STS-116 / 12A.1

FD 12 Execute Package

MSG	Page(s)	Title
127A	1 - 14	FD12 Flight Plan Revision **(pdf)**
128	15 - 16	FD12 Mission Summary **(pdf)**
130	17	FD12 Water Summary Message **(pdf)**
131	18 - 20	Updates to LCS Cue Card **(pdf)**
132	21	FD12 SpaceHab Viewport Violations **(pdf)**
129	---	FD11 MMT Summary **(pdf - Electronic Only)**

Approved by FAO: *Terry Clancy*

Last Updated: Dec 20 2006 12:09PM GMT
JEDI *(**J**oint **E**xecute package **D**evelopment and **I**ntegration), v2.04.0003*

MSG INDEX

MSG NO.	TITLE
MSG 127	FD12 Flight Plan Revision
MSG 128	FD12 Mission Summary
MSG 129	FD11 MMT Summary
MSG 130	FD12 Water Summary Message
MSG 131	Updates to LCS Cue Card
MSG 132	FD12 SpaceHab Viewport Violations

1. EMU BATTERY STOWAGE CHECK

Since the ground folks will not be able to gain access to the airlock for destow until after Jan. 2, they've asked that you verify a couple of items on the EMU battery stowed in the A/L Floor Bag (Ref. MSG 112, EXT A/L Floor Bag) to minimize the chance of leakage.

They ask that you verify the EMU Advanced Battery (Item 6) is stowed in its protective bag with the silver tape area facing up. Additionally, could you check that none of the other items in the bag are bulging into its cutout and causing any pressure on the battery.

2. TORQUE WRENCH STOWAGE RELOCATION

In order to keep a good torque wrench accessible, please move the broken ISS torque wrench from MF43G tray 1 to MF28H. Then move the SH torque wrench, located in ACO8 SH S/S #4, to MF43G tray 1. Please report when this transfer is complete.

NOTE: The SH torque wrench (10-50 in-lb) is S/N 1028.

3. MEPSI AND RAFT DEPLOY WINDOW INFORMATION

For **MEPSI** deploy, the following times can be entered on pg. 489 in Step 1 of MEPSI DEPLOY (ASSY OPS, PAYLOAD):

DEPLOY WINDOW OPEN MET = 010/22:32:00 *(Sun in PLB)*
DEPLOY WINDOW CLOSE MET = 010/22:54:00 *(Sunset - 10 minutes)*

For **RAFT** deploy, the following times can be entered on pg. 491 in Step 1 of RAFT DEPLOY (ASSY OPS, PAYLOAD):

DEPLOY WINDOW OPEN MET = 011/00:09:00 *(Sun in PLB and Ku-band Coverage)*
DEPLOY WINDOW CLOSE MET = 011/00:25:00 *(Sunset - 10 minutes)*

4. SPACEHAB VIEWPORT VIOLATION

MSG 132 contains the SPACEHAB viewport violations for today. Please post this next to the viewport. There are no callouts in the FLIGHT PLAN referencing these times.

5. REPLACE PAGES 2-40, 2-42, 2-43 AND 3-126 THROUGH 3-135.

12/20/06 06:01:46 **REPLANNED**

GMT 12/20/06 (354) 02 03 04 05 06 07 08 09 10 11 12 13

MET Day 010 010/00 01 02 03 04 05 06 07 08 09 10 11 12

STS-116	FD11 CDR/R2	♣	-ZLV -XVV	PRE SLEEP	PMC A/G	PRE SLEEP	SLEEP		POST SLEEP
STS-116	PLT/IV	⊕	SIMO TERM	PRE SLEEP			SLEEP	SDBI	POST SLEEP
STS-116	MS1/R1			PRE SLEEP			SLEEP	SDBI	POST SLEEP
STS-116	MS2/EV1		EXER CISE	PRE SLEEP			SLEEP		POST SLEEP
STS-116	MS3/EV2	♦		PRE SLEEP			SLEEP		POST SLEEP
STS-116	MS4			PRE SLEEP - SHAB			SLEEP		POST SLEEP - SHAB
DN	FE-2			PRE SLEEP			SLEEP		POST SLEEP
EXP 14	ISS CDR	®	PMA2 LKCK INIT	IWIS DEACT	RWS	PMA2 LKCK TERM	PRE SLEEP	SLEEP (8.5)	
EXP 14	FE-1		TVIS			EXDL	PRE SLEEP	SLEEP (8.5)	
UP	FE-2/EV3	CEVIS	CEVIS	EXER CEVIS			PRE SLEEP	SLEEP (8.5)	

DAY/NIGHT

ORBIT 159 160 161 162 163 164 165 166

TDRS W -171 E -46 Z -275

ORB ATT -ZLV -XVV

NOTES
♣PRE SLEEP
⊕PRE SLEEP *PWRDN
♦EXERCISE
®EXERCISE CEVIS

12/20/06 06:01:46 **REPLANNED**

GMT 12/20/06 (354) 14 15 16 17 18 19 20 21 22 23 12/21 01

MET Day 010 12 13 14 15 16 17 18 19 20 21 22 23 011/00

STS-116

FD12

Crew	Activities
CDR/R2 POLANSKY	POST SLEEP; SSV ON; OBSS UNBERTH; MNVR STBD; OBSS STBD SURVEY; MNVR NOSE; NOSE CAP SURVEY; MNVR PORT; MEAL; OBSS PORT SURVEY; OBSS BERTH; L-1 COMM; EXERCISE; SSV OFF; PRE SLEEP; MNVR
PLT/IV OEFELEIN	POST SLEEP; EXERCISE; FLT FLD; OBSS STBD SURVEY; NOSE CAP SURVEY; MEAL; OBSS PORT SURVEY; +ZLV; SURVEY PLAYBACK; FES*; DPLOY; MNVR; -ZLV; -XVV; PRE SLEEP
MS1/R1 PATRICK	POST SLEEP; OBSS UNBERTH; FLT FLD; OBSS STBD SURVEY; NOSE CAP SURVEY; MEAL; OBSS PORT SURVEY; OBSS BERTH; RMS; PWRDN; MCIU#; PTV11; EXERCISE; PRE SLEEP
MS2/EV1 CURBEAM	POST SLEEP; CABIN STOW; EXERCISE; FES-I; CABIN STOW; TRANSFER CLEANUP; MEAL; CABIN STOW; FES-T; CABIN STOW; PRE SLEEP
MS3/EV2 FUGLESANG	POST SLEEP; CABIN STOW; EXERCISE; CABIN STOW; MEAL; CABIN STOW; MEPSI; RAFT DEPLOY
MS4 HIGGINBOTHAM	POST SLEEP - SHAB; CABIN STOW; EXERCISE; TRANSFER CLEANUP; MEAL; CABIN STOW; MEPSI; RAFT DEPLOY
MS5 REITER	POST SLEEP; CABIN STOW; EXERCISE; MEAL; CABIN STOW; PRE SLEEP

DAY/NIGHT

ORBIT 167 168 169 170 171 172 173 174

TDRS W -171 E -46 Z -275

ORB ATT -ZLV -XVV; BIAS +YSI; BIAS +XSI; BIAS -YSI; +ZLV +YVV; MEPSI; -ZLV -XVV

NOTES

*OFF

#FILTER CK

GMT 12/21/06 (355) 02 03 04 05 06 07 08 09 10 11 12 13

MET Day 011 011/00 01 02 03 04 05 06 07 08 09 10 11 12

STS-116

FD12

CDR/R2 POLANSKY	MNVR, PRESLP, FES*, -ZLV, -XVV, IMU, PMC A/G	PRE SLEEP	SLEEP	POST SLEEP
PLT/IV OEFELEIN		PRE SLEEP	SLEEP	SDBI, POST SLEEP
MS1/R1 PATRICK	PTV11	PRE SLEEP	SLEEP	SDBI, POST SLEEP
MS2/EV1 CURBEAM		PRE SLEEP	SLEEP	POST SLEEP
MS3/EV2 FUGLESANG	RAFT	DEPLOY, PRE SLEEP	SLEEP	POST SLEEP
MS4 HIGGINBOTHAM	RAFT	DEPLOY, PRE SLEEP - SHAB	SLEEP	POST SLEEP - SHAB
MS5 REITER		PRE SLEEP	SLEEP	POST SLEEP

DAY/NIGHT

ORBIT 174 175 176 177 178 179 180 181 182

TDRS W -171 E -46 Z -275

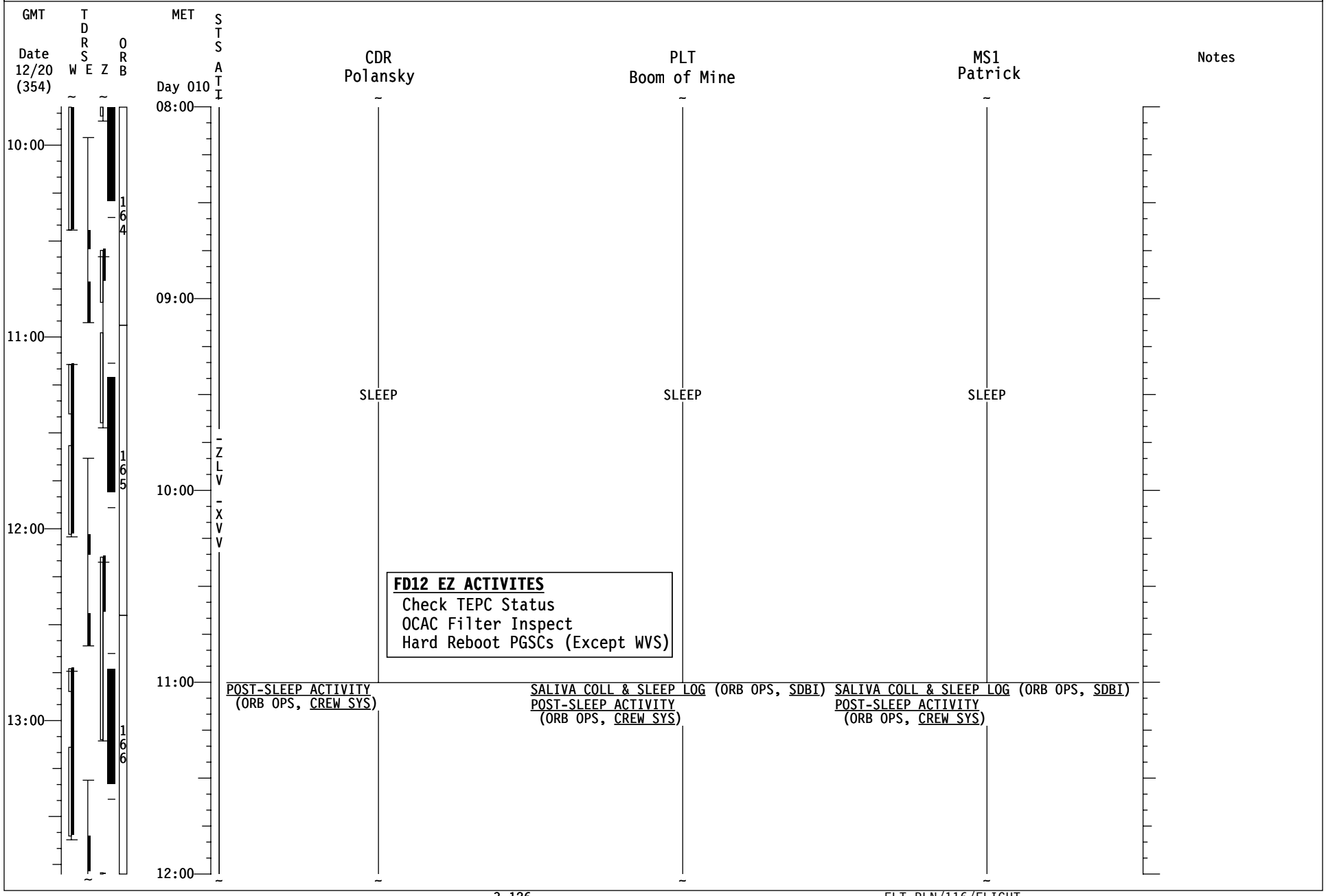
ORB ATT -ZLV -XVV

*ON

NOTES

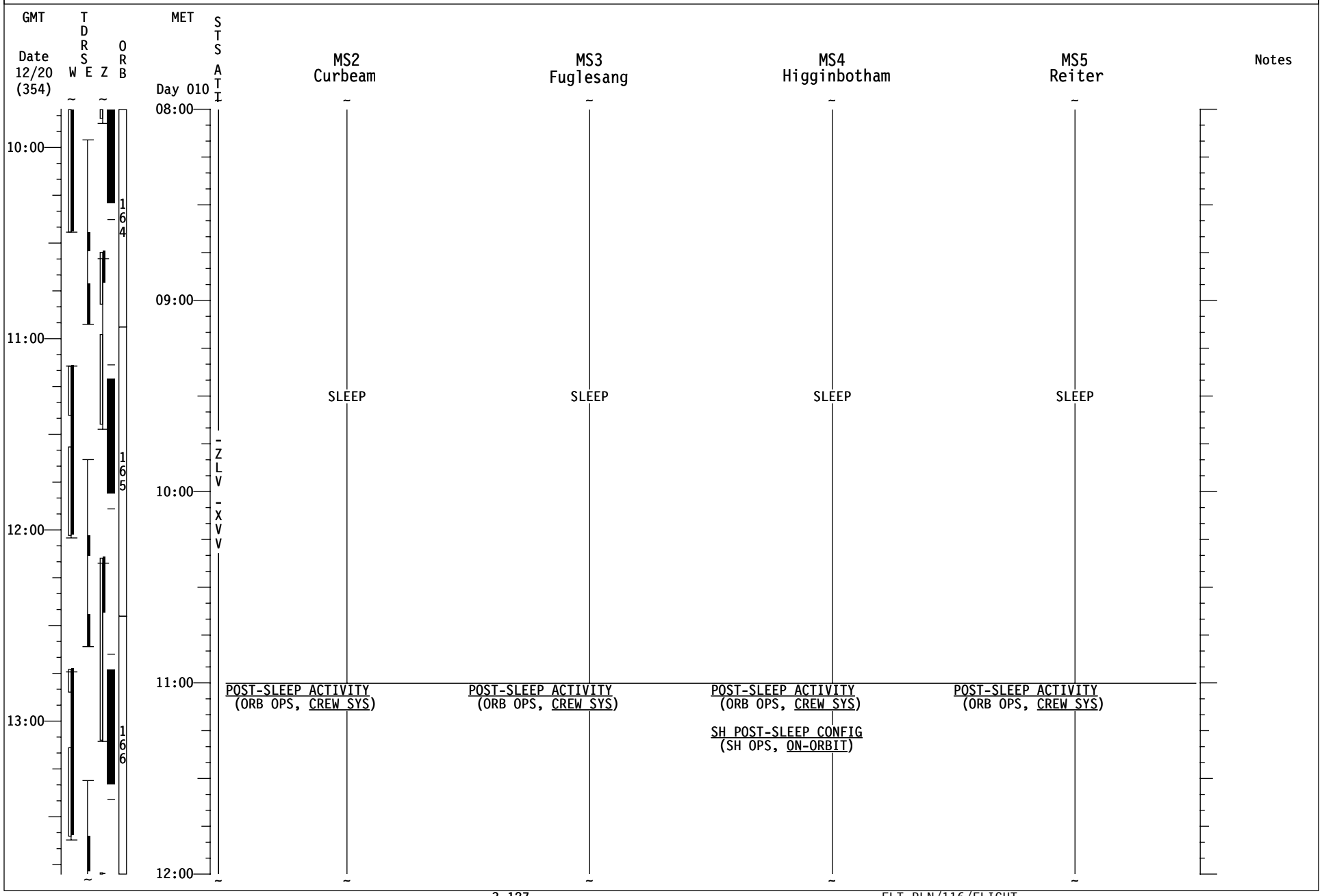
STS-116 FD12

REPLANNED



STS-116 FD12

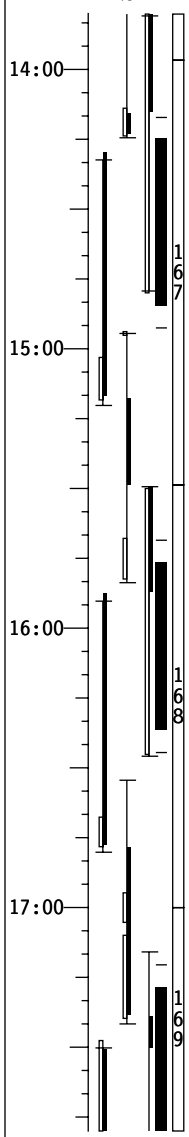
REPLANNED



STS-116 FD12

REPLANNED

GMT Date 12/20 (354) | TDRS W E Z | ORB | MET Day 010 | STS ATI | CDR Polansky | PLT Boom of Mine | MS1 Patrick | Notes



12:00 – 16:00

STS ATI: -ZLV -XVV; BIAS +YSI

CDR Polansky

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

SSV PWR -ON, Outrate -3

OBSS UNBERTH
(PDRS, OBSS NOM OPS)
REF MSG 131

MNVR BIAS +YSI (STBD SURVEY)
TG=4 BV=5 P=0 Y=45 OM=187
A14/AUTO/VERN Init TRK

OBSS LDRI RCC SURVEY - STBD
(PDRS, OBSS NOM OPS)
REF MSG 131

PLT Boom of Mine

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

EXERCISE

OBSS ITVC/LDRI FLAT FIELDS
(PDRS, OBSS NOM OPS)

OBSS LDRI RCC SURVEY - STBD
(PDRS, OBSS NOM OPS)
REF MSG 131

MS1 Patrick

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

OBSS UNBERTH
(PDRS, OBSS NOM OPS)
REF MSG 131

OBSS ITVC/LDRI FLAT FIELDS
(PDRS, OBSS NOM OPS)

OBSS LDRI RCC SURVEY - STBD
(PDRS, OBSS NOM OPS)
REF MSG 131

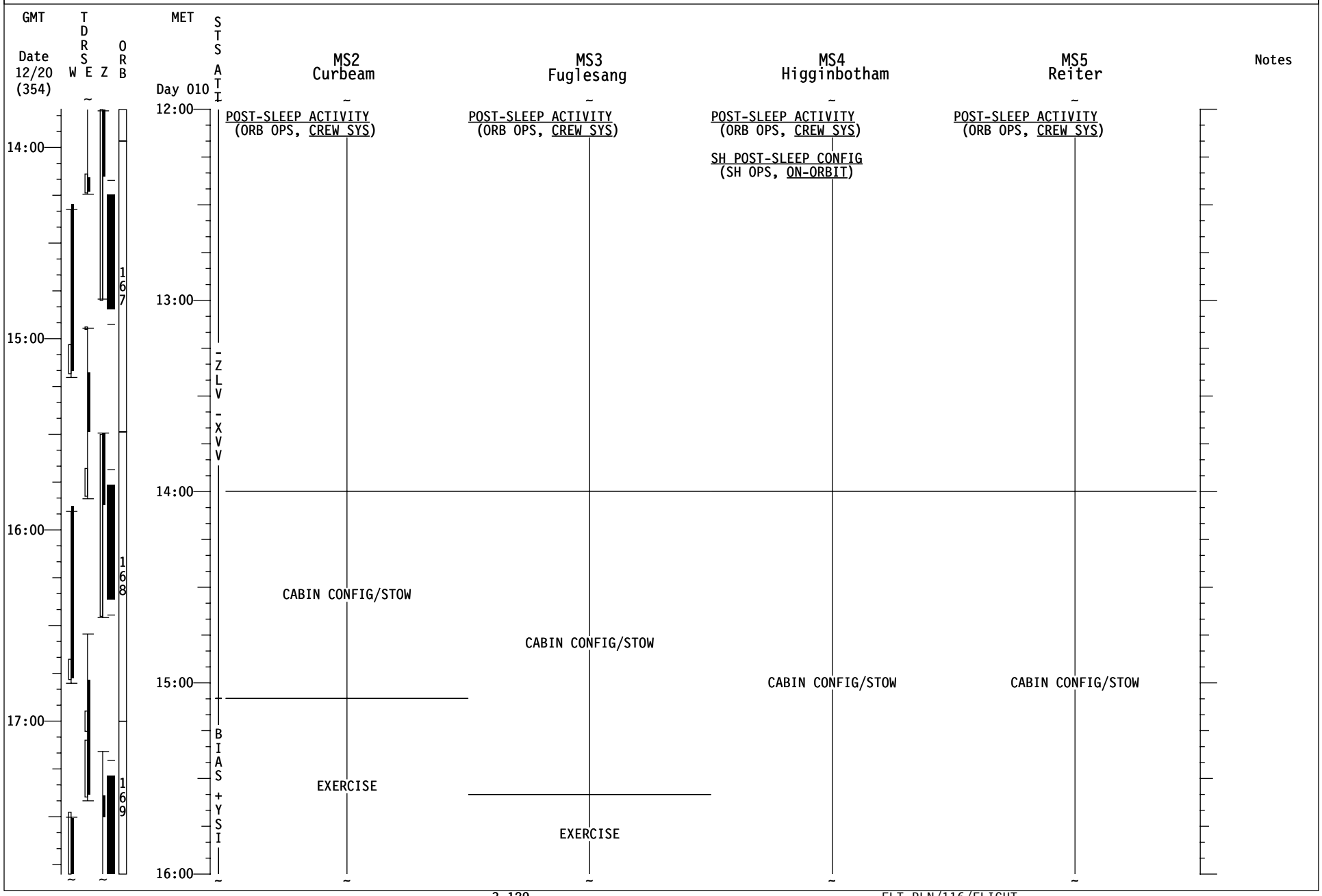
Notes

UPLINK
β21 + Box A2
-90<AZ<110
-90<EL<0

UPLINK
β21 + Box A3
-120<AZ<80
-90<EL<45

STS-116 FD12

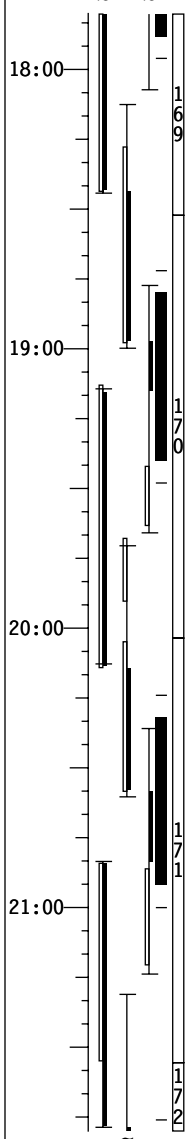
REPLANNED



STS-116 FD12

REPLANNED

GMT Date 12/20 (354) | TDRS W E Z | ORB | MET Day 010 | STS ATI



MET	STS ATI	CDR Polansky	PLT Boom of Mine	MS1 Patrick	Notes
16:00		OBSS LDRI RCC SURVEY - STBD (PDRS, OBSS NOM OPS) REF MSG 131	OBSS LDRI RCC SURVEY - STBD (PDRS, OBSS NOM OPS) REF MSG 131	OBSS LDRI RCC SURVEY - STBD (PDRS, OBSS NOM OPS) REF MSG 131	
	BIAS +XSI	MNVR BIAS +XSI (NOSE CAP SURVEY) TG=4 BV=5 P=315 Y=0 OM=180 A14/AUTO/VERN Init TRK	OBSS LDRI RCC SURVEY - NOSE CAP (PDRS, OBSS NOM OPS) REF MSG 131	OBSS LDRI RCC SURVEY - NOSE CAP (PDRS, OBSS NOM OPS) REF MSG 131	UPLINK β21 + Box A4 -36<AZ<70 -48<EL<32
17:00		OBSS LDRI RCC SURVEY - NOSE CAP (PDRS, OBSS NOM OPS) REF MSG 131			
18:00		MNVR BIAS -YSI (PORT SURVEY) TG=4 BV=5 P=0 Y=315 OM=144 A14/AUTO/VERN Init TRK			UPLINK β21 + Box A5 -25<AZ<65 -90<EL<0
		MEAL	MEAL	MEAL	
19:00	BIAS -YSI	OBSS LDRI RCC SURVEY - PORT (PDRS, OBSS NOM OPS) REF MSG 131	OBSS LDRI RCC SURVEY - PORT (PDRS, OBSS NOM OPS) REF MSG 131	OBSS LDRI RCC SURVEY - PORT (PDRS, OBSS NOM OPS) REF MSG 131	
20:00					

STS-116 FD12

REPLANNED

GMT Date 12/20 (354) | TDRS W E Z | ORB | MET Day 010 | STS ATI | BIAS +XSI | BIAS -YSI

MS2 Curbeam	MS3 Fuglesang	MS4 Higginbotham	MS5 Reiter
EXERCISE	EXERCISE	CABIN CONFIG/STOW	CABIN CONFIG/STOW
SUPPLY WATER DUMP USING FES F	CABIN CONFIG/STOW	EXERCISE	EXERCISE
CABIN CONFIG/STOW	CABIN CONFIG/STOW	TRANSFER CLEANUP	MEAL
TRANSFER CLEANUP	MEAL	MEAL	CABIN CONFIG/STOW
MEAL	CABIN CONFIG/STOW	CABIN CONFIG/STOW	
CABIN CONFIG/STOW			

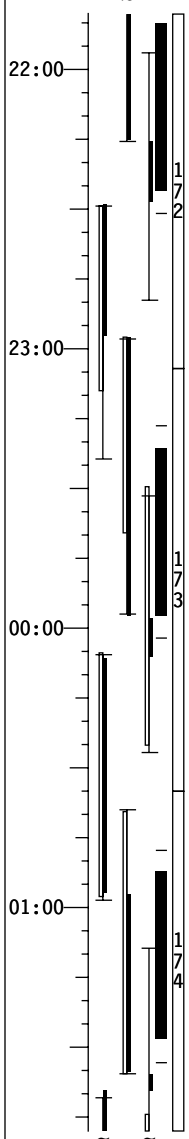
Notes

F SUPPLY WATER DUMP USING FES (ORB OPS, ECLS) On MCC GO: Step 1 using FES PRI A REF MSG 130

STS-116 FD12

REPLANNED

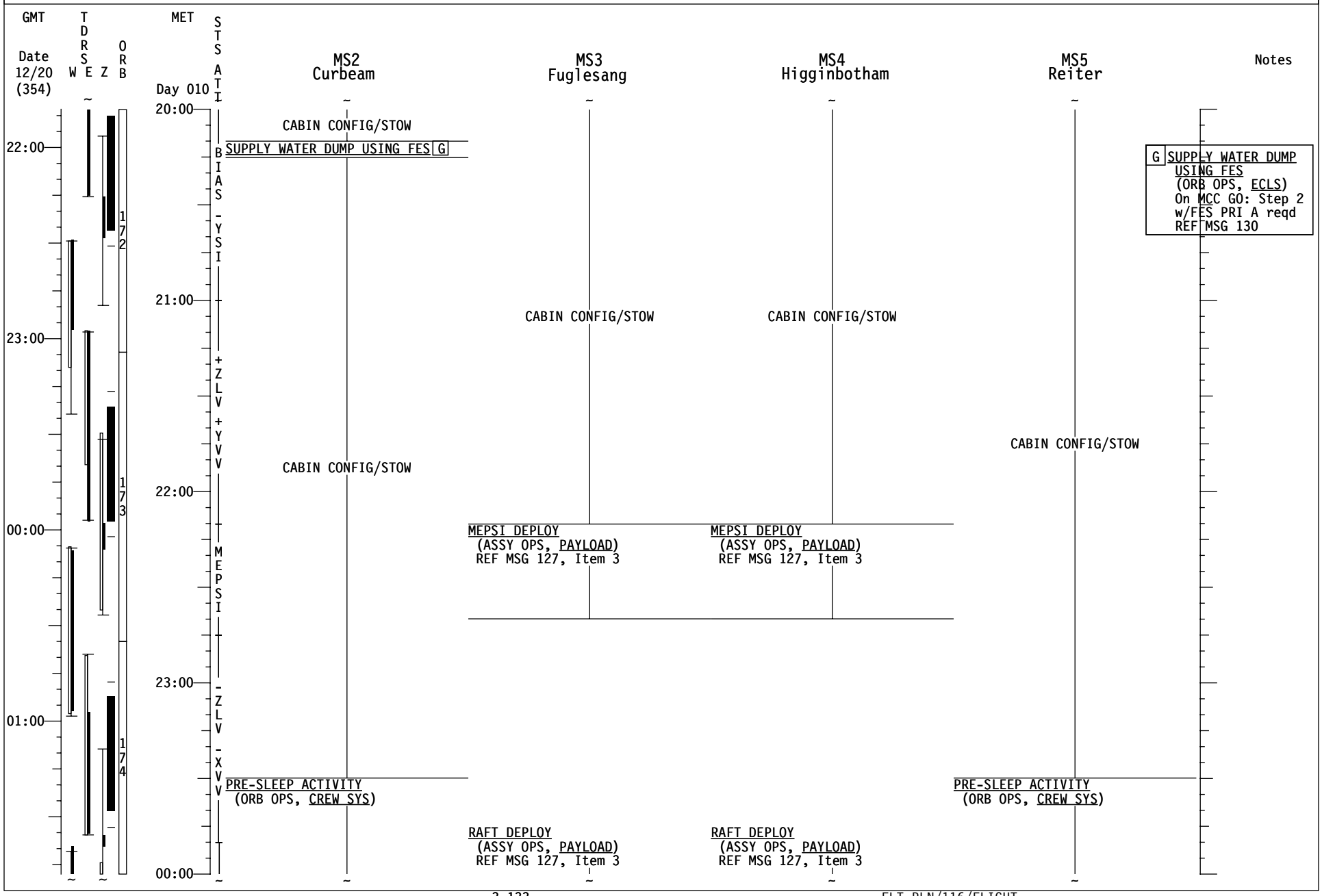
GMT Date 12/20 (354) | TDRS W E Z | ORB | MET Day 010 | STS ATT



MET	STS ATT	CDR Polansky	PLT Boom of Mine	MS1 Patrick	Notes
20:00	BIAS -YSI	OBSS LDRI RCC SURVEY - PORT (PDRS, OBSS NOM OPS) REF MSG 131	OBSS LDRI RCC SURVEY - PORT (PDRS, OBSS NOM OPS) REF MSG 131	OBSS LDRI RCC SURVEY - PORT (PDRS, OBSS NOM OPS) REF MSG 131	
		OBSS BERTH (PDRS, OBSS NOM OPS) REF MSG 131		OBSS BERTH (PDRS, OBSS NOM OPS) REF MSG 131	
21:00			MNVR (TRK) +ZLV +YVV TG=2 BV=5 P=270 Y=0 OM=270 A1/AUTO/VERN Init TRK		
	+ZLV +YVV	LANDING-1 COMM C/O (ORB OPS, COMM/INST) Perform Step 1 only WSSH AOS: 21:23 LOS: 21:31 On MCC Go, perform Step 3	PLAYBACK (DIGITAL) (PHOTO/TV, CUE CARD) OBSS SURVEYS KU TDRE (21:10-21:51)	RMS PWRDWN (PDRS, RMS PWRDN) Do not stow MPMs, use PORT RMS HTR B	UPLINK β21 + Mask
				L17 Check MCIU filter screen	
22:00	MEPSI		L1 FLASH EVAP CNTLR PRI A -OFF		
			MNVR MEPSI (DEPLOY) TG=2 BV=5 P=225 Y=295 OM=305 A1/AUTO/VERN Init TRK		
		EXERCISE		P/TV11 DEPLOYABLE PAYLOADS (P/TV,SCENES) Perform OPS	
			MNVR (TRK) -ZLV -XVV TG=2 BV=3 OM=0 A1/AUTO/VERN Init TRK		
23:00	-ZLV -XVV	SSV PWR -OFF			
		PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)		EXERCISE	
			PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)		
				PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	UPLINK β0
00:00		MNVR RAFT (DEPLOY) TG=2 BV=5 P=178 Y=5 OM=26 A1/AUTO/VERN Init TRK			

STS-116 FD12

REPLANNED



STS-116 FD12

REPLANNED

GMT Date 12/21 (355) | TDRS W E Z | ORB 174 175 176 177 | MET Day 011 | STS ATT -ZLV -XVV

CDR Polansky

00:00
MNVR RAFT (DEPLOY)
TG=2 BV=5 P=178 ¬Y=5 OM=26
A1/AUTO/VERN Init TRK
PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

02:00
ON MCC GO:L1 FLASH EVAP CNTLR PRI A -ON
MNVR (TRK) -ZLV -XVV
TG=2 BV=3 OM=0
A1/AUTO/VERN Init TRK
IMU STAR OF OPPTY ALIGN (ORB OPS, GNC)

06 √UHF MODE - OFF
PRIVATE MEDICAL CONFERENCE
PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

01:00

03:00
SLEEP

04:00

PLT Boom of Mine

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

SLEEP

MS1 Patrick

P/TV11 DEPLOYABLE PAYLOADS (P/TV,SCENES)
Perform OPS
PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

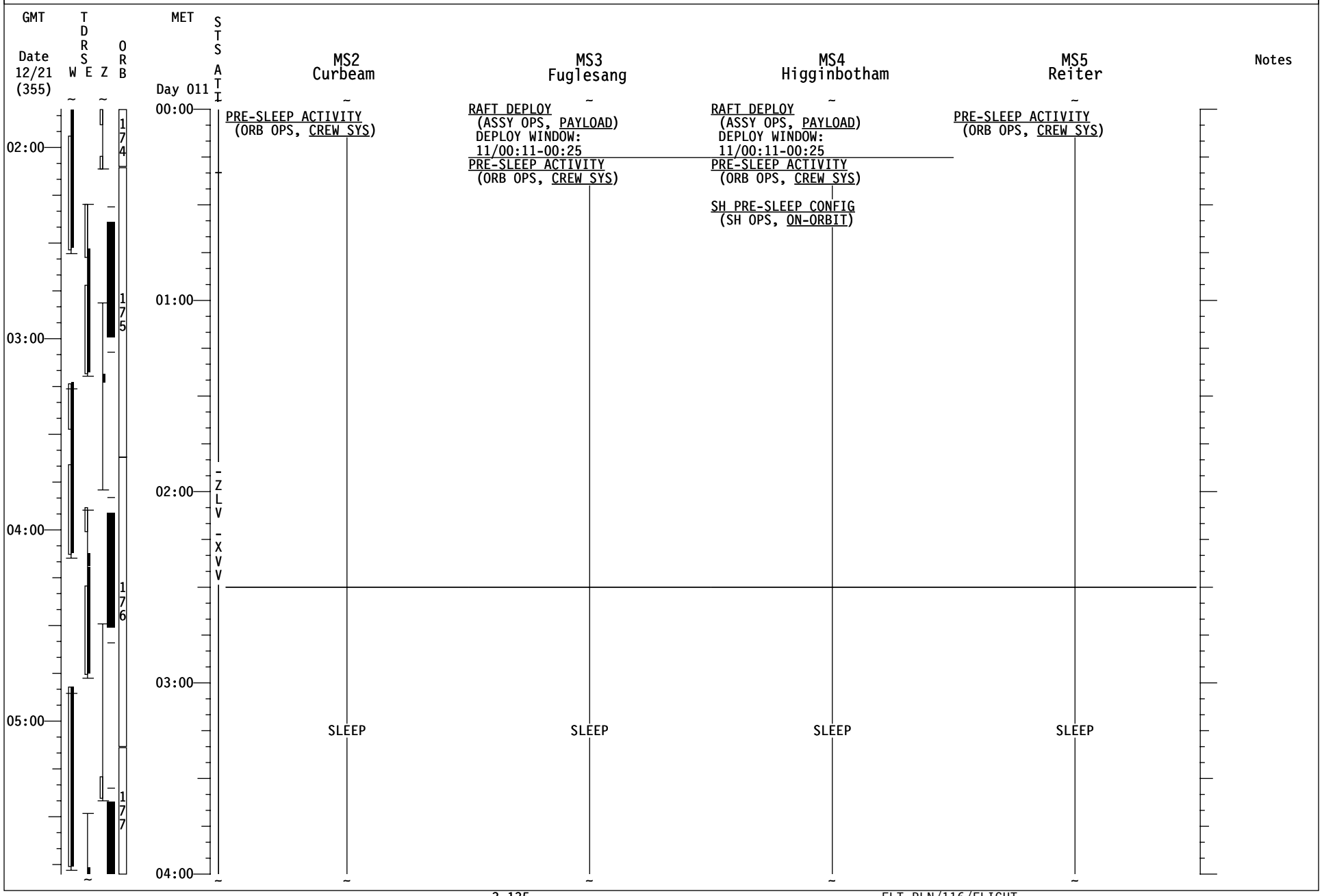
SLEEP

Notes

UPLINK
β21 + Mask

STS-116 FD12

REPLANNED



Good Morning Discovery!!!!

Now that you have started station well on its way to full power, executed a record breaking four EVAs in a single shuttle mission, exchanged Suni for Thomas, it is time to think about coming home. We can hardly wait to tell you in person what a terrific mission this has been!

When you check today's flight plan, you can see that we are going to take the opportunity we have and do a voice check with White Sands right after inspection is finished.

Have a great inspection day!

YOUR CURRENT ORBIT IS: 183 X 169 NM

NOTAMS:

EDWARDS (EDW) – 15/33 GREEN (LAKEBED 18L UNUSABLE)
WHITE SANDS (NOR) – 17/23 GREEN
AMBERLY (AMB) -CLOSED
ANDERSEN (GUA) -06L/24R CLOSED, ALTERNATE 06R/24L
GANDER TACAN (YQX-74X) - AZIMUTH OUT OF SERVICE DME AVAILABLE
KEFLAVIK (IKF) – UNUSABLE
ORMOND BEACH TACAN (OMN-73X) - AZIMUTH OUT OF SERVICE
OCEANA (NTU) – 32R/14L CLOSED
RIO GALLEGOS (AWG) – UNUSABLE
SALSBURY TACAN (SBY-49X) - AZIMUTH OUT OF SERVICE
WAKE ISLAND (WAK) - CLOSED

NEXT 2 PLS OPPORTUNITIES:

EDW22 ORB 172 – 10/20:36 (SCT250, 260/4P6)
EDW22 ORB 188 – 11/20:54 (FEW060 BKN150 BKN200, 260/10P16)

OMS TANK FAIL CAPABILITY:

L OMS FAIL: NO
R OMS FAIL: NO

LEAKING OMS PRPLT BURN:

L OMS LEAK: ALWAYS RETROGRADE
R OMS LEAK: ALWAYS RETROGRADE

OMS QUANTITIES(%)

L OMS	OX = 42.4	R OMS	OX = 43.7
	FU = 42.5		FU = 44.2

SUBTRACT I'CNCT COUNTER FOR CURRENT OMS QUANTITIES

DELTA V AVAILABLE:

OMS	386 FPS
ARCS (TOTAL ABOVE QTY1)	24 FPS
TOTAL IN THE AFT	410 FPS
ARCS (TOTAL ABOVE QTY2)	54 FPS
FRCS (ABOVE QTY 1)	29 FPS
AFT QTY 1	82 %
AFT QTY 2	44 %

THERE ARE NO FAILURE/IMPACT/WORK AROUNDS FOR TODAY.

Today there will be a Supply Water Dump using the FES along with a period of FES Inhibit for the Payload deploys.

FES Dump Details

The FES Dump duration will be approximately 4 hours. The following details are required for the dump:

> At MET 10/16:05, initiate SUPPLY WATER DUMP USING FES (ORB OPS, ECLS), p. 5-9, Step 1 DUMP INITIATION, using FES PRI A.
>
> At MET 10/20:10, terminate the FES dump on MCC call using Step 2, DUMP TERMINATION; FES PRI A is req'd.

Payload Deploys

The FES will be inhibited by taking it to the OFF position per the timeline. Prior to taking the FES back ON, EECOM will verify that the Freon Loop temperatures are within an acceptable range for FES startup; therefore you will see an "ON MCC Call" prior to that switch throw.

The attached pages are the updated front and back sides of the LCS cue card, which replaced the flight LCS cue card on FD03 in MSG 028. The changes to the LCC Activation section were made as a result of the malfunctioned LCC Desktop downlink during the FD02 inspection. The changes are listed below.

In step 1 - added "PGSC Pwr - OFF (to configure for desktop video)"
In step 1 - changed the AVIU power setting on the drawing from "LO" to "HI".

In step 3 - updated the AVIU setting from "√HI/LO - LO" to "√PWR SELECT - HI"
In step 3 - added "√HI-Z/75 - 75"

MSG 131 - UPDATES TO LCS CUE CARD

HOOK VELCRO

LCS

HOOK VELCRO

LCH ACTIVATION

APCU/ LCH Pwrup

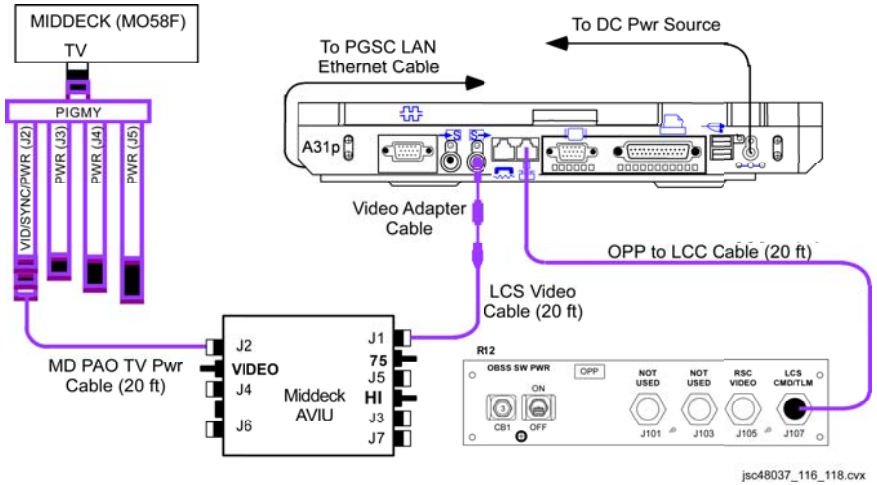
R1 1. √PL PRI MNC – ON (tb-ON)
√CAB – MNA(MNB)

SSP 1 2. √cb SW PWR 1 – cl
APCU1 OUTPUT RLY – CL
CONV – ON (tb-gray)
√OUTPUT RLY tb – gray
SM 200 APCU STATUS
√APCU1 OUT VOLT RES HIGH: 122V to 126.5V

LCC ACTIVATION

1. LCC Setup

A31p PGSC Pwr – OFF (to configure for desktop video)
√Hardware and cables configured per diagram below:



2. LCC PGSC Util Pwr On

A11 MN DC UTIL PWR – 10A
10A J4 – ON
A31p DC Pwr Supply – ON

3. LCC Startup

MO58F √TV PWR – ON
AVIU √PWR SELECT – HI
√HI-Z/75 – 75

A31p PGSC Pwr – ON
Sel 'Shuttle Apps' > 'LCC'
√Laser off – blue (Allow 2-3 min from APCU1 CONV – on)
√Comm – green
If Laser off and Comm status not correct: √MCC

4. Verify LCC Desktop Video

A7 VID OUT MON1(2) pb - push
IN MIDDECK pb – push
A3 √LCC desktop displayed on MON1(2)

* If LCC Desktop not displayed *
* √MCC *

OPERATION

NOTE

PDRS OPS will call for appropriate scan steps on LCC.
MCC may have limited insight if desktop dnlk avail

1. Load Database (if reqd)

√MCC for desired LCS database
√'DB Name': Field on upper left-hand side of LCS GUI

* If 'DB Name' incorrect: *
* Sel 'Load Database…' from File menu *
* Sel MCC desired database file *
* Sel 'OK' *

2. LCS System Status

LCS SYSTEM STATUS

Laser On/Off	Comm	LCS State
Laser ? (gray)	No Comm (yellow)	Unknown or Keep Alive Heater Only Mode (No LCC to LCH Network Connection)
Laser Off (blue)	Comm (green)	Configuration (Waiting for user command)
Laser On (green)	Comm (green)	Operational (Scan in progress)

While Scan in progress ('Scan Status' counter incrementing):
√Laser On – green
√Comm – green
√Scan Display – updating
√Temp – green
√Elec – green
Scan complete when 'Scan Status: Complete' displayed

If LCS system status out of config, perform appropriate TROUBLESHOOTING section of this cue card

P/TV-8a/116/O/X

(For APCU1 flights only)

MSG 131 - UPDATES TO LCS CUE CARD

HOOK VELCRO

HOOK VELCRO

LCC DEACTIVATION

NOTE
Shutting down LCC software also puts LCH in keep-alive heater mode. No LCH scans/insight or IDC ops available. APCU Converter pwr cycle reqd to reinitialize LCH for scanning and IDC ops

1. LCC Software Shutdown
   A31p Sel 'File' > 'Exit
   When 'Shutdown' dialog box opens:
   √'Shutdown LCH and Exit LCC Software' selected
   Sel 'OK'
   When 'Shutdown?' dialog box opens:
   Sel 'OK'

LCH DEACTIVATION

CAUTION
Removing APCU Converter Pwr or opening output relay will remove critical keep-alive pwr to LCH and IDC

1. APCU Converters Off/LCH Pwrdn

NOTE
Expect 'S200 APCU1(2) VOLT LMT' Msg

SSP 1 APCU1 CONV – OFF (tb-bp)

2. Open APCU Output Relay
   SSP1 APCU1 OUTPUT RLY – OP (tb-bp)

TROUBLESHOOTING

Temp or Elec Status Yellow and Message
A31p Sel 'System' page
Report 'Elec' or 'Temp' values backlit in yellow to MCC

Comm Status Yellow and LAN2 Network cable unplugged (red X on A31p system tray)

NOTE
LCC GUI Comm status will be yellow and A31p Local Area Network 2 status (w/red X on A31p system tray) cable unplugged tool tip will appear if LCH is in keep-alive heater mode

A31p If unexpected red X w/Local Area Network Connection 2 tool tip shown on A31p system tray:

R12 √OPP to LCC Cable connected to LCS CMD/TLM(J107) port
A31p √OPP to LCC Cable connected to LCC RJ45 port
Exit LCC software and shut down Windows

NOTE
Expect 'S200 APCU1(2) VOLT LMT' Msg

SSP 1 APCU1 CONV – OFF then ON
√CONV tb –gray
√OUTPUT RLY tb – gray

SM 200 APCU STATUS
√APCU1 OUT VOLT RES HIGH: 122V to 126.5V

A31p LCC PGSC Pwr – ON
√A31p internal RJ45 Network Interface Card LED green
Perform LCC ACTIVATION, steps 1,3

√Local Area Network Connection 2 status icon (with red X) in Windows system tray not displayed
√MCC if LCC GUI Comm status still yellow

Message Area Entry
Report LCC GUI message area log entry(ies) to MCC

P/TV-8b/116/O/X

(For APCU1 flights only)

MSG 132 - FD12 SPACEHAB VIEWPORT VIOLATIONS

MET	Constraint	Action
10/15:18 - 10/15:32	Deep Space	If Viewport open, HTR - ON
10/17:00 - 10/17:14	Deep Space	If Viewport open, HTR - ON
10/21:26 - 10/22:13	Deep Space	If Viewport open, HTR - ON

END OF PAGE 1 OF 1, MSG 132

FD11 MMT Crew Summary

Congratulations on your fourth successful EVA! The team was very proud of your accomplishment. It was an awesome sight to see the P6 solar array fully retracted and latched. Clearly, your expert touch, along with the help of hundreds of people here on the ground, has made the docked portion of STS-116 a huge success. The orbiter continues to perform near flawlessly and there are no new anomalies to discuss. The MMT closed with an in-depth review of the decision that was made on FD8 to perform late inspection in lieu of preserving a weather wave off day. All MMT team elements unanimously reaffirmed this decision as the correct course of action.

Weather Forecast - The Spaceflight Meteorology Group presented a weather forecast for all three CONUS sites, focusing on the EOM-1, EOM, and EOM+1 days. KSC was characterized as marginal on both EOM and EOM+1 due to low clouds and the chance of rain showers within the 30 nmi circle. Edwards was characterized as marginal on EOM due to high crosswinds, but the site returns to solid “GO” conditions on EOM+1. The Northrup lakebed condition is being watched closely as showers move through the area today. The Northrup forecast is “GO” on EOM and marginal on EOM+1 due to a slight chance of rain showers within the 30 nmi circle.

While assessing the weather forecast, the MMT team briefly touched on the option whereby a modified late inspection could be performed on the same day as FCS checkout in order to preserve the option of landing on FD13. This option is not feasible from a timeline perspective and will not be considered further. The intent of the MMT is for the mission operations team to land the vehicle on EOM unless it is precluded by bad weather at all three sites or a systems problem.

Northrup Discussion - KSC ground operations personnel summarized the capabilities available at Northrup. The community is confident that the orbiter can safely land at Northrup and there are adequate faculties to egress the crew. One of the main concerns with a landing at Northrup is how it affects the post-processing of the vehicle. During the extended period where the orbiter would remain at Northrup, the orbiter could be exposed to low temperatures that would increase the chances of leaking thrusters and freezing hydrazine/water lines. This concern extrapolates into some additional risk to the ground personnel that are post-processing the orbiter. After taking a poll, the MMT team unanimously agreed that crew safety will not be traded at the expense of vehicle turnaround concerns. With this decision, a full-up late inspection will remain in the FD12 timeline.