

# Flight Plan

## STS-101

(STS-101 HY-330 Trajectory)

Mission Operations Directorate  
Operations Division

Final  
March 9, 2000

EVENT		MET		CENTRAL		GMT		DMT
Launch	0	00:00	Thu	4/13/00 19:41		105/00:41	Fri	4/14/00 03:41
ISS DOCKING	1	18:02	Sat	4/15/00 13:43		106/18:43	Sat	4/15/00 21:43
EVA1	2	15:20	Sun	4/16/00 11:01		107/16:01	Sun	4/16/00 19:01
ISS INGRESS	3	13:15	Mon	4/17/00 08:56		108/13:56	Mon	4/17/00 16:56
REBOOST	6	13:15	Thu	4/20/00 08:56		111/13:56	Thu	4/20/00 16:56
ISS EGRESS	6	17:15	Thu	4/20/00 12:56		111/17:56	Thu	4/20/00 20:56
ISS UNDOCK	7	11:12	Fri	4/21/00 06:53		112/11:53	Fri	4/21/00 14:53
DEORBIT TIG	9	19:08	Sun	4/23/00 14:49		114/19:49	Sun	4/23/00 22:49
LANDING	9	20:14	Sun	4/23/00 15:55		114/20:55	Sun	4/23/00 23:55

National Aeronautics and  
Space Administration

Lyndon B. Johnson Space Center  
Houston, Texas



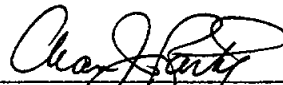
Verify this is the correct version for the pending operation (training, simulation, or flight).  
Electronic copies of FDF books are available. URL: <http://ftpproc.jsc.nasa.gov/ldf>

MISSION OPERATIONS DIRECTORATE

**STS-101 FLIGHT PLAN**

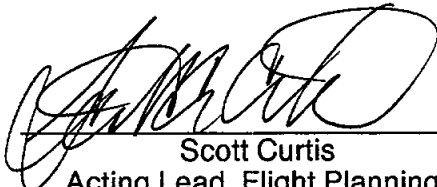
FINAL  
March 9, 2000

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Incorporates the following:	
482#:	FLT PLN – 1939 (S)* FLT PLN – 1940 (S)* FLT PLN – 1941 (S)* FLT PLN – 1955
Exception #:	101-1 101-2

\*Requested change was superseded prior to implementation

AREAS OF TECHNICAL RESPONSIBILITY

Book Manager/Lead FAO	DO4/A. Bartos	281-244-1073
Lead Timeline	DO4/T. Davenport	281-244-1139
Lead Pointer	DO4/D. Jarvis	281-483-7728

FLIGHT PLAN  
STS-101

**LIST OF EFFECTIVE PAGES**

FINAL 03/09/00

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STS-101 FLIGHT PLAN FABRICATED ITEMS

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DAP A, DAP B TOC	10-2	FLT PLN-1a/101/O/B
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DAP A	10-3	FLT PLN-2a/101/O/A
DAP A1	10-3	FLT PLN-2b/101/O/A
A1	10-3	FLT PLN-3a/101/O/A
DAP A2	10-3	FLT PLN-3b/101/O/A
A2	10-4	FLT PLN-4a/101/O/A
DAP A3	10-4	FLT PLN-4b/101/O/A
A3	10-4	FLT PLN-5a/101/O/A
DAP A4	10-4	FLT PLN-5b/101/O/A
A4	10-5	FLT PLN-6a/101/O/A
DAP A5	10-5	FLT PLN-6b/101/O/A
A5	10-5	FLT PLN-7a/101/O/A
DAP A6	10-5	FLT PLN-7b/101/O/A
A6	10-6	FLT PLN-8a/101/O/A
DAP A7	10-6	FLT PLN-8b/101/O/A
A7	10-6	FLT PLN-9a/101/O/A
DAP A8	10-6	FLT PLN-9b/101/O/A
A8	10-7	FLT PLN-10a/101/O/A
DAP A9	10-7	FLT PLN-10b/101/O/A
A9	10-7	FLT PLN-11a/101/O/A
DAP A10	10-7	FLT PLN-11b/101/O/A
A10	10-8	FLT PLN-12a/101/O/A
DAP A12	10-8	FLT PLN-12b/101/O/A
A12	10-8	FLT PLN-13a/101/O/B
DAP A13	10-8	FLT PLN-13b/101/O/A
A13	10-9	FLT PLN-14a/101/O/A
DAP A14	10-9	FLT PLN-14b/101/O/A
A14	10-9	FLT PLN-15a/101/O/A
(Blank)	10-9	FLT PLN-15b/101/O/A
DAP B	10-10	FLT PLN-16a/101/O/A
DAP B1	10-10	FLT PLN-16b/101/O/A
B1	10-10	FLT PLN-17a/101/O/A
DAP B2	10-10	FLT PLN-17b/101/O/A
B2	10-11	FLT PLN-18a/101/O/A
DAP B3	10-11	FLT PLN-18b/101/O/A
B3	10-11	FLT PLN-19a/101/O/A
DAP B4	10-11	FLT PLN-19b/101/O/A
B4	10-12	FLT PLN-20a/101/O/A
DAP B5	10-12	FLT PLN-20b/101/O/A
B5	10-12	FLT PLN-21a/101/O/A
DAP B7	10-12	FLT PLN-21b/101/O/A
B7	10-13	FLT PLN-22a/101/O/A
DAP B8	10-13	FLT PLN-22b/101/O/A
B8	10-13	FLT PLN-23a/101/O/A
DAP B9	10-13	FLT PLN-23b/101/O/A
B9	10-14	FLT PLN-24a/101/O/A
DAP B10	10-14	FLT PLN-24b/101/O/A
B10	10-14	FLT PLN-25a/101/O/A
DAP B11	10-14	FLT PLN-25b/101/O/A
B11	10-15	FLT PLN-26a/101/O/B
DAP B12	10-15	FLT PLN-26b/101/O/A
B12	10-15	FLT PLN-27a/101/O/B
DAP A13	10-15	FLT PLN-27b/101/O/A
B13	10-16	FLT PLN-28a/101/O/A
DAP B14	10-16	FLT PLN-28b/101/O/A
B14	10-16	FLT PLN-29a/101/O/A
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## INTRODUCTION

The STS–101 Flight Plan is the Flight Data File article that contains the on–orbit timeline. It does not contain the detailed timelines that are covered in the Ascent, Post Insertion, Deorbit Prep, and Entry Checklists. The detailed rendezvous and undocking timelines and procedures are contained in the Rendezvous Checklist. The detailed EVA task timelines and procedures are in the EVA Checklist.

The format of the summary and detailed timelines includes data bands for Mission Control Center – Houston (MCC–H) and Mission Control Center – Moscow (MCC–M). These data bands reflect key activities and commands executed by the control centers and any voice communication required to support specific events.

This on–orbit timeline satisfies the objectives specified in the Flight Definition and Requirements Directive, and the requirements of the STS–101 Flight Requirements Document.

The STS–101 planning Groundrules and Constraints (GR&Cs), which are part of the Increment 0 Planning GR&Cs, have been used in the development of this Flight Plan. These GR&Cs can be found at the following web site:

[https://mod.jsc.nasa.gov/do4/Ground Rules/Main/grcframe.cfm?id=101](https://mod.jsc.nasa.gov/do4/Ground%20Rules/Main/grcframe.cfm?id=101)

The flight profile used for this Flight Plan is for a launch date of April 13, 2000, at 19:41 CDT. Orbiter inertial attitudes are expressed relative to a mean of 1950 (M50) reference frame. |

NSTS–37326, Shuttle Crew Scheduling Constraints (SCSC), Basic, July 1998, has been used to build the timelines contained in this Flight Plan.

The following SCSC Exceptions have been approved for STS 101: |  
101–1 and 101–2

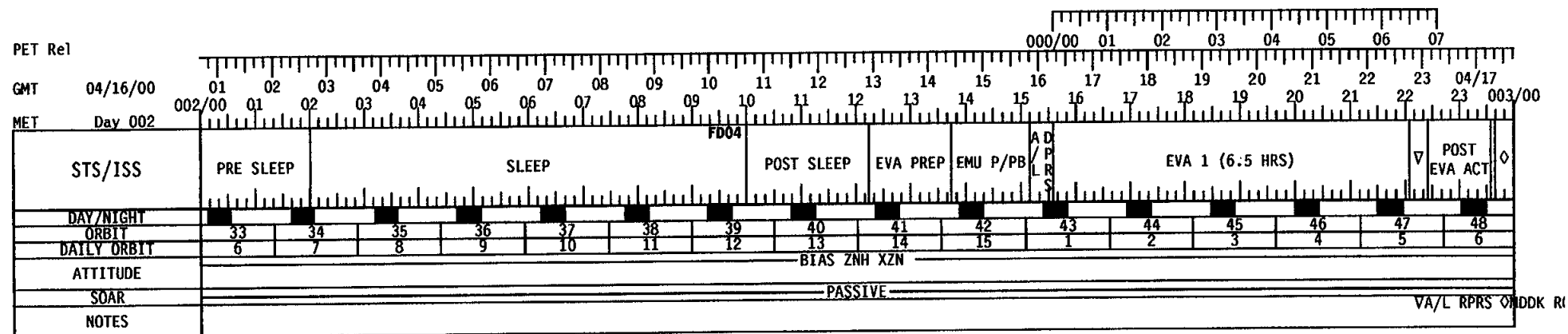
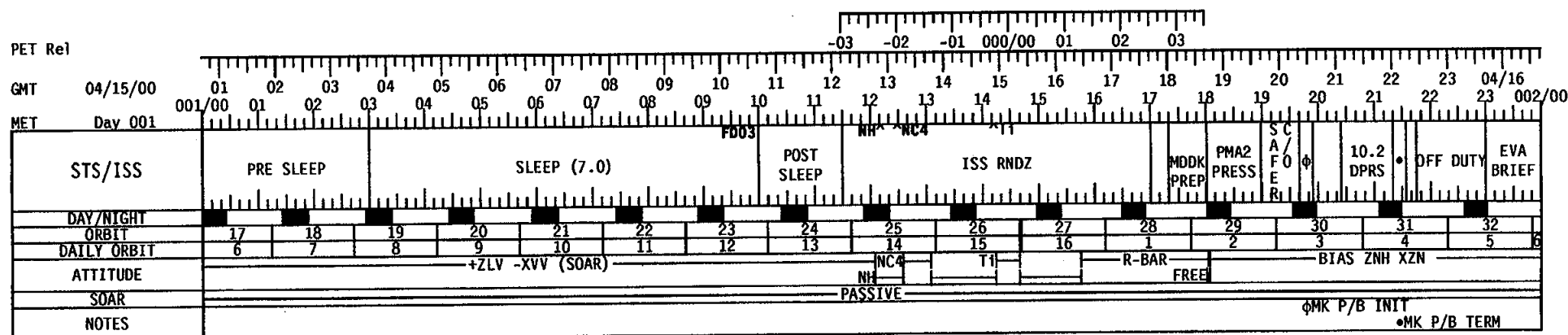
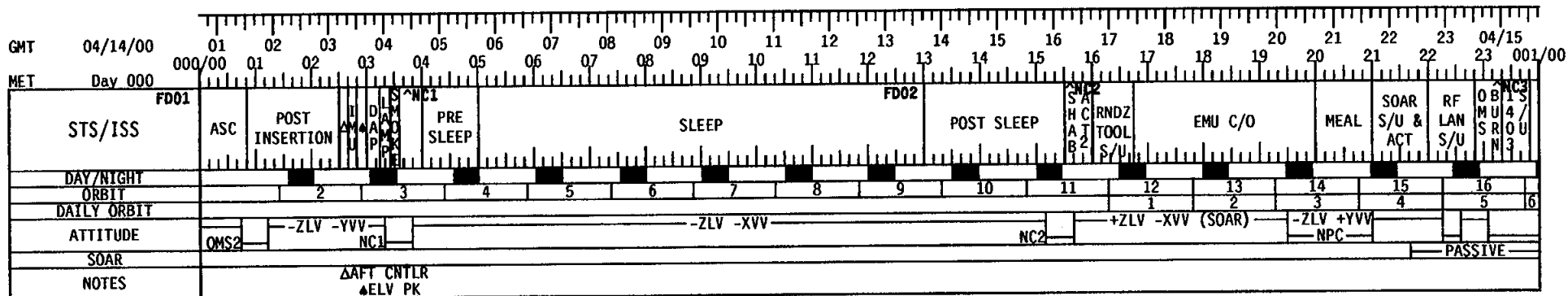
The timeline formats used in this Flight Plan are based on JSC–19933, Timeline Format Definitions and Standard Notes, Rev C, May 1990.

The Flight Plan timeline pages, as well as other flight planning information, are available on the Space Shuttle Flight Planning web page at the following address:

<https://mod.jsc.nasa.gov/do4/flightplan/fp.cfm?id=101>

**OVERVIEW TIMELINE**

# OVERVIEW TIMELINE



GMT	04/17/00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	04/18	
MET	Day 003	003/00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	004/00
STS ACT	PRE SLEEP	SLEEP											FD05	POST SLEEP	SHAB XFER PREP	1 R 4 E 7 P 7 R	MEAL	XFER				X B R F	PRE SLEEP			
ISS ACT	PRE SLEEP	SLEEP											FD05	POST SLEEP	ISS INGRS	FGB BATT 1 R&R	MEAL	FGB PTAB 1 R&R	* +	FGB PTAB 2 R&R	⊕	X B R F	PRE SLEEP			
DAY/NIGHT		■																								
ORBIT		49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64									
DAILY ORBIT		61	7	8	9	10	11	12	13	14	15	16	1	2	3	4	5	6								
ATTITUDE		BIAS ZNH XZN																BIAS ZNH XZN								
SOAR																		-ZLV +YVV								
NOTES																		PASSIVE					*CNCT CK ⊕PTAB2 RETURN ⊕PTAB2 ⊕EGRSS			

GMT	04/18/00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	04/19				
MET	Day 004	004/00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	005/00			
STS ACT	PRE SLEEP	SLEEP											FD06	POST SLEEP	X B R F R I S T L	OSVS CAM SETUP	XFER		MEAL	XFER				X B R F	PRE SLEEP				
ISS ACT	PRE SLEEP	SLEEP											FD06	POST SLEEP	X B R F R I S T L	KOMP CBL INSTL	FAN MO 15006	Δ +	S D M T K R	FAN MEAL	FGB M T K R	S D M T K R	X F A N	Φ A N	F R M T M T K R	S D M T K R	S D M T K R	X B R F	PRE SLEEP
DAY/NIGHT		■																											
ORBIT		64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80											
DAILY ORBIT		6	7	8	9	10	11	12	13	14	15	1	2	3	4	5	6	7											
ATTITUDE		BIAS ZNH XZN																-ZLV +YVV											
SOAR																		PASSIVE											
NOTES																		⊕XFR FAN ΔMNFIR SD(5)					ΦFGB FAN ASB 3 ⊕OSVS CAM TRDOWN ⊕FGB FN FTR 2						

GMT	04/19/00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	04/20				
MET	Day 005	005/00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	006/00			
STS ACT	PRE SLEEP	SLEEP											FD07	POST SLEEP	X B R F R I S T L	CWC INITIAL SETUP	XFER		MEAL	∇	XFER				X B R F	PRE SLEEP			
ISS ACT	PRE SLEEP	SLEEP											FD07	POST SLEEP	X B R F R I S T L	RTS UNIT	*	S D M T K R	S D M T K R	X F E R	S D M T K R	MEAL	S D M T K R	FGB ENCLOSURE OPS				X B R F	PRE SLEEP
DAY/NIGHT		■																											
ORBIT		80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95												
DAILY ORBIT		7	8	9	10	11	12	13	14	15	16	1	2	3	4	5	6												
ATTITUDE		BIAS ZNH XZN																											
SOAR																		PASSIVE											
NOTES																		OXFER RTS *RTS RETURN					VFILTER CLEANING						

GMT	04/20/00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	04/21			
MET	Day 006	006/00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	007/00		
STS ACT	PRE SLEEP	SLEEP										FD08	POST SLEEP	X B R E	REBOOST	MEAL	FINAL ISS EGRESS					R P X N D S R Z C F	PRE SLEEP					
ISS ACT	PRE SLEEP	SLEEP										FD08	POST SLEEP	X B R E	XFER	MEAL	FINAL ISS EGRESS					R P X N D S R Z C F	PRE SLEEP					
DAY/NIGHT																												
ORBIT	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111												
DAILY ORBIT	7	8	9	10	11	12	13	14	15	1	2	3	4	5	6	7												
ATTITUDE	BIAS ZNH XZN											REBOOST					BIAS ZNH XZN											
SOAR											PASSIVE																	
NOTES																												

GMT	04/21/00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	04/22		
MET	Day 007	007/00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	008/00	
STS ACT	PRE SLEEP	SLEEP										FD09	POST SLEEP	UNDOCK OPS	FLY AROUND	S E P	SLM #1	OFF DUTY	MEAL	OFF DUTY					PRE SLEEP		
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DAY/NIGHT																											
ORBIT		112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127										
DAILY ORBIT	7	8	9	10	11	12	13	14	15	1	2	3	4	5	6	7	8										
ATTITUDE	BIAS ZNH XZN											-ZLV -XVV					SEP		SOAR ISS #1					SLM2			
SOAR											PASSIVE																
NOTES																											

GMT	04/22/00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	04/23			
MET	Day 008	008/00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	009/00		
STS ACT	PRE SLEEP	SLEEP										FD10	POST SLEEP	SPACEHAB STOW	CABIN STOW	MEAL	C P C C D B R H R O / R E O I E N O I W T W F	C A B I N S T O W	PEE O V N S A T	CS A T B O N W	SHAB M O D T / D	CS A T B O N W	PRE SLEEP					
ISS ACT																												
DAY/NIGHT																												
ORBIT	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142												
DAILY ORBIT	8	9	10	11	12	13	14	15	16	1	2	3	4	5	6	7												
ATTITUDE	SOAR ISS #2											+ZLV -XVV						-ZLV +YVV					SLM4					
SOAR	10 HR DATA																											
NOTES																												

GMT	04/23/00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	04/24		
MET	Day 009	009/00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	010/00	
STS ACT	PRE SLEEP	SLEEP						FD11	POST SLEEP			CABIN STOW		MEAL	DEORBIT PREP			ENTRY									
ISS ACT																											
DAY/NIGHT																											
ORBIT	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158											
DAILY ORBIT	8	9	10	11	12	13	14	15	1	2	3	4	5	6	7	8											
ATTITUDE	--ZLV +YVV--										IMU		--XSI--			COMM			ENTRY								
SOAR																											
NOTES																											

GMT	04/24/00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	04/25		
MET	Day 010	010/00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	011/00	
STS ACT																											
ISS ACT																											
DAY/NIGHT																											
ORBIT	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174										
DAILY ORBIT	8	9	10	11	12	13	14	15	16	1	2	3	4	5	6	7	8										
ATTITUDE																											
SOAR																											
NOTES																											

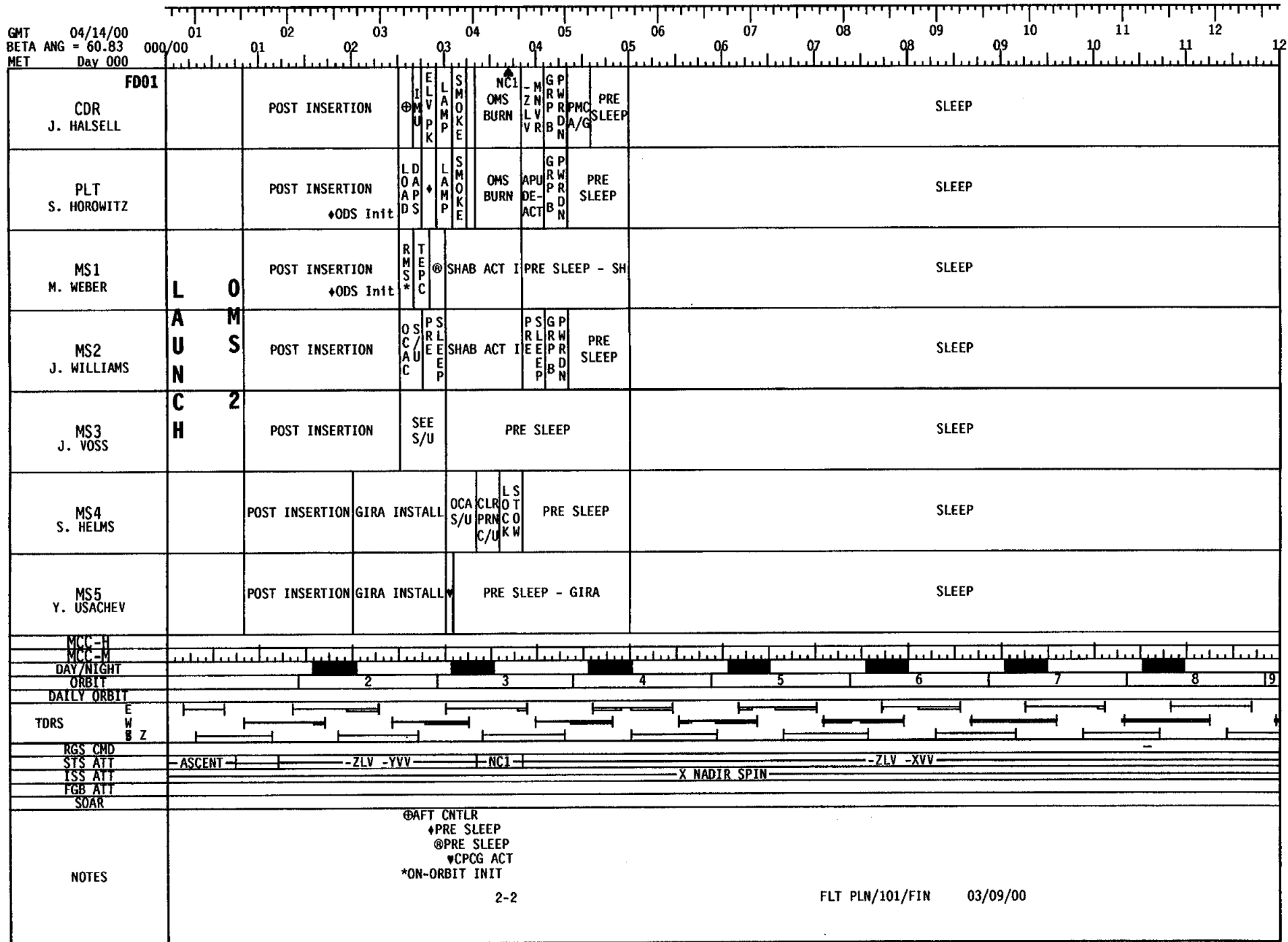
GMT	04/25/00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	04/26		
MET	Day 011	011/00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	012/00	
STS ACT																											
ISS ACT																											
DAY/NIGHT																											
ORBIT	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189											
DAILY ORBIT	8	9	10	11	12	13	14	15	1	2	3	4	5	6	7	8											
ATTITUDE																											
SOAR																											
NOTES																											

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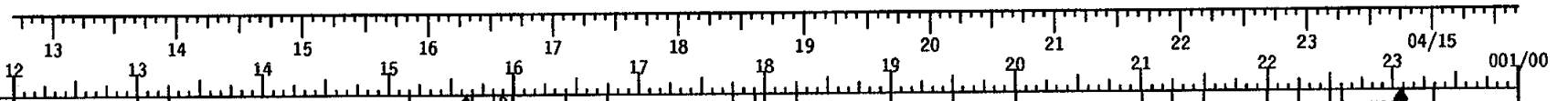
**SUMMARY TIMELINE**



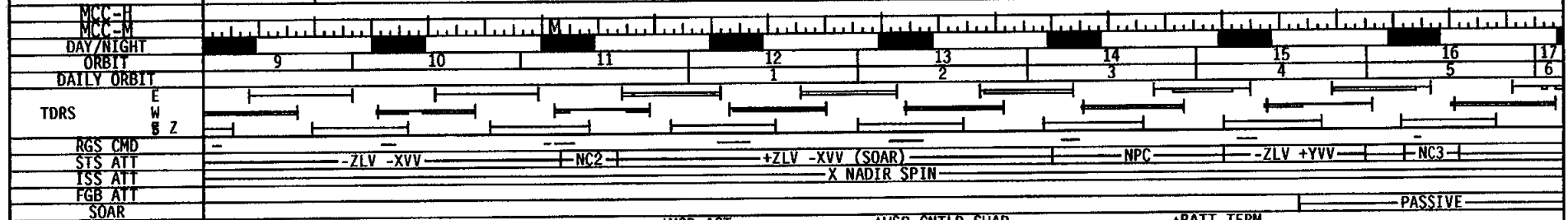
# SUMMARY TIMELINE



GMT 04/14/00  
 BETA ANG = 60.53  
 MET Day 000



CDR J. HALSELL FD02	SLEEP	DSO 493	POST SLEEP	OMS BURN NC2 + ZLV	POST SLEEP RMSHTR	P/TV 09 S/U	RNDZ TOOLS C/O	FCA*	RPMW SRUP	RMS C/O	RMS PLB SURVEY	OMS BURN	MEAL	MH21 VOMIT	SIN IOT	STENOMR	MSNOVARR	NC3 OMS BURN	MSNOVARR
PLT S. HOROWITZ	SLEEP	DSO 493	POST SLEEP	OMS BURN	POST SLEEP	A/L PREP	EMU C/O (1,3)		BRACHTG I	EMU C/O (2)	OMS BURN	MEAL				ERGO S/U	OMS BURN	CO2 MN	
MS1 M. WEBER	SLEEP	DSO 493	POST SLEEP - SH	SHAB ACT II	MOD ACT	X PFRERP	FRED S/U		RPMW SRUP	RMS C/O	RMS PLB SURVEY	RPMW SRDN	MEAL				C/L CMR MOUNT	DOCK RING EXT	
MS2 J. WILLIAMS	SLEEP	DSO 493	POST SLEEP	SHAB ACT II	φ OIU C/O	A/L PREP	EMU C/O (1,3)		BRACHTG I	* EMU C/O (2)		MEAL			ERGO S/U	C/L CMR MOUNT	DOCK RING EXT	MICRO WIS S/U	
MS3 J. VOSS	SLEEP		POST SLEEP			A/L PREP	EMU C/O (1,3)		BRACHTG I	* EMU C/O (2)		MEAL			SOAR S/U & ACT			P/TV 20 S/U	
MS4 S. HELMS	SLEEP		POST SLEEP			RNDZ PGSC S/U	RNDZ TOOLS C/O	FILTER CLEANING			CRYO 02 SNSR CK		MEAL		PRE ING EQUIP S/U		RF LAN S/U		
MS5 Y. USACHEV	SLEEP		POST SLEEP - GIRA	H 20 *	φ OIU C/O	X PFRERP		MAO CMT O			CRYO 02 SNSR CK		MEAL		PRE ING EQUIP S/U				



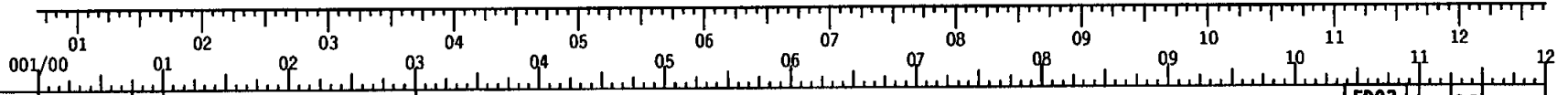
NOTES

φMOD ACT  
 ΔWSB CNTLR SWAP  
 ▲BATT TERM  
 VFGB φBII - ON  
 \*PURGE-MANUAL  
 ●BATT TERM  
 \*GALLEY SAMPLE  
 \*HELMET LT BATT CHRG +2 PGT BATT  
 \* EMU SWAP

2-3

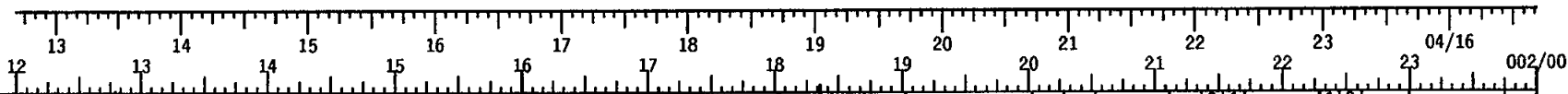
FLT PLN/101/FIN 03/09/00

GMT 04/15/00  
 BETA ANG = 59.97  
 MET Day 001



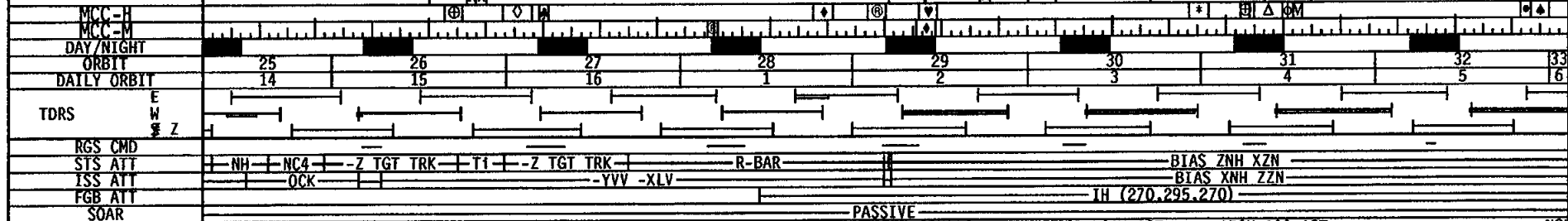
FD02												FD03		
CDR J. HALSELL	PRE SLEEP	PMC OCA	PRE SLEEP	SLEEP							DSO 493	GP RW PR BU P	RNDZ	
PLT S. HOROWITZ	PRE SLEEP		SLEEP							DSO 493	GP RW PR BU P	RNDZ		
MS1 M. WEBER	PRE SLEEP - SH		SLEEP							DSO 493		POST SLEEP - SH		
MS2 J. WILLIAMS	PRE SLEEP		SLEEP							DSO 493		POST SLEEP		
MS3 J. VOSS	PRE SLEEP		SLEEP									POST SLEEP		
MS4 S. HELMS	PRE SLEEP		SLEEP									POST SLEEP RNDZ		
MS5 Y. USACHEV	PRE SLEEP - GIRA		SLEEP									POST SLEEP - GIRA		
MCC-H														
MCC-M														
DAY/NIGHT	[Shaded blocks indicating day/night cycles]													
ORBIT	17	18	19	20	21	22	23	24	25					
DAILY ORBIT	6	7	8	9	10	11	12	13	14					
TDRS	[Horizontal bars indicating TDRS coverage]													
RGS CMD														
STS ATT														
ISS ATT														
FGB ATT														
SOAR	+ZLV -XVV (SOAR) X NADIR SPIN -PASSIVE													
NOTES														

GMT 04/15/00  
 BETA ANG = 59.16  
 MET Day 001



CDR J. HALSELL	RNDZ				RNDZ				MM NP VA R	ODS VEST/ PMA2 PRESS	GP RW PR DN	DT S 623 S/U	10.2 DPRS	OFF DUTY	EVA BRIEF	PMC OCA
PLT S. HOROWITZ	RNDZ				RNDZ					EXERCISE	SAFER C/O	MI KN I P / B	PROC REVIEW	OFF DUTY	EVA BRIEF	
MS1 M. WEBER	POST SLEEP - SH	EXERCISE	POST SLEEP	10 2 PR P	MI CI U *	SH EVA PREP	RNDZ		ODS VOL PREP INGR	ODS VEST/ PMA2 PRESS	GP RW PR DN	POST RNDZ PGSC CNFG	10.2 DPRS	OFF DUTY	EVA BRIEF	
MS2 J. WILLIAMS	POST SLEEP		EXERCISE	P/TV 20 OPS				ODS VOL PREP INGR	MDDK PREP	EVA TOOL CNFG	SAFER C/O	MI KN I P / B	PROC REVIEW	OFF DUTY	EVA BRIEF	
MS3 J. VOSS	POST SLEEP		RNDZ	EXERCISE	RNDZ				MDDK PREP	EVA TOOL CNFG	SAFER C/O	MI KN I P / B	PROC REVIEW	OFF DUTY	EVA BRIEF	
MS4 S. HELMS	RNDZ				VTR PB S/U	EXERCISE	VTR PB	EPCS SETUP (1-4)	POST RNDZ PGSC CNFG	OFF DUTY		EVA BRIEF				
MS5 Y. USACHEV	POST SLEEP - GIRA		RNDZ	RNDZ				EXERCISE	AST INIT	OFF DUTY		EVA BRIEF				

DOCKING \* HARMAN

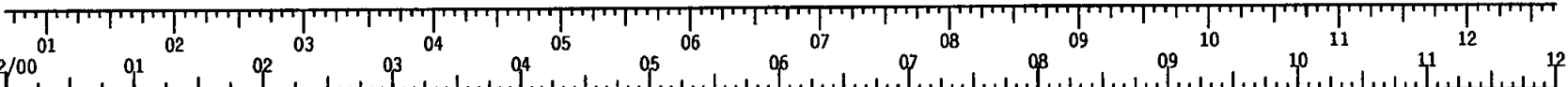


NOTES

@EXP PREP @SA - POS2 \*C&DH DOCK CONFIG \*BAG- PCAM ACT \*APCU 1&2 ACT \*NODE 1 C/  
 @ACS PRE-ARRL MODING @NODE 1 PWRDN \*C&DH DOCK CONFIG ΔNODE 1 CAB FAN ACT \*NODE 1 IMV  
 @RPCM N13B/4B ENABLE \*C&DH PSTDOCK CNFG \*FDIR VNODE 1 INT LT P/U \*6700 RPM  
 \*FILTER CK \*NODE 1 PWR RESTORE \*RPCM N13B/4B ENABLE\*  
 2-5 FLT PLN/101/FIN 03/09/00

\*DOCKING @ 1/18:02

GMT 04/16/00  
 BETA ANG = 58.18  
 MET Day 002



FD03	EXERCISE	PRE SLEEP	SLEEP	FD04	POST SLEEP	M N P V A R
CDR J. HALSELL				DSO 493		
PLT S. HOROWITZ				DSO 493		
MS1 M. WEBER				DSO 493		
MS2 J. WILLIAMS				DSO 493		
MS3 J. VOSS						
MS4 S. HELMS						
MS5 Y. USACHEV						

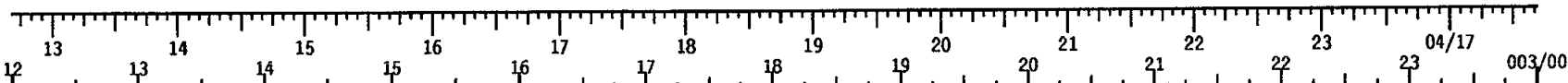
MCC-H													
MCC-M													
DAY/NIGHT													
ORBIT	33	34	35	36	37	38	39	40					
DAILY ORBIT	6	7	8	9	10	11	12	13					
TDRS													
RGS CMD													
STS ATT													
ISS ATT													
FGB ATT													
SOAR													

NOTES

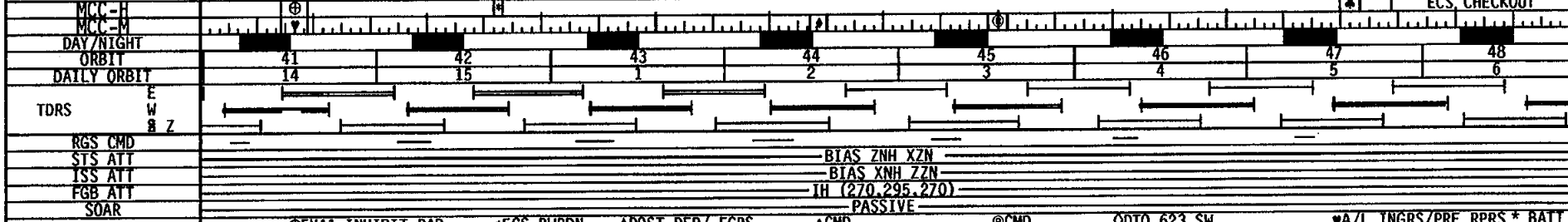
2-6

FLT PLN/101/FIN 03/09/00

GMT 04/16/00  
 BETA ANG = 57.03  
 MET Day 002



FD04 CDR J. HALSELL	PMC OCA	POST SLEEP	IP N H D B S T	102 M N T						RMS EVA SUPPORT	MEAL		RMS EVA SUPPORT	14.7 REPR	RMS EVA SUPT	EXERCISE	A A R R F F T T E E R R	PRE SLEEP	PMC OCA
PLT S. HOROWITZ	PS O L S E T P	EVA PREP			EMU PURGE P/B	A/L DPRS	Δ	SORTIE SETUP	OTD	S C O O R R T T I E	STRELA INSTALL	EARLY COMM ANTENNA	NODE HANDRL INSTL	SORTIE CLEAN UP		A/L RPRS	POST EVA SUPPORT	PRE SLEEP	
MS1 M. WEBER		EXERCISE		R M S H T R	POST SLEEP	R P M W S R U P				RMS EVA SUPPORT	MEAL		RMS EVA SUPPORT		R P M W S R U P	FRED STOW	P S T E V A S H C F G	E X P R C	PRE SLEEP - SH
MS2/EV1 J. WILLIAMS	PMC OCA	EVA PREP			EMU PURGE P/B	A/L DPRS	φ	SORTIE SETUP	OTD	S C O O R R T T I E	STRELA INSTALL	EARLY COMM ANTENNA	NODE HANDRL INSTL	SORTIE CLEAN UP		A/L RPRS	POST EVA W/O H20	M R D C H K G *	P S L P
MS3/EV2 J. VOSS	PMC OCA	EVA PREP			EMU PURGE P/B	A/L DPRS	∇	SORTIE SETUP	OTD	S C O O R R T T I E	STRELA INSTALL	EARLY COMM ANTENNA	NODE HANDRL INSTL	SORTIE CLEAN UP		A/L RPRS	POST EVA W/O H20	M R D C H K G *	P S L P
MS4 S. HELMS	PS O L S E T P	EVA PREP			EXERCISE	E S P / C U S ( 5 )	P / T V 2 3 S / U		P / T V 2 3 O P S		MEAL		P / T V 2 3 O P S		E D P T C ( 1 )		POST EVA W/O H20		PRE SLEEP
MS5 Y. USACHEV		POST SLEEP - GIRA						EXERCISE			MEAL	A F X S L F U E I R D		AST C/O					PRE SLEEP - GIRA



NOTES

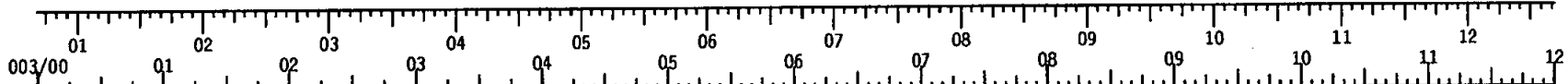
⊕EVA1 INHIBIT PAD    \*ECS PWRDN    ΔPOST DEP/ EGRS    ♦CMD    ©CMD    ⓄTO 623 SW    ▼A/L INGRS/PRE RPRS \* BATT

▼EVA1 INHIBIT PAD    φPOST DEP/ EGRS    ∇POST DEP/ EGRS    IH (270,295,270)    PASSIVE    ▲A/L INGRS/PRE RPRS CHARGE

\*BOOSTER FAN DEACT ONLY    2-7    FLT PLN/101/FIN    03/09/00    ▲A/L INGRS/PRE RPRS ONLY

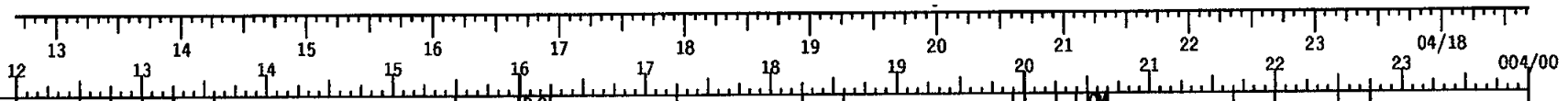
\*BOOSTER FAN ACT

GMT 04/17/00  
 BETA ANG = 55.68  
 MET Day 003

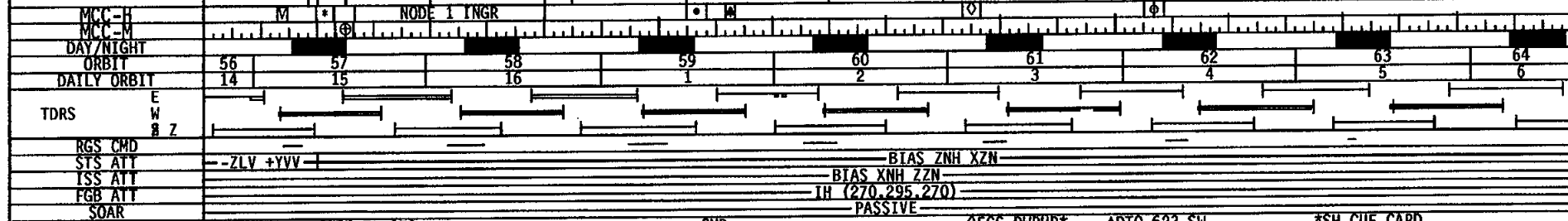


FD04		FD05													
CDR J. HALSELL	PRE SLEEP	SLEEP										DSO 493	POST SLEEP	MH N2 V0 R	SIP INS MIL OTF
PLT S. HOROWITZ	PRE SLEEP	SLEEP										DSO 493	POST SLEEP		
MS1 M. WEBER	PRE SLEEP - SH	SLEEP										DSO 493	POST SLEEP - SH		
MS2 J. WILLIAMS	PRE SLEEP	SLEEP										DSO 493	POST SLEEP		
MS3 J. VOSS	PRE SLEEP	SLEEP											POST SLEEP		
MS4 S. HELMS	PRE SLEEP	SLEEP											POST SLEEP		
MS5 Y. USACHEV	PRE SLEEP - GIRA	SLEEP											POST SLEEP - GIRA		
MCC-H	ECS CHECKOUT														
MCC-M	ECS CHECKOUT														
DAY/NIGHT	ECS CHECKOUT														
ORBIT	48	49	50	51	52	53	54	55	56	ECS CHECKOUT					
DAILY ORBIT	6	7	8	9	10	11	12	13	14	ECS CHECKOUT					
TDRS	ECS CHECKOUT														
E	ECS CHECKOUT														
W	ECS CHECKOUT														
Z	ECS CHECKOUT														
RGS CMD	ECS CHECKOUT														
STS ATT	ECS CHECKOUT														
ISS ATT	ECS CHECKOUT														
FGB ATT	ECS CHECKOUT														
SOAR	ECS CHECKOUT														
BIAS ZNH XZN	ECS CHECKOUT														
BIAS XNH ZZN	ECS CHECKOUT														
JH (270,295,270)	ECS CHECKOUT														
PASSIVE	ECS CHECKOUT														
NOTES	ECS CHECKOUT														

GMT 04/17/00  
 BETA ANG = 54.15  
 MET Day 003



CDR J. HALSELL FD05	POST SLEEP	STE MR OM	MCM	MMP	P/TV 21 S/U	P/TV 21 OPS INGR SPT				14.7 REPR	POP	MEAL	PAO SPT					EXERCISE	PRE SLEEP	PMC OCA	PRE SLEEP
PLT S. HOROWITZ	POST SLEEP	EMU REMVL	DBAR			NODE 1 FAN DUCTS	SSU XFER BF BATT	FGB DUCTS	EXERCISE	MEAL	PEAV	RAD MON	XPB FRIG RNS T	FUN GUS	XPB FRIG RNS T		XFER KOMP	DBAR		PRE SLEEP	
MS1 M. WEBER	POST SLEEP - SH	DBAR	SOAR OCA			SHAB XFER PREP				FD RPY M Y H	PO	MEAL	PEAV	LOG XFER	EXERCISE	LOG XFER	EGRS	DAILY BRIEF *	PRE SLEEP - SH		
MS2 J. WILLIAMS	POST SLEEP	ES	DBAR	EXERCISE		XFER NODE ZSR	XFER BATT	LOG XFER	XFER BUPT PTAB	MEAL	FGB EPCS	INP XDA	LX OF BGR	IMXMMD XFR BF PTAB2	LOG XFER	CWC SAMPLE	XCH	EGRS	DAILY BRIEF	PRE SLEEP	
MS3 J. VOSS	POST SLEEP	EMU REMVL	DBAR	INGR SPPT W/ EPCS				PMA2 AIR MEASMT	MEAL	BR	CWC RELOCATE		EXERCISE	P/TV 21 S/U	P/TV 21 OPS	EGRS	DBAR	PRE SLEEP			
MS4 S. HELMS	EXERCISE	DBAR	PMA2 INGR	NODE 1 INGR	PI	FGB INGR	FGB BATT 1 R&R	MEAL	FGB BUPT 1 R&R	CNNCT CHECK	FGB PTAB 2 R&R	Close	EXERCISE	Close	FGB PTAB 2 R&R	DBAR	PRE SLEEP				
MS5 Y. USACHEV	POST SLEEP - GIRA	DBAR	PMA2 INGR	NODE 1 INGR	PI	FGB INGR	FGB BATT 1 R&R	MEAL	FGB PTAB 1 R&R	CNNCT CHECK	FGB PTAB 2 R&R	Close	EXERCISE	Close	FGB PTAB 2 R&R	DBAR	EXERCISE	PRE SLEEP - GIRA			



NOTES

▲CPCG TL SEQ  
 VECS PWRDN\*  
 \*NODE 1 CAB FAN SPEED  
 @CMD  
 \*CTP Only  
 \*5000 RPM

•CMD  
 ▲NODE 1 INV FAN ACT

OECS PWRUP\*  
 \*CTP Only

ADTO 623 SW  
 @CMD  
 \*FILTER CK

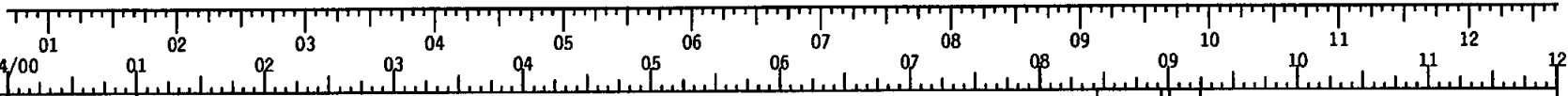
\*SH CUE CARD

2-9

FLT PLN/101/FIN 03/09/00



GMT 04/18/00  
 BETA ANG = 52.54  
 MET Day 004



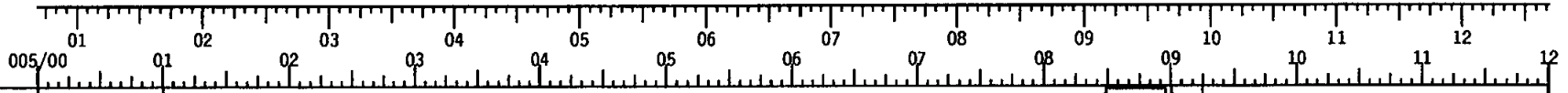
FD05												FD06			
CDR J. HALSELL	PRE SLEEP	SLEEP										DSO 493	POST SLEEP		
PLT S. HOROWITZ	PRE SLEEP	SLEEP										DSO 493	POST SLEEP		
MS1 M. WEBER	PRE SLEEP - SH	SLEEP										DSO 493	POST SLEEP - SH		DB AR I L E Y F
MS2 J. WILLIAMS	PRE SLEEP	SLEEP										DSO 493	POST SLEEP		DB AR I L E Y F
MS3 J. VOSS	PRE SLEEP	SLEEP												POST SLEEP	
MS4 S. HELMS	PRE SLEEP	SLEEP												POST SLEEP	
MS5 Y. USACHEV	PRE SLEEP - GIRA	SLEEP												POST SLEEP - GIRA	
		← ISS SURVEY →													
MCC-H		[Timeline with shaded blocks]													
MCC-H		[Timeline with shaded blocks]													
DAY/NIGHT		[Timeline with shaded blocks]													
ORBIT		64	65	66	67	68	69	70	71	72					
DAILY ORBIT		6	7	8	9	10	11	12	13	14					
TDRS		[Timeline with horizontal bars]													
E		[Timeline with horizontal bars]													
W		[Timeline with horizontal bars]													
B		[Timeline with horizontal bars]													
Z		[Timeline with horizontal bars]													
RGS CMD															
STS ATT															
ISS ATT															
FGB ATT															
SOAR															
NOTES															

BIAS ZNH XZN  
 BIAS XNH ZZN  
 IH (270,295,270)  
 PASSIVE

♦CMD



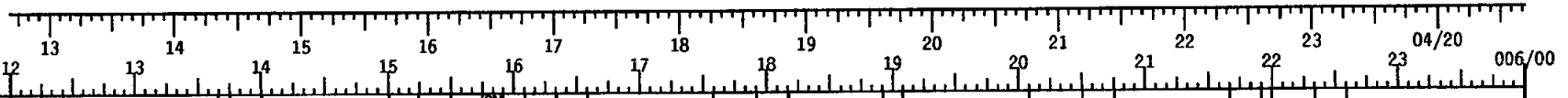
GMT 04/19/00  
 BETA ANG = 48.96  
 MET Day 005



<b>FD06</b> CDR J. HALSELL	PRE SLEEP	SLEEP	<b>FD07</b> DSO 493	POST SLEEP	
PLT S. HOROWITZ	PRE SLEEP	SLEEP	DSO 493	POST SLEEP	
MS1 M. WEBER	PRE SLEEP - SH	SLEEP	DSO 493	POST SLEEP - SH	DB ARI ILE YF
MS2 J. WILLIAMS	PRE SLEEP	SLEEP	DSO 493	POST SLEEP	DB ARI ILE YF
MS3 J. VOSS	PRE SLEEP	SLEEP		POST SLEEP	
MS4 S. HELMS	PRE SLEEP	SLEEP		POST SLEEP	
MS5 Y. USACHEV	PRE SLEEP - GIRA	SLEEP		POST SLEEP - GIRA	
MCC-H MCC-M	RFPDB CHECKOUT				
DAY/NIGHT					
ORBIT					
DAILY ORBIT					
TDRS					
RGS CMD	-				
STS ATT	-				
ISS ATT	-				
FGB ATT	-				
SOAR	-				
NOTES	<div style="display: flex; justify-content: space-between; align-items: center;"> <span>2-12</span> <span>FLT PLN/101/FIN</span> <span>03/09/00</span> </div>				

-BIAS ZNH XZN  
 -BIAS XNH ZZN  
 IH (270,295,270)  
 -PASSIVE-

GMT 04/19/00  
 BETA ANG = 47.03  
 MET Day 005



CDR J. HALSELL	DBAR I I L E Y F	MC I I U *	CWC INITIAL SETUP	M+N Z L V R V	REBOOST	M N P V A C R M	CT W E R M	CM P O W C S *	C I W N C I T	MEAL	PAO SPT	CT W E R M	FILTER CLEANING	EXERCISE	C I W N C I T	CT W E R M	PS R L E E P	PRE SLEEP
PLT S. HOROWITZ	DBAR I I L E Y F	IN G I L E Y F	EXERCISE	LOG XFER	REBOOST	LOG XFER	Close Panel XFER ECNL 1&4		MEAL	ENCL4 STAGING	Close Panel LOG XFER	Close Panel LOG XFER	Close Panel LOG XFER	Close Panel LOG XFER	Close Panel LOG XFER	Close Panel LOG XFER	PS R L E E P	PRE SLEEP
MS1 M. WEBER	DBAR I I L E Y F	IN G I L E Y F	LOG XFER	EXERCISE	LOG XFER	MEAL	ENCL1 STAGNG	XFER ENCL 3	LOG XFER	ENCL3 STAGNG	LOG XFER	LOG XFER	CWC XFER (2)	ENCL1 STAGNG	DAILY BRIEF *	PRE SLEEP - SH		
MS2 J. WILLIAMS	DBAR I I L E Y F	IN G I L E Y F	LOG XFER	EXERCISE	MEAL	Close Panel FGB ENCL 1&4	Close Panel LOG XFER	Close Panel LOG XFER	Close Panel LOG XFER	Close Panel LOG XFER	Close Panel LOG XFER	Close Panel LOG XFER	Close Panel LOG XFER	Close Panel LOG XFER	Close Panel LOG XFER	Close Panel LOG XFER	PRE SLEEP	
MS3 J. VOSS	DBAR I I L E Y F	IN G I L E Y F	LOG XFER	CWC RETURN	LOG XFER	MEAL	LOG XFER	LOG XFER	LOG XFER	EXERCISE	P/TV 21 S/U	P/TV 21 OPS	ENCL1 STAGNG	DAILY BRIEF	PRE SLEEP			
MS4 S. HELMS	DBAR I I L E Y F	IN G I L E Y F	XFER RTS	RTS UNIT	Close Panel LOG XFER	EXERCISE	P/4 T S / U	LOG XFER	MEAL	PE A V O E N T	LOG XFER	LOG XFER	LABEL NCRT ITEMS FGB	DAILY BRIEF	PRE SLEEP			
MS5 Y. USACHEV	DBAR I I L E Y F	IN G I L E Y F	LOG XFER	RTS UNIT	Close Panel LOG XFER	SMK DTCTR #5	SMK DTCTR #10	Close Panel LOG XFER	SMK DTCTR #4	Close Panel MEAL	S R D E ( T S U R ) N	EXERCISE	LOG XFER	DAILY BRIEF	PRE SLEEP - GIRA			

MCC-H	12	13	14	15	16	17	18	19	20	21	22	23	24
MCC-M	12	13	14	15	16	17	18	19	20	21	22	23	24
DAY/NIGHT	12	13	14	15	16	17	18	19	20	21	22	23	24
ORBIT	12	13	14	15	16	17	18	19	20	21	22	23	24
DAILY ORBIT	12	13	14	15	16	17	18	19	20	21	22	23	24
TDRS	12	13	14	15	16	17	18	19	20	21	22	23	24
E W B Z	12	13	14	15	16	17	18	19	20	21	22	23	24
RGS CMD	-												
SIS ATT	-												
LSS ATT	-												
FGB ATT	-												
SOAR	-												

NOTES

\*CMD \*FILTER CK

VCMD

GPS COND TEST TERM \*CMD

\*WCS COMPACT OPS

BIAS ZNH XZN

BIAS XNH ZZN

IH (270,295,270)

PASSIVE

4DT0 623 SW

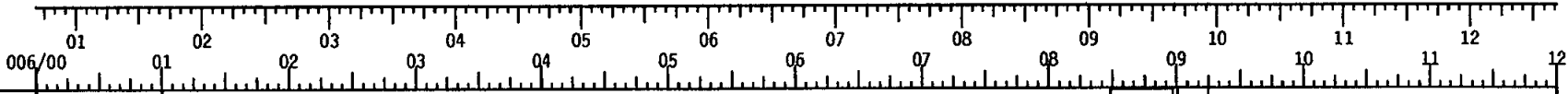
\*SH CUE CARD

2-13

FLT PLN/101/FIN

03/09/00

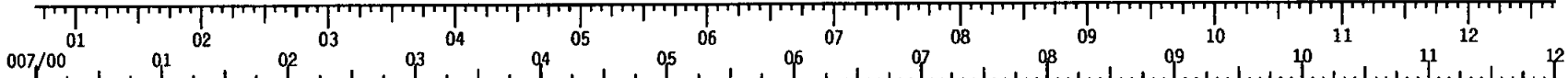
GMT 04/20/00  
 BETA ANG = 45.06  
 MET Day 006



FD07 CDR J. HALSELL	PRE SLEEP	SLEEP	FD08	POST SLEEP	
PLT S. HOROWITZ	PRE SLEEP	SLEEP	DSO 493	POST SLEEP	
MS1 M. WEBER	PRE SLEEP - SH	SLEEP	DSO 493	POST SLEEP - SH	DB AR II LE YF
MS2 J. WILLIAMS	PRE SLEEP	SLEEP	DSO 493	POST SLEEP	DB AR II LE YF
MS3 J. VOSS	PRE SLEEP	SLEEP		POST SLEEP	
MS4 S. HELMS	PRE SLEEP	SLEEP		POST SLEEP	
MS5 Y. USACHEV	PRE SLEEP - GIRA	SLEEP		POST SLEEP - GIRA	
		← ISS SURVEY →			
MCC-H	[Timeline bar with markers]				
MCC-M	[Timeline bar with markers]				
DAY/NIGHT	[Timeline bar with markers]				
ORBIT	96	97	98	99	100
DAILY ORBIT	7	8	9	10	11
TDRS	[Timeline bar with markers]				
E	[Timeline bar with markers]				
W	[Timeline bar with markers]				
Z	[Timeline bar with markers]				
RGS CMD	[Timeline bar with markers]				
STS ATT	[Timeline bar with markers]				
ISS ATT	[Timeline bar with markers]				
FGB ATT	[Timeline bar with markers]				
SOAR	[Timeline bar with markers]				
	BIAS ZNH XZN BIAS XNH ZZN IH (270,295,270) PASSIVE				
NOTES	*CMD				



GMT 04/21/00  
 BETA ANG = 40.91  
 MET Day 007



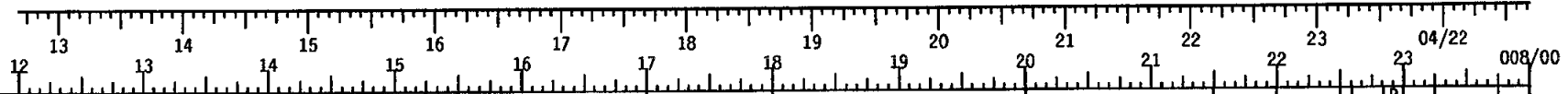
FD08	01	02	03	04	05	06	07	08	09	10	11	12			
CDR J. HALSELL	PRE SLEEP	SLEEP								FD09	DSO 493T PS OLR SEP EBP	SGR RUP ROU CUC	UNP DS ZLV	UNDOCK OPS	FLY AROUND
PLT S. HOROWITZ	PRE SLEEP	SLEEP								DSO 493T	PS OLR SEP EBP	SGR RUP ROU CUC	UNP DS ZLV	UNDOCK OPS	FLY AROUND
MS1 M. WEBER	PRE SLEEP - SH	SLEEP								DSO 493	*	SOAR DATA PREP		UNDOCK OPS	FLY AROUND
MS2 J. WILLIAMS	PRE SLEEP	SLEEP								DSO 493T	PS OLR SEP EBP	P/TV 25 S/U		P/TV 25 OPS	
MS3 J. VOSS	PRE SLEEP	SLEEP										POST SLEEP		UNDOCK OPS	FLY AROUND
MS4 S. HELMS	PRE SLEEP	SLEEP										POST SLEEP	AD PE CA UC T 2	UNDOCK OPS	FLY AROUND
MS5 Y. USACHEV	PRE SLEEP - GIRA	SLEEP										POST SLEEP - GIRA		UNDOCK OPS	FLY AROUND

MCC-H	[Timeline with markers]											
MCC-M	[Timeline with markers]											
DAY/NIGHT	[Timeline with markers]											
ORBIT	111	112	113	114	115	116	117	118	119			
DAILY ORBIT	7	8	9	10	11	12	13	14	15			
TDRS	[Timeline with markers]											
RGS CMD	[Timeline with markers]											
STS ATT	[Timeline with markers]											
ISS ATT	[Timeline with markers]											
FGB ATT	[Timeline with markers]											
SOAR	[Timeline with markers]											

NOTES

\*POST SLEEP - SH      @C&DH UNDOCK CONI  
 @ACS PRE DEP MOD    +C&DH UNDOCK CONFIG  
 ANODE 1 PWRDN      φSA - POS2      φFGB SA UNLOCK  
 BIAS ZNH XZN      -ZLV -XVV  
 BIAS XNH ZZN      -XLV -ZVV      -FREE  
 IH (270,295,270)  
 -PASSIVE

GMT 04/21/00  
 BETA ANG = 38.82  
 MET Day 002



CDR J. HALSELL	FLY AROUND	SEP	SM LN MVR	SLM #1	MH N 2 VOR	SIN I OT	OFF DUTY	ST I ENO MR	MS I NO VARR	OFF DUTY	MEAL	OFF DUTY	EXERCISE	OFF DUTY	PRE SLEEP	PMCA	PS L EEP	SM LN MVR	SLM #2	MS I NO VARR
PLT S. HOROWITZ	FLY AROUND	SEP	GR PR BDN	POE IUA CT	COM *					OFF DUTY	MEAL	OFF DUTY	EXERCISE	OFF DUTY	PRE SLEEP					
MS1 M. WEBER	FLY AROUND	SEP	CS OT LA DRT	MC I U *		PO / TS / U	PAO SPT			EXERCISE	MEAL	OFF DUTY			PRE SLEEP				ISS PFC	
MS2 J. WILLIAMS	P/TV 25 OPS							EXERCISE	OFF DUTY	MEAL	OFF DUTY			PRE SLEEP						
MS3 J. VOSS	FLY AROUND	SEP	EXERCISE						OFF DUTY	MEAL	OFF DUTY			PRE SLEEP						
MS4 S. HELMS	FLY AROUND	SEP	GR PR BDN						OFF DUTY	MEAL	OFF DUTY		EXERCISE	PRE SLEEP						
MS5 Y. USACHEV	EXERCISE						PEA V OENT		OFF DUTY	MEAL	OFF DUTY			PRE SLEEP	PMCA	PRE SLEEP - GIRA				

MCC-H	M															
MCC-M	M															
DAY/NIGHT	D															
ORBIT	119	120	121	122	123	124	125	126	127							
DAILY ORBIT	15	1	2	3	4	5	6	7	8							
TDRS	E W Z															
RGS CHD																
STS ATT	FLY AROUND	SEP	SLM1	-ZLV +YVV										SOAR ISS #1	SLM2	
ISS ATT	FREE															
FGB ATT	-IH (270,295,270)															
SOAR	PASSIVE	SLM1	7 HR DATA										SLM2			

NOTES

VFLY AROUND OC&DH UNDOCK CONFIG  
 \*STRING 1 C/O (PT A)  
 \*FILTER CK

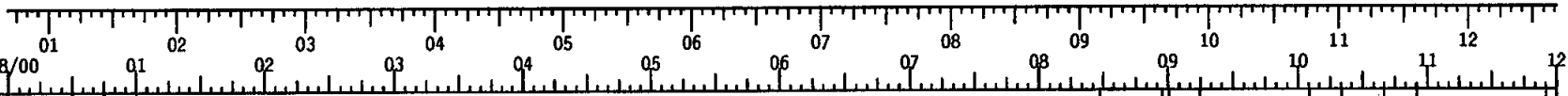
\*DTO 623 SW  
 \*NODE 1 HTR RECONFIG

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FLT PLN/101/FIN 03/09/00

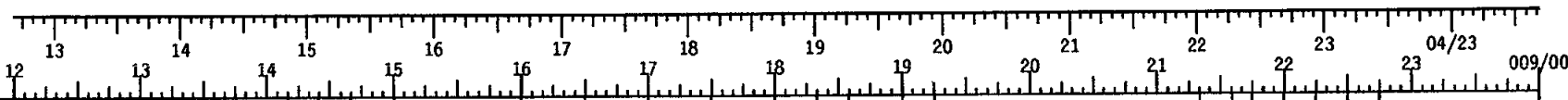


GMT 04/22/00  
 BETA ANG = 36.66  
 MET Day 008



CDR J. HALSELL	FD09 PRE SLEEP	PS R L E E P P	SLEEP	FD10	DSO 493	POST SLEEP	SM LN M V R	SLM #3	MS NO VA RR	POST SLEEP
PLT S. HOROWITZ	PRE SLEEP		SLEEP		DSO 493	POST SLEEP				
MS1 M. WEBER	PRE SLEEP - SH		SLEEP		DSO 493	POST SLEEP - SH				EXERCISE
MS2 J. WILLIAMS	PRE SLEEP	PS R L E E P P	SLEEP		DSO 493	POST SLEEP				
MS3 J. VOSS	PRE SLEEP		SLEEP			POST SLEEP				
MS4 S. HELMS	PRE SLEEP	PFC OCA	SLEEP			POST SLEEP				
MS5 Y. USACHEV	PRE SLEEP - GIRA		SLEEP			POST SLEEP - GIRA				
MCC-H										
DAY/NIGHT										
ORBIT	127	128	129	130	131	132	133	134	135	
DAILY ORBIT	8	9	10	11	12	13	14	15	16	
TDRS										
GND		-BDA -BDA -VAN -DKR -VTS	-BDA -VAN -DKR -MIL -VAN	-GTS -MIL -VAN -VAN	-GTS -MIL -VAN -VTS	-DGS -VAN -VTS	-DGS -VAN -VTS			
STS ATT										
SOAR				SOAR ISS #2				SLM3	+ZLV -XVV	
				10 HR DATA				SLM3	CRV #1	
NOTES										CRV WARM APU HT SOAR CRV PREP @NODE 1 PWR RESTORE

GMT 04/22/00  
 BETA ANG = 34.46  
 MET Day 008



CDR J. HALSELL	EXERCISE		FCS C/O	RCS H/F	FSU TARR	CS AT BOW IN	MEAL	CREW PHOTO	CREW CONF	D/O BRIEF	PILOT OPS	CS AT BOW IN	SM LN V R	SLM #4	-M ZN LV R	CABIN STOW			DTG 623 STO	PMC A/G	HM UN D V R	HUD CAL	-M ZN LV R	PRE SLEEP
PLT S. HOROWITZ	CABIN STOW	PILOT SETUP	FCS C/O	RCS H/F	CABIN STOW	MEAL	CREW PHOTO	CREW CONF	D/O BRIEF	COMM * P I P L S O T	POST EVA ENT PREP	POST EVA ENT PREP	L-1 COMM CHK	FCMS OPS	EXERCISE	CABIN STOW	ERGO STOW	PRE SLEEP						
MS1 M. WEBER	▼	•	SPACEHAB STOW	▽	CABIN STOW	◊	MEAL	◄	CREW PHOTO	CREW CONF	D/O BRIEF	△	CABIN STOW			SOAR DEACT & STOW	SHAB MOD TEARDOWN	CABIN STOW	PRE SLEEP - SH					
MS2 J. WILLIAMS	CABIN STOW		FCS C/O	RCS H/F	CABIN STOW	MEAL	CREW PHOTO	CREW CONF	D/O BRIEF	P O P I P L S O T	POST EVA ENT PREP	EXERCISE	CABIN STOW	K S U T - O B W D		O C A S - B D S / U	PRE SLEEP							
MS3 J. VOSS	SPACEHAB STOW			CABIN STOW	MEAL	CREW PHOTO	CREW CONF	D/O BRIEF	CABIN STOW	POST EVA ENT PREP	CABIN STOW	EXERCISE	CABIN STOW	EXERCISE	P O D / 9 E T A V C T		PRE SLEEP							
MS4 S. HELMS	SPACEHAB STOW			CABIN STOW	MEAL	CREW PHOTO	CREW CONF	D/O BRIEF	EXERCISE	CABIN STOW	M W D I I E C S A R C T O	CABIN STOW	CABIN STOW	ERGO STOW	PRE SLEEP									
MS5 Y. USACHEV	BIO TUBE #1	SH STOW	EXERCISE	SH STOW	CABIN STOW	MEAL	CREW PHOTO	CREW CONF	D/O BRIEF	CABIN STOW			H 2 O *	SHAB MOD TEARDOWN	BIO TUBE #2	PRE SLEEP - GIRA								

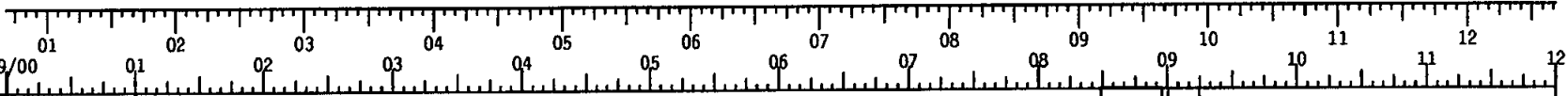
MCC-H																								
DAY/NIGHT																								
ORBIT	135	136	137	138	139	140	141	142																
DAILY ORBIT	16	1	2	3	4	5	6	7																
TDRS																								
GND																								
STS ATT																								
SOAR																								

NOTES

•CRV WARM      VCRV WARM      ◊CRV CLD      ◄CRV CLD      ΔCRV CLD      \*STRING 1 C/O (PT B)      \*SSD/MOMO DEACT      \*GALLEY SAMPLE

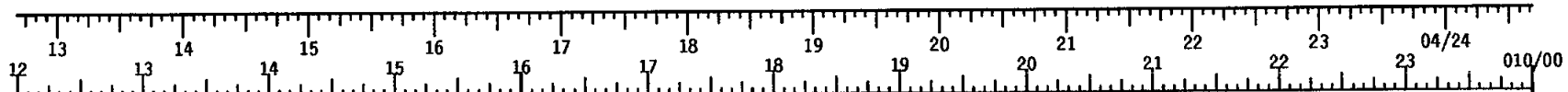
OBAG- PCAM DEACT

GMT 04/23/00  
 BETA ANG = 32.29  
 MET Day 009

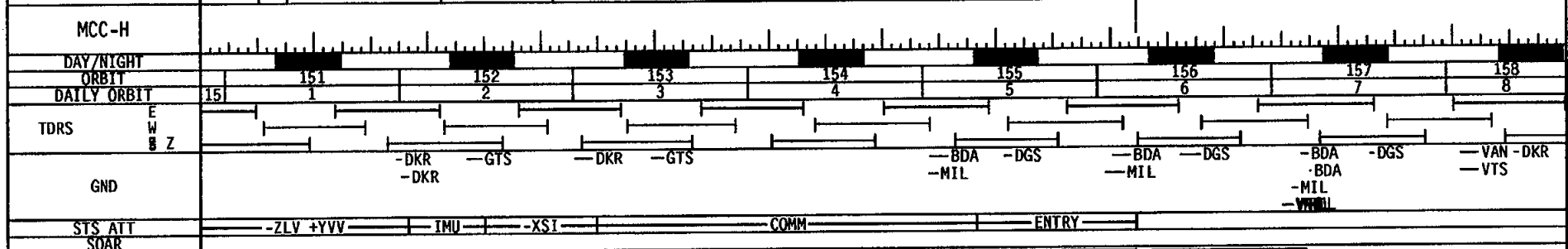


	01	02	03	04	05	06	07	08	09	10	11	12
009/00	01	02	03	04	05	06	07	08	09	10	11	12
<b>FD10</b>									<b>FD11</b>			
CDR J. HALSELL	PRE SLEEP	SLEEP								DSO 493	POST SLEEP	
PLT S. HOROWITZ	PRE SLEEP	SLEEP								DSO 493	POST SLEEP	
MS1 M. WEBER	PRE SLEEP - SH	SLEEP								DSO 493	POST SLEEP - SH	
MS2 J. WILLIAMS	PRE SLEEP	SLEEP								DSO 493	POST SLEEP	
MS3 J. VOSS	PRE SLEEP	SLEEP									POST SLEEP	
MS4 S. HELMS	PRE SLEEP	SLEEP									POST SLEEP	
MS5 Y. USACHEV	PRE SLEEP - GIRA	SLEEP									POST SLEEP - GIRA	
MCC-H												
DAY/NIGHT												
ORBIT	143	144	145	146	147	148	149	150				
DAILY ORBIT	8	9	10	11	12	13	14	15				
TDRS												
GND	-BDA -VAN-DKR -VTS	-BDA -VAN-DKR -VTS	-GTS -GTS -MIL -MIL -MIL	-BDA -MIL -VAN -VTS	-GTS -BDA -MIL -VAN -VTS	-MIL -MIL -VAN -VTS	-DGS -VAN -DGS					
STS ATT	-ZLV +YVV-											
SOAR												
NOTES	<p style="text-align: center;">2-20</p> <p style="text-align: right;">FLT PLN/101/FIN 03/09/00</p>											

GMT 04/23/00  
 BETA ANG = 30.04  
 MET Day 009



CDR J. HALSELL	FD11 PMC A/G	FR R UP	CABIN STOW	IMU ALIGN /VERIF	-M X N S V I R	MEAL	DEORBIT PREP	D / O  B U R N *  K S C  L A N D I N G *
PLT S. HOROWITZ	CABIN STOW	GR R UP	CABIN STOW			MEAL	DEORBIT PREP	
MS1 M. WEBER	CABIN STOW	P O / 7 S /	CABIN STOW	SH ENTRY PREP		MEAL	DEORBIT PREP	
MS2 J. WILLIAMS	CABIN STOW	P S G T S O C W	CABIN STOW	SH ENTRY PREP		MEAL	DEORBIT PREP	
MS3 J. VOSS	CABIN STOW	O S C T A O C W	CABIN STOW			MEAL	DEORBIT PREP	
MS4 S. HELMS			CABIN STOW			MEAL	DEORBIT PREP	
MS5 Y. USACHEV	CABIN STOW	G S I T R O A W	CABIN STOW			MEAL	DEORBIT PREP	
MCC-H								



NOTES

\*AIR SAMPL  
\*PURGE-AUTO

\*D/O BURN  
MET: 9/19:07

\*KSC LANDING  
MET: 9/20:14

2-21

FLT PLN/101/FIN 03/09/00

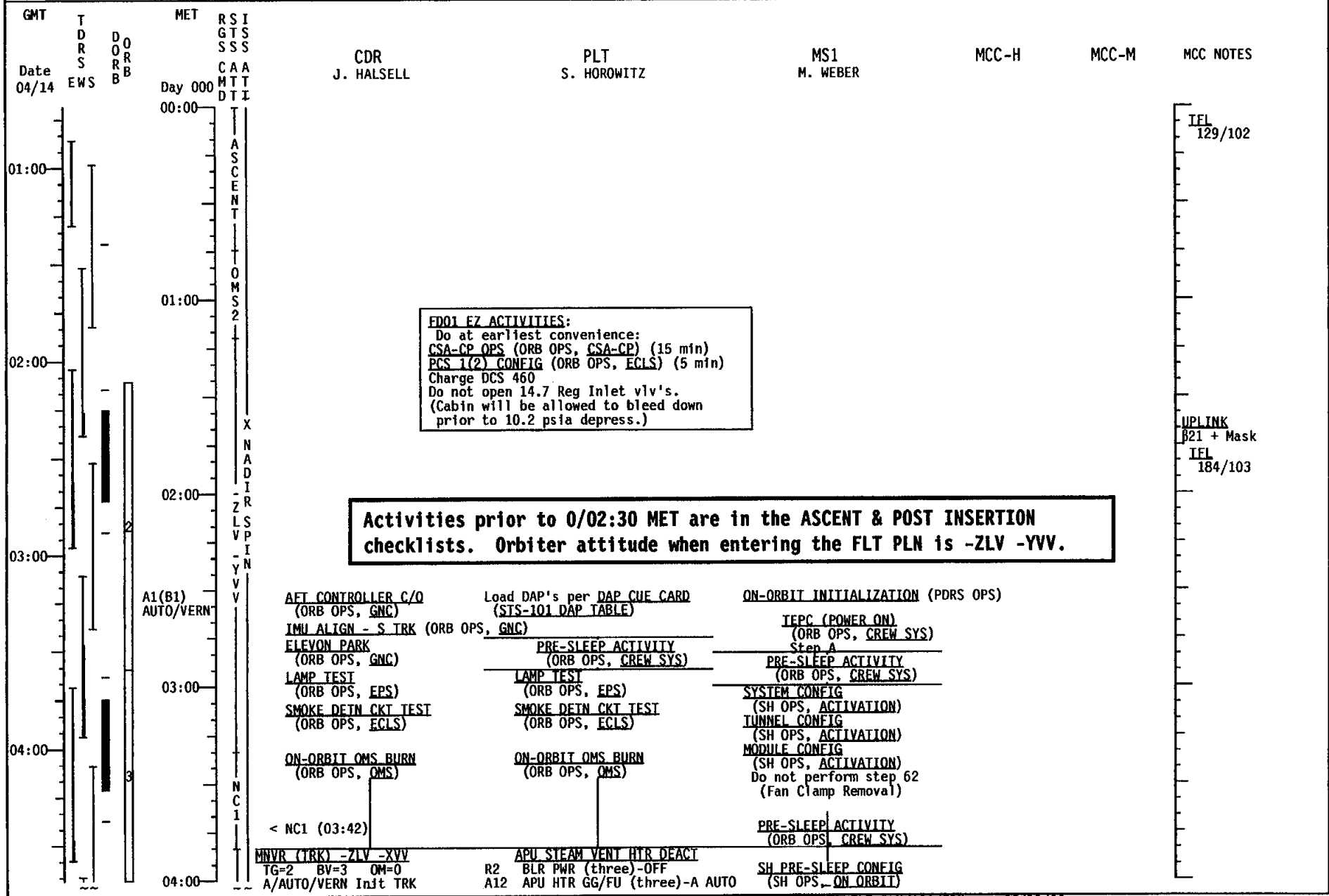
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DETAILED TIMELINE

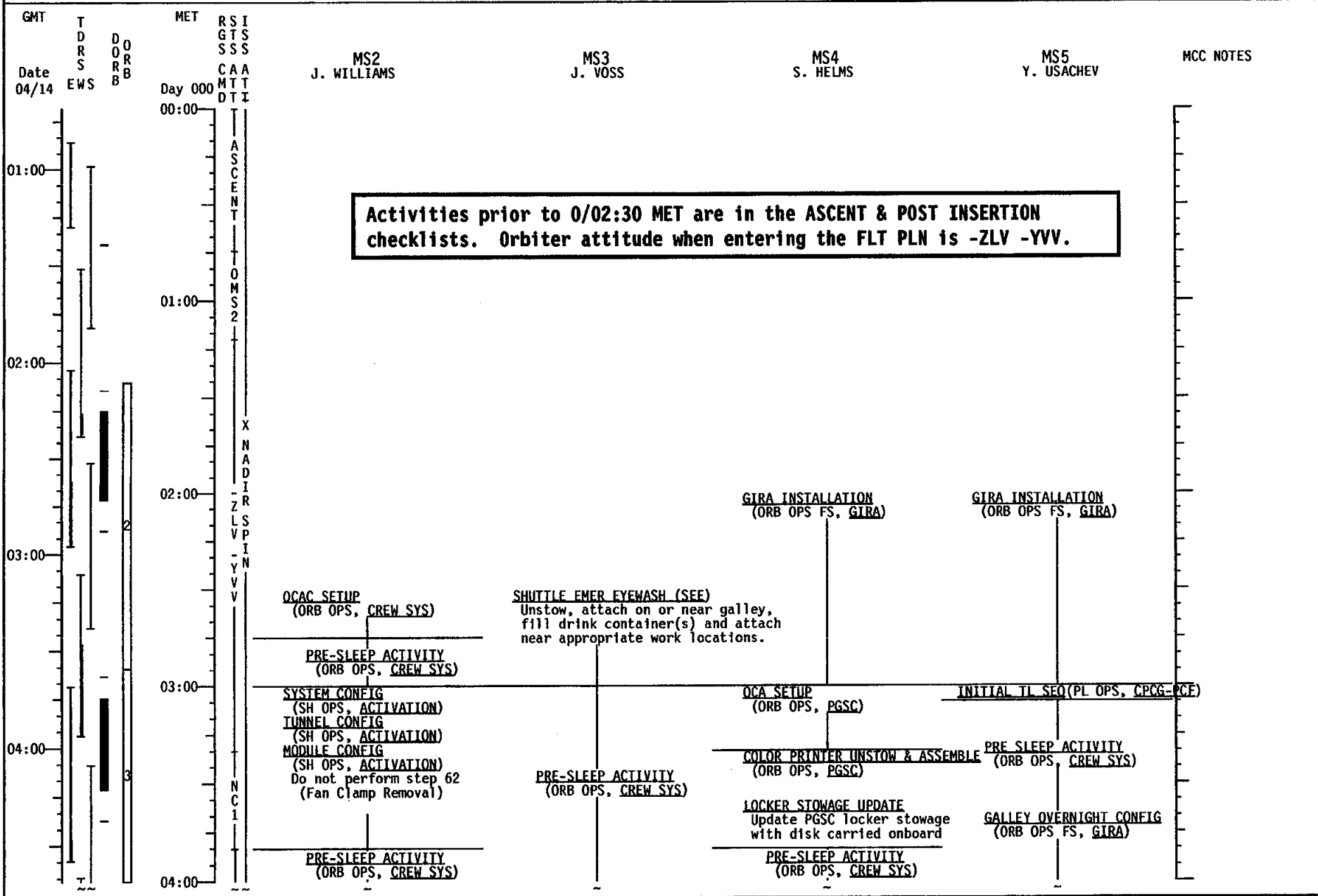
**DETAILED  
TIMELINE**

# DETAILED TIMELINE

## STS-101 (FD01)

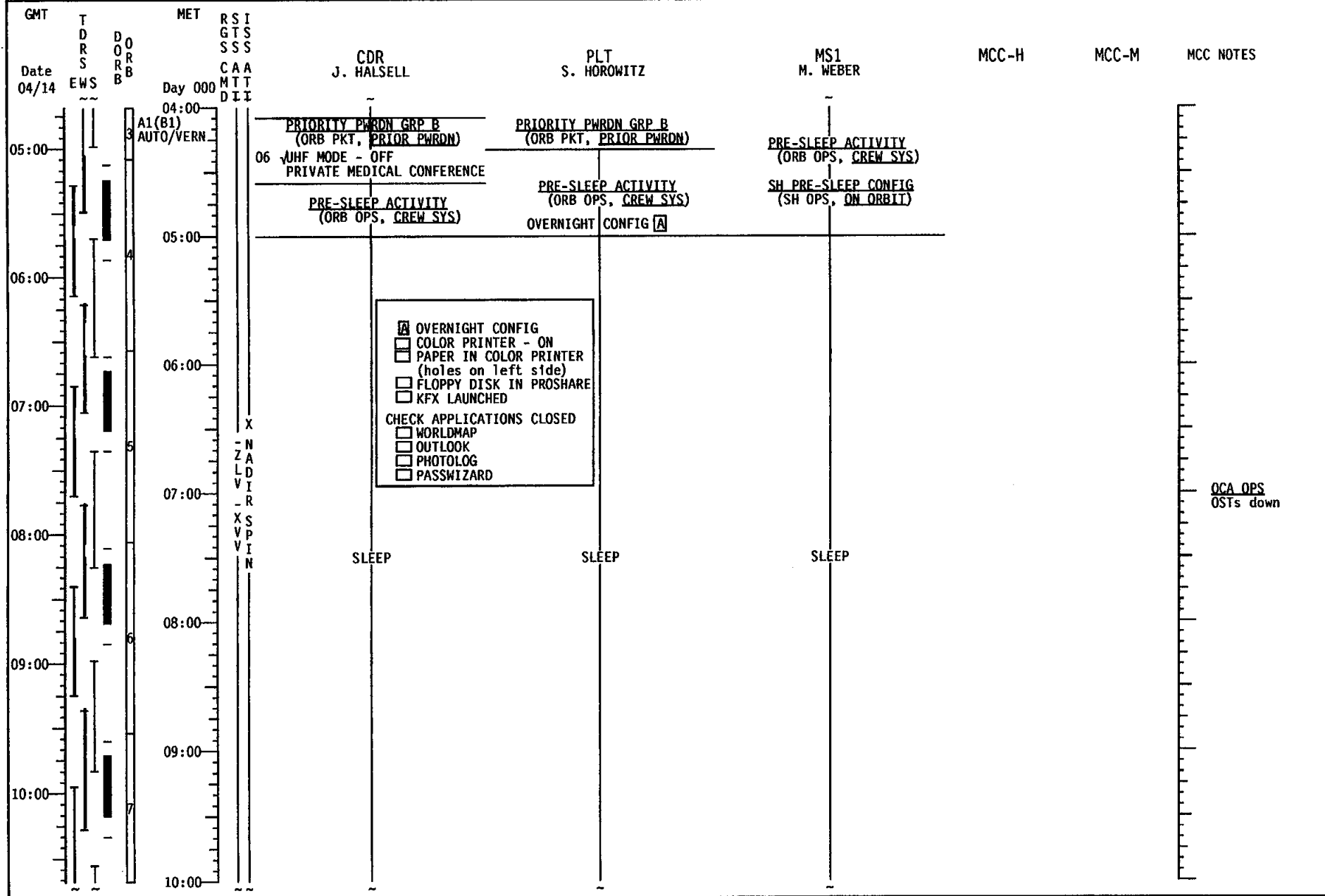


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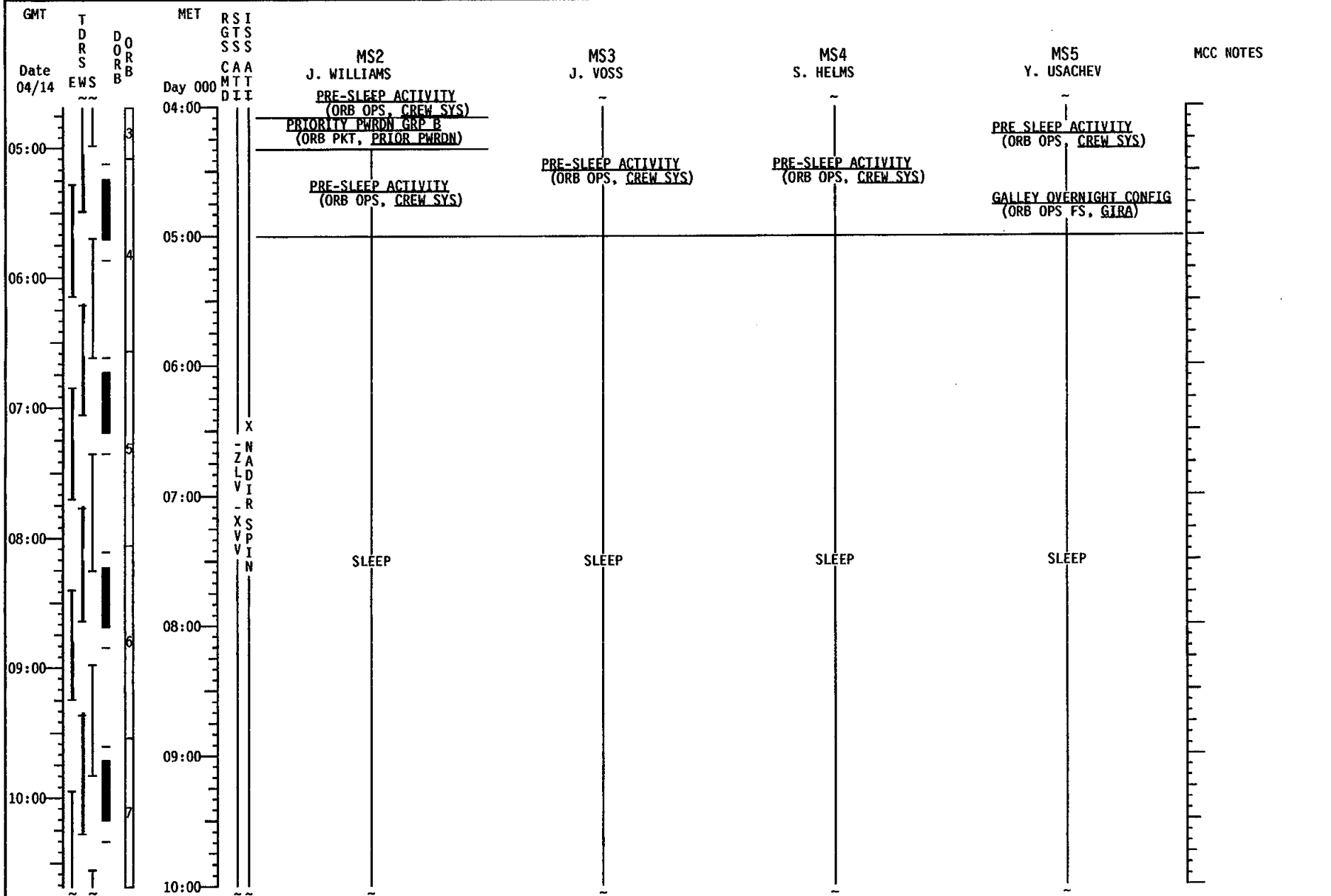




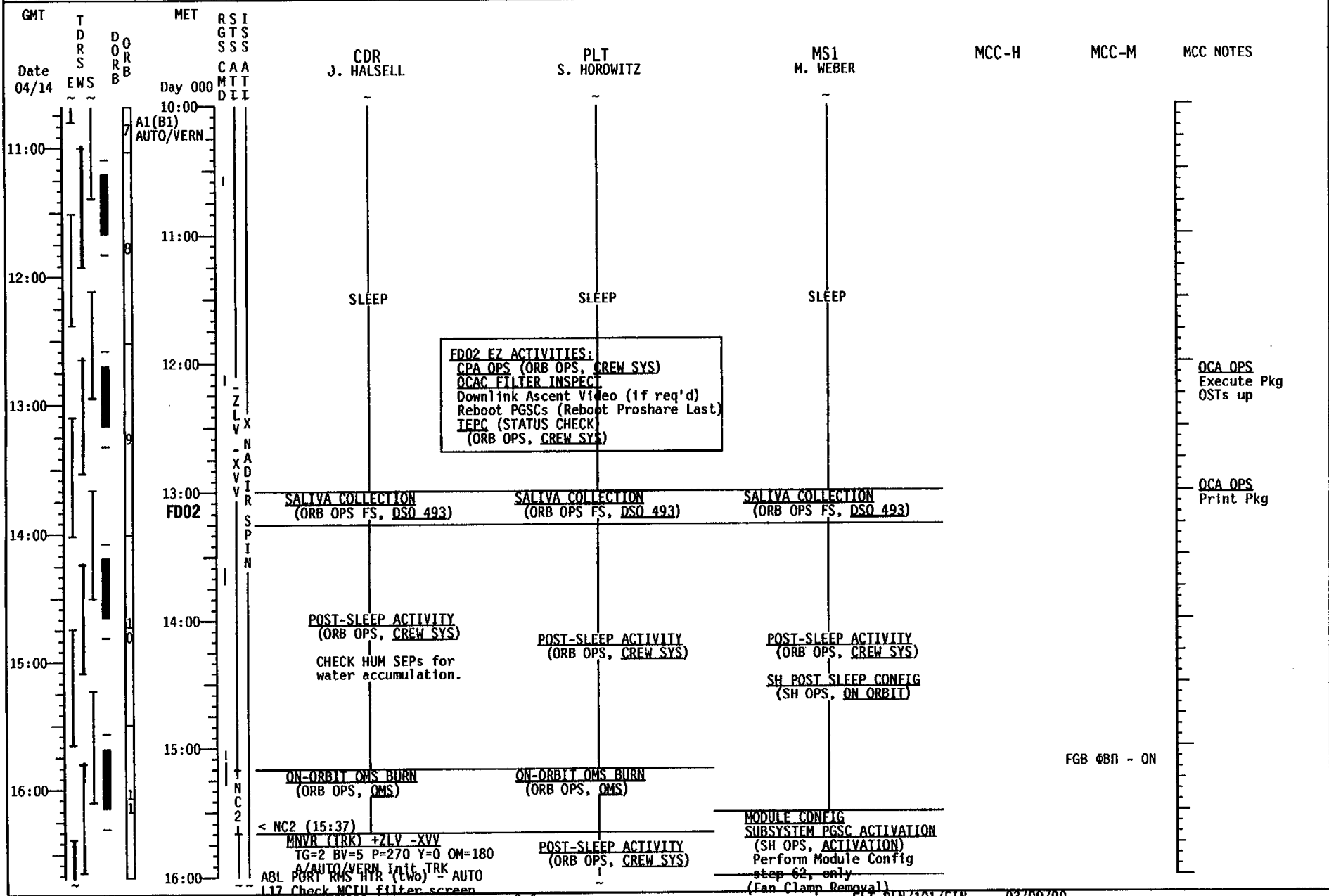
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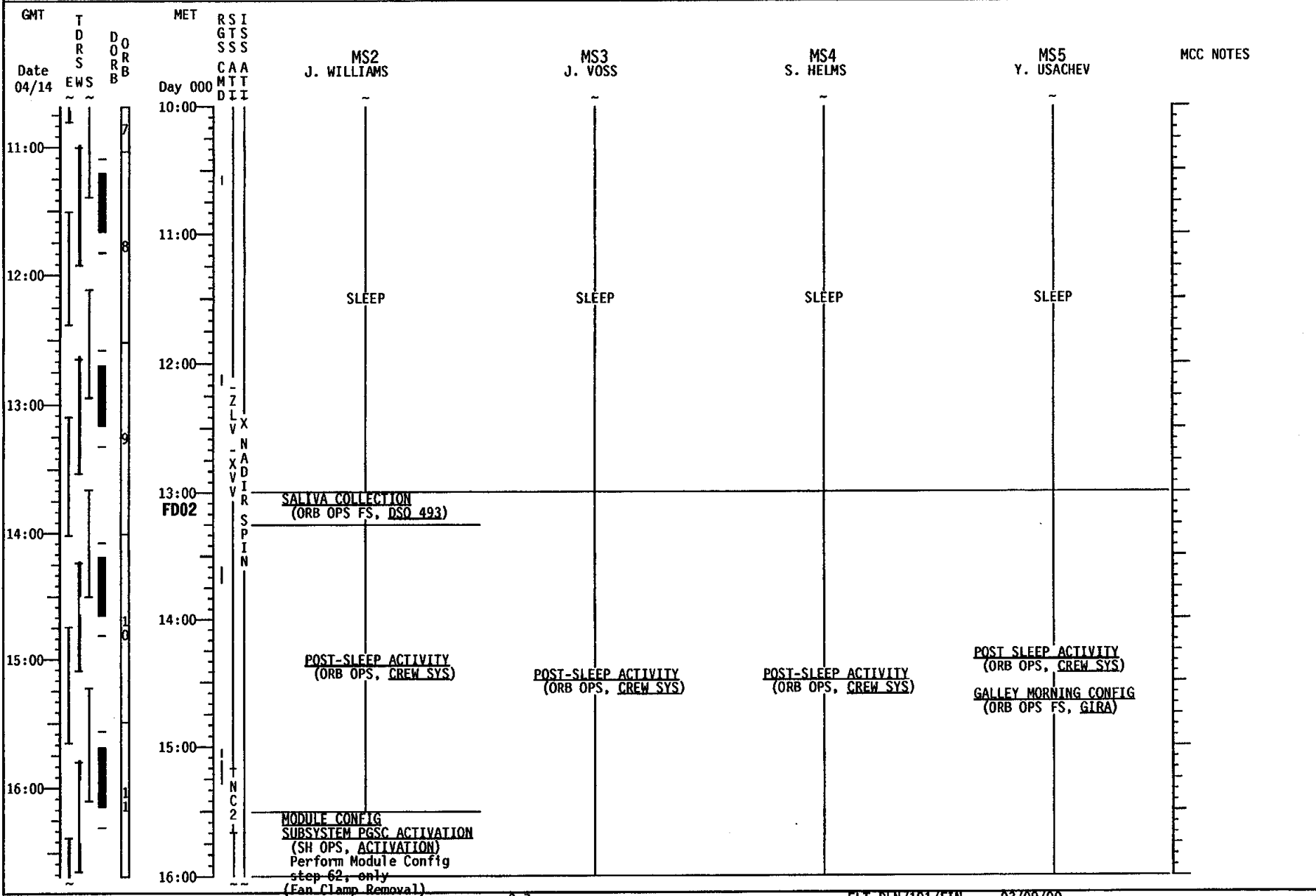
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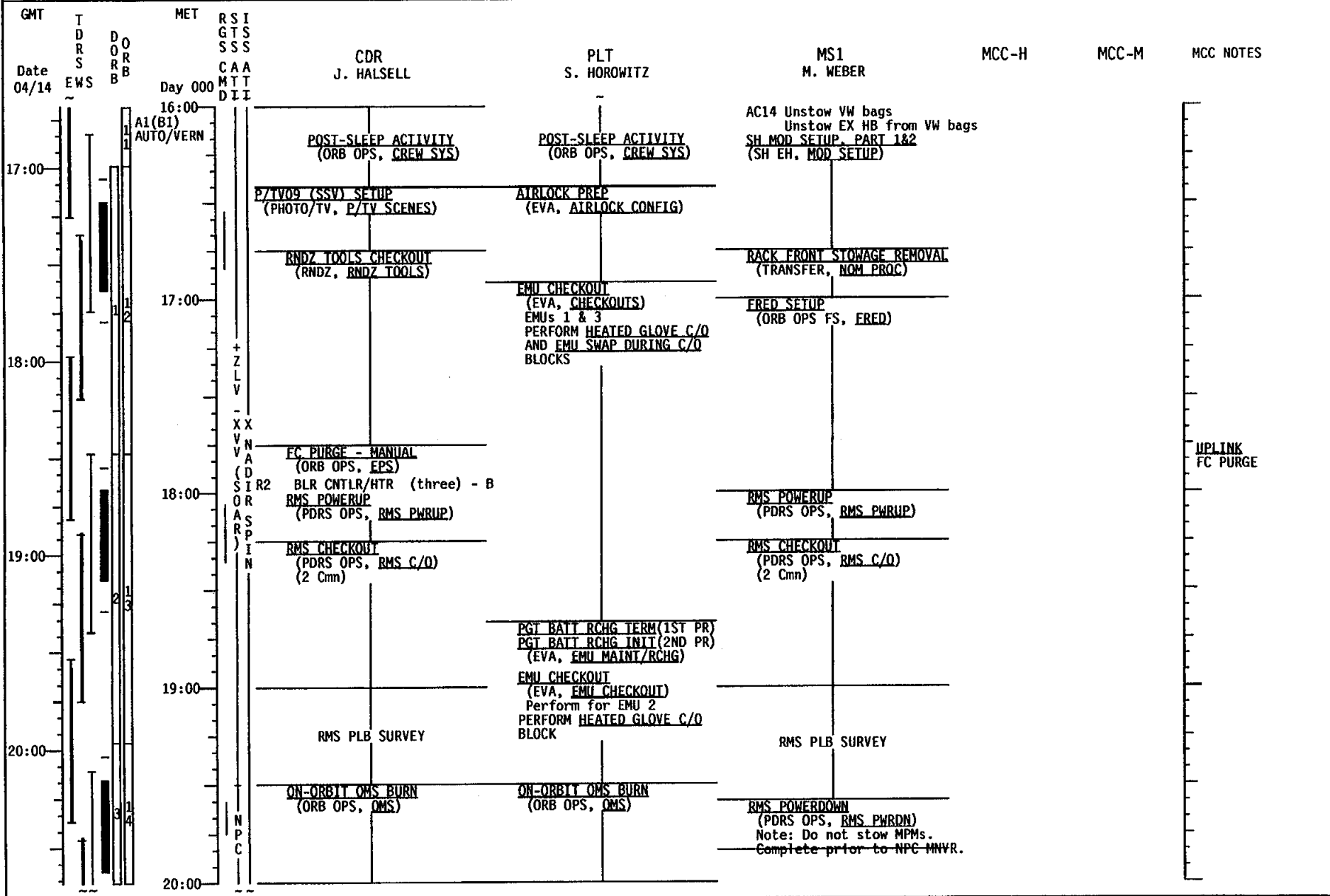
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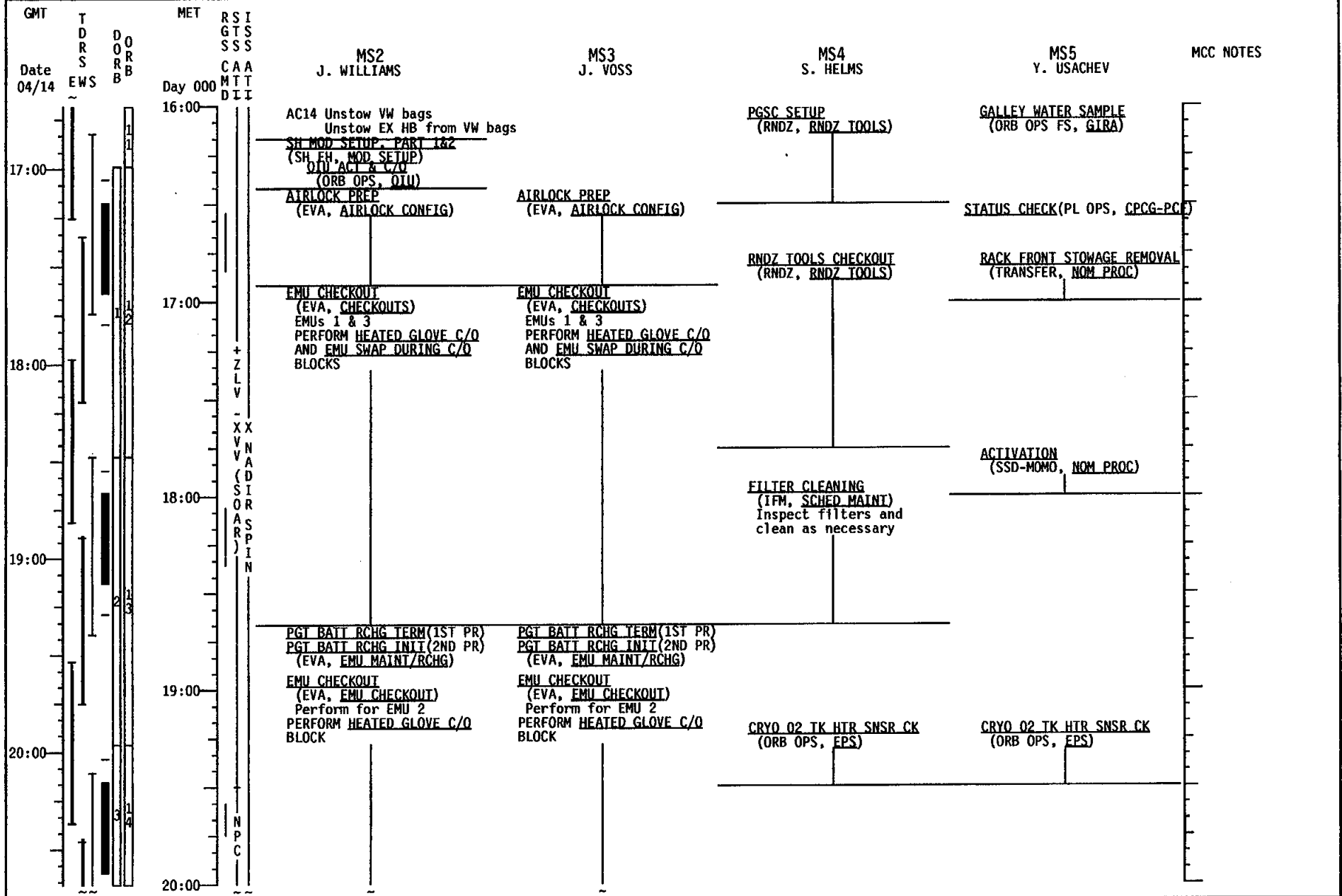
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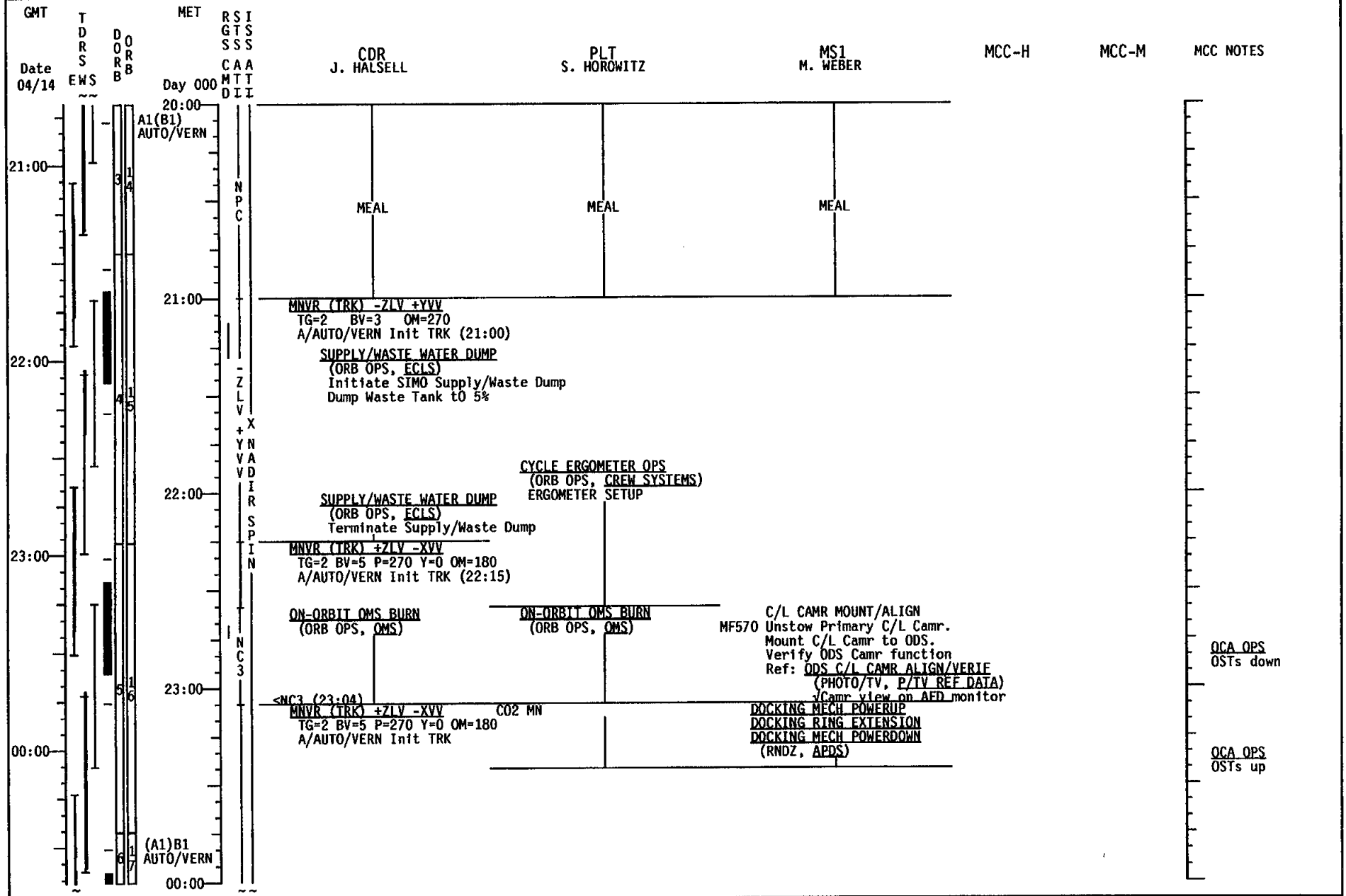
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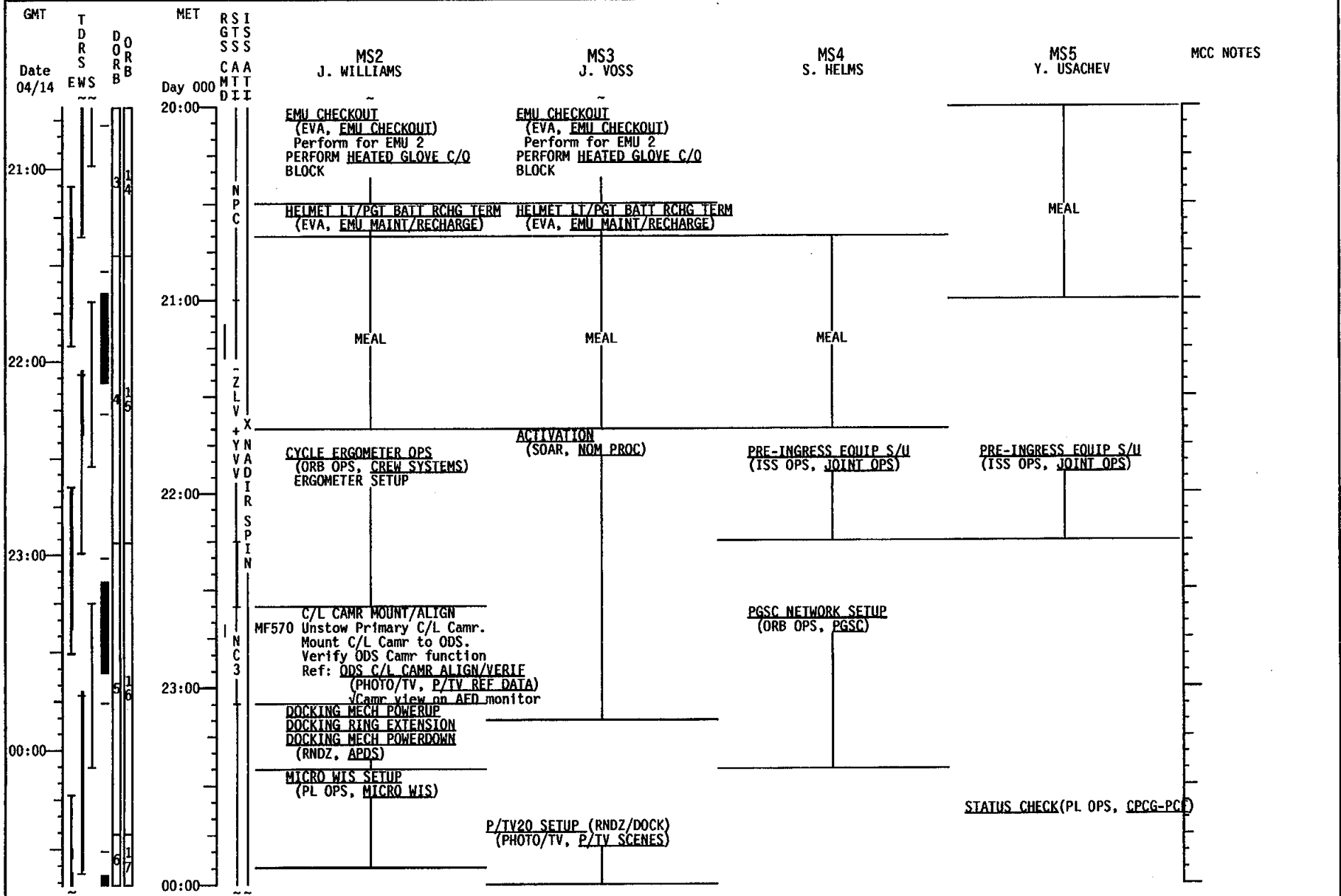
# STS-101 (FD02)



# STS-101 (FD02)



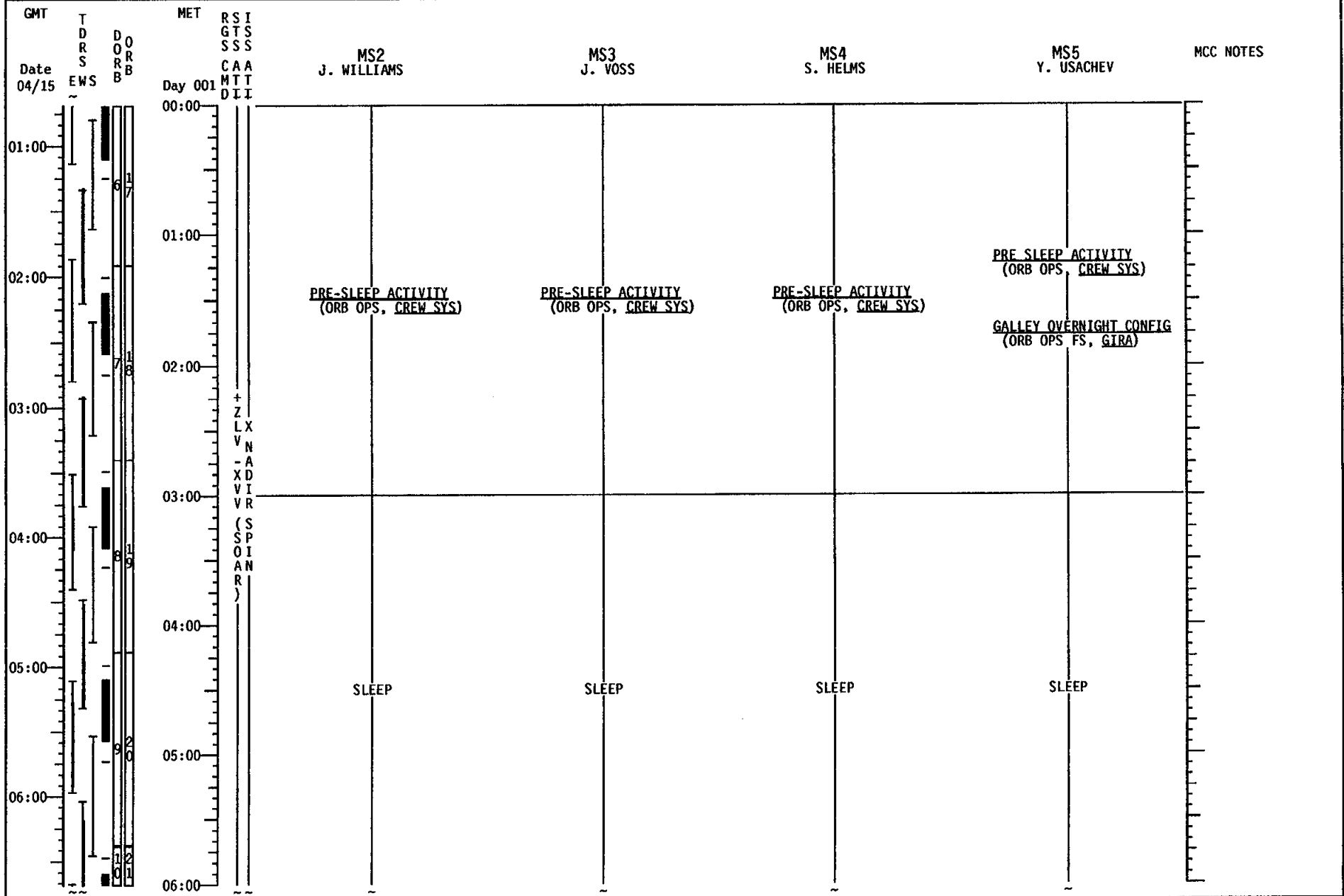
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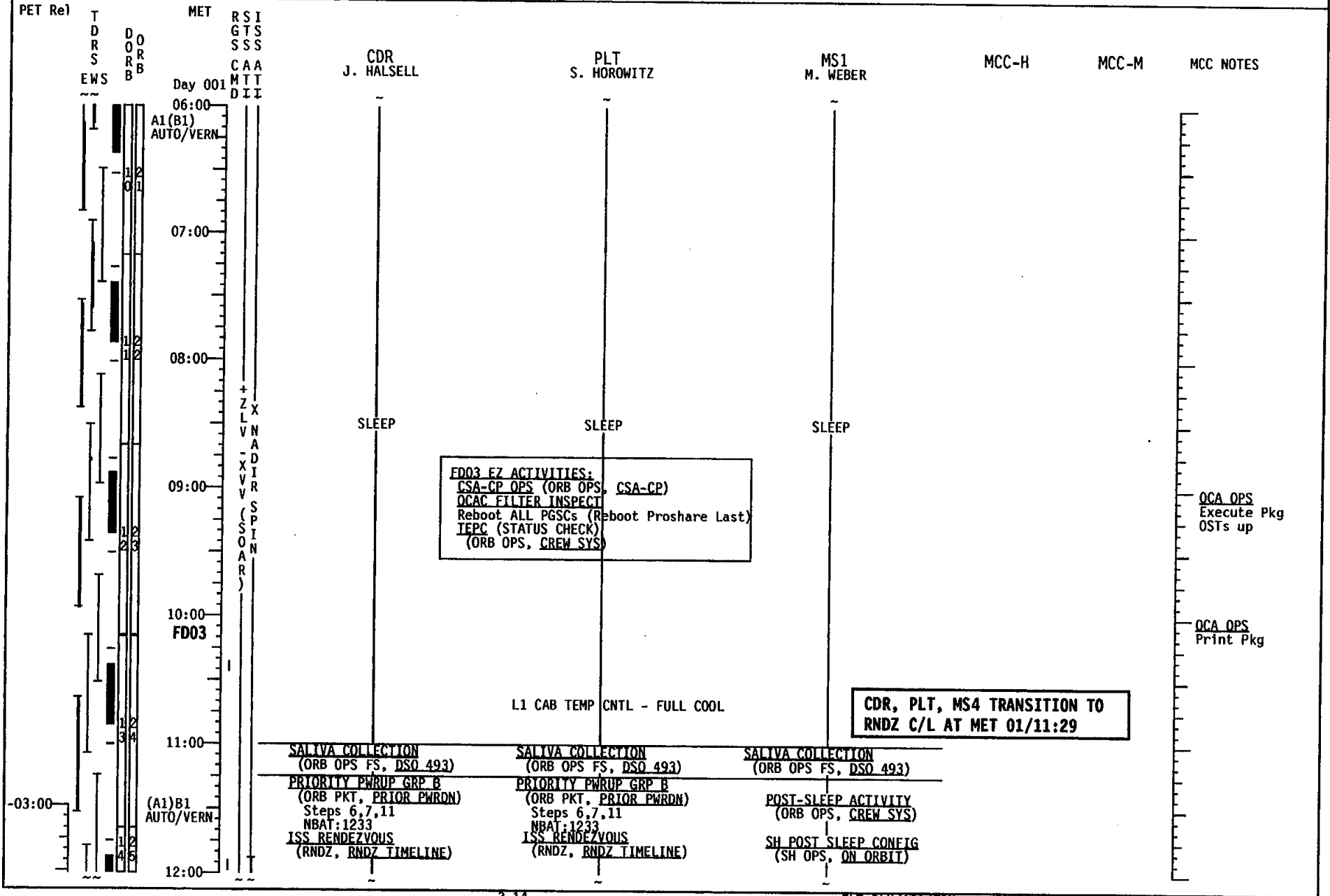




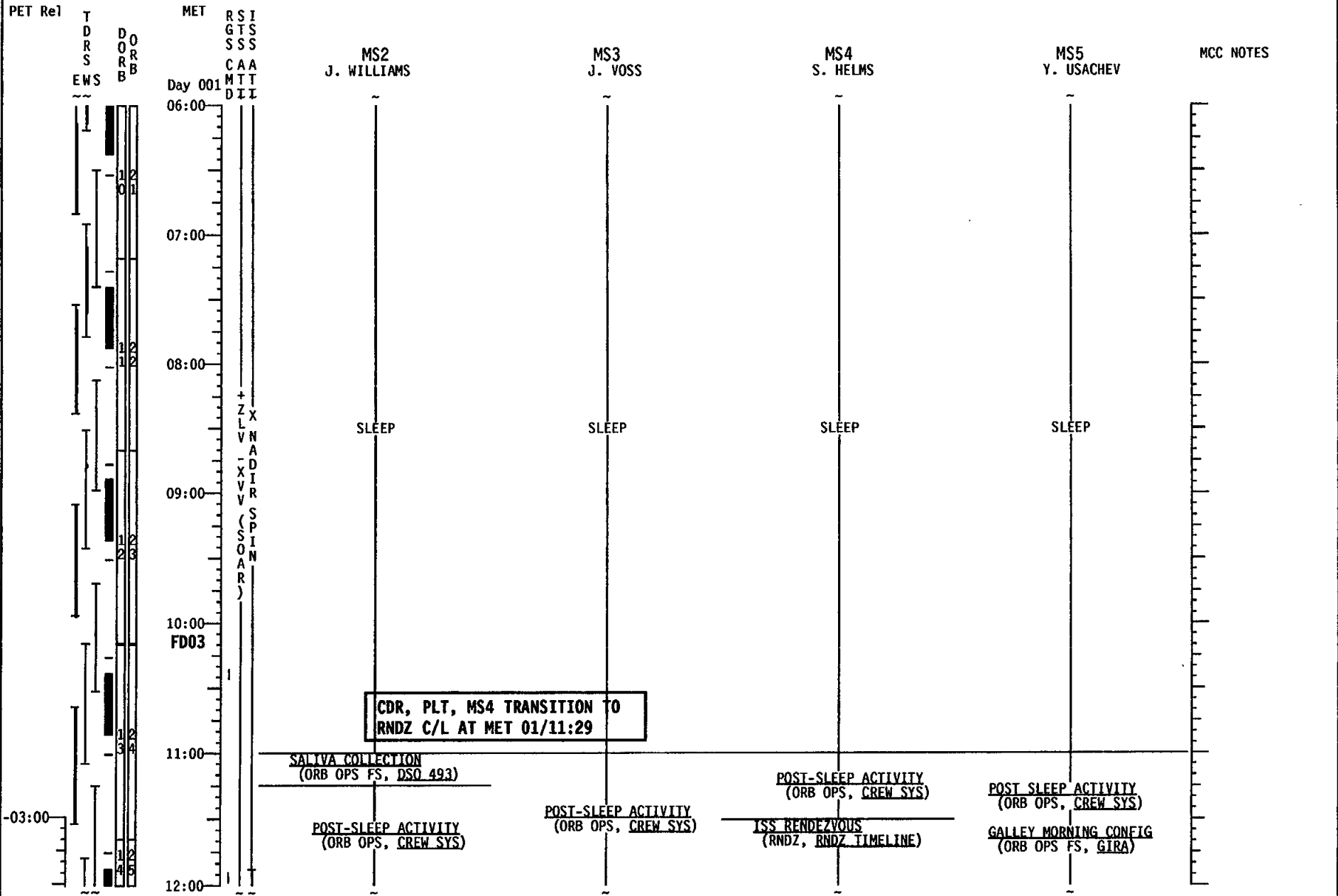
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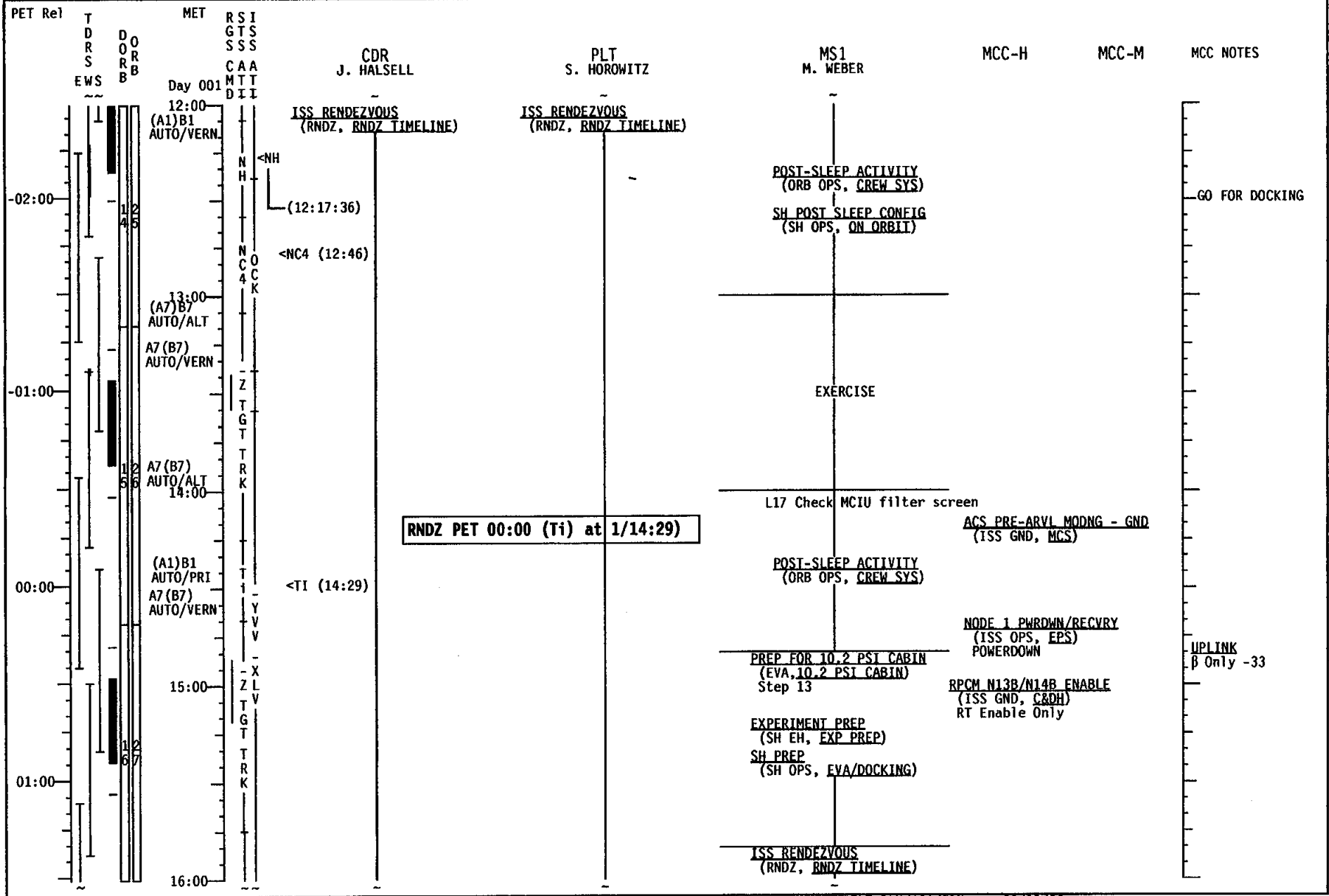
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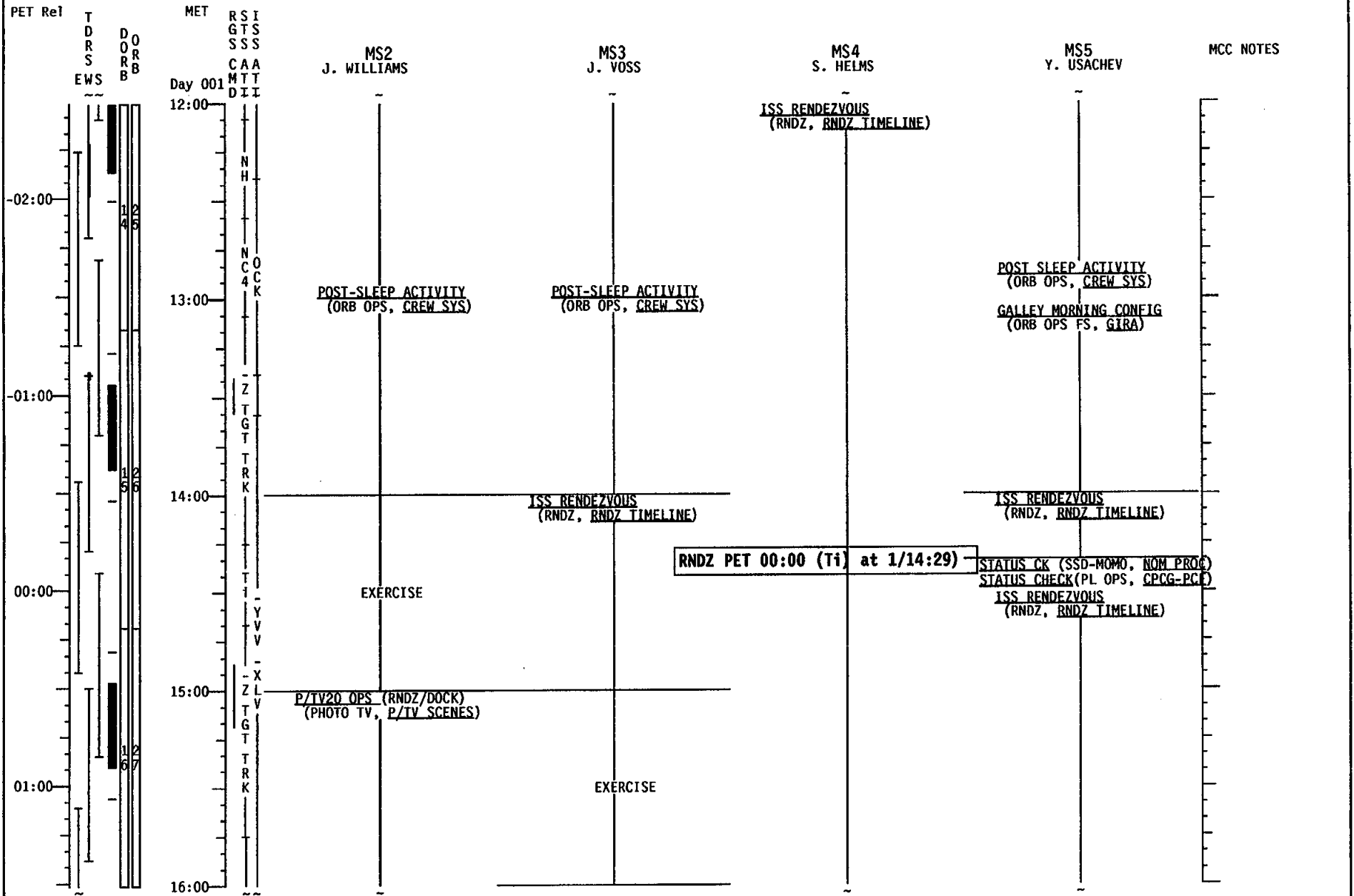
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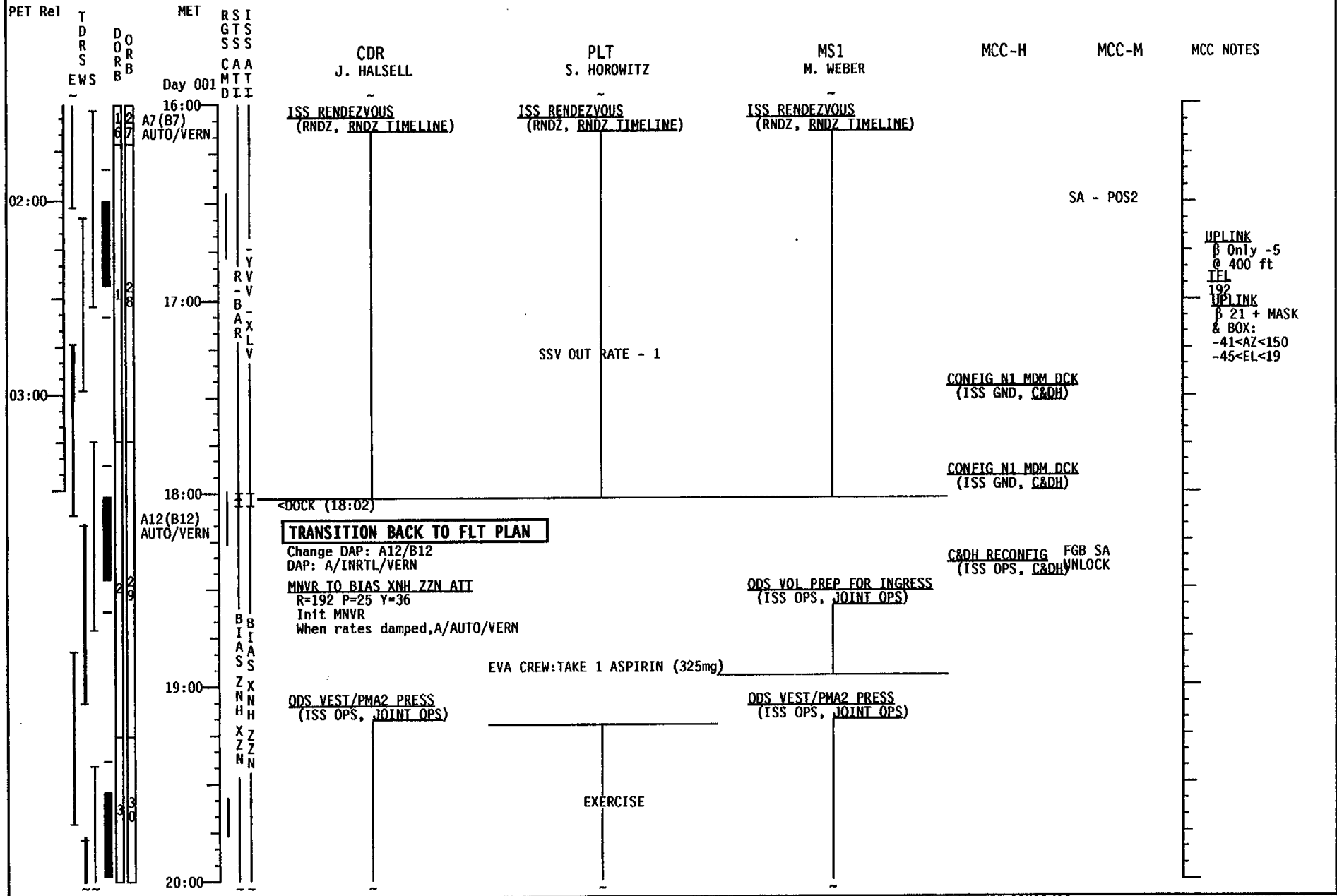
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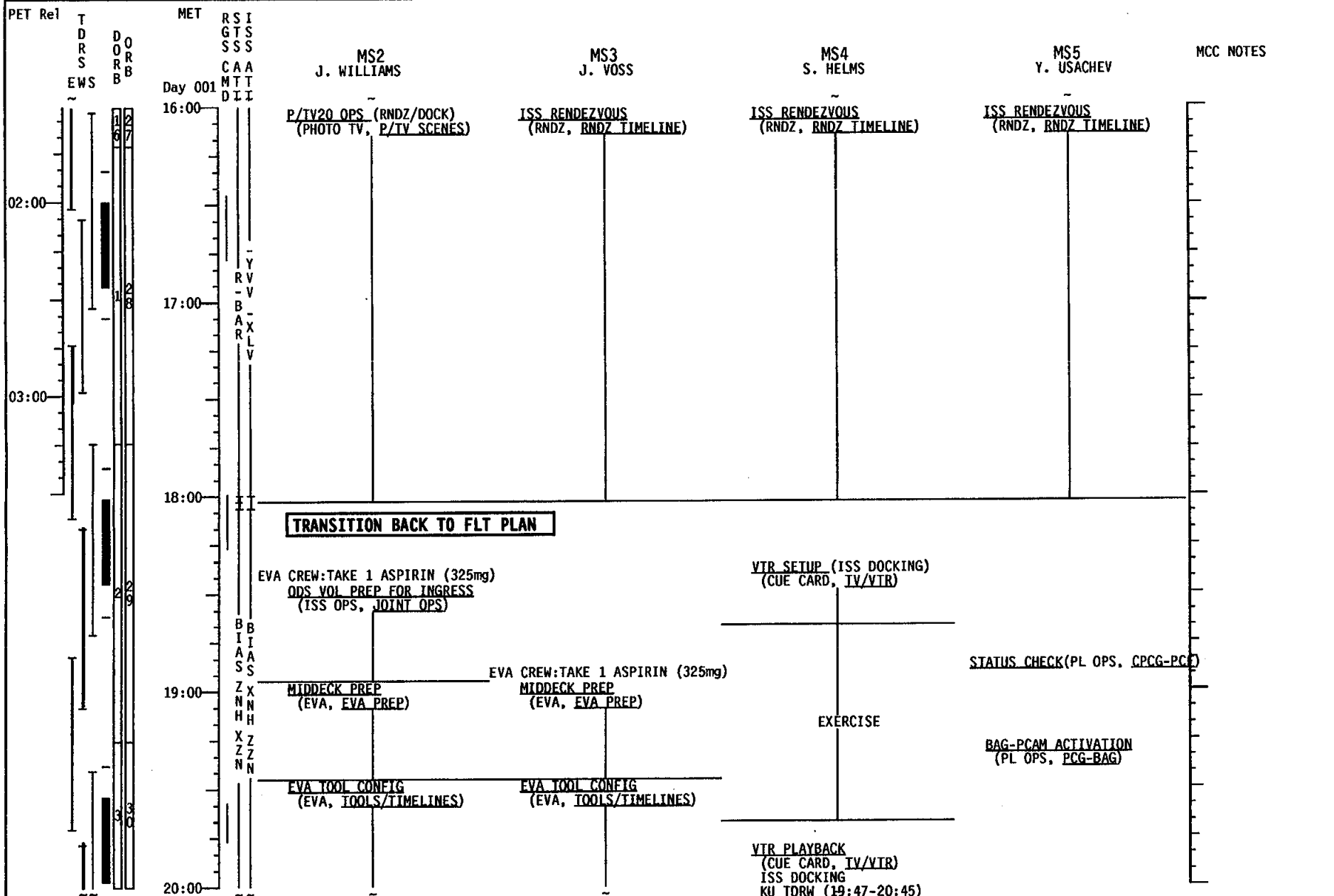
# STS-101 (FD03)



# STS-101 (FD03)



# STS-101 (FD03)

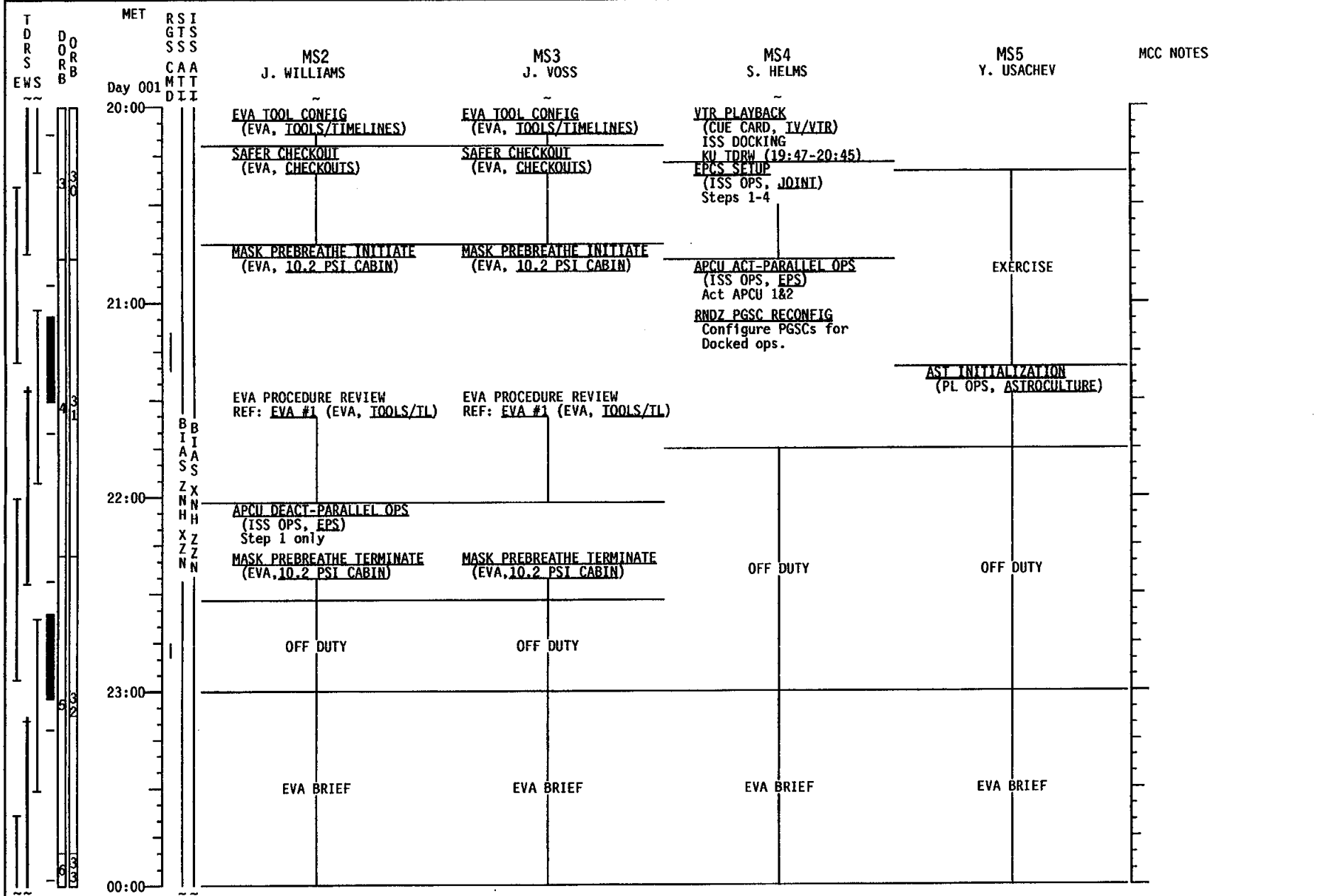




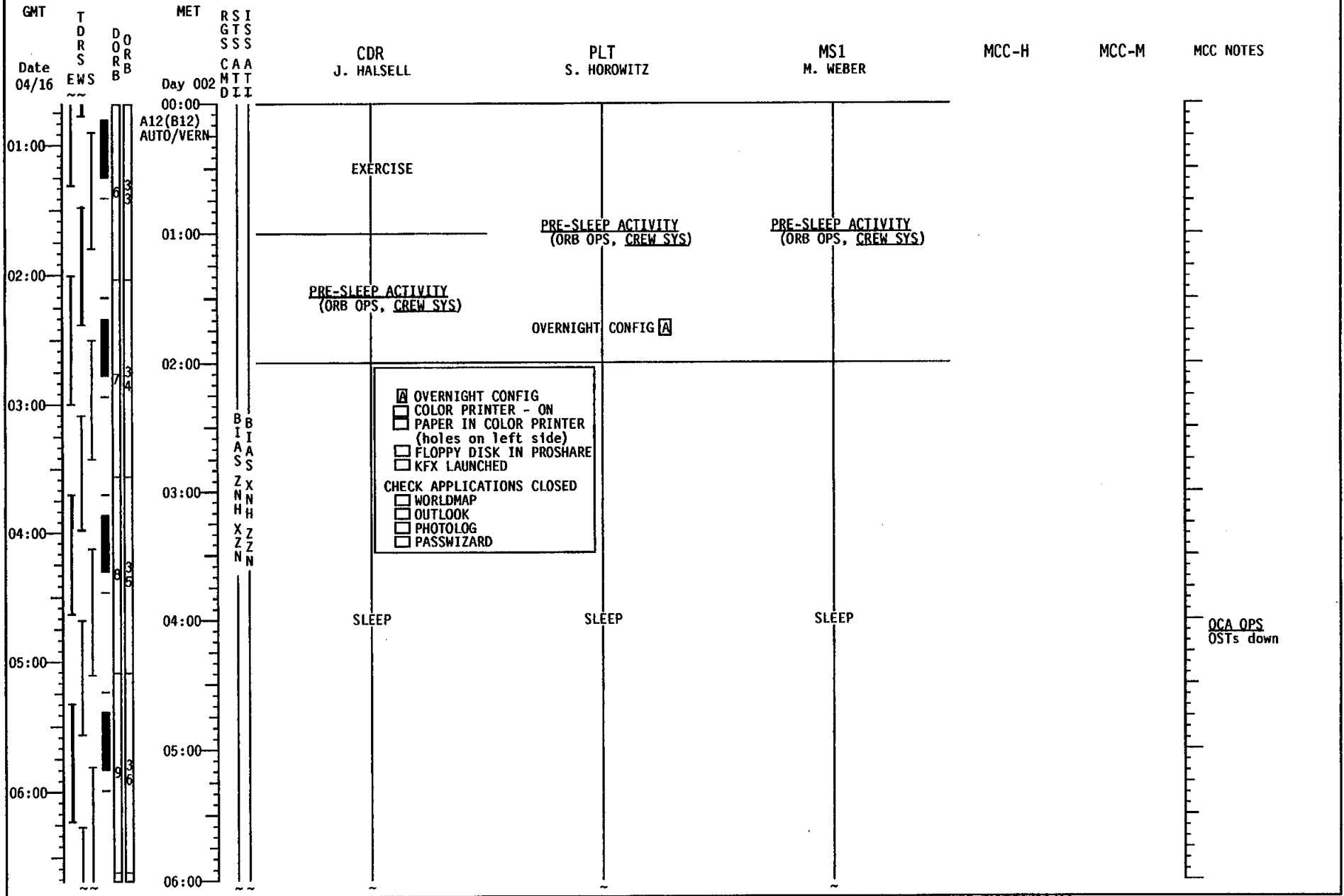
# STS-101 (FD03)

T D R S EWS	D O O R B	MET	RSI GTS SSS CAA MTT DII	CDR J. HALSELL ODS VEST/PMA2 PRESS (ISS OPS, JOINT OPS)	PLT S. HOROWITZ	MS1 M. WEBER ODS VEST/PMA2 PRESS (ISS OPS, JOINT OPS)	MCC-H	MCC-M	MCC NOTES
		Day 001							
		20:00			EXERCISE				
				PRIORITY PWRDN GRP B (ORB PKT, PRIOR PWRDN)	SAFER CHECKOUT (EVA, CHECKOUTS)	PRIORITY PWRDN GRP B (ORB PKT, PRIOR PWRDN)			
					MASK PREBREATHE INITIATE (EVA, 10.2 PSI CABIN)				NODE 1 PWRDN/RECVRY (ISS OPS, EPS) POWERUP
		21:00		CABIN AIR MONITORING (ORB OPS FS, DTO 623) Step 1 ODS Equal vlv (two)-EMER Hatch	EVA PROCEDURE REVIEW REF: EVA #1 (EVA, TOOLS/TL)	RNDZ PGSC RECONFIG Configure PGSCs for Docked ops.			RPCM N13B/N14B ENABLE (ISS GND, C&DH) RT Enable Only NODE 1 CAB FAN ACT (ISS OPS, ECLSS) NODE 1 IMV FAN ACT (ISS OPS, ECLSS) Step 1, Aft Port NODE 1 INT LT PWR OFF (ISS OPS, EPS)
				PREP FOR 10.2 PSI CABIN (EVA, 10.2 PSI CABIN) CABIN DEPRESS TO 10.2 PSI (EVA, 10.2 PSI CABIN)		PREP FOR 10.2 PSI CABIN (EVA, 10.2 PSI CABIN) CABIN DEPRESS TO 10.2 PSI (EVA, 10.2 PSI CABIN)			
		22:00		10.2 PSI CABIN CONFIG (EVA, 10.2 PSI CABIN) ODS Equal vlv(two)-OFF Hatch	MASK PREBREATHE TERMINATE (EVA, 10.2 PSI CABIN)	10.2 PSI CABIN CONFIG (EVA, 10.2 PSI CABIN)			
				OFF DUTY	OFF DUTY	OFF DUTY			
		23:00		EVA BRIEF	EVA BRIEF	EVA BRIEF			
				VIDEO TELECONFERENCE (ORB OPS FS, OCA) - PMC					NODE 1 IMV FAN DEACT (ISS OPS, ECLSS) Step 3, Aft Port NODE 1 CAB FAN ACT (ISS OPS, ECLSS)
		00:00							OCA-PMC

# STS-101 (FD03)



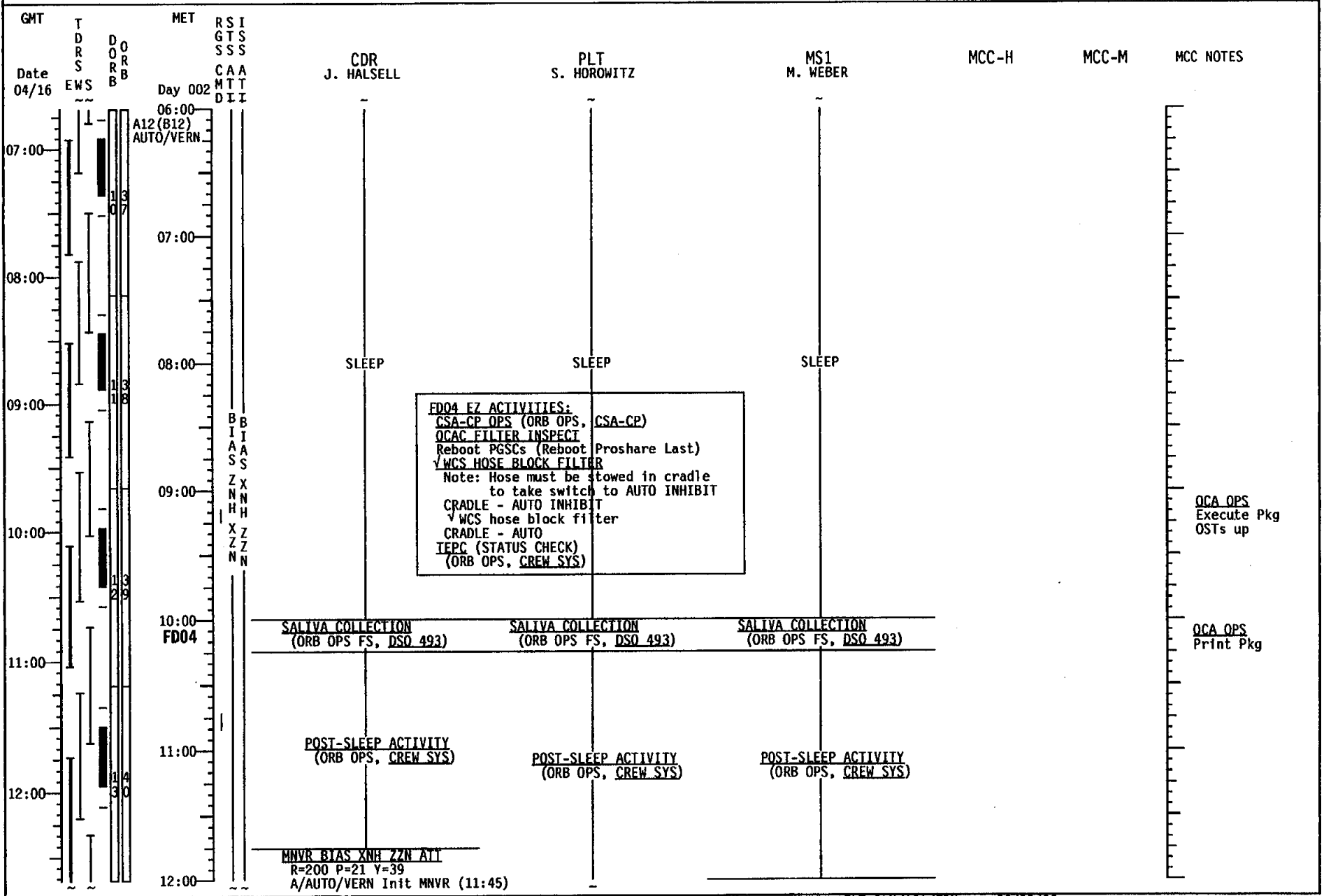
# STS-101 (FD03)



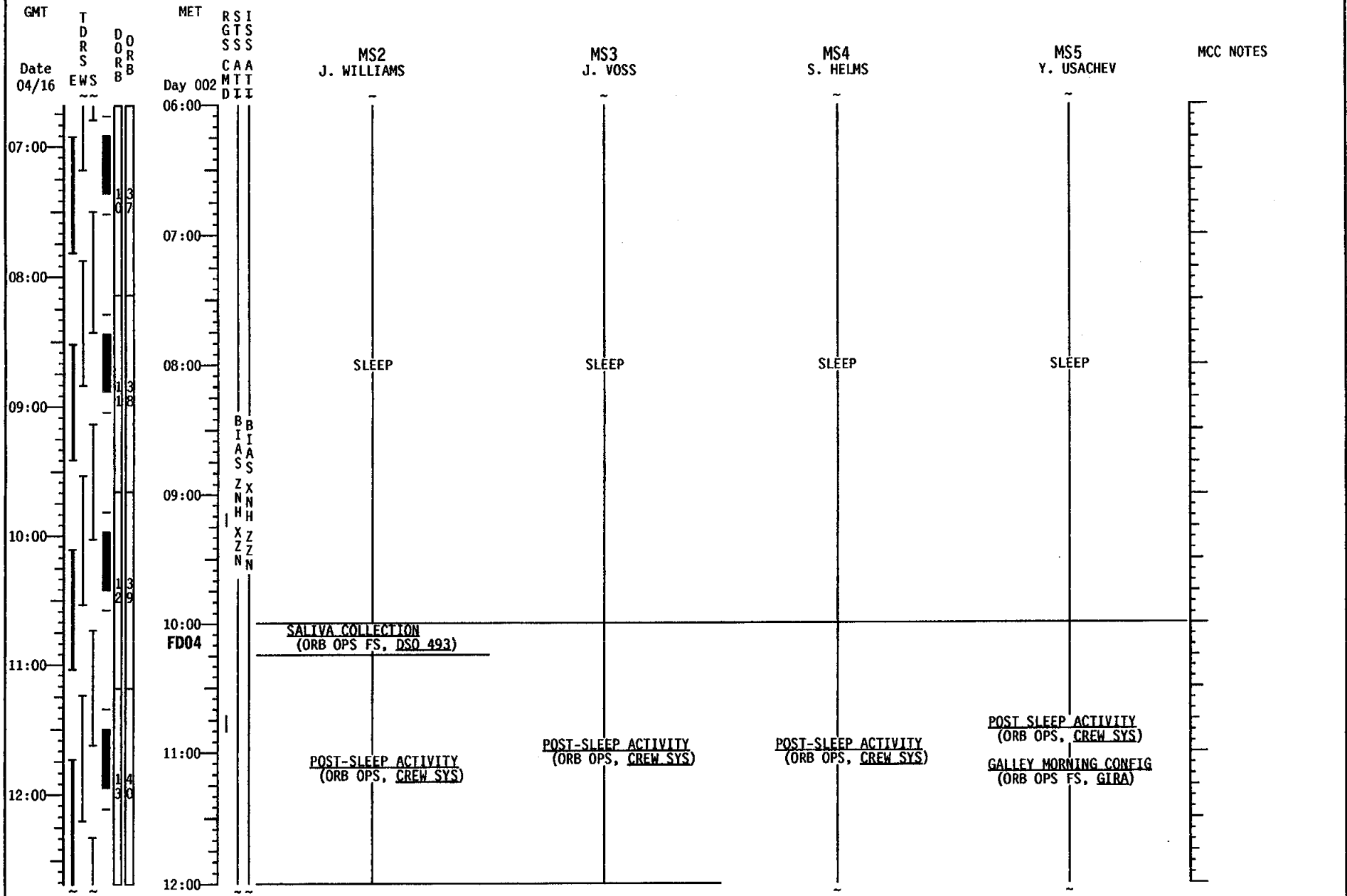
# STS-101 (FD03)

GMT	TDRS	DOORB	MET	RSI	MS2	MS3	MS4	MS5	MCC NOTES
Date	EWS	ORB	Day	GTS SSS CAA MTT DII	J. WILLIAMS	J. VOSS	S. HELMS	Y. USACHEV	
04/16			002						
01:00		633	01:00		PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
02:00		734	02:00					GALLEY OVERNIGHT CONFIG (ORB OPS FS, GIRA)	
03:00		835	03:00	BB IA SS ZX NH HH XZ ZN					
04:00		936	04:00		SLEEP	SLEEP	SLEEP	SLEEP	
05:00			05:00						
06:00			06:00						

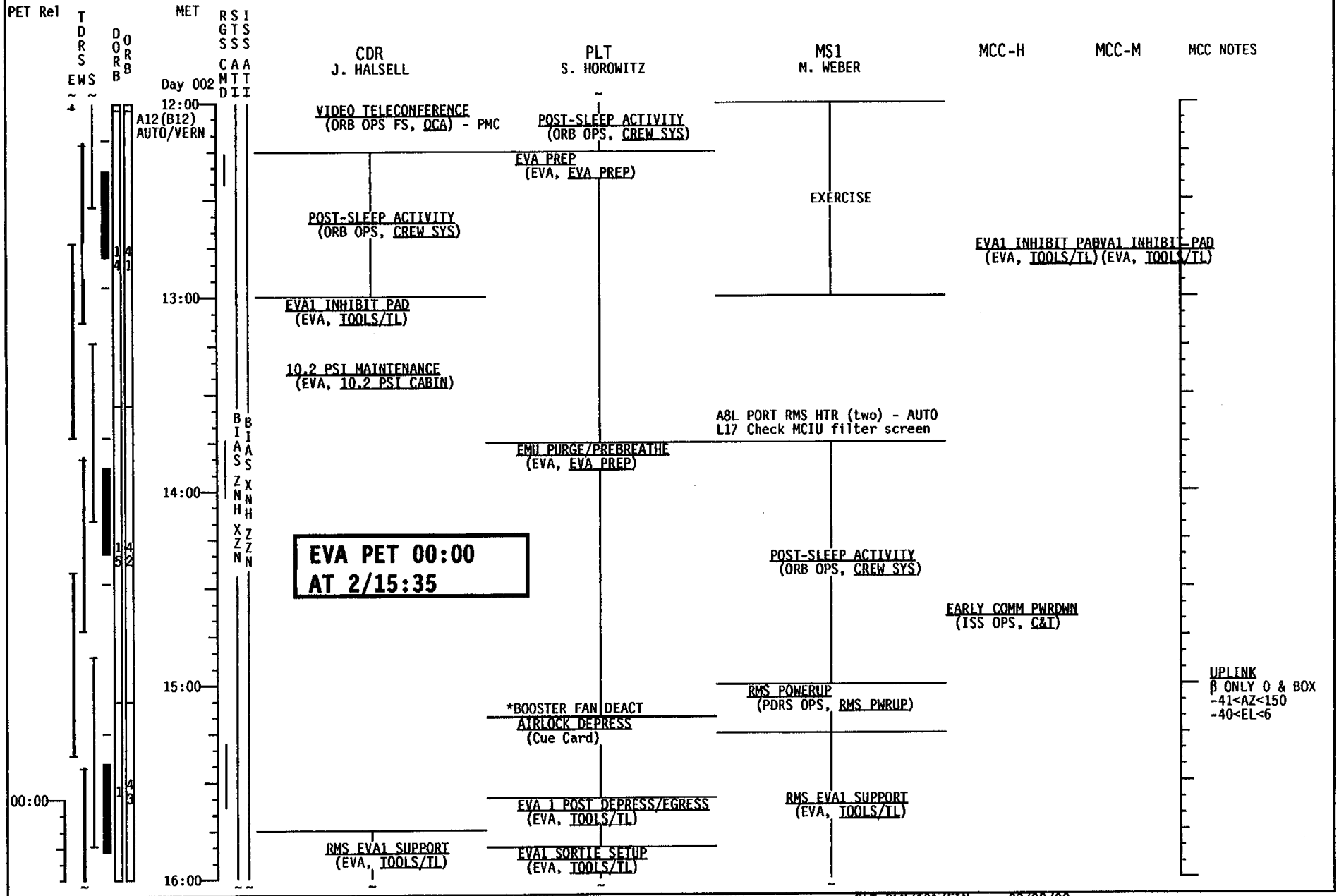
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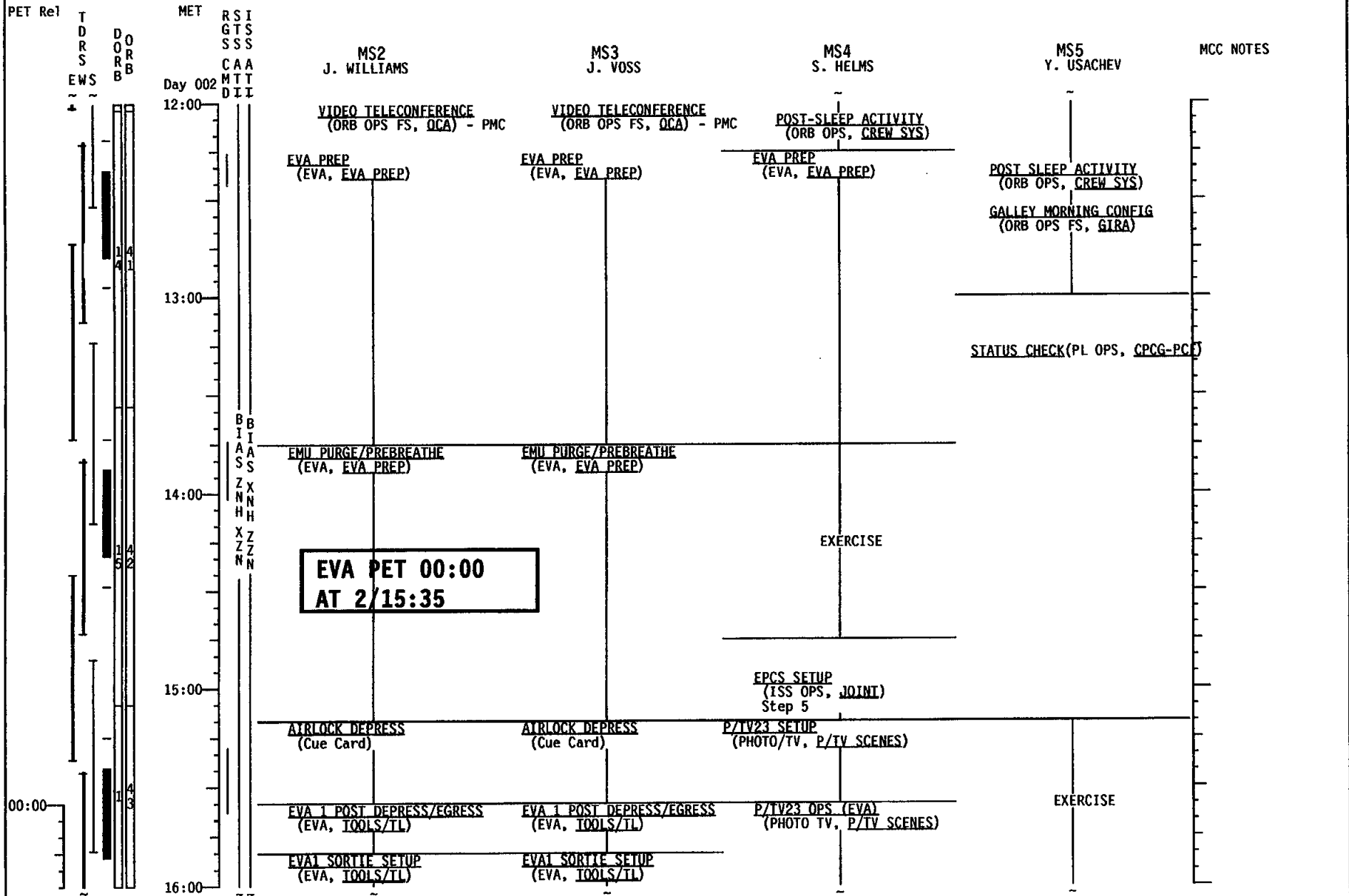
# STS-101 (FD03)



# STS-101 (FD04)

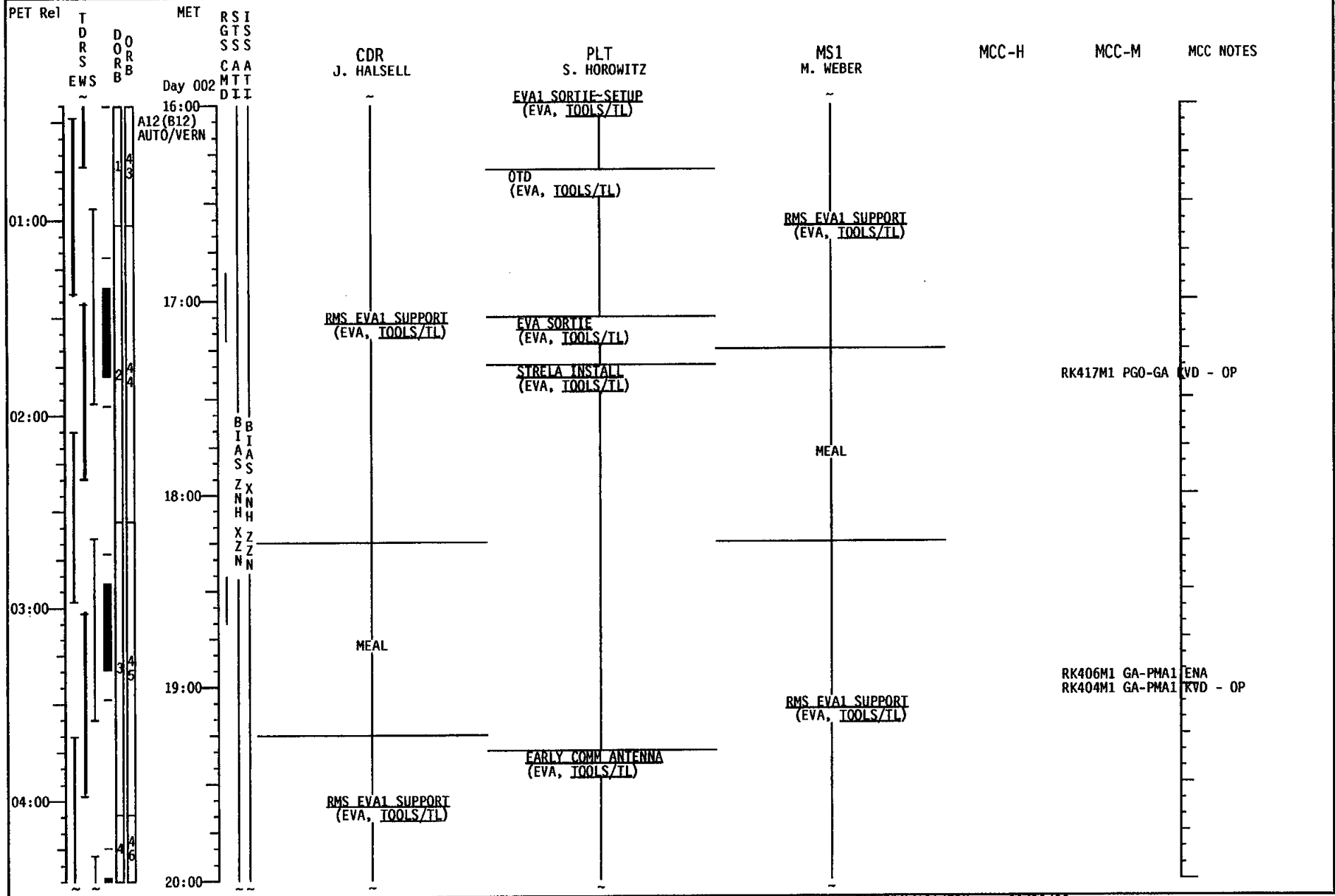


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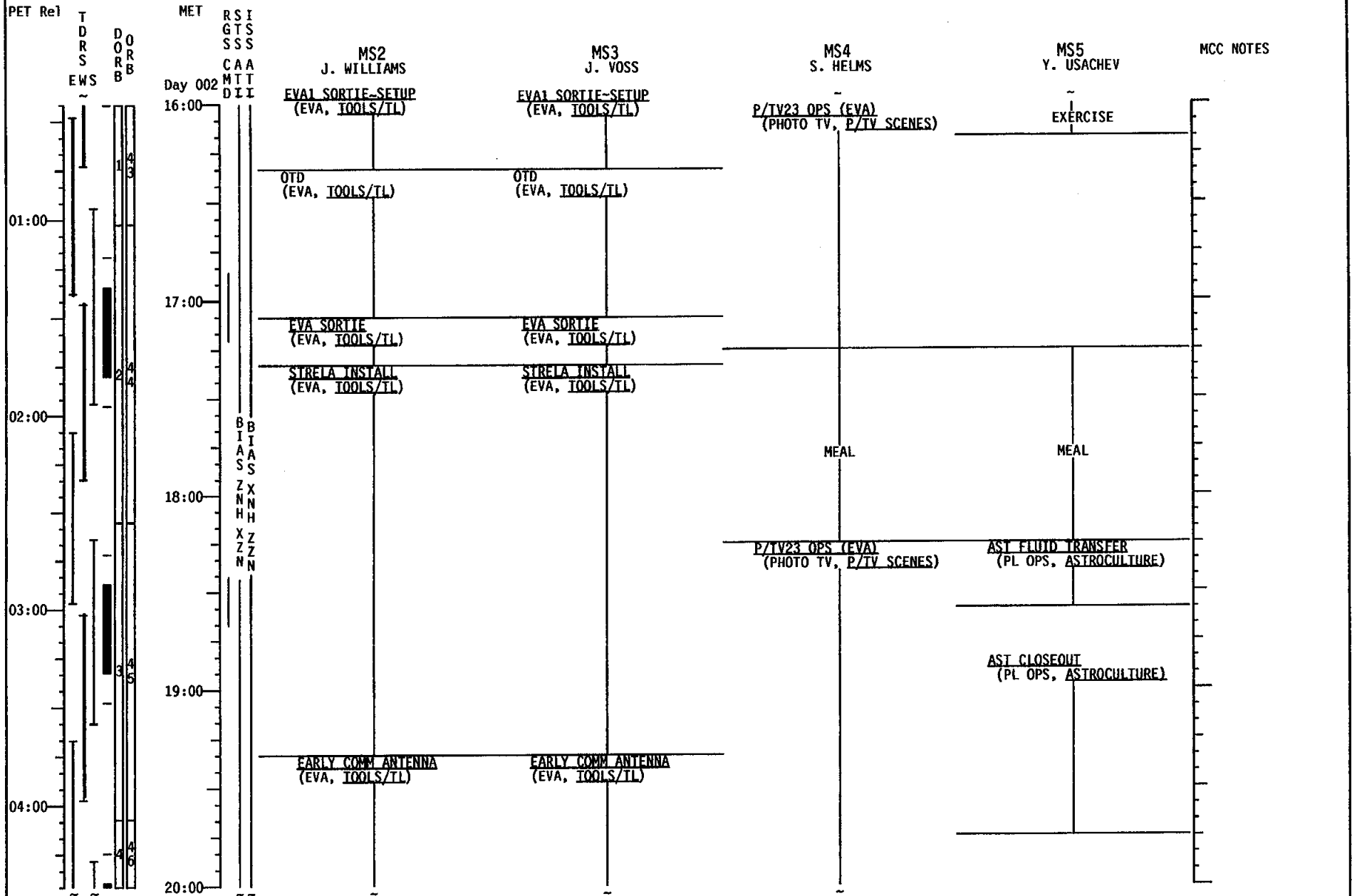




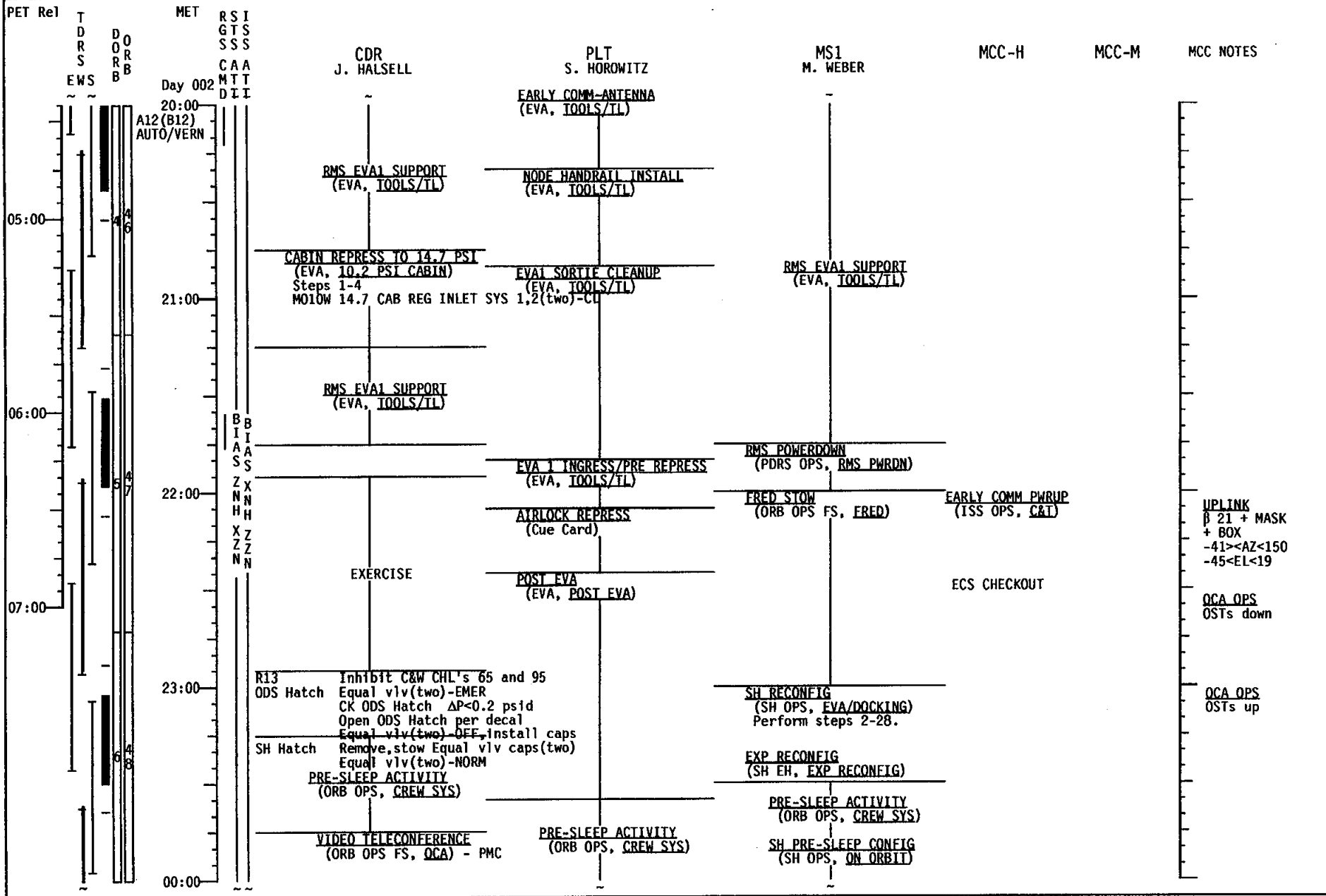
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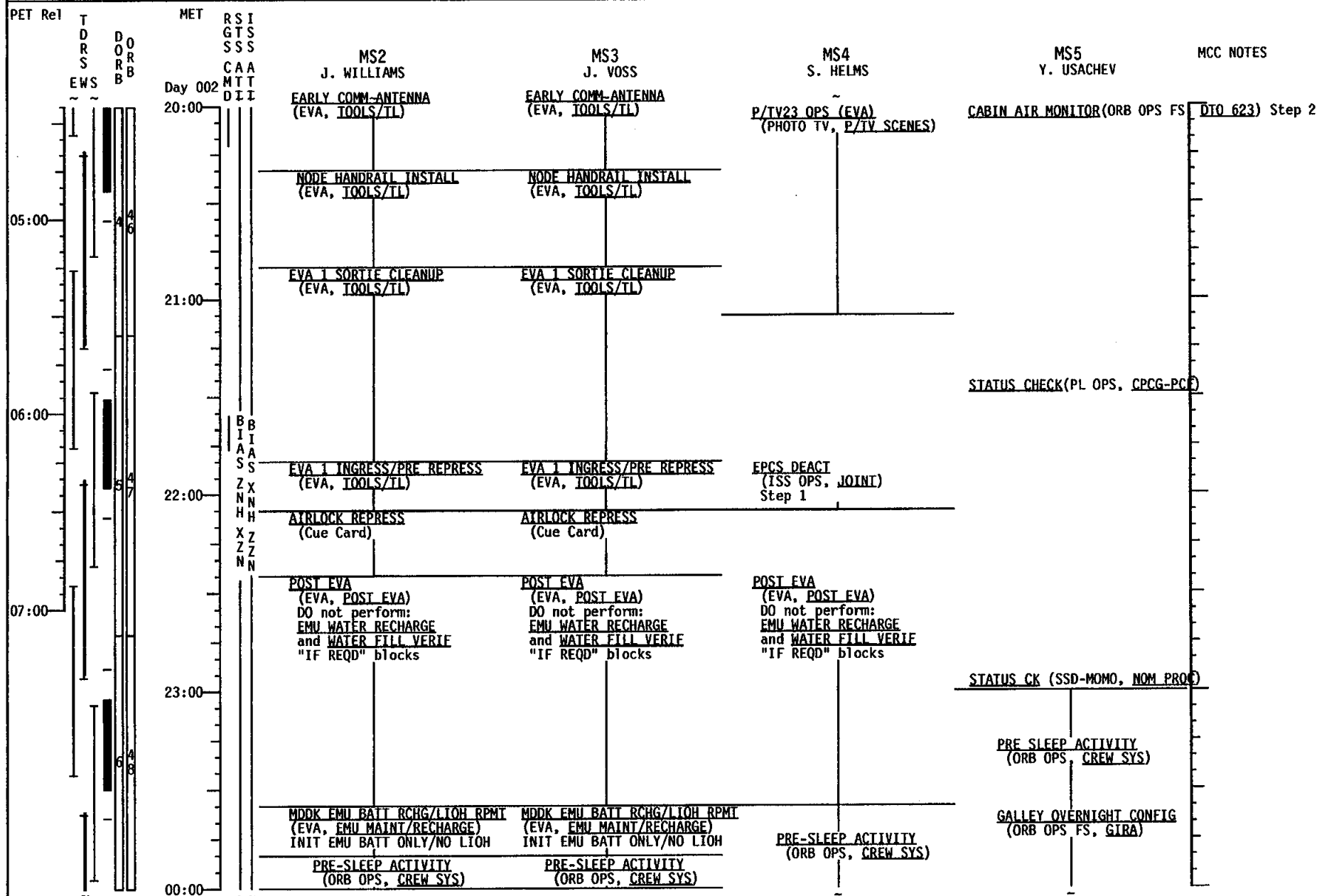
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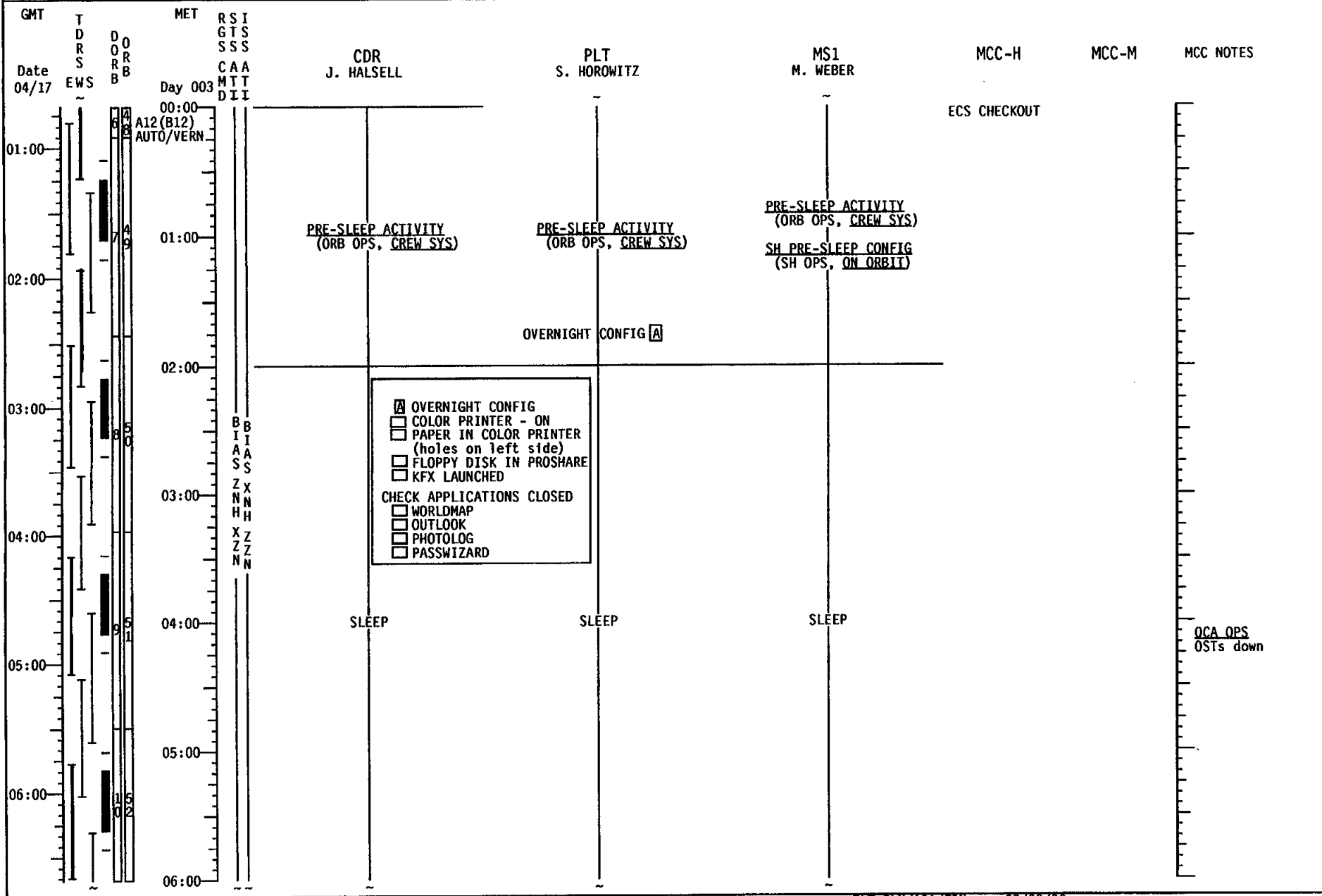
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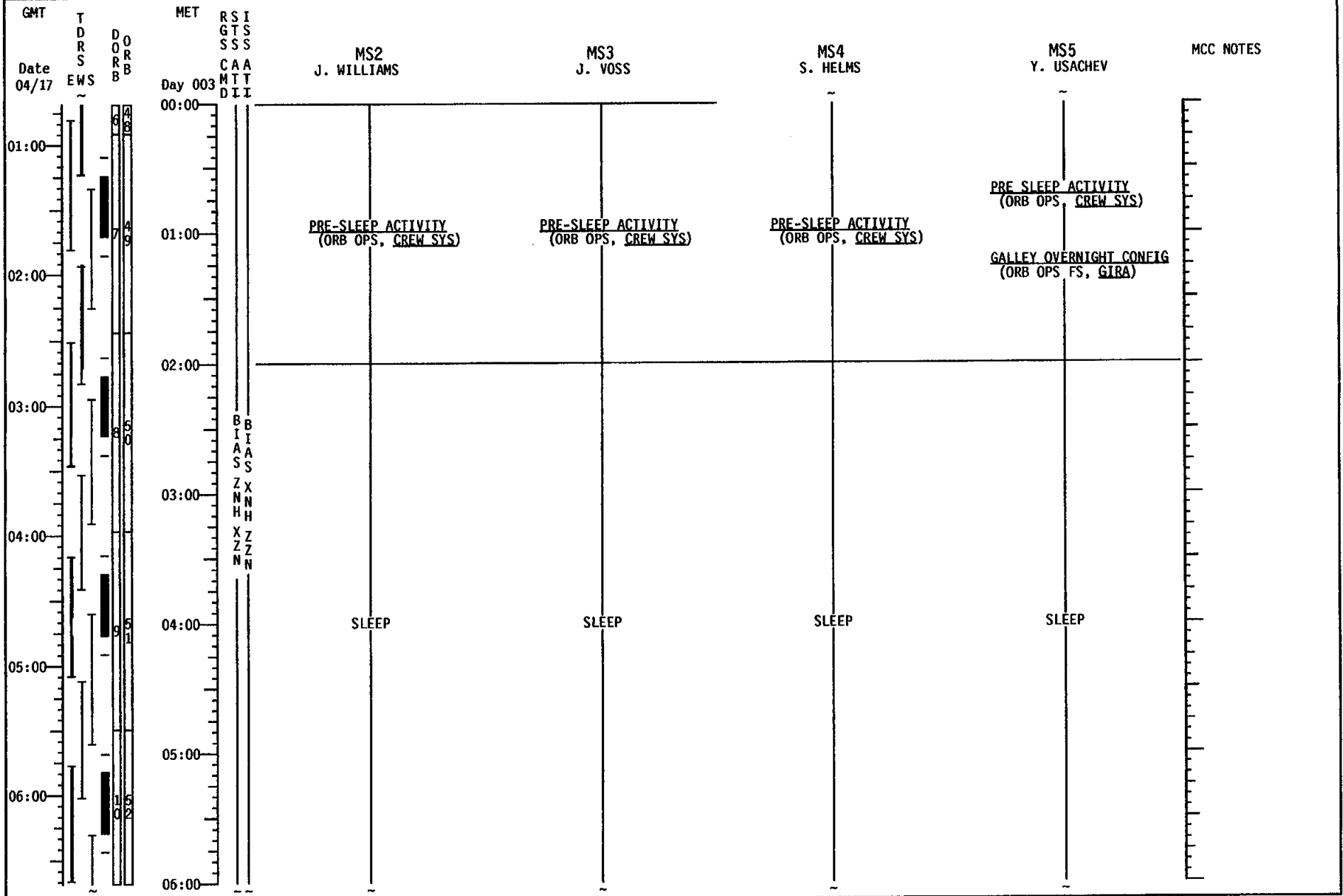
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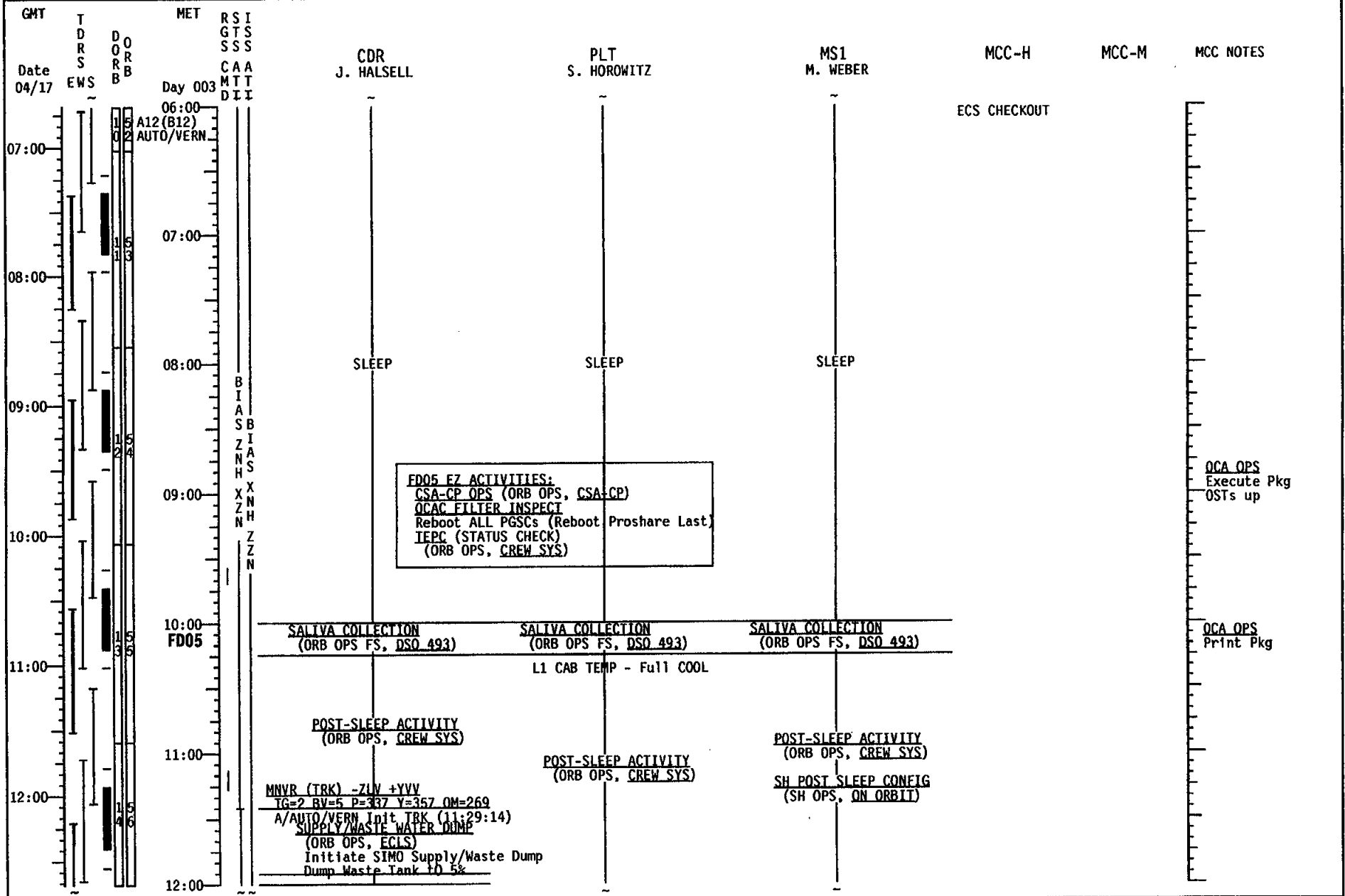
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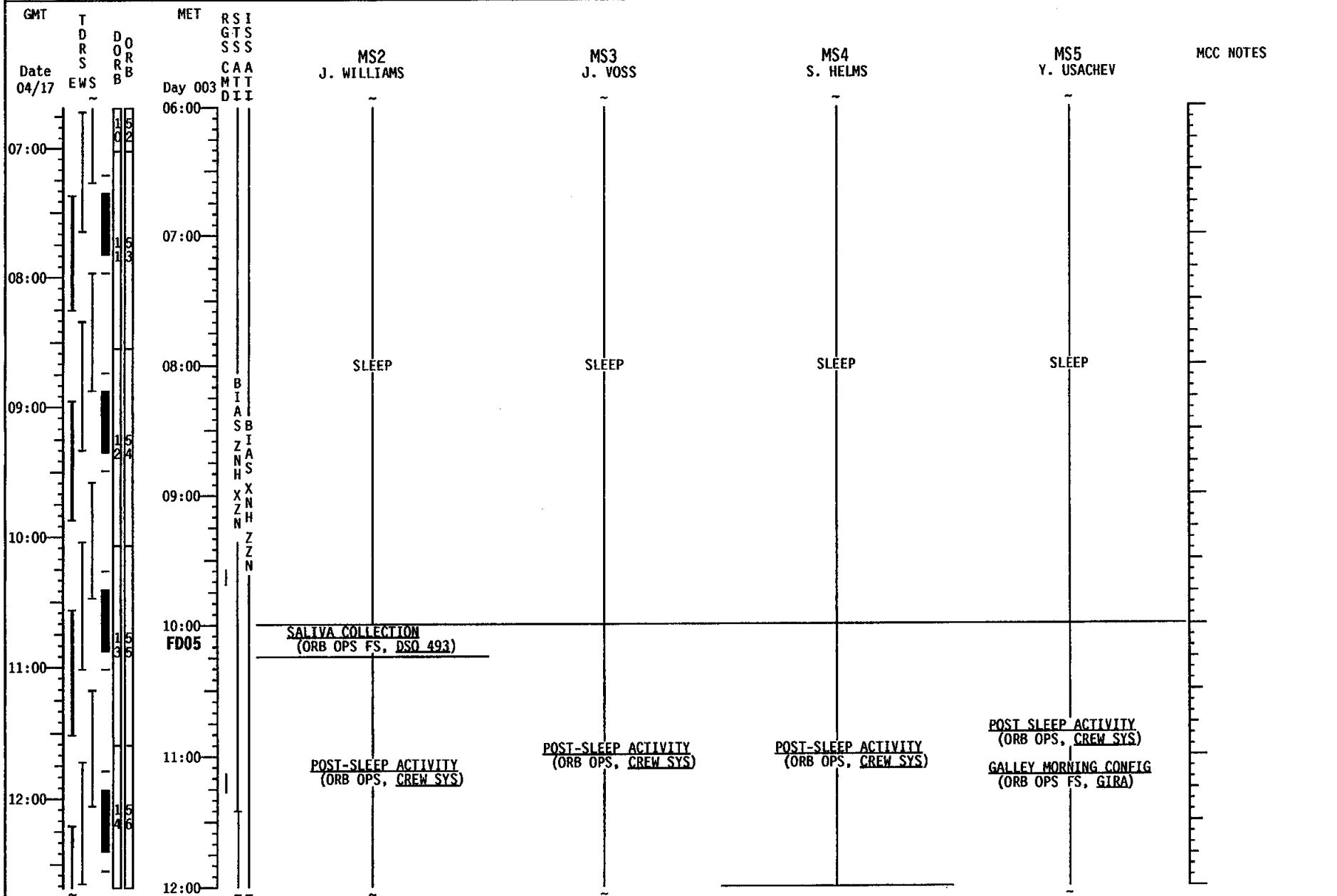
# STS-101 (FD04)



# STS-101 (FD04)



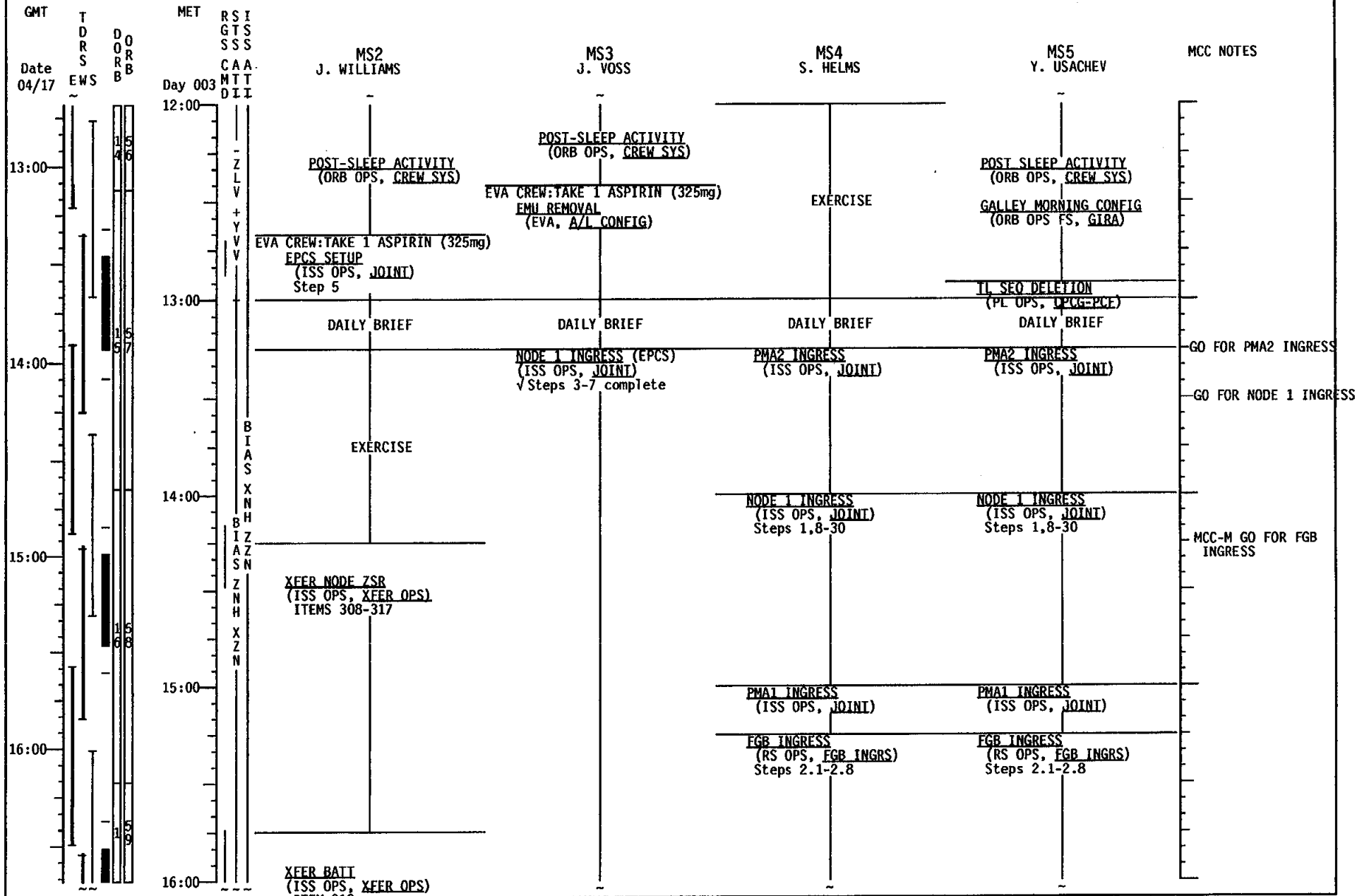
# STS-101 (FD04)







# STS-101 (FD05)



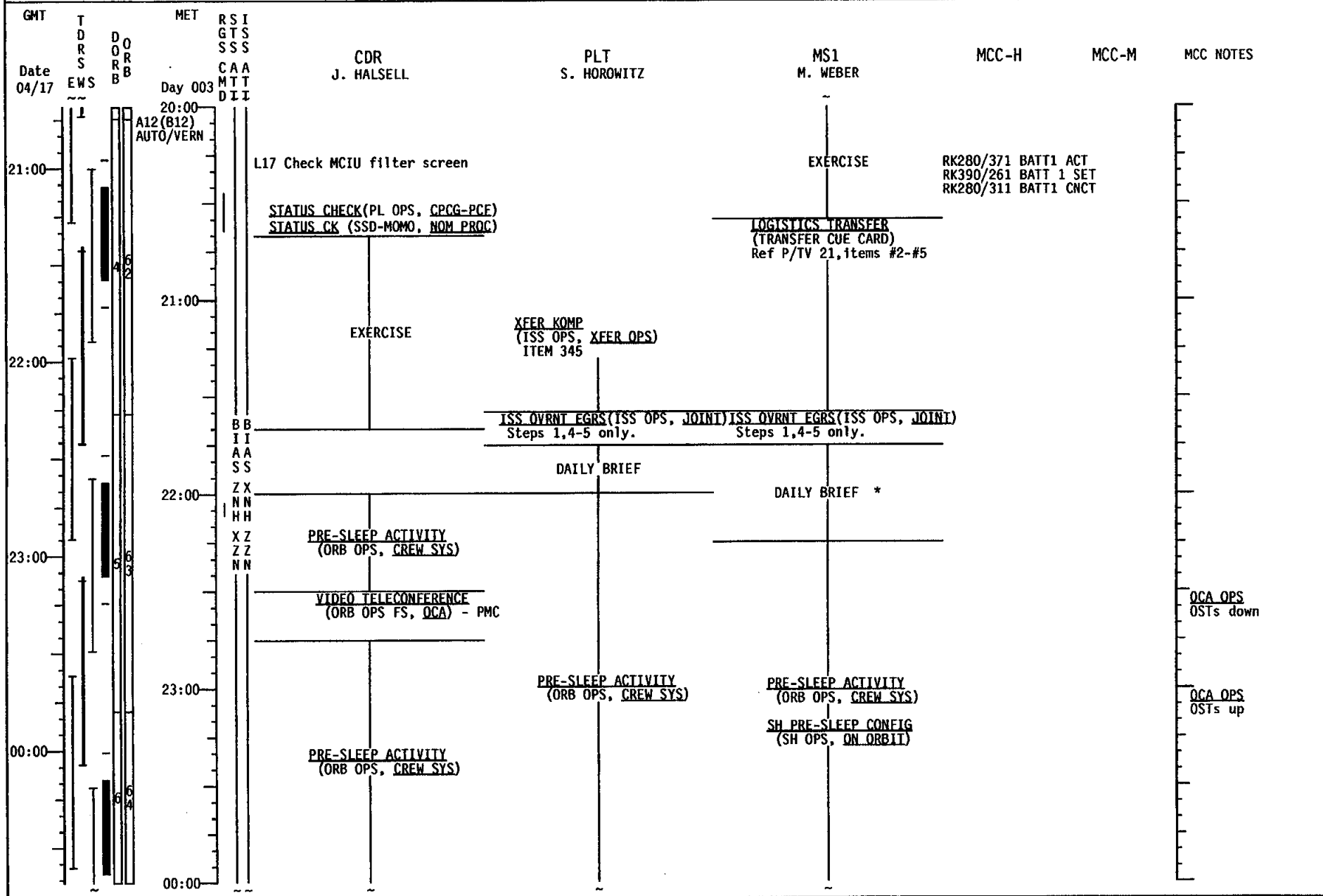
# STS-101 (FD05)

GMT	TDRS	DORB	MET	RSI	CDR	PLT	MS1	MCC-H	MCC-M	MCC NOTES
Date	EWS	Day	003	CAA MTT DIT	J. HALSELL	S. HOROWITZ	M. WEBER			
16:00			A12 (B12) AUTO/VERN		P/TV21 OPS (INGRESS) (PHOTO TV, P/TV SCENES) Ref: Item 1	FGB INGRESS (DUCTS) (RS OPS, FGB INGRS) Step 2.9 Ref: P/TV21 item #14	SPACEHAB TRANSFER PREP (ISS OPS, XFER OPS) Prep items: 300-307 for ISS INGRESS			
17:00						EXERCISE				RK370/351 CRCLN1 ON RK370/371 CRCLN2 ON RK405M1 PA-PMA1 CL RK416M1 PA-PMA1 INH RK418M1 ICC-PA CLOSE <del>NODE 1 IMV FAN ACT</del> (ISS OPS, ECLSS) Step 1, Aft Port
17:00							FORMALDEHYDE MONITOR KIT (ISS OPS, MED OPS) Steps 1-6 Ref: P/TV21 item #16			
18:00					R13 ENA C&W CHL's 65 & 95		P/TV04 SETUP (PHOTO/TV, P/TV SCENES)			
18:00				BB II AA SS	MEAL	MEAL	MEAL			
18:00				ZX NN HH						
19:00				XZ ZZ NN	PAO EVENT SUPPORT REF MSG ###	PAO VOICE CHECK/EVENT TV at TDR ( : to : ) REF MSG ###	PAO VOICE CHECK/EVENT JV at TDR ( : to : ) REF MSG ###			
19:00						RADIATION DOSIMETERS INSTALL (ISS OPS, MED OPS) REF: P/TV21 ITEM #15	LOGISTICS TRANSFER (TRANSFER CUE CARD) Ref P/TV 21, items #2-#5			EARLY COMM PWRIUP (ISS OPS, C&I)
20:00						XFER PRINTER BAGS (ISS OPS, XFER OPS) ITEMS 331-332				
20:00						MICROORGANISM GROWTH IDENTIFICATION STEPS (RS OPS, B&FGI FGB- I&C) Ref: P/TV21 item #24				
20:00						XFER PRINTER BAGS (ISS OPS, XFER OPS) ITEMS 331-332				
20:00					CABIN AIR MONITOR(ORB OPS FS, DIO 623) Step 2		EXERCISE			

# STS-101 (FD05)

GMT	TDRS	DORB	MET	RSI GTS SSS CAA MTT DTT	MS2 J. WILLIAMS	MS3 J. VOSS	MS4 S. HELMS	MS5 Y. USACHEV	MCC NOTES
Date 04/17	EWS	BB	Day 003	II					
16:00				AA	<b>XFER BATT</b> (ISS OPS, XFER OPS) ITEM 319	<b>NODE 1 INGRESS (EPCS)</b> (ISS OPS, JOINT) √Steps 3-7 complete	<b>FGB INGRESS</b> (RS OPS, FGB INGRS) Steps 2.1-2.8	<b>FGB INGRESS</b> (RS OPS, FGB INGRS) Steps 2.1-2.8	
17:00				SS	<b>LOGISTICS TRANSFER</b> (TRANSFER CUE CARD) Ref P/TV 21, items #2-#5	<b>PMA2 AIR VELOCITY MEASUREMENTS</b> (ISS OPS, ECLSS)	<b>STORAGE BATTERY</b> 800A/7200-01=A71 CHANGEOUT (RS OPS, EPS) Ref P/TV 21, item #10	<b>STORAGE BATTERY</b> 800A/7200-01=A71 CHANGEOUT (RS OPS, EPS) Ref P/TV 21, item #10	
17:00					<b>XFER BUPT PTAB</b> (ISS OPS, XFER OPS) ITEMS 323-324				
18:00				ZX	MEAL	MEAL	MEAL	MEAL	
18:00				NN					
19:00				ZZ	<b>EPCS DEACT</b> (ISS OPS, JOINT) Step 1-3 in AFD	<b>BATT RETURN</b> (ISS OPS, XFER OPS) ITEM 325			
19:00				NN	<b>EPCS ACTIVATION</b> (ISS OPS, JOINT) Step 1-5 in ECR	<b>CMC RELOCATE</b> (ISS OPS, XFER OPS) ITEMS 340-342	<b>CURRENT CONVERTER CONTROL</b> UNIT #7200.1=A81 CHANGEOUT (RS OPS, EPS) Ref: P/TV21 item #10	<b>STORAGE BATTERY CURRENT CONVERTER UNIT CHANGEOUT</b> (RS OPS, EPS) Ref: P/TV21 item #10	
19:00					<b>IMXOBL NOD BF PTAB2</b> (ISS OPS, XFER OPS) ITEMS 329-330				
19:00					<b>LOGISTICS TRANSFER</b> (TRANSFER CUE CARD) Ref P/TV 21, items #2-#5				
20:00					<b>IMXMMD XER BF PTAB2</b> (ISS OPS, XFER OPS) ITEMS 333-334		<b>CNNCT CHECK</b>		
20:00						<b>EXERCISE</b>	<b>BUPT PTAB RETURN</b> (ISS OPS, XFER OPS) ITEMS 326-328	<b>CNNCT CHECK</b>	
20:00								<b>XFER PTAB2</b> (ISS OPS, XFER OPS) ITEM 336	

# STS-101 (FD05)

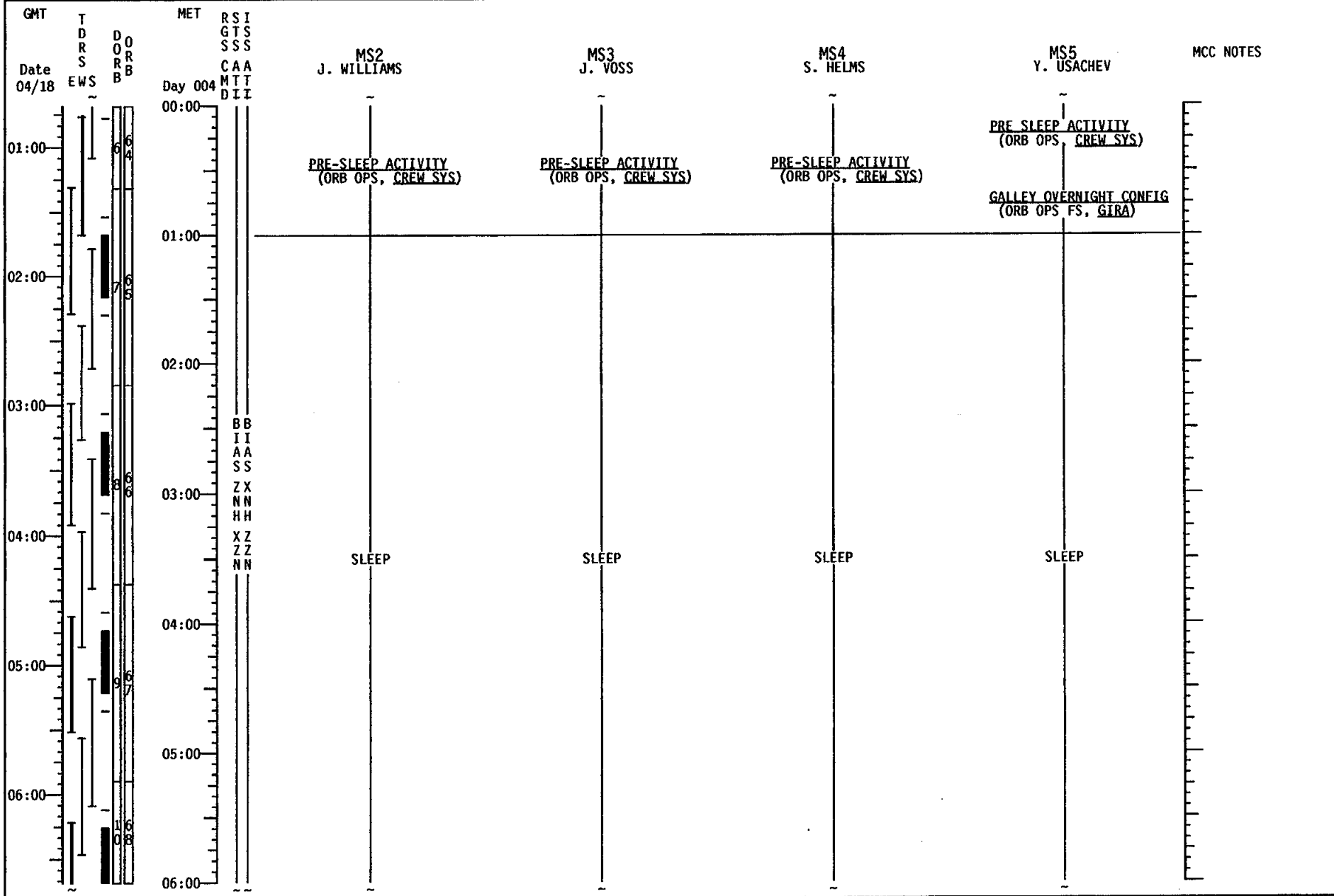


# STS-101 (FD05)

GMT	TDRS	DORRB	MET	RSI	GTS	SSS	CAA	MIT	DIT	MS2	MS3	MS4	MS5	MCC NOTES
Date	EWS		Day 003							J. WILLIAMS	J. VOSS	S. HELMS	Y. USACHEV	
20:00										IMXMD XFR-BE PTAB2 (ISS OPS, XFER OPS) ITEMS 333-334		BUPT PTAB RETURN (ISS OPS, XFER OPS) ITEMS 326-328	XFER PTAB2 (ISS OPS, XFER OPS) ITEM 336	
21:00										LOGISTICS TRANSFER (TRANSFER CUE CARD) Ref P/TV 21, items #2-#5	EXERCISE	STORAGE BATTERY CURRENT CONVERTER UNIT CHANGEOUT (RS OPS, EPS) Ref: P/TV21 item #10	STORAGE BATTERY CURRENT CONVERTER UNIT CHANGEOUT (RS OPS, EPS) Ref: P/TV21 item #10	
										ISS CWC SAMPLING FGB: Access 4 CWC's (most accessible bags) and perform ORB OPS: SHUTTLE/ISS H2O CONTAINER FILL, CWC SAMPLING PRECEDURE steps 2 and 3 only.	P/TV21 SETUP (ISS INTERNAL) (PHOTO/TV, P/TV SCENES) item #26 Closeout video in Node & FGB			
22:00										TRANSFER CHECK TO PREP FOR DAILY BRIEF	P/TV21 OPS (ISS INTERNAL) (PHOTO TV, P/TV SCENES) item #26 Closeout video in Node & FGB	MMDIRP 105 AF PTAB2 (ISS OPS, XFER OPS) ITEM 337	PTAB2 RETURN (ISS OPS, XFER OPS) ITEMS 338-339	
										ISS OVRNT EGRS (ISS OPS, JOINT) Steps 1,4-5 only.	ISS OVRNT EGRS (ISS OPS, JOINT) Steps 1,4-5 only.	SSC TO 208 (ISS OPS, XFER OPS) ITEMS 343-344	ISS OVRNT EGRS (ISS OPS, JOINT) Steps 1,4-5 only.	
22:00										DAILY BRIEF	DAILY BRIEF	DAILY BRIEF	DAILY BRIEF	
23:00													EXERCISE	
										PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
00:00													GALLEY OVERNIGHT CONFIG (ORB OPS FS, GIRA)	

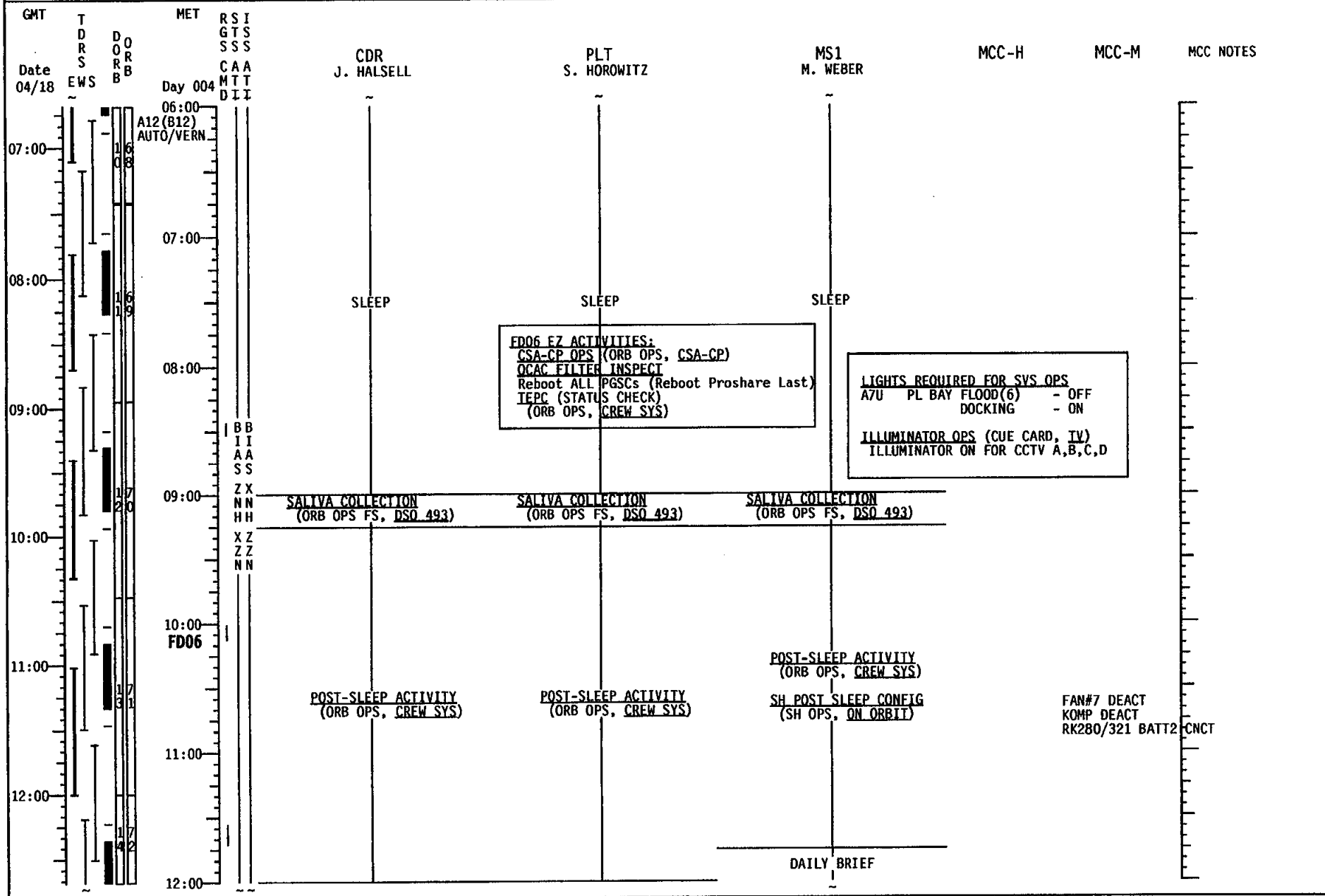


# STS-101 (FD05)

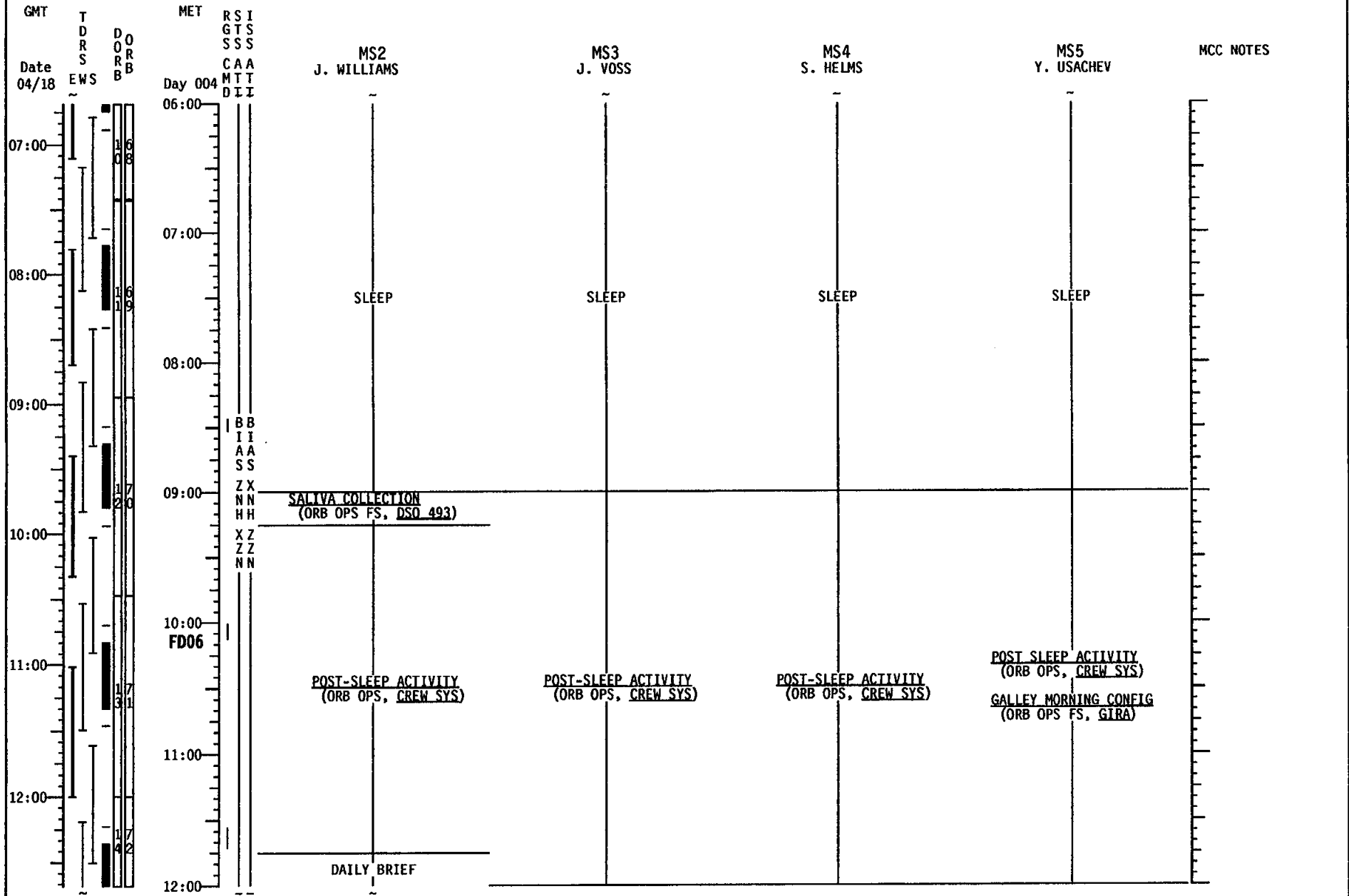




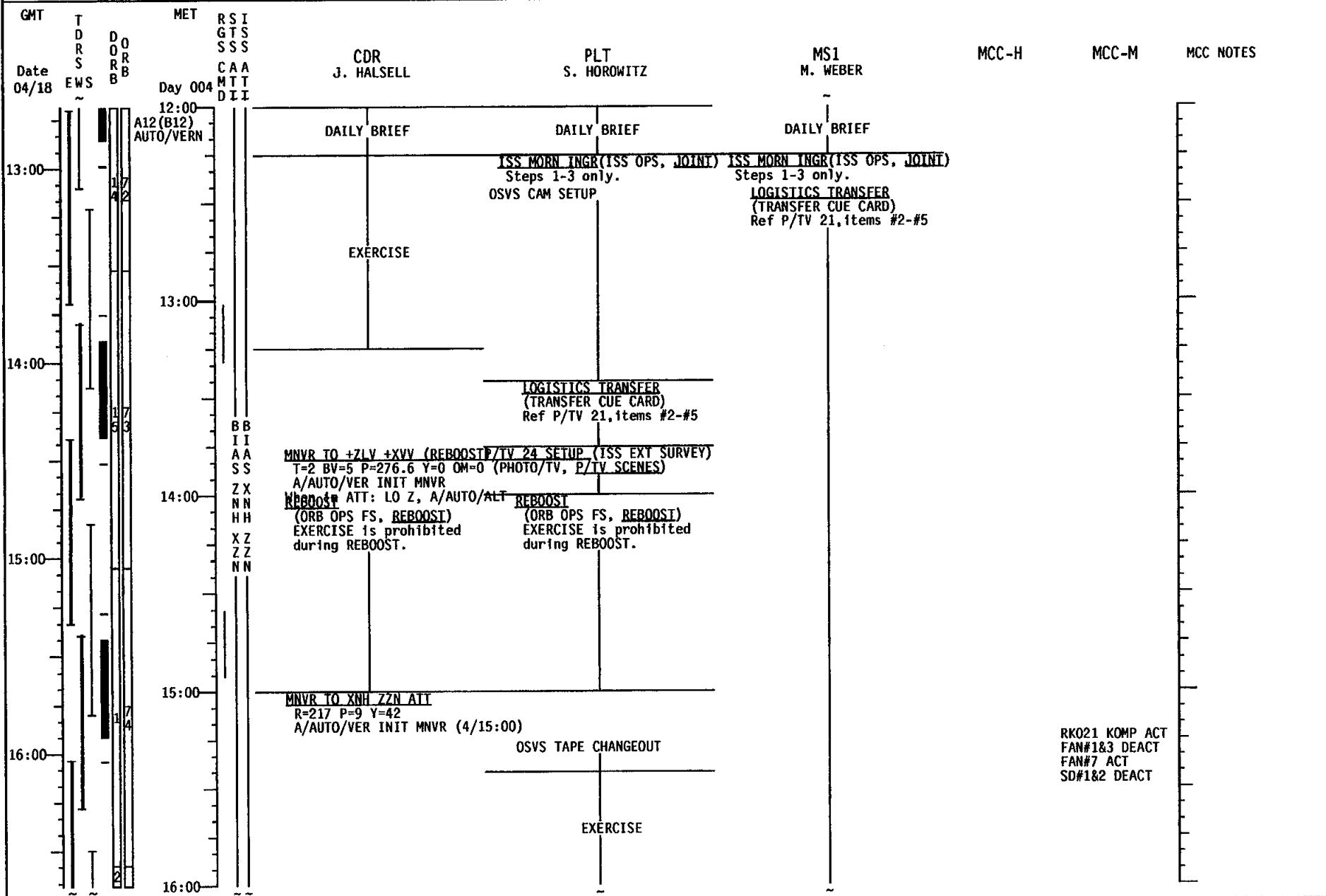
# STS-101 (FD05)



# STS-101 (FD05)



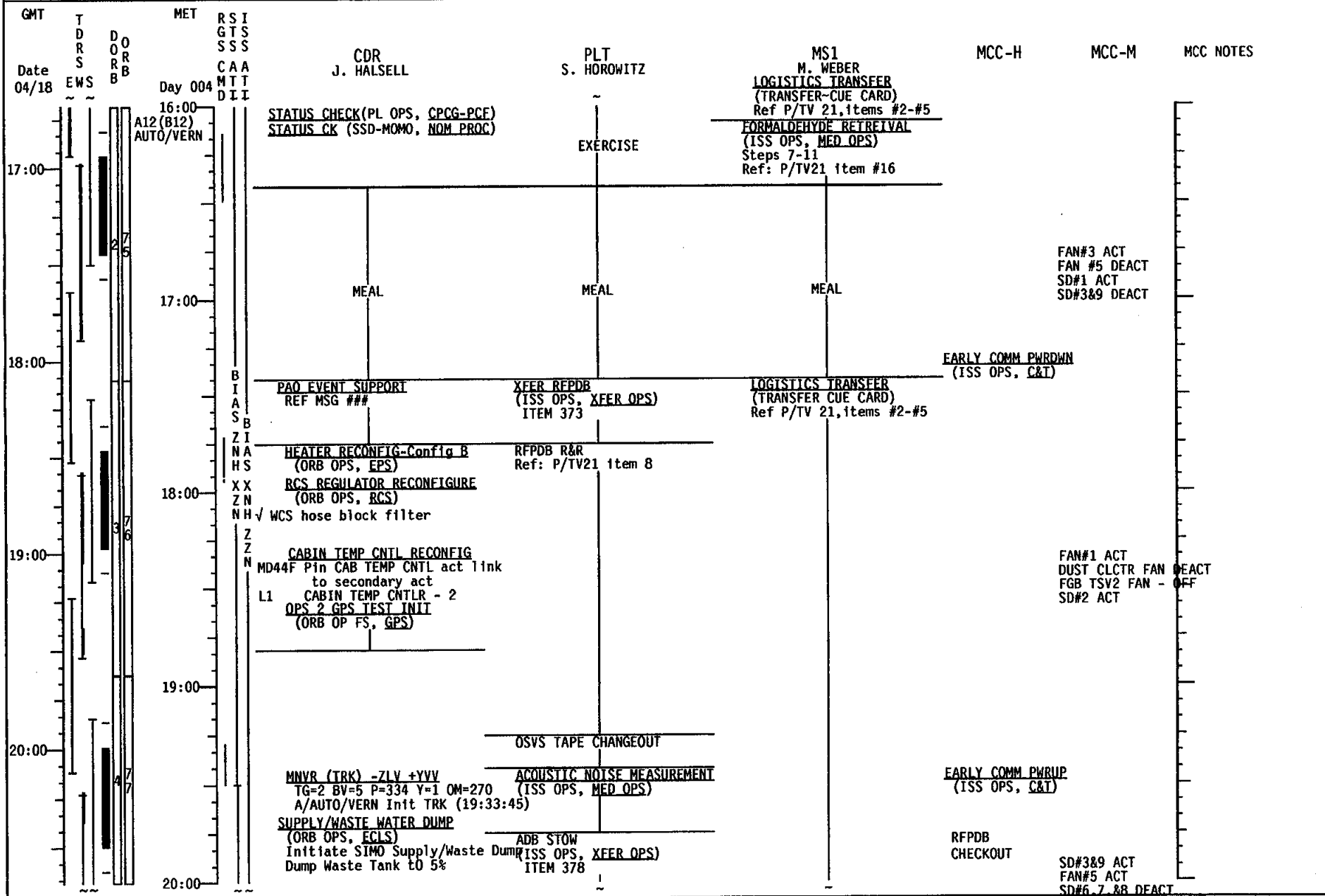
# STS-101 (FD06)



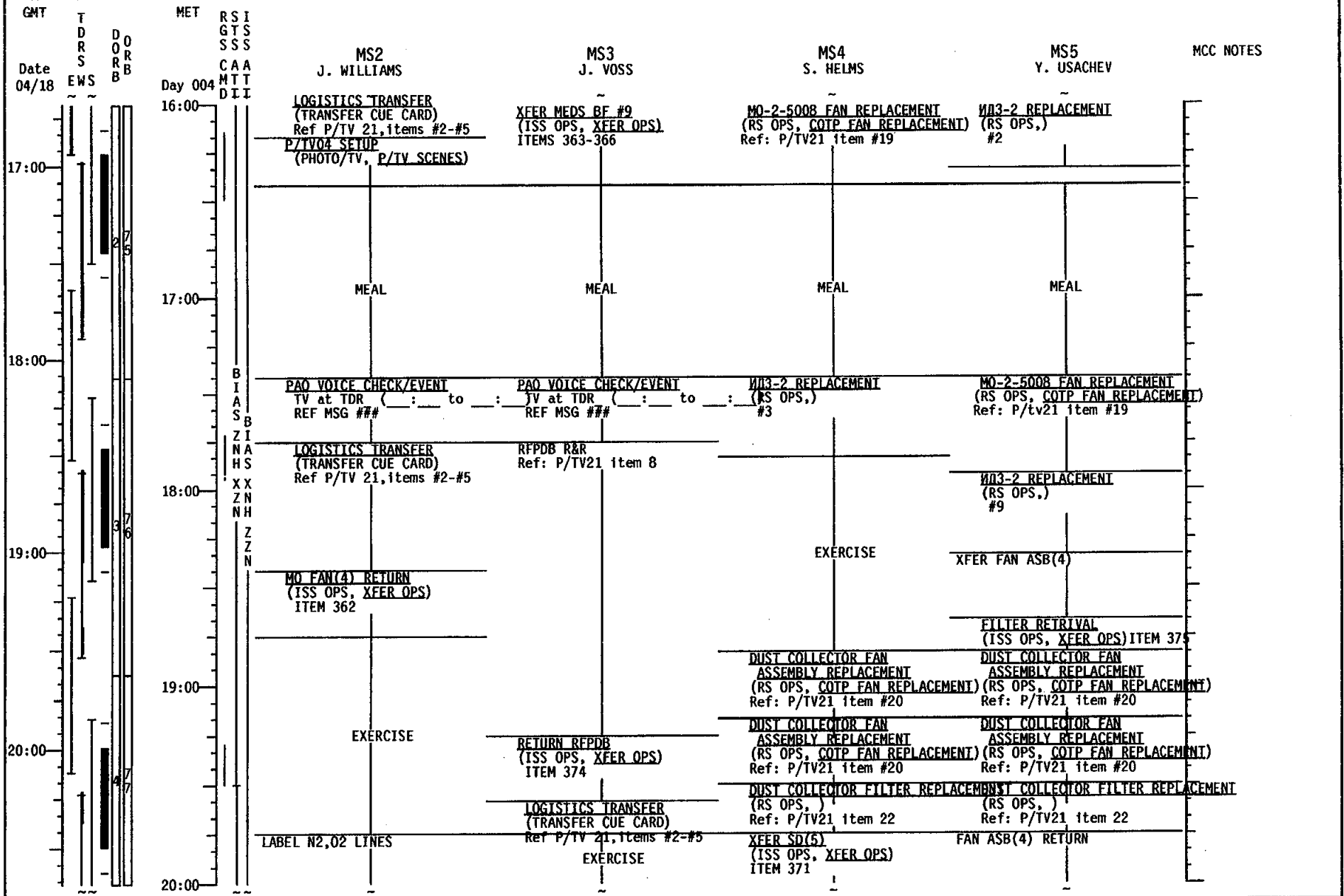
# STS-101 (FD06)

GMT	TDRS	DORB	MET	RSI GTS SSS CAA MTT DIT	MS2 J. WILLIAMS	MS3 J. VOSS	MS4 S. HELMS	MS5 Y. USACHEV	MCC NOTES
Date 04/18	EWS		Day 004						
12:00					DAILY BRIEF	DAILY BRIEF	DAILY BRIEF	DAILY BRIEF	
13:00		17 42			ISS MORN INGR(ISS OPS, JOINT) Steps 1-3 only. LOGISTICS TRANSFER (TRANSFER CUE CARD) Ref P/TV 21, items #2-#5	ISS MORN INGR(ISS OPS, JOINT) Steps 1-3 only. XFER FIRE EXT (ISS OPS, XFER OPS) ITEMS 347-349	ISS MORN INGR(ISS OPS, JOINT) Steps 1-3 only. UNIFIED SWITCHING UNIT 23A281-4 JUMPER CABLES CHANGEOUT (RS OPS,) Ref: P/TV21 item #13	ISS MORN INGR(ISS OPS, JOINT) Steps 1-3 only. UNIFIED SWITCHING UNIT 23A281-4 JUMPER CABLES CHANGEOUT (RS OPS,) Ref: P/TV21 item #13	
14:00		17 53			ACKI08 XFER BF M05006 (ISS OPS, XFER OPS) ITEMS 353-357	FIRE EXTINGUISHER REPLACEMENT (RS OPS, ) Ref: P/TV21 item #12			
						FIRE EXTINGUISHER REPLACEMENT (RS OPS, ) Ref: P/TV21 item #12	XFER M0 FAN(4) (ISS OPS, XFER OPS) ITEM 358	KOMP RETURN (ISS OPS, XFER OPS) ITEM 346	
				BB II AA SS		FIRE EXTINGUISHER REPLACEMENT (RS OPS, ) Ref: P/TV21 item #12			
14:00				ZX NN HH	LOGISTICS TRANSFER (TRANSFER CUE CARD) Ref P/TV 21, items #2-#5	FIRE EXT RETURN (ISS OPS, XFER OPS) ITEMS 350-352	M0-1-5006 FAN REPLACEMENT (RS OPS, COTP FAN REPLACEMENT) Ref: P/TV21 item #19		
15:00				XZ ZZ NN				EXERCISE EXERCISE IS PROHIBITED DURING REBOOST	
					LOGISTICS TRANSFER (TRANSFER CUE CARD) Ref P/TV 21, items #2-#5				
15:00					ACK XFER AF M05006 (ISS OPS, XFER OPS) ITEM 359	XFER MEDS BF #9 (ISS OPS, XFER OPS) ITEMS 363-366	XFER SD(5) (ISS OPS, XFER OPS) ITEM 367	LOGISTICS TRANSFER (TRANSFER CUE CARD) Ref P/TV 21, items #2-#5	
					MICROORGANISM GROWTH IDENTIFICATION STEPS (RS OPS, B&EG IGB- I&C) Ref: P/TV21 item #24 & TIMELINE TASK LIST (ISS OPS, XFER OPS) ITEM 379				
16:00					LOGISTICS TRANSFER (TRANSFER CUE CARD) Ref P/TV 21, items #2-#5		M03-2 REPLACEMENT (RS OPS, ) #1	M0-2-5008 FAN REPLACEMENT (RS OPS, COTP FAN REPLACEMENT) Ref: P/TV21 item #19	
16:00							M0-2-5008 FAN REPLACEMENT (RS OPS, COTP FAN REPLACEMENT) Ref: P/TV21 item #19	M03-2 REPLACEMENT (RS OPS, ) -	

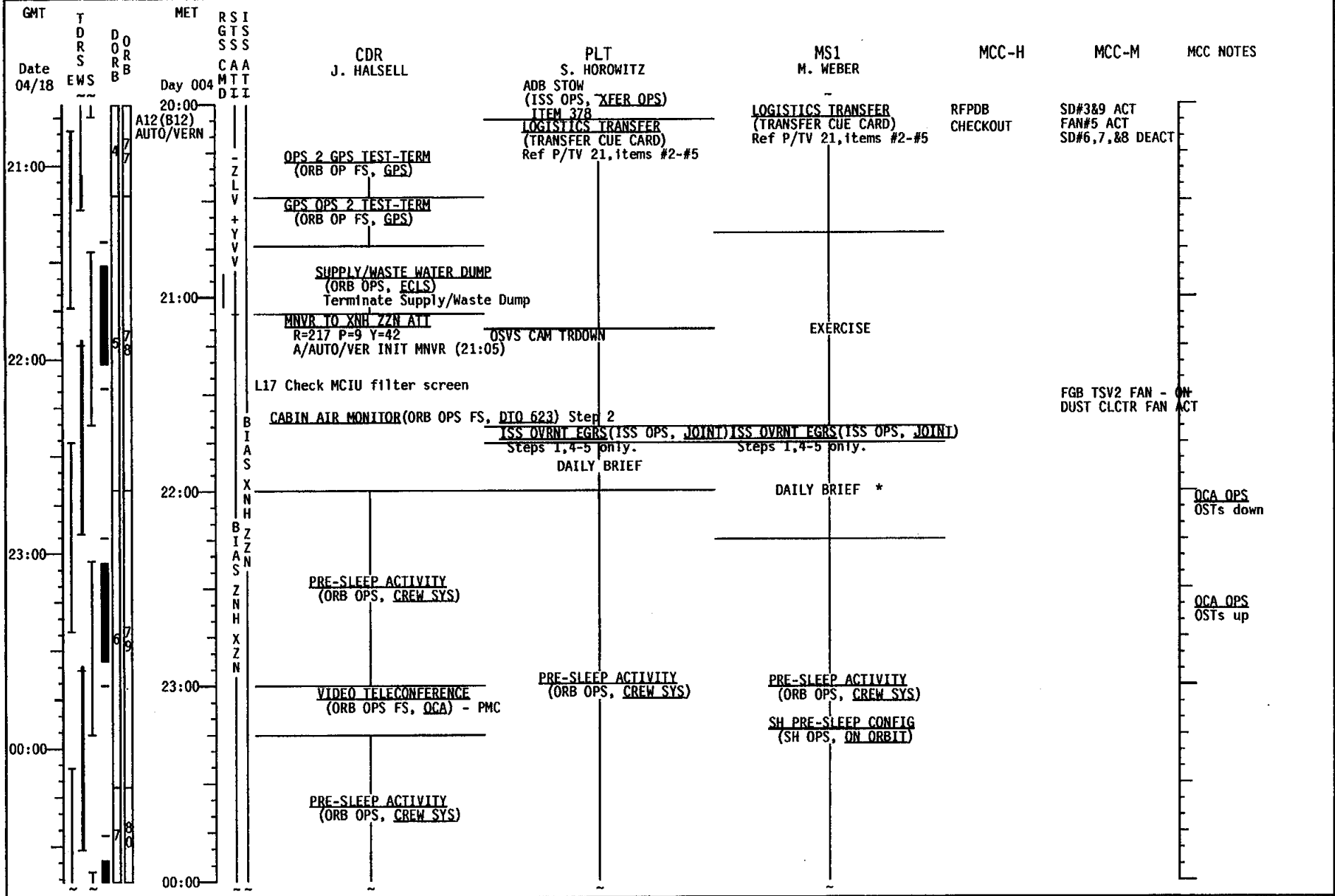
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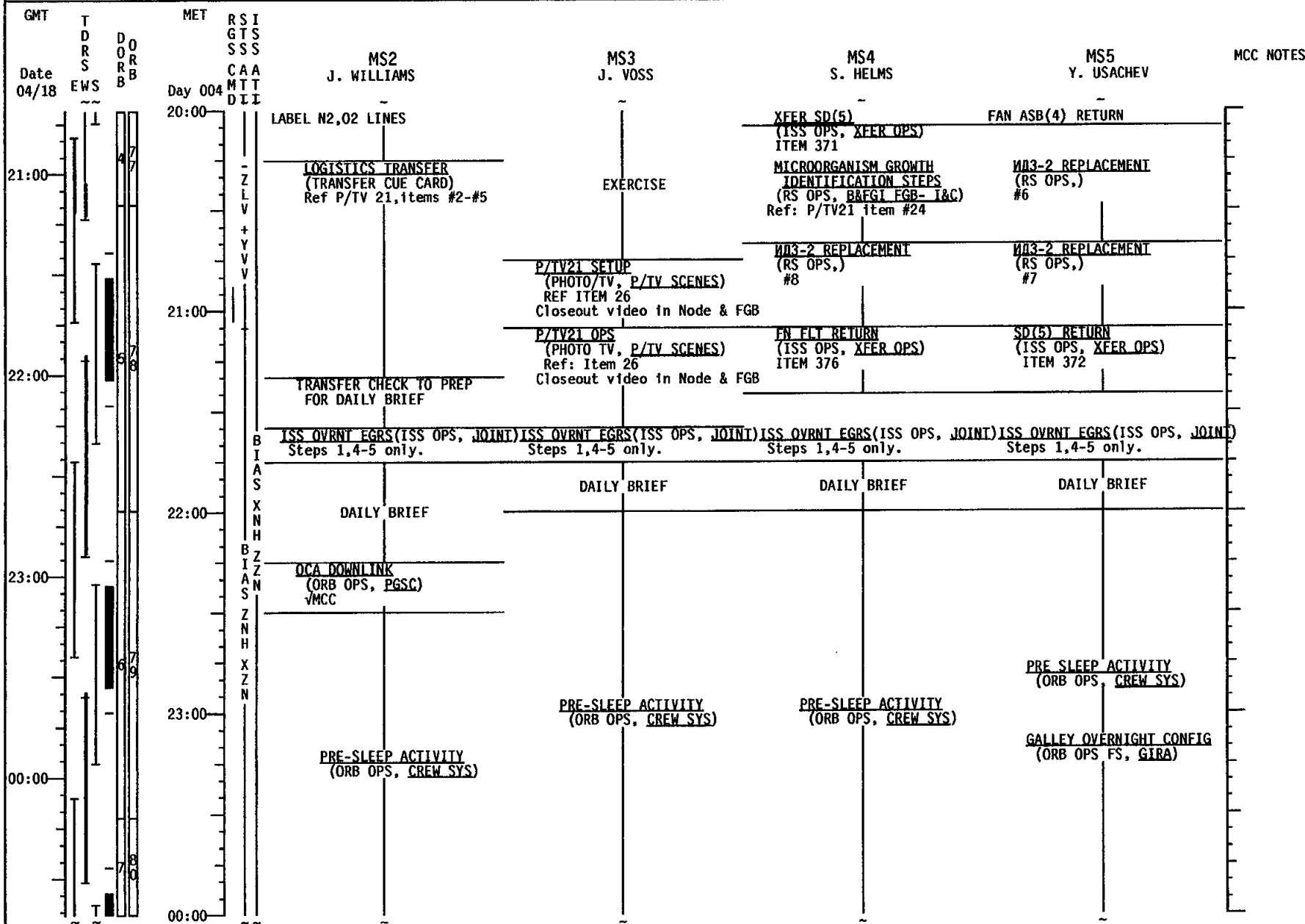
# STS-101 (FD06)



# STS-101 (FD06)

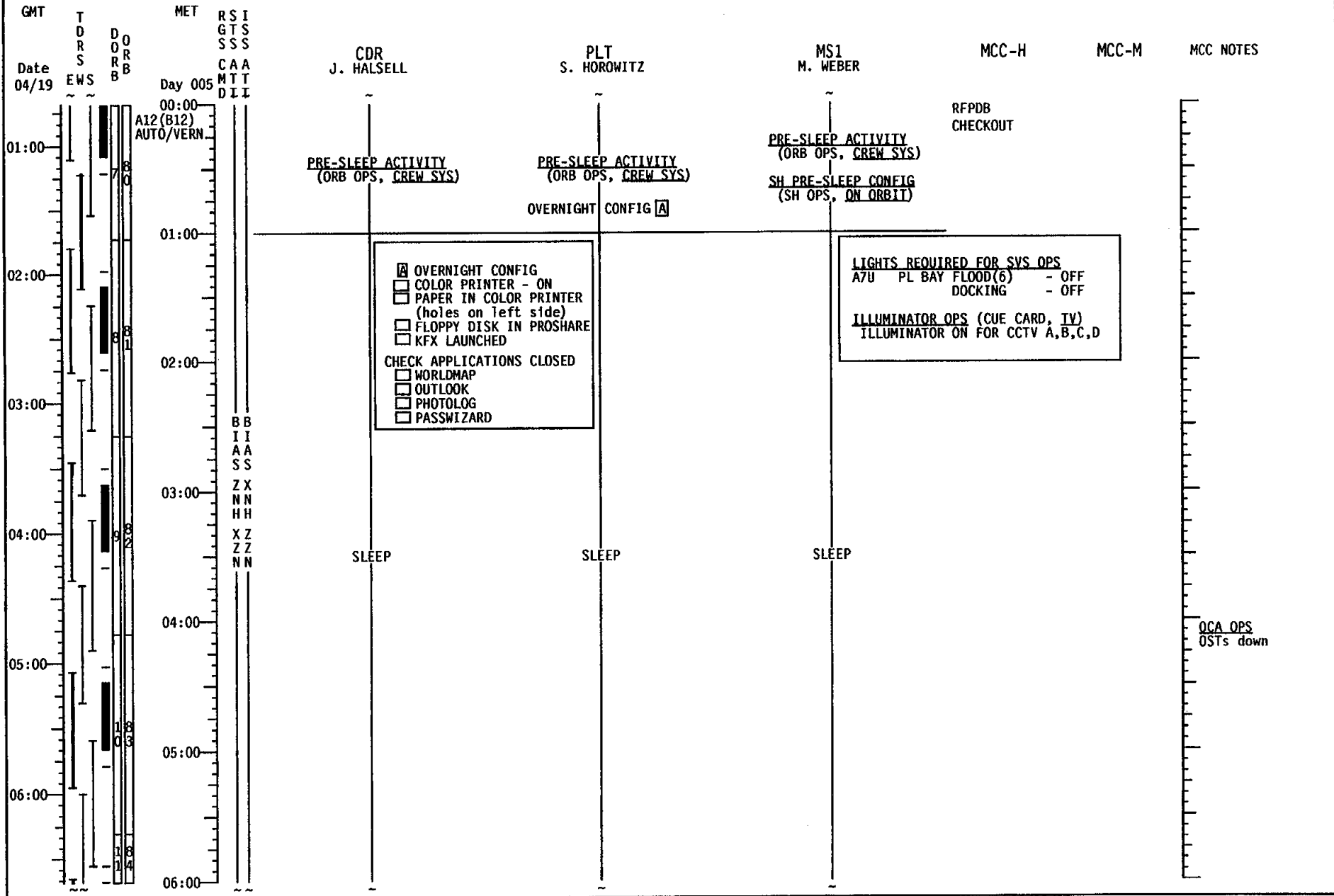


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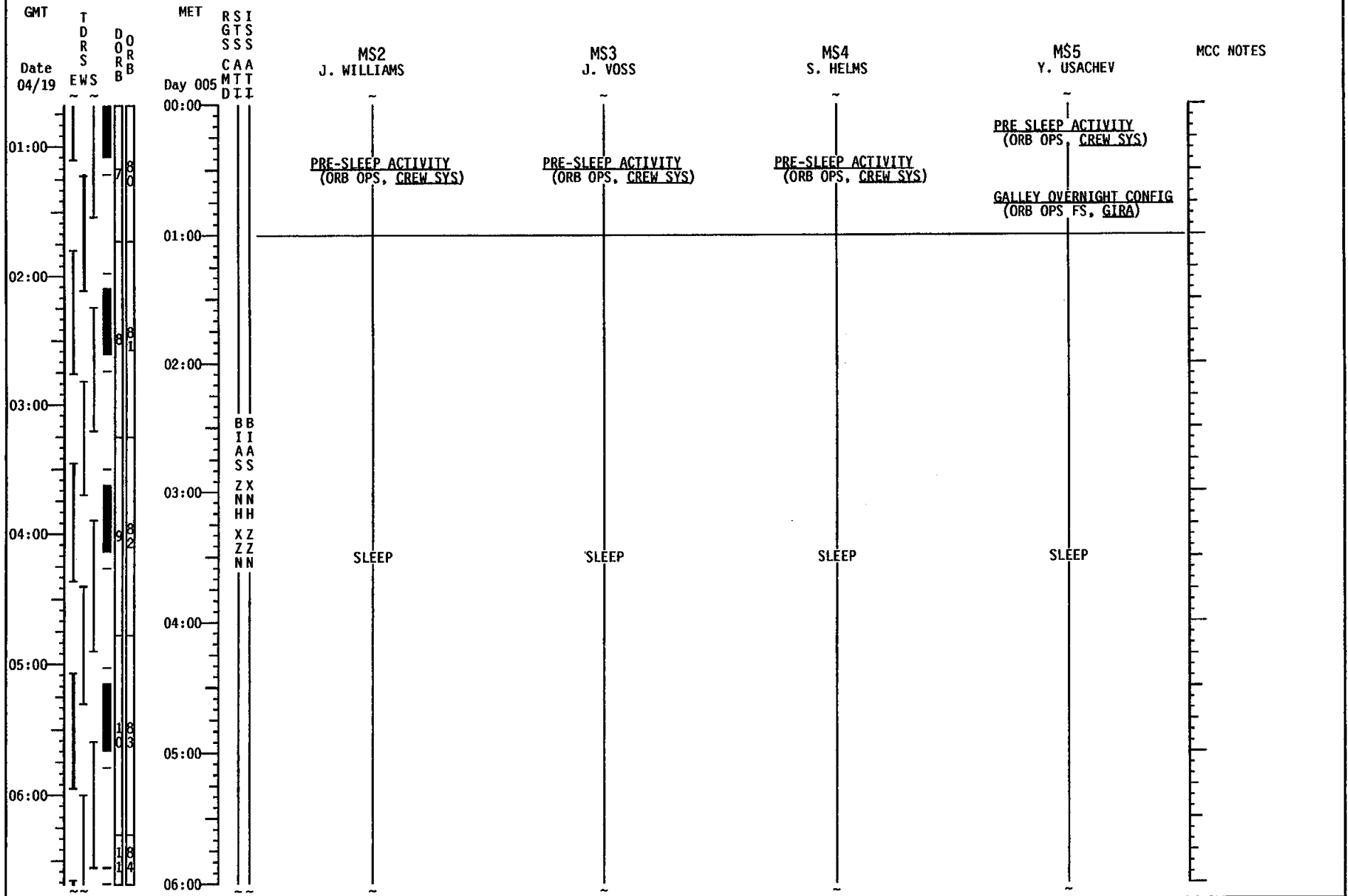




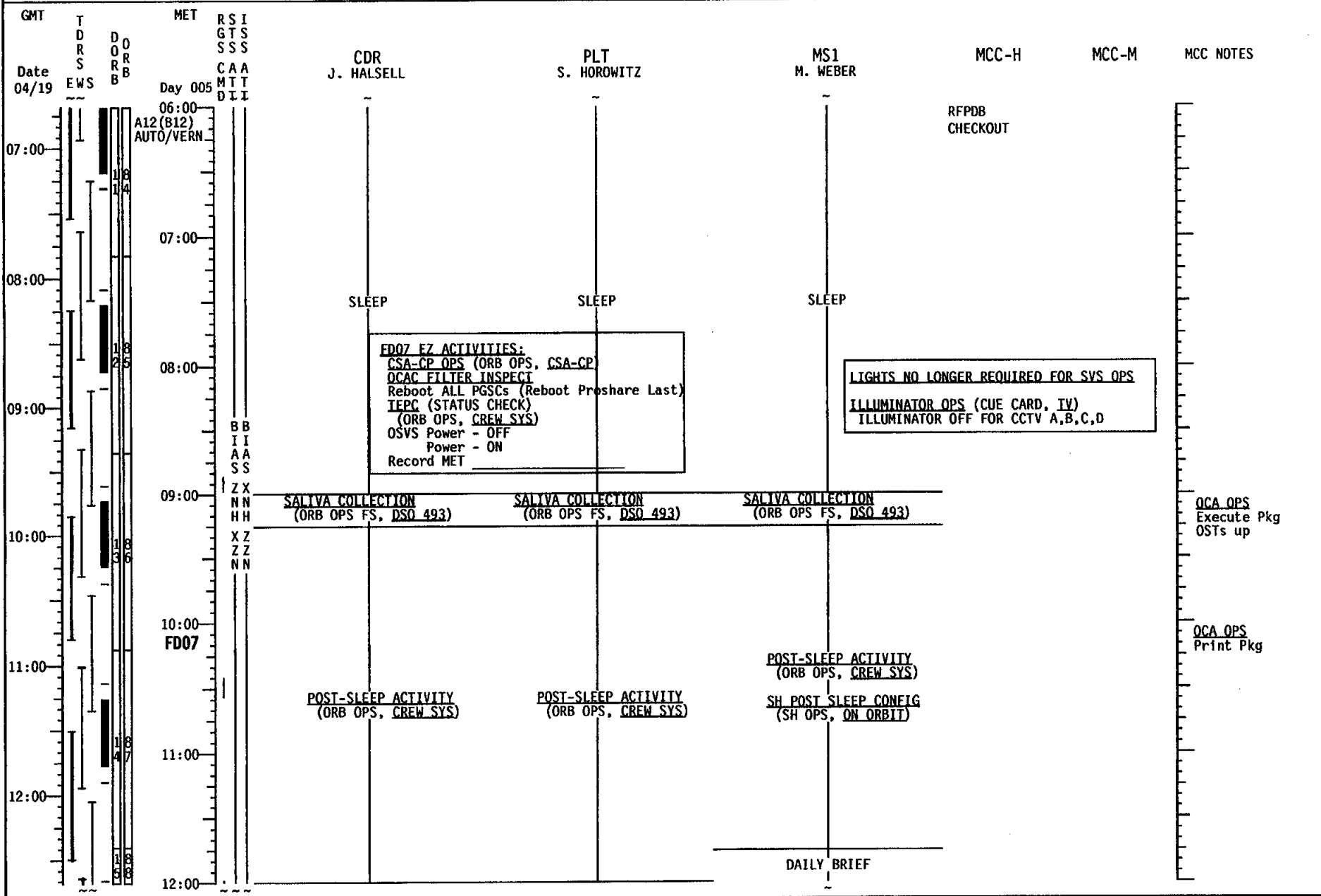
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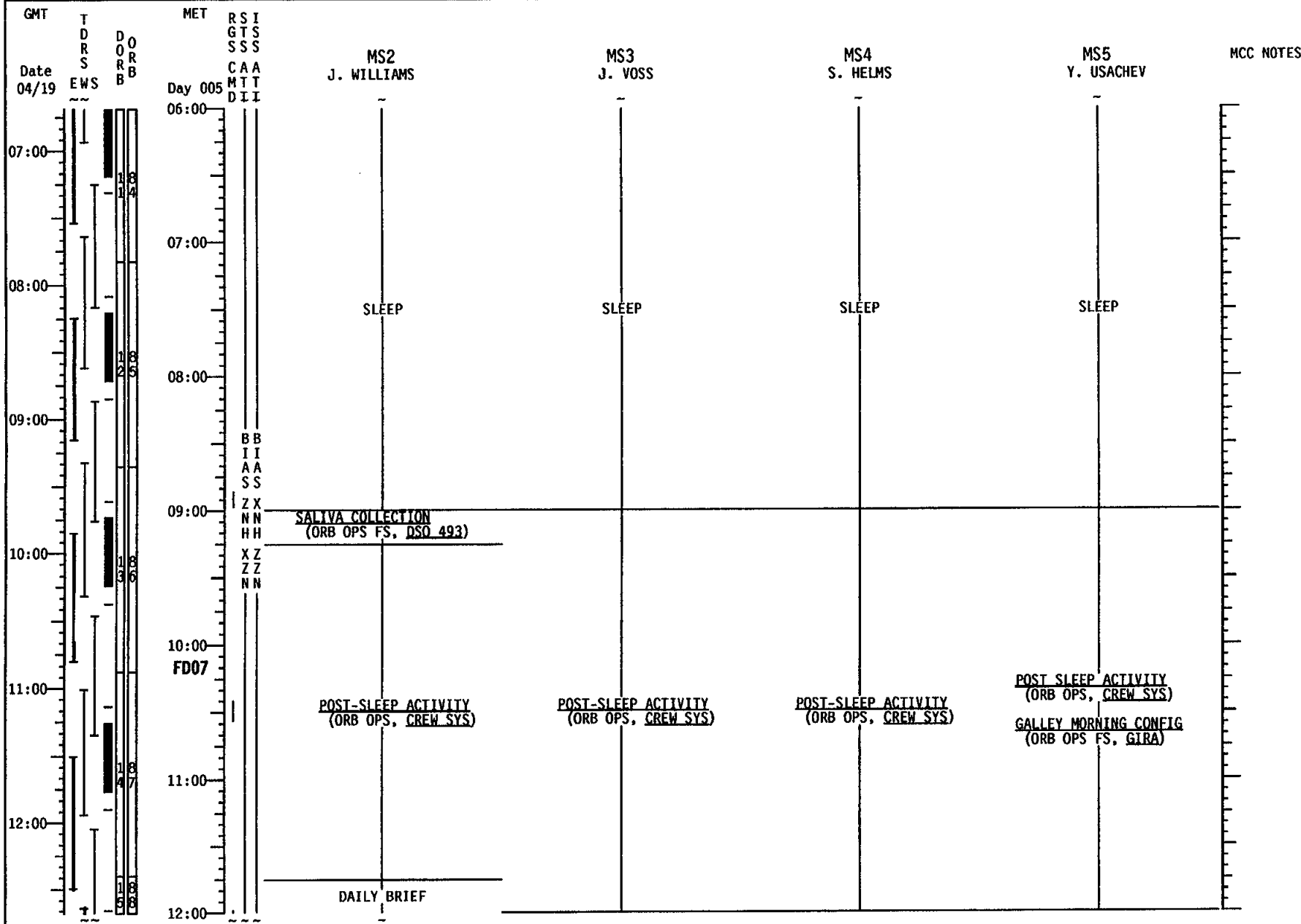
# STS-101 (FD06)



# STS-101 (FD06)



# STS-101 (FD06)



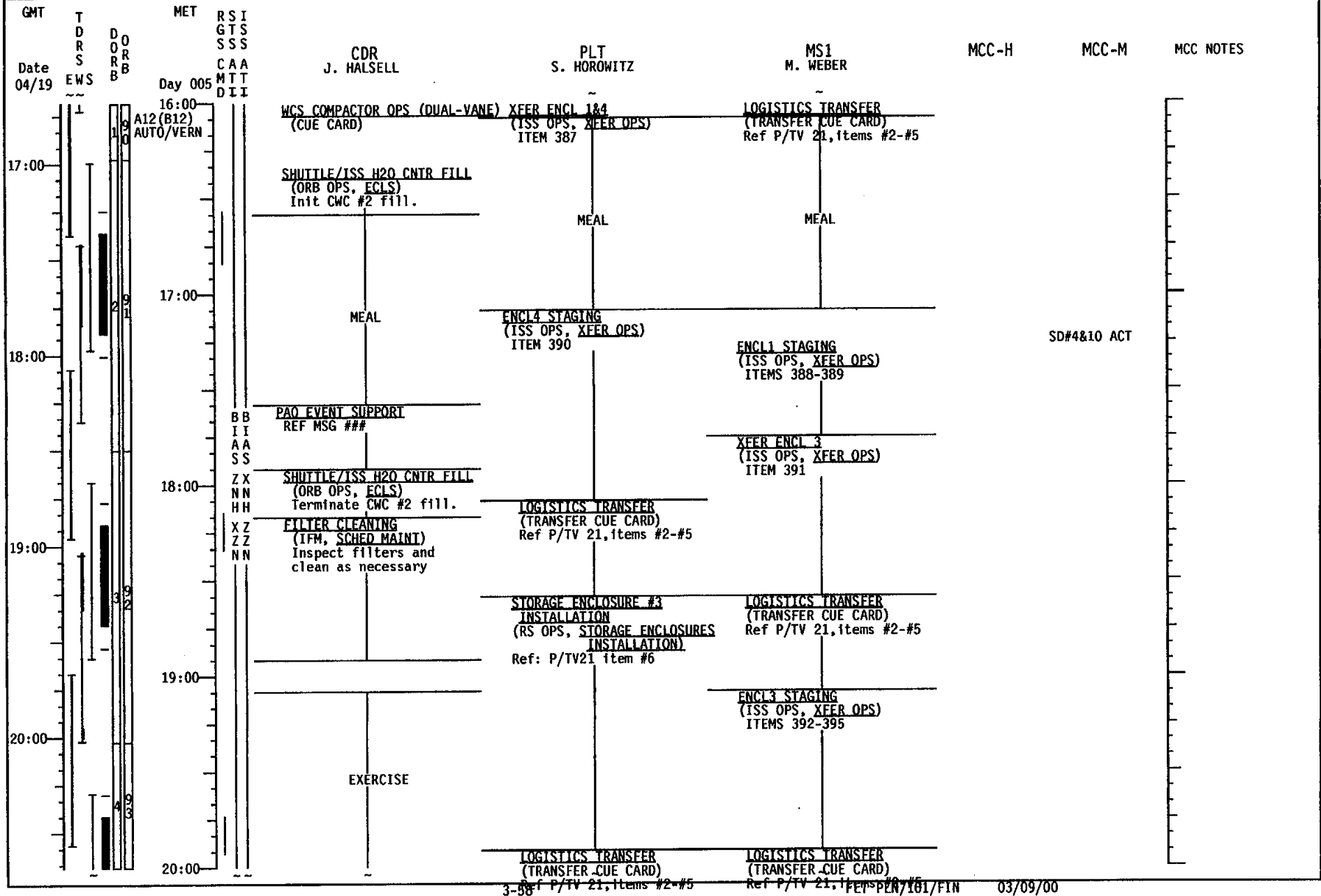
# STS-101 (FD07)

GMT	TDRS	DORB	MET	RSI	CDR J. HALSELL	PLT S. HOROWITZ	MS1 M. WEBER	MCC-H	MCC-M	MCC NOTES
Date 04/19	EWS	ORB	Day 005	CAA MTT DIT						
12:00			A12(B12) AUTO/VERN		DAILY BRIEF	DAILY BRIEF	DAILY BRIEF			
13:00					L17 Check MCIU filter screen	ISS MORN INGR (ISS OPS, JOINT) Steps 1-3 only.	ISS MORN INGR (ISS OPS, JOINT) Steps 1-3 only.			
					SHUTTLE/ISS H2O CNTR FILL (ORB OPS, ECLS) Retrieve CWC bags from SpaceHab. Perform initial setup, purge, & Init CWC#1		LOGISTICS TRANSFER (TRANSFER CUE CARD) Ref P/TV 21, items #2-#5			RTS MEM UNIT DEACT
13:00						EXERCISE				
14:00										
						LOGISTICS TRANSFER (TRANSFER CUE CARD) Ref P/TV 21, items #2-#5				
14:00				BB II AA SS ZX NN HH XZ ZZ NN	MNVR TO +ZLV +XV (REBOOST) T=2 BV=5 P=276.6 Y=0 OM=0 (PHOTO/TV, P/TV SCENES) A/AUTO/VER INIT MNVR REBOOST ATT: LO Z, A/AUTO/ALT	REBOOST (ORB OPS FS, REBOOST) EXERCISE is prohibited during REBOOST.	EXERCISE EXERCISE IS PROHIBITED DURING REBOOST			SD#5&10 DEACT
15:00										
							LOGISTICS TRANSFER (TRANSFER CUE CARD) Ref P/TV 21, items #2-#5			
15:00					MNVR TO XNH ZZN ATT R=223 P=3 Y=40 A/AUTO/VER INIT MNVR (5/15:00)					
					SHUTTLE/ISS H2O CNTR FILL (ORB OPS, ECLS) Terminate CWC #1 fill.					
16:00					GPS OPS 2 TEST-TERM (ORB OP FS, GPS)					
					STATUS CHECK (PL OPS, CPCG-PCF)	XFER ENCL 1&4 (ISS OPS, XFER OPS)				RTS MEM UNIT AC SD#4 DEACT SD#5 ACT
16:00					WCS COMPACTOR OPS (DUAL-VANE) (CUE CARD)	ITEM 387				

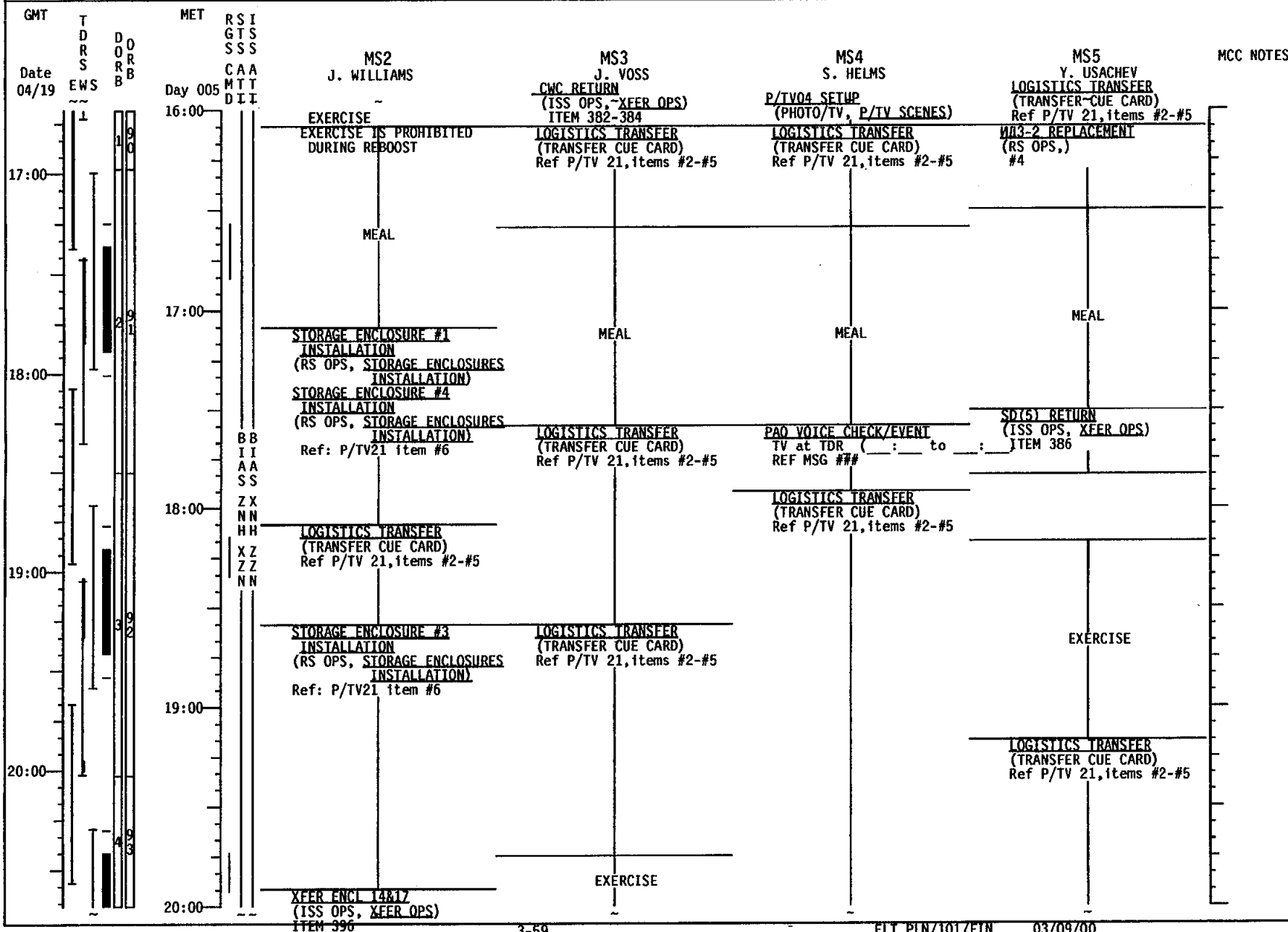
# STS-101 (FD07)

GMT	TDRS	DORB	MET	RSI	MS2	MS3	MS4	MS5	MCC NOTES
Date 04/19	EWS	B	Day 005	GTS SSS CAA MTT DII	J. WILLIAMS	J. VOSS	S. HELMS	Y. USACHEV	
12:00					DAILY BRIEF	DAILY BRIEF	DAILY BRIEF	DAILY BRIEF	
13:00					ISS MORN INGR (ISS OPS, JOINT) Steps 1-3 only. LOGISTICS TRANSFER (TRANSFER CUE CARD) Ref P/TV 21, items #2-#5	ISS MORN INGR (ISS OPS, JOINT) Steps 1-3 only. LOGISTICS TRANSFER (TRANSFER CUE CARD) Ref P/TV 21, items #2-#5	ISS MORN INGR (ISS OPS, JOINT) Steps 1-3 only. XFER RTS (ISS OPS, XFER OPS) ITEM 380	ISS MORN INGR (ISS OPS, JOINT) Steps 1-3 only. LOGISTICS TRANSFER (TRANSFER CUE CARD) Ref P/TV 21, items #2-#5	
13:00							SYSTEM 6P-9UV-8 MEMORY DEVICE 3 VIA CHANGEOUT (RS OPS.) Ref: P/TV21 item #21	SYSTEM 6P-9UV-8 MEMORY DEVICE 3 VIA CHANGEOUT (RS OPS.) Ref: P/TV21 item #21	
14:00									
15:00				BB II AA SS ZX NN HH XZ ZZ NN			RTS RETURN (ISS OPS, XFER OPS) ITEM 381	LOGISTICS TRANSFER (TRANSFER CUE CARD) Ref P/TV 21, items #2-#5	
15:00						CWC RETURN (ISS OPS, XFER OPS) ITEM 382-384	EXERCISE EXERCISE IS PROHIBITED DURING REBOOST	M3-2 REPLACEMENT (RS OPS.) #5	
16:00					EXERCISE EXERCISE IS PROHIBITED DURING REBOOST			M3-2 REPLACEMENT (RS OPS.) #10	
16:00							P/TV04 SETUP (PHOTO/TV, P/TV SCENES)	LOGISTICS TRANSFER (TRANSFER CUE CARD) Ref P/TV 21, items #2-#5	

# STS-101 (FD07)

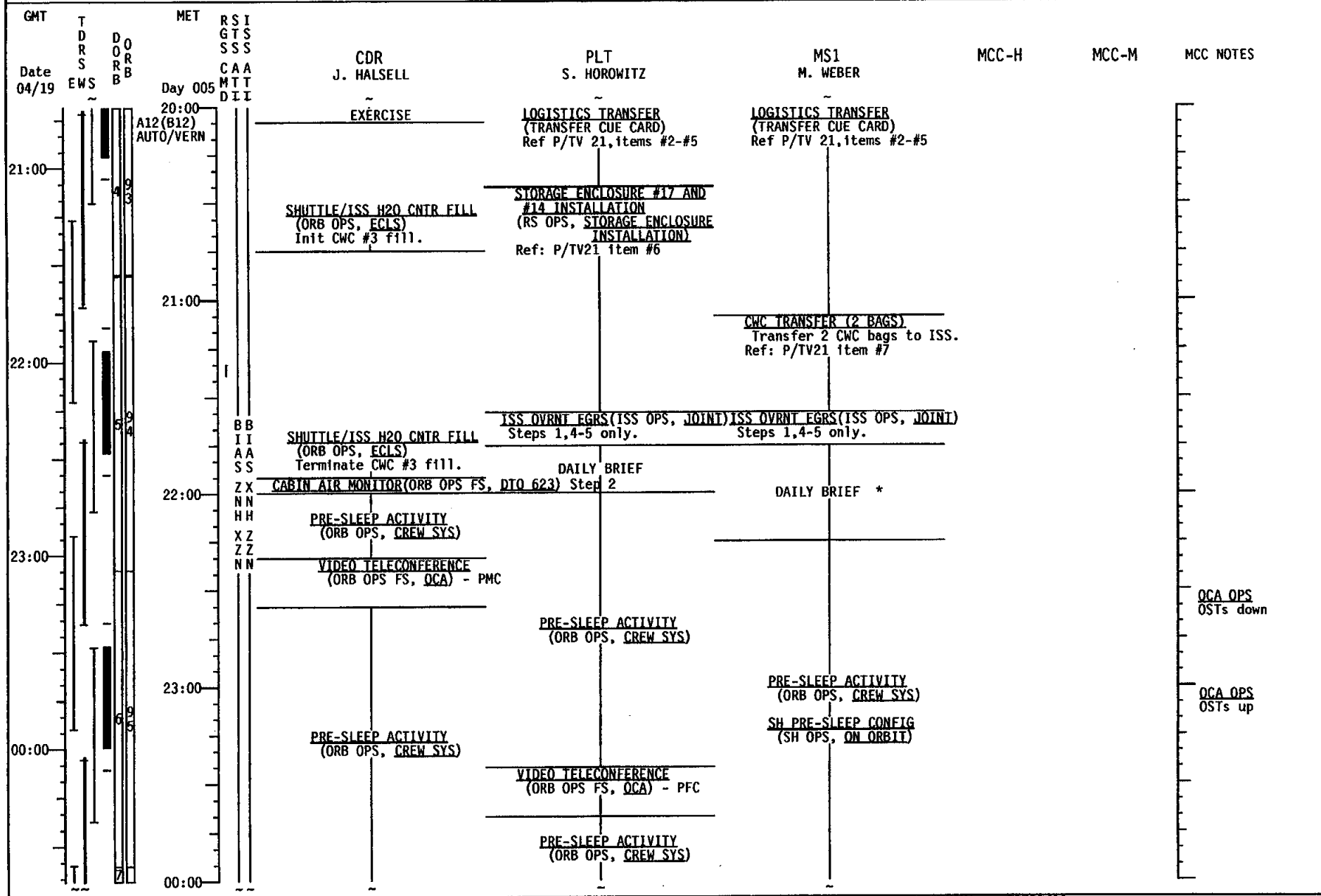


# STS-101 (FD07)

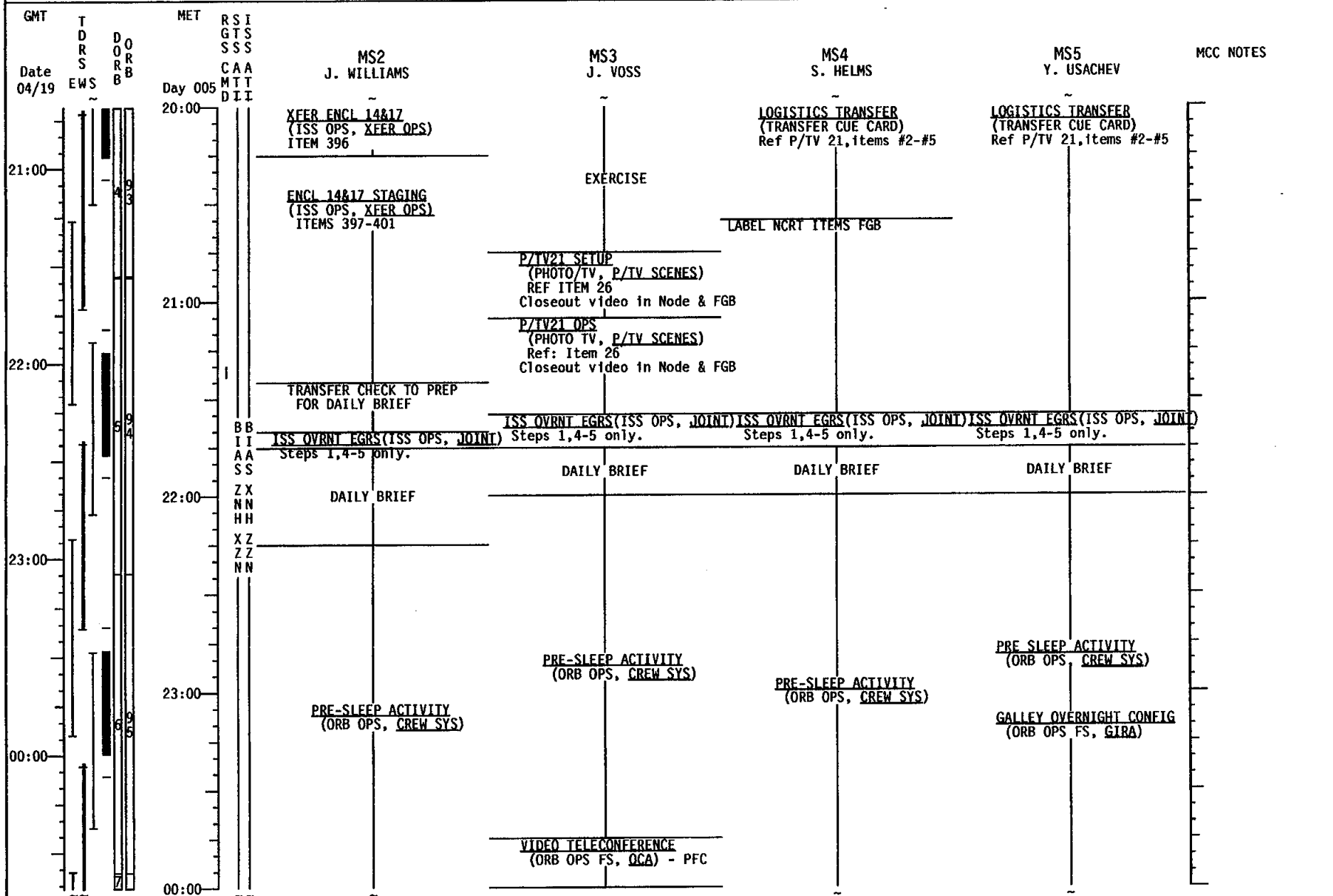




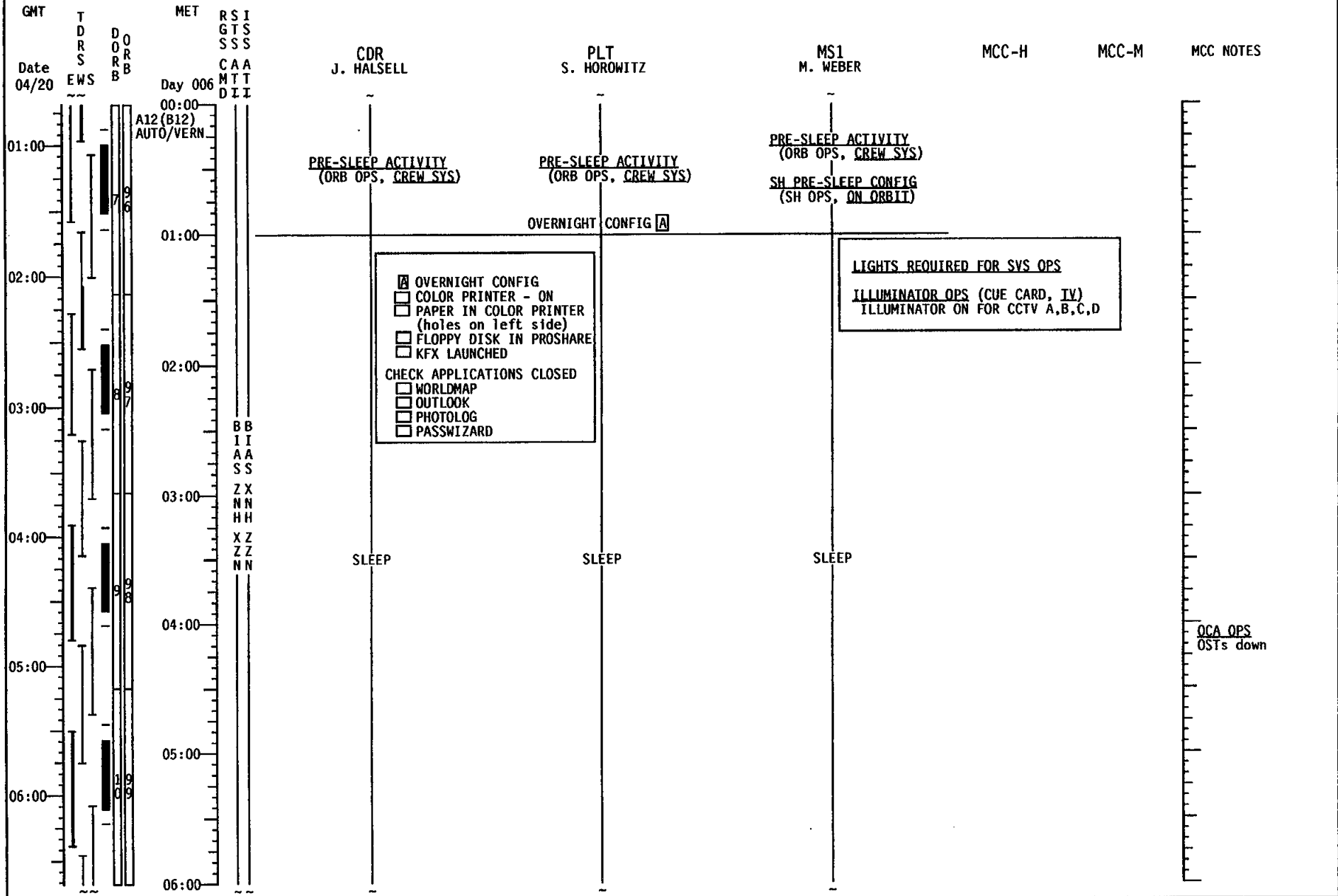
# STS-101 (FD07)



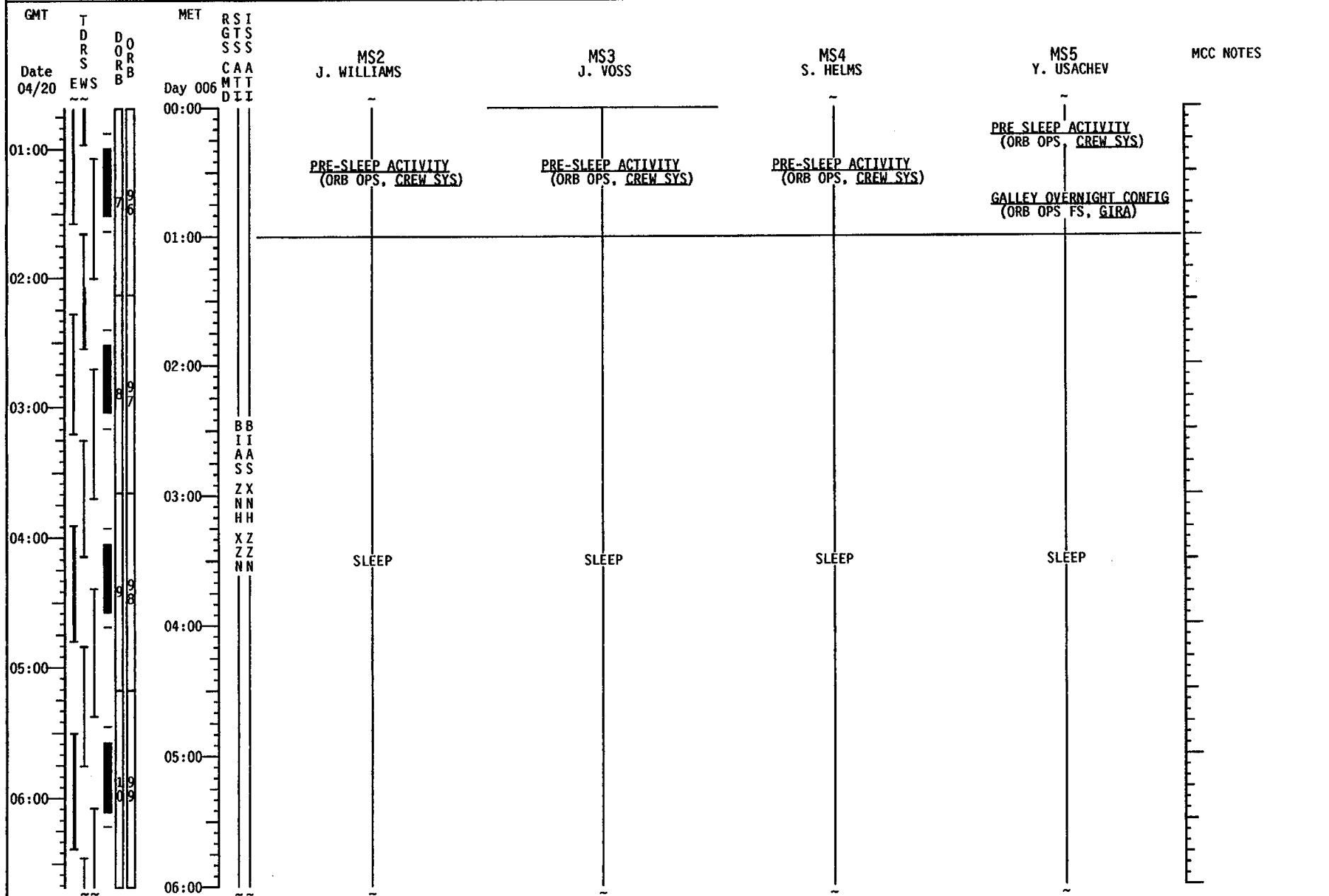
# STS-101 (FD07)



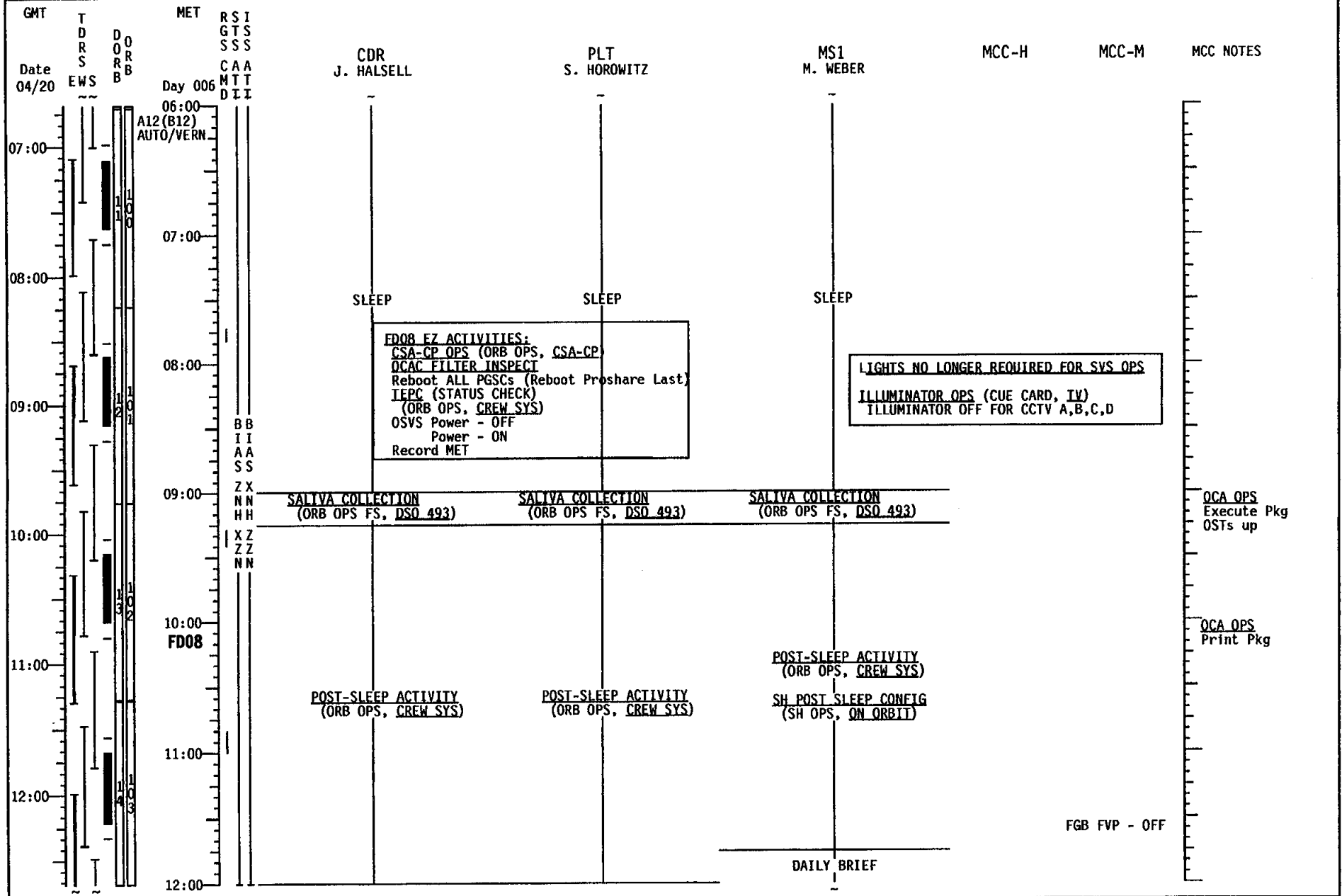
# STS-101 (FD07)



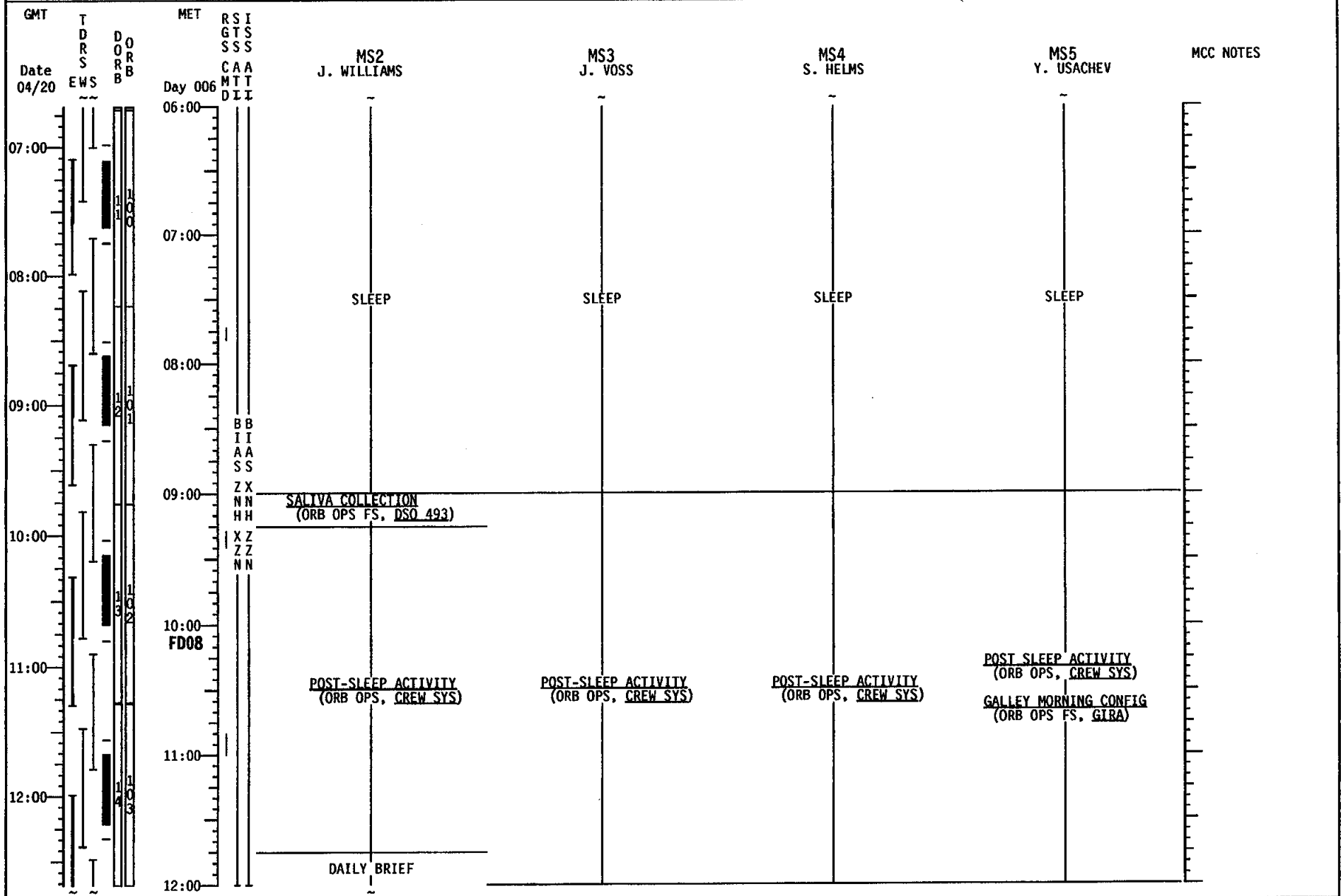
# STS-101 (FD07)



# STS-101 (FD07)



# STS-101 (FD07)



# STS-101 (FD08)

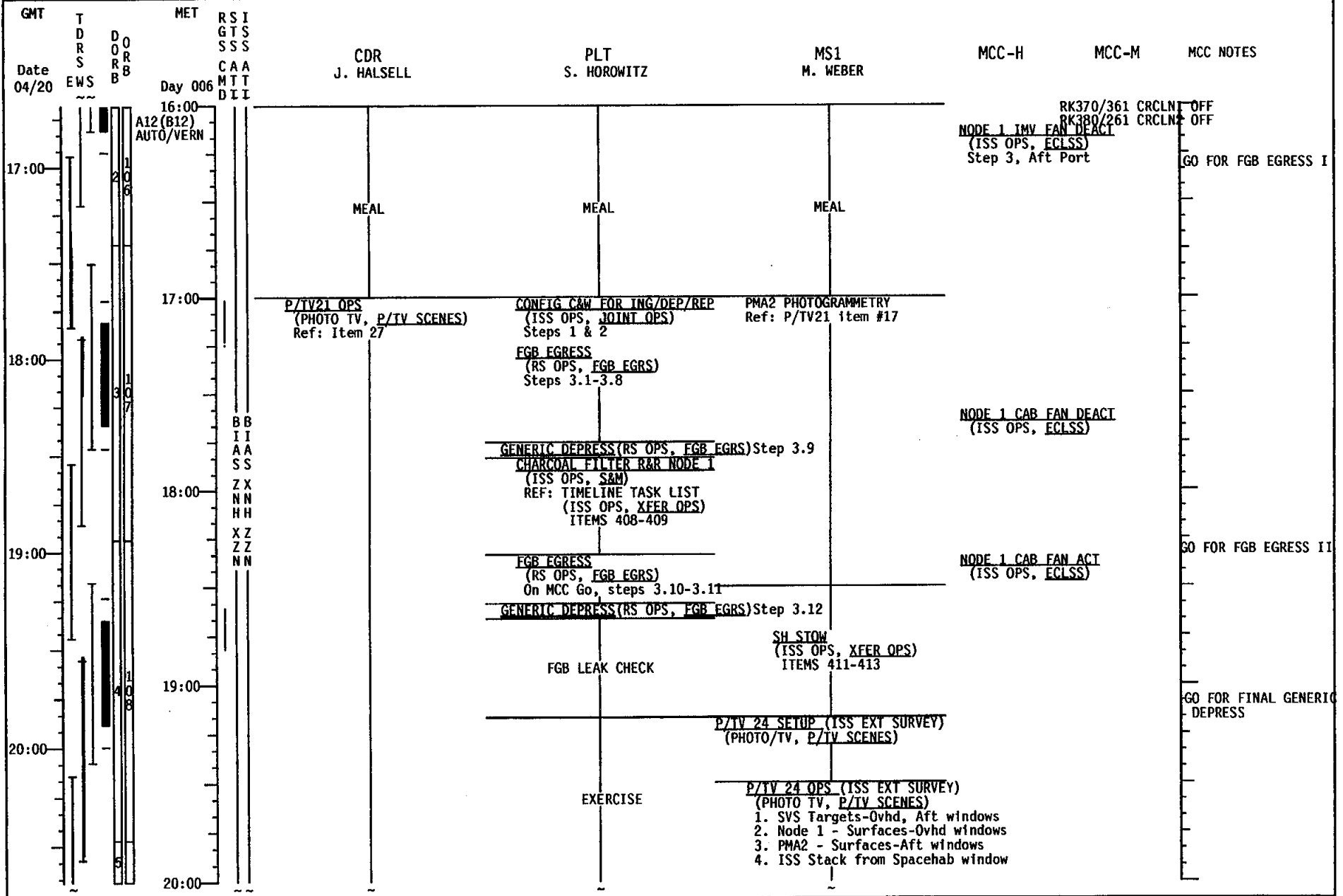
GMT	T D R S	D O R B	MET	RSI GTS SSS	CDR J. HALSELL	PLT S. HOROWITZ	MS1 M. WEBER	MCC-H	MCC-M	MCC NOTES
Date 04/20	EWS		Day 006	CAA MTT DTT						
12:00			A12 (B12) AUTO/VERN		DAILY BRIEF	DAILY BRIEF	DAILY BRIEF			
13:00					SHUTTLE/ISS H2O CNTR FILL (ORB OPS, ECLS) Init CWC #4 fill.	ISS MORN INGR (ISS OPS, JOINT) Steps 1-3 only. LOGISTICS TRANSFER (TRANSFER CUE CARD) Ref P/TV 21, items #2-#5	ISS MORN INGR (ISS OPS, JOINT) Steps 1-3 only. LOGISTICS TRANSFER (TRANSFER CUE CARD) Ref P/TV 21, items #2-#5			
14:00				RR EE BB OO SS TT	SHUTTLE/ISS H2O CNTR FILL (ORB OPS, ECLS) Terminate CWC #4 fill.					
15:00					MNVR TO +ZLV +XVY (REBOOST/TV 24 SETUP (ISS EXT SURVEY) T=2 BV=5 P=276.6 Y=0 OM=0 (PHOTO/TV, P/TV SCENES) A/AUTO/VER INIT MNVR <del>REBOOST</del> ATT: LO Z, A/AUTO/ALT	REBOOST (ORB OPS FS, REBOOST) EXERCISE is prohibited during REBOOST.	REBOOST (ORB OPS FS, REBOOST) EXERCISE is prohibited during REBOOST.			
16:00					MNVR TO XNH ZZN ATT R=229 P=359 Y=40 A/AUTO/VER INIT MNVR (6/15:00)	LOGISTICS TRANSFER (TRANSFER CUE CARD) Ref P/TV 21, items #2-#5				
16:00					L17 Check MCIU filter screen	02 REPRESS - INIT (ISS OPS, JOINT)				
										EARLY COMM PWRDWN (ISS OPS, C&I)
										XFER C/L CAMR TGT (ISS OPS, XFER OPS) ITEM 405

# STS-101 (FD08)

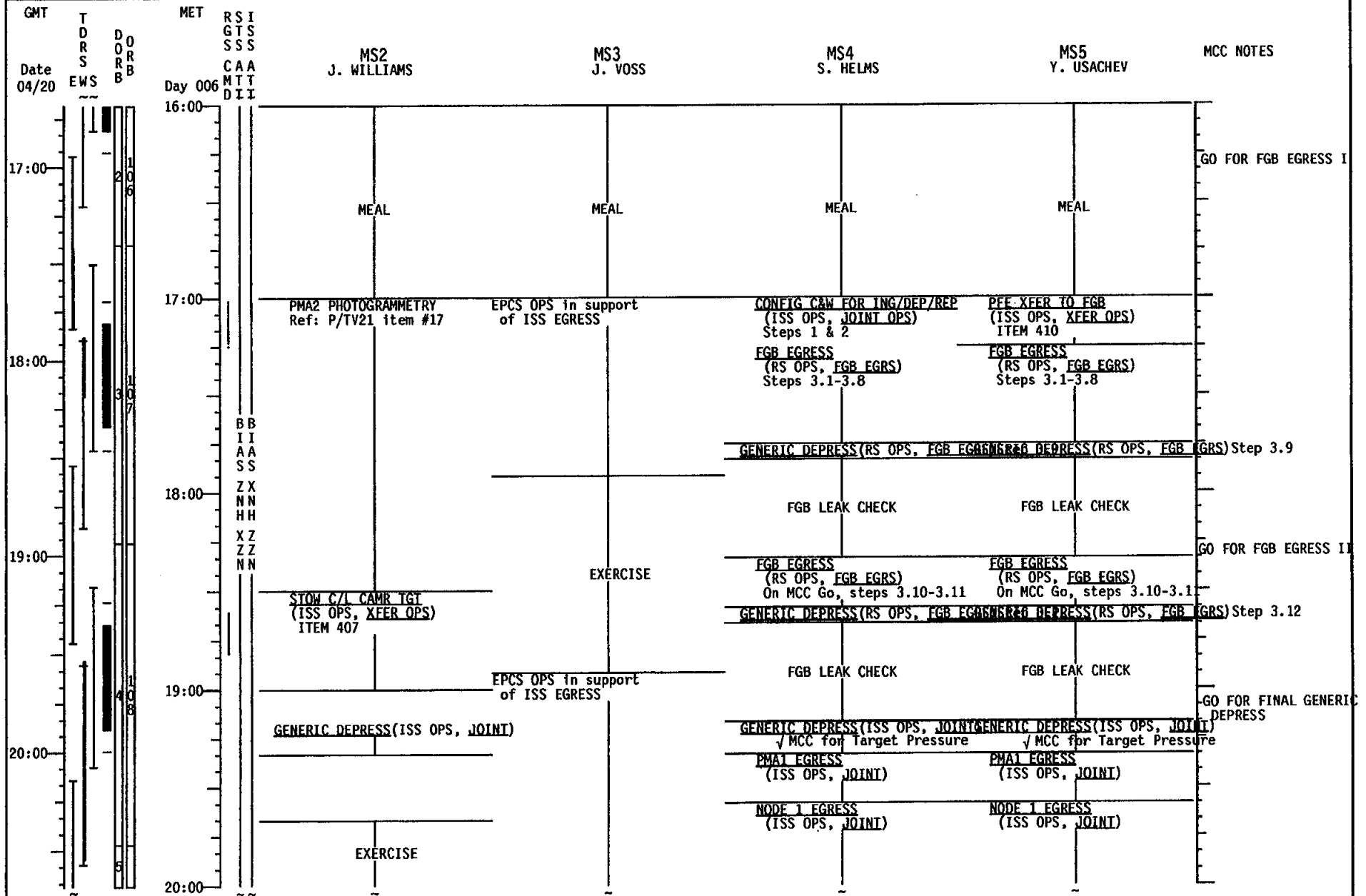
GMT	TDRS	DORB	MET	RSI GTS SSS CAA MTT DTT	MS2 J. WILLIAMS	MS3 J. VOSS	MS4 S. HELMS	MS5 Y. USACHEV	MCC NOTES
Date 04/20	EWS		Day 006						
12:00					DAILY BRIEF	DAILY BRIEF	DAILY BRIEF	DAILY BRIEF	
13:00					ISS MORN INGR(ISS OPS, JOINT) Steps 1-3 only. LOGISTICS TRANSFER (TRANSFER CUE CARD) Ref P/TV 21,items #2-#5	ISS MORN INGR(ISS OPS, JOINT) Steps 1-3 only. LOGISTICS TRANSFER (TRANSFER CUE CARD) Ref P/TV 21,items #2-#5	ISS MORN INGR(ISS OPS, JOINT) Steps 1-3 only. LOGISTICS TRANSFER (TRANSFER CUE CARD) Ref P/TV 21,items #2-#5	ISS MORN INGR(ISS OPS, JOINT) Steps 1-3 only. XFER HCE (ISS OPS, XFER OPS) ITEM 403	
								HARM CONT FLTR CART REPL (RS OPS, )	
								HCE RETURN (ISS OPS, XFER OPS) ITEM 404	
14:00				RR EE BB OO SS TT				LOGISTICS TRANSFER (TRANSFER CUE CARD) Ref P/TV 21,items #2-#5	
15:00					APCU ACT-PARALLEL OPS (ISS OPS, EPS) Act APCU 1	ACBM TO PCBM GROUND STRAP REMOVAL (ISS OPS, S&M PROC)	ACBM TO PCBM GROUND STRAP REMOVAL (ISS OPS, S&M PROC)		
					LOGISTICS TRANSFER (TRANSFER CUE CARD) Ref P/TV 21,items #2-#5		LOGISTICS TRANSFER (TRANSFER CUE CARD) Ref P/TV 21,items #2-#5		
16:00					TRANSFER CHECK TO PREP FOR EGRESS	P/TV21 SETUP (PHOTO/TV, P/TV SCENES) REF ITEM 26 Closeout video in Node & FGB			
					EPCS DEACT (ISS OPS, JOINT) Step 1-3 in FGB	P/TV21 OPS (PHOTO TV, P/TV SCENES) Ref: Item 26 Closeout video in Node & FGB	CWC TRANSFER (2 BAGS) Transfer 2 CWC bags to ISS. Ref: P/TV21 item #7		
					EPCS ACTIVATION (ISS OPS, JOINT) Steps 1-5 in AED				STATUS CK (SSD-MOMO, NOM PROC) STATUS CHECK(PL OPS, CPCG-PC)
16:00									



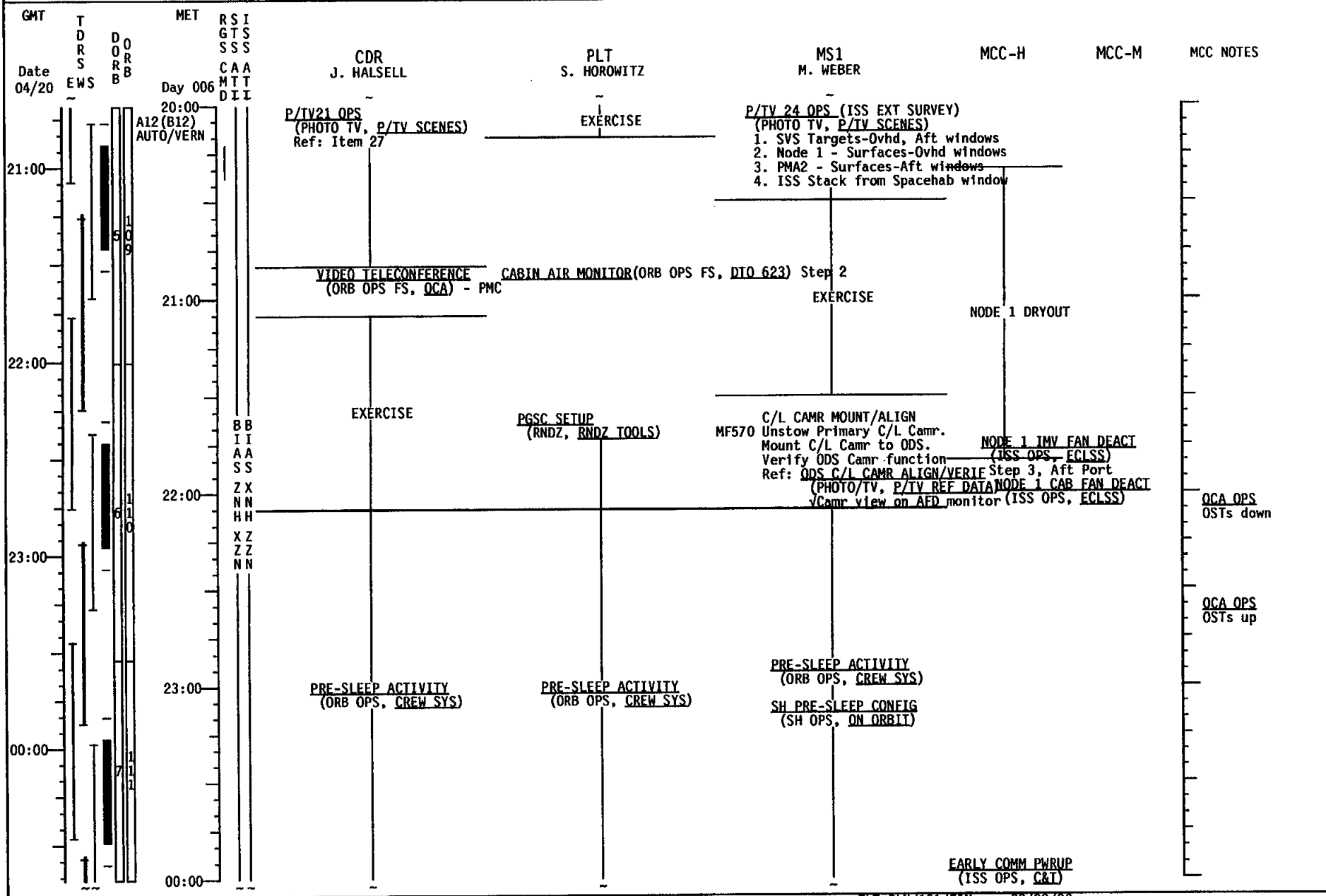
# STS-101 (FD08)



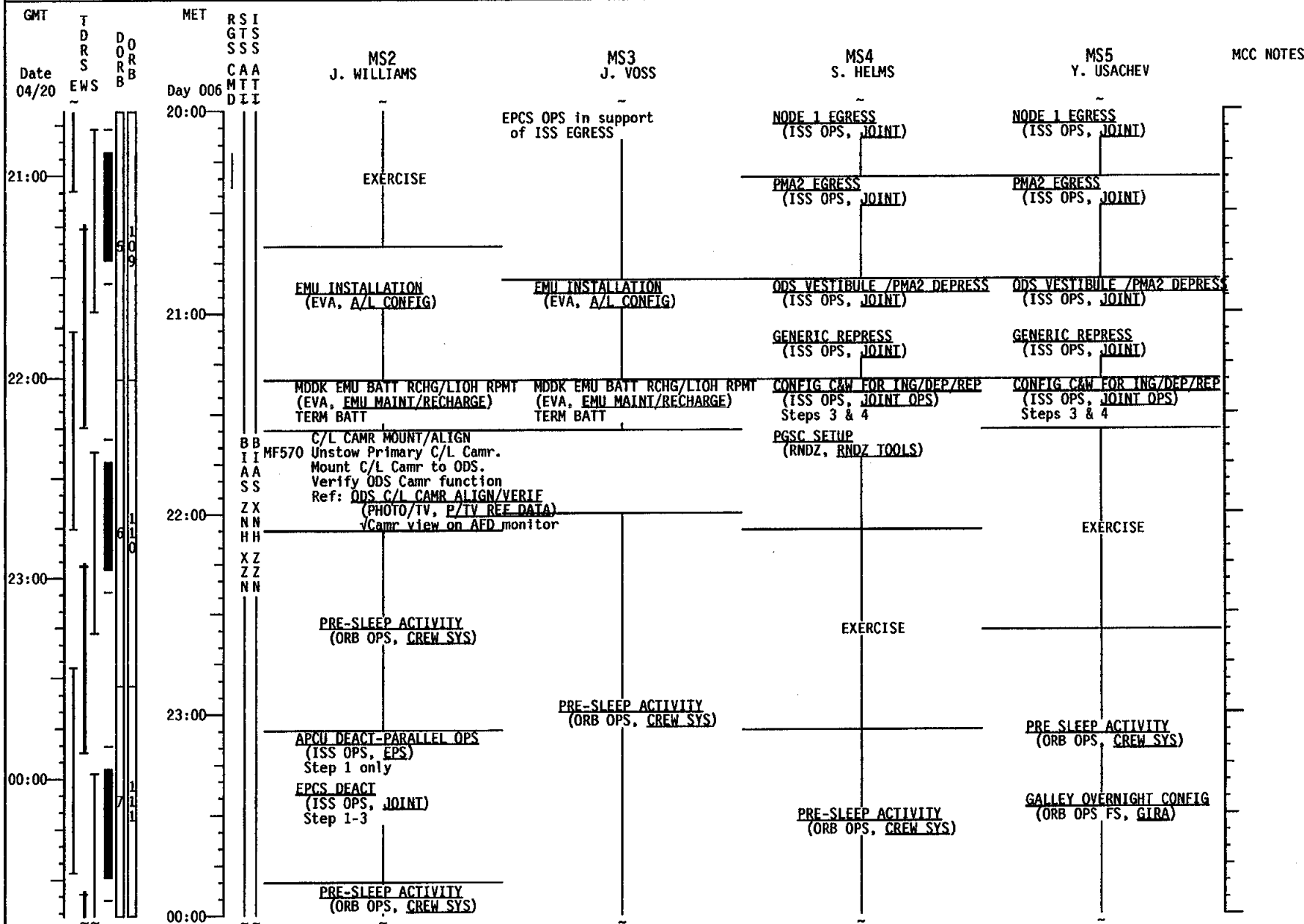
# STS-101 (FD08)



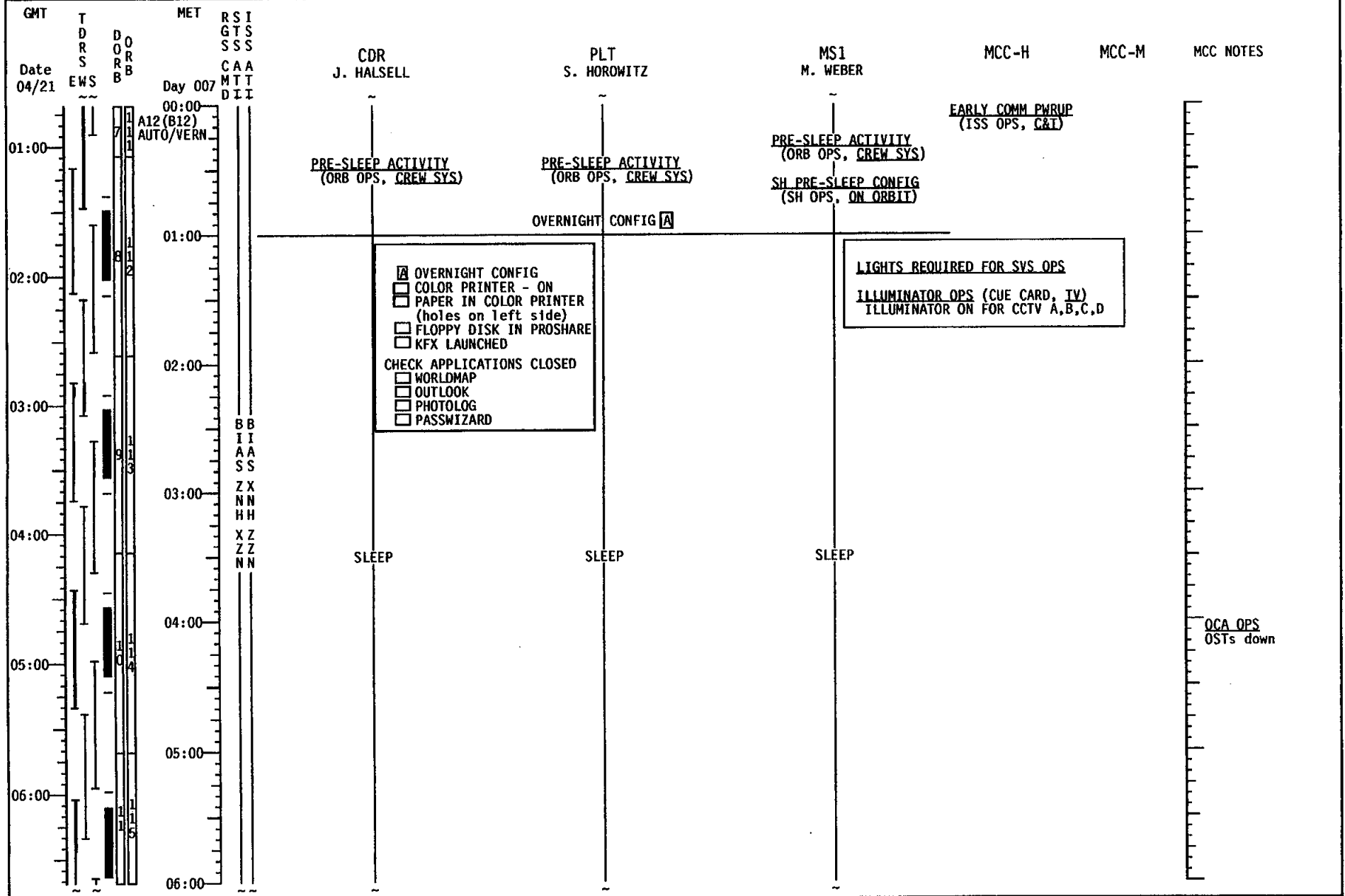
# STS-101 (FD08)



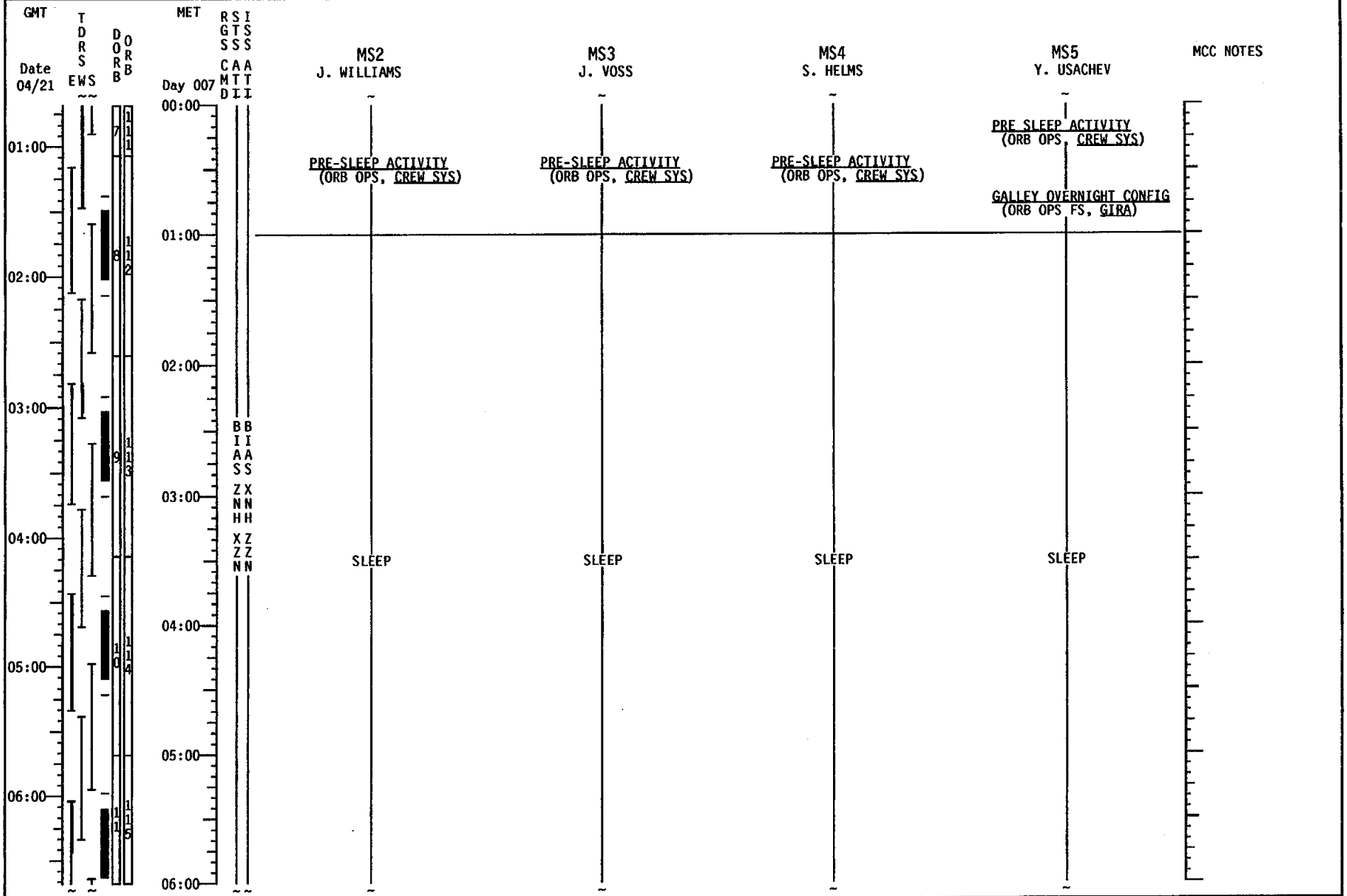
# STS-101 (FD08)



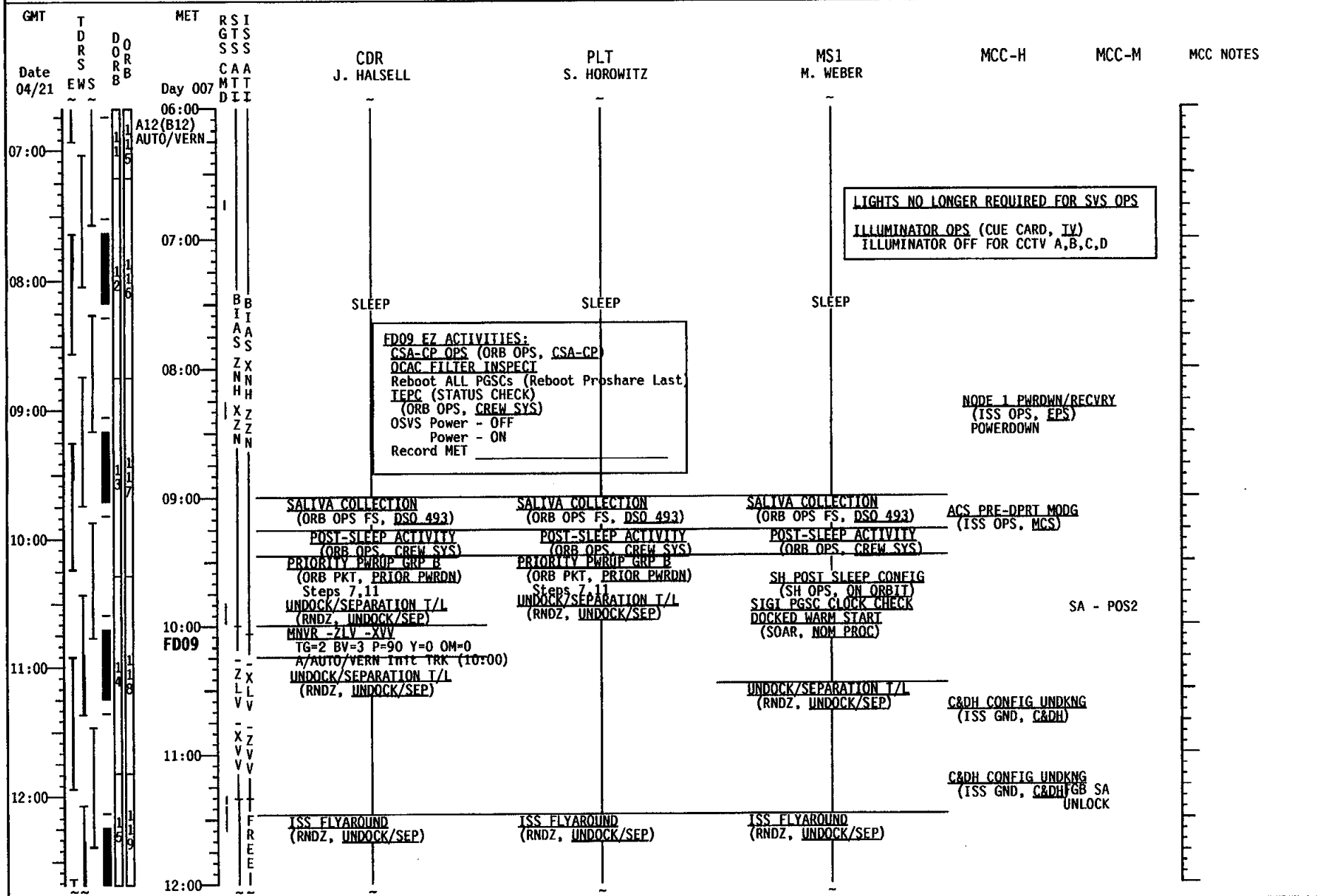
# STS-101 (FD08)



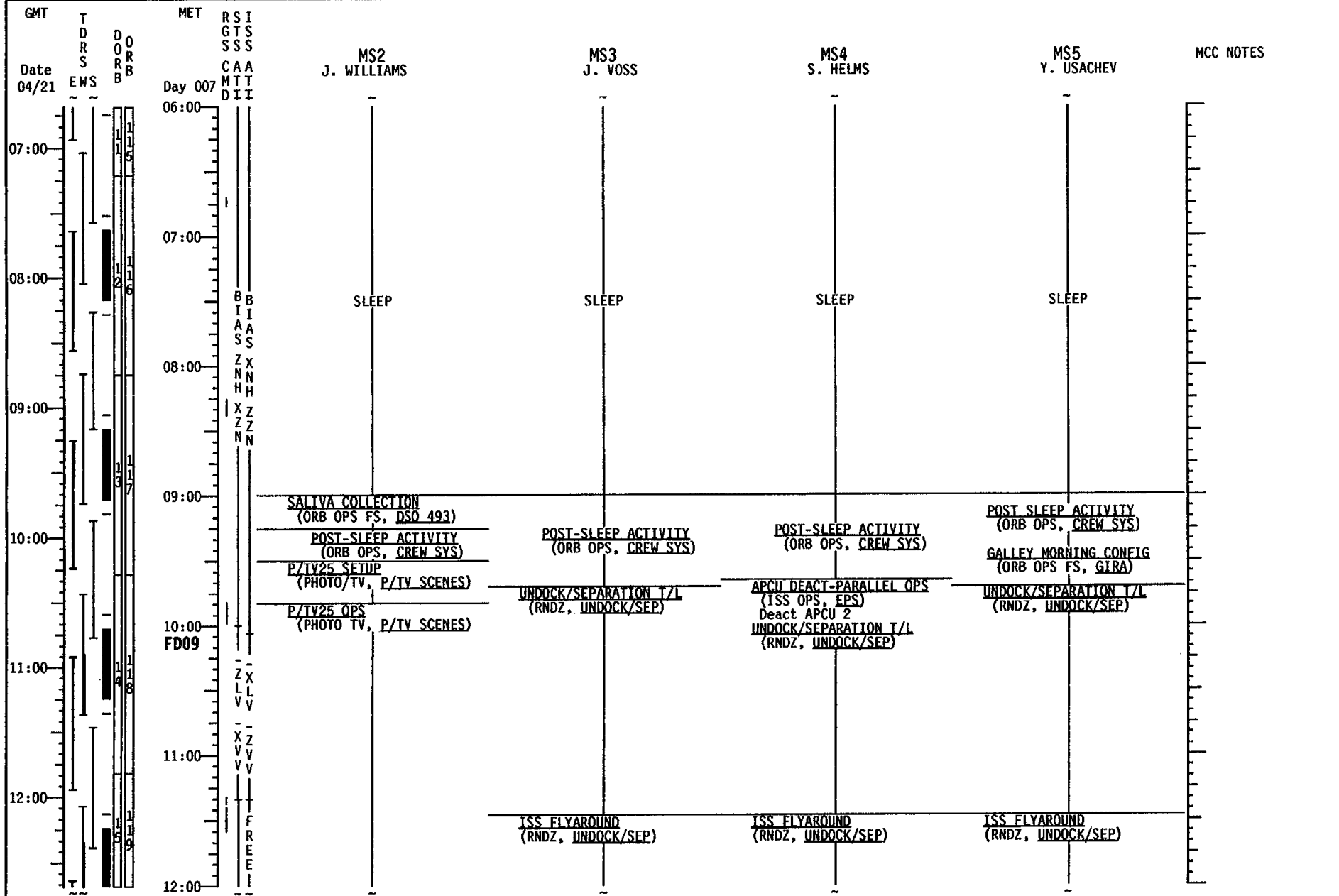
# STS-101 (FD08)



# STS-101 (FD09)

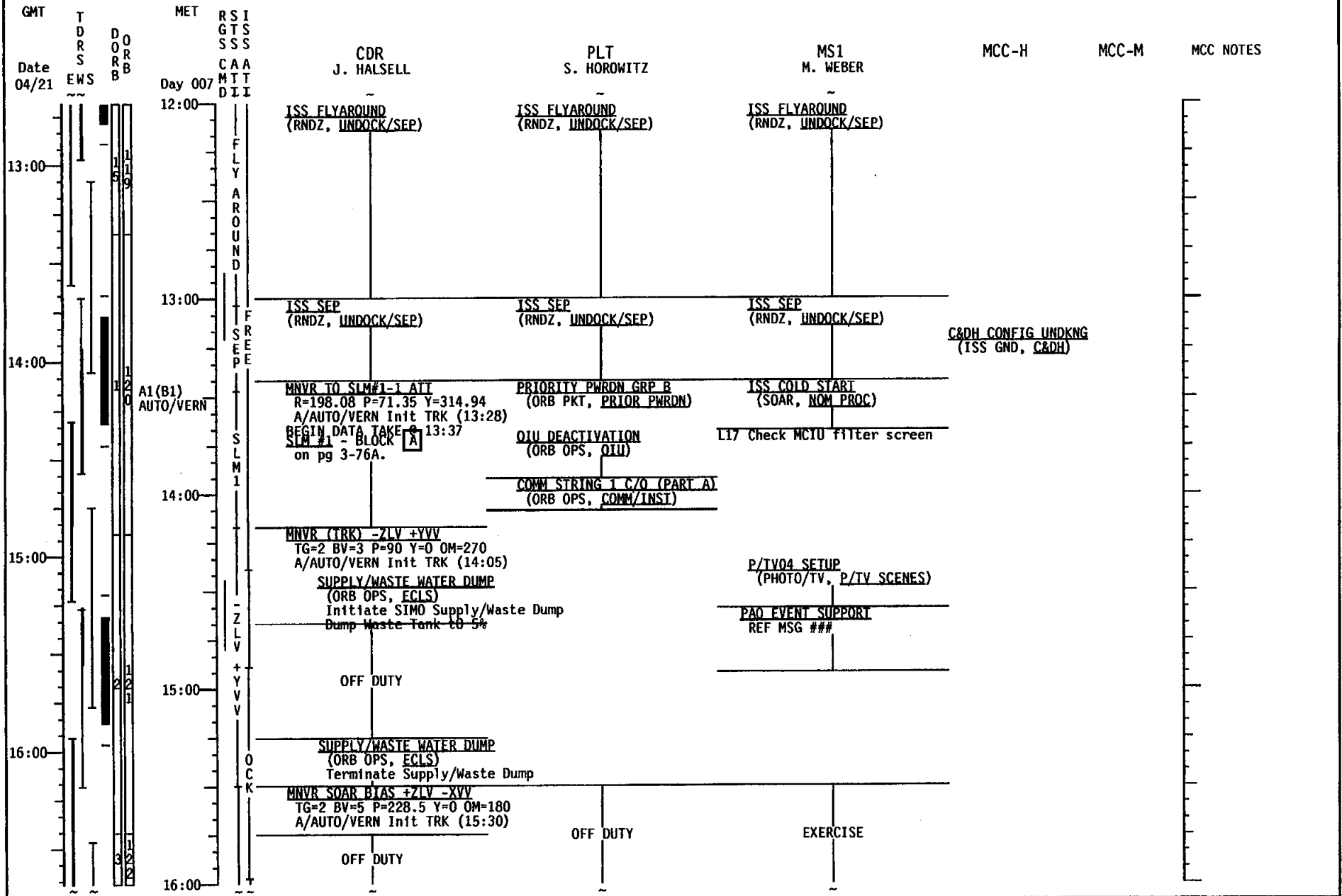


# STS-101 (FD09)





# STS-101 (FD09)



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**A** SOAR SLM

1. IMU ALIGN-X TRK (ORB OPS, GNC)

-Z: 59 AVAIL: 13:06 TO 14:18  
-Y: 57 AVAIL: 13:34 TO 14:20  
ANG SEP: 87.4

When IMU Align complete:

GNC 22 S TRK/COAS CNTL

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

2. SLM DATA TAKES

GNC 22 S TRK/COAS CNTL

CRT Clear Star Table ITEM 20 EXEC

Acquire Star

SLM #1-1, 1-2 STAR ID:59

SLM #1-3, 1-4 STAR ID:57

C3 DAP:FREE

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

C3 DAP:AUTO

GNC UNIV PTG

CRT Load Next Attitude:

	SLM #1-2	SLM #1-3	SLM#1-4
R=	201.74	145.97	149.97
P=	46.25	152.45	150.03
Y=	42.01	22.78	24.13

Init MNVR ITEM 18 EXEC

Repeat Step 2.

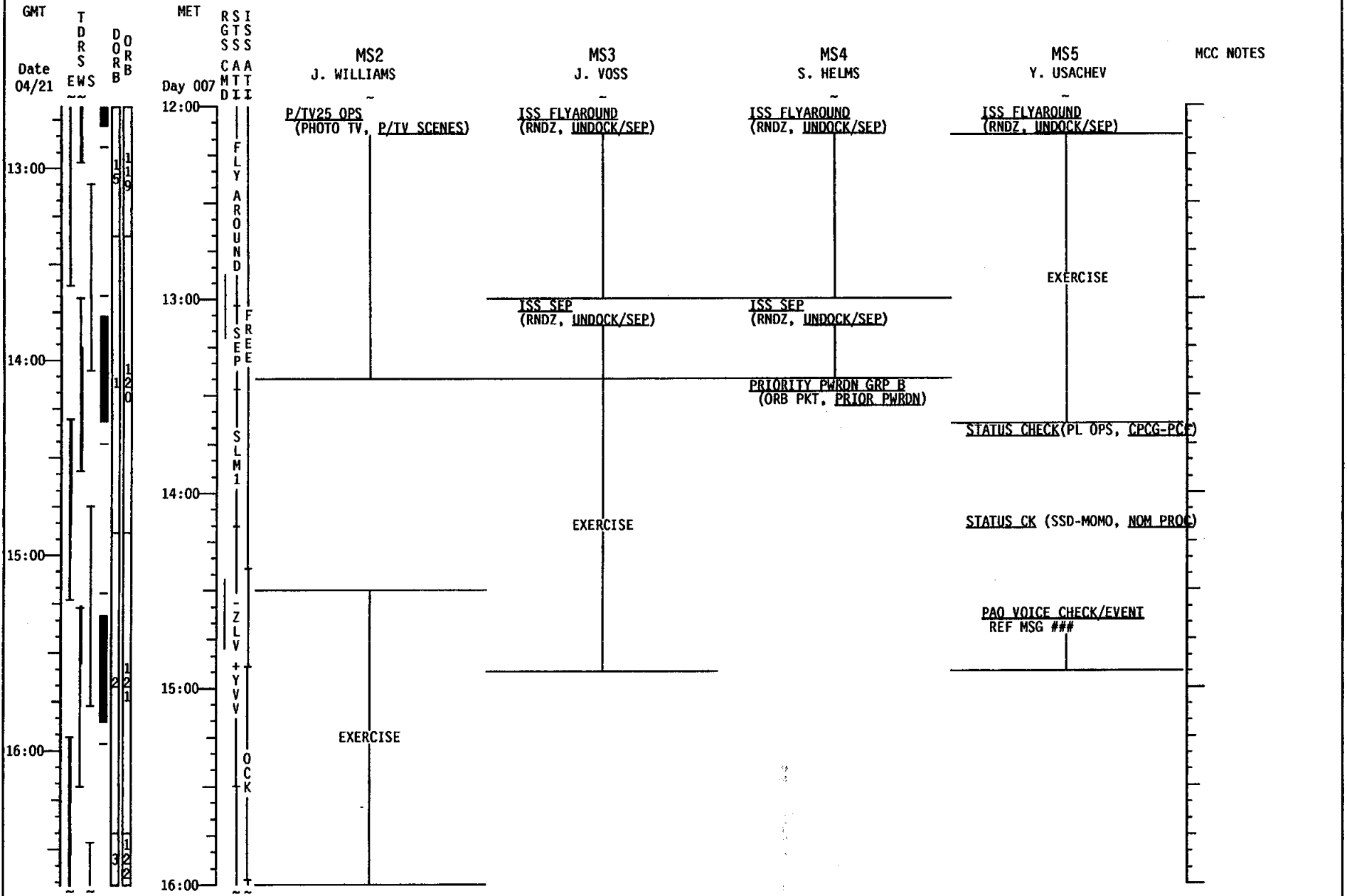
3. RESELECT -Y STAR TRACKER

GNC 22 S TRK/COAS CNTL

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

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# STS-101 (FD09)



# STS-101 (FD09)

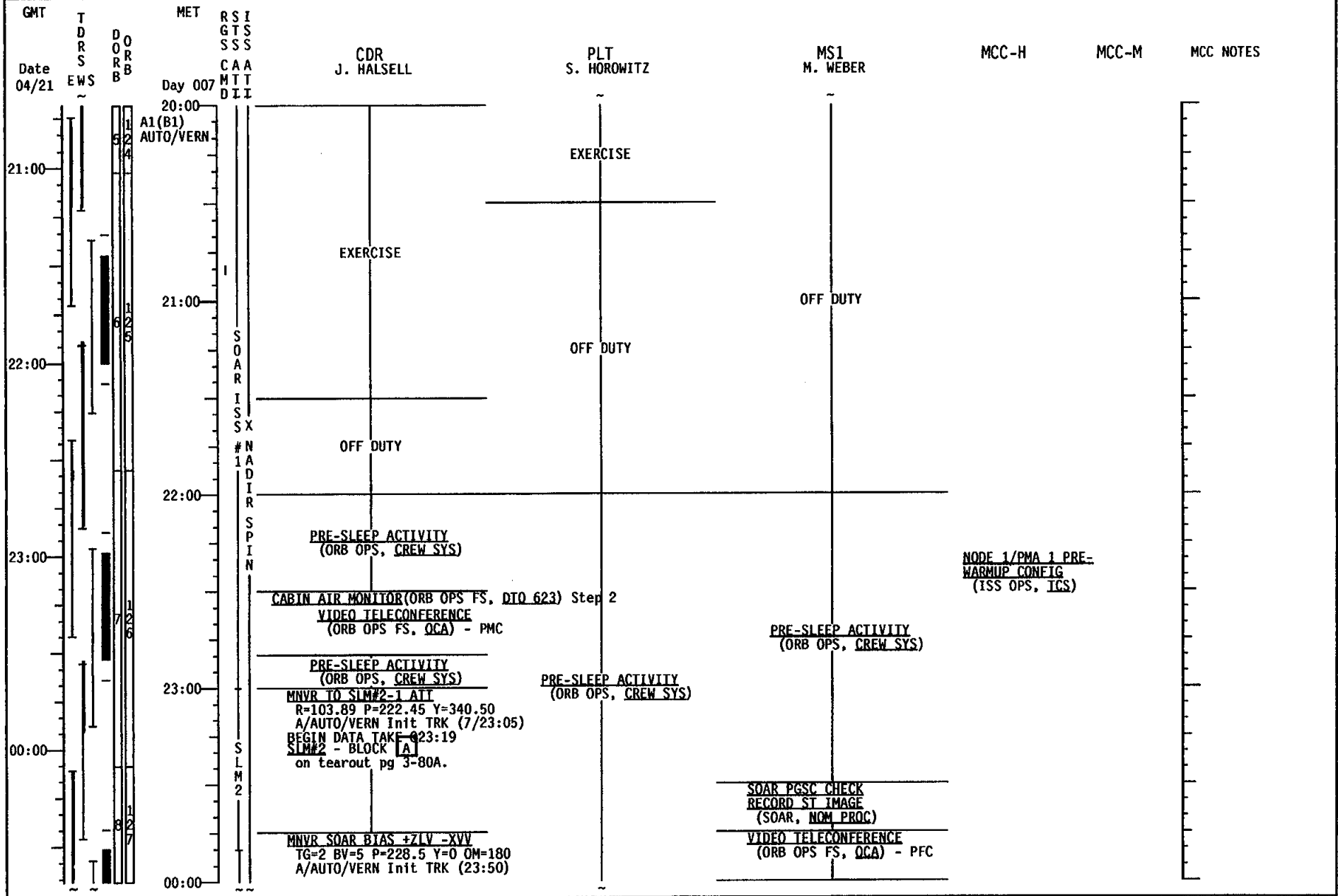
GMT	TDRS	DORRB	MET	RSI	CDR	PLT	MS1	MCC-H	MCC-M	MCC NOTES
Date	EWS		Day 007	GTS SSS CAA MTT DIT	J. HALSELL	S. HOROWITZ	M. WEBER			
16:00			A1(B1) AUTO/VERN							
17:00		1 2 3			OFF DUTY	OFF DUTY	EXERCISE			
18:00					MEAL	MEAL	MEAL			
18:00		4 3		X ON ARD IR SS P IN #1						
19:00						OFF DUTY				
19:00					OFF DUTY		OFF DUTY			
20:00		5 4								
20:00						EXERCISE				

# STS-101 (FD09)

GHT	T D R S	D O R B	MET	RSI GTS SSS CAA MTT DII	MS2 J. WILLIAMS	MS3 J. VOSS	MS4 S. HELMS	MS5 Y. USACHEV	MCC NOTES
Date 04/21	EWS		Day 007						
16:00					OFF DUTY	OFF DUTY	OFF DUTY	OFF DUTY	
17:00									
18:00					MEAL	MEAL	MEAL	MEAL	
19:00									
20:00					OFF DUTY	OFF DUTY	OFF DUTY	OFF DUTY	

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ISSP  
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# STS-101 (FD09)



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**A** SOAR SLM

1. IMU ALIGN-X TRK (ORB OPS, GNC)

-Z: 21 AVAIL: 23:12 TO 8/00:01  
-Y: 38 AVAIL: 23:17 TO 8/00:09  
ANG SEP: 90.6

When IMU Align complete:

GNC 22 S TRK/COAS CNTL

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

2. SLM DATA TAKES

GNC 22 S TRK/COAS CNTL

CRT Clear Star Table ITEM 20 EXEC

Acquire Star

SLM #2-1, 2-2 STAR ID:21  
SLM #2-3, 2-4 STAR ID:38

C3 DAP:FREE

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

C3 DAP:AUTO

GNC UNIV PTG

CRT Load Next Attitude:

	SLM #2-2	SLM #2-3	SLM#2-4
R=	114.38	164.78	171.19
P=	307.54	15.00	18.83
Y=	13.32	303.38	302.76

Init MNVR ITEM 18 EXEC

Repeat Step 2.

3. RESELECT -Y STAR TRACKER

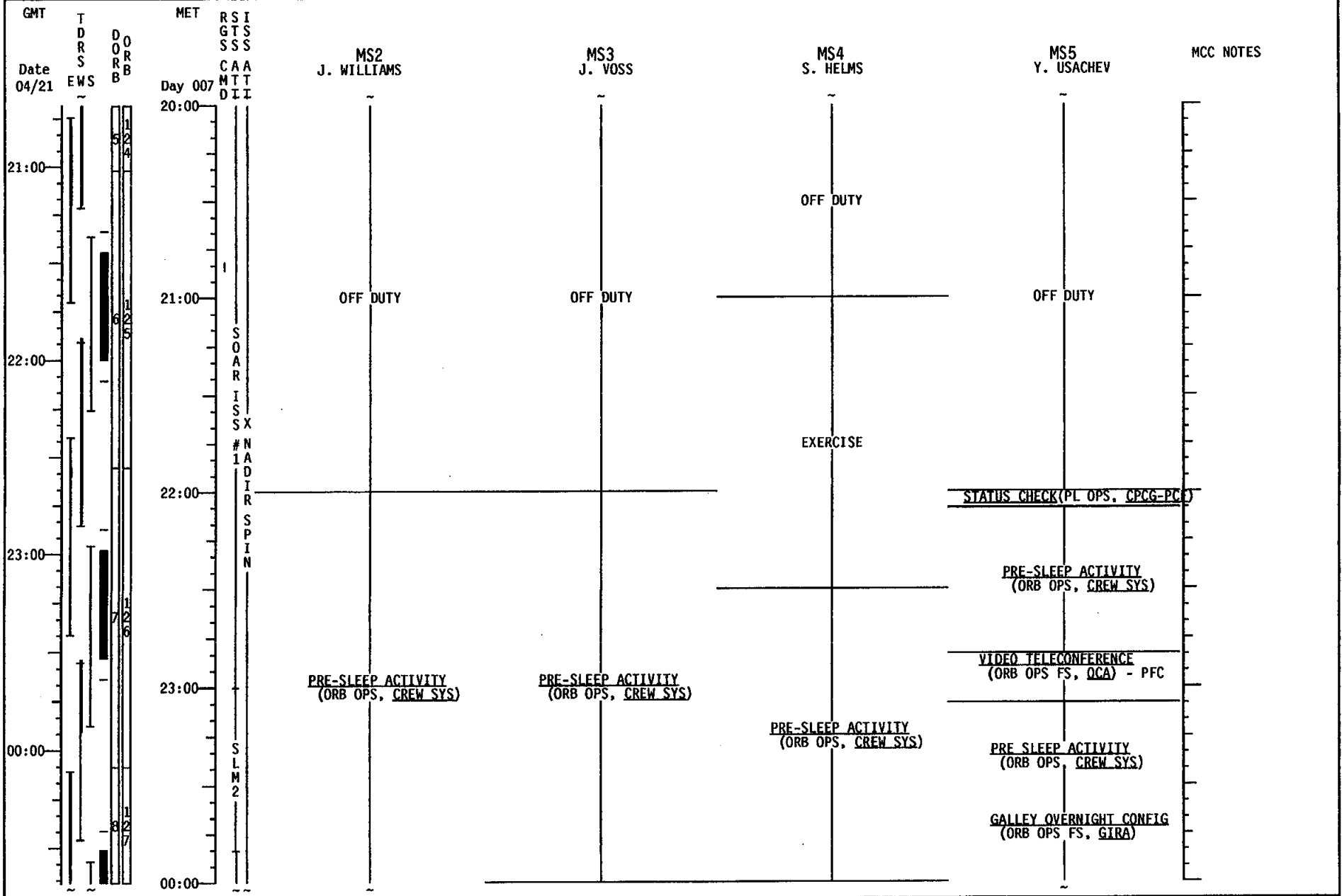
GNC 22 S TRK/COAS CNTL

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

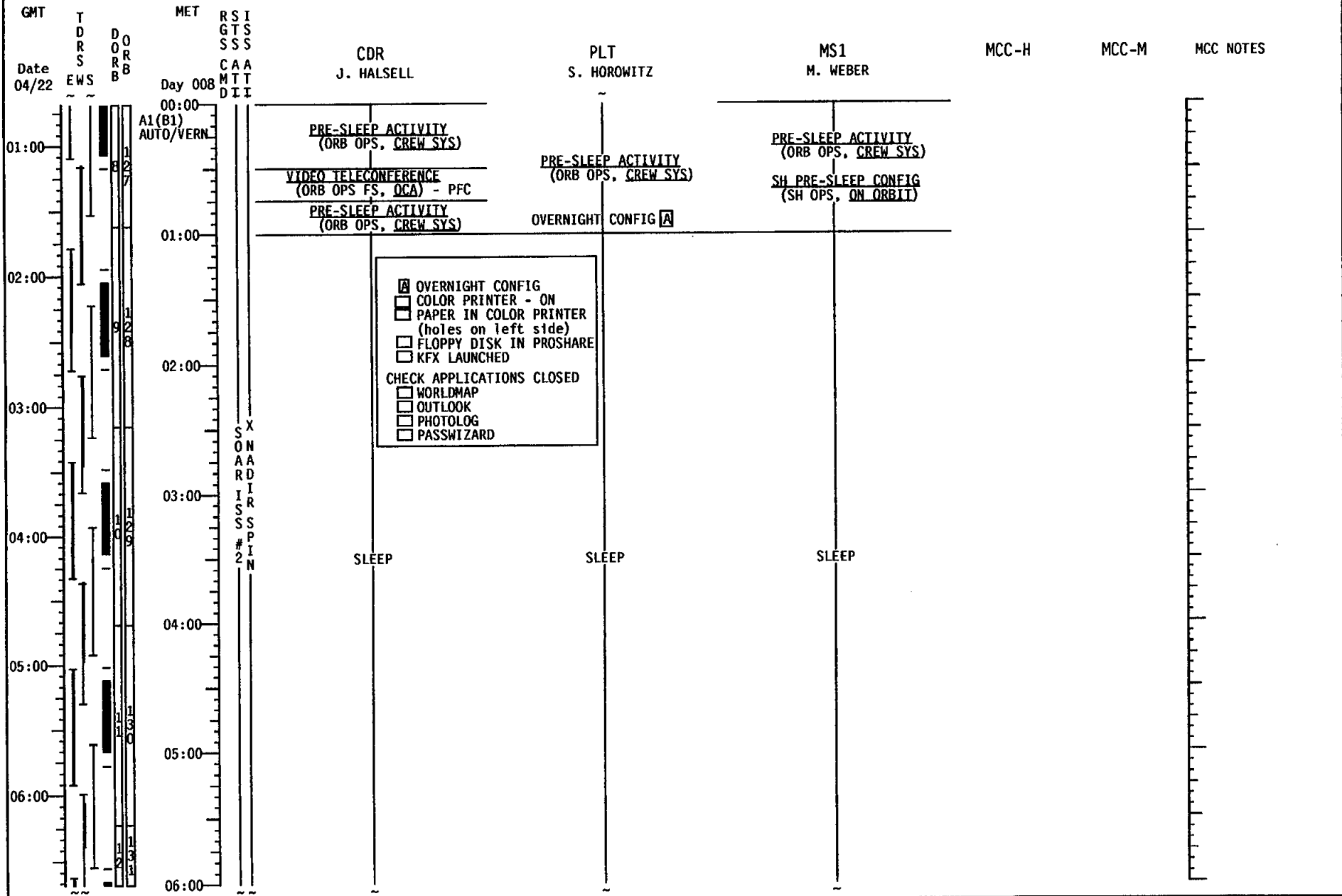


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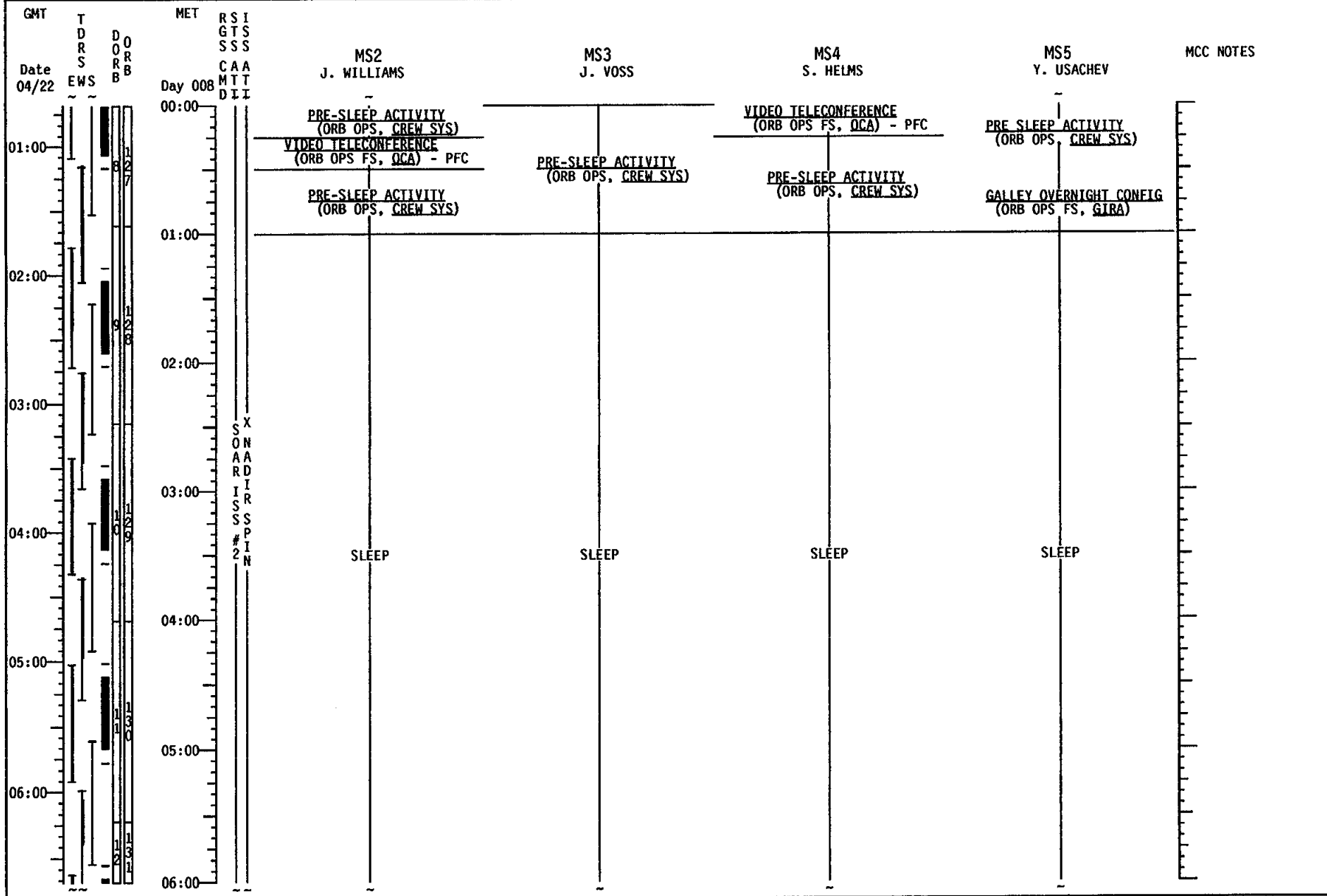
# STS-101 (FD09)



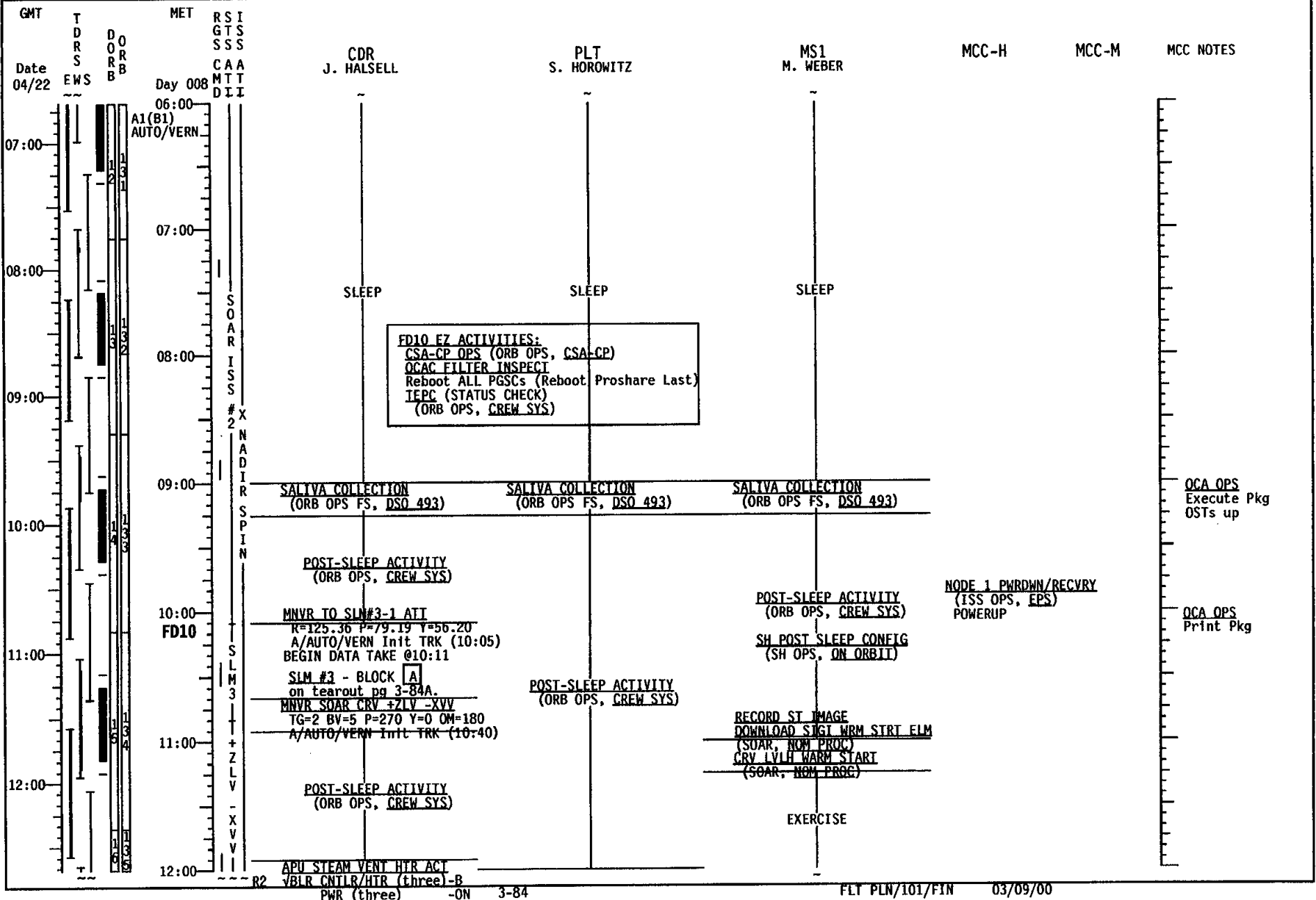
# STS-101 (FD09)



# STS-101 (FD09)



# STS-101 (FD10)



R2 -ON 3-84

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**A** SOAR SLM

1. IMU ALIGN-X TRK (ORB OPS, GNC)

-Z: 40 AVAIL: 09:56 TO 10:46  
-Y: 25 AVAIL: 10:08 TO 10:58  
ANG SEP: 87.8

When IMU Align complete:

GNC 22 S TRK/COAS CNTL

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

2. SLM DATA TAKES

GNC 22 S TRK/COAS CNTL

CRT Clear Star Table ITEM 20 EXEC

Acquire Star

SLM #3-1, 3-2 STAR ID:40

SLM #3-3, 3-4 STAR ID:25

C3 DAP:FREE

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

C3 DAP:AUTO

GNC UNIV PTG

CRT Load Next Attitude:

	SLM #3-2	SLM #3-3	SLM#3-4
R=	32.86	36.40	39.54
P=	199.94	128.38	132.09
Y=	19.00	325.29	327.59

Init MNVR ITEM 18 EXEC

Repeat Step 2.

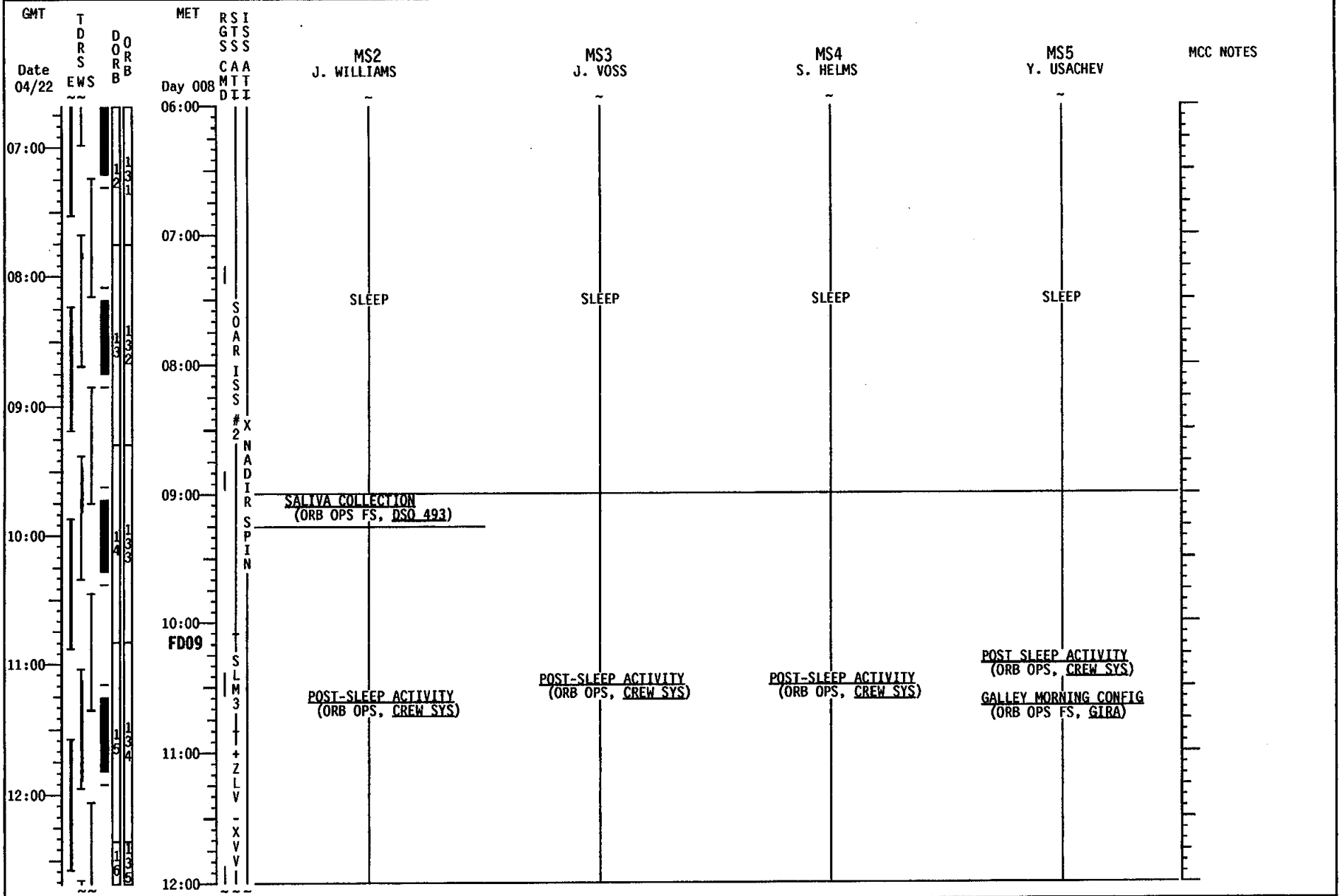
3. RESELECT -Y STAR TRACKER

GNC 22 S TRK/COAS CNTL

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

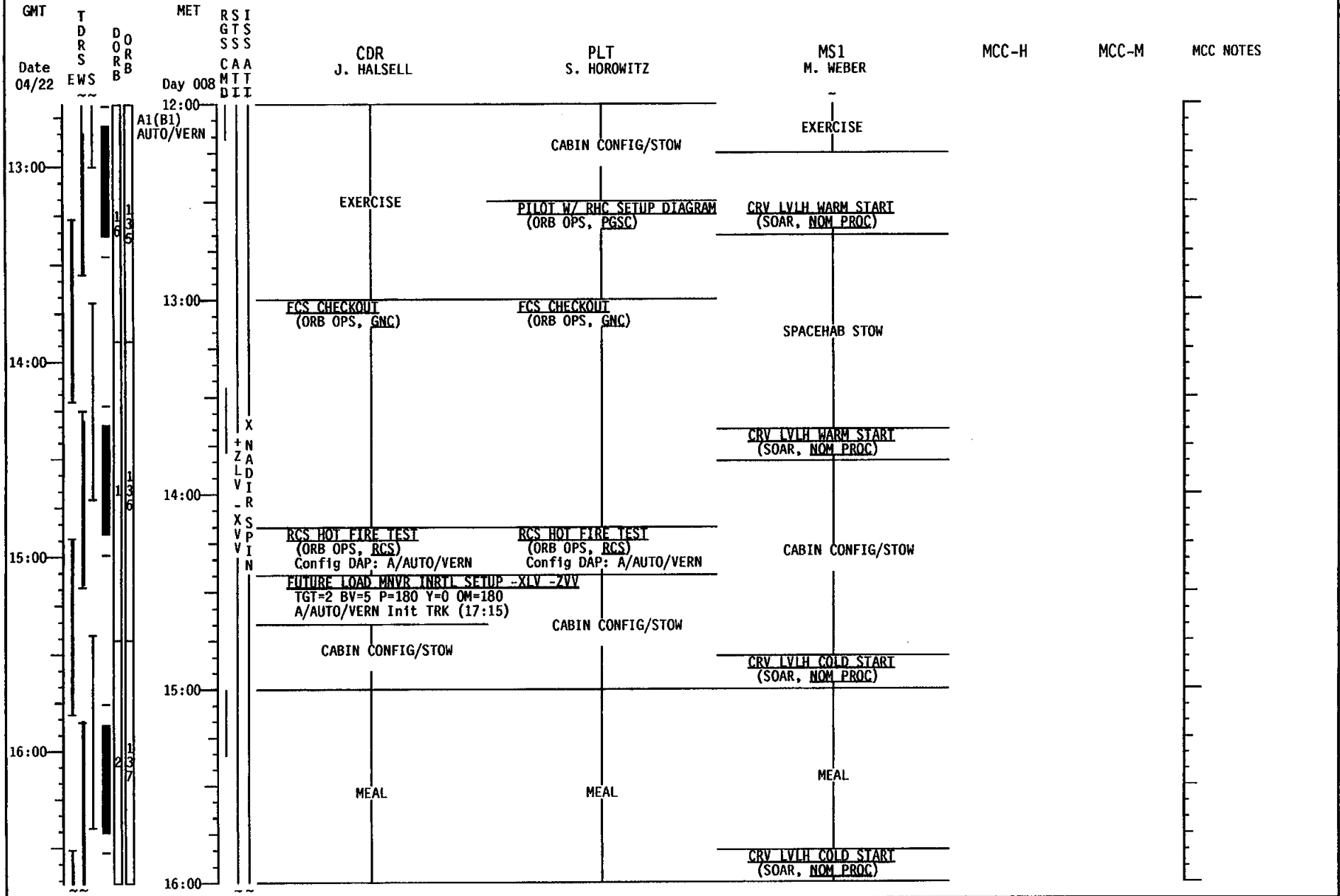
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# STS-101 (FD10)





# STS-101 (FD10)

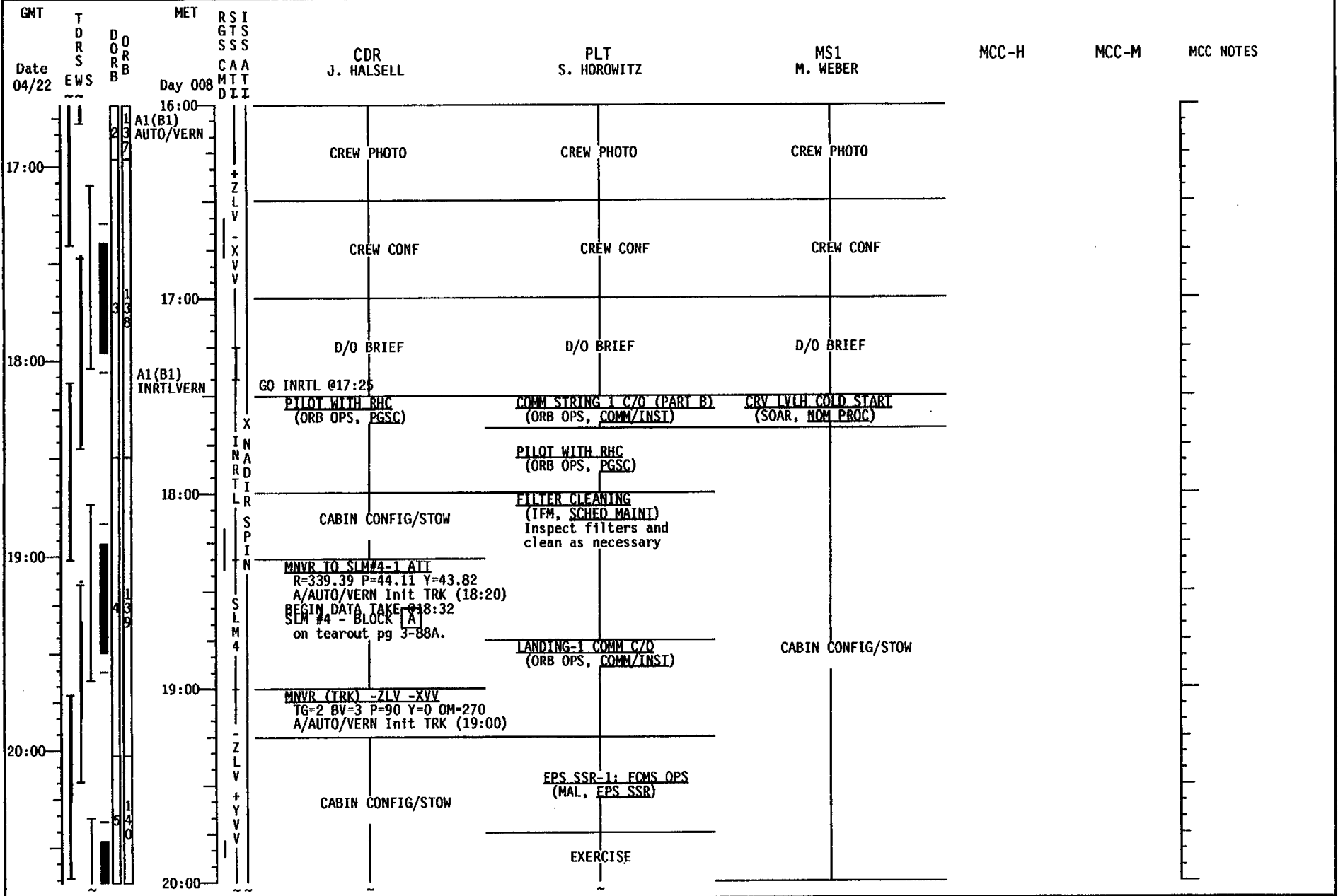


# STS-101 (FD10)

GMT	TDRS	DOORB	MET	RSI	MS2	MS3	MS4	MS5	MCC NOTES
Date 04/22	EWS	B	Day 008	GTS SSS CAA MTT DII	J. WILLIAMS	J. VOSS	S. HELMS	Y. USACHEV	
12:00									STATUS CHECK (PL OPS, CPCG-PCF) WATER DELIVERY #1 (PL OPS, BIOTUBE)
13:00					CABIN CONFIG/STOW				STATUS CK (SSD-MOMO, NON PRO)
13:00					ECS CHECKOUT (ORB OPS, GNC)	SPACEHAB STOW	SPACEHAB STOW	SH STOW	
14:00								EXERCISE	
14:00									
15:00					RCS HOT FIRE TEST (ORB OPS, RCS) Config DAP: A/AUTO/VERN			SH STOW	
15:00					CABIN CONFIG/STOW	CABIN CONFIG/STOW	CABIN CONFIG/STOW	CABIN CONFIG/STOW	
16:00					MEAL	MEAL	MEAL	MEAL	
16:00									

X  
 +N  
 ZAL  
 LDVI  
 -R  
 XS  
 VVIN

# STS-101 (FD10)



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**A** SOAR SLM

1. IMU ALIGN-X TRK (ORB OPS, GNC)

-Z: 15 AVAIL: 18:19 TO 19:10  
-Y: 58 AVAIL: 18:28 TO 19:18  
ANG SEP: 89.1

When IMU Align complete:

GNC 22 S TRK/COAS CNTL

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

2. SLM DATA TAKES

GNC 22 S TRK/COAS CNTL

CRT Clear Star Table ITEM 20 EXEC

Acquire Star

SLM #4-1, 4-2 STAR ID:15

SLM #4-3, 4-4 STAR ID:58

C3 DAP:FREE

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

C3 DAP:AUTO

GNC UNIV PTG

CRT Load Next Attitude:

	SLM #4-2	SLM #4-3	SLM#4-4
R=	344.44	328.90	327.55
P=	16.02	295.90	292.79
Y=	317.51	2.20	4.21

Init MNVR ITEM 18 EXEC

Repeat Step 2.

3. RESELECT -Y STAR TRACKER

GNC 22 S TRK/COAS CNTL

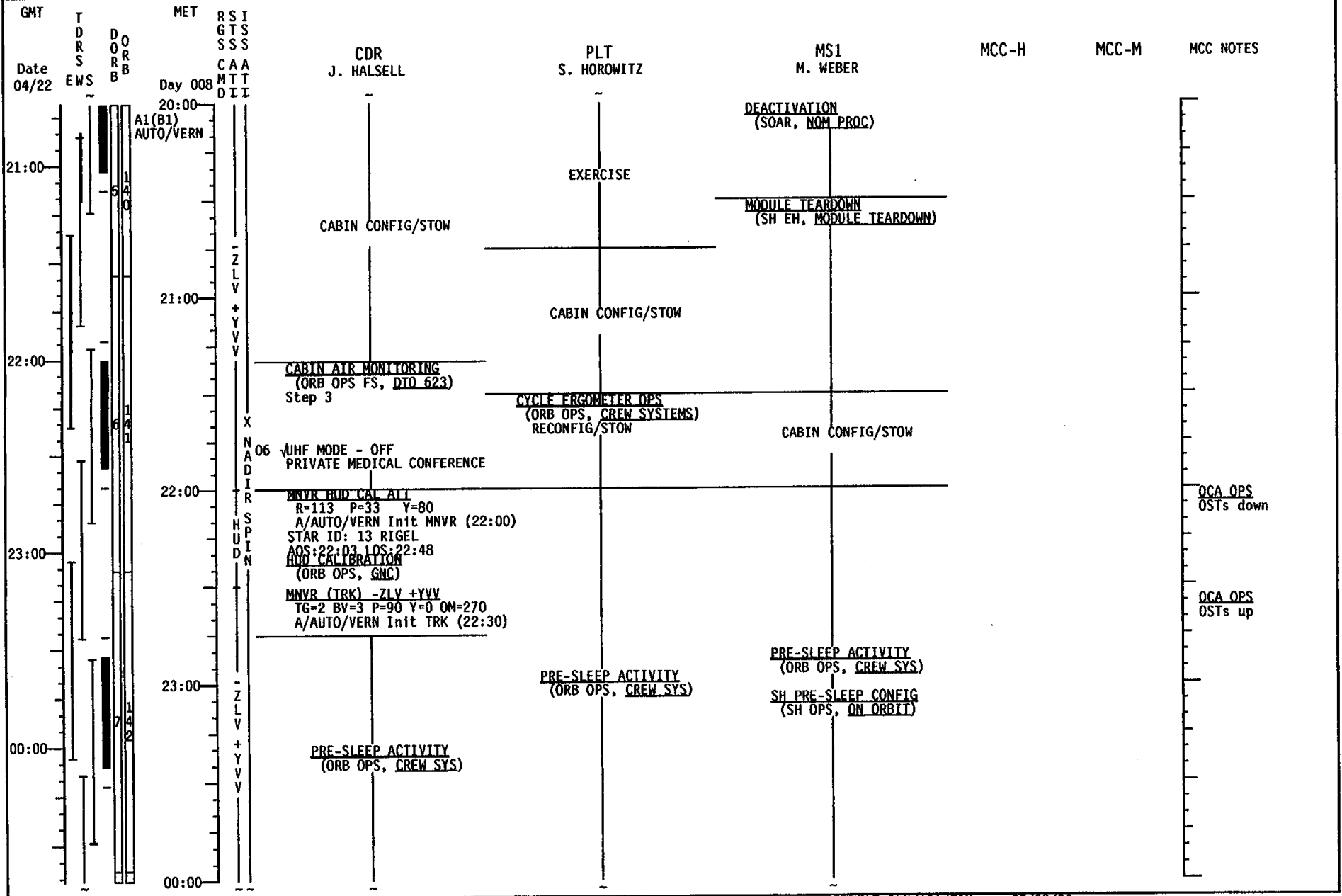
-Y STAR TRKR - STAR TRK ITEM 3 EXEC(\*)

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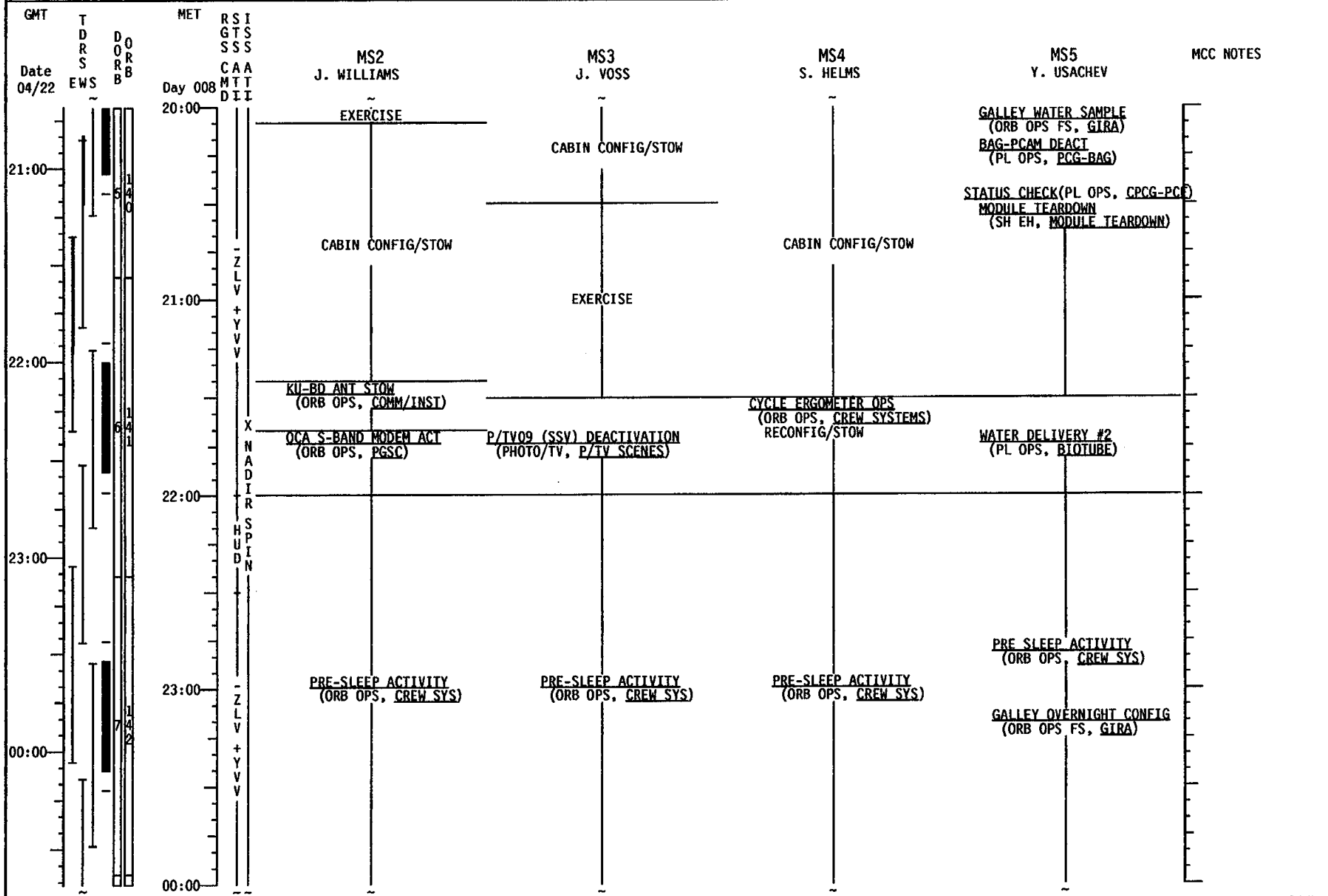
# STS-101 (FD10)

GMT	TDRS EWS	DORB	MET Day 008	RSI GTS SSS CAA MTT DII	MS2 J. WILLIAMS	MS3 J. VOSS	MS4 S. HELMS	MS5 Y. USACHEV	MCC NOTES
16:00		1 3 7			CREW PHOTO	CREW PHOTO	CREW PHOTO	CREW PHOTO	
17:00		2 3 7		+ Z L V	CREW CONF	CREW CONF	CREW CONF	CREW CONF	
18:00		3 3 8		- X V V	D/O BRIEF	D/O BRIEF	D/O BRIEF	D/O BRIEF	
19:00		4 3 9		X I N A R D T I L R S P I N	PILOT WITH RHC (ORB OPS, PGSC)	CABIN CONFIG/STOW	EXERCISE		
20:00		5 4 C		S L M 4	POST EVA ENT PREP (EVA, POST EVA ENT PREP)	POST EVA ENT PREP (EVA, POST EVA ENT PREP)		CABIN CONFIG/STOW	
21:00				- Z L V	EXERCISE	CABIN CONFIG/STOW	CABIN CONFIG/STOW		
22:00				+ Y V V			MICRO WIS DEACT (PL OPS, MICRO WIS)		
23:00							CABIN CONFIG/STOW	DEACTIVATION (SSD-MOMO, NOM PROC)	

# STS-101 (FD10)

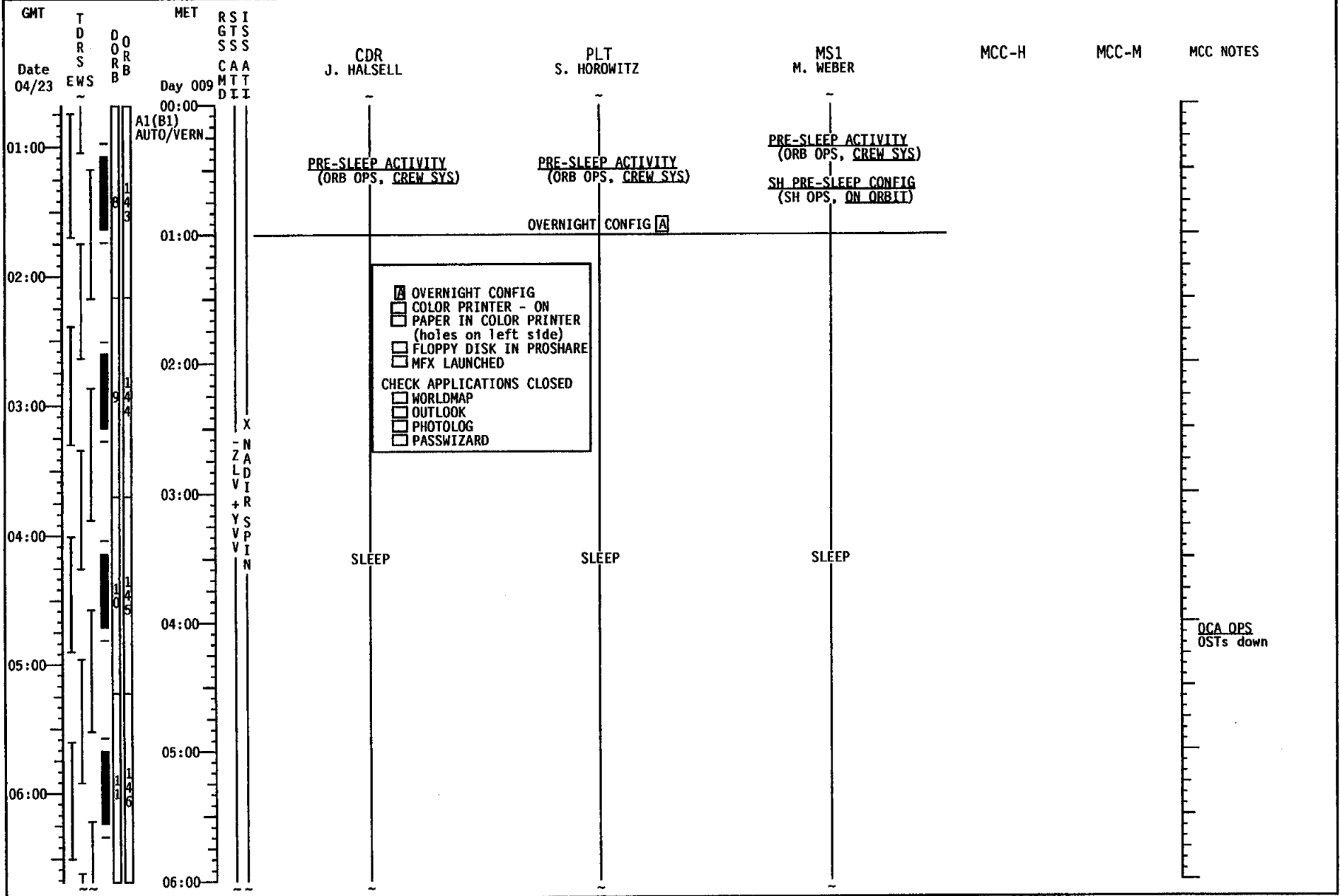


# STS-101 (FD10)

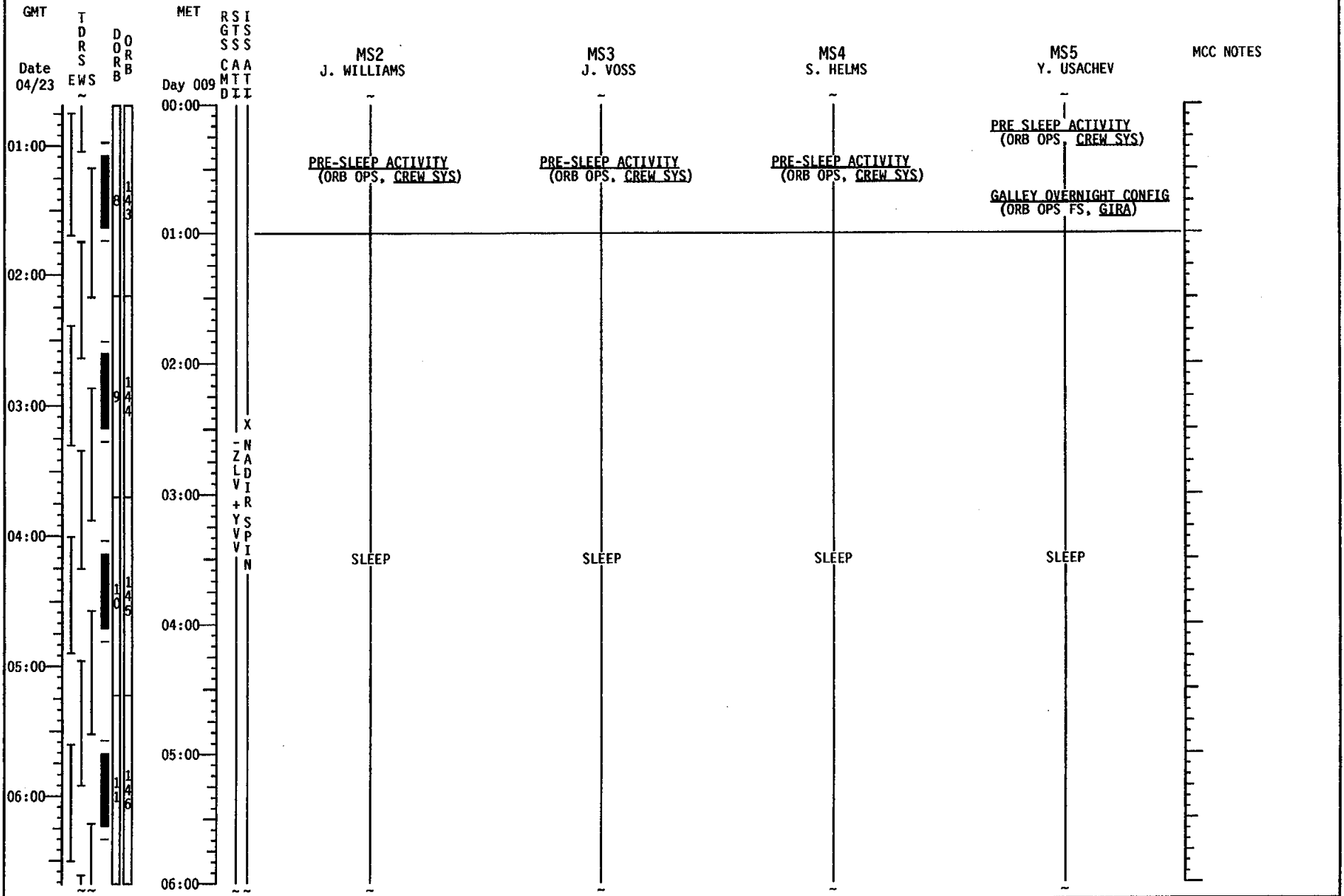




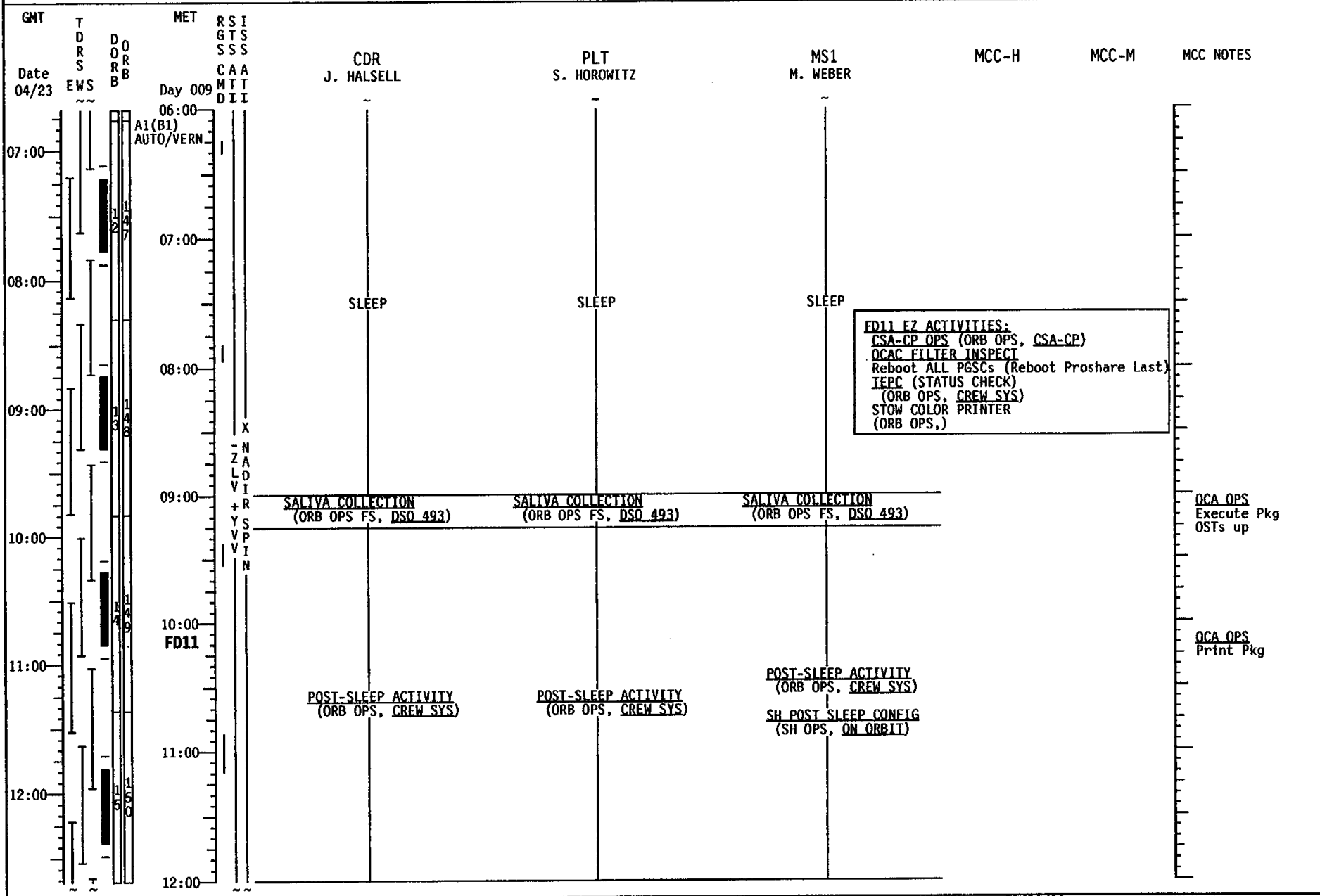
# STS-101 (FD10)



# STS-101 (FD10)

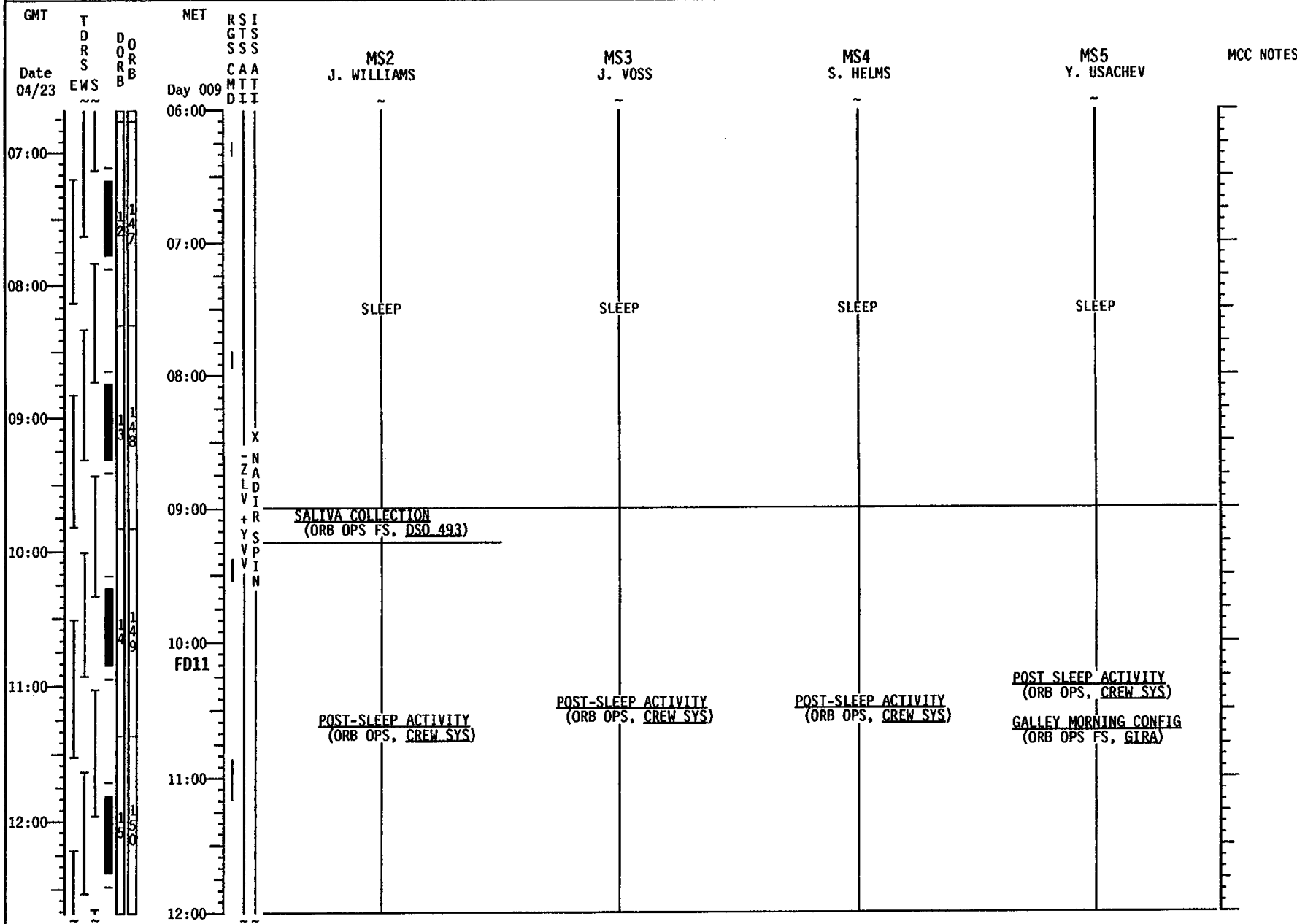


# STS-101 (FD11)

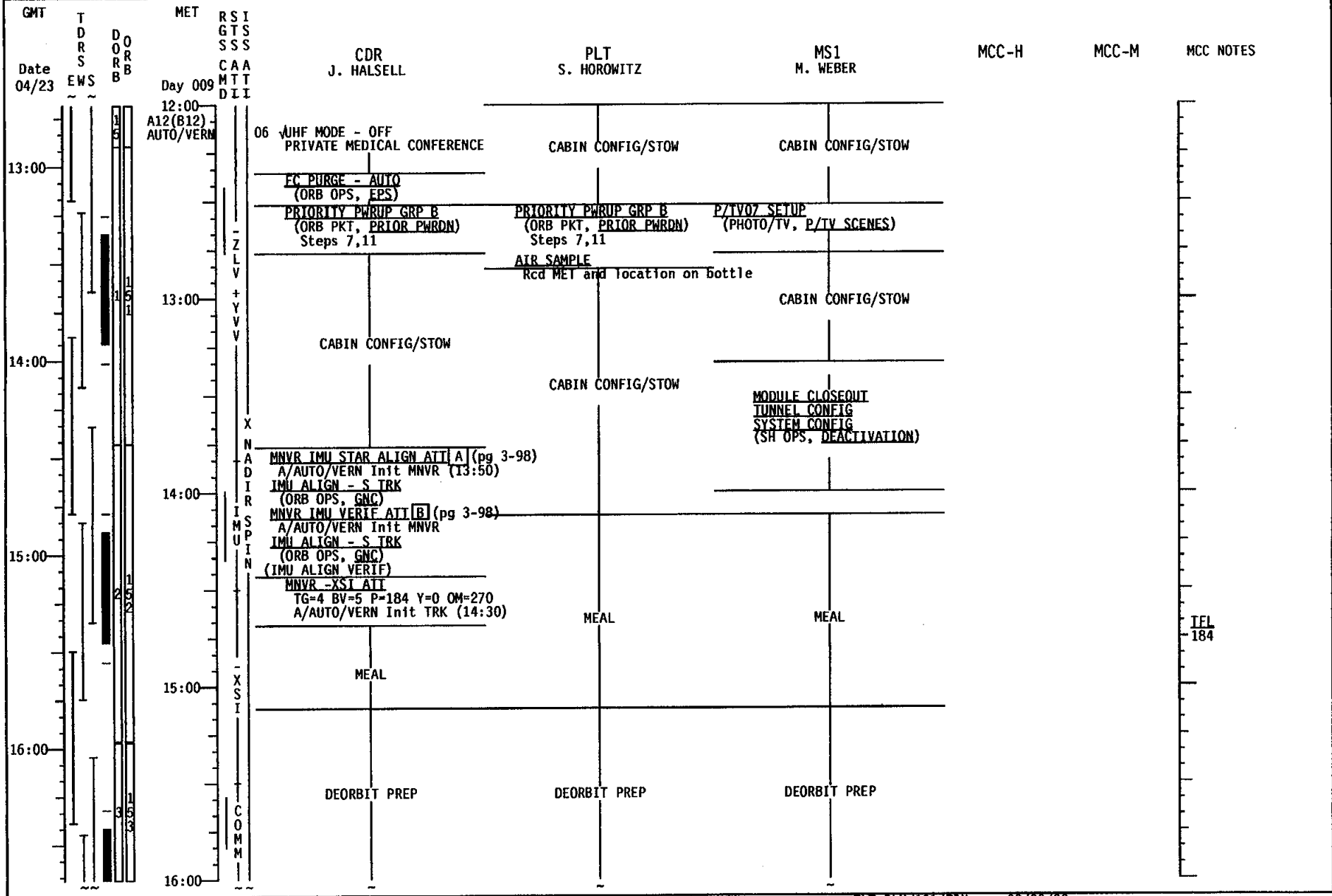


**FD11 E2 ACTIVITIES:**  
 CSA-CP OPS (ORB OPS, CSA-CP)  
 OCAC FILTER INSPECT  
 Reboot ALL PGSCs (Reboot Proshare Last)  
 IEPIC (STATUS CHECK)  
 (ORB OPS, CREW SYS)  
 STOW COLOR PRINTER  
 (ORB OPS.)

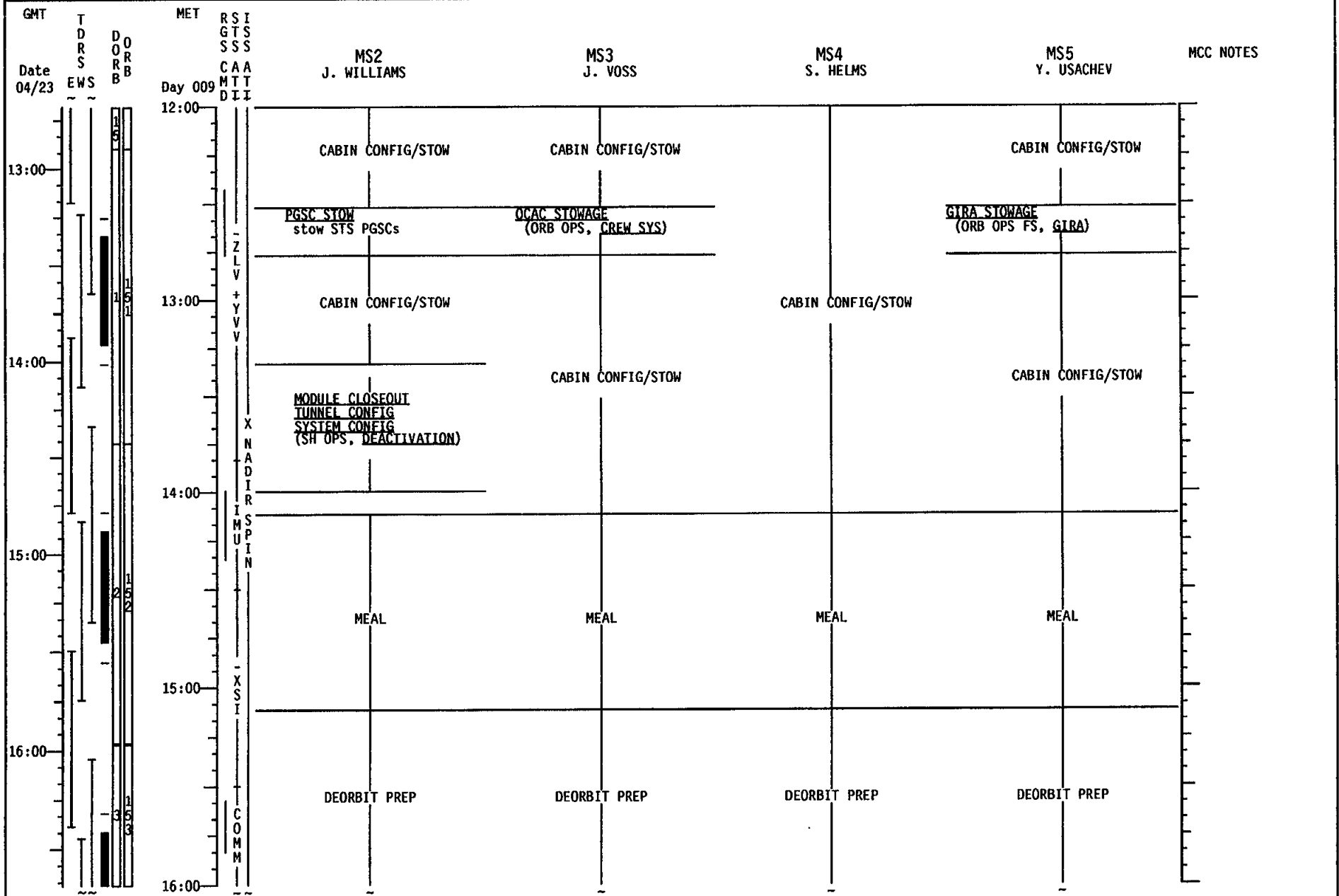
# STS-101 (FD11)



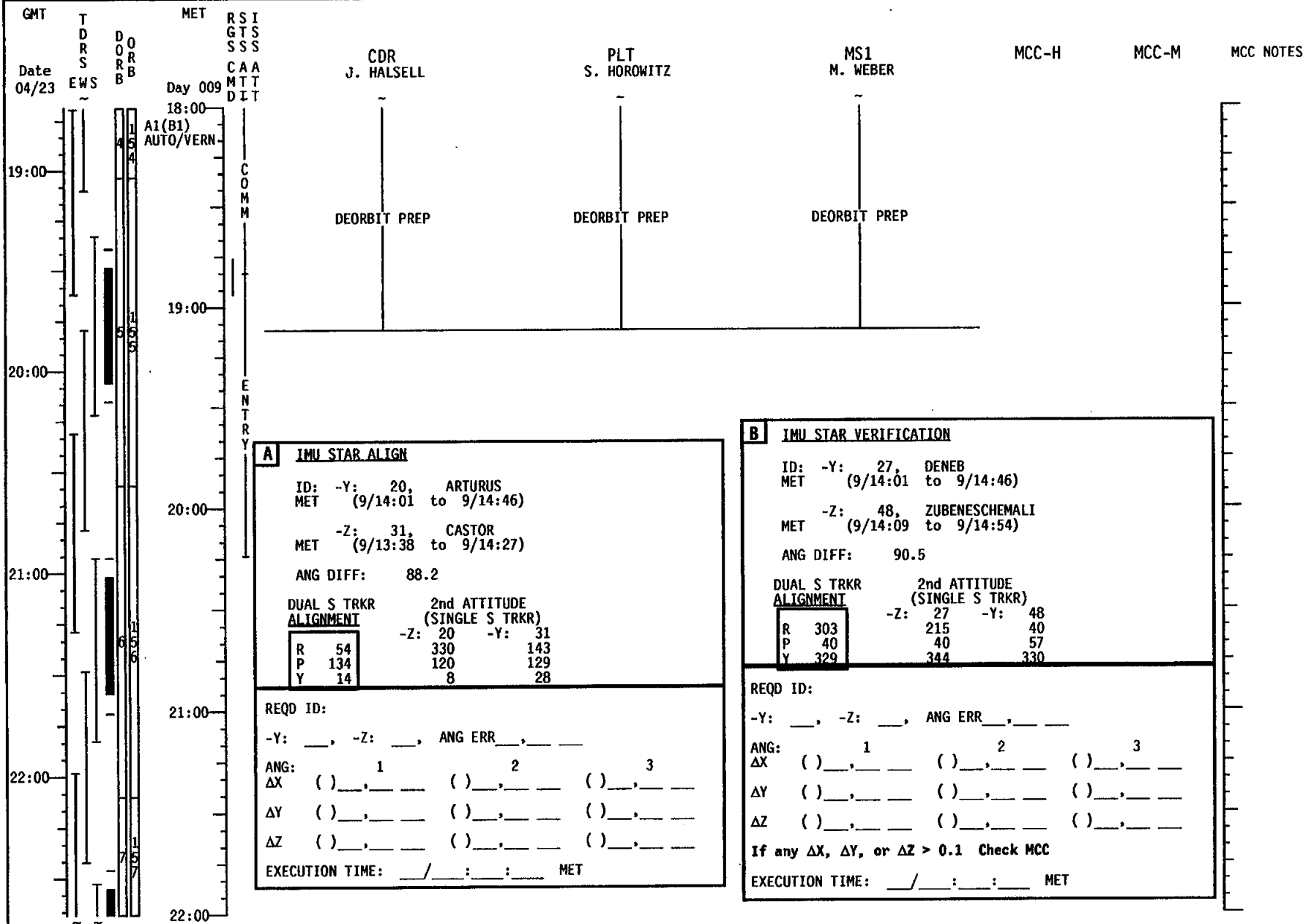
# STS-101 (FD11)



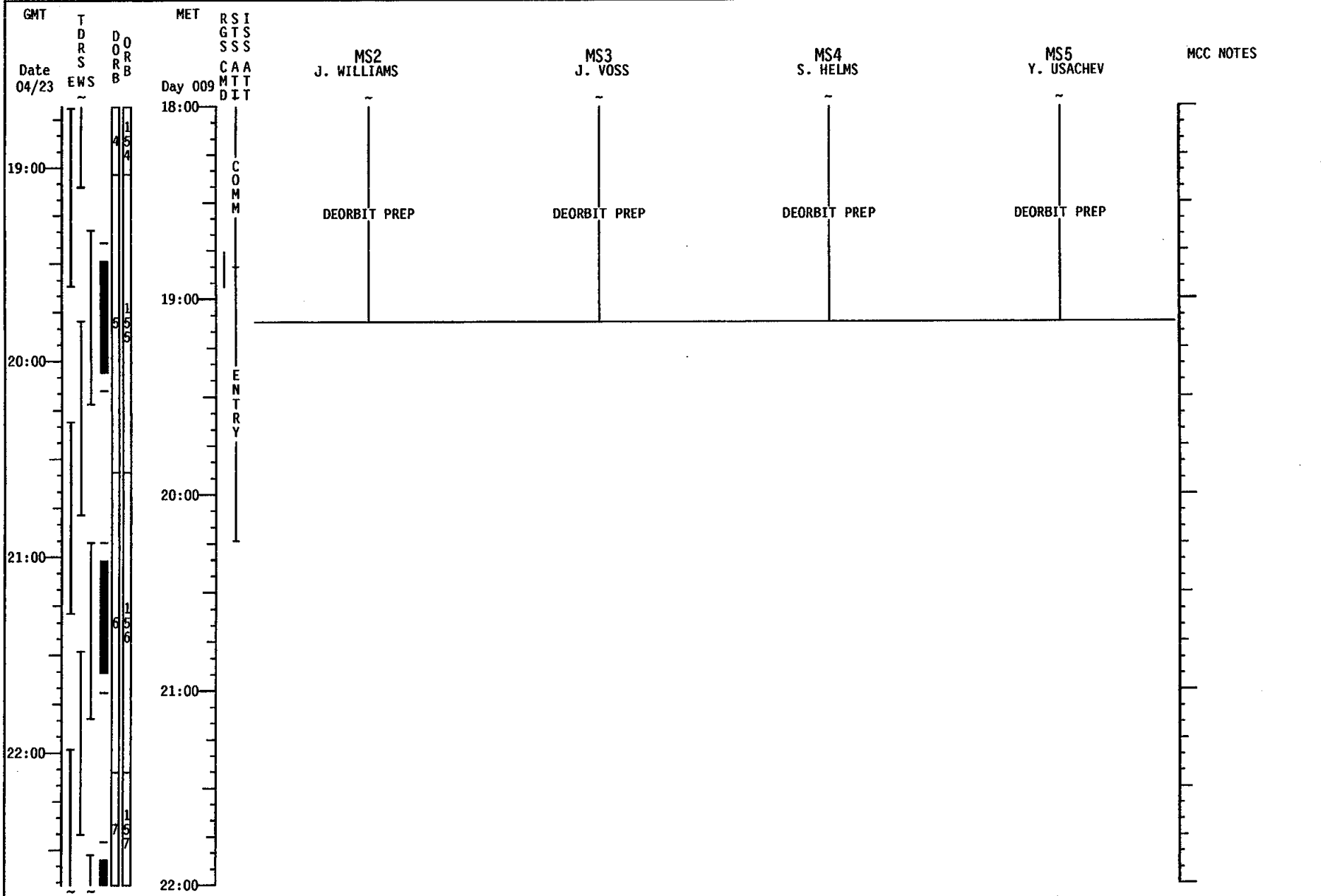
# STS-101 (FD11)



# STS-101 (FD11)



# STS-101 (FD11)



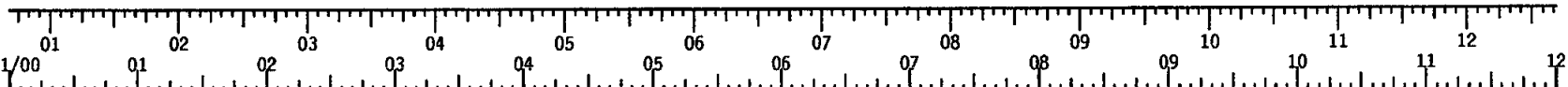


FLIGHT DAY 4 RENDEZVOUS SUMMARY TIMELINE

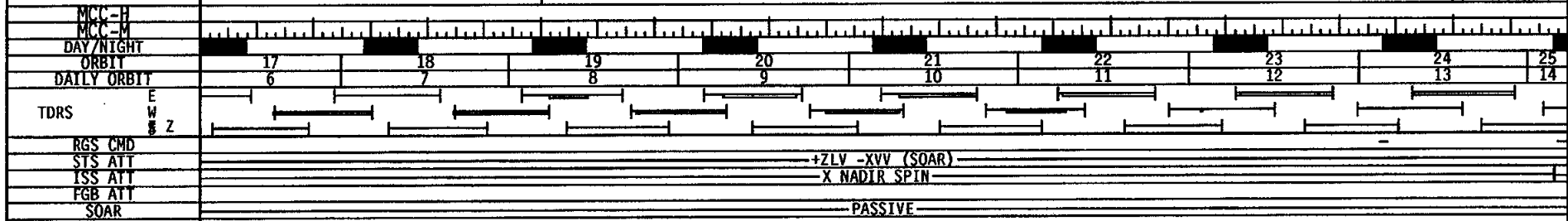
FD04 RNDZ  
SUMMARY TIMELINE



GMT 04/15/00  
 BETA ANG = -49.15  
 MET Day 001



FD02	PRE SLEEP	PMC OCA	PRE SLEEP	SLEEP	FD03	POST SLEEP
CDR J. HALSELL						
PLT S. HOROWITZ			PRE SLEEP	SLEEP		POST SLEEP
MS1 M. WEBER			PRE SLEEP - SH	SLEEP		POST SLEEP - SH
MS2 J. WILLIAMS			PRE SLEEP	SLEEP		POST SLEEP
MS3 J. VOSS			PRE SLEEP	SLEEP		POST SLEEP
MS4 S. HELMS			PRE SLEEP	SLEEP		POST SLEEP
MS5 Y. USACHEV			PRE SLEEP - GIRA	SLEEP		POST SLEEP - GIRA

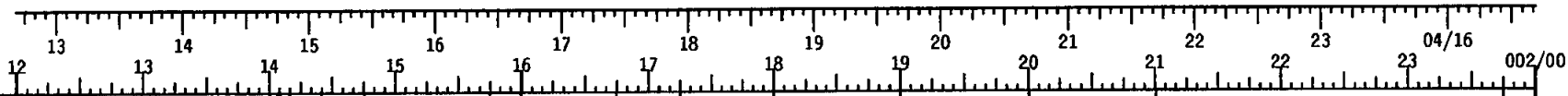


NOTES

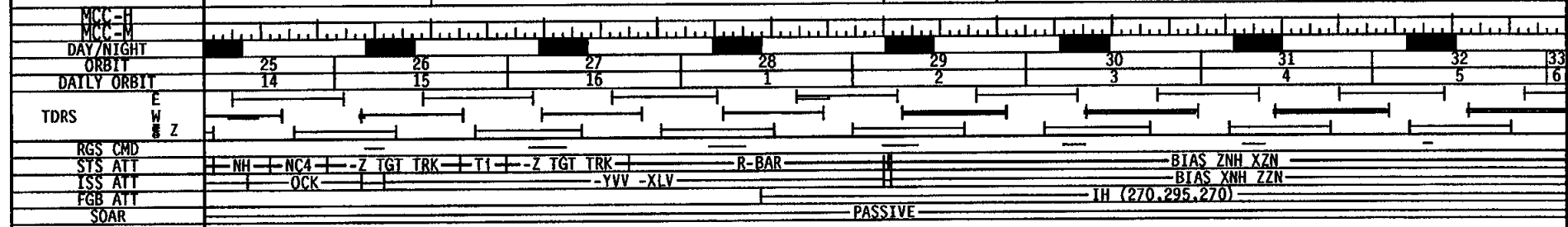
4-3

FLT PLN/101/FIN 03/09/00

GMT 04/15/00  
 BETA ANG = -47.73  
 MET Day 001



CDR J. HALSELL	POST SLEEP	RMS SHT R	P/TV 09 S/U	RNDZ TOOLS C/O	RMS C/O	RMS PLB SURVEY	MEAL	EXERCISE	PMC OCA	
PLT S. HOROWITZ	POST SLEEP	EXERCISE					MEAL	C/L CMR MOUNT	DOCK RING EXT	
MS1 M. WEBER	POST SLEEP - SH				RMS C/O	RMS PLB SURVEY	MEAL	C/L CMR MOUNT	DOCK RING EXT	EXERCISE
MS2 J. WILLIAMS	POST SLEEP	OIU C/O		EXERCISE			MEAL			
MS3 J. VOSS	POST SLEEP			EXERCISE			MEAL			
MS4 S. HELMS	POST SLEEP	RNDZ PGSC S/U	RNDZ TOOLS C/O		EXERCISE		MEAL		PRE ING EQUIP S/U	
MS5 Y. USACHEV	POST SLEEP - GIRA						MEAL		PRE ING EQUIP S/U	EXERCISE

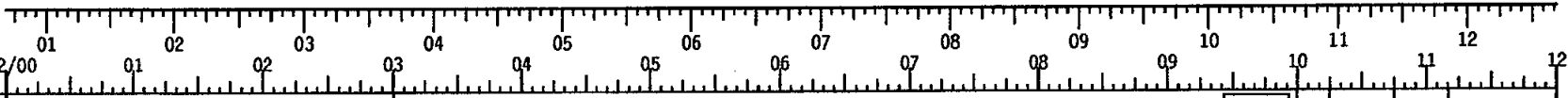


NOTES

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FLT PLN/101/FIN 03/09/00

GMT 04/16/00  
 BETA ANG = -46.22 002/00  
 MET Day 002



FD03 CDR J. HALSELL	PRE SLEEP	SLEEP(7.0)	FD04 DSO 493	POST SLEEP	GRP B PWRUP	RNDZ
PLT S. HOROWITZ	PRE SLEEP	SLEEP(7.0)	DSO 493	POST SLEEP	GRP B PWRUP	RNDZ
MS1 M. WEBER	PRE SLEEP - SH	SLEEP(7.0)	DSO 493	POST SLEEP - SH		
MS2 J. WILLIAMS	PRE SLEEP	SLEEP(7.0)	DSO 493	POST SLEEP		
MS3 J. VOSS	PRE SLEEP	SLEEP(7.0)	POST SLEEP			
MS4 S. HELMS	PRE SLEEP	SLEEP(7.0)	POST SLEEP		RNDZ	
MS5 Y. USACHEV	PRE SLEEP - GIRA	SLEEP(7.0)	POST SLEEP - GIRA			

MCC-H	[Timeline bar]												
MCC-M	[Timeline bar]												
DAY/NIGHT	[Timeline bar]												
ORBIT	33	34	35	36	37	38	39	40					
DAILY ORBIT	6	7	8	9	10	11	12	13					
TDRS	[Timeline bar]												
RGS CMD	[Timeline bar]												
STS ATT	[Timeline bar]												
ISS ATT	[Timeline bar]												
FGB ATT	[Timeline bar]												
SOAR	[Timeline bar]												

NOTES

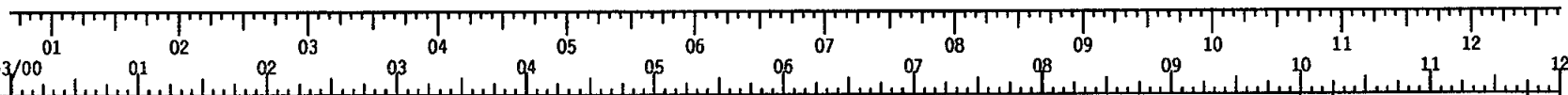
4-5

BIAS ZNH XZN  
 BIAS XNH ZZN  
 JH (270,295,270)  
 PASSIVE

FLT PLN/101/FIN 03/09/00



GMT 04/17/00  
 BETA ANG = -42.85  
 MET Day 003



FD04 CDR J. HALSELL	EXERCISE	PRE SLEEP	SLEEP	FD05	POST SLEEP	MM NP VA R
PLT S. HOROWITZ	PRE SLEEP		SLEEP	DSO 493	POST SLEEP	
MS1 M. WEBER	PRE SLEEP		SLEEP	DSO 493	POST SLEEP	
MS2 J. WILLIAMS	PRE SLEEP		SLEEP	DSO 493	POST SLEEP	
MS3 J. VOSS	PRE SLEEP		SLEEP		POST SLEEP	
MS4 S. HELMS	PRE SLEEP		SLEEP		POST SLEEP	
MS5 Y. USACHEV	PRE SLEEP - GIRA		SLEEP		POST SLEEP - GIRA	

MCC-H	
MCC-M	
DAY/NIGHT	
ORBIT	48 49 50 51 52 53 54 55 56
DAILY ORBIT	6 7 8 9 10 11 12 13 14
TDRS	
RGS CMD	
STS ATT	BIAS ZNH XZN
ISS ATT	BIAS XNH ZZN
FGB ATT	IH (270, 295, 270)
SOAR	PASSIVE

NOTES

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FLT PLN/101/FIN 03/09/00

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STS-101 DAP TABLE

STS-101  
DAP TABLE

**STS-101  
DAP TABLE**

DAP    PURPOSE  
A1    - NOMINAL  
A2    - PTC  
A3    - GG  
A4    - (BLANK)  
A5    - LOSS OF VERN  
          (NOSE & TAIL)  
A6    - FWD PROP SAVINGS  
A7    - RNDZ  
A8    - CORRIDOR  
A9    - DOCKING  
A10   - FLY AROUND  
A12   - MATED STACK (MNVR &  
          HOLD)  
A13   - FAILED CAPTURE  
A14   - RBAR CONFIG

DAP    PURPOSE  
B1    - NOM OMS & RCS BURNS  
B2    - LOSS OF VERN  
          (TAIL ONLY)  
B3    - LOSS OF VERN  
          (NOSE & TAIL)  
B4    - (BLANK)  
B5    - COAS CAL  
B7    - RNDZ  
B8    - CORRIDOR  
B9    - DOCKING  
B10   - FLY AROUND  
B11   - REBOOST OF MATED STACK  
B12   - MATED STACK (MNVR &  
          HOLD)  
B13   - FAILED CAPTURE  
B14   - RBAR CONFIG

UNIV PTG	
TGT ID	= 1 Orbiting Vehicle = 2 Earth ctr = 3 Earth tgt Input LAT ( $\pm 90$ ) LON ( $\pm 180$ , + = East) ALT (-3444.0 to 20000.0 nm) = 4 Sun ctr = 5 Celestial tgt Input RA (0-359.99) DEC ( $\pm 90$ ) = 11-110 Nav Stars
BODY VECT	= 1 +X* = 2 -X* = 3 -Z* = 4 -Y Star Tracker* = 5 Optional Input P (0-359.99) Y (270-359.99, 0-90) * input OM $\rightarrow$ OM (0-359.99)
MON AXIS	= 1 +X = 2 -X

CNTL ACC = 0    SHUTTLE ALONE  
= 1\*    SHUTTLE DOCKED PRE-TRANSFER  
= 2    SHUTTLE DOCKED POST-TRANSFER  
          REBOOST  
= 3-9 NOT USED

\* CNTL ACC 1 NOMINALLY USED. IF UNNECESSARY  
JET FIRINGS DETECTED, CNTL ACC 2 MAY BE USED

STS-101 DAP A CONFIGURATIONS

	ITEM #	A1	A2	A3	A4	A5	A6	A7	A8
<b>PRI</b>									
ROT RATE	10(50)	0.2000	0.4000	0.2000	0.5000	0.2000	0.2000	0.2000	0.2000
ATT DB	11(51)	5.00	1.00	1.00	3.00	5.00	5.00	2.00	<b>1.00</b>
RATE DB	12(52)	0.20	0.20	0.20	0.20	0.20	0.20	0.20	<b>0.10</b>
ROT PLS	13(53)	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
COMP	14(54)	.000	.000	.000	.000	.000	.000	.000	.000
P OPTION	15(55)	ALL	ALL	ALL	ALL	ALL	TAIL	ALL	<b>TAIL</b>
Y OPTION	16(56)	ALL	ALL	TAIL	ALL	ALL	TAIL	ALL	<b>TAIL</b>
TRAN PLS	17(57)	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.05
<b>ALT</b>									
RATE DB	18(58)	0.200	0.200	0.200	0.200	0.070	0.070	<b>0.100</b>	0.200
JET OPT	19(59)	ALL	ALL	ALL	ALL	ALL	TAIL	ALL	ALL
# JETS	20(60)	2	2	2	2	1	1	2	2
ON TIME	21(61)	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
DELAY	22(62)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>VERN</b>									
ROT RATE	23(63)	0.2000	0.4000	0.0080	0.2000	0.2000	<b>0.0500</b>	<b>0.0160</b>	0.2000
ATT DB	24(64)	1.000	1.000	0.070	1.000	1.000	1.000	1.000	1.000
RATE DB	25(65)	.020	.020	.010	.020	.020	.020	.020	.020
ROT PLS	26(66)	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
COMP	27(67)	.000	.000	.000	.000	.000	.000	.000	.000
CNTL ACC	28(68)	0	0	0	0	0	0	0	0
PURPOSE		NOMINAL	PTC	GG	BLANK	LOSS OF VERN (NOSE & TAIL)	FWD PROP SAVINGS	RNDZ	CORRIDOR

Note: **BOLD-ITALIC** indicate a change from I-load

STS-101 DAP A CONFIGURATIONS

	ITEM #	A9	A10	A12	A13	A14
<b>PRI</b>						
ROT RATE	10(50)	<b>0.0500</b>	<b>0.1300</b>	<b>0.1000</b>	<b>0.0500</b>	<b>0.0500</b>
ATT DB	11(51)	<b>0.50</b>	<b>2.00</b>	5.00	<b>1.00</b>	<b>2.00</b>
RATE DB	12(52)	<b>0.10</b>	<b>0.10</b>	0.20	<b>0.10</b>	0.20
ROT PLS	13(53)	0.10	0.10	<b>0.04</b>	0.10	0.10
COMP	14(54)	.000	.000	.000	.000	.000
P OPTION	15(55)	<b>TAIL</b>	<b>TAIL</b>	<b>TAIL</b>	<b>TAIL</b>	ALL
Y OPTION	16(56)	<b>TAIL</b>	<b>TAIL</b>	<b>TAIL</b>	<b>TAIL</b>	ALL
TRAN PLS	17(57)	<b>0.05</b>	<b>0.05</b>	<b>0.01</b>	<b>0.05</b>	0.10
<b>ALT</b>						
RATE DB	18(58)	0.200	0.200	<b>0.070</b>	0.200	<b>0.100</b>
JET OPT	19(59)	ALL	ALL	<b>TAIL</b>	ALL	ALL
# JETS	20(60)	2	2	2	2	2
ON TIME	21(61)	0.08	0.08	0.08	0.08	0.08
DELAY	22(62)	0.00	0.00	<b>11.04</b>	0.00	0.00
<b>VERN</b>						
ROT RATE	23(63)	<b>0.0500</b>	<b>0.1300</b>	<b>0.1000</b>	<b>0.0500</b>	<b>0.0500</b>
ATT DB	24(64)	<b>0.500</b>	<b>2.000</b>	<b>3.000</b>	1.000	1.000
RATE DB	25(65)	.020	.020	<b>.050</b>	.020	.020
ROT PLS	26(66)	<b>0.050</b>	<b>0.050</b>	<b>0.002</b>	<b>0.050</b>	0.010
COMP	27(67)	.000	.000	.000	.000	.000
CNTL ACC	28(68)	0	0	<b>1</b>	0	0
PURPOSE		DOCKING	FLY AROUND	MATED STACK (MNVR & HOLD)	FAILED CAPTURE	RBAR CON-FIG

**BOLD-ITALIC** indicate a change from the I-load

STS-101 DAP B CONFIGURATIONS

	ITEM #	B1	B2	B3	B4	B5	B7	B8
<b>PRI</b>								
ROT RATE	30(50)	0.5000	0.2000	0.2000	0.2000	0.2000	0.5000	0.2000
ATT DB	31(51)	3.00	3.00	3.00	0.30	3.00	2.00	<b>1.00</b>
RATE DB	32(52)	0.20	0.20	0.20	0.20	0.20	0.20	<b>0.10</b>
ROT PLS	33(53)	0.04	0.04	0.04	0.04	0.04	0.04	0.04
COMP	34(54)	.000	.000	.000	.000	.000	.000	.000
P OPTION	35(55)	ALL	TAIL	ALL	TAIL	TAIL	ALL	<b>TAIL</b>
Y OPTION	36(56)	ALL	TAIL	ALL	TAIL	TAIL	ALL	<b>TAIL</b>
TRAN PLS	37(57)	0.10	0.02	0.02	0.02	0.02	0.05	0.01
<b>ALT</b>								
RATE DB	38(58)	0.200	0.070	0.070	0.200	0.200	<b>0.100</b>	0.200
JET OPT	39(59)	ALL	TAIL	ALL	ALL	ALL	ALL	ALL
# JETS	40(60)	2	1	1	2	2	2	2
ON TIME	41(61)	0.08	0.08	0.08	0.08	0.08	0.08	0.08
DELAY	42(62)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>VERN</b>								
ROT RATE	43(63)	0.2000	0.2000	0.2000	0.0080	0.0160	0.2000	0.2000
ATT DB	44(64)	1.000	1.000	1.000	0.100	0.033	1.000	1.000
RATE DB	45(65)	.020	.020	.020	.010	.020	.020	.020
ROT PLS	46(66)	0.002	0.002	0.002	0.002	0.002	0.002	0.002
COMP	47(67)	.000	.000	.000	.000	.000	.000	.000
CNTL ACC	48(68)	0	0	0	0	0	0	0
PURPOSE		NOM OMS & RCS BURNS	LOSS OF VERN (TAIL ONLY)	LOSS OF VERN (NOSE & TAIL)		COAS CAL	RNDZ	CORRIDOR

Note: **BOLD-ITALIC** indicate a change from I-load

STS-101 DAP B CONFIGURATIONS

	ITEM #	B9	B10	B11	B12	B13	B14
<b>PRI</b>							
ROT RATE	30(50)	<b>0.0500</b>	<b>0.1300</b>	<b>0.0500</b>	<b>0.1000</b>	<b>0.0500</b>	<b>0.0500</b>
ATT DB	31(51)	<b>0.50</b>	<b>2.00</b>	<b>40.00</b>	<b>5.00</b>	<b>1.00</b>	<b>2.00</b>
RATE DB	32(52)	<b>0.10</b>	<b>0.10</b>	<b>5.00</b>	0.20	<b>0.10</b>	0.20
ROT PLS	33(53)	0.04	0.04	0.04	0.04	0.04	0.04
COMP	34(54)	.000	.000	.000	.000	.000	.000
P OPTION	35(55)	<b>TAIL</b>	<b>TAIL</b>	ALL	<b>TAIL</b>	<b>TAIL</b>	ALL
Y OPTION	36(56)	<b>TAIL</b>	<b>TAIL</b>	ALL	<b>TAIL</b>	<b>TAIL</b>	ALL
TRAN PLS	37(57)	<b>0.01</b>	<b>0.01</b>	<b>1.00</b>	<b>0.01</b>	<b>0.01</b>	<b>0.05</b>
<b>ALT</b>							
RATE DB	38(58)	0.200	0.200	0.200	<b>0.070</b>	0.200	<b>0.100</b>
JET OPT	39(59)	ALL	ALL	ALL	<b>TAIL</b>	ALL	ALL
# JETS	40(60)	2	2	2	<b>2</b>	2	2
ON TIME	41(61)	0.08	0.08	0.08	0.08	0.08	0.08
DELAY	42(62)	0.00	0.00	<b>11.04</b>	<b>11.04</b>	0.00	0.00
<b>VERN</b>							
ROT RATE	43(63)	<b>0.0500</b>	<b>0.1300</b>	<b>0.1000</b>	<b>0.1000</b>	<b>0.0500</b>	<b>0.0500</b>
ATT DB	44(64)	<b>0.500</b>	<b>2.000</b>	<b>5.000</b>	<b>3.000</b>	1.000	1.00
RATE DB	45(65)	.020	.020	<b>.200</b>	<b>.050</b>	.020	.020
ROT PLS	46(66)	<b>0.020</b>	<b>0.020</b>	<b>0.020</b>	0.002	<b>0.020</b>	0.002
COMP	47(67)	.000	.000	.000	.000	.000	.000
CNTL ACC	48(68)	0	0	<b>2</b>	<b>1</b>	0	0
PURPOSE		DOCKING	FLY AROUND	REBOOST OF MATED STACK	MATED STACK (MNVR & HOLD)	FAILED CAPTURE	RBAR CONFIG

Note: **BOLD-ITALIC** indicate a change from l-load or prior flight DAP configuration

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**ATTITUDE TIMELINE**

ATTITUDE  
TIMELINE

Attitude Timeline

MET/GMT	MNVR OPTION	DAP		E/S	REF ATT/REMARKS	EVENT
1 000/00:30:00 MET 105/01:11:01 GMT	INRTL R= 72.00 MNVR P= 62.00 Y= 38.00	TRN AUTO ALT	RATE 0.5000 DB AT 3.50 DB RT 0.200	SUN R 101 P 63	LVLH EQUIV R : 180 P : 344 Y : 0	OMS 2 Heads Down TIG 0/00:43:42 dV=81.2 fps
2 000/01:12:00 MET 22:21 105/01:53:01 GMT 02:03:22	TGT=2 BV=3 P= 90.00 Y= 0.00 OM= 90.00	A6 AUTO ALT	RATE 0.2000 DB AT 5.00 DB RT 0.070	EARTH R 0 P 90	LVLH R= 0.00 P=180.00 Y=270.00	-ZLV -YVV SOPA
3 000/03:30:00 MET 38:31 105/04:11:01 GMT 19:32	INRTL R= 77.00 MNVR P= 54.00 Y= 41.00	B1 AUTO VERN	RATE 0.2000 DB AT 1.000 DB RT 0.020	SUN R 102 P 57	LVLH EQUIV R : 180 P : 344 Y : 354	NC-1 Right OMS Heads Down TIG 0/03:42:34 dV=11.7 fps
4 000/03:44:00 MET 58:28 105/04:25:01 GMT 39:29	TGT=2 BV=3 P= 90.00 Y= 0.00 OM= 0.00	A1 AUTO VERN	RATE 0.2000 DB AT 1.000 DB RT 0.020	EARTH R 0 P 90	LVLH R= 0.00 P=180.00 Y= 0.00	-ZLV -XVV
5 000/15:21:00 MET 36:00 105/16:02:01 GMT 17:01	INRTL R= 76.00 MNVR P= 59.00 Y= 35.00	B1 AUTO VERN	RATE 0.2000 DB AT 1.000 DB RT 0.020	SUN R 96 P 61	LVLH EQUIV R : 180 P : 349 Y : 0	NC-2 +X RCS Heads Down TIG 0/15:37:32 dV=3.0 fps
6 000/15:40:00 MET 54:57 105/16:21:01 GMT 35:58	TGT=2 BV=5 P=270.00 Y= 0.00 OM=180.00	A1 AUTO VERN	RATE 0.2000 DB AT 1.000 DB RT 0.020	EARTH R 180 P 90	LVLH R=180.00 P=180.00 Y= 0.00	SOAR ACTIVATION +ZLV -XVV
7 000/21:00:00 MET 15:00 105/21:41:01 GMT 56:01	TGT=2 BV=3 P= 90.00 Y= 0.00 OM=270.00	A1 AUTO VERN	RATE 0.2000 DB AT 1.000 DB RT 0.020	EARTH R 0 P 90	LVLH R= 0.00 P=180.00 Y= 90.00	-ZLV +YVV Waste Dump
8 000/22:15:00 MET 30:00 105/22:56:01 GMT 23:11:01	TGT=2 BV=5 P=270.00 Y= 0.00 OM=180.00	A1 AUTO VERN	RATE 0.2000 DB AT 1.000 DB RT 0.020	EARTH R 180 P 90	LVLH R=180.00 P=180.00 Y= 0.00	SOAR +ZLV -XVV
9 000/22:50:00 MET 59:21 105/23:31:01 GMT 40:22	INRTL R= 77.00 MNVR P= 59.00 Y= 36.00	B1 AUTO VERN	RATE 0.2000 DB AT 1.000 DB RT 0.020	SUN R 95 P 61	LVLH EQUIV R : 180 P : 349 Y : 0	NC-3 +X RCS Heads Down TIG 0/23:04:17 dV=3.0 fps
10 000/23:06:00 MET 20:39 105/23:47:01 GMT 106/00:01:40	TGT=2 BV=5 P=270.00 Y= 0.00 OM=180.00	A1 AUTO VERN	RATE 0.2000 DB AT 1.000 DB RT 0.020	EARTH R 180 P 90	LVLH R=180.00 P=180.00 Y= 0.00	SOAR +ZLV -XVV
11 001/12:00:00 MET 15:00 106/12:41:01 GMT 56:01	INRTL R=261.00 MNVR P= 46.00 Y=327.00	B1 AUTO VERN	RATE 0.2000 DB AT 1.000 DB RT 0.020	SUN R 241 P 78	LVLH EQUIV R : 0 P : 16 Y : 0	NH 2 Eng. OMS Heads Up TIG 1/12:17:36 dV=136.1 fps
12 001/12:35:00 MET 44:37 106/13:16:01 GMT 25:38	INRTL R=227.00 MNVR P= 94.00 Y= 79.00	B1 AUTO VERN	RATE 0.2000 DB AT 1.000 DB RT 0.020	SUN R 294 P 70	LVLH EQUIV R : 0 P : 16 Y : 0	NC-4 2 Eng. OMS Heads Up TIG 1/12:46:38 dV=64.0 fps

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

Attitude Timeline

MET/GMT	MNVR OPTION	DAP	E/S	REF ATT/REMARKS	EVENT
13 001/12:48:00 MET 51:42 106/13:29:01 GMT 32:43	TGT=2 BV=1 P= 0.00 Y= 0.00 OM= 0.00 WIA A/AUTO/VERN	B7 RATE 0.5000 AUTO DB AT 2.00 ALT DB RT 0.100	EARTH R 130 P 0	LVLH R= 0.00 P=270.00 Y= 0.00	+XLV -ZVV -Z Tgt Track
14 001/13:18:00 MET 49:15 106/13:59:01 GMT 14:30:16	TGT=2 BV=5 P=345.00 Y= 0.00 OM= 0.00	A7 RATE 0.0080 AUTO DB AT 1.000 VERN DB RT 0.020	EARTH R 180 P 15	LVLH R= 0.00 P=285.00 Y= 0.00	-Z Tgt Track
15 001/13:50:00 MET 14:10:50 106/14:31:01 GMT 51:51	TGT=2 BV=1 P= 0.00 Y= 0.00 OM= 0.00	A7 RATE 0.0120 AUTO DB AT 1.000 VERN DB RT 0.020	EARTH R 83 P 0	LVLH R= 0.00 P=270.00 Y= 0.00	-Z Tgt Track
16 001/14:19:00 MET 24:34 106/15:00:01 GMT 05:35	INRTL R=111.00 MNVR P=211.00 Y= 53.00	A7 RATE 0.2000 AUTO DB AT 2.00 ALT DB RT 0.100	SUN R 301 P 96	LVLH EQUIV R : 0 P : 16 Y : 6	TI Right OMS Heads Up TIG 1/14:29:07 dV=9.1 fps
17 001/14:31:00 MET 34:27 106/15:12:01 GMT 15:28	TGT=2 BV=5 P=350.00 Y= 0.00 OM= 0.00	A7 RATE 0.5000 AUTO DB AT 1.000 VERN DB RT 0.020	EARTH R 180 P 10	LVLH R= 0.00 P=280.00 Y= 0.00	-Z Tgt Track
18 001/14:35:00 MET 48:53 106/15:16:01 GMT 29:54	TGT=2 BV=5 P=340.00 Y= 0.00 OM= 0.00	A7 RATE 0.0120 AUTO DB AT 1.000 VERN DB RT 0.020	EARTH R 180 P 20	LVLH R= 0.00 P=290.00 Y= 0.00	-Z Tgt Track
19 001/14:49:00 MET 58:16 106/15:30:01 GMT 39:17	TGT=2 BV=5 P=330.00 Y= 0.00 OM= 0.00	A7 RATE 0.0180 AUTO DB AT 1.000 VERN DB RT 0.020	EARTH R 180 P 30	LVLH R= 0.00 P=300.00 Y= 0.00	-Z Tgt Track
20 001/14:59:00 MET 15:08:16 106/15:40:01 GMT 49:17	TGT=2 BV=5 P=320.00 Y= 0.00 OM= 0.00	A7 RATE 0.0180 AUTO DB AT 1.000 VERN DB RT 0.020	EARTH R 180 P 40	LVLH R= 0.00 P=310.00 Y= 0.00	-Z Tgt Track
21 001/15:09:00 MET 23:30 106/15:50:01 GMT 16:04:31	TGT=2 BV=5 P=300.00 Y= 0.00 OM= 0.00	A7 RATE 0.0230 AUTO DB AT 1.000 VERN DB RT 0.020	EARTH R 180 P 60	LVLH R= 0.00 P=330.00 Y= 0.00	-Z Tgt Track
22 001/15:24:00 MET 34:43 106/16:05:01 GMT 15:44	TGT=2 BV=5 P=273.00 Y= 0.00 OM= 0.00	A14 RATE 0.0420 AUTO DB AT 1.000 VERN DB RT 0.020	EARTH R 180 P 87	LVLH R= 0.00 P=357.00 Y= 0.00	-Z Tgt Track Config for Rbar
23 001/15:47:00 MET 48:00 106/16:28:01 GMT 29:01	TGT=2 BV=5 P=270.00 Y= 0.00 OM= 0.00	A14 RATE 0.0500 AUTO DB AT 1.000 VERN DB RT 0.020	EARTH R 180 P 90	LVLH R= 0.00 P= 0.00 Y= 0.00	MNVR to Rbar Attitude
24 001/15:54:00 MET 106/16:35:01 GMT					-Z Tgt Track 1000ft Breaking Gate Low Z

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

Attitude Timeline

MET/GMT	MNVR OPTION	DAF	E/S	REF ATT/REMARKS	EVENT
25 001/15:59:00 MET  106/16:40:01 GMT					Rbar Arrival 600ft Breaking Gate
26 001/16:03:00 MET 14:32  106/16:44:01 GMT 55:33	TGT=2 BV=5 P=180.00 Y= 0.00 OM= 0.00	A10 AUTO DB AT 2.000 VERN DB RT 0.020	RATE 0.1300 EARTH R 245 P 180	LVLH R= 0.00 P= 90.00 Y= 0.00	TORRA  Transition from Rbar to Vbar
27 001/16:15:00 MET 26:32  106/16:56:01 GMT 17:07:33	TGT=2 BV=3 P= 90.00 Y= 0.00 OM= 0.00	A10 AUTO DB AT 2.000 VERN DB RT 0.020	RATE 0.1300 EARTH R 0 P 90	LVLH R= 0.00 P=180.00 Y= 0.00	TORRA  Transition from Vbar to -Rbar
28 001/17:00:00 MET 07:30  106/17:41:01 GMT 48:31	TGT=2 BV=5 P= 90.00 Y= 0.00 OM=270.00	A8 AUTO DB AT 1.000 VERN DB RT 0.020	RATE 0.2000 EARTH R 0 P 90	LVLH R= 0.00 P=180.00 Y= 90.00	Initiate Snoopy Yaw Maneuver Chg DAP A8/B8 Nose South
29 001/17:30:00 MET  106/18:11:01 GMT					Reestablish Approach
30 001/17:52:00 MET  106/18:33:01 GMT					Stationkeeping at 30ft
31 001/17:57:00 MET  106/18:38:01 GMT					Reestablish Approach
32 001/18:02:00 MET  106/18:43:01 GMT					Free Drift For Docking DOCKING @ 1/18:02:00
33 001/18:27:00 MET 47:23  106/19:08:01 GMT 28:24	INRTL R=192.00 MNVR P= 25.00 Y= 36.00	A12 AUTO DB AT 3.000 VERN DB RT 0.050	RATE 0.1000 SUN R 1 P 33	Shuttle @ Noon (270,90,335)RPY Noon 2/02:38:14 Beta +58.0	BIAS XNH ZZN XPOP MPA (180,25,180)YPR Docking Day
34 002/11:45:00 MET 46:11  107/12:26:01 GMT 27:12	INRTL R=200.00 MNVR P= 21.00 Y= 39.00	A12 AUTO DB AT 3.000 VERN DB RT 0.050	RATE 0.1000 SUN R 360 P 31	Shuttle @ Noon (270,90,335)RPY Noon 3/00:01:48 Beta +55.7	BIAS XNH ZZN XPOP MPA (180,25,180)YPR FD04 EVA#1
35 003/11:29:14 MET 20  108/12:10:15 GMT 21	TGT=2 BV=5 P=337.00 Y=357.00 OM=269.00	A12 AUTO DB AT 3.000 VERN DB RT 0.050	RATE 0.1000 EARTH R 188 P 23	LVLH R=268.91 P=272.58 Y=336.95	Waste Dump at MIDNIGHT
36 003/13:00:00 MET 01:46  108/13:41:01 GMT 42:47	INRTL R=209.00 MNVR P= 15.00 Y= 42.00	A12 AUTO DB AT 3.000 VERN DB RT 0.050	RATE 0.1000 SUN R 1 P 28	Shuttle @ Noon (270,90,335)RPY Noon 4/02:00:00 Beta +52.3	BIAS XNH ZZN XPOP MPA (180,25,180)YPR FD05

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

Attitude Timeline

MET/GMT	MNVR OPTION	DAP	E/S	REF ATT/REMARKS	EVENT
37 004/13:45:00 MET 14:00:12 109/14:26:01 GMT 41:13	TGT=2 BV=5 P=276.60 Y= 0.00 OM= 0.00	A12 RATE 0.1000 AUTO DB AT 3.000 VERN DB RT 0.050	EARTH R 180 P 83	LVLH R= 0.00 P=353.40 Y= 0.00	BIAS +ZLV +XVV Reboost #1
38 004/15:00:00 MET 16:45 109/15:41:01 GMT 57:46	INRTL R=217.00 MNVR P= 9.00 Y= 42.00	A12 RATE 0.1000 AUTO DB AT 3.000 VERN DB RT 0.050	SUN R 360 P 24	Shuttle @ Noon (270,90,335)RPY Noon 5/02:26:10 Beta +48.6	BIAS XNH ZZN XPOP MPA (180,25,180)YPR FD06
39 004/19:33:45 MET 59 109/20:14:46 GMT 15:00	TGT=2 BV=5 P=334.00 Y= 1.00 OM=270.00	A12 RATE 0.1000 AUTO DB AT 3.000 VERN DB RT 0.050	EARTH R 178 P 26	LVLH R=270.00 P=269.00 Y=334.00	Simo Dump at MIDNIGHT
40 004/21:05:00 MET 19 109/21:46:01 GMT 20	INRTL R=217.00 MNVR P= 9.00 Y= 42.00	A12 RATE 0.1000 AUTO DB AT 3.000 VERN DB RT 0.050	SUN R 359 P 24	Shuttle @ Noon (270,90,335)RPY Noon 5/02:26:10 Beta +48.6	BIAS XNH ZZN XPOP MPA (180,25,180)YPR FD06
41 005/13:45:00 MET 14:05:06 110/14:26:01 GMT 46:07	TGT=2 BV=5 P=276.60 Y= 0.00 OM= 0.00	A12 RATE 0.1000 AUTO DB AT 3.000 VERN DB RT 0.050	EARTH R 180 P 83	LVLH R= 0.00 P=353.40 Y= 0.00	BIAS +ZLV +XVV Reboost #2
42 005/15:00:00 MET 27:13 110/15:41:01 GMT 16:08:14	INRTL R=223.00 MNVR P= 3.00 Y= 42.00	A12 RATE 0.1000 AUTO DB AT 3.000 VERN DB RT 0.050	SUN R 2 P 20	Shuttle @ Noon (270,90,335)RPY Noon 6/02:51:59 Beta +44.6	BIAS XNH ZZN XPOP MPA (180,25,180)YPR FD07
43 006/13:45:00 MET 14:13:32 111/14:26:01 GMT 54:33	TGT=2 BV=5 P=276.60 Y= 0.00 OM= 0.00	A12 RATE 0.1000 AUTO DB AT 3.000 VERN DB RT 0.050	EARTH R 180 P 83	LVLH R= 0.00 P=353.40 Y= 0.00	BIAS +ZLV +XVV Reboost #3
44 006/15:00:00 MET 20:55 111/15:41:01 GMT 16:01:56	INRTL R=229.00 MNVR P=359.00 Y= 40.00	A12 RATE 0.1000 AUTO DB AT 3.000 VERN DB RT 0.050	SUN R 359 P 16	Shuttle @ Noon (270,90,335)RPY Noon 7/00:18:33 Beta +40.9	BIAS XNH ZZN XPOP MPA (180,25,180)YPR FD08
45 007/10:00:00 MET 16:27 112/10:41:01 GMT 57:28	TGT=2 BV=3 P= 90.00 Y= 0.00 OM= 0.00 UNDOCK @ 7/11:12:00	A12 RATE 0.1000 AUTO DB AT 3.000 VERN DB RT 0.050	EARTH R 360 P 90	LVLH R= 0.00 P=180.00 Y= 0.00	UNDOCKING ATT -ZLV -XVV (STS) -XLV -ZVV (ISS) (0,180,180)YPR
46 007/11:30:00 MET 112/12:11:01 GMT	LVLH FREE ROTATION ROTR ABOUT +Y AXIS RATE=0.130 UNDOCK +18 MINUTES	A10 RATE 0.1300 LVLH DB AT 2.000 VERN DB RT 0.020		LVLH R= 0.00 P=180.00 Y= 0.00	Flyaround Twice Orb Rate 2 Revs
47 007/13:02:00 MET 112/13:43:01 GMT		A10 RATE 0.1300 LVLH DB AT 2.000 VERN DB RT 0.020	EARTH R 360 P 92	LVLH R= 0.00 HOLD P=177.60 Y= 0.00	+X Sep Burn 3 fps Retro 2nd -R bar xing
48 007/13:04:00 MET 06:51 112/13:45:01 GMT 47:52	TGT=2 BV=5 P= 26.50 Y= 0.00 OM= 0.00	A10 RATE 0.3848 AUTO DB AT 2.000 VERN DB RT 0.020	EARTH R 0 P 26	LVLH R= 0.00 P=243.50 Y= 0.00	-Z Tgt Track Sep

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

Attitude Timeline

MET/GMT	MNVR OPTION	DAF	E/S	REF ATT/REMARKS	EVENT
49 007/13:07:00 MET 17:00 112/13:48:01 GMT 58:01	TGT=2 BV=5 P=328.20 Y= 0.00 OM= 0.00	A1 RATE 0.0971 AUTO DB AT 2.000 VERN DB RT 0.020	EARTH R 180 P 32	LVLH R= 0.00 P=301.80 Y= 0.00	-Z Tgt Track Sep
50 007/13:18:00 MET 23:03 112/13:59:01 GMT 14:04:05	TGT=2 BV=5 P=267.50 Y= 0.00 OM= 0.00	A1 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	EARTH R 180 P 93	LVLH R= 0.00 P= 2.50 Y= 0.00	-Z Tgt Track Sep
51 007/13:28:00 MET 36:38 112/14:09:01 GMT 17:39	INRTL R=198.08 MNVR P= 71.35 Y=314.94	A1 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	SUN R 318 P 106	BEGIN 07/13:37 PAIR AOS: 13:34 LOS: 14:18	SOAR SLM #1-1 -Z:59 SCHEAT -Y:57 ACAMAR
52 007/13:40:00 MET 47:30 112/14:21:01 GMT 28:31	INRTL R=201.74 MNVR P= 46.25 Y= 42.01	A1 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	SUN R 334 P 50	C59 AOS: 13:06 LOS: 14:18	SOAR SLM #1-2 -Z:59 SCHEAT
53 007/13:50:00 MET 57:16 112/14:31:01 GMT 38:17	INRTL R=145.97 MNVR P=152.45 Y= 22.78	A1 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	SUN R 320 P 127	C57 AOS: 13:34 LOS: 14:20	SOAR SLM #1-3 -Z:57 ACAMAR
54 007/14:00:00 MET 20 112/14:41:01 GMT 21	INRTL R=149.97 MNVR P=150.03 Y= 24.13	A1 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	SUN R 318 P 125	C57 AOS: 13:34 LOS: 14:20	SOAR SLM #1-4 -Z:57 ACAMAR
55 007/14:05:00 MET 18:11 112/14:46:01 GMT 59:12	TGT=2 BV=3 P= 90.00 Y= 0.00 OM=270.00	A1 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	EARTH R 0 P 90	LVLH R= 0.00 P=180.00 Y= 90.00	-ZLV +YVV Simo Dump
56 007/15:30:00 MET 42:35 112/16:11:01 GMT 23:36	TGT=2 BV=5 P=228.50 Y= 0.00 OM=180.00	A1 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	EARTH R 180 P 131	LVLH R=180.00 P=138.50 Y= 0.00	SOAR ISS#1 BIAS +ZLV -XVV
57 007/23:05:00 MET 18:25 112/23:46:01 GMT 59:26	INRTL R=103.89 MNVR P=222.45 Y=340.50	A1 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	SUN R 278 P 128	BEGIN 07/23:19 PAIR AOS: 23:17 LOS: 8/00:01	SOAR SLM #2-1 -Z:21 PROCYON -Y:38 NAVI
58 007/23:25:00 MET 32:30 113/00:06:01 GMT 13:31	INRTL R=114.38 MNVR P=307.54 Y= 13.32	A1 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	SUN R 275 P 39	C21 AOS: 23:12 LOS:8/00:01	SOAR SLM #2-2 -Z:21 PROCYON
59 007/23:35:00 MET 42:33 113/00:16:01 GMT 23:34	INRTL R=164.78 MNVR P= 15.00 Y=303.38	A1 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	SUN R 310 P 89	C38 AOS: 23:17 LOS:8/00:09	SOAR SLM #2-3 -Z:38 NAVI
60 007/23:45:00 MET 20 113/00:26:01 GMT 21	INRTL R=171.19 MNVR P= 18.53 Y=302.76	A1 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	SUN R 307 P 90		SOAR SLM #2-4 -Z:38 NAVI

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

Attitude Timeline

MET/GMT	MNVR OPTION	DAP	E/S	REF ATT/REMARKS	EVENT
61 007/23:50:00 MET 008/00:03:15 113/00:31:01 GMT 44:16	TGT=2 BV=5 P=228.50 Y= 0.00 OM=180.00	A1 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	EARTH R 180 P 131	LVLH R=180.00 P=138.50 Y= 0.00	SOAR ISS#2 BIAS +ZLV -XVV
62 008/10:05:00 MET 10:16 113/10:46:01 GMT 51:17	INRTL R=125.36 MNVR P= 79.19 Y= 56.20	A1 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	SUN R 35 P 68	BEGIN 08/10:11 PAIR AOS: 10:08 LOS: 10:46	SOAR SLM #3-1 -Z:40 MIRFAK -Y:25 REGULUS
63 008/10:13:00 MET 20:30 113/10:54:01 GMT 11:01:31	INRTL R= 32.86 MNVR P=199.94 Y= 19.00	A1 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	SUN R 22 P 122	C40 AOS: 09:56 LOS: 10:46	SOAR SLM #3-2 -Z:40 MIRFAK
64 008/10:23:00 MET 30:19 113/11:04:01 GMT 11:20	INRTL R= 36.40 MNVR P=128.38 Y=325.29	A1 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	SUN R 143 P 148	C25 AOS: 10:08 LOS: 10:58	SOAR SLM #3-3 -Z:25 REGULUS
65 008/10:33:00 MET 20 113/11:14:01 GMT 21	INRTL R= 39.54 MNVR P=132.09 Y=327.59	A1 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	SUN R 138 P 151		SOAR SLM #3-4 -Z:25 REGULUS
66 008/10:40:00 MET 52:29 113/11:21:01 GMT 33:30	TGT=2 BV=5 P=270.00 Y= 0.00 OM=180.00	A1 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	EARTH R 180 P 90	LVLH R=180.00 P=180.00 Y= 0.00	SOAR CRV LVLH +ZLV -XVV
67 008/17:15:00 MET 22:30 113/17:56:01 GMT 18:03:31	TGT=2 BV=5 P=180.00 Y= 0.00 OM=180.00	A1 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	EARTH R 275 P 180	LVLH R=180.00 P= 90.00 Y= 0.00	SOAR CRV INRTL SETUP -XLV -ZVV
68 008/17:25:00 MET 113/18:06:01 GMT		A1 RATE 0.2000 INRT DB AT 1.000 VERN DB RT 0.020	SUN R 34 P 83	INRTL R=111.91 HOLD P= 55.97 Y=341.32	SOAR CRV INRTL
69 008/18:20:00 MET 31:52 113/19:01:01 GMT 12:53	INRTL R=339.39 MNVR P= 44.11 Y= 43.82	A1 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	SUN R 198 P 48	BEGIN 08/18:32 PAIR AOS: 18:28 LOS: 19:10	SOAR SLM #4-1 -Z:15 HADAR -Y:58 DENEBA ANG
70 008/18:34:00 MET 41:30 113/19:15:01 GMT 22:31	INRTL R=344.44 MNVR P= 16.02 Y=317.51	A1 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	SUN R 132 P 77	C15 AOS: 18:19 LOS: 19:10	SOAR SLM #4-2 -Z:15 HADAR
71 008/18:44:00 MET 51:10 113/19:25:01 GMT 32:11	INRTL R=328.90 MNVR P=295.90 Y= 2.20	A1 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	SUN R 66 P 55	C58 AOS: 18:28 LOS: 19:18	SOAR SLM #4-3 -Z:58 DENEBA ALG
72 008/18:54:00 MET 20 113/19:35:01 GMT 21	INRTL R=327.55 MNVR P=292.79 Y= 4.21	A1 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	SUN R 65 P 56		SOAR SLM #4-4 -Z:58 DENEBA ANG

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

Attitude Timeline

MET/GMT	MNVR OPTION	DAF	E/S	REF ATT/REMARKS	EVENT
73 008/19:00:00 MET 12:17 113/19:41:01 GMT 53:18	TGT=2 BV=3 P= 90.00 Y= 0.00 OM=270.00	A1 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	EARTH R 360 P 90	LVLH R= 0.00 P=180.00 Y= 90.00	-ZLV +YVV
74 008/22:00:00 MET 06:01 113/22:41:01 GMT 47:02	INRTL R=113.00 MNVR P= 33.00 Y= 80.00	A1 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	SUN R 105 P 54	C13 RIGEL AOS: 22:03 LOS: 22:48	HUD CAL
75 008/22:30:00 MET 40:09 113/23:11:01 GMT 21:10	TGT=2 BV=3 P= 90.00 Y= 0.00 OM=270.00	A1 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	EARTH R 0 P 90	LVLH R= 0.00 P=180.00 Y= 90.00	-ZLV +YVV
76 009/13:50:00 MET 14:01:50 114/14:31:01 GMT 42:51	INRTL R= 54.00 MNVR P=134.00 Y= 14.00	A1 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	SUN R 70 P 127	PAIR AOS: 14:01 PAIR LOS: 14:27	IMU ALIGN -Y: 20 -Z: 31
77 009/14:05:00 MET 15:35 114/14:46:01 GMT 56:36	INRTL R=303.00 MNVR P= 40.00 Y=329.00	A1 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	SUN R 193 P 80	PAIR AOS: 14:09 PAIR LOS: 14:54	IMU VERIF -Y: 27 -Z: 48
78 009/14:30:00 MET 40:08 114/15:11:01 GMT 21:09	TGT=4 RA= 30.852 BV=5 DEC= 12.539N P=184.00 Y= 0.00 OM=270.00	A1 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	SUN R 180 P 176	INRTL R=120.84 P=167.84 Y=326.50	-XSI RAD COLD SOAK
79 009/15:30:00 MET 33:56 114/16:11:01 GMT 14:57	INRTL R= 70.00 MNVR P=134.00 Y=339.00	A5 RATE 0.2000 AUTO DB AT 1.000 VERN DB RT 0.020	SUN R 86 P 150		Comm Attitude
80 009/18:50:00 MET 54:51 114/19:31:01 GMT 35:52	INRTL R=253.00 MNVR P=306.00 Y=346.00	TRN RATE 0.5000 FREE DB AT 3.50 PRI DB RT 0.20	SUN R 157 P 58		Estimated D/O TIG and ATT D/O TIG: 19:07 LANDING: 20:14

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



DAILY PLAN TIMELINE

# DAILY PLAN TIMELINE

$\beta = 60.83$  Decr.
ISS-OB DAILY PLAN GMT DAY 106 (FD01)
US INPUTS

MET Day 000 000/00 01 02 03 04 05 06 07 08 09 10 11 12  
 GMT 04/14/00

STS	POST INSERTION	$\phi$	•	$\nabla$	SLEEP
NOD (EVNT)					
ECS	INI SHELL WRMUP				INI SHELL WRMUP
DOD	DECRYP KEY U/L				INI SHELL WRMUP
FGB (EVNT)					
REGIME					
DECK					
RTS	STRING A				STRING B
CR23					
DAY/NIGHT	ORBIT				
DAILY ORBIT					
TDRS	E	W	S		
RSA GND SITE					-PPK -USK
ISS ORB NUM	3985	3986	3987	3988	3989
TDRS 275 SA					3990
TDRS 47 SA					3991
ISS ATT					X NADIR SPIN
POWER					800 W
NOTES	40MS BURN    VPRE SLEEP •-ZLV MNVR				

INI SHE  
DECRYP

$\beta = 60.53$  Decr. ISS-OB DAILY PLAN GMT DAY 106/107 (FD02) US INPUTS

MET Day 000 12 13 14 15 16 17 18 19 20 21 22 23 04/15 001/00  
 GMT 04/14/00 13 14 15 16 17 18 19 20 21 22 23 04/15

STS SLEEP POST SLEEP ◊ \* EMU C/O ⊕ \*

NOD (EVNT)

INI SHELL WRMUP INI SHELL WRMUP INI SHELL WRMUP INI SHELL WRMUP

FGB (EVNT)

REGIME FGB ⊕BIT - ON HFGB ⊕BIT - ON

RTS STRING A  
 STRING B

DAY/NIGHT ORBIT ORBIT 9 10 11 12 13 14 15 16 17  
 DAILY ORBIT 1 2 3 4 5 6

TDRS E W S  
 -PPK -PPK -DJS -DJS -DJS -DJS -DJS -SHK  
 -USK -ULD -USK -KLP -KLP -KLP -KLP -SHK -SPB  
 -PPK -PPK -DJS -DJS -DJS -DJS -DJS -SHK  
 -ULD -ULD -ULD -ULD -ULD -ULD -ULD -SHK  
 -USK -USK -USK -USK -USK -USK -USK -SPB

RSA GND SITE ISS ORB NUM 3993 3994 3995 3996 3997 3998 3999 4000 4001  
 TDRS 275 SA  
 TDRS 47 SA

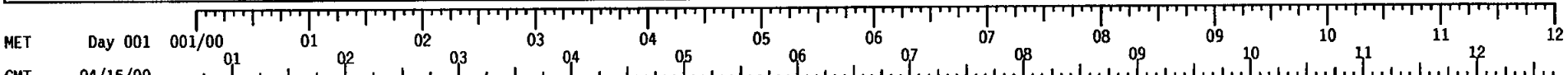
ISS ATT X NADIR SPIN

POWER 800 W

OOMS BURN \*+ZLV ⊕MNR H2O \*OMS BURN

NOTES

LOW SI



STS PRE SLEEP SLEEP RNDZ

NOD (EVNT)

INI SHELL WRMUP DECRYPT KEY U/L

FGB (EVNT)

REGIME MCS ACT FMCS ACT R8\$

STRING A LOW SPEED REC MED SPEED REC

DAY/NIGHT ORBIT DAILY ORBIT

TDRS E W S -PPK -USK -PPK -USK

RSA GND SITE

ISS ORB NUM TDRS 275 SA TDRS 47 SA

ISS ATT X NADIR SPIN OCK BUILD

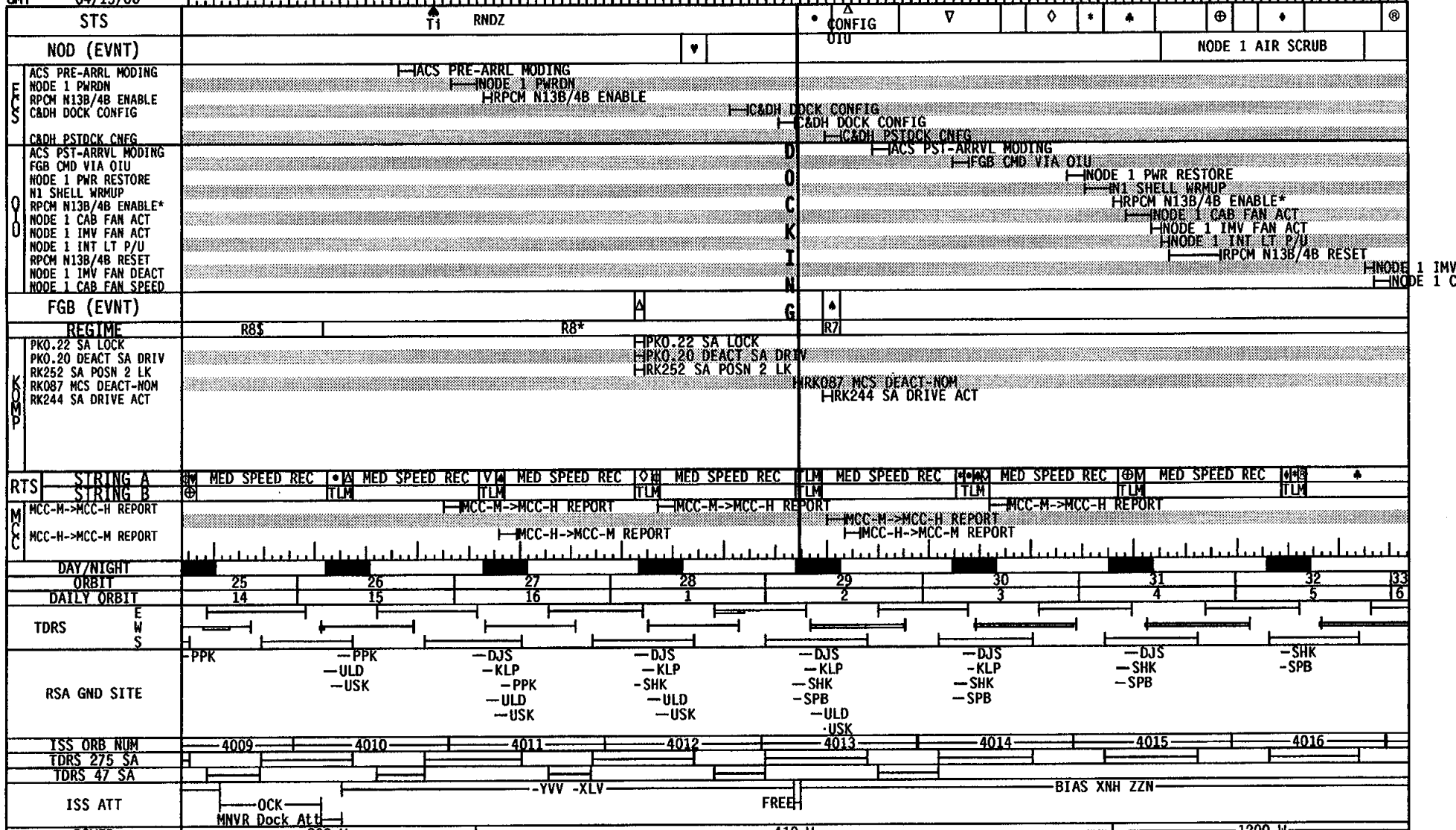
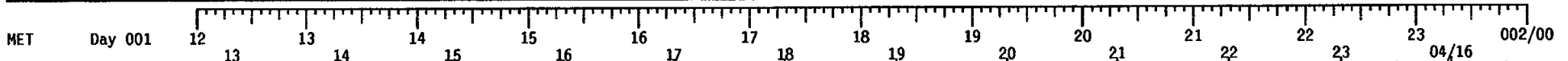
POWER 800 W

NOTES ©R15 \$ ZLV -XVV TLM  
 ▼TLM  
 ▲RCDR DUMP B1

β = 59.16 Decr.

ISS-OB DAILY PLAN GMT DAY 107/108 (FD03)

US INPUTS



**NOTES**

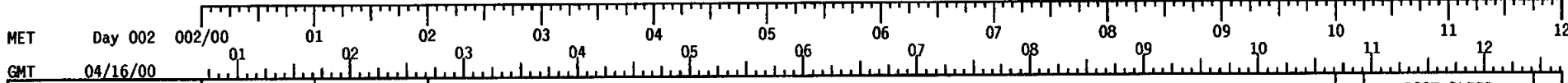
◊TLM ◊RCDR DUMP B1 ◊TLM ◊RCDR DUMP B1 ◊TLM ◊RCDR DUMP B1 ◊TLM ◊HATCH LK CK ◊HRD MT VODS VEST/ PMA2 PRESS ◊POST RNDZ PGSC CNFG ◊TLM ◊PMC OCA  
 ◊RCDR DUMP B1 ◊RCDR DUMP B1 ◊RCDR DUMP B1 ◊SA - POS2 ◊FGB SA UNLOCK ◊TLM ◊EPCS SETUP (1-4) ◊APCU 1 DEACT ◊LOW SHEED RE  
 ◊TLM \*Gravitational Orientation 7-5 ◊RCDR DUMP B1 FLT PLN/10TYMIN 03/00P00 1&2 ACT ◊OFF DUTY \*6700 RPM  
 § ZLV -XVV 0016 MCC-M report "GO" for T1 002 MCC-M report MCS Deact and SA drives 003 MCC-M report "GO" for NI PWRUP ◊RCDR DUMP B2 ◊RCDR DUMP B1 \*FDIR  
 MCC-H report NI PWRDN, "GO" for DOCK MCC-H report soft capture, DOCK, XPOP att corr ◊RCDR DUMP B2  
 001 MCC-M report SA LOCK, DOCK ATT, "GO" for DOCK

$\beta = 58.18$  Decr.

ISS-OB DAILY PLAN GMT DAY 108

(FD04)

US INPUTS



STS PRE SLEEP SLEEP POST SLEEP

NOD (EVNT)

U NI SHELL WRMUP  
RPCM N13B/4B BDT

FGB (EVNT)

REGIME

TO24 TIME TAG CMD HIT024 TIME TAG CMD

RTS STRING A LOW SPEED REC  
STRING B

M DAY/NIGHT ORBIT

DAILY ORBIT

TDRS E W S

RSA GND SITE

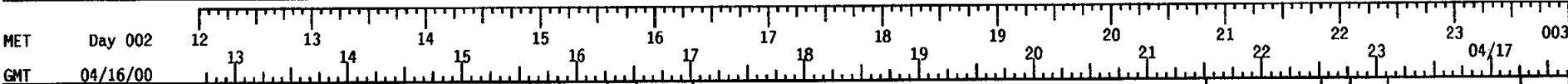
ISS ORB NUM 4017 4018 4019 4020 4021 4022 4023 4024  
TDRS 275 SA  
TDRS 47 SA

ISS ATT BIAS XNH ZZN

POWER 1200 W

NOTES

PNVR MP



STS: ⑥, ♥, Δ, ♦, φ, •

NOD (EVNT)

ECS: DECRY KEY U/L, ECS CHECKOUT, DECRY KEY U/L, IN1 SHELL WRMUP, IN1 SHELL WRMUP, HECS PWRDN, HECS PWRUP, DECRY KEY U/L

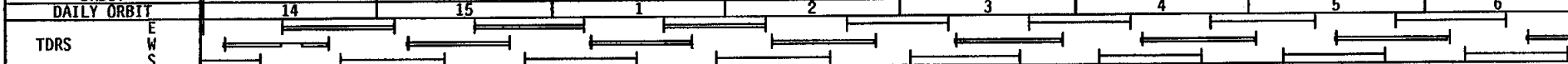
QO: DECRY KEY U/L, IN1 SHELL WRMUP, IN1 SHELL WRMUP, HECS PWRDN, HECS PWRUP, DECRY KEY U/L

FGB (EVNT)

REGIME: RK434M1 GAS ANAL ACT, RK509M1 CMD MTX SEL, HRK434M1 GAS ANAL ACT, HRK509M1 CMD MTX SEL, HRK509M1 CMD MTX SEL, HRK417M1 PFO-GA OPEN, HRK406M1 GA-PMA1 ENA, HRK435M1 GAS AN DEACT, HRK404M1 GA-PMA1 OPEN, HRK417M1 PFO-GA OPEN, HRK406M1 GA-PMA1 ENA, HRK435M1 GAS AN DEACT, HRK404M1 GA-PMA1 OPEN

RTS: STRING A, STRING B, LOW SPEED REC

MCC-M->MCC-H REPORT: MCC-M->MCC-H REPORT, MCC-M->MCC-H REPORT



RSA GND SITE: -PPK, -ULD, -USK, -DJS, -KLP, -PPK, -ULD, -USK, -DJS, -KLP, -SHK, -ULD, -USK, -DJS, -KLP, -SHK, -SPB, -DJS, -SHK, -SPB

ISS ORB NUM: 4025, 4026, 4027, 4028, 4029, 4030, 4031, 4032

TDRS 275 SA, TDRS 47 SA

ISS ATT: BIAS XNH ZZN

POWER: 1200 W

⑥EPCS S/U(5) ΔSORTIE SETUP, ♥POST DEP/ EGRS, ▲SORTIE CLEAN UP, φEPCS DT (1), ●POST EVA SUPPORT

NOTES: D015 MCC-M report "GO" for EVA, D03 MCC-M report KVD Open, Gas Analyzer Deact

β = 55.68 Decr.

ISS-OB DAILY PLAN GMT DAY 109

(FD05)

US INPUTS

MET Day 003 003/00 01 02 03 04 05 06 07 08 09 10 11 12 12

GMT 04/17/00 01 02 03 04 05 06 07 08 09 10 11 12

STS	PRE SLEEP	SLEEP	POST SLEEP	▽
NOD (EVNT)				
ECS CHECKOUT				I ECS CHECKOUT
ECS CHECKOUT N1 SHELL WRMUP	I N1 SHELL WRMUP			I N1 SHELL WRMUP
FGB (EVNT)				
REGIME				
T024 TIME TAG CMD RK434M1 GAS ANAL ACT RK509M1 CMD MTX SEL				I T024 TIME TAG CMD I RK434M1 GAS ANAL ACT I RK509M1 CMD MTX SEL
RTS	STRING A	LOW SPEED REC	◇ MED SPEED REC	*B
MCC	STRING B		ITLM	ITLM
MCC-M->MCC-H REPORT				I MCC-M->MCC-H RI
DAY/NIGHT	[Bar chart showing day/night cycle]			
ORBIT	48	49	50	51
DAILY ORBIT	6	7	8	9
TDRS	[Bar chart showing TDRS activity]			
RSA GND SITE	--PPK --USK --ULD --USK			
ISS ORB NUM	4033	4034	4035	4036
TDRS 275 SA	[Bar chart showing TDRS 275 SA]			
TDRS 47 SA	[Bar chart showing TDRS 47 SA]			
ISS ATT	BIAS XNH ZZN			
POWER	1200 W			
NOTES				◇ TLM *TLMVMNVR #20 ▲ RCDR DUMP B1 @RCDR DUMP B1 ▲ MED SPEED

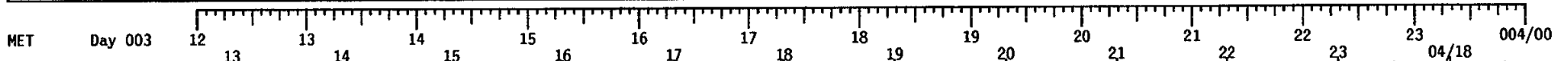
D014 MCC-M report Gas Analyzer Act



β = 54.15 Decr.

ISS-OB DAILY PLAN GMT DAY 109/110 (FD05)

US INPUTS



STS @ SHAB XFER PREP PRE SLEEP

NOD (EVNT) PMA2 INGR NODE 1 INGR  
 DECRYPT KEY U/L IDECRYPT KEY U/L

ECS PWRDN\* N1 SHELL WRMUP  
 RK370/351 CRCLN1 ON  
 RK418M1 ICC-PA CLOSE  
 RK416M1 PA-PMA1 INH  
 RK405M1 PA-PMA1 CL  
 RK370/371 CRCLN2 ON  
 RK509 CMD MATRX M1  
 NODE 1 IMV FAN ACT  
 ECS PWRUP\*  
 RK280/371 BATT1 ACT (EXE)  
 RK390/261 BATT 1 SET (EXE)  
 RK280/311 BATT1 CNCT (EXE)

FGB (EVNT1) FGB INGR FGB BATT 1 R&R FGB BPT EPCS 1 R&R

FGB (EVNT2) FGB PTAB 1 R&R FGB PTAB 2 R&R

FGB (EVNT3) BATT 1 CYCLING

REGIME RK290/311 1 DISCNCT HRK290/311 1 DISCNCT

RTS STRING A \* MED SPEED REC MED SPEED REC MED SPEED REC MED SPEED REC MED SPEED REC MED SPEED REC LOW SPEED REC  
 STRING B TLM TLM TLM TLM TLM TLM

MCC-M->MCC-H REPORT MCC-M->MCC-H REPORT MCC-M->MCC-H REPORT MCC-M->MCC-H REPORT  
 MCC-H->MCC-M REPORT MCC-H->MCC-M REPORT MCC-H->MCC-M REPORT MCC-H->MCC-M REPORT

DAY/NIGHT ORBIT 56 57 58 59 60 61 62 63 64  
 DAILY ORBIT 14 15 16 1 2 3 4 5 6

TDRS E W S

RSA GND SITE -PPK -DJS -DJS -DJS -DJS -DJS -SHK  
 -ULD -KLP -KLP -KLP -KLP -SHK -SPB  
 -USK -PPK -SHK -SHK -SHK -SPB  
 -ULD -ULD -SPB  
 -USK -USK -ULD

ISS ORB NUM 4041 4042 4043 4044 4045 4046 4047 4048  
 TDRS 275 SA  
 TDRS 47 SA

ISS ATT BIAS XNH ZZN

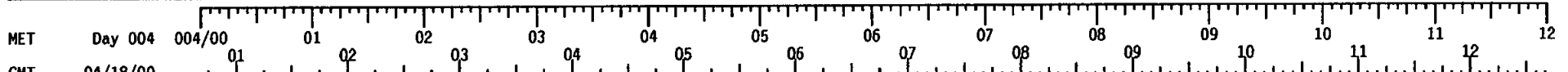
POWER @POST SLEEP @TLM VNODE 1 FAN DUCTS @PMA2 AIR MEASMT  
 \*MCC-M COMM ΔEPCS S/U(5) VRCDR DUMP B1 ΔPMA1 INGR/RCDR DUMP B1 @TLM \*RCDR DUMP B1 \*CTP Only  
 \*TLM \*MNVR MPA \*MED SPEED REC \*RCDR DUMP B1 \*CTP Only \*5000 RPM  
 \*TLM \*PMC OCA @RCDR DUMP B1  
 \*RCDR DUMP B2  
 \*KPK280/311 BATT 1 CNCT \*KPK390/261 BATT 1 SET \*KPK280/371 BATT 1 ACT  
 \*MIRTS to 80% charge Command executed # times, once every # mins starting at GMT 109/21:15 to 109/##:##

$\beta = 52.54$  Decr.

ISS-OB DAILY PLAN GMT DAY 110

(FD06)

US INPUTS



	STS	PRE SLEEP	SLEEP	POST SLEEP
	NOD (EVNT)			
U O	N1 SHELL WRMP RPCM N13B/4B BDT		N1 SHELL WRMP RPCM N13B/4B BDT	
	FGB(EVNT1)			
FGB(EVNT2)				
FGB(EVNT3)				
K O M P	REGIME			BATT 1 CYCLING
	FAN#7 DEACT KOMP DEACT			FAN#7 DEACT KOMP DEACT
RTS	STRING A STRING B	LOW SPEED REC		
M C C	DAY/NIGHT			
	ORBIT			
DAILY ORBIT				
TDRS	E W S	-PPK -USK -PPK -USK -PPK -USK -PPK -USK		
RSA GND SITE				
ISS ORB NUM				
TDRS 275 SA				
TDRS 47 SA				
ISS ATT				
POWER				
BIAS XNH ZZN 1200 W				
NOTES				

β = 50.82 Decr.

ISS-OB DAILY PLAN GMT DAY 110/111 (FD06)

US INPUTS

MET Day 004 12 13 14 15 16 17 18 19 20 21 22 23 04/19 005/00  
GMT 04/18/00

STS REBOOST PRE SLEEP

NOD (EVNT) RFPDB R&R

DECRY KEY U/L RFPDB CHECKOUT DECRY KEY U/L

W1 SHELL WRUP INI SHELL WRUP W1 SHELL WRUP INI SHELL WRUP  
ECS PWRUP EGCS PWRUP ECS PWRUP  
RFPDB CHECKOUT  
RK280/381 BATT2 ACT HRK280/381 BATT2 ACT (EXE)  
RK390/271 BATT2 SET HRK390/271 BATT2 SET (EXE)  
RK280/321 BATT2 CNCT HRK280/321 BATT2 CNCT (EXE)  
SD#6,7&8 ACT

FGB(EVNT1) KOMP CBL INSTL FGB FANS #3 FGB FANS #1 FGB FANS #5 FGB FAN ASB 3 FGB FAN ASB 4 SMK DTCTR #8

FGB(EVNT2) SMK DTCTR #1 SMK DTCTR #2 SMK DTCTR #3 SMK DTCTR #9 FGB FAN ASB 1 FGB FAN ASB 2 SMK DTCTR #6 SMK DTCTR #7

FGB(EVNT3) BATT 1 CYCLING BATT 2 CYCLING

REGIME  
RK021 KOMP ACT IN XU  
FAN#1&3 DEACT  
SD#1&2 DEACT  
FAN#7 ACT  
SD#3&9 DEACT  
FAN#3 ACT  
FAN#5 DEACT  
SD#1 ACT  
SD#2 ACT  
FGB UB2 - OFF  
DUST CLCTR FAN DEACT  
FAN#1 ACT  
FAN#5 ACT  
SD#3&9 ACT  
SD#6,7&8 DEACT  
FGB UB2 - ON  
DUST CLCTR FAN ACT

MCC

DAY/NIGHT ORBIT DAILY ORBIT

TDRS E W S

RSA GND SITE -DJS -KLP -PPK -ULD -USK -DJS -KLP -SHK -ULD -USK -DJS -KLP -SHK -SPB -DJS -SHK -SPB -DJS -KLP -SHK -ULD -USK

ISS ORB NUM TDRS 275 SA TDRS 47 SA

ISS ATT POWER

BIAS XNH ZZN 1200 W FLT PLAN/101/FIN 03/09/00

\*Entire System \*OPS 2 TEST INIT \*OPS 2 TEST TERM

\*KPK280/321 BATT 2 CNCT \*KPK390/271 BATT 2 SET \*KPK280/381 BATT 2 ACT  
AMNVR H20  
φFGB FN FTR 1  
•FGB FN FTR 2  
\*Set Batt2 MIRTS to 80% charge  
Command executed # times, once  
every # mins starting at  
04/19/00 15:00 to 04/19/00 16:00

$\beta = 48.96$  Decr. ISS-OB DAILY PLAN GMT DAY 111 (FD07) US INPUTS

MET Day 005 005/00 01 02 03 04 05 06 07 08 09 10 11 12  
 GMT 04/19/00 01 02 03 04 05 06 07 08 09 10 11 12

STS PRE SLEEP SLEEP

NOD (EVNT)

RFPDB CHECKOUT DECRYPT KEY U/L RFPDB CHECKOUT DECRYPT

RFPDB CHECKOUT IN1 SHELL WRMUP RFPDB CHECKOUT IN1 SHELL WRMUP

FGB (EVNT1)

FGB (EVNT2)

FGB (EVNT3) BATT 2 CYCLING REGIME

PECK

MCC

DAY/NIGHT ORBIT 80 81 82 83 84 85 86 87 88

DAILY ORBIT 7 8 9 10 11 12 13 14 15

TDRS E W S PPK USK ULK

RSA GND SITE

ISS ORB NUM 4064 4065 4066 4067 4068 4069 4070 4071

TDRS 275 SA

TDRS 47 SA

ISS ATT BIAS XNH ZZN 1200 W

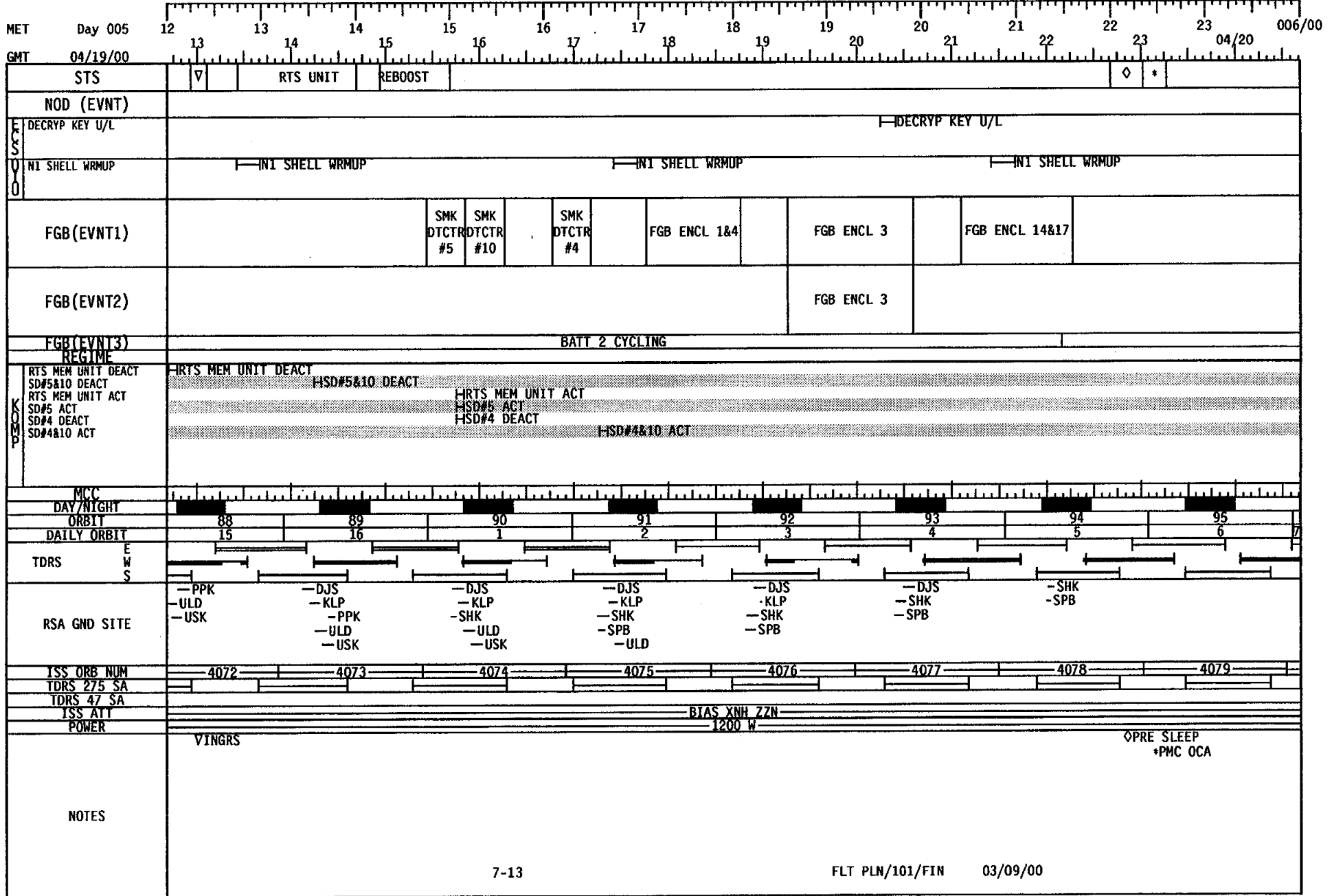
POWER

NOTES

β = 47.03 Decr.

ISS-OB DAILY PLAN GMT DAY 111/112 (FD07)

US INPUTS

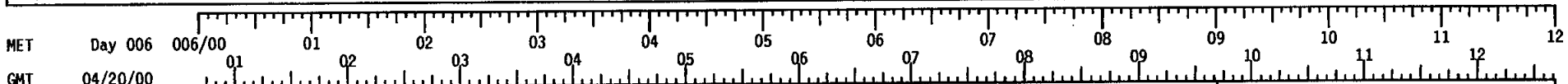


$\beta = 45.06$  Decr.

ISS-OB DAILY PLAN GMT DAY 112

(FD08)

US INPUTS



STS	SLEEP																		
NOD (EVNT)																			
FSD	INI SHELL WRMUP																		
	INI SHELL WRMUP																		
FGB (EVNT)																			
KDP	REGIME																		
	FGB #BII - OFF																		
RTS	LOW SPEED REC																		
	MCC-M->MCC-H REPORT																		
MCC	MCC-M->MCC-H REPORT																		
	MCC-M->MCC-H REPORT																		
DAY/NIGHT	ORBIT																		
DAILY ORBIT	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114
TDRS	E W S																		
RSA GND SITE	-PPK -USK -ULD -USK																		
ISS ORB NUM	4080 4081 4082 4083 4084 4085 4086 4087																		
TDRS 275 SA																			
TDRS 47 SA																			
ISS ATT	BIAS XNH ZZN																		
POWER	1200 W																		
NOTES	*TLM @RCDR DUMP B1 @TLM vRCDR DUMP B1 *TLM ^MED SPEED R ^RCDR DUMP B1																		
	D014 MCC-M report "GO" for REBOOST																		

REPORT

β = 43.02 Decr.

ISS-OB DAILY PLAN GMT DAY 112/113 (FD08)

US INPUTS

MET Day 006 12 13 14 15 16 17 18 19 20 21 22 23 04/21 007/00

GMT 04/20/00 13 14 15 16 17 18 19 20 21 22 23 04/21

STS φ REBOOST V

NOD (EVNT) ⊕ ♣ Δ NODE 1 DRYOUT

STI

N1 SHELL WRMUP ECS PWRDN\* IN1 SHELL WRMUP IN1 SHELL WRMUP IN1 SHELL WRMUP  
NODE 1 IMV FAN DEACT NODE 1 CAB FAN DEACT NODE 1 CAB FAN DEACT NODE 1 CAB FAN DEACT  
NODE 1 CAB FAN ACT NODE 1 CAB FAN ACT

FGB (EVNT) ♣ φ ♠ ♢ ♣ ♣ \*

REGIME

RK370/361 CRCLN1 OFF RK380/261 CRCLN2 OFF  
RK370/361 CRCLN1 OFF RK380/261 CRCLN2 OFF

RTS STRING A ⊕ ♣ ♠ MED SPEED REC ⊕ M MED SPEED REC ♣ M MED SPEED REC Δ M MED SPEED REC ♣ M LOW SPEED REC TLM LOW SPEED REC  
STRING B TLM TLM TLM TLM TLM TLM

MCC-M->MCC-H REPORT MCC-M->MCC-H REPORT

DAY/NIGHT

ORBIT 104 105 106 107 108 109 110 111  
DAILY ORBIT 15 1 2 3 4 5 6 7

TDRS E W S

RSA GND SITE -DJS -KLP -PPK -ULD -USK  
-DJS -KLP -ULD -USK  
-DJS -KLP -SHK -SPB  
-DJS -KLP -SHK -SPB  
-DJS -KLP -SHK -SPB  
-DJS -KLP -SHK -SPB

ISS ORB NUM 4088 4089 4090 4091 4092 4093 4094 4095  
TDRS 275 SA  
TDRS 47 SA

ISS ATT REBOOST BIAS XNH ZZN

POWER 1200 W

NOTES  
⊕ INGRS Δ HCF REPL ⊕ TLM ♣ APCU 1 ACT VAFD EPCS Δ TLM ♣ FGB EGRESS I VDEPRS ⊕ DEPRS ♣ PMA2 EGRS ⊕ APCU 1 DEACT  
⊕ MED SPEED REC VRCDR DUMP B1 ♣ TLM ♣ RCDR DUMP B1 ♣ CHAR FLTR R&R NODE 1 ♣ VEST DPRS ♣ EPCS DEACT  
♣ TLM ♣ RCDR DUMP B1 \*CTP Only \*DEPRS ♣ FGB EGR II ♣ PMA1 EGRS ♣ FGB LK CHK Δ NODE 1 EGRESS  
\*RCDR DUMP B1 \*FGB LK CHK  
♣ TLM  
⊕ TLM  
♣ RCDR DUMP B2

D02 MCC-M report TSV1,2 Deact

7-15

FLT PLN/101/FIN 03/09/00





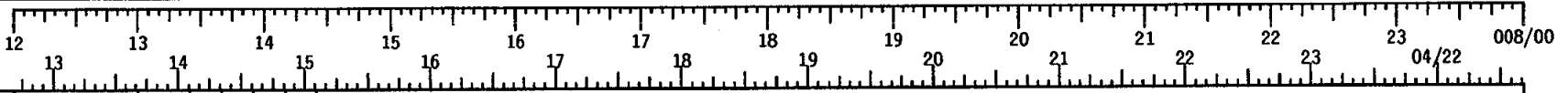
β = 38.82 Decr.

ISS-OB DAILY PLAN GMT DAY 113/114 (FD09)

US INPUTS

MET Day 007

GMT 04/21/00



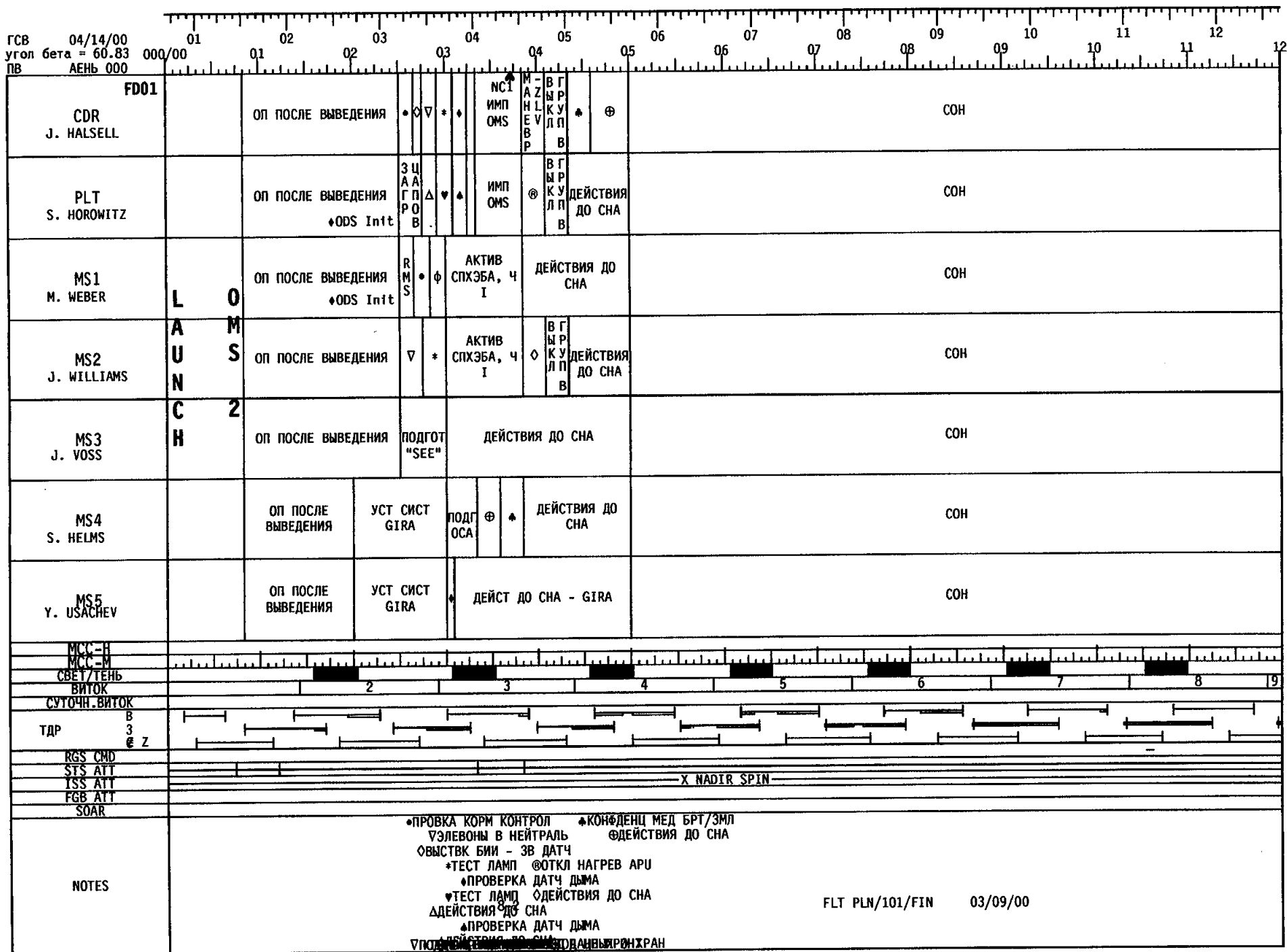
STS	FLY AROUND	SEP	*	♦							
NOD (EVNT)											
CDH UNDOCK CONFIG NODE 1 HTR RECONFIG	FC&DH UNDOCK CONFIG										
CDH UNDOCK CONFIG NODE 1 HTR RECONFIG	NODE 1 HTR RECONFIG										
FGB (EVNT)											
REGIME											
RTS	STRING A STRING B										
DAY/NIGHT	[Shaded bars indicating day/night cycle]										
ORBIT	119	120	121	122	123	124	125	126	127		
DAILY ORBIT	15	1	2	3	4	5	6	7	8		
TDRS	[Horizontal bars for TDRS coverage]										
RSA GND SITE	-DJS -KLP -PPK -ULD -USK	-DJS -KLP -SHK -ULD -USK	-DJS -KLP -SHK -SPB -ULD	-DJS -KLP -SHK -SPB	-DJS -KLP -SHK -SPB	-DJS -KLP -SHK -SPB	-SHK -SPB				
ISS ORB NUM	4104	4105	4106	4107	4108	4109	4110	4111			
TDRS 275 SA	[Horizontal bars]				[Horizontal bars]				[Horizontal bars]		
TDRS 47 SA	[Horizontal bars]				[Horizontal bars]				[Horizontal bars]		
ISS ATT	FREE	OCK BUILD	OCK	[Horizontal bars]				X NADIR SPIN			
POWER					410 W						
NOTES	*OTU DEACT *MNR H20										



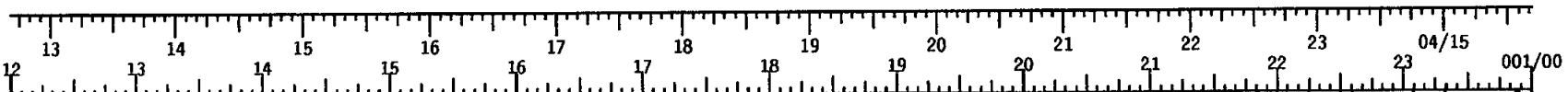
RUSSIAN SUMMARY TIMELINE

RUSSIAN SUMMARY  
TIMELINE

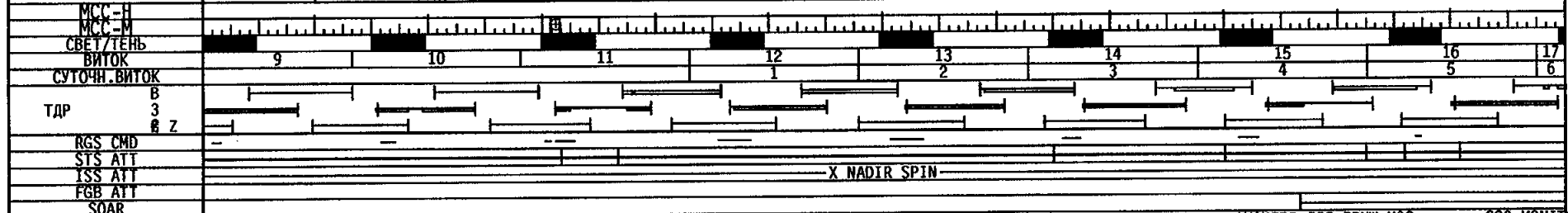
# RUSSIAN SUMMARY TIMELINE



GCB 04/14/00  
 BETA ANG = 60.53  
 PB AЕНЬ 000



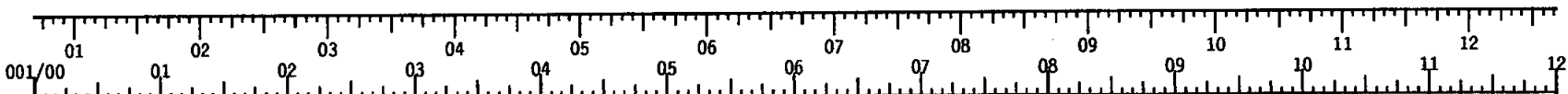
CDR J. HALSELL	CON	▼	ДЕЙСТВИЯ ПОСЛЕ СНА	ИМП OMS	NC2	И/О (S/T/S/G/V/K9)	ПРВРКА АПП ДЛЯ СБЛИЖ	▲	ВКЛ RMS	ПРОВЕРКА МАНИПУЛЯТ	▼	ИМП OMS	ПРИЕМ ПИЩИ	φ	◇	*	MS NO BAR	ИМП OMS	MS NO BAR	NC3
PLT S. HOROWITZ	CON	⊙	ДЕЙСТВИЯ ПОСЛЕ СНА	ИМП OMS	ДЕЙСТВИЯ ПОСЛЕ СНА	ПОДГОТ ШО	ПРОВ СКАФ (1,3)	⊕	ПРОВ СКАФ (2)	ИМП OMS	ПРИЕМ ПИЩИ						ПОДГ ЭРГОМЕТРА	ИМП OMS	◆	
MS1 M. WEBER	CON	▼	ДЕЙСТВИЯ ПОСЛЕ СНА	φ	ПОЛН АКТИВ МОД СПХЭБ	▲	ПОДГОТ FRED	ВКЛ RMS	ПРОВЕРКА МАНИПУЛЯТ	Δ	В R M K S L	ПРИЕМ ПИЩИ						МОНТ ЦЕНТ ТВ КАМЕРЫ	В С К И Т О Д Ы Л В К Ь И Ц И Ж А	
MS2 J. WILLIAMS	CON	▼	ДЕЙСТВИЯ ПОСЛЕ СНА	⊕	*	ПОДГОТ ШО	ПРОВ СКАФ (1,3)	•	ПРОВ СКАФ (2)	◇	ПРИЕМ ПИЩИ						ПОДГ ЭРГОМЕТРА	МОНТ ЦЕНТ ТВ КАМЕРЫ	В С К И Т О Д Ы Л В К Ь И Ц И Ж А	ПОДГОТ НТД 1403
MS3 B. MOROKOV	CON		ДЕЙСТВИЯ ПОСЛЕ СНА			ПОДГОТ ШО	ПРОВ СКАФ (1,3)	◆	ПРОВ СКАФ (2)	⊙	ПРИЕМ ПИЩИ						ПОДГ И АКТИВ SOAR			П С Р О Б Ъ / Д Е Т Г М В К К 2 Е О
MS4 S. HELMS	CON		ДЕЙСТВИЯ ПОСЛЕ СНА		ПОФГ PGSC ДЛЯ СБЛИЖ		ПРВРКА АПП ДЛЯ СБЛИЖ		ОЧИСТКА ФИЛЬТРА		▼	ПРИЕМ ПИЩИ					Δ	ПОДГ СЕТИ КОМ ЛЭПТОП		
MS5 Y. USACHEV	CON		ПОСЛЕ СНА - СИС GIRA		▼	φ	*	▲			•	ПРИЕМ ПИЩИ					◇			



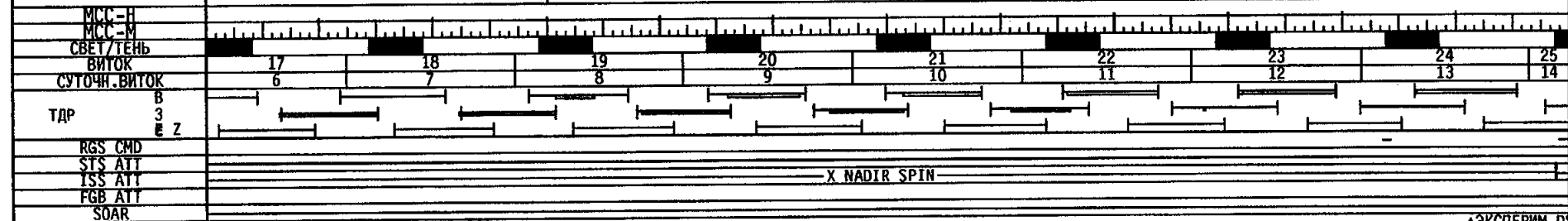
NOTES

- ЭКСПЕРИМ DSO 493
- ⊙ЭКСПЕРИМ DSO 493
- ▼ЭКСПЕРИМ DSO 493
- ▽ЭКСПЕРИМ DSO 493
- ⊕МАНЕВР +ZLV
- ΔОЧСТК НАГР/ФЛТР MCIU
- ДЕЙСТВИЯ ПОСЛЕ СНА
- ⊕ФВЛ ФГБ - ВКЛ
- ▲ПОДГ К ПЕРНОСУ СПХЭБ
- φАКТИВ СПХЭБА, Ч II
- \*ПРВ ИНТЕРФ БЛК ШТТЛА
- 8-3 ▲ПОЛН АКТИВ МОД СПХЭБ
- ⊕АКТИВ СПХЭБА, Ч II
- ▼ПРОБА ВОДЫ НА ПЕРНОСУ СПХЭБ
- ▲ПРОДУВКА ТЭ - РУЧН
- ▲АКТИВАЦ SSD/МОМОУОСМОТР МАНИПУЛЯТ ОПН
- ▲ПЕРКЛ КОНТР ИСПАРИТ
- ⊕НАЧ ЗАРЯДКИ БАТАРЕИ
- ΔОСМОТР МАНИПУЛЯТ ОПН
- НАЧ ЗАРЯДКИ БАТАРЕИ
- ▲НАЧ ЗАРЯДКИ БАТАРЕИ
- ПРОБ ДАТ ЖИДК КИСЛОП
- ПРОБ ДАТ ЖИДК КИСЛОП
- φМАНЕВР ДЛЯ ДРЖ Н2О
- ⊕НАЧ ОДВР ДР ЧИС И СТ
- \*ОКНЧ ОД ДРН ЧИС И СТ
- ⊕ОКНЧ ЗАР БАТ ШЛМ/PGT
- ΔПОДГ МАНИПУЛЯТ ОПН
- ⊕ОКНЧ ЗАР БАТ ШЛМ/PGT
- 03/09/00
- φПОДГ ОБРУДОВАН
- φПОДГ ОБРУДОВАН
- ▲СО2 MONITOR
- ▲ПРВРКА СРС

GCB 04/15/00  
 BETA ANG = 59.97  
 PB АЕНЬ 001



FD02		FD03														
CDR J. HALSELL	ДЕЙСТВИЯ ДО СНА	®	ДЕЙСТВИЯ ДО СНА										CON	♦	В Г К Р Л У П В	RNDZ ISS
PLT S. HOROWITZ			ДЕЙСТВИЯ ДО СНА										CON	♥	В Г К Р Л У П В	RNDZ ISS
MS1 M. WEBER			ДЕЙСТВИЯ ДО СНА										CON	Δ	ДЕЙСТВИЯ ПОСЛЕ СНА	
MS2 J. WILLIAMS			ДЕЙСТВИЯ ДО СНА										CON	▲	ДЕЙСТВИЯ ПОСЛЕ СНА	
MS3 J. VOSS			ДЕЙСТВИЯ ДО СНА										CON	ДЕЙСТВИЯ ПОСЛЕ СНА		
MS4 S. HELMS			ДЕЙСТВИЯ ДО СНА										CON	φ	RNDZ ISS	
MS5 Y. USACHEV			ДЕЙСТ ДО СНА - GIRA										CON	ПОСЛЕ СНА - СИС GIRA		



NOTES

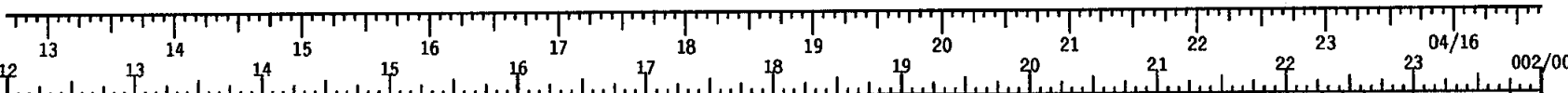
®ЧАСТН РАЗГ ЧЕРЕЗ ОСА

8-4

FLT PLN/101/FIN 03/09/00

♦ЭКСПЕРИМ DSO 493  
 ♥ЭКСПЕРИМ DSO 493  
 ΔЭКСПЕРИМ DSO 493  
 ▲ЭКСПЕРИМ DSO 493  
 φДЕЙСТВИЯ ПОСЛЕ

ГСВ 04/15/00  
 BETA ANG = 59.16  
 ПВ АЕНЬ 001



CDR J. HALSELL	RNDZ ISS		НАДДУВ ВЕСТ/ РМА2		В Г Р К У Л П В	◇	▲	▽	ПОНИЖ ДАВЛ ДО 10,2	●	*	○	ОТДЫХ	БРИФ ПОСЛЕ ВКД	⊕								
PLT S. HOROWITZ	RNDZ ISS		ФИЗ УПР		ПРОВ УСТ АВАР СПАС	⊕		Δ				▽	ОТДЫХ	БРИФ ПОСЛЕ ВКД									
MS1 M. WEBER	ДЕЙСТВИЯ ПОСЛЕ СНА	ФИЗ УПР	ДЕЙСТВИЯ ПОСЛЕ СНА	Φ	▽	◇	ПОДГ СПХЗБА ДЛЯ ВКД	RNDZ ISS		ПОДГОТ ССШ	НАДДУВ ВЕСТ/ РМА2	В Г Р К У Л П В	КОНФ РGSC ПОСЛ СБЛИЖ	●	▲	▽	ПОНИЖ ДАВЛ ДО 10,2	●	*	○	ОТДЫХ	БРИФ ПОСЛЕ ВКД	
MS2 J. WILLIAMS	ДЕЙСТВИЯ ПОСЛЕ СНА		ФИЗ УПР	P/TV20 ОП СБЛИЖ/СТЫК				ПОДГОТ ССШ	ПОДГОТ СРЕД ПАЛУБЫ	КОНФИГ ИНСТРУМ ВКД	ПРОВ УСТ АВАР СПАС	⊕		◆	*	⊕	ОТДЫХ	БРИФ ПОСЛЕ ВКД					
MS3 J. VOSS	ДЕЙСТВИЯ ПОСЛЕ СНА		RNDZ ISS	ФИЗ УПР	RNDZ ISS				ПОДГОТ ССШ	ПОДГОТ СРЕД ПАЛУБЫ	КОНФИГ ИНСТРУМ ВКД	ПРОВ УСТ АВАР СПАС	⊕		Δ		▽	ОТДЫХ	БРИФ ПОСЛЕ ВКД				
MS4 S. HELMS	RNDZ ISS				ПОДГ МАГН	ФИЗ УПР	ВОСП НА В/МАГН	ПОДГОТ ЕРС	▲	КОНФ РGSC ПОСЛ СБЛИЖ	ОТДЫХ		БРИФ ПОСЛЕ ВКД										
MS5 Y. USACHEV	ПОСЛЕ СНА - СИС GIRA		RNDZ ISS	RNDZ ISS				▽	Φ	ФИЗ УПР	ИНИЦ АСТ	ОТДЫХ		БРИФ ПОСЛЕ ВКД									

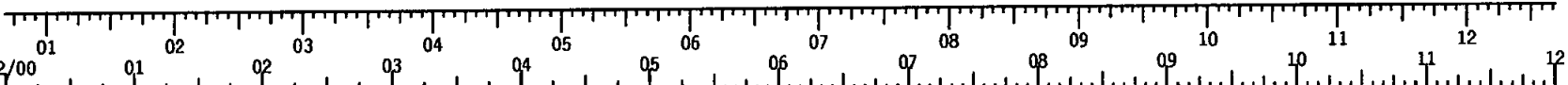
ДОСКИ  
 НА  
 РМ  
 А  
 Т  
 Е

← Node 1 Air Scrub →

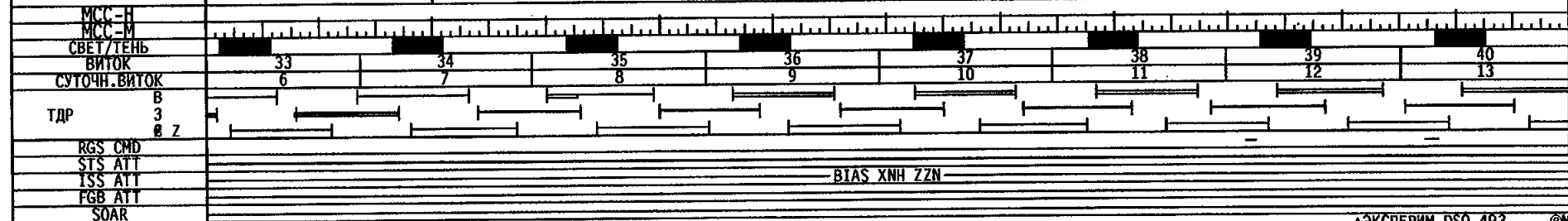
NOTES

● ПОДГ К ДАВЛ 10,2    ● СОЛНЧ БАТ - ПОЗ2    ● МНВР ХРН ZZN    ● НАЧАЛО ДЕСАТУРАЦИИ ● КНФ КАБ ДЛЯ ДАВ 10,2  
 ○ ПРОВЕРКА ФЛТРА МСИУ    ▲ КОНФ С&DN ДЛЯ СТЫК    ○ ФАКТ ПАКЕТ- РСАМ    ○ ПОДГ К ДАВЛ 10,2  
 ○ ПОДГ ЭКСП СПХЗБА    ○ ПРОВЕРКА СРСГ    ○ ПОДГОТ ЭКСП ДТО 623    ● ОДС POST 10.2  
 ● ПРОВЕРКА СРСГ    ○ КОНФ С&DN ДЛЯ СТЫК    ● НАЧАЛО ДЕСАТУРАЦИИ    ● ОДС PREP 10.2    ● ВЫКЛ ВЕНТ  
 ● ОПРОВЕРКА SSD/МОМО    ● КНФ С&DN ПОСЛЕ СТЫК    ● ОДС PREP 10.2    ● НАЧАЛО ДЕСАТУРАЦИИ    ● КОНЧ ДЕСАТУРАЦИИ  
 ● РЕЖ ACS ДО ПРИВЪТЯ    ● РАСФИКС СЕ ФБЕ    ● НАЧАЛО ДЕСАТУРАЦИИ    ● АКТИВ АРСУ 1 N 2    ● КНФ КАБ ДЛЯ ДАВ 10,2  
 ● ВЫКЛ ПИТ НОДЕ 1    ● ФЛТ ПЛН/101/FIN    ● НАЧАЛО ДЕСАТУРАЦИИ    ● ВКЛ ПИТ НОДЕ 1    ● ПОДГОТ ЭКСП ДТО 623  
 ● ОРАЗБЛ N13B, 4B FDIR    ● 03/09/00    ● АРСУ 1 N 2    ● ПОДГОТ ЭКСП ДТО 623    ● НАЧАЛО ДЕСАТУРАЦИИ

GCB 04/16/00  
 BETA ANG = 58.18  
 ПВ АЕНЬ 002



FD03 CDR J. HALSELL	Физ УПР	ДЕЙСТВИЯ ДО СНА	CON	FD04	◆ ДЕЙСТВИЯ ПОСЛЕ СНА ®
PLT S. HOROWITZ		ДЕЙСТВИЯ ДО СНА	CON		▼ ДЕЙСТВИЯ ПОСЛЕ СНА
MS1 M. WEBER		ДЕЙСТВИЯ ДО СНА	CON		△ ДЕЙСТВИЯ ПОСЛЕ СНА
MS2 J. WILLIAMS		ДЕЙСТВИЯ ДО СНА	CON		▲ ДЕЙСТВИЯ ПОСЛЕ СНА
MS3 J. VOSS		ДЕЙСТВИЯ ДО СНА	CON		ДЕЙСТВИЯ ПОСЛЕ СНА
MS4 S. HELMS		ДЕЙСТВИЯ ДО СНА	CON		ДЕЙСТВИЯ ПОСЛЕ СНА
MS5 Y. USACHEV		ДЕЙСТ ДО СНА - GIRA	CON		ПОСЛЕ СНА - СИС GIRA



NOTES

8-6

FLT PLN/101/FIN 03/09/00

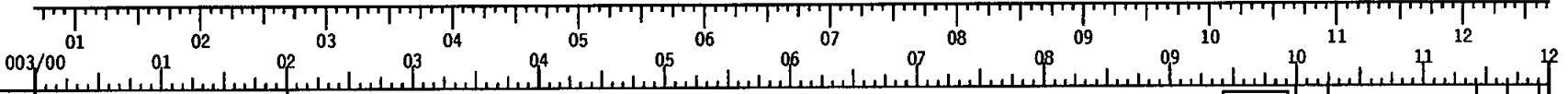
◆ЭКСПЕРИМ DSO 493  
 ▼ЭКСПЕРИМ DSO 493  
 △ЭКСПЕРИМ DSO 493  
 ▲ЭКСПЕРИМ DSO 493

©НВР ХР





GCB 04/17/00  
 BETA ANG = 55.68  
 ПВ АЕНЬ 003

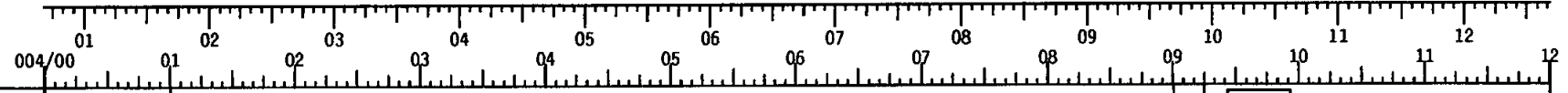


<b>FD04</b> CDR J. HALSELL	ДЕЙСТВИЯ ДО СНА	CON	<b>FD05</b> ▲ ДЕЙСТВИЯ ПОСЛЕ СНА ⊕ ⊗
PLT S. HOROWITZ	ДЕЙСТВИЯ ДО СНА	CON	▼ ДЕЙСТВИЯ ПОСЛЕ СНА
MS1 M. WEBER	ДЕЙСТВИЯ ДО СНА	CON	△ ДЕЙСТВИЯ ПОСЛЕ СНА
MS2 J. WILLIAMS	ДЕЙСТВИЯ ДО СНА	CON	▲ ДЕЙСТВИЯ ПОСЛЕ СНА
MS3 J. VOSS	ДЕЙСТВИЯ ДО СНА	CON	ДЕЙСТВИЯ ПОСЛЕ СНА
MS4 S. HELMS	ДЕЙСТВИЯ ДО СНА	CON	ДЕЙСТВИЯ ПОСЛЕ СНА
MS5 Y. USACHEV	ДЕЙСТ ДО СНА - GIRA	CON	ПОСЛЕ СНА - СИС GIRA
ECS CHECKOUT			
MCC-H	[Timeline bar]		
MCC-M	[Timeline bar]		
СВЕТ/ТЕНЬ	[Timeline bar]		
ВИТОК	48	49	50
СУТОЧН. ВИТОК	6	7	8
ТДР	B	3	Z
RGS CMD	[Timeline bar]		
STS ATT	[Timeline bar]		
ISS ATT	[Timeline bar]		
FGB ATT	[Timeline bar]		
SOAR	[Timeline bar]		
NOTES	8-8 FLT PLN/101/FIN 03/09/00		

▲ЭКСПЕРИМ DSO 493 ⊕МАНЕВР ДЛ  
 ▼ЭКСПЕРИМ DSO 493 ▲ДЕЙСТЕ  
 ΔЭКСПЕРИМ DSO 493 ⊗НЧЛ ОДВ  
 ▲ЭКСПЕРИМ DSO 493

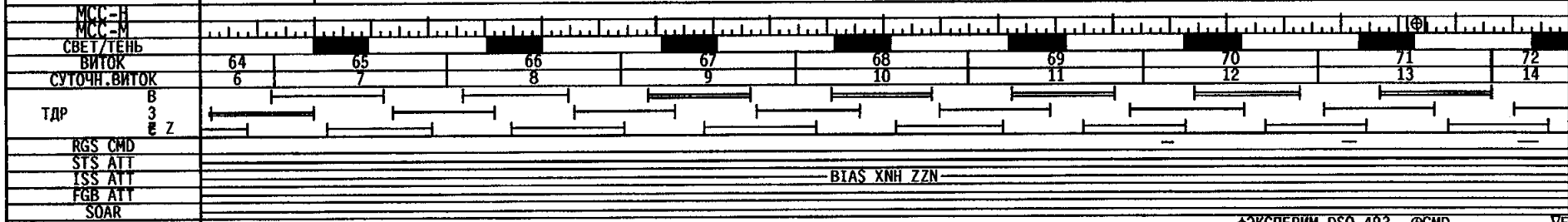


GCB 04/18/00  
 BETA ANG = 52.54  
 ПВ АЕНЬ 004



FD05 CDR J. HALSELL	ДЕЙСТВИЯ ДО СНА	CON	φ	FD06 ДЕЙСТВИЯ ПОСЛЕ СНА
PLT S. HOROWITZ	ДЕЙСТВИЯ ДО СНА	CON	•	ДЕЙСТВИЯ ПОСЛЕ СНА
MS1 M. WEBER	ДЕЙСТВИЯ ДО СНА	CON	◇	ДЕЙСТВИЯ ПОСЛЕ СНА ▽
MS2 J. WILLIAMS	ДЕЙСТВИЯ ДО СНА	CON	♣	ДЕЙСТВИЯ ПОСЛЕ СНА *
MS3 J. VOSS	ДЕЙСТВИЯ ДО СНА	CON		ДЕЙСТВИЯ ПОСЛЕ СНА
MS4 S. HELMS	ДЕЙСТВИЯ ДО СНА	CON		ДЕЙСТВИЯ ПОСЛЕ СНА
MS5 Y. USACHEV	ДЕЙСТ ДО СНА - GIRA	CON		ПОСЛЕ СНА - СИС GIRA

← ISS SURVEY →



NOTES

8-10

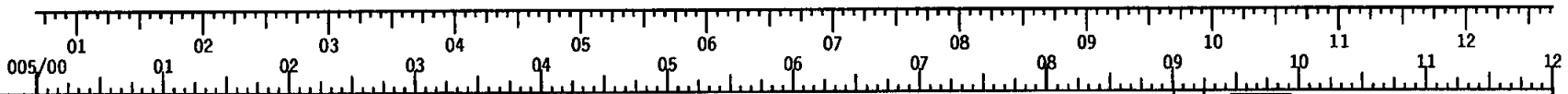
FLT PLN/101/FIN 03/09/00

φЭКСПЕРИМ DSO 493 @CMD  
 •ЭКСПЕРИМ DSO 493  
 ◇ЭКСПЕРИМ DSO 493  
 ♣ЭКСПЕРИМ DSO 493

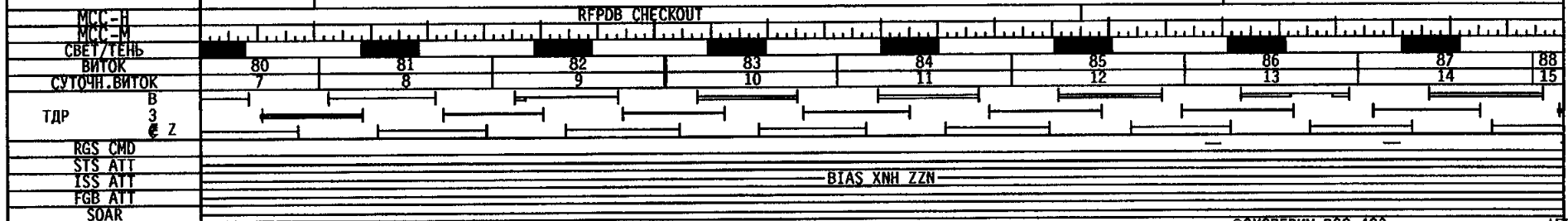
ВРИФ 0  
 \*БРИФ 0



ГСВ 04/19/00  
 БЕТА АНГ = 48.96  
 ПВ АЕНЬ 005



FD06 CDR J. HALSELL	ДЕЙСТВИЯ ДО СНА	CON	®	FD07 ДЕЙСТВИЯ ПОСЛЕ СНА	
PLT S. HOROWITZ	ДЕЙСТВИЯ ДО СНА	CON	▼	ДЕЙСТВИЯ ПОСЛЕ СНА	
MS1 M. WEBER	ДЕЙСТВИЯ ДО СНА	CON	▲	ДЕЙСТВИЯ ПОСЛЕ СНА	Δ
MS2 J. WILLIAMS	ДЕЙСТВИЯ ДО СНА	CON	•	ДЕЙСТВИЯ ПОСЛЕ СНА	φ
MS3 J. VOSS	ДЕЙСТВИЯ ДО СНА	CON		ДЕЙСТВИЯ ПОСЛЕ СНА	
MS4 S. HELMS	ДЕЙСТВИЯ ДО СНА	CON		ДЕЙСТВИЯ ПОСЛЕ СНА	
MS5 Y. USACHEV	ДЕЙСТ ДО СНА - GIRA	CON		ПОСЛЕ СНА - СИС GIRA	



NOTES

8-12

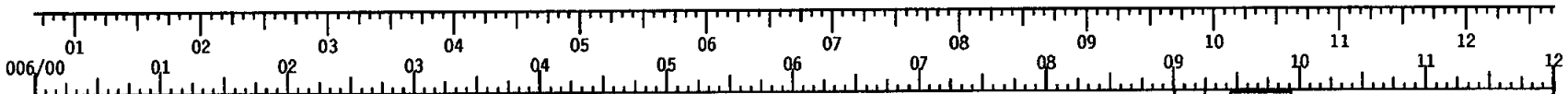
FLT PLN/101/FIN 03/09/00

®ЭКСПЕРИМ DSO 493  
 ▼ЭКСПЕРИМ DSO 493  
 ▲ЭКСПЕРИМ DSO 493  
 •ЭКСПЕРИМ DSO 493

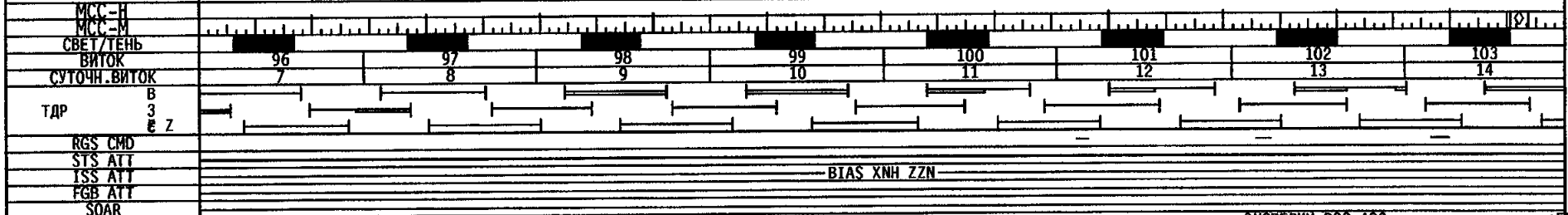
ΔРИФ 0  
 φРИФ 0



GCB 04/20/00  
 BETA ANG = 45.06  
 ПВ АЕНЬ 006



FD07 CDR J. HALSELL	ДЕЙСТВИЯ ДО СНА	CON	▼	FD08 ДЕЙСТВИЯ ПОСЛЕ СНА
PLT S. HOROWITZ	ДЕЙСТВИЯ ДО СНА	CON	△	ДЕЙСТВИЯ ПОСЛЕ СНА
MS1 M. WEBER	ДЕЙСТВИЯ ДО СНА	CON	φ	ДЕЙСТВИЯ ПОСЛЕ СНА
MS2 J. WILLIAMS	ДЕЙСТВИЯ ДО СНА	CON	∇	ДЕЙСТВИЯ ПОСЛЕ СНА
MS3 J. VOSS	ДЕЙСТВИЯ ДО СНА	CON		ДЕЙСТВИЯ ПОСЛЕ СНА
MS4 S. HELMS	ДЕЙСТВИЯ ДО СНА	CON		ДЕЙСТВИЯ ПОСЛЕ СНА
MS5 Y. USACHEV	ДЕЙСТ ДО СНА - GIRA	CON		ПОСЛЕ СНА - СИС GIRA



NOTES

8-14

▼ЭКСПЕРИМ DSO 493  
 ▲ЭКСПЕРИМ DSO 493  
 φЭКСПЕРИМ DSO 493  
 ∇ЭКСПЕРИМ DSO 493

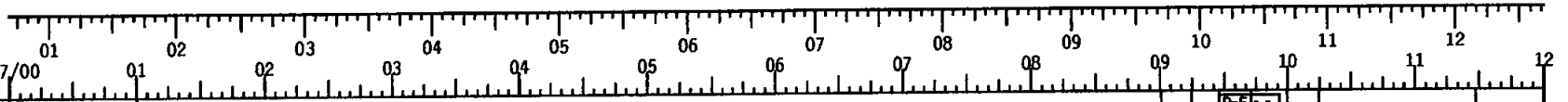
▲БРИФ 0  
 ●БРИФ 0  
 ○CMD

FLT PLN/101/FIN 03/09/00



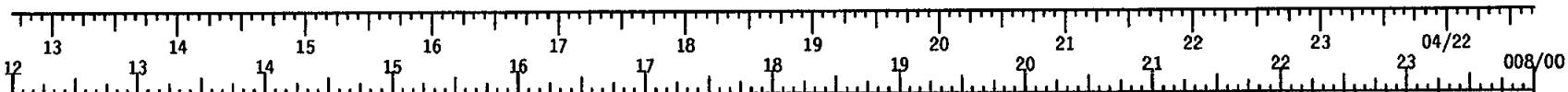


GCB 04/21/00  
 ВЕТА ANG = 40.91  
 ПВ АЕНЬ 007

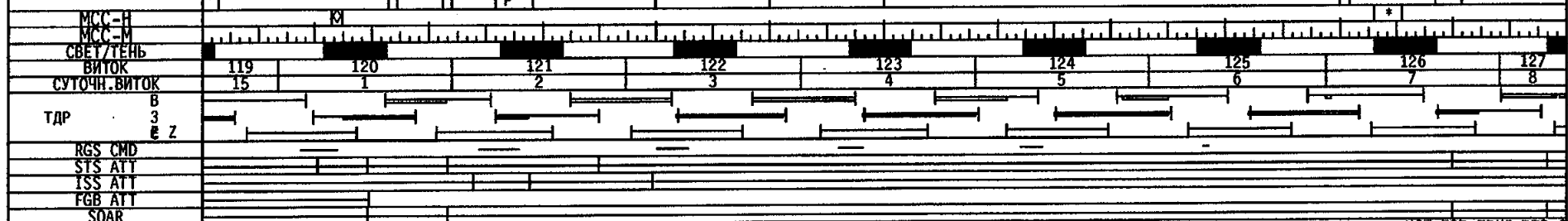


FD08	ДЕЙСТВИЯ ДО СНА	СОП	ДЕЙСТВИЯ ДО СНА	ЦИКЛГРМ РАССТЫК/РАЗД	ОБЛЕТ
CDR J. HALSELL				ВГ ЛУП В	
PLT S. HOROWITZ				ВГ КР ЛУП В	
MS1 M. WEBER				ПОДГ ДАННЫХ SOAR	
MS2 J. WILLIAMS				П С Р О Ъ / Д Е Т Г М V К 2 Е S	
MS3 J. VOSS				ДЕЙСТВИЯ ПОСЛЕ СНА	
MS4 S. HELMS				ДЕЙСТВИЯ ПОСЛЕ СНА	
MS5 Y. USACHEV	ДЕЙСТ ДО СНА - GIRA			ПОСЛЕ СНА - СМС GIRA	
MCC-H					
MCC-M					
СВЕТ/ТЕНЬ					
ВИТОК	111	112	113	114	115
СУТОЧН. ВИТОК	7	8	9	10	11
ТДР					
RGS CMD					
STS ATT					
ISS ATT					
FGV ATT					
SOAR					
NOTES	ВКЛ ПИТ ECS *ЭКСПЕРИМ DSO 493 *КНФГ С&D ПЕРЕД РОТЭК ДВЫКЛ ПИТ NODE 1 @МНВР -ZLV -XVV *РАСФИКС СБ ФТЕ *ДЕЙСТВИЯ ПОСЛЕ СНА @КНФГ С&D ПЕРЕД I ДЦИКЛГРМ РАССТЫК/РАЗД *ЭКСПЕРИМ DSO 493 *ДЕЙСТВИЯ ПОСЛЕ СНА *ЭКСПЕРИМ DSO 493 *ДЕЙСТВИЯ ПОСЛЕ СНА *ЭКСПЕРИМ DSO 493 *ДЕЙСТВИЯ ПОСЛЕ СНА				

GCB 04/21/00  
 BETA ANG = 38.82  
 ПВ АЕНЬ 007



CDR J. HALSELL FD09	ОБЛЕТ	▽	▽	SLM #1	◇	◆	ОТДЫХ	⊗	MSHOBAR	ОТДЫХ	ПРИЕМ ПИЩИ	ОТДЫХ	ФИЗ УПР	ОТДЫХ	◆	◆	⊗	△	SLM #2	MSHOBAR
PLT S. HOROWITZ	ОБЛЕТ	φ	В Г Ы Р К У Л П В	◆	◆					ОТДЫХ	ПРИЕМ ПИЩИ	ОТДЫХ	ФИЗ УПР	ОТДЫХ	ДЕЙСТВИЯ ДО СНА					
MS1 M. WEBER	ОБЛЕТ	▽	⊗	◇			*	◆		ФИЗ УПР	ПРИЕМ ПИЩИ	ОТДЫХ			ДЕЙСТВИЯ ДО СНА			◆	⊗	
MS2 J. WILLIAMS	P/TV25 ОПЕР РАССТЫК									ФИЗ УПР	ОТДЫХ	ПРИЕМ ПИЩИ	ОТДЫХ			ДЕЙСТВИЯ ДО СНА				
MS3 J. VOSS	ОБЛЕТ	▽					ФИЗ УПР			ОТДЫХ	ПРИЕМ ПИЩИ	ОТДЫХ			ДЕЙСТВИЯ ДО СНА					
MS4 S. HELMS	ОБЛЕТ	△	В Г Ы Р К У Л П В							ОТДЫХ	ПРИЕМ ПИЩИ	ОТДЫХ			ФИЗ УПР	ДЕЙСТВИЯ ДО СНА				
MS5 Y. USACHEV	ОБЛЕТ								М Р Е А Р О П Р	ОТДЫХ	ПРИЕМ ПИЩИ	ОТДЫХ			ДЕЙСТВИЯ ДО СНА	◆	ДЕЙСТ ДО СНА - GIRA			



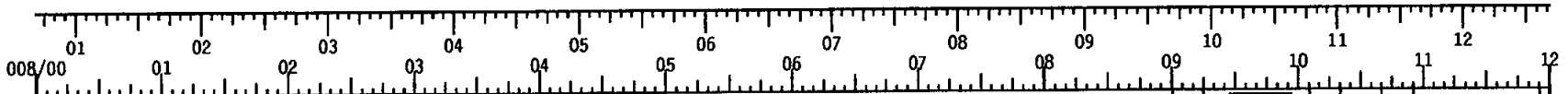
NOTES

\*ОКОНЧАТ РАЗДЕЛЕНИЕ ⊗ОКНЧ ОД ДРН ЧИС И СТ  
 \*ОМАНЕВР ДЛЯ ДРНЖ Н20  
 \*НЧЛ ОДВР ДР ЧИС И СТ  
 \*МНВР ДЛЯ ВЫСТ ЗВ ДАТ  
 \*ПРОВЕРКА ТРАКТА СВЯЗИ  
 \*ОКОНЧАТ РАЗДЕЛЕНИЕ \*ОБЕСПЕЧ МЕРОПР РАО  
 \*ВЫКЛ ИНТЕРФ БЛК ШТТЛ 8-17  
 \*ОКОНЧАТ РАЗДЕЛЕНИЕ  
 \*ОКОНЧАТ ПРОВЕРКА СВЯЗИ С/МНОЮ (РАО)

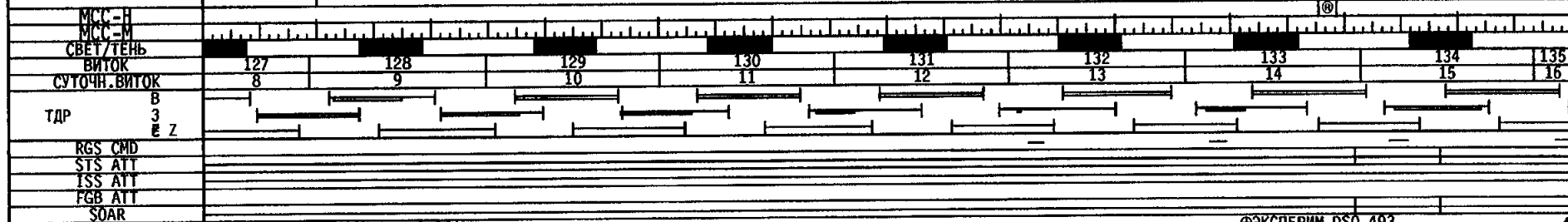
\*УСТ ПОВ ПРКЛ DTO 023  
 \*ЧАСТН РАЗГ ЧЕРЕЗ ОСА  
 \*ДЕЙСТВИЯ ДО СНА ⊗ЧАСТН F  
 \*ДЕЙСТВИЯ ДО СНА  
 \*ПРОВЕРКА СРСГ ДМНВР ДЛЯ ВЫСТ ЗВ  
 \*ПРОВЕРКА SO  
 \*ЧАСТН РАЗГ ЧЕРЕЗ ОС  
 \*РЕКНФИГ НАГРВ NODE 1

FLT PLN/101/FIN 03/09/00

FCB 04/22/00  
 BETA ANG = 36.66  
 PB АЕНЬ 008



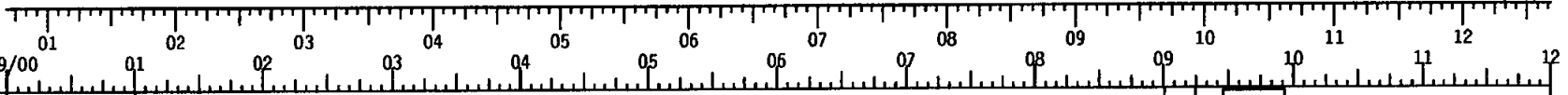
FD09 CDR J. HALSELL	⊙	◆	▼	CON	⊕	FD10 ДЕЙСТВИЯ ПОСЛЕ СНА	Δ	SLM #3	M S H O B A P R	ДЕЙСТВИЯ ПОСЛЕ СНА
PLT S. HOROWITZ	ДЕЙСТВИЯ ДО СНА			CON	◆	ДЕЙСТВИЯ ПОСЛЕ СНА				
MS1 M. WEBER	ДЕЙСТВИЯ ДО СНА			CON	⊕	ДЕЙСТВИЯ ПОСЛЕ СНА			▼	ФИЗ УПР
MS2 J. WILLIAMS	◆	*	⊕	CON	◇	ДЕЙСТВИЯ ПОСЛЕ СНА				
MS3 J. VOSS	ДЕЙСТВИЯ ДО СНА			CON	ДЕЙСТВИЯ ПОСЛЕ СНА					
MS4 S. HELMS	◆	ДЕЙСТВИЯ ДО СНА		CON	ДЕЙСТВИЯ ПОСЛЕ СНА					
MS5 Y. USACHEV	ДЕЙСТ ДО СНА - GIRA			CON	ПОСЛЕ СНА - СИС GIRA					



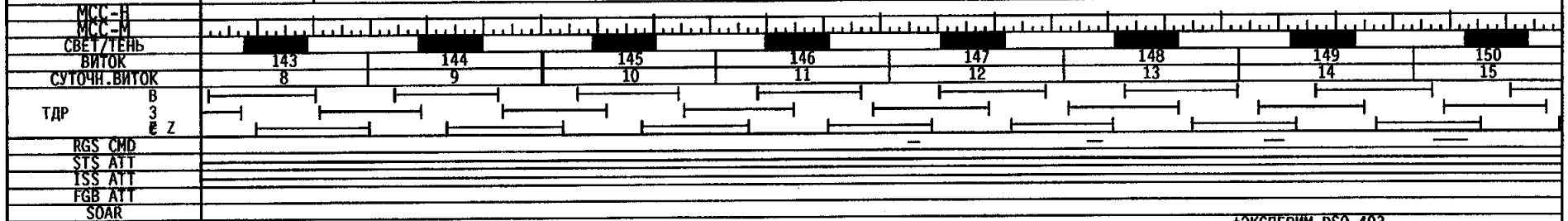
NOTES	◆ЧАСТН РАЗГ ЧЕРЕЗ ОСА ⊙ДЕЙСТВИЯ ДО СНА ▼ДЕЙСТВИЯ ДО СНА *ЧАСТН РАЗГ ЧЕРЕЗ ОСА ◆ДЕЙСТВИЯ ДО СНА ⊕ДЕЙСТВИЯ ДО СНА ◆ЧАСТН РАЗГ ЧЕРЕЗ ОСА	8-18	FLT PLN/101/FIN	03/09/00	⊕ЭКСПЕРИМ DSO 493 ΔМНВР ДЛЯ ВЫСТ ЗВ ДАТ ◆ЭКСПЕРИМ DSO 493 ⊕ЭКСПЕРИМ DSO 493 ⊕ЭКСПЕРИМ DSO 493 ⊕ВКЛ ПИТ NODE 1	⊕ВКЛ НА *ТЕПЛ ЗАП CRV SOAR ▼ТЕПЛ ЗАП CRV SOA
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ГСВ 04/23/00  
 BETA ANG = 32.29 009/00  
 ПВ АЕНЬ 009



FD10 CDR J. HALSELL	ДЕЙСТВИЯ ДО СНА	CON	φ	FD11 ДЕЙСТВИЯ ПОСЛЕ СНА
PLT S. HOROWITZ	ДЕЙСТВИЯ ДО СНА	CON	•	ДЕЙСТВИЯ ПОСЛЕ СНА
MS1 M. WEBER	ДЕЙСТВИЯ ДО СНА	CON	∇	ДЕЙСТВИЯ ПОСЛЕ СНА
MS2 J. WILLIAMS	ДЕЙСТВИЯ ДО СНА	CON	◇	ДЕЙСТВИЯ ПОСЛЕ СНА
MS3 J. VOSS	ДЕЙСТВИЯ ДО СНА	CON		ДЕЙСТВИЯ ПОСЛЕ СНА
MS4 S. HELMS	ДЕЙСТВИЯ ДО СНА	CON		ДЕЙСТВИЯ ПОСЛЕ СНА
MS5 Y. USACHEV	ДЕЙСТ ДО СНА - GIRA	CON		ПОСЛЕ СНА - СИС GIRA



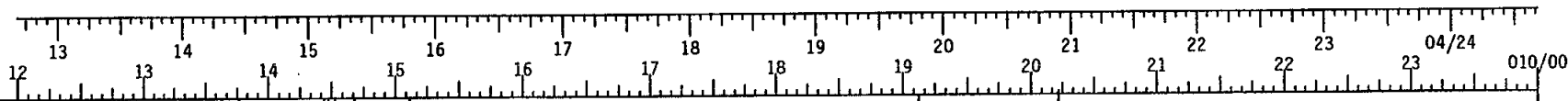
NOTES

φЭКСПЕРИМ DSO 493  
 •ЭКСПЕРИМ DSO 493  
 ∇ЭКСПЕРИМ DSO 493  
 ◇ЭКСПЕРИМ DSO 493

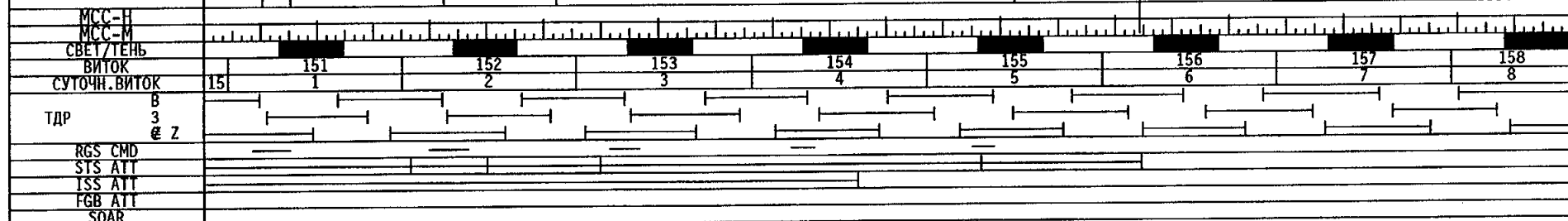
8-20

FLT PLN/101/FIN 03/09/00

GCB 04/23/00  
 BETA ANG = 30.04  
 ПВ АЕНЬ 009



CDR J. HALSELL	φ Δ	В Г К Р Л У П В	ХРАН В КАБИНЕ	▲	М- А Х Н С Е В Р	ПРИЕМ ПИЩИ	ПОДГОТОВКА К СПУСКУ	D / O  B U R N *	K S C  L A N D I N G *
PLT S. HOROWITZ		В Г К Р Л У П В	ХРАН В КАБИНЕ			ПРИЕМ ПИЩИ	ПОДГОТОВКА К СПУСКУ		
MS1 M. WEBER		▽	ХРАН В КАБИНЕ		ДЕ АКТИВАЦ СПСХЭБА	ПРИЕМ ПИЩИ	ПОДГОТОВКА К СПУСКУ		
MS2 J. WILLIAMS		◇	ХРАН В КАБИНЕ		ДЕ АКТИВАЦ СПСХЭБА	ПРИЕМ ПИЩИ	ПОДГОТОВКА К СПУСКУ		
MS3 J. VOSS		*	ХРАН В КАБИНЕ			ПРИЕМ ПИЩИ	ПОДГОТОВКА К СПУСКУ		
MS4 S. HELMS			ХРАН В КАБИНЕ			ПРИЕМ ПИЩИ	ПОДГОТОВКА К СПУСКУ		
MS5 Y. USACHEV		*	ХРАН В КАБИНЕ			ПРИЕМ ПИЩИ	ПОДГОТОВКА К СПУСКУ		



NOTES

ДАВТО ПРОДУВ ТОПЛ ЭЛМ  
 фКОНФДЕНЦ МЕД БРТ/ЗМЛ ▲ВЫСТ/ПРОВЕРКА БИИ  
 •ПРОБА ВОЗДУХА  
 УПОД К ВД СПУС Р/ТВО7  
 ОУКЛ Н/ХРАН PGSC  
 \*ХРАН УСТР ОЧСТК ВОЗД  
 ▲УКЛ Н/ХРАН СИСТ GIRA

8-21

\*D/O BURN  
MET: 9/19:07

\*KSC LANDING  
MET: 9/20:14

FLT PLN/101/FIN 03/09/00

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FLIGHT PLAN NOTES

FLIGHT PLAN  
NOTES

FLIGHT PLAN NOTES  
(CONSTRAINTS AND GUIDELINES)

A. FLIGHT DESCRIPTION

Orbiter: OV104/Atlantis  
 Launch Window: 10 min  
 Inclination: 51.6°  
 Insertion Altitude: 105/173 nm  
 Duration: 10 + 1 + 2 days

B. MAJOR EVENTS

<u>MAJOR EVENT</u>	<u>MET</u>	<u>CENTRAL</u>	<u>GMT</u>	<u>DMT</u>	<u>ΔV</u>	<u>HP/HA</u>
Launch	0 00:00	Thu 04/13/00 19:41	105/00:41	Fri 04/14/00 03:41	--	--
OMS2	0 00:43	Thu 04/13/00 20:24	105/01:24	Fri 04/14/00 04:24	81.2	173.3/84.9
NC1	0 03:19	Thu 04/13/00 23:00	105/04:00	Fri 04/14/00 07:00	11.7	172.5/91.4
NC2	0 15:37	Fri 04/14/00 11:18	105/16:18	Fri 04/14/00 19:18	3.0	170.8/92.5
NC3	0 23:04	Fri 04/14/00 18:45	105/23:45	Sat 04/15/00 02:45	3.0	169.6/93.8
NH	1 12:17	Sat 04/15/00 07:58	106/12:58	Sat 04/15/00 15:58	136.1	194.8/141.1
NC4	1 12:46	Sat 04/15/00 08:27	106/13:27	Sat 04/15/00 16:27	64.0	194.9/177.6
TI	1 14:29	Sat 04/15/00 10:10	106/15:10	Sat 04/15/00 18:10	9.1	195.8/182.1
Docking	1 18:02	Sat 04/15/00 13:43	106/18:43	Sat 04/15/00 21:43	--	--
EVA1 Start	2 15:20	Sun 04/16/00 11:01	107/16:01	Sun 04/16/00 19:01	--	--
ISS Ingress	3 13:15	Mon 04/17/00 08:56	108/13:56	Mon 04/17/00 16:56	--	--
Reboost	6 13:15	Thu 04/20/00 08:56	111/13:56	Thu 04/20/00 16:56	51.2	210.8/197.2
ISS Egress	6 17:15	Thu 04/20/00 12:56	111/17:56	Thu 04/20/00 20:56	--	--
Undock	7 12:55	Fri 04/21/00 06:53	112/11:53	Fri 04/21/00 14:53	--	--
Final Sep	7 14:45	Fri 04/21/00 10:26	112/15:26	Fri 04/21/00 18:26	-3.0	209.7/196.5
FCS C/O	8 14:00	Sat 04/22/00 09:41	113/14:41	Sat 04/22/00 17:41	--	--
Deorbit Tig	9 19:08	Sun 04/23/00 14:49	114/19:49	Sun 04/23/00 22:49	317.3	--
KSC Landing	9 20:14	Sun 04/23/00 15:55	114/20:55	Sun 04/23/00 23:55	--	--

C. LANDING OPPORTUNITIES

		<u>Landing Orbit</u>		<u>Local Time</u>	<u>MET</u>
		<u>No.</u>	<u>Site</u>		
Nominal	Primary	156	KSC	16:55	09/20:14
	1 Rev Late	157	KSC	18:31	09/21:50
	Weather Alt	158	EDW	17:02	09/23:21
EOM+1	Primary	171	KSC	15:54	10/19:13
	1 Rev Late	172	KSC	17:30	10/20:49
	Weather Alt	173	EDW	16:01	10/22:20
EOM+2	Primary	187	KSC	16:29	11/19:48
	1 Rev Late	188	EDW	15:00	11/21:19
	Weather Alt	189	EDW	16:35	11/22:03

FLIGHT PLAN NOTES

## D. CREW

CDR (B/U RMS) – Jim Halsell  
PLT (IVA) – Scott Horowitz  
MS1 (RMS) – Mary Ellen Weber  
MS2 (EV1) – Jeff Williams  
MS3 (EV2) – James Voss  
MS4 – Susan Helms  
MS5 – Yuri Usachev

## E. COMMUNICATIONS

### Shuttle

TDRS Support: East (41° W), West (174° W), Z (85° E)  
Ground Sites\*: MIL GDA, GDS, and WLP  
Contingency RTS: DGS, GTS, HTS, MIL, BDA, OTS, VTS, and NHS

\*Lead time for site callup – GSTDN – 2 hr

### ISS

Communication to/from MCC–M through Russian Ground Sites

### ISS Early Comm System

TDRS Support: Spare (49° W), West (171° W)

## F. PAYLOADS

### 1. LAUNCH PACKAGE (LP) 2A.2A

The LP flown on Mission ISS–2A.2A consists of a Spacehab Double Module Logistics Carrier, the Integrated Cargo Carrier (ICC), two Assembly Power Converter Units (APCUs), International (ISS) Maintenance Spares, United States (U.S.) and Russian Logistics, Extravehicular Activity (EVA) support hardware (includes the Space Integrated Global Positioning System/Inertial Nav System (SIGI), System Orbital Attitude Readiness (SOAR), EVA support tools, and Russian Strela), mission support and flight–unique EVA hardware, and crew compartment items. The Return Complement on mission ISS–2A.2A consists of the APCUs, the Spacehab Double Module Logistics Carrier, the ICC, and crew compartment items.

During the docked mission, United States and Russian logistics will be transferred to/from the ISS to replace FGB Battery 1, PTAB 1, BUPT 1, PTAB 2, Komparus Cable Inserts, 4 Heat Exchanger Fans, 10 Smoke Detectors, 3 Fire Extinguishers, 4 Dust collector Fans, 2 Dust Collector Fan Filters, RTS Unit, RFPDB, and 5 Stowage Enclosures. One EVA will be performed to install the Early Comm Antenna, Node Handrails, Russian Strela, and transfer EVA support equipment.

### 2. SPACE EXPERIMENT MODULE (SEM)

The SEM is a self–contained GAS canister with data sampling and storage devices and harness. The contents are manifested by several participating schools.

### 3. MISSION TO AMERICA'S REMARKABLE SCHOOLS 1 (MARS)

MARS will consist of 20 passive school packages in PVC tubes within a canister located in the aft starboard bay. Each tube carries a variety of Space Life Sciences oriented experiments. MARS is an unpowered passive payload.

#### 4. BIOTUBE

The BioTube Precursor Experiment will provide a demonstration and test of a newly developed seed germination subsystem to be used in a future flight of the BioTube payload. The flight will also demonstrate seeding growth as a function of temperature in the limited volume of the sealed growth chambers.

#### 5. COMMERCIAL PROTEIN CRYSTAL GROWTH – PROTEIN CRYSTALLIZATION FACILITY – BLOCK II (CPCG–PCF)

The CPCG–PCF payload will grow protein crystals in large batches with temperature as the means to initiate and control crystallization.

#### 6. PROTEIN CRYSTAL GROWTH – BIOTECHNOLOGY AMBIENT GENERIC (PCG–BAG CONFIG–II)

The PCG–BAG middeck type payloads are designed to conduct experiments which will provide information on the scientific methods and dynamics of growing large high–quality protein crystals in microgravity under ambient conditions.

#### 7. SSD–MOMO

The Self–Standing Drawer/Morphological Transitions and Model Substances (SSD–MOMO) investigates the solidification behavior of metals by using organic model systems which are transparent and solidify like metals. The model substance is heated in a Bridgman furnace to approximately 80° C and then solidified at ambient temperature. As on the previous flights, the solidification of a model substance made of Succinonitril (approximately 45g) and acetone (approximately 0.2g) with a melting point of 58° C will be video recorded.

#### 8. ASTROCULTURE CONFIG–A (AST)

AST Configuration A (passive) will evaluate the efficacy of transferring a desired genetic trait to soybean seedlings in microgravity.

#### 9. ORBITER SPACE VISION SYSTEM (OSVS)

The OSVS is a computer–based vision system that processes camera views of targets on elements to generate position, attitude, and rate information of these elements as they are positioned in and around the shuttle payload bay. This data will be recorded onto a VCR tape. This test will be conducted on condition of available power.

### G. DETAILED TEST OBJECTIVES (DTO)

#### 1. CABIN AIR MONITORING (DTO 623)

DTO 623 will use the solid sorbent sampler to continuously sample the orbiter atmosphere throughout the flight.

#### 2. SINGLE STRING GLOBAL POSITIONING SYSTEM (GPS) (DTO 700–14), CONFIG B

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

existing orbiter GPS antennas. OPS 2 test and OPS 2 conditioning test are  
timelined.

3. SPACE INTEGRATED GLOBAL POSITIONING SYSTEM (SIGI)/INERTIAL  
NAVIGATION SYSTEM ORBITAL ATTITUDE READINESS (SOAR)

The SOAR payload tests the capability of SIGI to perform attitude  
determination in preparation for use on ISS and the Crew Rescue Vehicle  
(CRV). Maneuvers will be performed to simulate ISS and CRV attitudes and  
data takes will converge to the attitude.

H. DETAILED SUPPLEMENTAL OBJECTIVES (DSO)

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

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

I. HEDS TECHNOLOGY DEMONSTRATION (HTD)

1. MICRO-WIRELESS INSTRUMENTATION SYSTEM (MICRO-WIS) (HTD  
1403)

Micro-WIS will demonstrate its operational utility and functionality on-orbit.  
The unit will provide important real-time temperature measurements and  
record the data onto PGSC file. Wireless sensors will be strategically spaced  
inside the orbiter for maximum data gathering.

DAP BOOK CONFIGURATION



TOP



<u>DAP</u>	<u>PURPOSE</u>	<u>DAP</u>	<u>PURPOSE</u>
A1	- NOMINAL	B1	- NOM OMS & RCS BURNS
A2	- PTC	B2	- LOSS OF VERN (TAIL ONLY)
A3	- GG	B3	- LOSS OF VERN (NOSE & TAIL)
A4	-	B4	-
A5	- LOSS OF VERN (NOSE & TAIL)	B5	- COAS CAL
A6	- FWD PROP SAVING	B7	- RNDZ
A7	- RNDZ	B8	- CORRIDOR
A8	- CORRIDOR	B9	- DOCKING
A9	- DOCKING	B10	- FLYAROUND
A10	- FLY AROUND	B11	- REBOOST OF MATED STACK
A12	- MATED STACK (MNVN & HOLD)	B12	- MATED STACK (MNVN & HOLD)
A13	- FAILED CAPTURE	B13	- FAILED CAPTURE
A14	- RBAR CONFIG	B14	- RBAR CONFIG

CNTL ACC = 0 SHUTTLE ALONE  
 = 1\* SHUTTLE DOCKED PRE-TRANSFER  
 = 2 SHUTTLE DOCKED POST-TRANSFER REBOOST  
 = 3-9 NOT USED

\* CNTL ACC 1 NOMINALLY USED. IF UNNECESSARY JET FIRINGS DETECTED, CNTL ACC 2 MAY BE USED



FLT PLN-1a/101/O/B

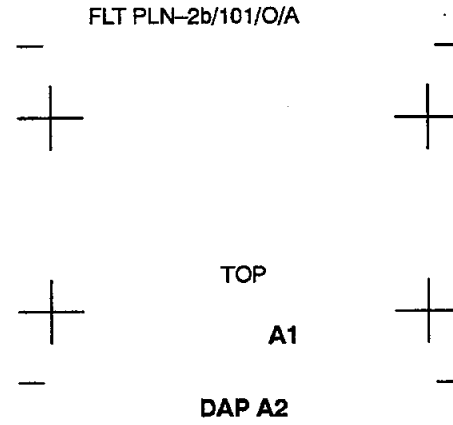
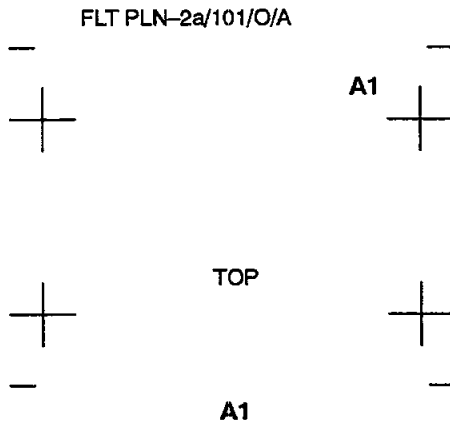
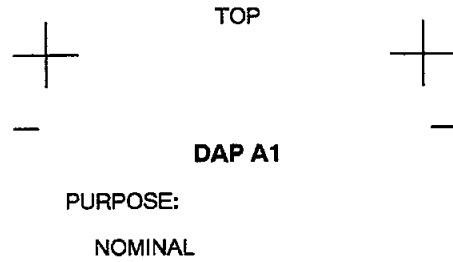
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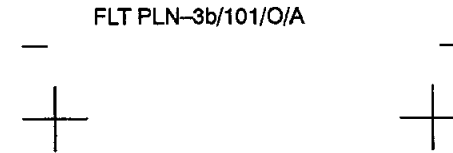
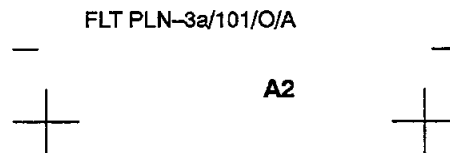
FLT PLN-1b/101/O/A

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<b>DAP A 0.1</b>	<b>1</b>	<b>PRI</b>
<u>0.2 0 0 0</u>	10/50	ROT RATE
<u>- 5.0 0</u>	11/51	ATT DB
<u>0.2 0</u>	12/52	RATE DB
<u>0.1 0</u>	13/53	ROT PLS
<u>.0 0 0</u>	14/54	COMP
<u>ALL</u>	15/55	P OPTION
<u>ALL</u>	16/56	Y OPTION
<u>0.1 0</u>	17/57	TRAN PLS
		<b>ALT</b>
<u>0.2 0 0</u>	18/58	RATE DB
<u>ALL</u>	19/59	JET OPT
<u>2</u>	20/60	#JETS
<u>0.0 8</u>	21/61	ON TIME
<u>- 0.0 0</u>	22/62	DELAY
		<b>VERN</b>
<u>0.2 0 0 0</u>	23/63	ROT RATE
<u>- 1.0 0 0</u>	24/64	ATT DB
<u>.0 2 0</u>	25/65	RATE DB
<u>0.0 1 0</u>	26/66	ROT PLS
<u>.0 0 0</u>	27/67	COMP
<u>0</u>	28/68	CNTL ACC



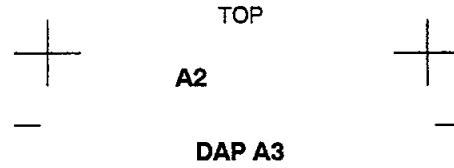
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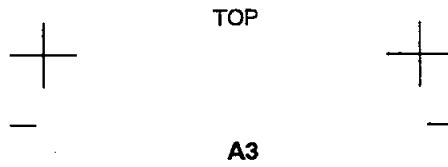
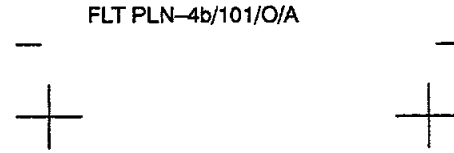
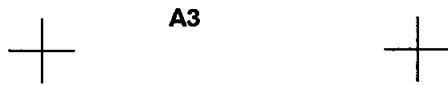


DAP A 0 2	1	PRI
0.4 0 0 0	10/50	ROT RATE
- 1.0 0	11/51	ATT DB
0.2 0	12/52	RATE DB
0.1 0	13/53	ROT PLS
0.0 0	14/54	COMP
ALL	15/55	P OPTION
ALL	16/56	Y OPTION
0.1 0	17/57	TRAN PLS
		ALT
0.2 0 0	18/58	RATE DB
ALL	19/59	JET OPT
2	20/60	#JETS
0.0 8	21/61	ON TIME
- 0.0 0	22/62	DELAY
		VERN
0.4 0 0 0	23/63	ROT RATE
- 1.0 0 0	24/64	ATT DB
0.2 0	25/65	RATE DB
0.0 1 0	26/66	ROT PLS
0.0 0	27/67	COMP
0	28/68	CNTL ACC

FLT PLN-4a/101/O/A

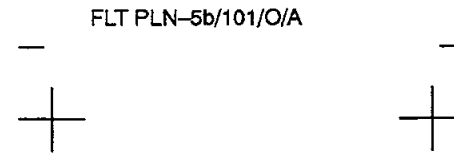


PURPOSE:  
GG



DAP A 0 3	1	PRI
0.2 0 0 0	10/50	ROT RATE
- 1.0 0	11/51	ATT DB
0.2 0	12/52	RATE DB
0.1 0	13/53	ROT PLS
0.0 0	14/54	COMP
ALL	15/55	P OPTION
TAIL	16/56	Y OPTION
0.1 0	17/57	TRAN PLS
		ALT
0.2 0 0	18/58	RATE DB
ALL	19/59	JET OPT
2	20/60	#JETS
- 0.0 8	21/61	ON TIME
- 0.0 0	22/62	DELAY
		VERN
0.0 0 8 0	23/63	ROT RATE
- 0.0 7 0	24/64	ATT DB
0.1 0	25/65	RATE DB
0.0 1 0	26/66	ROT PLS
0.0 0	27/67	COMP
0	28/68	CNTL ACC

FLT PLN-5a/101/O/A

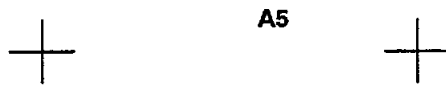


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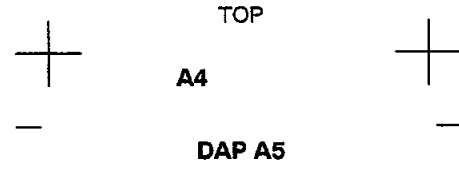
DAP A 0 4	1	PRI
0.5 0 0 0	10/50	ROT RATE
- 3.0 0	11/51	ATT DB
- 0.2 0	12/52	RATE DB
0.1 0	13/53	ROT PLS
- 0 0 0	14/54	COMP
ALL	15/55	P OPTION
ALL	16/56	Y OPTION
0.1 0	17/57	TRAN PLS
		ALT
0.2 0 0	18/58	RATE DB
ALL	19/59	JET OPT
2	20/60	#JETS
0.0 8	21/61	ON TIME
- 0.0 0	22/62	DELAY
		VERN
0.2 0 0 0	23/63	ROT RATE
- 1.0 0 0	24/64	ATT DB
- 0.2 0	25/65	RATE DB
0.0 1 0	26/66	ROT PLS
- 0.0 0	27/67	COMP
0	28/68	CNTL ACC

FLT PLN-6a/101/O/A



DAP A 0 5	1	PRI
0.2 0 0 0	10/50	ROT RATE
- 5.0 0	11/51	ATT DB
- 0.2 0	12/52	RATE DB
0.1 0	13/53	ROT PLS
- 0 0 0	14/54	COMP
ALL	15/55	P OPTION
ALL	16/56	Y OPTION
0.1 0	17/57	TRAN PLS
		ALT
0.0 7 0	18/58	RATE DB
ALL	19/59	JET OPT
1	20/60	#JETS
0.0 8	21/61	ON TIME
- 0.0 0	22/62	DELAY
		VERN
0.2 0 0 0	23/63	ROT RATE
- 1.0 0 0	24/64	ATT DB
- 0.2 0	25/65	RATE DB
0.0 1 0	26/66	ROT PLS
- 0.0 0	27/67	COMP
0	28/68	CNTL ACC

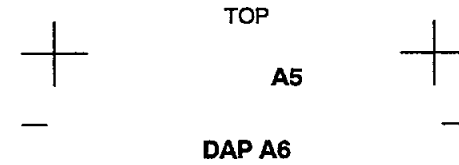
FLT PLN-7a/101/O/A



PURPOSE:

LOSS OF VERN (NOSE & TAIL)

FLT PLN-6b/101/O/A



PURPOSE:

FWD PROP SAVINGS

FLT PLN-7b/101/O/A



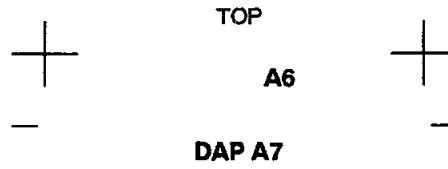
(reduced copy)



DAP A 0 6 1 PRI

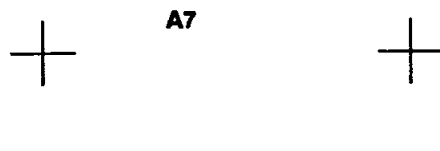
0.2 0 0 0	10/50	ROT RATE
- 5.0 0	11/51	ATT DB
0.2 0	12/52	RATE DB
0.1 0	13/53	ROT PLS
0.0 0	14/54	COMP
TAIL	15/55	P OPTION
TAIL	16/56	Y OPTION
0.1 0	17/57	TRAN PLS
		ALT
0.0 7 0	18/58	RATE DB
TAIL	19/59	JET OPT
1	20/60	#JETS
0.0 8	21/61	ON TIME
0 0 0 0	22/62	DELAY
		VERN
0.0 5 0 0	23/63	ROT RATE
- 1.0 0 0	24/64	ATT DB
0.2 0	25/65	RATE DB
0.0 1 0	26/66	ROT PLS
0.0 0	27/67	COMP
0	28/68	CNTL ACC

FLT PLN-8a/101/O/A



PURPOSE:  
RENDEZVOUS

FLT PLN-8b/101/O/A



DAP A 0 7 1 PRI

0.2 0 0 0	10/50	ROT RATE
- 2.0 0	11/51	ATT DB
0.2 0	12/52	RATE DB
0.1 0	13/53	ROT PLS
0.0 0	14/54	COMP
ALL	15/55	P OPTION
ALL	16/56	Y OPTION
0.1 0	17/57	TRAN PLS
		ALT
0.1 0 0	18/58	RATE DB
ALL	19/59	JET OPT
2	20/60	#JETS
0.0 8	21/61	ON TIME
- 0.0 0	22/62	DELAY
		VERN
0.0 1 6 0	23/63	ROT RATE
- 1.0 0 0	24/64	ATT DB
0.2 0	25/65	RATE DB
0.0 1 0	26/66	ROT PLS
0.0 0	27/67	COMP
0	28/68	CNTL ACC

FLT PLN-9a/101/O/A



PURPOSE:  
CORRIDOR

FLT PLN-9b/101/O/A



(reduced copy)

TOP

A8

DAP A 0 8	1	PRI
0.2 0 0 0	10/50	ROT RATE
- 1.0 0	11/51	ATT DB
0.1 0	12/52	RATE DB
0.1 0	13/53	ROT PLS
0.0 0	14/54	COMP
TAIL	15/55	P OPTION
TAIL	16/56	Y OPTION
0.0 5	17/57	TRAN PLS
		ALT
0.2 0 0	18/58	RATE DB
ALL	19/59	JET OPT
2	20/60	#JETS
0.0 8	21/61	ON TIME
0.0 0 0	22/62	DELAY
		VERN
0.2 0 0 0	23/63	ROT RATE
- 1.0 0 0	24/64	ATT DB
0.2 0	25/65	RATE DB
0.0 1 0	26/66	ROT PLS
0.0 0	27/67	COMP
0	28/68	CNTL ACC

FLT PLN-10a/101/O/A

A9

TOP

A9

DAP A 0 9	1	PRI
0.0 5 0 0	10/50	ROT RATE
- 0.5 0	11/51	ATT DB
0.1 0	12/52	RATE DB
0.1 0	13/53	ROT PLS
0.0 0	14/54	COMP
TAIL	15/55	P OPTION
TAIL	16/56	Y OPTION
0.0 5	17/57	TRAN PLS
		ALT
0.2 0 0	18/58	RATE DB
ALL	19/59	JET OPT
2	20/60	#JETS
0.0 8	21/61	ON TIME
0.0 0	22/62	DELAY
		VERN
0.0 5 0 0	23/63	ROT RATE
- 0.5 0 0	24/64	ATT DB
0.2 0	25/65	RATE DB
0.0 5 0	26/66	ROT PLS
0.0 0	27/67	COMP
0	28/68	CNTL ACC

FLT PLN-11a/101/O/A

A10

TOP

A8

DAP A9

PURPOSE:  
DOCKING

FLT PLN-10b/101/O/A

TOP

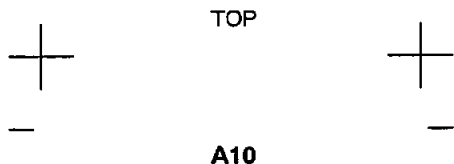
A9

DAP A10

PURPOSE:  
FLY AROUND

FLT PLN-11b/101/O/A

(reduced copy)



DAP A 1 0 1 PRI

0.1300	10/50	ROT RATE
0.200	11/51	ATT DB
0.10	12/52	RATE DB
0.10	13/53	ROT PLS
0.00	14/54	COMP
TAIL	15/55	P OPTION
TAIL	16/56	Y OPTION
0.05	17/57	TRAN PLS
		ALT
0.200	18/58	RATE DB
ALL	19/59	JET OPT
2	20/60	#JETS
0.08	21/61	ON TIME
0.00	22/62	DELAY
		VERN
0.1300	23/63	ROT RATE
-2.000	24/64	ATT DB
0.20	25/65	RATE DB
0.050	26/66	ROT PLS
0.00	27/67	COMP
0	28/68	CNTL ACC

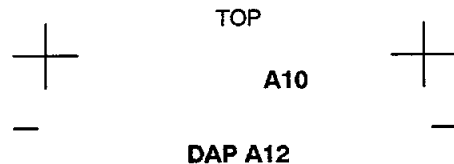
FLT PLN-12a/101/O/A



DAP A 1 2 1 PRI

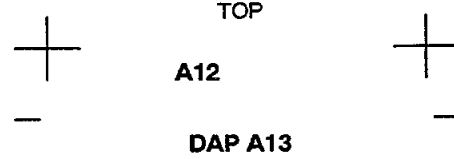
0.1000	10/50	ROT RATE
-5.00	11/51	ATT DB
0.20	12/52	RATE DB
0.04	13/53	ROT PLS
0.00	14/54	COMP
TAIL	15/55	P OPTION
TAIL	16/56	Y OPTION
0.01	17/57	TRAN PLS
		ALT
0.070	18/58	RATE DB
TAIL	19/59	JET OPT
2	20/60	#JETS
0.08	21/61	ON TIME
1.104	22/62	DELAY
		VERN
0.1000	23/63	ROT RATE
-3.000	24/64	ATT DB
0.50	25/65	RATE DB
0.002	26/66	ROT PLS
0.00	27/67	COMP
1	28/68	CNTL ACC

FLT PLN-13a/101/O/B



PURPOSE:  
MATED STACK (MNVR & HOLD)

FLT PLN-12b/101/O/A



PURPOSE:  
FAILED CAPTURE

FLT PLN-13b/101/O/A



(reduced copy)



TOP

A13

DAP A 1 3	1	PRI
0.0 5 0 0	10/50	ROT RATE
- 1.0 0	11/51	ATT DB
0.1 0	12/52	RATE DB
0.1 0	13/53	ROT PLS
.0 0 0	14/54	COMP
TAIL	15/55	P OPTION
TAIL	16/56	Y OPTION
0.0 5	17/57	TRAN PLS
		ALT
0.2 0 0	18/58	RATE DB
ALL	19/59	JET OPT
2	20/60	#JETS
0.0 8	21/61	ON TIME
0.0 0	22/62	DELAY
		VERN
0.0 5 0 0	23/63	ROT RATE
- 1.0 0 0	24/64	ATT DB
.0 2 0	25/65	RATE DB
0.0 5 0	26/66	ROT PLS
.0 0 0	27/67	COMP
0	28/68	CNTL ACC

FLT PLN-14a/101/O/A



A14



TOP

A14

DAP A 1 4	1	PRI
0.0 5 0 0	10/50	ROT RATE
- 2.0 0	11/51	ATT DB
0.2 0	12/52	RATE DB
0.1 0	13/53	ROT PLS
.0 0 0	14/54	COMP
ALL	15/55	P OPTION
ALL	16/56	Y OPTION
0.1 0	17/57	TRAN PLS
		ALT
0.1 0 0	18/58	RATE DB
ALL	19/59	JET OPT
2	20/60	#JETS
0.0 8	21/61	ON TIME
0.0 0	22/62	DELAY
		VERN
0.0 5 0 0	23/63	ROT RATE
- 1.0 0 0	24/64	ATT DB
.0 2 0	25/65	RATE DB
0.0 1 0	26/66	ROT PLS
.0 0 0	27/67	COMP
0	28/68	CNTL ACC

FLT PLN-15a/101/O/A

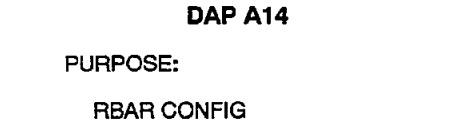


TOP

A13

DAP A14

PURPOSE:  
RBAR CONFIG



FLT PLN-14b/101/O/A



TOP

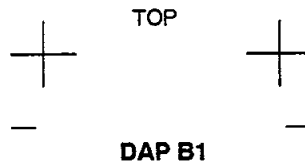
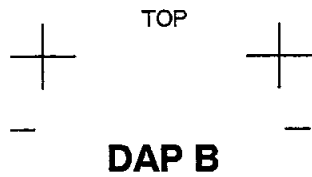
A14



FLT PLN-15b/101/O/A

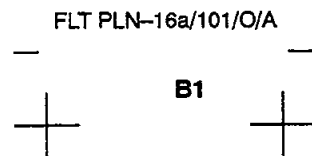


(reduced copy)



PURPOSE:

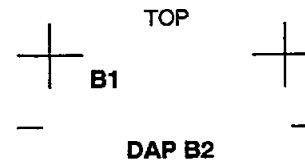
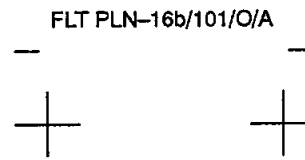
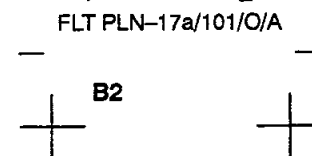
NOM OMS & RCS  
BURNS



2	DAP B 0 1
30/50	0.5 0 0 0
31/51	- 3.0 0
32/52	0.2 0
33/53	0.0 4
34/54	0.0 0
35/55	ALL
36/56	ALL
37/57	0.1 0

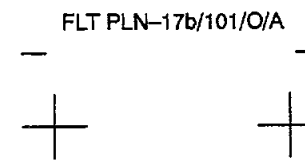
38/58	0.2 0 0
39/59	ALL
40/60	2
41/61	0.0 8
42/62	- 0.0 0

43/63	0.2 0 0 0
44/64	- 1.0 0 0
45/65	0.2 0
46/66	0.0 0 2
47/67	0.0 0 0
48/68	0

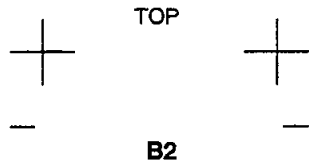


PURPOSE:

LOSS OF VERN  
(TAIL ONLY)

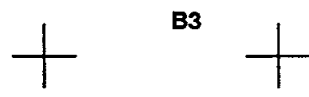


(reduced copy)



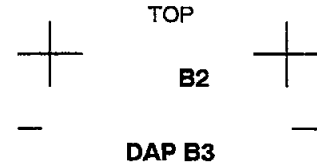
2	DAP B 0 2
30/50	<u>0.2 0 0 0</u>
31/51	<u>- 3.0 0</u>
32/52	<u>0.2 0</u>
33/53	<u>0.0 4</u>
34/54	<u>.0 0 0</u>
35/55	TAIL
36/56	TAIL
37/57	<u>0.0 2</u>
38/58	<u>0.0 7 0</u>
39/59	TAIL
40/60	1
41/61	<u>0.0 8</u>
42/62	<u>- 0.0 0</u>
43/63	<u>0.2 0 0 0</u>
44/64	<u>- 1.0 0 0</u>
45/65	<u>.0 2 0</u>
46/66	<u>0.0 0 2</u>
47/67	<u>.0 0 0</u>
48/68	0

FLT PLN-18a/101/O/A



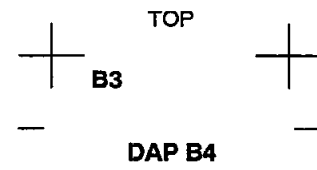
2	DAP B 0 3
30/50	<u>0.2 0 0 0</u>
31/51	<u>- 3.0 0</u>
32/52	<u>0.2 0</u>
33/53	<u>0.0 4</u>
34/54	<u>.0 0 0</u>
35/55	ALL
36/56	ALL
37/57	<u>0.0 2</u>
38/58	<u>0.0 7 0</u>
39/59	ALL
40/60	1
41/61	<u>0.0 8</u>
42/62	<u>- 0.0 0</u>
43/63	<u>0.2 0 0 0</u>
44/64	<u>- 1.0 0 0</u>
45/65	<u>.0 2 0</u>
46/66	<u>0.0 0 2</u>
47/67	<u>.0 0 0</u>
48/68	0

FLT PLN-19a/101/O/A



PURPOSE:  
LOSS OF VERN  
(NOSE & TAIL)

FLT PLN-18b/101/O/A



PURPOSE:

FLT PLN-19b/101/O/A



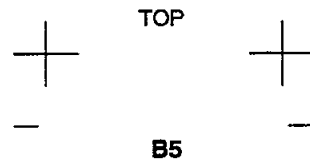
(reduced copy)





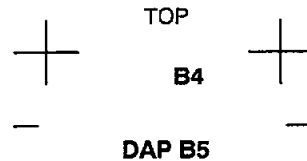
2/4	DAP B 0 4
30/50	<u>0.2 0 0 0</u>
31/51	- <u>0.3 0</u>
32/52	<u>0.2 0</u>
33/53	<u>0.0 4</u>
34/54	<u>.0 0 0</u>
35/55	TAIL
36/56	TAIL
37/57	<u>0.0 2</u>
38/58	<u>0.2 0 0</u>
39/59	ALL
40/50	<u>2</u>
41/61	<u>0.0 8</u>
42/62	- <u>0.0 0</u>
43/63	<u>0.0 0 8 0</u>
44/64	- <u>0.1 0 0</u>
45/65	<u>.0 1 0</u>
46/66	<u>0.0 0 2</u>
47/67	<u>.0 0 0</u>
48/68	<u>0</u>

FLT PLN-20a/101/O/A



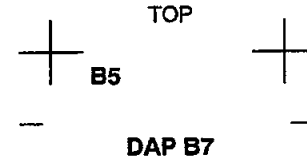
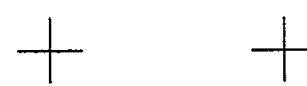
2	DAP B 0 5
30/50	<u>0.2 0 0 0</u>
31/51	- <u>3.0 0</u>
32/52	<u>0.2 0</u>
33/53	<u>0.0 4</u>
34/54	<u>.0 0 0</u>
35/55	TAIL
36/56	TAIL
37/57	<u>0.0 2</u>
38/58	<u>0.2 0 0</u>
39/59	ALL
40/60	<u>2</u>
41/61	<u>0.0 8</u>
42/62	- <u>0.0 0</u>
43/63	<u>0.0 1 6 0</u>
44/64	- <u>0.0 3 3</u>
45/65	<u>.0 2 0</u>
46/66	<u>0.0 0 2</u>
47/67	<u>.0 0 0</u>
48/68	<u>0</u>

FLT PLN-21a/101/O/A



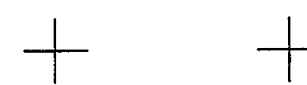
PURPOSE:  
COAS CAL

FLT PLN-20b/101/O/A



PURPOSE:  
RENDEZVOUS

FLT PLN-21b/101/O/A



(reduced copy)

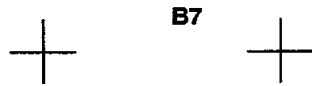


2/4	DAP B 0 7
30/50	0.5 0 0 0
31/51	- 2.0 0
32/52	0.2 0
33/53	0.0 4
34/54	.0 0 0
35/55	ALL
36/56	ALL
37/57	0.0 5

38/58	0.1 0 0
39/59	ALL
40/60	2
41/61	0.0 8
42/62	- 0.0 0

43/63	0.2 0 0 0
44/64	- 1.0 0 0
45/65	.0 2 0
46/66	0.0 0 2
47/67	.0 0 0
48/68	0

FLT PLN-22a/101/O/A

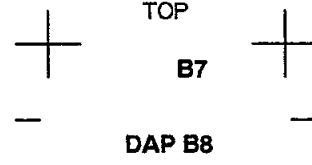


2/4	DAP B 0 8
30/50	0.2 0 0 0
31/51	- 1.0 0
32/52	0.1 0
33/53	0.0 4
34/54	.0 0 0
35/55	TAIL
36/56	TAIL
37/57	0.0 1

38/58	0.2 0 0
39/59	ALL
40/60	2
41/61	0.0 8
42/62	0.0 0

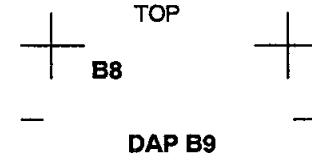
43/63	0.2 0 0 0
44/64	- 1.0 0 0
45/65	.0 2 0
46/66	0.0 0 2
47/67	.0 0 0
48/68	0

FLT PLN-23a/101/O/A



PURPOSE:  
CORRIDOR

FLT PLN-22b/101/O/A



PURPOSE:  
DOCKING

FLT PLN-23b/101/O/A



(reduced copy)



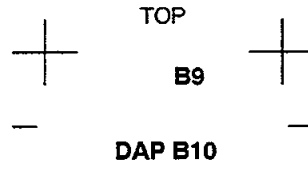
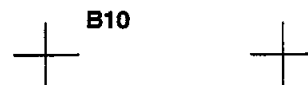
2/4	DAP B 0 9
30/50	<u>0.0 5 0 0</u>
31/51	- <u>0.5 0</u>
32/52	<u>0.1 0</u>
33/53	<u>0.0 4</u>
34/54	<u>0.0 0</u>
35/55	TAIL
36/56	TAIL
37/57	<u>0.0 1</u>
38/58	<u>0.2 0 0</u>
39/59	ALL
40/60	<u>2</u>
41/61	<u>0.0 8</u>
42/62	<u>0.0 0</u>
43/63	<u>0.0 5 0 0</u>
44/64	- <u>0.5 0 0</u>
45/65	<u>0.2 0</u>
46/66	<u>0.0 2 0</u>
47/67	<u>0.0 0</u>
48/68	<u>0</u>

FLT PLN-24a/101/O/A



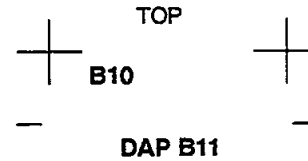
2/4	DAP B 1 0
30/50	<u>0.1 3 0 0</u>
31/51	- <u>2.0 0</u>
32/52	<u>0.1 0</u>
33/53	<u>0.0 4</u>
34/54	<u>0.0 0</u>
35/55	TAIL
36/56	TAIL
37/57	<u>0.0 1</u>
38/58	<u>0.2 0 0</u>
39/59	ALL
40/60	<u>2</u>
41/61	<u>0.0 8</u>
42/62	<u>0.0 0</u>
43/63	<u>0.1 3 0 0</u>
44/64	- <u>2.0 0 0</u>
45/65	<u>0.2 0</u>
46/66	<u>0.0 2 0</u>
47/67	<u>0.0 0</u>
48/68	<u>0</u>

FLT PLN-25a/101/O/A



PURPOSE:  
FLY AROUND

FLT PLN-24b/101/O/A



PURPOSE:  
REBOOST OF  
MATED STACK

FLT PLN-25b/101/O/A

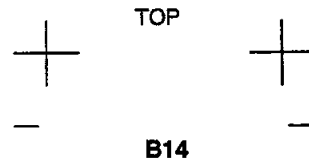






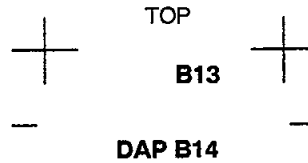
2/4	DAP B 1 3
30/50	<u>0.0 5 0 0</u>
31/51	<u>1.0 0</u>
32/52	<u>0.1 0</u>
33/53	<u>0.0 4</u>
34/54	<u>0.0 0</u>
35/55	TAIL
36/56	TAIL
37/57	<u>0.0 1</u>
38/58	<u>0.2 0 0</u>
39/59	ALL
40/60	<u>2</u>
41/61	<u>0.0 8</u>
42/62	<u>0.0 0</u>
43/63	<u>0.0 5 0 0</u>
44/64	<u>- 1.0 0 0</u>
45/65	<u>0.2 0</u>
46/66	<u>0.0 2 0</u>
47/67	<u>0.0 0 0</u>
48/68	<u>0</u>

FLT PLN-28a/101/O/A



2/4	DAP B 1 4
30/50	<u>0.0 5 0 0</u>
31/51	<u>2.0 0</u>
32/52	<u>0.2 0</u>
33/53	<u>0.0 4</u>
34/54	<u>0.0 0</u>
35/55	ALL
36/56	ALL
37/57	<u>0.0 5</u>
38/58	<u>0.1 0 0</u>
39/59	ALL
40/60	<u>2</u>
41/61	<u>0.0 8</u>
42/62	<u>0.0 0</u>
43/63	<u>0.0 5 0 0</u>
44/64	<u>- 1.0 0 0</u>
45/65	<u>0.2 0</u>
46/66	<u>0.0 0 2</u>
47/67	<u>0.0 0 0</u>
48/68	<u>0</u>

FLT PLN-29a/101/O/A



PURPOSE:  
RBAR CONFIG

DAP B14

FLT PLN-28b/101/O/A



FLT PLN-29b/101/O/A



(reduced copy)

TOP

UNIV PTG	
TGT ID	= 1 Orbiting Vehicle = 2 Earth ctr = 3 Earth tgt Input LAT ( $\pm 90$ ) LON ( $\pm 180$ , + = East) ALT (-3444.0 to 20000.0 nm)
	= 4 Sun ctr = 5 Celestial tgt Input RA (0-359.99) DEC ( $\pm 90$ ) = 11-110 Nav Stars
BODY VECT	= 1 +X* = 2 -X* = 3 -Z* = 4 -Y Star Tracker* = 5 Optional Input P (0-359.99) Y (270-359.99, 0-90) *Input OM $\rightarrow$ OM (0-359.99)
MON AXIS	= 1 +X = 2 -X

FLT PLN-30/101/O/A

FLT PLN-30/101/O/A is mounted on the back of the DAP Book

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FLIGHT DATA FILE  
Distribution  
101 FLT PLN FSP FLN

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\*\* JSC \*\*

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AP3/NAVIAS, R. (2)  
CB/BROWN, C.L. (7)  
CB/CHIEF, ASTRONAUT OFF.  
DA2/STONE, B.R.  
DF22/DPS FDF REP (4)  
DF24/INCO FDF REP (6)  
DF25/LEAD ODIN (2)  
DF5/MMACS LEAD OFFICER (3)  
DF53/OSO LIBRARY MGR. (2)  
DF62/GNC GROUP LEAD (3)  
DF63/PROP GROUP LEAD (3)  
DF64/LEAD ADCO (2)  
DF73/ELEC SYS GROUP LEAD (2)  
DF73/LEAD EGIL  
DF73/SYSTEMS LIBRARY  
DF74/PHALCON LIBRARY  
DF82/EECOM (5)  
DF83/ECLSS (3)  
DM2/FLIGHT DESIGN MANAGER  
DM21/HALVORSON, P.C.  
DM3/LEAD TOPO  
DM32/ORBIT FDO GROUP LEAD (3)  
DM43/DM CONSOLE LIBRARY (2)  
DM46/ENTRY FDO  
DO13/HOUSTON SUPPORT GROUP (3)  
DO35/LAWS, L.A.  
DO353/FDF MNGR/RESERVE (15)  
DO4/BOOK MANAGER FLT PLN (10)  
DO4/FAO TEAM (15)  
DO4/POINTING (4)  
DO4/NUTE, R.H. (1)  
DO53/CAVALLARO, J.H.  
DO54/HASBROOK, A.  
DT32/TEAM LEAD  
DT34/CONTROL PROP (3)  
DT35/DPS/NAV TRAIN LEAD (4)  
DT36/SHUTTLE SYSTEMS (2)  
DT36/SPENCER, J.  
DT37/CARGO SYSTEMS (3)  
DT37/SHUTTLE COMMUNICATIONS (2)  
DX22/ROBOTICS SECTION (2)  
DX25/RMS TRAINING GROUP (2)  
DX32/EVA (4)  
DX34/BOOK MANAGER P/TV (2)  
GP23/STIC (3)  
MER/30 LIBRARY

MT3/BANKS, W.R.  
MT3/MANAGER (3)  
OM/CONSOLE SUPPORT (2)  
SD24/SURGEON (2)  
ZR1/USAF TECHNICAL LIBRARY (3)

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\*\* JSC OFFSITE \*\*

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LOCKHEED-MARTIN-HOUSTON  
C102/STEPHENS, K.  
C33/CHU, J.  
C70/KEENER, J.F.

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

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BOEING-HOUSTON  
ZC01/BATTLE, H.H.

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\*\* POUCH MAIL \*\*

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NASA GRC  
333-1/TUTTLE, K.L.

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UNITED SPACE ALLIANCE-HOUSTON  
633L/PROJECT OFFICE LIBRARY (3)  
USH-422D/LIBRARY, PROPULS. SYS  
USH-423E/PROX OPS LIBRARY  
USH-423E/TRAJECTORY LIBRARY  
USH-423H/NAVIGATION LIBRARY (2)  
USH-482L/MISSION ENGINEER  
USH-485L/KOCEN, M.  
USH-626L/TRAVLOS, J.A.  
USH-636X/SAIL/GN&C  
USH423-E/RENDEZVOUS LIBRARY  
ZC01/DISTEFANO, F.J.  
ZC01/JENKINS, L.W.  
ZC01/KAGAWA, R.  
ZC20/MEREDITH, M.

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BNA-DOWNEY  
841-2,AC85/TAYLOR, B.N.  
AA10/BUIS, A.  
AA05/WOOLHOUSE, D.L.  
AC28/HARPER, L.  
AD60/MC MILLAN, B.J.  
AD75/STS DATA MGMT  
AE 70/JAIMES, A.J.  
AE85/BRYON, K.  
FB13/INGRAM, K.  
FB14/ITO, J.K.  
FB75/MC DERMOTT, W.A.  
FC94/GOOSSENS, M.H.  
FC94/IMPASTATO, J.  
FC95/FRIEND, R.

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NASA GSFC  
530/MORSE, G.

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NASA HEADQUARTERS  
ME/PERRY, C.F. (2)  
ME/POSEY, G.  
MZD/MILLER, H.  
PM/MC CULLA, J.W.  
UO/DOARN, C.  
US/ZWIERKO, R.

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NASA KSC  
AB-F1/GRINTER, K.  
F264/LINTREUR, P.  
FA-31/MCBREARTY, J.C.  
FF-S-A/CREW QUARTERS  
KSC/KSC TECH LIBRARY-D  
PZ-L/WEAVER, C.  
USK-215/KELLY, T.E.  
USK-550/VITT OFFICE

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NASA MSFC  
NASA--MSFC  
DOCUMENTATION REPOSITORY  
BUILDING 4491  
MAIL CODE AD33D  
MSFC, AL 35812  
ATO1D/TECH DOC REPOSITORY  
CA10/BERG, J.  
EL23/JOHNSON, DALE  
EO52/CHIEF DATA MGMT  
FD34/ETOV LEAD  
NTI/MARSHAL OPERATIONS

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