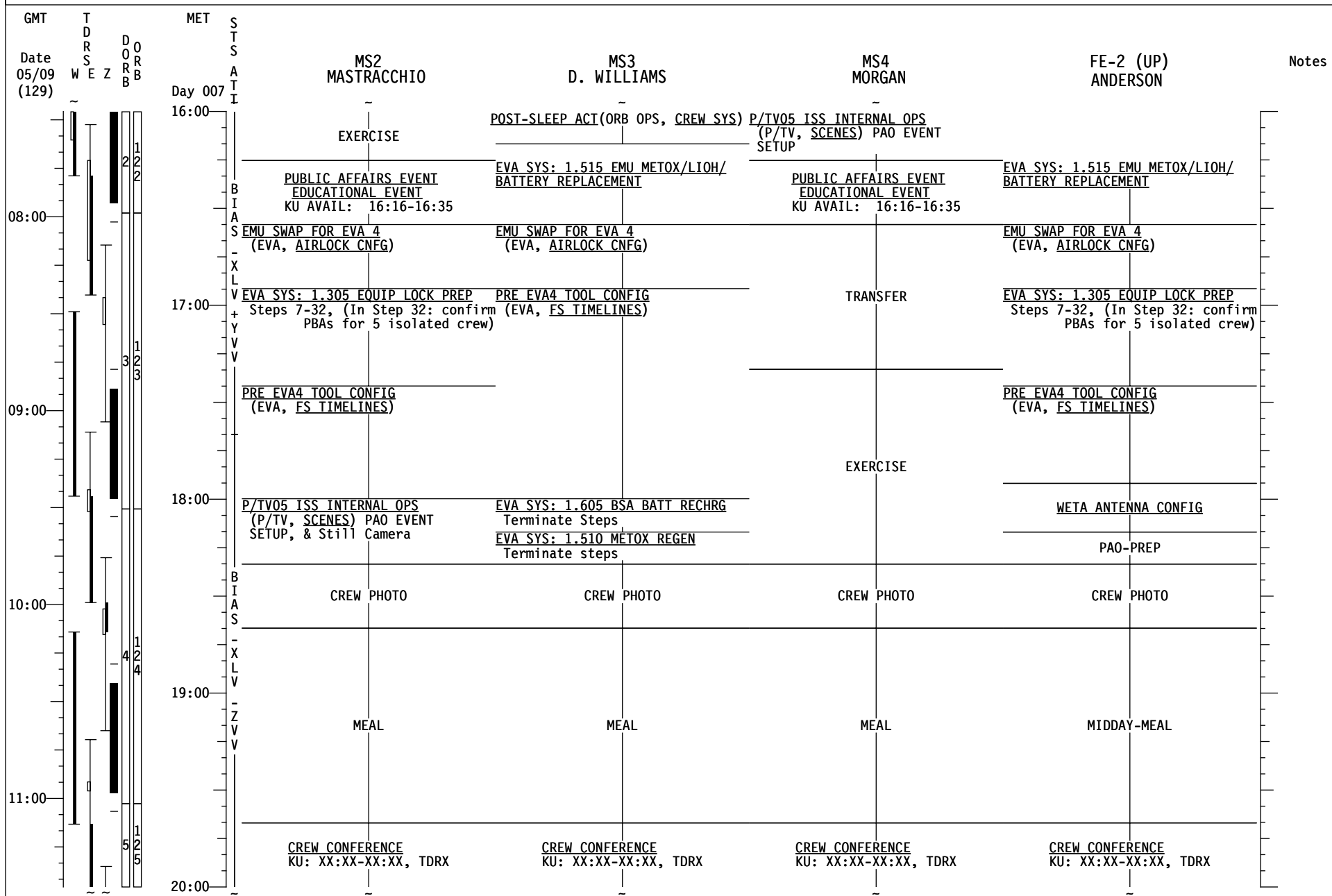
STS-118 FD09



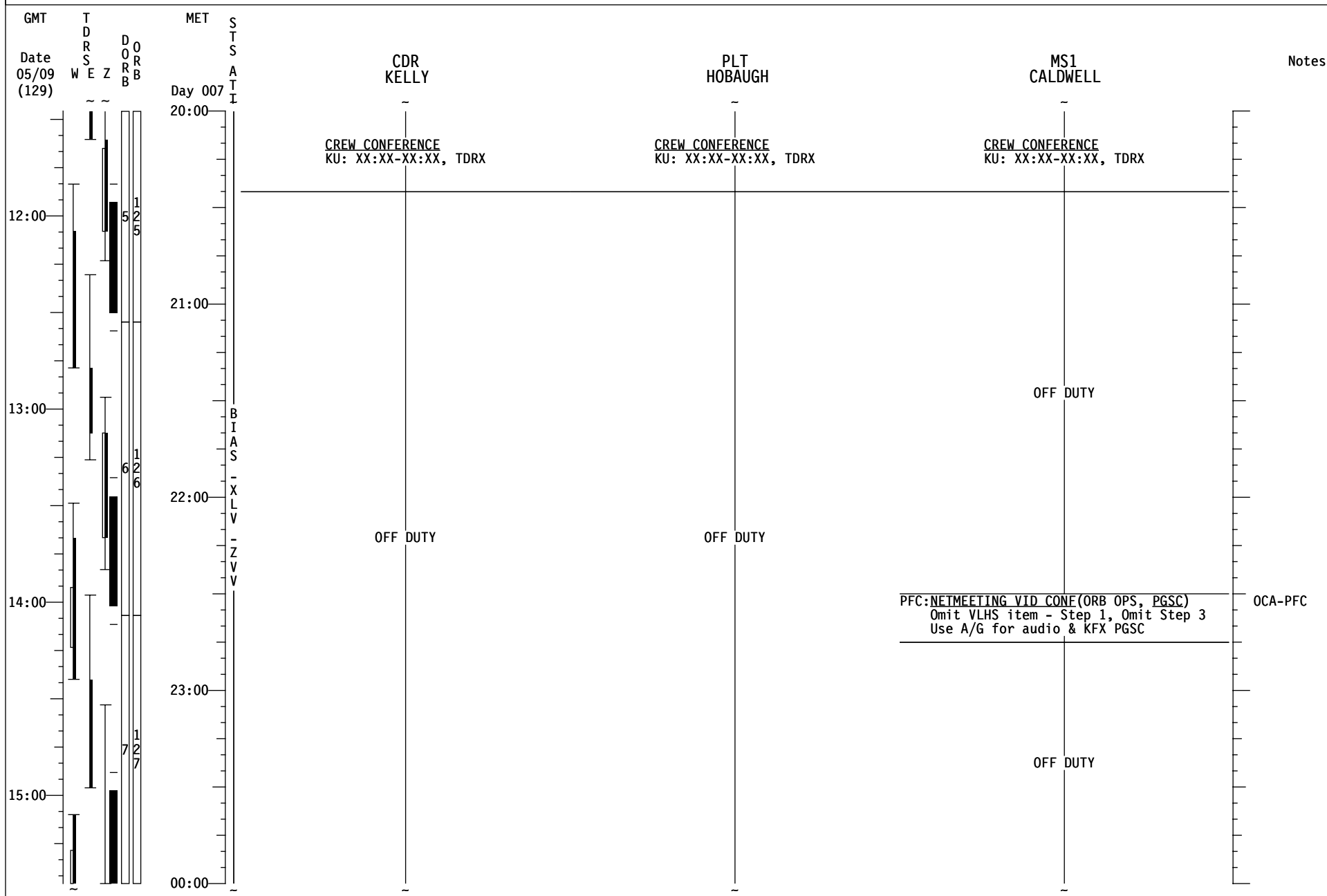
STS-118 FD09

GMT	TDRS W E Z	DORB D O R B	MET Day 007	STS A T T	CDR KELLY	PLT HOBAUGH	MS1 CALDWELL	Notes
16:00		1 2 2		I	SUPPLY/WASTE WATER DUMP (ORB OPS, ECLS) Terminate Supply/Waste Dump	SHUTTLE CONDENSATE COLLECTION (ORB OPS, ECLS_SWAP) Perform CHANGEOUT SSP1 OIU PWR - OIU OFF, vtb-bp		
		2 2 2		B	CWC OVERBOARD DUMP (ORB OPS, ECLS)	CCM-A STATUS CK(PL OPS, CCM-A)		
08:00				I			EXERCISE	
				A				
				S				
				-				
				X				
				L		EXERCISE		
17:00		1 2 3		V	CWC OVERBOARD DUMP (ORB OPS, ECLS)		PRE EVA4 TOOL CONFIG (EVA, FS TIMELINES)	
		3 2 3		+				
				Y				
				V				
				V				
09:00				V				
				-				
				X				
				L				
				V				
				V				
18:00				V	MNVR (TRK) BIAS -XLV -ZVV (TEA) TG=2 BV=5 P=157 Y=3 OM=179 A12/AUTO/VERN Init TRK	TRANSFER		
				-	JNT OPS: 3.111 H/O ATT CTRL ORB TO CMG TA			
				X				
				L		PRLA CLOSE (ORB OPS, PRLA)		
				V				
10:00				V	CREW PHOTO	CREW PHOTO	CREW PHOTO	
				-				
				X				
				L				
				V				
				V				
19:00				V	MEAL	MEAL	MEAL	
				-				
				X				
				L				
				V				
				V				
11:00				V				
				-				
				X				
				L				
				V				
				V				
20:00				V	CREW CONFERENCE KU: XX:XX-XX:XX, TDRX	CREW CONFERENCE KU: XX:XX-XX:XX, TDRX	CREW CONFERENCE KU: XX:XX-XX:XX, TDRX	

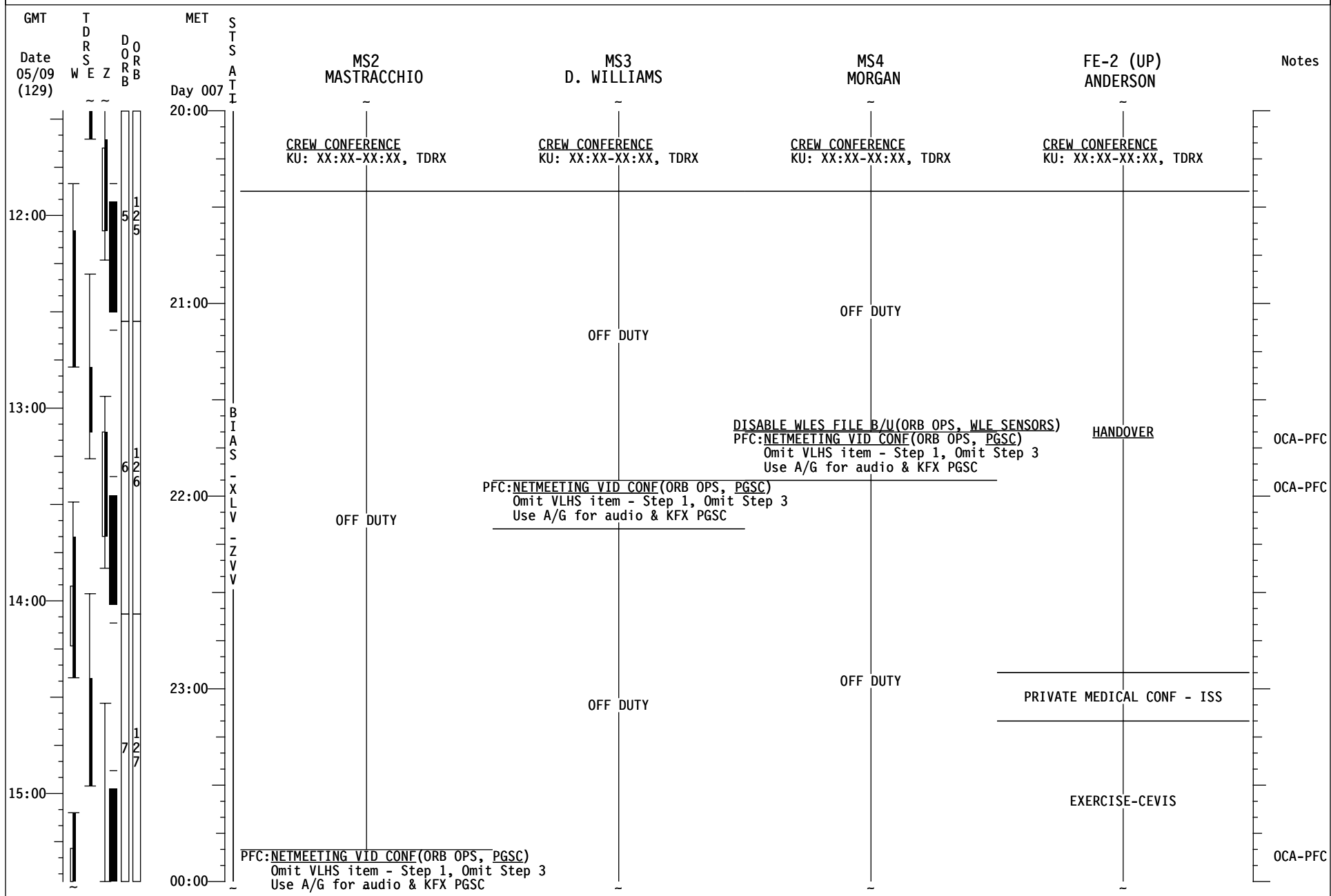
STS-118 FD09



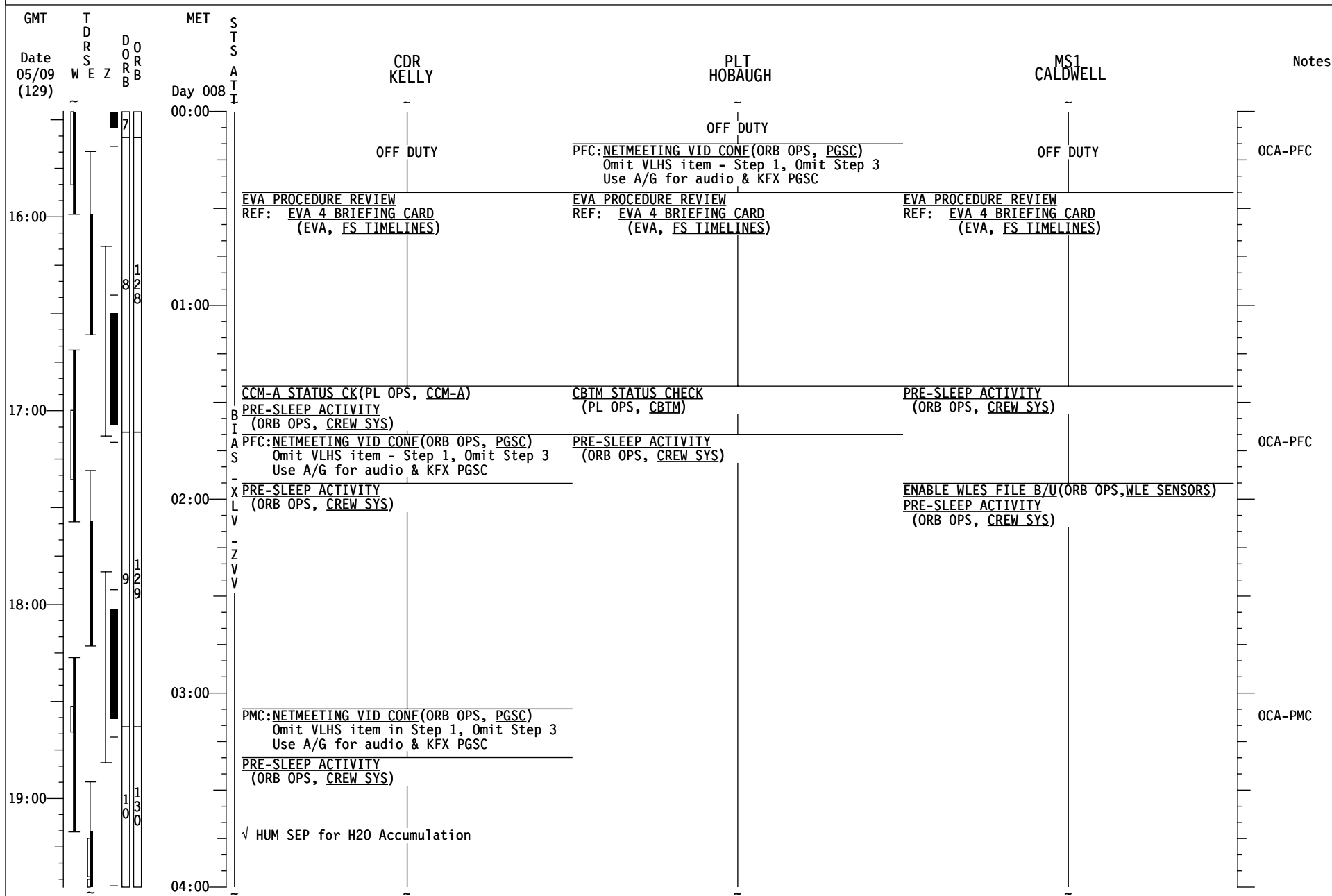
STS-118 FD09



STS-118 FD09



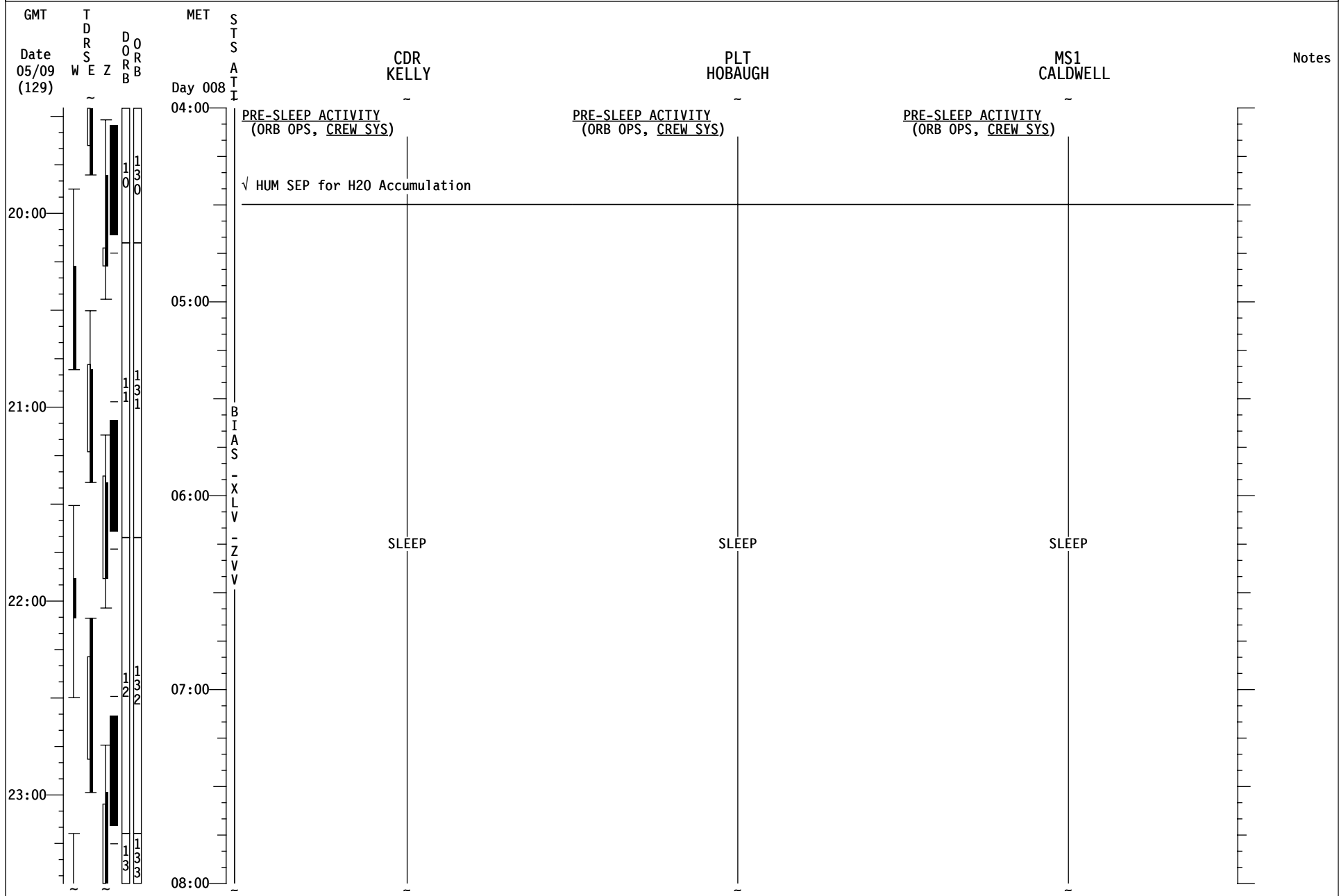
STS-118 FD09



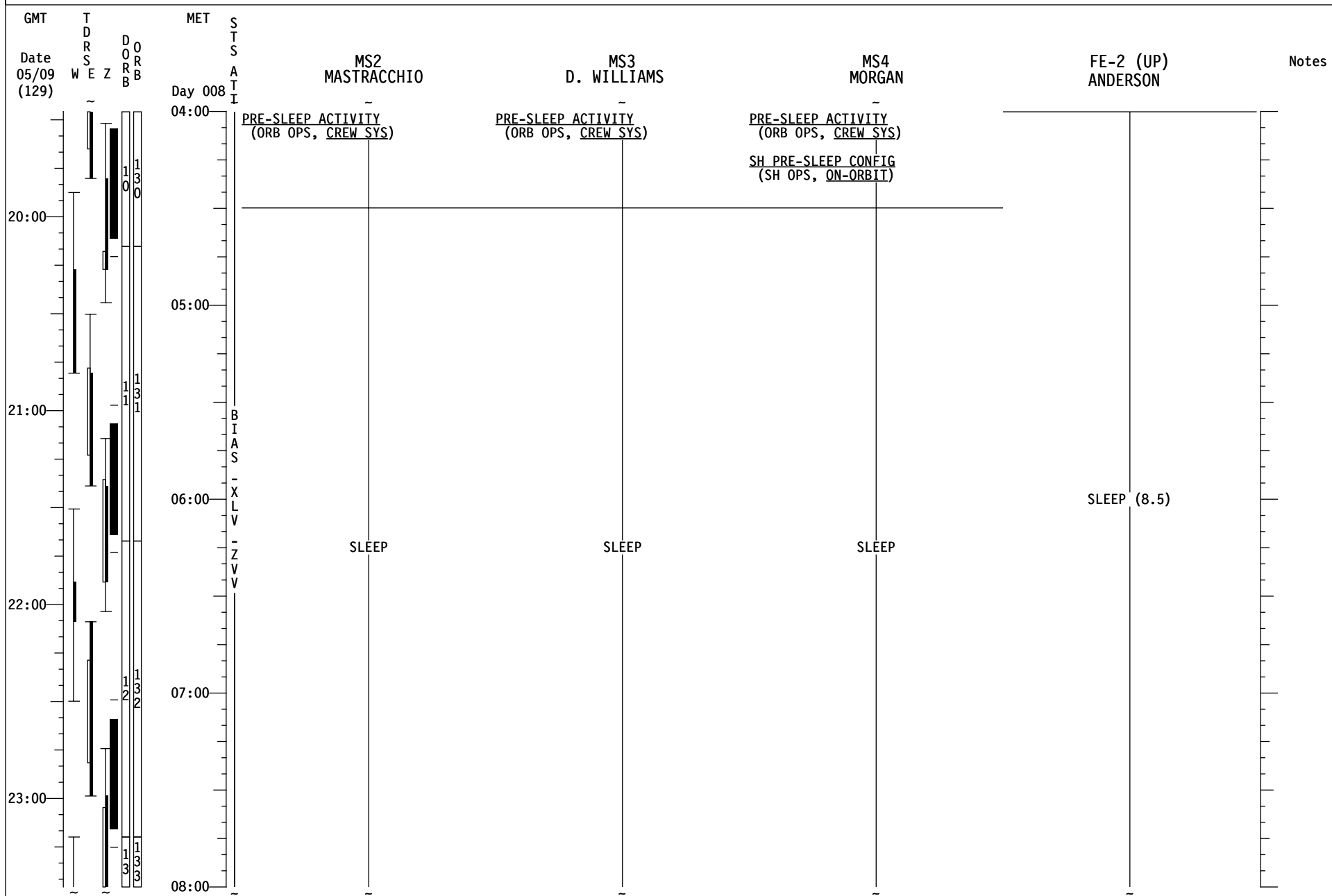
STS-118 FD09

GMT	TDRS W E Z	DORB 7 8 9 10	MET Day 008	STS A T I	Crew	Notes
00:00					MS2 MASTRACCHIO PFC: NETMEETING VID CONF (ORB OPS, PGSC) Omit VLHS item - Step 1, Omit Step 3 Use A/G for audio & KFX PGSC OFF DUTY	
					MS3 D. WILLIAMS OFF DUTY	
					MS4 MORGAN OFF DUTY	
					FE-2 (UP) ANDERSON EXERCISE-CEVIS DAILY PLANNING CONFERENCE	OCA-PFC
16:00					EVA PROCEDURE REVIEW REF: EVA 4 BRIEFING CARD (EVA, FS TIMELINES)	
					EVA PROCEDURE REVIEW REF: EVA 4 BRIEFING CARD (EVA, FS TIMELINES)	
					EVA PROCEDURE REVIEW REF: EVA 4 BRIEFING CARD (EVA, FS TIMELINES)	
					EVA PROCEDURE REVIEW REF: EVA 4 BRIEFING CARD (EVA, FS TIMELINES)	
17:00					PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
					PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
					DAILY STS/ISS CREW TRANSFER TAGUP	
					DAILY TRANSFER BRIEFING	
02:00					PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
					SH PRE-SLEEP CONFIG (SH OPS, ON-ORBIT)	
					EVA SYS: 2.305 10.2 PSIA CAMPOUT MASK PREBREATHE	
					EVA SYS: 2.305 10.2 PSIA CAMPOUT MASK PREBREATHE	
03:00					TOOL CONFIG	
					10.2 DPRS	
					PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
					PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
19:00						
04:00						

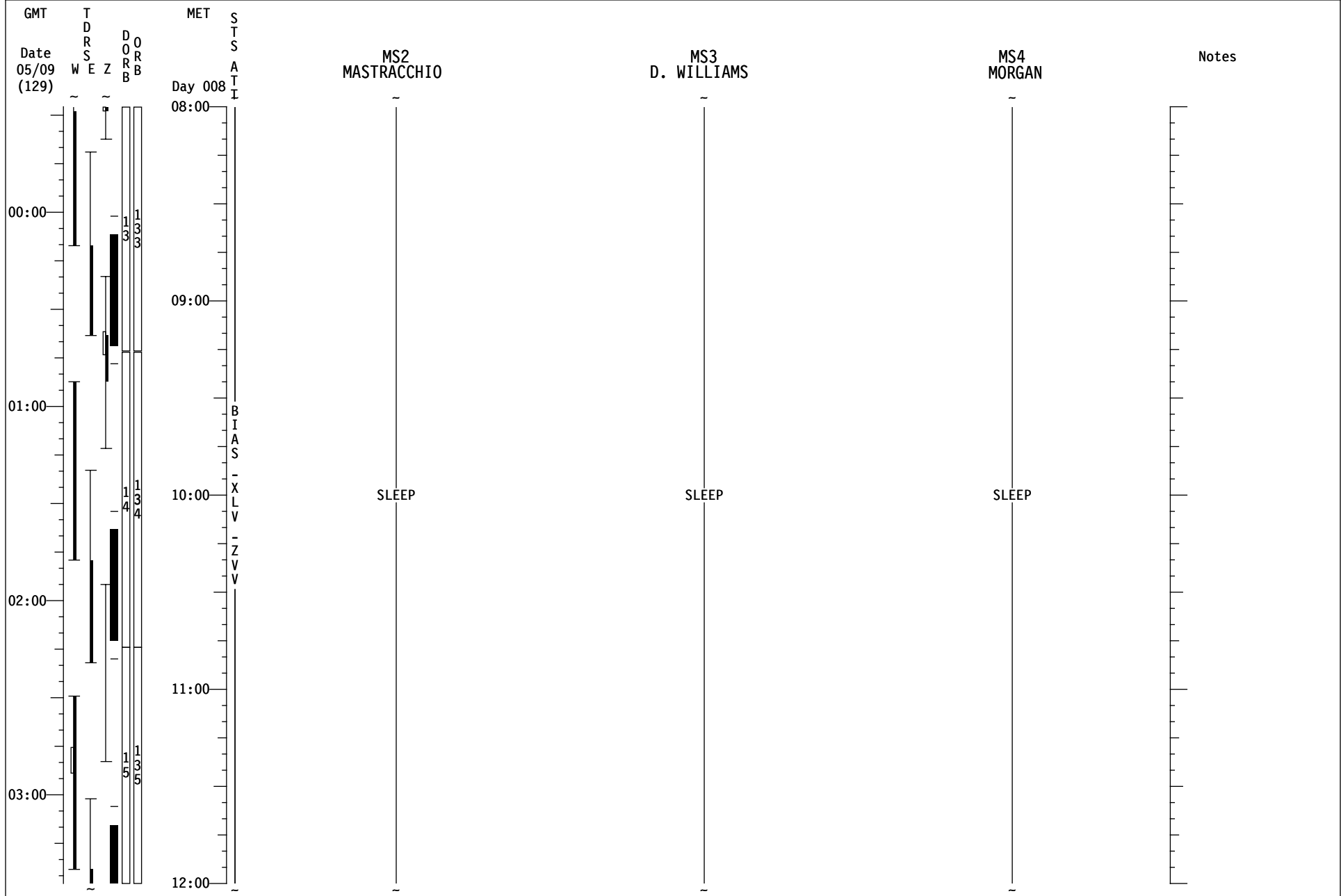
STS-118 FD09



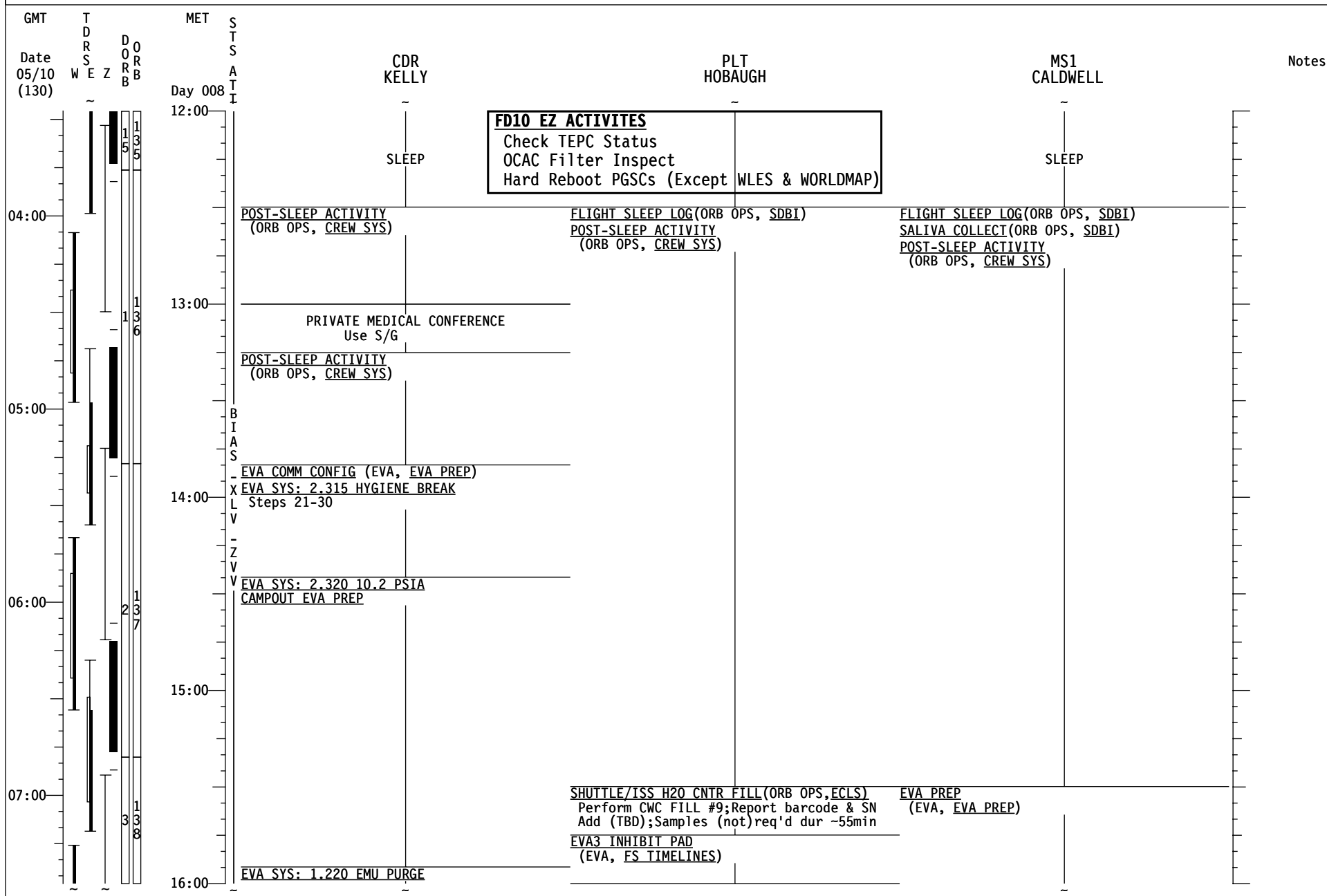
STS-118 FD 09



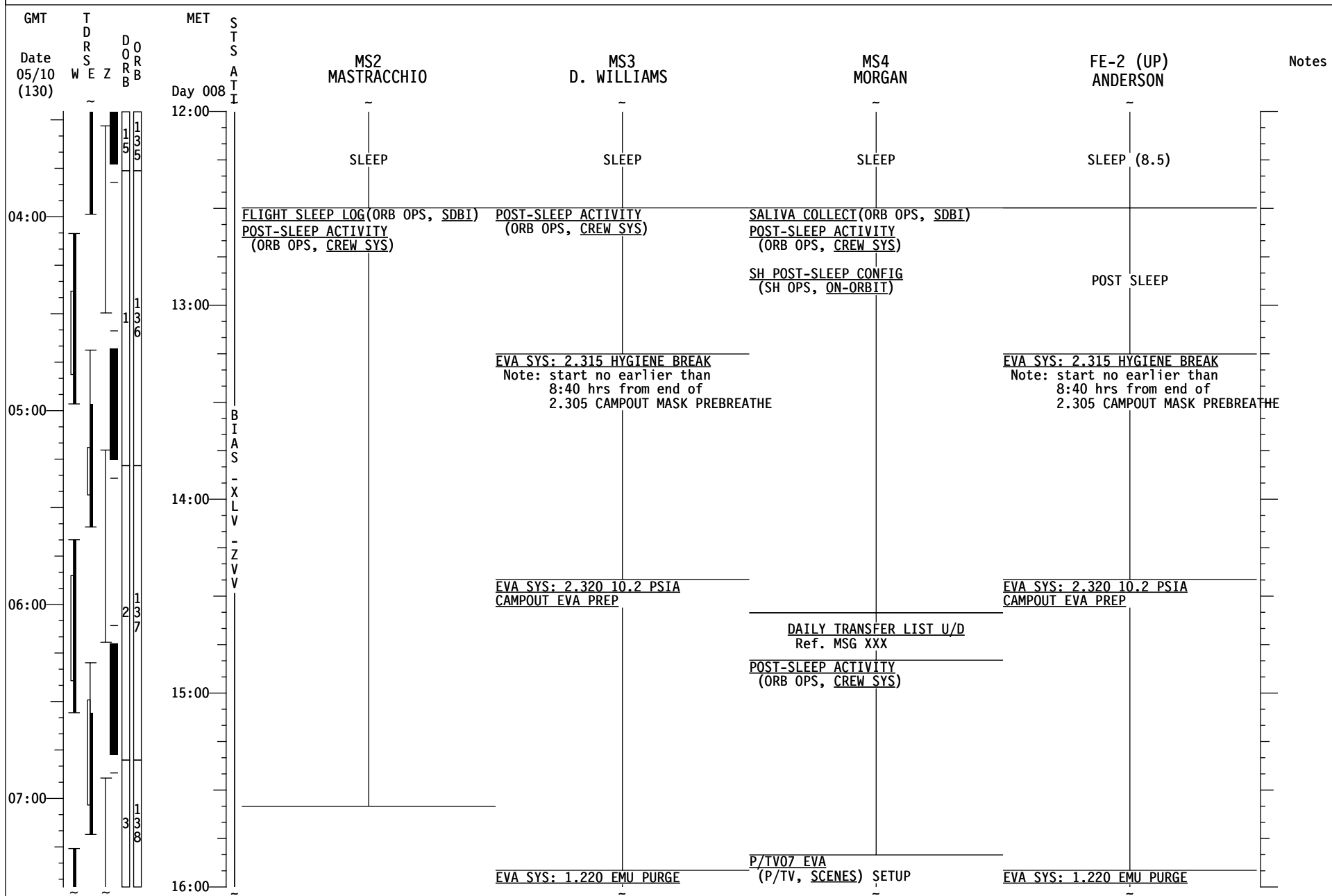
STS-118 FD 09



STS-118 FD 10



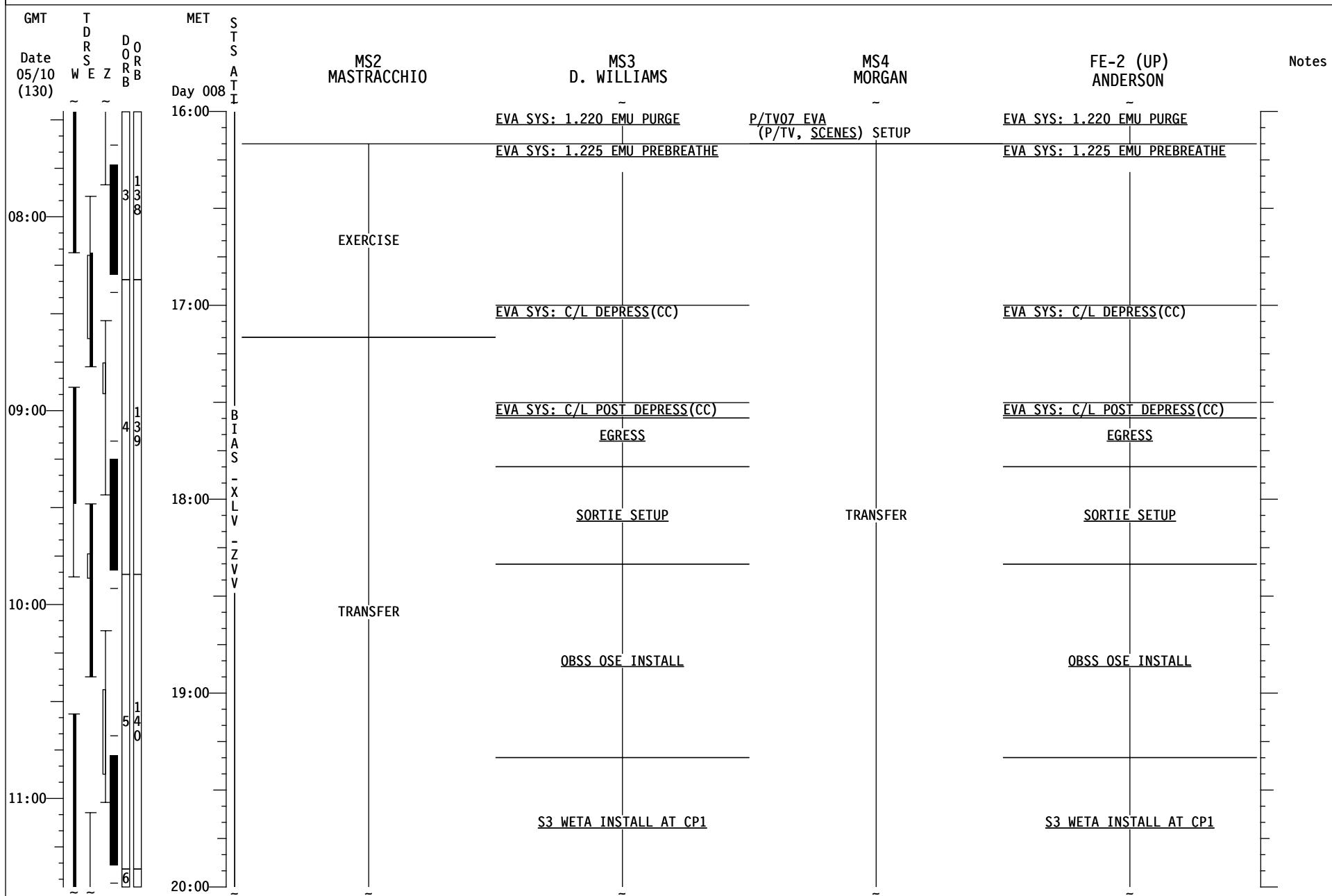
STS-118 FD10



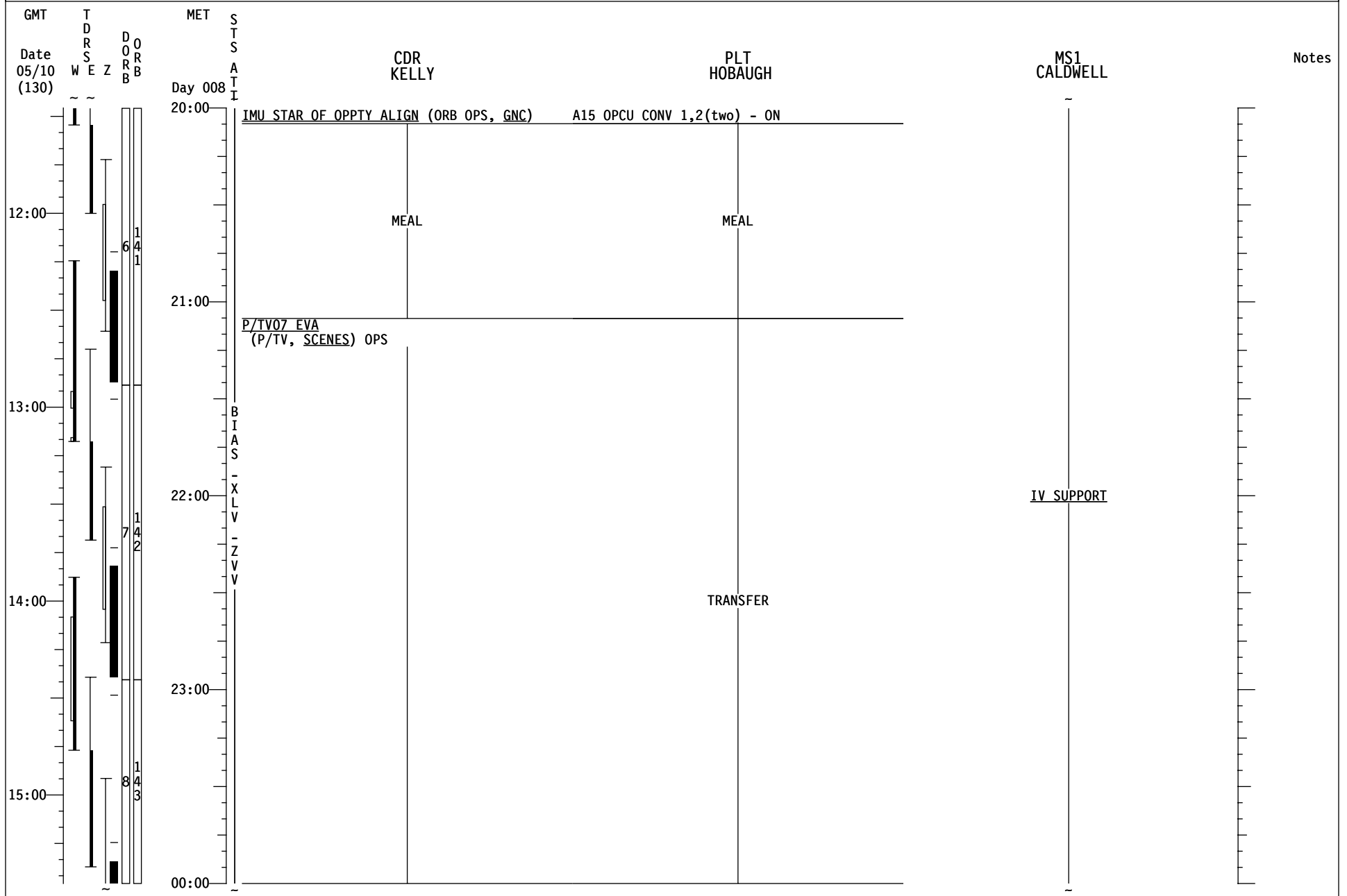
STS-118 FD10

GMT	T D R S W E Z	D O R B D O R B	MET Day 008	S T S A T I	CDR KELLY	PLT HOBAUGH	MS1 CALDWELL	Notes
08:00		1338	16:00		EVA SYS: 1.220 EMU PURGE	CCM-A STATUS CK(PL OPS, CCM-A) A15 OPCU CONV 1,2(two) - OFF	EVA PREP (EVA, EVA PREP)	
					EVA SYS: 1.225 EMU PREBREATHE			
						SHUTTLE/ISS H2O CNTR FILL (ORB OPS, ECLS) Perform FILL TERMINATION		
			17:00		EVA SYS: C/L DEPRESS(CC)			
09:00		1339		B I A S	EVA SYS: C/L POST DEPRESS(CC)	EXERCISE		
				X L V	EXERCISE			
10:00			18:00	Z V V				
					P/TV07 EVA (PHOTO/TV, SCENES) Perform OPS		IV SUPPORT	
11:00		1440	19:00			TRANSFER		
20:00		1440						

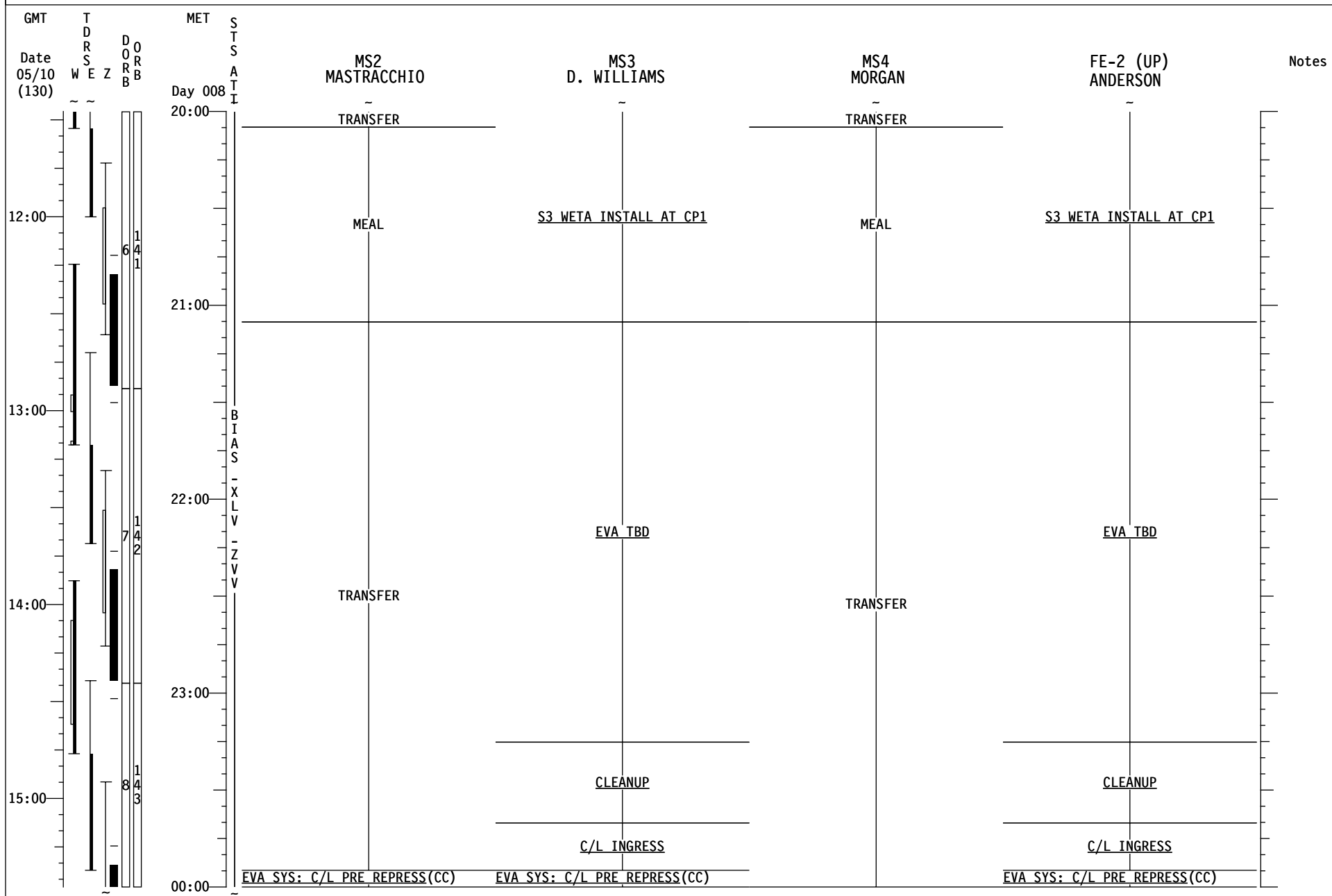
STS-118 FD10



STS-118 FD10



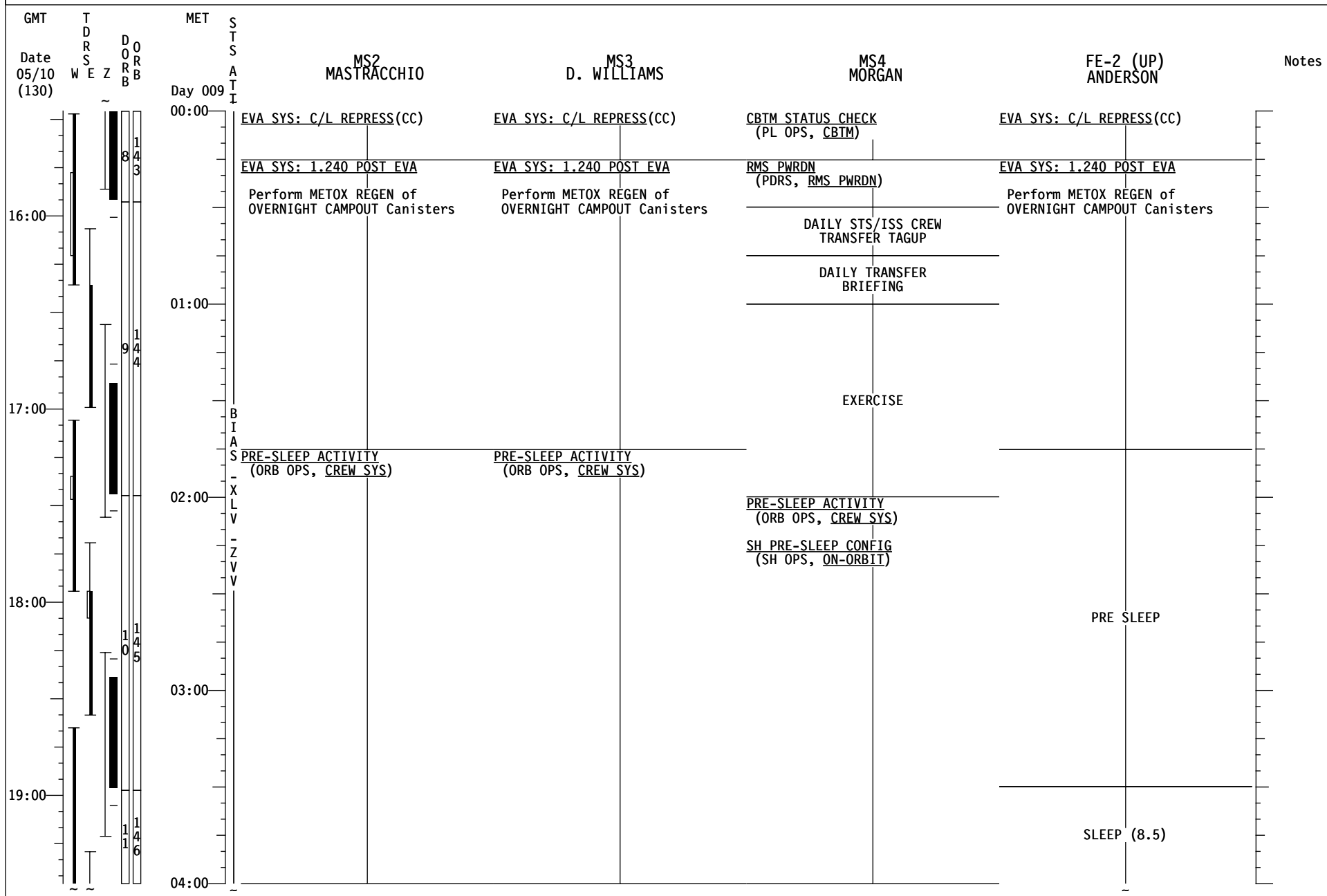
STS-118 FD10



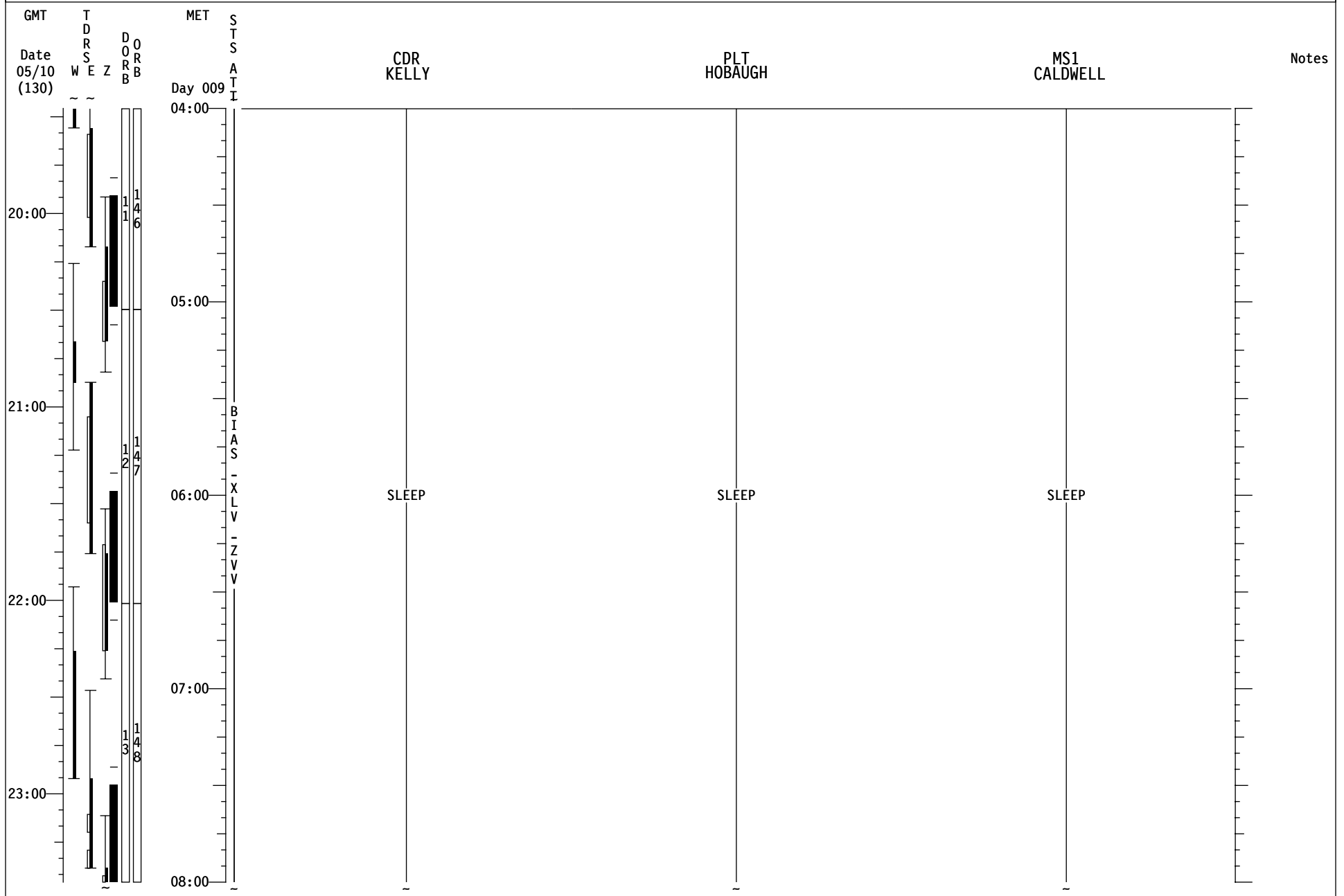
STS-118 FD10

GMT	TDRS WSEZ	DORB ORB	MET Day 009	SATS ATTI	CDR KELLY	PLT HOBAUGH	MS1 CALDWELL	Notes
00:00							IV SUPPORT	
16:00		143			<u>CWC TRANSFER (1 BAG)</u> Transfer 1 CWC bag to ISS	EVA COMM DECONFIG (EVA, EVA PREP)		
					<u>FILTER CLEANING</u> (IFM, SCHEDULED MAINT)			
01:00		144			Inspect filters & clean as necessary	CCM-A STATUS CK (PL OPS, CCM-A)	EXERCISE	
		944			Also check SH Booster Fan Bypass duct inlet	<u>PRE-SLEEP ACTIVITY</u> (ORB OPS, CREW SYS)		
17:00				BAS	<u>PRE-SLEEP ACTIVITY</u> (ORB OPS, CREW SYS)		<u>PRE-SLEEP ACTIVITY</u> (ORB OPS, CREW SYS)	
				XLV				
18:00		145		ZVV	<u>PMC:NETMEETING VID CONF</u> (ORB OPS, PGSC) Omit VLHS item in Step 1, Omit Step 3 Use A/G for audio & KFX PGSC			OCA-PMC
					<u>PRE-SLEEP ACTIVITY</u> (ORB OPS, CREW SYS)			
03:00								
19:00		146						
04:00								

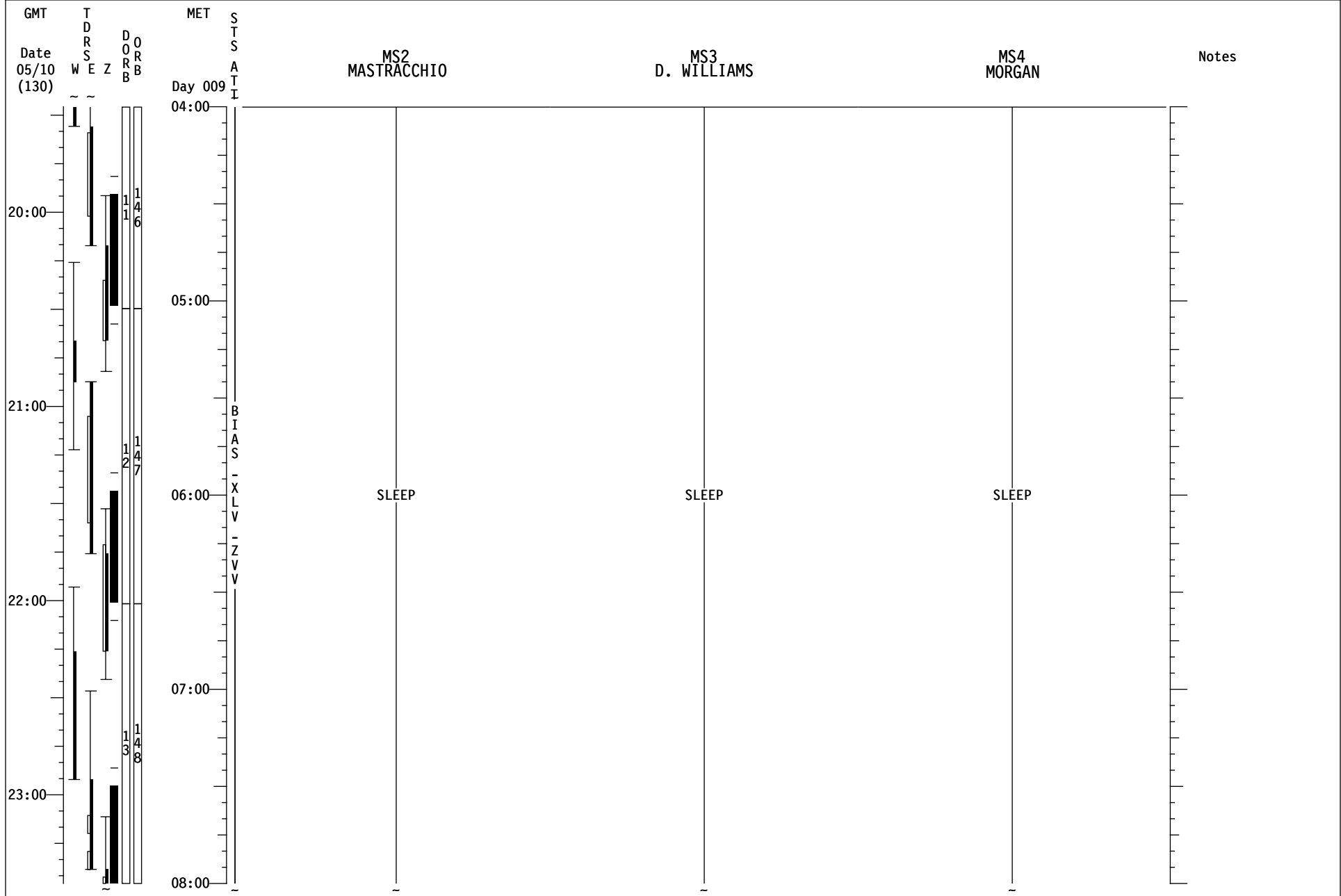
STS-118 FD 10



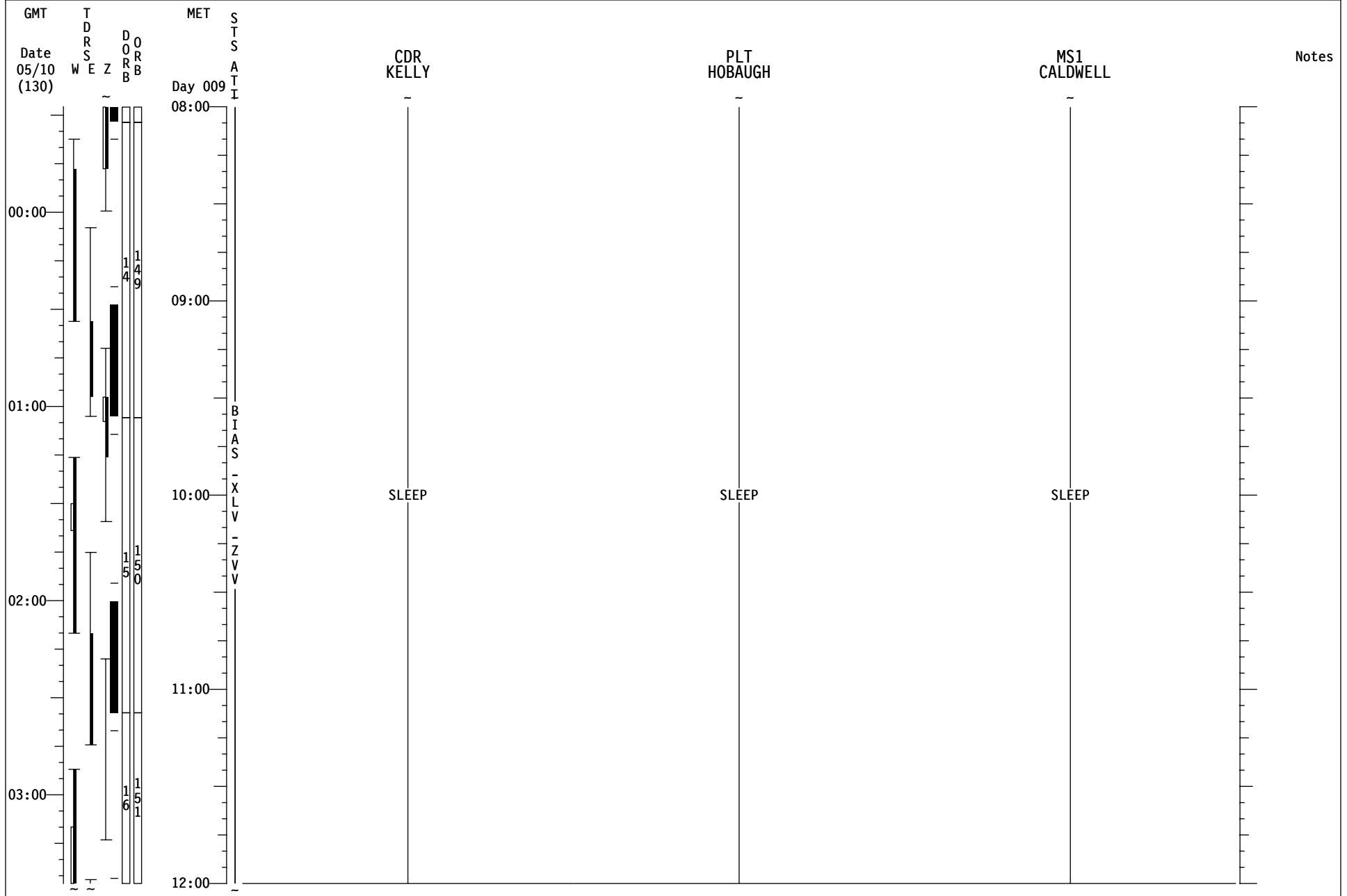
STS-118 FD 10



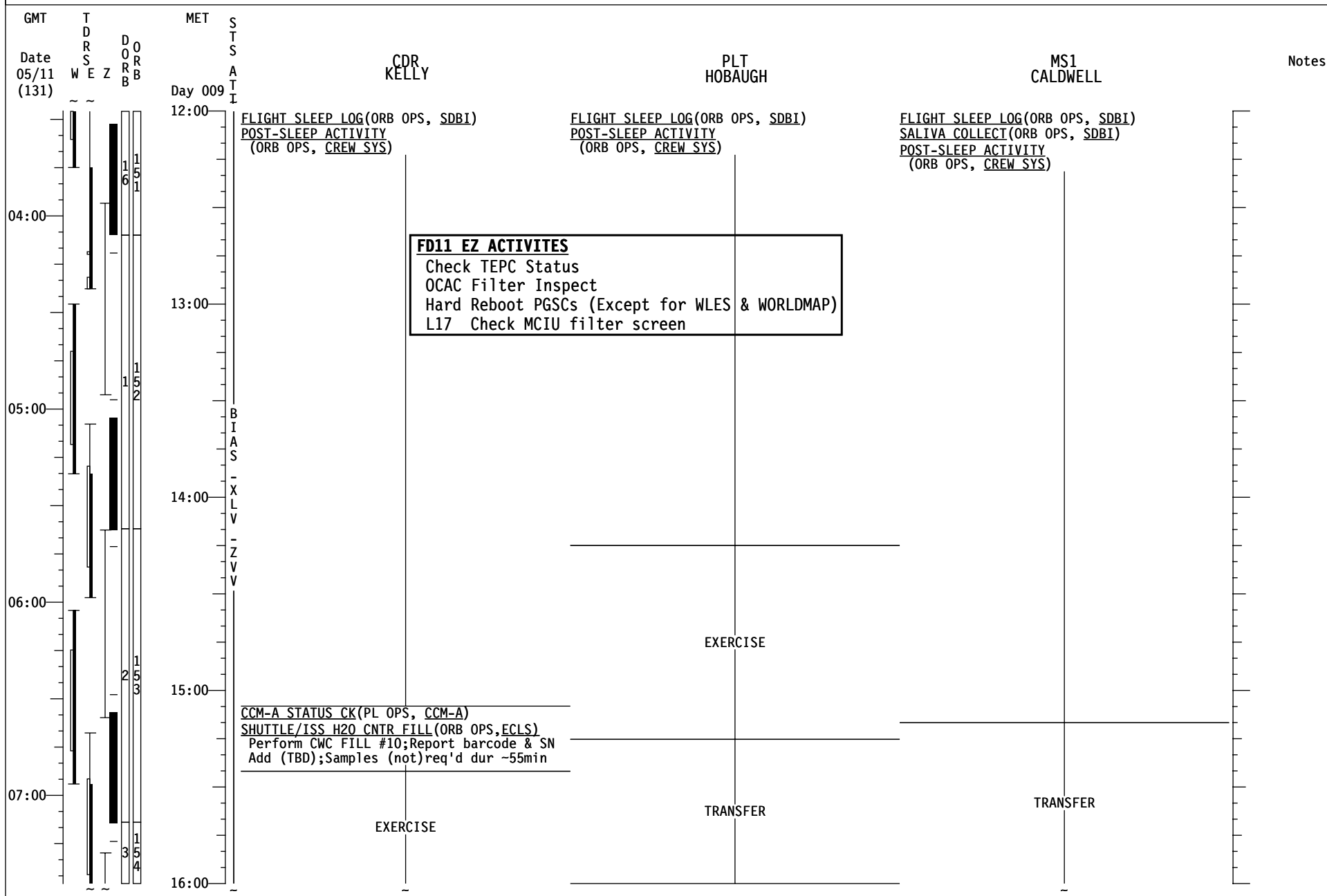
STS-118 FD 10



STS-118 FD 10



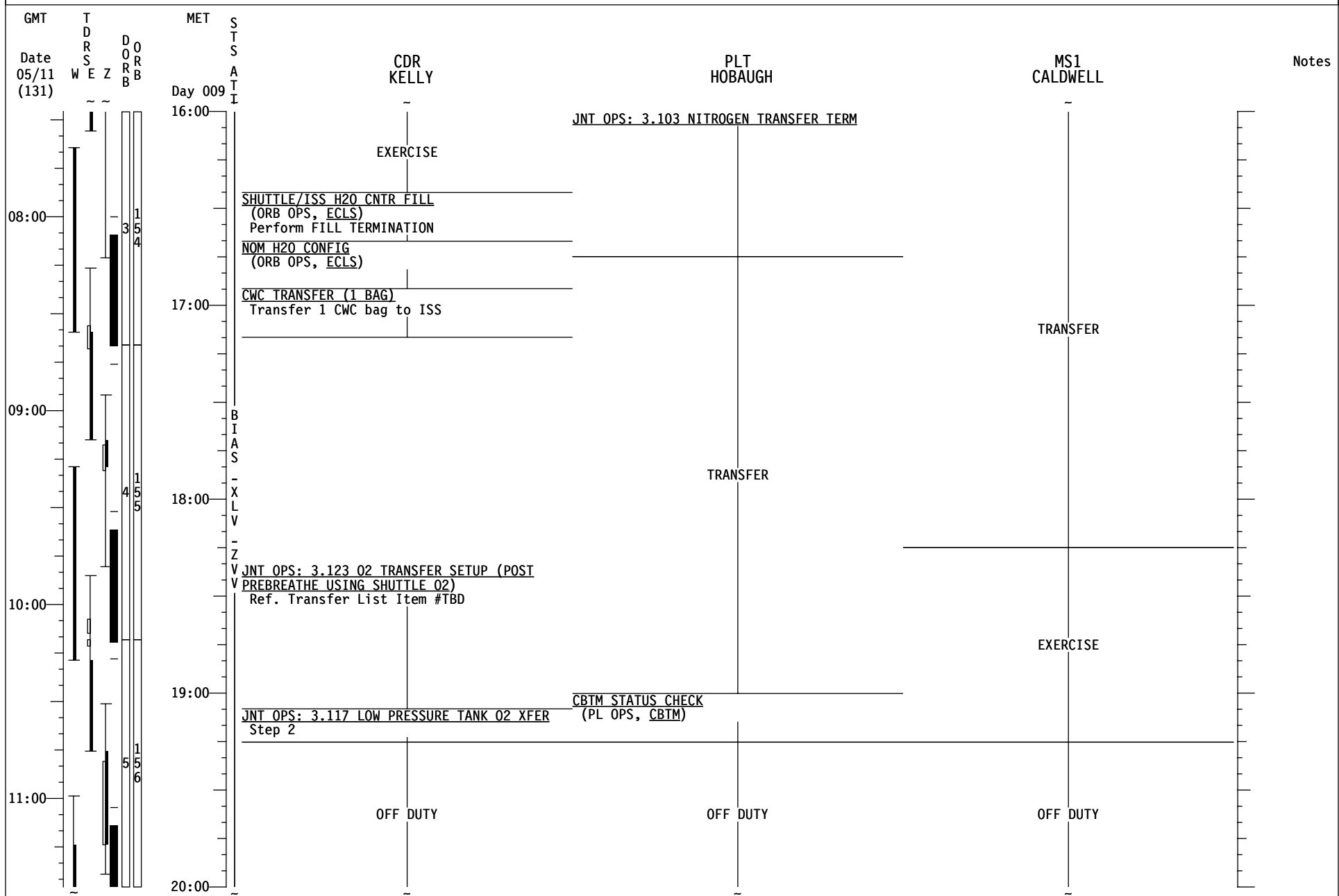
STS-118 FD 11



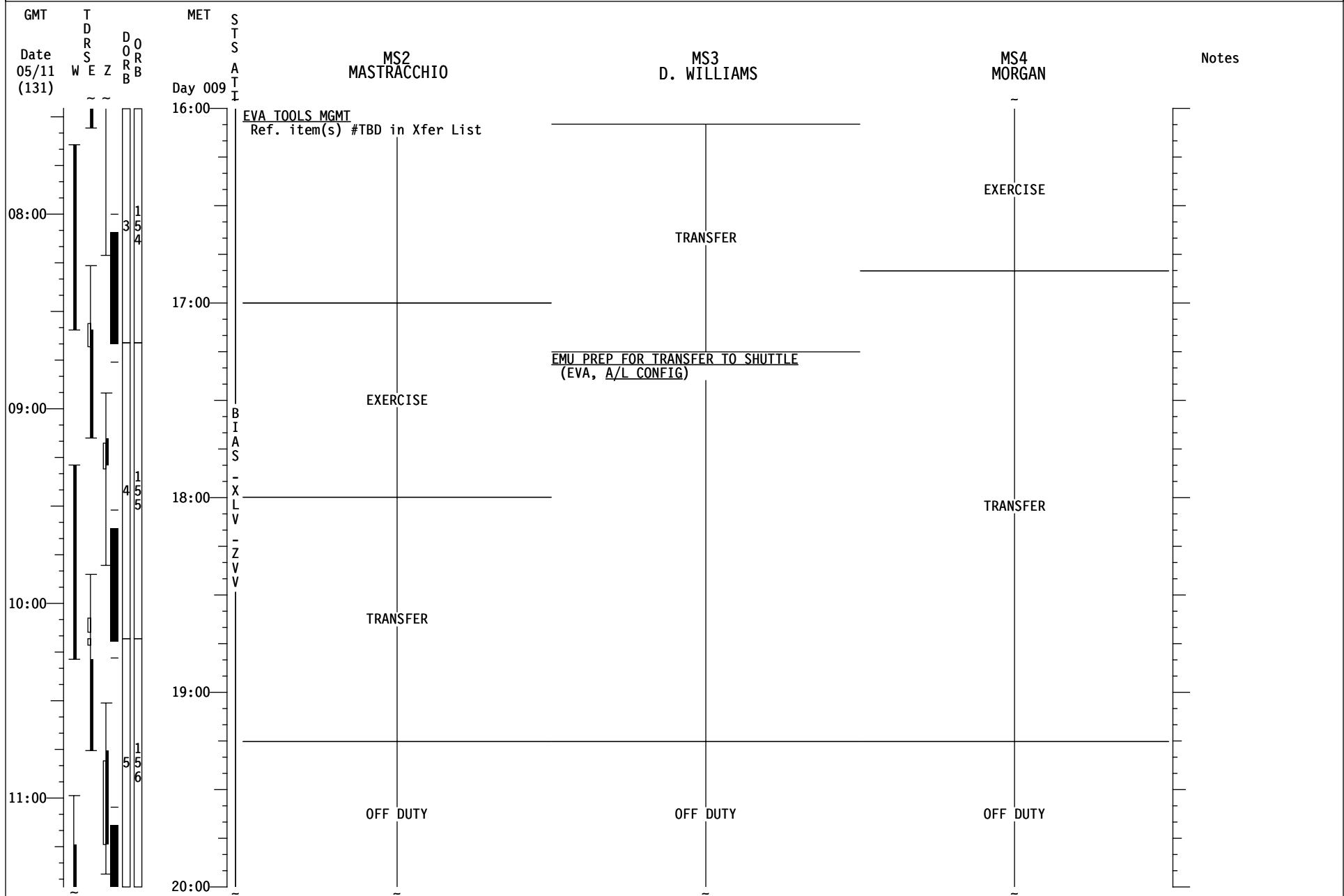
STS-118 FD 11

GMT	TDRSZ W E Z	DORB 1 5 1 1 6 1 1 5 2 1 5 3 2 5 3 1 5 4 3 5 4	MET Day 009	STS A T I	MS2 MASTRACCHIO	MS3 D. WILLIAMS	MS4 MORGAN	Notes
12:00					<u>FLIGHT SLEEP LOG</u> (ORB OPS, <u>SDBI</u>) <u>POST-SLEEP ACTIVITY</u> (ORB OPS, <u>CREW SYS</u>)	TAKE 1 ASPIRIN (325mg) <u>FLIGHT SLEEP LOG</u> (ORB OPS, <u>SDBI</u>) <u>SALIVA COLLECT</u> (ORB OPS, <u>SDBI</u>) <u>POST-SLEEP ACTIVITY</u> (ORB OPS, <u>CREW SYS</u>)	<u>SALIVA COLLECT</u> (ORB OPS, <u>SDBI</u>) <u>POST-SLEEP ACTIVITY</u> (ORB OPS, <u>CREW SYS</u>) <u>SH POST-SLEEP CONFIG</u> (SH OPS, <u>ON-ORBIT</u>)	
04:00								
05:00								
06:00								
13:00								
14:00								
15:00								
16:00								
					<u>P/TV05 ISS INTERNAL OPS</u> (P/TV, <u>SCENES</u>) PAO EVENT SETUP		<u>DAILY TRANSFER LIST U/D</u> Ref. MSG XXX	
					<u>PUBLIC AFFAIRS EVENT</u> KU AVAIL: 15:27-15:47	<u>PUBLIC AFFAIRS EVENT</u> KU AVAIL: 15:27-15:47	<u>PUBLIC AFFAIRS EVENT</u> KU AVAIL: 15:27-15:47	
					<u>EVA SYS: 1.307 REBA INST/REMOV</u> Removal Steps	<u>EVA SYS: 1.307 REBA INST/REMOV</u> Removal Steps	TRANSFER EXERCISE	

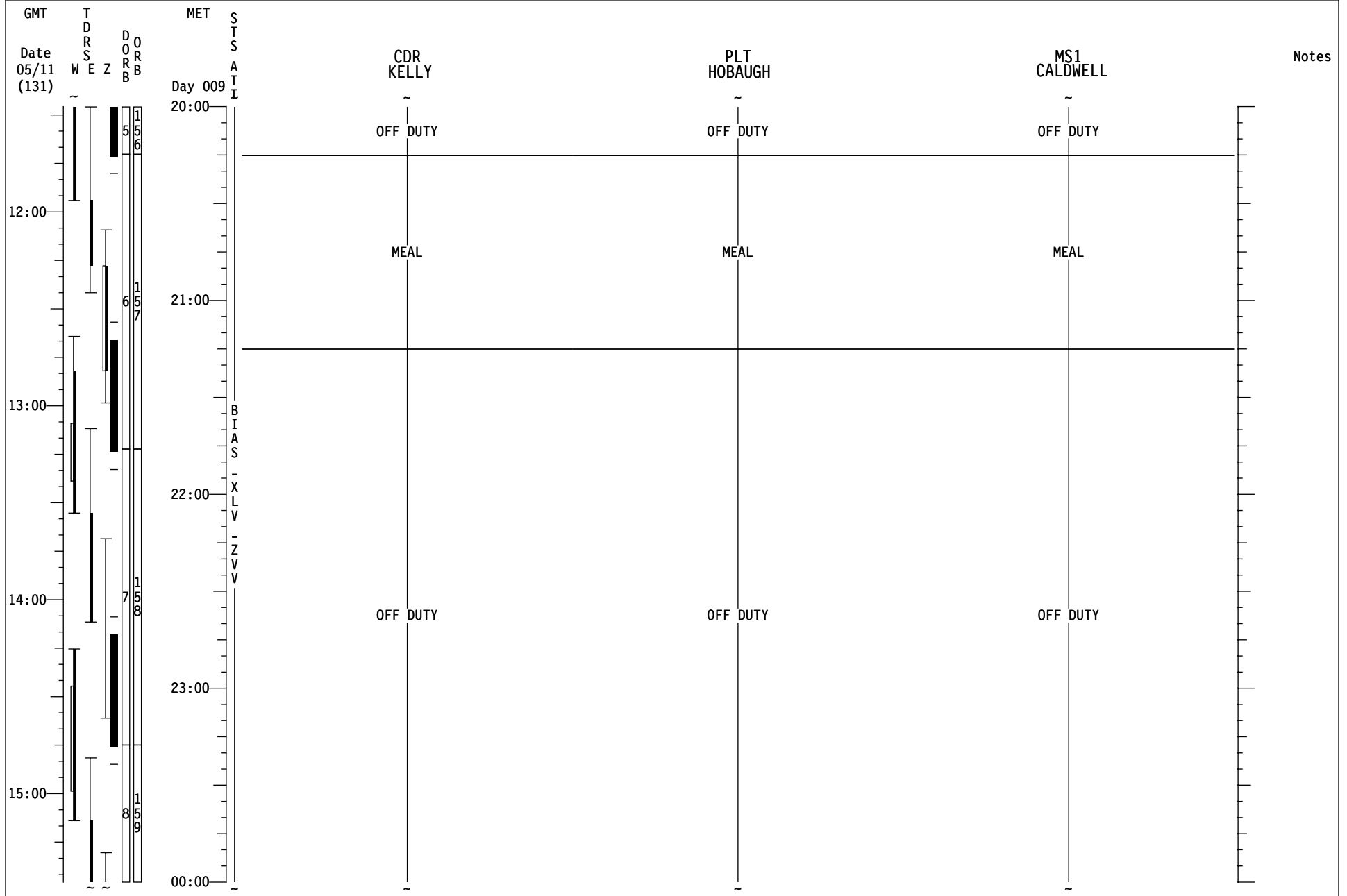
STS-118 FD 11



STS-118 FD 11



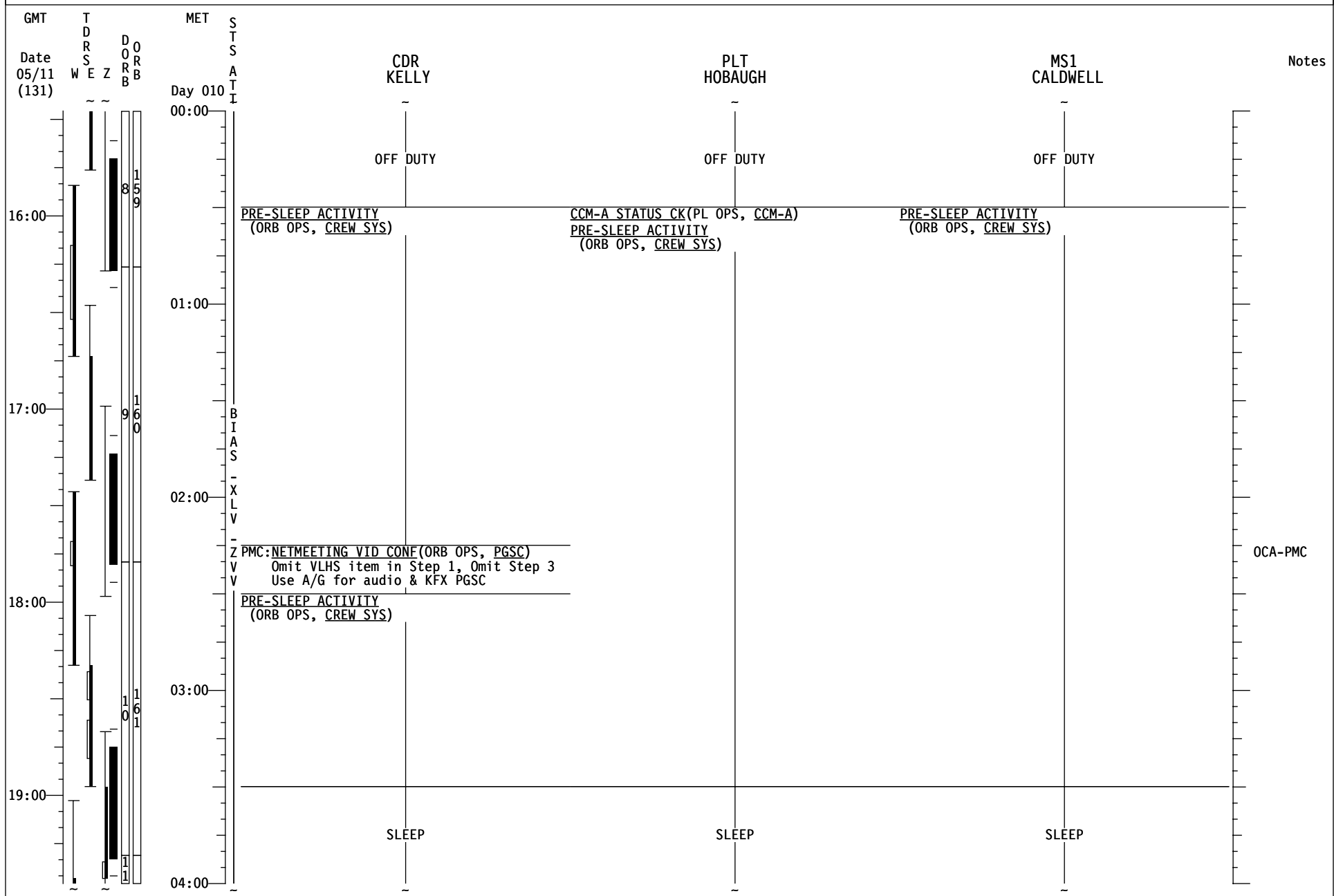
STS-118 FD 11



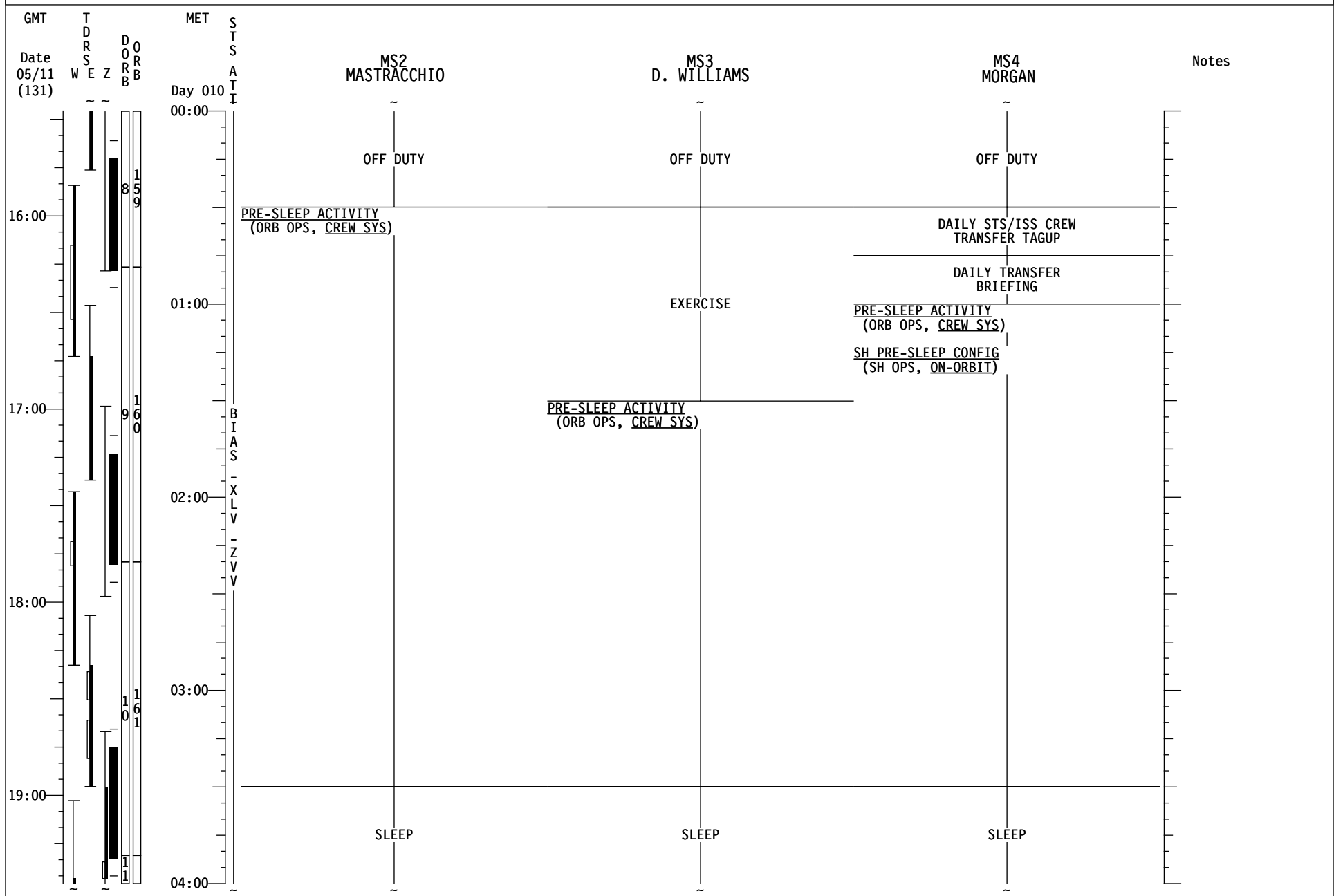
STS-118 FD 11

GMT	TDRS WSEZ	DORB	MET Day 009	STS ATTI	MS2 MASTRACCHIO	MS3 D. WILLIAMS	MS4 MORGAN	Notes
20:00		1556			OFF DUTY	OFF DUTY	OFF DUTY	
12:00		1657			MEAL	MEAL	MEAL	
13:00		1758			OFF DUTY	OFF DUTY	OFF DUTY	
14:00		1859			OFF DUTY	OFF DUTY	OFF DUTY	
15:00								
00:00								

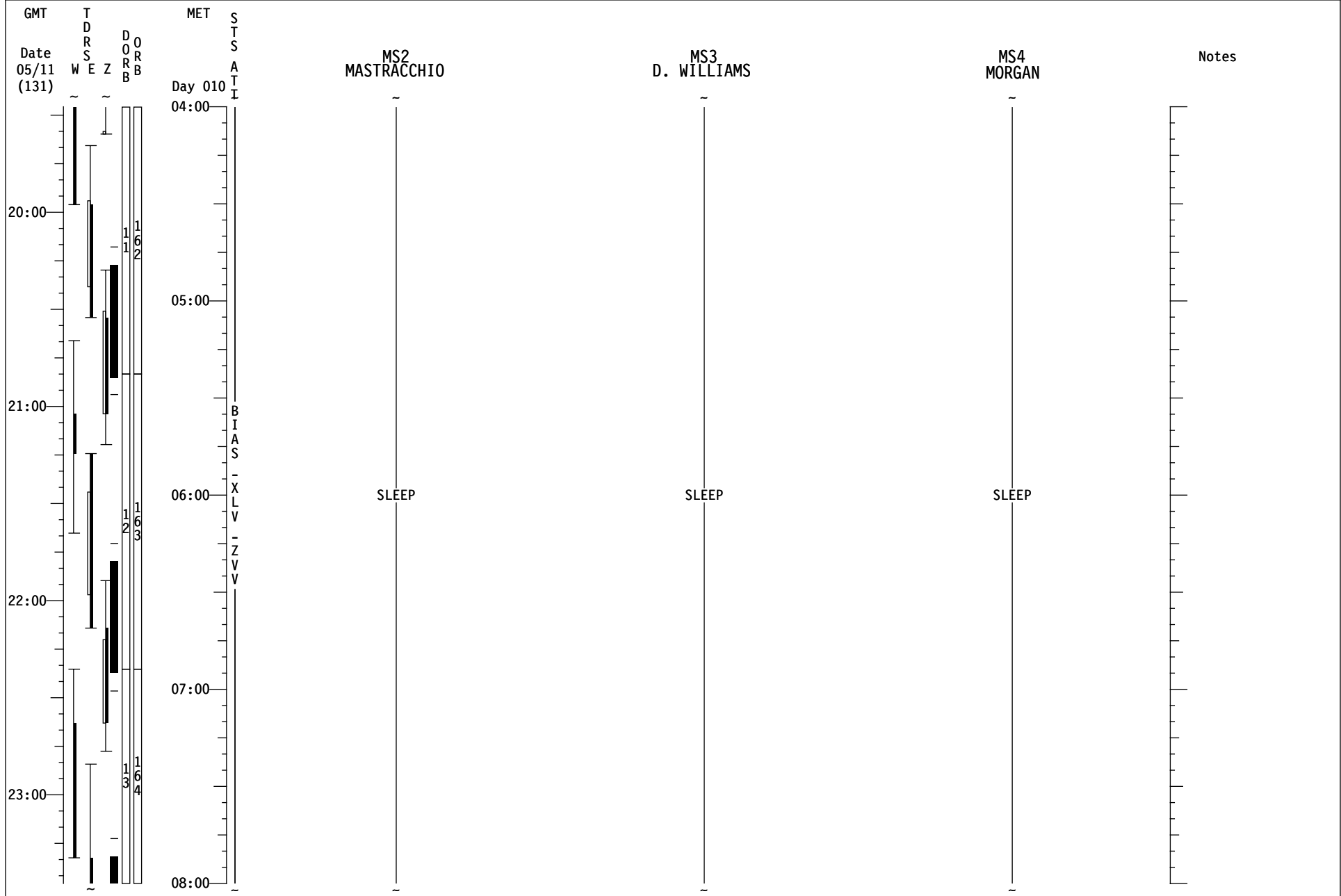
STS-118 FD 11



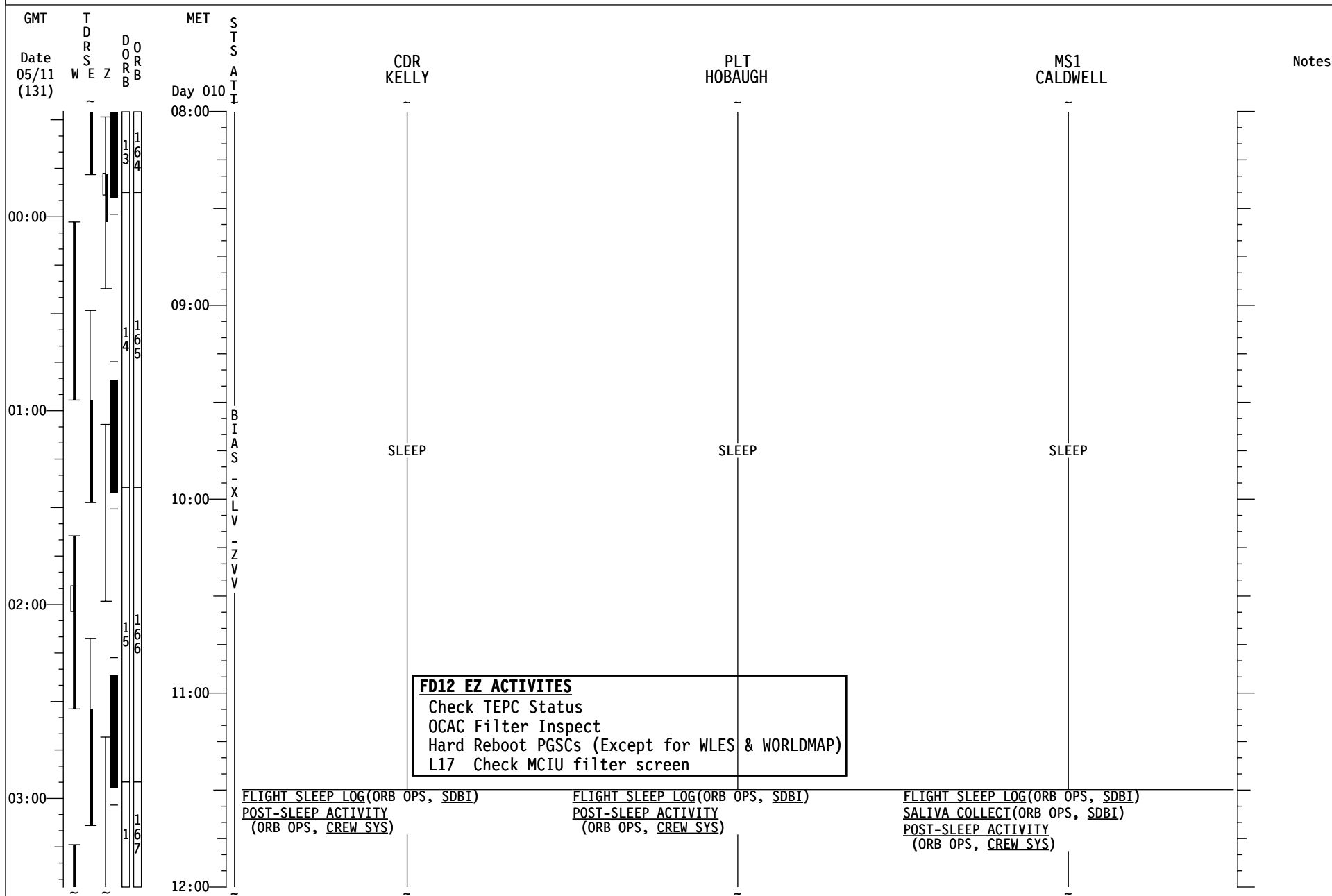
STS-118 FD11



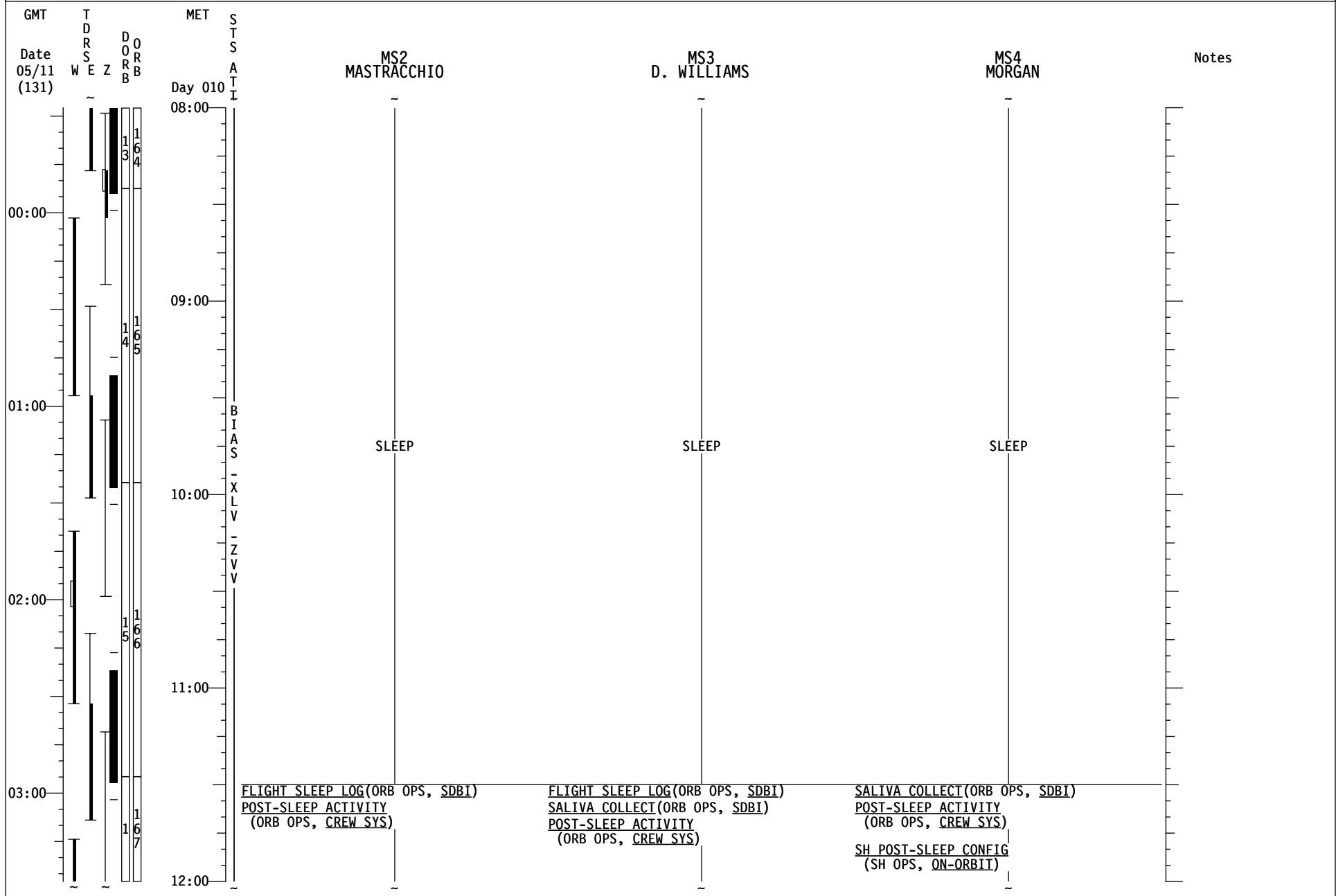
STS-118 FD11



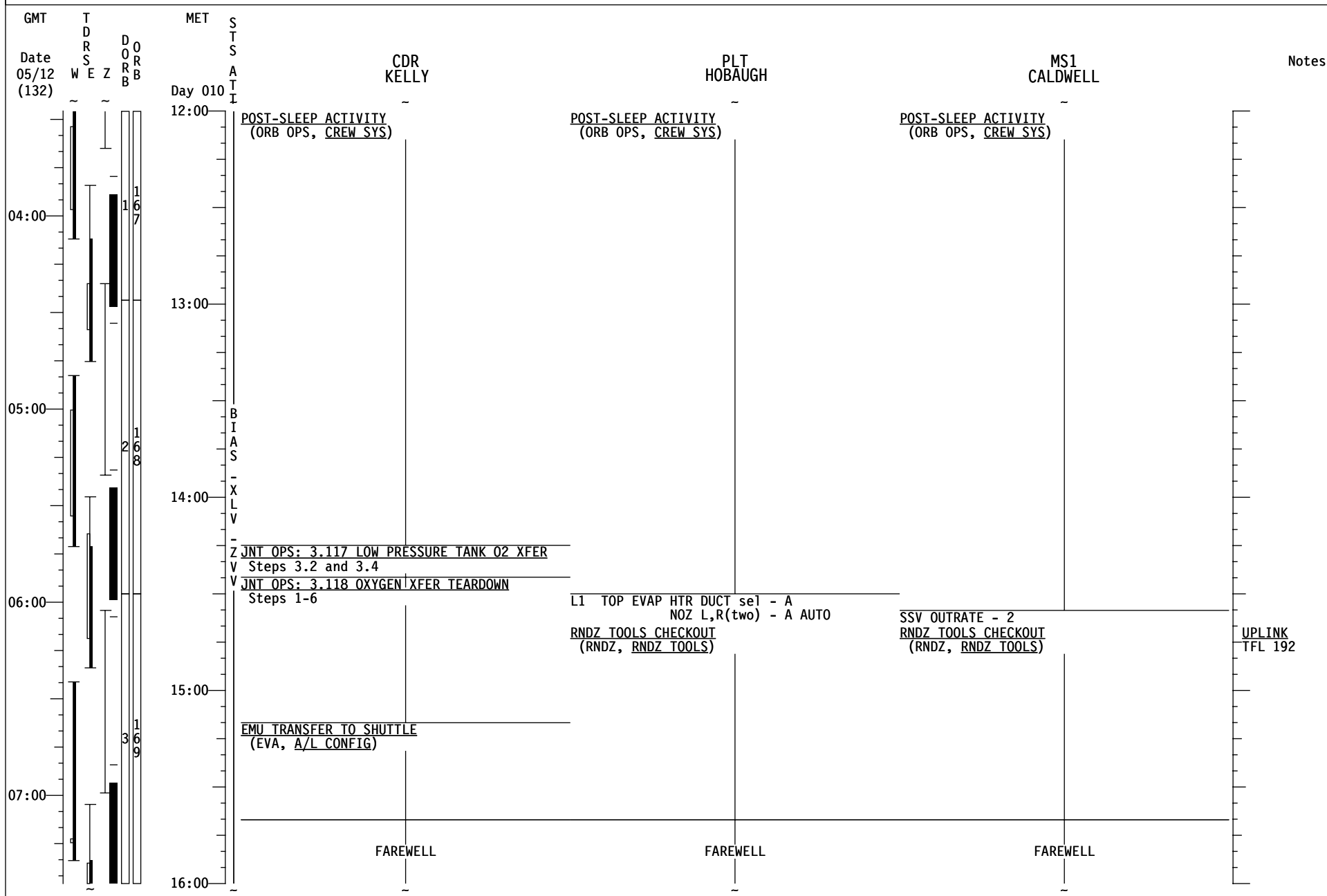
STS-118 FD12



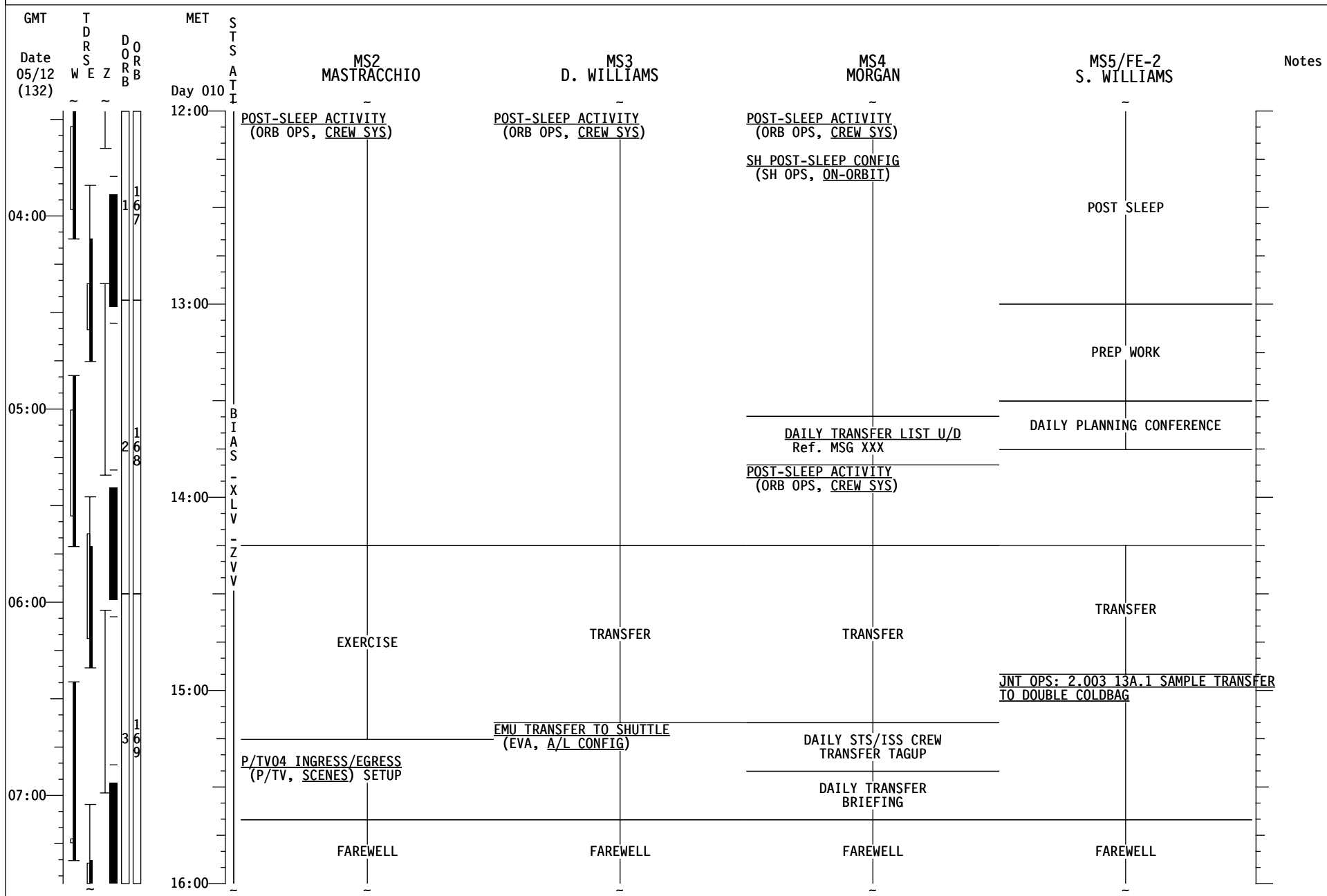
STS-118 FD12



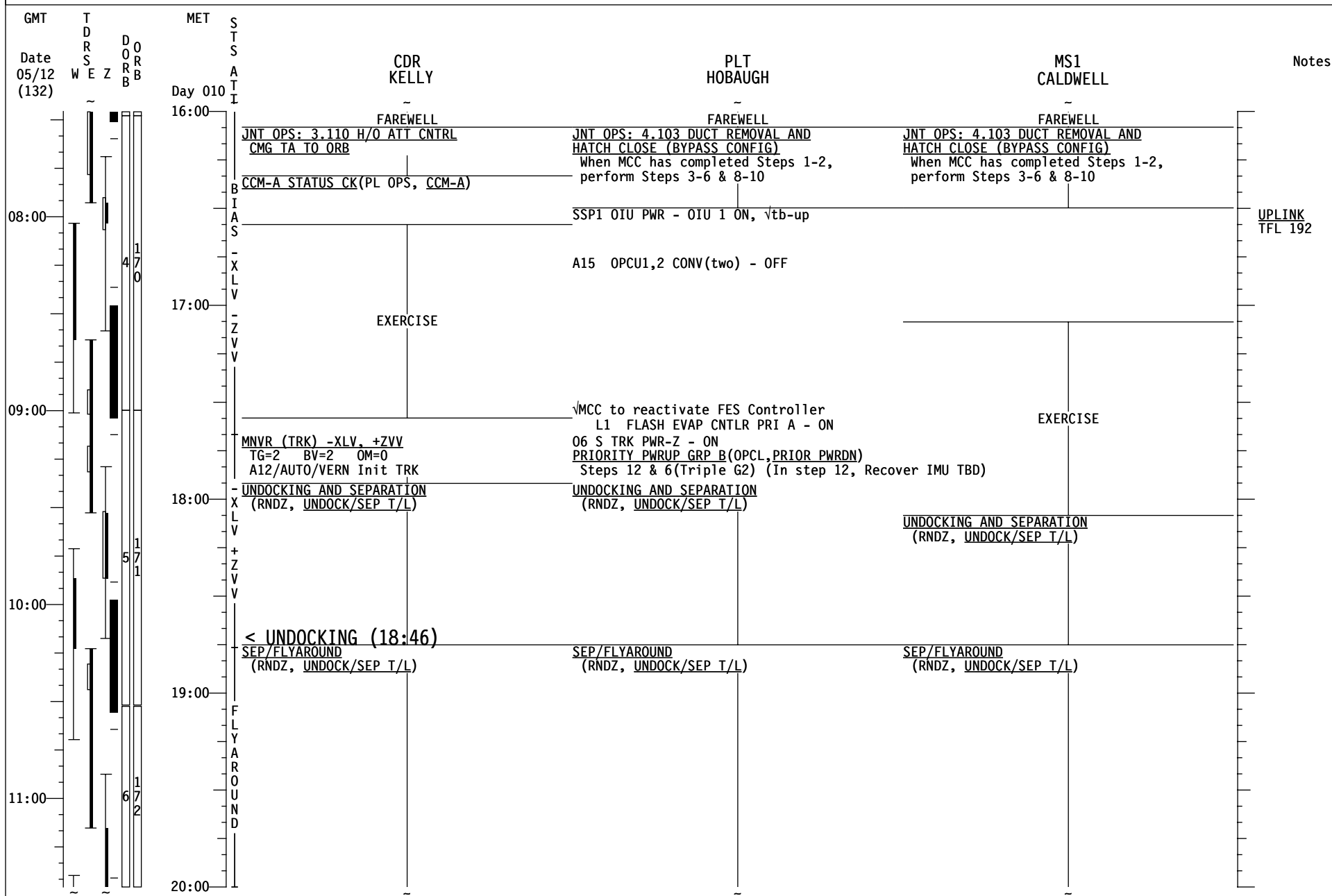
STS-118 FD12



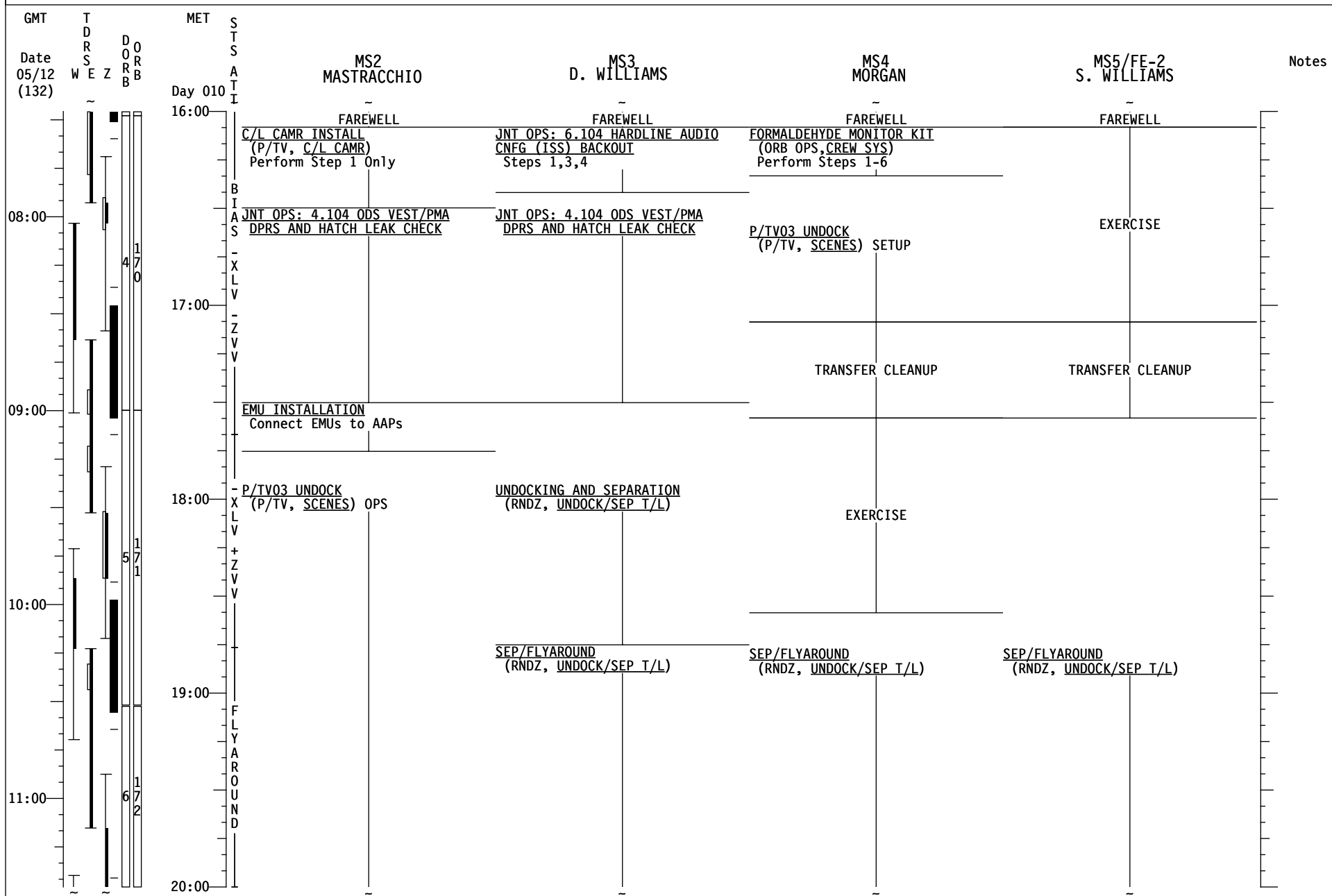
STS-118 FD12



STS-118 FD 12



STS-118 FD 12



STS-118 FD12

GMT	T D R S E Z	D O R B	MET	S T S	A T T	PLT	MS1	Notes
Date 05/12 (132)	W	E	Day 010	S	T	KELLY	CALDWELL	
20:00			SEP/FLYAROUND (RNDZ, UNDOCK/SEP T/L)	SEP		SEP/FLYAROUND (RNDZ, UNDOCK/SEP T/L)	SEP/FLYAROUND (RNDZ, UNDOCK/SEP T/L)	UPLINK β21 Only Box B1
12:00								UPLINK β21+Mask
21:00			RCS REG RCNEG (ORB OPS, RCS) HEATER RECONFIG-CONFIG B (ORB OPS, EPS) MNVR (TRK)BIAS -ZLV, +YVV TG=2 BV=3 OM=310 A1/AUTO/VERN Init TRK			PRIORITY PWRDN GRP B(OPCL,PRIOR PWRDN) Steps 5,6(Single G2),9,10 & 12 (In Step 12, IMU TBD STBY-ITEM 23 EXEC) SSPI OIU PWR - OIU OFF, √tb-bp	P/TV03 UNDOCK (P/TV, SCENES) DEACT, Step 2	UPLINK TFL 184
13:00			SHUTTLE CONDENSATE COLLECTION (ORB OPS, ECLS) Perform TEARDOWN			SSV OUTFATE - 3 SUPPLY/WASTE WATER DUMP (ORB OPS, ECLS) Initiate Supply/Waste Dump		
22:00			MEAL			MEAL	MEAL	
23:00			SUPPLY/WASTE WATER DUMP (ORB OPS, ECLS) Terminate Supply/Waste Dump					
15:00			MNVR (TRK) -ZLV, -XVV TG=2 BV=3 OM=0 A1/AUTO/VERN Init TRK MERLIN CONFIG FOR DESCENT (PL OPS, MERLIN)			EXERCISE		
00:00			PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)				PUBLIC AFFAIRS EVENT EDUCATIONAL EVENT KU AVAIL: 23:35-23:55	

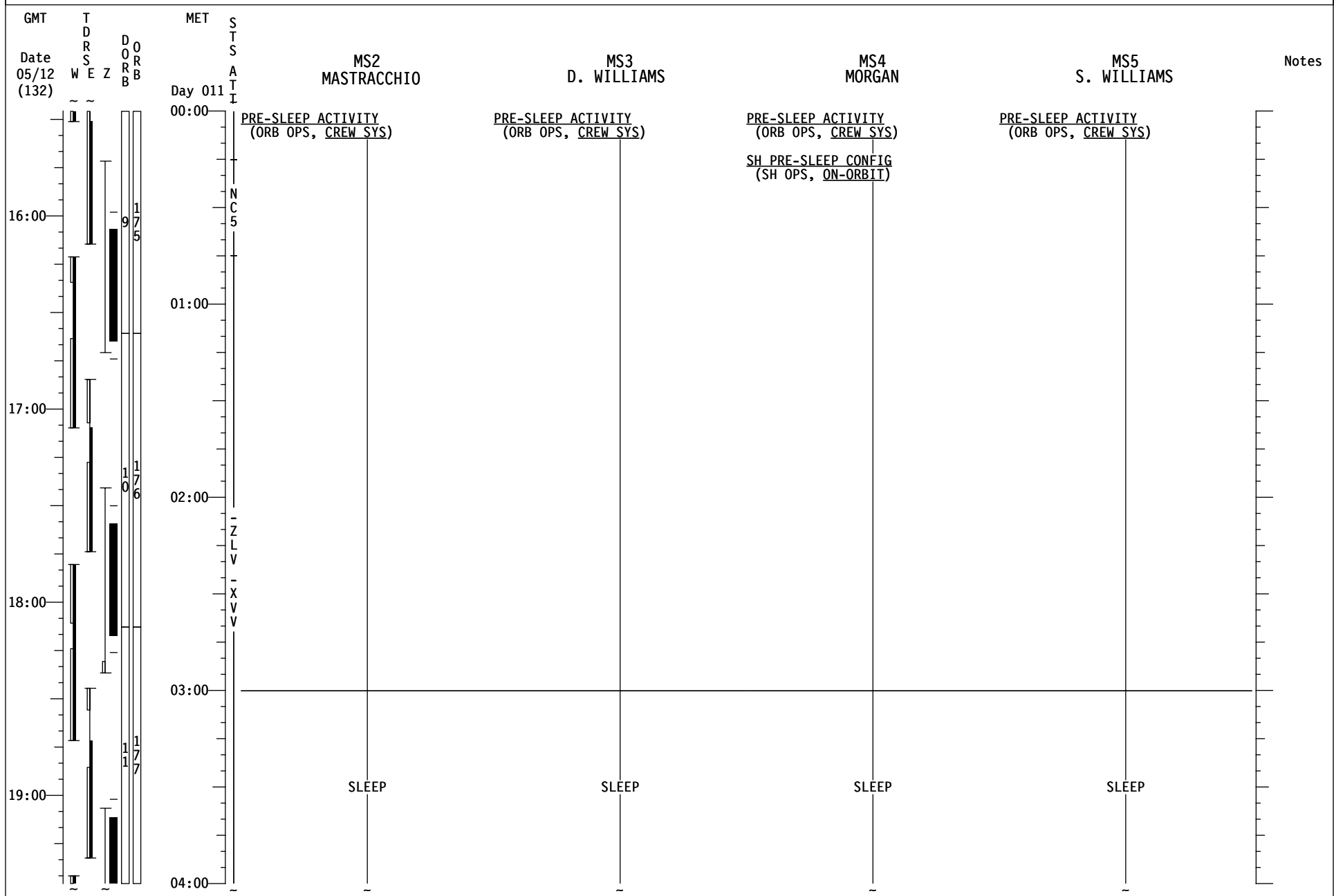
STS-118 FD 12

GMT	TDRS W E Z	DORB	MET	STS A T T	MS2 MASTRACCHIO	MS3 D. WILLIAMS	MS4 MORGAN	MS5/FE-2 S. WILLIAMS	Notes
Date 05/12 (132)			Day 010						
12:00		172	20:00	S E P	P/TV03 UNDOCK (P/TV, SCENES) OPS	SEP/FLYAROUND (RNDZ, UNDOCK/SEP T/L)	SEP/FLYAROUND (RNDZ, UNDOCK/SEP T/L)	SEP/FLYAROUND (RNDZ, UNDOCK/SEP T/L)	
							JNT OPS: 6.106 SSOR DEACTIVATION		
		173	21:00			PLAYBACK(DIGITAL) (P/TV, CUE CARD) UNDOCK KU TDRX (21:20-21:23)		EXERCISE	
13:00									
		174	22:00	Z L V	MEAL	MEAL	MEAL	MEAL	
14:00									
		175	23:00	+ Y V V	EVA TOOLS MGMT Ref. item(s) #TBD in Xfer List	EVA TOOLS MGMT Ref. item(s) #TBD in Xfer List	TRANSFER CLEANUP	TRANSFER CLEANUP	
15:00									
		176		Z L V		CBTM STATUS CHECK (PL OPS, CBTM)	ANALOG PAO CC (P/TV, SONY PD100) Perform SETUP		
					PUBLIC AFFAIRS EVENT EDUCATIONAL EVENT KU AVAIL: 23:35-23:55		PUBLIC AFFAIRS EVENT EDUCATIONAL EVENT KU AVAIL: 23:35-23:55		
00:00		177		X V V					

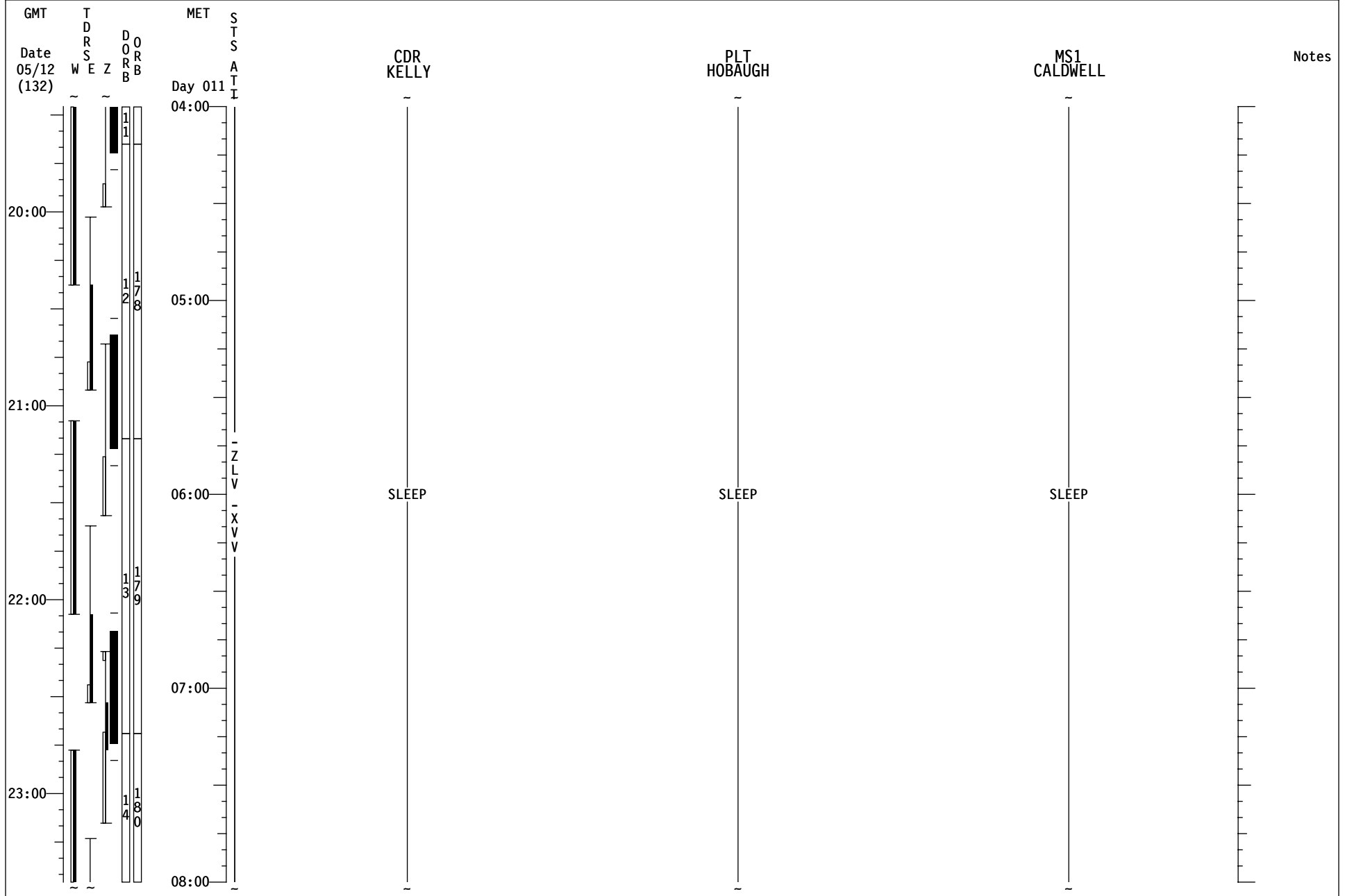
STS-118 FD 12

GMT	TDRS W E Z	DORB	MET	S T S A T I	CDR KELLY	PLT HOBAUGH	MS1 CALDWELL	Notes
Date 05/12 (132)	~	~	Day 011	00:00				
					PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
					CCM-A STATUS CK(PL OPS, CCM-A)			
					ON-ORBIT MULTI-AXIS RCS BURN (ORB OPS, RCS)			
16:00				NC5				
					< NC5 TIG (00:40)			
					PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)			
					PMC:NETMEETING VID CONF(ORB OPS, PGSC) Omit VLHS item in Step 1, Omit Step 3 Use A/G for audio & KFX PGSC			OCA-PMC
17:00					PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)			
18:00				Z L V				
19:00				X V V	SLEEP	SLEEP	SLEEP	
04:00								

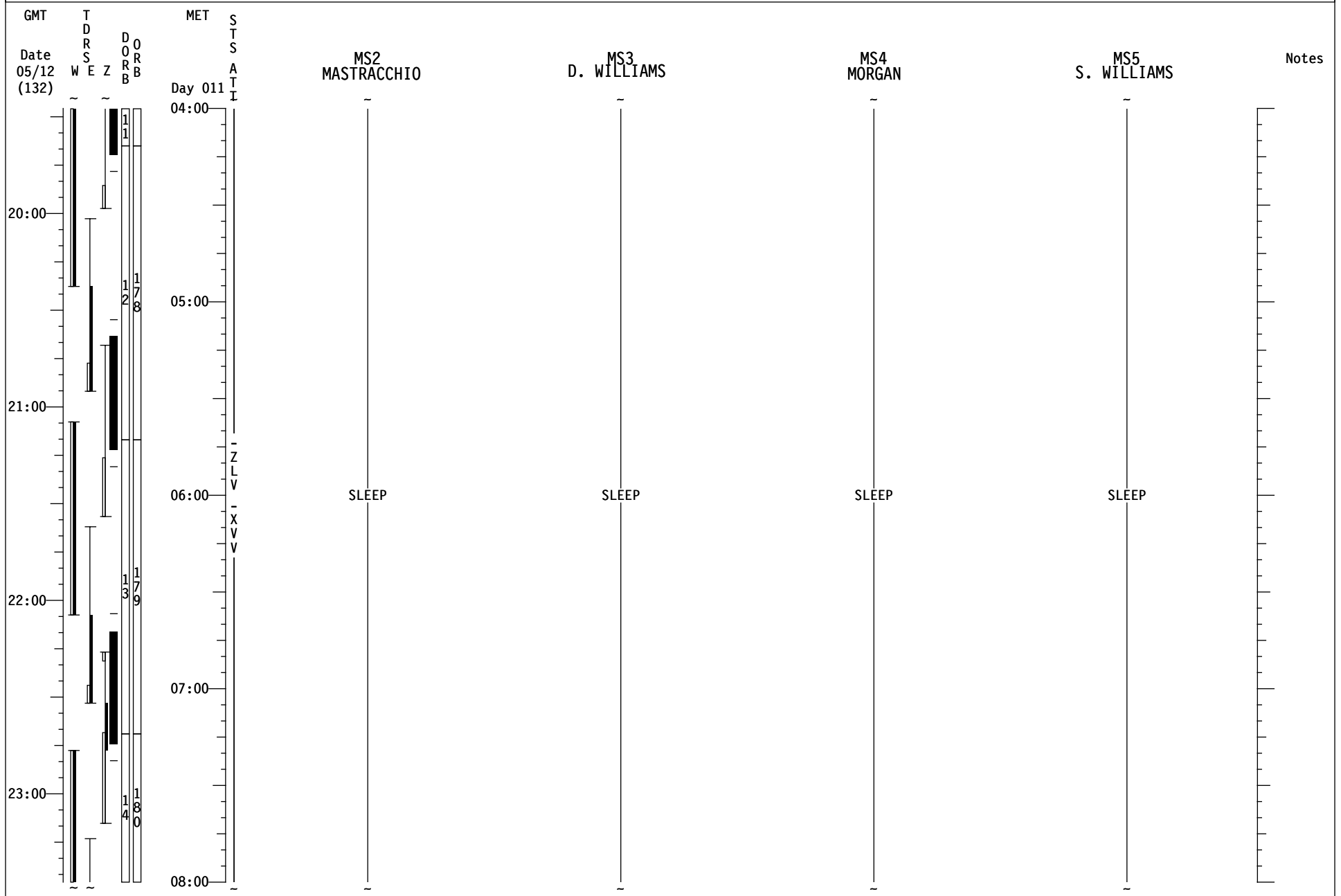
STS-118 FD12



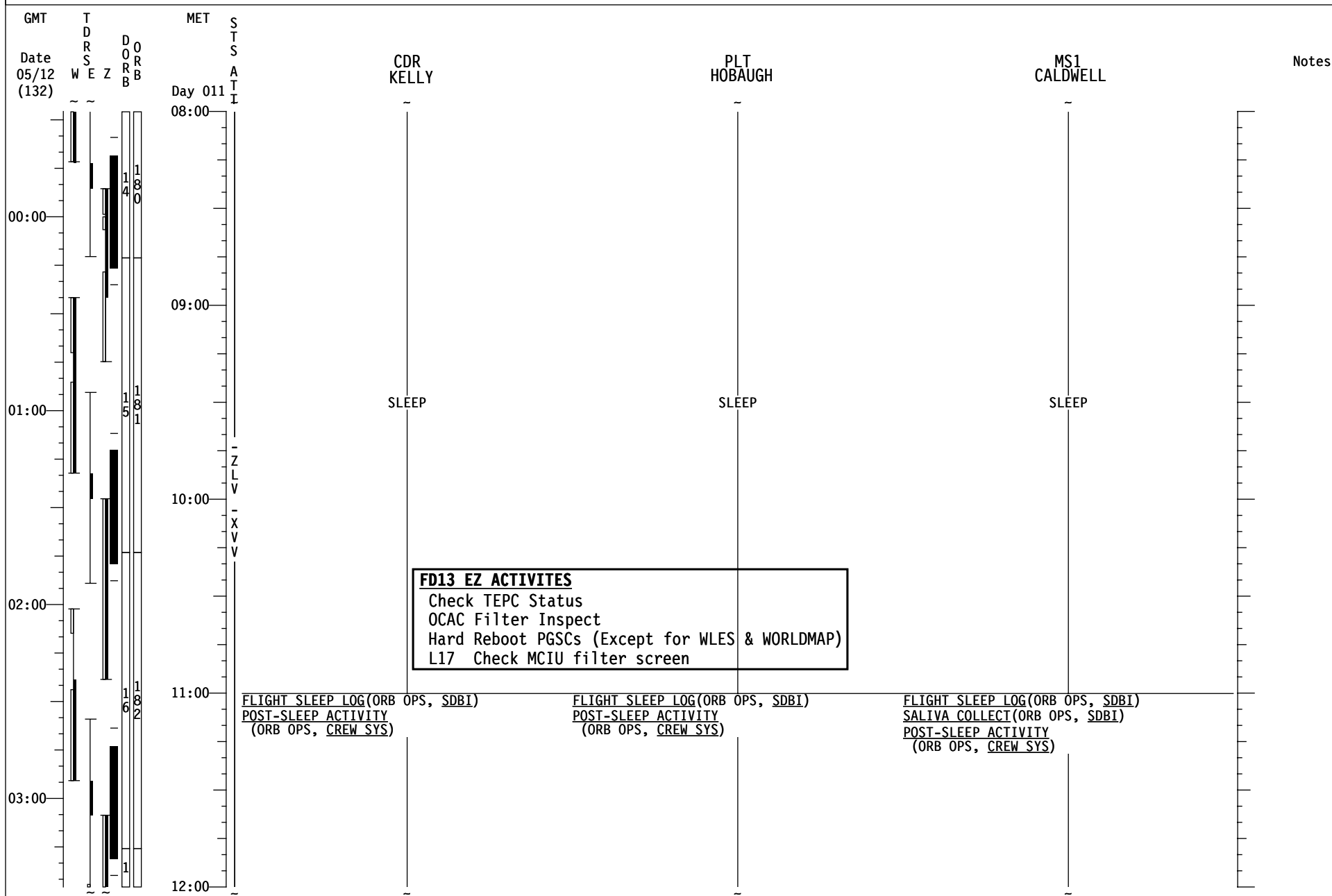
STS-118 FD12



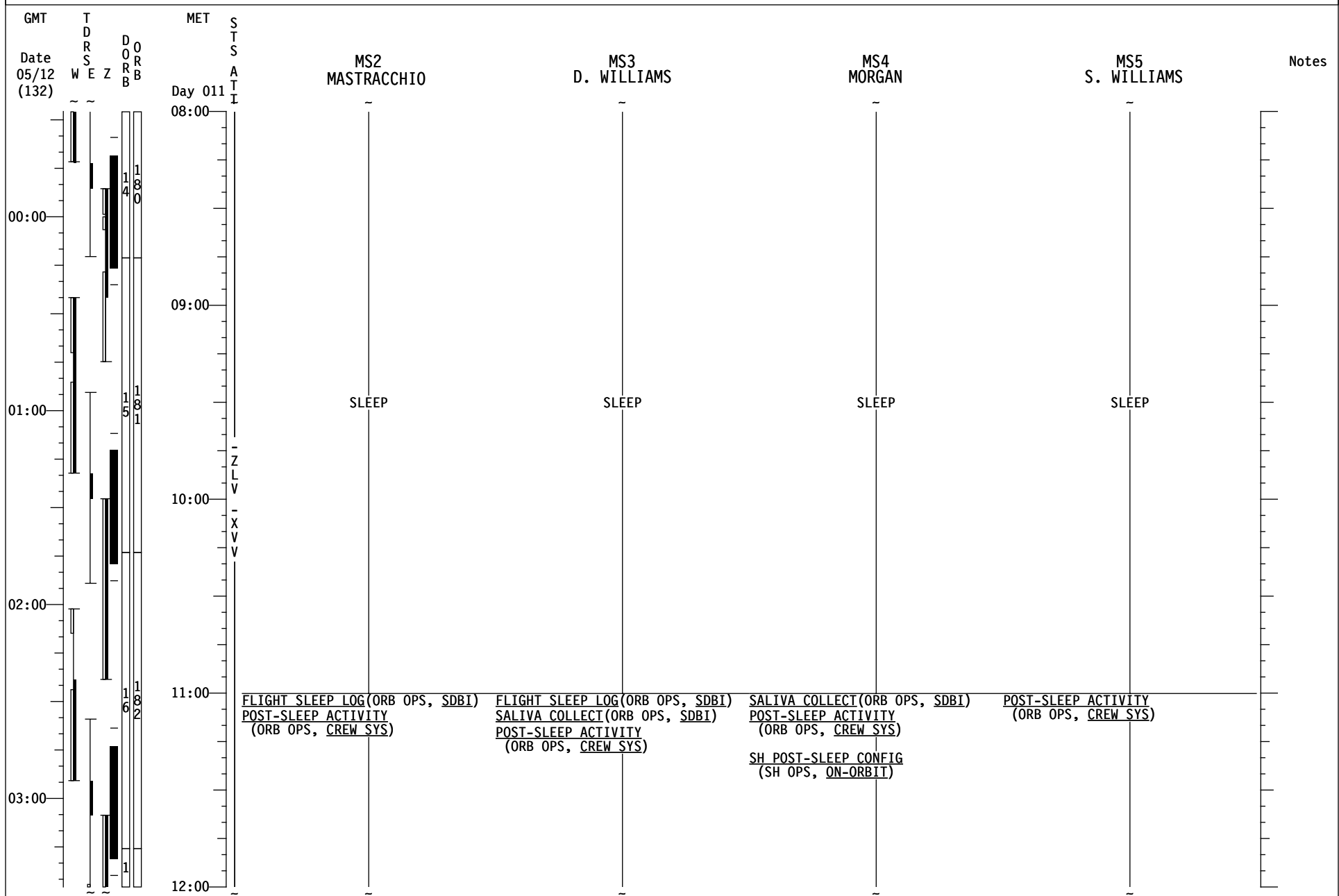
STS-118 FD12



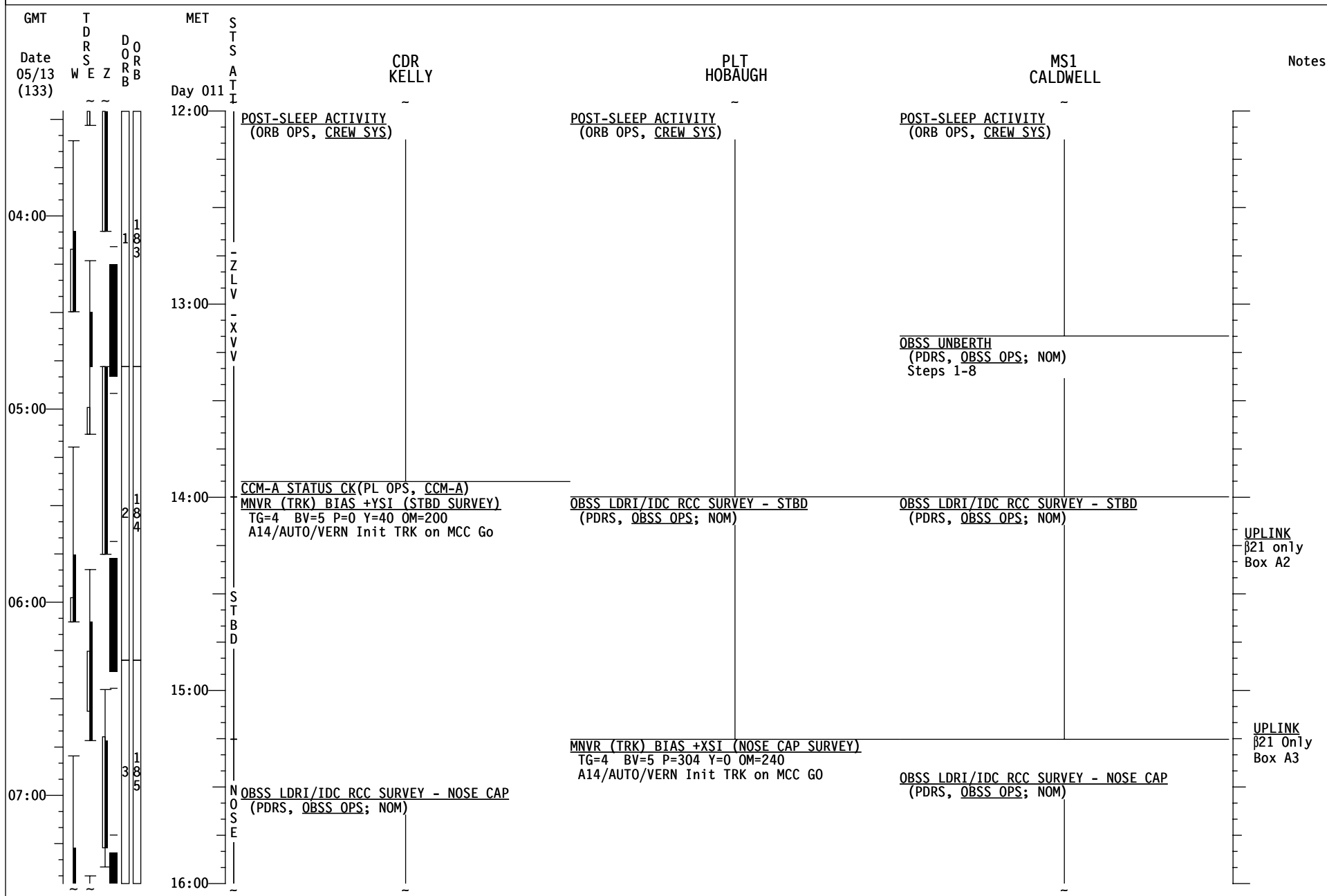
STS-118 FD13



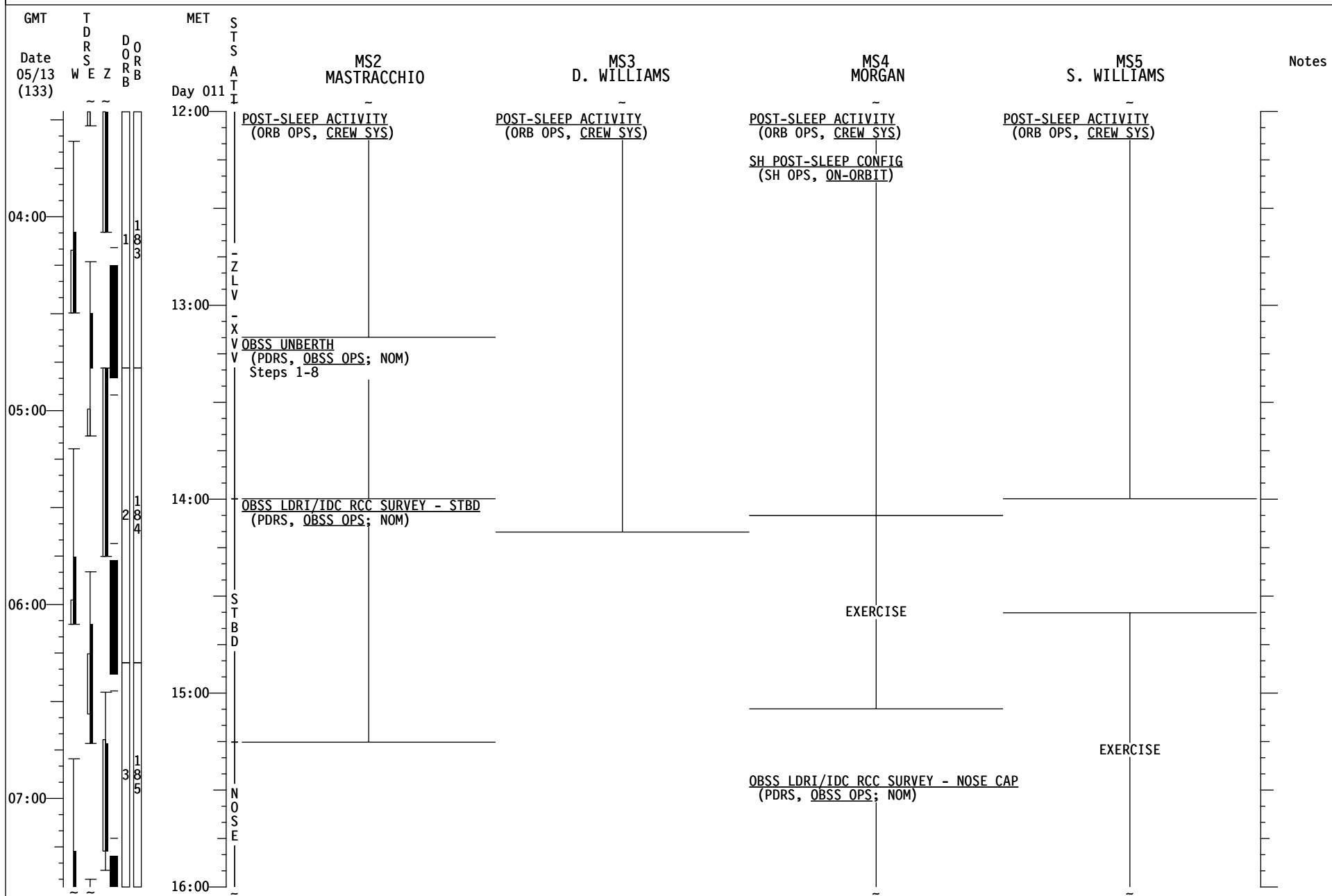
STS-118 FD13



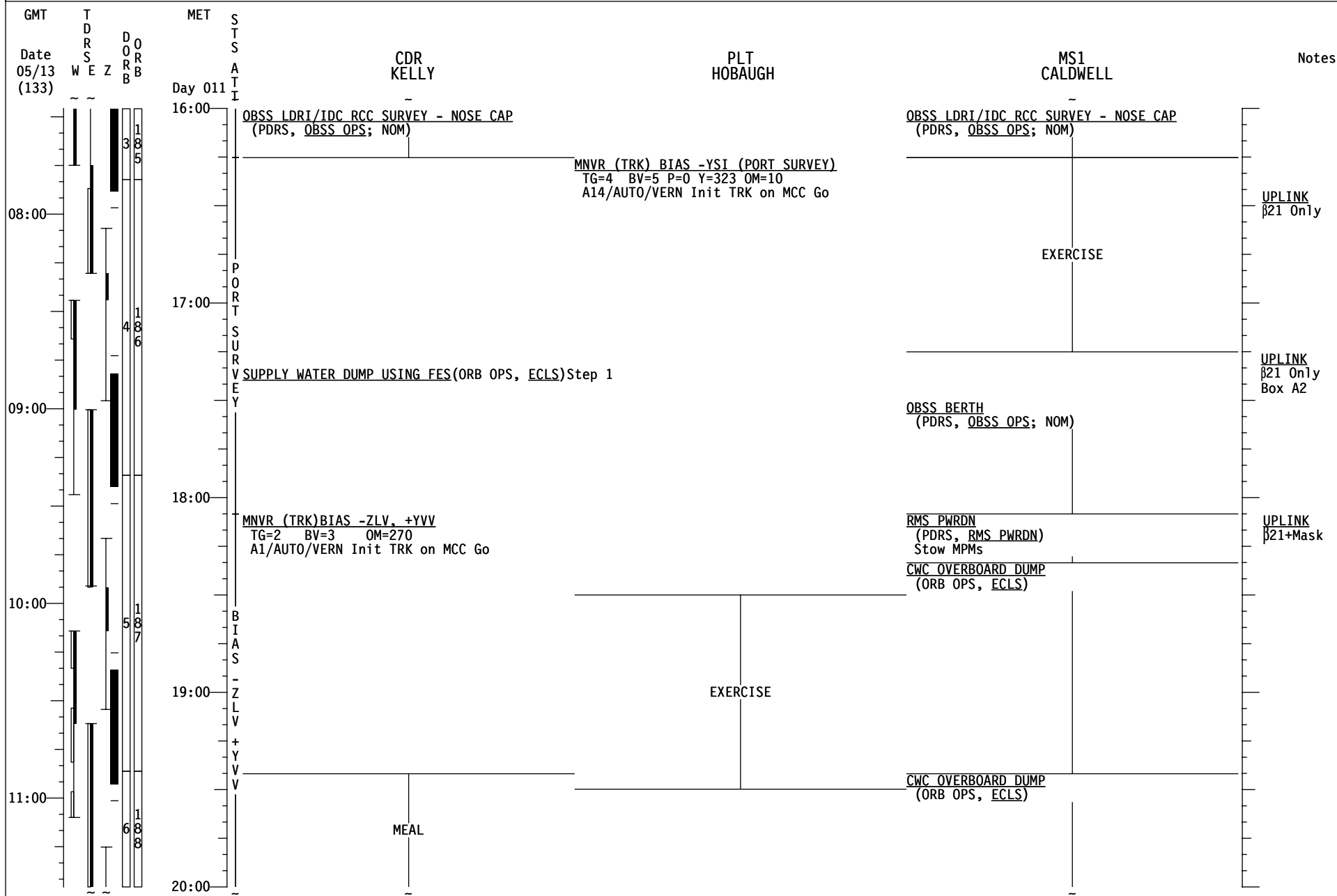
STS-118 FD13



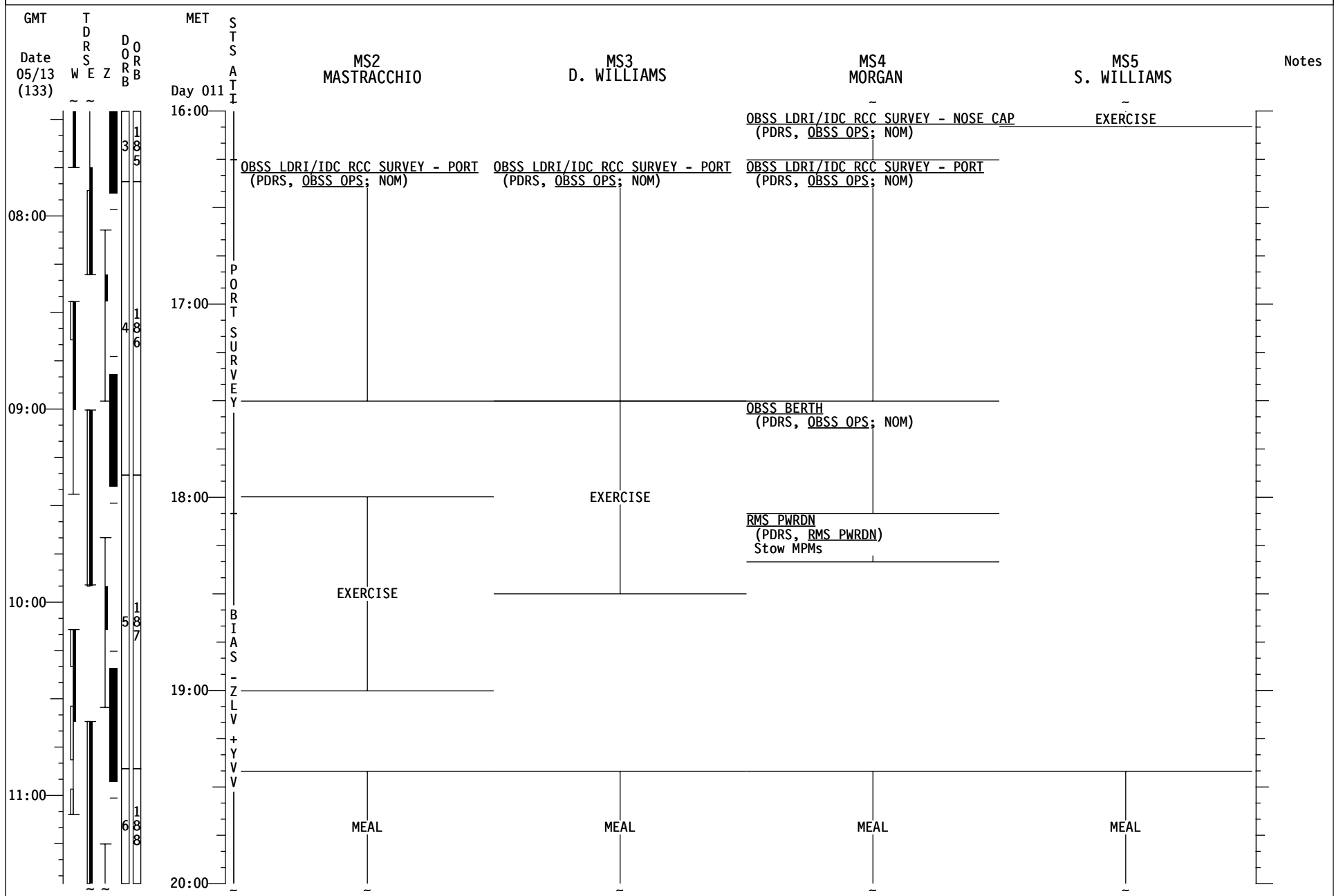
STS-118 FD13



STS-118 FD 13



STS-118 FD 13



STS-118 FD13

GMT	TDRS W E Z	DORB	MET	S T S A T I	Crew	Notes
Date 05/13 (133)			Day 011		CDR KELLY	
20:00					MEAL	
12:00		188				<u>CWC OVERBOARD DUMP</u> (ORB OPS, ECLS)
		688				
		188				
		688				
21:00					MEAL	
						MEAL
13:00		189				
		789				
		189				
		789				
22:00					EXERCISE	
14:00						
23:00						<u>PUBLIC AFFAIRS EVENT</u> KU AVAIL: 22:55-23:15
15:00		190				
		890				
		190				
		890				
00:00						<u>PRE-SLEEP ACTIVITY</u> (ORB OPS, CREW SYS)

MNVR (TRK) SUN TRACK (LDRI Downlink)
TG=4 BV=5 P=114 Y=0 OM=190
A1/AUTO/VERN (20:35) Init TRK

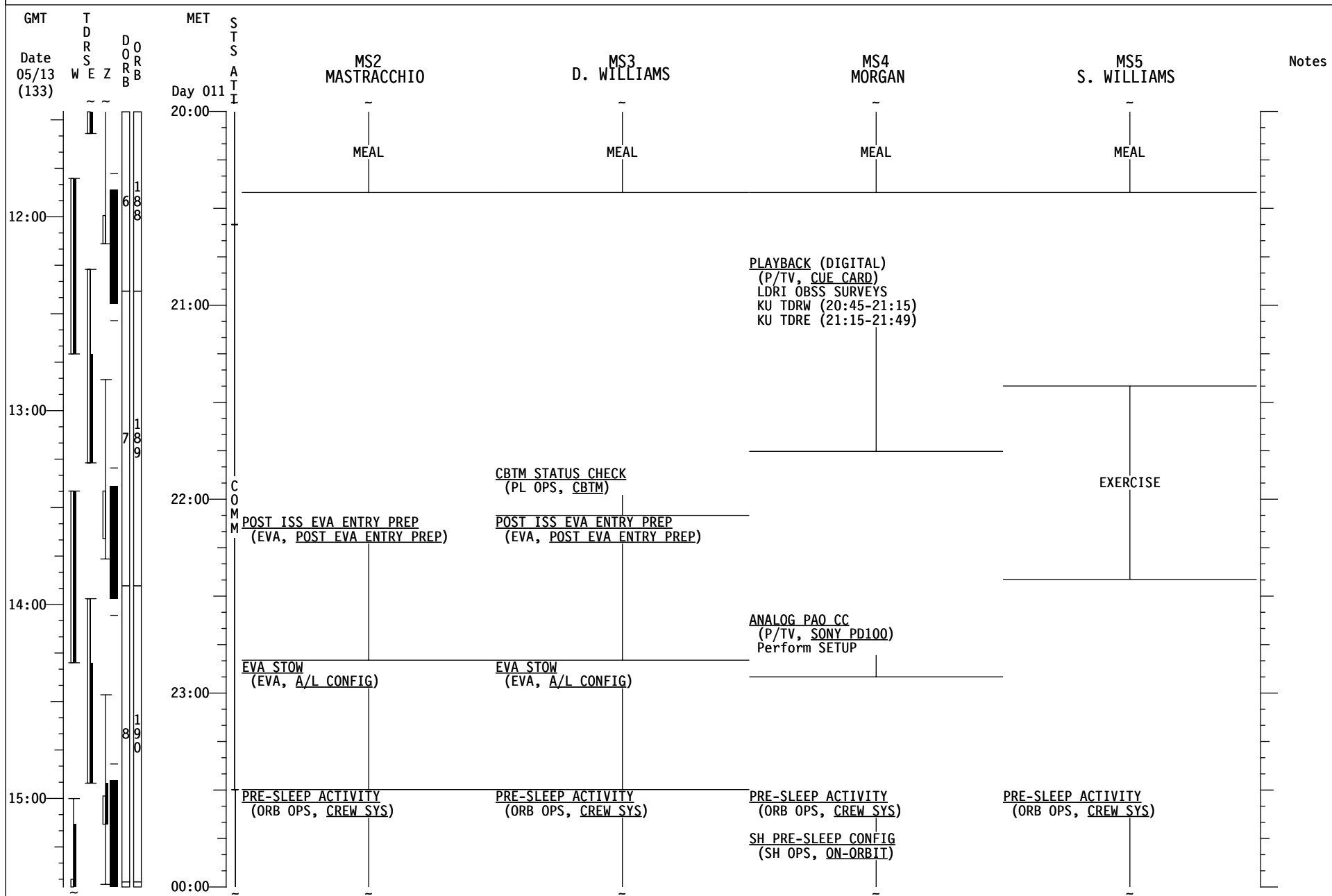
COMM STRING 1 C/O (PART A)
(ORB OPS, COMM/INST)

PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)
CCM-A STATUS CK(PL OPS, CCM-A)
SUPPLY WATER DUMP USING FES(ORB OPS, ECLS)
Perform Step 2 w/FES reqd
MNVR (TRK) -ZLV, -XVV
TG=2 BV=3 OM=0
A1/AUTO/VERN Init TRK

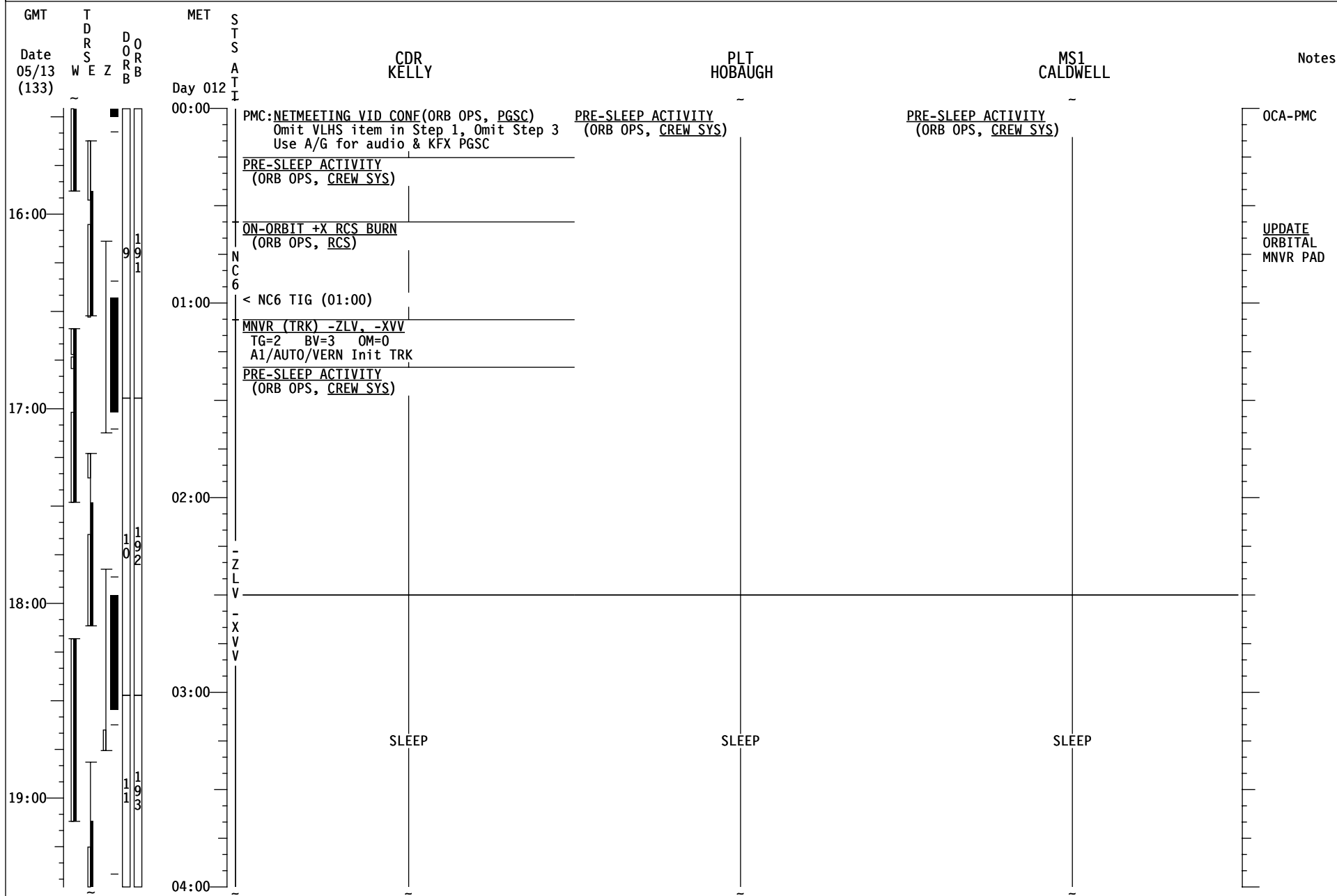
PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

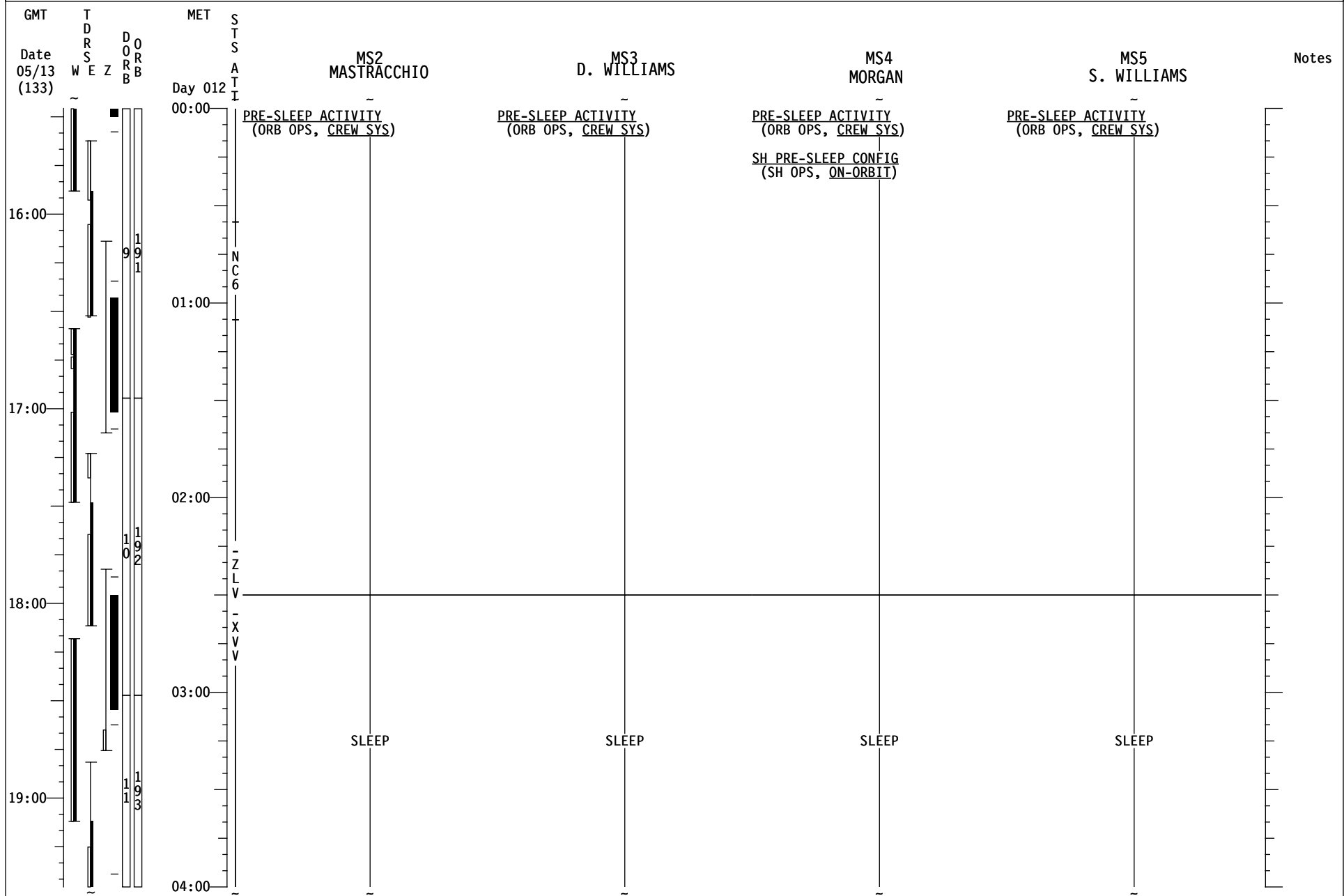
STS-118 FD 13



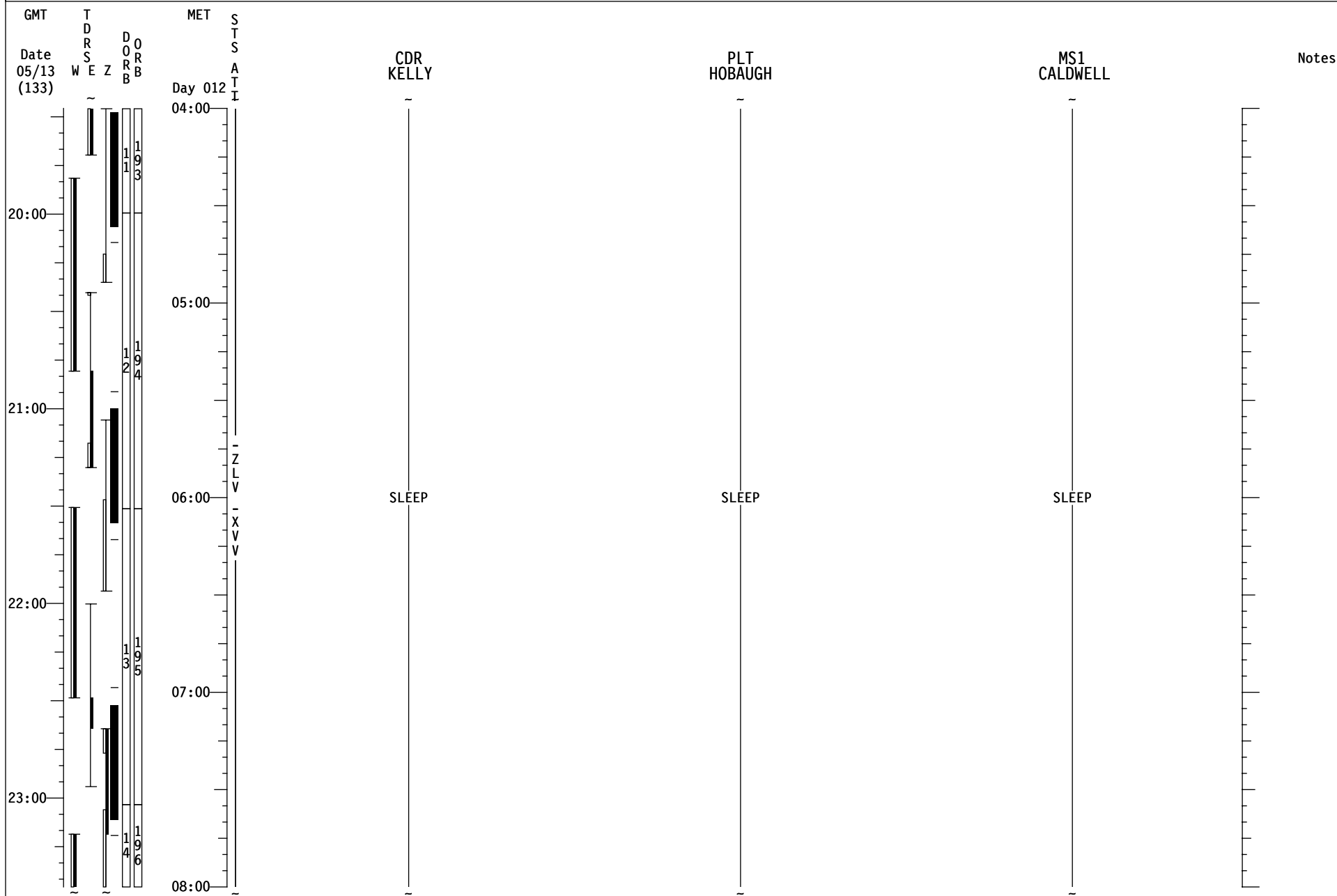
STS-118 FD 13



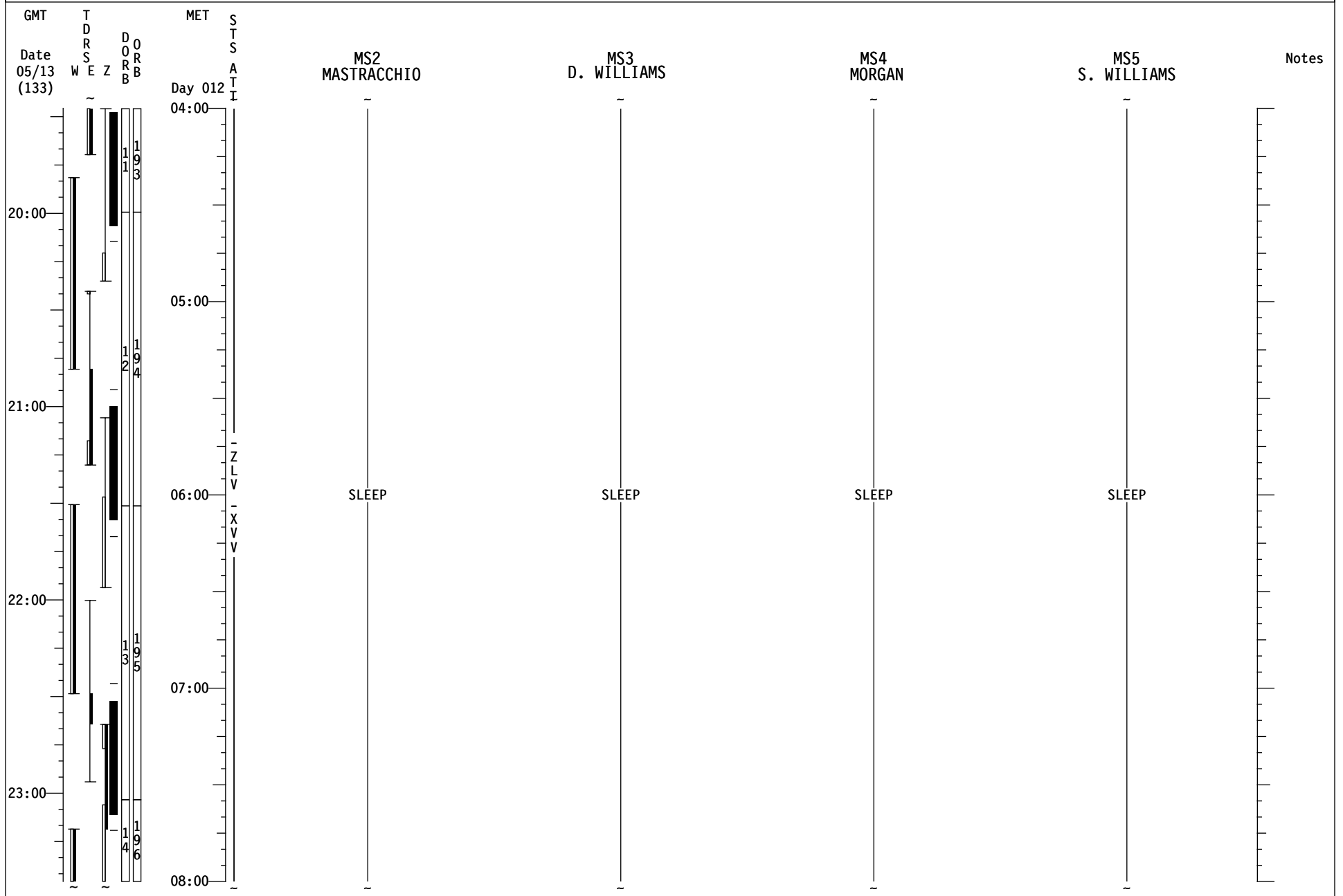
STS-118 FD13



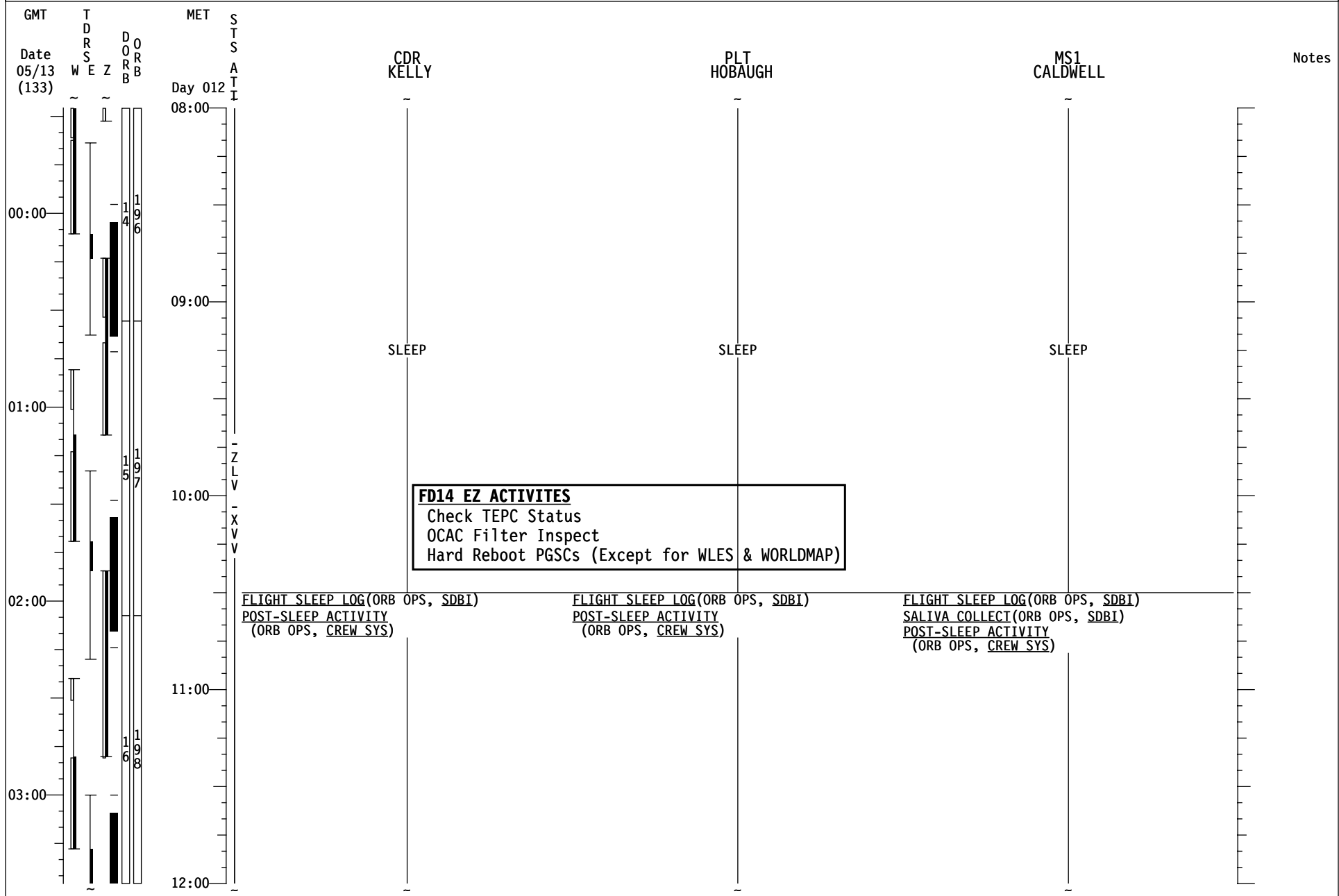
STS-118 FD13



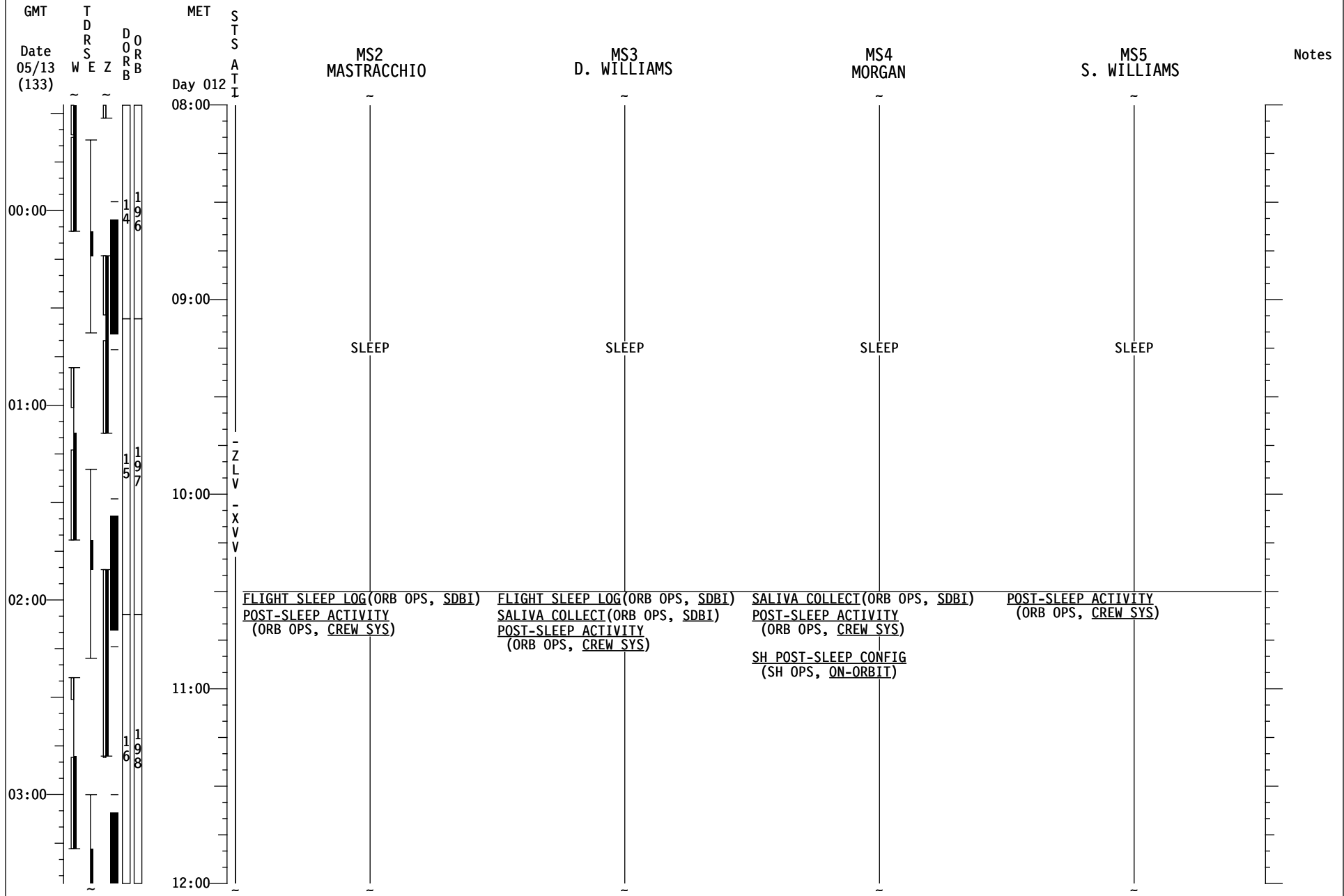
STS-118 FD13



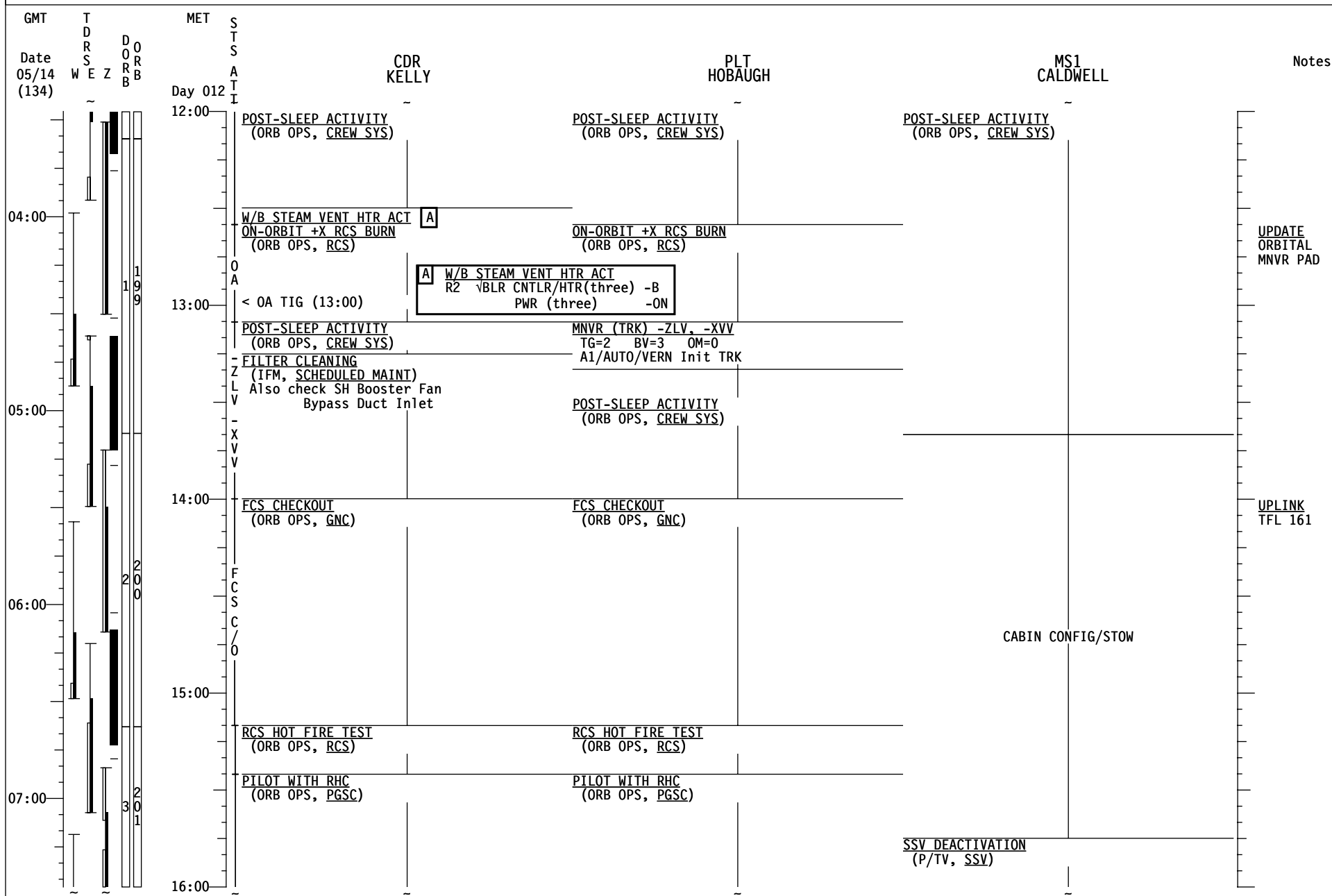
STS-118 FD14



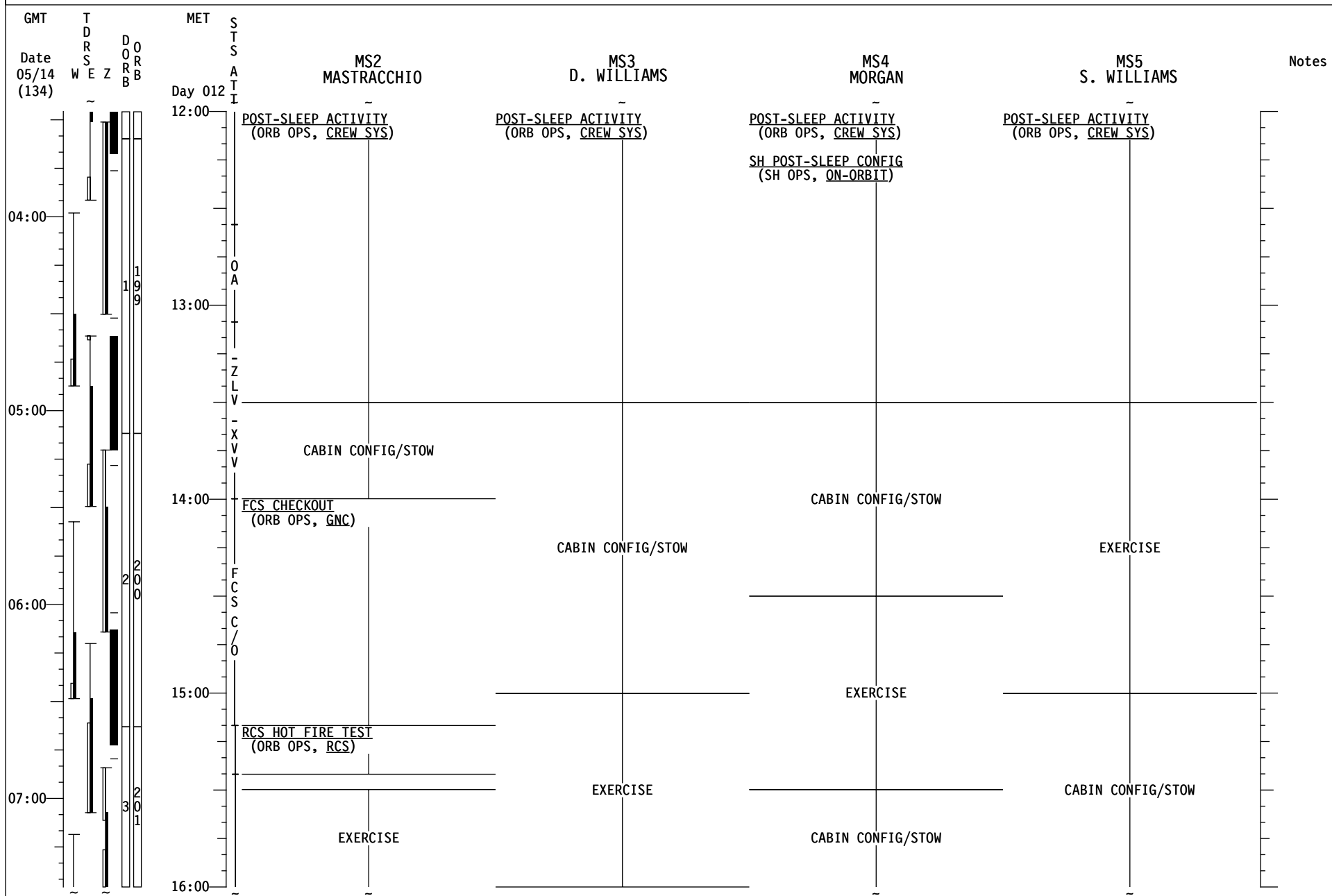
STS-118 FD14



STS-118 FD14



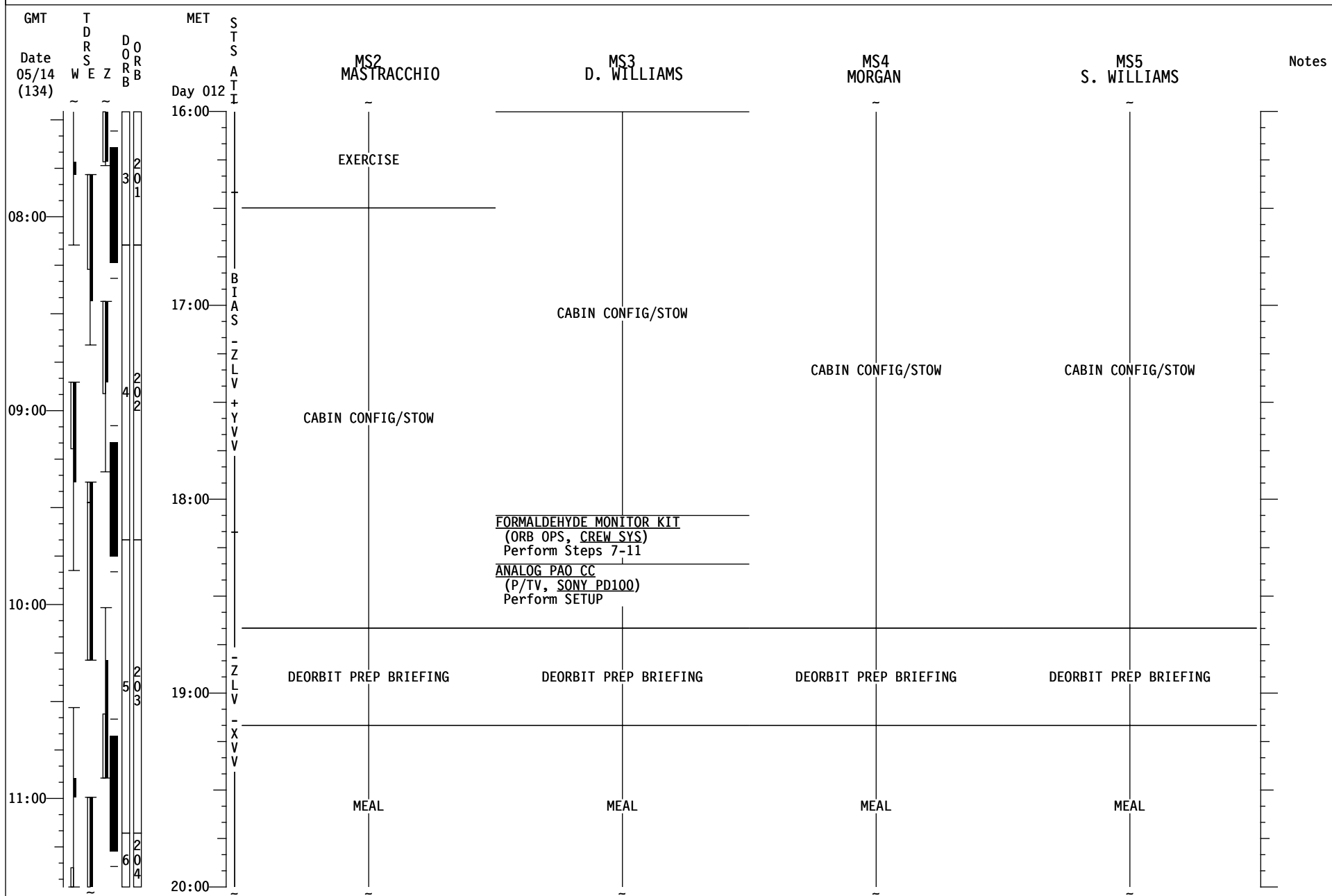
STS-118 FD14



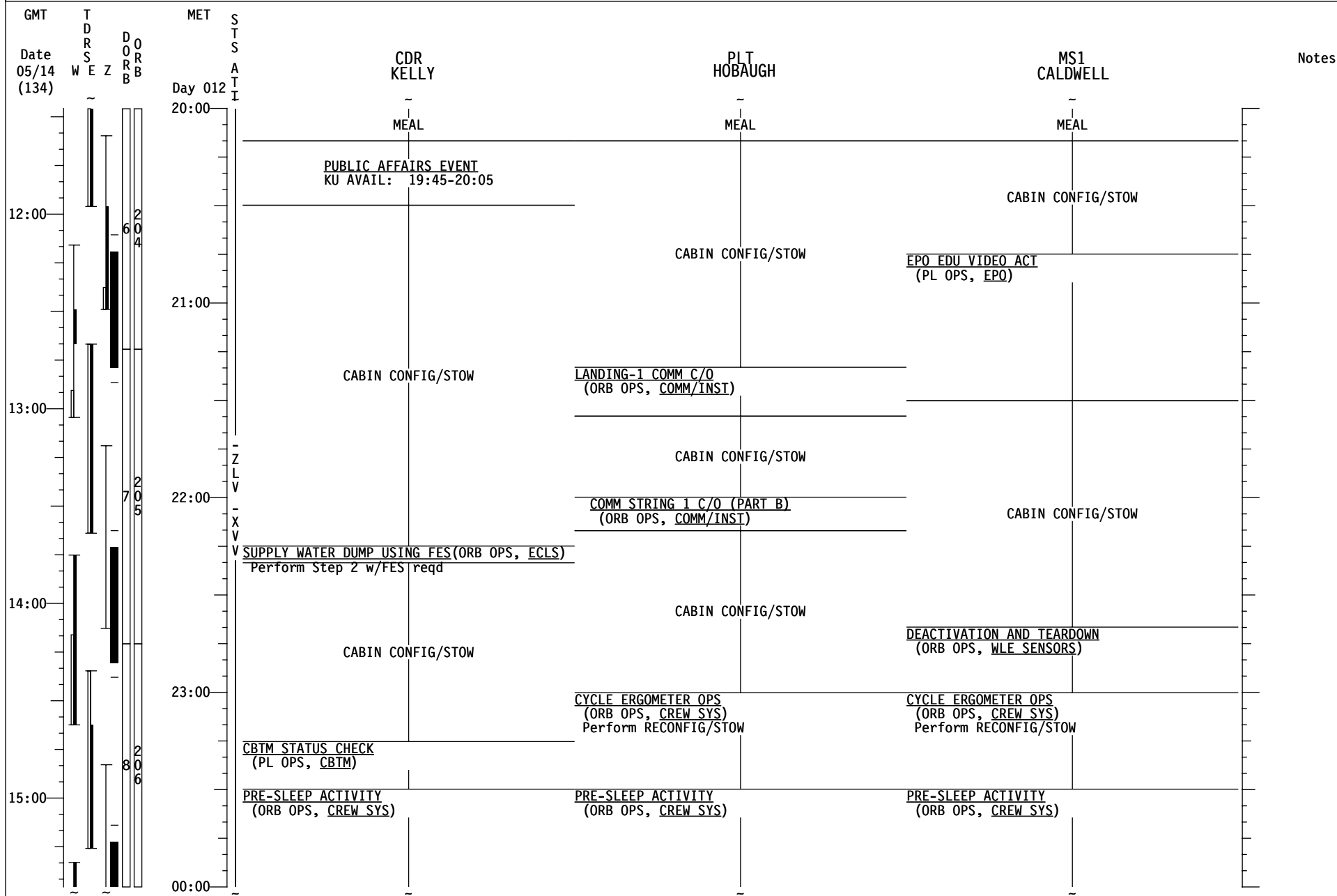
STS-118 FD 14

GMT	TDRS W E Z	DORB	MET	STS A T I	CDR KELLY	PLT HOBAUGH	MS1 CALDWELL	Notes
Date 05/14 (134)			Day 012					
16:00					PILOT WITH RHC (ORB OPS, PGSC)	PILOT WITH RHC (ORB OPS, PGSC)	SSV DEACTIVATION (P/TV, SSV)	
08:00					CCM-A STATUS CK(PL OPS, CCM-A)	MNVR (TRK) -ZLV, +YVV TG=2 BV=3 OM=270 A1/AUTO/VERN Init TRK	EXERCISE	UPDATE H2O WASTE DUMP QTY
						SUPPLY/WASTE WATER DUMP (ORB OPS, ECLS) Initiate Waste Dump		
17:00					EXERCISE	CABIN CONFIG/STOW		
09:00						EXERCISE		
18:00					SUPPLY/WASTE WATER DUMP (ORB OPS, ECLS) Terminate Waste Dump		CABIN CONFIG/STOW	
					MNVR (TRK) -ZLV, -XVV TG=2 BV=3 OM=0 A/AUTO/VERN Init TRK	LANDING-1 COMM C/O (ORB OPS, COMM/INST)		
10:00					SUPPLY WATER DUMP USING FES(ORB OPS, ECLS) Step 1			
19:00					DEORBIT PREP BRIEFING	DEORBIT PREP BRIEFING	DEORBIT PREP BRIEFING	
11:00					MEAL	MEAL	MEAL	
20:00								

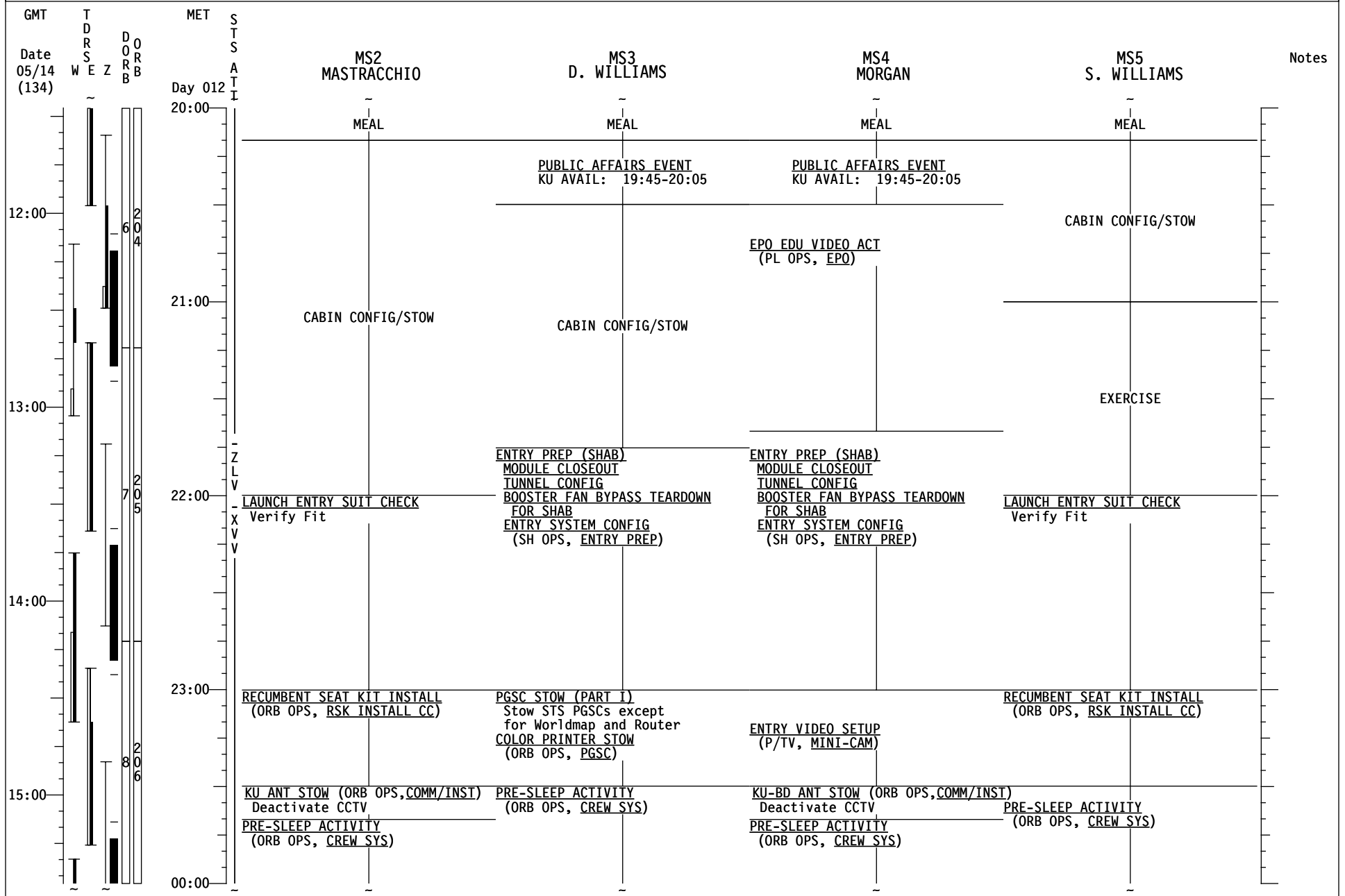
STS-118 FD 14



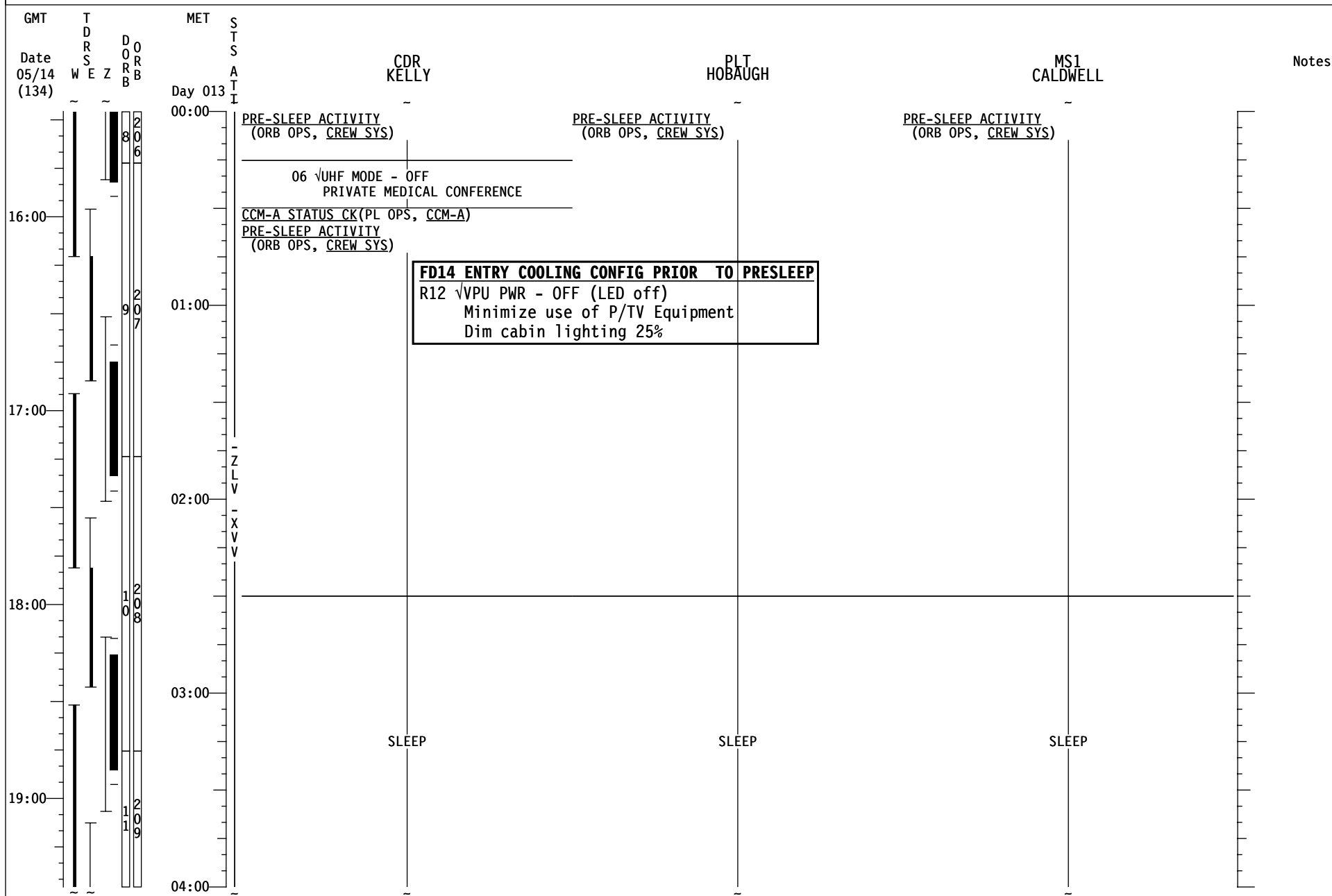
STS-118 FD 14



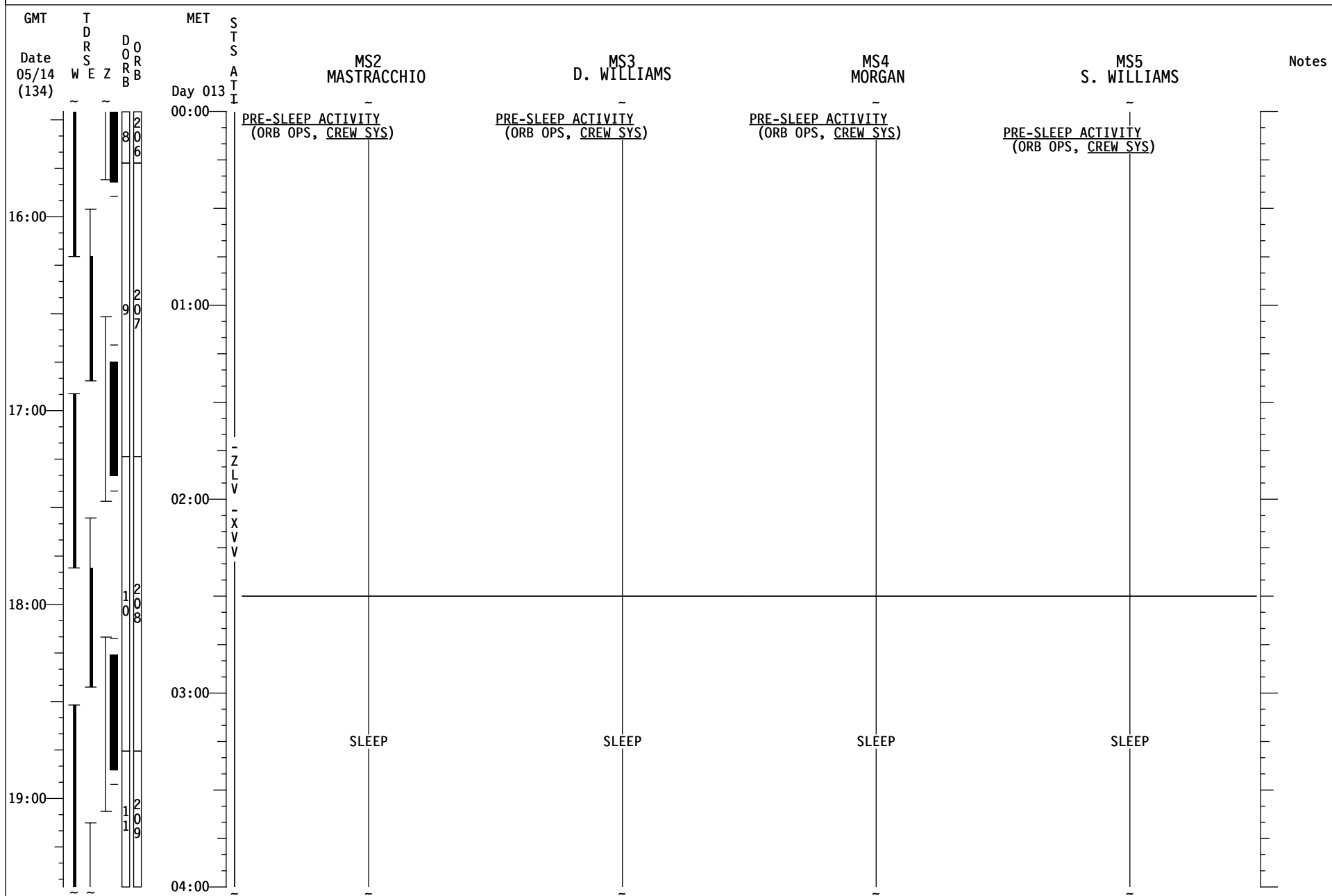
STS-118 FD 14



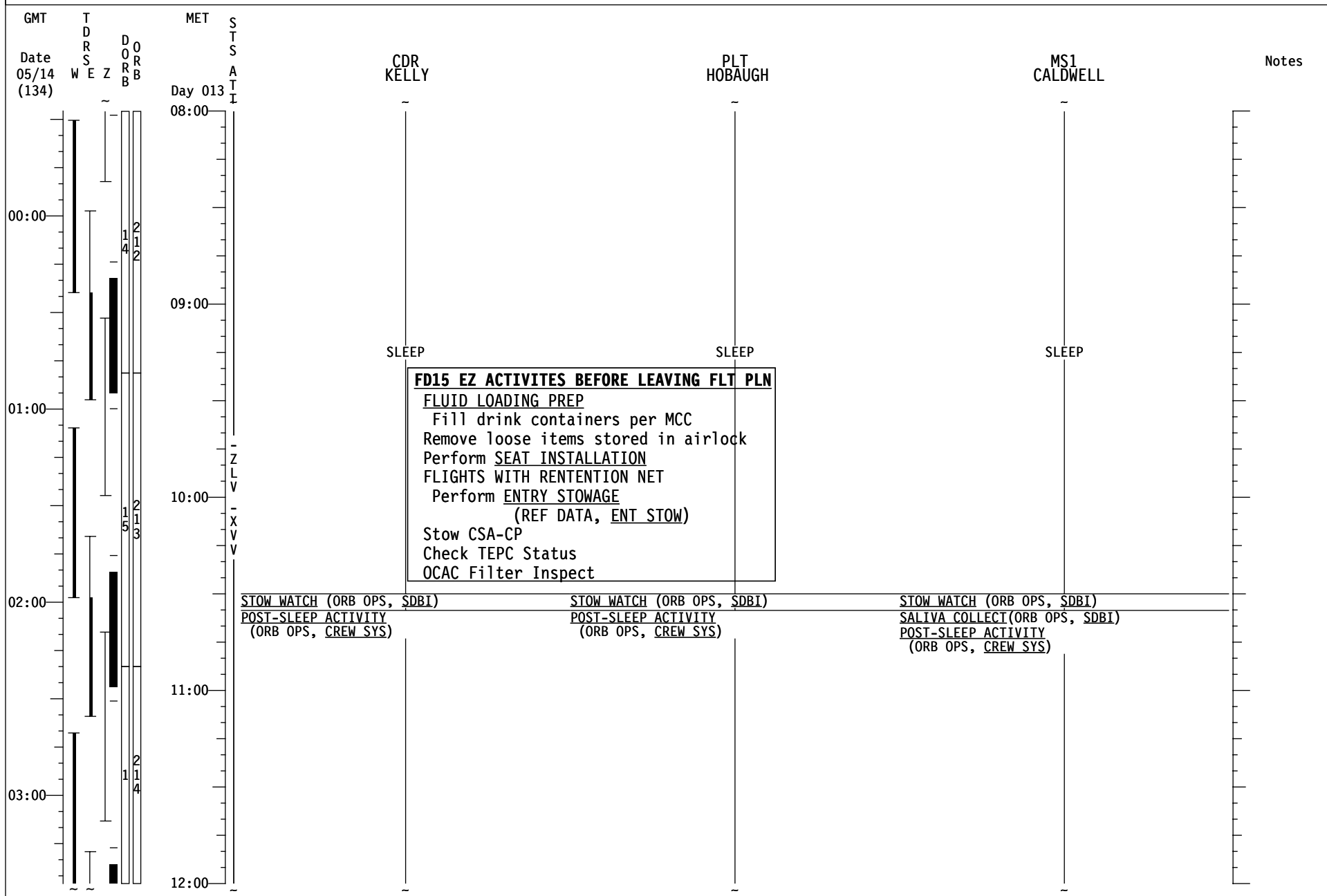
STS-118 FD 14



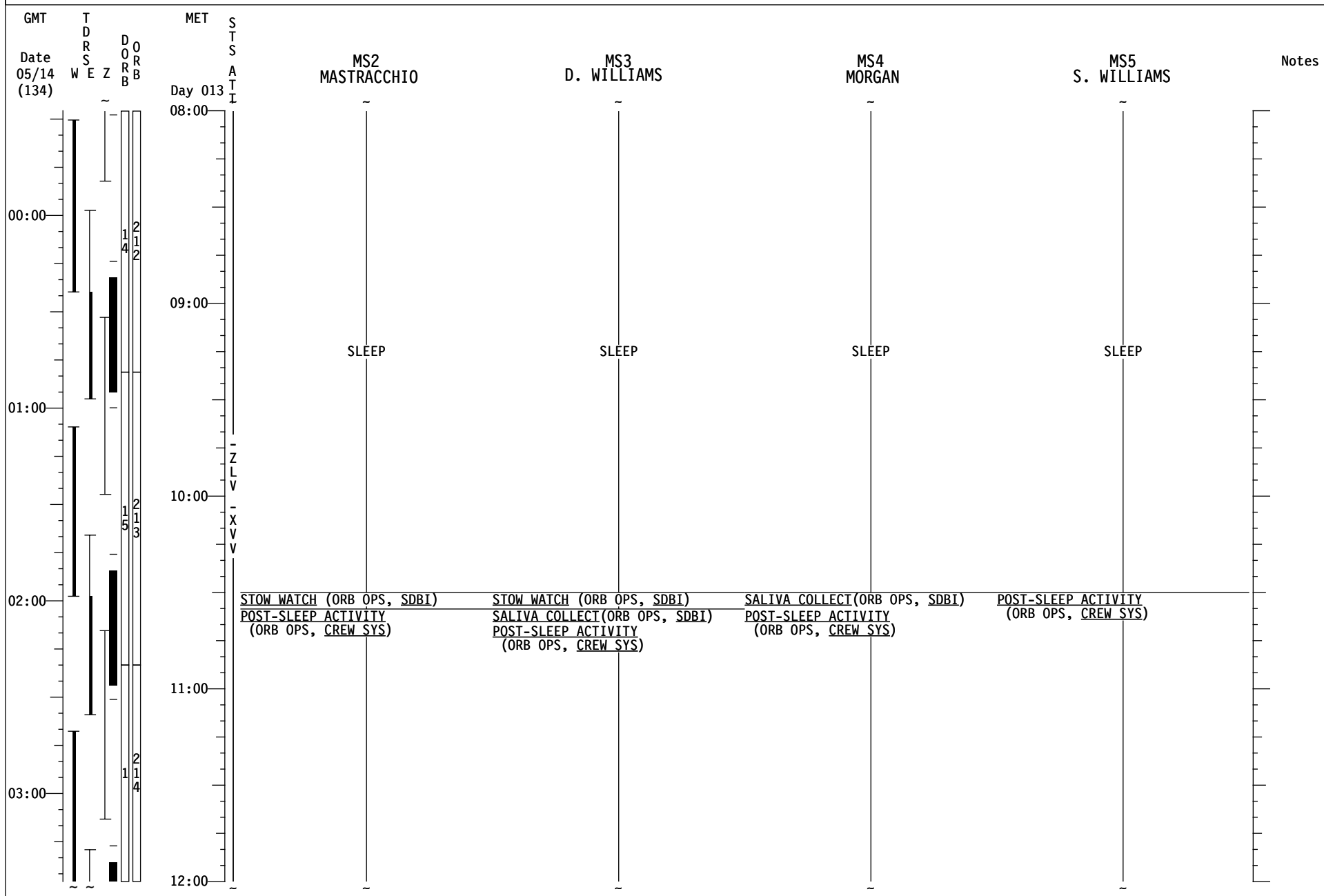
STS-118 FD14



STS-118 FD15



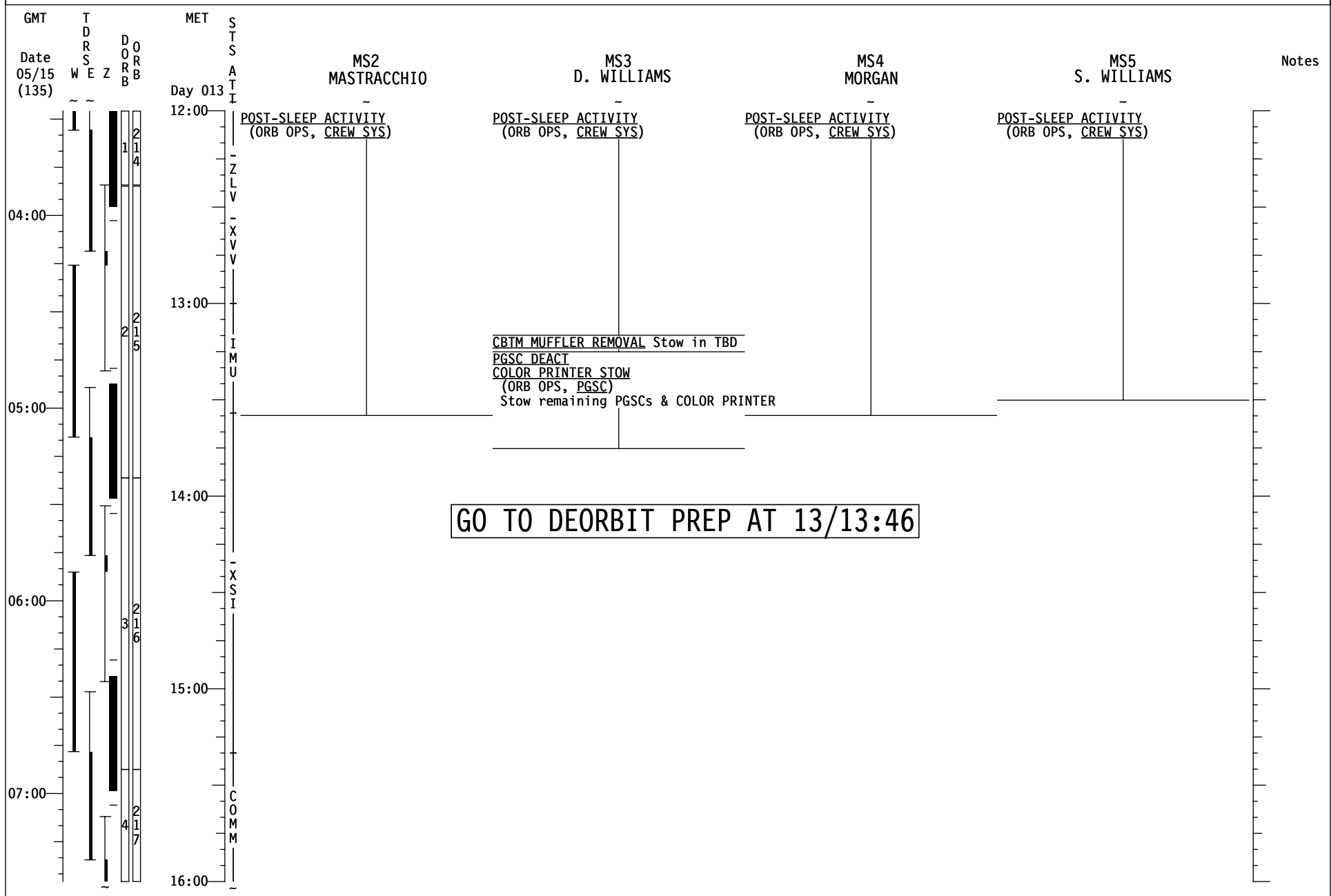
STS-118 FD15



STS-118 FD15

GMT	T D R S W E Z	D O R B 1 1 4	MET	S T S A T T	CDR KELLY	PLT HOBAUGH	MS1 CALDWELL	Notes
Date 05/15 (135)			Day 013					
12:00					POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	UPLINK FC PURGE
04:00					06 UHF MODE - OFF PRIVATE MEDICAL CONFERENCE			
					POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)			
					PRIORITY PWRUP GRP B(OPCL, PRIOR PWRDN) Dual G2 (In step 12, Recover IMU TBD)	PRIORITY PWRUP GRP B(OPCL, PRIOR PWRDN) Dual G2 (In step 12, Recover IMU TBD)		
13:00					MNVR IMU STAR ALIGN ATT [A] (pg.3-166) A1/AUTO/VERN (13:00) Init MNVR IMU ALIGN - S TRK (ORB OPS, GNC)	AIR SAMPLE; Rcd MET and loc. on bottle GIRA STOWAGE (ORB OPS, ECLS)		
					MNVR IMU VERIF ATT [B] (pg.3-166) A1/AUTO/VERN (13:15) Init MNVR IMU ALIGN - S TRK (ORB OPS, GNC) Step 5	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	OCAC STOWAGE (ORB OPS, CREW SYS)	
05:00					MNVR (TRK) -XSI ATT TG=4 BV=5 P=184 Y=0 OM=90 A1/AUTO/VERN (13:37) Init TRK		TISSUE EQUIV PROPRTL COUNTER (TEPC) (ORB OPS, CREW SYSTEMS) Perform POWERDOWN	
					GO TO DEORBIT PREP AT 13/13:46			
14:00								
06:00								
07:00								
16:00								

STS-118 FD15



A	IMU STAR ALIGN PAD		
ID: -Y: 25, REGULUS MET (13/12:55 TO 13/13:45)			
-Z: 34, MIAPLACIDUS MET (13/13:05 TO 13/13:54)			
ANG DIFF: 82.3			
DUAL S TRKR ALIGNMENT		2nd ATTITUDE (SINGLE S TRKR) -Z: 25 -Y: 34	
R 160	R 91	226	
P 175	P 192	153	
Y 310	Y 300	305	
REQD ID:			
-Y: ____, -Z: ____, ANG ERR ____, ____, ____,			
ANG: 1 2 3			
ΔX () ____, ____, ____, () ____, ____, ____, () ____, ____, ____,			
ΔY () ____, ____, ____, () ____, ____, ____, () ____, ____, ____,			
ΔZ () ____, ____, ____, () ____, ____, ____, () ____, ____, ____,			
EXECUTION TIME: __/__:__:__ MET			

B	IMU VERIFICATION STAR ALIGN PAD		
ID: -Y: 28, AL NA'IR MET (13/13:25 TO 13/14:07)			
-Z: 48, ZUBENESCHEM MET (13/13:22 TO 13/14:05)			
ANG DIFF: 91.7			
DUAL S TRKR ALIGNMENT		2nd ATTITUDE (SINGLE S TRKR) -Z: 28 -Y: 48	
R 301	R 211	22	
P 117	P 118	134	
Y 28	Y 43	26	
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			

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

This Page Intentionally Blank

ATTITUDE TIMELINE

This Page Intentionally Blank

Attitude Timeline

MET/GMT	ORBITER		REF ATT/REMARKS	EVENT
	MNVR OPTION	DAP E/S/ β		
1 000/00:37:46 M 121/16:05:10 G	M50 (CALC) INRTL R = 29.00 MNVR P = 123.00 PYR Y = 331.00 MNVR TRN/AUTO/PRI HOLD (same)	RATE 0.5000 DB AT 3.50 DB RT 0.20 SUN R 128 P 147 $\beta = -25$	+X PYR R = 359.85 P = 12.26 Y = 0.07 LVLH 000/00:38:20 M 121/16:05:44 G	OMS-2 Posigrade Heads Up TIG 0/00:37
2 000/01:12:00 M 19:36 121/16:39:24 G 47:00	LVLH TRACK TGT = 2 P = 90.00 BV = 3 Y = 0.00 OM = 87.00 MNVR A5/AUTO/ALT HOLD (same)	RATE 0.2000 DB AT 5.00 DB RT 0.070 EARTH R 0 P 90 $\beta = -25$	LVLH R= 0.00 P=180.00 Y=273.00	-ZLV -YVV PLBD Opening
3 000/03:15:00 M 25:16 121/18:42:24 G 52:40	M50 (CALC) INRTL R = 194.00 MNVR P = 96.00 PYR Y = 322.00 MNVR B1/AUTO/VERN HOLD (same)	RATE 0.2000 DB AT 1.000 DB RT 0.020 SUN R 326 P 129 $\beta = -25$	+X PYR R = 179.50 P = 348.18 Y = 0.18 LVLH 000/03:35:00 M 121/19:02:24 G	NC-1 Posigrade Heads Down TIG 0/03:35
4 000/03:40:00 M 54:59 121/19:07:24 G 22:23	LVLH TRACK TGT = 2 P = 90.00 BV = 3 Y = 0.00 OM = 0.00 MNVR A1/AUTO/VERN HOLD (same)	RATE 0.2000 DB AT 1.000 DB RT 0.020 EARTH R 0 P 90 $\beta = -25$	LVLH R= 0.00 P=180.00 Y= 0.00	-ZLV -XVV
5 000/08:00:00 M 121/23:27:24 G	MNVR			MNVR Duration: 01:30
6 000/16:35:00 M 50:00 122/08:02:24 G 17:24	M50 (CALC) INRTL R = 139.00 MNVR P = 334.00 PYR Y = 6.00 MNVR B1/AUTO/VERN HOLD (same)	RATE 0.2000 DB AT 1.000 DB RT 0.020 SUN R 300 P 31 $\beta = -27$	+X PYR R = 180.08 P = 348.18 Y = 0.41 LVLH 000/15:57:00 M 122/07:24:24 G	NC-2 Posigrade Heads Down TIG 0/16:57
7 000/17:00:00 M 09:50 122/08:27:24 G 37:14	LVLH TRACK TGT = 2 P = 90.00 BV = 3 Y = 0.00 OM = 165.00 MNVR A1/AUTO/VERN HOLD A14/AUTO/VERN	RATE 0.2000 DB AT 1.000 DB RT 0.020 EARTH R 0 P 90 $\beta = -27$	LVLH R=180.00 P= 0.00 Y=345.00	Bias -ZLV +XVV OBSS Unberth
8 000/17:45:00 M 52:40 122/09:12:24 G 20:04	TGT= 4 BV = 5 P = 0.00 Y = 40.00 OM = 190.00 MNVR A14/AUTO/VERN HOLD (same)	RATE 0.2000 DB AT 3.000 DB RT 0.200 SUN R 90 P 40 $\beta = -27$	INRTL R=100.98 P= 33.08 Y= 59.69 RA= 38.381 DEC= 15.072N	STBD Wing Survey
9 000/19:30:00 M 37:48 122/10:57:24 G 11:05:12	TGT= 4 BV = 5 P = 304.00 Y = 0.00 OM = 240.00 MNVR A14/AUTO/VERN HOLD A14/AUTO/ALT	RATE 0.2000 DB AT 3.000 DB RT 0.200 SUN R 180 P 56 $\beta = -27$	INRTL R=216.80 P=284.89 Y= 11.79 RA= 38.451 DEC= 15.094N	Nose Cap Survey
10 000/20:30:00 M 41:09 122/11:57:24 G 12:08:33	TGT= 4 BV = 5 P = 0.00 Y = 323.00 OM = 345.00 MNVR A14/AUTO/VERN HOLD (same)	RATE 0.2000 DB AT 3.000 DB RT 0.200 SUN R 270 P 37 $\beta = -27$	INRTL R=263.70 P= 29.42 Y= 43.84 RA= 38.490 DEC= 15.106N	PORT Wing Survey

ALL ORBITER DATA IN
MEAN OF 1950 AND PYR EULER SEQUENCE

Attitude Timeline

MET/GMT	ORBITER		REF ATT/REMARKS	EVENT
	MNVR OPTION	DAP E/S/ β		
11 000/22:00:00 M 14:50 122/13:27:24 G 42:14	LVLH TRACK TGT = 2 P = 90.00 BV = 3 Y = 0.00 OM = 0.00 MNVR A14/AUTO/VERN HOLD (same)	RATE 0.2000 DB AT 3.000 DB RT 0.200 EARTH R 0 P 90 $\beta = -27$	LVLH R= 0.00 P=180.00 Y= 0.00	Bias -ZLV -XVV OBSS Berth
12 001/00:20:00 M 30:23 122/15:47:24 G 57:47	TGT= 4 BV = 5 P = 114.00 Y = 0.00 OM = 125.00 MNVR A1/AUTO/VERN HOLD (same)	RATE 0.2000 DB AT 1.000 DB RT 0.020 SUN R 0 P 114 $\beta = -28$	INRTL R= 50.02 P=293.52 Y=287.96 RA= 38.643 DEC= 15.155N	LDRI Ku Comm
13 001/02:30:00 M 44:40 122/17:57:24 G 18:12:04	M50 (CALC) INRTL R = 190.00 MNVR P = 232.00 PYR Y = 41.00 MNVR B1/AUTO/VERN HOLD (same)	RATE 0.2000 DB AT 1.000 DB RT 0.020 SUN R 210 P 78 $\beta = -28$	+X PYR R = 179.52 P = 349.65 Y = 359.84 LVLH 001/02:45:00 M 122/18:12:24 G	NC-3 Posigrade Heads Down TIG 1/02:45
14 001/02:55:00 M 03:10:00 122/18:22:24 G 37:24	LVLH TRACK TGT = 2 P = 90.00 BV = 3 Y = 0.00 OM = 0.00 MNVR A1/AUTO/VERN HOLD (same)	RATE 0.2000 DB AT 1.000 DB RT 0.020 EARTH R 0 P 90 $\beta = -28$	LVLH R= 0.00 P=180.00 Y= 0.00	-ZLV -XVV
15 001/13:15:00 M 22:30 123/04:42:24 G 49:54	LVLH TRACK TGT = 2 P = 90.00 BV = 3 Y = 0.00 OM = 270.00 MNVR A1/AUTO/VERN HOLD (same)	RATE 0.2000 DB AT 1.000 DB RT 0.020 EARTH R 0 P 90 $\beta = -29$	LVLH R= 0.00 P=180.00 Y= 90.00	-ZLV +YVV Waste Dump Future Load
16 001/15:05:00 M 16:58 123/06:32:24 G 44:22	M50 (CALC) INRTL R = 19.00 MNVR P = 93.00 PYR Y = 320.00 MNVR A7/AUTO/ALT HOLD (same)	RATE 0.2000 DB AT 2.00 DB RT 0.100 SUN R 141 P 129 $\beta = -29$	+X PYR R = 0.10 P = 12.11 Y = 359.84 LVLH 001/15:21:00 M 123/06:48:24 G	NH Posigrade Heads Up TIG 1/15:20
17 001/15:25:00 M 123/06:52:24 G	 HOLD A7/AUTO/ALT	RATE 0.2000 DB AT 2.00 DB RT 0.100 EARTH R 180 P 118 $\beta = -29$	LVLH R= 0.10 HOLD P= 28.33 Y=359.85	LVLH Hold for NC-4
18 001/16:00:00 M 03:40 123/07:27:24 G 31:04	M50 (CALC) INRTL R = 344.00 MNVR P = 268.00 PYR Y = 41.00 MNVR A7/AUTO/ALT HOLD (same)	RATE 0.2000 DB AT 2.00 DB RT 0.100 SUN R 38 P 55 $\beta = -29$	+X PYR R = 359.78 P = 11.89 Y = 359.95 LVLH 001/16:07:00 M 123/07:34:24 G	NC-4 Posigrade Heads Up TIG 1/16:06
19 001/16:10:00 M 19:27 123/07:37:24 G 46:51	EPH TARGET TGT = 1 P = 90.00 BV = 3 Y = 0.00 OM = 0.00 MNVR A1/AUTO/VERN HOLD (same)	RATE 0.2000 DB AT 1.000 DB RT 0.020 $\beta = -29$	LVLH R= 0.20 P=271.86 Y= 0.00 TGT VIDFILE: 118FOR_ISS VID #: 1	-Z Target Track
20 001/17:28:00 M 32:46 123/08:55:24 G 09:00:10	M50 (CALC) INRTL R = 343.00 MNVR P = 269.00 PYR Y = 41.00 MNVR A7/AUTO/ALT HOLD (same)	RATE 0.2000 DB AT 2.00 DB RT 0.100 SUN R 39 P 54 $\beta = -29$	+X PYR R = 359.69 P = 11.76 Y = 0.09 LVLH 001/17:38:00 M 123/09:05:24 G	Ti Posigrade Heads Up TIG 1/17:38

ALL ORBITER DATA IN
MEAN OF 1950 AND PYR EULER SEQUENCE

Attitude Timeline

MET/GMT	ORBITER		REF ATT/REMARKS	EVENT
	MNVR OPTION	DAP E/S/ β		
21 001/17:42:00 M 45:51 123/09:09:24 G 13:15	LVLH TRACK TGT = 2 P = 358.00 BV = 5 Y = 0.00 OM = 0.00 MNVR B7/AUTO/ALT HOLD A7/AUTO/VERN	RATE 0.5000 DB AT 2.00 DB RT 0.100 EARTH R 180 P 2 $\beta = -29$	LVLH R= 0.00 P=272.00 Y= 0.00	-Z Target Track
22 001/17:46:00 M 18:55:34 123/09:13:24 G 10:22:58	LVLH TRACK TGT = 2 P = 310.00 BV = 5 Y = 0.00 OM = 0.00 MNVR A7/AUTO/VERN HOLD (same)	RATE 0.0115 DB AT 1.000 DB RT 0.020 EARTH R 180 P 50 $\beta = -29$	LVLH R= 0.00 P=320.00 Y= 0.00	-Z Target Track
23 001/18:56:00 M 19:09:20 123/10:23:24 G 36:44	LVLH TRACK TGT = 2 P = 270.00 BV = 5 Y = 0.00 OM = 0.00 MNVR A8/AUTO/VERN HOLD A9/AUTO/VERN	RATE 0.0500 DB AT 1.000 DB RT 0.020 EARTH R 180 P 90 $\beta = -30$	LVLH R= 0.00 P= 0.00 Y= 0.00	Establish RBAR Ti +01:18
24 001/19:13:00 M 15:00 123/10:40:24 G 42:24	COE (CALC) TGT = 2 P = 180.00 BV = 5 Y = 0.00 OM = 0.00 MNVR A9/AUTO/ALT HOLD A9/AUTO/VERN	RATE 0.7500 DB AT 2.00 DB RT 0.100 EARTH R 37 P 180 $\beta = -30$	+X PYR R = 0.00 P = 90.00 Y = 0.00 LVLH 001/18:34:00 M 123/10:01:24 G	RPM 118 ORB R = 0.00 LVLH P = 90.00 Y = 0.00
25 001/19:15:00 M 17:00 123/10:42:24 G 44:24	COE (CALC) TGT = 2 P = 90.00 BV = 5 Y = 0.00 OM = 0.00 MNVR A9/AUTO/ALT HOLD A9/AUTO/VERN	RATE 0.7500 DB AT 2.00 DB RT 0.100 EARTH R 0 P 90 $\beta = -30$	+X PYR R = 0.00 P = 180.00 Y = 0.00 LVLH 001/18:36:00 M 123/10:03:24 G	RPM ORB R = 0.00 LVLH P = 180.00 Y = 0.00
26 001/19:17:00 M 19:00 123/10:44:24 G 46:24	COE (CALC) TGT = 2 P = 0.00 BV = 5 Y = 0.00 OM = 0.00 MNVR A9/AUTO/ALT HOLD A9/AUTO/VERN	RATE 0.7500 DB AT 2.00 DB RT 0.100 EARTH R 180 P 0 $\beta = -30$	+X PYR R = 0.00 P = 270.00 Y = 0.00 LVLH 001/18:38:00 M 123/10:05:24 G	RPM ORB R = 0.00 LVLH P = 270.00 Y = 0.00
27 001/19:19:00 M 21:00 123/10:46:24 G 48:24	COE (CALC) TGT = 2 P = 270.00 BV = 5 Y = 0.00 OM = 0.00 MNVR A9/AUTO/ALT HOLD A9/AUTO/VERN	RATE 0.7500 DB AT 2.00 DB RT 0.100 EARTH R 180 P 90 $\beta = -30$	+X PYR R = 0.00 P = 0.00 Y = 0.00 LVLH 001/18:40:00 M 123/10:07:24 G	RPM ORB R = 0.00 LVLH P = 0.00 Y = 0.00
28 001/19:25:00 M 36:40 123/10:52:24 G 11:04:04	LVLH TRACK TGT = 2 P = 179.00 BV = 5 Y = 0.00 OM = 0.00 MNVR A9/AUTO/ALT HOLD A9/AUTO/VERN	RATE 0.1300 DB AT 2.00 DB RT 0.100 EARTH R 0 P 179 $\beta = -30$	LVLH R= 0.00 P= 91.00 Y= 0.00	TORVA
29 001/20:16:00 M 123/11:43:24 G				Docking 1/20:16
30 001/20:40:00 M 21:09:56 123/12:07:24 G 37:20	COE (CALC) TGT = 2 P = 157.00 BV = 5 Y = 3.00 OM = 179.00 MNVR A12/FREE/VERN HOLD (same)	RATE 0.1000 DB AT 3.000 DB RT 0.050 EARTH R 8 P 157 $\beta = -30$	ISS YPR R = 3.26 P = 22.97 Y = 180.27 LVLH 001/20:35:00 M 123/12:02:24 G	-XLV -ZVV ORB R = 179.75 LVLH P = 67.02 Y = 356.85

ALL ORBITER DATA IN
MEAN OF 1950 AND PYR EULER SEQUENCE

Attitude Timeline

MET/GMT	ORBITER		REF ATT/REMARKS	EVENT
	MNVR OPTION	DAP E/S/ β		
31 005/19:45:00 M 47:23 127/11:12:24 G 14:47	COE (CALC) TGT = 2 P = 157.00 BV = 5 Y = 0.00 OM = 193.00 MNVR A12/AUTO/VERN HOLD (same)	RATE 0.1000 DB AT 3.000 DB RT 0.050 EARTH R 0 P 157 $\beta = -34$	ISS YPR R = 0.00 P = 23.00 Y = 193.00 LVLH 005/20:35:00 M 127/12:02:24 G	Bias -XLV +YVV Water Dump ORB R = 168.00 LVLH P = 67.53 Y = 5.04
32 005/22:30:00 M 32:23 127/13:57:24 G 59:47	COE (CALC) TGT = 2 P = 157.00 BV = 5 Y = 3.00 OM = 179.00 MNVR A12/FREE/VERN HOLD (same)	RATE 0.1000 DB AT 3.000 DB RT 0.050 EARTH R 8 P 157 $\beta = -34$	ISS YPR R = 3.26 P = 22.97 Y = 180.27 LVLH 005/23:20:00 M 127/14:47:24 G	-XLV -ZVV ORB R = 179.75 LVLH P = 67.02 Y = 356.85
33 007/14:45:00 M 47:23 129/06:12:24 G 14:47	COE (CALC) TGT = 2 P = 157.00 BV = 5 Y = 0.00 OM = 193.00 MNVR A12/AUTO/VERN HOLD (same)	RATE 0.1000 DB AT 3.000 DB RT 0.050 EARTH R 0 P 157 $\beta = -33$	ISS YPR R = 0.00 P = 23.00 Y = 193.00 LVLH 007/14:45:00 M 129/06:12:24 G	Bias -XLV +YVV Water Dump ORB R = 168.00 LVLH P = 67.53 Y = 5.04
34 007/17:25:00 M 27:23 129/08:52:24 G 54:47	COE (CALC) TGT = 2 P = 157.00 BV = 5 Y = 3.00 OM = 179.00 MNVR A12/FREE/VERN HOLD (same)	RATE 0.1000 DB AT 3.000 DB RT 0.050 EARTH R 8 P 157 $\beta = -33$	ISS YPR R = 3.26 P = 22.97 Y = 180.27 LVLH 007/17:25:00 M 129/08:52:24 G	-XLV -ZVV ORB R = 179.75 LVLH P = 67.02 Y = 356.85
35 010/17:40:00 M 18:09:56 132/09:07:24 G 37:20	COE (LOAD) TGT = 2 P = 180.00 BV = 2 Y = 0.00 OM = 0.00 MNVR A12/AUTO/VERN HOLD (same)	RATE 0.1000 DB AT 3.000 DB RT 0.050 EARTH R 0 P 180 $\beta = -28$	ISS YPR R = 0.00 P = 0.00 Y = 0.00 LVLH 008/17:40:00 M 130/09:07:24 G	-XLV +ZVV Mnvr To Undock ORB R = 0.00 LVLH P = 90.00 Y = 0.00
36 010/18:46:00 M 132/10:13:24 G				Undock 10/18:46
37 010/19:16:00 M 27:32 132/10:43:24 G 54:56	LVLH TRACK TGT = 2 P = 90.00 BV = 3 Y = 0.00 OM = 0.00 MNVR A9/AUTO/VERN HOLD (same)	RATE 0.1300 DB AT 1.000 DB RT 0.020 EARTH R 0 P 90 $\beta = -27$	LVLH R= 0.00 P=180.00 Y= 0.00 LVLH	TORF
38 010/19:27:33 M 39:05 132/10:54:57 G 11:06:29	LVLH TRACK TGT = 2 P = 0.00 BV = 1 Y = 0.00 OM = 0.00 MNVR A9/AUTO/VERN HOLD (same)	RATE 0.1300 DB AT 1.000 DB RT 0.020 EARTH R 180 P 0 $\beta = -27$	LVLH R= 0.00 P=270.00 Y= 0.00 LVLH	TORF
39 010/19:39:06 M 50:38 132/11:06:30 G 18:02	LVLH TRACK TGT = 2 P = 270.00 BV = 5 Y = 0.00 OM = 0.00 MNVR A9/AUTO/VERN HOLD (same)	RATE 0.1300 DB AT 1.000 DB RT 0.020 EARTH R 180 P 90 $\beta = -27$	LVLH R= 0.00 P= 0.00 Y= 0.00 LVLH	TORF
40 010/19:50:39 M 20:02:11 132/11:18:03 G 29:35	LVLH TRACK TGT = 2 P = 180.00 BV = 2 Y = 0.00 OM = 0.00 MNVR A9/AUTO/VERN HOLD (same)	RATE 0.1300 DB AT 1.000 DB RT 0.020 EARTH R 333 P 180 $\beta = -27$	LVLH R= 0.00 P= 90.00 Y= 0.00 LVLH	TORF SEP-1 TIG 20:01

ALL ORBITER DATA IN
MEAN OF 1950 AND PYR EULER SEQUENCE

Attitude Timeline

MET/GMT	ORBITER		REF ATT/REMARKS	EVENT
	MNVR OPTION	DAP E/S/ β		
41 010/20:03:00 M 14:32 132/11:30:24 G 41:56	LVLH TRACK TGT = 2 P = 90.00 BV = 3 Y = 0.00 OM = 0.00 MNVR A9/AUTO/VERN HOLD (same)	RATE 0.1300 DB AT 1.000 DB RT 0.020 EARTH R 0 P 90 $\beta = -27$	LVLH R= 0.00 P=180.00 Y= 0.00	-ZLV -XVV SEP-2 TIG 20:29
42 010/21:00:00 M 04:10 132/12:27:24 G 31:34	LVLH TRACK TGT = 2 P = 90.00 BV = 3 Y = 0.00 OM = 310.00 MNVR A1/AUTO/VERN HOLD (same)	RATE 0.2000 DB AT 1.000 DB RT 0.020 EARTH R 0 P 90 $\beta = -27$	LVLH R= 0.00 P=180.00 Y= 50.00	Bias -ZLV +YVV Simo Dump
43 010/23:00:00 M 04:10 132/14:27:24 G 31:34	LVLH TRACK TGT = 2 P = 90.00 BV = 3 Y = 0.00 OM = 0.00 MNVR A1/AUTO/VERN HOLD (same)	RATE 0.2000 DB AT 1.000 DB RT 0.020 EARTH R 0 P 90 $\beta = -27$	LVLH R= 0.00 P=180.00 Y= 0.00	-ZLV -XVV
44 011/00:40:00 M 132/16:07:24 G				NC-5 Place Holder
45 011/13:50:00 M 14:02:25 133/05:17:24 G 29:49	TGT= 4 BV = 5 P = 0.00 Y = 40.00 OM = 200.00 MNVR A14/AUTO/VERN HOLD (same)	RATE 0.2000 DB AT 3.000 DB RT 0.200 SUN R 90 P 40 $\beta = -25$	INRTL R= 62.98 P= 28.69 Y= 39.97 RA= 48.863 DEC= 18.089N	STBD Wing Survey
46 011/15:05:00 M 12:16 133/06:32:24 G 39:40	TGT= 4 BV = 5 P = 304.00 Y = 0.00 OM = 240.00 MNVR A14/AUTO/VERN HOLD A14/AUTO/ALT	RATE 0.2000 DB AT 3.000 DB RT 0.200 SUN R 180 P 56 $\beta = -25$	INRTL R=212.76 P=245.66 Y= 49.22 RA= 48.914 DEC= 18.102N	Nose Cap Survey
47 011/16:05:00 M 17:54 133/07:32:24 G 45:18	TGT= 4 BV = 5 P = 0.00 Y = 323.00 OM = 10.00 MNVR A14/AUTO/VERN HOLD (same)	RATE 0.2000 DB AT 3.000 DB RT 0.200 SUN R 270 P 37 $\beta = -25$	INRTL R=239.27 P= 21.42 Y= 35.83 RA= 48.955 DEC= 18.113N	PORT Wing Survey
48 011/18:05:00 M 18:32 133/09:32:24 G 45:56	LVLH TRACK TGT = 2 P = 90.00 BV = 3 Y = 0.00 OM = 270.00 MNVR A1/AUTO/VERN HOLD (same)	RATE 0.2000 DB AT 1.000 DB RT 0.020 EARTH R 0 P 90 $\beta = -25$	LVLH R= 0.00 P=180.00 Y= 90.00	Bias -ZLV +YVV Dump
49 011/20:35:00 M 42:54 133/12:02:24 G 10:18	TGT= 4 BV = 5 P = 114.00 Y = 0.00 OM = 190.00 MNVR A1/AUTO/VERN HOLD (same)	RATE 0.2000 DB AT 1.000 DB RT 0.020 SUN R 0 P 114 $\beta = -24$	INRTL R= 92.12 P=336.16 Y=291.96 RA= 49.139 DEC= 18.160N	LDRI Ku Comm
50 011/23:30:00 M 44:18 133/14:57:24 G 15:11:42	LVLH TRACK TGT = 2 P = 90.00 BV = 3 Y = 0.00 OM = 0.00 MNVR A1/AUTO/VERN HOLD (same)	RATE 0.2000 DB AT 1.000 DB RT 0.020 EARTH R 0 P 90 $\beta = -24$	LVLH R= 0.00 P=180.00 Y= 0.00	-ZLV -XVV

ALL ORBITER DATA IN
MEAN OF 1950 AND PYR EULER SEQUENCE

Attitude Timeline

MET/GMT	ORBITER		REF ATT/REMARKS	EVENT
	MNVR OPTION	DAP E/S/ β		
51 012/00:50:00 M 59 133/16:17:24 G 18:23	M50 (CALC) INRTL R = 293.00 MNVR P = 289.00 PYR Y = 61.00 MNVR TRN/AUTO/PRI HOLD (same)	RATE 0.5000 DB AT 3.50 DB RT 0.20 SUN R 57 P 29 $\beta = -24$	+X PYR R = 359.73 P = 189.73 Y = 0.10 LVLH 012/01:00:00 M 133/16:27:24 G	NC-6 Retrograde Heads Down +X RCS TIG 01:00
52 012/01:05:00 M 07:27 133/16:32:24 G 34:51	LVLH TRACK TGT = 2 P = 90.00 BV = 3 Y = 0.00 OM = 0.00 MNVR A1/AUTO/VERN HOLD (same)	RATE 0.2000 DB AT 1.000 DB RT 0.020 EARTH R 0 P 90 $\beta = -24$	LVLH R= 0.00 P=180.00 Y= 0.00	-ZLV -XVV
53 012/12:45:00 M 46:35 134/04:12:24 G 13:59	M50 (CALC) INRTL R = 280.00 MNVR P = 306.00 PYR Y = 19.00 MNVR TRN/AUTO/PRI HOLD (same)	RATE 0.5000 DB AT 3.50 DB RT 0.20 SUN R 137 P 35 $\beta = -22$	+X PYR R = 0.31 P = 191.56 Y = 359.93 LVLH 012/13:00:00 M 134/04:27:24 G	Orbit Adjust Retrograde Heads Down TIG 13:00
54 012/13:05:00 M 07:36 134/04:32:24 G 35:00	LVLH TRACK TGT = 2 P = 90.00 BV = 3 Y = 0.00 OM = 0.00 MNVR A1/AUTO/VERN HOLD (same)	RATE 0.2000 DB AT 1.000 DB RT 0.020 EARTH R 0 P 90 $\beta = -22$	LVLH R= 0.00 P=180.00 Y= 0.00	-ZLV -XVV
55 012/16:10:00 M 17:30 134/07:37:24 G 44:54	LVLH TRACK TGT = 2 P = 90.00 BV = 3 Y = 0.00 OM = 270.00 MNVR A1/AUTO/VERN HOLD (same)	RATE 0.2000 DB AT 1.000 DB RT 0.020 EARTH R 0 P 90 $\beta = -22$	LVLH R= 0.00 P=180.00 Y= 90.00	Bias -ZLV +YVV Water Dump
56 012/18:00:00 M 07:30 134/09:27:24 G 34:54	LVLH TRACK TGT = 2 P = 90.00 BV = 3 Y = 0.00 OM = 0.00 MNVR A1/AUTO/VERN HOLD (same)	RATE 0.2000 DB AT 1.000 DB RT 0.020 EARTH R 0 P 90 $\beta = -22$	LVLH R= 0.00 P=180.00 Y= 0.00	-ZLV -XVV
57 013/13:00:00 M 07:37 135/04:27:24 G 35:01	INRTL R = 160.00 MNVR P = 175.00 Y = 310.00 MNVR A1/AUTO/VERN HOLD (same)	RATE 0.2000 DB AT 1.000 DB RT 0.020 SUN R 199 P 165 $\beta = -19$	-Y:25 Regulus 12:55 to 13:45 -Z:34 Miaplacidus 13:05 to 13:54	IMU ALIGN PAIR AOS: 13:05 PAIR LOS: 13:45
58 013/13:15:00 M 28:40 135/04:42:24 G 56:04	INRTL R = 301.00 MNVR P = 117.00 Y = 28.00 MNVR A1/AUTO/VERN HOLD (same)	RATE 0.2000 DB AT 1.000 DB RT 0.020 SUN R 172 P 98 $\beta = -19$	-Y:28 Al Na'ir 13:25 to 14:07 -Z:48 Zubeneschem 13:22 to 14:05	IMU VERIF PAIR AOS: 13:25 PAIR LOS: 14:05
59 013/13:34:00 M 42:12 135/05:01:24 G 09:36	TGT= 4 BV = 5 P = 184.00 Y = 0.00 OM = 90.00 MNVR A1/AUTO/VERN HOLD (same)	RATE 0.2000 DB AT 1.000 DB RT 0.020 SUN R 180 P 176 $\beta = -19$	INRTL R= 9.71 P=146.16 Y=311.89 RA= 50.818 DEC= 18.582N	-XSI
60 013/15:21:00 M 28:40 135/06:48:24 G 56:04	TGT= 4 BV = 5 P = 175.00 Y = 30.00 OM = 0.00 MNVR A1/AUTO/VERN HOLD (same)	RATE 0.2000 DB AT 1.000 DB RT 0.020 SUN R 81 P 150 $\beta = -18$	INRTL R= 72.70 P=109.75 Y=318.68 RA= 50.891 DEC= 18.600N	Comm

ALL ORBITER DATA IN
MEAN OF 1950 AND PYR EULER SEQUENCE

Attitude Timeline

MET/GMT	ORBITER		REF ATT/REMARKS	EVENT
	MNVR OPTION	DAP E/S/ β		
61	M50 (CALC)	RATE 0.5000	+X PYR	Deorbit Burn TIG 17:43
013/17:30:00 M	INRTL R = 274.00	DB AT 3.50	R = 359.67	
34:53	MNVR P = 308.00	DB RT 0.20	P = 191.64	
	PYR Y = 10.00		Y = 359.96	
135/08:57:24 G		SUN R 152	LVLH	
09:02:17	MNVR TRN/AUTO/PRI	P 42	013/17:46:00 M	
	HOLD (same)	$\beta = -18$	135/09:13:24 G	

This Page Intentionally Blank

FLIGHT PLAN NOTES

FLIGHT PLAN NOTES
(CONSTRAINTS AND GUIDELINES)

A. FLIGHT DESCRIPTION

Orbiter: Endeavour (OV-105)
 Launch Window: 10 minutes
 Inclination: 51.6°
 Insertion Altitude: 122 nautical miles
 Rendezvous Altitude: 184 nautical miles
 Duration: 14+0+2 Days

B. SHUTTLE AND STATION CREW

<u>Shuttle Crew:</u>		<u>ISS Crew:</u>	
CDR/IV	– Scott Kelly	FE-2 (DN)	– Sunita Williams
PLT	– Charles O. Hobaugh	ISS CDR	– Fyodor Yurchikhin
MS1/IV	– Tracy E. Caldwell	FE-1	– Oleg Kotov
MS2/EV1	– Richard A. Mastracchio	FE-2 (UP)	– Clayton Anderson
MS3/EV2	– Dave Williams		
MS4	– Barbara Morgan		

C. MAJOR EVENTS

<u>EVENT</u>	<u>FD</u>	<u>MET</u>	<u>GMT</u>	<u>CDT</u>
Launch	1	00/00:00	121/15:27	10:27
OMS-2	1	00/00:37	121/16:04	11:04
NC-1	1	00/03:35	121/19:02	14:04
NC-2	2	00/16:57	122/08:24	03:24
NPC	2	00/17:04	122/08:31	03:31
OBSS Survey	2	00/18:00	122/09:27	04:27
NC-3	2	01/02:44	122/18:11	13:11
NH	3	01/15:20	123/06:47	01:47
NC-4	3	01/16:06	123/07:33	02:33
Ti	3	01/17:38	123/09:05	04:05
ISS Docking	3	01/20:16	123/11:34	06:43
EVA 1	4	02/18:30	124/09:57	04:57
EVA 2	6	04/18:30	126/09:57	04:57
ESP 3 Transfer	7	05/16:30	127/07:57	02:57
EVA 3	8	06/18:30	128/09:57	04:57
EVA 4	10	08/17:30	129/08:57	03:57
Undock	12	10/18:46	132/10:13	05:13
Sep 1	12	10/20:01	132/11:28	06:28
Sep 2	12	10/20:29	132/11:56	06:56
NC 5	12	11/00:40	132/16:07	11:07
NC 6	13	12/01:00	133/16:27	11:27
OA	14	12/13:00	134/04:27	23:27
Deorbit	15	13/17:46	135/09:13	04:13
Landing	15	13/18:49	135/10:16	05:16

FLIGHT PLAN NOTES

D. LANDING OPPORTUNITIES

		<u>Landing Orbit #</u>	<u>Site</u>	<u>TIG MET</u>	<u>Landing MET</u>	<u>Landing GMT</u>	<u>Landing CDT</u>
Nominal	Primary	218	KSC	13/17:46	13/18:49	135/10:16	05:16
	1 Rev	219	KSC	13/19:23	13/20:24	135/11:52	06:52
	Late Weather Alt	220	EDW	13/20:51	13/21:54	135/13:21	08:21
EOM +1	Primary	233	KSC	14/16:27	14/17:31	136/8:58	03:58
	1 Rev	234	KSC	14/18:03	14/19:05	136/10:33	05:33
	Late Weather Alt	235	EDW	14/19:32	14/20:35	136/12:02	07:02
EOM +2	Primary	249	KSC	15/16:43	15/17:47	137/09:14	04:14
	1 Rev	250	KSC	15/18:20	15/19:22	137/10:49	05:49
	Late Weather Alt	251	EDW	15/19:48	15/20:51	137/12:19	07:19

E. COMMUNICATIONS

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

The GND band contains the AOS/LOS of the US ground sites used for the L-1 Comm Checks and for deorbit and landing comm. MLA and DFA are for Kennedy Space Center and Edwards Air Force Base respectively, and WSS is for White Sands Space Harbor (which is needed on wave-off opportunities only).

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

Shuttle

TDRS Support: East (-46°), West (-171°), and Z (-275°)

Ground Sites: MLA, WLP, WSS, and DFR

Contingency RTS: DGS, GTS, HTS, OTS, CTS, VTS, and NHS

ISS

TDRS Support: East (-46°), West (-174°), and Z (-275°)

US Ground Sites: MIL, WLP, and DFR

Russian Ground Sites: DJS, PPK, BRN, SPB, KLP, ULD, SHK, USK

F. PAYLOADS

LAUNCH PACKAGE (LP) 13A.1

The primary objectives of this flight are to launch the ISS-13A.1 Cargo Elements (CE), rendezvous and dock with the ISS, deliver and return items using the Orbiter crew compartment and the Spacehab Single Module (SM), install the Integrated Truss Segment Starboard-5 (ITS S5) and the 3rd External Stowage Platform (ESP3). The EVA tasks include mating of S5 ITS to the Truss Segment, moving of Crew and Equipment Translation Aid (CETA) carts 1 and 2, transfer and installation of the Orbiter Boom Sensor System (OBSS) Orbital Support Equipment (OSE) to the S1 Truss, and CMG-3 Removal and Replacement. The rotation of a single ISS crewmember will also be performed on this flight.

G. SECONDARY PAYLOADS

1. CCM-A (Cell Culture Module - Configuration)

The CCM-A (Myofibers) experiment is a United States Air Force/Space and Missile Systems Center (USAF/SMC) middeck payload designed to monitor the activities of tissue samples at the cellular level under the influence of microgravity. From pre-launch through post-landing, these muscle, bone, and endothelial cells are supplied with oxygenated media and selected drugs. As the media and drugs pass through the cartridges containing cells, divisions of the effluent are delivered to a fluid sump collection tube array or re-circulated to the same cell cartridge after oxygenation. Fixative within the collection tubes discontinues all biological activity, thus sustaining a chronological physical record for future analysis.

2. MERLIN (The Microgravity Experiment Research Locker/Incubator) and SPEGIS (Streptococcus Pneumoniae Expression of Genes In Space)

The MERLIN is a rear-breathing middeck locker size facility that provides a thermally controlled environment for scientific experiments in the middeck of the Space Shuttle, SPACEHAB module, or the International Space Station (ISS) EXPRESS Rack. The experiment volume provides thermal control to temperatures within the range of -20° C to +48.5° C (moderate temperature loop required for below +4° C). For Flight 13A.1, MERLIN will launch continuously powered in the shuttle middeck and will contain 3 SPEGIS sample canisters at 4° C. The SPEGIS canisters containing Streptococcus pneumonia bacteria are constructed out of aluminum, and provide 2 levels of containment. Inside each canister are three polypropylene vials, which house the bacteria and provide the third level of containment. During the docked phase of the flight, MERLIN will incubate the SPEGIS sample canisters at 37° C for approximately 12 hours. At the end of the incubation the samples will be removed and placed in MELFI to be frozen, after which the MERLIN remain unpowered for entry. Prior to undocking samples will be removed from MELFI and placed in Coldbags for return on the Shuttle.

3. EPO (Education Payload Operations) Educator

Education Payload Operations (EPO) Educator is a sortie payload manifested for 13A.1. The primary objective is to engage students, educators, and the public in the Vision for Space Exploration through the adventure of STS-118 and the flight of the first Educator Astronaut, Barbara Morgan. EPO Educator is divided into three activities.

Activity 1 will distribute flown seeds to schools across the country as part of a national engineering design challenge where students will plan, design, build, and validate the performance of their design for a plant growth chamber and use the seeds to conduct science experiments.

Activity 2 will capture video of crewmembers showing various locations on the space shuttle and provide descriptions of crewmember duties during ascent, on-orbit, and descent.

Activity 3 will capture video of the transfer of the EPO-Kit C plant growth chambers (an ISS stage payload). Crewmembers will also describe the physical characteristics of the plant growth chamber, the connection with ground based education activities and the duration of the on-orbit investigation.

4. CBTM-02 (Commercial Bioprocessing Testing Module – 02)

The CBTM-02 is a commercial experiment designed to pre-clinically test pharmaceuticals, and develop and examine animal models useful to pharmaceutical and biotechnology companies in the microgravity environment. The experiment consists of three Animal Enclosure Modules (AEMs) in the Shuttle Middeck. The research conducted is expected to answer questions about the effectiveness of a promising drug candidate as a countermeasure to muscle atrophy observed in microgravity.

5. Perceptual Motor Deficits In Space/Test of Reaction and Adaptation Capabilities (PMDIS/TRAC)

The PMDIS objective is to determine if perceptual motor deficits observed in previous missions are simply due to postural instability or actually represent central nervous system deficits.

The equipment is located on the ISS US Lab and consists of a laptop computer with touchscreen, joystick, and reaction switches, mounted on a lap-table tray. PMDIS and TRAC present the crewmember with visual stimuli, and measure the response accuracy and score. The equipment will be set up by ISS crew members prior to Shuttle docking. After docking, two Shuttle crew members will perform the experiment separately, and the data transferred onto disks for transfer back to the Shuttle.

H. PAYLOADS OF OPPORTUNITY

1. Ram Burn Observation (RAMBO)

The objective of the RAMBO payload is to help calibrate the RAMBO satellite. This requires retrograde, posigrade, and out-of-plane burns. The RAMBO payload does not require any dedicated Orbiter Maneuvering System (OMS) burn, but will require state vectors. The location of the RAMBO satellite is classified, therefore no pre mission planning needs to be done for this payload.

2. Maui Analysis of Upper-Atmospheric Injections (MAUI)

The objective of the MAUI payload is to obtain optical signatures of spacecraft plumes using optical telescope sensors and all-sky imagers at the Air Force Maui Optical and Supercomputing Site (AMOS). The MAUI payload will require state vector information and may request OMS, Primary Reaction Control System (PRCS) and Vernier Reaction Control System (VRCS) burns, if propellant and crew time are available. The MAUI payload may collect data during any encounter opportunity when the Orbiter support activities can be planned to meet the criteria defined.

I. ON ORBIT DETAILED TEST OBJECTIVES (DTOs)

1. DTO 805 Crosswind Landing Performance (DTO of Opportunity)

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

J. SHORT DURATION BIOASTRONAUTICS INVESTIGATIONS (SDBIS)

1. SDBI 1490 (Protocol B) - Bioavailability & Performance Effects of Promethazine (PMZ) During Space Flight

The purpose of this SDBI is to establish dose-response relationship of Promethazine (PMZ) before and during flight; estimate bioavailability of PMZ from the intramuscular (IM), oral, and suppository routes of administration before and during flight; and compare and contrast the effect of flight-related variables (e.g., space motion sickness, (SMS), mission duration, sleep medications, and crew activity schedules) and PMZ administration on sleep quality and efficiency.

2. SDBI 1634 - Sleep-Wake Actigraphy

This SDBI will use state-of-the-art ambulatory technology to monitor sleep-wake activity and light exposure patterns obtained in-flight. This data should help us better understand the effects of space flight on sleep as well as aid in the development of effective countermeasures for both short and long-duration spaceflight.

3. SDBI 1493 - Monitoring Latent Virus Reactivation and Shedding

This SDBI will determine the frequency of induced reactivation of latent viruses (includes saliva collection), latent virus shedding, and clinical disease after exposure to the physical, physiological, and psychological stressors associated with space flight.

4. SDBI 1503-S - Midodrine

This SDBI will determine the usefulness of midodrine, an α -adrenergic agonist, to support standing arterial blood pressure and thereby reduce incidence of postflight orthostatic hypotension. During Protocol A, midodrine was administered postflight. For Protocol B, midodrine will be administered in-flight between Time of Ignition (TIG) and landing with the callout located in the Entry C/L book.

STS-118 KU BAND ANTENNA MASKING PLAN

KU BAND ANT
MASKING

STS-118 KU BAND ANTENNA MASKING PLAN

APPROX. MET (ALL TIMES APPROXIMATE)	MODE	EVENT	DESCRIPTION
~00/01:30	Beta 21 + Mask	Ku Activation	Standard mode used for Orbiter with all payloads within PLB envelope
~00/04:05	Beta 21 + Mask with box: A1: $26 \leq AZ \leq 110$ $-90 \leq EL \leq -30$	RMS Checkout	Protection for SRMS
~00/04:55	Beta 21 + Mask	RMS back in Pre-Cradle	Standard mode used for Orbiter with all payloads within PLB envelope
~00/17:00	Beta 21 Only with box: A2: $-90 \leq AZ \leq 110$ $-90 \leq EL \leq 0$	OBSS unberth	Protects SRMS for OBSS Unberth operations
~00/18:15	Beta 21 + Mask with box: A3: $-132 \leq AZ \leq 80$ $-90 \leq EL \leq 60$	Begin STBD Survey	Protection for SRMS during STBD Survey
~00/19:15	Beta 12 Only	Nose Cap Survey	Protection for SRMS during Nose Cap Survey
~00/20:20	Beta 21 Only with box: A2: $-90 \leq AZ \leq 110$ $-90 \leq EL \leq 0$	Port Survey and OBSS Berth	Protection for SRMS during Port Survey and OBSS Berth
~00/22:30	Beta 21 + Mask	End OBSS Berth	SRMS back in Pre-Cradle. Standard mode used for Orbiter with all payloads within PLB envelope
~01/19:00	Beta 21 Only: B1: $-42 \leq AZ \leq 50$ $-35 \leq EL \leq 40$	RNDZ at 765 ft	Protection for ISS during RNDZ
~01/19:55	Beta 21 Only with boxes: C1: $-13 \leq AZ \leq 46$ $-68 \leq EL \leq 75$ D1: $-86 \leq AZ \leq -8$ $-33 \leq EL \leq 44$	Prox Ops at 105 ft through docking	Protection for ISS structure
~01/21:30	Beta 21 Only with boxes: C1: $-13 \leq AZ \leq 46$ $-68 \leq EL \leq 75$ D2: $-111 \leq AZ \leq 6$ $-88 \leq EL \leq 44$	EVA 1 and Overnight Robotics Configuration	Protection for ISS structure Protection for SRMS, SSRMS, and S1 during Handoff

KU BAND ANT
MASKING

APPROX. MET (ALL TIMES APPROXIMATE)	MODE	EVENT	DESCRIPTION
~02/18:45	Beta 21 Only with boxes: C1: $-13 \leq AZ \leq 46$ $-68 \leq EL \leq 75$ D4: $-124 \leq AZ \leq 6$ $-89 \leq EL \leq 44$	Begin ROBO operations, SSRMS Install	Protection for ISS structure Protection for SRMS and SSRMS during operations
~02/22:00	Beta 21 Only with boxes: C1: $-13 \leq AZ \leq 46$ $-68 \leq EL \leq 75$ D4: $-124 \leq AZ \leq 6$ $-89 \leq EL \leq 44$ D5: $43 \leq AZ \leq 71$ $32 \leq EL \leq 53$	Begin SRMS CINCH VIEWING support	Protection for ISS structure Protection for SRMS and SSRMS during operations Protection for the SRMS during the PVR CINCH viewing procedure
~02/23:00	Beta 21 Only with boxes: C1: $-13 \leq AZ \leq 46$ $-68 \leq EL \leq 75$ D4: $-124 \leq AZ \leq 6$ $-89 \leq EL \leq 44$	End SRMS CINCH VIEWING support	Protection for ISS structure Protection for SRMS and SSRMS during operations
~03/01:15	Beta 21 Only with boxes: C1: $-13 \leq AZ \leq 46$ $-66 \leq EL \leq 75$ D2: $-111 \leq AZ \leq 6$ $-88 \leq EL \leq 44$	End Robotics operations	Protection for ISS structure Protection for SSRMS in its overnight configurations at WS1 as well as the S5
~03/03:00	Beta 21 Only with boxes: D3: $-107 \leq AZ \leq 71$ $-89 \leq EL \leq 87$	Begin MBS translation to WS4	Protection for SSRMS in its overnight configurations at WS4 as well as the S5
~03/16:25	Beta 21 Only with boxes: D6: $-129 \leq AZ \leq 74$ $-89 \leq EL \leq 87$	Begin Robotics operations starting with OBSS Unberth and Handoff	Protection for the SRMS, SSRMS, and ISS structure
~04/03:25	Beta 21 Only with boxes: C1: $-13 \leq AZ \leq 46$ $-66 \leq EL \leq 75$ D2: $-111 \leq AZ \leq 6$ $-88 \leq EL \leq 44$	End Robotics operations	Protection for ISS structure

APPROX. MET (ALL TIMES APPROXIMATE)	MODE	EVENT	DESCRIPTION
~05/16:00	Beta 21 Only with boxes: C1: $-13 \leq AZ \leq 46$ $-68 \leq EL \leq 75$ D1: $-86 \leq AZ \leq 45$ $-39 \leq EL \leq 40$ D7: $45 \leq AZ \leq 83$ $38 \leq EL \leq 62$	Begin Robotics operations starting with ESP3 Grapple	Protection for the SRMS, SSRMS, and ISS structure
~06/05:00	Beta 21 Only with boxes: D3: $-107 \leq AZ \leq 71$ $-89 \leq EL \leq 87$	Begin MT Translation to WS4	Protection for the SRMS, SSRMS, and ISS structure during MT Translation to WS4
~06/06:30	C1: $-13 \leq AZ \leq 46$ $-68 \leq EL \leq 75$ D8: $-86 \leq AZ \leq -8$ $-39 \leq EL \leq 54$	End MT Translation to WS4	Overnight Protection for the SRMS, SSRMS, and ISS structure
~06/18:30	D9: $-161 \leq AZ \leq 96$ $-89 \leq EL \leq 89$	Begin Robotics operations starting with SSRMS MNVR to SASA Start Position	Overnight Protection for the SRMS, SSRMS, and ISS structure during EVA3
~07/01:30	C1: $-13 \leq AZ \leq 46$ $-68 \leq EL \leq 75$ D1: $-86 \leq AZ \leq -8$ $-39 \leq EL \leq 44$	End SSRMS MNVR for Undock Viewing	Protection for the ISS structure
~10/20:00	Beta 21 Only B1: $-42 \leq AZ \leq 50$ $-35 \leq EL \leq 40$	Post Undock, Orbiter at approximately 105 ft	ISS Protection with 8° corridor inside of 765 ft but greater than 105 ft Undocking through Sep 2
~10/20:30	Beta 21 + Mask	Post Sep 2 Configuration	Standard Mode used for Orbiter with all payloads within PLB envelope
~11/14:10	Beta 21 Only: A1: $-90 \leq AZ \leq 110$ $-90 \leq EL \leq 0$	OBSS Unberth	Protects SRMS for OBSS Unberth operations and for the maneuver to the Flat Field Position
~11/15:10	Beta 21 Only with box: A3: $-132 \leq AZ \leq 80$ $-90 \leq EL \leq 60$	STBD Survey	Protection for SRMS during STBD Survey

APPROX. MET (ALL TIMES APPROXIMATE)	MODE	EVENT	DESCRIPTION
~11/16:25	Beta 12 Only	Nose Cap Survey	Protection for SRMS during Nose Cap Survey Note: Do not initiate SRMS in NOSE CAP ACAS Start
~11/17:15	Beta 21 Only: A2: $-90 \leq AZ \leq 110$ $-90 \leq EL \leq 0$	Port Survey and OBSS Berth	Protection for SRMS during Port Survey and OBSS Berth
~11/19:05	Beta 21 + Mask	End OBSS Berth	SRMS back in Pre-Cradle. Standard mode used for Orbiter with all payloads within PLB envelope

This Page Intentionally Blank



FLIGHT PLAN

STS
118