


 FLIGHT DATA FILE

Flight Plan

STS-102

(STS-102 Post-FRR Cycle Trajectory)

Mission Operations Directorate Operations Division

For the latest working copy of the Flight Plan, visit
<https://mod.jsc.nasa.gov/do4/flightplan/fp.cfm?id=102>

Final
January 26, 2001

EVENT	MET		CST	
Launch	0	00:00	Thu	3/01/01 08:35
ISS Docking	01	17:24	Sat	3/03/01 01:59
Ingress 1	01	19:35	Sat	3/03/01 04:10
EVA 1	02	17:05	Sun	3/04/01 01:40
PMA3 Relocation	02	22:15	Sun	3/04/01 06:50
MPLM Install	03	14:10	Sun	3/04/01 22:45
Ingress 2	03	14:30	Sun	3/04/01 23:05
EVA 2	04	17:10	Tue	3/06/01 01:45
Ingress 3	05	15:00	Tue	3/06/01 23:35
EVA 3	06	19:55	Thu	3/08/01 04:30
Undock	09	16:50	Sun	3/11/01 01:25
Deorbit	11	17:24	Tue	3/13/01 01:59
Landing	11	18:29	Tue	3/13/01 03:04

National Aeronautics and
Space Administration

Lyndon B. Johnson Space Center
Houston, Texas



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

STS-102 FLIGHT PLAN

FINAL
JANUARY 26, 2001

PREPARED BY:

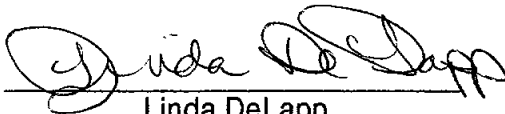


Linda DeLapp
Book Manager, Lead FAO

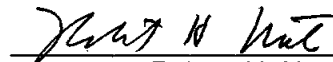


Stephen P. Quenneville
Lead Timeliner

APPROVED BY:



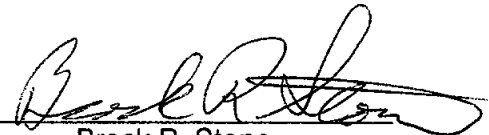
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FLIGHT PLAN
STS-102

LIST OF EFFECTIVE PAGES

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6-9B	* 102/FIN		
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6-10B	* 102/FIN		
6-11A	* 102/FIN		
6-11B	* 102/FIN		
6-12A	* 102/FIN		
6-13A	* 102/FIN		
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* - Omit from flight book

STS-102 FLIGHT PLAN FABRICATED ITEMS

<u>Title</u>	<u>Ref. Page</u>	<u>Item No.</u>
STS 102 GENERIC DAP A CONFIGURATION	CC 9-2	FLT PLN-1a/102/O/B
STS 102 GENERIC DAP B CONFIGURATION	CC 9-3	FLT PLN-1aa/102/O/B
STS 102 FLT SPECIFIC DAP A CONFIGURATION	CC 9-4	FLT PLN-1b/102/O/B
STS 102 FLT SPECIFIC DAP B CONFIGURATION	CC 9-5	FLT PLN-1bb/102/O/B

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INTRODUCTION

The STS-102 Flight Plan is the Flight Data File article that contains the on-orbit timeline. It does not contain the detailed timelines that are covered in the Ascent, Post Insertion, Deorbit Prep, and Entry Checklists. The detailed rendezvous and undocking timelines and procedures are contained in the Rendezvous Checklist. The detailed EVA task timelines and procedures are in the EVA Checklist.

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

- NSTS-07700 Vol III, Flight Definition and Requirements Document
- NSTS-17462-102, STS-102 Flight Requirements Document
- NSTS-37326, Shuttle Crew Scheduling Constraints

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

The Final STS-102 Flight Plan, as part of the Flight Data File, meets the specifications of the STS-102 Flight Initialization Data Pack, version 102base-ae.

The STS102 Flight Plan was based on the post FRR cycle profile (created 1/16/01) and a launch date of March 1, 2001 at 8:35 CST. Orbiter inertial attitudes are expressed relative to a mean of 1950 (M50) reference frame.

NSTS-37326, Shuttle Crew Scheduling Constraints (SCSC), Rev A, July 2000, has been used to build the timelines contained in this Flight Plan.

The following SCSC Exceptions will be submitted:

- 102-1 Pre or Post Sleep <2 hr minimum
- 102-2 Insufficient Off-duty time

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

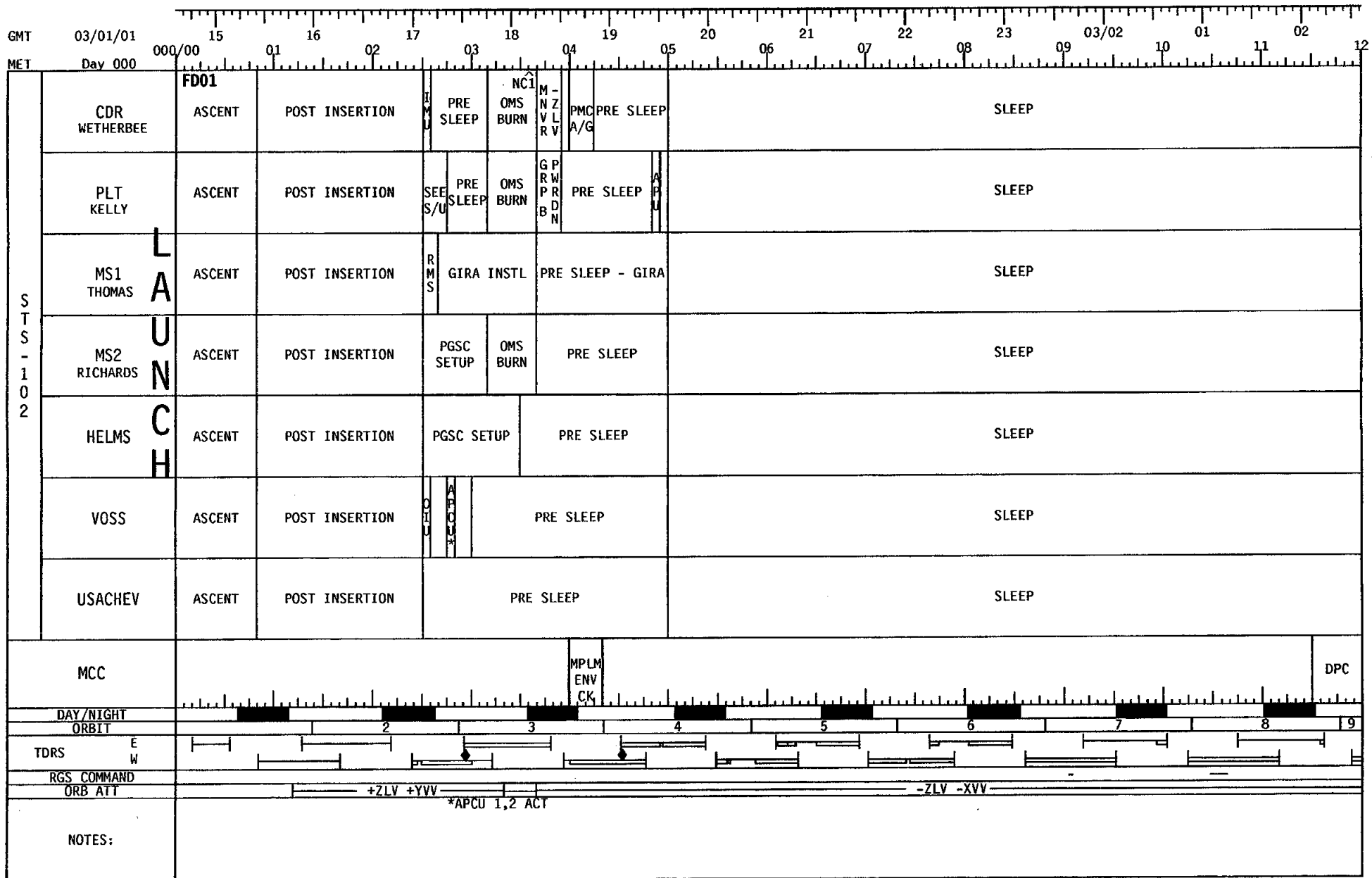
<https://mod.jsc.nasa.gov/do4/flightplan/fp.cmf?id=102>

OVERVIEW TIMELINE

SUMMARY TIMELINE

**SUMMARY
TIMELINE**

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GMT		03/02/01														001/00			
MET		Day 000																	
STS-102	CDR WETHERBEE	FD02	SLEEP	POST SLEEP		NC2 RCS BURN	M-NZLRV	LOAD DAP	AFT CO	ELV ON		ERGO S/U	P/TV06 S/U (OSVS)	OSVS C/O	MEAL	RCS BURN	FILTER CLEAN	H2O SETUP & INIT 1	PEAVOENT
	PLT KELLY	SLEEP	POST SLEEP		RCS BURN	RPMSRUP	RMS C/O	RMS PLB SURVEY	RPMSRDN	CRYO S/US/CK	FC*	SSV ACT	C/L CAMRA	MEAL	RCS BURN	CAB 2 OBS RB	EXERCISE	PSTEVOU2P	
	MS1 THOMAS	SLEEP	POST SLEEP - GIRA	RMS*	POST SLEEP	TSEPTCUP	RPMSRUP	RMS C/O	RMS PLB SURVEY	RPMSRDN			C/L CAMRA	MEAL			DOCK RING EXT	EXER CISE	
	MS2 RICHARDS	SLEEP	POST SLEEP	HELM*	POST SLEEP	A/L PREP	HELM*	EMU C/O (2) @	RC/BOA	HELM*	PTV06 S/U (OSVS)	OSVS C/O	MEAL		REBA	RNDZ PGSC S/U	RNDZ TOOLS C/O	EVA TOOL CONFG	
	HELMS	SLEEP	POST SLEEP		A/L PREP	EMU C/O (2)	RC/BOA	EXERCISE	HR ASST	MEAL	HR MS3 SUBJECT	RNDZ PGSC S/U	DOCK RING EXT	EVA TOOL CONFG					
	VOSS	SLEEP	POST SLEEP		A/L PREP	EMU C/O (2)	RC/BOA	HR S/U	HR ASST	HR MS4 SUBJECT	MEAL	HR ASST	STW HR	EVA TOOL CONFG					
	USACHEV	SLEEP	POST SLEEP					ERGO S/U	HR MS5 SUBJECT	MEAL		EXERCISE	H2O SETUP & INIT 1	PEAVOENT					
MCC			MPLM ENV CK												MPLM ENV CK				
DAY/NIGHT ORBIT		9	10	11	12	13	14	15	16	17									
TDRS	E																		
RGS COMMAND ORB ATT																			
NOTES:																			

*HELM BATT INIT *RMS DUAL HTR ACT *PURGE-MANUAL *REBA RCHG TERM
 *REBA BATT INIT *HELM BATT TERM/INIT *HELM BATT TERM
 @REBA RCHG TERM/INIT

GMT		03/02/01																								03/03	
MET		Day 001																									
		15		16		17		18		19		20		21		22		23		10		11		12			
		001/00		01		02		03		04		05		06		07		08		09		10		11			
STS - 1 0 2	CDR WETHERBEE	FD02		EXERCISE		PRE SLEEP		NC3 OMS BURN		M- NZ VLRV		PMC OCA		PRE SLEEP		SLEEP 7 HRS				M+ ZLV RV		W AN SIT TE		PS OL SE TE P			
	PLT KELLY	PTV20 S/U (RNDZ)		PRE SLEEP		GP RW PR UB		OMS BURN		GP RW PR BDN		PRE SLEEP		SLEEP 7 HRS		POST SLEEP											
	MS1 THOMAS	EXER CISE				PRE SLEEP - GIRA						SLEEP 7 HRS		POST SLEEP - GIRA													
	MS2 RICHARDS	EVA TOOL CONFG		PRE SLEEP		OMS BURN		PRE SLEEP				SLEEP 7 HRS		POST SLEEP													
	HELMS	EVA TOOL CONFG		PRE SLEEP				PRE SLEEP				SLEEP 7 HRS		POST SLEEP													
	VOSS	EVA TOOL CONFG		PRE SLEEP				PRE SLEEP				SLEEP 7 HRS		POST SLEEP													
	USACHEV			PRE SLEEP				PRE SLEEP				SLEEP 7 HRS		POST SLEEP													
MCC									MPLM ENV CK																		
DAY/NIGHT																											
ORBIT																											
TDRS	E W																										
RGS COMMAND																											
ORB ATT																											
NOTES:																											

GMT		03/03/01												03/04			
MET		Day 002												01		02	
		002/00												01		02	
STS-102	CDR WETHERBEE	FD03 EVA PROC REVW	PRE SLEEP	PMC OCA	PRE SLEEP	10:2M	SLEEP										
	PLT KELLY	EVA PROC REVW	PRE SLEEP				SLEEP										
	MS1 THOMAS	EVA PROC REVW	RPMW SR UL*	SC E/O L*	PRE SLEEP - GIRA		SLEEP										
	MS2 RICHARDS	EVA PROC REVW	PRE SLEEP				SLEEP										
	HELMS	EVA PROC REVW	PRE SLEEP				SLEEP										
	VOSS	EVA PROC REVW	PRE SLEEP				SLEEP										
	GIDZENKO	EXERCISE	PRE SLEEP				SLEEP										
ISS1	SHEPHERD	HAND OVER	DAR		PRESLEEP-ISS		SLEEP-ISS										
ISS2	USACHEV	HAND OVER	DAR		PRESLEEP-ISS		SLEEP-ISS										
ISS1	KRIKALEV		DAR		PRESLEEP-ISS		SLEEP-ISS										
	MCC		DAR		MEC PNK LV M												
DAY/NIGHT		[Gantt chart showing day/night cycles]															
ORBIT		[Gantt chart showing orbit cycles]															
DAILY ORBIT		[Gantt chart showing daily orbit cycles]															
TDRS		[Gantt chart showing TDRS connections]															
RGS COMMAND		[Gantt chart showing RGS commands]															
ORB ATT		[Gantt chart showing orb att]															
ISS ATT		[Gantt chart showing iss att]															
NOTES:		*N1 PORT												2-7			

GMT 03/04/01
 MET Day 002

STS-102	CDR WETHERBEE	FD04	POST SLEEP	PMC OCA	POST SLEEP	10:2M	EVN18	HN13	HT2ORN	DA13	EXERCISE	14.7 REPRS	HN14	HT2ORN	PTV06 S/U (OSVS)	OSVS	N1 NDR CBM DMTE PMA3	CBM PRT PRP MAT #2	VERIF	
	PLT KELLY		POST SLEEP		PTV23 S/U (EVA)		EXERCISE				EVA RMS SUPPORT				PTV22 S/U (RMS)	GRAPL		PUNAI3S	MNVR TO PRE INSTL	
	MS1 THOMAS		POST SLEEP - GIRA		POST SLEEP		EXERCISE				EVA RMS SUPPORT					GRAPL		PUNAI3S	MNVR TO PRE INSTL	
	MS2 RICHARDS		POST SLEEP		EVA PREP SUPPORT						IVA SUPPORT									SETUP
	HELMS		POST SLEEP		EVA PREP		EMU PURGE P/B	DPRS	EGRS	EVETUP	PMA3 UMBILICALS	RMV ECOMM	LCA TRANSFER	THR	RU REMOVE INST	RU CONNECT	EVA CLEAN UP	INGRS		
	VOSS		POST SLEEP		EVA PREP		EMU PURGE P/B	DPRS	EGRS	EVETUP	PMA3 UMBILICALS	LCA PREP	LCA TRANSFER	THR	RU REMOVE INST	RU CONNECT	EVA CLEAN UP	INGRS		
	GIDZENKO		POST SLEEP		EXERCISE							MEAL							EXERCISE	
ISS1	SHEPHERD		POST SLEEP ISS	DPC	EXERCISE	PPRV/MPEV	LAB FWD STB NPRV/IMV			HAND OVER	LAB FWD CBM CPA RMVL	LFGS AWRT BDDR P	MEAL				HAND OVER			
ISS2	USACHEV		POST SLEEP ISS	DPC	HAND OVER	PPRV/MPEV*	LAB FWD STB NPRV/IMV	PNOPARRTV	IMV PRODUCT	HAND OVER	LAB FWD CBM CPA RMVL	LFGS AWRT BDDR P	MEAL				HAND OVER			
ISS1	KRIKALEV		POST SLEEP ISS	DPC	HAND OVER	IMAX S/U	EXERCISE						MEAL		HAND OVER		EXERCISE		HAND OVER	
	MCC	MEC PNLV M	CBM PRT PRP MAT P1	NDR CBM PREP	EI N18	W MATE			* #	CBM CBM DCT DCT		CBM COMM CK		MEC PNLV M						
	DAY/NIGHT																			
	ORBIT	40	41	42	43	44	45	46	47	48										
	DAILY ORBIT	13	14	15	1	2	3	4	5	6										
	TDRS																			
	RGS COMMAND																			
	ORB ATT																			
	ISS ATT																			
	NOTES:					2-8	*LAB FWD		*PORT	#NADIR			*LCA HTR				*NDR - PTL CLS, MON		PRT - ACT, PTL OP	

GMT 03/04/01 15 16 17 18 19 20 21 22 23 03/05 01 02 12
 MET Day 003 003/00 01 02 03 04 05 06 07 08 09 10 11

STS-102	CDR WETHERBEE	FD04	PRE SLEEP	PMC OCA	PRE SLEEP	SLEEP					
	PLT KELLY	MNVR TO RTL	PRE SLEEP			SLEEP					
	MS1 THOMAS	MNVR TO RTL	PRE SLEEP	EMU RMVL	HELM	PRE SLEEP	SLEEP				
	MS2 RICHARDS	IVA SUPPORT	POST EVA	EMU RMVL	HELM*	PRE SLEEP - GIRA	SLEEP				
	HELMS	RPRS	POST EVA			PRE SLEEP	SLEEP				
	VOSS	RPRS	POST EVA			PRE SLEEP	SLEEP				
	GIDZENKO			PRE SLEEP			SLEEP				
ISS1	SHEPHERD	HAND OVER	EXERCISE		PRESLEEP-ISS	SLEEP-ISS					
ISS2	USACHEV		HAND OVER		PRESLEEP-ISS	SLEEP-ISS					
ISS1	KRIKALEV		HAND OVER		PRESLEEP-ISS	SLEEP-ISS					
	MCC		BOLT LOADING*	MECPNKLV							
	DAY/NIGHT										
	ORBIT	48	49	50	51	52	53	54	55	56	
	DAILY ORBIT	6	7	8	9	10	11	12	13	14	
	TDRS	[Timeline diagram showing TDRS events]									
	RGS COMMAND	[Timeline diagram showing RGS commands]									
	ORB ATT	BIAS -XLV +ZVV									
	ISS ATT	BIAS +XVV +ZLV									
	NOTES:	*PRT - DEACT 2-9 NDR - ACT									

GMT 03/05/01 03 04 05 06 07 08 09 10 11 12 13 14 004/00
 MET Day 003 12 13 14 15 16 17 18 19 20 21 22 23

STS-102	CDR WETHERBEE	FD05	POST SLEEP	INNGRRMS	SETUP	FILTER INSPECT	MEAL	PEAVOENT	HINOT5	HTFORM	INTRM EGRSS	PREP	10.2 DEPRESS	CNFG	HINOT6					
	PLT KELLY	POST SLEEP	PTV22 S/U (RMS)	SC/AOL	GRAPPL	RDMEATE	MUNLBTH	MNVR TO PRE INSTL	MNVR TO RTL	UNGRP	UNGRP	UNGRP	UNGRP	UNGRP	UNGRP	UNGRP				
	MS1 THOMAS	POST SLEEP - GIRA	RMS*	POST SLEEP	RPMSRUL	SC/AOL	GRAPPL	MUNLBTH	MNVR TO PRE INSTL	MNVR TO RTL	HELM	EMU BATT/LIOH	MEAL	EMU INSTL/RESIZE	SWAP	EMU C/O (3RD EMU)	REBOA	CP/IBIT	EVA TOOL CONFG	PT/BRM
	MS2 RICHARDS	POST SLEEP	NDR CBM PREP MATE	INNGRRMS	GRAPPL	MUNLBTH	MNVR TO PRE INSTL	MNVR TO RTL	HELM*	EMU BATT/LIOH	MEAL	EMU INSTL/RESIZE	SWAP	EMU C/O (3RD EMU)	REBOA	CP/IBIT	EVA TOOL CONFG	PT/BRM		
	HELMS	POST SLEEP	INNGRRMS	HAND OVER	EXERCISE	HAND OVER	MEAL	EMU C/O (3RD EMU)	REBOA	CP/IBIT	EVA TOOL CONFG	PT/BRM								
	VOSS	POST SLEEP	INNGRRMS	IPERLEPK	IELK INST & C/O	MPLM INGRS S/U	CBCS CAMRA RMV	MEAL	VEST PRESS	VESTIBULE OUTFITTING	MPLM ACT PT I (APCU)	INTRM EGRSS	MPLM ACT PART 2							
	GIDZENKO	POST SLEEP	HAND OVER	EXERCISE	HAND OVER	MEAL	EXERCISE													
ISS1	SHEPHERD	POST SLEEP ISS	DPC	EXERCISE	FILM	IMAX S/U	SEED	HAND OVER	XFER MDDK	MEAL	VEST PRESS	VESTIBULE OUTFITTING								
ISS2	USACHEV	POST SLEEP ISS	DPC	CCP BAW CMR SRU	INTM INGRS	EXERCISE	HAND OVER	MPLM INGRS S/U	CBCS CAMRA RMV	MEAL	VEST PRESS	VESTIBULE OUTFITTING								
ISS1	KRIKALEV	POST SLEEP ISS	DPC	IELK INST & C/O	IS ELO KW	RACK-XFER-PREP	MEAL	EXER CISE												
MCC	MCC	DPC	MECPNKLV	BOLT LOADING																
DAY/NIGHT	ORBIT	56	57	58	59	60	61	62	63	64										
DAILY ORBIT	14	15	1	2	3	4	5	6	7											
TDRS	E W Z	[Timeline of TDRS events]																		
RGS COMMAND	ORB ATT	BIAS -XLV +ZVV																		
ISS ATT	BIAS +XVV +ZLV																			
NOTES:	*DUAL HTR ACT 2-10 *NDR - PTL OP @1553-MDM-MCA PPL U/L *HELM BATT TERM *NDR - DEACT *APCU 2 DEACT *APCU 1,2 ACT																			

GMT 03/05/01 15 16 17 18 19 20 21 22 23 03/06 01 02 12
 MET Day 004 004/00 01 02 03 04 05 06 07 08 09 10 11

STS-102	CDR WETHERBEE	FD05	HT 2 OR M	EVA PROC REVW	PRE SLEEP	10 - PMC 2 M OCA	PRE SLEEP	SLEEP
	PLT KELLY	EXERCISE		EVA PROC REVW			PRE SLEEP	SLEEP
	MS1 THOMAS	SAFER C/O	X F R T U	EVA PROC REVW			PRE SLEEP - GIRA	SLEEP
	MS2 RICHARDS	SAFER C/O		EVA PROC REVW			PRE SLEEP	SLEEP
	HELMS	SAFER C/O		EVA PROC REVW			PRE SLEEP	SLEEP
	GIDZENKO			EVA PROC REVW			PRE SLEEP	SLEEP
	KRIKALEV		X F R T U	EVA PROC REVW			PRE SLEEP	SLEEP
ISS1	SHEPHERD	M I P N L G M R	MPLM XFER S/U	KFER RSP & FENCE			PRE SLEEP-ISS	SLEEP-ISS
ISS2	USACHEV	M I P N L G M R	MPLM XFER S/U	KFER RSP & FENCE			PRE SLEEP-ISS	SLEEP-ISS
	VOSS		DUAL CCAA	EXERCISE			PRE SLEEP-ISS	SLEEP-ISS

MCC								
DAY/NIGHT	[Bar chart showing day/night cycle]							
ORBIT	64	65	66	67	68	69	70	71
DAILY ORBIT	7	8	9	10	11	12	13	14
TDRS	[Timeline with E, W, Z markers]							
RGS COMMAND								
ORB ATT								
ISS ATT								
NOTES:	2-11							

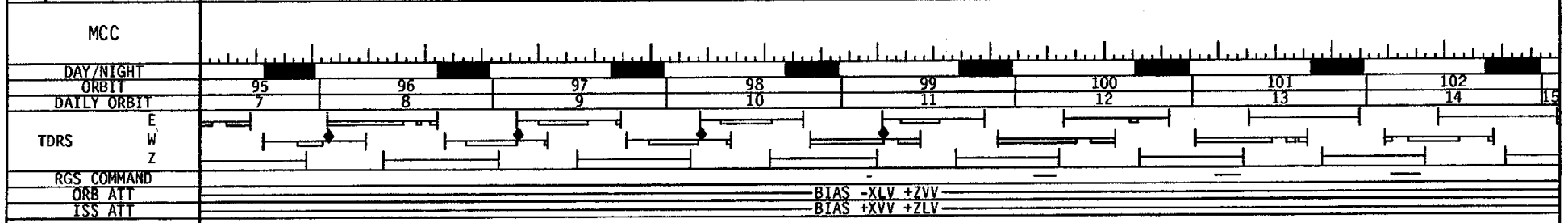
GMT		03/06/01												03/07											
MET		Day 005												005/00											
		15	16	17	18	19	20	21	22	23	01	02	03	04	05	06	07	08	09	10	11	12			
STS-102	CDR WETHERBEE	EXERCISE	PRE SLEEP	PMC OCA	PRE SLEEP	CONV L	PRE SLEEP	SLEEP																	
	PLT KELLY	PRE SLEEP						SLEEP																	
	MS1 THOMAS	POST EVA	EMU RMVL	HELM*	PRE SLEEP - GIRA				SLEEP																
	MS2 RICHARDS	POST EVA	EMU RMVL	HELM	PRE SLEEP				SLEEP																
	HELMS	POST EVA	PRE SLEEP						SLEEP																
	GIDZENKO	PRE SLEEP						SLEEP																	
	KRIKALEV	PRE SLEEP						SLEEP																	
ISS1	SHEPHERD	SUMNKS T	CHECS RACK XFER	XFER TAGUP	PRESLEEP-ISS				SLEEP-ISS																
ISS2	USACHEV		CHECS RACK XFER		PRESLEEP-ISS				SLEEP-ISS																
	VOSS	DI DACC UT	CHECS RACK XFER		PRESLEEP-ISS				SLEEP-ISS																
MCC																									
DAY/NIGHT		[Gantt chart showing day/night cycles]																							
ORBIT		79	80	81	82	83	84	85	86	87															
DAILY ORBIT		6	7	8	9	10	11	12	13	14															
TDRS		[Gantt chart showing TDRS activity]																							
RGS COMMAND																									
ORB ATT																									
ISS ATT																									
NOTES:		*MDDK EMU BATT INIT 2-13 VMDDK EMU BATT INIT *HELM BATT INIT																							

GMT 03/07/01
 MET Day 005

STN	12	13	14	15	16	17	18	19	20	21	22	23	006/00					
STS-102	CDR WETHERBEE	POST SLEEP	AT HO	POST SLEEP	ST IRR OM	DTO 257	DTO 263	M-NX LRV	ATM HO	HR TRFB	CS OND	CS OND	PEAV ENT	MEAL	EXERCISE	EVA PROC REVW		
	PLT KELLY	POST SLEEP			YI NN TGR MS	DTO 257	XFER LIOH &CWC	EXERCISE	XFER MPLM SOFT STOW	PTV21 S/U (ISS)	PEAV ENT		MEAL	XFER MPLM SOFT STOW	EVA PROC REVW			
	MS1 THOMAS	POST SLEEP - GIRA			ASPI RN *	XFER MPLM SOFT STOW	XFER LIOH &CWC	XFER MPLM SOFT STOW	EXERCISE	XFER MPLM SOFT STOW	PEAV ENT		MEAL	XFER MPLM SOFT STOW	HELM * EMU BATT/LIOH	MDDK PREP	SAFER C/O	EVA PROC REVW
	MS2 RICHARDS	POST SLEEP			ASPI RN	XFER MPLM SOFT STOW			EXERCISE	XFER MPLM SOFT STOW	PEAV ENT		MEAL	XFER MPLM SOFT STOW	HELM * EMU BATT/LIOH	MDDK PREP	SAFER C/O	EVA PROC REVW
	HELMS	POST SLEEP			YI NN TGR MS	EXERCISE	HR S/U	HR MS3 SUBJECT	HR ASST	HR ASST	STOW	PEAV ENT		MEAL	HR XFER	HANDOVER	SAFER C/O	EVA PROC REVW
	GIDZENKO	POST SLEEP				EXERCISE ISS	XFER MPLM SOFT STOW				PEAV ENT		MEAL	HANDOVER	EXERCISE	EVA PROC REVW		
	KRIKALEV	POST SLEEP				XFER MPLM SOFT STOW	EXERCISE ISS	XFER MPLM SOFT STOW			PEAV ENT		MEAL	HANDOVER	EXERCISE	EVA PROC REVW		
ISS1	SHEPHERD	POST SLEEP ISS	DPC	HRF RACK XFER	INTM INGR	X MSS FPOT ELFOR MTW	EXERCISE SHUTTLE	XFER MPLM SOFT STOW		PAO EVNT		MEAL	SEED	HANDOVER				
ISS2	USACHEV	POST SLEEP ISS	DPC	HRF RACK XFER		XFER MPLM SOFT STOW		HR MS5 SUBJECT		PAO EVNT		MEAL	HAND OVER					
	VOSS	POST SLEEP ISS	DPC	HRF RACK XFER		XFER MPLM SOFT STOW		HR ASST	HR MS4 SUBJECT	X MSS FPOT ELFOR MTW	PAO EVNT	MEAL	HAND OVER					
	MCC			AT HO														
	DAY/NIGHT																	
	ORBIT	87	88	89	90	91	92	93	94	95								
	DAILY ORBIT	14	15	1	2	3	4	5	6	7								
	TDRS																	
	RGS COMMAND																	
	ORB ATT	BIAS -XLV +ZVV	BIAS -XLV +YVV	FREE	FREE	BIAS -XLV +ZVV	BIAS -XLV +ZVV											
	ISS ATT	BIAS +XVV +ZLV	+XLV +YVV	FREE	FREE	BIAS +XVV +ZLV	BIAS +XVV +ZLV											
	NOTES:				2-14	*RCS RCNFG								*HELM BATT TERM				
					*FILTER CK													

GMT 03/07/01 15 16 17 18 19 20 21 22 23 03/08 01 02 12
 MET Day 006 006/00 01 02 03 04 05 06 07 08 09 10 11

S T S - 1 0 2	CDR WETHERBEE	FD07 INTRM EGRSS		PRE SLEEP	PMC OCA	PRE SLEEP	SLEEP
	PLT KELLY	INTRM EGRSS		PRE SLEEP			SLEEP
	MS1 THOMAS		EMU INSTL	PRE SLEEP	XFER TAGUP	PRE SLEEP - GIRA	SLEEP
	MS2 RICHARDS		EMU INSTL	PRE SLEEP			SLEEP
	HELMS		EMU INSTL	PRE SLEEP			SLEEP
	GIDZENKO			PRE SLEEP			SLEEP
	KRIKALEV			PRE SLEEP			SLEEP
ISS1	SHEPHERD	INTRM EGRSS	X M S S F P O T E L F O R M T W	EXERCISE	XFER TAGUP	PRESLEEP-ISS	SLEEP-ISS
ISS2	USACHEV	HAND OVER	XFER MPLM SOFT STOW			PRESLEEP-ISS	SLEEP-ISS
	VOSS	HAND OVER	XFER MPLM SOFT STOW			PRESLEEP-ISS	SLEEP-ISS



NOTES: 2-15

GMT 03/08/01
 MET Day 006

STS - 102	CDR WETHERBEE	POST SLEEP	PMC OCA	POST SLEEP	HIN 019	HT 20RM	FILTER INSPECT	EXERCISE	EVN 3BT	MEAL	HIN 010	HT 20RM	HT 20RM	HT 20RM
	PLT KELLY	POST SLEEP			RMSHT			EXERCISE	WCS*			EVA RMS SUPPORT		
	MS1 THOMAS	POST SLEEP - GIRA		EVA PREP				EMU PURGE P/B		DPRS	EGRS	EVA 3 (14.7)		INGRS
	MS2 RICHARDS	POST SLEEP		EVA PREP				EMU PURGE P/B		DPRS	EGRS	EVA 3 (14.7)		INGRS
	HELMS	POST SLEEP						EVA SUPPORT				IVA SUPPORT		
	GIDZENKO	POST SLEEP				EXERCISE				MEAL				
	KRIKALEV	POST SLEEP				EXERCISE				MEAL				EXERCISE
ISS1	SHEPHERD	POST SLEEP ISS	DPC	EXERCISE				XFER MPLM SOFT STOW		SEED	MEAL			XFER MPLM SOFT STOW
ISS2	USACHEV	POST SLEEP ISS	DPC	MSS-2 UMB MATE	EXERCISE	XFER SOFT STOW		RWS-EXT EQUIP-S/U		XFER MPLM SOFT STOW	MEAL			XFER MPLM SOFT STOW
	VOSS	POST SLEEP ISS	DPC	MSS-2 UMB MATE	XMSS FPOT ELFO RMTW	EXERCISE		RWS-EXT EQUIP-S/U		XFER MPLM SOFT STOW	MEAL			XFER MPLM SOFT STOW
	MCC		DPC							⊕				
	DAY/NIGHT ORBIT													
	DAILY ORBIT	103 15	104 1	105 2	106 3	107 4	108 5	109 6	110 7					
	TDRS													
	RGS COMMAND													
	ORB ATT													
	ISS ATT													
	NOTES:				2-16 *RWS-LAB UOP-ACT					⊕EVA3 INHBT		*RWS-VIDEO-INSPECT		⊕EXERCISE #PCS CF

GMT 03/08/01 15 16 17 18 19 20 21 22 23 03/09 01 02 12
 MET Day 007 007/00 01 02 03 04 05 06 07 08 09 10 11

STS - 1 0 2	CDR WETHERBEE	FD08	PRE SLEEP	PMC OCA	PRE SLEEP	SLEEP	← ISS SURVEY →
	PLT KELLY	PTV 25 S/U	PRE SLEEP			SLEEP	
	MS1 THOMAS	POST EVA	EMU RMVL	EMU	PRE SLEEP - GIRA	SLEEP	
	MS2 RICHARDS	POST EVA	EMU RMVL	EMU	PRE SLEEP	SLEEP	
	HELMS	POST EVA	PRE SLEEP			SLEEP	
	GIDZENKO	*	PRE SLEEP			SLEEP	
	KRIKALEV		PRE SLEEP			SLEEP	
ISS1	SHEPHERD	XFER MPLM SOFT STOW	EXERCISE	PRESLEEP-ISS		SLEEP-ISS	
ISS 2	USACHEV	XFER MPLM SOFT STOW		PRESLEEP-ISS		SLEEP-ISS	
	VOSS	XFER MPLM SOFT STOW		PRESLEEP-ISS		SLEEP-ISS	

MCC	
DAY/NIGHT	DAY
ORBIT	111 112 113 114 115 116 117 118
DAILY ORBIT	71 8 9 10 11 12 13 14 15
TDRS	E W Z
RGS COMMAND	
ORB ATT	BIAS -XLV +ZVV
ISS ATT	BIAS +XVV +ZLV
NOTES:	♦EXERCISE 2-17

GMT 03/09/01 03 04 05 06 07 08 09 10 11 12 13 14 008/00
 MET Day 007 12 13 14 15 16 17 18 19 20 21 22 23 008/00

STS-102	CDR WETHERBEE	FD09	POST SLEEP		REBOOST					MEAL		CREW PHOTO	CREW CONF	EXERCISE	
	PLT KELLY		POST SLEEP		EXERCISE	XFER MPLM SOFT STOW	PTV21 S/U (ISS)	XFER MPLM SOFT STOW		MEAL	XFER MPLM SOFT STOW	CREW PHOTO	CREW CONF	XFER MPLM SOFT STOW	
	MS1 THOMAS		POST SLEEP - GIRA		EXERCISE	XFER MPLM SOFT STOW				MEAL	XFER MPLM SOFT STOW	CREW PHOTO	CREW CONF	EMU XFER PREP	EMU XFER TO ISS
	MS2 RICHARDS		POST SLEEP		EXERCISE	XFER MPLM SOFT STOW				MEAL	XFER MPLM SOFT STOW	CREW PHOTO	CREW CONF	EMU XFER PREP	EMU XFER TO ISS
	HELMS		POST SLEEP		IELK INST & C/O		XFER MPLM SOFT STOW			MEAL	XFER MPLM SOFT STOW	CREW PHOTO	CREW CONF	HAND OVER	EXERCISE ISS
	GIDZENKO		POST SLEEP		HAND OVER	EXERCISE ISS	XFER MPLM SOFT STOW			MEAL	XFER MPLM SOFT STOW	CREW PHOTO	CREW CONF	HAND OVER	EXERCISE
	KRIKALEV		POST SLEEP		EXERCISE ISS		XFER MPLM SOFT STOW			MEAL	XFER MPLM SOFT STOW	CREW PHOTO	CREW CONF	HAND OVER	
ISS1	SHEPHERD		POST SLEEP ISS	DPC	EXERCISE		IELK INST & C/O		MEAL	XFER MPLM SOFT STOW	CREW PHOTO	CREW CONF	VESTIBULE DEOUTFITP1		
ISS2	USACHEV		POST SLEEP ISS	DPC	XFER MPLM SOFT STOW	HAND OVER	XFER MPLM SOFT STOW		MEAL	XFER MPLM SOFT STOW	CREW PHOTO	CREW CONF	VESTIBULE DEOUTFITP1		
	VOSS		POST SLEEP ISS	DPC	XFER MPLM SOFT STOW	HAND OVER	XFER MPLM SOFT STOW		MEAL	XFER MPLM SOFT STOW	CREW PHOTO	CREW CONF	HAND OVER		
	MCC		DPC												
DAY/NIGHT ORBIT			[Timeline with shaded blocks for day/night cycles]												
DAILY ORBIT			[Timeline with numbered blocks 1-7]												
TDRS			[Timeline with horizontal bars for TDRS events]												
RGS COMMAND			[Timeline with horizontal bars for RGS commands]												
ORB ATT			BIAS -XLV +ZVV												
ISS ATT			BIAS +XVV +ZLV												
NOTES:			#FLTR CK2-18 * FES DUMP INIT XFER MPLM SOFT STOW *EMU BATT TERM ©XFER MI ♥XFER MI												

GMT 03/09/01 15 16 17 18 19 20 21 22 23 03/10 01 02 12
 MET Day 008 008/00 01 02 03 04 05 06 07 08 09 10 11

STS-102	CDR WETHERBEE	FD09	PRE SLEEP	PMC OCA	PRE SLEEP	ISS SURVEY								POST SLEEP	
	PLT KELLY	XFER MPLM SOFT STOW	PRE SLEEP		PRE SLEEP	SLEEP								POST SLEEP	
	MS1 THOMAS	XFER MPLM SOFT STOW	PRE SLEEP	XFER TAGUP	PRE SLEEP - GIRA	SLEEP								POST SLEEP - GIRA	
	MS2 RICHARDS	XFER MPLM SOFT STOW	PRE SLEEP			SLEEP								POST SLEEP	
	SHEPHERD	▲		XFER TAGUP	PRE SLEEP	SLEEP								POST SLEEP	
	GIDZENKO	EXERCISE	HAND OVER	PRE SLEEP			SLEEP								POST SLEEP
	KRIKALEV	HAND OVER	EXERCISE	PRE SLEEP			SLEEP								POST SLEEP
ISSI2	USACHEV	φ	PRESLEEP-ISS			SLEEP-ISS									
	VOSS	HAND OVER	EXERCISE	XFER CLN UP	PRESLEEP-ISS			SLEEP-ISS							
	HELMS	EXERCISE	HAND OVER	XFER CLN UP	PRESLEEP-ISS			SLEEP-ISS							
MCC	NDR CBM PREP DMATE														
DAY/NIGHT	[Timeline with shaded blocks]														
ORBIT	126	127	128	129	130	131	132	133	134						
DAILY ORBIT	7	8	9	10	11	12	13	14	15						
TDRS	[Timeline with horizontal bars]														
RG5 COMMAND															
ORB ATT															
ISS ATT															
NOTES:	▲VESTIBULE DEOUTFITP1 2-19 φVESTIBULE DEOUTFITP1 * FES DUMP TERM														

GMT 03/10/01
 MET Day 008

STS-102	FD10	CDR WETHERBEE	POST SLEEP		MDPE LACT	PE AV OENT	EXERCISE	MEAL		02 REPRS	AT HO	MD NU S I T T E
		PLT KELLY	POST SLEEP	PTV24 ISS SURV	PTV22 S/U (RMS)	PE AV OENT	EXERCISE	MEAL	XFER MDDK	PTV21 S/U (ISS)	RNDZ PGSC S/U	PTV20 S/U UNDOCK
		MS1 THOMAS	POST SLEEP - GIRA		RMS SH	PE AV OENT	EXERCISE	MEAL	XFER MDDK		XFER TAGUP	
		MS2 RICHARDS	POST SLEEP			PE AV OENT	EXERCISE	N1 NDR CBM DMTE MPLM *	MEAL	XFER MDDK	RNDZ PGSC S/U	RNDZ TOOLS C/O
		SHEPHERD	POST SLEEP	DPC	EXERCISE-ISS	VESTIBULE DEOUTFITP2	VEST DEPRESS	HANDOVER	SEED	MEAL	HANDOVER	EXERCISE
		GIDZENKO	POST SLEEP	DPC	HANDOVER	EXERCISE ISS	HAND OVER		MEAL	XFER MDDK	XFER TAGUP	PE AV OENT
		KRIKALEV	POST SLEEP	DPC	EXERCISE	FIL IMAX S/U	HANDOVER		MEAL	HANDOVER		PE AV OENT
		USACHEV	POST SLEEP ISS	DPC	CNFG MPLM RACK ENTRY	ME P G L R M S	VESTIBULE DEOUTFITP2	VEST DEPRESS	MEAL	HANDOVER	EXERCISE	HAND OVER PAO EVNT
		VOSS	POST SLEEP ISS	DPC	XFER EU HANDOVER	SINGLE CCAA	HANDOVER	EXERCISE	MEAL	HANDOVER		
		HELMS	POST SLEEP ISS	DPC	CNFG MPLM RACK ENTRY	ME P G L R M S	HANDOVER		MEAL	HANDOVER		
		MCC		DPC								AT HO
		DAY/NIGHT ORBIT	134	135	136	137	138	139	140	141		
		DAILY ORBIT	15	1	2	3	4	5	6	7		
		TDRS										
		RGS COMMAND ORB ATT										
		ISS ATT										
		NOTES:			2-20	* FES DUMP INIT		*APCU 1 ACT				*HANDOV

2-20

FLT PLN/102/FIN 01/26/01

GMT 03/10/01 15 16 17 18 19 20 21 22 23 03/11 01 02 12
 MET Day 009 009/00 01 02 03 04 05 06 07 08 09 10 11

STS-102	CDR WETHERBEE	PRE SLEEP	FES RST M E	WT A R M E	M - X L V	AT P M C	HO O C A	PRE SLEEP	SLEEP	POST SLEEP	
	PLT KELLY	PRE SLEEP							SLEEP	POST SLEEP	
	MS1 THOMAS	PRE SLEEP - GIRA							SLEEP	POST SLEEP - GIRA	
	MS2 RICHARDS	PRE SLEEP							SLEEP	POST SLEEP	
	SHEPHERD	PRE SLEEP							SLEEP	POST SLEEP	
	GIDZENKO	EXERCISE	PRE SLEEP							SLEEP	POST SLEEP
	KRIKALEV	EXERCISE ISS	PRE SLEEP							SLEEP	POST SLEEP
ISS-12	USACHEV	HANDOVER	PRESLEEP-ISS					SLEEP			
	VOSS	HANDOVER	PRESLEEP-ISS					SLEEP			
	HELMS	HANDOVER	PRESLEEP-ISS					SLEEP			
MCC		MP U/L	AT HO	MEC PNK LV M							
DAY/NIGHT	[Shaded bars indicating day/night cycle]										
ORBIT	142	143	144	145	146	147	148	149			
DAILY ORBIT	8	9	10	11	12	13	14	15			
TDRS	[Timeline with E, W, Z markers and horizontal bars]										
RGS COMMAND	[Timeline with horizontal bars]										
ORB ATT	[Timeline with horizontal bars]										
ISS ATT	[Timeline with horizontal bars]										
NOTES:	* FES DUMP TERM 2-21 BIAS -XLV +ZVV BIAS +XVV +ZLV										

GMT 03/11/01

MET Day 009

		12	13	14	15	16	17	18	19	20	21	22	23	14	010/00	
STS-102	CDR WETHERBEE	POST SLEEP	FWA REL	EGRS HATCH CLS	ODS VEST LK CK	MUN ND RCK	UNDOCK OPS	FLYAROUND	MEAL	SIN I M O T	OFF DUTY	OFF DUTY	PFC	OFF DUTY	EXERCISE	
	PLT KELLY	POST SLEEP	PTV21 S/U (ISS)	FWA REL	EGRS HATCH CLS	ODS VEST LK CK	CC/L M R A	UNDOCK OPS	FLYAROUND	MEAL	C/L CAM RMV	OFF DUTY	EXERCISE	OFF DUTY	PFC	PRE SLEEP
	MS1 THOMAS	POST SLEEP - GIRA	FWA REL		ODS VEST LK CK	CC/L M R A	UNDOCK OPS	FLYAROUND	MEAL	OFF DUTY	EXERCISE	OFF DUTY	PFC	OFF DUTY	PRE SLEEP - GIRA	
	MS2 RICHARDS	POST SLEEP	FWA REL				UNDOCK OPS	FLYAROUND	MEAL		OFF DUTY	EXERCISE	OFF DUTY	PFC	PRE SLEEP	
	SHEPHERD	POST SLEEP	DPC	FWA REL			UNDOCK OPS	FLYAROUND	MEAL			EXERCISE			PFC	
	GIDZENKO	POST SLEEP	DPC	FWA REL			UNDOCK OPS	FLYAROUND	MEAL		PFC			EXERCISE	PRE SLEEP	
	KRIKALEV	POST SLEEP	DPC	FWA REL			UNDOCK OPS	FLYAROUND	MEAL		EXERCISE	PFC			PRE SLEEP	
ISSI2	USACHEV	POST SLEEP ISS	DPC	FWA REL	EGRS HATCH CLS		PMA2 DEPART CONFIG		MEAL	PMA2 DEPRS INIT				PDT M P R A R M S		
	VOSS	POST SLEEP ISS	DPC	FWA REL		RUC N O D N K		RCON STGE	MEAL							
	HELMS	POST SLEEP ISS	DPC	FWA REL					MEAL							
MCC	MEC PNK LV	MP DPC		PRE DPRT MODE	SA FTHR	AT HO	ICU &N DDK	P6 SA TRK	PD OP SR TT		MEC PNK LV					
DAY/NIGHT																
ORBIT	149	150	151	152	153	154	155	156	157							
DAILY ORBIT	15	1	2	3	4	5	6	7	8							
TDRS	E W Z															
ORB ATT		BIAS -XLV +ZVV		-XLV +ZVV	FLY	BIAS +ZLV +YVV		-ZLV -XVV								
ISS ATT		BIAS +XVV +ZLV		UNDOCK		BIAS +XVV +ZLV										
RGS COMMAND																
NOTES:			2-22		*FLTR CK		*UNDOCK 9/16:49		*COMM 1 STRING C/O (A)							

2-22

FLT PLN/102/FIN 01/26/01

GMT		03/11/01																								03/12								
MET		Day 010																								01								
		15	16	17	18	19	20	21	22	23	09	10	11	12	01	02																		
S T S - 1 0 2	FD11	PRE SLEEP		PMC OCA	PRE SLEEP		SLEEP										POST SLEEP																	
	CDR WETHERBEE	PRE SLEEP		PMC OCA	PRE SLEEP		SLEEP										POST SLEEP																	
	PLT KELLY	PRE SLEEP				SLEEP										POST SLEEP																		
	MS1 THOMAS	PRE SLEEP - GIRA				SLEEP										POST SLEEP - GIRA																		
	MS2 RICHARDS	PRE SLEEP				SLEEP										POST SLEEP																		
	SHEPHERD	PRE SLEEP				SLEEP										POST SLEEP																		
	GIDZENKO	PRE SLEEP				SLEEP										POST SLEEP																		
KRIKALEV	PRE SLEEP				SLEEP										POST SLEEP																			
MCC			MEC PNK LV M																															
DAY/NIGHT	ORBIT																																	
TDRS	E																																	
GND	W																																	
ORB ATT	Z																																	
NOTES:																																		

GMT		03/12/01		03 04 05 06 07 08 09 10 11 12 13 14 011/00																											
MET		Day 010		12 13 14 15 16 17 18 19 20 21 22 23 011/00																											
STS-102	CDR WETHERBEE	FD12		POST SLEEP		FILTER CLEANING		FCS C/O		RCS H/F	CS OT ND W	CT OR ND W N	CONDENSATE CWC DUMP		PILOT W/OUT RHC		D/O BRIEF		MEAL		EXERCISE		LC-1MM	CABIN STOW		LC-1MM	CABIN STOW		ERGO STOW	PMC A/G	PRE SLEEP
	PLT KELLY	POST SLEEP	POST SLEEP	SD SE V A C T	FCS C/O		RCS H/F	EXERCISE		PST E V T O U P	PILOT W/OUT RHC		D/O BRIEF		MEAL		PST E V T O U R S P Y	CA OB S R B	CABIN STOW	LC-1MM	CABIN STOW		LC-1MM	CABIN STOW		PRE SLEEP					
	MS1 THOMAS	POST SLEEP - GIRA		POST EVA ENT PREP		CABIN STOW		EXERCISE		D/O BRIEF		MEAL		CABIN STOW		PRE SLEEP - GIRA															
	MS2 RICHARDS	POST SLEEP		POST EVA ENT PREP		FCS C/O		RCS H/F	CABIN STOW		COMM*	EXERCISE		D/O BRIEF		MEAL		K S U T - O S - B D B W S / U	OCA S / U	PGSC STOW PART I	CABIN STOW		ERGO STOW		PRE SLEEP						
	SHEPHERD	POST SLEEP		EXERCISE		PEAVOENT		D/O BRIEF		MEAL		SEED		CABIN STOW		RCMBNT SEAT S/U		PRE SLEEP													
	GIDZENKO	POST SLEEP		EXERCISE		PEAVOENT		D/O BRIEF		MEAL		CABIN STOW		RCMBNT SEAT S/U		PRE SLEEP															
	KRIKALEV	POST SLEEP		EXERCISE		PEAVOENT		D/O BRIEF		MEAL		CABIN STOW		RCMBNT SEAT S/U		PRE SLEEP															
MCC	MEC P N K L V																														
DAY/NIGHT	ORBIT		165 166 167 168 169 170 171 172 173																												
TDRS	E W Z		[Timeline of TDRS events]																												
GND	-MIL -MIL -VAN VAN																														
ORB ATT	-ZLV -XVV FCS -ZLV -XVV																														
NOTES:	*APU B HTR ACT *COMM 1 STRING C/O (B) *FES DUMP INIT *FES DUMP TERM																														

GMT		03/12/01																								03/13																																																																																															
MET		Day 011																																																																																																																							
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		01		02		03		04		05		06		07		08		09		10		11																																																																																																			
S T S - 1 0 2	CDR	FD12				PRE SLEEP				M - C N - A V - L R - V		SLEEP												POST SLEEP																																																																																																	
	PLT					PRE SLEEP				SLEEP												POST SLEEP																																																																																																			
	MS1					PRE SLEEP - GIRA				SLEEP												POST SLEEP - GIRA		T E M P C																																																																																																	
	MS2					PRE SLEEP				SLEEP												POST SLEEP																																																																																																			
	SHEPHERD					PRE SLEEP				SLEEP												POST SLEEP																																																																																																			
	GIDZENKO					PRE SLEEP				SLEEP												POST SLEEP																																																																																																			
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MCC					MEC PNK LV M														MEC PNK LV M																																																																																																						
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GND		-ZLV -XVV																																																																								-ZLV -YVV																																															
ORB ATT																																																																																																																									
NOTES:																																																																																																																									

GMT 03/13/01
 MET Day 011

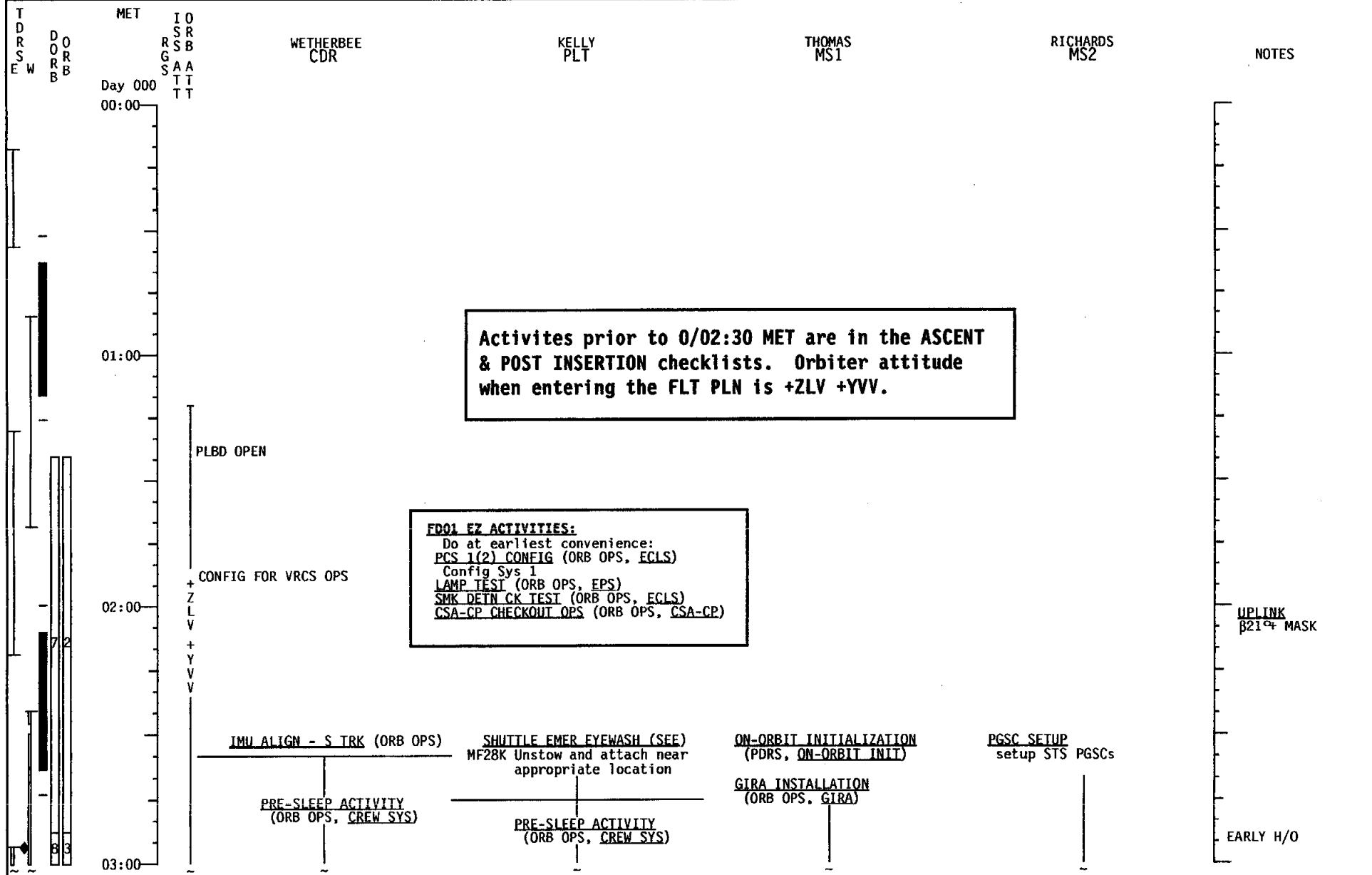
		12		13		14		15		16		17		18		19		20		21		22		23		012/00	
STS-102	CDR	PMCA/G	POST SLEEP	IMU ALIGN/VERIF	M-NXVRSI	DEORBIT PREP																					
	PLT	POST SLEEP	GP RP RUB		OSTOAKC	DEORBIT PREP																					
	MS1	H20*	GSITROAW	RCMBNT SEAT S/U		DEORBIT PREP																					
	MS2	POST SLEEP		PGSC STOW PART II		DEORBIT PREP																					
	SHEPHERD	POST SLEEP		RCMBNT SEAT S/U		DEORBIT PREP																					
	GIDZENKO	POST SLEEP		RCMBNT SEAT S/U		DEORBIT PREP																					
	KRIKALEV	POST SLEEP		RCMBNT SEAT S/U		DEORBIT PREP																					
MCC																											
DAY/NIGHT ORBIT																											
TDRS E W Z																											
ORB ATT																											
NOTES:		*GALLEY SAMPLE *APCU 1 DEACT <div style="float: right; margin-top: 10px;"> <div style="border: 1px solid black; padding: 2px; margin-right: 20px;">*KSC TIG 11/17:23</div> <div style="border: 1px solid black; padding: 2px;">*KSC LDG 11/18:28</div> </div>																									

DETAILED TIMELINE

**DETAILED
TIMELINE**

DETAILED TIMELINE

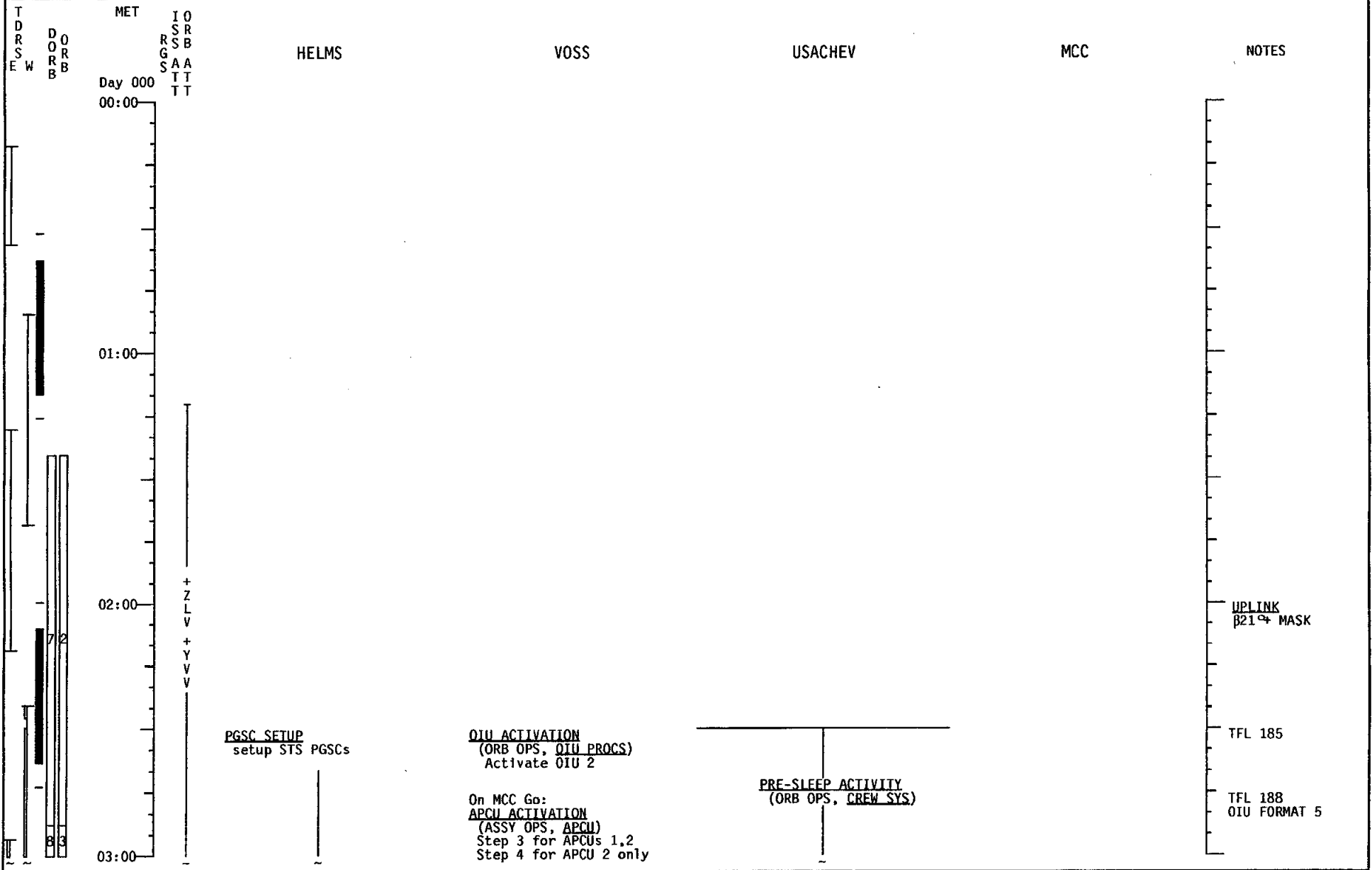
STS-102 (FD01)



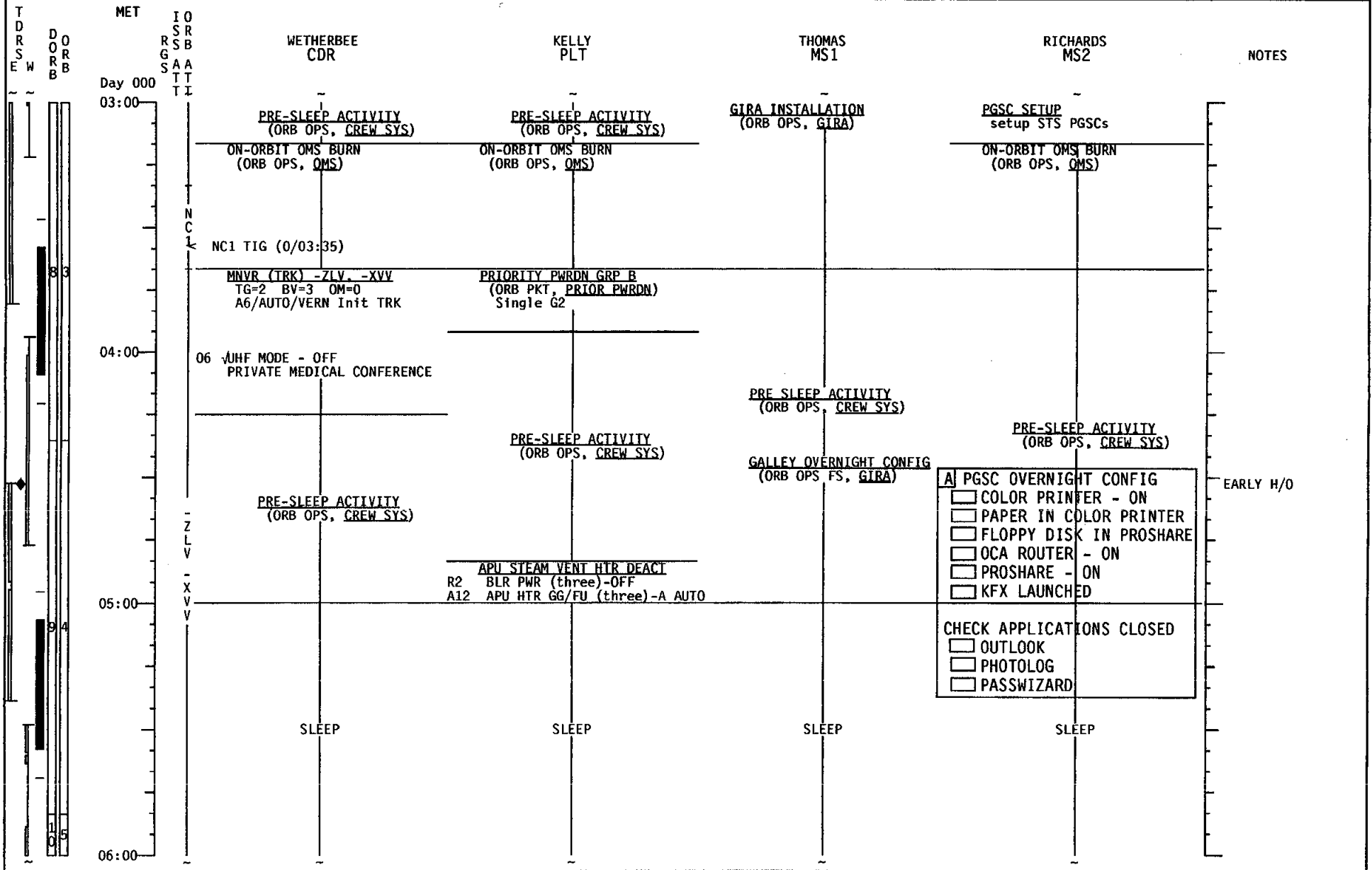
Activities prior to 0/02:30 MET are in the ASCENT & POST INSERTION checklists. Orbiter attitude when entering the FLT PLN is +ZLV +YVV.

FD01 EZ ACTIVITIES:
 Do at earliest convenience:
 PCS 1(2) CONFIG (ORB OPS, ECLS)
 Config Sys 1
 LAMP TEST (ORB OPS, EPS)
 SMK DETN CK TEST (ORB OPS, ECLS)
 CSA-CP CHECKOUT OPS (ORB OPS, CSA-CP)

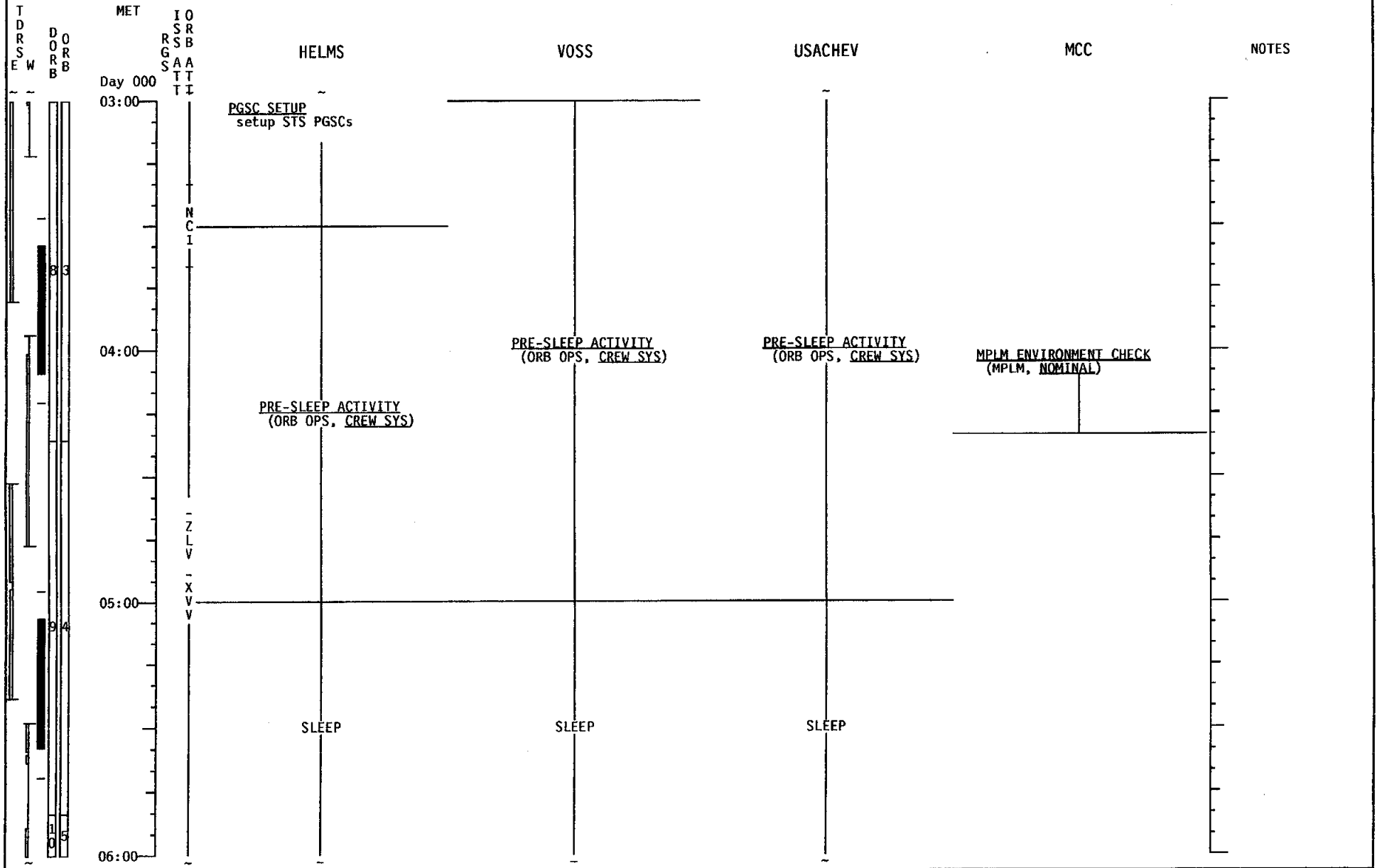
STS-102 (FD01)



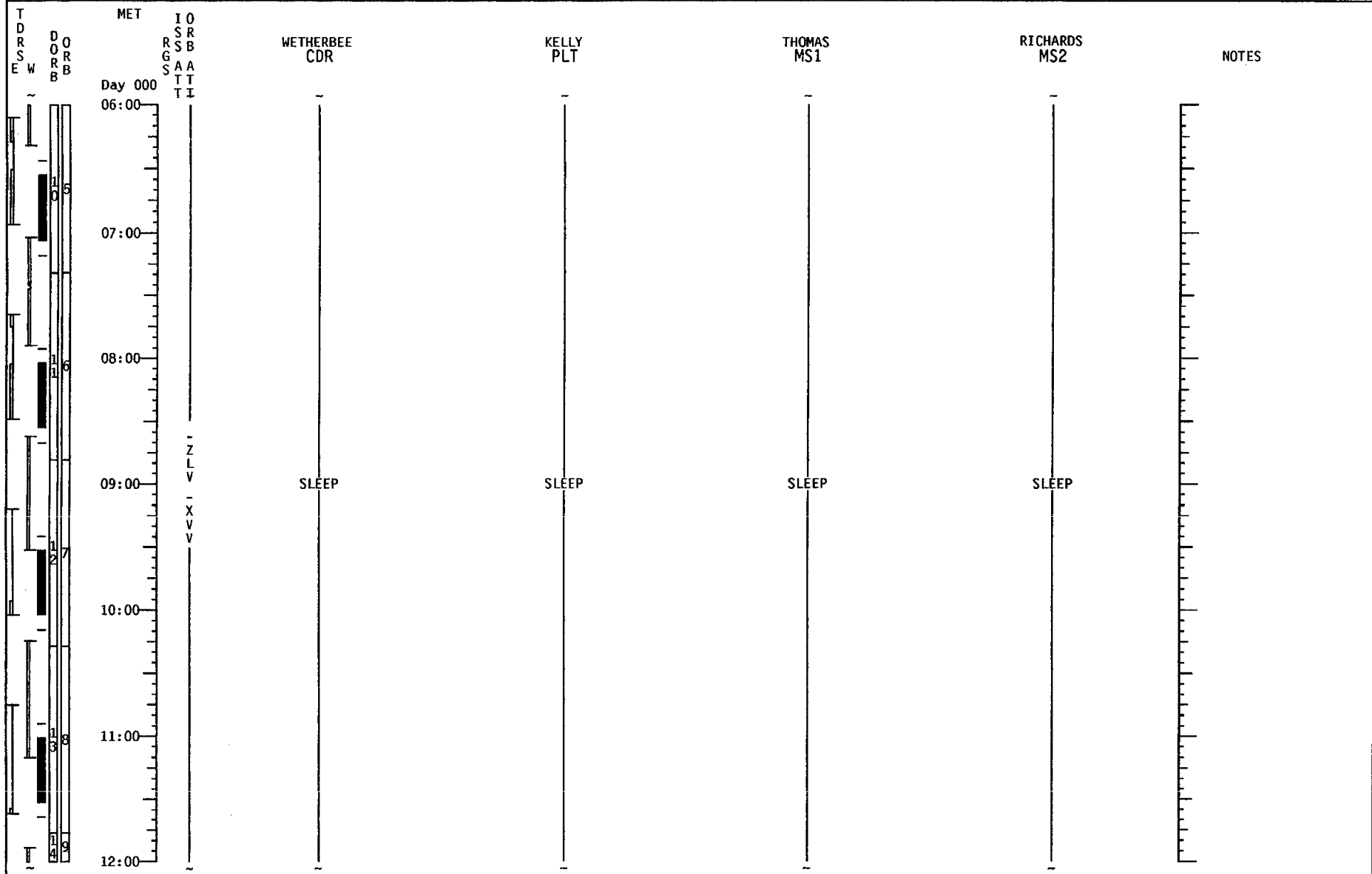
STS-102 (FD01)



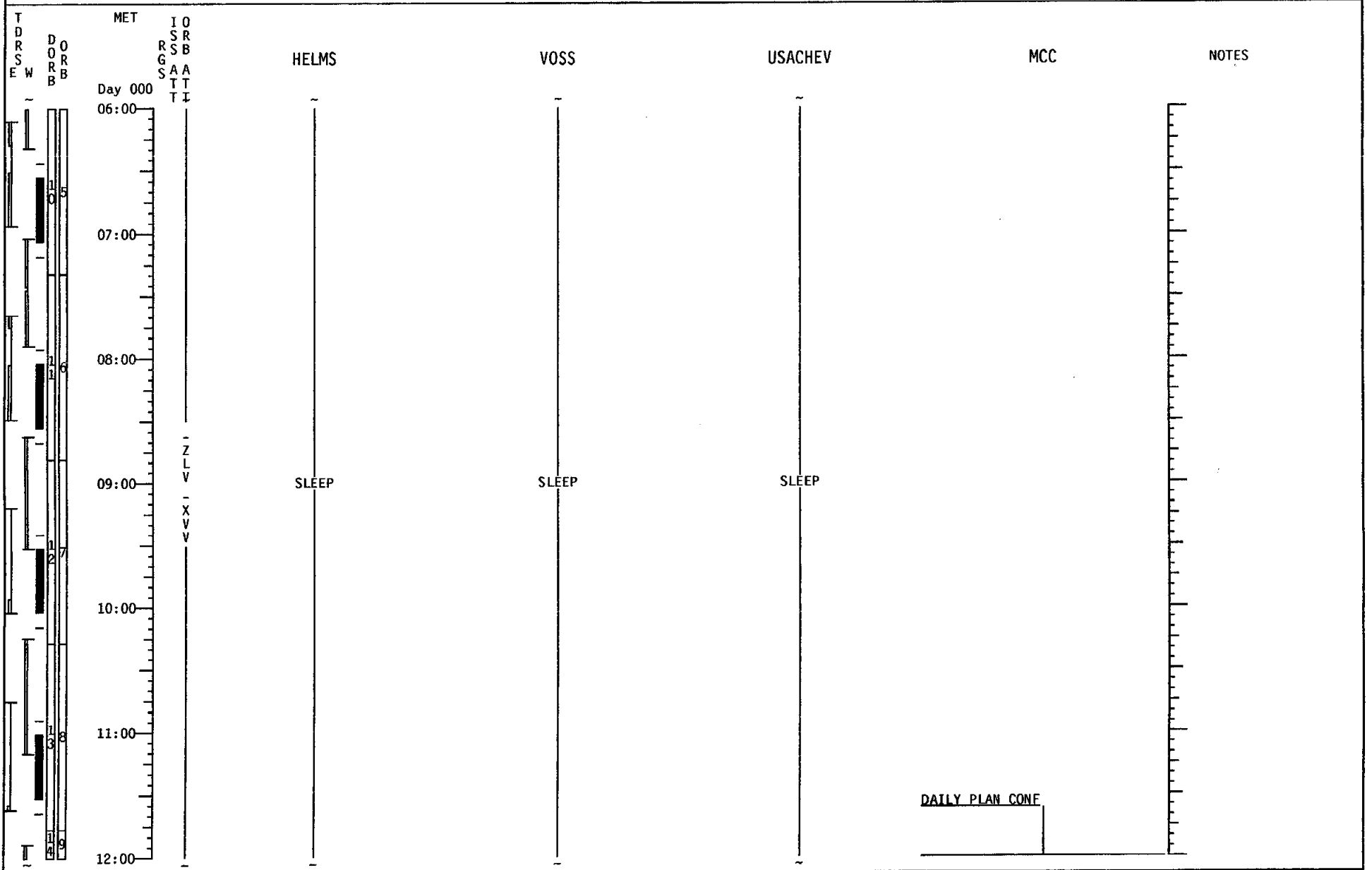
STS-102 (FD01)



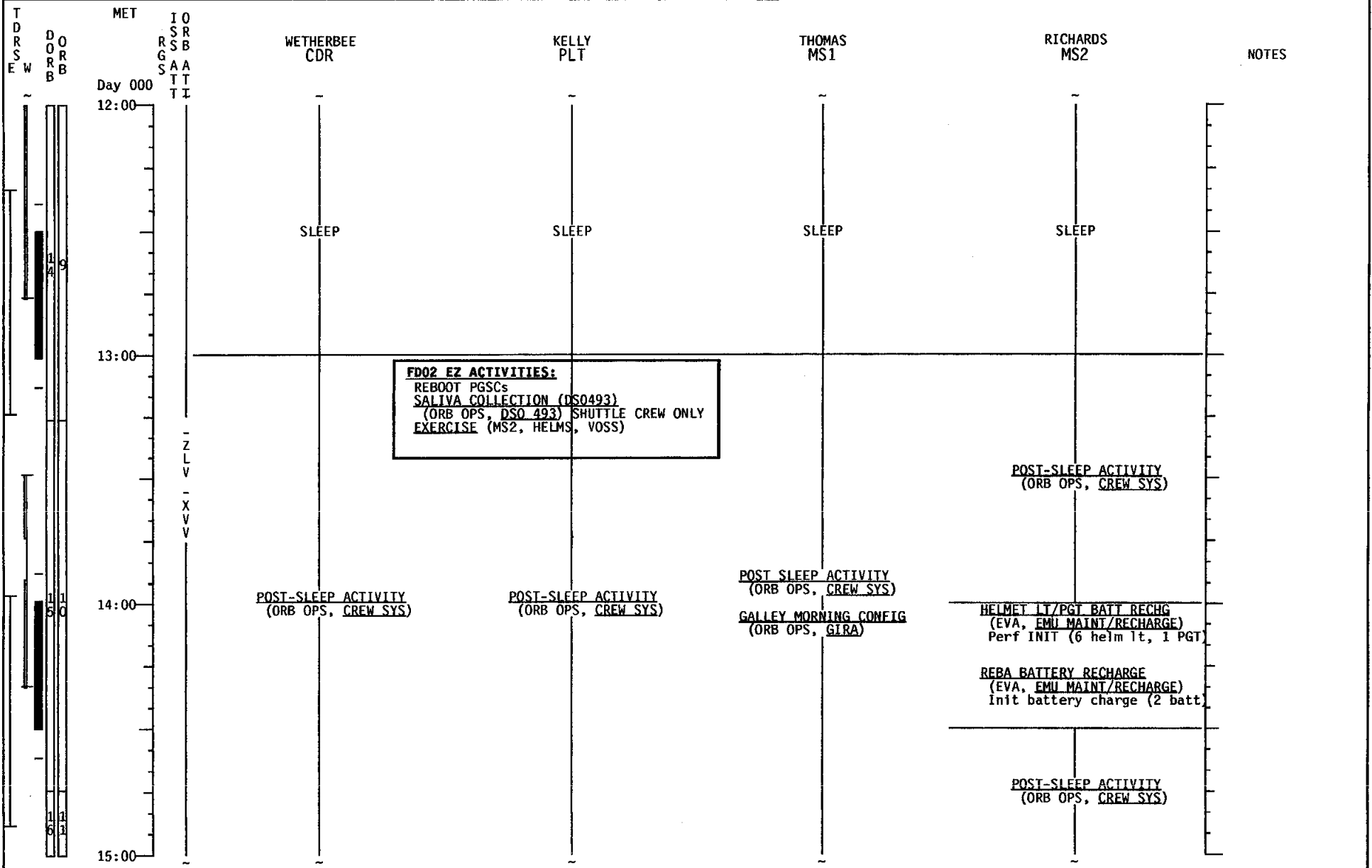
STS-102 (FD01)



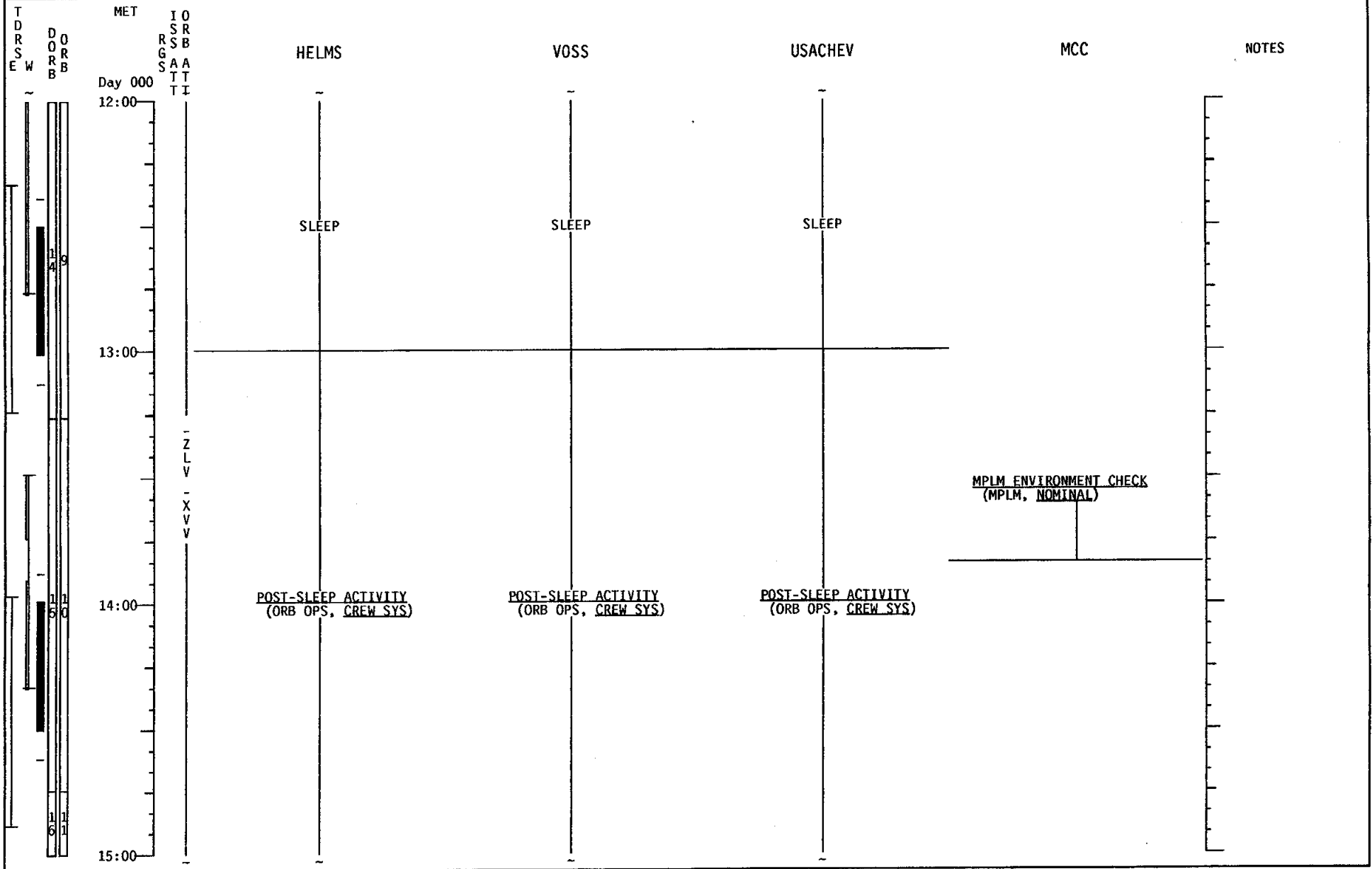
STS-102 (FD01)



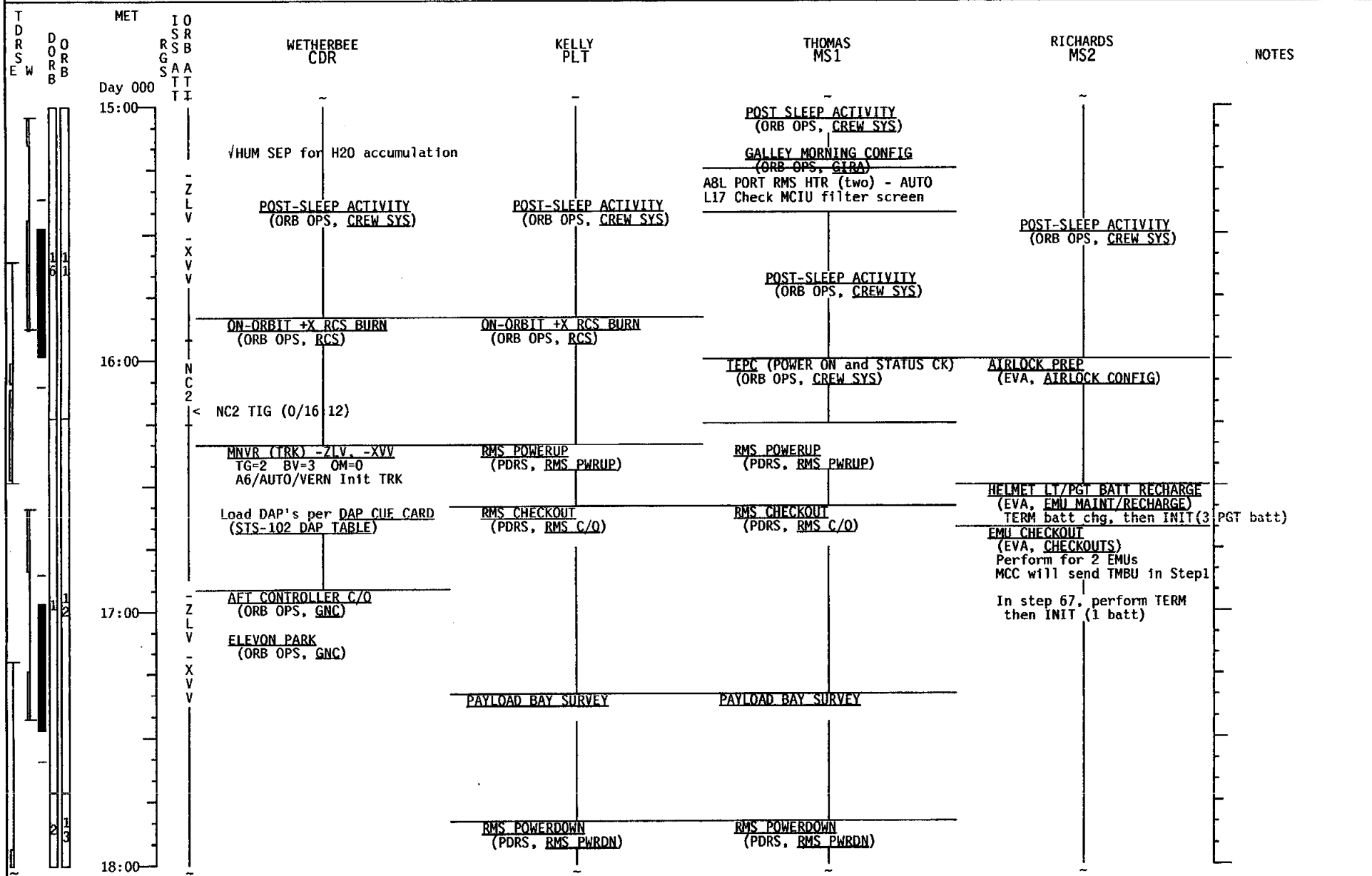
STS-102 (FD02)



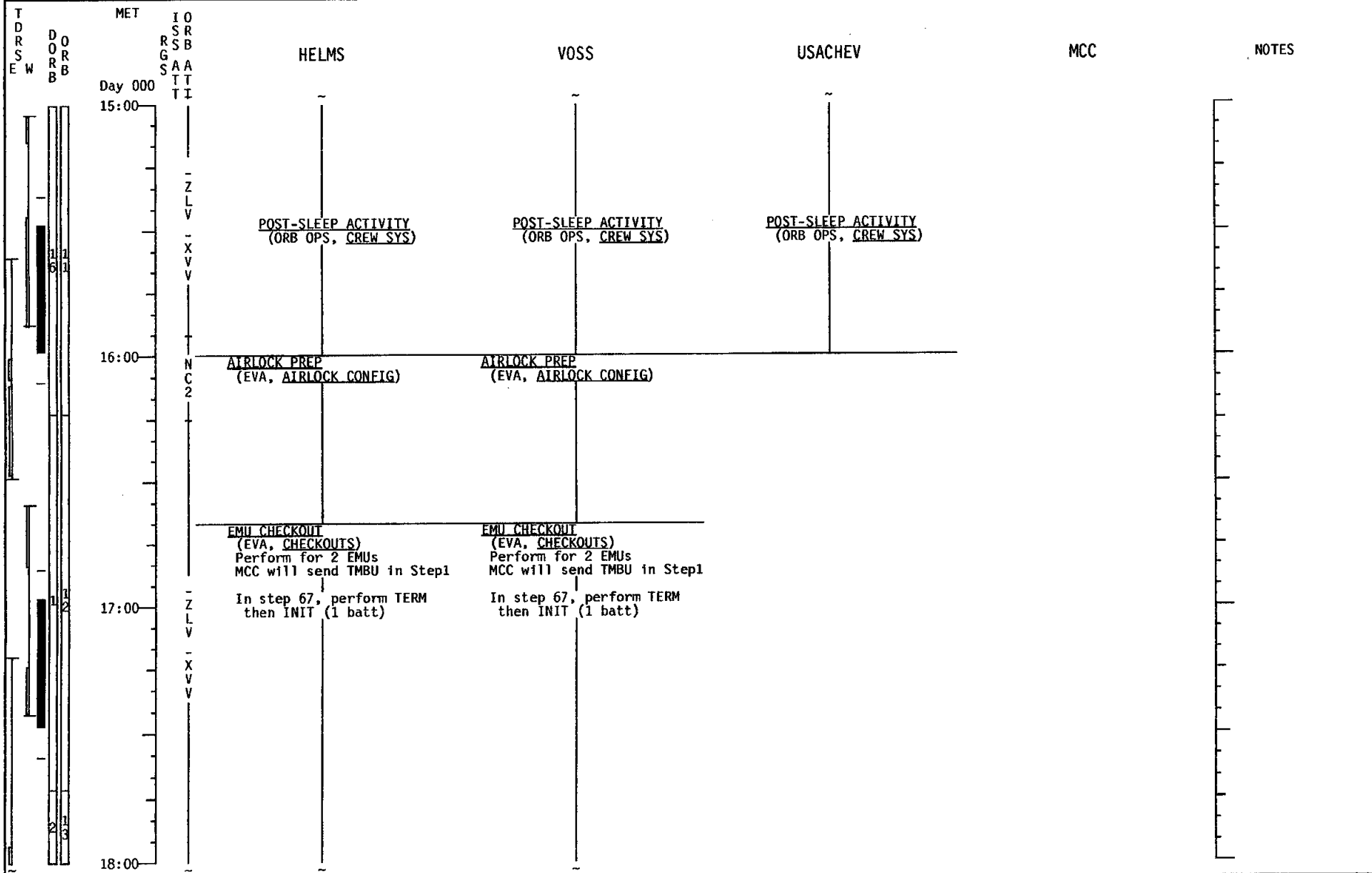
STS-102 (FD02)



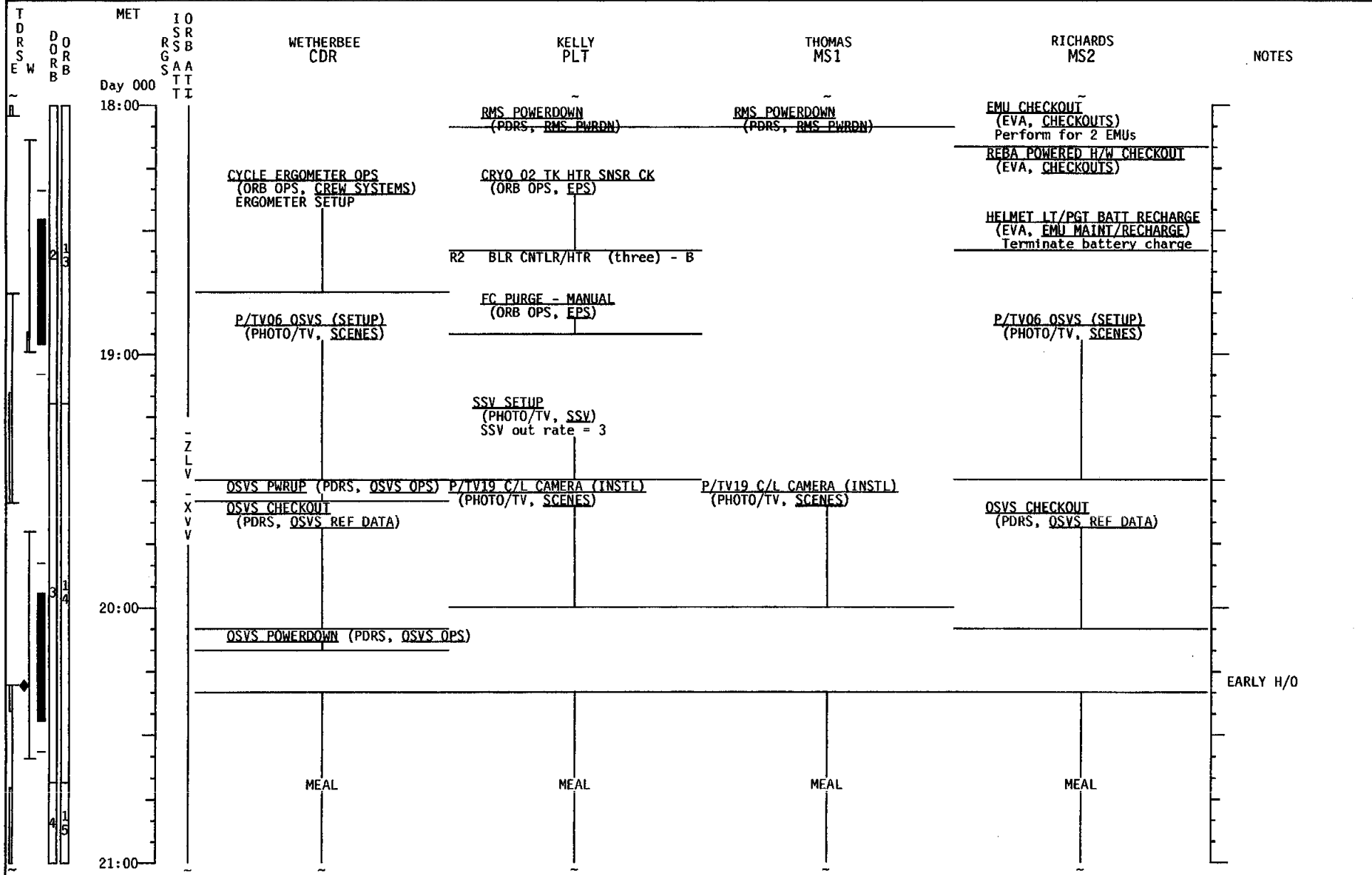
STS-102 (FD02)



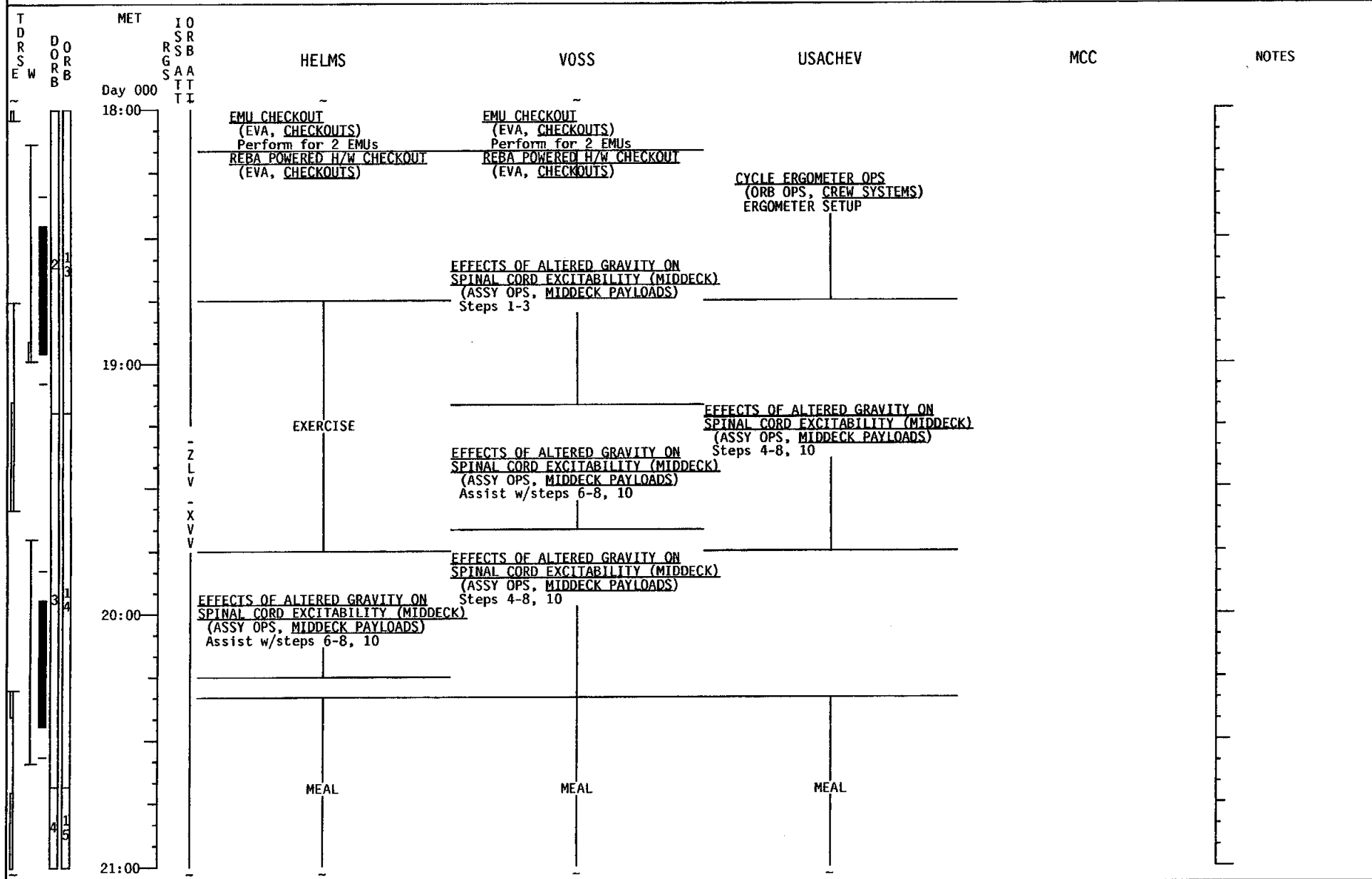
STS-102 (FD02)



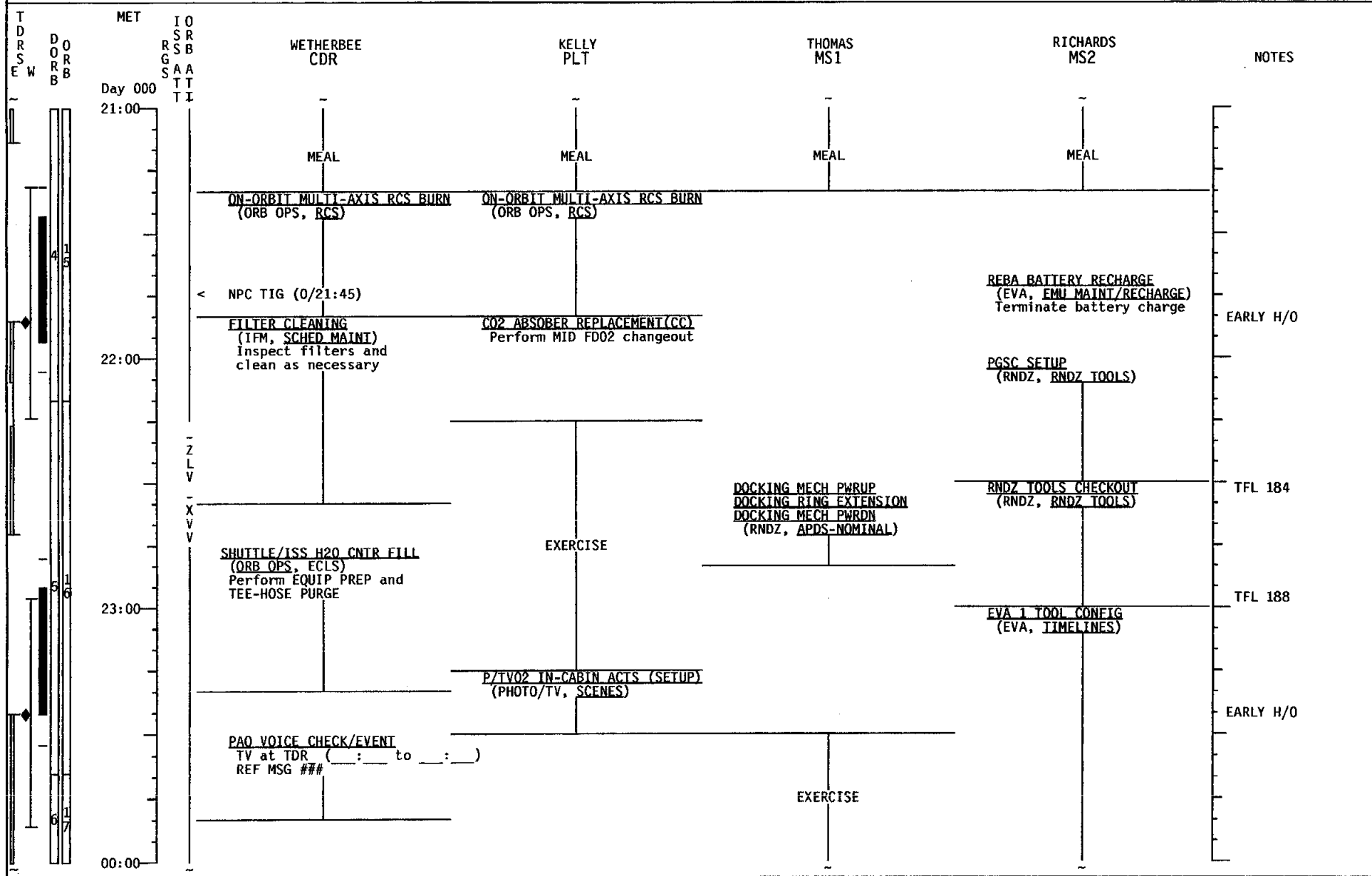
STS-102 (FD02)



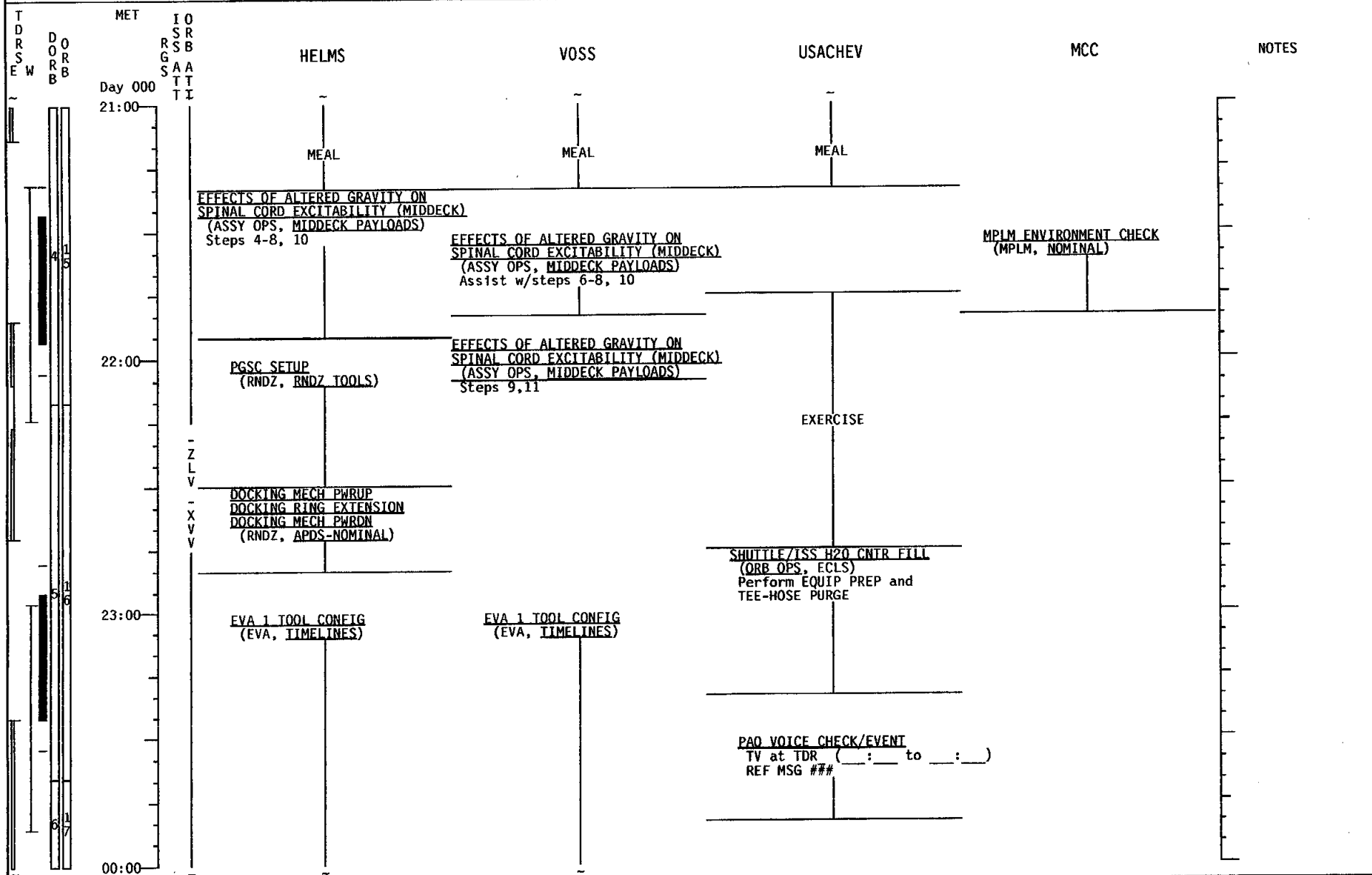
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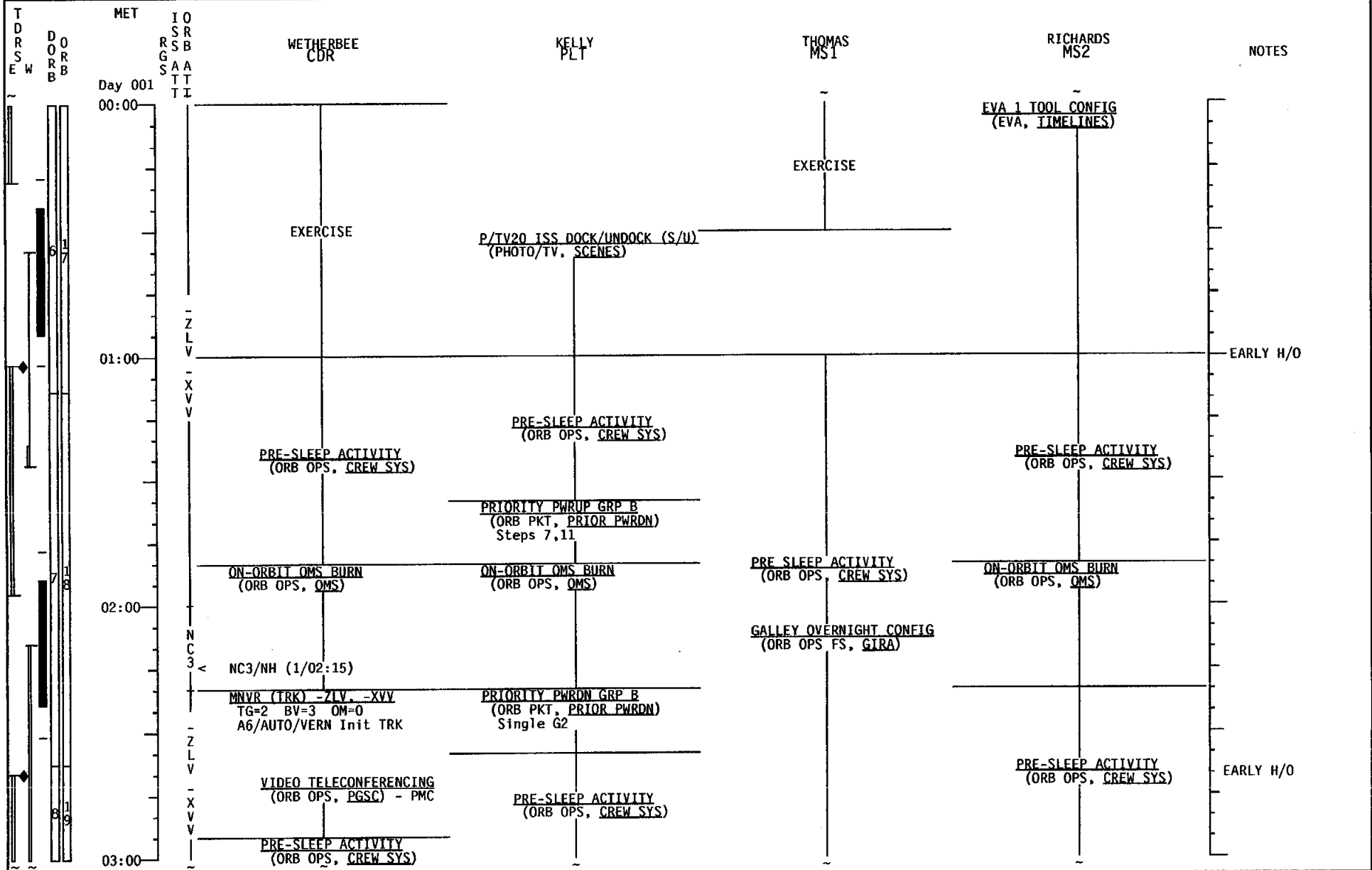
STS-102 (FD02)



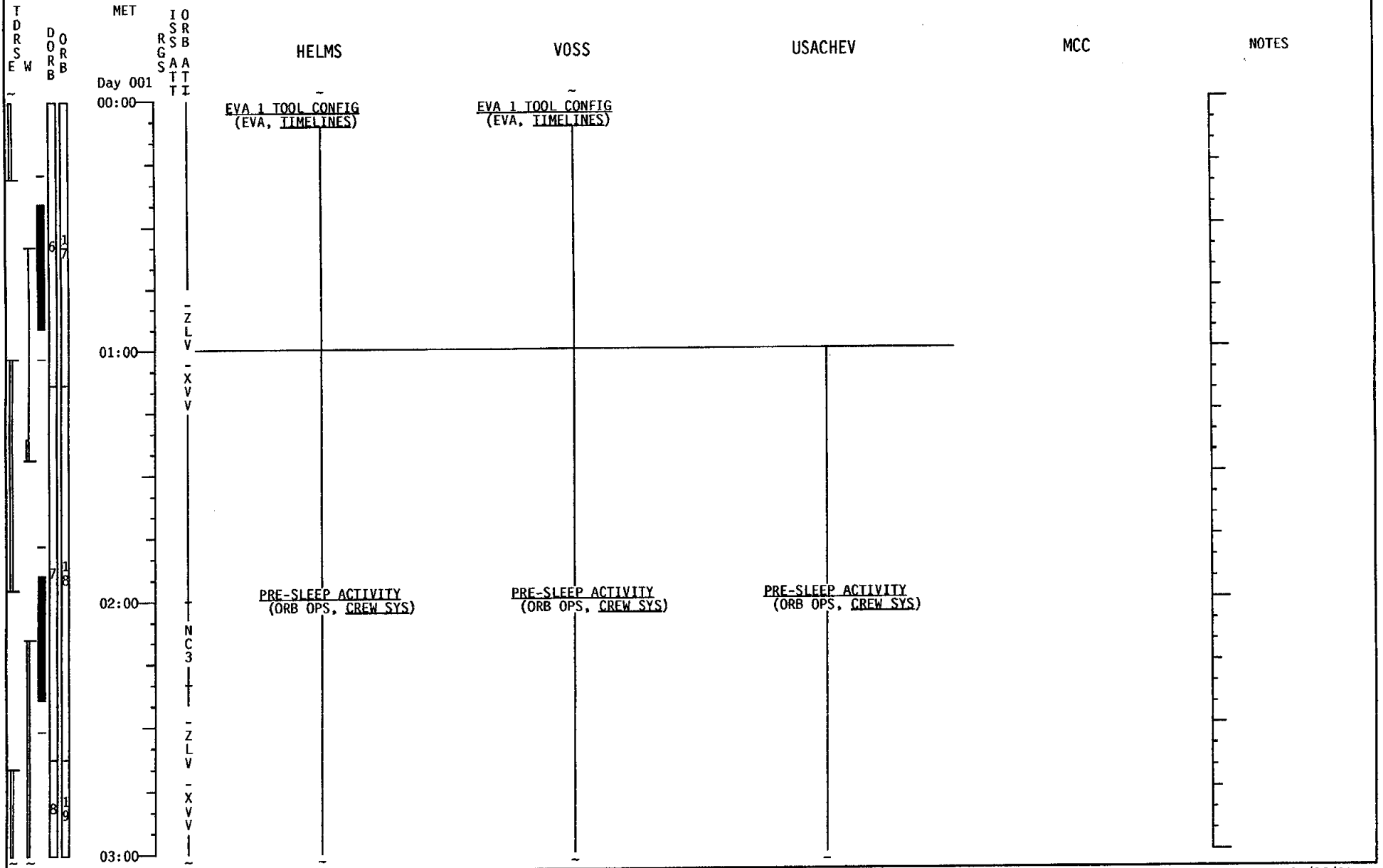
STS-102 (FD02)



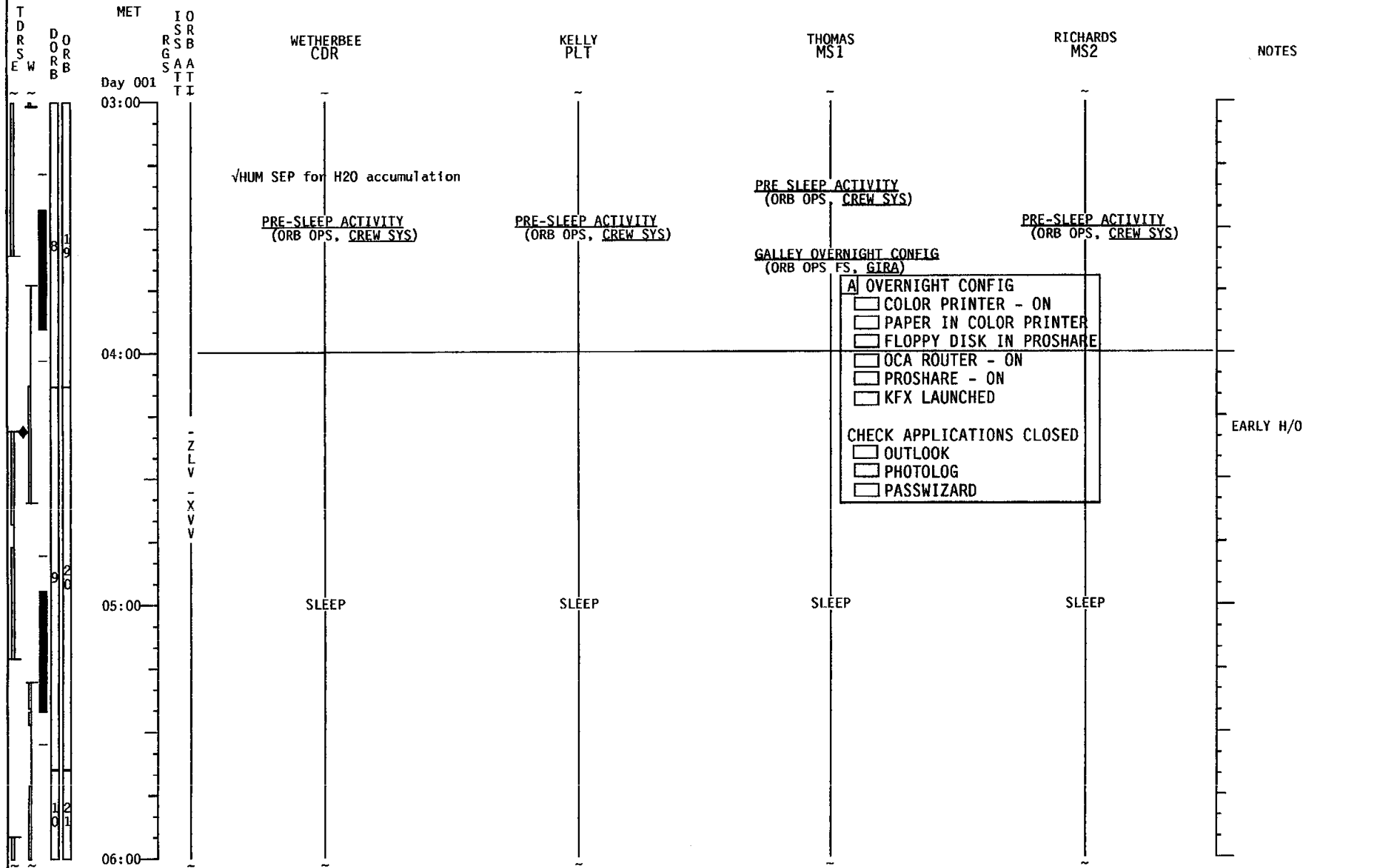
STS-102 (FD02)



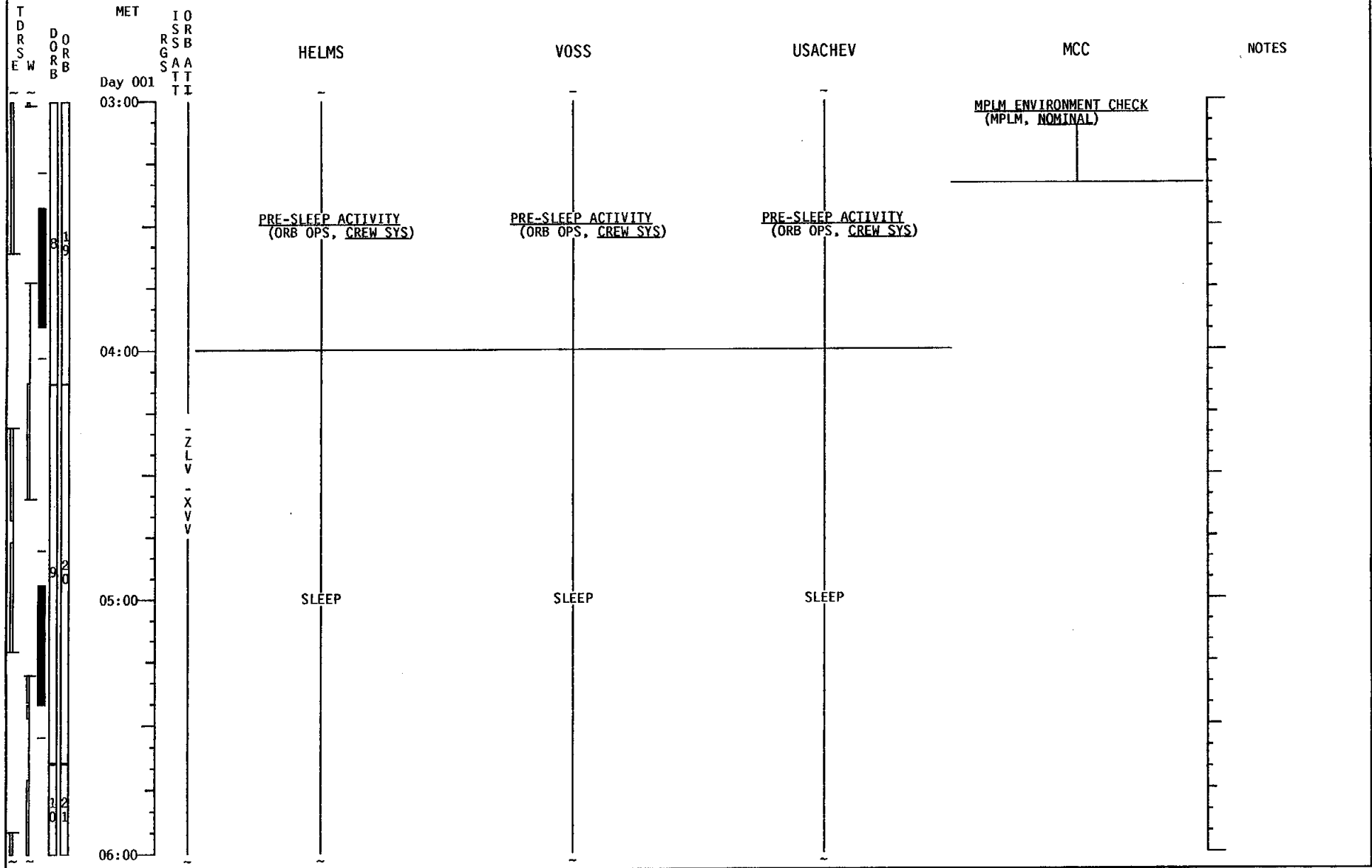
STS-102 (FD02)



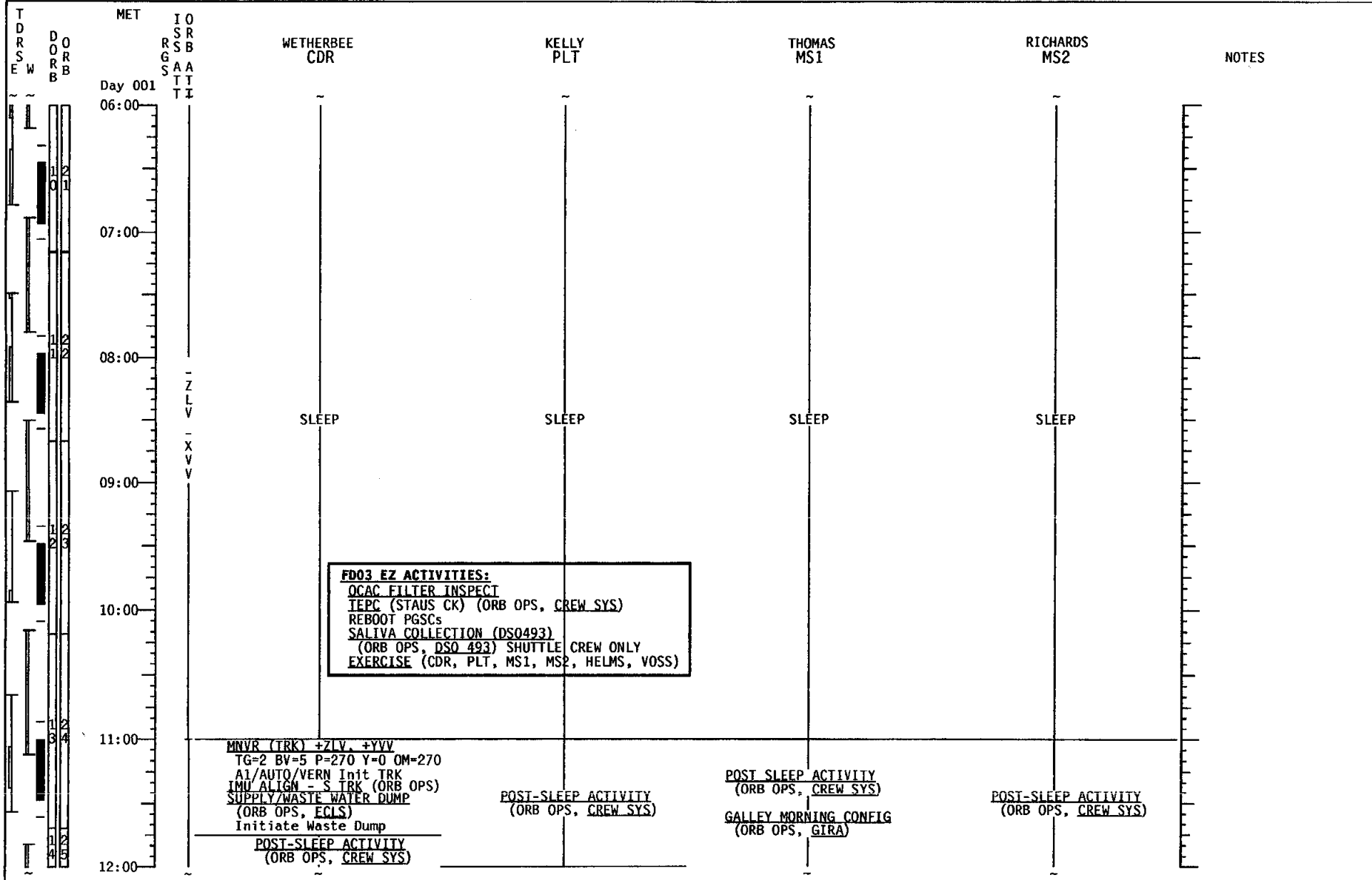
STS-102 (FD02)



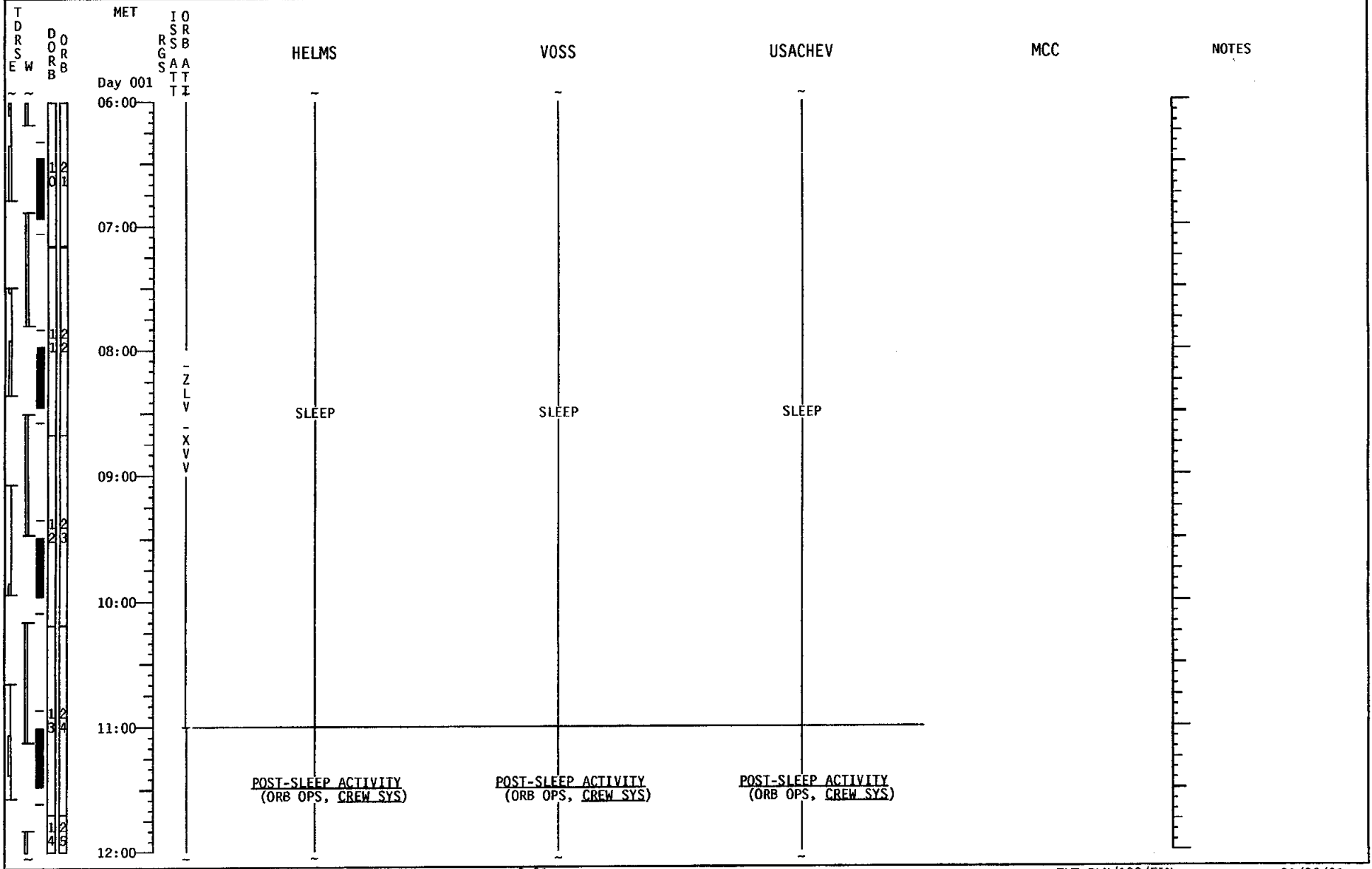
STS-102 (FD02)



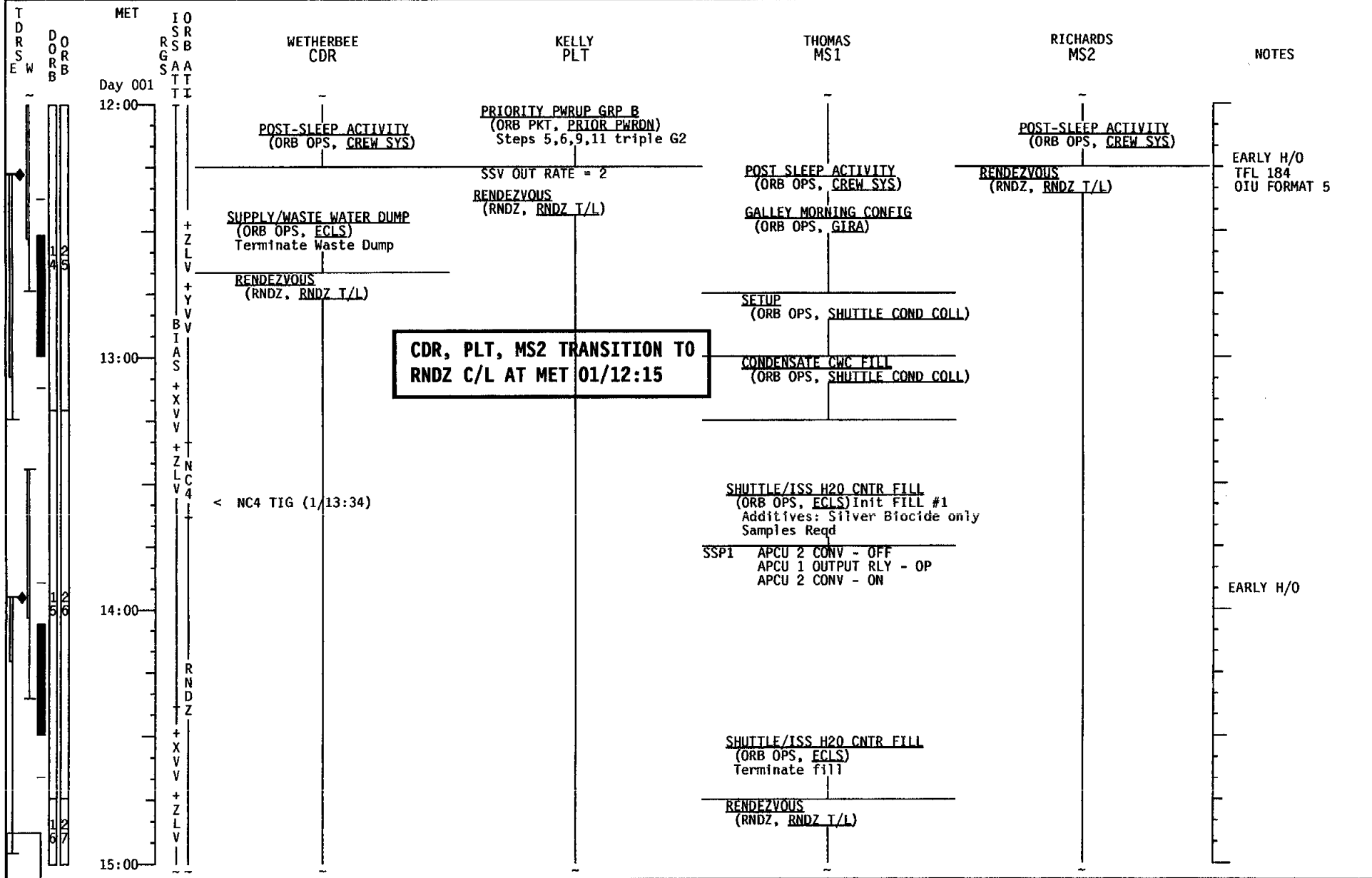
STS-102 (FD03)



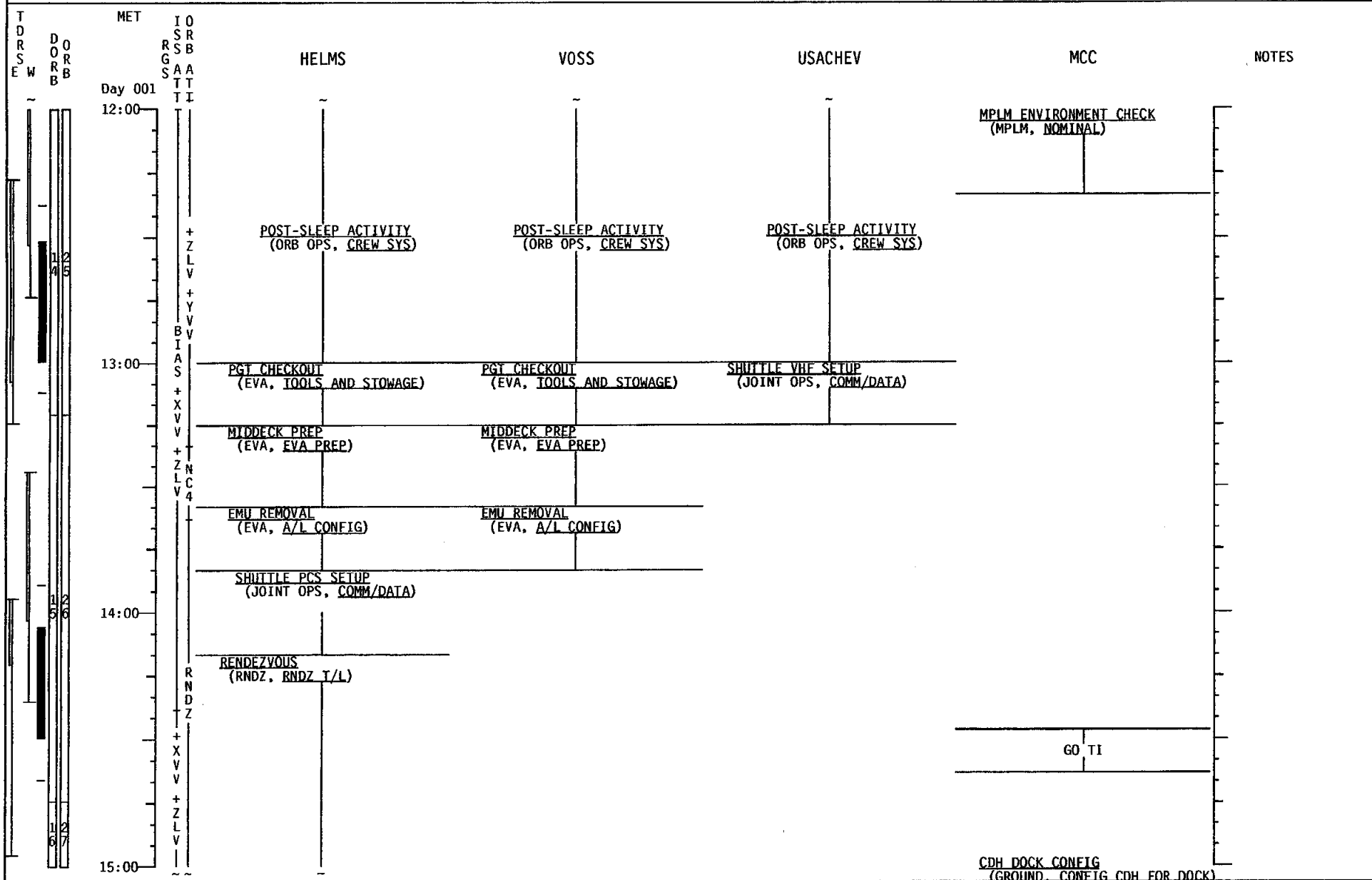
STS-102 (FD03)



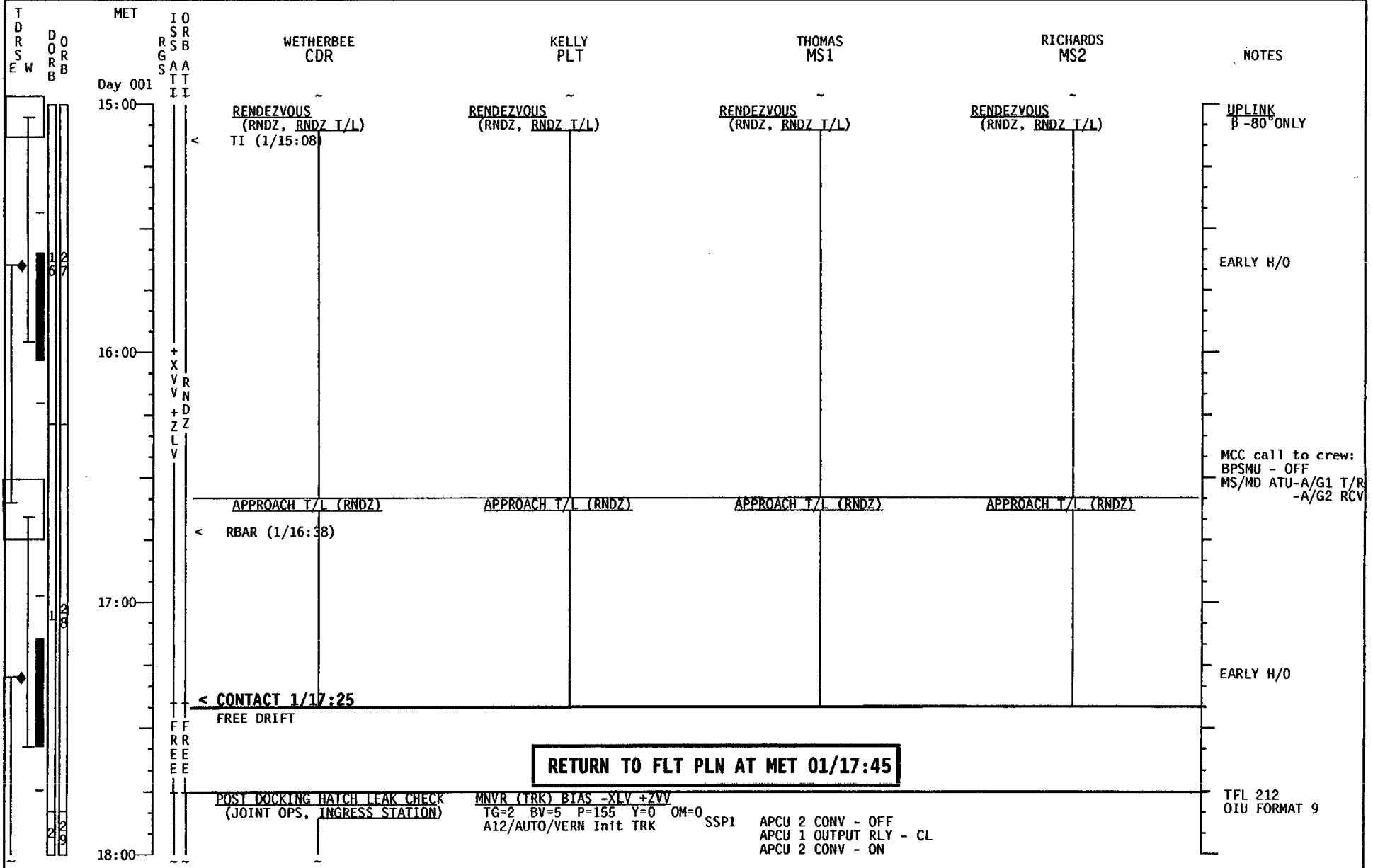
STS-102 (FD03)



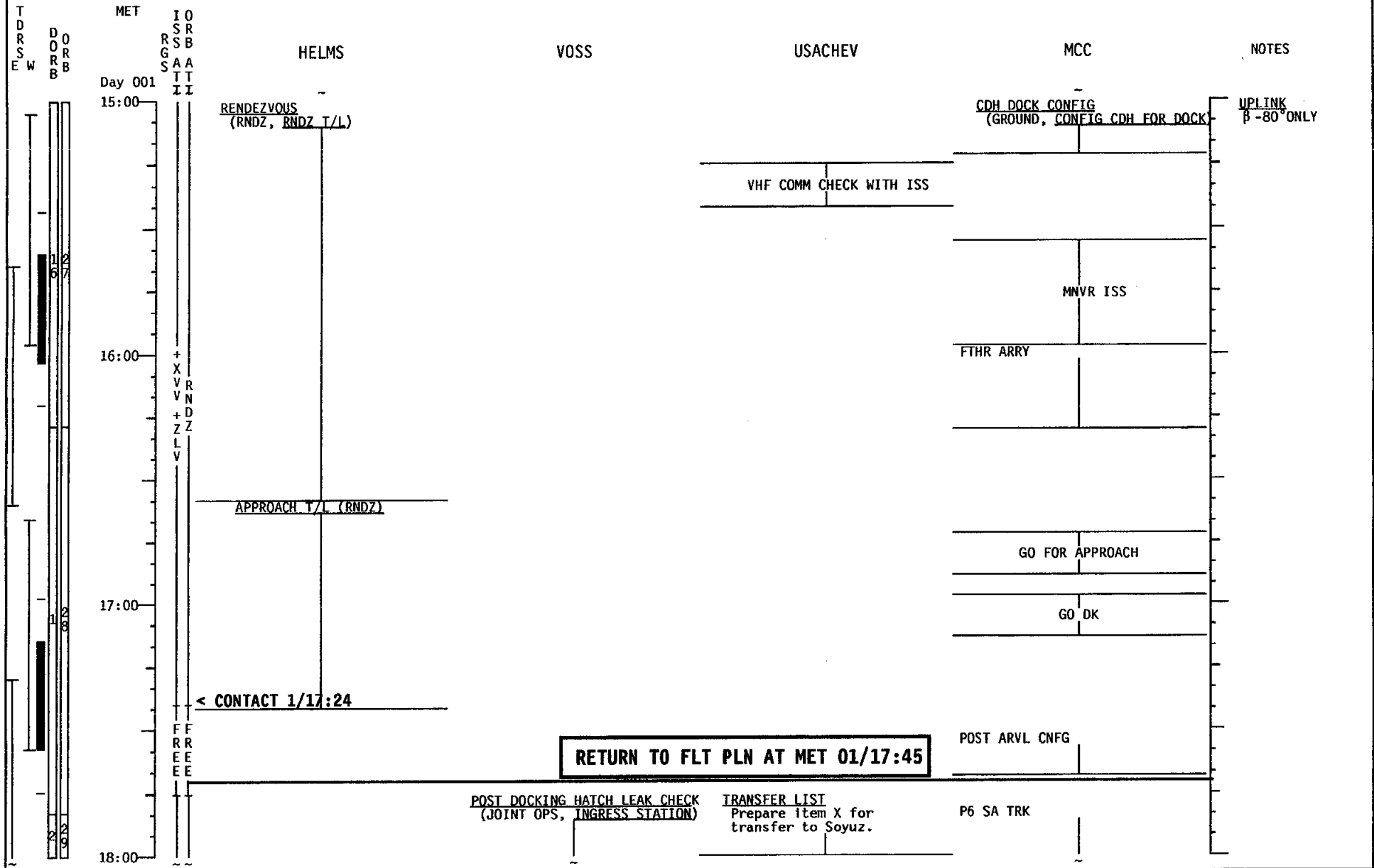
STS-102 (FD03)



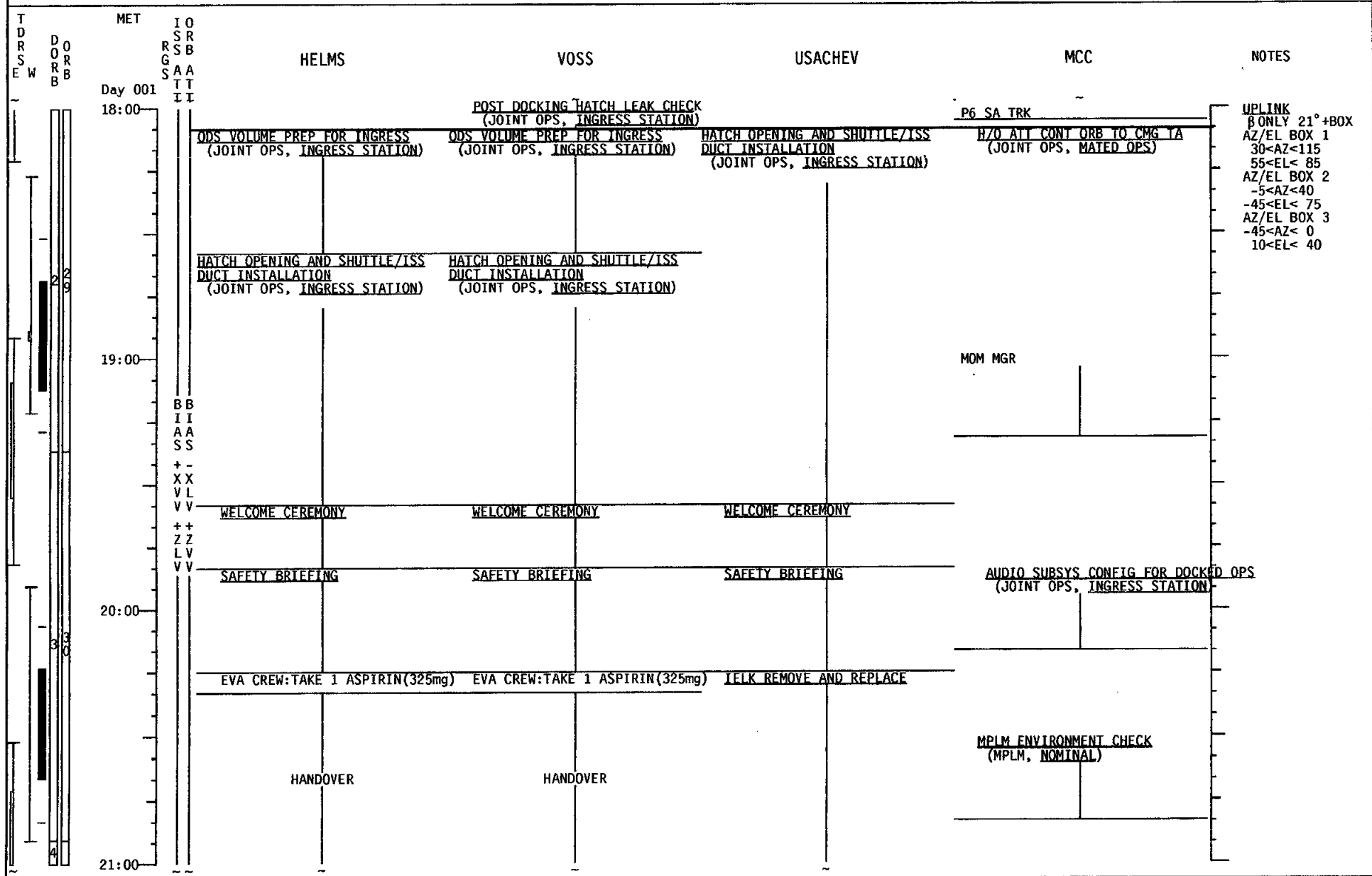
STS-102 (FD03)



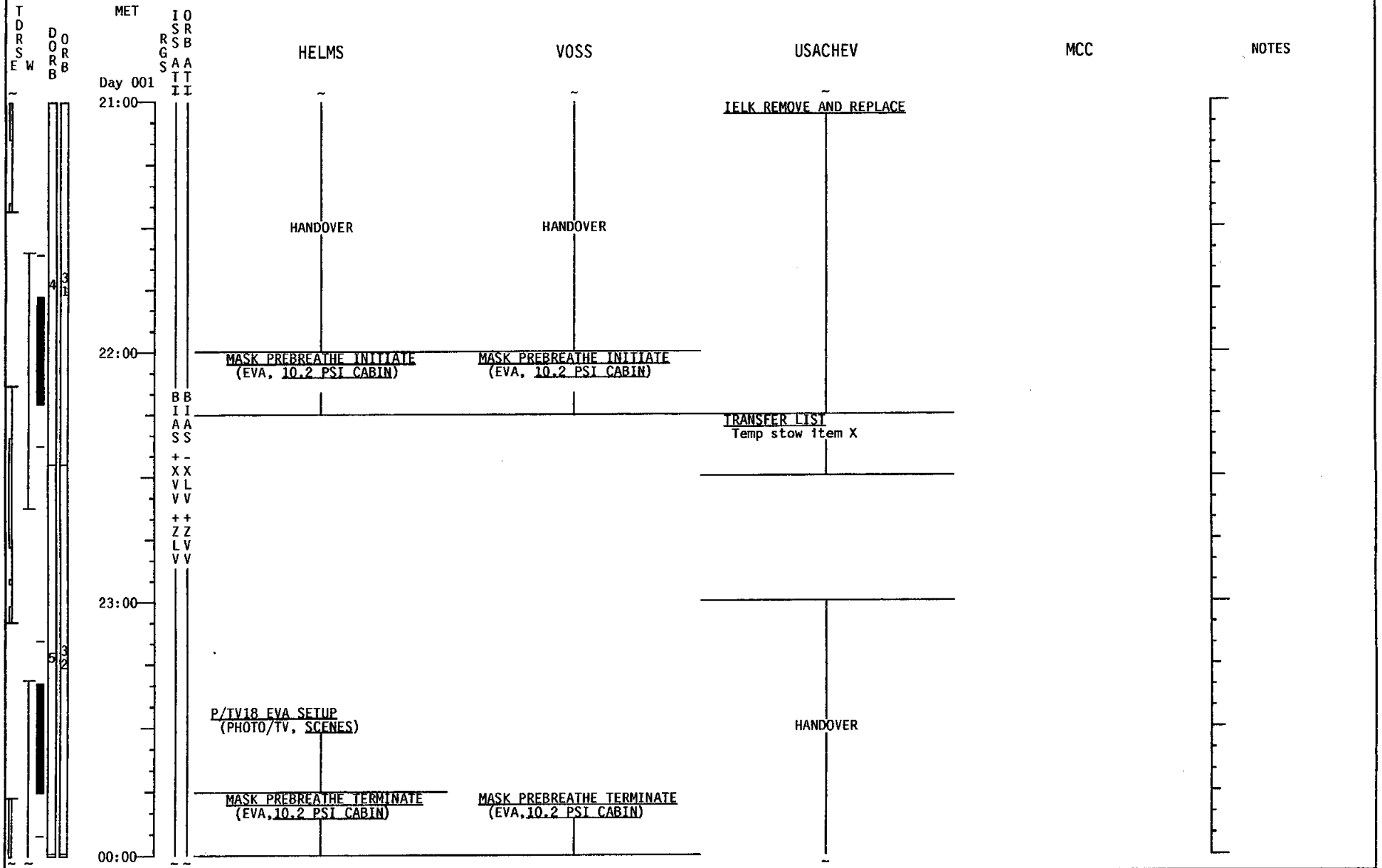
STS-102 (FD03)



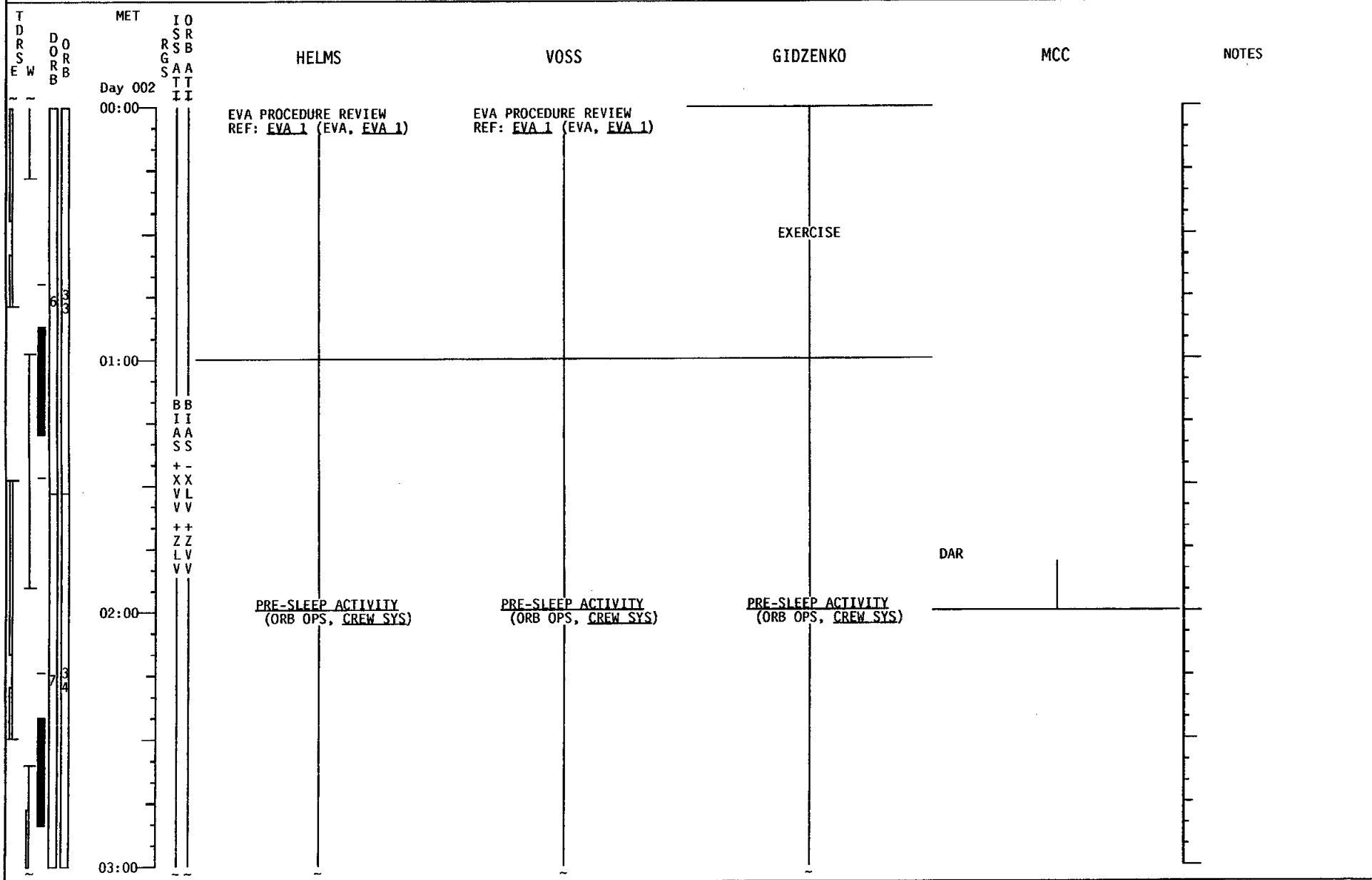
STS-102 (FD03)



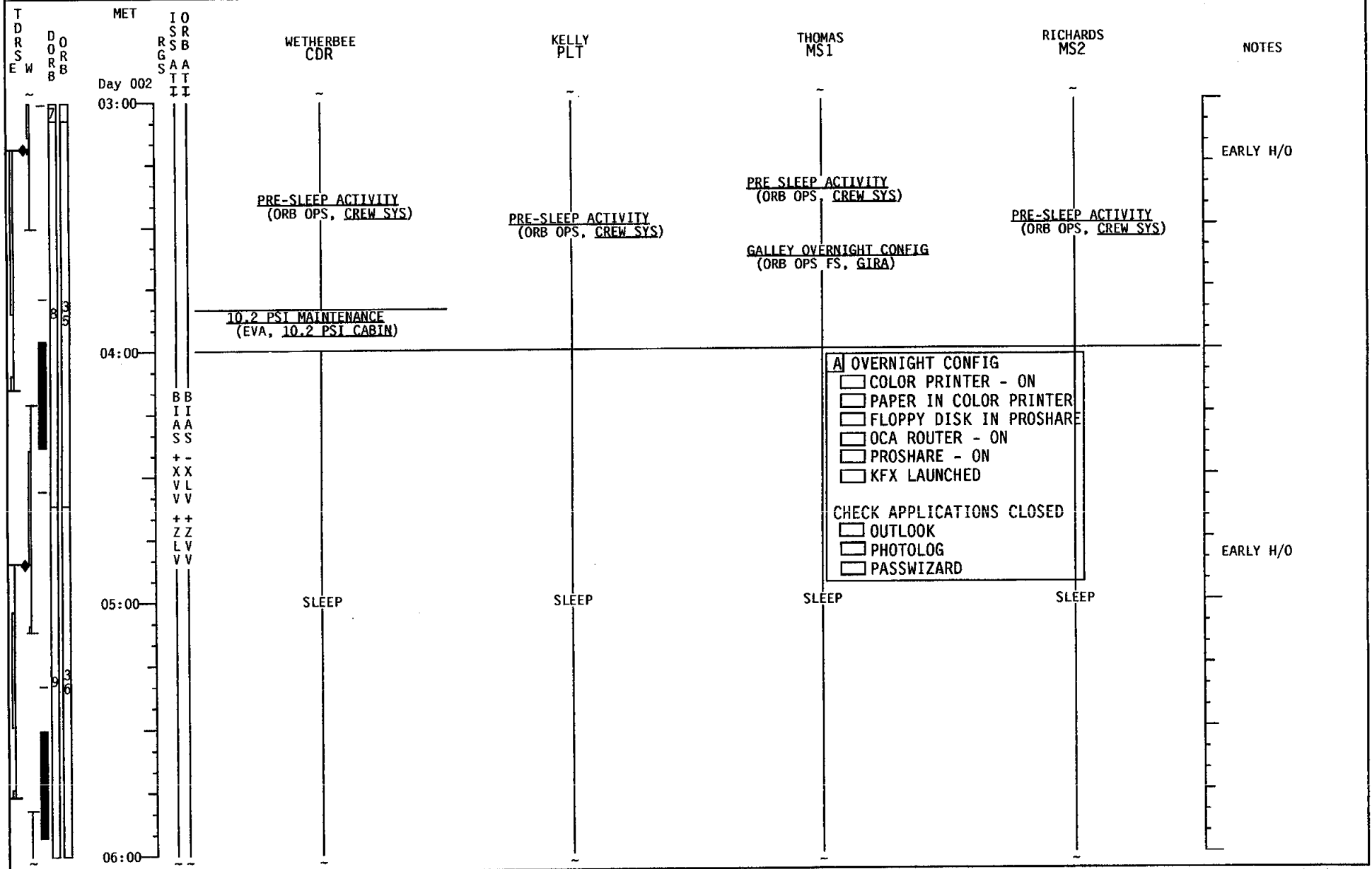
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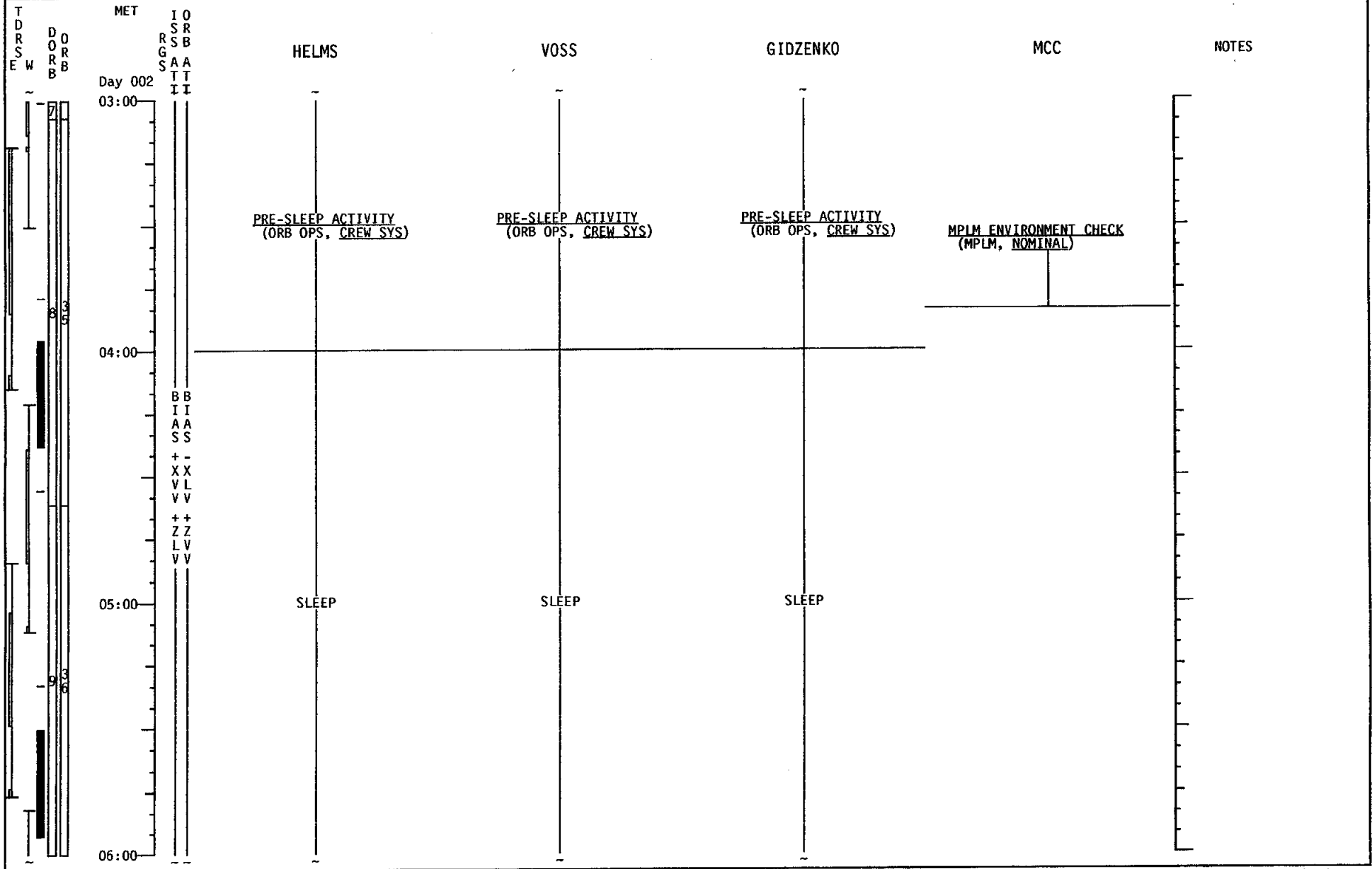
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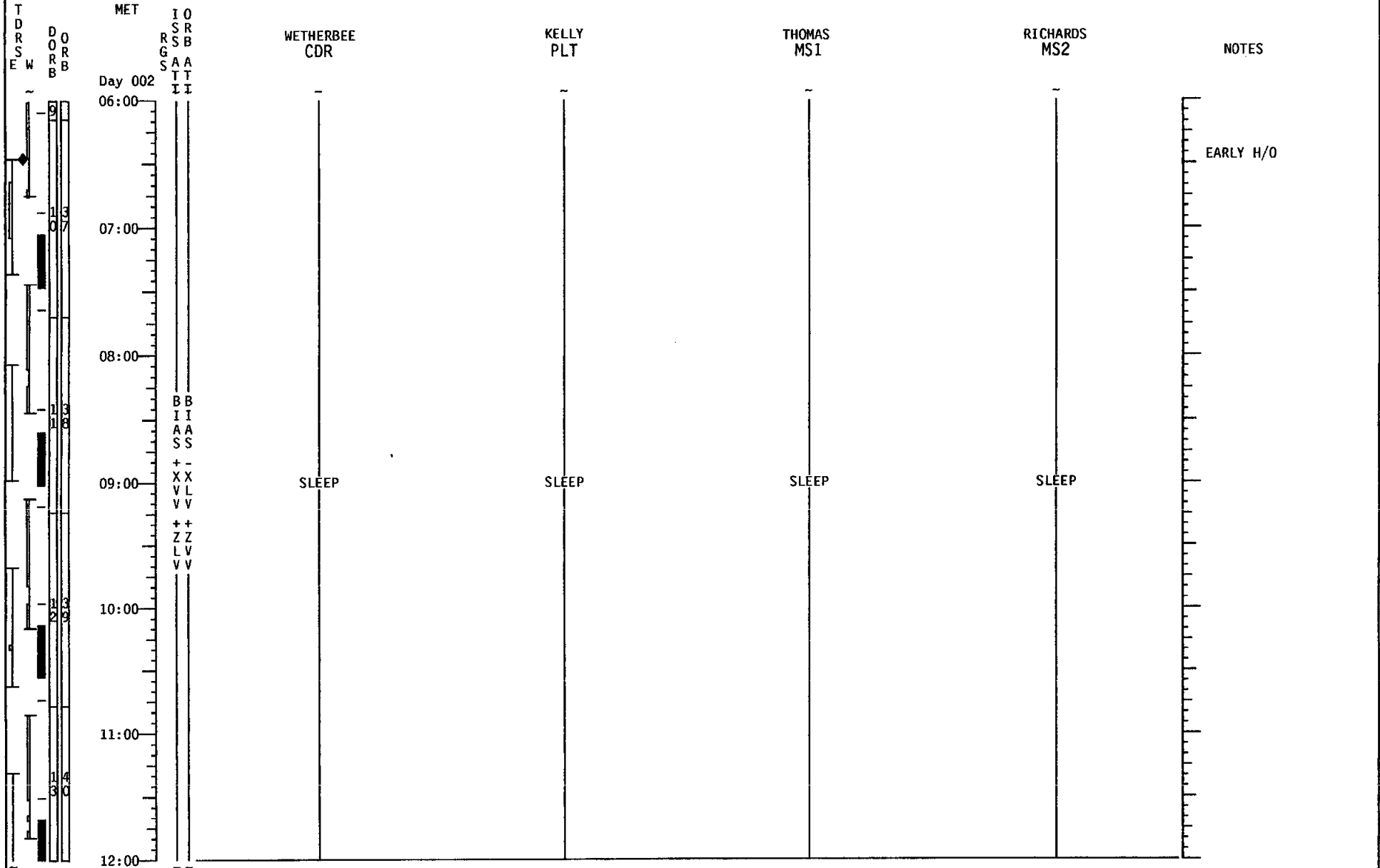
STS-102 (FD03)



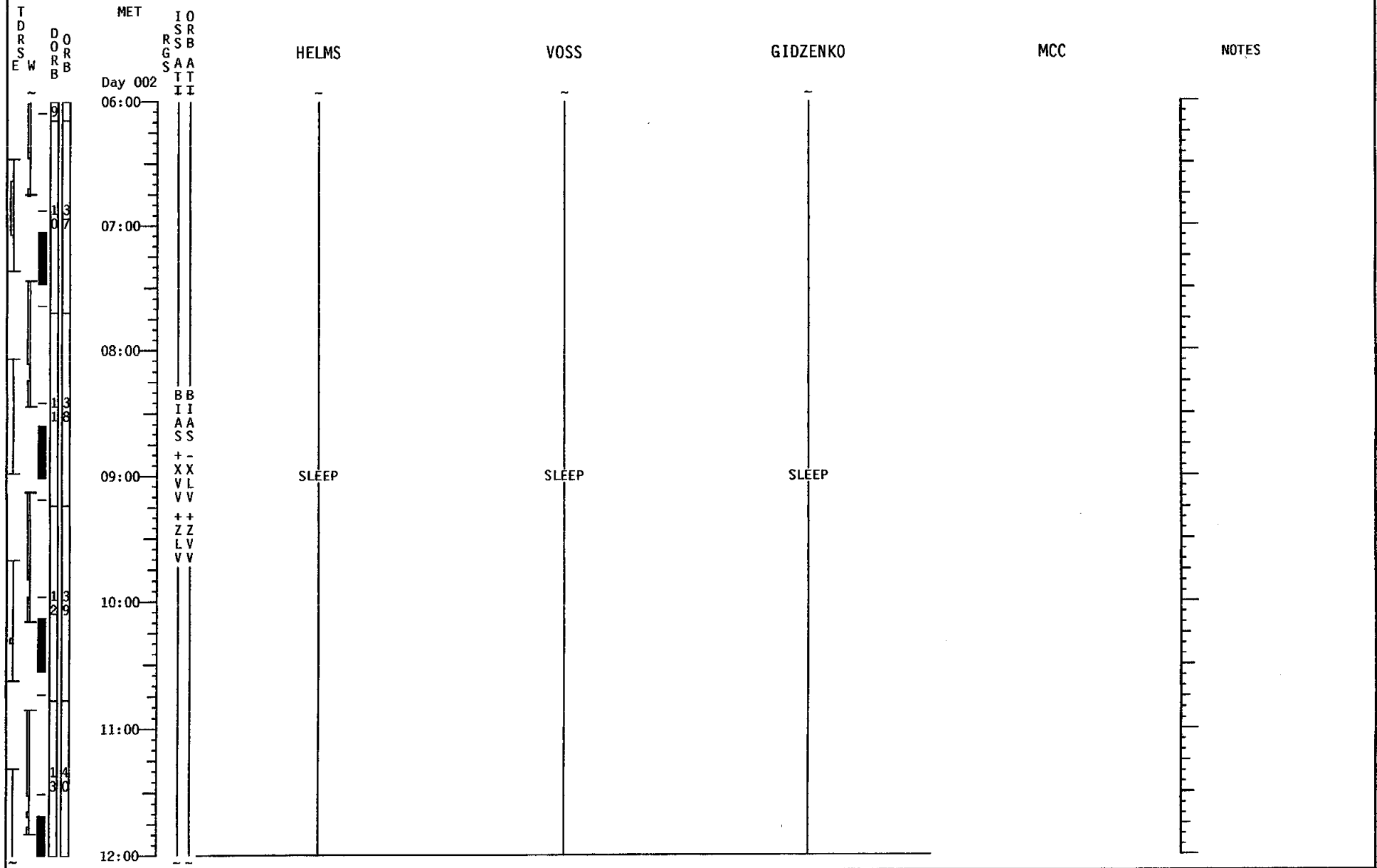
STS-102 (FD03)



STS-102 (FD03)



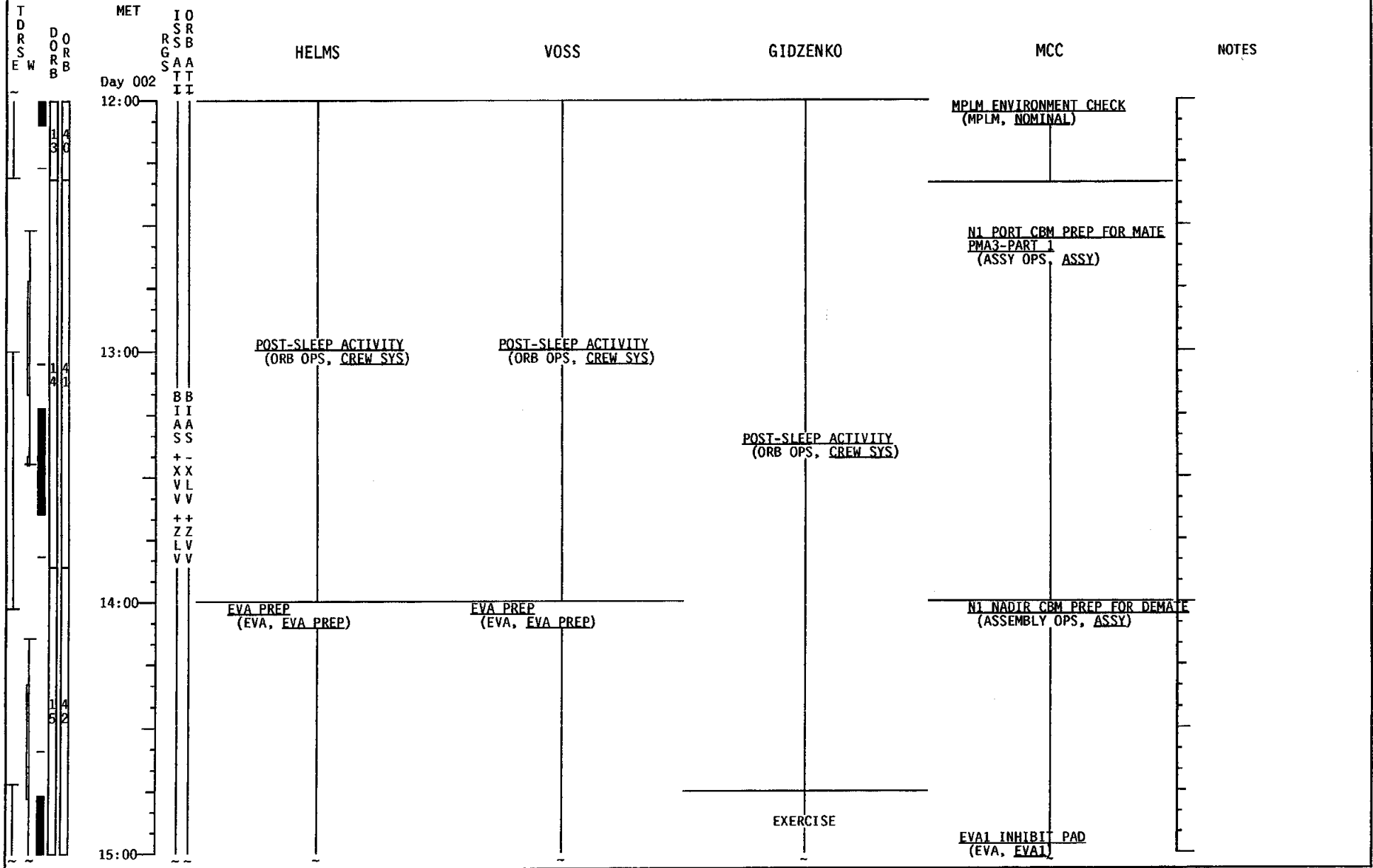
STS-102 (FD03)



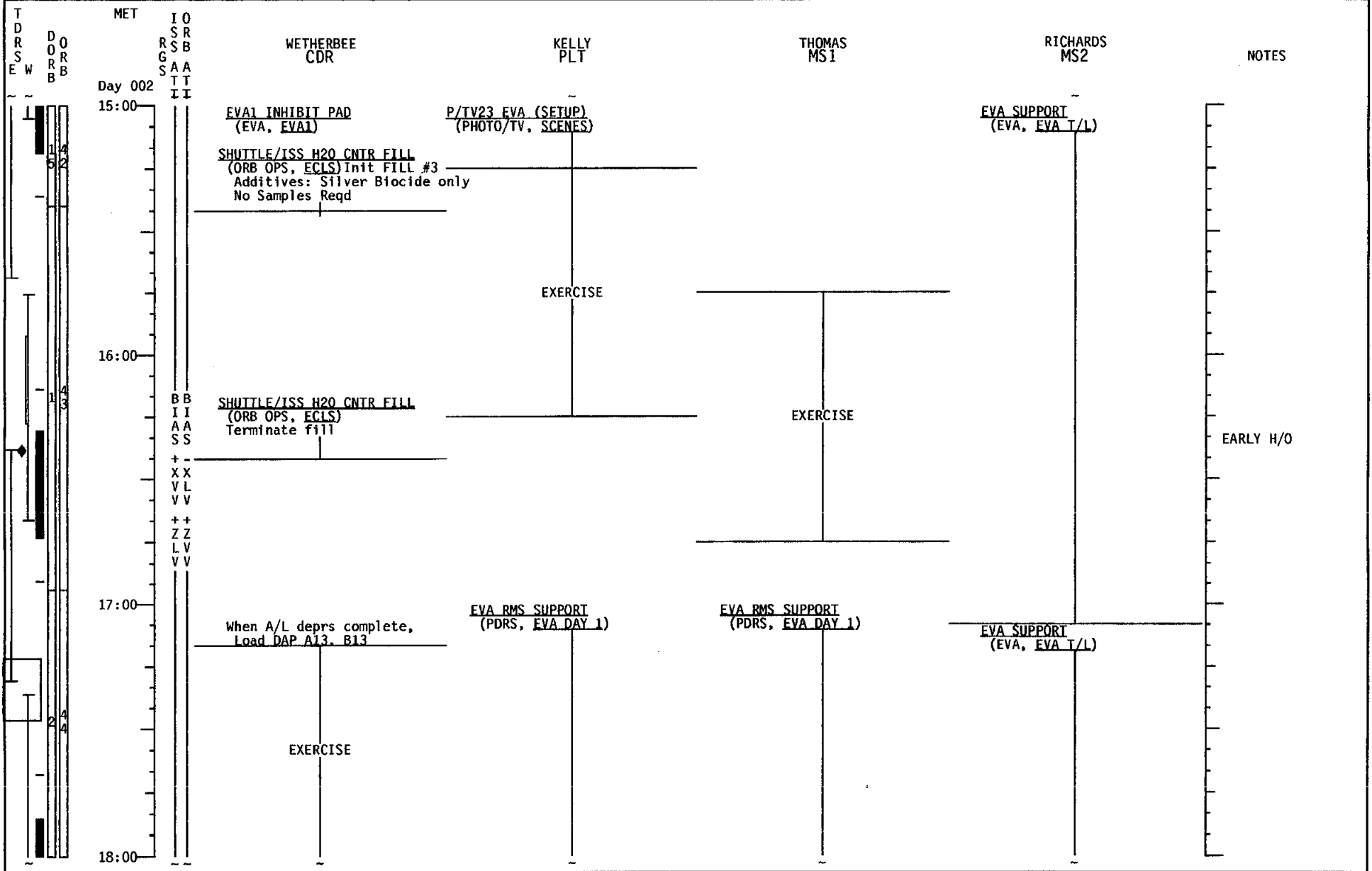
STS-102 (FD04)

	MET	IO SRB RSG SAATT II	WETHERBEE CDR	KELLY PLT	THOMAS MS1	RICHARDS MS2	NOTES
TDRS W DORB 143 141 142 145	Day 002 12:00 13:00 14:00 15:00	BB II AA SS +- XX VL VV ++ ZZ LV VV	<p>POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)</p> <hr/> <p>VIDEO TELECONFERENCING (ORB OPS, PGSC) - PMC</p> <hr/> <p>POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)</p> <hr/> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>FD04 EZ ACTIVITIES: OCAC FILTER INSPECT IEPC (STAU5 CK) (ORB OPS, CREW SYS) REBOOT PGSCs SALIVA COLLECTION (DSQ493) (ORB OPS, DSO 493) SHUTTLE CREW ONLY EXERCISE (MS2)</p> </div> <hr/> <p>10.2 PSI MAINTENANCE (EVA, 10.2 PSI CABIN)</p> <hr/> <p>EVA1 INHIBIT PAD (EVA, EVA1)</p>	<p>POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)</p>	<p>POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)</p> <p>GALLEY MORNING CONFIG (ORB OPS, GIRA)</p>	<p>POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)</p> <hr/> <p>EVA SUPPORT (EVA, EVA T/L)</p>	<p>EARLY H/O</p>

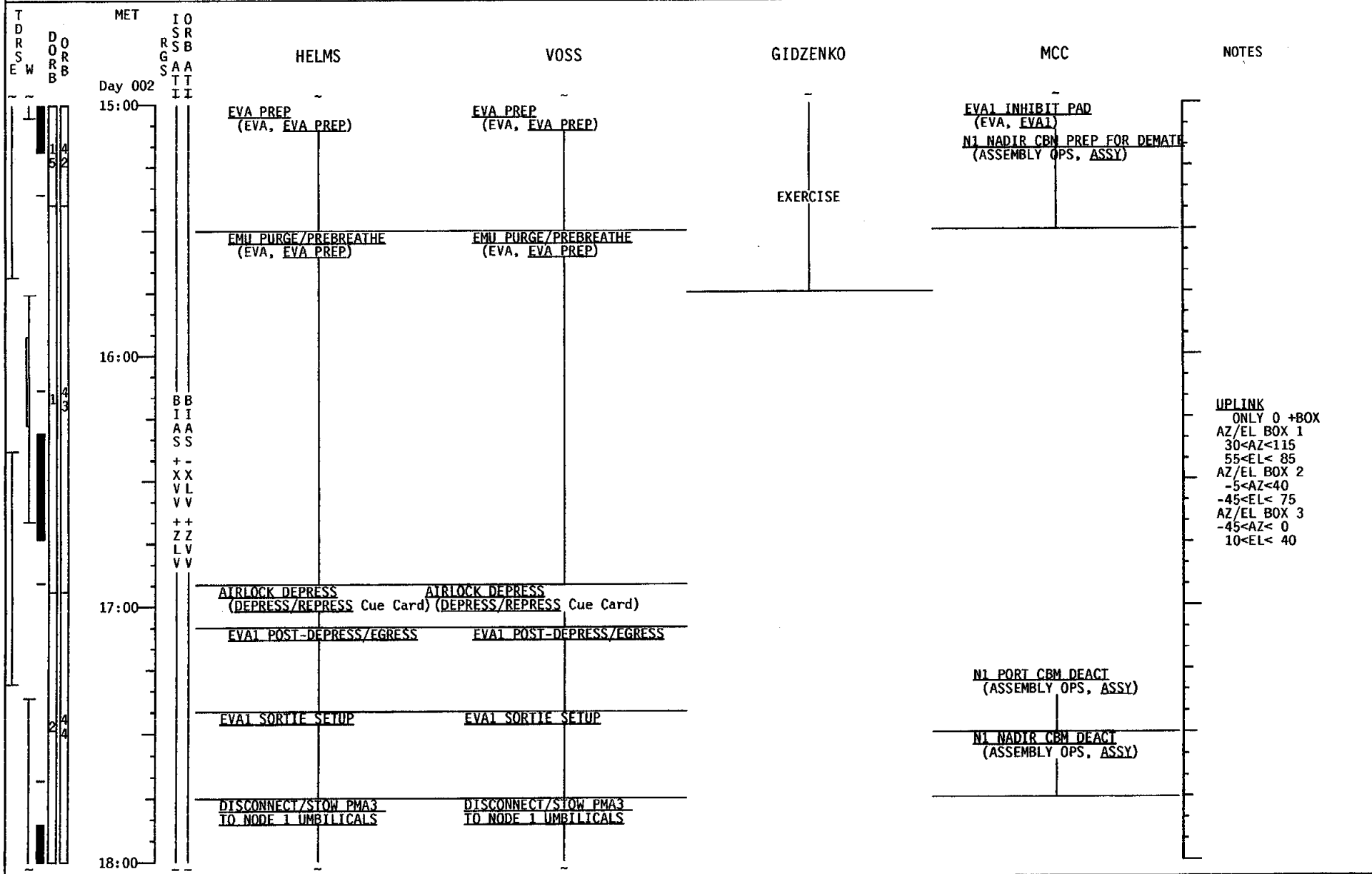
STS-102 (FD04)



STS-102 (FD04)



STS-102 (FD04)

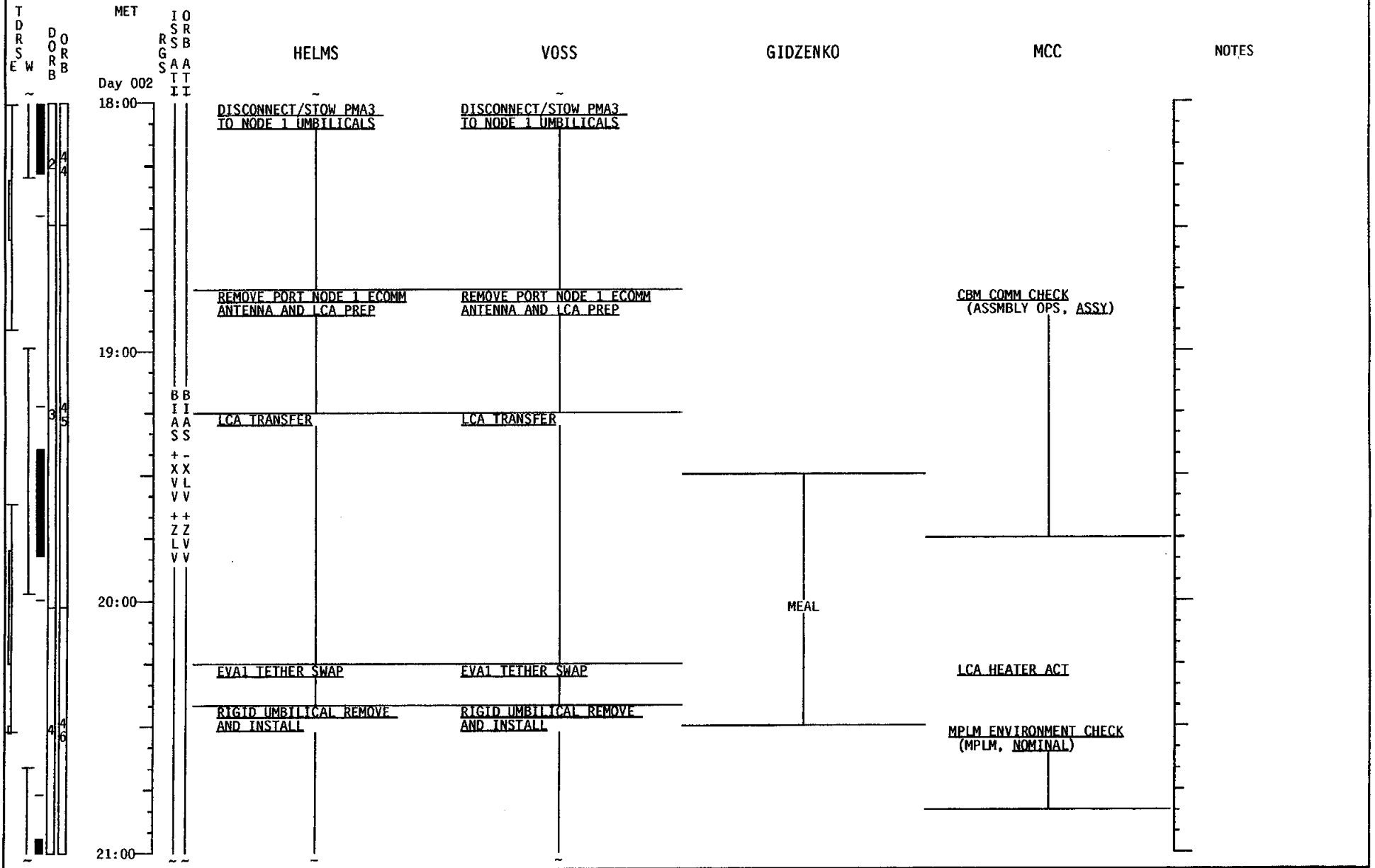


UPLINK
 ONLY 0 +BOX
 AZ/EL BOX 1
 30<AZ<115
 55<EL< 85
 AZ/EL BOX 2
 -5<AZ<40
 -45<EL< 75
 AZ/EL BOX 3
 -45<AZ< 0
 10<EL< 40

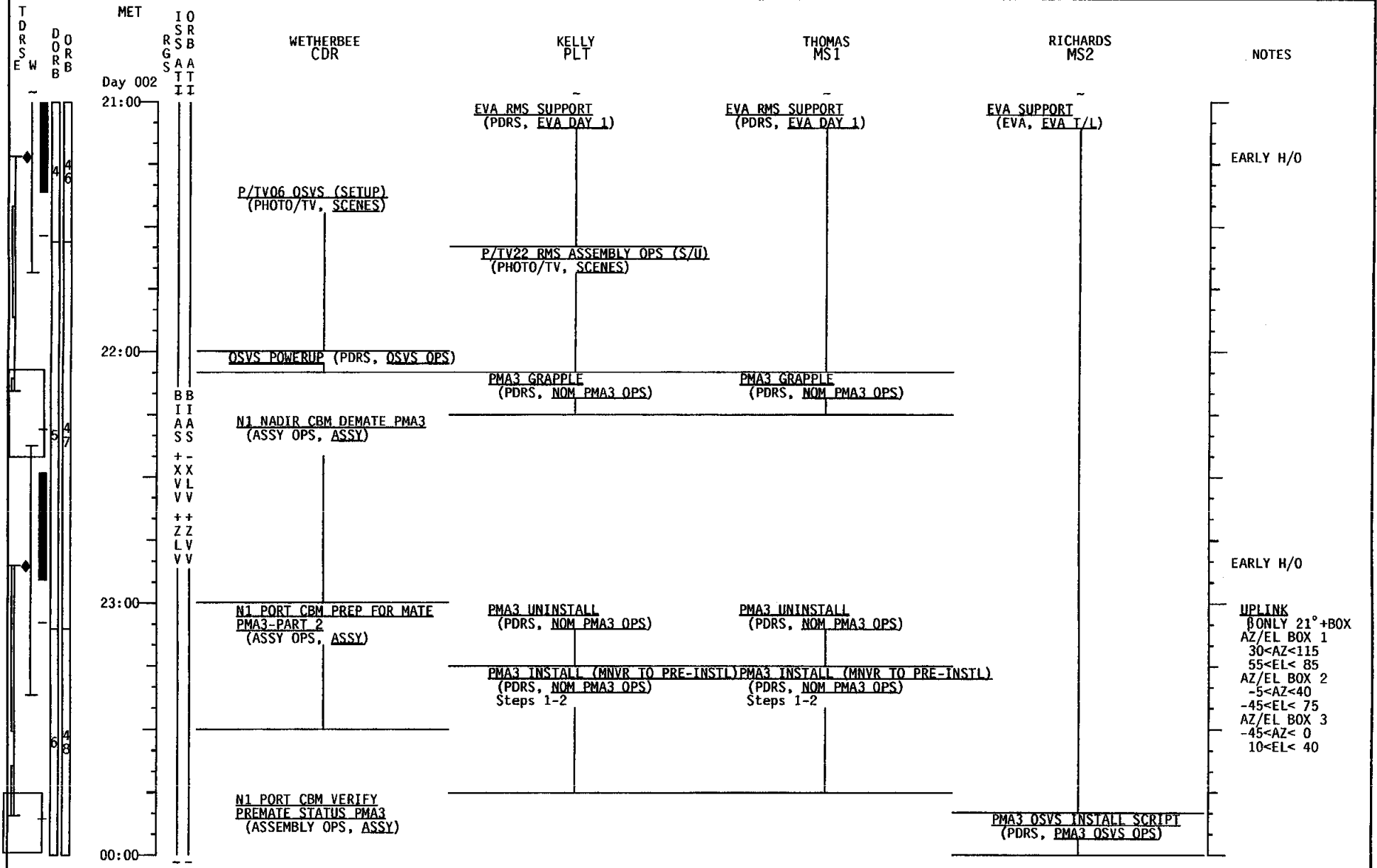
STS-102 (FD04)

TDRS E W	DORB A B	MET Day 002	IO SRB RGS AA TT II	WETHERBEE CDR	KELLY PLT	THOMAS MS1	RICHARDS MS2	NOTES
		18:00		EXERCISE	EVA RMS SUPPORT (PDRS, EVA DAY 1)	EVA RMS SUPPORT (PDRS, EVA DAY 1)	EVA SUPPORT (EVA, EVA T/L)	EARLY H/O
				CABIN REPRESS TO 14.7 PSI (EVA, 10.2 PSI CABIN) Config to PCS SYS 1 at end of Step 8				
		19:00	BB II AA SS +- XX VL VV ++ ZZ LV VV					EARLY H/O
		20:00		SHUTTLE/ISS H2O CNTR FILL (ORB OPS, ECLS) Init FILL #4 Additives: Minerals & Silver Biocide Samples Reqd				
		21:00		SHUTTLE/ISS H2O CNTR FILL (ORB OPS, ECLS) Terminate fill				

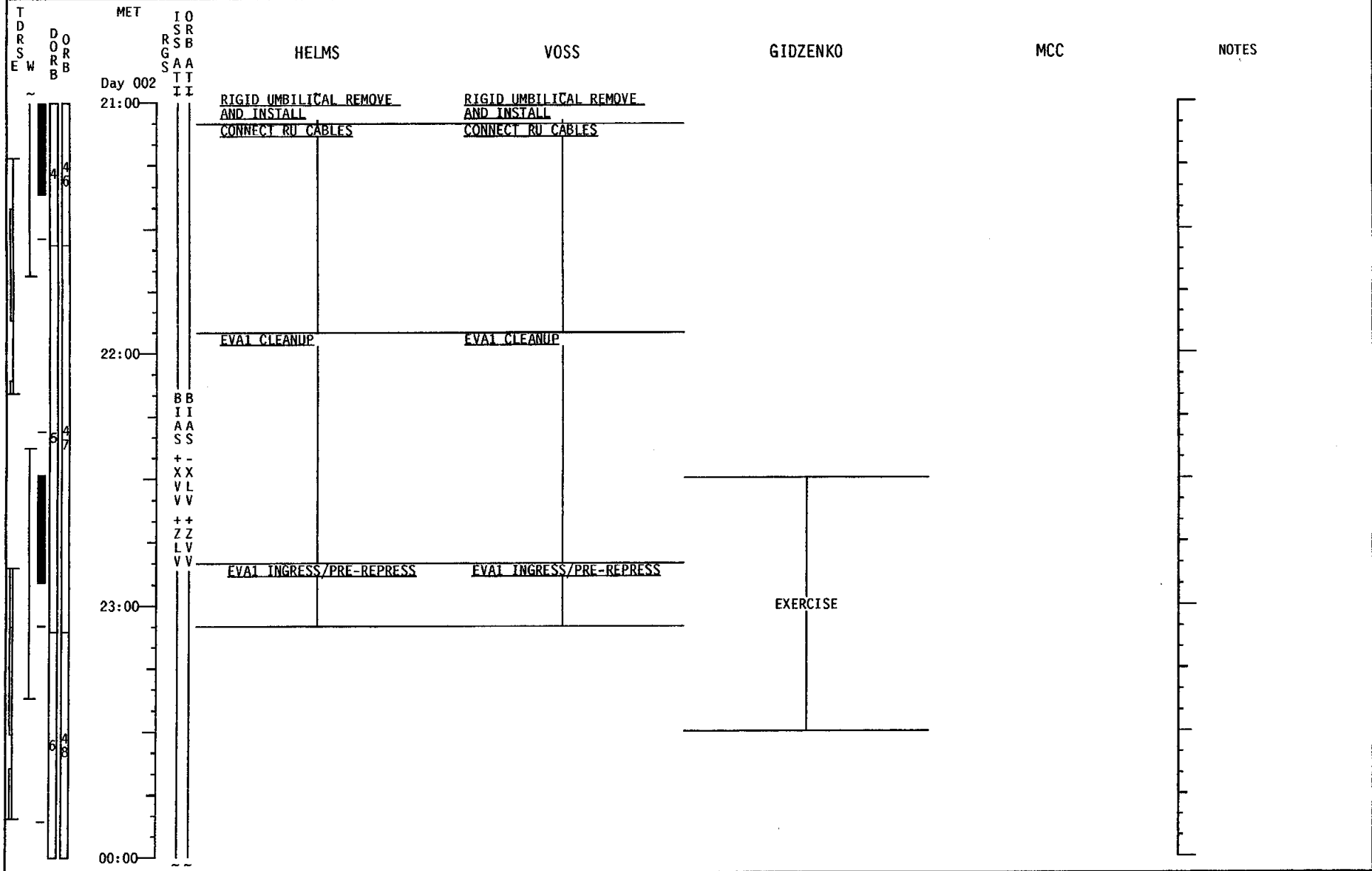
STS-102 (FD04)



STS-102 (FD04)



STS-102 (FD04)



TDRSEW

DORRB

MET

Day 002

IOSRB
GSAAT
IIII

21:00
 22:00
 23:00
 00:00

HELMS

VOSS

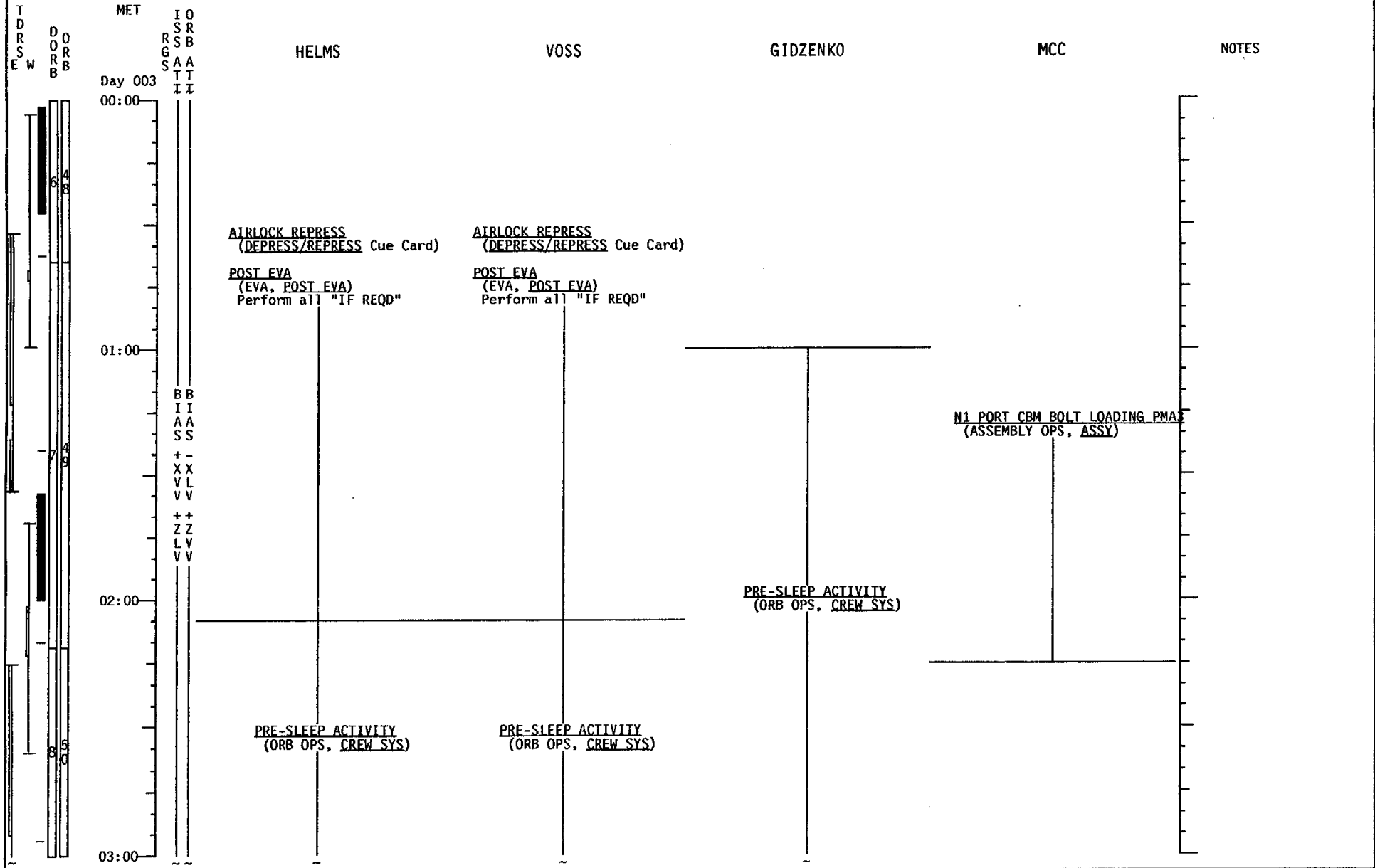
GIDZENKO

MCC

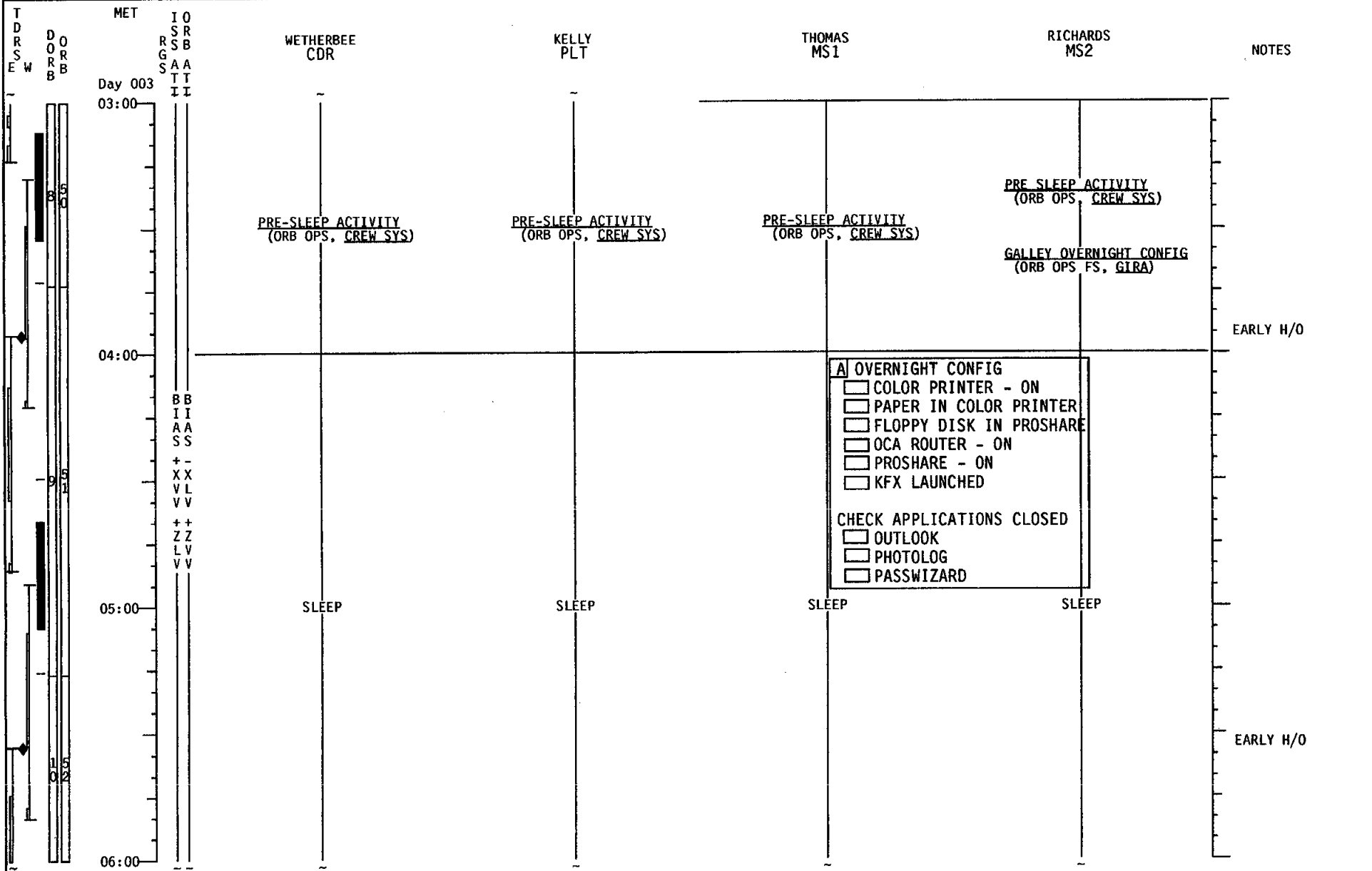
NOTES

BB
 II
 AA
 SS
 +-
 XX
 VL
 VV
 ++
 ZZ
 LV
 VV

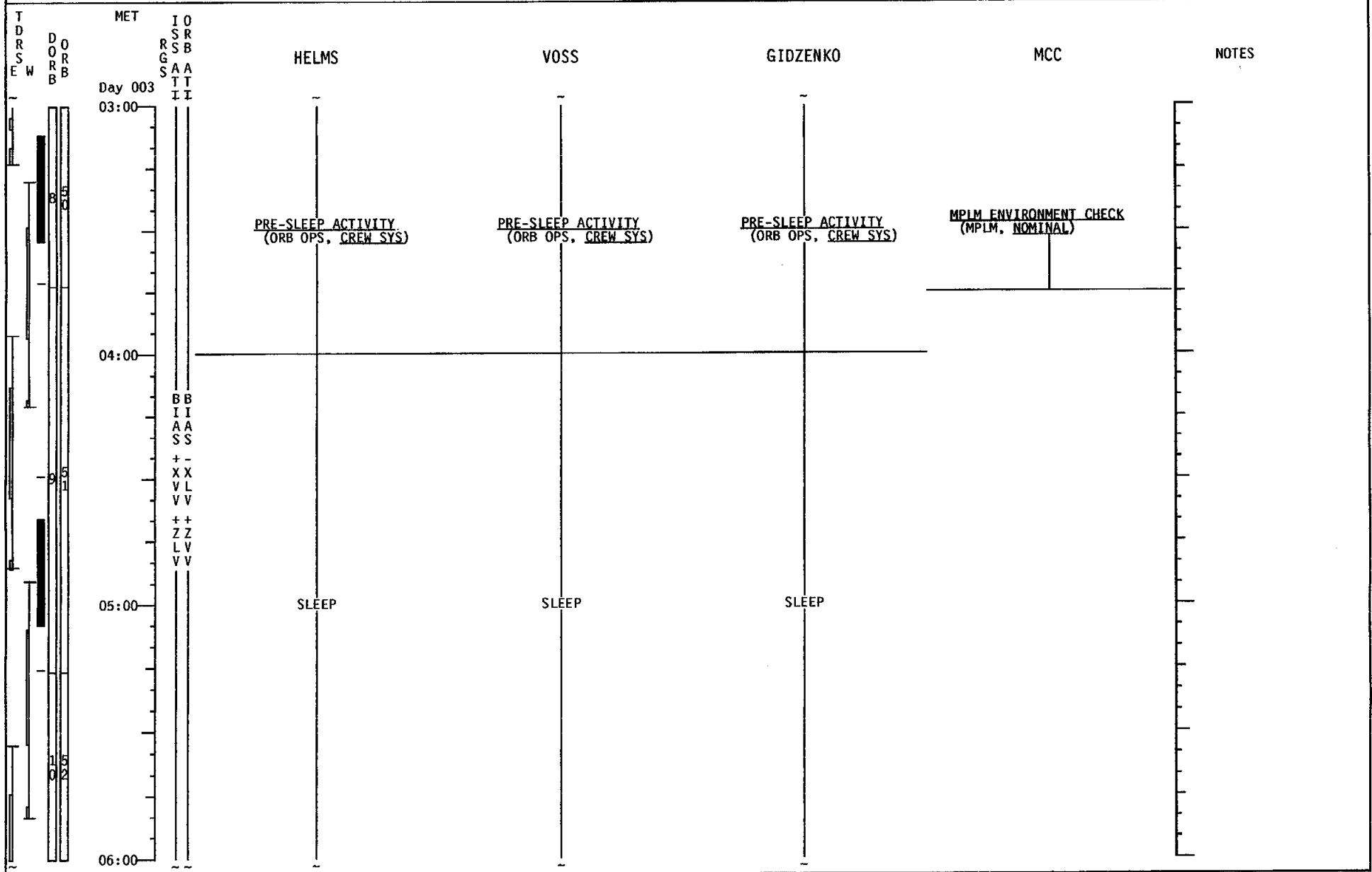
STS-102 (FD04)



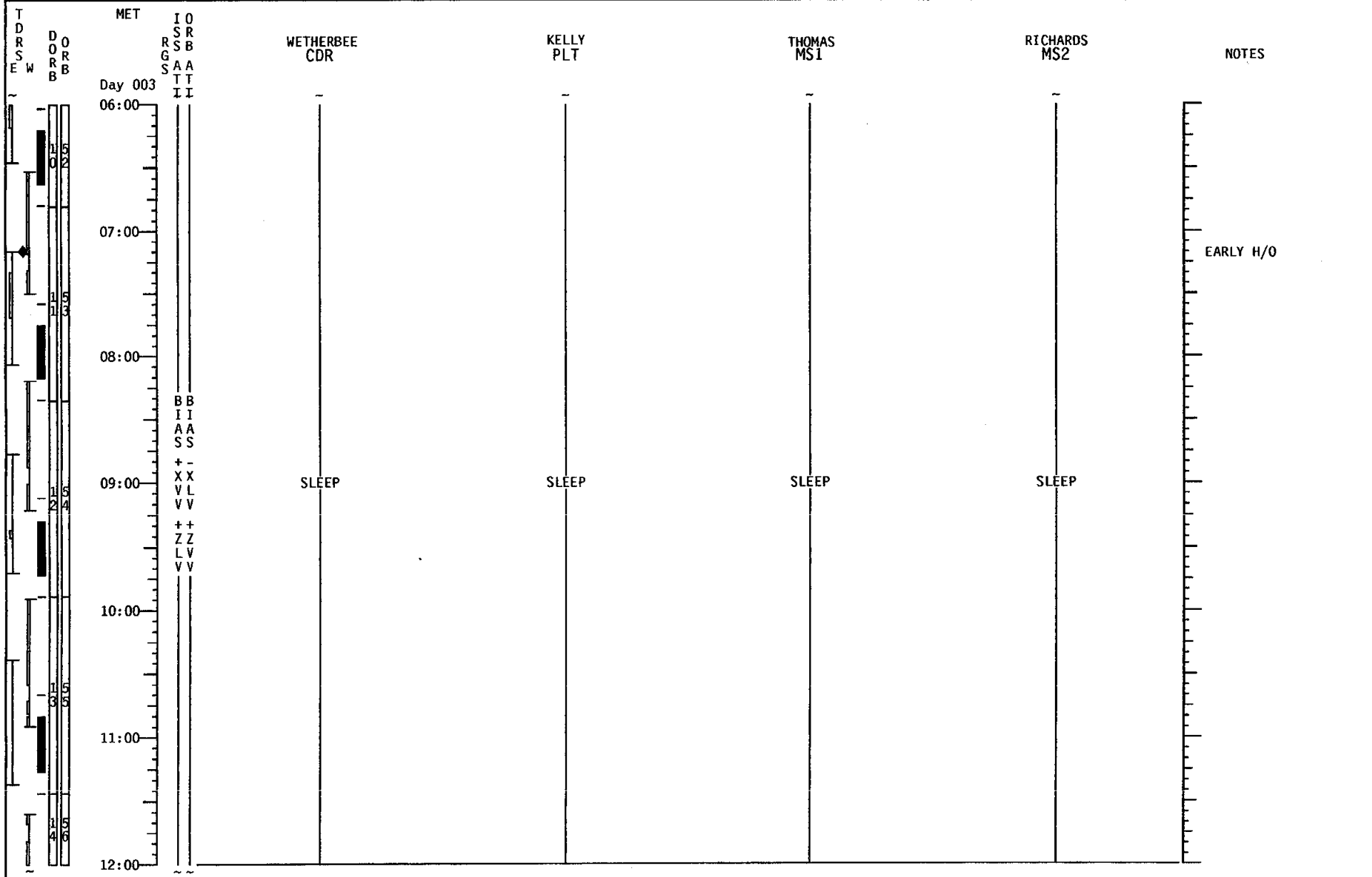
STS-102 (FD04)



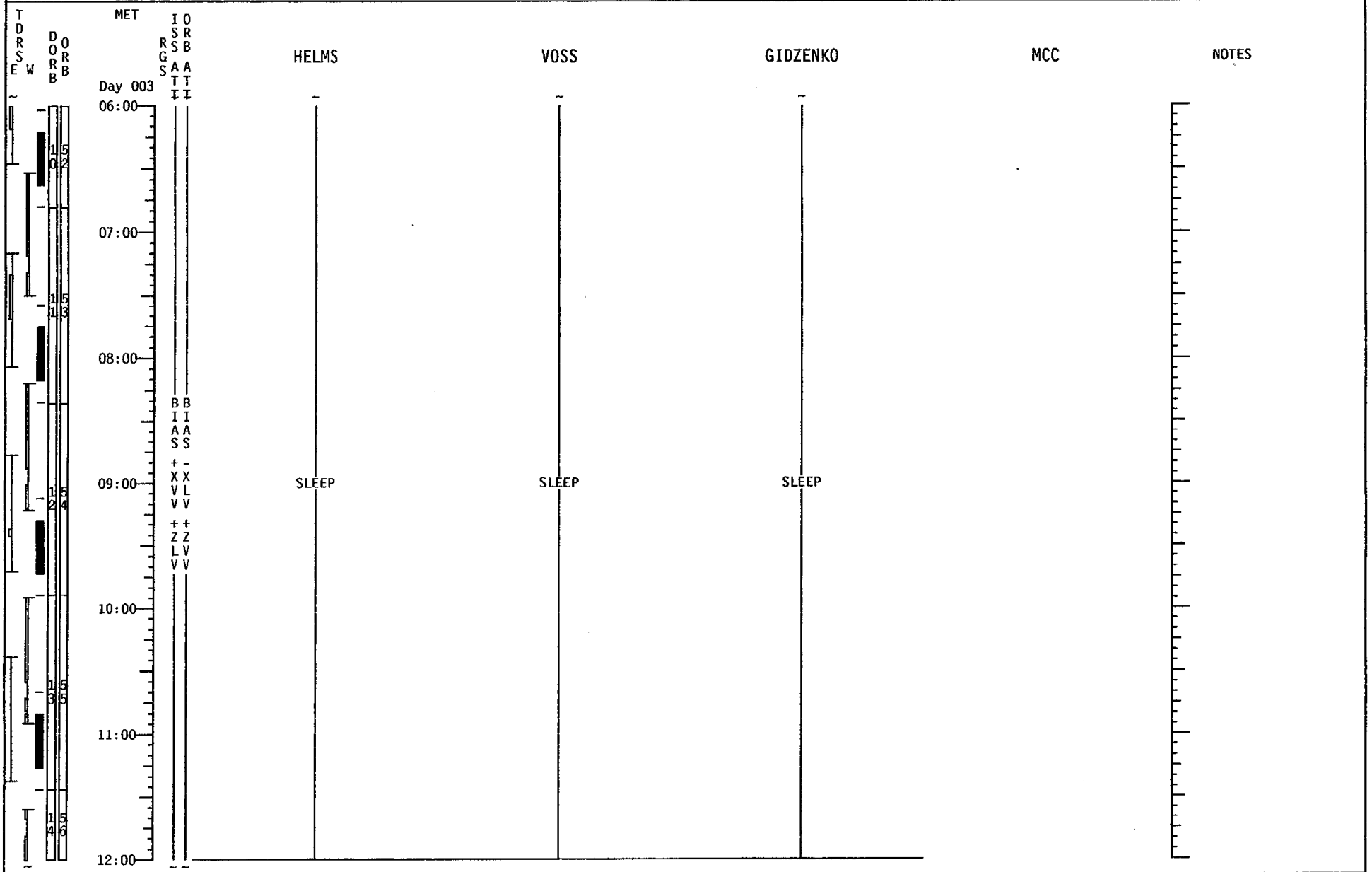
STS-102 (FD04)



STS-102 (FD04)



STS-102 (FD04)



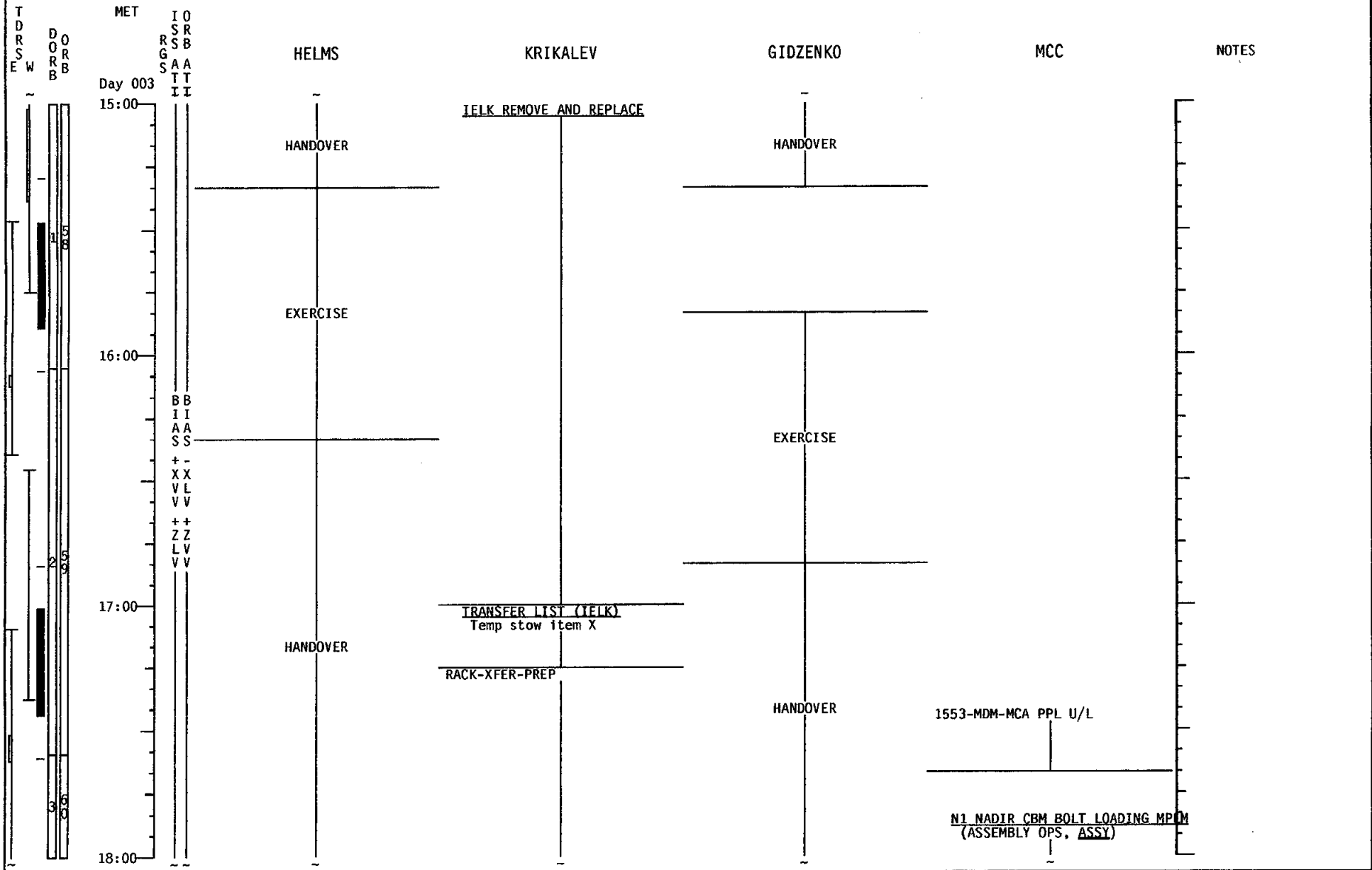
STS-102 (FD05)

TDRS EW	DORB BB	MET Day 003	IO SRB RSB GASTT SATT TT	HELMS	VOSS	GIDZENKO	MCC	NOTES
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">11:46</div> <div style="margin-bottom: 10px;">11:57</div> <div style="margin-bottom: 10px;">11:58</div> </div>		<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">12:00</div> <div style="margin-bottom: 10px;">13:00</div> <div style="margin-bottom: 10px;">14:00</div> <div style="margin-bottom: 10px;">15:00</div> </div>	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">BB</div> <div style="margin-bottom: 10px;">II</div> <div style="margin-bottom: 10px;">AA</div> <div style="margin-bottom: 10px;">SS</div> <div style="margin-bottom: 10px;">+-</div> <div style="margin-bottom: 10px;">XX</div> <div style="margin-bottom: 10px;">VL</div> <div style="margin-bottom: 10px;">VV</div> <div style="margin-bottom: 10px;">++</div> <div style="margin-bottom: 10px;">ZZ</div> <div style="margin-bottom: 10px;">LV</div> <div style="margin-bottom: 10px;">VV</div> </div>	<p style="text-align: center;"><u>POST-SLEEP ACTIVITY</u> (ORB OPS, CREW SYS)</p> <hr/> <p>EVA CREW: TAKE 1 ASPIRIN(325mg)</p> <p><u>ISS INTERIM INGRESS</u> (JOINT OPS, INGRESS STATION)</p> <hr/> <p style="text-align: center;">HANDOVER</p>	<p style="text-align: center;"><u>POST-SLEEP ACTIVITY</u> (ORB OPS, CREW SYS)</p> <hr/> <p>EVA CREW: TAKE 1 ASPIRIN(325mg)</p> <p><u>TRANSFER LIST</u> Prepare item #X for transfer to Soyuz.</p> <hr/> <p style="text-align: center;">HANDOVER</p>	<p style="text-align: center;"><u>POST-SLEEP ACTIVITY</u> (ORB OPS, CREW SYS)</p> <hr/> <p style="text-align: center;">HANDOVER</p>	<p style="text-align: center;"><u>MPLM ENVIRONMENT CHECK</u> (MPLM, NOMINAL)</p> <hr/> <p style="text-align: center;"><u>DAILY PLAN CONF</u></p> <hr/>	

STS-102 (FD05)

TDRSEW	DOORB	MET	IO SR RSB GSA TTT II	WETHERBEE CDR	KELLY PLT	THOMAS MS1	RICHARDS MS2	NOTES
		Day 003						
		15:00		OSVS POWERUP (PDRS, OSVS OPS) SSV OUT RATE = 2	MPLM GRAPPLE IN BAY (PDRS, NOM MPLM INSTL OPS)	MPLM GRAPPLE IN BAY (PDRS, NOM MPLM INSTL OPS)		TFL 212 OIU FORMAT 9
					MPLM ROEU DEMATE (PDRS, NOM MPLM INSTL)			UPLINK β ONLY 21°+BOX AZ/EL BOX 1 30<AZ<115 55<EL< 85 AZ/EL BOX 2 -5<AZ< 40 -45<EL< 75 AZ/EL BOX 3 -45<AZ< 0 10<EL< 40 AZ/EL BOX 4 -40<AZ< 15 -80<EL<-25
					MPLM UNBERTH (PDRS, NOM MPLM INSTL OPS)	MPLM UNBERTH (PDRS, NOM MPLM INSTL OPS)		
					MPLM INSTALL (MNVR TO PRE-INSTL) (PDRS, NOM MPLM INSTL OPS) Steps 1-2	MPLM INSTALL (MNVR TO PRE-INSTL) (PDRS, NOM MPLM INSTL OPS) Steps 1-2		
		16:00	BB II AA SS					
				MPLM OSVS INSTALL SCRIPT (PDRS, MPLM OSVS OPS)			N1 NADIR CBM VERIFY PREMATE STATUS MPLM (ASSEMBLY OPS, ASSY)	
					MPLM INSTALL (MNVR TO RTL) (PDRS, NOM MPLM INSTL OPS) Steps 4-5	MPLM INSTALL (MNVR TO RTL) (PDRS, NOM MPLM INSTL OPS) Steps 4-5		
		17:00						EARLY H/O
					MPLM INSTALL (TEST MODE) (PDRS, NOM MPLM INSTL) Step 6	MPLM INSTALL (TEST MODE) (PDRS, NOM MPLM INSTL) Step 6	N1 NDR CBM CAP ABLT MPLM (1ST STG) (ASSEMBLY OPS, ASSY) Steps 1-2	
					MPLM INSTALL (BRAKES ON) (PDRS, NOM MPLM INSTL) Step 7	MPLM INSTALL (BRAKES ON) (PDRS, NOM MPLM INSTL) Step 7	N1 NDR CBM CAP ABLT MPLM (2ND STG) (ASSEMBLY OPS, ASSY) Step 3	
							N1 NDR CBM CPT ABLT MPLM (ACO BLTS) (ASSEMBLY OPS, ASSY) Step 4	
					MPLM UNGRAPPLE ON NODE NADIR (PDRS, NOM MPLM INSTL OPS)	MPLM UNGRAPPLE ON NODE NADIR (PDRS, NOM MPLM INSTL OPS)		
		18:00						

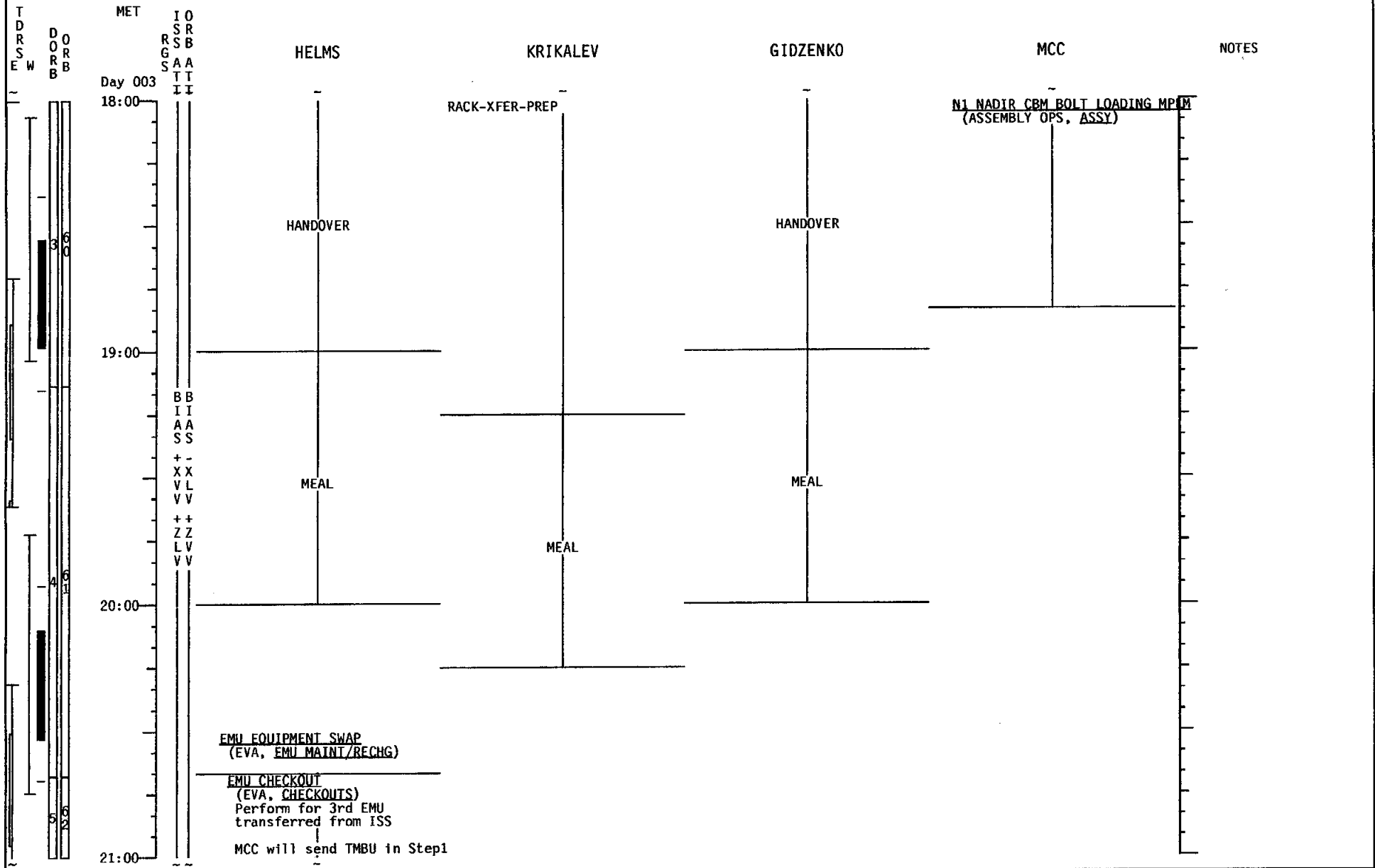
STS-102 (FD05)



STS-102 (FD05)

TDRSEW	MET	IO SRB RSB GSA TTT II	WETHERBEE CDR	KELLY PLT	THOMAS MS1	RICHARDS MS2	NOTES
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32	Day 003						
	18:00		OSVS POWERDOWN (PDRS, OSVS OPS)	RMS POWERDOWN (PDRS, RMS PWRDN)			
			FILTER CLEANING (IFM, SCHED MAINT) Inspect filters and clean as necessary		HELMET LT/PGT BATT RECHARGE (EVA, EMU MAINT/RECHARGE) Terminate battery charge	HELMET LT/PGT BATT RECHARGE (EVA, EMU MAINT/RECHARGE) Terminate battery charge	
					MDDK EMU BATT RCHG/LIOH REPLC (EVA, EMU MAINT/RECHARGE) Terminate battery charge, changeout LIOH	MDDK EMU BATT RCHG/LIOH REPLC (EVA, EMU MAINT/RECHARGE) Terminate battery charge, changeout LIOH	EARLY H/O
	19:00	BB II AA SS +- XX VL VV ++ ZZ LV VV	MEAL	MEAL	MEAL	MEAL	
	20:00			SSP1 APCU 2 CONV - OFF	EVA CREW: TAKE 1 ASPIRIN(325mg)	EVA CREW: TAKE 1 ASPIRIN(325mg)	
				P/TVO2 IN-CABIN ACTS (SETUP) (PHOTO/TV, SCENES)	EMU INSTALLATION (EVA, A/L CONFIG) EMU RESIZE (EVA, EMU MAINT/RECHARGE)	EMU INSTALLATION (EVA, A/L CONFIG) EMU RESIZE (EVA, EMU MAINT/RECHARGE)	EARLY H/O
			PAO VOICE CHECK/EVENT TV at TDR (: : to : :) REF MSG ###	PAO VOICE CHECK/EVENT TV at TDR (: : to : :) REF MSG ###	EMU EQUIPMENT SWAP (EVA, EMU MAINT/RECHG)	EMU EQUIPMENT SWAP (EVA, EMU MAINT/RECHG)	
	21:00		SHUTTLE/ISS H2O CNTR FILL (ORB OPS, ECLS) Init FILL #5 Additives: Silver Biocide only No Samples Req'd		EMU CHECKOUT (EVA, CHECKOUTS) Perform for 3rd EMU transferred from ISS MCC will send TMBU in Step1	EMU CHECKOUT (EVA, CHECKOUTS) Perform for 3rd EMU transferred from ISS MCC will send TMBU in Step1	

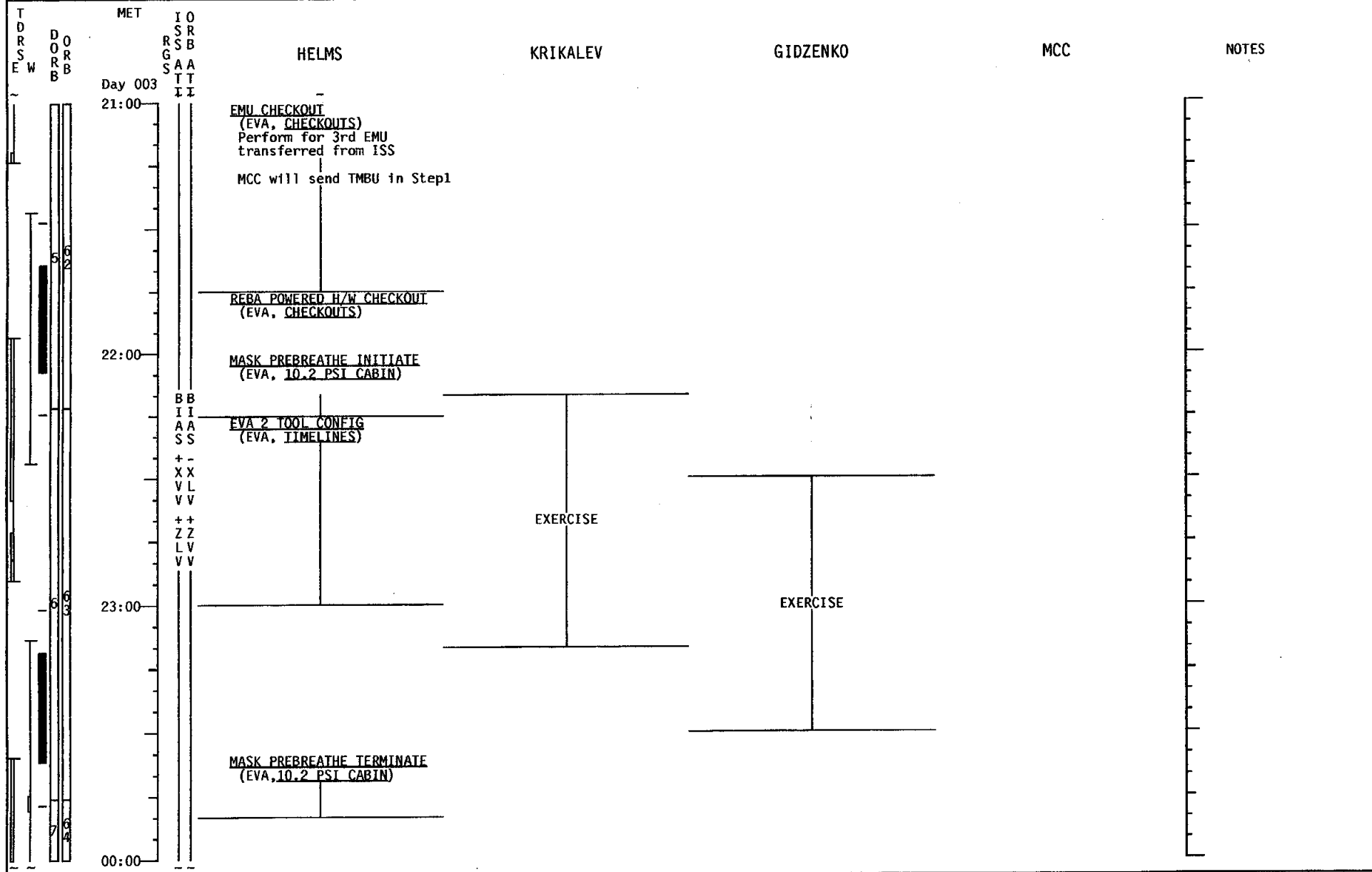
STS-102 (FD05)



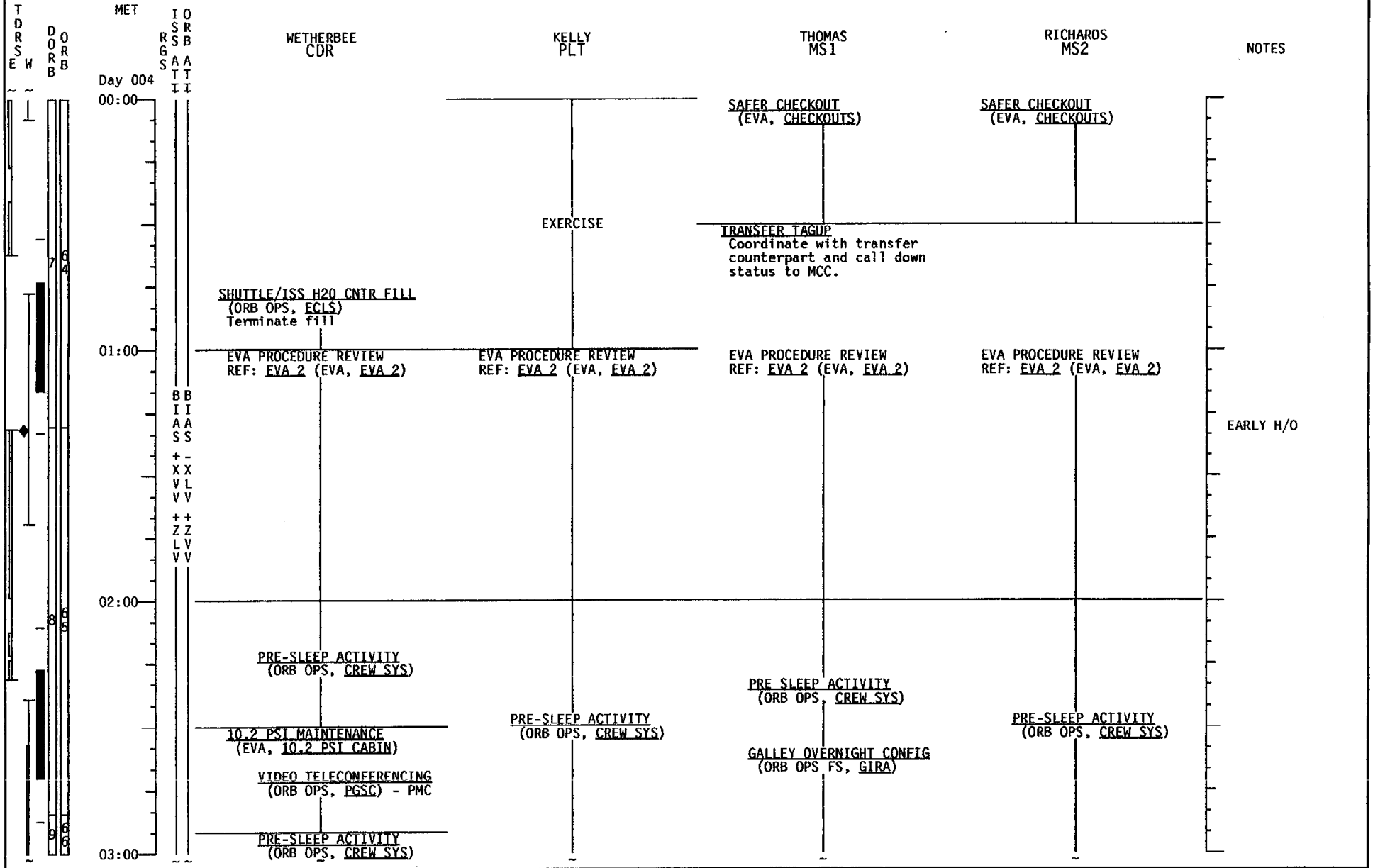
STS-102 (FD05)

T D R S E W	MET	I O R S B G S A T T I I	WETHERBEE CDR	KELLY PLT	THOMAS MS1	RICHARDS MS2	NOTES
	Day 003						
	21:00		SHUTTLE/ISS H2O CNTR FILL (ORB OPS, ECLS) Init FILL #5 Additives: Silver Biocide only No Samples Reqd	On ISS crew call: MPLM ACTIVATION (MPLM, NOMINAL) Steps 1-6	EMU CHECKOUT (EVA, CHECKOUTS) Perform for 3rd EMU transferred from ISS MCC will send TMBU in Step1	EMU CHECKOUT (EVA, CHECKOUTS) Perform for 3rd EMU transferred from ISS MCC will send TMBU in Step1	
			IMU ALIGN - S TRK (ORB OPS)		REBA POWERED H/W CHECKOUT (EVA, CHECKOUTS)	REBA POWERED H/W CHECKOUT (EVA, CHECKOUTS)	
	22:00		SHUTTLE/ISS H2O CNTR FILL (ORB OPS, ECLS) Terminate fill		MASK PREBREATHE INITIATE (EVA, 10.2 PSI CABIN)	MASK PREBREATHE INITIATE (EVA, 10.2 PSI CABIN)	EARLY H/O
		BB II AA SS +- XX VL VV ++ ZZ LV VV	ISS INTERIM EGRESS (JOINT OPS, EGRESS STATION)	ISS INTERIM EGRESS (JOINT OPS, EGRESS STATION)	EVA 2 TOOL CONFIG (EVA, TIMELINES)	EVA 2 TOOL CONFIG (EVA, TIMELINES)	
			PREP FOR 10.2 PSI CABIN (EVA, 10.2 PSI CABIN)	PREP FOR 10.2 PSI CABIN (EVA, 10.2 PSI CABIN)			
	23:00		CABIN DEPRESS TO 10.2 PSI (EVA, 10.2 PSI CABIN)	CABIN DEPRESS TO 10.2 PSI (EVA, 10.2 PSI CABIN)			
			10.2 PSI CABIN CONFIG (EVA, 10.2 PSI CABIN)	10.2 PSI CABIN CONFIG (EVA, 10.2 PSI CABIN)	MASK PREBREATHE TERMINATE (EVA, 10.2 PSI CABIN)	MASK PREBREATHE TERMINATE (EVA, 10.2 PSI CABIN)	EARLY H/O
			SHUTTLE/ISS H2O CNTR FILL √ WCS hose block filter (ORB OPS, ECLS) Init FILL #6 Additives: Minerals & Silver Biocide No Samples Reqd				
	00:00						

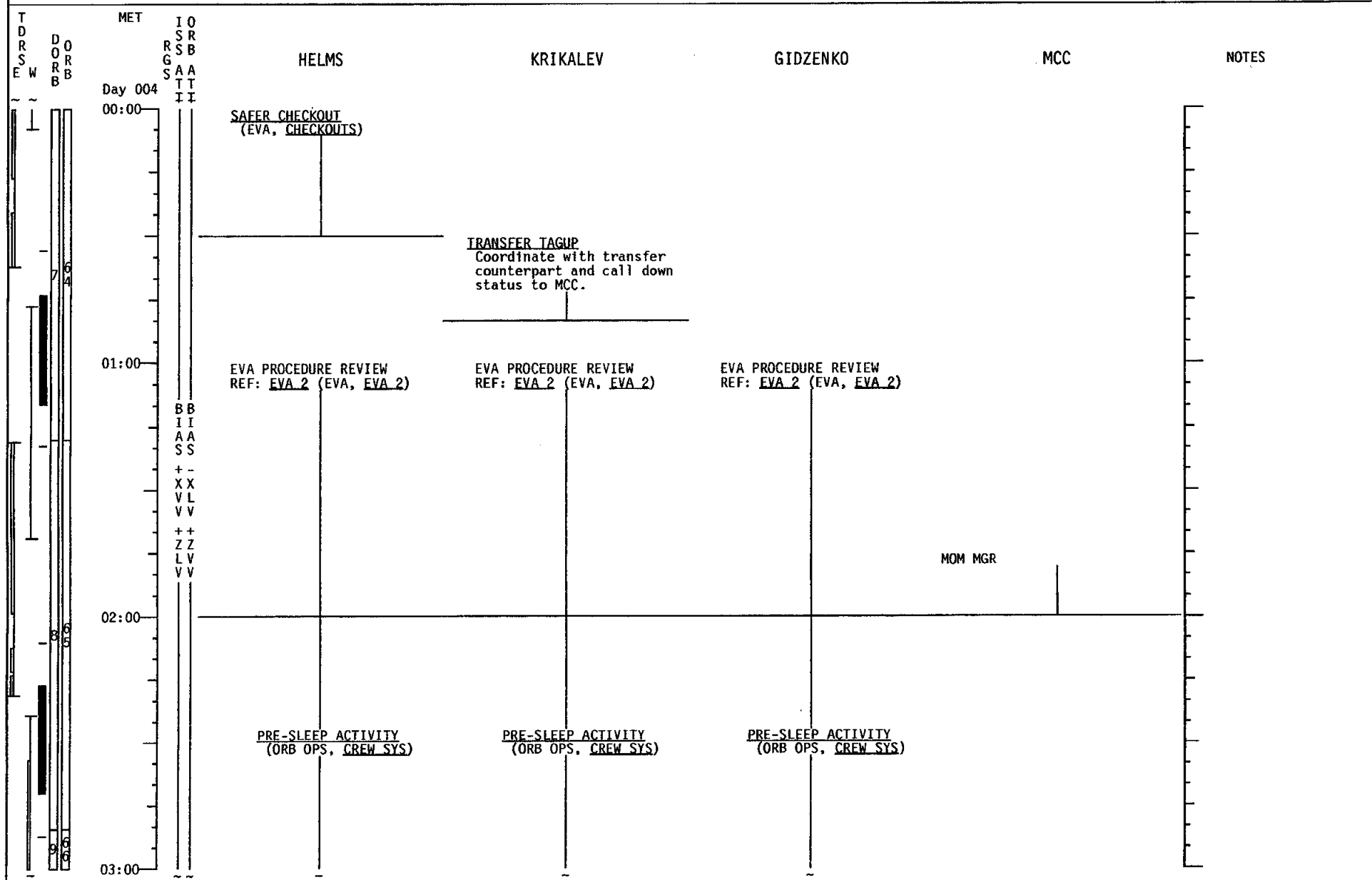
STS-102 (FD05)



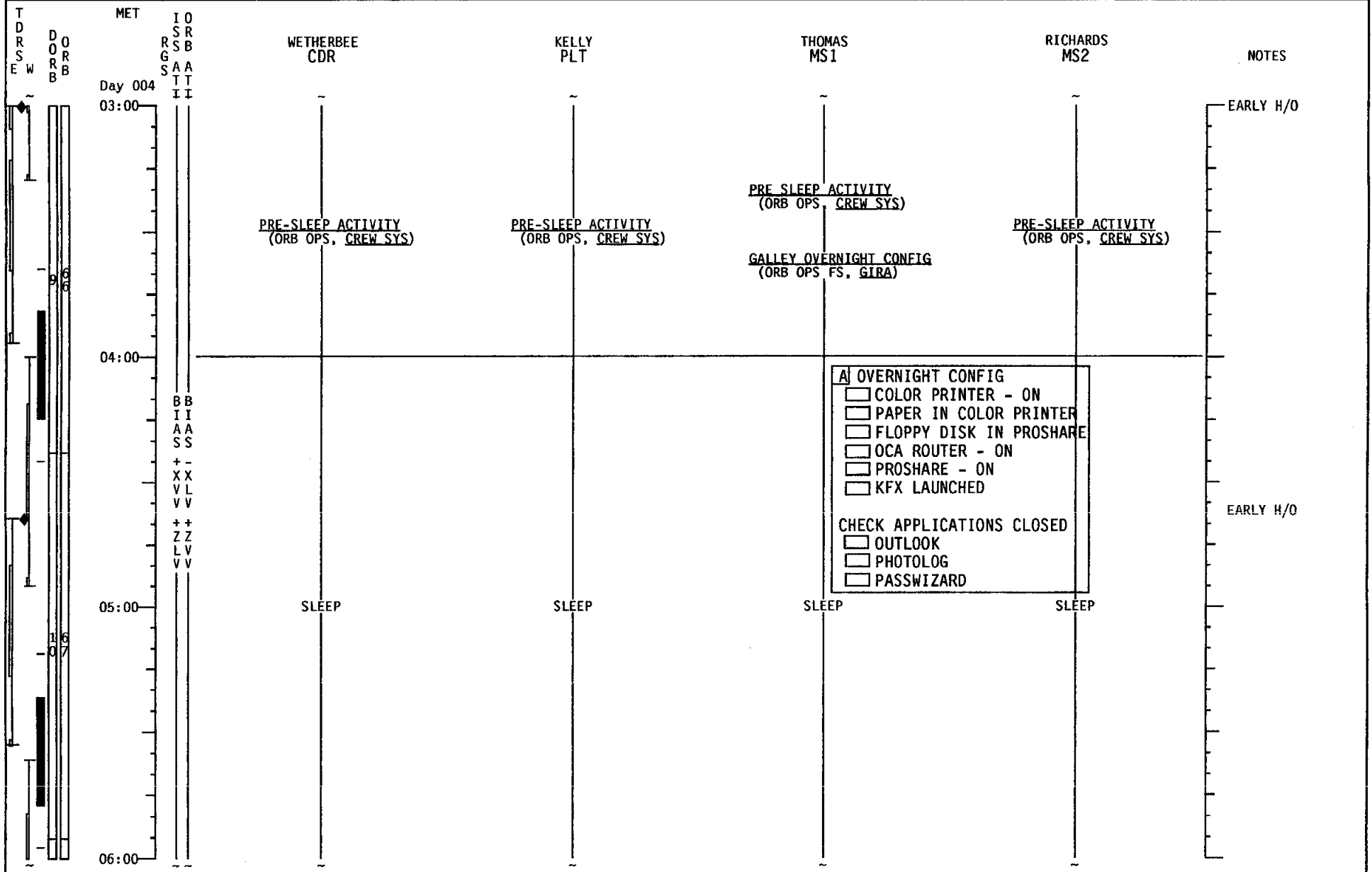
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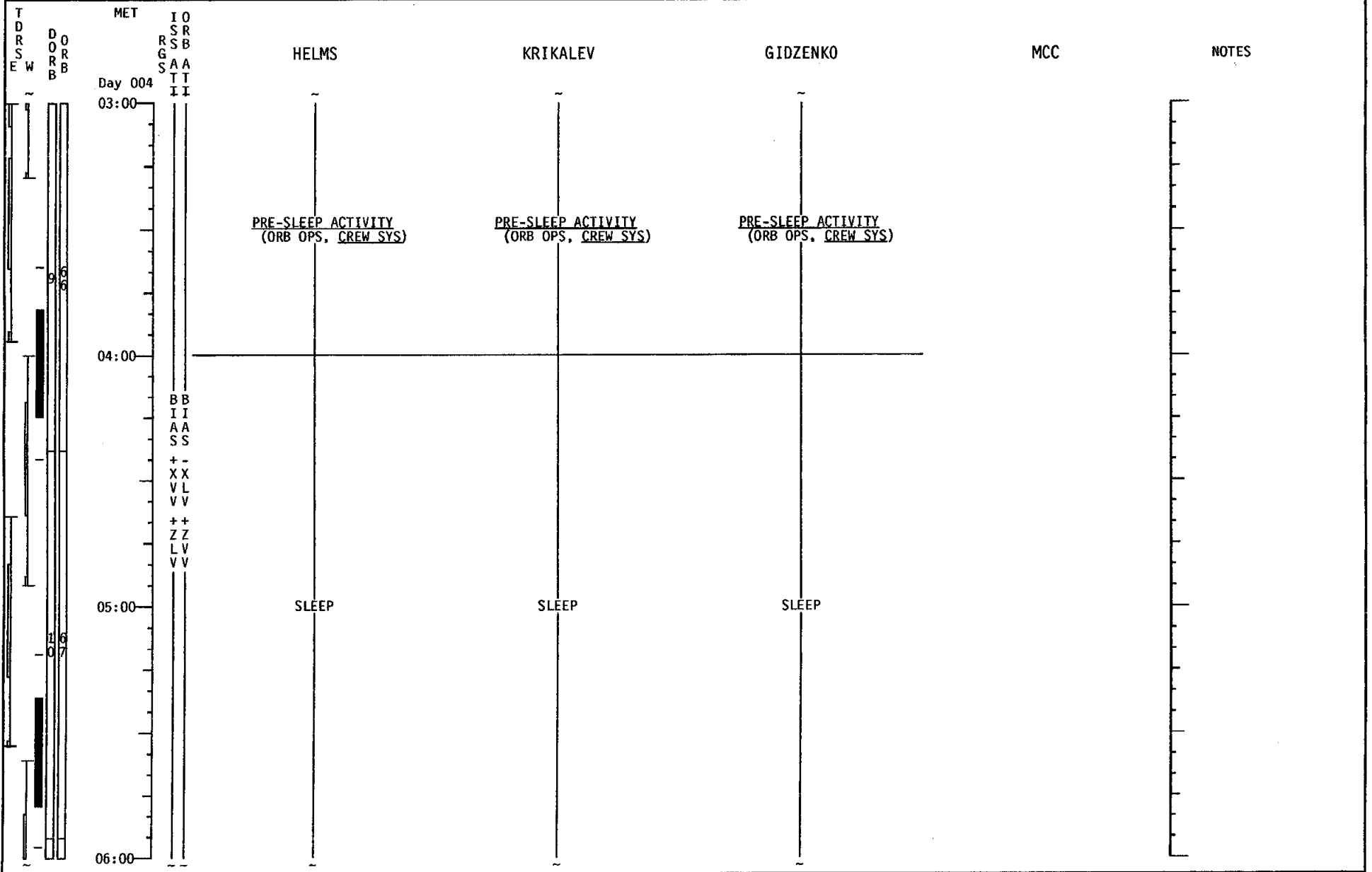
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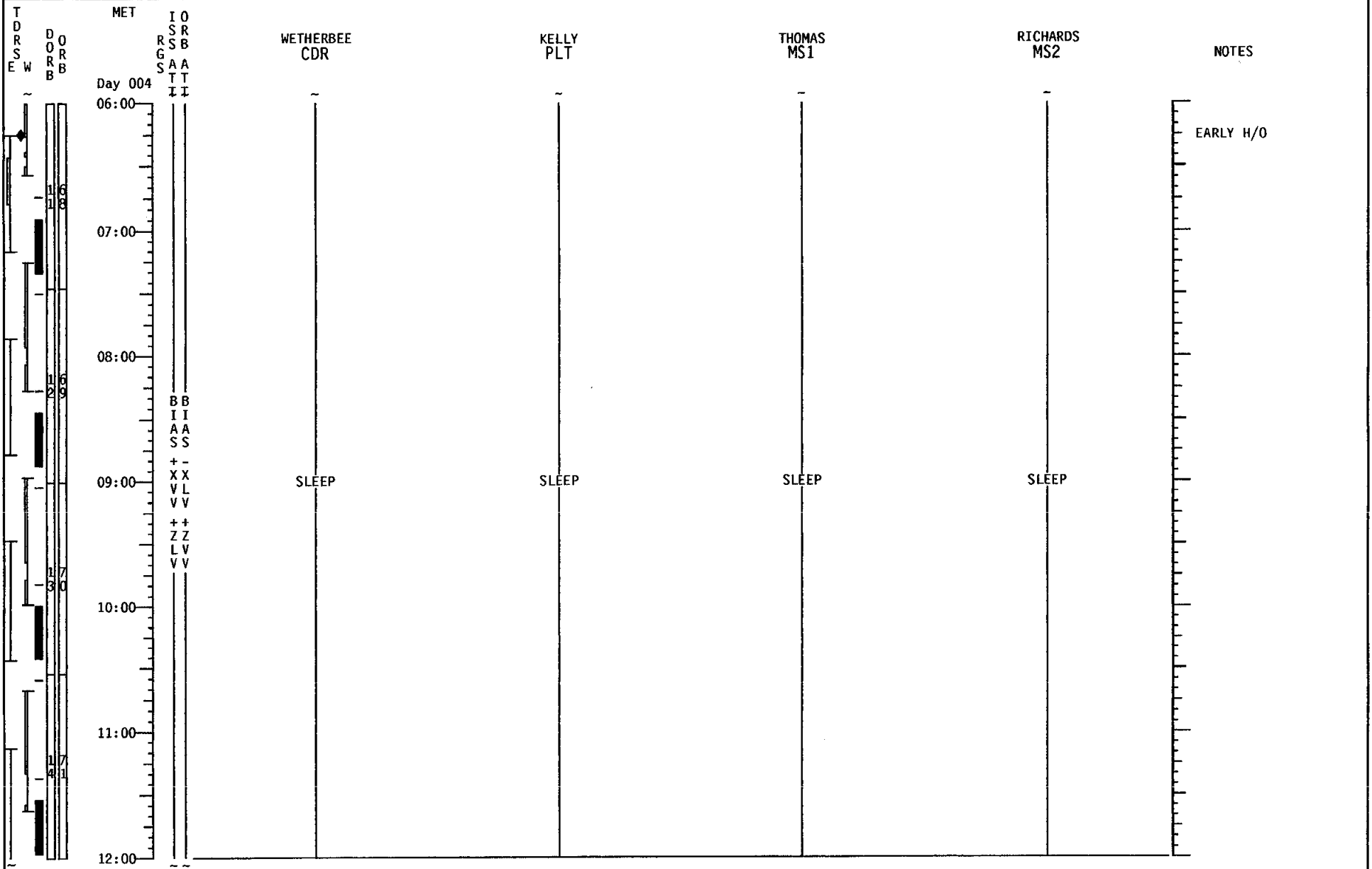
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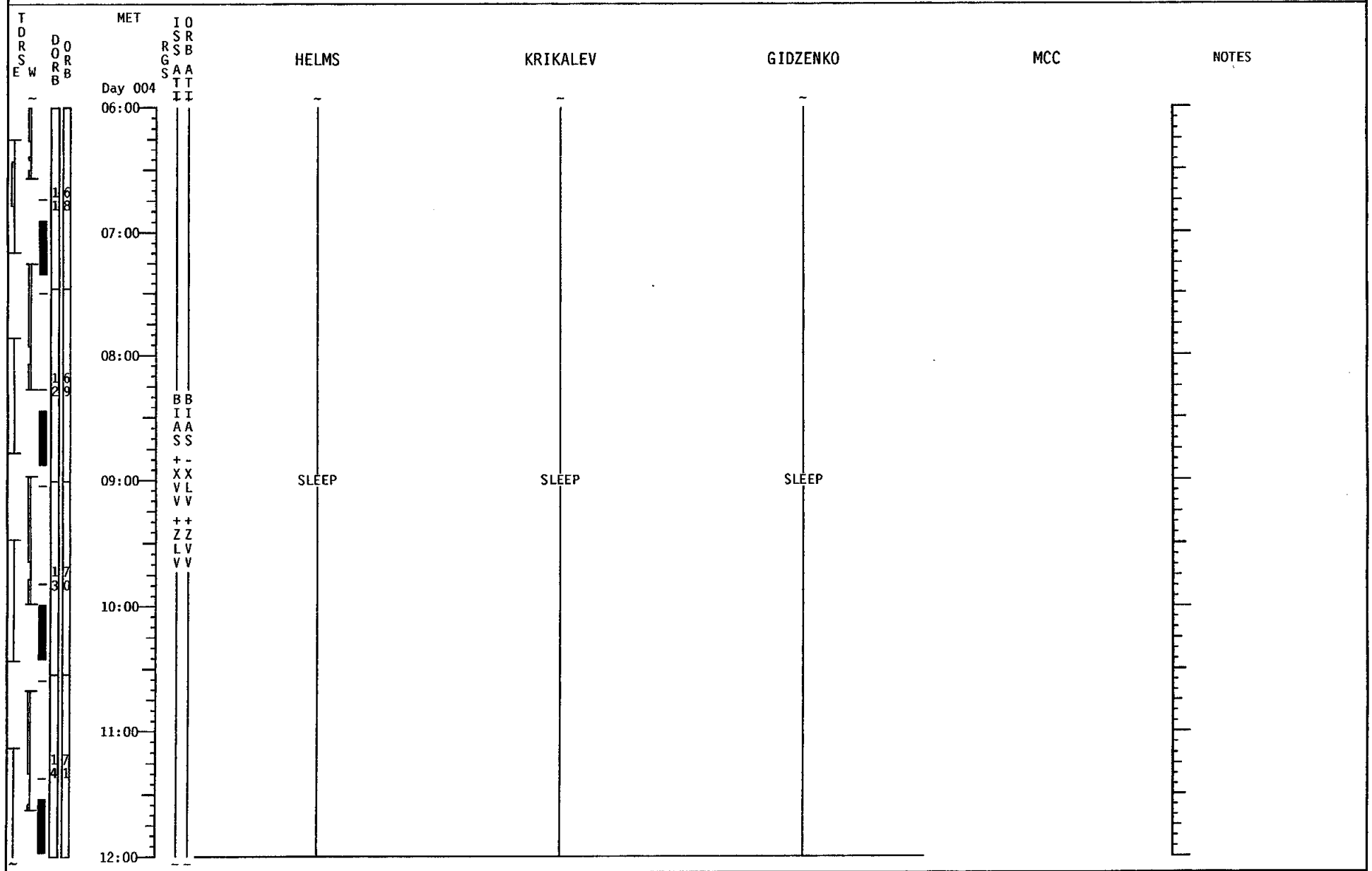
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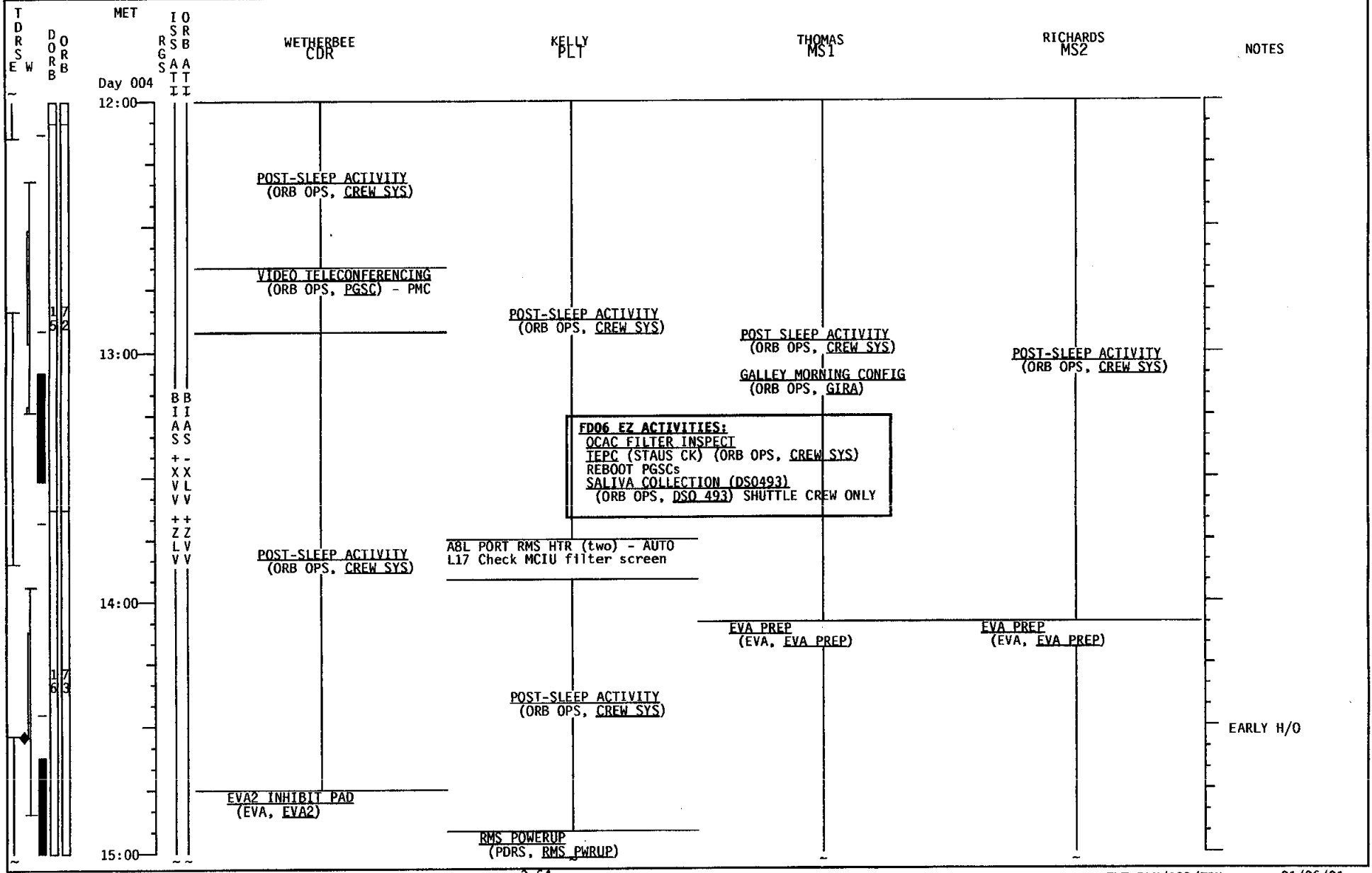
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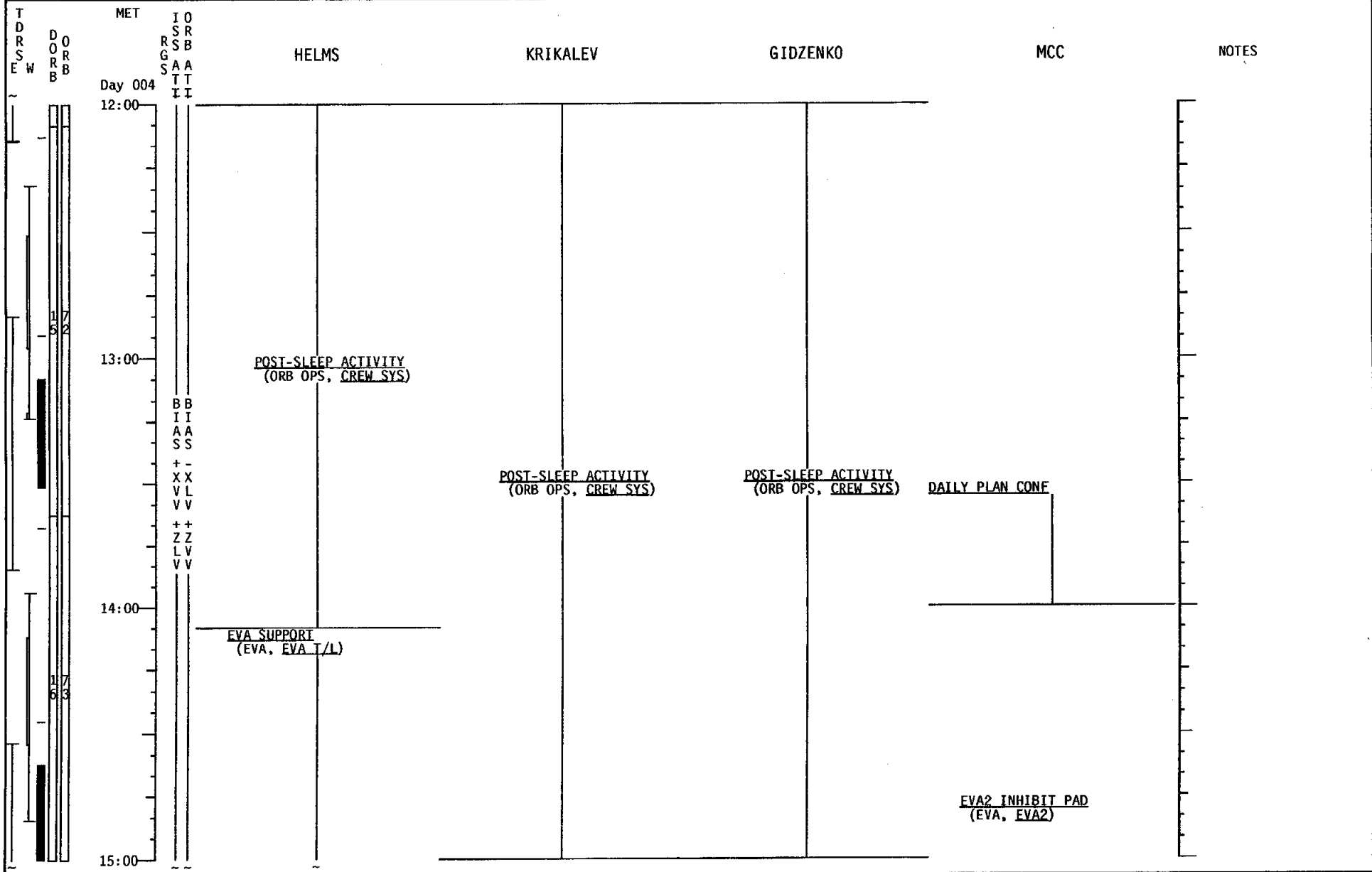
STS-102 (FD05)



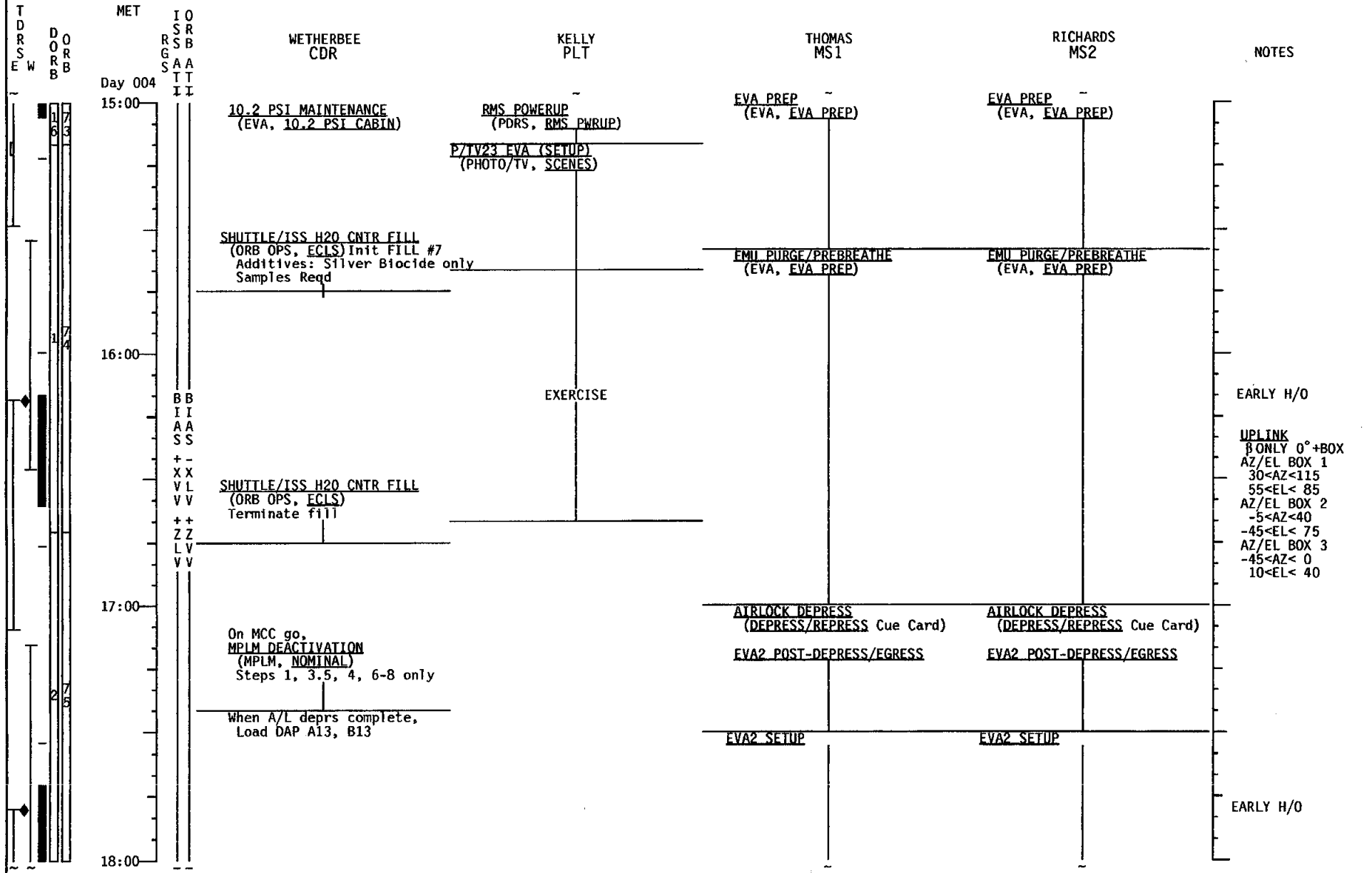
STS-102 (FD06)



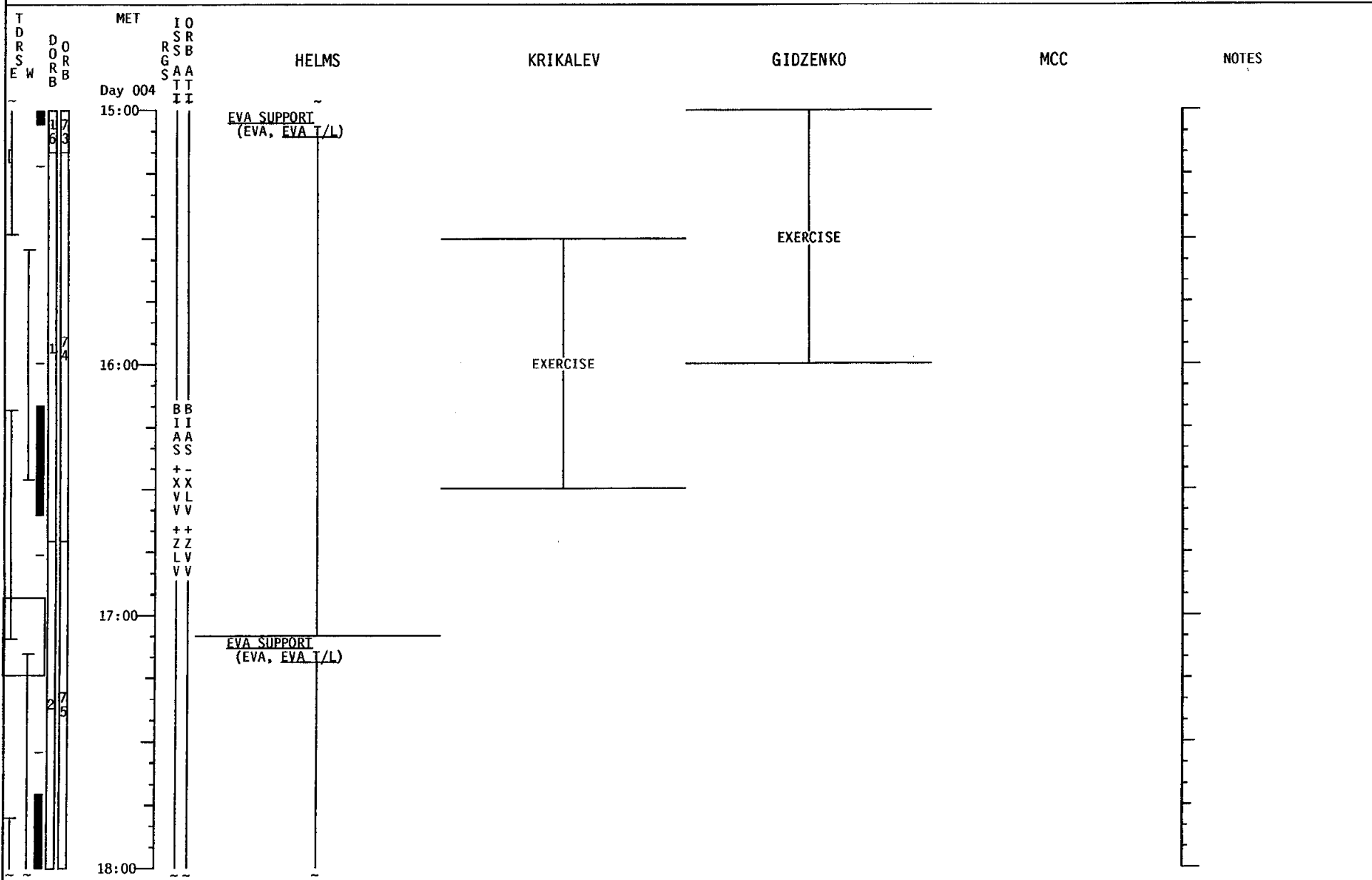
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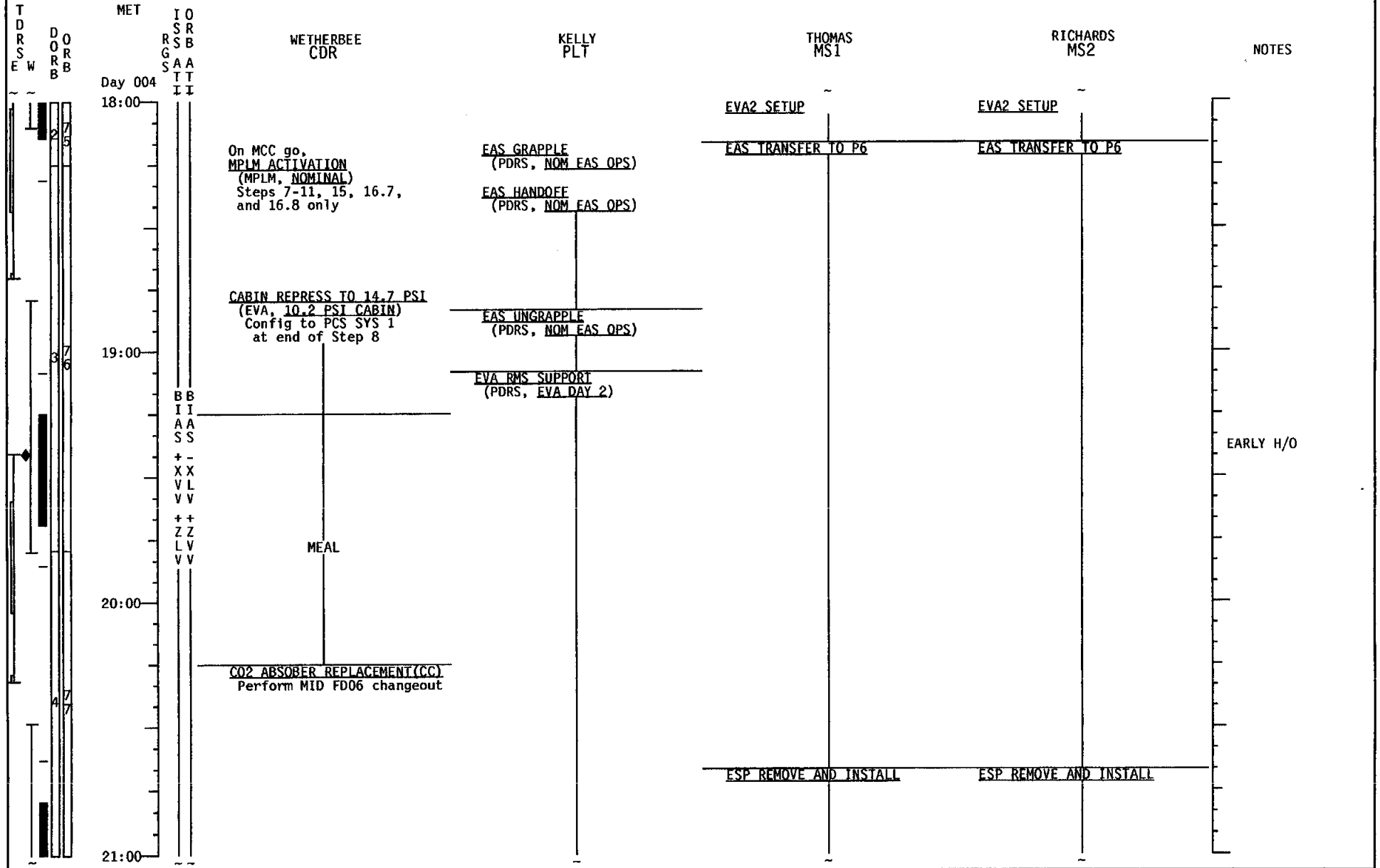
STS-102 (FD06)



STS-102 (FD06)



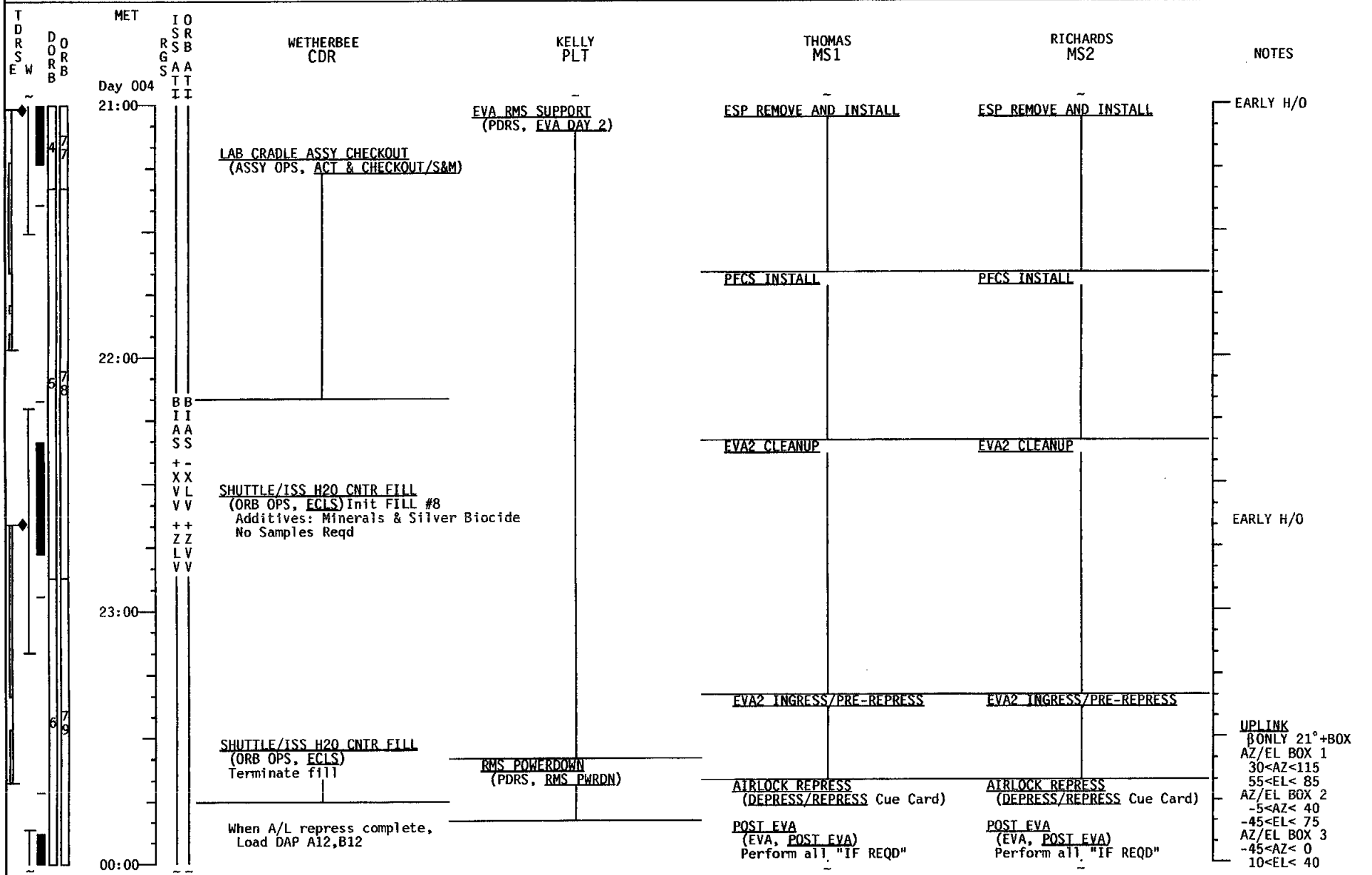
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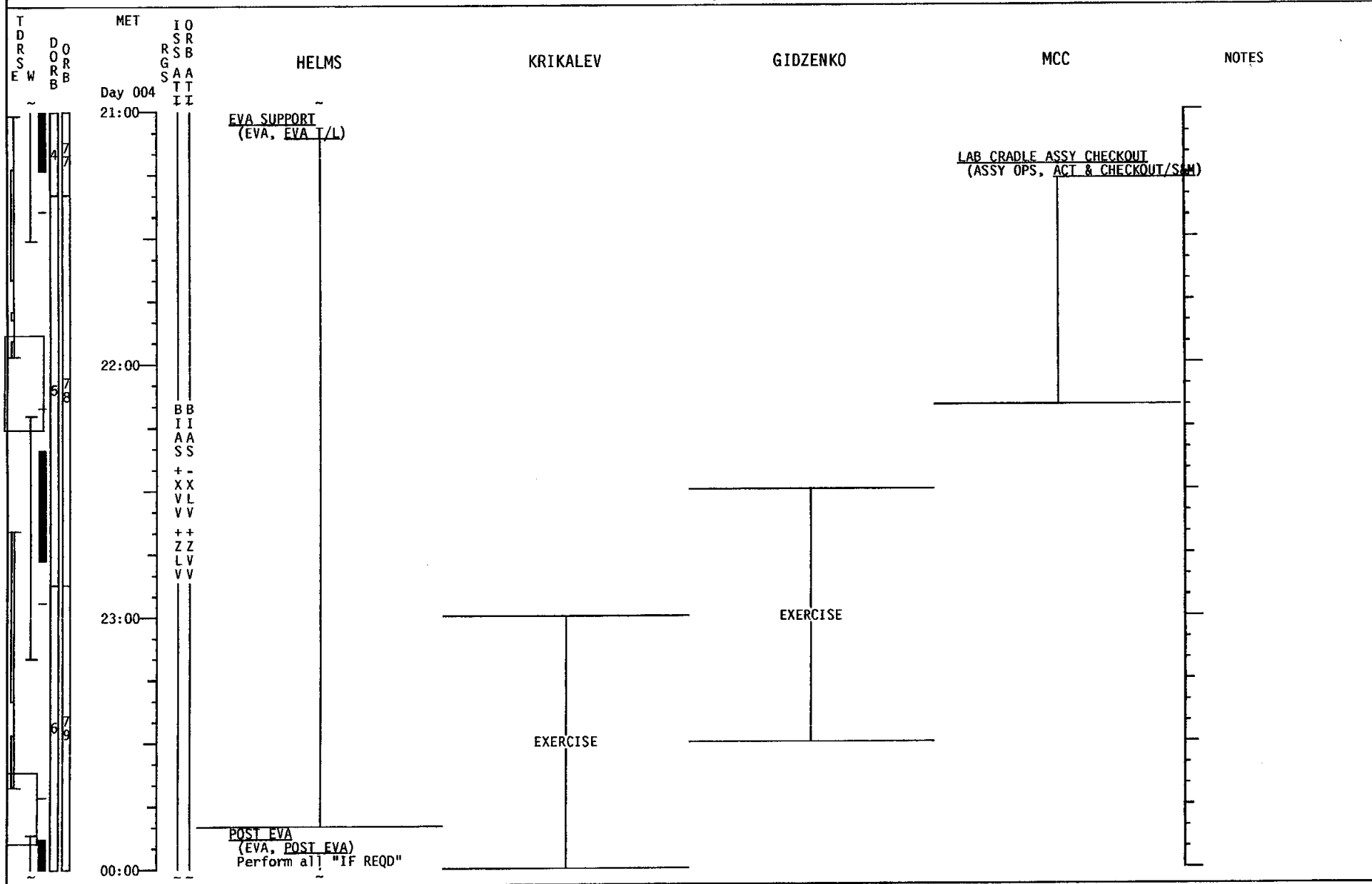
STS-102 (FD06)

T O R S E W	D O R B 6	MET Day 004	I O S R B G S A A T T I I	HELMS	KRIKALEV	GIDZENKO	MCC	NOTES
	275	18:00		EVA SUPPORT (EVA, EVA T/L)				
	376	19:00	B I A S S + - X X V L V V + + Z Z L V V V					
	477	20:00			MEAL	MEAL		
		21:00						

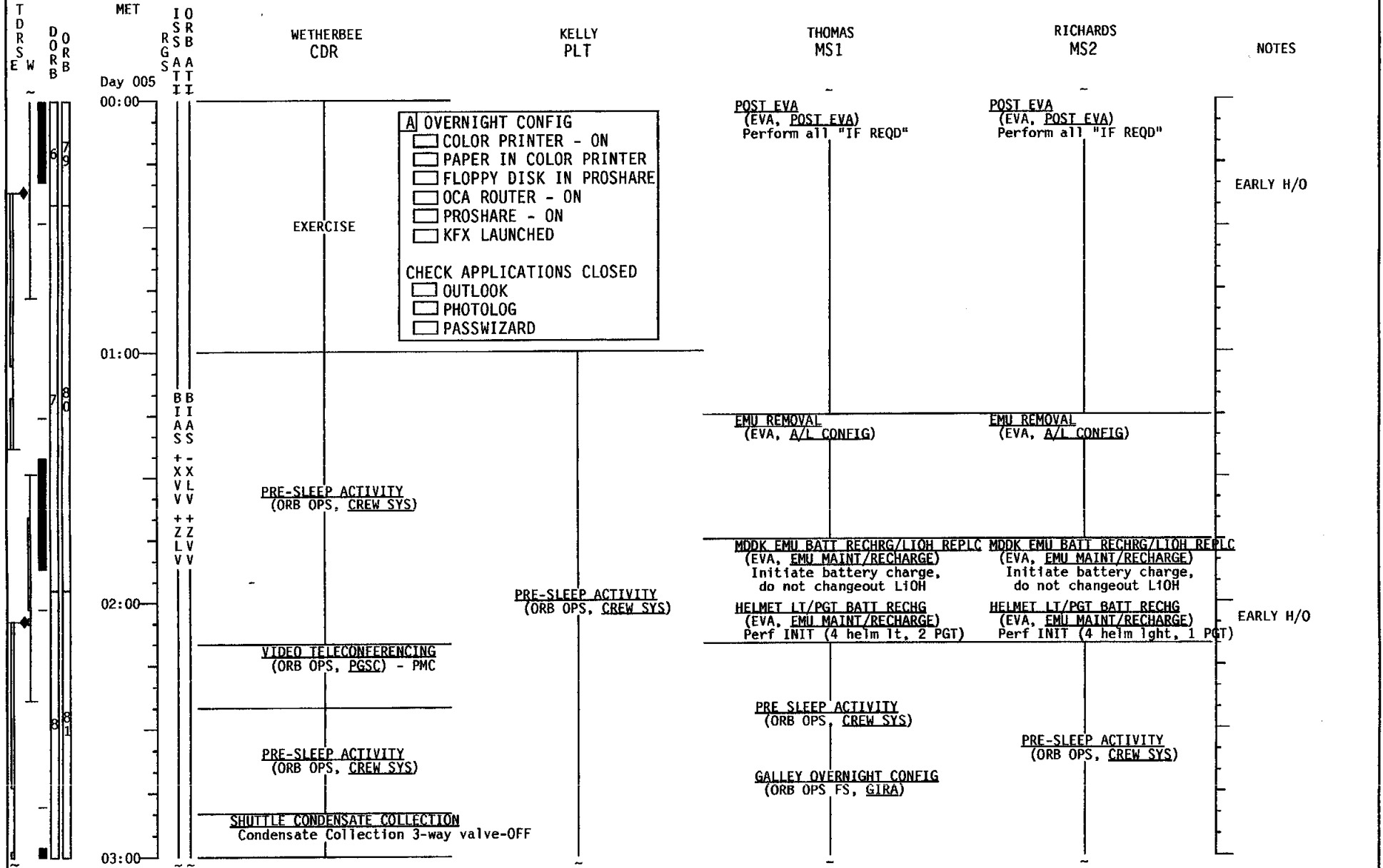
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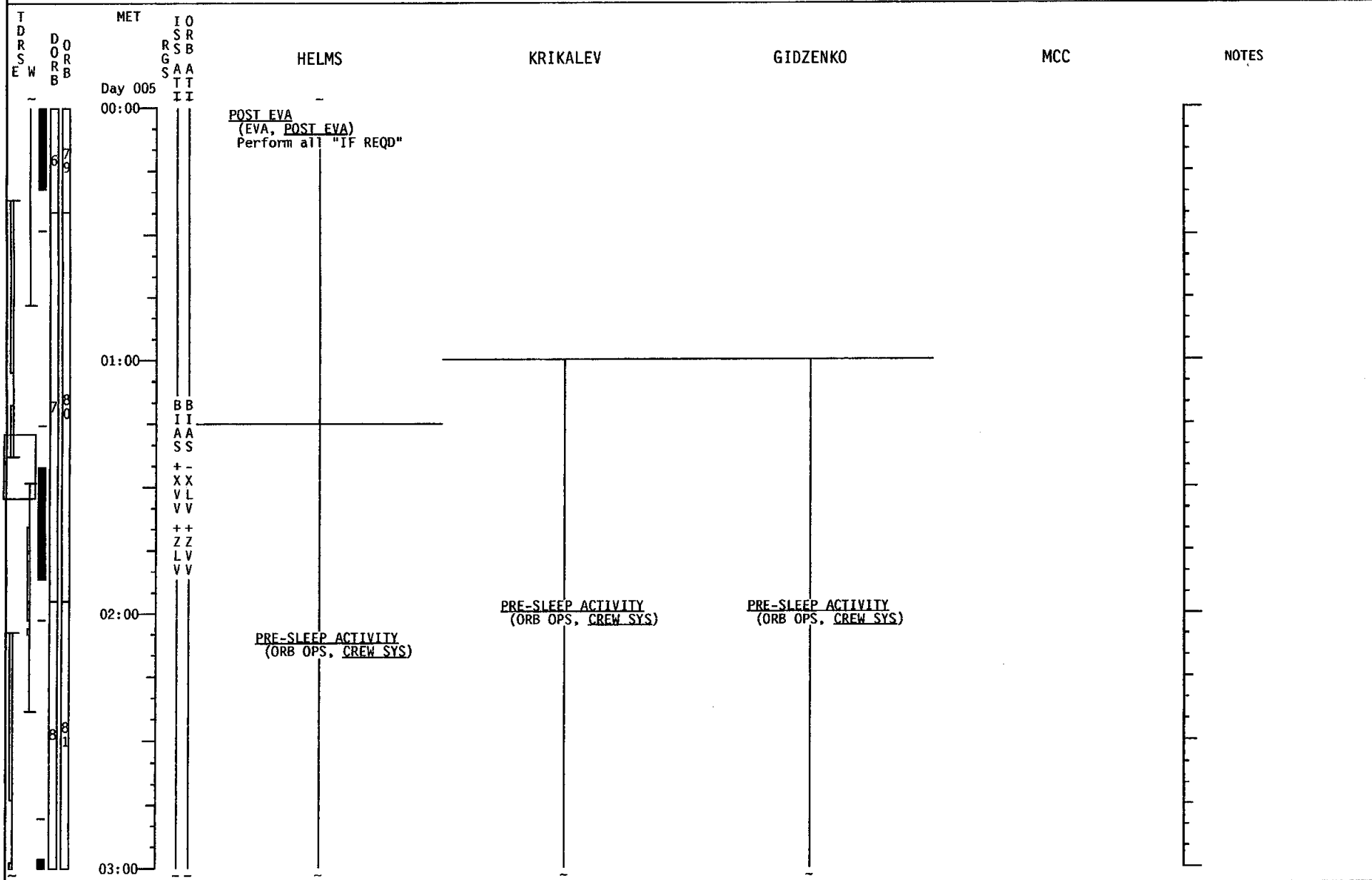
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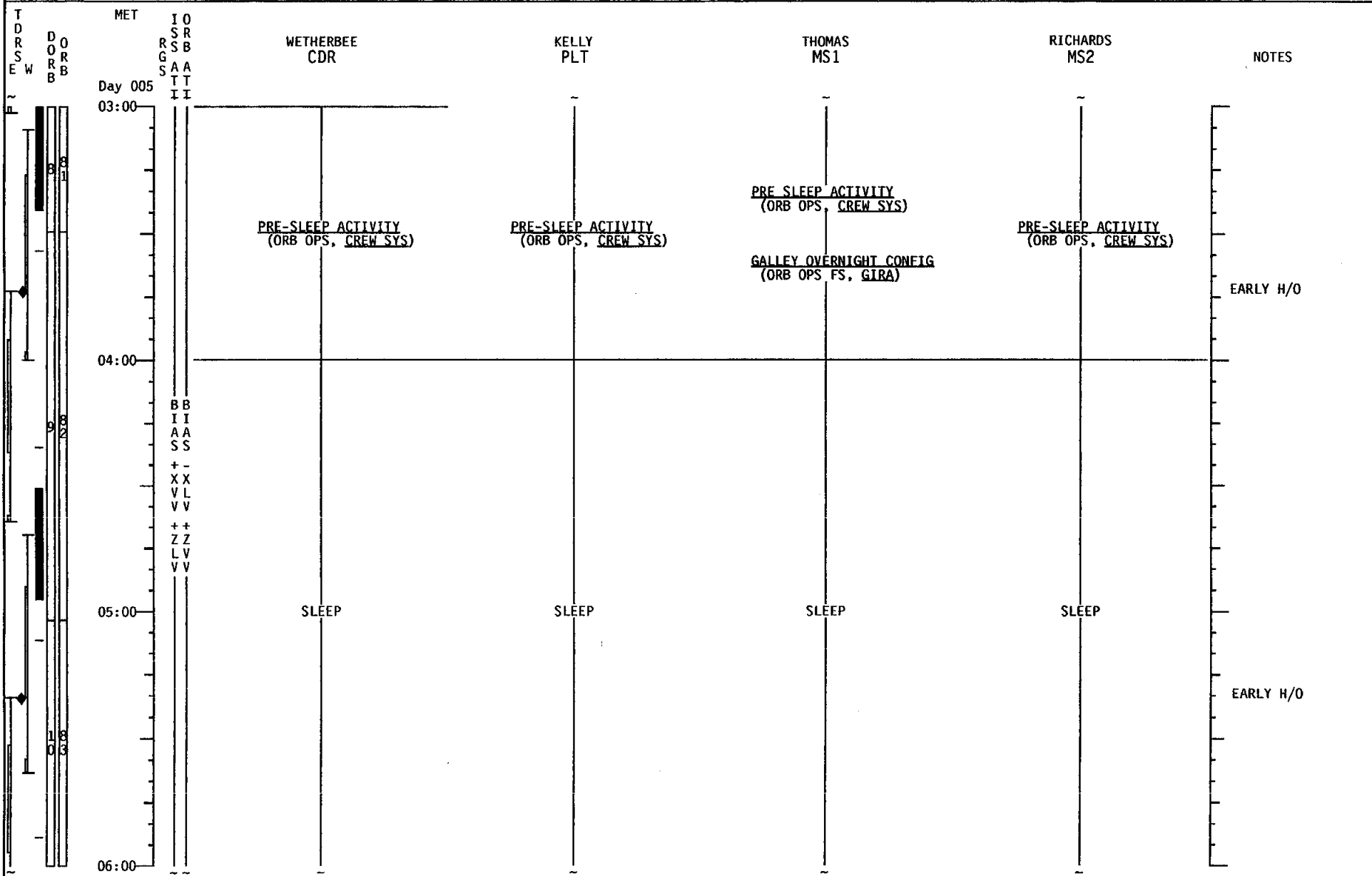
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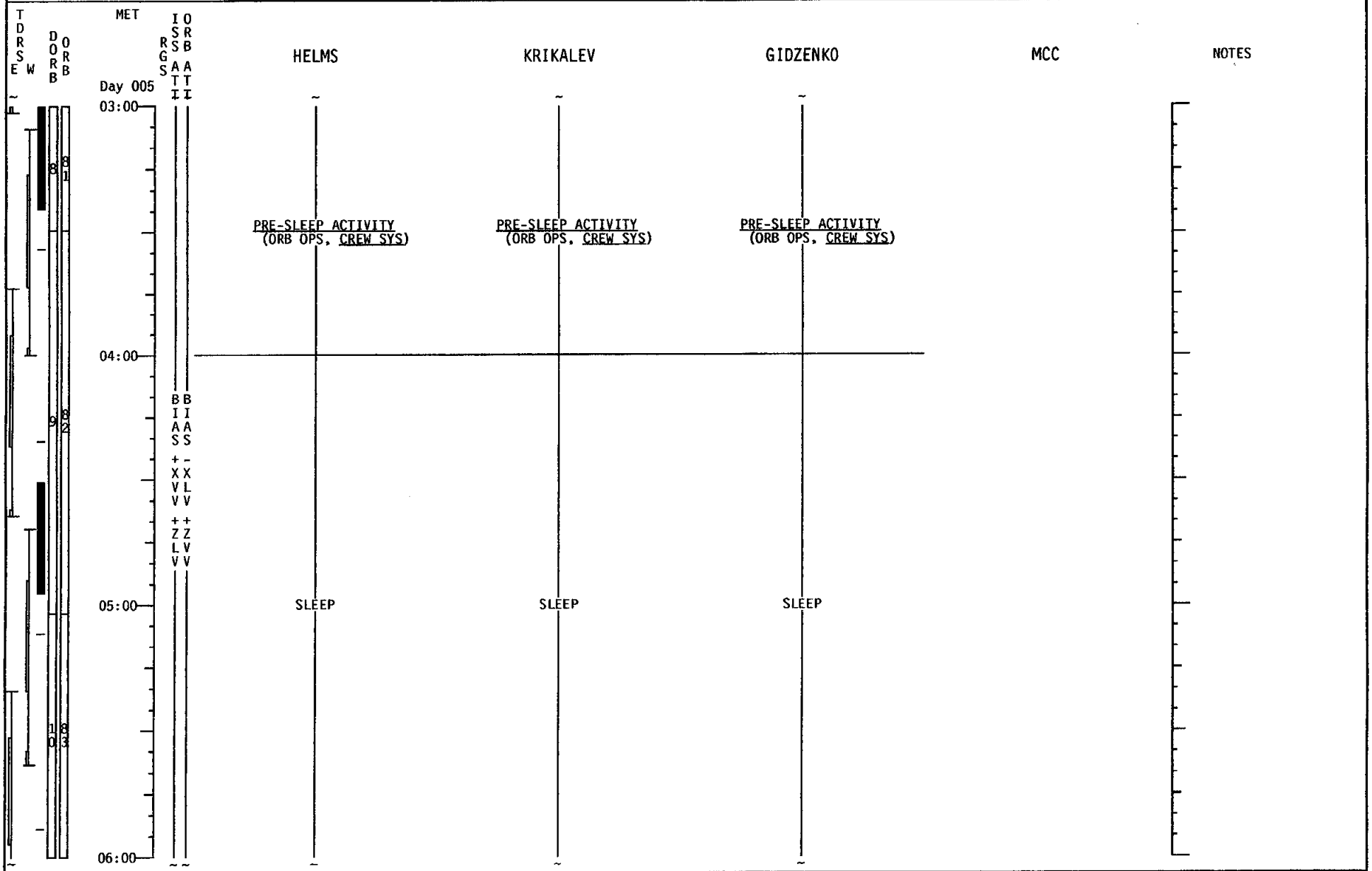
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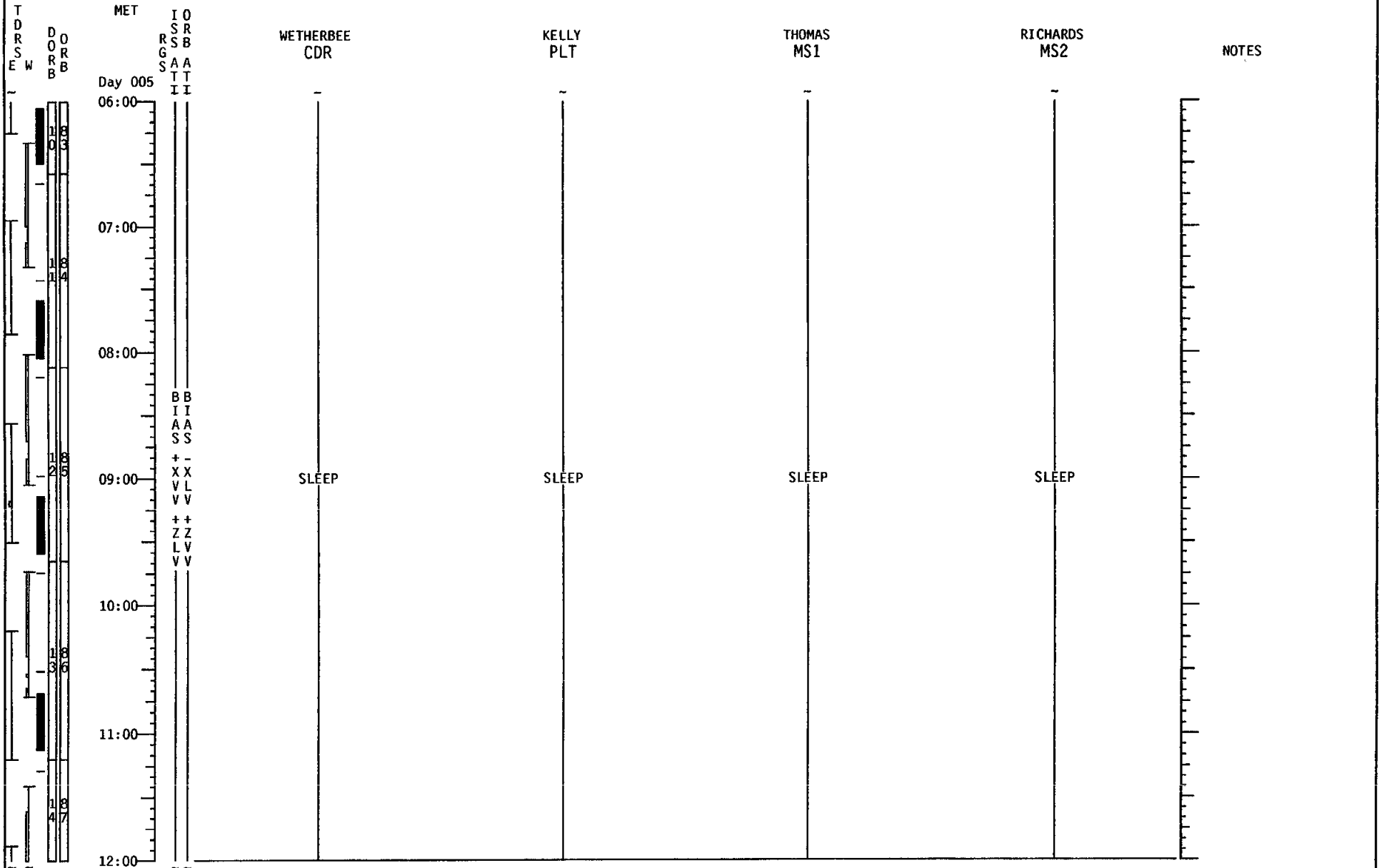
STS-102 (FD06)



STS-102 (FD06)



STS-102 (FD06)

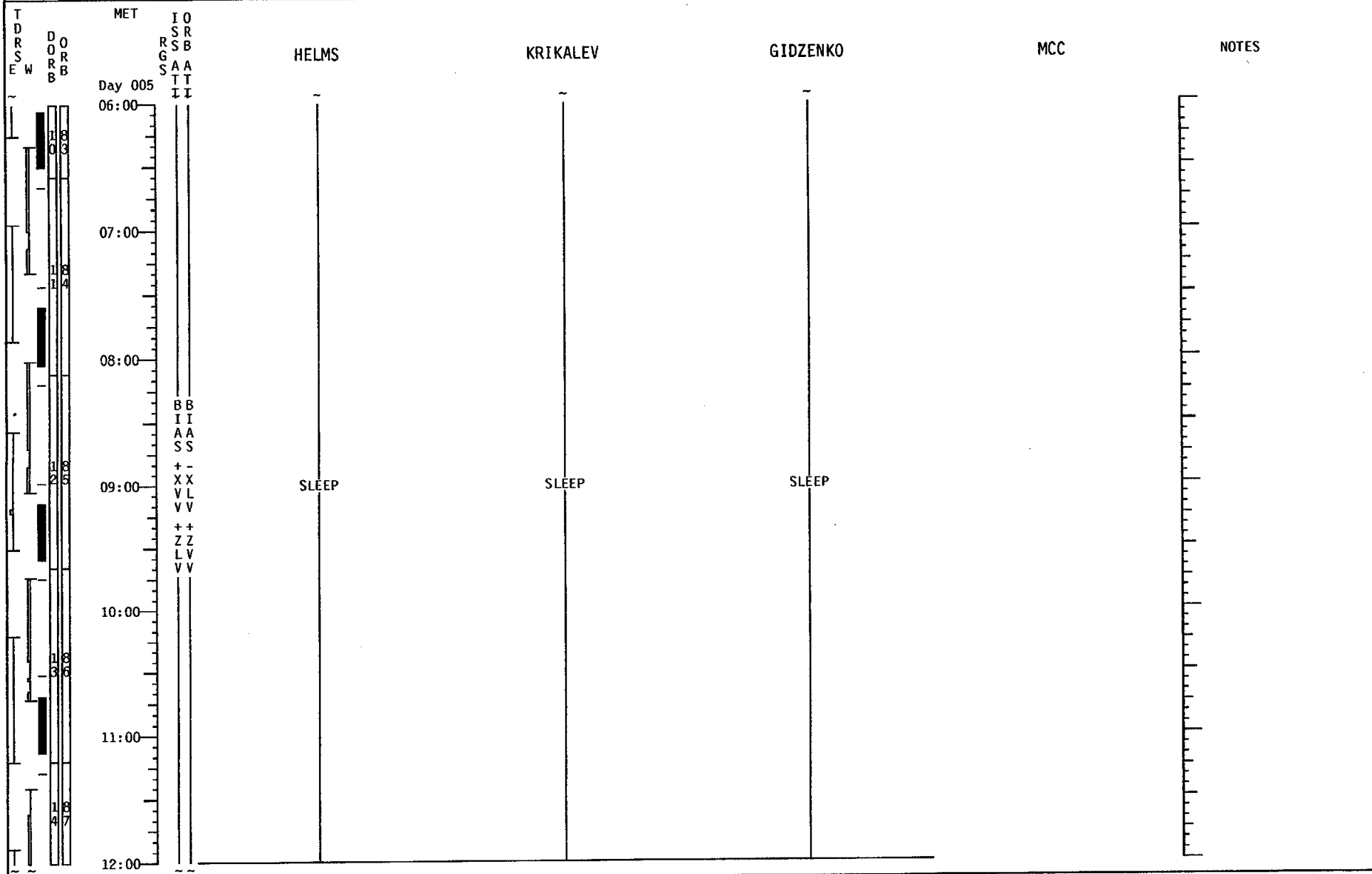


MET Day 005
 06:00
 07:00
 08:00
 09:00
 10:00
 11:00
 12:00

TDRS
 E W
 DORRB
 103
 114
 125
 136
 147

I O
 R S
 B A
 R S
 G A
 S T
 T I
 T I
 B B
 I I
 A A
 S S
 + -
 X X
 V L
 V V
 + +
 Z Z
 L V
 V V

STS-102 (FD06)



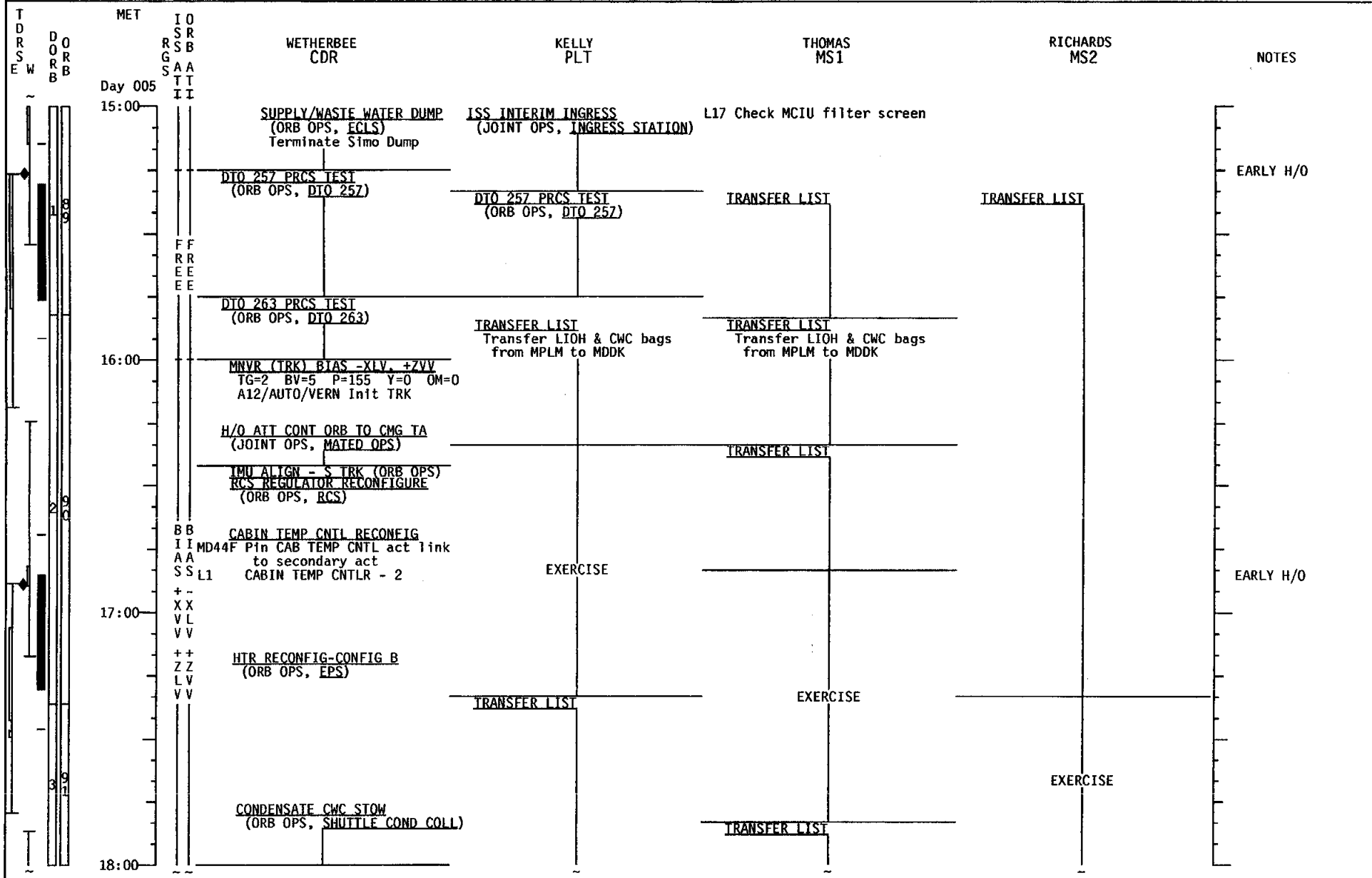
STS-102 (FD07)

	MET	I O R S R B G S A S A A T T I I I	WETHERBEE CDR	KELLY PLT	THOMAS MS1	RICHARDS MS2	NOTES
T D R S E W D O R B B 11 11 11 5 8 8 11 11 11 5 8 8 11 11 11 5 8 8	Day 005 12:00 13:00 14:00 15:00	B B I I A A S S + - X X V L V V + + Z Z L V V V B I A S X L V X + L Y V V + Y V V	<p>POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)</p> <hr/> <p>H/O ATT CONT CMG YA TO ORB (JOINT OPS, MATED OPS)</p> <hr/> <p>MNVR (TRK) DUMP ATT TG=2 BV=5 P=155 Y=0 OM=270 A12/AUTO/VERN Init TRK</p> <hr/> <p>SUPPLY/WASTE WATER DUMP (ORB OPS, ECLS) Initiate Simo Dump</p> <hr/> <p>SHUTTLE CONDENSATE COLLECTION Condensate Collection 3-way valve-fill CWC</p> <hr/> <p>POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)</p>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> FD07 EZ ACTIVITIES: OCAC FILTER INSPECT IEPC (STAU5 CK) (ORB OPS, CREW SYS) REBOOT PGSCs SALIVA COLLECTION (DS0493) (ORB OPS, DSO 493) SHUTTLE CREW ONLY </div> <p>POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)</p>	<p>POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)</p> <p>GALLEY MORNING CONFIG (ORB OPS, GIRA)</p>	<p>POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)</p>	<p>EVA CREW: TAKE 1 ASPIRIN(325mg) EVA CREW: TAKE 1 ASPIRIN(325mg)</p>

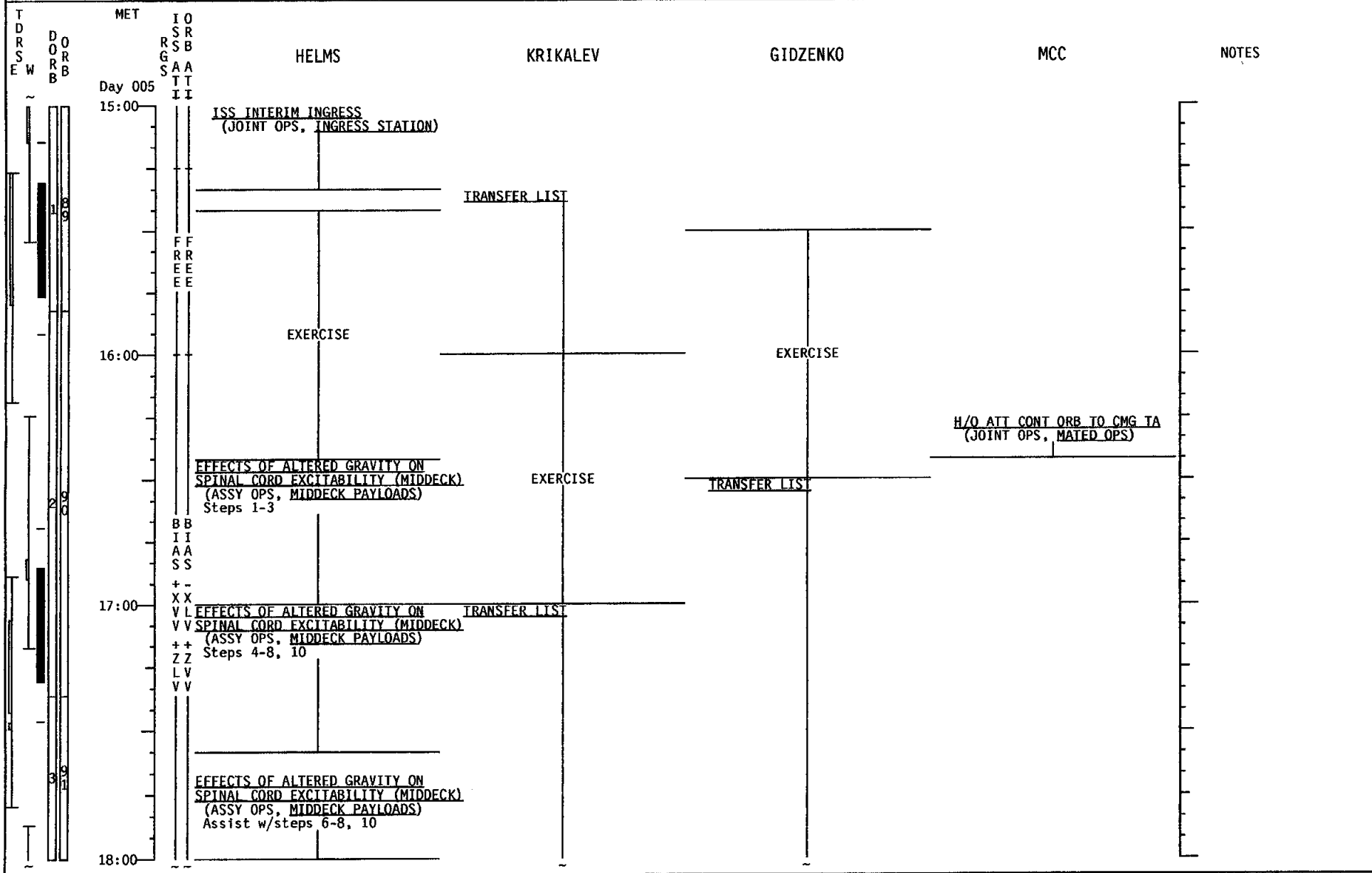
STS-102 (FD07)

	MET	HELMS	KRIKALEV	GIDZENKO	MCC	NOTES
<p style="font-size: small;">T D R S E W</p> <p style="font-size: small;">D O R B</p> <p style="font-size: small;">18 47</p> <p style="font-size: small;">18 58</p> <p style="font-size: small;">18 98</p>	<p style="font-size: small;">I O R S B A T T I I</p> <p style="font-size: small;">R G S</p> <p style="font-size: small;">Day 005</p> <p style="font-size: small;">12:00</p> <p style="font-size: small;">13:00</p> <p style="font-size: small;">14:00</p> <p style="font-size: small;">15:00</p> <p style="font-size: small;">B I A S S + - X X V L V V + + Z Z L V V V B I A S + X L V L - X L V + Y V + V Y V V</p>	<p>POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)</p>	<p>POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)</p>	<p>POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)</p>	<p>H/O ATT CONT CMG TA TO ORB (JOINT OPS, MATED OPS)</p>	

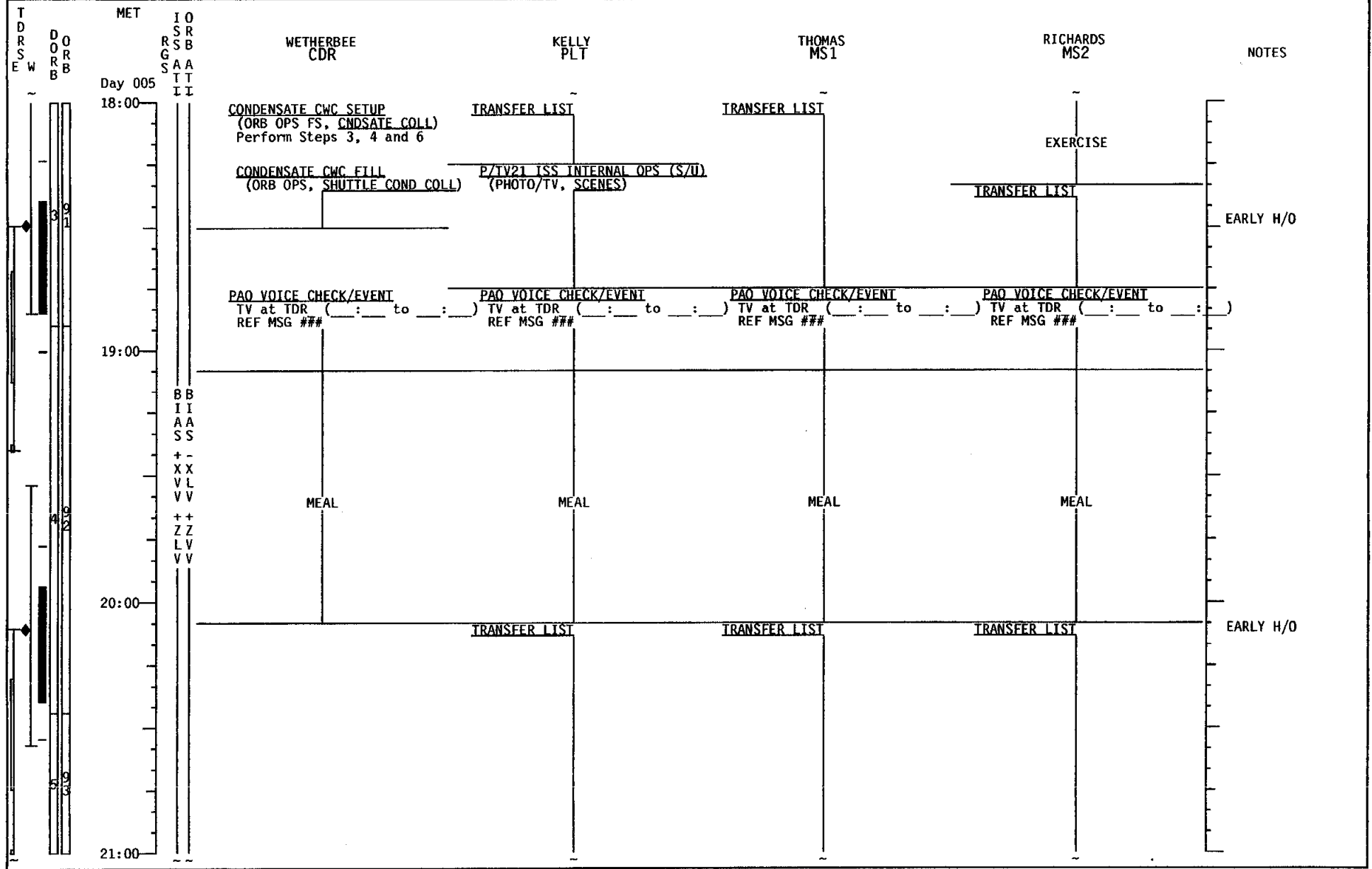
STS-102 (FD07)



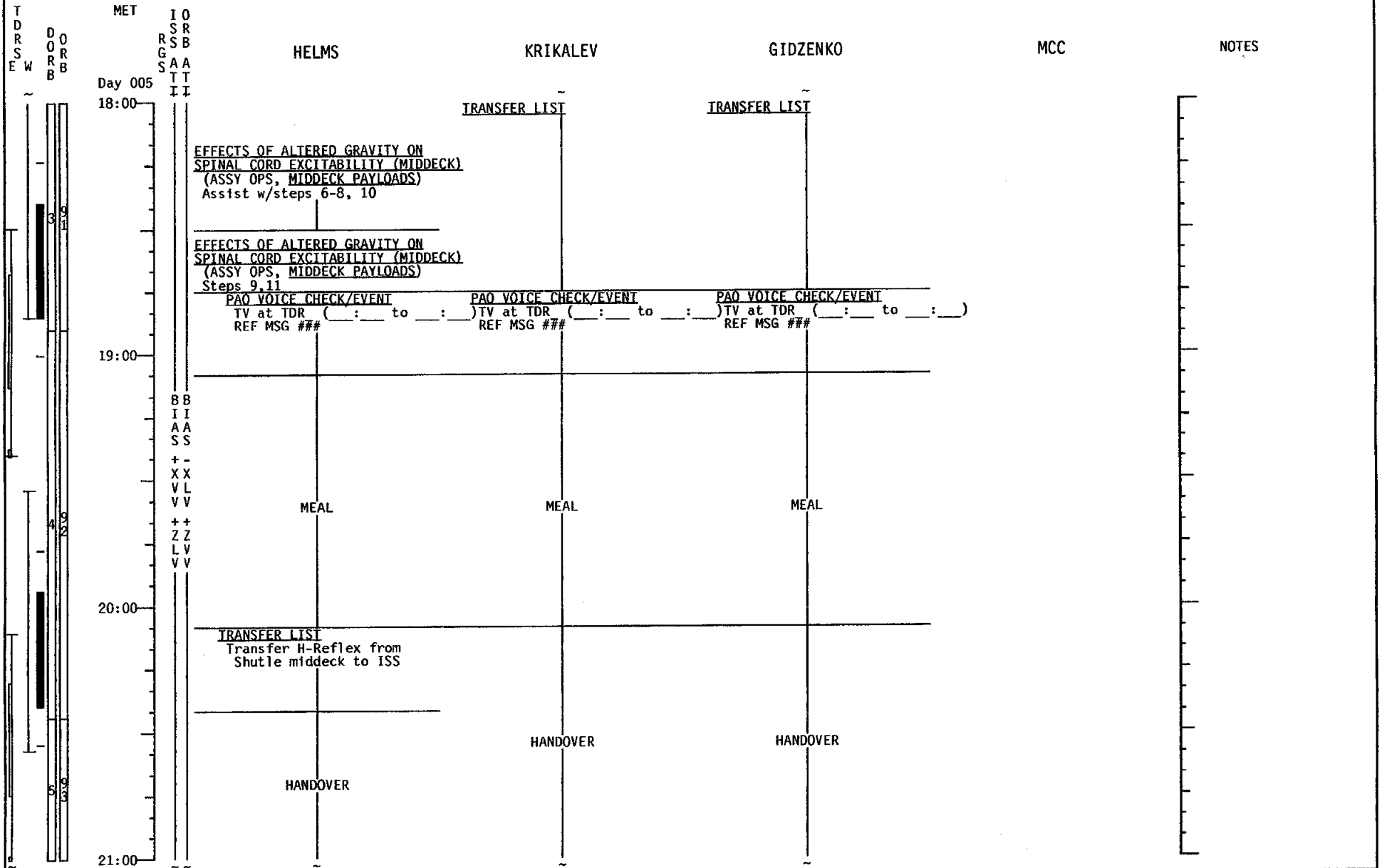
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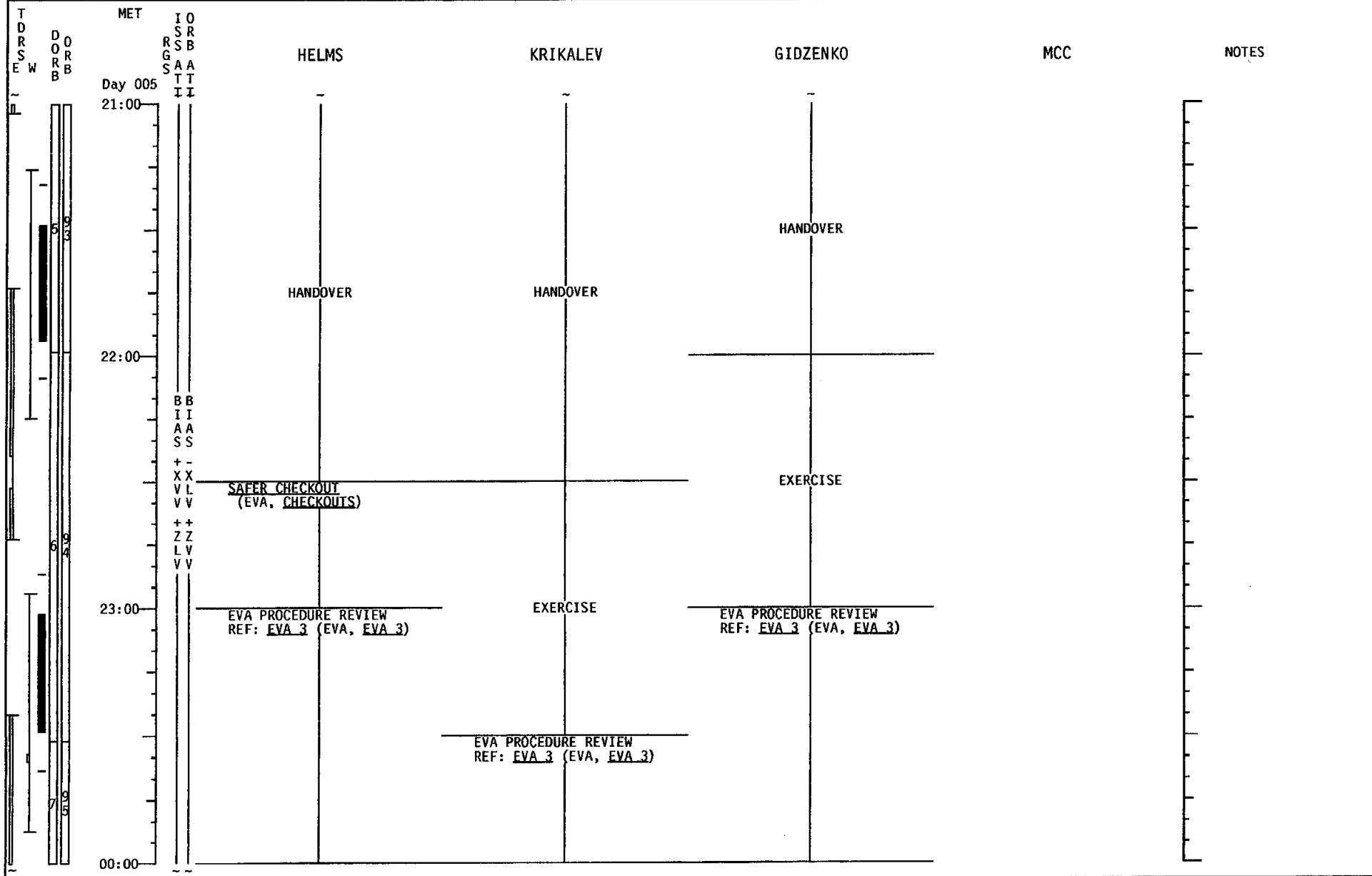
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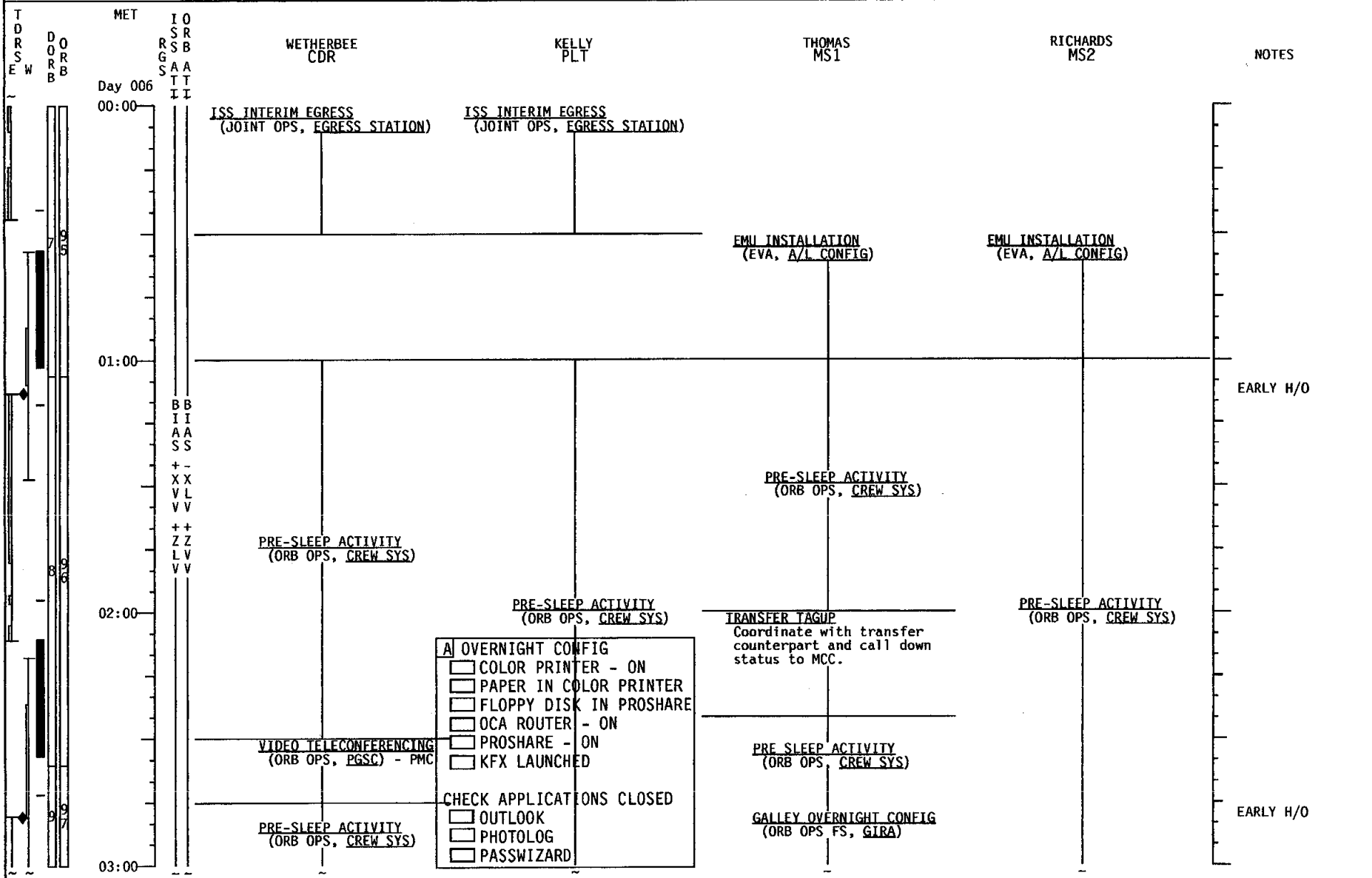
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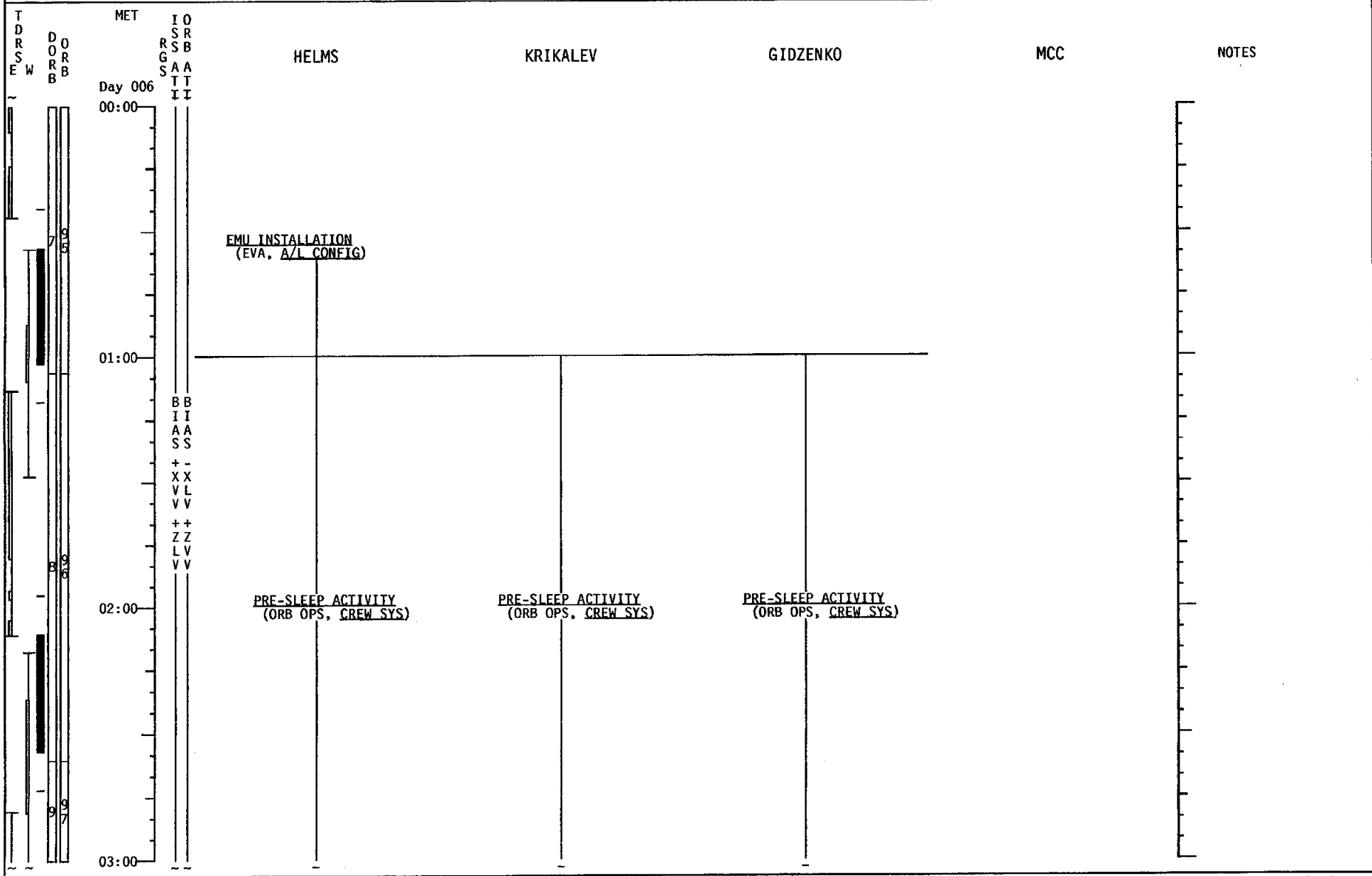
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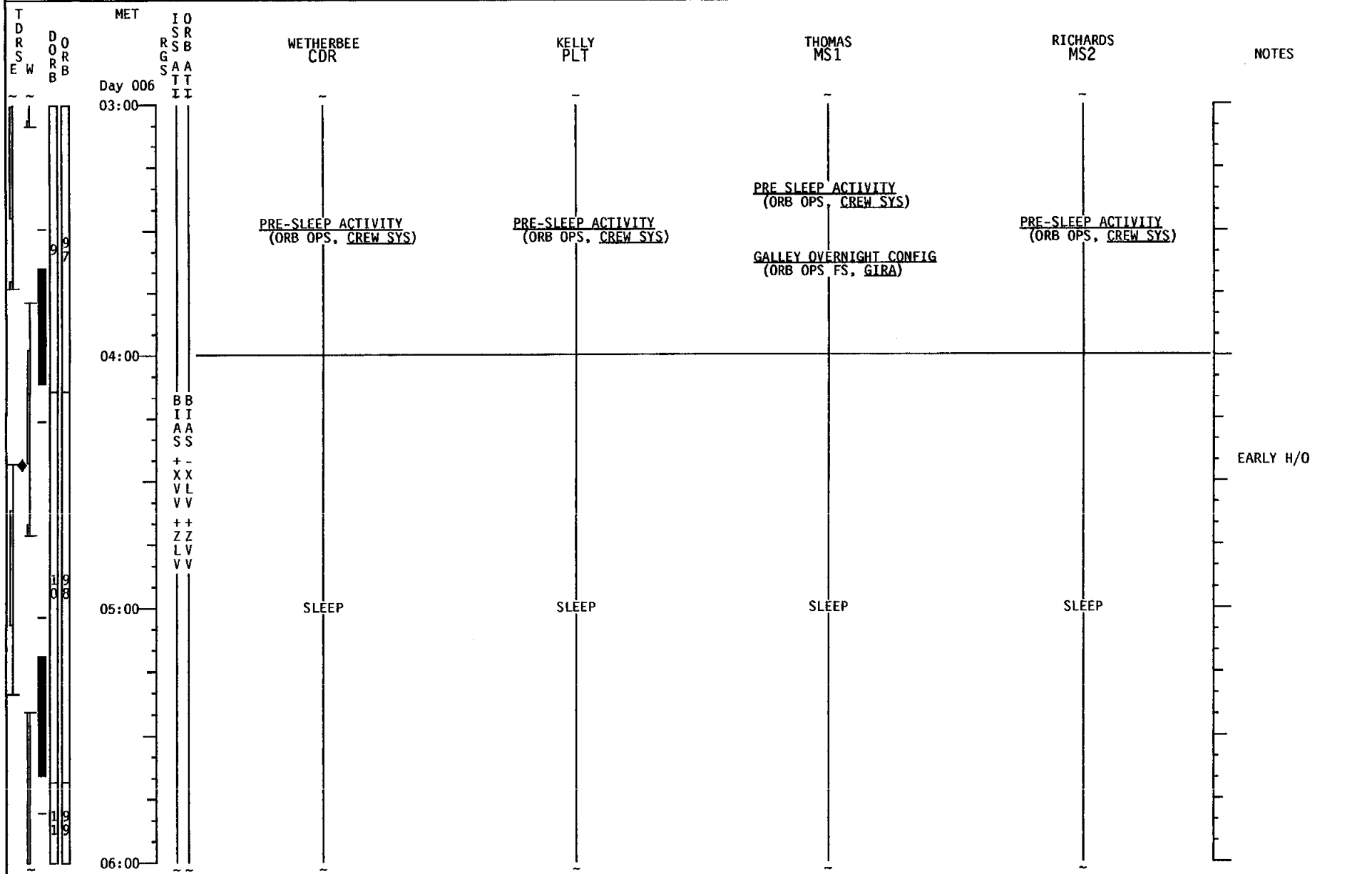
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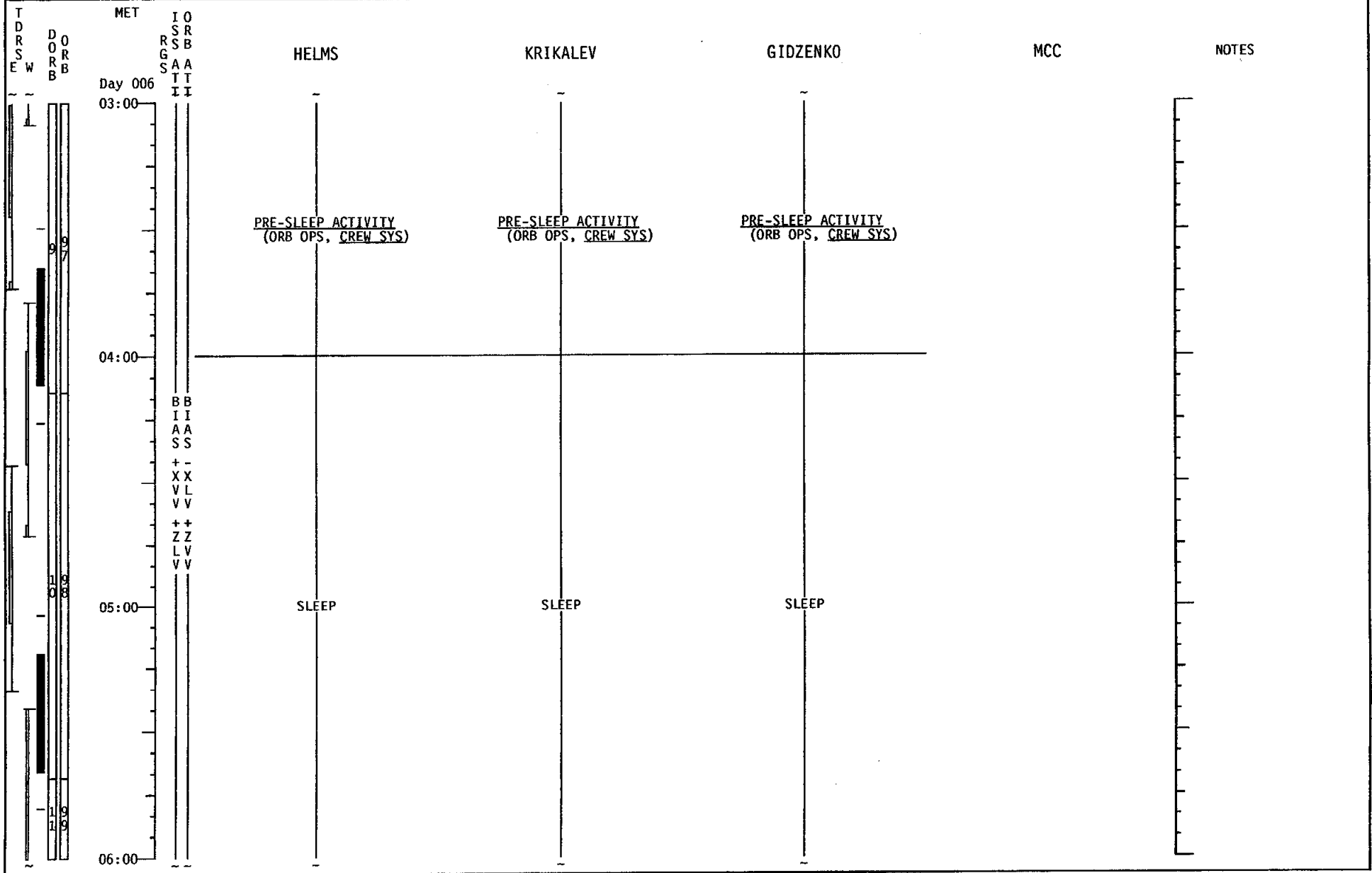
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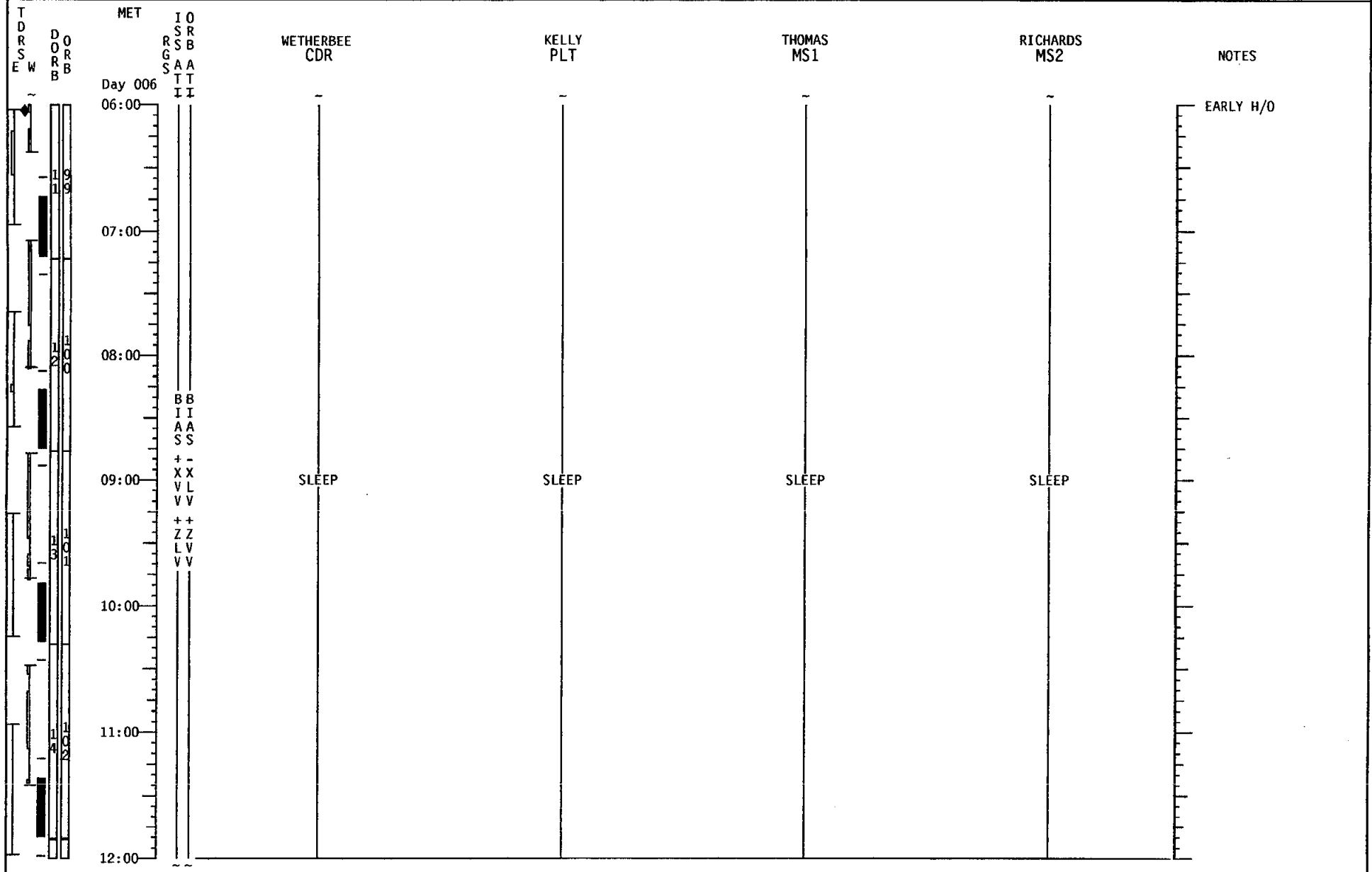
STS-102 (FD07)



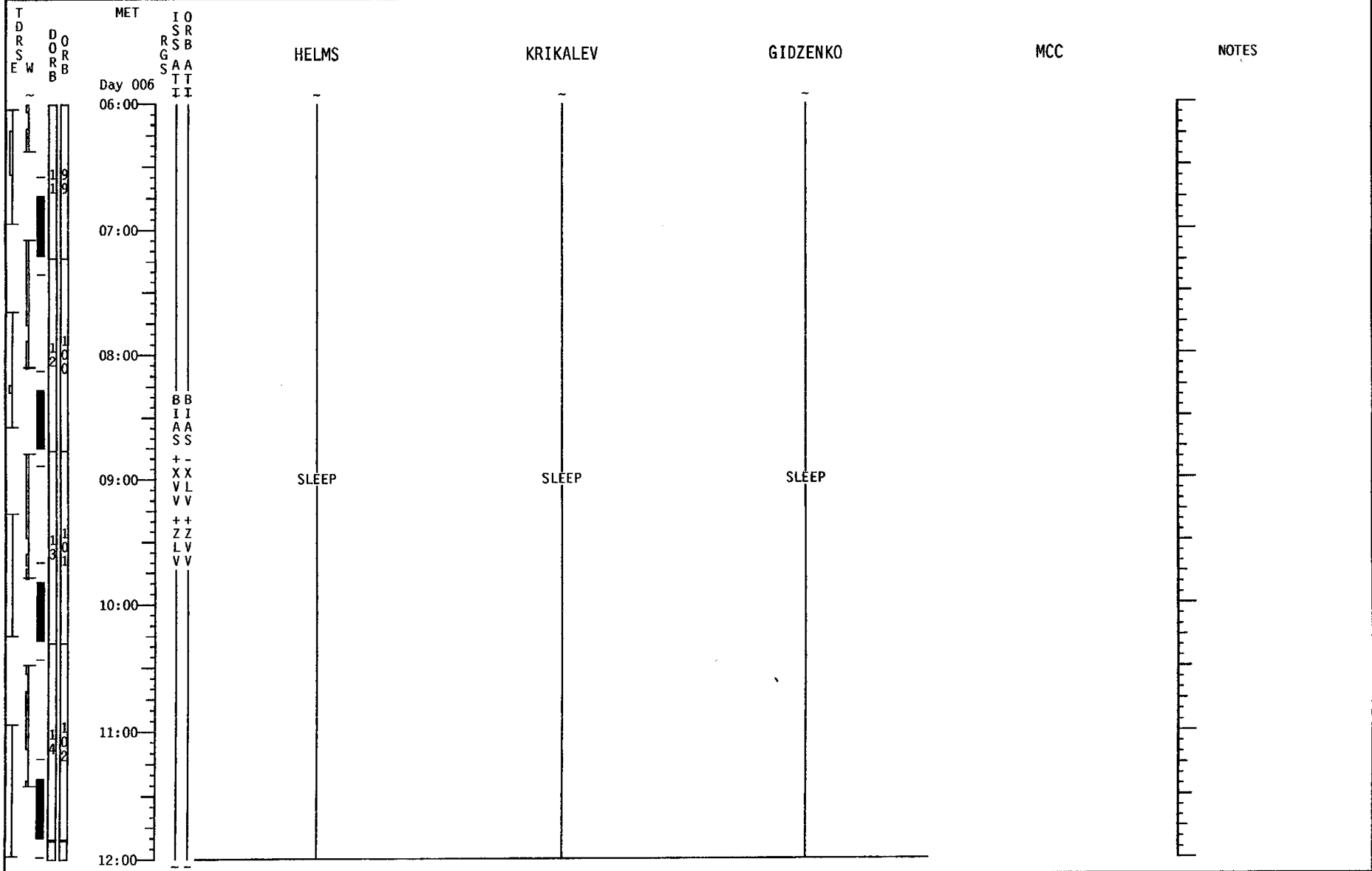
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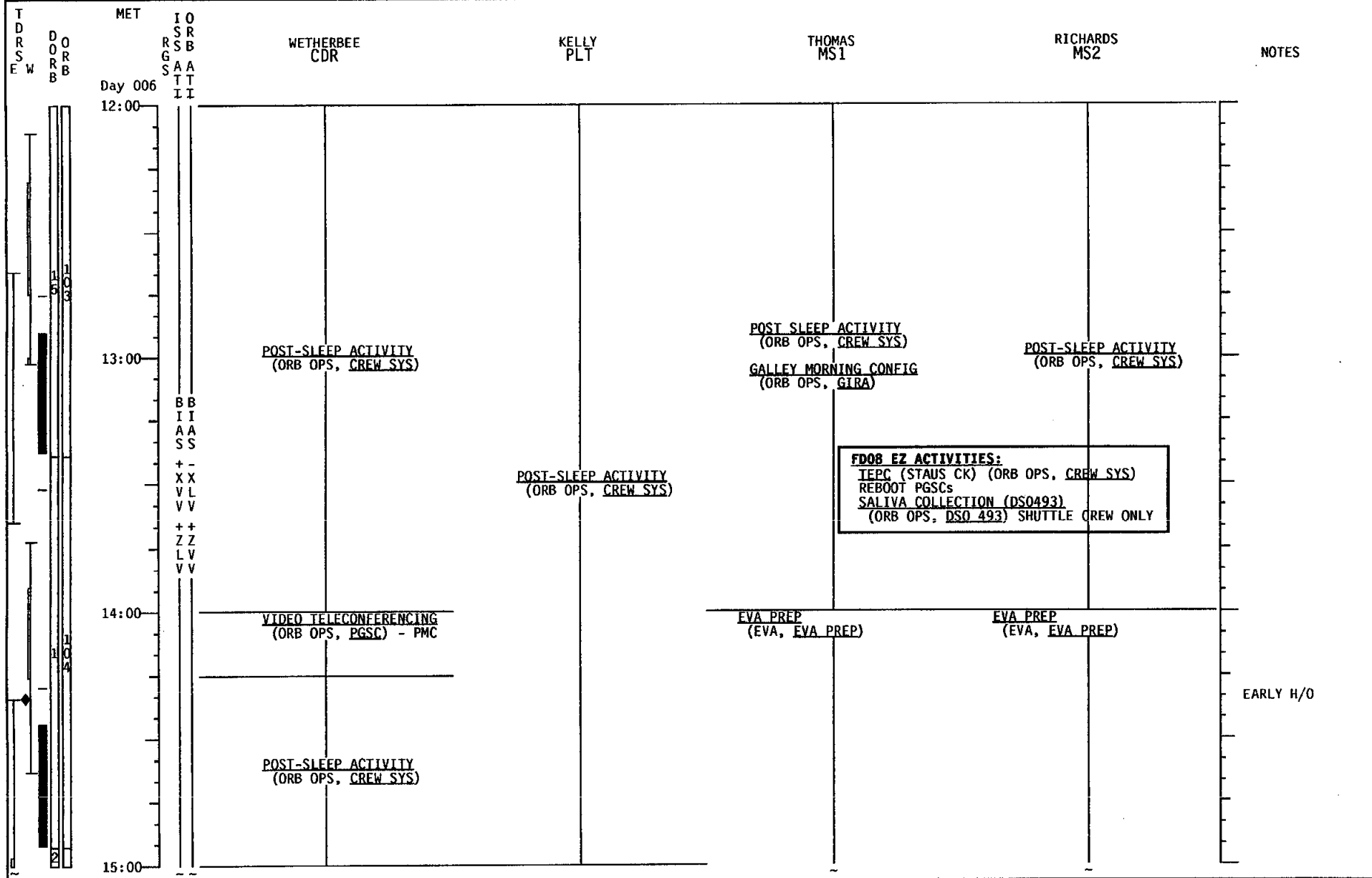
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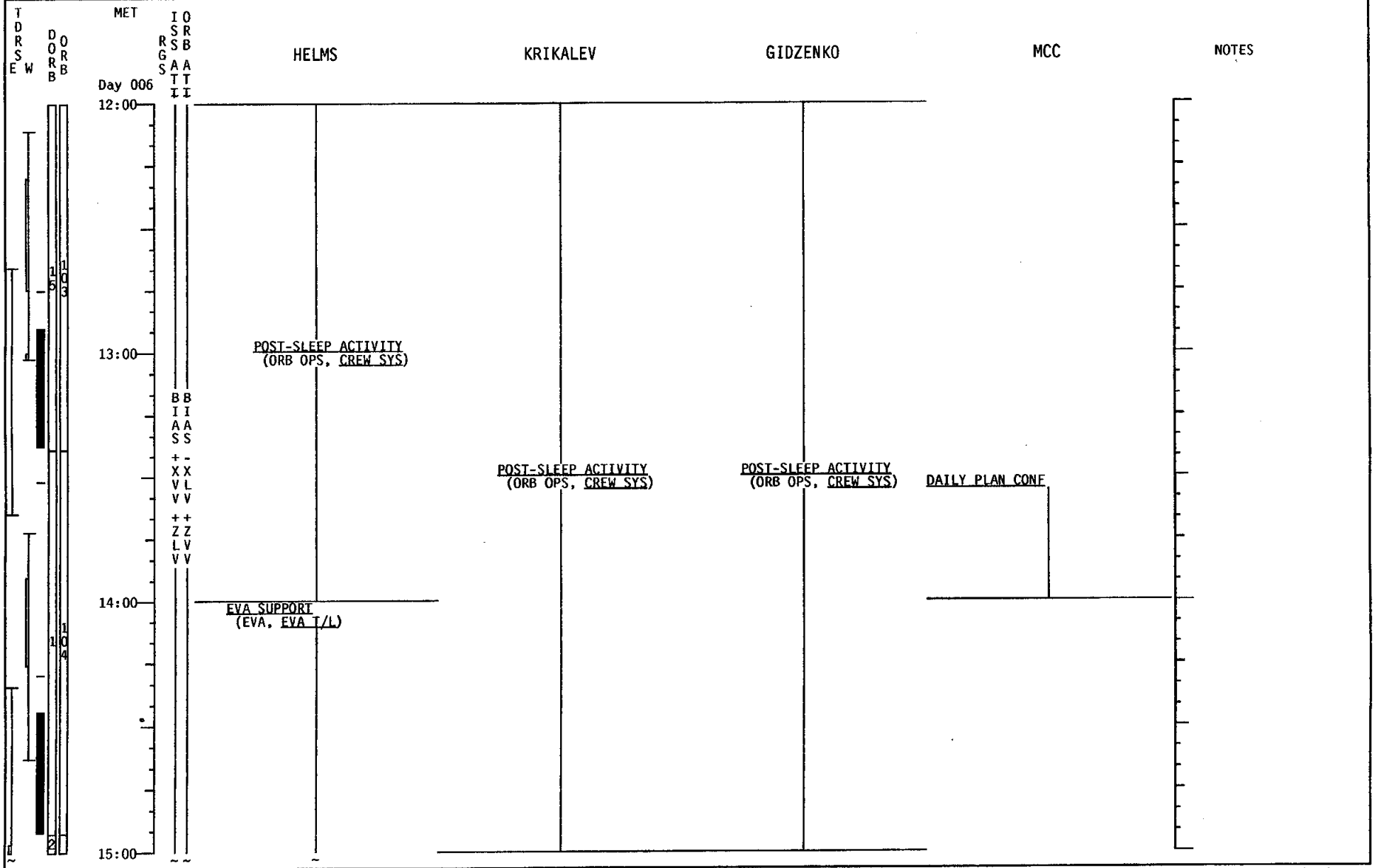
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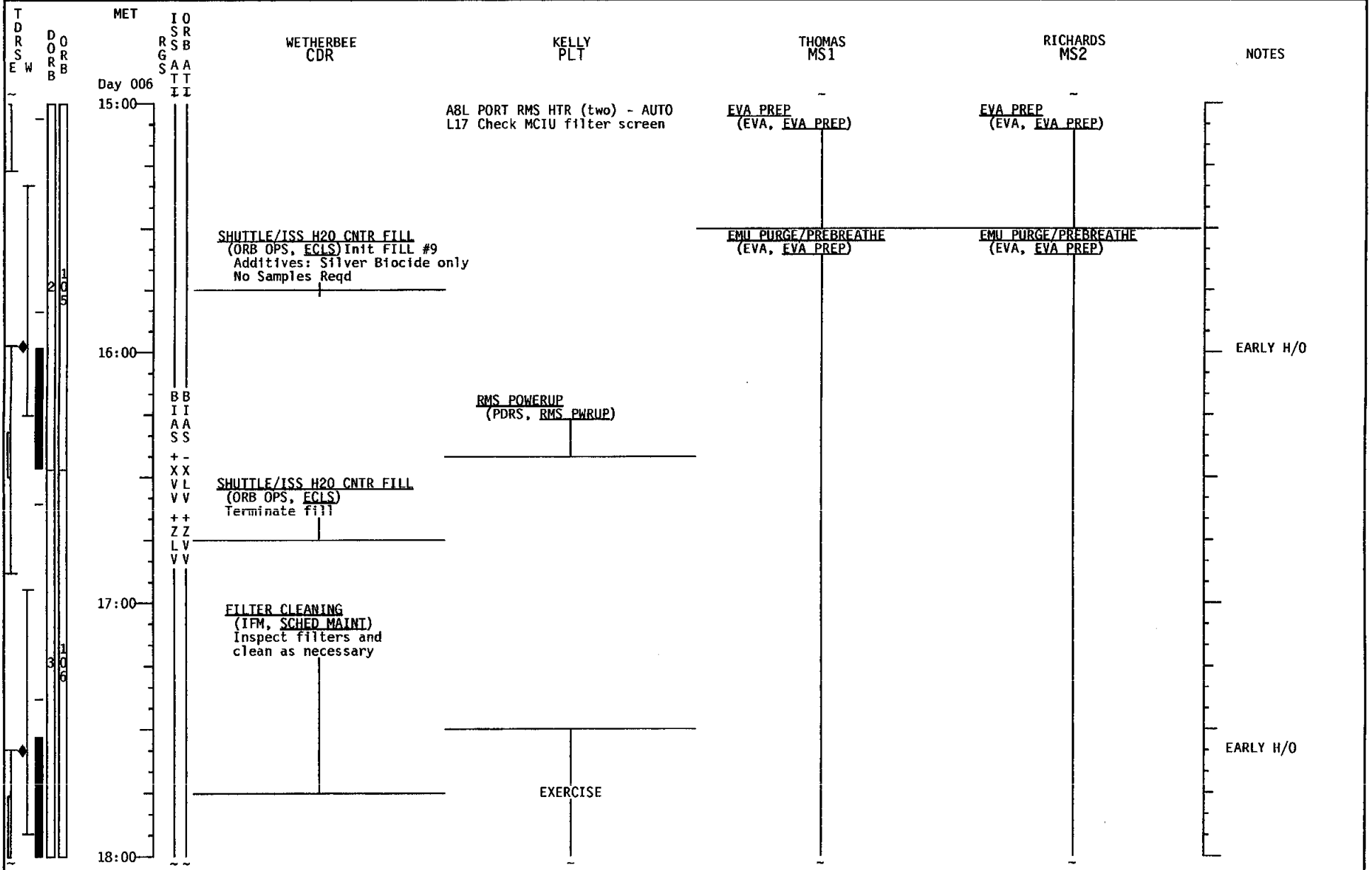
STS-102 (FD08)



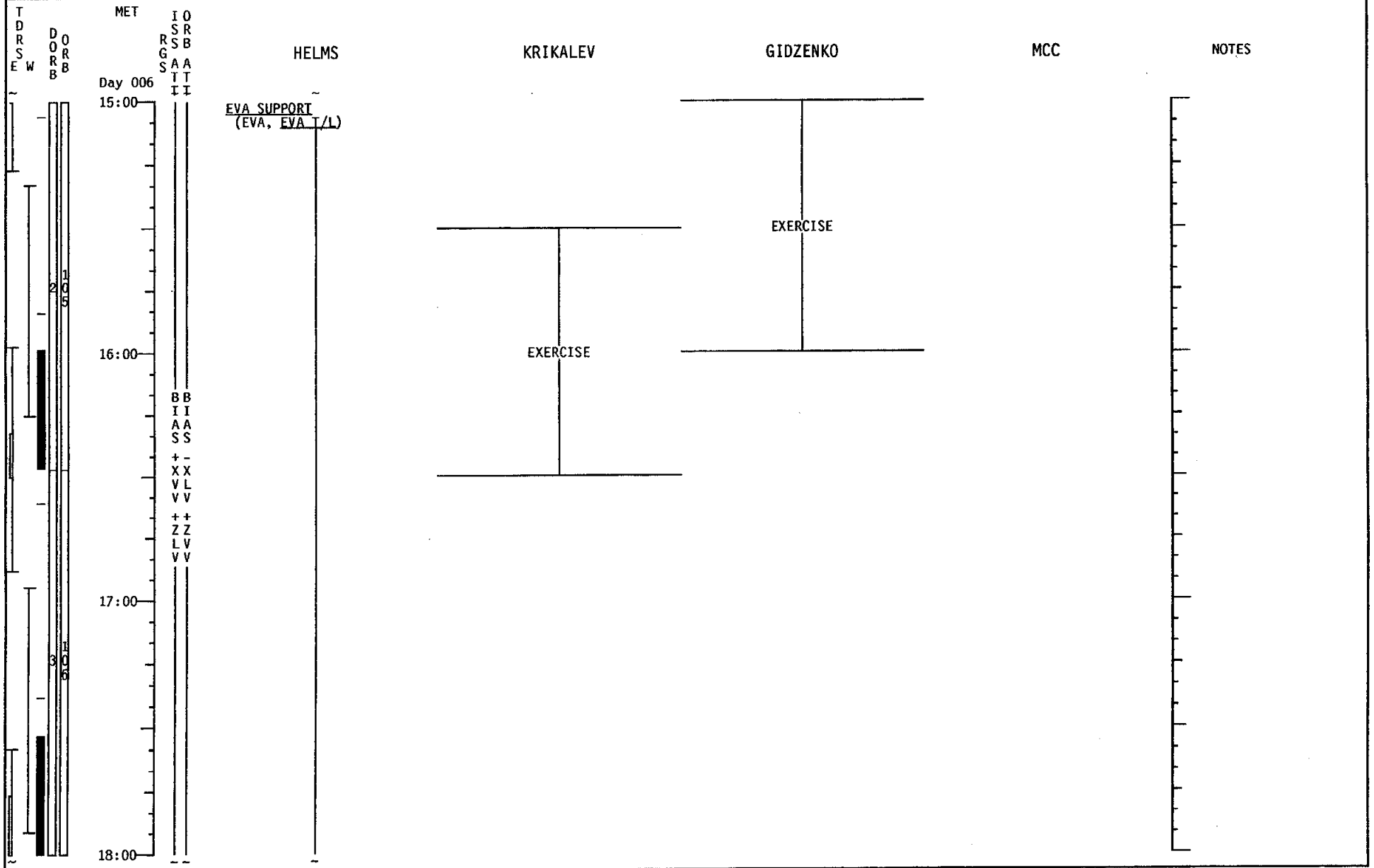
STS-102 (FD08)



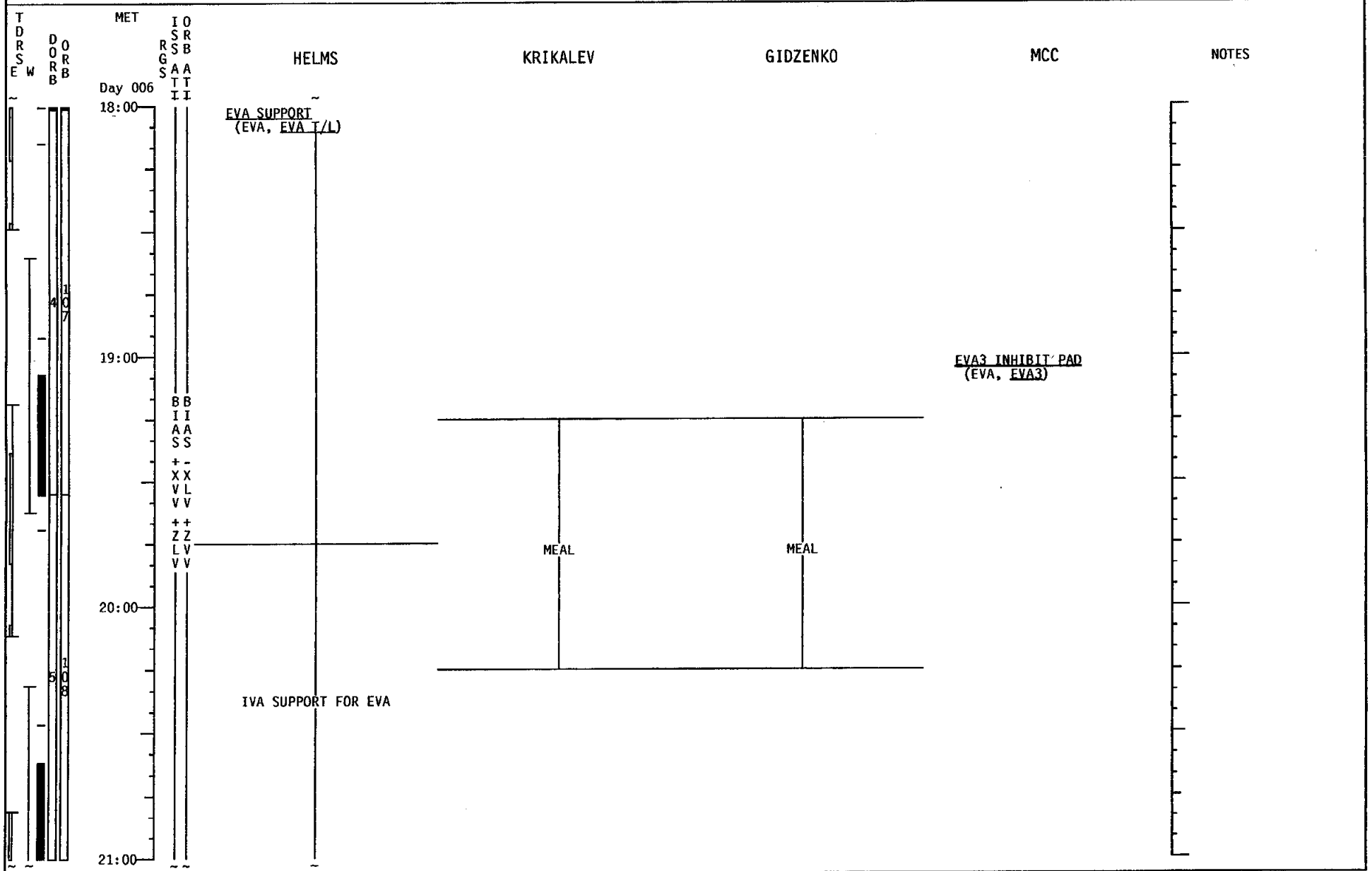
STS-102 (FD08)



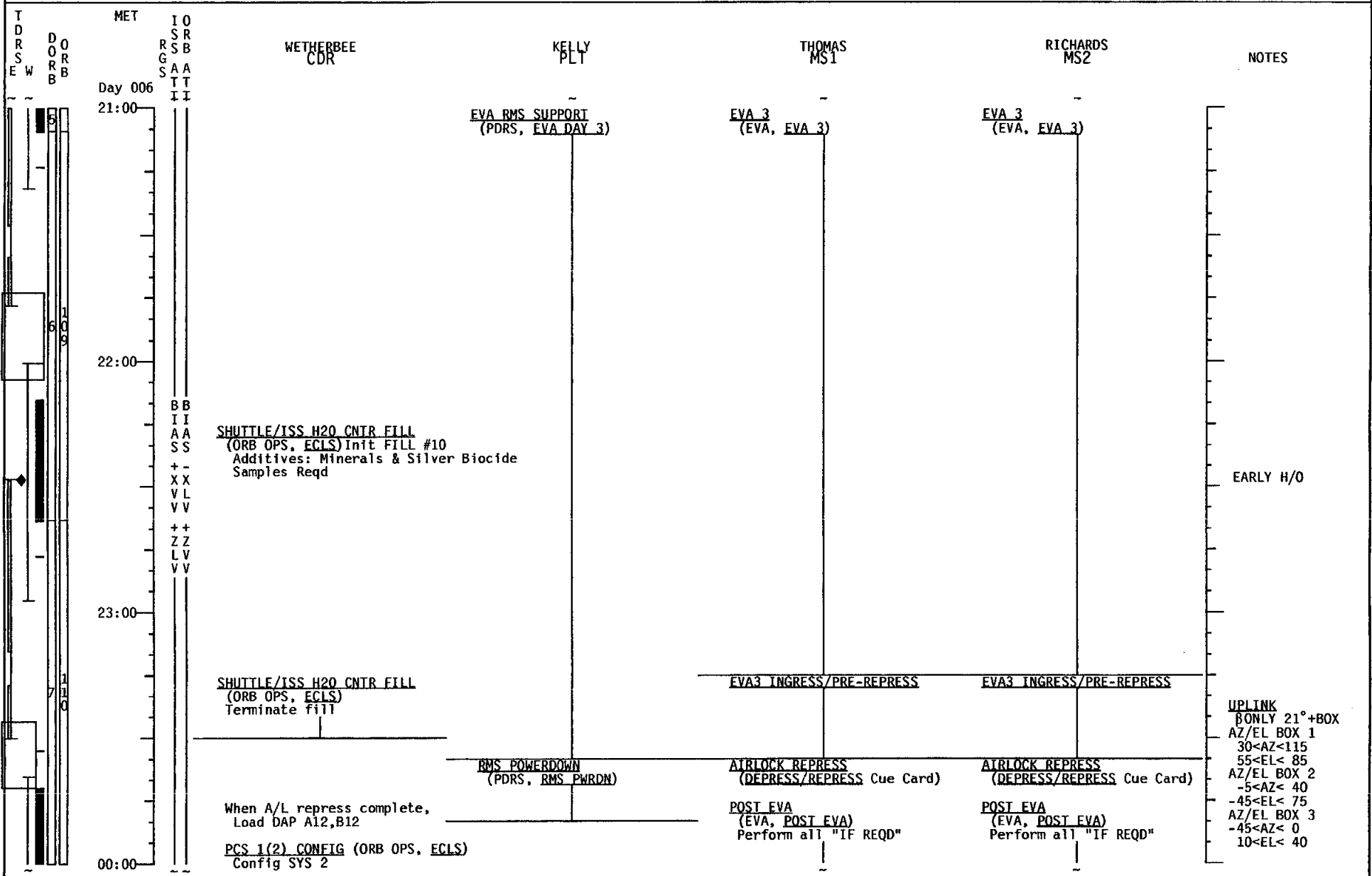
STS-102 (FD08)



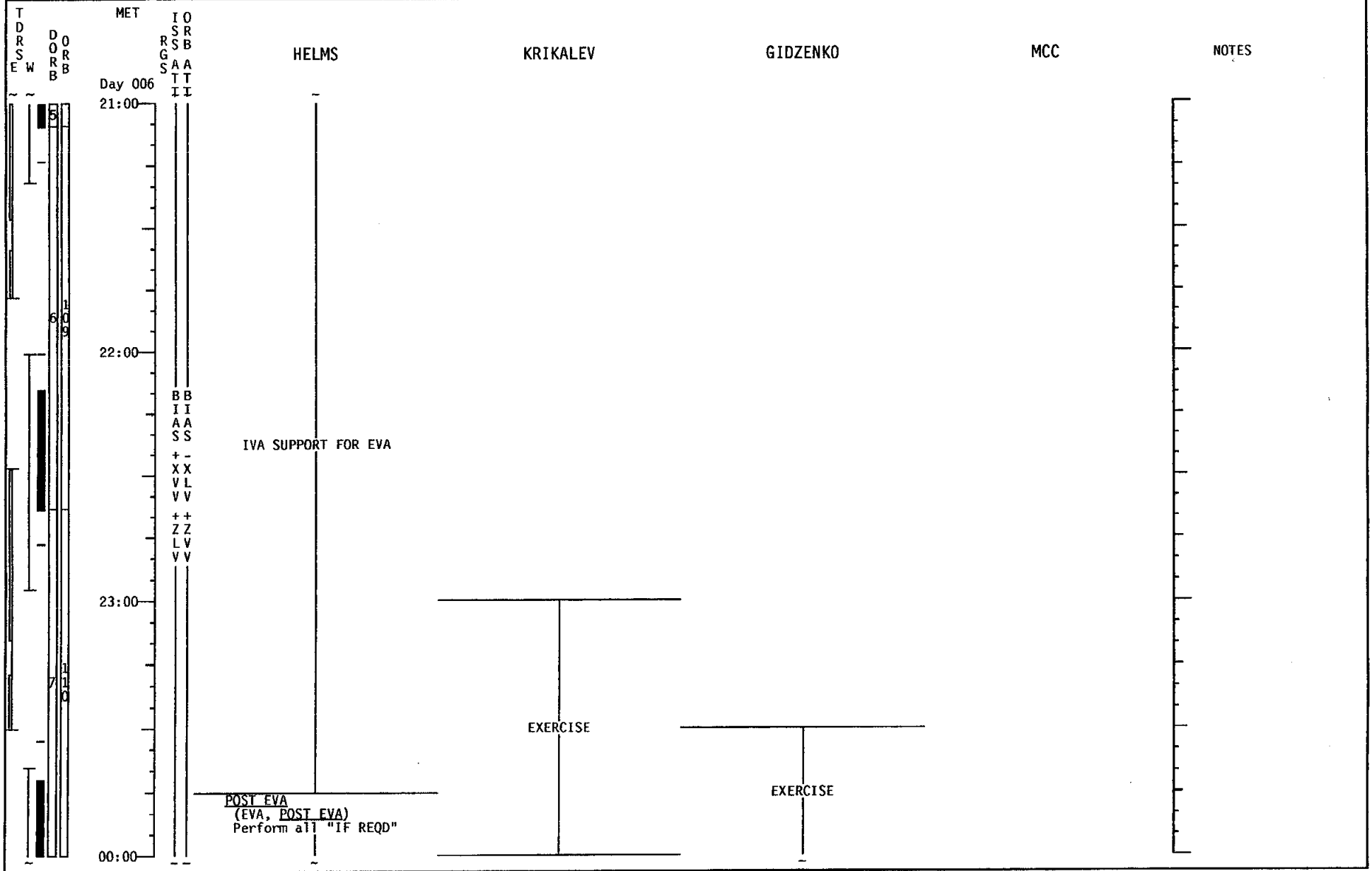
STS-102 (FD08)



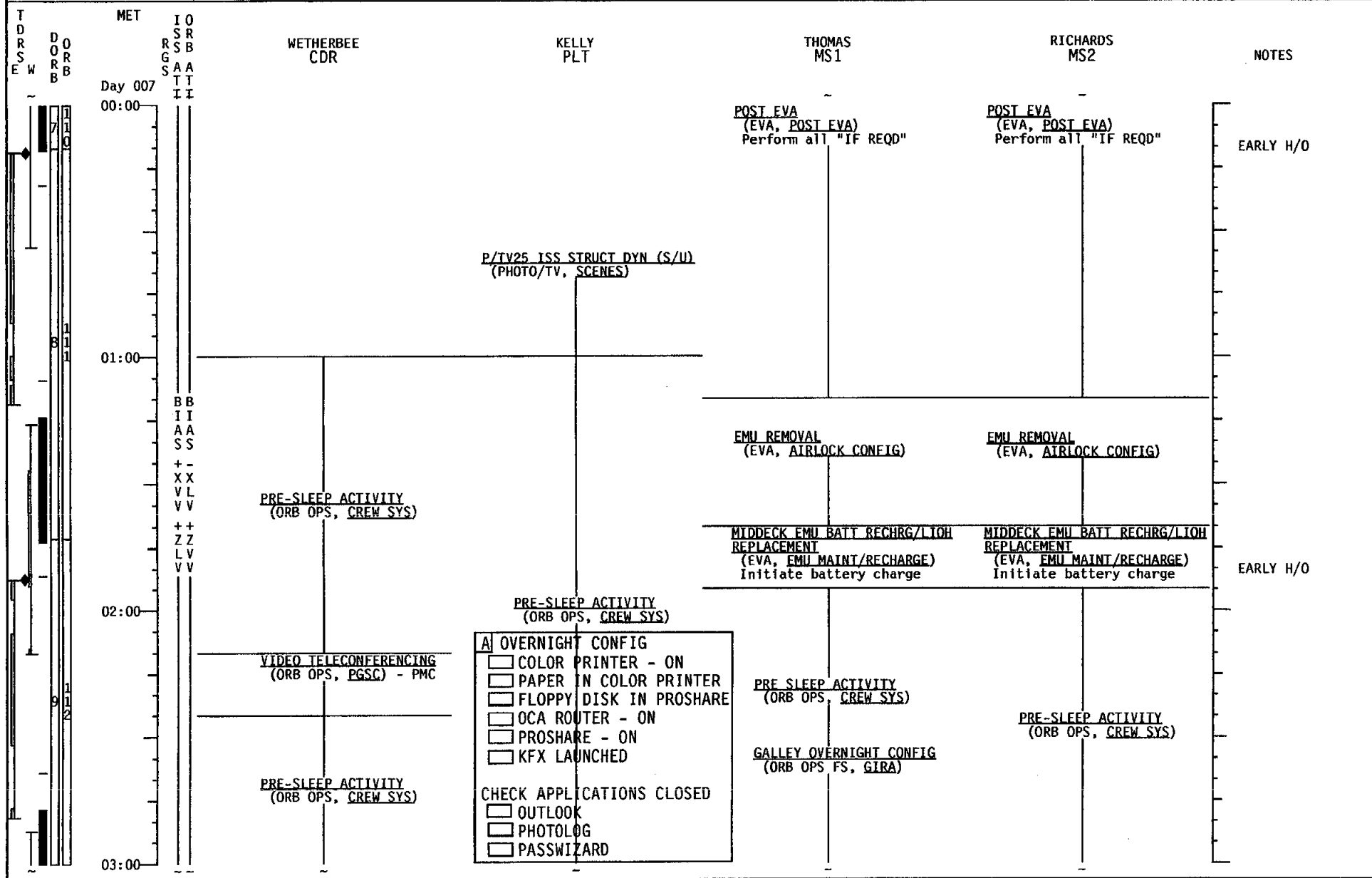
STS-102 (FD08)



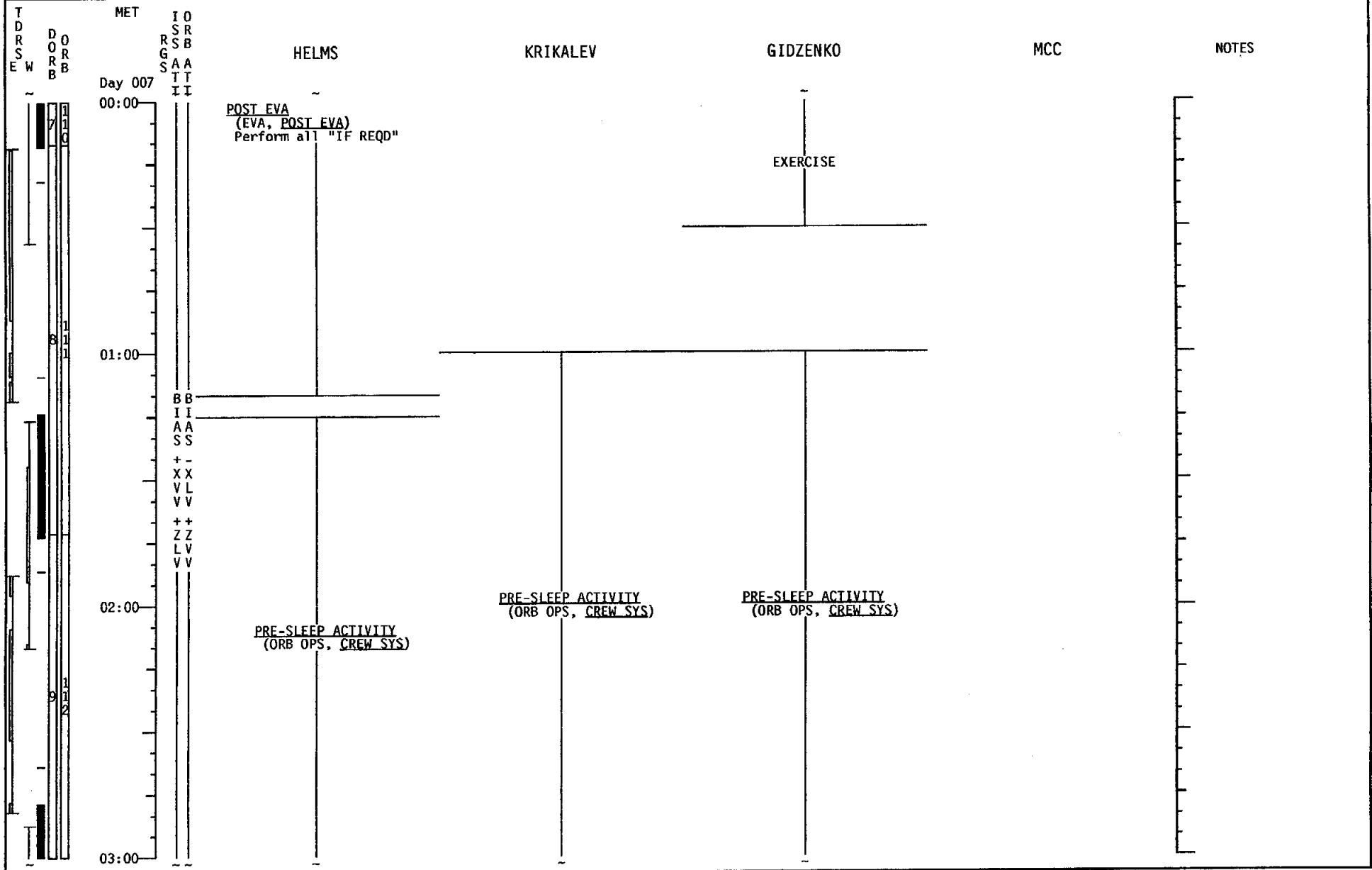
STS-102 (FD08)



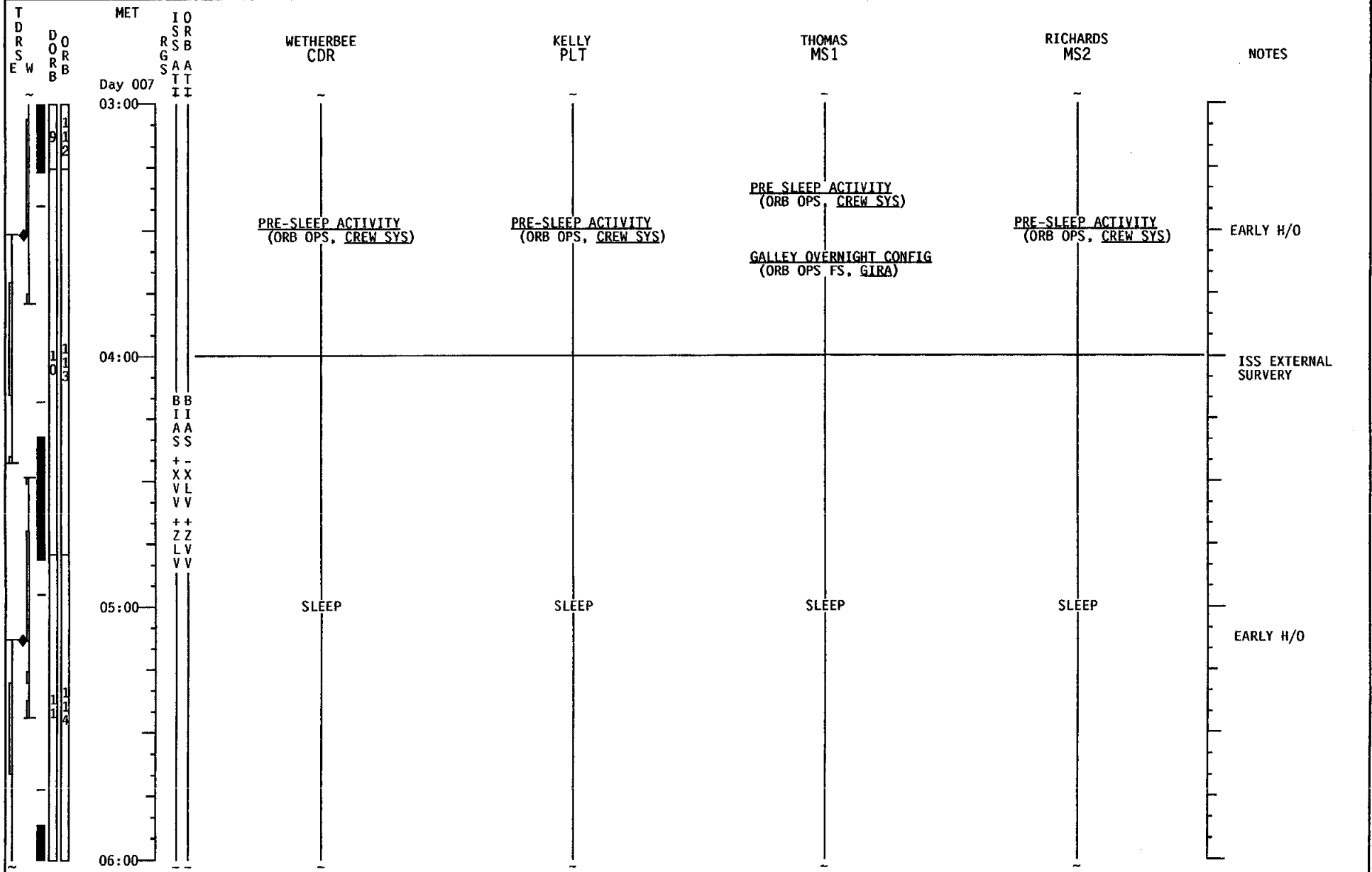
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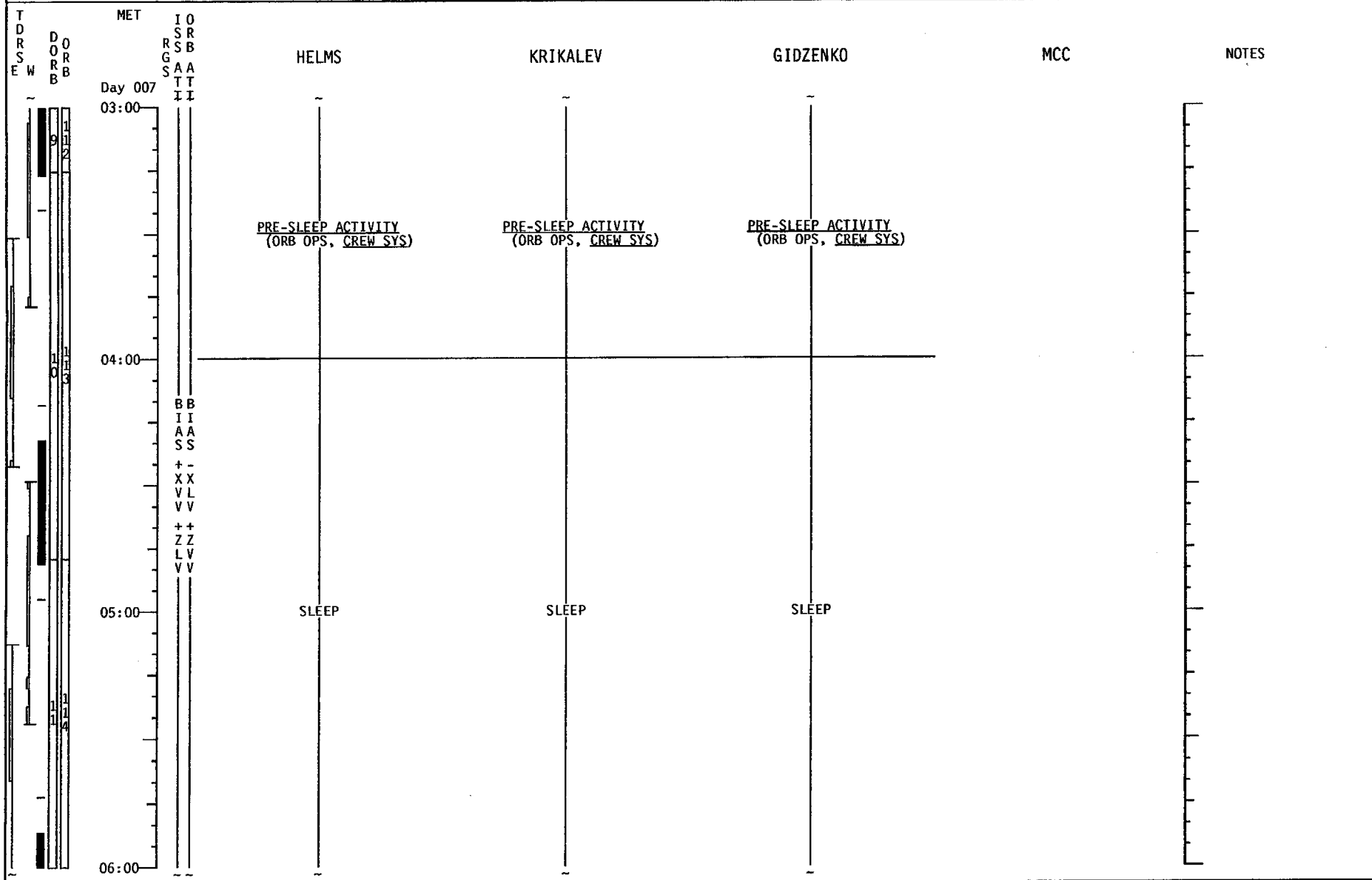
STS-102 (FD08)



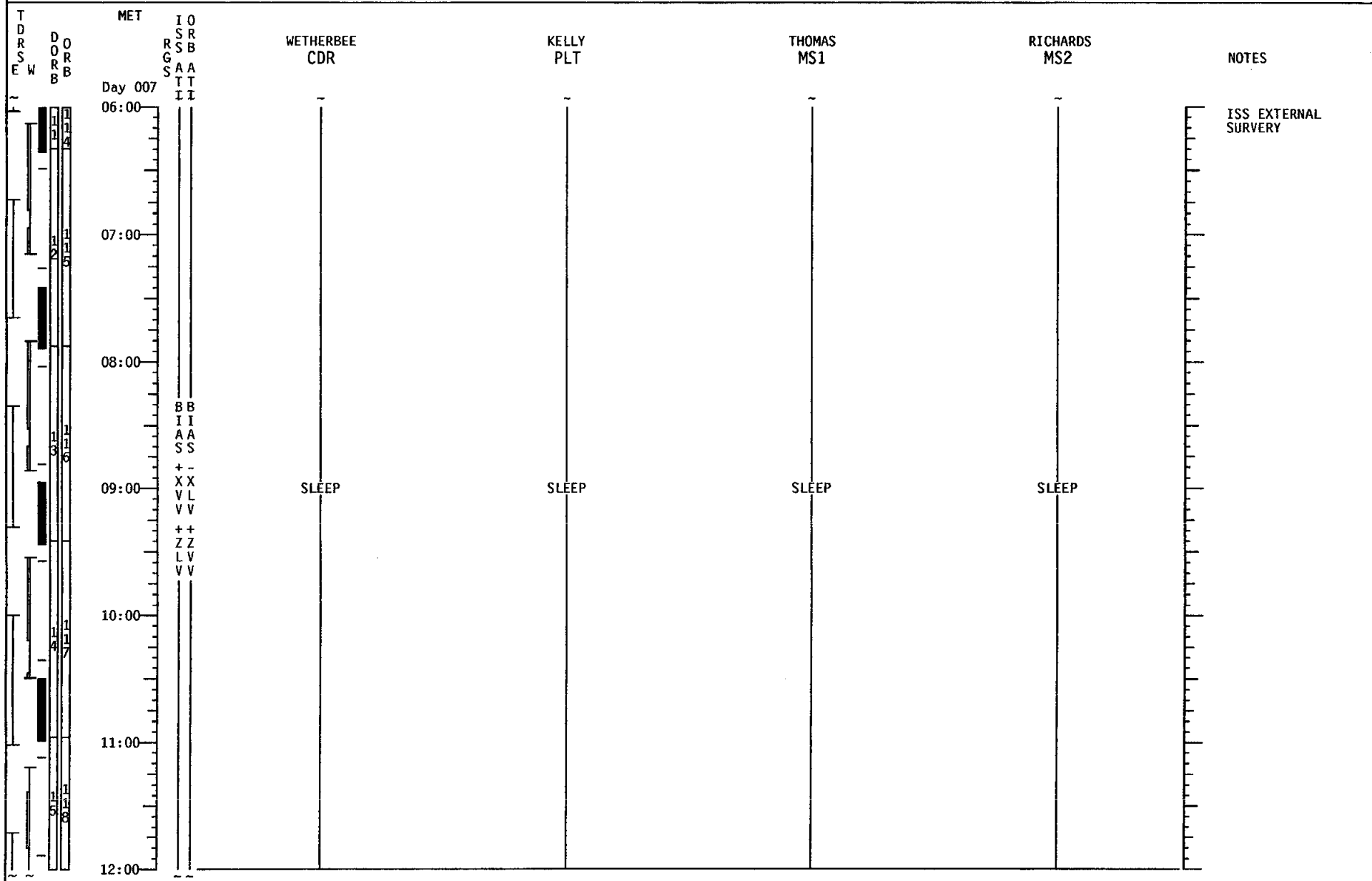
STS-102 (FD08)



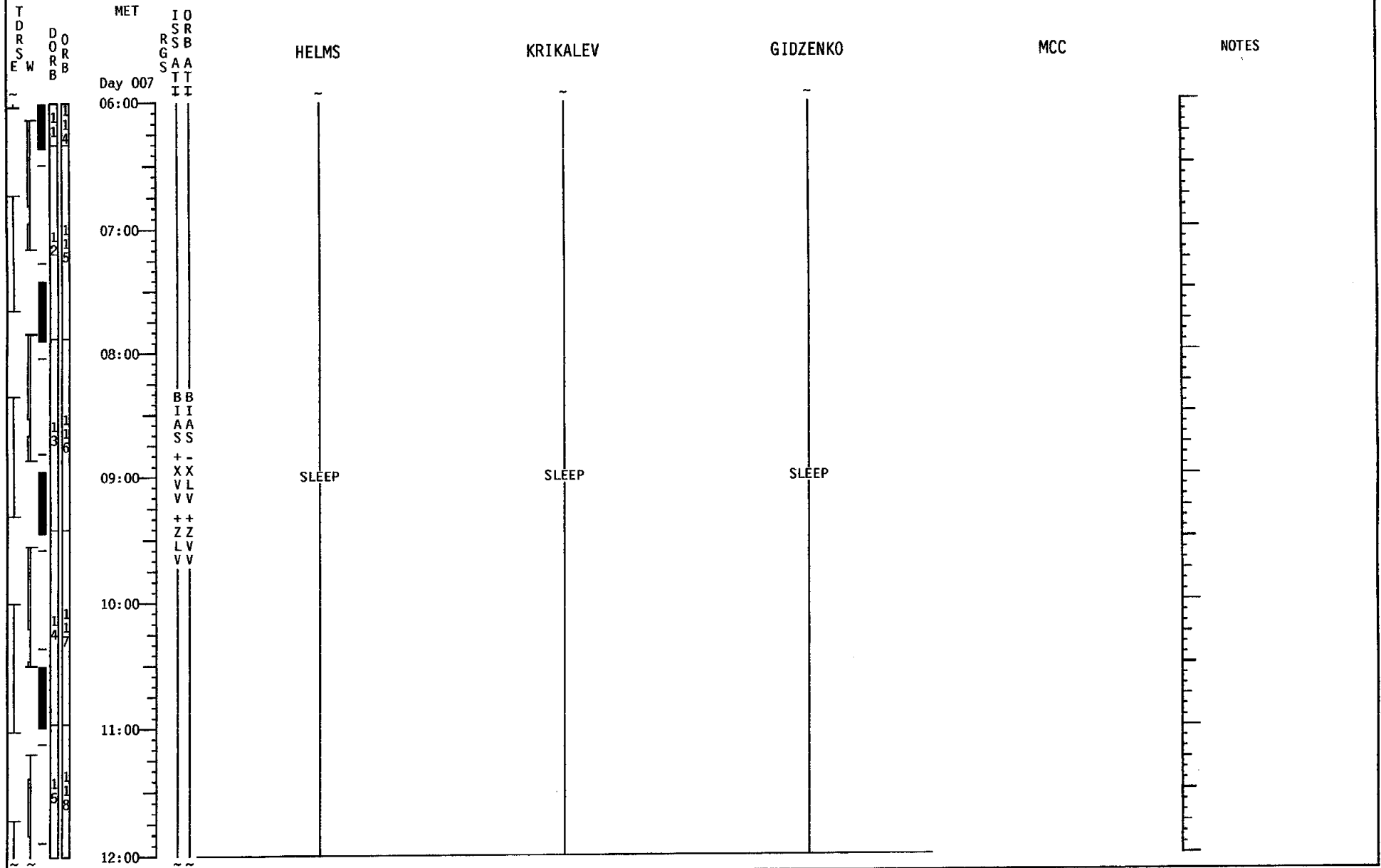
STS-102 (FD08)



STS-102 (FD08)



STS-102 (FD08)



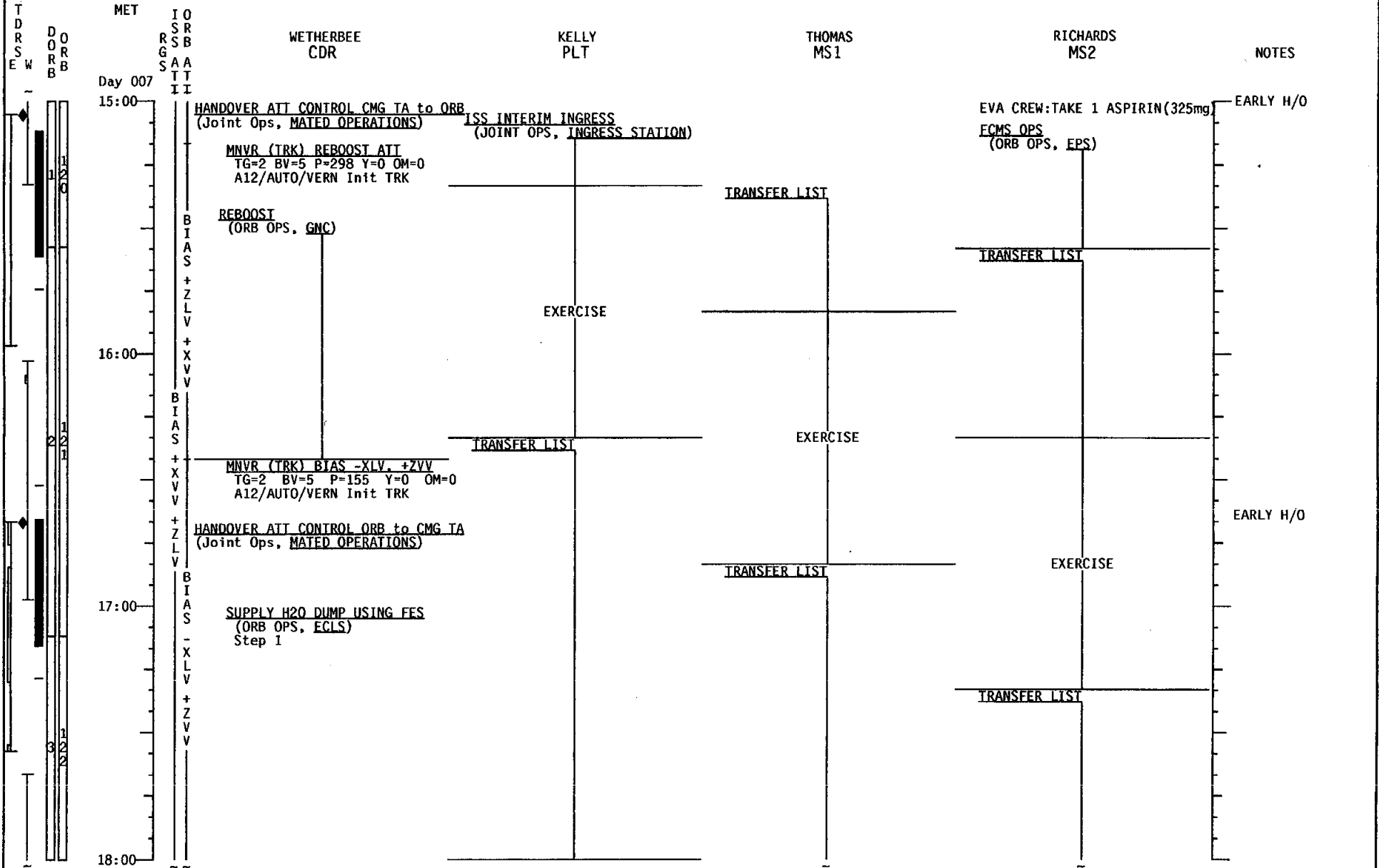
STS-102 (FD09)

	MET	WETHERBEE CDR	KELLY PLT	THOMAS MS1	RICHARDS MS2	NOTES
TDRSEW DOORB Day 007 12:00 13:00 14:00 15:00	IORSB RSBA GATT I I BB II AA SS +- XX VL VV ++ ZZ LV VV	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST SLEEP ACTIVITY (ORB OPS, CREW SYS) GALLEY MORNING CONFIG (ORB OPS, GIRA)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	EARLY H/O
		FD09 EZ ACTIVITIES: OCAC FILTER INSPECT TEPC (STAU5 CK) (ORB OPS, CREW SYS) REBOOT PGSCs SALIVA COLLECTION (DSO493) (ORB OPS, DSO 493) SHUTTLE CREW ONLY				
				EVA CREW: TAKE 1 ASPIRIN(325mg) L17 Check MCIU filter screen		

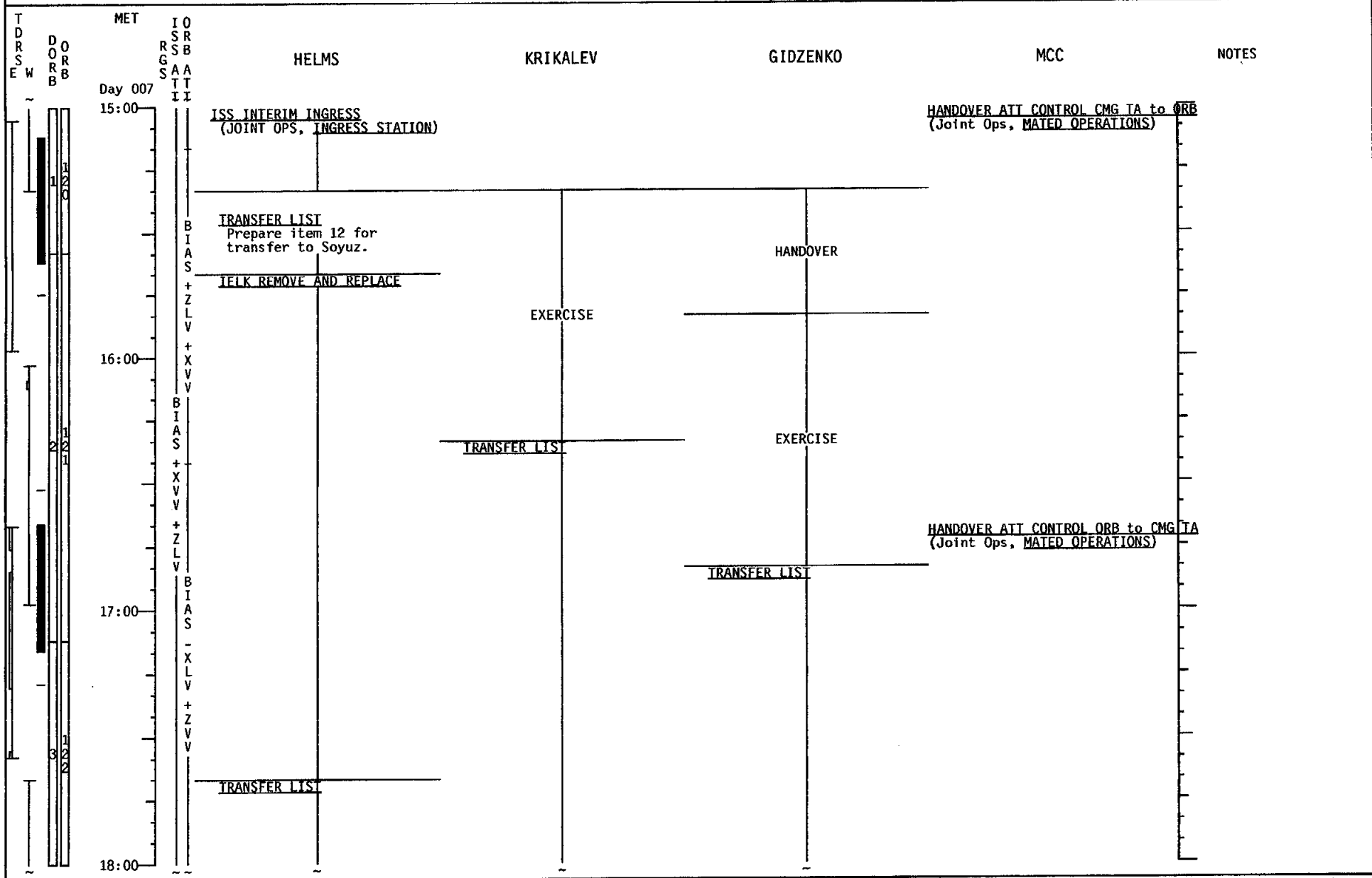
STS-102 (FD09)

	MET	HELMS	KRIKALEV	GIDZENKO	MCC	NOTES
TDRSEW DORB 1108 1109 1110 1111 1112 1113 1114 1115 1116 1117 1118 1119 1120 1121 1122 1123 1124 1125 1126 1127 1128 1129 1130 1131 1132 1133 1134 1135 1136 1137 1138 1139 1140 1141 1142 1143 1144 1145 1146 1147 1148 1149 1150 1151 1152 1153 1154 1155 1156 1157 1158 1159 1200 1201 1202 1203 1204 1205 1206 1207 1208 1209 1210 1211 1212 1213 1214 1215 1216 1217 1218 1219 1220 1221 1222 1223 1224 1225 1226 1227 1228 1229 1230 1231 1232 1233 1234 1235 1236 1237 1238 1239 1240 1241 1242 1243 1244 1245 1246 1247 1248 1249 1250 1251 1252 1253 1254 1255 1256 1257 1258 1259 1300 1301 1302 1303 1304 1305 1306 1307 1308 1309 1310 1311 1312 1313 1314 1315 1316 1317 1318 1319 1320 1321 1322 1323 1324 1325 1326 1327 1328 1329 1330 1331 1332 1333 1334 1335 1336 1337 1338 1339 1340 1341 1342 1343 1344 1345 1346 1347 1348 1349 1350 1351 1352 1353 1354 1355 1356 1357 1358 1359 1400 1401 1402 1403 1404 1405 1406 1407 1408 1409 1410 1411 1412 1413 1414 1415 1416 1417 1418 1419 1420 1421 1422 1423 1424 1425 1426 1427 1428 1429 1430 1431 1432 1433 1434 1435 1436 1437 1438 1439 1440 1441 1442 1443 1444 1445 1446 1447 1448 1449 1450 1451 1452 1453 1454 1455 1456 1457 1458 1459 1500	I O S R S B A A T T I I R G S A S I I I B B I I A A S S + - X X V L V V + + Z Z L V V V	Day 007 12:00 13:00 14:00 15:00				
		POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	DAILY PLAN CONF	

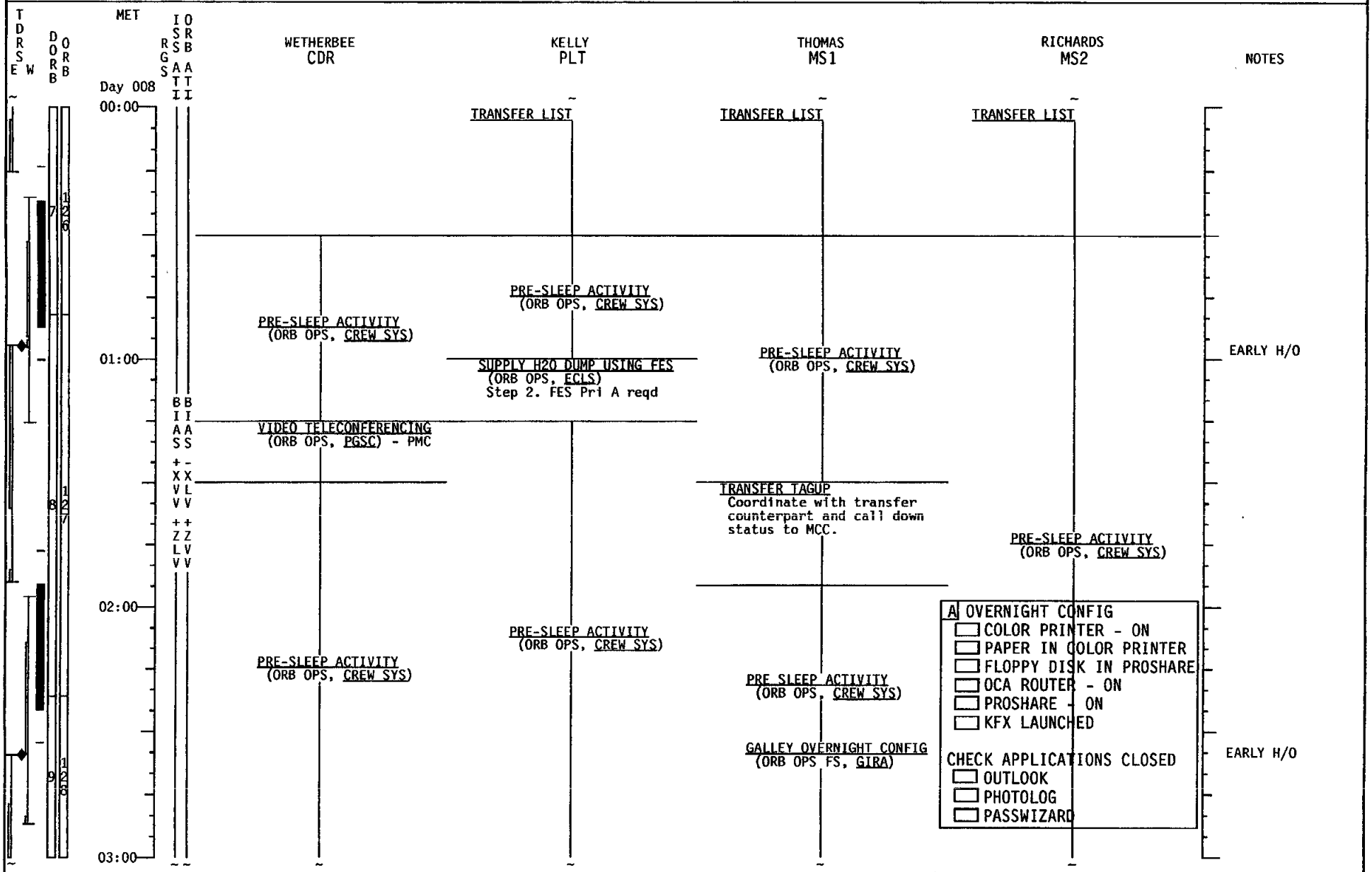
STS-102 (FD09)



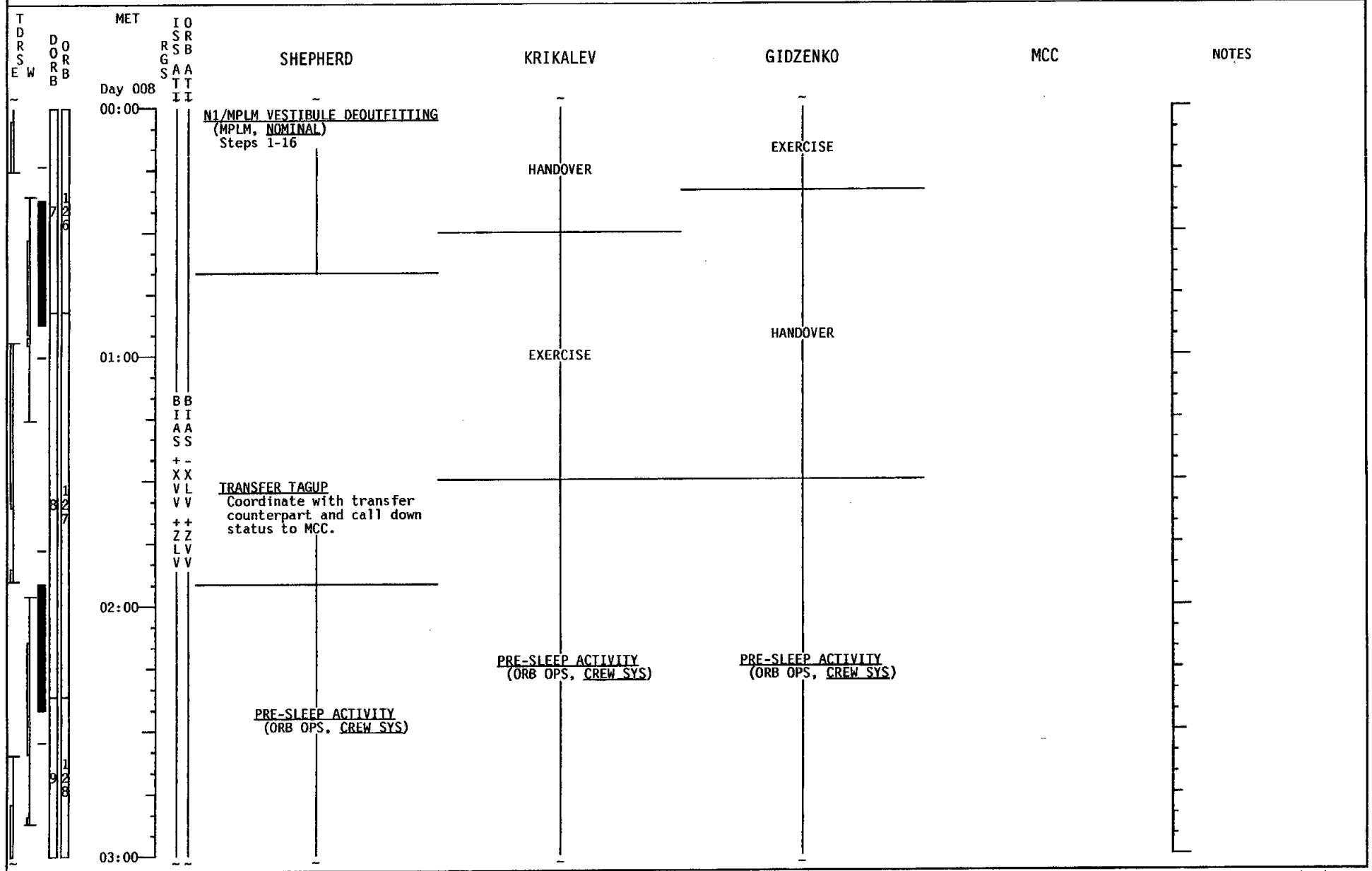
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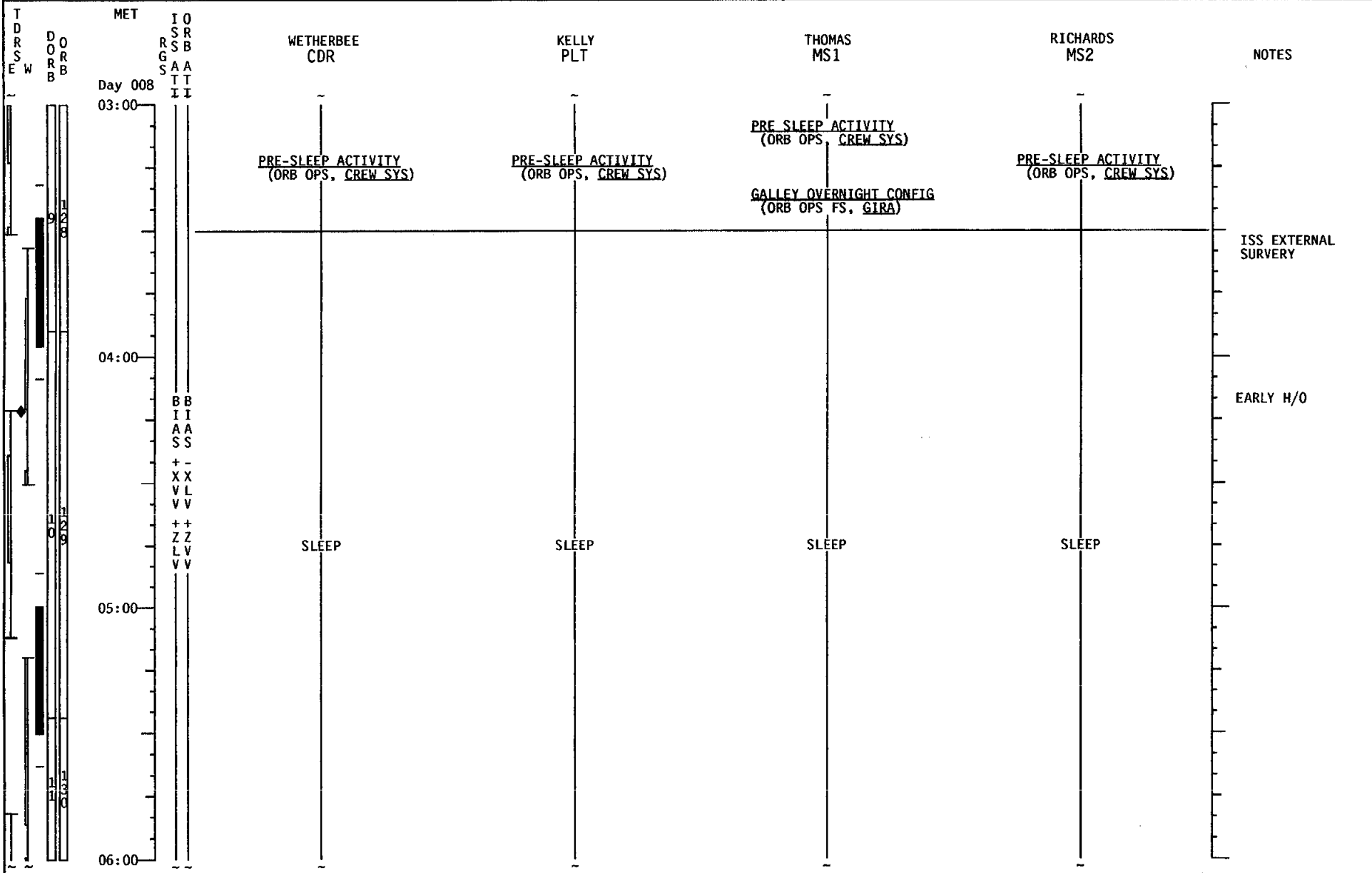
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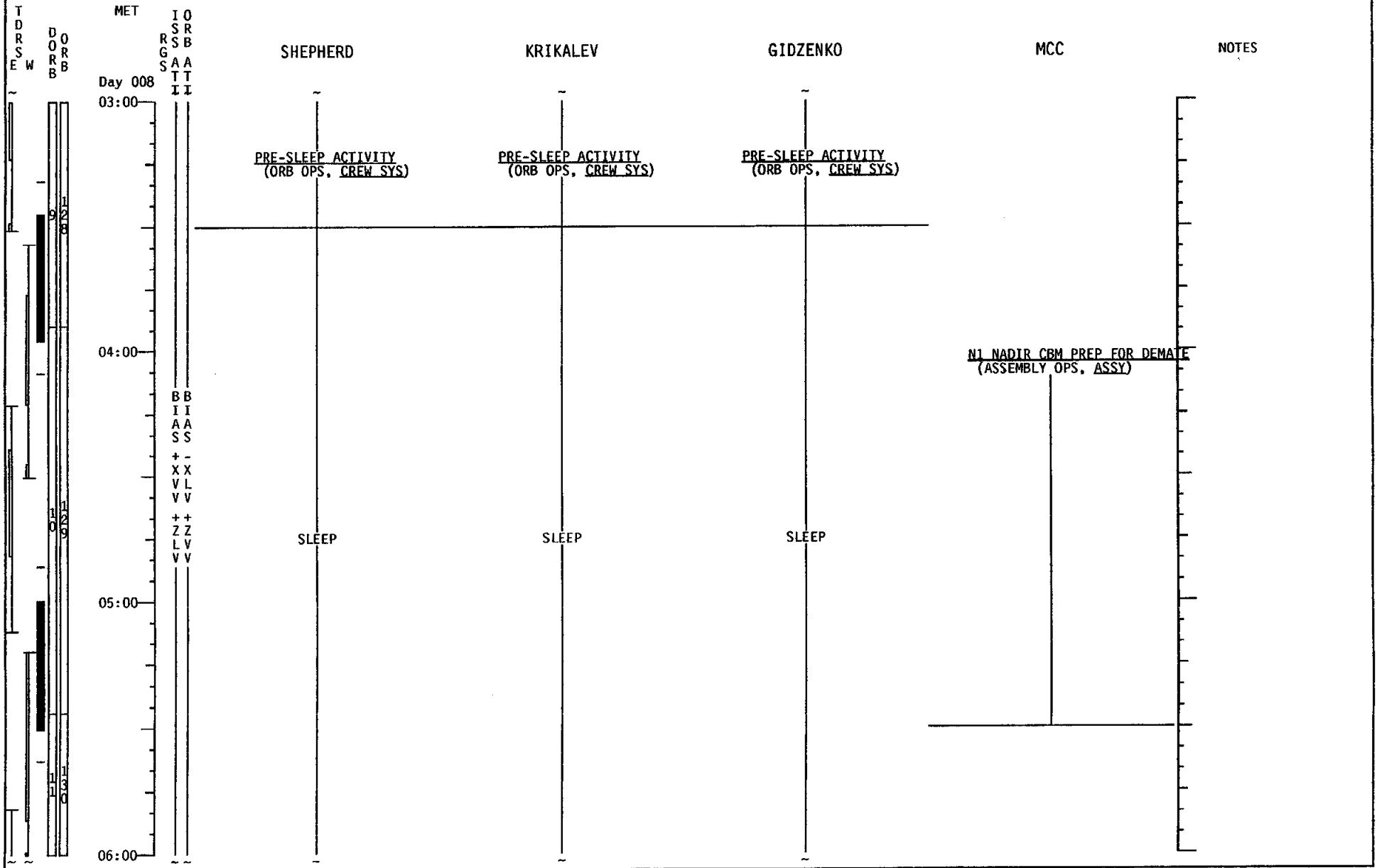
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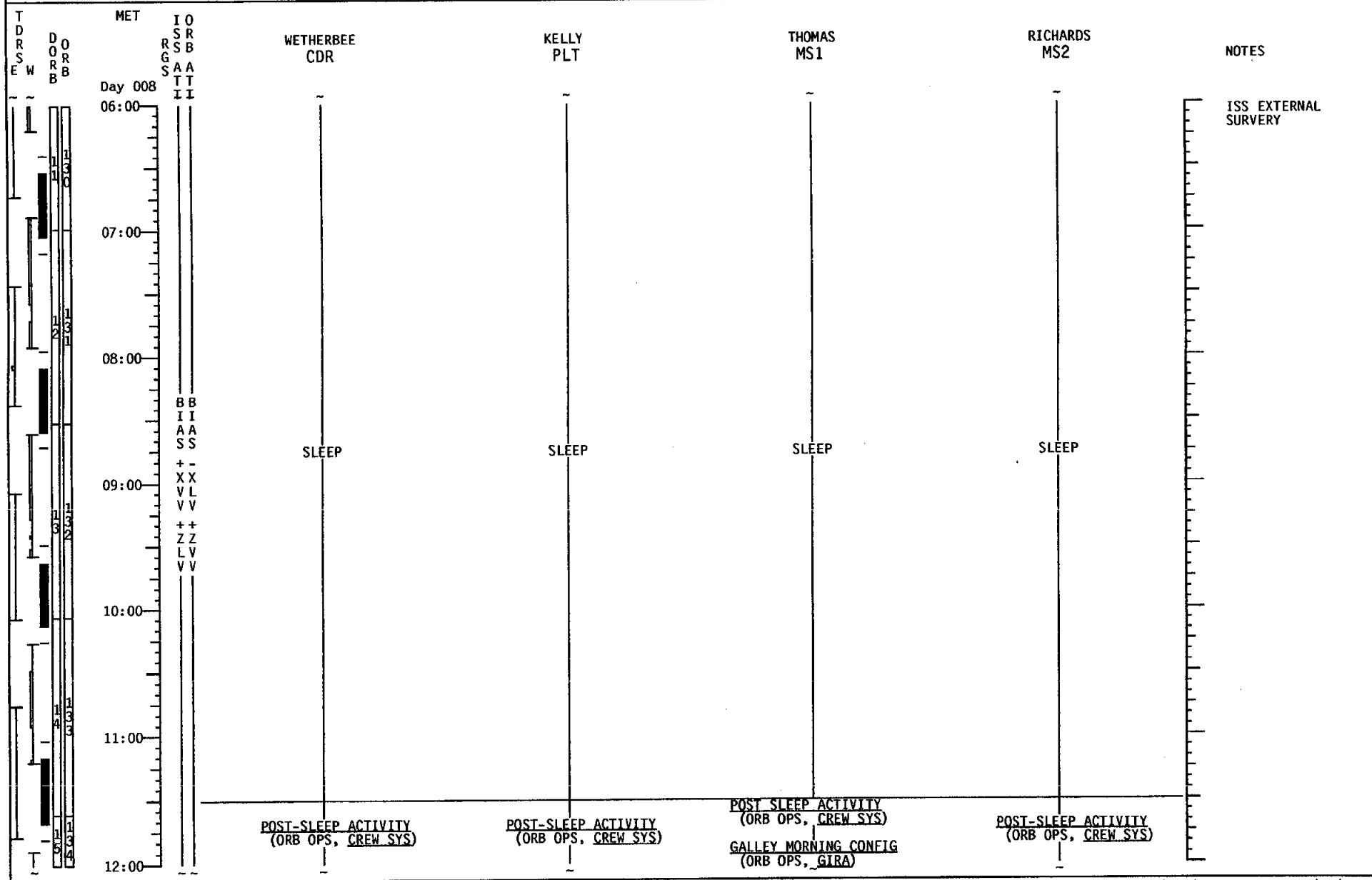
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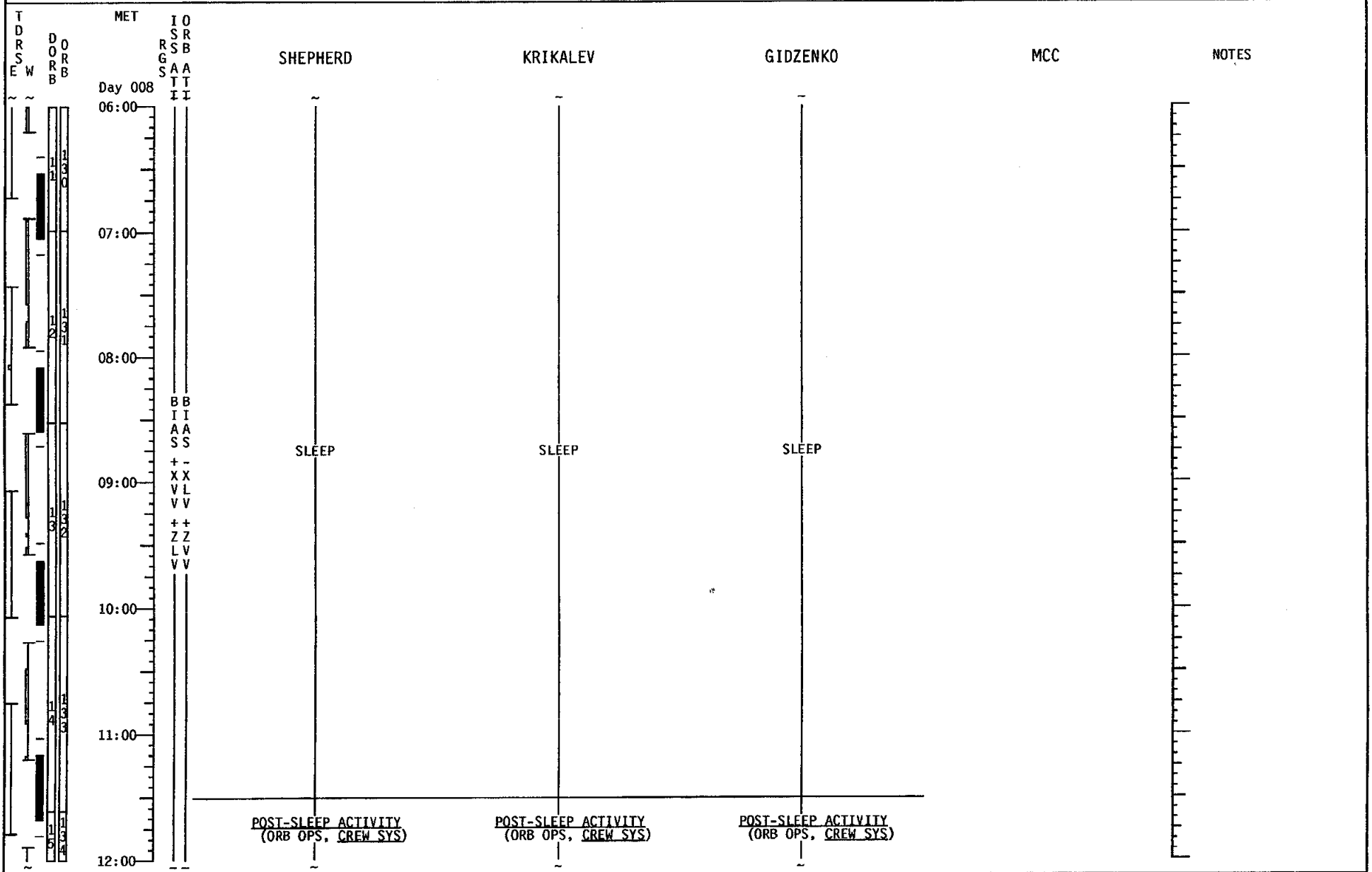
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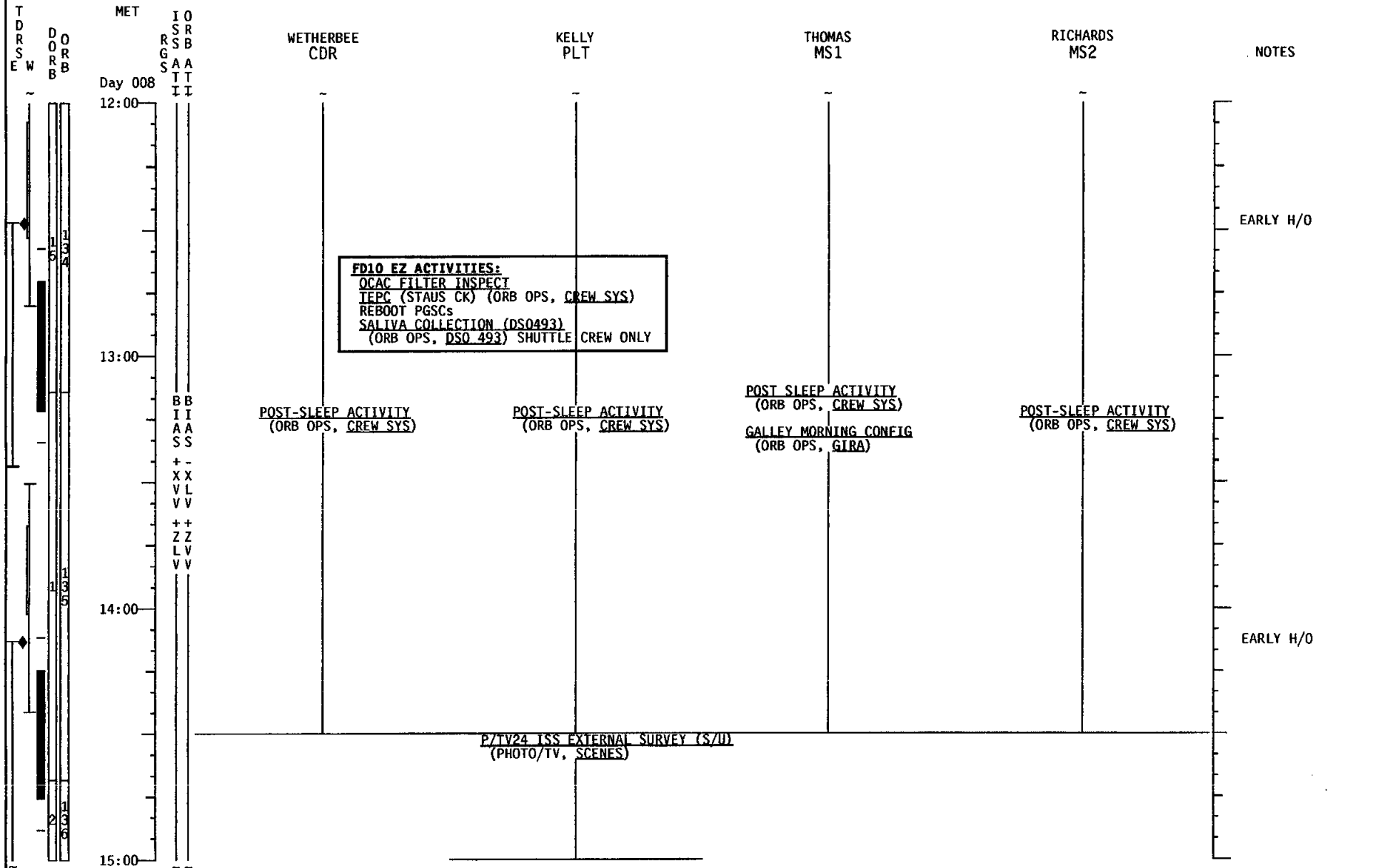
STS-102 (FD09)



STS-102 (FD09)



STS-102 (FD10)



FD10 EZ ACTIVITIES:
 OCAC FILTER INSPECT
 IEPG (STAU5 CK) (ORB OPS, CREW SYS)
 REBOOT PGSCs
 SALIVA COLLECTION (DS0493)
 (ORB OPS, DS0 493) SHUTTLE CREW ONLY

POST-SLEEP ACTIVITY
 (ORB OPS, CREW SYS)

POST-SLEEP ACTIVITY
 (ORB OPS, CREW SYS)

POST SLEEP ACTIVITY
 (ORB OPS, CREW SYS)
 GALLEY MORNING CONFIG
 (ORB OPS, GIRA)

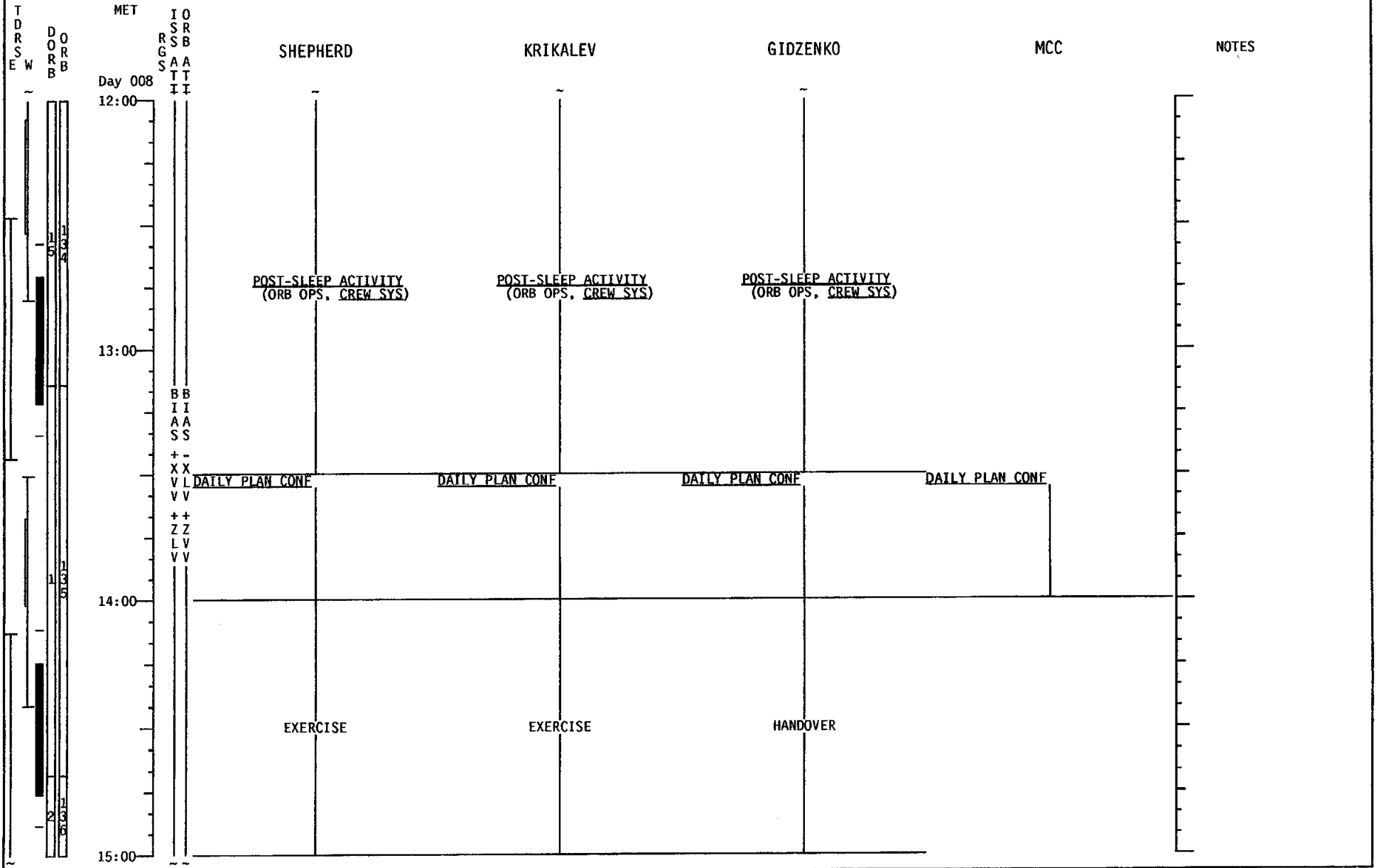
POST-SLEEP ACTIVITY
 (ORB OPS, CREW SYS)

P/TV24 ISS EXTERNAL SURVEY (S/D)
 (PHOTO/TV, SCENES)

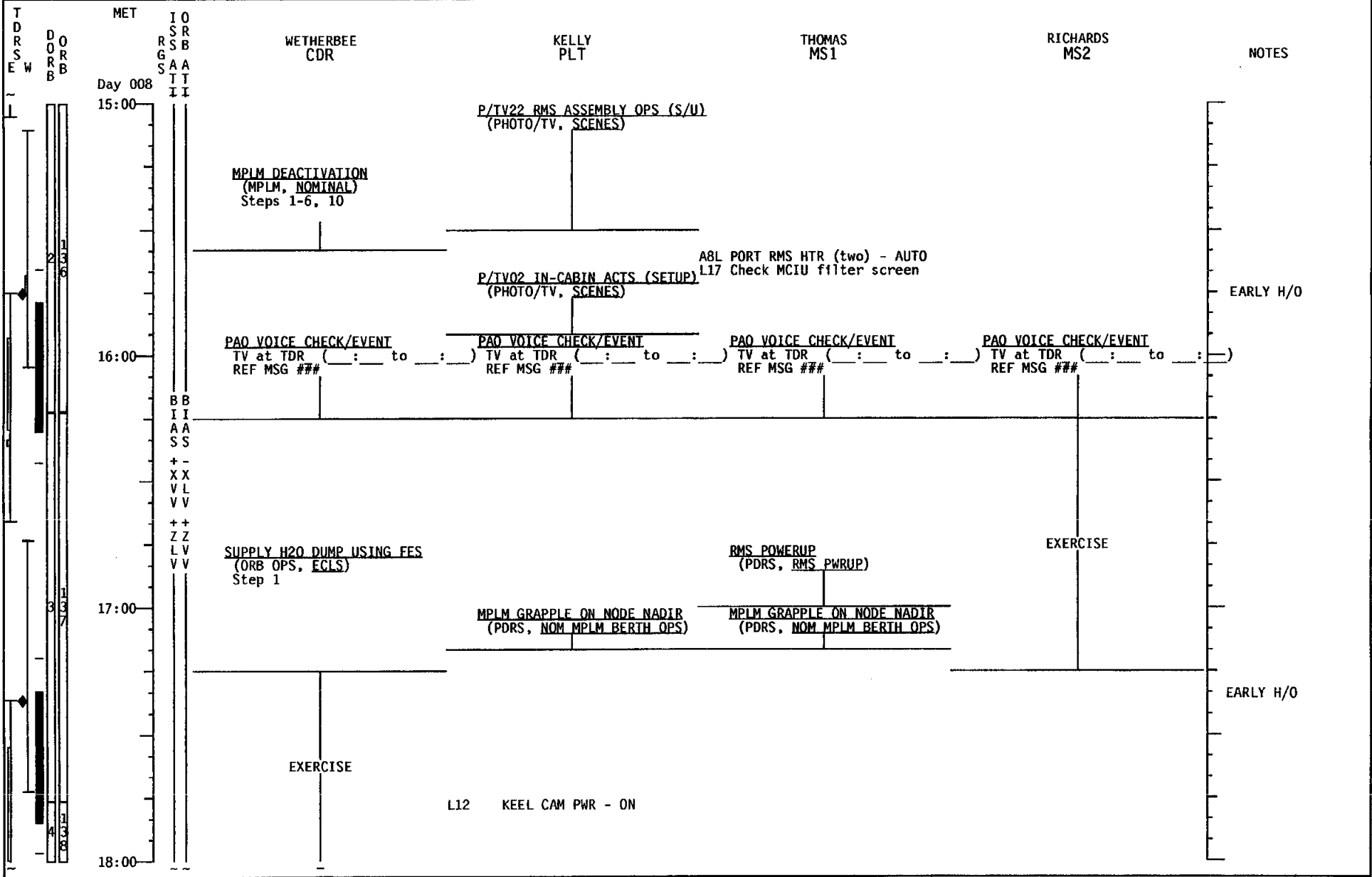
EARLY H/O

EARLY H/O

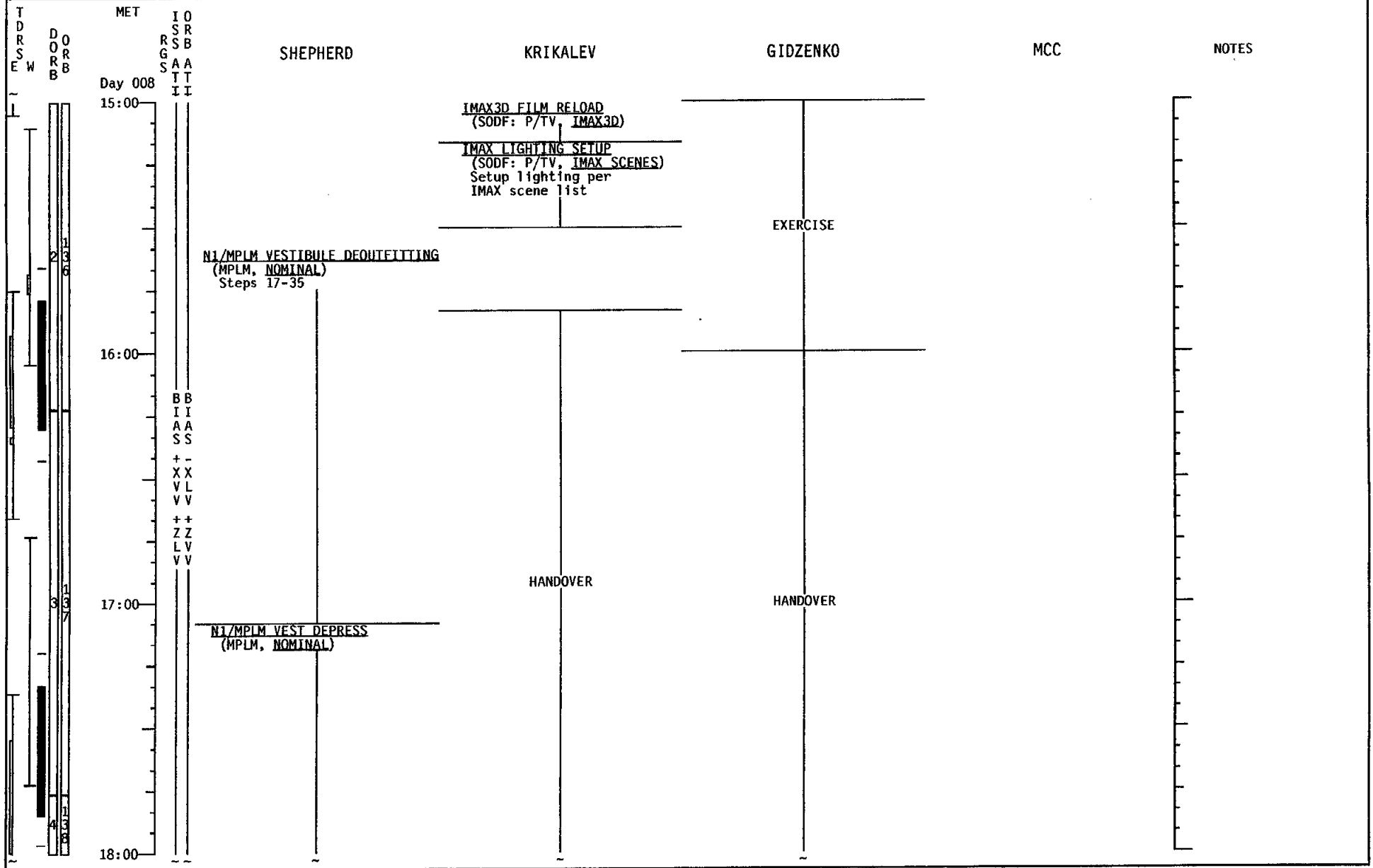
STS-102 (FD10)



STS-102 (FD10)



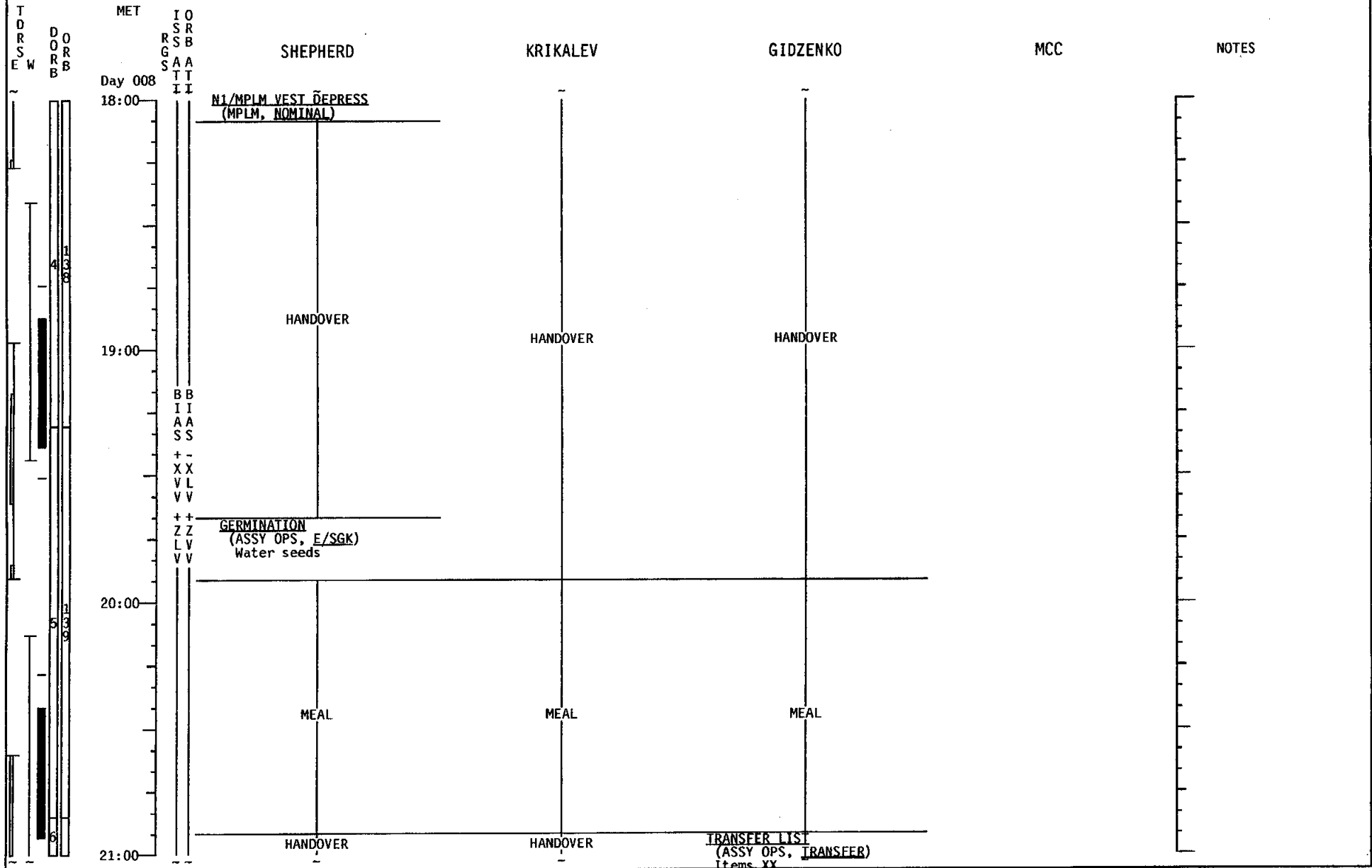
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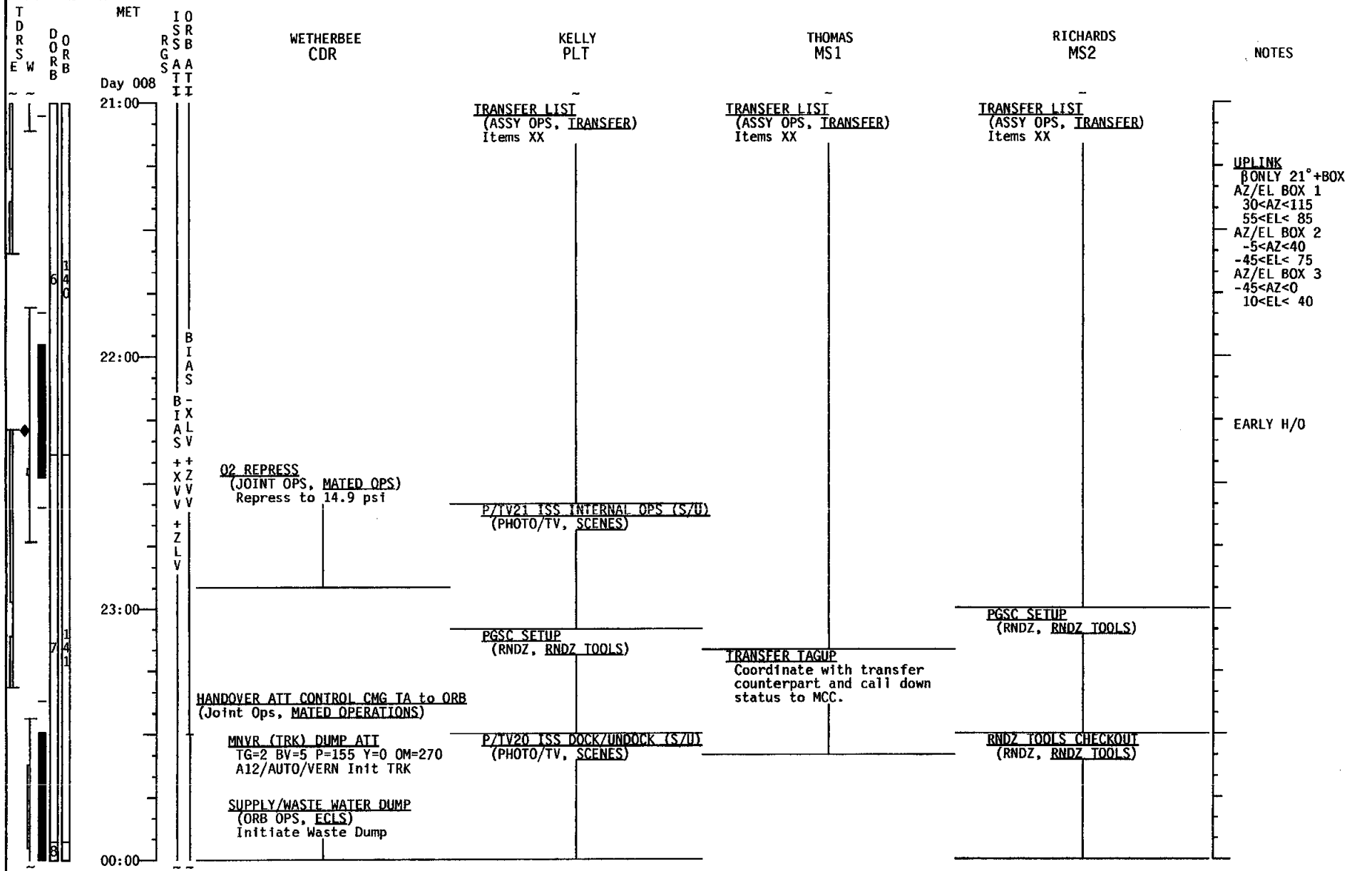
STS-102 (FD10)

TDRS EW	DOORB	MET	IO RSB SAA TTI	WETHERBEE CDR	KELLY PLT	THOMAS MS1	RICHARDS MS2	NOTES
		Day 008		EXERCISE			N1 NADIR CBM DEMATE MPLM (ASSY OPS, ASSY)	
		18:00						
					MPLM UNINSTALL (PDRS, NOM MPLM BERTH OPS)	MPLM UNINSTALL (PDRS, NOM MPLM BERTH OPS)		
		19:00			MPLM BERTH (PDRS, NOM MPLM BERTH OPS)	MPLM BERTH (PDRS, NOM MPLM BERTH OPS)		
			BB II AA SS		ROEU MATE (PDRS, NOM MPLM BERTH OPS)	MPLM UNGRAPPLE (PDRS, NOM MPLM BERTH OPS)		
			+- XX VL VV		APCU ACT (APCU 1 only) (ASSY OPS, APCU)	RMS POWERDOWN (PDRS, RMS PWRDN) Stow MPMS		
			++ ZZ LV VV		SSV OUT RATE = 3			
		20:00		MEAL	MEAL	MEAL	MEAL	
								EARLY H/O UPLINK ONLY 21°+BOX AZ/EL BOX 1 30<AZ<115 55<EL< 85 AZ/EL BOX 2 -5<AZ<40 -45<EL< 75 AZ/EL BOX 3 -45<AZ< 0 10<EL< 40 TFL 188 OIU FORMAT 5
		21:00			TRANSFER LIST (ASSY OPS, TRANSFER) Items XX	TRANSFER LIST (ASSY OPS, TRANSFER) Items XX	TRANSFER LIST (ASSY OPS, TRANSFER) Items XX	EARLY H/O

STS-102 (FD10)



STS-102 (FD10)



STS-102 (FD10)

	MET	WETHERBEE CDR	KELLY PLT	THOMAS MS1	RICHARDS MS2	NOTES
<p style="text-align: center;">T D R S E W</p> <p style="text-align: center;">D O O R B</p> <p style="text-align: center;">B H S A B</p> <p style="text-align: center;">9 G S B</p>	<p style="text-align: center;">I O R S R S B A A T T I I</p> <p style="text-align: center;">R G S A T T I I</p> <p>Day 009</p>	<p style="text-align: center;">B I A S - X L V</p> <p style="text-align: center;">+ Y V V</p> <p style="text-align: center;">B I A S + X V V</p> <p style="text-align: center;">B I A S + Z L S - X L V</p> <p style="text-align: center;">+ Z V V</p>	<p style="text-align: center;">P R E - S L E E P A C T I V I T Y (O R B O P S , C R E W S Y S)</p> <hr/> <p style="text-align: center;">S U P P L Y H 2 O D U M P U S I N G F E S (O R B O P S , E C L S) S t e p 2 . F E S P r i A r e q d S U P P L Y / W A S T E W A T E R D U M P (O R B O P S , E C L S) T e r m i n a t e W a s t e D u m p M N V R (T R K) B I A S - X L V . + Z V V T G =2 B V =5 P =155 Y =0 O M =0 A 12 /A U T O /V E R N I n i t T R K</p> <hr/> <p style="text-align: center;">H /O A T T C O N T R O L O R B t o C M G T A (J o i n t O p s . M A T E D O P E R A T I O N S)</br></br></p> <hr/> <p style="text-align: center;">V I D E O T E L E C O N F E R E N C I N G (O R B O P S , P G S C) - P M C</p> <hr/> <p style="text-align: center;">P R E - S L E E P A C T I V I T Y (O R B O P S , C R E W S Y S)</p>	<p style="text-align: center;">P R E - S L E E P A C T I V I T Y (O R B O P S , C R E W S Y S)</p> <hr/> <p style="text-align: center;">G A L L E Y O V E R N I G H T C O N F I G (O R B O P S F S , G I R A)</p>	<p style="text-align: center;">P R E - S L E E P A C T I V I T Y (O R B O P S , C R E W S Y S)</p> <hr/> <p style="text-align: center;">P R E - S L E E P A C T I V I T Y (O R B O P S , C R E W S Y S)</p>	<p style="text-align: center;">E A R L Y H /O</p>
			<div style="border: 1px solid black; padding: 5px;"> <p>A] OVERNIGHT CONFIG</p> <p><input type="checkbox"/> COLOR PRINTER - ON</p> <p><input type="checkbox"/> PAPER IN COLOR PRINTER</p> <p><input type="checkbox"/> FLOPPY DISK IN PROSHARE</p> <p><input type="checkbox"/> OCA ROUTER - ON</p> <p><input type="checkbox"/> PROSHARE - ON</p> <p><input type="checkbox"/> KFX LAUNCHED</p> <p>CHECK APPLICATIONS CLOSED</p> <p><input type="checkbox"/> OUTLOOK</p> <p><input type="checkbox"/> PHOTOLOG</p> <p><input type="checkbox"/> PASSWIZARD</p> </div>			

STS-102 (FD10)

	MET	SHEPHERD	KRIKALEV	GIDZENKO	MCC	NOTES
TDRS EW DOORB B 142 842 142 942 142 342	IOR SRB SAT ATT II RG SAT II BIAS - XLV + YVV BIAS + XVV + ZLS - XLV + ZVV 		EXERCISE	EXERCISE	MP U/L	
Day 009	00:00				<u>H/O ATT CONTROL ORB to CMG TA</u> (Joint Ops, MATED OPERATIONS)	
	01:00					
	02:00	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	MPLM ENVIRONMENT CHECK (MPLM, NOMINAL)	
	03:00					

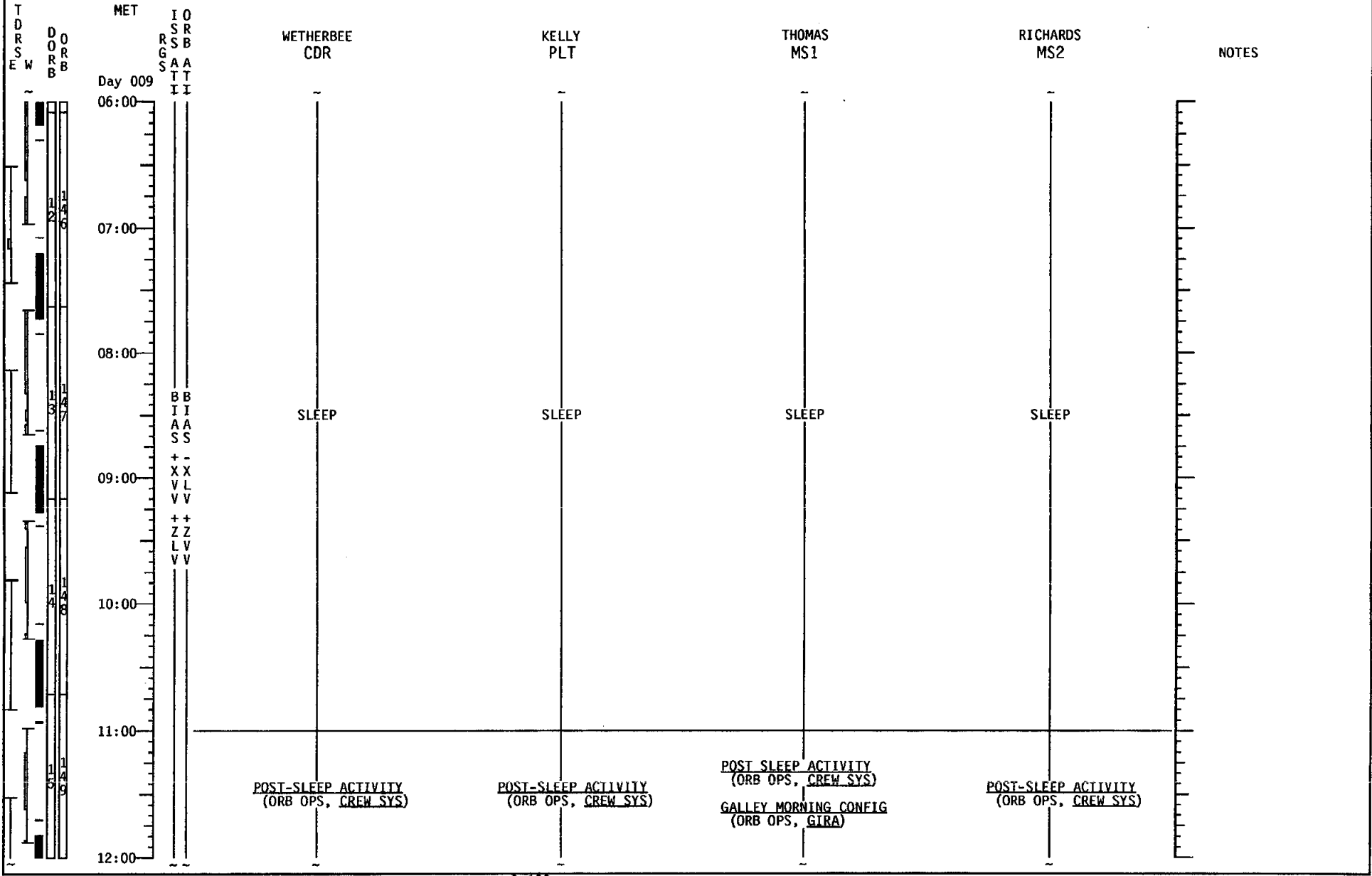
STS-102 (FD10)

T D R S E W	D O R B	MET Day 009	I O S R B R S B G S A T T I I	WETHERBEE	KELLY	THOMAS	RICHARDS	NOTES
				CDR	PLT	MS1	MS2	
		03:00						EARLY H/O
		04:00						
			B B I I A A S S + - X X V L V V + + Z Z L V V V	SLEEP	SLEEP	SLEEP	SLEEP	
		05:00						EARLY H/O
		06:00						

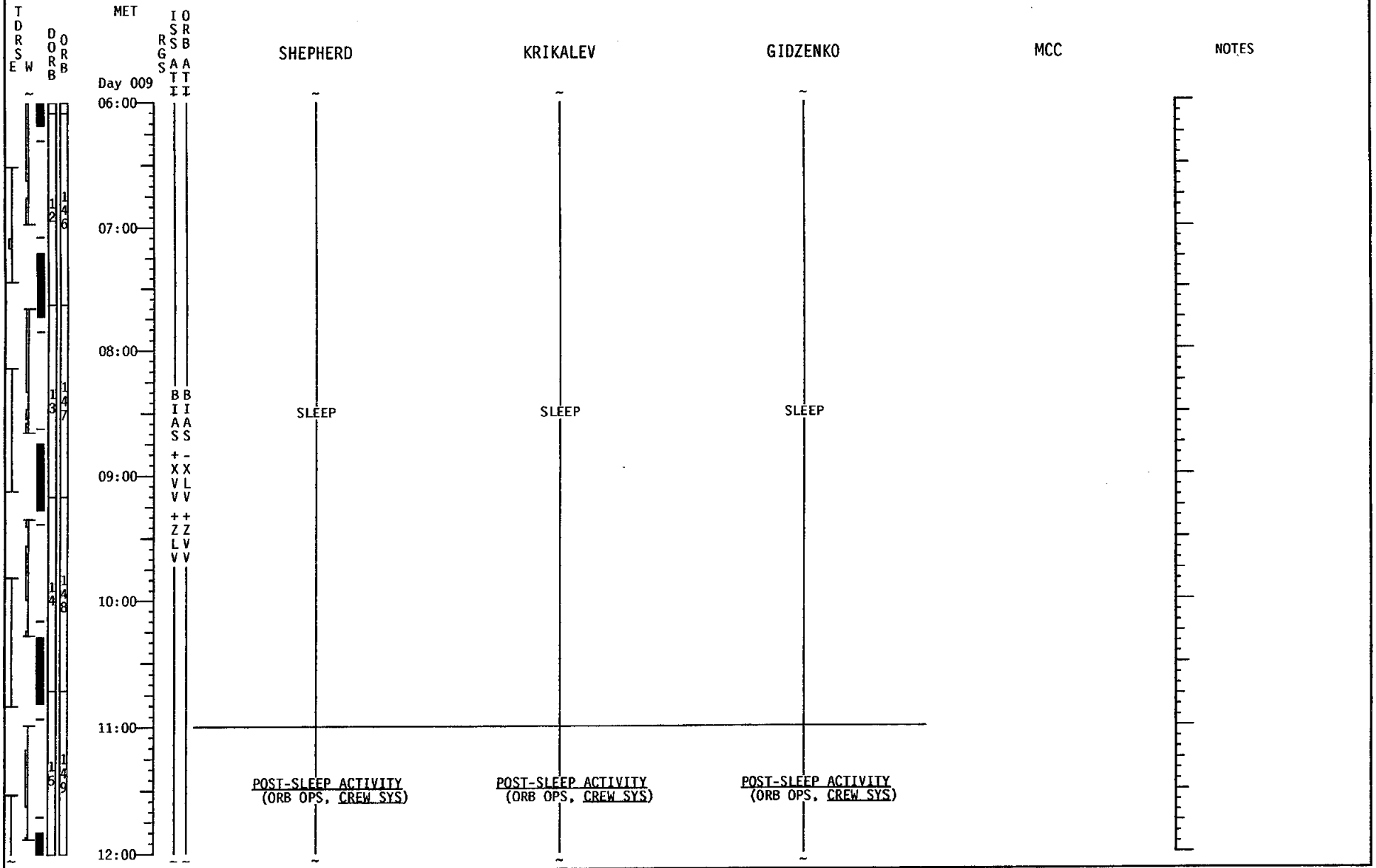
STS-102 (FD10)

	MET	SHEPHERD	KRIKALEV	GIDZENKO	MCC	NOTES
<p style="margin: 0;">T D R S E W</p> <p style="margin: 0;">D O R B</p>	<p style="margin: 0;">I O S R B G A T T I I</p> <p style="margin: 0;">B B I I A A S S + - X X V L V V + + Z Z L V V V</p>	<p style="margin: 0;">SLEEP</p>	<p style="margin: 0;">SLEEP</p>	<p style="margin: 0;">SLEEP</p>		
<p style="margin: 0;">Day 009</p> <p style="margin: 0;">03:00</p> <p style="margin: 0;">04:00</p> <p style="margin: 0;">05:00</p> <p style="margin: 0;">06:00</p>						

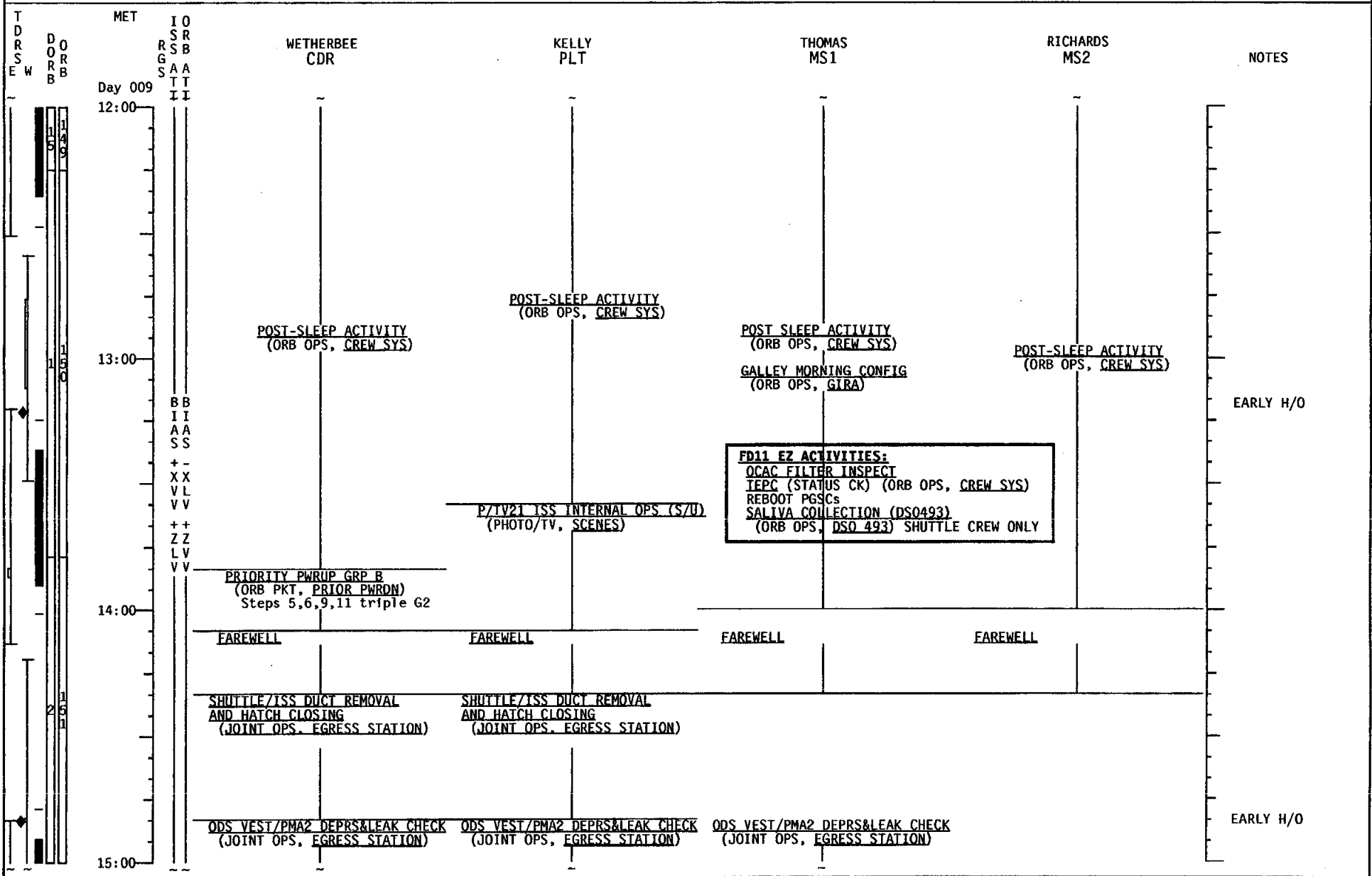
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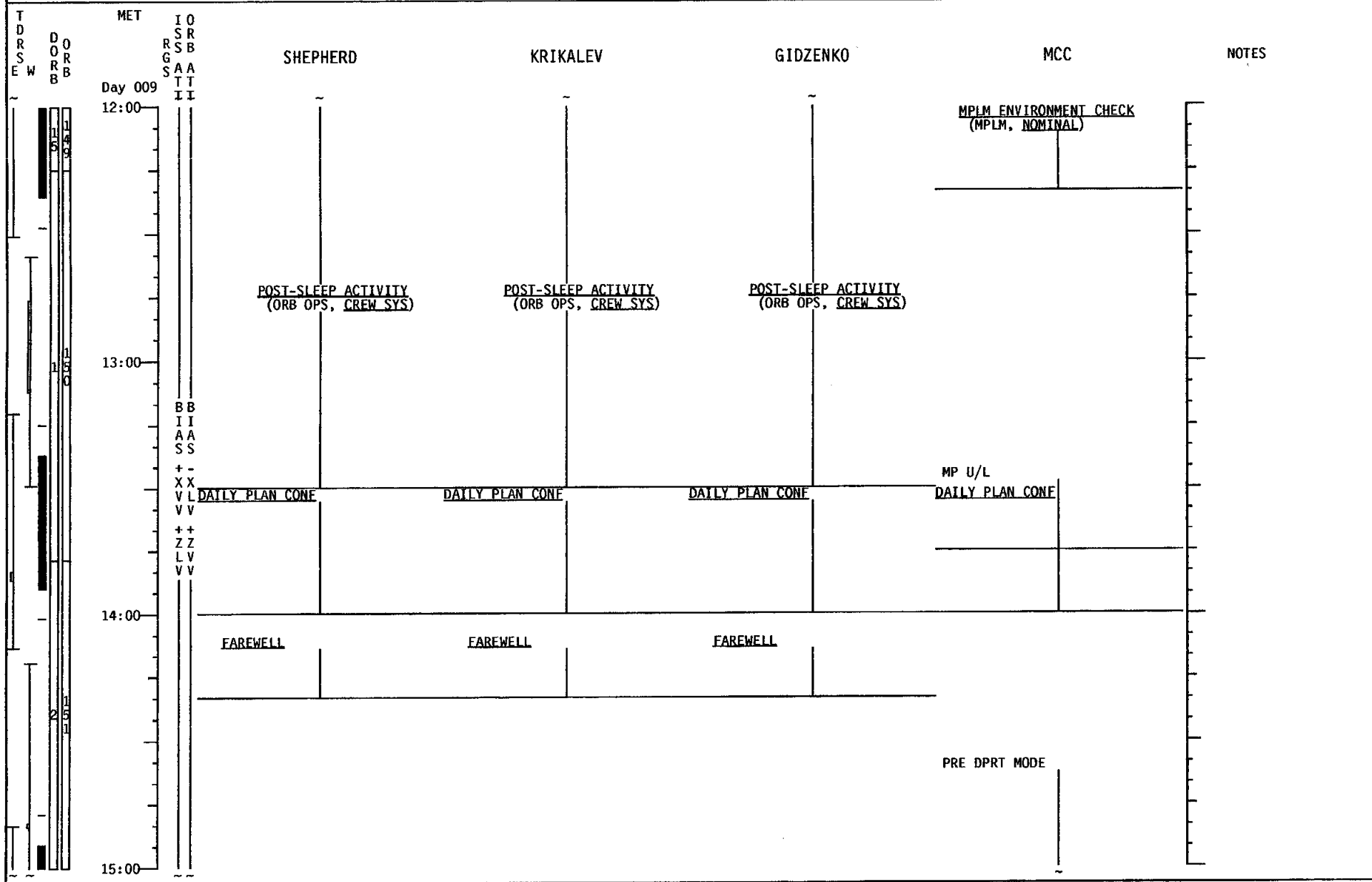
STS-102 (FD10)



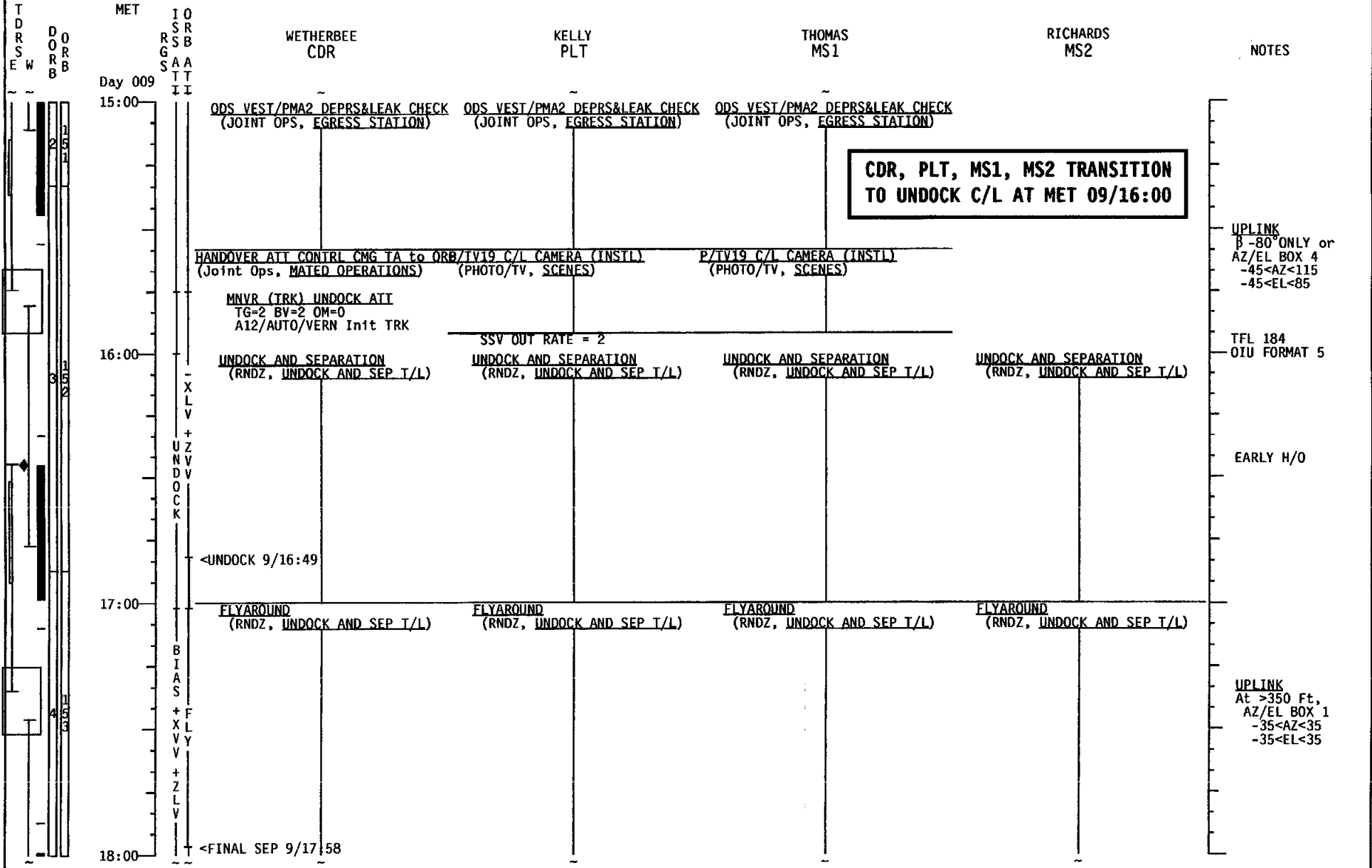
STS-102 (FD11)



STS-102 (FD11)



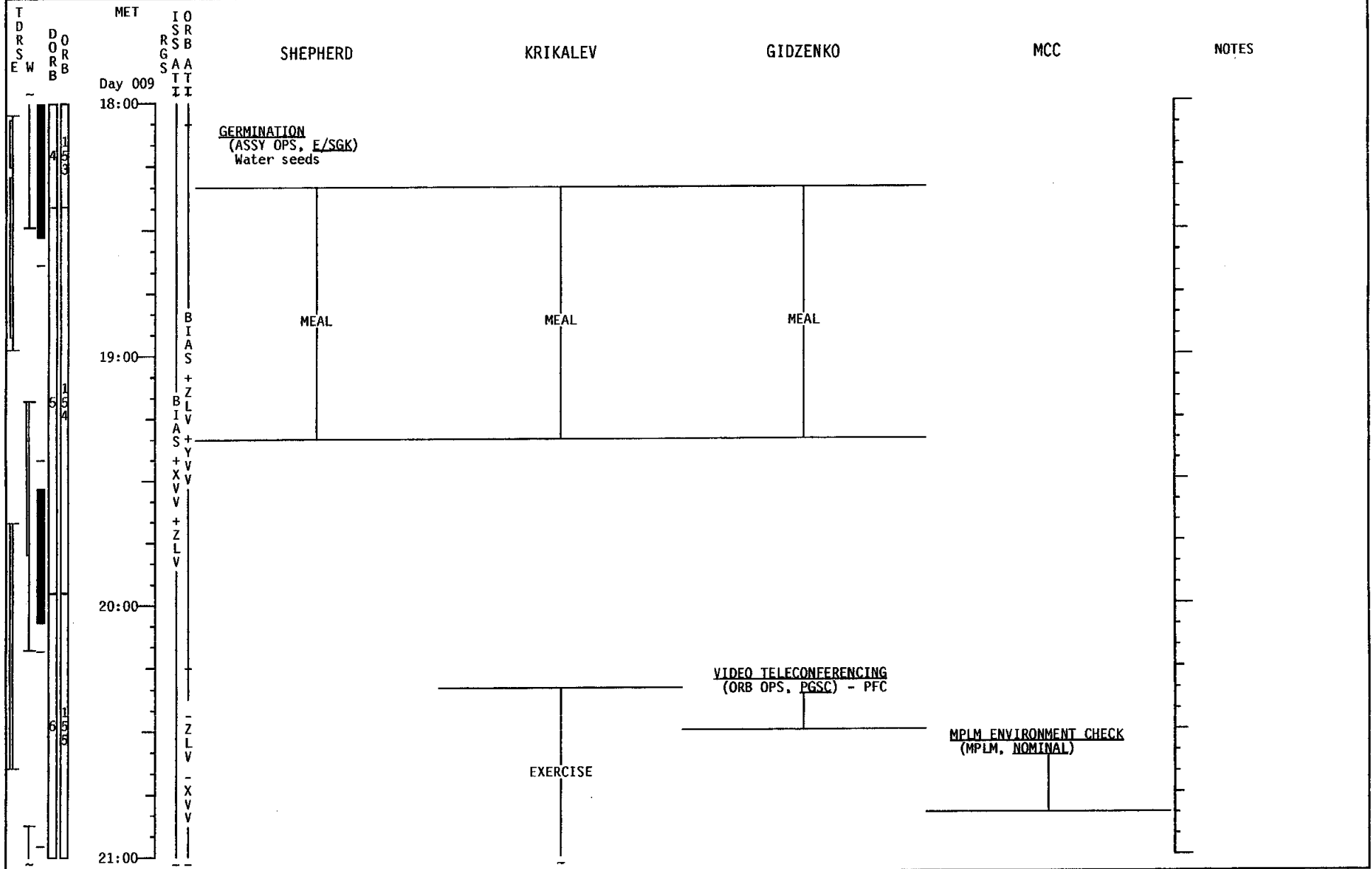
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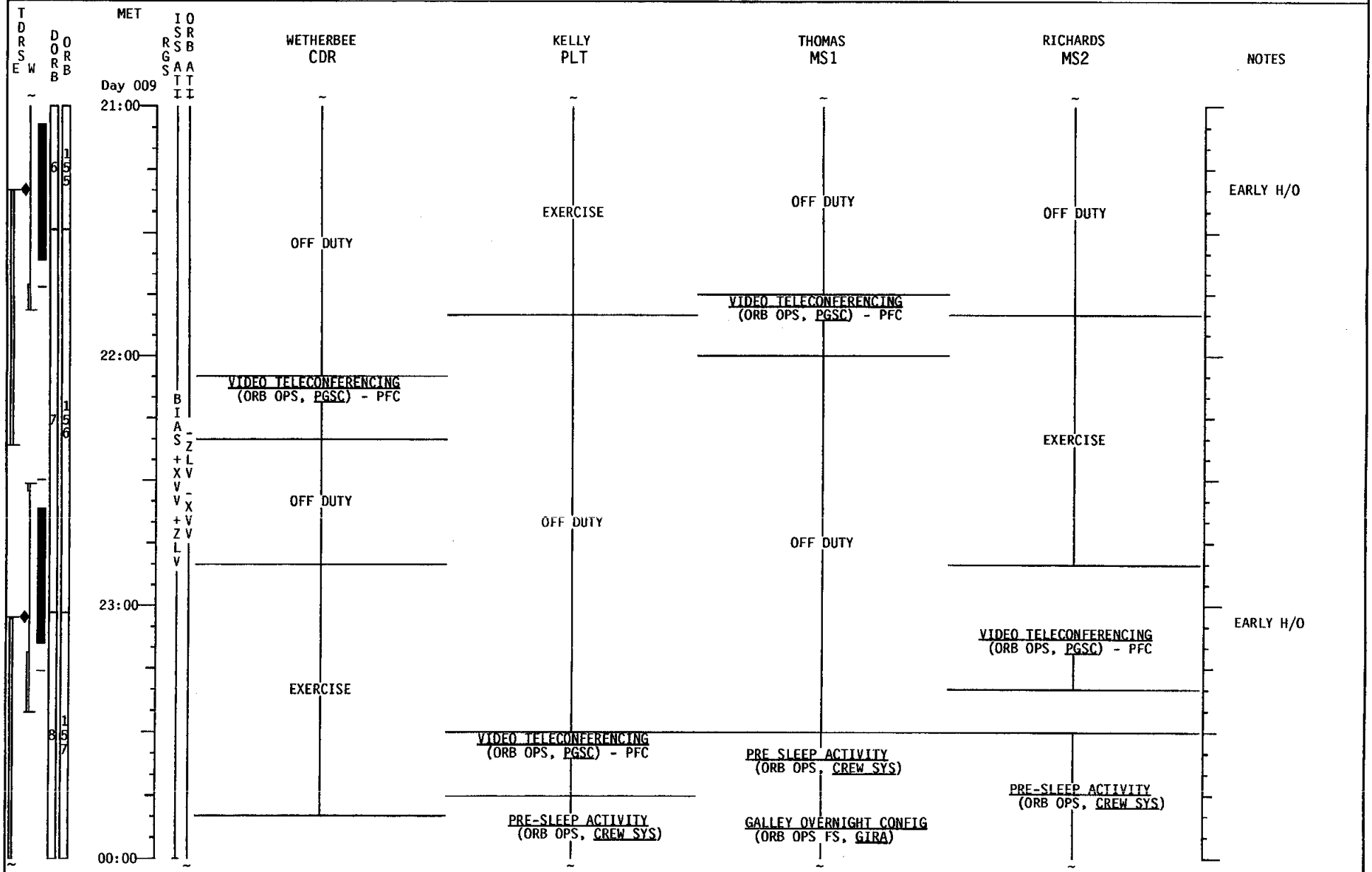
STS-102 (FD11)

	MET	SHEPHERD	KRIKALEV	GIDZENKO	MCC	NOTES
<p>T D R S E W</p> <p>D O R B</p> <p>1 2 3 4</p> <p>1 5 1 3</p>	<p>IO SRB RSB GSA ATT II</p> <p>Day 009</p> <p>15:00</p> <p>16:00</p> <p>17:00</p> <p>18:00</p>				<p>PRE DPRT MODE SA FTHR</p> <hr/> <p>HANDOVER ATT CONTRL CMG TA to ORB (Joint Ops, MATED OPERATIONS)</p> <p>CDH UNDOCK CONFIG (GROUND, CNEG CDH FOR UNDK)</p> <hr/> <p>P6 SA TRK</p> <hr/> <p>POST DPRT</p>	<p>15:00</p> <p>16:00</p> <p>17:00</p> <p>18:00</p>
	<p>U Z N D V O C K</p> <p>B I A S</p> <p>+ F L V Y</p> <p>+ Z L V</p>					

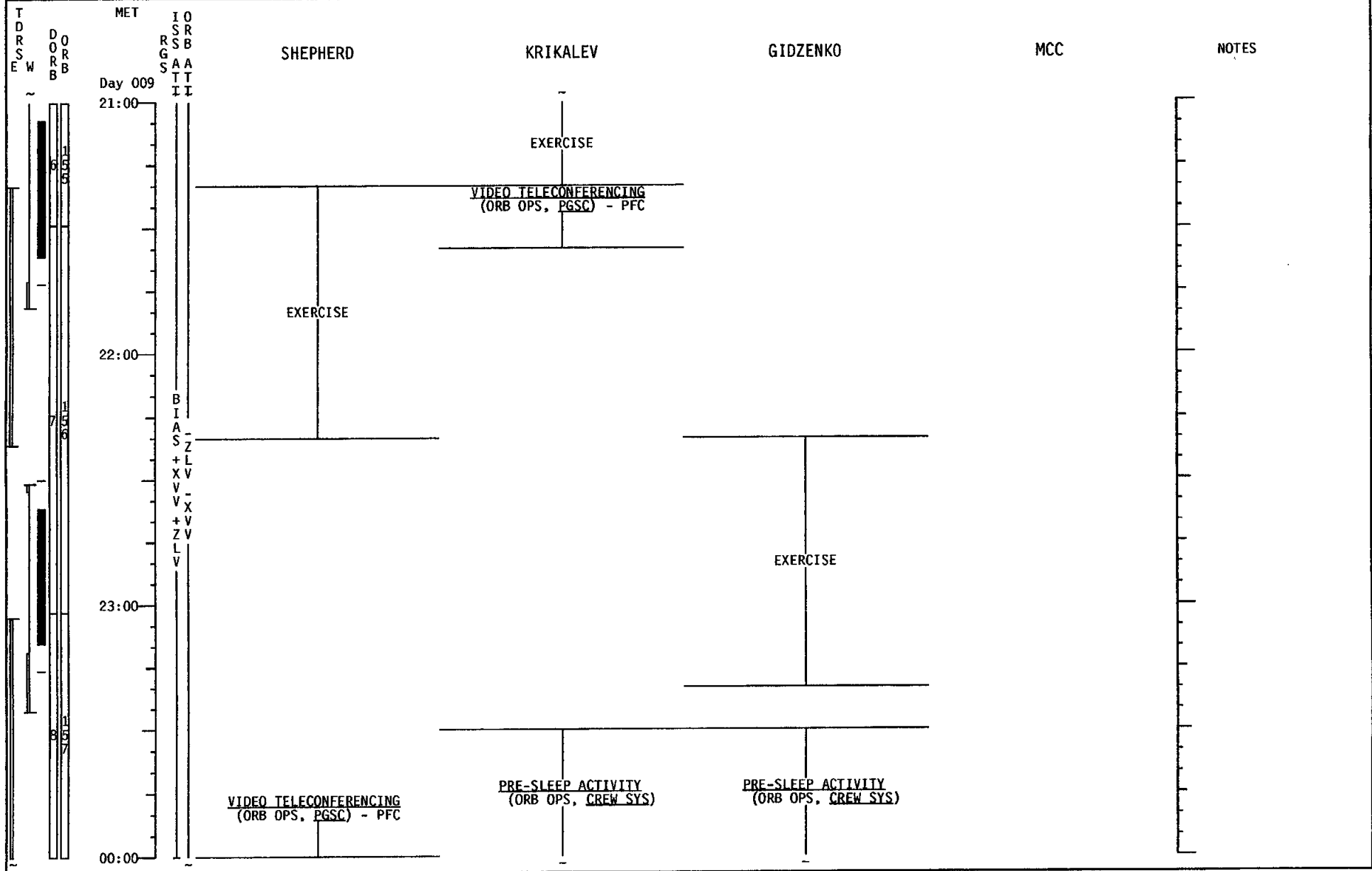
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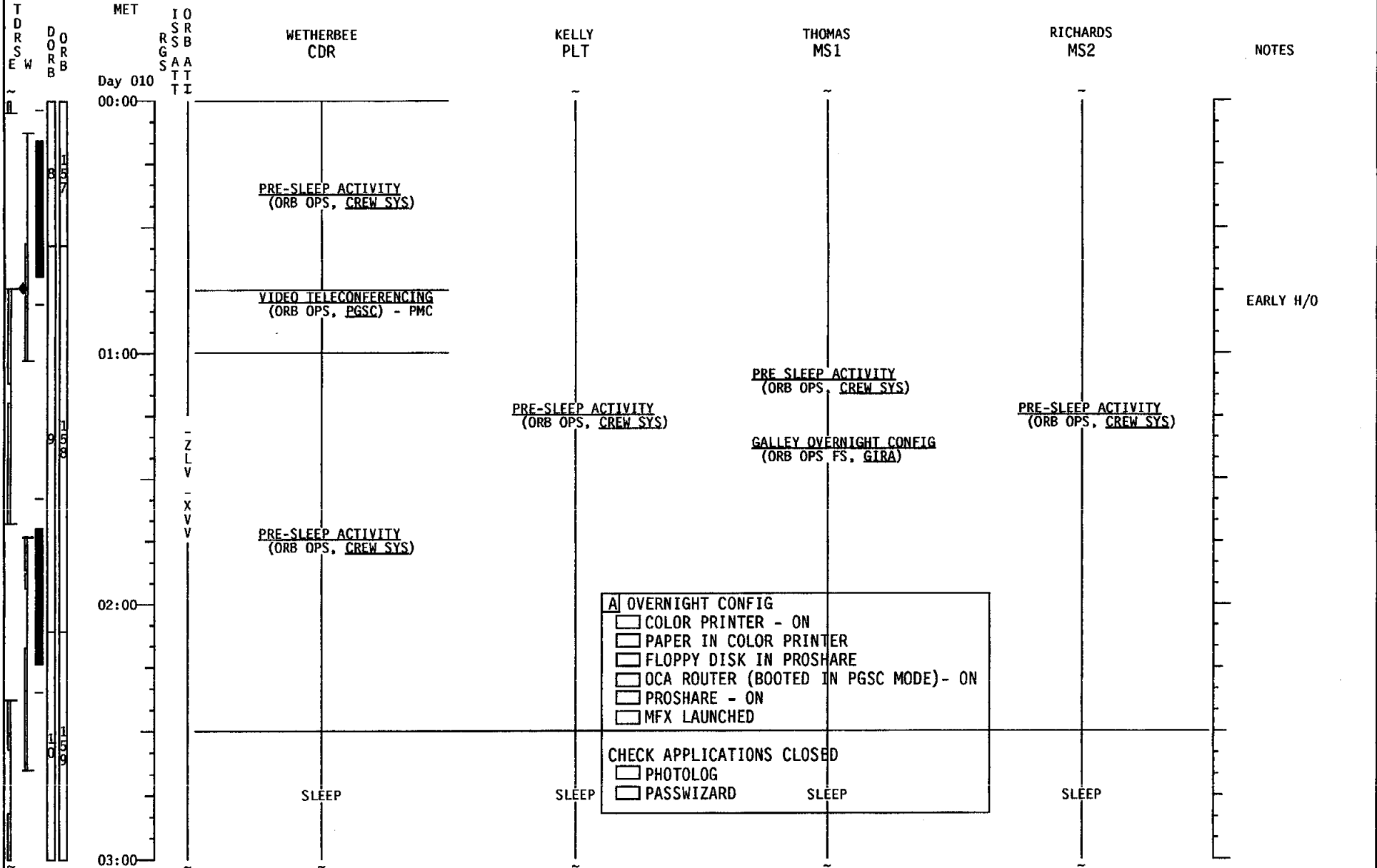
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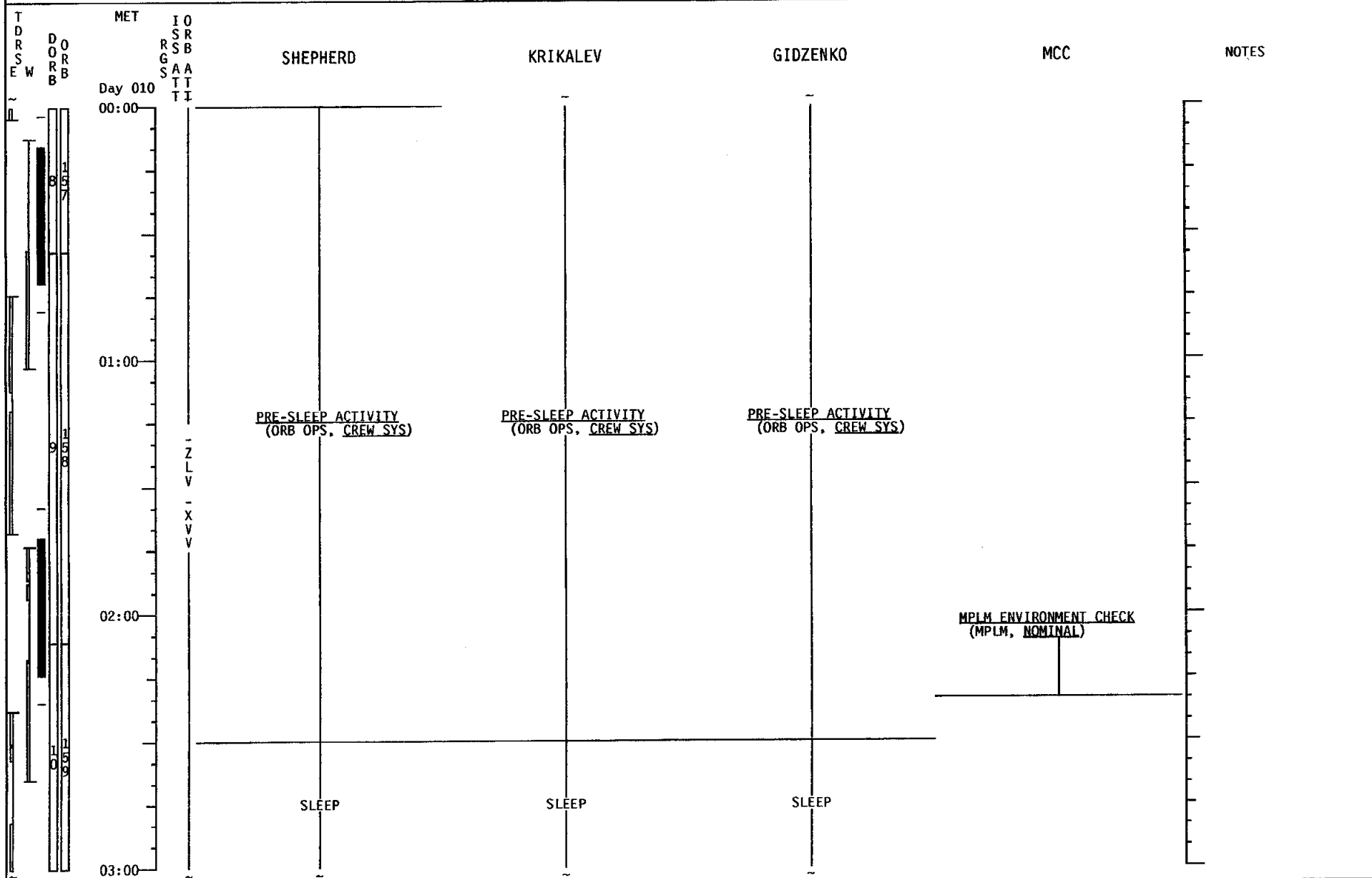
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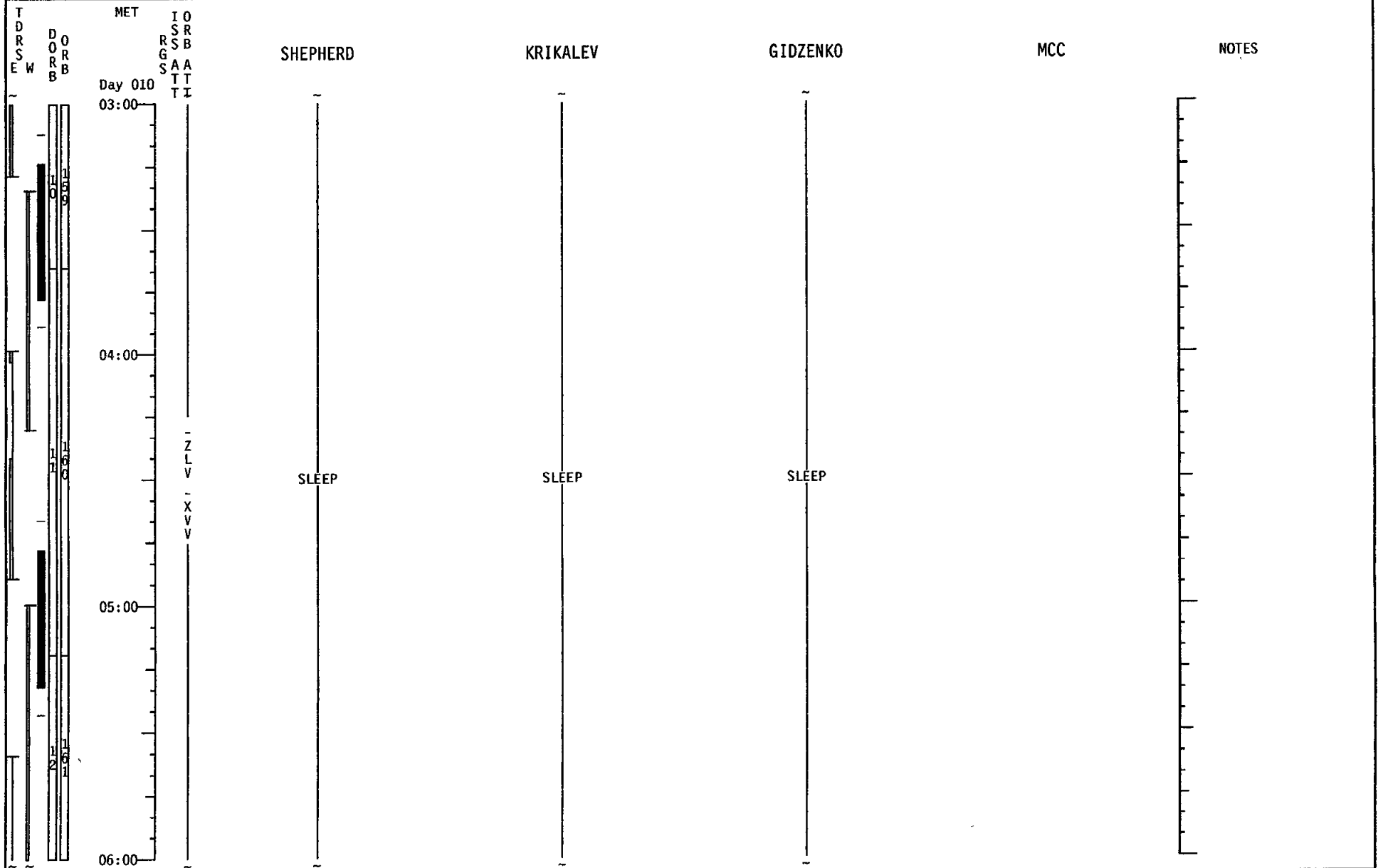
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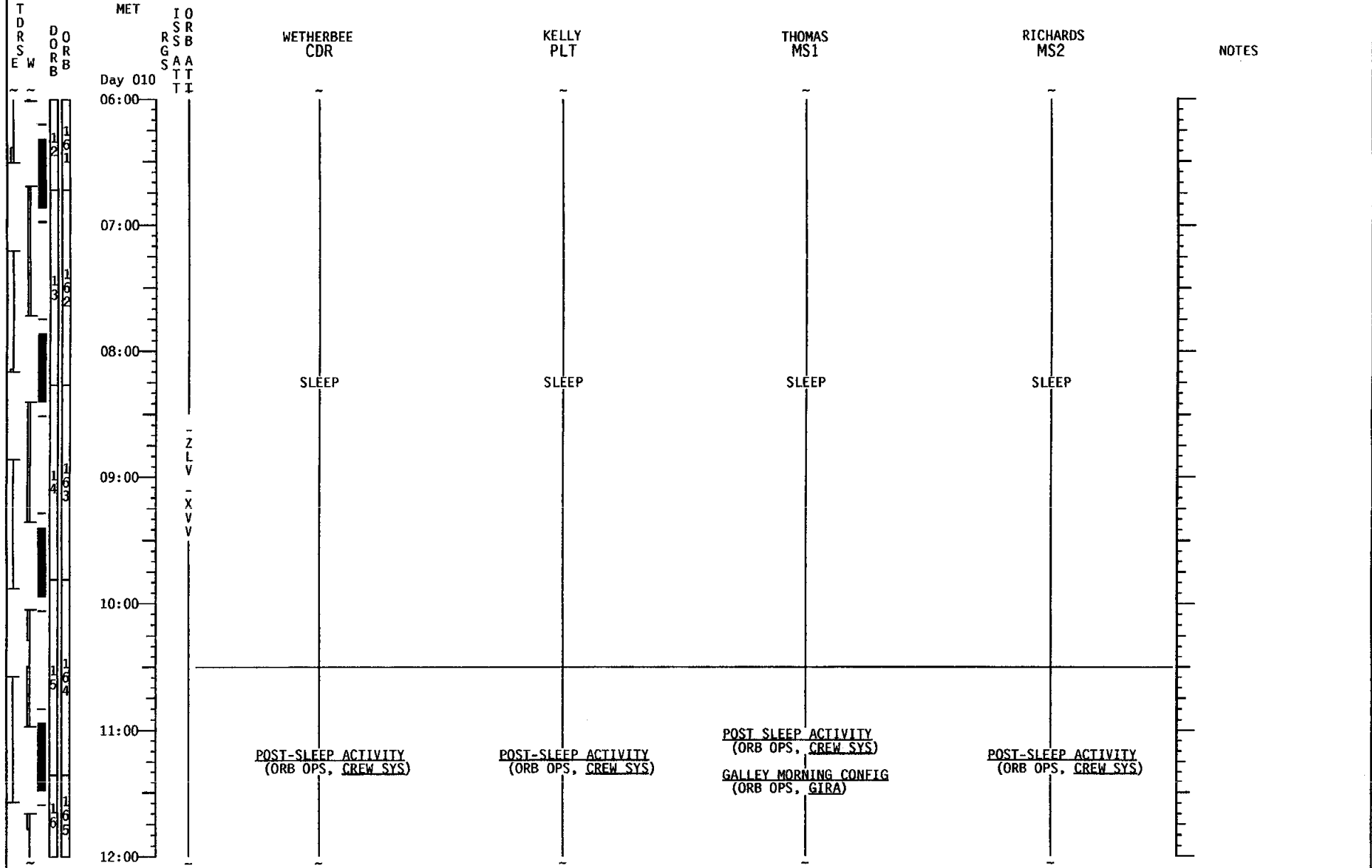
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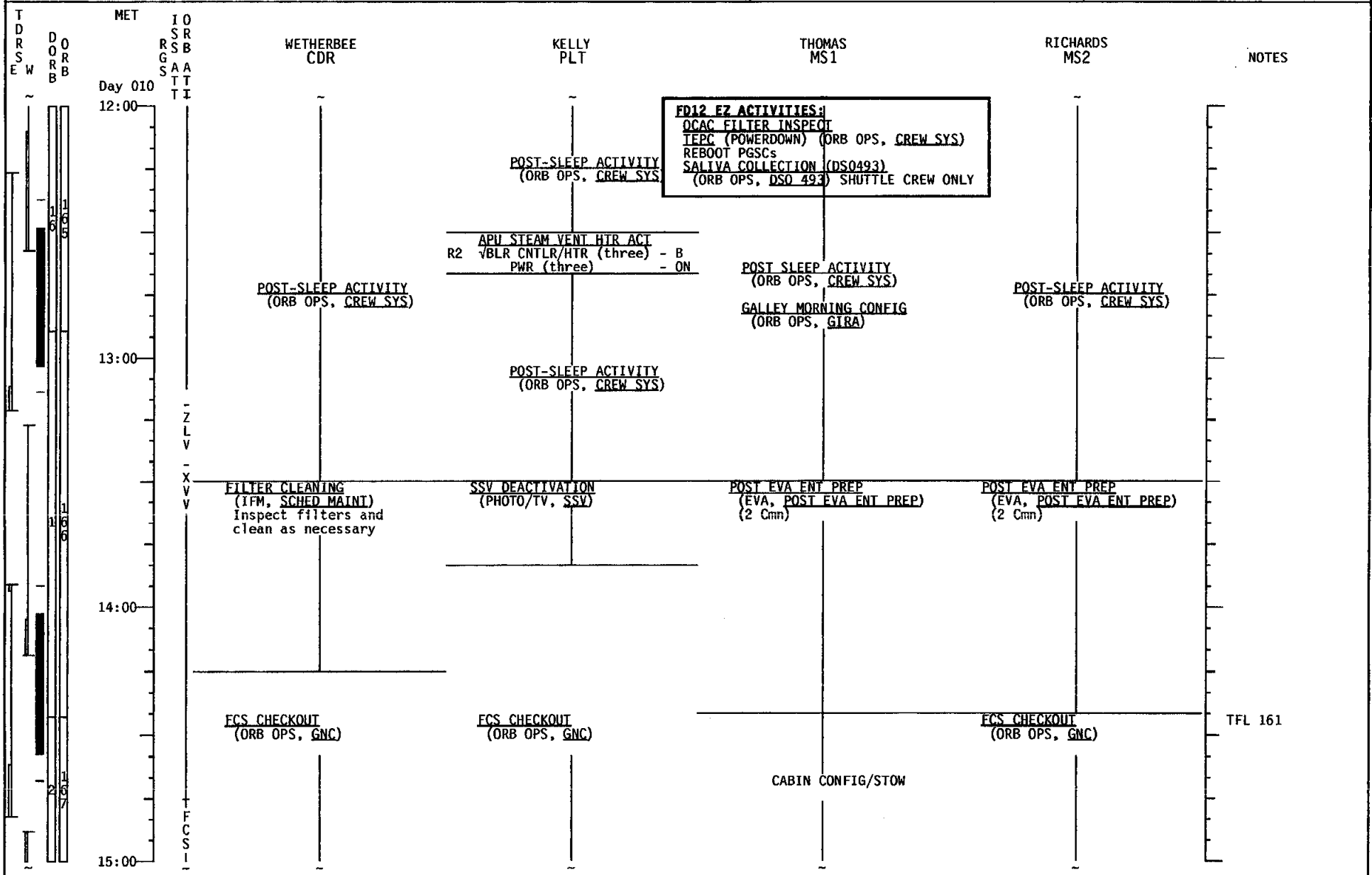
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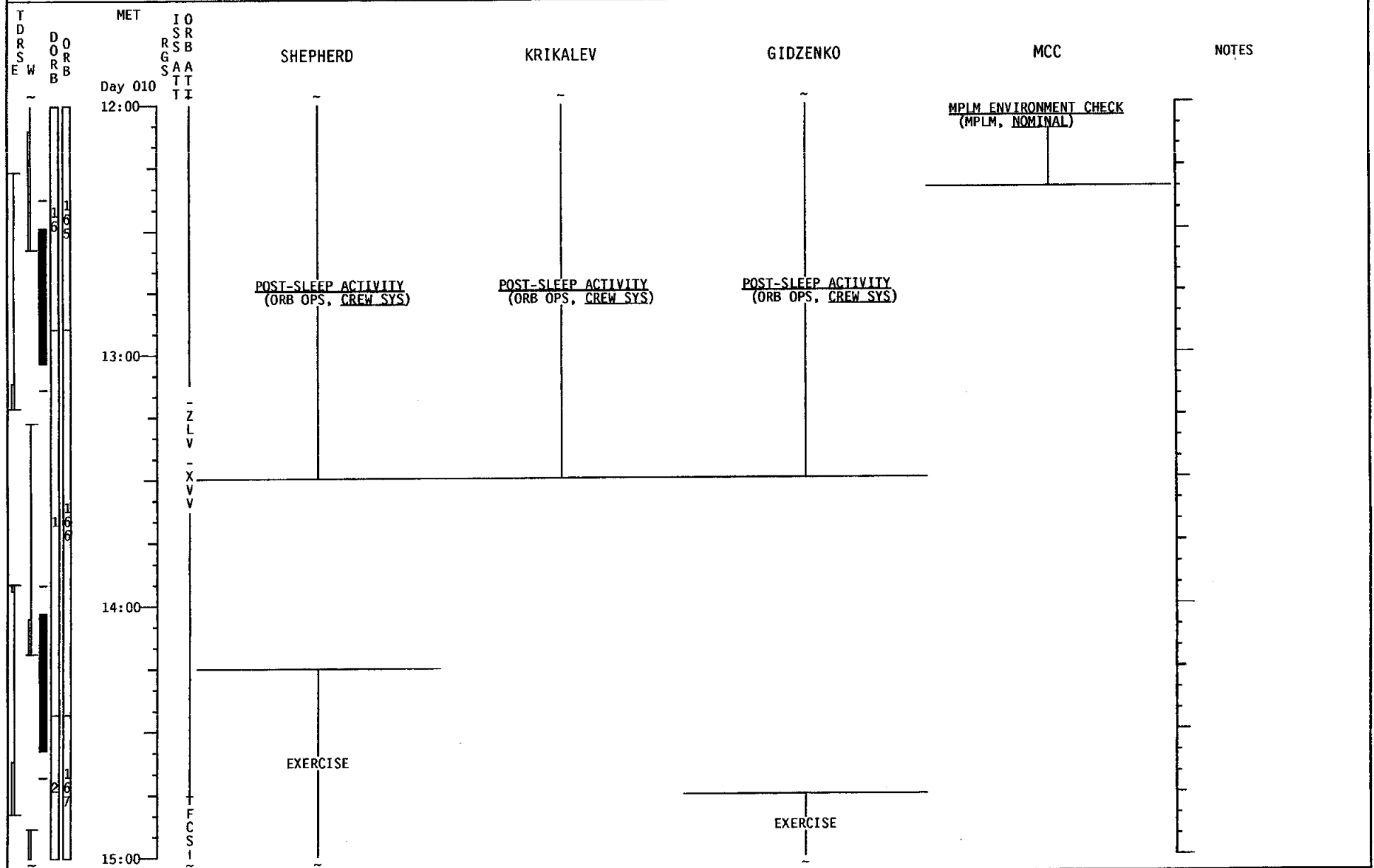
STS-102 (FD12)



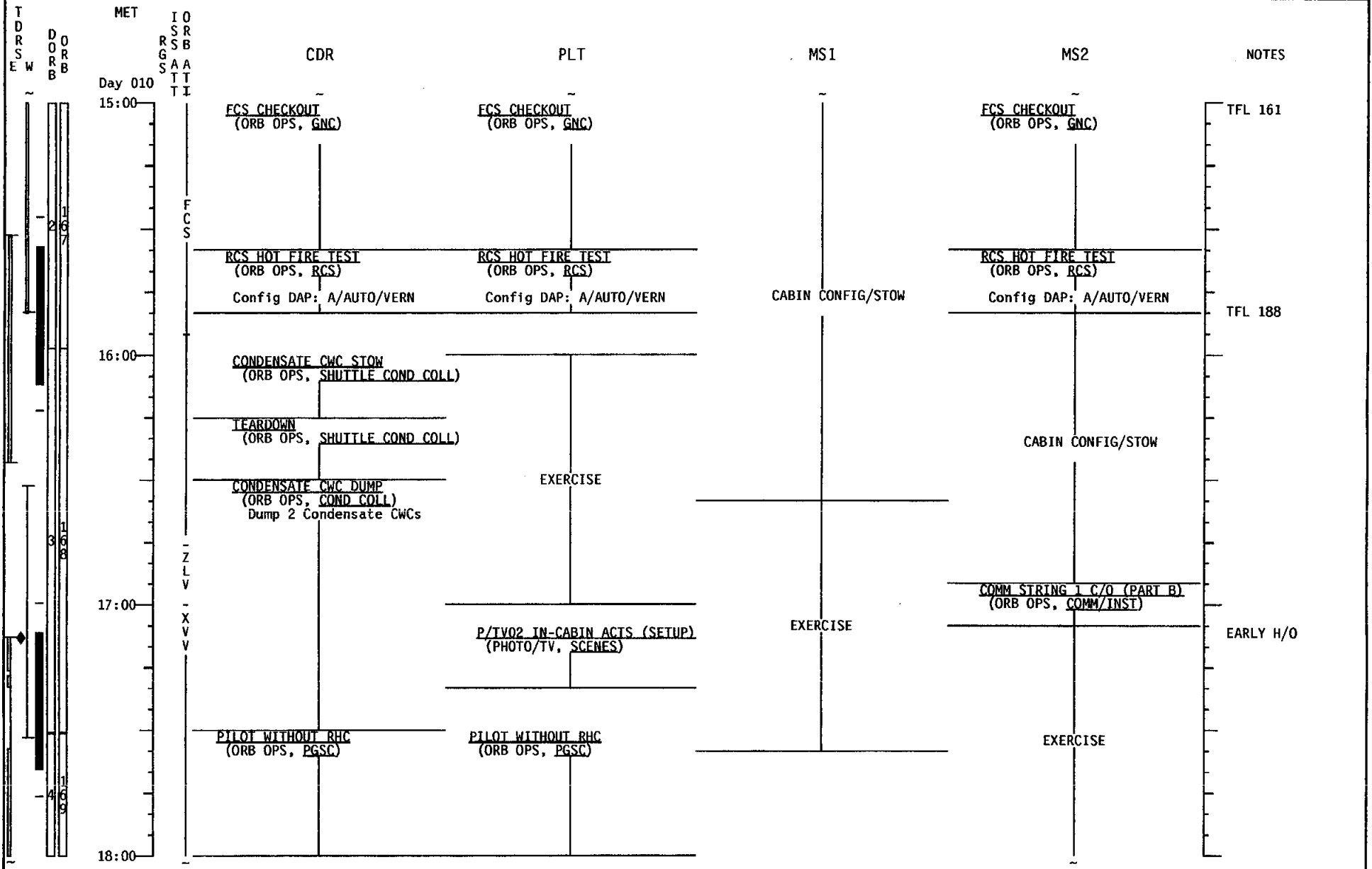
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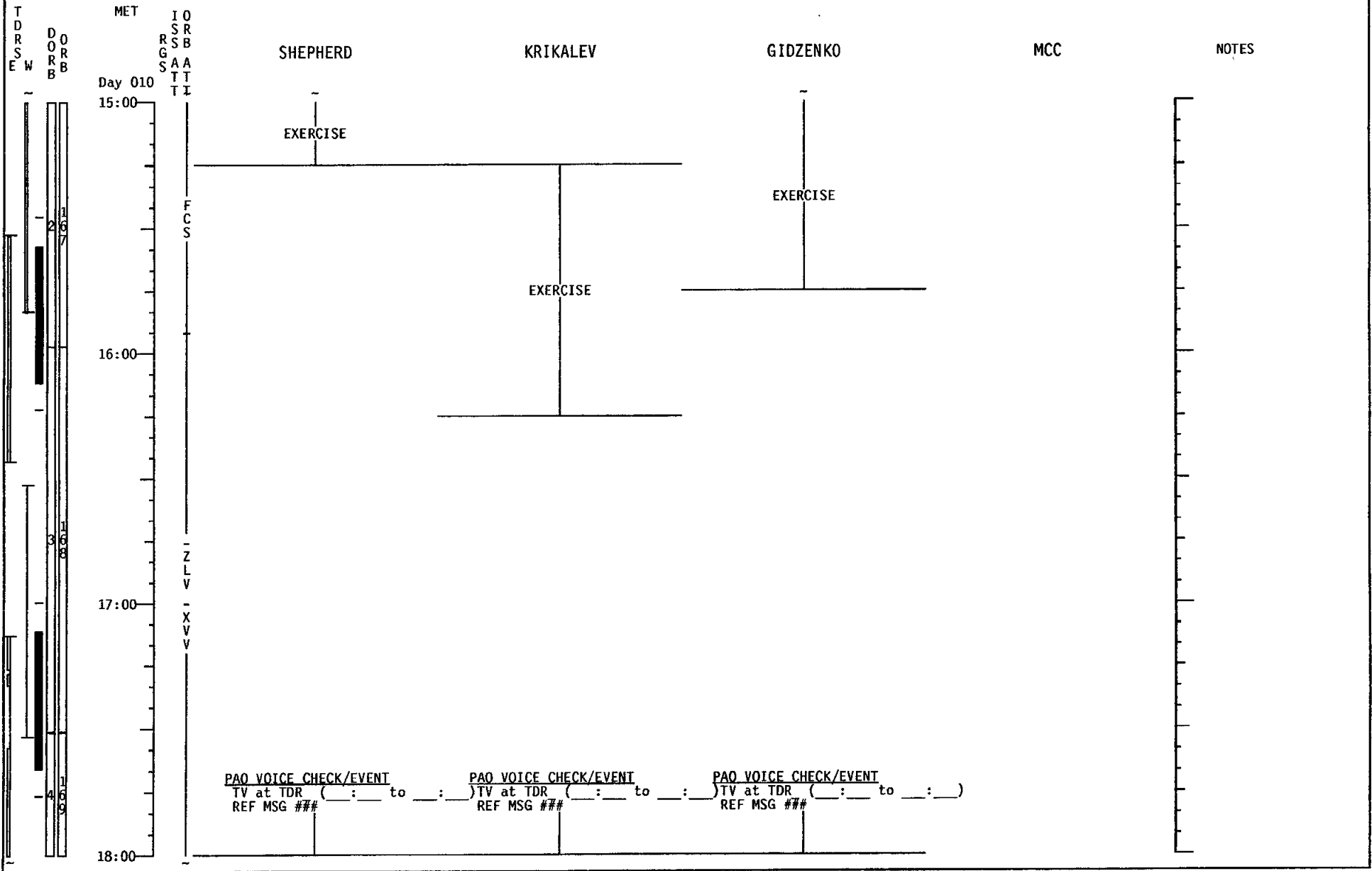
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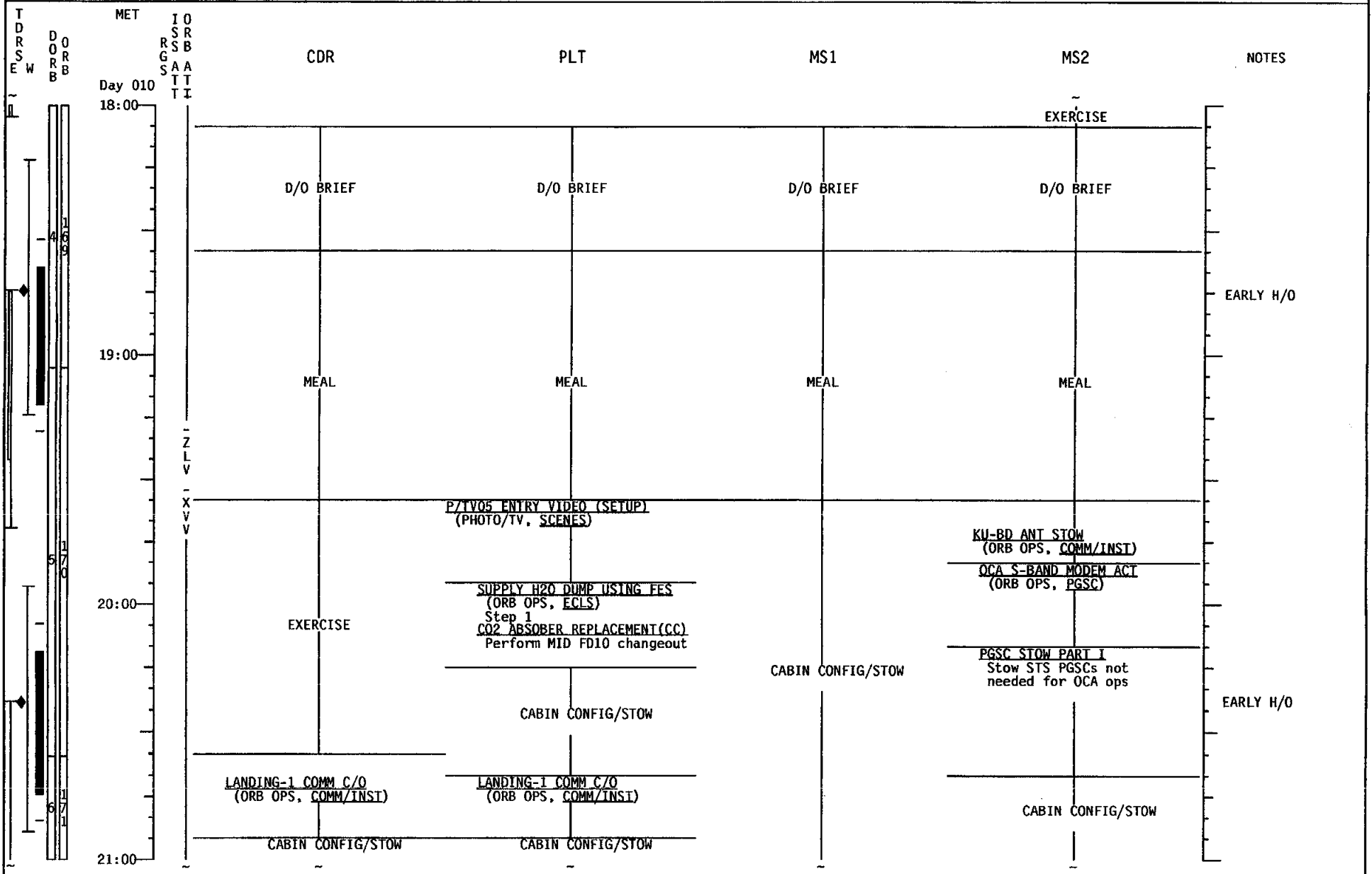
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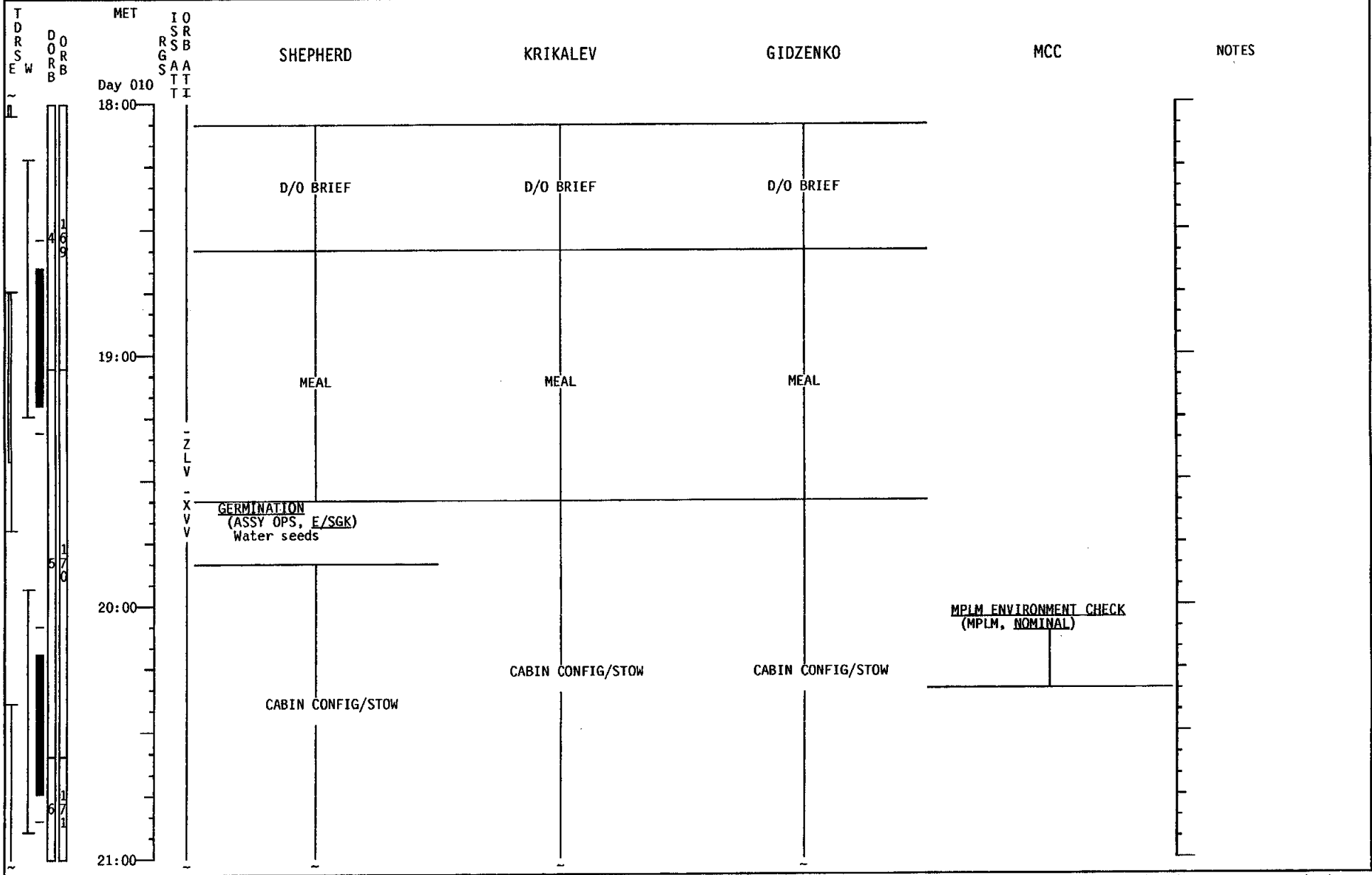
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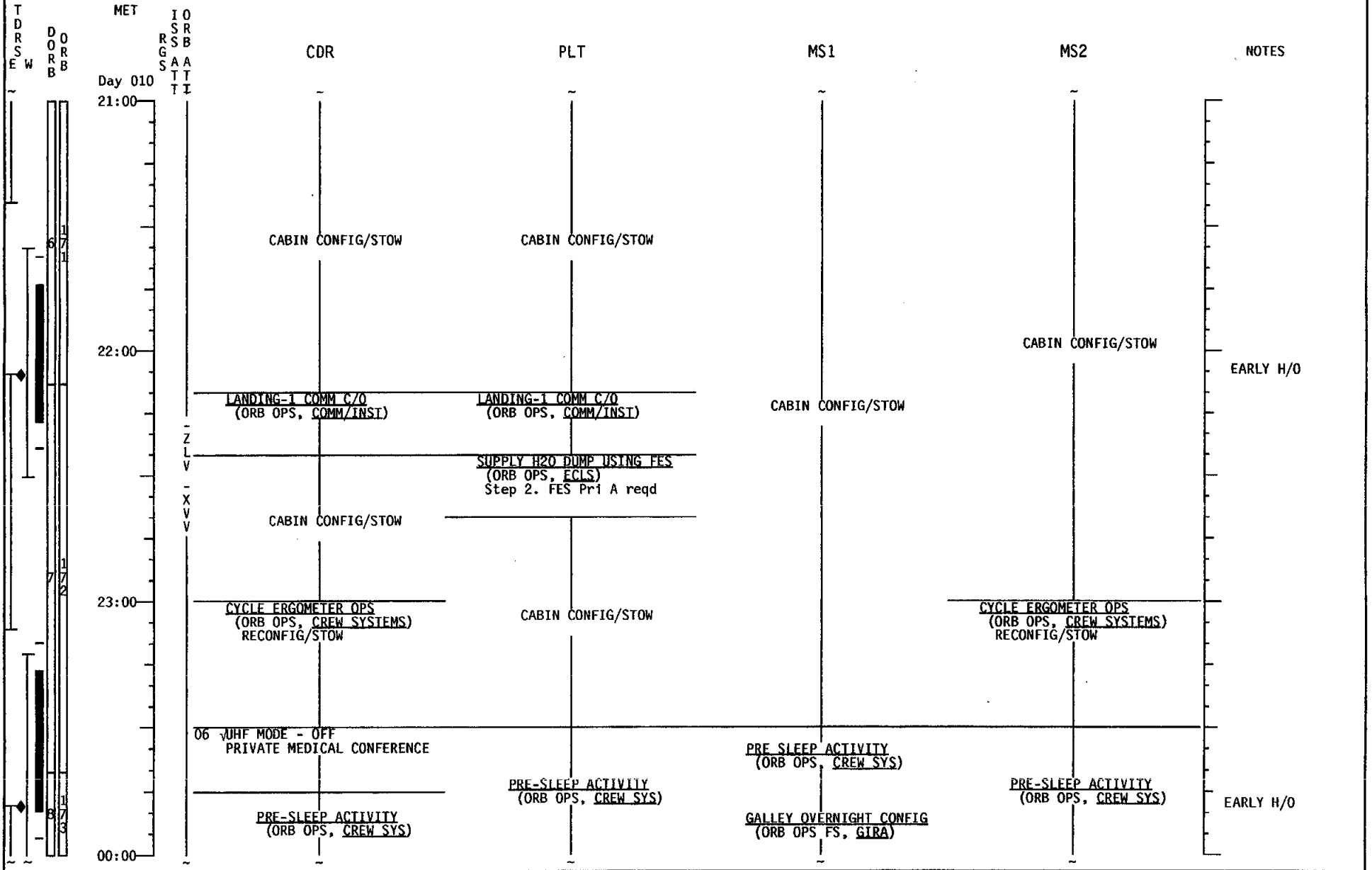
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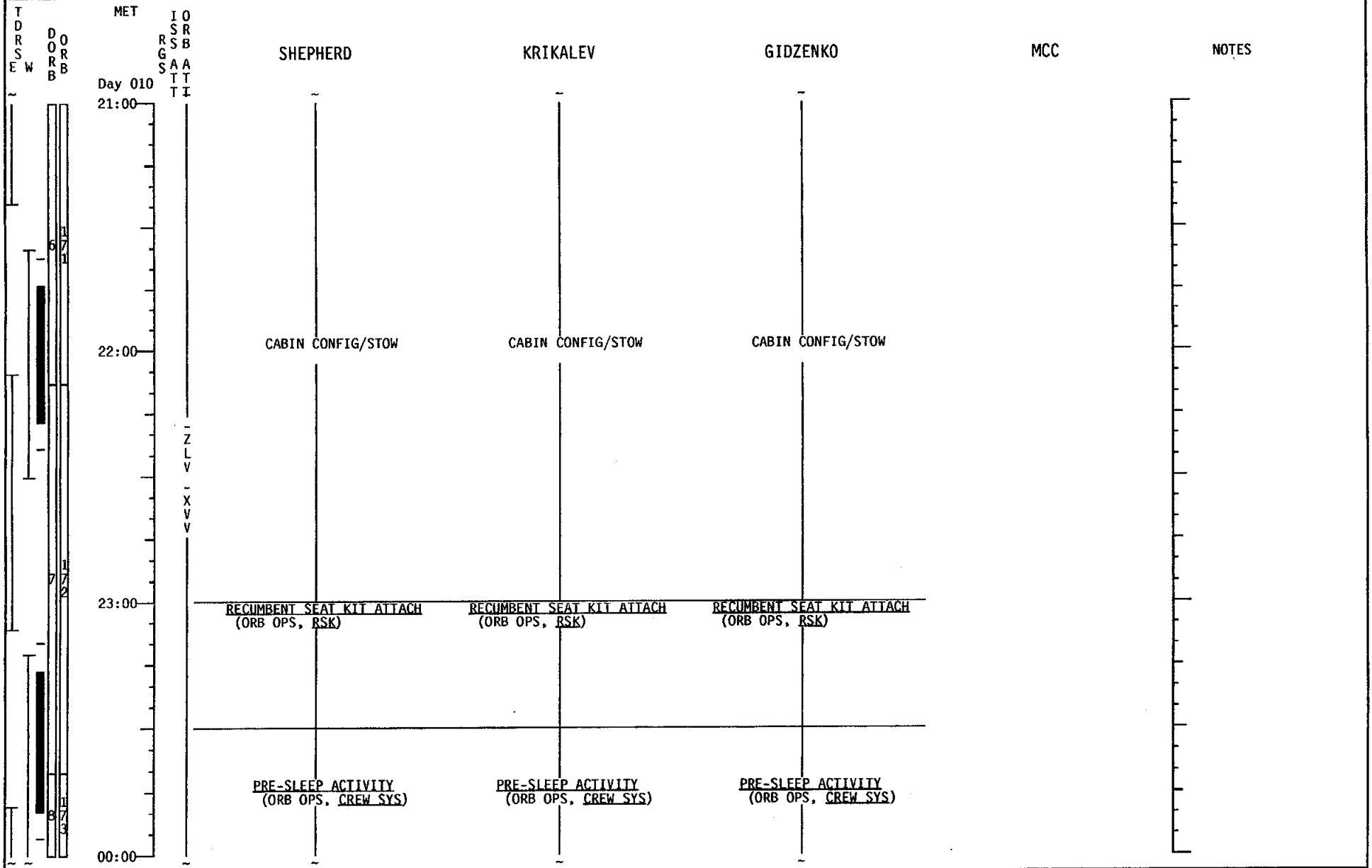
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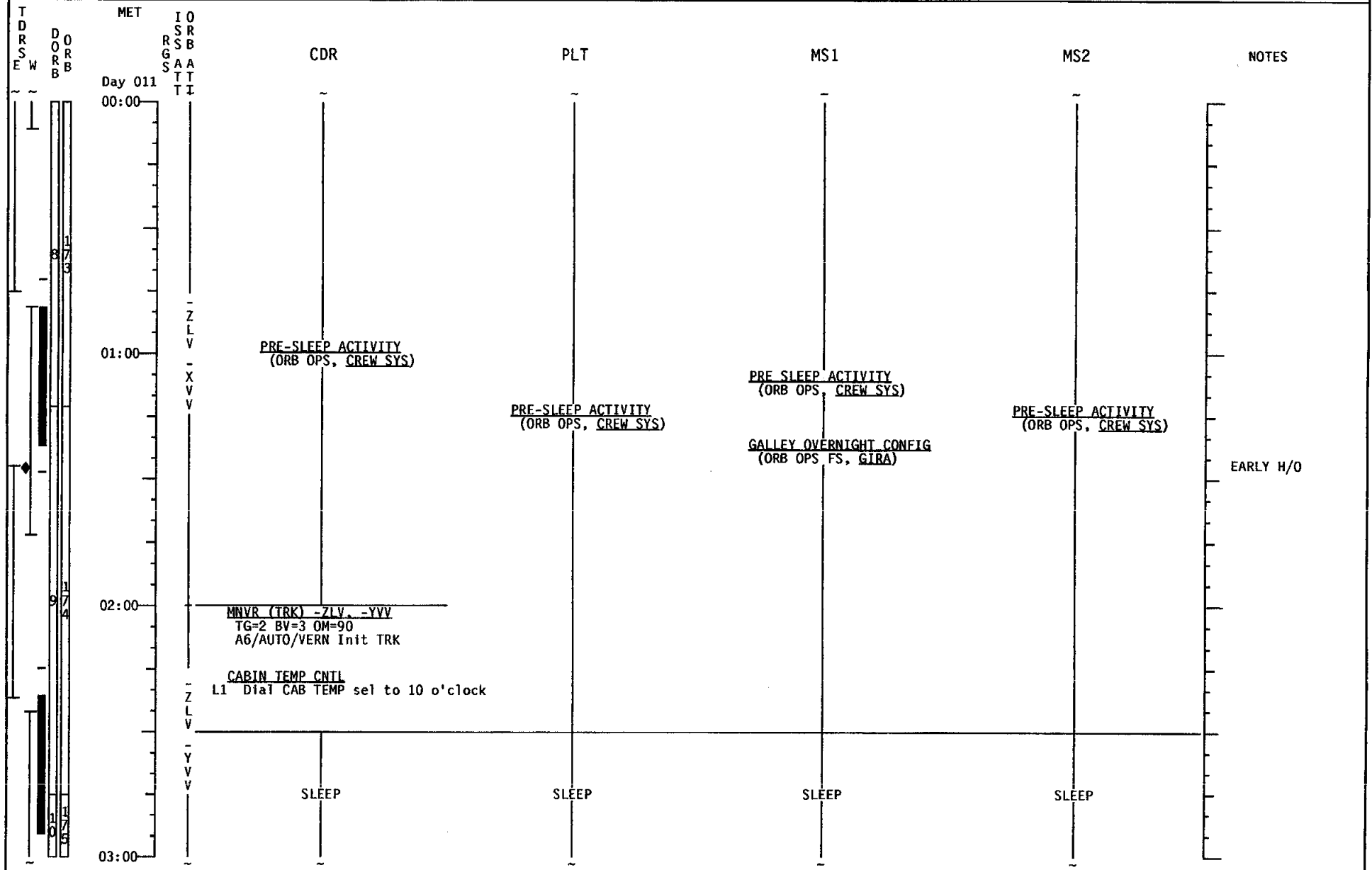
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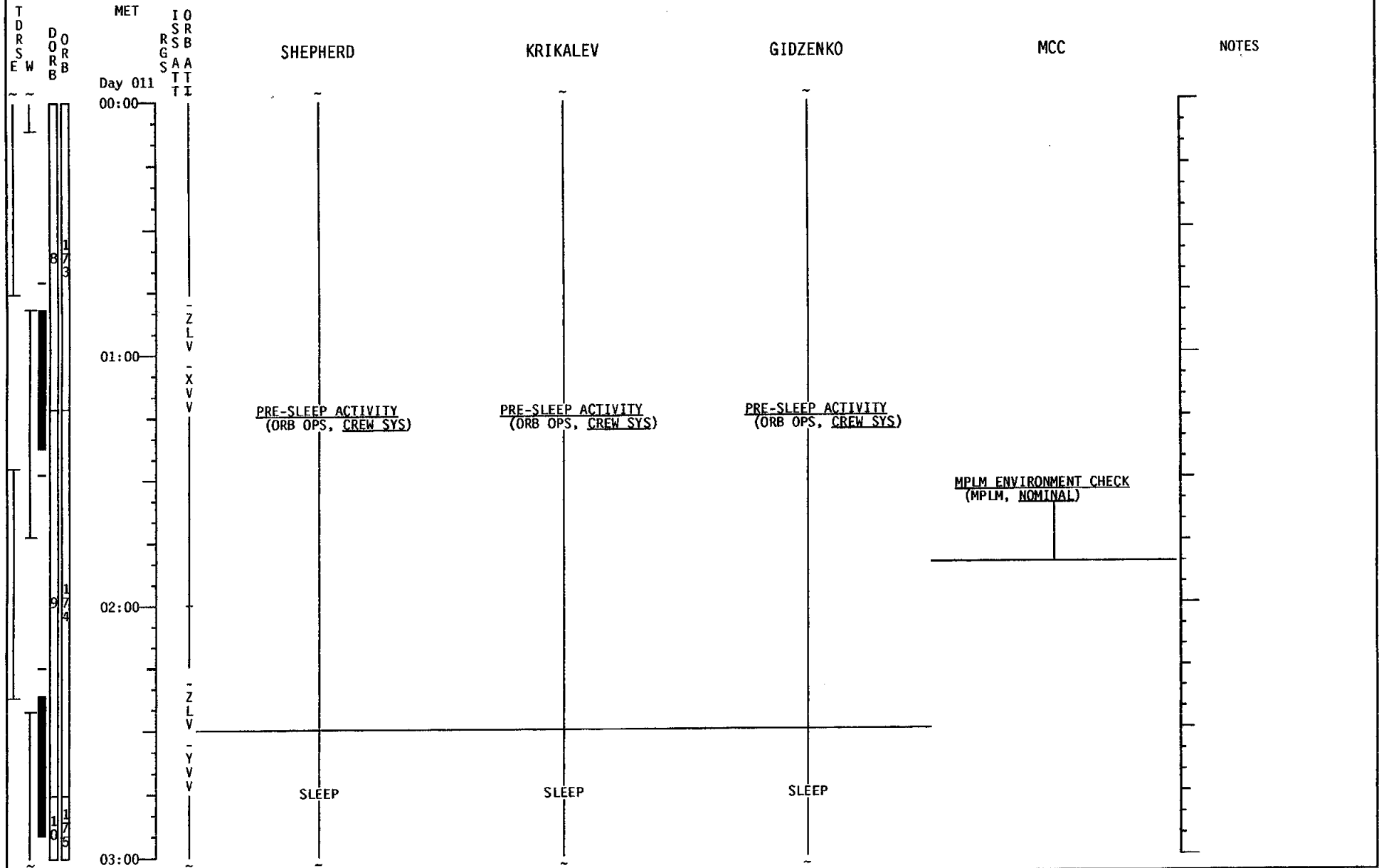
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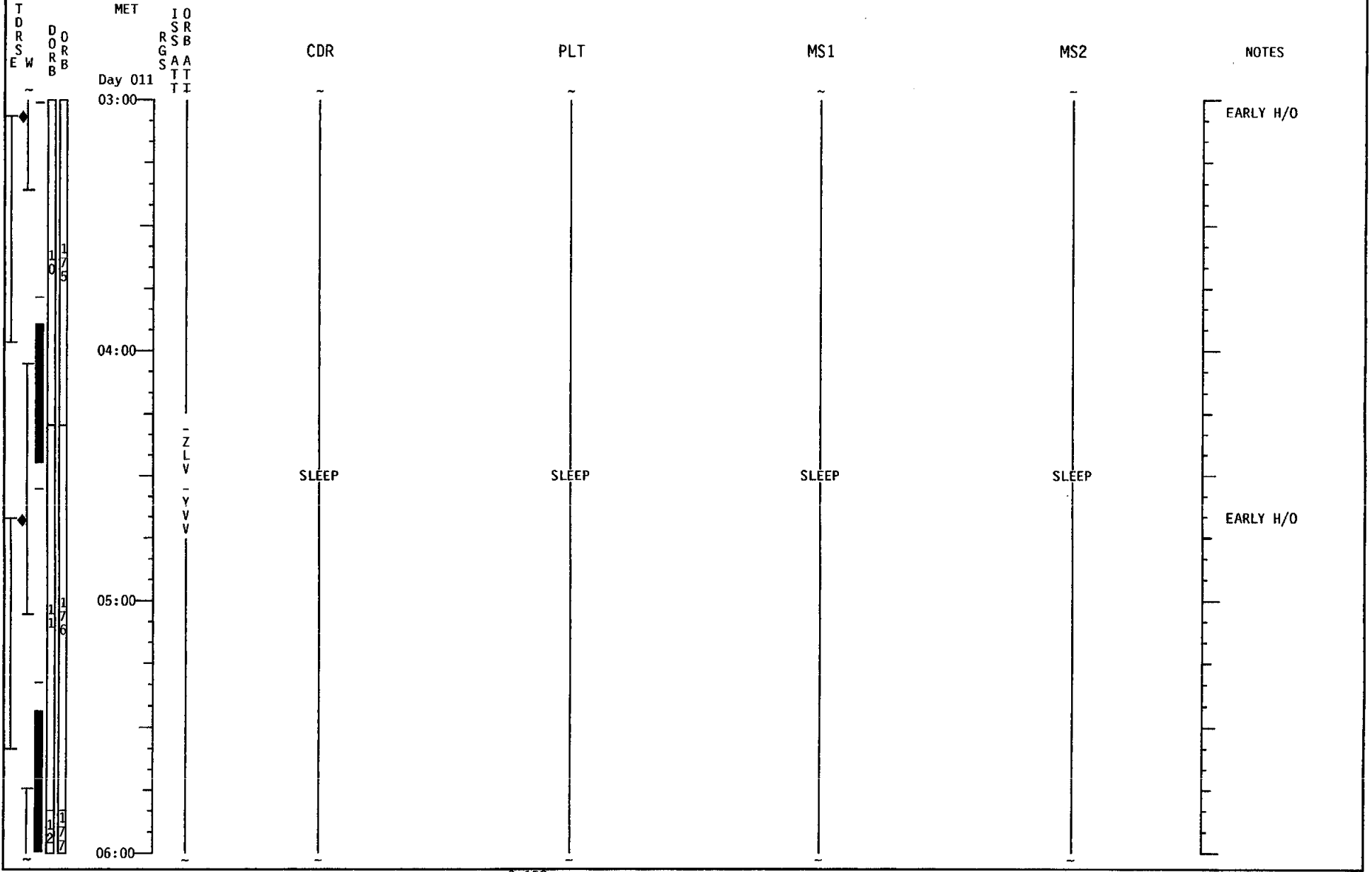
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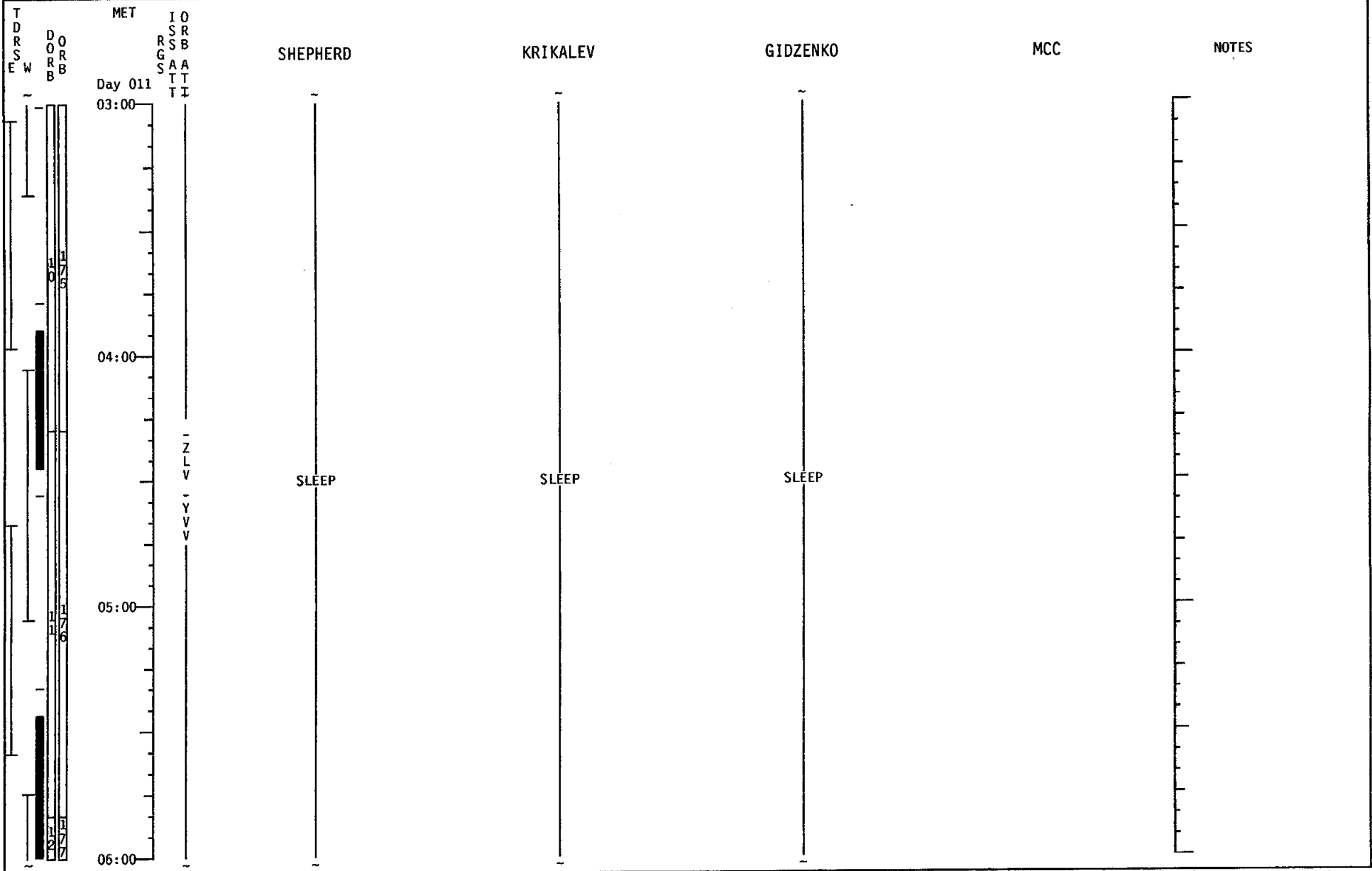
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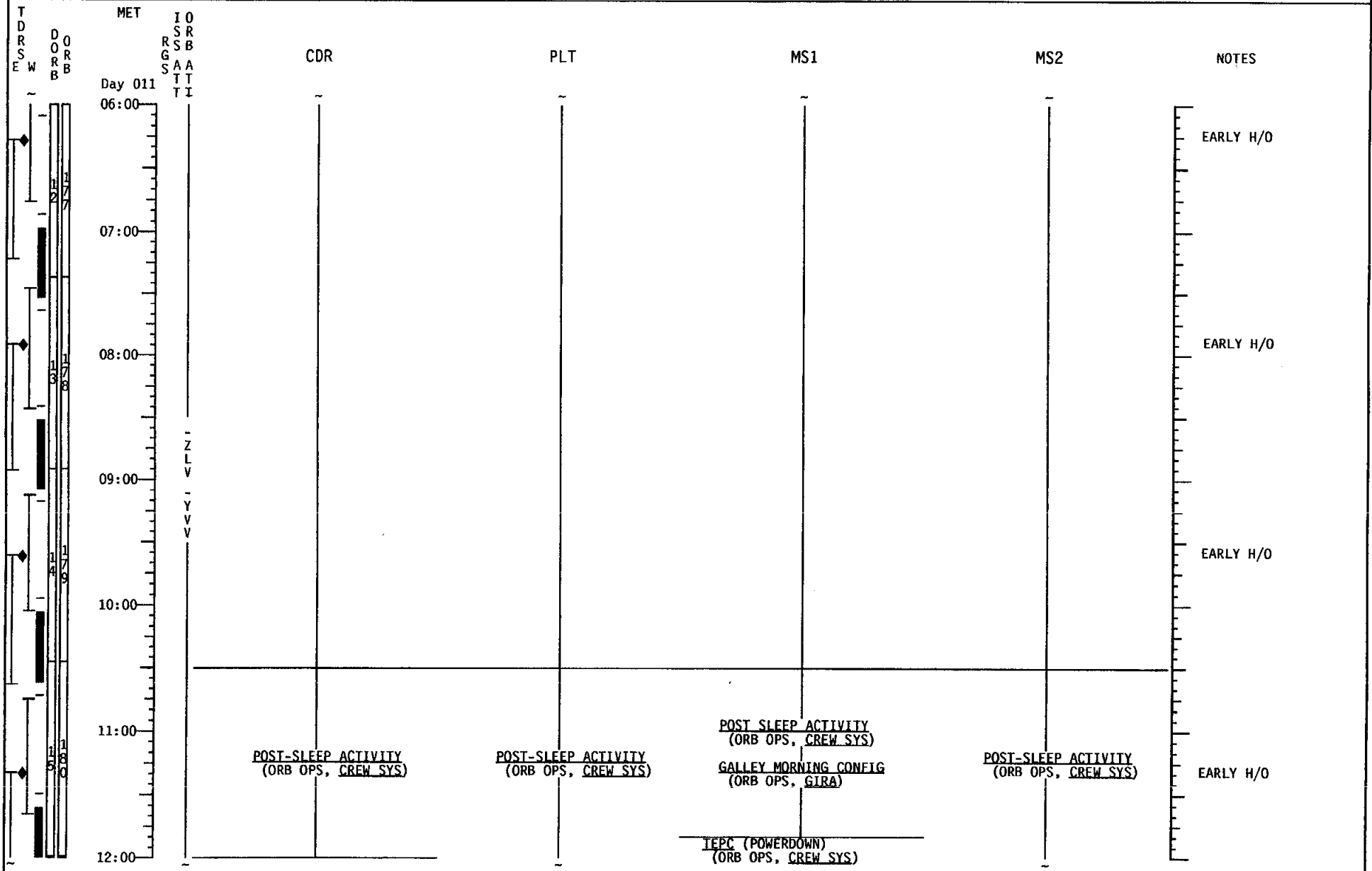
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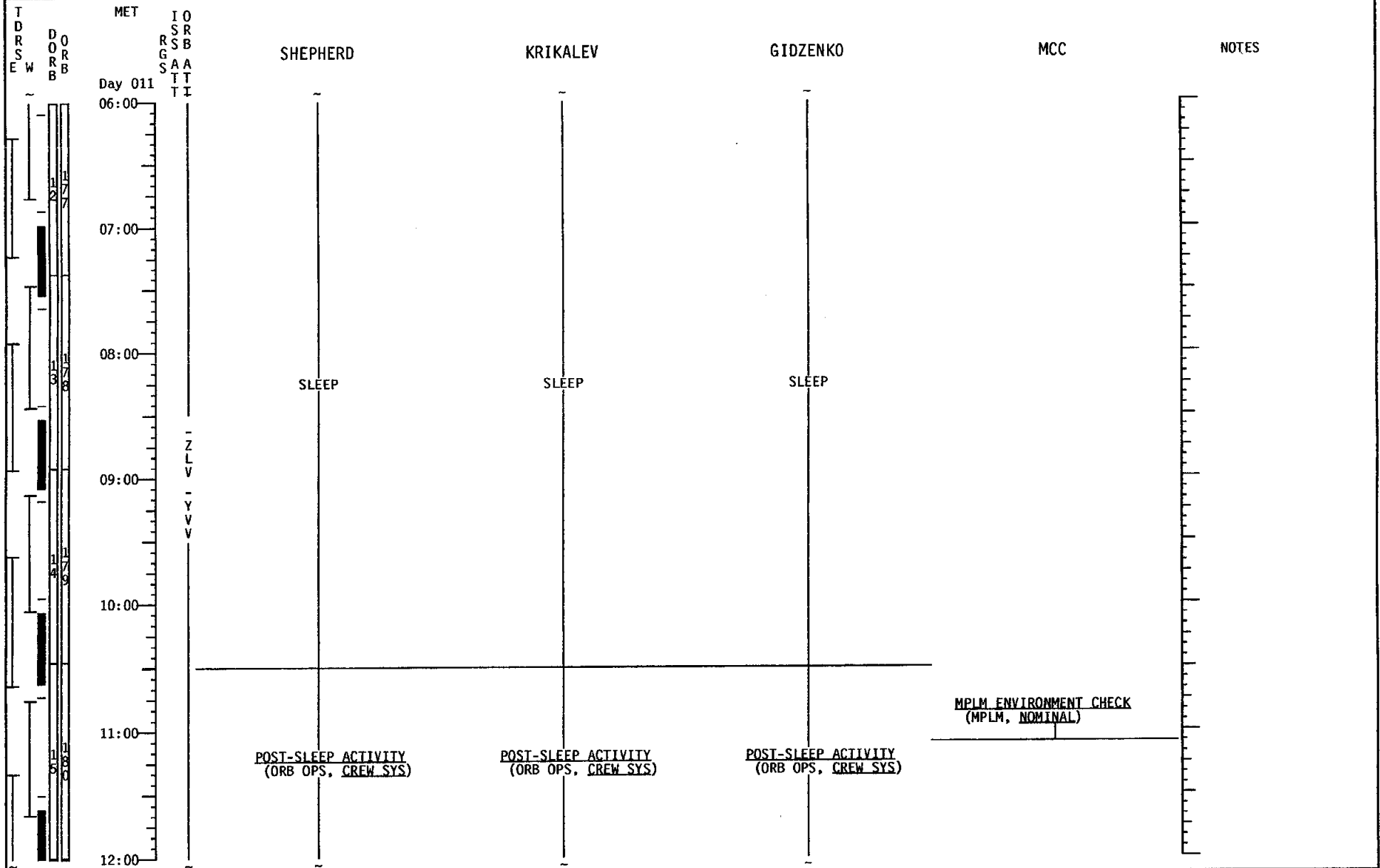
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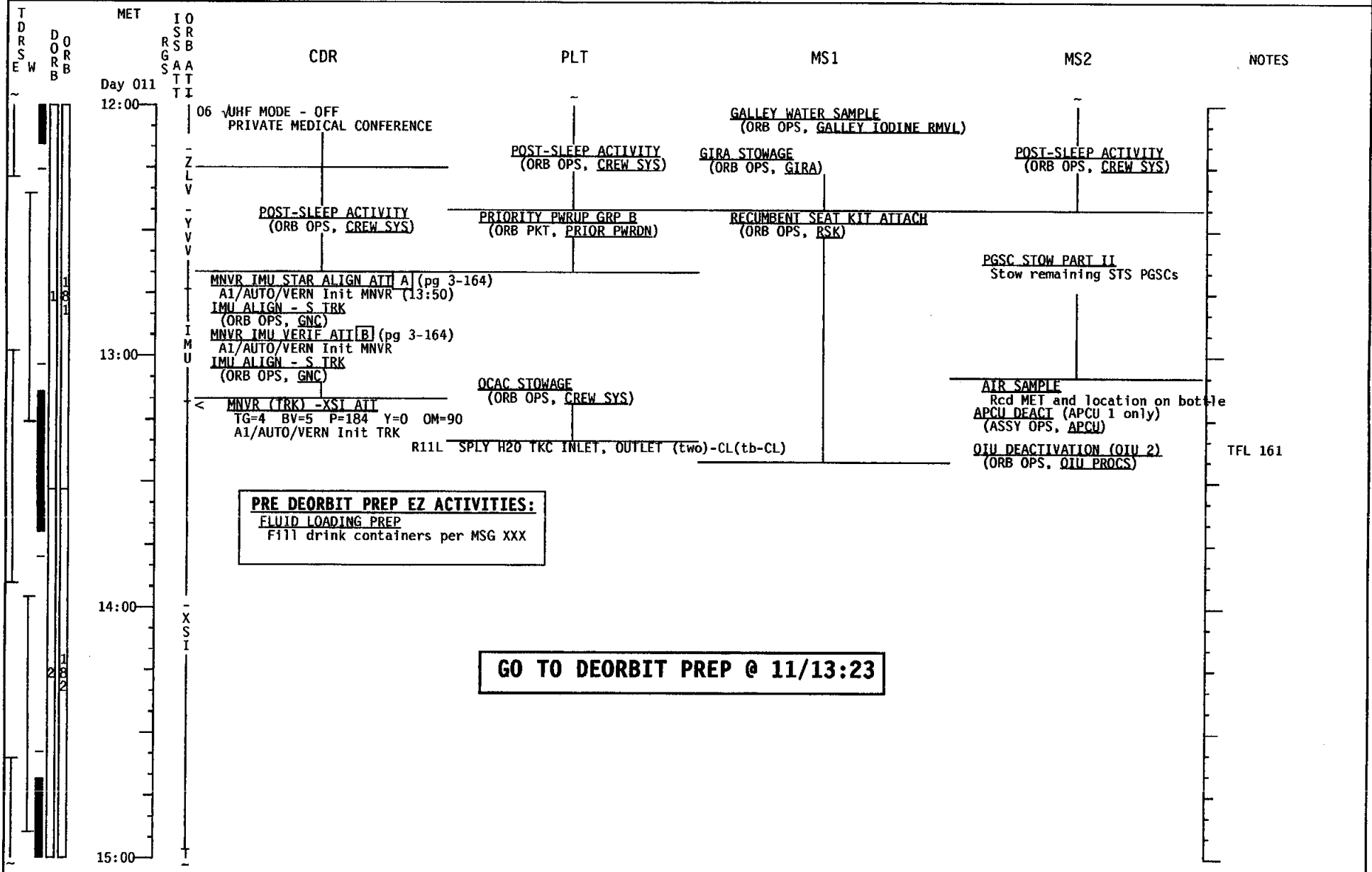
STS-102 (FD13)



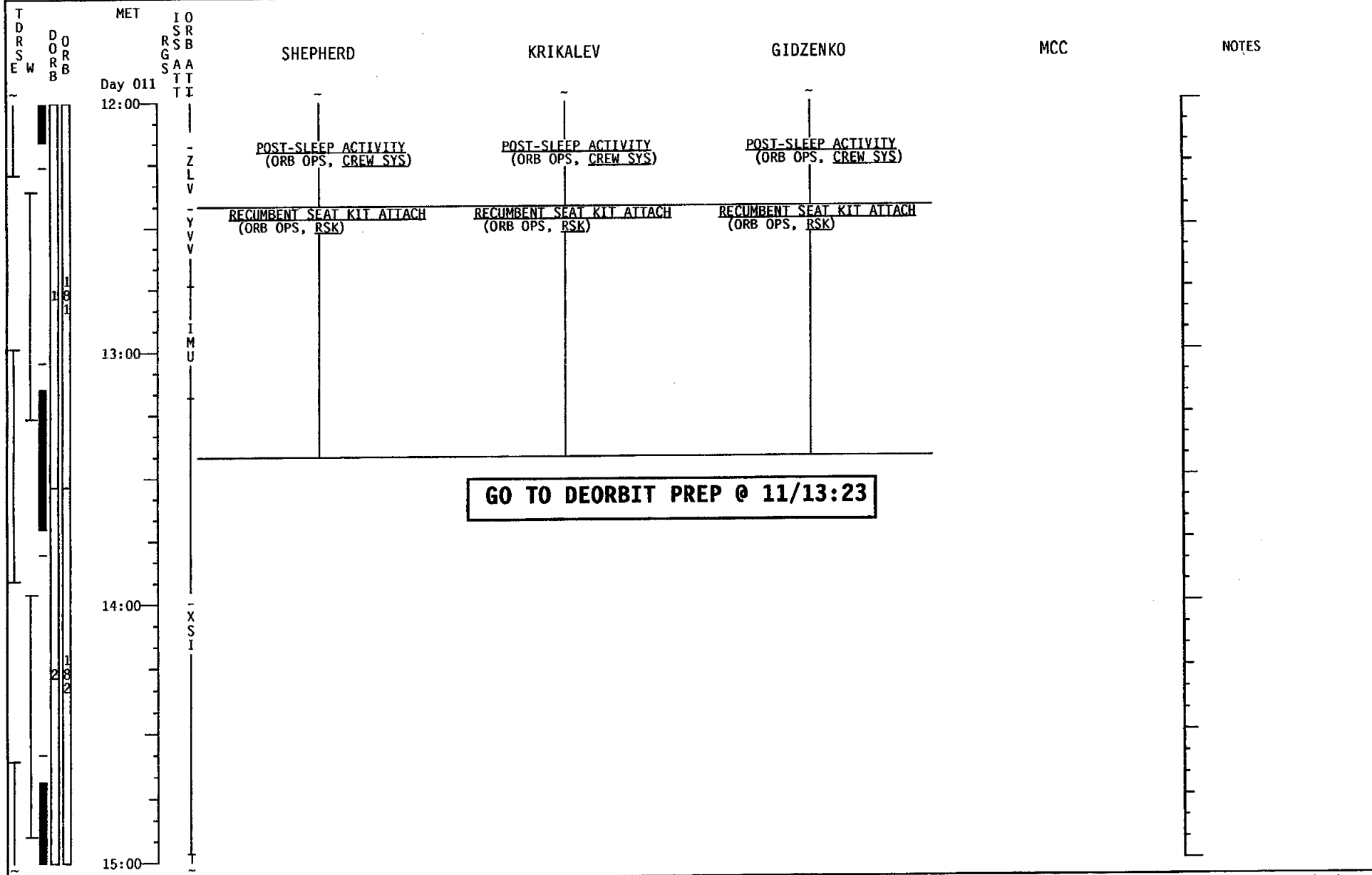
STS-102 (FD13)



STS-102 (FD13)



STS-102 (FD13)



A	IMU STAR ALIGN																		
ID: -Y: 31, CASTOR MET: 11/12:30 - 13:42																			
-Z: 12, CANOPUS MET: 11/12:42 - 13:31																			
ANG DIFF: 86.0																			
<table border="0"> <tr> <td>DUAL S TRKR</td> <td colspan="2">2nd ATTITUDE</td> </tr> <tr> <td>ALIGNMENT</td> <td colspan="2">(SINGLE S TRKR)</td> </tr> <tr> <td></td> <td>-Z: 31</td> <td>-Y: 12</td> </tr> <tr> <td>R 145</td> <td>R 61</td> <td>R 228</td> </tr> <tr> <td>P 176</td> <td>P 181</td> <td>P 161</td> </tr> <tr> <td>Y 353</td> <td>Y 339</td> <td>Y 348</td> </tr> </table>		DUAL S TRKR	2nd ATTITUDE		ALIGNMENT	(SINGLE S TRKR)			-Z: 31	-Y: 12	R 145	R 61	R 228	P 176	P 181	P 161	Y 353	Y 339	Y 348
DUAL S TRKR	2nd ATTITUDE																		
ALIGNMENT	(SINGLE S TRKR)																		
	-Z: 31	-Y: 12																	
R 145	R 61	R 228																	
P 176	P 181	P 161																	
Y 353	Y 339	Y 348																	
REQD ID:																			
-Y: __, -Z: __, ANG ERR __, __																			
ANG: 1 2 3																			
ΔX () __, __ () __, __ () __, __																			
ΔY () __, __ () __, __ () __, __																			
ΔZ () __, __ () __, __ () __, __																			
EXECUTION TIME: __/__:__:__ MET																			

B	IMU STAR VERIFICATION																		
ID: -Y: 39, ALHENA MET: 11/12:32 - 13:27																			
-Z: 47, GIENAH MET: 11/13:00 - 13:46																			
ANG DIFF: 89.9																			
<table border="0"> <tr> <td>DUAL S TRKR</td> <td colspan="2">2nd ATTITUDE</td> </tr> <tr> <td>ALIGNMENT</td> <td colspan="2">(SINGLE S TRKR)</td> </tr> <tr> <td></td> <td>-Z: 39</td> <td>-Y: 47</td> </tr> <tr> <td>R 184</td> <td>R 99</td> <td>R 269</td> </tr> <tr> <td>P 251</td> <td>P 264</td> <td>P 243</td> </tr> <tr> <td>Y 352</td> <td>Y 345</td> <td>Y 340</td> </tr> </table>		DUAL S TRKR	2nd ATTITUDE		ALIGNMENT	(SINGLE S TRKR)			-Z: 39	-Y: 47	R 184	R 99	R 269	P 251	P 264	P 243	Y 352	Y 345	Y 340
DUAL S TRKR	2nd ATTITUDE																		
ALIGNMENT	(SINGLE S TRKR)																		
	-Z: 39	-Y: 47																	
R 184	R 99	R 269																	
P 251	P 264	P 243																	
Y 352	Y 345	Y 340																	
REQD ID:																			
-Y: __, -Z: __, ANG ERR __, __																			
ANG: 1 2 3																			
ΔX () __, __ () __, __ () __, __																			
ΔY () __, __ () __, __ () __, __																			
ΔZ () __, __ () __, __ () __, __																			
If any ΔX , ΔY , or $\Delta Z > 0.1$ Check MCC																			
EXECUTION TIME: __/__:__:__ MET																			

STS-102 DAP TABLE

STS-102
DAP TABLE

**STS-102
DAP TABLE**

<u>DAP</u>	<u>PURPOSE</u>	<u>DAP</u>	<u>PURPOSE</u>
A1	- NOMINAL	B1	- OMS/RCS BURNS
A2	- PTC	B2	- LOSS OF VERN (TAIL ONLY)
A3	- GG	B3	- LOSS OF VERN (ALL)
A4	- PRE/POST DEPLOY	B4	-
A5	- LOSS OF VERN (ALL)	B5	- COAS/HUD CAL
A6	- LOSS OF VERN (TAIL ONLY)	B6	-
A7	- RNDZ	B7	- RNDZ
A8	- TERMINAL PHASE	B8	- TERMINAL PHASE
A9	- PROX OPS/FLYAROUND	B9	- PROX OPS/FLYAROUND
A10	- DOCKING	B10	- DOCKING
A11	- AUTO REBOOST	B11	-
A12	- VRCS MATED STACK	B12	- ALT MATED STACK AND RMS OPS
A13	- A/L DEPRESS ATTITUDE CONTROL	B13	- A/L DEPRESS RATE DAMPING
A14	-	B14	-
A15	- PRCS TEST (DTO 257)	B15	-

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

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

CNTL ACC = 0 UNLOADED RMS
= 1 VRCS MATED CONTROL
= 2 ALT PRCS MATED CONTROL
= 3 A/L DEPRESS VRCS MATED CONTROL
= 4 A/L DEPRESS ALT PRCS MATED CONTROL
= 5-9 NOT USED

STS-102 GENERIC DAP A CONFIGURATIONS

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

STS-102 FLT SPECIFIC DAP A CONFIGURATIONS

	ITEM #	A9	A10	A11	A12	A13	A14	A15
PRI								
ROT RATE	10(50)	0.1300	0.0500	0.2000	0.1000	0.1000	0.2000	0.1000
ATT DB	11(51)	1.00	0.50	5.00	5.00	5.00	5.00	40.00
RATE DB	12(52)	0.10	0.10	0.20	0.20	0.20	0.20	5.00
ROT PLS	13(53)	0.10	0.10	0.10	0.04	0.04	0.10	0.04
COMP	14(54)	.000	.000	.000	.000	.000	.000	.000
P OPTION	15(55)	TAIL	TAIL	ALL	TAIL	TAIL	ALL	TAIL
Y OPTION	16(56)	TAIL	TAIL	ALL	TAIL	TAIL	ALL	TAIL
TRAN PLS	17(57)	0.05	0.05	0.10	0.01	0.01	0.10	0.10
ALT								
RATE DB	18(58)	0.100	0.100	0.070	0.070	0.100	0.200	0.200
JET OPT	19(59)	TAIL	TAIL	TAIL	TAIL	TAIL	ALL	ALL
# JETS	20(60)	2	2	2	2	3	2	2
ON TIME	21(61)	0.08	0.08	0.08	0.08	0.08	0.08	0.08
DELAY	22(62)	0.00	0.00	11.76	11.04	11.04	0.00	0.00
VERN								
ROT RATE	23(63)	0.1300	0.0500	0.2000	0.1000	0.0500	0.2000	0.2000
ATT DB	24(64)	1.000	0.500	3.000	3.000	5.000	1.000	1.000
RATE DB	25(65)	.020	.020	.040	.050	.150	.020	.020
ROT PLS	26(66)	0.050	0.050	0.010	0.002	0.002	0.010	0.010
COMP	27(67)	.000	.000	.000	.000	.000	.000	.000
CNTL ACC	28(68)	0	0	1,2*	1	3,4**	0	0
PURPOSE		PROX OPS/ FLYAROUND	DOCKING	AUTO REBOOST	VRCS MATED STACK	A/L DEPRESS ATTITUDE CONTROL		PRCS TEST DTO 257

BOLD-ITALIC indicate a change from the I-load

*1 For VERN, 2 for ALT

**3 For VERN, 4 for ALT

STS-102 GENERIC DAP B CONFIGURATIONS

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

STS-102 FLT SPECIFIC DAP B CONFIGURATIONS

	ITEM #	B9	B10	B11	B12	B13	B14	B15
PRI								
ROT RATE	30(50)	0.1300	0.0500	0.5000	0.1000	0.1000	0.5000	0.5000
ATT DB	31(51)	1.00	0.50	3.00	5.00	40.00	3.00	3.00
RATE DB	32(52)	0.10	0.10	0.20	0.20	0.20	0.20	0.20
ROT PLS	33(53)	0.04	0.04	0.04	0.04	0.04	0.04	0.04
COMP	34(54)	.000	.000	.000	.000	.000	.000	.000
P OPTION	35(55)	TAIL	TAIL	ALL	TAIL	TAIL	ALL	ALL
Y OPTION	36(56)	TAIL	TAIL	ALL	TAIL	TAIL	ALL	ALL
TRAN PLS	37(57)	0.01	0.01	0.02	0.01	0.01	0.02	0.02
ALT								
RATE DB	38(58)	0.100	0.100	0.200	0.070	0.100	0.200	0.200
JET OPT	39(59)	TAIL	TAIL	ALL	TAIL	TAIL	ALL	ALL
# JETS	40(60)	2	2	2	3	3	2	2
ON TIME	41(61)	0.08	0.08	0.08	0.08	0.08	0.08	0.08
DELAY	42(62)	0.00	0.00	0.00	11.04	11.04	0.00	0.00
VERN								
ROT RATE	43(63)	0.1300	0.0500	0.2000	0.1000	0.0500	0.2000	0.2000
ATT DB	44(64)	1.000	0.500	1.000	3.000	40.000	1.000	1.000
RATE DB	45(65)	.020	.020	.020	.080	.150	.020	.020
ROT PLS	46(66)	0.020	0.020	0.002	0.002	0.002	0.002	0.002
COMP	47(67)	.000	.000	.000	.000	.000	.000	.000
CNTL ACC	48(68)	0	0	0	2	3,4*	0	0
PURPOSE		PROX OPS/ FLYAROUND	DOCKING		ALT MATED STACK AND RMS OPS	A/L DEPRESS RATE DAMPING		

BOLD-ITALIC indicate a change from I-load or prior flight DAP configuration
 *3 for VERN, 4 for ALT

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

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ATTITUDE TIMELINE

ATTITUDE
TIMELINE

Attitude Timeline

MET/GMT	MNVR OPTION	DAP	E/S	REF ATT/REMARKS	EVENT
1 000/01:00:00 MET 060/15:35:40 GMT					STS 102 Flight Launch 01 March 2001 060/14:35:40 Z
2 000/01:12:00 MET 25:21 060/15:47:40 GMT 16:01:01	TGT=2 BV=5 P=270.00 Y= 0.00 OM=270.00	A6 AUTO ALT DB AT 5.00 DB RT 0.070	RATE 0.2000 EARTH R 180 P 90	LVLH R= 0.00 P= 0.00 Y=270.00	+ZLV +YVV PLBD, SOPA When available, config A6/VERN
3 000/03:20:00 MET 28:15 060/17:55:40 GMT 18:03:55	INRTL R= 88.00 MNVR P=129.00 Y= 20.00	A1 AUTO VERN DB AT 1.000 DB RT 0.020	RATE 0.2000 SUN R 100 P 124	LVLH EQUIV R= 0.00 P= 16.00 Y= 0.00	NC-1 Posi Heads Up Dual OMS TIG 00/03:35:11
4 000/03:40:00 MET 04:28:20 060/18:15:40 GMT 19:04:00	TGT=2 BV=3 P= 90.00 Y= 0.00 OM= 0.00	A6 AUTO VERN DB AT 1.000 DB RT 0.020	RATE 0.0500 EARTH R 360 P 90	LVLH R= 0.00 P=180.00 Y= 0.00	-ZLV -XVV Crew Sleep
5 000/15:55:00 MET 16:09:59 061/06:30:40 GMT 45:39	INRTL R= 89.00 MNVR P=309.00 Y= 8.00	A1 AUTO VERN DB AT 1.000 DB RT 0.020	RATE 0.2000 SUN R 247 P 63	LVLH EQUIV R=180.00 P=348.00 Y= 0.00	NC-2 Posi Heads Down RCS TIG 00/16:12:50
6 000/16:15:00 MET 17:14:56 061/06:50:40 GMT 07:50:36	TGT=2 BV=3 P= 90.00 Y= 0.00 OM= 0.00	A6 AUTO VERN DB AT 1.000 DB RT 0.020	RATE 0.0500 EARTH R 0 P 90	LVLH R= 0.00 P=180.00 Y= 0.00	-ZLV -XVV
7 000/21:45:24 MET 061/12:21:04 GMT					NPC Multi-axis RCS TIG 00/21:45:24
8 001/02:00:00 MET 11:12 061/16:35:40 GMT 46:52	INRTL R= 98.00 MNVR P=137.00 Y=287.00	A1 AUTO VERN DB AT 1.000 DB RT 0.020	RATE 0.2000 SUN R 124 P 84	LVLH EQUIV R=180.00 P=348.00 Y= 0.00	NC-3 / NH Posi Heads Down Dual OMS TIG 01/02:15:20
9 001/02:20:00 MET 03:08:15 061/16:55:40 GMT 17:43:55	TGT=2 BV=3 P= 90.00 Y= 0.00 OM= 0.00	A6 AUTO VERN DB AT 1.000 DB RT 0.020	RATE 0.0500 EARTH R 360 P 90	LVLH R= 0.00 P=180.00 Y= 0.00	-ZLV -XVV Crew Sleep
10 001/11:00:00 MET 15:00 062/01:35:40 GMT 50:40	TGT=2 BV=5 P=270.00 Y= 0.00 OM=270.00	A1 AUTO VERN DB AT 1.000 DB RT 0.020	RATE 0.2000 EARTH R 180 P 90	LVLH R= 0.00 P= 0.00 Y=270.00	+ZLV +YVV Water Dump SOPA
11 001/13:20:00 MET 28:05 062/03:55:40 GMT 04:03:45	INRTL R=259.00 MNVR P=319.00 Y= 67.00	A7 AUTO ALT DB AT 2.00 DB RT 0.100	RATE 0.2000 SUN R 57 P 91	LVLH EQUIV R= 0.00 P= 16.00 Y= 0.00	NC-4 Posi Heads Up Dual OMS TIG 01/13:34:34
12 001/13:38:00 MET 41:59 062/04:13:40 GMT 17:39	TGT=2 BV=1 P= 0.00 Y= 0.00 OM= 0.00 WIA A7/VERN	B7 AUTO ALT DB AT 2.00 DB RT 0.100	RATE 0.5000 EARTH R 243 P 0	LVLH R= 0.00 P=270.00 Y= 0.00	-Z Target Track

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

Attitude Timeline

MET/GMT		MNVR OPTION	DAP		E/S	REF ATT/REMARKS	EVENT
13	001/13:49:00 MET 14:20:15	TGT=2 BV=5 P=345.00 Y= 0.00 OM= 0.00	A7 AUTO VERN	RATE 0.0080 DB AT 1.000 DB RT 0.020	EARTH R 180 P 15	LVLH R= 0.00 P=285.00 Y= 0.00	-Z Target Track
	062/04:24:40 GMT 55:55						
14	001/14:21:00 MET 41:50	TGT=2 BV=1 P= 0.00 Y= 0.00 OM= 0.00	A7 AUTO VERN	RATE 0.0120 DB AT 1.000 DB RT 0.020	EARTH R 39 P 0	LVLH R= 0.00 P=270.00 Y= 0.00	-Z Target Track
	062/04:56:40 GMT 05:17:30						
15	001/14:55:00 MET 59:47	INRTL R=257.00 MNVR P=321.00 Y= 69.00	A7 AUTO ALT	RATE 0.2000 DB AT 2.00 DB RT 0.100	SUN R 57 P 92	LVLH EQUIV R= 0.00 P= 16.00 Y= 0.00	TI Posi Heads Up Dual OMS TIG 01/15:07:27
	062/05:30:40 GMT 35:27						
16	001/15:10:00 MET 13:32	TGT=2 BV=5 P=350.00 Y= 0.00 OM= 0.00	B7 AUTO ALT	RATE 0.5000 DB AT 2.00 DB RT 0.100	EARTH R 180 P 10	LVLH R= 0.00 P=280.00 Y= 0.00	-Z Target Track
	062/05:45:40 GMT 49:12						
17	001/15:16:00 MET 16:25:27	TGT=2 BV=5 P=300.00 Y= 0.00 OM= 0.00	A7 AUTO VERN	RATE 0.0120 DB AT 1.000 DB RT 0.020	EARTH R 180 P 60	LVLH R= 0.00 P=330.00 Y= 0.00	-Z Target Track
	062/05:51:40 GMT 07:01:07						
18	001/16:26:00 MET 36:00	TGT=2 BV=5 P=270.00 Y= 0.00 OM= 0.00	A8 AUTO VERN	RATE 0.0500 DB AT 1.000 DB RT 0.020	EARTH R 180 P 90	LVLH R= 0.00 P= 0.00 Y= 0.00	+ZLV +XVV Establish RBAR after MC4
	062/07:01:40 GMT 11:40						
19	001/16:38:00 MET 49:32	TGT=2 BV=2 P=180.00 Y= 0.00 OM= 0.00	A9 AUTO PRI	RATE 0.1300 DB AT 1.00 DB RT 0.10	EARTH R 302 P 180	LVLH R= 0.00 P= 90.00 Y= 0.00	Rbar on to Vbar
	062/07:13:40 GMT 25:12						
20	001/17:24:00 MET	FREE DRIFT					Dock
	062/07:59:40 GMT	Config DAP:A12 for Att Cntl					
21	001/17:45:00 MET 49:10	TGT=2 BV=5 P=155.00 Y= 0.00 OM= 0.00	A12 AUTO VERN	RATE 0.1000 DB AT 3.000 DB RT 0.050	EARTH R 0 P 155	LVLH R= 0.00 P=115.00 Y= 0.00	BIAS -XLV +ZVV LVLH TEA
	062/08:20:40 GMT 24:50						
22	001/17:50:00 MET						HO ORB to ISS
	062/08:25:40 GMT						
23	005/13:35:00 MET						HO ISS to ORB
	066/04:10:40 GMT						
24	005/13:45:00 MET 14:00:00	TGT=2 BV=5 P=155.00 Y= 0.00 OM=270.00	A12 AUTO VERN	RATE 0.1000 DB AT 3.000 DB RT 0.050	EARTH R 360 P 155	LVLH R= 90.00 P= 90.00 Y= 25.00	BIAS -XLV +YVV Water Dump SOPA
	066/04:20:40 GMT 35:40						

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

Attitude Timeline

MET/GMT	MNVR OPTION	DAF	E/S	REF ATT/REMARKS	EVENT	
25 005/15:15:00 MET 066/05:50:40 GMT					DTO 257 FREE DRIFT	
26 005/15:45:00 MET 066/06:20:40 GMT					DTO 263 FREE DRIFT	
27 005/16:00:00 MET 15:00 066/06:35:40 GMT 50:40	TGT=2 BV=5 P=155.00 Y= 0.00 OM= 0.00	A12 AUTO VERN	RATE 0.1000 DB AT 3.000 DB RT 0.050	EARTH R 0 P 155	LVLH R= 0.00 P=115.00 Y= 0.00	BIAS -XLV +ZVV LVLH TEA
28 005/16:15:00 MET 066/06:50:40 GMT					HO ORB to ISS	
29 007/15:00:00 MET 068/05:35:40 GMT					HO ISS to ORB	
30 007/15:10:00 MET 33:50 068/05:45:40 GMT 06:09:30	TGT=2 BV=5 P=298.00 Y= 0.00 OM= 0.00	A12 AUTO VERN	RATE 0.1000 DB AT 3.000 DB RT 0.050	EARTH R 180 P 62	LVLH R= 0.00 P=332.00 Y= 0.00	BIAS +ZLV +XVV +X VRCS Reboost
31 007/16:25:00 MET 48:50 068/07:00:40 GMT 24:30	TGT=2 BV=5 P=155.00 Y= 0.00 OM= 0.00	A12 AUTO VERN	RATE 0.1000 DB AT 3.000 DB RT 0.050	EARTH R 0 P 155	LVLH R= 0.00 P=115.00 Y= 0.00	BIAS -XLV +ZVV LVLH TEA
32 007/16:40:00 MET 068/07:15:40 GMT					HO ORB to ISS	
33 008/23:20:00 MET 069/13:55:40 GMT					HO ISS to ORB	
34 008/23:30:00 MET 45:00 069/14:05:40 GMT 20:40	TGT=2 BV=5 P=155.00 Y= 0.00 OM=270.00	A12 AUTO VERN	RATE 0.1000 DB AT 3.000 DB RT 0.050	EARTH R 360 P 155	LVLH R= 90.00 P= 90.00 Y= 25.00	BIAS -XLV +YVV Water Dump SOPA
35 009/00:50:00 MET 01:05:00 069/15:25:40 GMT 40:40	TGT=2 BV=5 P=155.00 Y= 0.00 OM= 0.00	A12 AUTO VERN	RATE 0.1000 DB AT 3.000 DB RT 0.050	EARTH R 0 P 155	LVLH R= 0.00 P=115.00 Y= 0.00	BIAS -XLV +ZVV LVLH TEA
36 009/01:05:00 MET 069/15:40:40 GMT					HO ORB to ISS	

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

Attitude Timeline

MET/GMT	MNVR OPTION	DAP	E/S	REF ATT/REMARKS	EVENT
37 009/15:35:00 MET 070/06:10:40 GMT					HO ISS to ORB
38 009/15:45:00 MET 49:10 070/06:20:40 GMT 24:50	TGT=2 BV=2 P=180.00 Y= 0.00 OM= 0.00	A12 AUTO VERN RATE 0.1000 DB AT 3.000 DB RT 0.050	EARTH R 347 P 180	LVLH R= 0.00 P= 90.00 Y= 0.00	-XLV +ZVV Undock attitude
39 009/16:49:00 MET 070/07:24:40 GMT	FREE DRIFT				Undock
40 009/16:50:00 MET 070/07:25:40 GMT	TGT=2 BV=2 P=180.00 Y= 0.00 OM= 0.00	A9 AUTO VERN RATE 0.1300 DB AT 1.000 DB RT 0.020	EARTH R 52 P 180	LVLH R= 0.00 P= 90.00 Y= 0.00	Move Away Track Config DAP:A9 at 400 ft
41 009/17:01:00 MET 070/07:36:40 GMT	LVLH FREE ROTATION ROTR ABOUT +Y AXIS RATE=0.130	A9 LVLH VERN RATE 0.1300 DB AT 1.000 DB RT 0.020		LVLH R= 0.00 P= 90.00 Y= 0.00	Flyaround
42 009/17:58:30 MET 070/08:34:10 GMT		A9 LVLH VERN RATE 0.1300 DB AT 1.000 DB RT 0.020	EARTH R 0 P 92	LVLH R= 0.00 HOLD P=178.50 Y= 0.00	Final Sep Retro Heads Dwn +X RCS TIG SS - lmin
43 009/18:05:00 MET 19:04:33 070/08:40:40 GMT 09:40:13	TGT=2 BV=5 P=270.00 Y= 0.00 OM=310.00	A6 AUTO VERN RATE 0.0500 DB AT 1.000 DB RT 0.020	EARTH R 180 P 90	LVLH R= 0.00 P= 0.00 Y=310.00	Bias +ZLV +YVV Water Dump in C SOPA
44 009/20:15:00 MET 21:15:00 070/10:50:40 GMT 11:50:40	TGT=2 BV=3 P= 90.00 Y= 0.00 OM= 0.00	A6 AUTO VERN RATE 0.0500 DB AT 1.000 DB RT 0.020	EARTH R 360 P 90	LVLH R= 0.00 P=180.00 Y= 0.00	-ZLV -XVV
45 010/14:45:00 MET 071/05:20:40 GMT		A1 INRT PRI RATE 0.2000 DB AT 5.00 DB RT 0.20	SUN R 109 P 140	INRTL R=133.80 HOLD P=166.48 Y=331.37	FCS Checkout RCS Hotfire
46 010/15:55:00 MET 16:24:14 071/06:30:40 GMT 59:54	TGT=2 BV=3 P= 90.00 Y= 0.00 OM= 0.00	A6 AUTO VERN RATE 0.0500 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
47 011/02:00:00 MET 30:00 071/16:35:40 GMT 17:05:40	TGT=2 BV=3 P= 90.00 Y= 0.00 OM= 90.00	A6 AUTO VERN RATE 0.0500 DB AT 1.000 DB RT 0.020	EARTH R 0 P 90	LVLH R= 0.00 P=180.00 Y=270.00	-ZLV -YVV Thermal
48 011/12:44:00 MET 53:31 072/03:19:40 GMT 29:11	INRTL R=145.00 MNVR P=176.00 Y=353.00	A1 AUTO VERN RATE 0.2000 DB AT 1.000 DB RT 0.020	SUN R 98 P 164	-Y:31 12:30 13:42 -Z:12 12:42 13:31	IMU ALIGN

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

Attitude Timeline

MET/GMT	MNVR OPTION	DAF	E/S	REF ATT/REMARKS	EVENT	
49						
011/12:59:00 MET	INRTL R=184.00	A1	RATE 0.2000	SUN	-Y:39 12:32	VERIFICATION
13:05:33	MNVR P=251.00	AUTO	DB AT 1.000	R 165	13:27	
	Y=352.00	VERN	DB RT 0.020	P 111	13:00	
072/03:34:40 GMT					13:46	
41:13						
50						
011/13:11:00 MET	TGT=4 RA= 352.584	A1	RATE 0.2000	SUN	INRTL R= 44.39	-XSI
23:08	BV=5 DEC= -3.202S	AUTO	DB AT 1.000	R 180	P=180.35	
	P=184.00	VERN	DB RT 0.020	P 176	Y= 4.61	
072/03:46:40 GMT	Y= 0.00					
58:48	OM= 90.00					
51						
011/14:58:00 MET	INRTL R=266.00	A1	RATE 0.2000	SUN		COMM
15:09:27	MNVR P=213.00	AUTO	DB AT 1.000	R 90		
	Y= 6.00	VERN	DB RT 0.020	P 150		
072/05:33:40 GMT						
45:07						
52						
011/17:05:00 MET	INRTL R=261.00	TRN	RATE 0.5000	SUN	LVLH EQUIV	D/O Burn Retro Head Down Dual OMS TIG 11/17:23:00
08:38	MNVR P=316.00	AUTO	DB AT 3.50	R 58	R= 0.00	
	Y= 57.00	PRI	DB RT 0.20	P 75	P=196.00	
072/07:40:40 GMT					Y= 0.00	
44:18						

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

ISS SHORT TERM PLAN

THE ISS CREW AND GROUND ACTIVITIES ARE PUBLISHED FOR INFORMATION
ONLY, AND ARE NOT UNDER CONFIGURATION CONTROL

ISS SHORT TERM PLAN

GMT	MET		DOY	BETA		HOUSTON DATE			
62/02:35 62/14:35	001/12:00 002/00:00		62 GMT	-56.73		02 Mar 2001			

GMT	03/03/01	03	04	05	06	07	08	09	10	11	12	13	14	002/00
MET	Day 001	12	13	14	15	16	17	18	19	20	21	22	23	

STS-102	CDR/PLT	GPR RPR BUP	ISS RNDZ										APPROACH	HARD MATE	PTV21 S/U (ISS)	SFTY BRIEF	XFER MDDK			INTRM EGRSS	PREP	10.2 DPRS	CNF G								
	MS1	CSE ONT DUP	COI NLD	ISS RNDZ										APPROACH	HARD MATE	HT2 ORM	SFTY BRIEF	XFER MDDK			XFER TAGUP	EMU INST	RMS SHT								
	MS2	PSO LSE TEP	ISS RNDZ										APPROACH	HARD MATE	RMS PGSC CNFG	SFTY BRIEF	XFER MDDK			PIN BIT	EMU INST	PT BRM									
	FE-2 Helms	POST SLEEP	•	▽	◇	*	RENDEZVOUS										APPROACH	HARD MATE	•	⊕	HANDOVER			♥	Δ	▲					
	FE-1 Voss	POST SLEEP	φ	•	▽		RENDEZVOUS										APPROACH	HARD MATE	◇	*	•	HANDOVER			⊕	♥					
	ISS CDR Usachev	POST SLEEP	Δ				RENDEZVOUS										APPROACH	HARD MATE	φ	•	IELK INST & C/O			▽	HANDOVER						
ISS	ISS CDR-1 Shepherd	◇	POSTSLEEP-ISS			DPC	SAFER C/O	*	EXERCISE			*	RENDEZVOUS										APPROACH	HARD MATE	⊕	HANDOVER			♦	HANDOVER	
	ISS PLT-1 Gidzenko	⊕	POSTSLEEP-ISS			DPC	SAFER C/O		EXERCISE				RENDEZVOUS										APPROACH	HARD MATE	Δ	IELK INST & C/O					
	FE-1-INC1 Krikalev	▲	POSTSLEEP-ISS			DPC	φ		EXERCISE				RENDEZVOUS										APPROACH	HARD MATE	•	XFER (MDDK) FD03			▽	◇	*

DAY/NIGHT	ORBIT	25	26	27	28	29	30	31	32
DAILY ORBIT		14	15	16	1	2	3	4	5

TDRS	47	174	275
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NOTES	◊SLEEP-ISS ⊕SLEEP-ISS ▲SLEEP-ISS	•PGT CHECKOUT ◊MIDDECK PREP ◊EMU REMOVAL *SHUTTLE PCS SETUP φPGT CHECKOUT •MIDDECK PREP ◊VEMU REMOVAL ΔSHUTTLE VHF S/U	▲STS/ISS-VHF-CHECK *STS/ISS-VHF-CHECK ◊ECLSS-PMA2 DK-PREP 6-2A	▲ACS-PMA2-ARVL-CNFG ◊ECLSS-POST DK-LK CK ◊IELK TRANSFER PREP ◊ECLSS-POST DK-LK CK *MET 01/17:24	▲ODS PREP FOR INGRESS ◊STS/ISS-HATCH-OPEN ◊ASPIRIN *ODS PREP FOR INGRESS ◊STS/ISS-HATCH-OPEN ▲ASPIRIN •SAFETY BRIEF ⊕SAFETY BRIEF ▲SAFETY BRIEF	◊MASK P/B INIT ⊕MASK P/B INIT ▼IELK TEMP STOW ▲ISS INTERIM EGRESS ▼TRANSFER TAGUP ◊ISS INTERIM EGRESS *IMAX-FILM-LOAD	ΔP/TV18 SETL ▲MASK P/ ▼MASK P/ ▲ISS INTERIM EGRESS ▼TRANSFER TAGUP ◊ISS INTERIM EGRESS *IMAX-FILM-LOAD
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GMT	MET		DOY	BETA		HOUSTON DATE		
62/14:35 63/02:35	002/00:00 002/12:00		62 GMT	-57.29		03 Mar 2001		

GMT 03/03/01 15 16 17 18 19 20 21 22 23 03/04 01 02
MET Day 002 002/00 01 02 03 04 05 06 07 08 09 10 11 12

S T S - 1 0 2	CDR/PLT	EVA PROC REWV	PMC OCA	PRE SLEEP	1 0 - 2 M	SLEEP
	MS1	EVA PROC REWV	PRE SLEEP			SLEEP
	MS2	EVA PROC REWV		PRE SLEEP		SLEEP
	FE-2 Helms	EVA PROC REWV		PRE SLEEP		SLEEP
	FE-1 Voss	EVA PROC REWV		PRE SLEEP		SLEEP
	ISS PLT-1 Gidzenko	EXERCISE		PRE SLEEP		SLEEP
I S S	ISS CDR-1 Shepherd	HANDOVER	DAR	PRESLEEP-ISS		SLEEP-ISS
	ISS CDR Usachev	HANDOVER	DAR	PRESLEEP-ISS		SLEEP-ISS
	FE-1-INC1 Krikalev		DAR	PRESLEEP-ISS		SLEEP-ISS

DAY/NIGHT	[Bar chart showing day/night cycle]												
ORBIT	33	34	35	36	37	38	39	40					
DAILY ORBIT	6	7	8	9	10	11	12	13					
TDRS	47	174	275										

NOTES 6-3A

FLT PLAN/102/FIN 01/26/01

GMT	MET	DOY	BETA	HOUSTON DATE
63/02:35 63/14:35	002/12:00 003/00:00	63 GMT	-57.64	03 Mar 2001

GMT 03/04/01 03 04 05 06 07 08 09 10 11 12 13 14 003/00
MET Day 002 12 13 14 15 16 17 18 19 20 21 22 23

STS-102	CDR/PLT	POST SLEEP	PMC OCA	POST SLEEP	HT 2 OR M	EXERCISE	14.7 REPRS	HT 2 OR M	PTV06 S/U (OSVS)	N1 NDR CBM DMTE PMA3	MNVR TO PRE INSTL					
	MS1	POST SLEEP - GIRA		POST SLEEP	EXERCISE	EVA RMS SUPPORT						GRA PL	P U M N A I N S	MNVR TO PRE INSTL		
	MS2	POST SLEEP	EVA PREP SUPPORT				IVA SUPPORT						SET UP			
	FE-2 Helms	POST SLEEP	EVA PREP	EMU PURGE P/B	D P P R S	E G R S	E S E V A T U P	PMA3 UMBILICALS	RMV ECOMM	LCA TRANSFER	T H R	RU REMOVE INST	RU CONNECT	EVA CLEAN UP	I N G R S	
	FE-1 Voss	POST SLEEP	EVA PREP	EMU PURGE P/B	D P P R S	E G R S	E S E V A T U P	PMA3 UMBILICALS	LCA PREP	LCA TRANSFER	T H R	RU REMOVE INST	RU CONNECT	EVA CLEAN UP	I N G R S	
	ISS PLT-1 Gidzenko	POST SLEEP		EXERCISE	MEAL				EXERCISE							
ISS	ISS CDR-1 Shepherd	POSTSLEEP-ISS	DPC	EXERCISE	♣	LAB FWD NPRV/IMV RP	HANDOVER	CBM-LAB FWD CPA-RMVL	⊕	MEAL	HANDOVER					
	ISS CDR Usachev	POSTSLEEP-ISS	DPC	HANDOVER	♣	LAB FWD NPRV/IMV RP	⊗	♥	HANDOVER	CBM-LAB FWD CPA-RMVL	Δ	MEAL	HANDOVER			
	FE-1-INC1 Krikalev	POSTSLEEP-ISS	DPC	HANDOVER	φ	EXERCISE	MEAL				HANDOVER	EXERCISE	♣			

DAY/NIGHT	[Day/Night Cycle]																	
ORBIT	40	41	42	43	44	45	46	47	48	40	41	42	43	44	45	46	47	48
DAILY ORBIT	13	14	15	1	2	3	4	5	6	13	14	15	1	2	3	4	5	6
TDRS	47	174	275															

NOTES

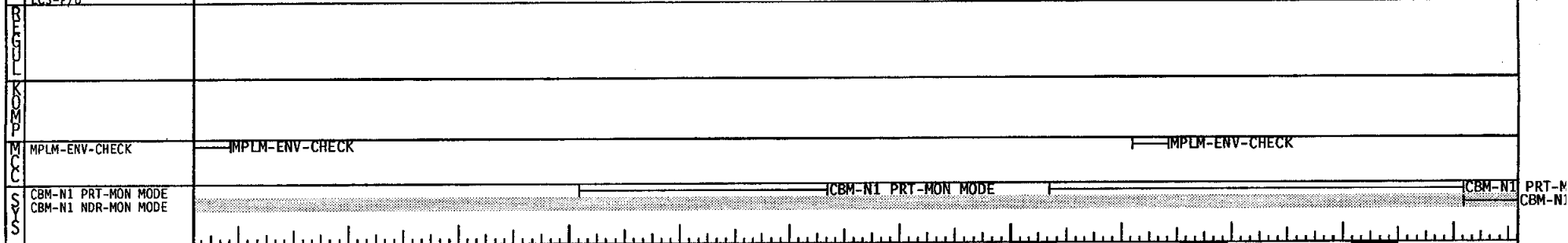
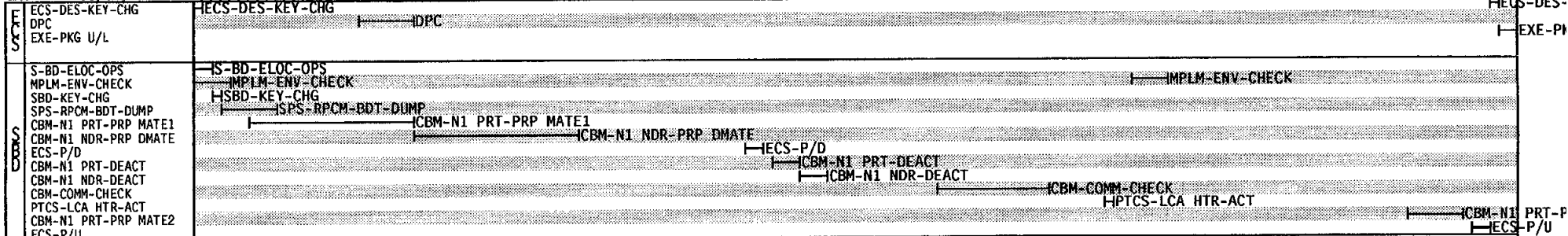
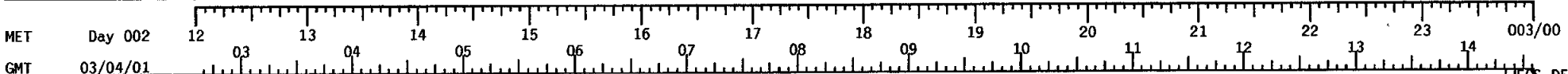
♣LAB FWD PPRV/MPEV RP ⊗NPRV CAP INSTALL ⊕LAB FWD-GRD STRP INS ♣HANDOVER
♣LAB FWD PPRV/MPEV RP ♥IMV DUCTING ΔLAB FWD-GRD STRP INS

φIMAX-LIGHTING-S/U

6-4A

FLT PLAN/102/FIN 01/26/01

GMT	MET	DOY	BETA	HOUSTON DATE
63/02:35	002/12:00	63 GMT	-57.64	03 Mar 2001
63/14:35	003/00:00			



DAY/NIGHT	40	41	42	43	44	45	46	47	48
ORBIT	13	14	15	1	2	3	4	5	6
DAILY ORBIT									

ISS ATT BIAS +XVV +ZLV

STS ATT BIAS -XLV +ZVV

TDRS 47
174
275

RS GND SITE

--PPK --DJS --DJS --DJS --DJS --DJS --DJS
 --ULD --KLP --KLP --KLP --KLP --SHK --SHK
 --USK --PPK --ULD --USK --SPB --SPB --SPB
 --USK --SPB --SPB
 --ULD
 --USK

Notes

GMT	MET		DOY	BETA		HOUSTON DATE		
63/14:35	003/00:00		63 GMT	-57.73		04 Mar 2001		
64/02:35	003/12:00							

GMT 03/04/01 15 16 17 18 19 20 21 22 23 03/05 01 02 12
MET Day 003 003/00 01 02 03 04 05 06 07 08 09 10 11 12

STS-102	CDR/PLT	MNVR TO RTL	ILS 2 NA Q 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56	PRE SLEEP	PMC OCA	PRE SLEEP	SLEEP		
	MS1	MNVR TO RTL	ILS 2 NA Q 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56	PRE SLEEP	EMU RMVL	PRE SLEEP - GIRA	SLEEP		
	MS2	IVA SUPPORT	ILS 2 NA Q 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56	POST EVA	EMU RMVL	PRE SLEEP	SLEEP		
	FE-2 Helms	RPRS	ILS 2 NA Q 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56	POST EVA		PRE SLEEP	SLEEP		
	FE-1 Voss	RPRS	ILS 2 NA Q 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56	POST EVA		PRE SLEEP	SLEEP		
	ISS PLT-1 Gidzenko		ILS 2 NA Q 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56			PRE SLEEP	SLEEP		
ISS	ISS CDR-1 Shepherd	HANDOVER	ILS 2 NA Q 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56	EXERCISE		PRESLEEP-ISS	SLEEP-ISS		
	ISS CDR Usachev	HANDOVER	ILS 2 NA Q 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56			PRESLEEP-ISS	SLEEP-ISS		
	FE-1-INC1 Krikalev	HANDOVER	ILS 2 NA Q 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56			PRESLEEP-ISS	SLEEP-ISS		
DAY/NIGHT		ILS 2 NA Q 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56							
ORBIT	48	49	50	51	52	53	54	55	56
DAILY ORBIT	6	7	8	9	10	11	12	13	14
TDRS	47	174	275						
NOTES	6-5A								

GMT	MET	DOY	BETA	HOUSTON DATE
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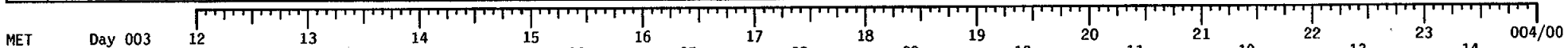
GMT	03/05/01	03	04	05	06	07	08	09	10	11	12	13	14	004/00
MET	Day 003	12	13	14	15	16	17	18	19	20	21	22	23	

STS-102	CDR/PLT	POST SLEEP		IELK	INGRS	GRAPL	MNPLMTH			UNGRP	RMWRDN	MEAL		TEST	PEAVEN	HTORM	INTRM	PREP	10.2	CNS	
	MS1	RMS*	POST SLEEP	INGRS	SE/O	GRAPL	MNPLMTH	MNVR TO PRE INSTL	MNVR TO RTL	TEST	BRKKE	UNGRP	HELM	MEAL	EMU INSTL/RESIZE	EMU C/O (3RD EMU)	P/NBIT	EVA TOOL	CONFG	PT/BRM	
	MS2	POST SLEEP				RDOME	UTE				12ND	ABCOLTS	HELM*	MEAL	EMU INSTL/RESIZE	EMU C/O (3RD EMU)		EVA TOOL	CONFG		
	FE-2 Helms	POST SLEEP		ASPRN	INGRS	HAND OVER	EXERCISE	HANDOVER					HELM*	MEAL	SWAP	EMU C/O (3RD EMU)	RCBOA	P/NBIT	EVA TOOL	CONFG	PT/BRM
	FE-1 Voss	POST SLEEP		ASPRN	IERLEK	IELK INST & C/O		MPLM INGRS/S/U	CBCS CAMRA RMV	MEAL	VEST PRESS	VESTIBULE	OUTFITTING	MPLM ACT PT I (APCU)	INTRM	EGRSS	MPLM ACT PART 2				
	ISS PLT-1 Gidzenko	POST SLEEP				HAND OVER	EXERCISE	HANDOVER			MEAL			EXERCISE							
ISS	ISS CDR-1 Shepherd	POSTSLEEP-ISS	DPC	EXERCISE	•	▽	◇	HANDOVER	XFER (MDDK) FD05	MEAL	N1/MPLM VEST PRESS	N1/MPLM VEST-OUTFIT									
	ISS CDR Usachev	POSTSLEEP-ISS	DPC	*	*	EXERCISE	HANDOVER	⊕	•	MEAL	N1/MPLM VEST PRESS	N1/MPLM VEST-OUTFIT									
	FE-1-INC1 Krikalev	POSTSLEEP-ISS	DPC	IELK INST & C/O		⊙	RACK-XFER-PREP		MEAL			EXERCISE									

DAY/NIGHT	[Pattern of Day/Night blocks]													
ORBIT	56	57	58	59	60	61	62	63	64					
DAILY ORBIT	14	15	1	2	3	4	5	6	7					
TDRS	47	174	275											

NOTES	<p>*DUAL HTR ACT •IMAX-FILM-LOAD ⊙MPLM-PRE INGR-S/U</p> <p> ▽IMAX-LIGHTING-S/U ⊕CBCS-CAMERA-REMOVE</p> <p> ⊙EDUC METAB WATERING *HELM BATT TERM</p> <p>*CBCS-CAMERA-PWRUP ⊙IELK TEMP STOW</p> <p>*ISS INTERM INGRESS</p> <p>6-6A</p>													
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GMT	MET	DOY	BETA	HOUSTON DATE
64/02:35	003/12:00	64 GMT	-57.65	04 Mar 2001
64/14:35	004/00:00			



S	ECS-DES-KEY-CHG DPC EXE-PKG U/L	ECS-DES-KEY-CHG DPC EXE-PKG U/L
	S-BD-ELOC-OPS SBD-KEY-CHG SPS-RPCM-BDT-DUMP GNC-MP-U/L GNC-MP-INC 1553-MDM-MCA PPL U/L CBM-N1 NDR BLT-LOAD	S-BD-ELOC-OPS SBD-KEY-CHG ISPS-RPCM-BDT-DUMP GNC-MP-U/L GNC-MP-INC 1553-MDM-MCA PPL U/L CBM-N1 NDR BLT-LOAD
M	DPC GNC-MP-U/L	DPC GNC-MP-U/L

DAY/NIGHT	56	57	58	59	60	61	62	63	64
ORBIT									
DAILY ORBIT	14	15	1	2	3	4	5	6	7

ISS ATT BIAS +XVV +ZLV

STS ATT BIAS -XLV +ZVV

TDRS	47 174 275
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RS GND SITE	-DJS -KLP -PPK -ULD -USK	-DJS -KLP -ULD -USK	-DJS -KLP -SHK -ULD -USK	-DJS -KLP -SHK -SPB -ULD	-DJS -KLP -SHK -SPB	-DJS -SHK -SPB
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Notes

GMT	MET		DOY	BETA		HOUSTON DATE		
64/14:35	004/00:00		64 GMT	-57.28		05 Mar 2001		
65/02:35	004/12:00							

GMT 03/05/01 15 16 17 18 19 20 21 22 23 03/06 01 02
MET Day 004 004/00 01 02 03 04 05 06 07 08 09 10 11 12

S T S - 1 0 2	CDR/PLT	EXERCISE	HT 2 0 R M	EVA PROC REVW	PRE SLEEP	1 0 - 2 M PMC OCA	PRE SLEEP	SLEEP
	MS1	SAFER C/O		EVA PROC REVW	PRE SLEEP - GIRA		SLEEP	
	MS2	SAFER C/O		EVA PROC REVW	PRE SLEEP		SLEEP	
	FE-2 Helms	SAFER C/O		EVA 2 PROC REVIEW	PRE SLEEP		SLEEP	
	ISS PLT-1 Gidzenko			EVA PROC REVW	PRE SLEEP		SLEEP	
	FE-1-INC1 Krikalev		▼	EVA 2 PROC REVIEW	PRE SLEEP		SLEEP	
I S S	ISS CDR-1 Shepherd	Δ	▲	RSP FENCE COLLAPSE	PRE SLEEP-ISS		SLEEP-ISS	
	ISS CDR Usachev	φ	•	RSP FENCE COLLAPSE	PRE SLEEP-ISS		SLEEP-ISS	
	FE-1 Voss		∇	EXERCISE	PRE SLEEP-ISS		SLEEP-ISS	

DAY/NIGHT	[Day/Night Cycle]															
ORBIT	64	65	66	67	68	69	70	71	64	65	66	67	68	69	70	71
DAILY ORBIT	7	8	9	10	11	12	13	14	7	8	9	10	11	12	13	14

TDRS	47	174	275
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NOTES	▼TRANSFER TAGUP ΔMPLM-INGRESS ▲MPLM TRANSFER SETUP φMPLM-INGRESS •MPLM TRANSFER SETUP ∇CCAA-CONFIG-DUAL	6-7A
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GMT	MET	DOY	BETA	HOUSTON DATE
65/02:35 65/14:35	004/12:00 005/00:00	65 GMT	-56.76	05 Mar 2001

GMT 03/06/01 03 04 05 06 07 08 09 10 11 12 13 14 005/00
MET Day 004 12 13 14 15 16 17 18 19 20 21 22 23

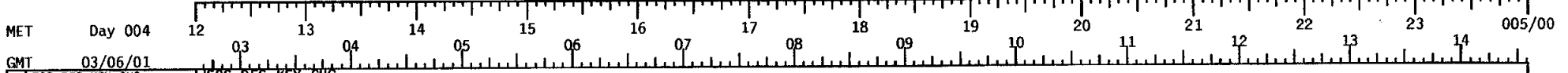
STS-102	CDR/PLT	POST SLEEP	PMC OCA	POST SLEEP	10-2M PTV23 S/U (EVA)	HTERM	DEPLACT*	MPLM ACT (DDCU)	14.7 REPRS	LCA C/O	HTERM	HTERM			
	MS1	POST SLEEP - GIRA		EVA PREP	EMU PURGE P/B	DPRS	EGRS	EVA SETUP	EAS TRANSFER TO P6	ESP RMV & INSTALL	PFCS RMV & INST	EVA CLEANUP	INGRS	RPRS	
	MS2	POST SLEEP		EVA PREP	EMU PURGE P/B	DPRS	EGRS	EVA SETUP	EAS TRANSFER TO P6	ESP RMV & INSTALL	PRELIM CLEANUP	EVA CLEANUP	INGRS	RPRS*	
	FE-2 Helms	POST SLEEP		EVA SUPPORT				IVA SUPPORT							
	ISS PLT-1 Gidzenko	POST SLEEP			EXERCISE					MEAL	EXERCISE				
	FE-1-INC1 Krikalev	POST SLEEP			EXERCISE					MEAL	EXERCISE				
ISS	ISS CDR-1 Shepherd	POSTSLEEP-ISS	DPC	DDCU2 RK XFER	EXERCISE	RSP FENCE COLLAPSE		DDCU1 RACK XFER	MEAL	⊕	⊕	⊕	AV-3 RACK XFER	MSS-1 RACK XFER	MSS-2 RACK XFER
	ISS CDR Usachev	POSTSLEEP-ISS	DPC	DDCU2 RK XFER	DDCU2 UMBILICAL MATE	RSP FENCE COLLAPSE		DDCU1 RACK XFER	MEAL	DDCU1 UMBILICAL MATE		AV-3 RACK XFER	MSS-1 RACK XFER	MSS-2 RACK XFER	
	FE-1 Voss	POSTSLEEP-ISS	DPC	DDCU2 RK XFER	DDCU2 UMBILICAL MATE	RSP FENCE COLLAPSE	▼	Δ	DDCU1 RACK XFER	MEAL	DDCU1 UMBILICAL MATE		AV-3 RACK XFER	MSS-1 RACK XFER	MSS-2 RACK XFER
DAY/NIGHT		ORBIT		72	73	74	75	76	77	78	79				
DAILY ORBIT		ORBIT		15	16	1	2	3	4	5	6				
TDRS		TDRS		47	174	275									

▼ISS/MPLM-EPS-RECON
ΔSPS-DDCU2-ACT & C/O
*APCU 1,2 DEACT
⊕IMAX-FILM-LOAD
⊕IMAX-LIGHTING-S/U
⊕EDUC METAB WATERING
⊕POST E!
*POST E!
▲POST E!

NOTES

6-8A

GMT	MET		DOY	BETA			HOUSTON DATE		
65/02:35	004/12:00		65 GMT	-56.76			05 Mar 2001		
65/14:35	005/00:00								



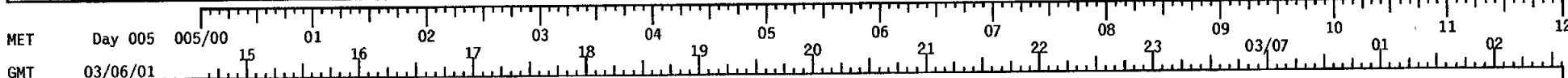
ECS	ECS-DES-KEY-CHG	ECS-DES-KEY-CHG							EXE-PKG U/L
	EXE-PKG U/L								
SBD	S-BD-ELOC-OPS	S-BD-ELOC-OPS							
	SBD-KEY-CHG	SBD-KEY-CHG							
SPS	SPS-RPCM-BDT-DUMP	SPS-RPCM-BDT-DUMP							
	LCA CHECKOUT								LCA CHECKOUT
DAY/NIGHT	[Bar chart showing day/night cycle]								
ORBIT	72	73	74	75	76	77	78	79	
DAILY ORBIT	15	16	1	2	3	4	5	6	
ISS ATT	BIAS +XVV +ZLV								
STS ATT	BIAS -XLV +ZVV								
TDRS	47								
	174								
	275								
RS GND SITE	-DJS -KLP -PPK -ULD -USK	-DJS -KLP -PPK -ULD -USK	-DJS -KLP -SHK -ULD -USK	-DJS -KLP -SHK -SPB -ULD	-DJS -KLP -SHK -SPB	-DJS -KLP -SHK -SPB	-SHK -SPB		
Notes									

GMT	MET	DOY	BETA	HOUSTON DATE
65/14:35 66/02:35	005/00:00 005/12:00	65 GMT	-55.97	06 Mar 2001

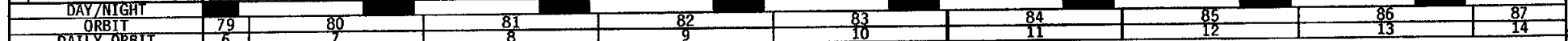
GMT 03/06/01 15 16 17 18 19 20 21 22 23 03/07 01 02
MET Day 005 005/00 01 02 03 04 05 06 07 08 09 10 11 12

S T S - 1 0 2	CDR/PLT		PRE SLEEP	PMC OCA	PRE SLEEP	PRE SLEEP	SLEEP			
	MS1	POST EVA					SLEEP			
	MS2	POST EVA			PRE SLEEP		SLEEP			
	FE-2 Helms	POST EVA W/H2O			PRE SLEEP		SLEEP			
	ISS PLT-1 Gidzenko				PRE SLEEP		SLEEP			
	FE-1-INC1 Krikalev				PRE SLEEP		SLEEP			
I S S	ISS CDR-1 Shepherd	▲ CHECS RACK XFER	φ		PRESLEEP-ISS		SLEEP-ISS			
	ISS CDR Usachev	CHECS RACK XFER			PRESLEEP-ISS		SLEEP-ISS			
	FE-1 Voss	● CHECS RACK XFER			PRESLEEP-ISS		SLEEP-ISS			
DAY/NIGHT		[Timeline with shaded blocks]								
ORBIT		79	80	81	82	83	84	85	86	87
DAILY ORBIT		6	7	8	9	10	11	12	13	14
TDRS		47	174	275						
NOTES		▲FDS-LAB SD-INSTL φTRANSFER TAGUP ●SPS-DDCU1-ACT & C/O 6-9A								

GMT	MET		DOY	BETA		HOUSTON DATE			
65/14:35	005/00:00		65 GMT	-55.97		06 Mar 2001			
66/02:35	005/12:00								



STW	
DRKS	
PLSTS	
KOBS	
TRKS	
SVS	



DAY/NIGHT	79	80	81	82	83	84	85	86	87
ORBIT	6	7	8	9	10	11	12	13	14
DAILY ORBIT	BIAS +XVV +ZLV								
ISS ATT	BIAS -XLV +ZVV								
STS ATT									

TDRS	47	174	275						
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RS GND SITE				--PPK	--PPK	--PPK	--PPK	--PPK	--PPK
					--USK	--USK	--USK	--USK	--USK
						--ULD	--ULD	--ULD	--ULD
						--USK	--USK	--USK	--USK

Notes

GMT	MET	DOY	BETA	HOUSTON DATE
66/02:35 66/14:35	005/12:00 006/00:00	66 GMT	-55.04	06 Mar 2001

GMT 03/07/01 03 04 05 06 07 08 09 10 11 12 13 14 006/00
MET Day 005 12 13 14 15 16 17 18 19 20 21 22 23

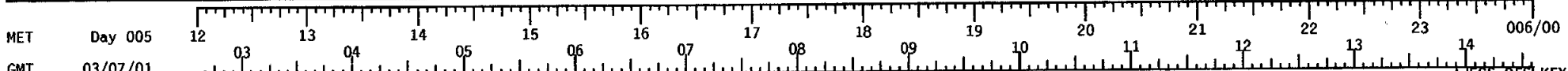
STS-102	CDR/PLT	POST SLEEP	AT HO	S I N I M I T	POST SLEEP	STP	DTED 2257	DTO 263	M-XLV	ATM	RCAB	HRTRNFB	CSTNDW	CFIOLDL	PEAVOENT	MEAL	EVA PROC REVW	
	MS1					ASPRN	XFER MPLM SOFT STOW		XFER MPLM SOFT STOW	EXERCISE	XFER MPLM SOFT STOW	PEAVOENT	MEAL	XFER MPLM SOFT STOW	HELM*	MDDK PREP	SAFER C/O	EVA PROC REVW
	MS2	POST SLEEP				ASPRN	XFER MPLM SOFT STOW		EXERCISE	XFER MPLM SOFT STOW	PEAVOENT	MEAL	XFER MPLM SOFT STOW	HELM*	MDDK PREP	SAFER C/O	EVA PROC REVW	
	FE-2 Helms	POST SLEEP			▽		EXERCISE	◇	*	⊕	⊕	PEAVOENT	MEAL	⊕	HANDOVER	SAFER C/O	EVA 3 PROC REVIEW	
	ISS PLT-1 Gidzenko	POST SLEEP					EXERCISE ISS	XFER MPLM SOFT STOW				PEAVOENT	MEAL	HANDOVER	EXERCISE		EVA PROC REVW	
	FE-1-INC1 Krikalev	POST SLEEP				♥	EXERCISE	MPLM-SOFT STOW-XFER				PEAVOENT	MEAL	HANDOVER	EXERCISE		EVA 3 PROC REVIEW	
ISS	ISS CDR-1 Shepherd	POSTSLEEP-ISS	DPC	HRF RACK XFER	△	♣	EXERCISE	MPLM-SOFT STOW-XFER			PEAVOENT	MEAL	φ	HANDOVER				
	ISS CDR Usachev	POSTSLEEP-ISS	DPC	HRF RACK XFER			MPLM-SOFT STOW-XFER		•		PEAVOENT	MEAL		HANDOVER				
	FE-1 Voss	POSTSLEEP-ISS	DPC	HRF RACK XFER			MPLM-SOFT STOW-XFER	◇	*	▽	PEAVOENT	MEAL		HANDOVER				

DAY/NIGHT	87	88	89	90	91	92	93	94	95
ORBIT	14	15	1	2	3	4	5	6	7
DAILY ORBIT	47	174	275						
TDRS									

NOTES
VISS INTERIM INGRESS ♣H-REFLEX MS3 SUBJECT @TRANSFER H-REFLEX
 ♣H-REFLEX MDK SETUP ♣H-REFLEX MDK OPR φEDUC METAB WATERING
 ♣MPLM-SOFT STOW-XFER ♣H-REFLEX MDK OPR *HELM BATT TERM
ΔISS INTERIM INGRESS ♣H-REFLEX MDK STOW
6-10A MPLM-SOFT STOW-XFER ♣H-REFLEX MS5 SUBJECT
 *RCS RCNFG ♣MPLM-SOFT STOW-XFER
6-10A ♣H-REFLEX MDK OPR ♣H-REFLEX MS4 SUBJECT

FLT PLAN/102/FIN 01/26/01

GMT	MET	DOY	BETA	HOUSTON DATE
66/02:35 66/14:35	005/12:00 006/00:00	66 GMT	-55.04	06 Mar 2001



GMT	03/07/01	ECS-DES-KEY-CHG	ECS-DES-KEY-C
START		DPC	EXE-PKG U/L
ORBIT		S-BD-ELOC-OPS	
		SBD-KEY-CHG	
		SPS-RPCM-BDT-DUMP	
		ACS-CMG/STS ATT-H/O	
		ECS-P/D	
		ACS-STS/CMG ATT-H/O	
		ECS-P/U	

DAY/NIGHT	87	88	89	90	91	92	93	94	95
ORBIT	14	15	1	2	3	4	5	6	7
DAILY ORBIT									
ISS ATT	BIAS +XVV +ZLV	+XLV +YVV	FREE			BIAS +XVV +ZLV			
STS ATT	BIAS -XLV +ZVV	BIAS -XLV +YVV	FREE			BIAS -XLV +ZVV			
TDRS	47	174	275						

RS GND SITE	-DJS -KLP -PPK -ULD -USK	-DJS -KLP -SHK -ULD -USK	-DJS -KLP -SHK -SPB -ULD -USK	-DJS -KLP -SHK -SPB	-DJS -SHK -SPB	-DJS -SHK -SPB
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Notes

GMT	MET		DOY	BETA		HOUSTON DATE			
66/14:35	006/00:00		66 GMT	-53.90		07 Mar 2001			
67/02:35	006/12:00								

GMT 03/07/01 15 16 17 18 19 20 21 22 23 03/08 01 02 12
MET Day 006 006/00 01 02 03 04 05 06 07 08 09 10 11 12

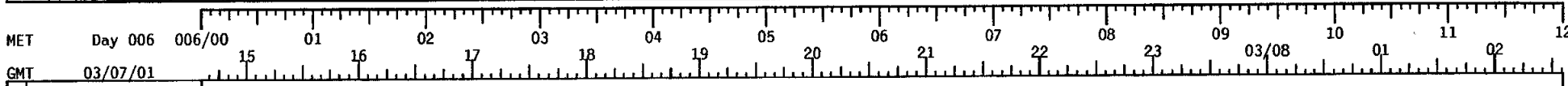
S T S - 1 0 2	CDR/PLT	INTRM EGRSS	PRE SLEEP	PMC OCA	PRE SLEEP	SLEEP	
	MS1	EMU INSTL	PRE SLEEP	XFER TAGUP	PRE SLEEP - GIRA	SLEEP	
	MS2	EMU INSTL	PRE SLEEP			SLEEP	
	FE-2 Helms	*	PRE SLEEP			SLEEP	
	ISS PLT-1 Gidzenko		PRE SLEEP			SLEEP	
	FE-1-INC1 Krikalev		PRE SLEEP			SLEEP	
I S S	ISS CDR-1 Shepherd	⊕	♦	EXERCISE	⊗	PRESLEEP-ISS	SLEEP-ISS
	ISS CDR Usachev	♥	MPLM-SOFT STOW-XFER			PRESLEEP-ISS	SLEEP-ISS
	FE-1 Voss	Δ	MPLM-SOFT STOW-XFER			PRESLEEP-ISS	SLEEP-ISS

DAY/NIGHT														
ORBIT	95	96	97	98	99	100	101	102						
DAILY ORBIT	7	8	9	10	11	12	13	14	15					

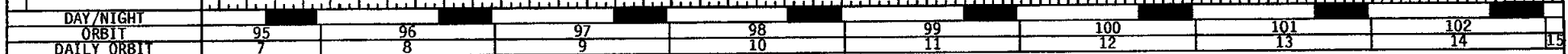
TDRS	47	174	275											
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NOTES	*EMU INSTALL ⊗TRANSFER TAGUP ⊕ISS INTERIM EGRESS *MPLM-SOFT STOW-XFER ♥HANDOVER ΔHANDOVER	6-11A
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GMT	MET		DOY	BETA		HOUSTON DATE			
66/14:35	006/00:00		66 GMT	-53.90		07 Mar 2001			
67/02:35	006/12:00								



SCF	
DRS	
LCR	
DRK	
CC	
SS	



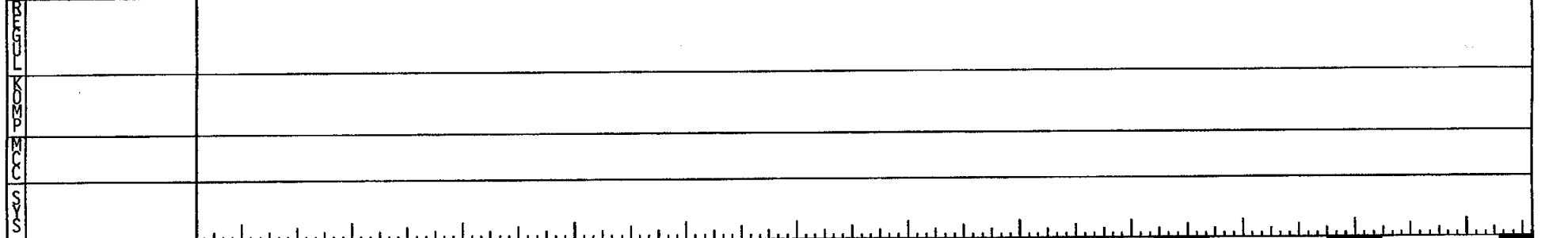
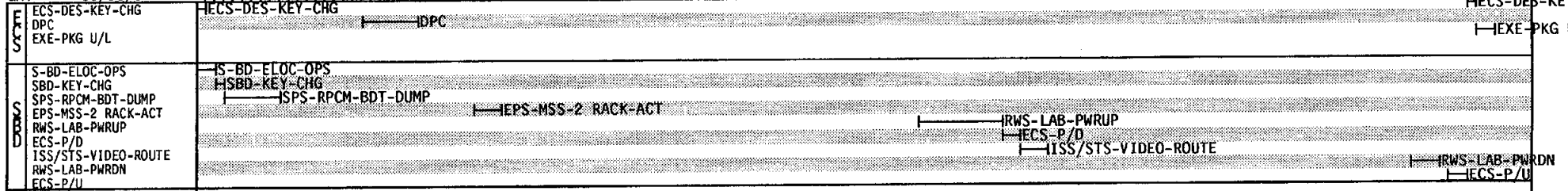
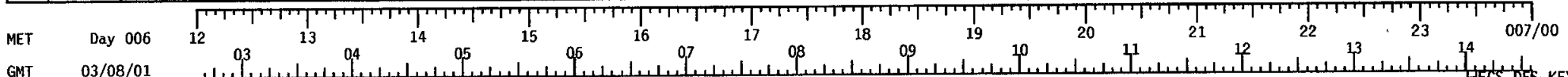
ISS ATT	BIAS +XVV +ZLV			
STS ATT	BIAS -XLV +ZVV			

TDRS	47			
	174			
	275			

RS GND SITE		-PPK	-PPK -USK	-PPK -USK	-PPK -ULD -USK
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Notes

GMT	MET		DOY	BETA		HOUSTON DATE			
67/02:35	006/12:00		67 GMT	-52.59		07 Mar 2001			
67/14:35	007/00:00								



DAY/NIGHT	[Day/Night Cycle]							
ORBIT	103	104	105	106	107	108	109	110
DAILY ORBIT	15	1	2	3	4	5	6	7
ISS ATT	BIAS +XVV +ZLV							
STS ATT	BIAS -XLV +ZVV							

TDRS	47						
	174						
	275						
RS GND SITE	-DJS -KLP -PPK -ULD -USK	-DJS -KLP -ULD -USK	-DJS -KLP -SHK -ULD -USK	-DJS -KLP -SHK -SPB -ULD	-DJS -SHK -SPB	-DJS -SHK -SPB	

Notes

GMT	MET		DOY	BETA		HOUSTON DATE			
67/14:35 68/02:35	007/00:00 007/12:00		67 GMT	-51.18		08 Mar 2001			

GMT 03/08/01 15 16 17 18 19 20 21 22 23 03/09 01 02
MET Day 007 007/00 01 02 03 04 05 06 07 08 09 10 11 12

S T S - 1 0 2	CDR/PLT		PRE SLEEP	PMC OCA	PRE SLEEP	SLEEP
	MS1		EMU RMVL	EM U	PRE SLEEP - GIRA	SLEEP
	MS2		EMU RMVL	EM U	PRE SLEEP	SLEEP
	FE-2 Helms	POST EVA W/H2O			PRE SLEEP	SLEEP
	ISS PLT-1 Gidzenko	®			PRE SLEEP	SLEEP
	FE-1-INC1 Krikalev				PRE SLEEP	SLEEP
I S S	ISS CDR-1 Shepherd	MPLM-SOFT STOW-XFER	EXERCISE		PRESLEEP-ISS	SLEEP-ISS
	ISS CDR Usachev	MPLM-SOFT STOW-XFER			PRESLEEP-ISS	SLEEP-ISS
	FE-1 Voss	MPLM-SOFT STOW-XFER			PRESLEEP-ISS	SLEEP-ISS
DAY/NIGHT						
ORBIT		111	112	113	114	115
DAILY ORBIT		7	8	9	10	11
TDRS		47 174 275				
NOTES		®EXERCISE				
		6-13A				
		FLT PLAN/102/FIN 01/26/01				

GMT	MET	DOY	BETA	HOUSTON DATE
68/02:35 68/14:35	007/12:00 008/00:00	68 GMT	-49.57	08 Mar 2001

GMT 03/09/01 12 03 04 05 06 07 08 09 10 11 12 13 14 008/00
MET Day 007 12 13 14 15 16 17 18 19 20 21 22 23

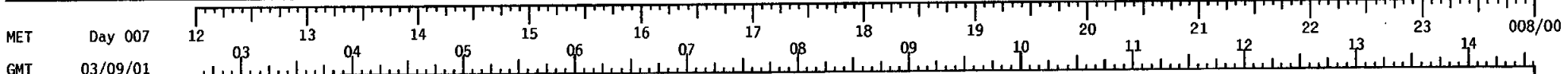
STS-102	CDR/PLT	POST SLEEP		REBOOST	MEAL	CREW PHOTO	CREW CONF	EXERCISE			
	MS1	POST SLEEP - GIRA		EXERCISE	MEAL	XFER MPLM SOFT STOW	CREW PHOTO	CREW CONF			
	MS2	POST SLEEP		EXERCISE	MEAL	XFER MPLM SOFT STOW	CREW PHOTO	CREW CONF			
	FE-2 Helms	POST SLEEP		IELK INST & C/O	MEAL	MPLM-SOFT STOW-XFER	CREW PHOTO	CREW CONF	HANDOVER		
	ISS PLT-1 Gidzenko	POST SLEEP		HAND OVER	EXERCISE ISS	MEAL	XFER MPLM SOFT STOW	CREW PHOTO	CREW CONF	HAND OVER	EXERCISE
	FE-1-INC1 Krikalev	POST SLEEP		EXERCISE-ISS	MPLM-SOFT STOW-XFER	MEAL	MPLM-SOFT STOW-XFER	CREW PHOTO	CREW CONF	HANDOVER	
ISS	ISS CDR-1 Shepherd	POSTSLEEP-ISS	DPC	EXERCISE	IELK INST & C/O	MEAL	MPLM-SOFT STOW-XFER	CREW PHOTO	CREW CONF	N1/MPLM VEST-DEOUTF1	
	ISS CDR Usachev	POSTSLEEP-ISS	DPC	MPLM-SOFT STOW-XFER	MPLM-SOFT STOW-XFER	MEAL	MPLM-SOFT STOW-XFER	CREW PHOTO	CREW CONF	N1/MPLM VEST-DEOUTF1	
	FE-1 Voss	POSTSLEEP-ISS	DPC	MPLM-SOFT STOW-XFER	MPLM-SOFT STOW-XFER	MEAL	MPLM-SOFT STOW-XFER	CREW PHOTO	CREW CONF	HANDOVER	

DAY/NIGHT	ORBIT		DAILY ORBIT		TDRS	
	118	119	120	121	122	123
	15	16	1	2	3	4
	47	174	275			

NOTES

♣ISS INTERIM INGRESS
 #FLTR CKΔIELK TRANSFER PREP
 *ISS INTERIM INGRESS
 ▲HANDOVER
 6-▲HANDOVER
 @IMAX-FILM-LOAD
 ΔIMAX-LIGHTING-S/U
 φIELK TEMP STOW
 ♠IMAX-FILM-LOAD
 •EDUC-SEED KIT-XFER
 VEDUC METAB WATERING
 ○MPLM-SOFT STOW-XFER
 ⊕MPLM-SOFT STOW-XFER
 *EMU BATT TERM
 ▲EXERCISE-1
 6-14A
 FLT PLAN/102/FIN 01/26/01

GMT	MET	DOY	BETA		HOUSTON DATE			
68/02:35	007/12:00	68 GMT	-49.57		08 Mar 2001			
68/14:35	008/00:00							



ECS	ECS-DES-KEY-CHG	ECS-DES-KEY-CHG	
	DPC	DPC	
SBD	EXE-PKG U/L		EXE-PKG U,
	S-BD-ELOC-OPS	S-BD-ELOC-OPS	
SPS	SBD-KEY-CHG	SBD-KEY-CHG	
	SPS-RPCM-BDT-DUMP	SPS-RPCM-BDT-DUMP	



ISS ATT	BIAS +XV +ZLV	
STS ATT	BIAS -XLV +ZVV	BIAS -XLV +ZVV

TDRS	47					
	174					
	275					
RS GND SITE	-DJS -KLP -PPK -ULD -USK	-DJS -KLP -SHK -ULD -USK	-DJS -KLP -SHK -SPB -ULD	-DJS -KLP -SHK -SPB	-DJS -SHK -SPB	-SHK -SPB

Notes

GMT	MET		DOY	BETA		HOUSTON DATE			
68/14:35	008/00:00		68 GMT	-47.92		09 Mar 2001			
69/02:35	008/12:00								

GMT	03/09/01	15	16	17	18	19	20	21	22	23	03/10	01	02	12
MET	Day 008	008/00	01	02	03	04	05	06	07	08	09	10	11	

S T S - 1 0 2	CDR/PLT		PRE SLEEP	PMC OCA	PRE SLEEP				SLEEP					POST SLEEP
	MS1		PRE SLEEP	XFER TAGUP	PRE SLEEP - GIRA				SLEEP					POST SLEEP - GIRA
	MS2				PRE SLEEP				SLEEP					POST SLEEP
	ISS CDR-1 Shepherd	▲		φ	PRE SLEEP				SLEEP					POST SLEEP
	ISS PLT-1 Gidzenko	EXER CISE	HAND OVER		PRE SLEEP				SLEEP					POST SLEEP
	FE-1-INC1 Krikalev	•	EXERCISE		PRE SLEEP				SLEEP					POST SLEEP
I S S	ISS CDR Usachev	▽			PRESLEEP-ISS				SLEEP-ISS					
	FE-1 Voss	◇	EXERCISE	*	PRESLEEP-ISS				SLEEP-ISS					
	FE-2 Helms	▲	HANDOVER	⊕	PRESLEEP-ISS				SLEEP-ISS					
DAY/NIGHT														
ORBIT		126	127	128	129	130	131	132	133	134	135			
DAILY ORBIT		7	8	9	10	11	12	13	14	15				
TDRS		47	174	275										
NOTES		▲N1/MPLM VEST-DEOUTF1 •HANDOVER φTRANSFER TAGUP ▼N1/MPLM VEST-DEOUTF1 ◇HANDOVER *TRANSFER CLEANUP ▲EXERCISE-ISS ⊕TRANSFER CLEANUP 6-15A												

GMT	MET	DOY	BETA	HOUSTON DATE
69/02:35 69/14:35	008/12:00 009/00:00	69 GMT	-46.10	09 Mar 2001

GMT 03/10/01 12 03 04 05 06 07 08 09 10 11 12 13 14 009/00
MET Day 008 12 13 14 15 16 17 18 19 20 21 22 23

S T S - 1 0 2	CDR/PLT	POST SLEEP		PE LA M C T	PE A V O E N T	EXERCISE		MU P N L I M N S	MPLM B R T H	MEAL		O2 R E P R S		AT H O	MD N U S I T T E	
	MS1	POST SLEEP - GIRA		R M S H T	PE A V O E N T	R P I G M W R A S U P P L		MU P N L I M N S	MPLM B R T H	MEAL		X F E R M D D K		X F E R T A G U P		
	MS2	POST SLEEP			PE A V O E N T	EXERCISE			N1 N D R C B M D M T E M P L M		MEAL		X F E R M D D K		R N D Z P G S C S / U	R N D Z T O O L S C / O
	ISS CDR-1 Shepherd	POST SLEEP	DPC	EXERCISE-ISS		N1/MPLM V E S T - D E O U T F 2	N1/MPLM V E S T D E P R E S S	H A N D O V E R			MEAL		H A N D O V E R		EXERCISE	
	ISS PLT-1 Gidzenko	POST SLEEP	DPC	H A N D O V E R	EXERCISE ISS			H A N D O V E R			MEAL		X F E R M D D K		X F E R T A G U P	PE A V O E N T
	FE-1-INC1 Krikalev	POST SLEEP	DPC	EXERCISE	⊙			H A N D O V E R			MEAL		H A N D O V E R			PE A V O E N T
I S S	ISS CDR Usachev	POSTSLEEP-ISS	DPC	MPLM-RK R E E N T R Y - C N F G	Δ	N1/MPLM V E S T - D E O U T F 2	N1/MPLM V E S T D E P R E S S			MEAL		H A N D O V E R		EXERCISE	▲	PE A V O E N T
	FE-1 Voss	POSTSLEEP-ISS	DPC	• H A N D O V E R			H A N D O V E R		EXERCISE	MEAL		H A N D O V E R				
	FE-2 HeImS	POSTSLEEP-ISS	DPC	MPLM-RK R E E N T R Y - C N F G	◇		H A N D O V E R			MEAL		H A N D O V E R				

DAY/NIGHT															
ORBIT	134	135	136	137	138	139	140	141							
DAILY ORBIT	15	1	2	3	4	5	6	7							

TDRS	47	174	275												
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NOTES

•IMAX-FILM-LOAD
 •TRANSFER TAGUP
 •IMAX-LIGHTING-S/U
 ΔMPLM-EGRESS
 VCCAA-CONFIG-SINGLE
 ○MPLM-EGRESS
 6-16A

•EDUC METAB WATERING
 *APCU 1 ACT

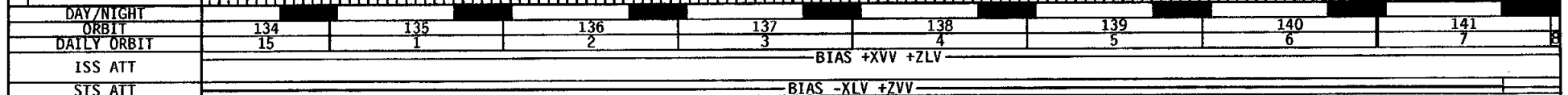
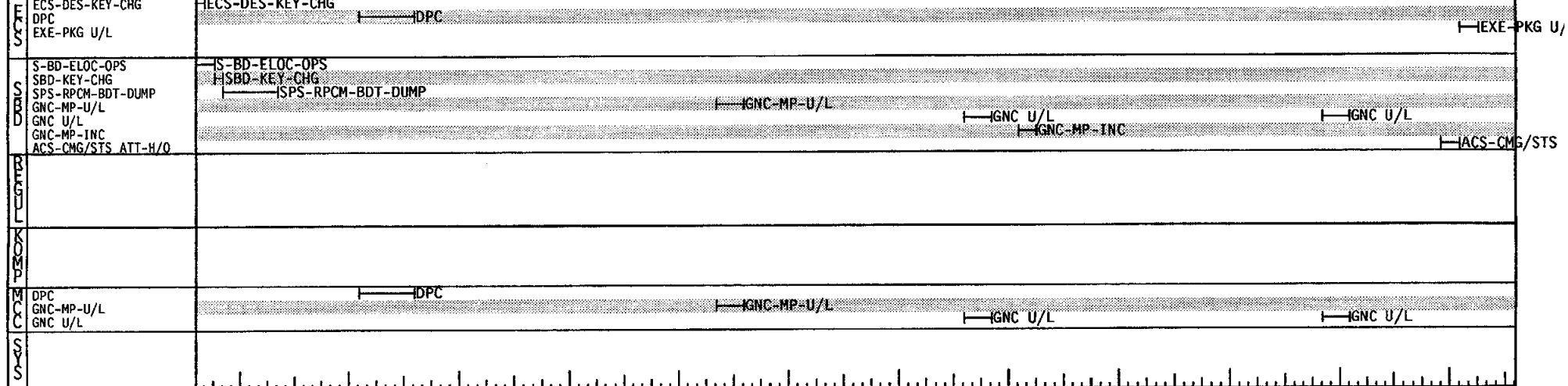
▲HANDOVER
 ○HANDOV

FLT PLAN/102/FIN 01/26/01

GMT	MET	DOY	BETA	HOUSTON DATE
69/02:35	008/12:00	69 GMT	-46.10	09 Mar 2001
69/14:35	009/00:00			

MET Day 008 12 13 14 15 16 17 18 19 20 21 22 23 009/00

GMT 03/10/01 03 04 05 06 07 08 09 10 11 12 13 14



TDRS	47
	174
	275

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

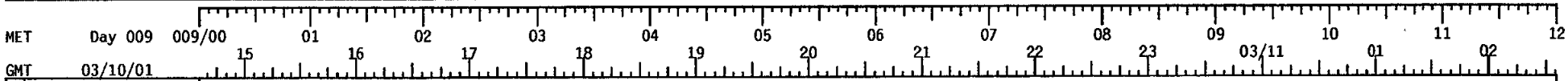
Notes

GMT	MET		DOY	BETA		HOUSTON DATE			
69/14:35 70/02:35	009/00:00 009/12:00		69 GMT	-44.23		10 Mar 2001			

GMT 03/10/01 15 16 17 18 19 20 21 22 23 03/11 01 02 12
MET Day 009 009/00 01 02 03 04 05 06 07 08 09 10 11

S T S - 1 0 2	CDR/PLT	PRE SLEEP	W A S T E M N X L V R V A T P M C H O C A	PRE SLEEP	SLEEP					POST SLEEP
	MS1	PRE SLEEP - GIRA			SLEEP					POST SLEEP - GIRA
	MS2	PRE SLEEP			SLEEP					POST SLEEP
	ISS CDR-1 Shepherd		PRE SLEEP		SLEEP					POST SLEEP
	ISS PLT-1 Gidzenko	EXERCISE	PRE SLEEP		SLEEP					POST SLEEP
	FE-1-INC1 Krikalev	EXERCISE	PRE SLEEP		SLEEP					POST SLEEP
I S S	ISS CDR Usachev	HANDOVER	PRESLEEP-ISS		SLEEP					
	FE-1 Voss	HANDOVER	PRESLEEP-ISS		SLEEP					
	FE-2 Helms	HANDOVER	PRESLEEP-ISS		SLEEP					
DAY/NIGHT										
ORBIT		142	143	144	145	146	147	148	149	
DAILY ORBIT		8	9	10	11	12	13	14	15	
TDRS		47	174	275						
NOTES		6-17A								

GMT	MET		DOY	BETA			HOUSTON DATE		
69/14:35	009/00:00		69 GMT	-44.23			10 Mar 2001		
70/02:35	009/12:00								



STK									
DBS	GNC-MP-U/L ACS-ST5/CMG ATT-H/O MPLM-ENV-CHECK								
CFR									
DSK									
MCC	MPLM-ENV-CHECK								
SAS									
	DAY/NIGHT								
	ORBIT	142	143	144	145	146	147	148	149
	DAILY ORBIT	8	9	10	11	12	13	14	15
	ISS ATT	BIAS +XV +ZLV							
	STS ATT	BIAS -XLV +ZV							
	TDRS	47	174	275					
	RS GND SITE			-PPK	-PPK -USK	-PPK -USK	-PPK -ULD -USK	-DJS -KLP -PPK -ULD -USK	
	Notes								

GMT	MET	DOY	BETA	HOUSTON DATE
70/02:35	009/12:00	70 GMT	-42.26	10 Mar 2001
70/14:35	010/00:00			

GMT 03/11/01 03 04 05 06 07 08 09 10 11 12 13 14 010/00
 MET Day 009 12 13 14 15 16 17 18 19 20 21 22 23

STS-102	CDR/PLT	POST SLEEP	FWA REL EL	EGRS HATCH CLS	ODS VEST LK CK	MUNN VD CK	UNDOCK OPS	FLYAROUND	M+ NZ V LV	MEAL	SIN I MIT	OFF DUTY	STI M R V L U	OFF DUTY	PFC	OFF DUTY	EXERCISE
	MS1	POST SLEEP - GIRA	FWA REL EL		ODS VEST LK CK	CC /A LM RA	UNDOCK OPS	FLYAROUND	M C I U *	MEAL	OFF DUTY	EXERCISE	OFF DUTY	PFC	OFF DUTY	PRE SLEEP - GIRA	
	MS2	POST SLEEP	FWA REL EL				UNDOCK OPS	FLYAROUND	C O M M *	MEAL	OFF DUTY			EXERCISE	PFC	PRE SLEEP	
	ISS CDR-1 Shepherd	POST SLEEP	DPC	FWA REL EL					*	MEAL	OFF DUTY			EXERCISE		PFC VIA OCA	
	ISS PLT-1 Gidzenko	POST SLEEP	DPC	FWA REL EL						MEAL		PFC	OFF DUTY			EXERCISE	PRE SLEEP
	FE-1-INC1 Krikalev	POST SLEEP	DPC	FWA REL EL						MEAL			EXERCISE	PFC VIA OCA	OFF DUTY		PRE SLEEP
ISS	ISS CDR Usachev	POSTSLEEP-ISS	DPC	FWA REL EL	*		⊕		MEAL		♦				Ⓜ		
	FE-1 Voss	POSTSLEEP-ISS	DPC	FWA REL EL		▼		Δ	MEAL								
	FE-2 Helms	POSTSLEEP-ISS	DPC	FWA REL EL					MEAL								

DAY/NIGHT	149	150	151	152	153	154	155	156	157
ORBIT	15	1	2	3	4	5	6	7	8
DAILY ORBIT	47	174	275						

NOTES

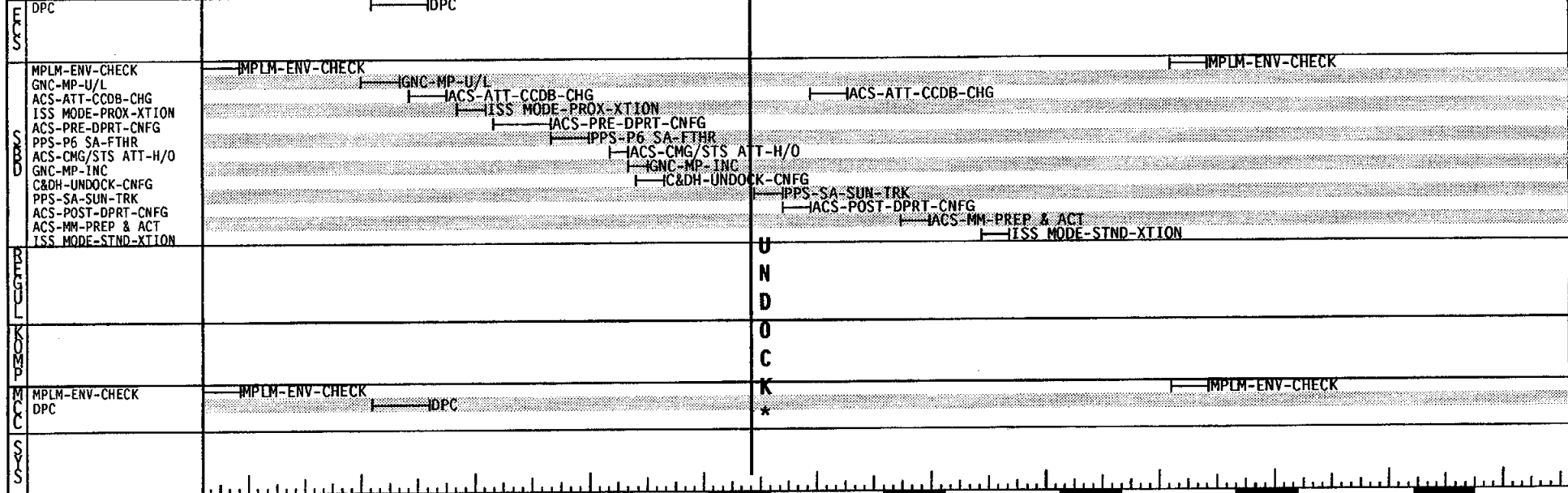
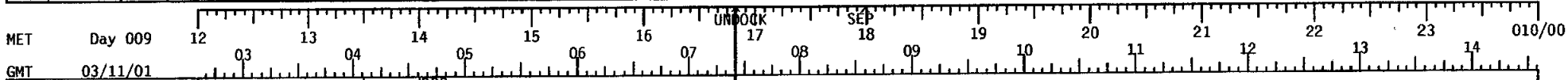
*STS/ISS-HATCH-CLOSE ⊕ACS-PMA2-DPRT-CNFG *EDUC METAB WATERING ♦PMA2-DEPRESS-INIT ⓂPMA2-DEPRESS-TERM
 ▼ISS-EPS-UNDOCK CNFG ΔISS-EPS-STAGE CNFG
 *FLTR CK
 *COMM 1 STRING C/O (A)

6-18A

***UNDOCK MET 09:16:49**

FLT PLAN/102/FIN 01/26/01

GMT	MET	DOY	BETA	HOUSTON DATE
70/02:35	009/12:00	70 GMT	-42.26	10 Mar 2001
70/14:35	010/00:00			



DAY/NIGHT	ORBIT	DAILY ORBIT	ISS ATT	STS ATT
	149 150 151 152 153 154 155 156 157	15 1 2 3 4 5 6 7 8	BIAS +XVV +ZLV MNVN UNDOCK BIAS +XVV +ZLV	BIAS -XLV +ZVV -XLV +ZVV FLY BIAS +ZLV +YVV -ZLV -XVV

TDRS	47
	174
	275

RS GND SITE	-DJS -KLP -ULD -USK	-DJS -KLP -SHK -SPB -ULD -USK	-DJS -KLP -SHK -SPB -ULD	-DJS -SHK -SPB	-DJS -SHK -SPB
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Notes

*UNDOCK MET 09/16:49

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FLIGHT PLAN NOTES

FLIGHT PLAN
NOTES

FLIGHT PLAN NOTES
(CONSTRAINTS AND GUIDELINES)

A. FLIGHT DESCRIPTION

Orbiter: OV103/Discovery
 Inclination: 51.6°
 Insertion Altitude: 122 nm
 ISS RNDZ Altitude: 215 nm
 Duration: 12 + 0 + 2 days

B. SHUTTLE AND STATION CREW

CDR - Jim Wetherbee	ISS (up) - Jim Voss
PLT - James Kelly	ISS (up) - Susan Helms
MS1 - Andy Thomas	ISS (down) - Bill Shepherd
MS2 - Paul Richards	ISS (down) - Yuri Gidzenko
ISS (up) - Yuriy Usachev	ISS (down) - Sergei Krikalev

C. MAJOR EVENTS

<u>MAJOR EVENT</u>	<u>FD</u>	<u>MET</u>	<u>DATE</u>	<u>CST</u>	<u>GMT</u>	<u>HP/HA</u>
Launch	01	00/00:00	03/01/01	08:35	60/14:35	—
OMS-2	01	00/00:38	03/01/01	09:13	60/15:30	85/123
NC1	01	00/03:35	03/01/01	12:10	60/18:10	122/128
NC2	02	00/16:13	03/02/01	00:48	61/06:48	124/128
NPC	02	00/21:45	03/02/01	06:20	61/12:20	124/128
NC3/NH	02	01/02:15	03/02/01	10:50	61/16:50	124/212
NC4	03	01/13:35	03/02/01	22:10	62/04:10	209/215
TI	03	01/15:07	03/02/01	23:42	62/05:42	210/218
ISS Docking	03	01/17:24	03/03/01	01:59	62/07:59	210/219
Ingress 1	03	01/19:35	03/03/01	04:10	62/10:10	210/219
EVA 1	04	02/17:05	03/04/01	01:40	63/07:40	210/219
PMA3 Reloc	04	02/22:15	03/04/01	06:50	63/12:50	210/219
MPLM Install	05	03/14:10	03/04/01	22:45	64/04:45	210/219
Ingress 2	05	03/14:30	03/04/01	23:05	64/05:05	210/219
EVA 2	06	04/17:10	03/06/01	01:45	65/07:45	210/219
Ingress 3	07	05/15:00	03/06/01	23:35	66/05:35	210/219
EVA 3	08	06/19:55	03/08/01	04:30	67/10:30	210/219
MPLM Uninstall	10	08/20:30	03/10/01	05:05	59/11:05	210/219
Undock	11	09/16:50	03/11/01	01:25	70/07:25	210/219
Sep	11	09/18:00	03/11/01	02:35	70/08:35	208/219
Deorbit	13	11/17:24	03/13/01	01:59	72/07:59	—
Landing	13	11/18:29	03/13/01	03:04	72/09:04	—

FLIGHT PLAN NOTES

D. LANDING OPPORTUNITIES

		<u>Landing Orbit No.</u>	<u>Site</u>	<u>Local Time</u>	<u>MET</u>
Nominal	Primary	185	KSC	03:03	11/18:28
	1 Rev Late	186	KSC	04:39	11/20:04
	Weather Alt	187	EDW	06:11	11/21:36
1 Day Late	Primary	201	KSC	03:44	12/19:09
	1 Rev Late	202	KSC	05:21	12/20:46
	Weather Alt	202	EDW	05:16	12/20:41
2 Days Late	Primary	216	KSC	02:49	13/18:14
	1 Rev Late	217	KSC	04:25	13/19:50
	Weather Alt	217	EDW	05:56	13/21:21

E. COMMUNICATIONS

Shuttle

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

*UHF capability

Lead time for site callup – GSTDN – 2 hr, RTS – 4 hr

ISS

TDRS Support: East (41° W), West (174° W), Z (85° E)

Station (Russian Assets)

Russian RTS (*): DJS, PPK, ULD, SHK, and USK

*The five Russian Remote Tracking Sites (RTSs) represent the available Regul SM Command Sites. The AOS/LOS of the sites are integrated into a single band on summary timeline tab data, but are displayed individually on the ISS detailed timeline pages.

F. PAYLOADS

1. LAUNCH PACKAGE (LP) 5A.1

The main purpose of Mission 5A.1 is to outfit the US Lab in preparation for the Space Station Remote Manipulator System (SSRMS) delivery on Mission 6A, and to perform the first ISS crew rotation of the Expedition 1 and 2 crews. No new permanent modules will be delivered. The Lab will be outfitted with six system racks, including two payload DC-to-DC Converter Unit (DDCU) racks, two Robotic Workstation (RWS) racks, the avionics #3 rack, and a temporary Crew Health Care System (CHeCS) rack. Mission 5A.1 also delivers the first ISS payload, the Human Research Facility (HRF) experiment, within an International Standard Payload Rack (ISPR). In addition to these seven racks, there are three Resupply Stowage Racks (RSRs) and four Resupply Stowage Platforms (RSPs) filled with logistics and supplies requiring transfer to the International Space Station (ISS). All of these racks are launched within a pressurized Multi-Purpose Logistics Module (MPLM), located in the orbiter payload bay.

For external Orbital Replacement Units (ORUs) requiring Extravehicular Activity (EVA) installation externally on the ISS, there is an unpressurized Integrated Cargo Carrier (ICC), which will be used to secure the hardware during launch and on orbit until EVA operations begin. The ICC used during Mission 5A.1 will contain the Lab Cradle Assembly (LCA), Power and Data Grapple Fixture (PDGF) Rigid Umbilical (RU), Early Ammonia Servicer (EAS), Pump and Flow Control Subassembly (PFCS), and External Stowage Platform (ESP). The orbiter middeck will be used to stow equipment required for crew rotation, MPLM activation

and ingress hardware, and some additional supporting equipment for ChECS and HRF, and the EarthKAM experiment. Currently all planned EVA tasks can be accomplished within two EVAs; however, a placeholder for a third EVA has been incorporated into the timeline.

The orbiter will dock to PMA2 of the ISS, with the tail pointed down toward Earth. Ingress is planned after docking for a number of middeck transfer items. Included in this transfer are two SAFER units, one EVA Mobility Unit (EMU), four CWCs, and a number of Environmental Control and Life Support System (ECLSS) valves for the MPLM.

The first EVA consists of the PMA3 umbilical disconnects, removal of the port ECOM antenna, and installation of the Lab Cradle Assembly (LCA) and Rigid Umbilical (RU) and connections.

After EVA 1, members of the shuttle crew will use the Shuttle Remote Manipulator System (SRMS) to move PMA3 from the Node 1 nadir Common Berthing Mechanism (CBM) to the Node 1 port CBM to support MPLM installation during this flight and future flights. The next day the MPLM will be installed on the ISS and remain berthed until the day before undocking, when it will be stowed back in the payload bay. This gives the crew 5 days to complete all rack and soft stow transfers from the MPLM.

The second EVA will rotate the Circuit Interrupt Devices (CIDs) after the DDCU racks are transferred from the MPLM and installed. If the CIDs are not rotated, the DDCUs cannot be powered and the robotics workstation racks which connect to the DDCUs cannot be activated. Since the second EVA is required, additional tasks have been added on, mainly addition of critical spares. The critical spares include the EAS, the PFCS and the External Support Platform (ESP), which is a stowage device for the spares to be mounted on.

G. DETAILED TEST OBJECTIVES (DTOs)

1. MAGR GPS (DTO-700-14)

The purpose of this DTO is to demonstrate the performance and operation of the Global Positioning System (GPS) during orbiter ascent, on orbit, entry, and landing phase, utilizing a modified military GPS receiver processor and the existing orbiter GPS antennas.

2. STRUCTURAL DYNAMICS MODEL VALIDATION (DTO 257)

The test excites the structural dynamics of the joined shuttle and ISS to acquire several critical natural frequencies and their corresponding structural damping. The data acquired by this test will be assessed in a near real-time manner to remove constraints on shuttle primary attitude control usage. Comparing the measured structural natural frequencies and damping to the preflight predictions accomplishes this. If the preflight model uncertainty and damping assumptions are conservative, the primary control algorithm usage will be permitted immediately. If the preflight assumptions are not conservative, new control algorithm constants will be designed and uplinked as necessary. These constraints include the minimum ALT DAP delay time and the feedback sensor notch filters. The test requires orbiter free drift during which time the crew will manually input primary reaction control system (PRCS) jet firings. The orbiter operational instrumentation downlink of the shuttle Inertial Measurement Unit (IMU) attitude data at full sample rate is required.

3. AUTOMATIC REBOOST TUNING (DTO 263)

Shuttle reboost of ISS using automatic reboost software requires jet-firing separation to avoid excitation of the joined shuttle/ISS structural natural frequencies. A brief execution of the reboost software, utilizing benign parameters such as burn length, will allow acquisition of the structural dynamics data to validate the preflight estimate of the structural natural frequencies and damping, and thus the jet-firing separation time. The DTO requires a single firing of the I-loaded reboost constants, a minimum of 4 hours prior to a shuttle reboost of ISS.

H. DETAILED SUPPLEMENTAL OBJECTIVES (DSOs)

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

The purpose of DSO 493 is to determine the frequency of induced reactivation of latent viruses, latent virus shedding, and clinical disease after exposure to the physical, physiological, and psychological stressors associated with space flight. The shuttle crew will provide saliva samples at wakeup each morning

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

This activity is performed pre/post flight only.

3. SPACEFLIGHT AND IMMUNE FUNCTION (DSO 498)

This activity is performed pre/post-flight only.

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FLIGHT PLAN WALKTHROUGH (WITH RATIONALE)

**FLIGHT PLAN
WALKTHROUGH**

FLIGHT PLAN WALKTHROUGH (WITH RATIONALE)

Flight Day 1

- Standard FD01 activities.
- Setups completed for PGSCs (OCA, network)
- The crew goes to sleep 5 hr after launch to support early docking on FD03 and to support the nominal EOM landing time.
- Auxiliary Power Converter Units (APCUs) are activated. APCU 1 and 2 output relays are closed and the APCU 2 converter is powered on. The APCU 1 converter is only required when MPLM is installed on ISS; otherwise, APCU 2 converter can provide all the power needed for the ICC and MPLM while it is in the payload bay.
 - With the APCU 1 output relay closed and the OIU activated, the ground team can partially activate the MPLM to monitor the MPLM environment. The MPLM data will be monitored as much as possible during the flight depending on which TFL is loaded (not all TFLs contain the MPLM data).
 - APCU 2 provides power to the ICC (Integrated Cargo Carrier) heaters for the PFCS and EAS (ISS critical spares) on the ICC in the Payload bay.

Flight Day 2

- Checkouts of the two EMUs on shuttle and other EVA setup and config tasks in support of the EVA on FD04. It is assumed that the ISS crew will check out the two SAFERs on ISS that will be transferred from ISS on FD03. Also, a third EMU will be transferred on FD03 and is scheduled to be checked out on FD05.
- Other FD02 checkouts include RMS, OSVS, and RNDZ tools, as well as setup of Ergometer and Sequential Still Video (SSV) activation.
- First setup of the CWC equipment and fill of first two water bags. Four CWC bags will be filled before Docking so they can be transferred on FD03 during the first ingress of ISS.
- The first PAO event is scheduled for this day for the two commanders (Wetherbee and Usachev).
- The first H-Reflex runs are performed on this day for all three Increment 2 crewmembers. A subject run can start anytime after Setup is complete. An assisting crewmember is not required the first 10 min and the last 5 min of a subject run.
- The crew will sleep shift 1 hr earlier and will sleep only 7 hr to support docking the following morning.
- On ISS, the CBCS (centerline camera) is installed on the Node Nadir hatch window in preparation for the MPLM install. Note: This can be done anytime before the MPLM Install on FD05.

Flight Day 3

- The first waste dump will be performed on the morning of this day. FDO would like this dump to be scheduled as close to the first rendezvous burn as possible to minimize trajectory dispersions.
- Prior to docking, the EMUs should be removed from the airlock to make room for transfers.
- Docking is not required to occur over a Russian Ground Site; however, it is highly desired to have at least two ground site passes available after the nominal docking time. Stationkeeping to dock over ground sites will not be done since the time is needed to fit in the ingress and EVA prep activities at the end of the day.
- After docking, a leak check will be performed on the ODS.
- The stack will stay in free drift until hard mate is completed. The shuttle will then maneuver the stack into the nominal docking attitude. Once in attitude, attitude control will be handed over to ISS. ISS will maintain attitude control during the entire docked timeframe using the Lab CMGs. However, it is assumed that if shuttle has the prop, they will perform any maneuvers that may be required.
- RMS PGSC Config scheduled after docking gives the RMS operators some additional time to adjust the location of any PGSC for the docked timeframe.
- After the first hatch opening and welcome ceremonies, the primary task is to transfer Usachev for Gidzenko. Usachev is the Increment 2 commander, and this allows for more CDR-to-CDR

handover time. A crewmember is not considered transferred until the IELK Installation and Checkout for that crewmember has been completed.

- IELK Prep is an activity to prepare the IELK for transfer to ISS. This consists of unstowing it and removing it from the bags, etc. The IELKs for Voss and Helms will also be transferred and temp stowed on ISS to allow for more room in the middeck on this day.
- Other transfer items on this day include the third EMU, four CWCs, two SAFERs, ECLSS valves, IMAX film canisters, and some MPLM hardware to ISS that is required for MPLM activation.
- The transfer tagup is an opportunity for the loadmaster (MS2) to coordinate with fellow crewmembers (including someone on ISS), and call down results to MCC (make sure comm is available for the last five minutes of the activity).
- The amount of time hatches can be open for transfers and crew exchange is restricted because we have to start the 10.2 depress near the end of the day in preparation for the EVA the following day. The baselined plan does not allow any time to slip the depress and the P/B Init for the EVA crewmembers without giving up some pre-sleep. According to the crew, they would rather have the EVA Procedure Review over pre-sleep, but we still want to maintain at least 90 min of pre-sleep.
- Following the EVA Procedure Review, the crew is going to maneuver the RMS into position to view the overnight CBM operations.
- P/B Init is scheduled on the two EVA crewmembers plus MS2 because he is the backup EVA crewmember for EVA 1.
- On ISS, the IMAX film canister is changed out with a new canister transferred from shuttle. This will happen approximately every day along with IMAX setup, which configures light and sound for that day's scenes.

Flight Day 4

- First thing in post-sleep, the ground is going to perform some CBM operations to check out the port and nadir CBMs. This is in preparation for the PMA3 relocate at the end of the day.
- The important tasks on this EVA day are the PMA3 Umbilical disconnections and the removal of the ECOMM Antenna. These are both required before PMA3 can be relocated from the Node nadir CBM to the Node port CBM.
- During EVA, the ISS crew will be replacing the Positive Pressure Relief Valve (PPRV) in the Lab forward hatch with the Manual Pressure Equalization Valve (MPEV) that was transferred on FD03.
- A Negative Pressure Relief Valve (NPRV) on the Lab forward bulkhead will be replaced with the Intermodule Ventilation (IMV) valve that was transferred on FD03. This needs to be complete prior to FD05 so ventilation can be established between orbiter and ISS during the second ingress.
- The other EVA tasks required for SSRMS deployment and activation on 6A are as follows:

Activity	Duration	Constraints/Description
Disconnect/Stow PMA3-to-Node 1 Umbilicals	01:00	Needs to be completed before PMA3 can be relocated to the Node port CBM.
Remove Node 1 ECOMM Antenna	00:30	Needs to be completed before PMA3 can be relocated to the Node port CBM.
LCA Transfer	01:00	Required for SSRMS deployment and activation on 6A.
Tether Swap	00:10	EV1 swaps with EV2 on RMS APFR.
Rigid Umbilical Remove and Install	00:30	Required for SSRMS deployment and activation on 6A.
Connect Rigid Umbilical Cables	00:50	Required for SSRMS deployment and activation on 6A.

- About 10 min into the EVA cleanup activity, the RMS is available to start the PMA3 relocation activities. If the EVA is running long, the PMA3 relocation will be moved to the following morning.
- The EVA crew is going to finish their cleanup activities, ingress the airlock, and "hang out" in case they are needed to go back outside to help with the PMA3 relocation. How long they can hang out in the airlock is dependent on the LiOH status of their EMUs. This will be a real-time call.

- The PMA3 install procedure and the CBM procedures are interrelated. The procedures also reference each other to hold at certain steps until step such-and-such of the other procedure is completed.
- MS1 is prime and PLT is back-up for the RMS activities. Since MS2 is performing IVA support, CDR will perform the CBM procedures. MS2 will perform OSVS operations.
- Once PMA3 is removed from the nadir CBM, the nadir CBM petals can be closed. Then a CBM mode change is commanded to make the port CBM active (only one CBM can be active at a time).
- Once the PORT CBM is active and as late as possible before the maneuver of the RMS to the Ready-To-Latch (RTL) position, the port CBM petals must be opened.
- When FIRST STAGE CAPTURE is confirmed, the EVA crew can repress the airlock and start their POST-EVA activities.
- As soon as the ACQUIRE BOLTS is complete, the CBM BOLT LOADING and the CBM DEACTIVATION procedures are performed by MCC-Houston.
- Since it's been a long day for the EVA crew, MS1 and MS2 are going to perform the EMU REMOVAL to allow ingress to ISS early the next morning.
- Another big task on this day for the ISS crew is the removal of the four Lab forward CBM motor controllers.

Flight Day 5

- On ISS, leak checks initiated the previous day are terminated.
- Following the post-sleep activities, the first task is to ingress ISS in order to rotate the second crewmember. Voss is rotated to ISS in exchange for Krikalev. Again, rotation is official after installation and checkout of the IELKs.
- At the same time as the hatches are being opened for the second ISS ingress, the MPLM installation tasks are getting under way.
- The petals for the nadir CBM are opened as late as possible before seal C/O. After seal C/O, the RMS will grapple the MPLM and start the MPLM install PDRS procedure.
- Just prior to unberth, the MPLM is powered down, APCUs 1 and 2 are deactivated, and the Remotely Operated Electrical Umbilical (ROEU) is disconnected. APCU 2 can be activated again immediately (to provide heater power to the ICC) after ROEU is disconnected.
- As with PMA3 relocation, the MPLM install procedure and the CBM procedures are interrelated. The procedures also reference each other to hold at certain steps until step such-and-such of the other procedure is completed.
- On ISS the MPLM ingress setup activity should be completed anytime prior to vestibule pressurization.
- After the MPLM is installed, the CBCS Camera can be removed from the Node Nadir hatch window. VESTIBULE PRESSURIZATION and VESTIBULE OUTFITTING can then be performed.
- MPLM ACTIVATION can start before VESTIBULE OUTFITTING is complete. Certain steps can be performed after certain steps of the VESTIBULE OUTFITTING are completed. The procedures should reference each other as required.
- Just prior to the MPLM activation, part 1, APCU 2 is deactivated as part of the VESTIBULE OUTFITTING procedure. APCU 1 and 2 are then both activated as a part of the MPLM activation procedure.
- When MPLM activation is complete, MPLM Ingress can start.
- Once inside the MPLM, the crew can start tearing down the fences and transferring some of the Removable Stowage Platform (RSP) bags. This is to allow room to transfer the system racks the following day. Note, DDCU2 is not blocked by any fences or RSPs.
- On ISS, the Increment 1 and Increment 2 teams are getting as much handover as possible on this day while still meeting the exercise requirements. For the returning Increment 1 crew, they are supposed to exercise twice a day. One hour of aerobic exercise on shuttle and 1 hour of resistive exercise on ISS.
- In the afternoon, some middeck transfers from the shuttle middeck to the ISS are performed.
- The second PAO event of the mission is scheduled for this day on CDR and PLT.
- Following the MPLM Install activities on shuttle, the crew will start preparing for EVA 2 the following day. They will perform EMU Checkout on the third EMU which was transferred from ISS

on FD03. EMU Resize is required because different crew members will be performing the second EVA, and the crew performs an EMU CHECKOUT on the third EMU transferred from ISS on FD03.

- The hatches to ISS will be closed in the afternoon to allow the EVA crewmembers to perform their prebreathe activities.
- The cabin is depressed to 10.2, and the EMUs are installed back in the airlock.

Flight Day 6

- The prime tasks for this day are EVA 2 and the ISS system rack transfers from the MPLM to the Lab.
- The main purpose of the EVA is to rotate the Circuit Interrupt Devices (CIDs), which then provide power to the DDCU racks and allows them to be activated. The rest of the EVA tasks are for the installation of ISS critical spares.
- There are two CIDs that need to be rotated, one for each DDCU rack. After the CID for a particular DDCU rack gets rotated (via EVA), that rack can then be activated.
- It is most important to get the CID rotated for DDCU2 and to get DDCU2 activated because it will provide power to the MPLM for the remainder of the docked phase.
- The choreography works like this:
 - On ISS, the DDCU2 rack is transferred to the Lab and the umbilicals are mated.
 - On shuttle, the MPLM is deactivated, after which there will be no lighting, smoke detection, or air circulation within the module. Therefore, it is critical to minimize the time the MPLM is deactivated.
 - Back on ISS, the EPS Jumper needs to be swapped out (only after MPLM deact is complete) so the MPLM can receive power from the DDCU2 rack. This cable is launched in the MPLM and will need to be retrieved.
 - Once the jumper is swapped, the CID for DDCU2 can be rotated.
 - DDCU2 can then be activated and the MPLM can be re-activated on ISS power through DDCU2.
- For the other DDCU rack, DDCU1, the process is slightly simpler. All that is required is that DDCU 1 be transferred and the umbilicals mated prior to the end of EVA 2. This is so the EVA crew can rotate the CID and DDCU1 can be activated.
- LCA C/O is scheduled on the CDR. During the EVA, EV2 will flip some switches that the CDR will have to verify on the PCS.
- Following the post EVA activity, EMU Removal is performed to allow room to open the hatches and ingress ISS the next morning.
- On ISS, the crew will be transferring most of the system racks and installing them in the Lab. They are timed to be transferred in order of priority (DDCU2, DDCU1, AV-3, MSS-1, MSS-2, CHCHS).
- The rack transfers are scheduled for all three ISS crewmembers, but except for the very first rack transfer (DDCU2), only two crew are absolutely required...preferably Usachev and Voss, as they will have had more up-to-date training. The third crew is scheduled to help with the rack, but will only be useful as a spotter when the rack is being moved between modules.
- Before MSS-1 can be transferred, there is a smoke detector in the Lab, which was removed (stowed) during the rack prep activities the day before. It then must be re-installed prior to crew sleep.
- This day sees the first watering of seeds on the ISS. The requirement is to water the seeds once every 24 hours (+/- 5 hours). Always schedule on Shepherd. The seeds get transferred to the shuttle middeck when Shep gets transferred on FD08, and watering continues until the day before landing.

Flight Day 7

- After post sleep, the first task is to open the hatches so the shuttle crewmembers can help with the transfer of items from the MPLM to ISS.
- First thing, ISS crew will complete the system rack transfers (HRF), and then continue with some MPLM soft stow transfers. (The MPLM Soft Stow transfers are transfers of the soft stowage bags from MPLM to ISS, and the transfer of return items into the MPLM from ISS.)
- There is also some LIOH being stowed in the MPLM that needs to be transferred to the shuttle.

- On this day, the shuttle crew also transfers another four CWC bags that were filled during the last few days.
- Before the meal, a PAO event is scheduled to take place on ISS with the entire crew, if possible.
- The Increment 2 ISS crew is completing the second run of the middeck HRF experiment. They have to float back to the shuttle middeck for this. The requirement is to perform this activity on FD06 +/- 2 days.
- The ISS Increment 2 crew is also performing some handover on this day. If they feel they are ahead on the handover tasks, they can help out with the MPLM transfers if they are getting behind since this is the last day to perform any transfers from the MPLM to ISS.
- A simo water dump is scheduled in the morning. Attitude control will be handed over to the shuttle and the shuttle will maneuver to the water dump attitude.
- Following the dump, the shuttle will perform DTO 257. This is a test to fire some jets and model the structural behavior of the stack. DTO 257 must be performed and the data analyzed prior to the shuttle performing any attitude control with ALT DAP (it is not required for vernier attitude control).
- After DTO 257 the CDR will perform DTO 263. This DTO is a "reboost tuning" DTO, and tests the new capability to do automated reboosts. This test will need to be performed at least 4 hours prior to any reboost.
- After the DTOs, attitude control will be handed back over to the CMGs.
- Near the end of the day, the shuttle crew is again readying for another EVA on FD08.

Flight Day 8

- The third EVA scheduled on this day is a 14.7 psi EVA. This EVA will be performed only if the tasks from the previous EVAs are not completed. It is a placeholder and will be deleted if this EVA does not need to be performed. (If the EVA is deleted, priority will be given to scheduling off-duty time and MPLM soft stow transfers. Also, crew rotation for Helms and Shepherd will take place on FD08 instead of FD09.)
- On ISS, the crew will mate the umbilicals for the Robotics Workstation (RWS) rack in the Lab. They will then set up the RWS equipment to allow for a test of video capability to shuttle. This capability is important for SSRMS operations on 6A, and can only be performed when the shuttle is present.
- The rest of the day on ISS is dedicated to MPLM soft stow transfers.
- Following the EVA activities, the EMU will be removed to allow for ISS Ingress the following morning.

Flight Day 9

- The top priority for this day is rotating Helms for Shepherd, thereby completing crew rotation and satisfying this mission's major objective. After Shepherd is rotated, he must return briefly to ISS to retrieve the seed experiment and transfer it to the shuttle middeck.
- FCMS C/O is scheduled on this day, but can be moved to another day if necessary.
- A reboost placeholder is scheduled on this day if it is determined real time that a reboost is needed. Again, DTO 263 will need to have been completed at least 4 hours prior to any reboost. The reboost requires attitude handovers and maneuvers to and from the reboost attitude.
- A PAO event with Scotland is scheduled in the morning. This should have all three commanders (shuttle, ISS Increment 1, and ISS Increment 2).
- There are two PAO events scheduled on this day. In the morning is an event for all shuttle crewmembers if available. In the afternoon is a Russian PAO event with the three Russian crewmembers. Try to schedule the Russian event during Moscow banking hours.
- Toward the end of the day, the ISS crew will perform the first part of the vestibule deoutfitting procedure to install the CBM motor controllers.

Flight Day 10

- On flight mornings when the hatches are open (currently only FD10), the ISS crewmembers currently on shuttle are scheduled for the same amount of Post Sleep as the ISS crew on ISS to allow for all six crewmembers to take part in the Daily Planning Conference. (Note: Not required,

especially for rotated Increment 1 crewmembers. But I thought it was nice to have all ISS crewmembers be available for the DPC if the hatches are open.)

- First thing in the morning, the ISS crew must egress the MPLM.
- Once MPLM deactivation, the rest of vestibule deoutfitting, and vestibule depress are completed, the shuttle crew can transfer MPLM back to the shuttle payload bay. The procedure is the same as MPLM install on FD06, but in reverse.
- Once MPLM is moved back to the payload bay, APCU 1 should be activated again to provide MPLM environment data to the ground.
- Shepherd and Usachev are scheduled for the vestibule activities because they performed them on FD06.
- For the other ISS crewmembers not involved in the MPLM activities, crew handover time is the top priority for this day.
- A crew photo and PAO crew conference is scheduled for the end of this day for all crewmembers.
- An O2 repress of the mated stack to 14.9 psi is performed in the afternoon.

Flight Day 11

- Following the egress, a leak check of the ODS vestibule is performed, the centerline camera is reinstalled, and the crew then transitions to the undock rendezvous checklist.
- Following undocking, a one rev flyaround is scheduled before final sep from ISS. It is desired to have the sep burn occur about a minute prior to orbital night thereby having a majority of the flyaround occur during daylight. This is what drove our undock time to 8/16:40.
- The afternoon is for off-duty time and exercise for the ISS crew.
- Try to schedule the PFCs for good local Houston time if possible.

Flight Day 12

- This is the day before landing.
- After the 3 hr of post-sleep, the crew performs FCS checkout, RCS hot fire, post-EVA entry prep, L-1 comm checks and a deorbit prep briefing.
- Cabin stow takes up a majority of the rest of the day along with exercises for everyone before the ergometer is stowed.
- The recumbent seat setup really needs to be performed following the final LiOH changeout, which occurs in post-sleep on entry day. However, the 30 min scheduled for this activity will only be used as practice for the following day's activity.
- PGSC stow is broken up into two parts. This first part will stow all PGSCs other than those required for OCA MFX ops.

Flight Day 13

- The crew performs last of the stowage activities before transitioning to the Deorbit Prep book.
- PGSC stow part two stows any remaining PGSC equipment used for OCA MFX operations.
- The recumbent seat setup is performed after the final LiOH changeout at the end of post-sleep.

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STS-102 GENERIC DAP A CONFIGURATIONS

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

FLT PLN-1a/102/O/B

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'STS 102 GENERIC DAP A CONFIGURATIONS'

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STS-102 GENERIC DAP B CONFIGURATIONS

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

FLT PLN-1aa/102/O/B

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BACK OF 'STS-102 GENERIC DAP A CONFIGURATIONS'

PILE VELCRO	STS-102 FLT SPECIFIC DAP A CONFIGURATIONS	PILE VELCRO
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	ITEM #	A9	A10	A11	A12	A13	A14	A15
PRI								
ROT RATE	10(50)	0.1300	0.0500	0.2000	0.1000	0.1000	0.2000	0.1000
ATT DB	11(51)	1.00	0.50	5.00	5.00	5.00	5.00	40.00
RATE DB	12(52)	0.10	0.10	0.20	0.20	0.20	0.20	5.00
ROT PLS	13(53)	0.10	0.10	0.10	0.04	0.04	0.10	0.04
COMP	14(54)	.000	.000	.000	.000	.000	.000	.000
P OPTION	15(55)	TAIL	TAIL	ALL	TAIL	TAIL	ALL	TAIL
Y OPTION	16(56)	TAIL	TAIL	ALL	TAIL	TAIL	ALL	TAIL
TRAN PLS	17(57)	0.05	0.05	0.10	0.01	0.01	0.10	0.10
ALT								
RATE DB	18(58)	0.100	0.100	0.070	0.070	0.100	0.200	0.200
JET OPT	19(59)	TAIL	TAIL	TAIL	TAIL	TAIL	ALL	ALL
# JETS	20(60)	2	2	2	2	3	2	2
ON TIME	21(61)	0.08	0.08	0.08	0.08	0.08	0.08	0.08
DELAY	22(62)	0.00	0.00	11.76	11.04	11.04	0.00	0.00
VERN								
ROT RATE	23(63)	0.1300	0.0500	0.2000	0.1000	0.0500	0.2000	0.2000
ATT DB	24(64)	1.000	0.500	3.000	3.000	5.000	1.000	1.000
RATE DB	25(65)	.020	.020	.040	.050	.150	.020	.020
ROT PLS	26(66)	0.050	0.050	0.010	0.002	0.002	0.010	0.010
COMP	27(67)	.000	.000	.000	.000	.000	.000	.000
CNTL ACC	28(68)	0	0	1,2*	1	3,4**	0	0
PURPOSE		PROX OPS/ FLYAROUND	DOCKING	AUTO REBOOST	VRCS MATED STACK	A/L DEPRESS ATTITUDE CONTROL		PRCS TEST DTO 257

BOLD-ITALIC indicate a change from the I-load

*1 For VERN, 2 for ALT

**3 For VERN, 4 for ALT

FLT PLN-1b/102/O/B

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 'STS-102 FLT SPECIFIC DAP A CONFIGURATIONS'

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 STS-102 FLT SPECIFIC DAP B CONFIGURATIONS

	ITEM #	B9	B10	B11	B12	B13	B14	B15
PRI								
ROT RATE	30(50)	0.1300	0.0500	0.5000	0.1000	0.1000	0.5000	0.5000
ATT DB	31(51)	1.00	0.50	3.00	5.00	40.00	3.00	3.00
RATE DB	32(52)	0.10	0.10	0.20	0.20	0.20	0.20	0.20
ROT PLS	33(53)	0.04	0.04	0.04	0.04	0.04	0.04	0.04
COMP	34(54)	.000	.000	.000	.000	.000	.000	.000
P OPTION	35(55)	TAIL	TAIL	ALL	TAIL	TAIL	ALL	ALL
Y OPTION	36(56)	TAIL	TAIL	ALL	TAIL	TAIL	ALL	ALL
TRAN PLS	37(57)	0.01	0.01	0.02	0.01	0.01	0.02	0.02
ALT								
RATE DB	38(58)	0.100	0.100	0.200	0.070	0.100	0.200	0.200
JET OPT	39(59)	TAIL	TAIL	ALL	TAIL	TAIL	ALL	ALL
# JETS	40(60)	2	2	2	3	3	2	2
ON TIME	41(61)	0.08	0.08	0.08	0.08	0.08	0.08	0.08
DELAY	42(62)	0.00	0.00	0.00	11.04	11.04	0.00	0.00
VERN								
ROT RATE	43(63)	0.1300	0.0500	0.2000	0.1000	0.0500	0.2000	0.2000
ATT DB	44(64)	1.000	0.500	1.000	3.000	40.000	1.000	1.000
RATE DB	45(65)	.020	.020	.020	.080	.150	.020	.020
ROT PLS	46(66)	0.020	0.020	0.002	0.002	0.002	0.002	0.002
COMP	47(67)	.000	.000	.000	.000	.000	.000	.000
CNTL ACC	48(68)	0	0	0	2	3,4*	0	0
PURPOSE		PROX OPS/ FLYAROUND	DOCKING		ALT MATED STACK AND RMS OPS	A/L DEPRESS RATE DAMPING		

BOLD-ITALIC indicate a change from I-load or prior flight DAP configuration
 *3 for VERN, 4 for ALT

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CB/CHIEF, ASTRONAUT OFF.
CB/FLIGHT CREW (7)
DA2/STONE, B.R.
DA8/LEAD ISS FD (4)
DA8/LEAD STS FD (4)
DF23/LEAD CATO (3)
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DF25/LEAD DPS (3)
DF25/LEAD ODIN (3)
DF52/LEAD MMACS (3)
DF53/LEAD OSO (3)
DF62/LEAD GNC (3)
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DF74/PHALCON LIBRARY (5)
DF74/STATION EPS
DF83/LEAD ECLSS (3)
DF84/THOR LIBRARY (3)
DM3/LEAD RNDZ (3)
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DO13/HSG-MTLO
DO13/MSR LIBRARY (2)
DO13/TTI LIBRARY (2)
DO35/GILL, C.S.
DO353/FDF MNGR/RESERVE (15)
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DO4/POINTING (3)
DO4/SHUTTLE FLT PLANNING (3)
DO45/LIBRARY (2)
DO5/LEAD ACO/PLO (6)
DT32/TEAM LEAD
DT34/CONTROL PROP
DT35/DPS/NAV TRAIN LEAD
DT36/SHUTTLE SYSTEMS
DT37/CARGO SYSTEMS
DT37/SHUTTLE COMMUNICATIONS
DX22/LEAD PDRS (4)
DX25/RMS TRAINING GROUP (3)

DX32/PERSON, S. (4)
DX34/PHOTO/TV
GP23/STIC (3)
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MT3/IPT
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HO17-D416/SINCLAIR, G.M.
HO17-D307/WARD, J.
HO19-E7522/FERGUS, E.M.

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