STS-116 / 12A.1

FD 04 Execute Package

MSG	Page(s)	Title
025B	1 - 13	FD04 Flight Plan Revision **(pdf)**
026	14 - 15	FD04 Mission Summary **(pdf)**
027	16	Desktop Video Downlink Test **(pdf)**
028	17 - 19	Updates to LCS Cue Card **(pdf)**
029	20 - 22	FD04 Transfer Message **(pdf)**
031	23	FD04 Water Summary Message **(pdf)**
030	---	FD03 MMT Summary **(pdf - Electronic Only)**
032	---	FN03 DAT Review **(pdf - Electronic Only)**

Approved by FAO: *Terry Clancy*

Last Updated: Dec 12 2006 2:04PM GMT
JEDI *(**J**oint **E**xecute package **D**evelopment and **I**ntegration), v2.04.0003*

MSG INDEX

MSG NO.	TITLE
025	FD04 Flight Plan Revision
026	FD04 Mission Summary (14-0547)
027	Desktop Video Downlink Test
028	Updates to LCS Cue Card
029	FD04 Transfer Message (14-0548)
030	FD03 MMT Summary (14-0549)
031	FD04 Water Summary Message
032	FN03 DAT Review (14-0551)

1. HAZMAT DATA FILE

   The MCC has remotely uplinked the latest HazMat data file to all networked PGSCs.

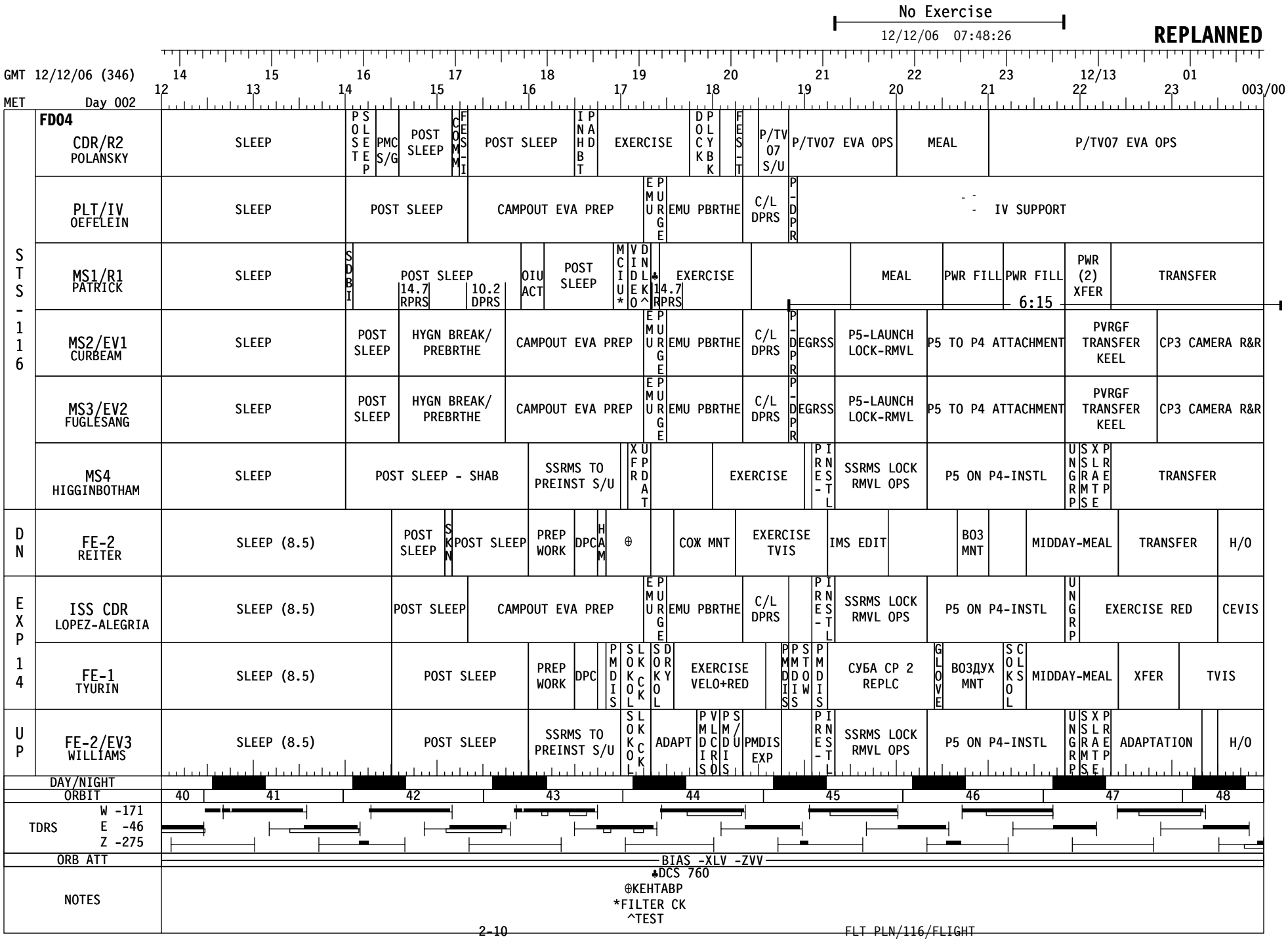
2. EXERCISE CONSTRAINTS

   The flight rule limit on exercise has increased by an hour and a half to cover the time period of 2/19:20 to 2/21:50. No exercise is allowed until soft-mate is complete.

3. VIEWPORT VIOLATIONS

   There are no Viewport violations.

4. REPLACE PAGES 2-10, 2-12, and 3-32 THROUGH 3-41.



No Exercise
12/12/06 07:48:26

REPLANNED

GMT 12/12/06 (346) 14 15 16 17 18 19 20 21 22 23 12/13 01
MET Day 002 12 13 14 15 16 17 18 19 20 21 22 23 003/00

FD04

Crew	Activities
STS-116 CDR/R2 POLANSKY	SLEEP; POST SLEEP; PMC S/G; POST SLEEP; COMM; FES-I; POST SLEEP; INHBT; PAD; EXERCISE; DOCK; PLYBK; FES-T; P/TV 07 S/U; P/TV07 EVA OPS; MEAL; P/TV07 EVA OPS
STS-116 PLT/IV OEFELEIN	SLEEP; POST SLEEP; CAMPOUT EVA PREP; EMU PURGE; EMU PBRTHE; C/L DPRS; P-DPR; IV SUPPORT
STS-116 MS1/R1 PATRICK	SLEEP; SDBI; POST SLEEP 14.7 RPRS; 10.2 DPRS; OIU ACT; POST SLEEP; MCIU*; VIDEO; DNLK^ ♣ 14.7 RPRS; EXERCISE; MEAL; PWR FILL; PWR FILL 6:15; PWR (2) XFER; TRANSFER
STS-116 MS2/EV1 CURBEAM	SLEEP; POST SLEEP; HYGN BREAK/ PREBRTHE; CAMPOUT EVA PREP; EMU PURGE; EMU PBRTHE; C/L DPRS; P-DPR; EGRSS; P5-LAUNCH LOCK-RMVL; P5 TO P4 ATTACHMENT; PVRGF TRANSFER KEEL; CP3 CAMERA R&R
STS-116 MS3/EV2 FUGLESANG	SLEEP; POST SLEEP; HYGN BREAK/ PREBRTHE; CAMPOUT EVA PREP; EMU PURGE; EMU PBRTHE; C/L DPRS; P-DPR; EGRSS; P5-LAUNCH LOCK-RMVL; P5 TO P4 ATTACHMENT; PVRGF TRANSFER KEEL; CP3 CAMERA R&R
STS-116 MS4 HIGGINBOTHAM	SLEEP; POST SLEEP - SHAB; SSRMS TO PREINST S/U; XFR; UPDAT; EXERCISE; PRE-INSTL; SSRMS LOCK RMVL OPS; P5 ON P4-INSTL; UNGRP; SSRMS XLATE; PRE-P; TRANSFER
DN FE-2 REITER	SLEEP (8.5); POST SLEEP; SKN; POST SLEEP; PREP WORK; DPC; HAM; ⊕; СОЖ МНТ; EXERCISE TVIS; IMS EDIT; ВОЗ МНТ; MIDDAY-MEAL; TRANSFER; H/O
EXP 14 ISS CDR LOPEZ-ALEGRIA	SLEEP (8.5); POST SLEEP; CAMPOUT EVA PREP; EMU PURGE; EMU PBRTHE; C/L DPRS; PRE-INSTL; SSRMS LOCK RMVL OPS; P5 ON P4-INSTL; UNGRP; EXERCISE RED; CEVIS
EXP 14 FE-1 TYURIN	SLEEP (8.5); POST SLEEP; PREP WORK; DPC; PMDIS; SOKOL; LK CK; SDRY; EXERCISE VELO+RED; PMDIS; PMDIS; STOW; PMDIS; СУБА СР 2 REPLC; GLOVE; ВОЗДУХ МНТ; SOKOL; CLS; MIDDAY-MEAL; XFER; TVIS
UP FE-2/EV3 WILLIAMS	SLEEP (8.5); POST SLEEP; SSRMS TO PREINST S/U; SOKOL; LK CK; ADAPT; PMDIS; VLCR; PMDIS; S/U; PMDIS EXP; PRE-INSTL; SSRMS LOCK RMVL OPS; P5 ON P4-INSTL; UNGRP; SSRMS XLATE; PRE-P; ADAPTATION; H/O

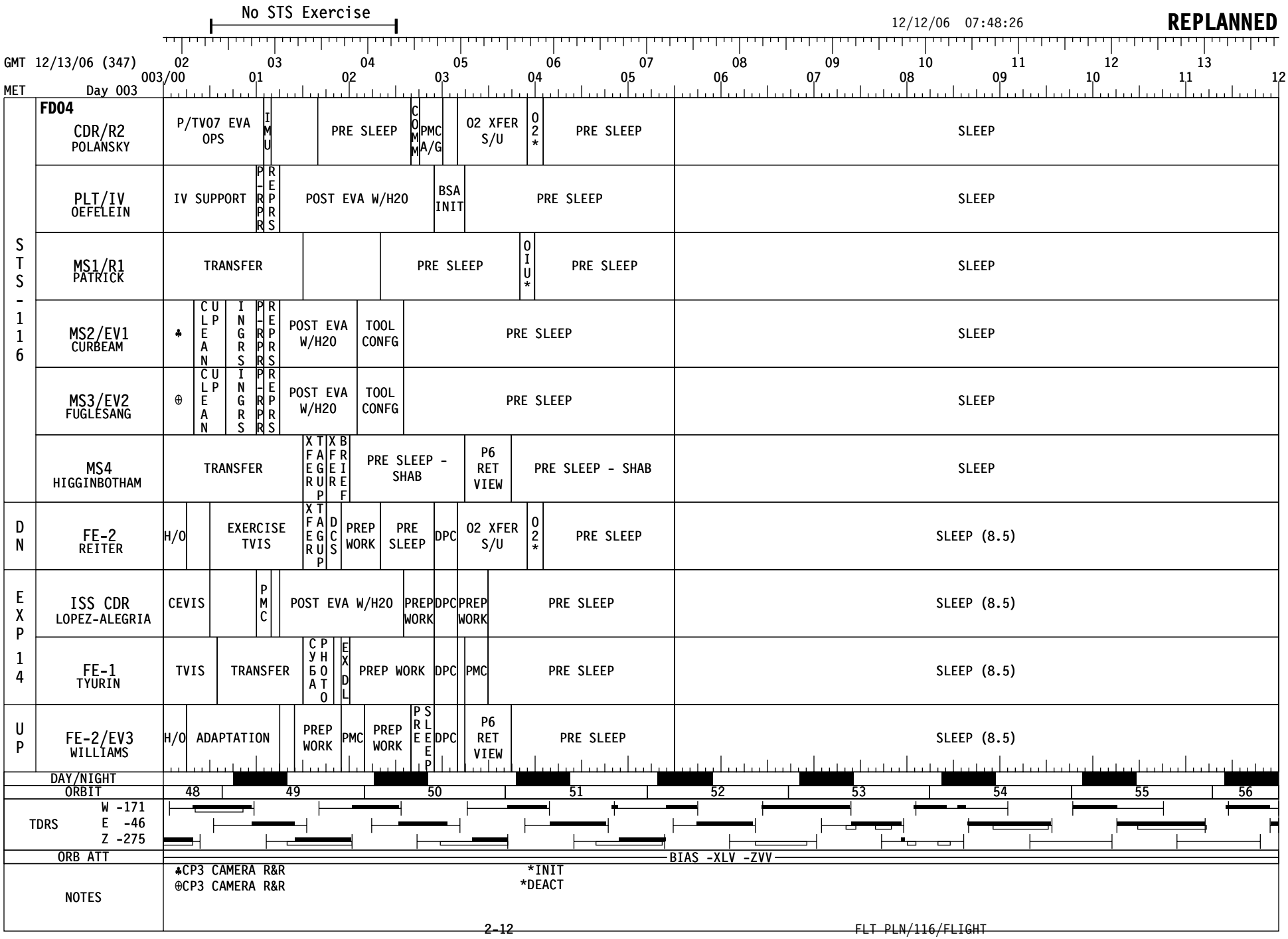
DAY/NIGHT

ORBIT 40 41 42 43 44 45 46 47 48

TDRS W -171 E -46 Z -275

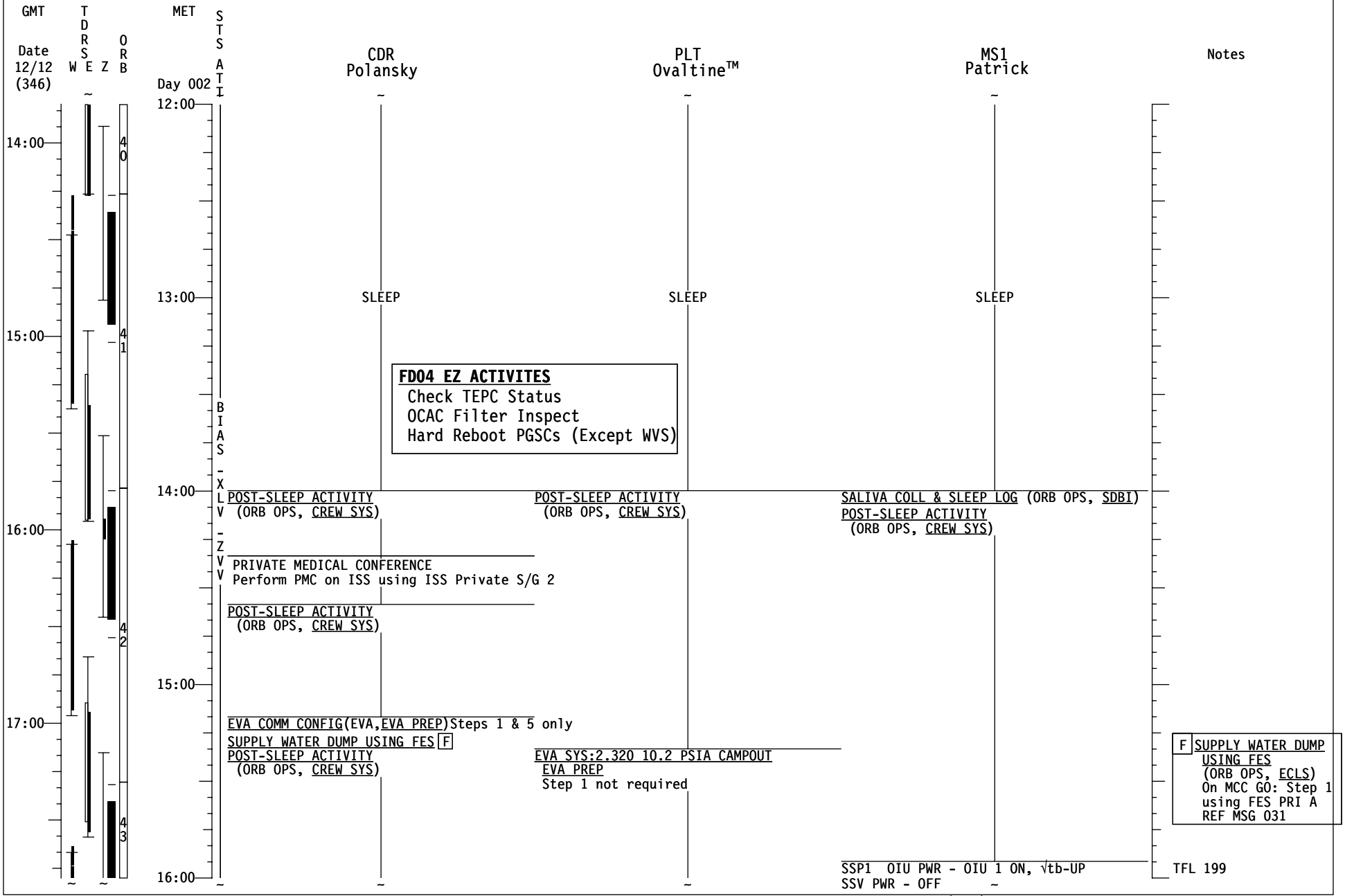
ORB ATT BIAS -XLV -ZVV

NOTES
♣DCS 760
⊕КЕНТАВР
*FILTER CK
^TEST


No STS Exercise
12/12/06 07:48:26
REPLANNED
GMT 12/13/06 (347)
MET Day 003
003/00
02 03 04 05 06 07 08 09 10 11 12 13
01 02 03 04 05 06 07 08 09 10 11 12
STS-116
DN
EXP 14
UP
FD04
CDR/R2 POLANSKY
P/TV07 EVA OPS
IMU
PRE SLEEP
COMM
PMC A/G
02 XFER S/U
O2 *
PRE SLEEP
SLEEP
PLT/IV OEFELEIN
IV SUPPORT
P-PRR
REPRS
POST EVA W/H2O
BSA INIT
PRE SLEEP
SLEEP
MS1/R1 PATRICK
TRANSFER
PRE SLEEP
OIU *
PRE SLEEP
SLEEP
MS2/EV1 CURBEAM
♣
CUPCLEAN
INGRS
P-PRR
REPRS
POST EVA W/H2O
TOOL CONFG
PRE SLEEP
SLEEP
MS3/EV2 FUGLESANG
⊕
CUPCLEAN
INGRS
P-PRR
REPRS
POST EVA W/H2O
TOOL CONFG
PRE SLEEP
SLEEP
MS4 HIGGINBOTHAM
TRANSFER
XFER
TAGUP
XFER
BRIEF
PRE SLEEP - SHAB
P6 RET VIEW
PRE SLEEP - SHAB
SLEEP
FE-2 REITER
H/O
EXERCISE TVIS
XFER
TAGUP
DCS
PREP WORK
PRE SLEEP
DPC
02 XFER S/U
O2 *
PRE SLEEP
SLEEP (8.5)
ISS CDR LOPEZ-ALEGRIA
CEVIS
PMC
POST EVA W/H2O
PREP WORK
DPC
PREP WORK
PRE SLEEP
SLEEP (8.5)
FE-1 TYURIN
TVIS
TRANSFER
CYBA
PHOTO
EXDL
PREP WORK
DPC
PMC
PRE SLEEP
SLEEP (8.5)
FE-2/EV3 WILLIAMS
H/O
ADAPTATION
PREP WORK
PMC
PREP WORK
PRE SLEEP
DPC
P6 RET VIEW
PRE SLEEP
SLEEP (8.5)
DAY/NIGHT
ORBIT 48 49 50 51 52 53 54 55 56
TDRS W -171
E -46
Z -275
ORB ATT
BIAS -XLV -ZVV
NOTES
♣CP3 CAMERA R&R
⊕CP3 CAMERA R&R
*INIT
*DEACT

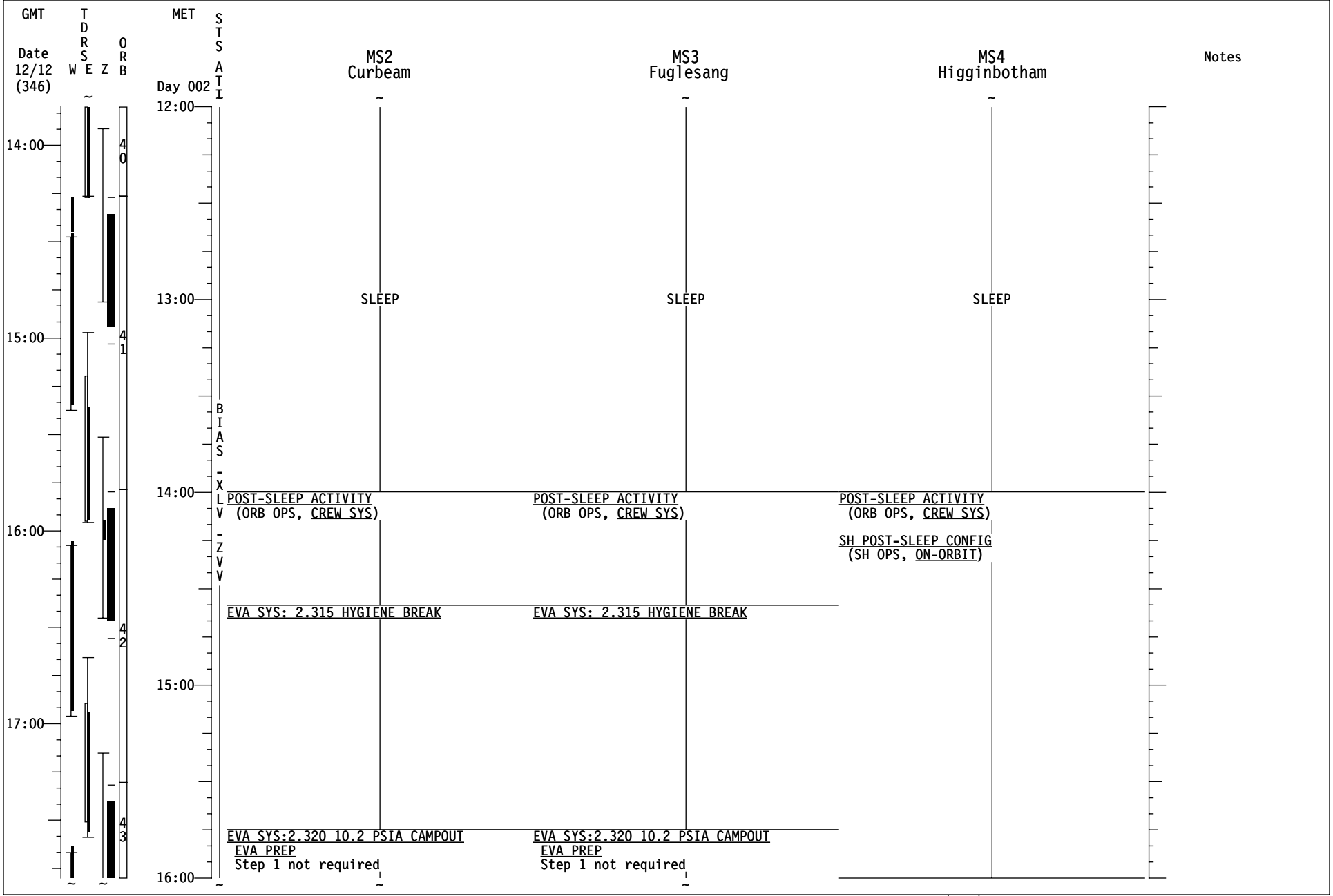
STS-116 FD04

REPLANNED



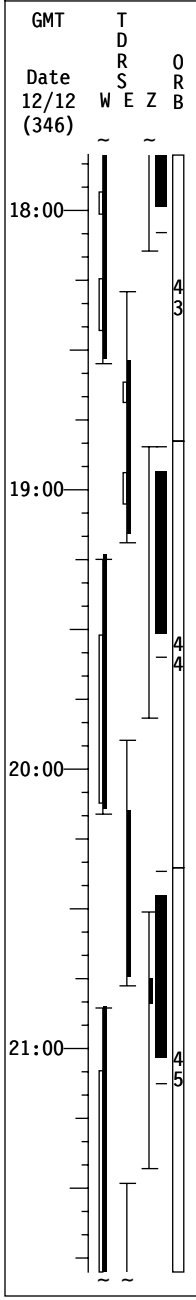
STS-116 FD04

REPLANNED



STS-116 FD04

REPLANNED



MET Day 002

STS ATI

	CDR Polansky	PLT Ovaltine™	MS1 Patrick
16:00	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	EVA SYS:2.320 10.2 PSIA CAMPOUT EVA PREP Step 1 not required	SSP1 OIU PWR - OIU 1 ON, √tb-UP SSV PWR - OFF POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)
	EVA1 INHIBIT PAD (EVA, TIMELINES)		
17:00	EXERCISE		L17 Check MCIU filter screen DESKTOP VIDEO D/L TEST REF MSG 027
		EVA SYS: 1.220 EMU PURGE	DATE/TIME SET (P/TV,DCS 760) S/N 1018
		EVA SYS: 1.225 EMU PREBREATHE	
18:00	PLAYBACK (ANALOG) (PHOTO/TV, CUE CARD) DOCKING KU TDRW (17:43-18:19)		EXERCISE
	SUPPLY WATER DUMP USING FES [F]	EVA SYS: CREWLOCK DPRSS/RPRSS CUE CARD	
	P/TV07 EVA (PHOTO/TV, SCENES) Perform SETUP		
		POST DEPRESS IVA SUPPORT EVA 1 (EVA, TIMELINES)	
19:00	P/TV07 EVA (PHOTO/TV, SCENES) Perform OPS		
			MEAL
20:00			

BIAS -XLV -ZVV

Notes

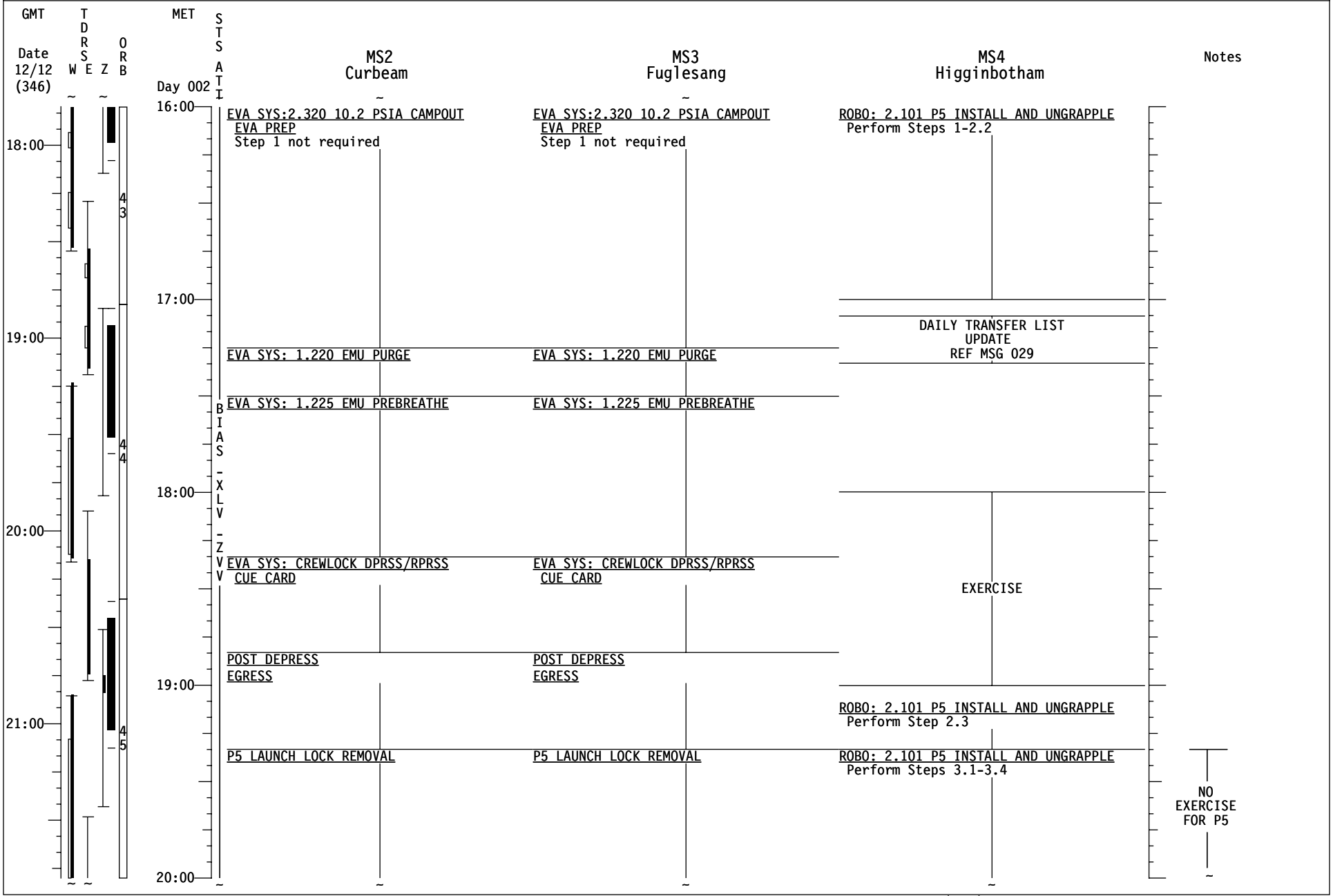
TFL 199
UPLINK
βO +
Box C1
-18<AZ<46
-65<EL<75
Box C2
-38<AZ<-3
-28<EL<44
Box C3
-72<AZ<-27
-13<EL<40
Box E1
-103<AZ<125
- 25<EL<62

F SUPPLY WATER DUMP USING FES (ORB OPS, ECLS)
On MCC GO: Step 2 w/FES PRI A reqd
REF MSG 031

NO EXERCISE FOR P5

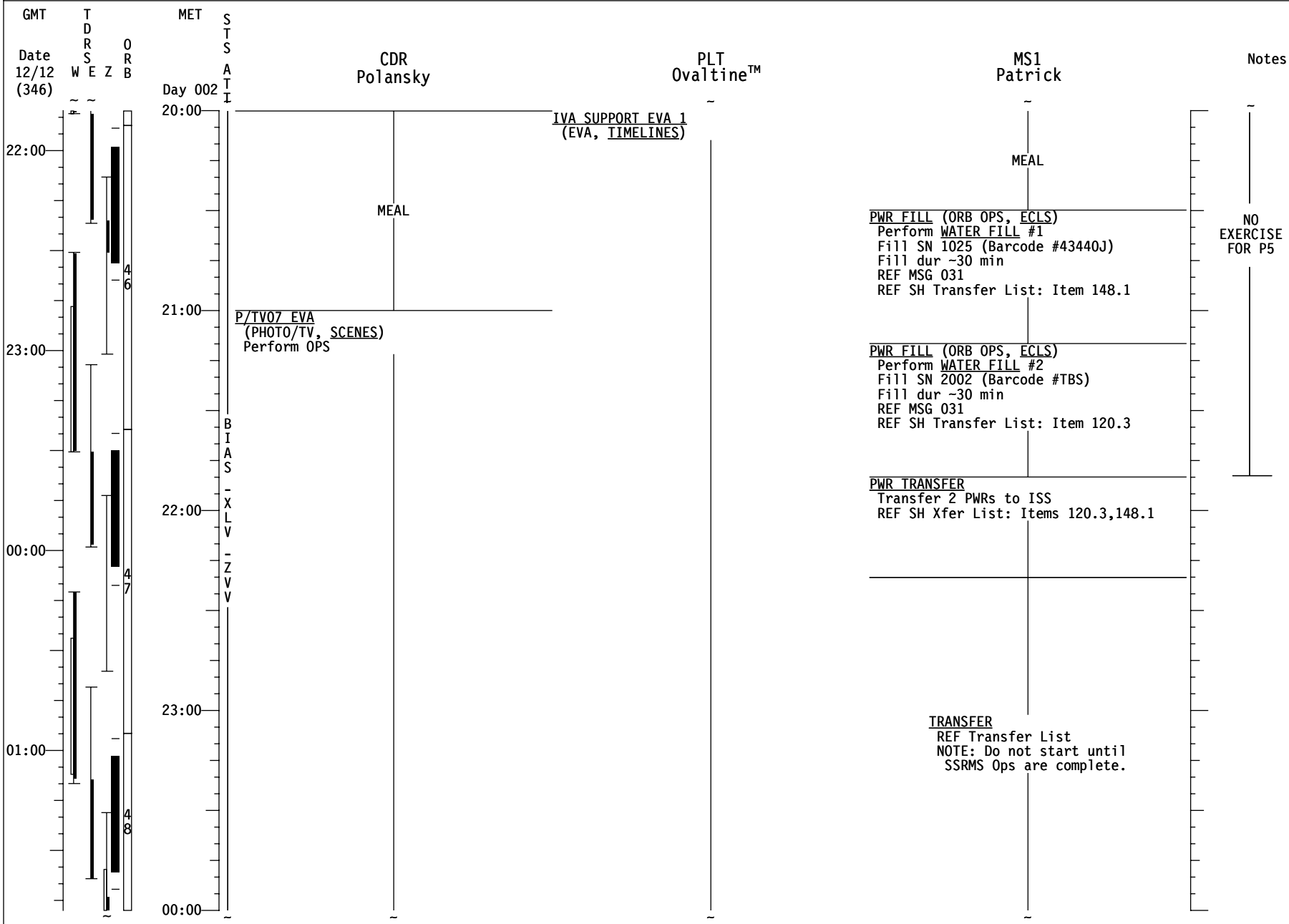
STS-116 FD04

REPLANNED



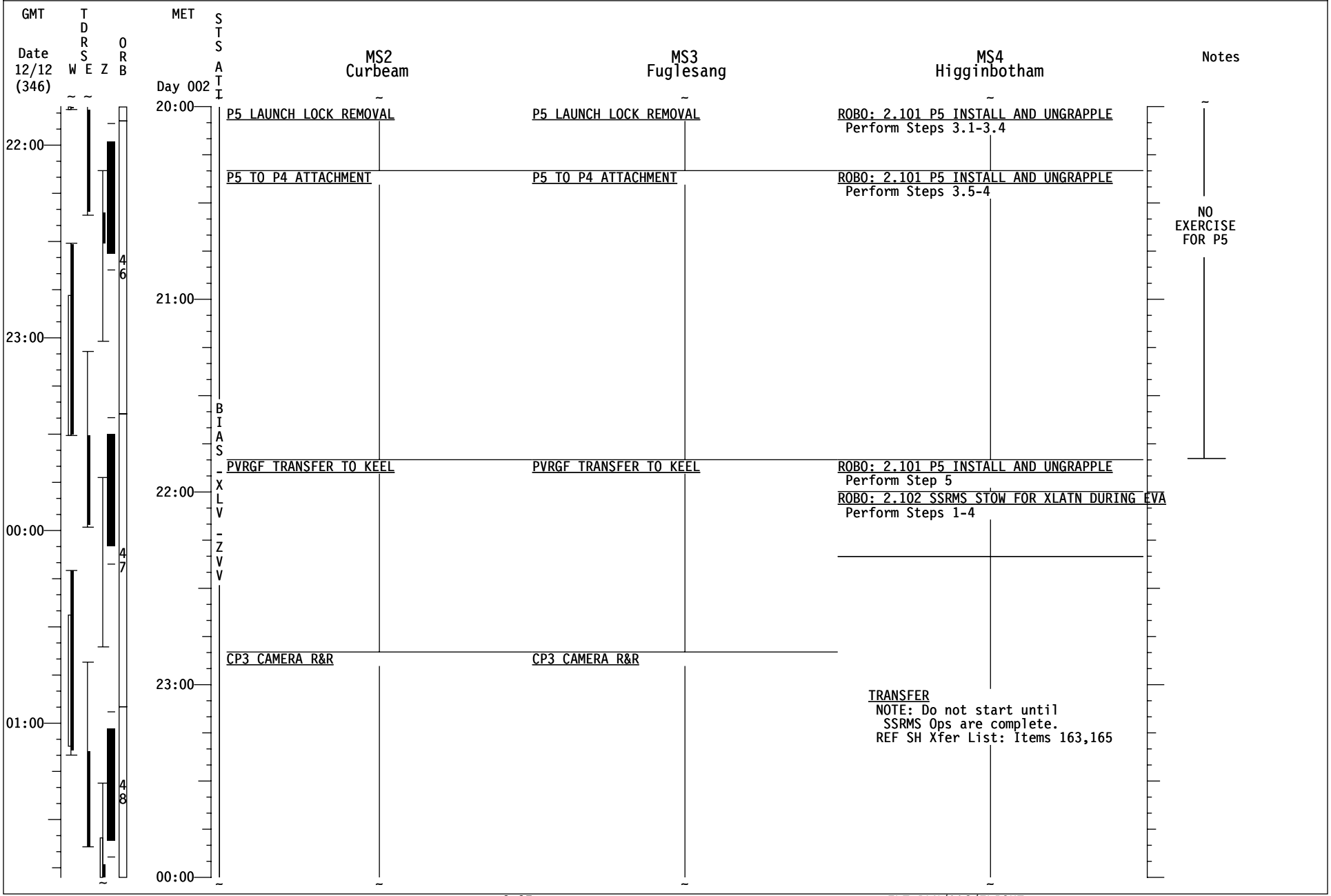
STS-116 FD04

REPLANNED



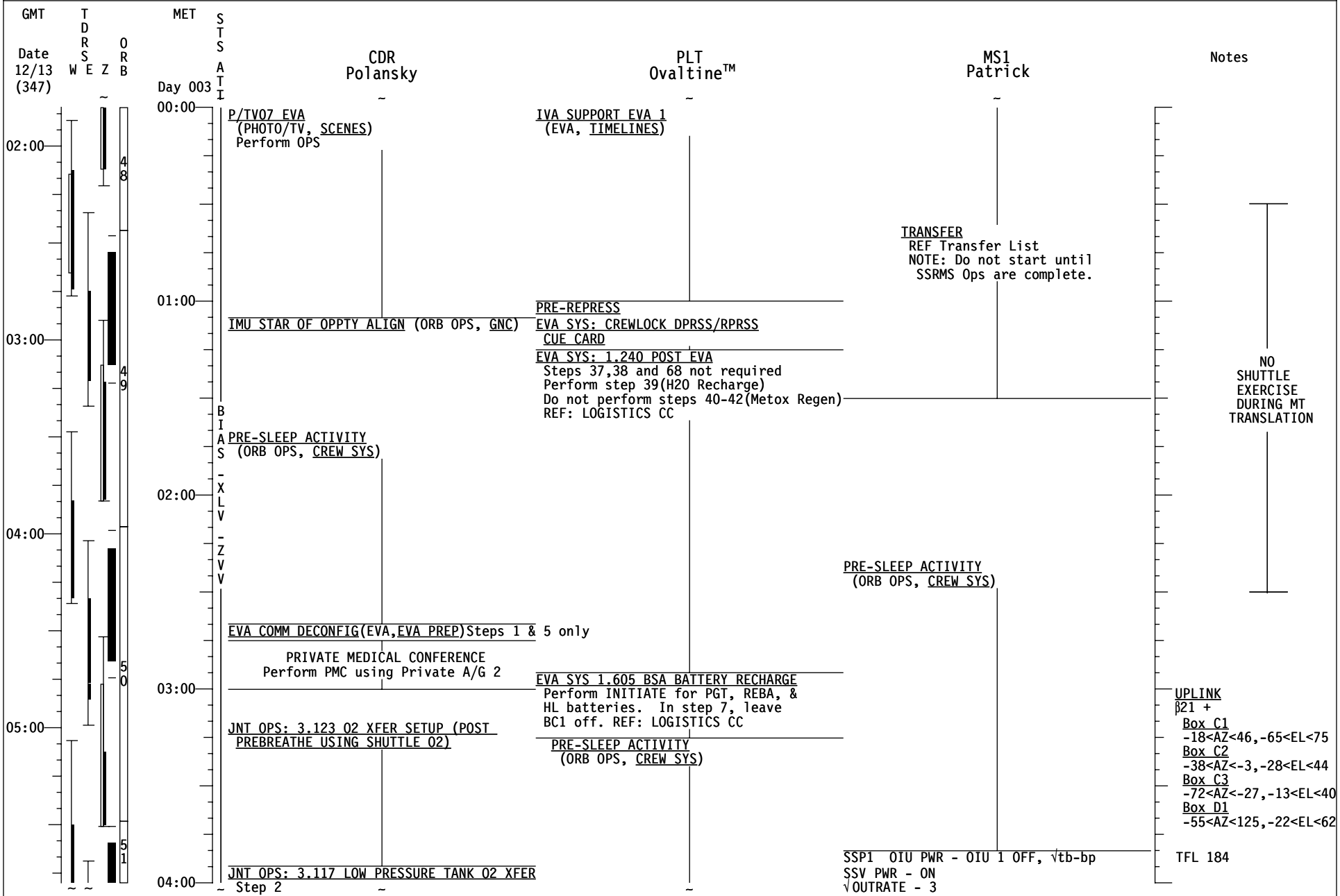
STS-116 FD04

REPLANNED



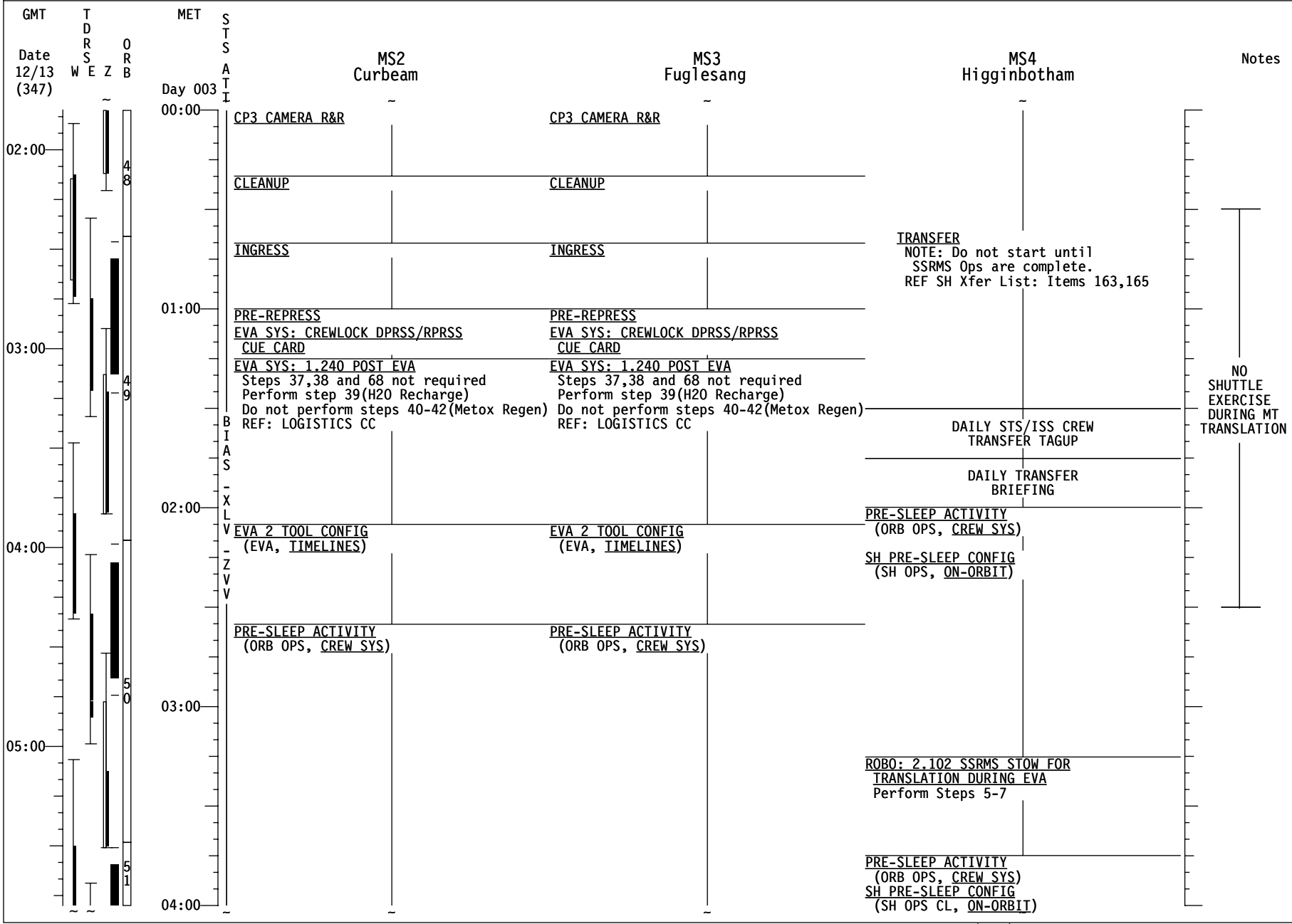
STS-116 FD04

REPLANNED



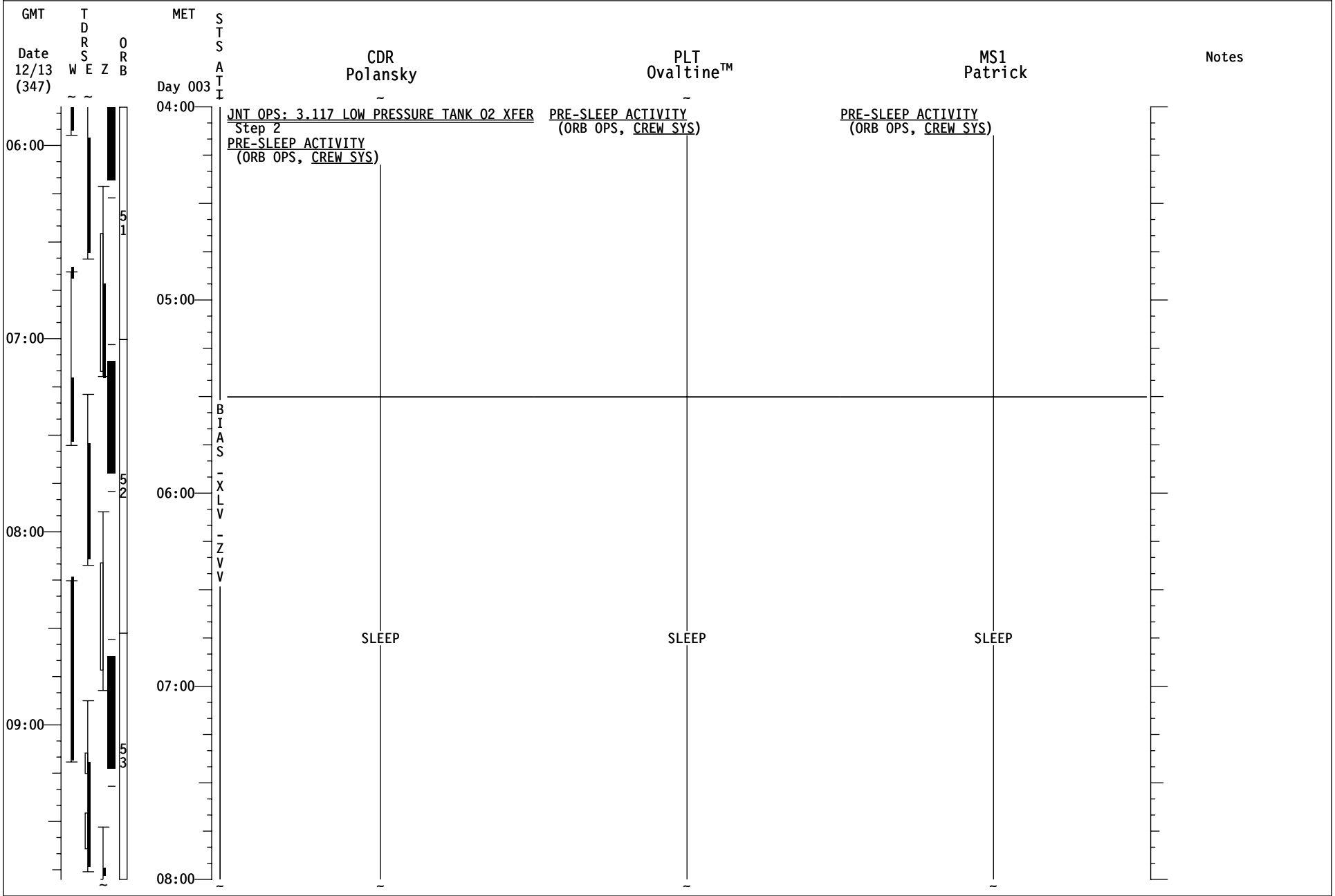
STS-116 FD04

REPLANNED



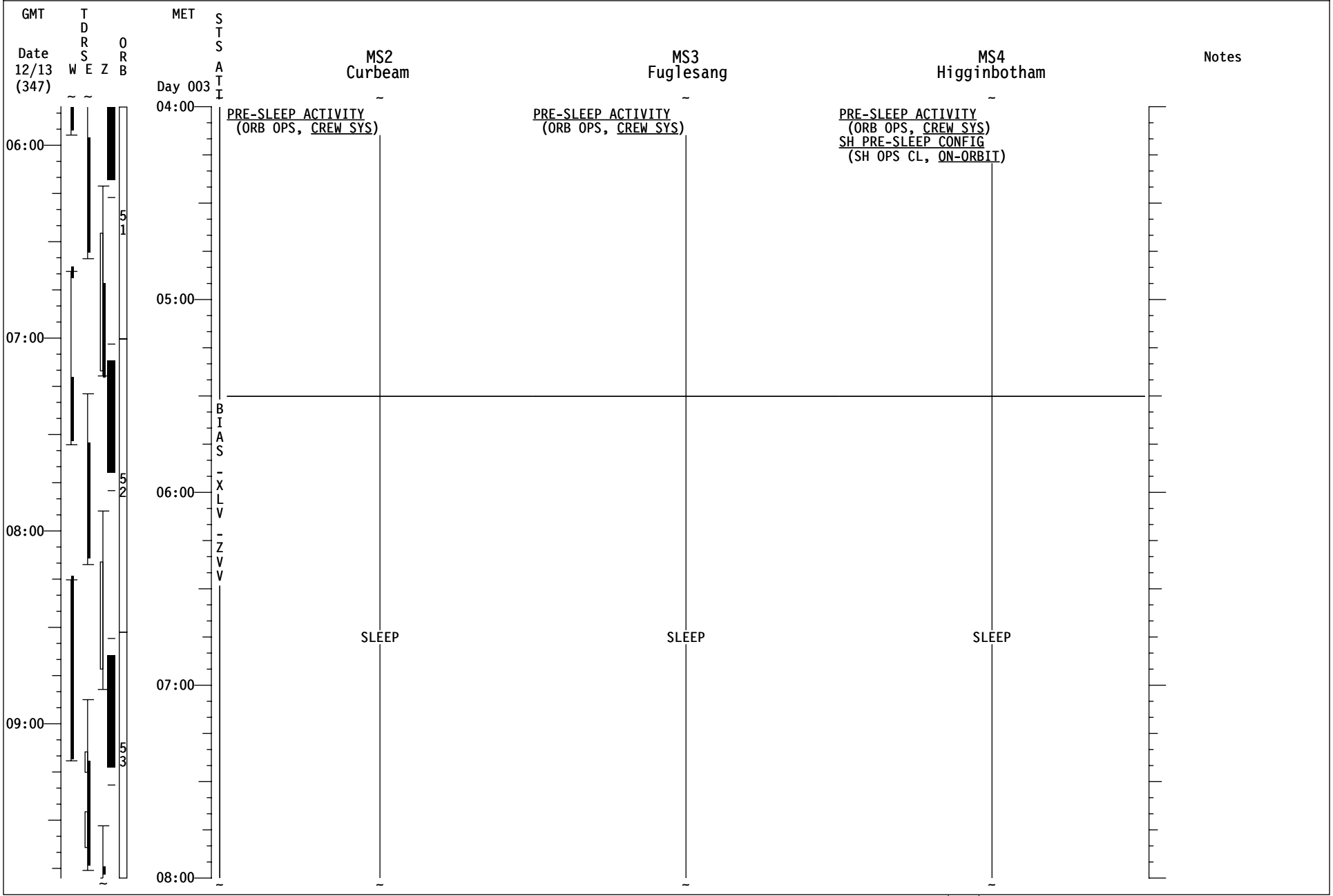
STS-116 FD04

REPLANNED



STS-116 FD04

REPLANNED



Good Morning Discovery!

Yesterday was such a great day! You made rendezvous, docking, crew transfer and P5 handoff look so easy. Then in addition, you did the extra inspection without missing a beat!

The Debris Assessment Team just finished their review and their recommendation is to not do a Flight Day 5 focused inspection. For additional detail you can look at the MMT summary, message 30 and the DAT report, message 32.

YOUR CURRENT ORBIT IS: 192 X 177 NM

NOTAMS:

EDWARDS (EDW) – LAKEBEDS RED DUE TO RAIN
WHITE SANDS (NOR) – 17/23 GREEN (TOW WAYS WET)
AMBERLY (AMB) -CLOSED
ANDERSEN (GUA) -06L/24R CLOSED, ALTERNATE 06R/24L
GANDER TACAN (74X) - AZIMUTH OUT OF SERVICE
KEFLAVIK (IKF) – UNUSABLE
ORMOND BEACH TACAN (73X) - AZIMUTH OUT OF SERVICE
OCEANA (NTU) – 32R/14L CLOSED
RIO GALLEGOS (AWG) – UNUSABLE
SALSBURY TACAN (49X) - AZIMUTH OUT OF SERVICE
STEPHENVILLE TACAN (78X) -UNUSABLE
WAKE ISLAND (WAK) - CLOSED

NEXT 2 PLS OPPORTUNITIES:

EDW22 ORB 48 – 2/23:59 (SCT250, 240/12P18)
EDW22 ORB 64 – 4/00:22 (FEW100 FEW250, 240/10P15)

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 = 44.1 R OMS OX = 45.3
FU = 44.1 FU = 45.8

SUBTRACT I'CNCT COUNTER FOR CURRENT OMS QUANTITIES

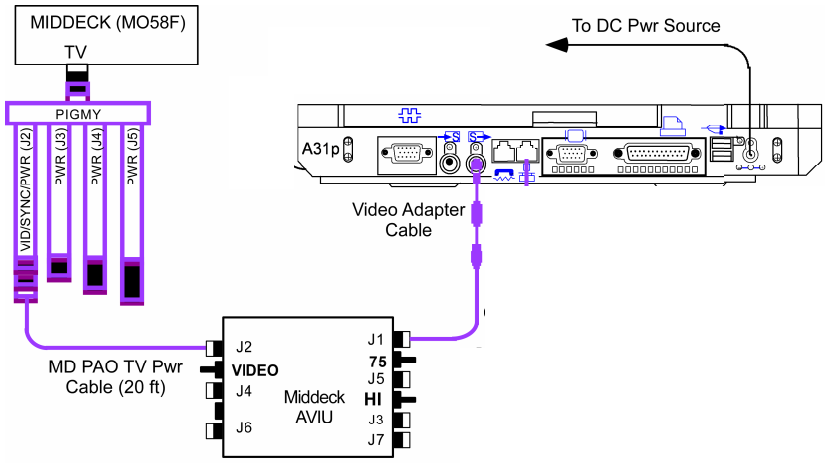
DELTA V AVAILABLE:

OMS	358 FPS
ARCS (TOTAL ABOVE QTY1)	40 FPS
TOTAL IN THE AFT	398 FPS
ARCS (TOTAL ABOVE QTY2)	70 FPS
FRCS (ABOVE QTY 1)	40 FPS
AFT QTY 1	87 %
AFT QTY 2	49 %

SYSTEM	FAILURE	IMPACT	WORK AROUND
EPS-02	The Mid Port Payload Bay Floodlight has failed	Loss of one of six Payload Bay Floodlights	The other five Payload Bay Floodlights are available for use.

DESKTOP VIDEO DOWNLINK TEST (SUBSET OF LCS CUE CARD)

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 √HI/LO – HI
   √HI-Z/75 – 75

   A31p PGSC Pwr – ON

4. Notify MCC when complete, INCO will route video to SSV to complete the test.

The attached pages are the updated front and back sides of the LCS cue card, which replace the flight LCS cue card. The updates in the FD3 execute package (MSG 015B, Item 1) have been implemented into the updated cue card along with additional changes to the LCC Activation section. 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"

HOOK VELCRO

LCS

HOOK VELCRO

LCH ACTIVATION

APCU/ LCH Pwrup

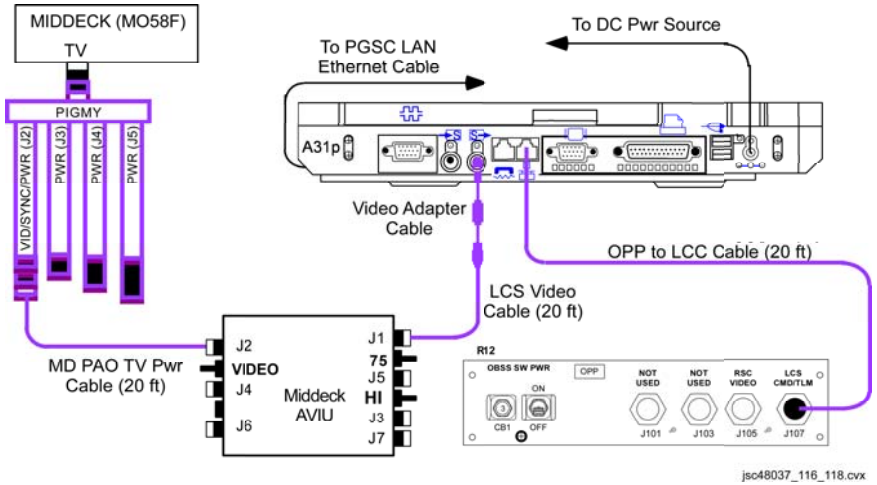
R1 1. √PL PRI MNC – ON (tb-ON)
√CAB – MNA(MNB)

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)

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)

Good morning Joanie, Nick, and STS-116 & Increment 14 crews!

Welcome to another day of transfer ops! We were fortunate enough yesterday to see you on downlink video already transferring items…you're looking good up there! We apologize for all the transfer list change pages today. You'll see new items and several changes to return locations due to Spacehab optimizing their return weight and c.g. This was done to accommodate potential return items when identified.

Today you'll fill 2 PWRs in the Middeck, which will require you to retrieve them from Spacehab prior to the activity in the afternoon. You'll also need to pull 2 CWCs out of Spacehab to support the FD05 fills (because you have no transfer time scheduled prior to the first CWC fill tomorrow).

The Transfer List Excel file, FD04_Transfer_List_STS116.xls, is located on the KFX machine in **C:\OCA-up\transfer.**

For ISS, the Transfer List Excel file, FD04_Transfer_List_STS116.xls, is located in **K:\OCA-up\transfer.**

Transfer Notes

- FYI…we sent the ISS crew a Daily Summary question today to ask L-A and Misha about the packing of additional crew preference items they requested to return. We are currently able to accommodate up to two 0.5 CTBs, but we need to understand the final packing configuration before adding them to the return list. No action for you at this time.

- You'll notice a new item 710.3 has been added to your Middeck Return Transfer List. This item includes four Plug Attach Bolts (RCC hardware) that were already pre-packed; however the Shuttle MER would like to return these in the foam blocks in which the new ones launched (ref item 21.3).

FD04 Choreography

- Transfer items you temp-stowed in SH on FD02 and FD03 to ISS.
- Transfer rack-front stowed items to ISS.
- **Items 163 and 165**: Remove CWCs from SF04C and SF05C for FD05 CWC fills. Temp stow on MDDK.
- **Items 120.3 and 148.1**: Retrieve 2 empty PWRs from SH; transfer PWRs to ISS when filled.

Please incorporate uplink pages as follows (today we've listed the updates in the order they printed out for you):

In the Spacehab Transfer List **LAYOUTS** tab
Replace the following pages:
L-5
L-6

In the Middeck Transfer List **RESUPPLY** tab
Replace the following pages:
Page Resupply 4

In the Middeck Transfer List **MDDK RSPLY REALTIME ADDITIONS** tab
Replace the following page:
Page Resupply 6

In the Spacehab Transfer List **RESUPPLY** tab
Replace the following pages:
Page Resupply 11
Page Resupply 14

In the Middeck Transfer List **RETURN** tab
Replace the following pages:
Page Return 1 thru 3
Page Return 5 thru 7

In the Spacehab Transfer List **RETURN** tab
Replace the following pages:
Page Return 10 thru 15
Page Return 19
Page Return 20

In the Spacehab Transfer List **SPACEHAB RTN REALTIME ADDITIONS** tab
Replace the following page:
Page Return 22

In the Middeck Transfer List **SWAP** tab
Replace the following pages:
Page Swap 4
Page Swap 6

In the Spacehab Transfer List **SWAP** tab
Replace the following page:
Page Swap 13

Changes to the Transfer List are detailed below:

MIDDECK RESUPPLY
Item 20 – updated location
Item 801 – updated location and added comment

SPACEHAB RESUPPLY
Item 118.1.1 – updated serial number
Item 118.1.2 – updated serial number
Item 136.1 – new item

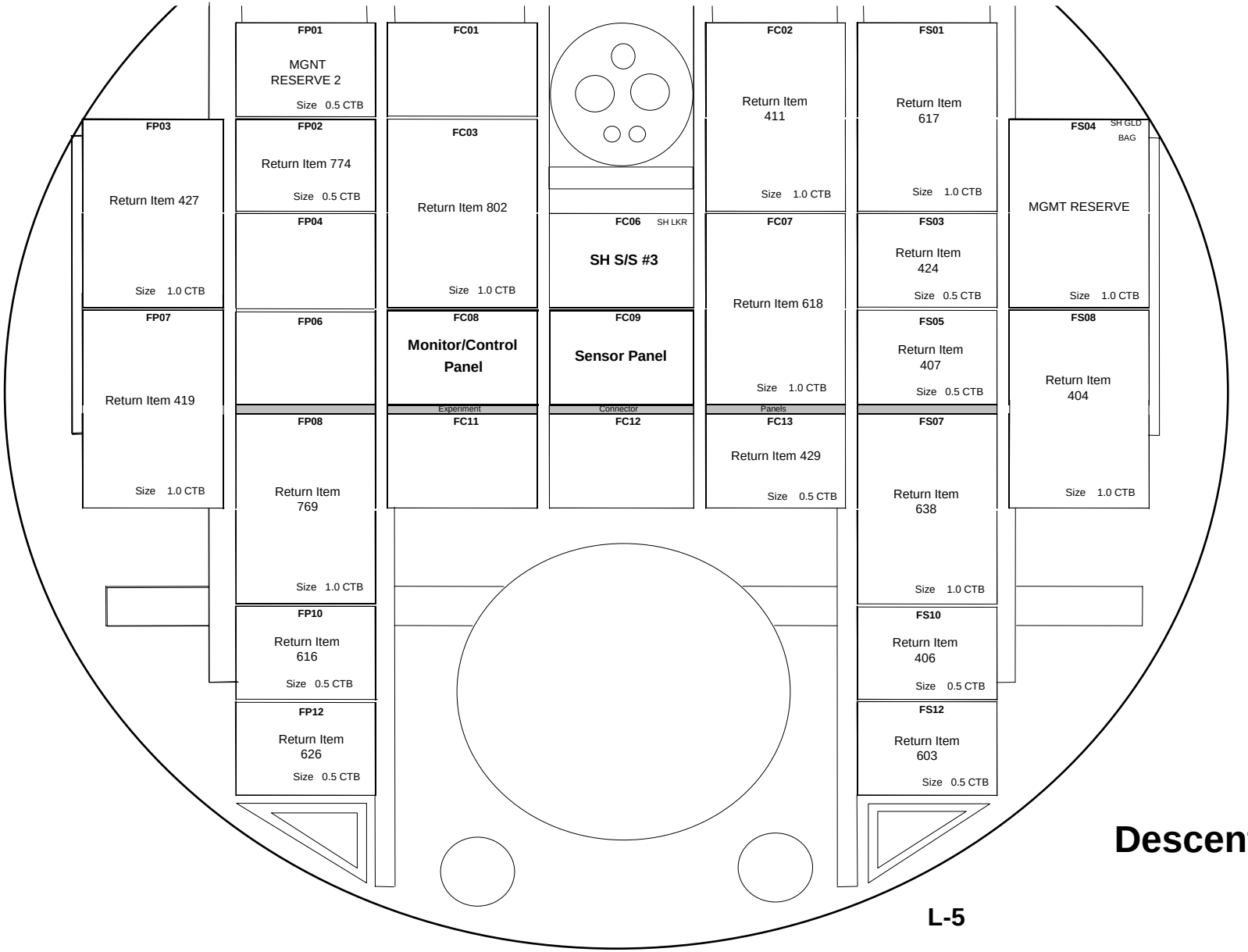
MIDDECK RETURN
Updated final locations for the following items: 402, 408, 412, 412.1, 412.2, 414, 415, 415.1, 421, 423, 606, 614, 614.1, 703, 704.1, 707, 708
Item 402.1 – updated quantity
Item 415.2 – item moved, used to be item 709
Item 431 – added constraint
Item 709 – reassigned as item 415.2
Item 710.3 – new item

SPACEHAB RETURN
Updated final locations for the following items: 406, 407, 411, 419, 419.1, 419.2, 427, 429, 616, 617, 618, 638, 769, 769.1, 774, 774.1, 774.2, 775, 775.1, 775.2, 775.3
Item 405 – updated initial location
Item 410.1 – item moved, used to be item 603.2
Item 427.1 – new item
Item 429.1 – new item
Item 603.2 – reassigned as item 410.1
Item 626 – new item
Item 773.3 – updated constraint
Item 802 – new item

Call us with any questions and have a great day!

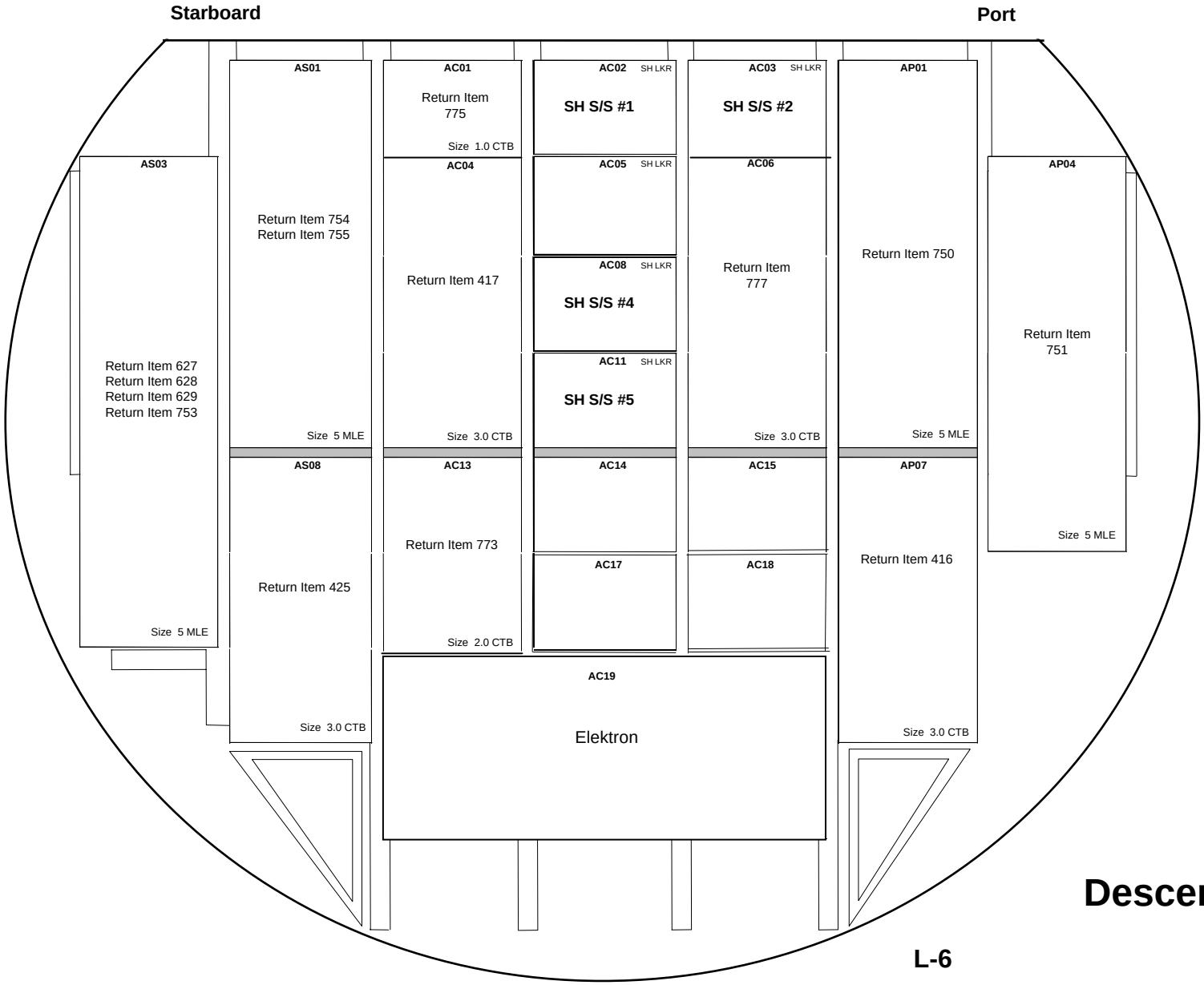
- The Transfer Team

SPACEHAB Module Layout
Forward Bulkhead



Descent

SPACEHAB Module Layout
Aft Bulkhead



Descent

STS-116/12A.1 Resupply Transfer List

Chg Flag	☑	FD	Crew Initials	Item #	Item Name	Qty	Initial Stowage	Temp Stowage	Stowage at Undock	Wt (lbs)	PROCEDURES/**Constraints**/ **Comments
			See Swap Tab - EMU H2O	18	EMU WATER PROCESSING KIT (Transfer Contents Only)	1	MD FLOOR STBD 1 (Bag C)	See Swap Tab		23.70	
			See Swap Tab - EMU H2O	18.1	contents of CTB	all	MD FLOOR STBD 1 (in 1.0 CTB)	See Swap Tab		(in above item)	
				19	OGS TOOLS	1.0 CTB	MD FLOOR STBD 2 (Bag D)		LAB1D2 Rack Front	41.00	
X				20	Ammonia Respirator Kit	5 orange kits	MD FLOOR STBD 2 (Bag D)		FGB 206, 208, and 210 Rack Front ~~FGB Deck~~	50.00	**Report FGB panel where these are stowed.
			See Swap Tab - RCC	21	FEMALE BOLT HOUSING - 1 MALE BOLT HOUSING - 1 DRIVE BOLT - 4	1 ziplock	MD FLOOR STBD 2 (Bag D)	See Swap Tab		2.00	
			See Swap Tab - RCC	21.1	FEMALE BOLT HOUSING P/N TD103859-02 s/n 0004	1 ziplock	MD FLOOR STBD 2 (Bag D)	See Swap Tab		(in above item)	
			See Swap Tab - RCC	21.2	MALE BOLT HOUSING P/N TD103859-01 s/n 0003	1 ziplock	MD FLOOR STBD 2 (Bag D)	See Swap Tab		(in above item)	
			See Swap Tab - RCC	21.3	DRIVE BOLTS P/N TD103856-02 s/n 0000030-0000033	4 ziplocks	MD FLOOR STBD 2 (Bag D)	See Swap Tab		(in above item)	
				22	BPSMU cables 4 FT BPSMU CABLE [P/N SED16102418-315] 22 FT BPSMU CABLE [P/N SED16102418-321] BPSMU/ODS ADAPTER [P/N SED16102418-309]	1 ASSY	MDDK prerouted	ISS and STS Deployed	LAB FWD ENDCONE (in 0.5 CTB s/n 1397)	2.00	**Transfer on FD10 per timelined procedure DRAG THROUGH QD DEACT.** **Hardware deployed on FD03 per timelined P/TV05 SETUP.
				23	BPSMU cables [BACKUP] 4 FT BPSMU CABLE [P/N SED16102418-315] 22 FT BPSMU CABLE [P/N SED16102418-321] BPSMU/ODS ADAPTER [P/N SED16102418-309]	1 ASSY	MDDK prerouted		LAB FWD ENDCONE (in 0.5 CTB s/n 1397)	2.00	**Transfer backup by FD10.**

[ ] - notes included by transfer team, - not on actual label

STS-116/12A.1 Resupply Transfer List

Chg Flag	☑	FD	Crew Initials	Item #	Item Name	Qty	Initial Stowage	Temp Stowage	Stowage at Undock	Wt (lbs)	PROCEDURES/**Constraints**/ **Comments
			Middeck Resupply Real Time Additions								
				800	BCR BATTERY - 4	1 ziplock	MD FLOOR STBD 2 (Bag D)		NOD1O4_A1 (in 0.5 CTB s/n 1189)		
X				801	LARGE CUTTER [p/n SEG33106915-303]	1	MD FLOOR STBD 1 (Bag C)		A/L1 Crewlock (in Crew Lock Staging Bag, s/n 1002) ~~A/L1O1 (in lid of M-O2 bag, s/n 1038)~~		**Stage in Crew Lock Staging Bag AFTER EVA 3.

[ ] - notes included by transfer team, - not on actual label

STS-116/12A.1 Resupply Transfer List

Chg Flag	☑	FD	Crew Initials	Item #	Item Name	Qty	Initial Stowage	Temp Stowage	Stowage at Undock	Wt (lbs)	PROCEDURES/**Constraints**/ **Comments
				117	OGS / BEAM ASSY	1 5 MLE Bag	AS03		MDDK FLOOR PORT 2	~~10.00~~	**After items 117.1 thru 117.4 have been removed, swap this bag with the MDDK CDRA 5 MLE bag (ref item 12).
				117.1	OGS Feedwater System Controller Bracket - 1 Upper Beam Assy - 1 Lower Beam Assy - 1 Modified ISPR Panel - 2	1 jett stow bag	AS03 (in 5 MLE bag)		LAB1D2 Rack Front	19.00	**Retrieve pregathered jettison stowage bag. Ask ISS crew for location. **Remove these items (qty 4) from foam, and stow in jettison stowage bag for transfer. **Remove luggage tag taped to top of Modified ISPR Panels and attach to jettison stowage bag.
				117.2	U.S. / RSA-B Hose Male Hose Adapter EXPRESS Valve Kit Rack Utility Drawer Liner - 2	1 ziplock	AS03 (in 5 MLE bag)		LAB1D2 Rack Front	7.26	
				117.3	P6 STBD PVR THERMAL BLANKET	1 ziplock	AS03 (in 5 MLE bag)		LAB1D2 Rack Front	40.00	
				117.4	WATER DELIVERY ORU	1 ASSY	AS03 (in 5 MLE bag)		LAB1D2 Rack Front	86.30	
				118	EMCS	3.0 CTB	AS08		LAB1D2 Rack Front	87.00	**PENETRATOR (PBA bottles/air mix modules)** **Ensure CTB is accessible.
				118.1	PBA/HRF	1.0 CTB	AS08 (in 3.0 CTB)		LAB1D2 Rack Front (in 3.0 CTB)	27.00	**Remove this CTB from 3.0 CTB (ref item 118). Then, remove items 118.1.1 and 118.1.2 and restow this CTB back in item 118.
X				118.1.1	PBA Oxygen Reducer/Cylinder Assembly [new] [s/n ~~1008~~ <u>1024</u>]	1	AS08 (in 1.0 CTB)		NOD1S2-14 (PEP Locker)	(in above item)	**Transfer on FD05 per timelined activity FDS-PBA-XFER.** **Remove velcro tabbed pin and discard in STS dry trash before stowing. Call MCC-H to confirm pins from 2 PBAs are removed** **Old PBAs return per item 419.1 and 419.2.
X				118.1.2	PBA Oxygen Reducer/Cylinder Assembly [new] [s/n ~~1013~~ <u>1025</u>]	1	AS08 (in 1.0 CTB)		LAB1P0 (PEP Locker)	(in above item)	**Transfer on FD05 per timelined activity FDS-PBA-XFER.** **Remove velcro tabbed pin and discard in STS dry trash before stowing. Call MCC-H to confirm pins from 2 PBAs are removed** **Old PBAs return per item 419.1 and 419.2.

[ ] - notes included by transfer team, - not on actual label

STS-116/12A.1 Resupply Transfer List

Chg Flag	☑	FD	Crew Initials	Item #	Item Name	Qty	Initial Stowage	Temp Stowage	Stowage at Undock	Wt (lbs)	PROCEDURES/**Constraints**/ **Comments
				136	L-A CREW PREFERENCE	0.5 CTB	FP12		L-A crew pref	11.00	**Contains black ink printer cartridges.
X				136.1	Black Ink Cartridge [p/n S189108]	6	FP12 (in 0.5 CTB)		NOD1O4_B1 (in 0.5 CTB, s/n 1090)	(in above item)	
				137	PMDIS/TRAC	1.0 CTB	FS01		LAB1P2_J1	45.00	**Transfer with IELK on FD03 for FD04 timelined PMDIS activities.** **A CD from this CTB will be burned during PMDIS activities and returned (ref item 603.2). **Use procedure in CTB lid pocket for repackiing bag per PMDIS Stow activity.
			See Swap Tab - LiOH	138	LiOH BAG 6 [unused]	1.0 CTB	FS03	See Swap Tab		27.00	
	☑	0		139	MANAGEMENT RESERVE	SH GOLD BAG	FS04		FS04	26.00	**DO NOT TRANSFER - launches and returns in this location.**
				140	HYGIENE	0.5 CTB	FS07	MDDK	MF57C	23.00	**DO NOT TRANSFER TO ISS - returns in MDDK for STS crew use.** **Stow in locker after G-Suits and Neckrings are removed from locker.
			See Swap Tab - LiOH	141	LiOH BAG 5 [unused]	1.0 CTB	FS08	See Swap Tab		27.00	
			See Swap Tab - LiOH	142	LiOH BAG 2 [unused]	1.0 CTB	FS09	See Swap Tab		27.00	
				143	S. WILLIAMS BAG 1	0.5 CTB	FS12		Suni crew pref	14.00	

STS-116/12A.1 Return Transfer List

Chg Flag	☑	FD	Crew Initials	Item #	Item Name	Qty	Initial Stowage	Temp Stowage	Stowage at Undock	Wt (lbs)	PROCEDURES/**Constraints**/ **Comments
			Middeck Return								
				Prepacked Bags/Items							
X				402	Return Item 402 [GSCs and samples]	0.5 CTB	LAB1D2		MD FLOOR PORT ~~2~~ 1 (5 MLE from SH)	12.00	**Item 402.1 will be removed from this CTB and in stowed in MF14E.
X				402.1	Water Samples	~~5~~ 4	LAB1D2 (in 0.5 CTB)		MF14E	1.00	**Remove all water samples from CTB and stow in empty food trays. Clamshell trays together.
X				408	Return Item 408 [POEMS foam cushion]	1	LAB1O2_J2		MD FLOOR PORT ~~1~~ 2 (Bag F)	1.50	**Do not stow near a heat source.**
X				412	Return Item 412 [RSP, MAS, CONTROL ASSY, CSA-CP RESUPPLY]	1.0 CTB	LAB1D2		MD FLOOR PORT ~~1~~ 2 (Bag F)	18.00	**Do not transfer from ISS until old RSP (item 412.1) is added to this CTB on FD07.**
X				412.1	Respiratory Support Pack [s/n 1002] [b/c CHCRSP02J]	1 Kit	LAB1D4_D1		MD FLOOR PORT ~~1~~ 2 (Bag F) (in 1.0 CTB)	(in above item)	**Do not stow in CTB until new RSP checks out per FD07 timelined procedure RESPIRATORY SUPPORT PACK - CHECKOUT.**
X				412.2	CSA-CP RESUPPLY KIT [s/n 1003] [p/n SJG46120020-301]	1 Kit	LAB1D4_C2	LAB1D4 Rack Front	MD FLOOR PORT ~~1~~ 2 (Bag F) (in 1.0 CTB)	(in above item)	**Do not stow in CTB until new CSA-CP checks out per FD09 timelined procedure CSA-CP RESUPPLY KIT CHECKOUT.**

STS-116/12A.1 Return Transfer List

Chg Flag	☑	FD	Crew Initials	Item #	Item Name	Qty	Initial Stowage	Temp Stowage	Stowage at Undock	Wt (lbs)	PROCEDURES/**Constraints**/ **Comments
				413	Return Item 413 [TORQUE WRENCH, HRM, IV PUMP BATTERIES]	0.5 CTB	LAB1D2		MD FLOOR STBD 2	6.00	
				413.1	Chest Strap/Monitor/ Transmitter Assy [p/n KLST410174-302] [in use]	3	ISS Crew Pref		MD FLOOR STBD 2 (in 0.5 CTB)	(in above item)	**Transfer on FD09 following Reiter's last exercise session.** **These item are HRM equipment currently in use by ISS CDR, ISS FE-1 and ISS FE-2. (includes watches, chest straps and transmitters)
X				414	Return Item 414 [IMAKs, CPD]	0.5 CTB	LAB1D2		MD FLOOR PORT ~~2~~ 1 (5 MLE from SH)	20.00	
X				415	Return Item 415 [CEVIS RESUPPLY KIT, SSK, MEDIA SYRINGES, DSTs]	0.5 CTB	LAB1D2		MD FLOOR PORT 1 (~~Bag F~~ (5 MLE from SH)	8.00	
X				415.1	CEVIS PCMCIA cards [p/n WLSJ320226-301] [s/n 1007, 1005]	2	LAB1P3 (in use)		MD FLOOR PORT 1 (~~Bag F~~ (5 MLE from SH)	1.00	**After L-A downloads CEVIS exercise data on FD9, stow these cards inside ziplock labeled "CHeCS: CEVIS Resupply Kit" inside return item 415.**
X				415.2	Silver Biocide Syringe Kit [s/n 1001]	1	NOD1O1 (in mesh bag)	MDDK	MD FLOOR PORT 1 (5MLE from SH)	1.00	**Needed FD05 on Shuttle for CWC fills.** **Retrieve pregathered kit. Ask ISS crew for location. **Add to item 415 before stowing 415.

STS-116/12A.1 Return Transfer List

Chg Flag	☑	FD	Crew Initials	Item #	Item Name	Qty	Initial Stowage	Temp Stowage	Stowage at Undock	Wt (lbs)	PROCEDURES/**Constraints**/ **Comments
X				421	Return Item 421 [GSCs]	0.5 CTB	LAB1D2		MD FLOOR PORT ~~2~~ 1 (5 MLE from SH)	10.00	
				421.1	Water Samples	4	LAB1D2 (in 0.5 CTB)		MF14E	1.00	**Remove all water samples from CTB and stow in empty food trays. Clamshell trays together.
X				423	Return Item 423 [CSA-O2 RESUPPLY, SAMPLE TUBE DISPENSER]	0.5 CTB	LAB1D2		MD FLOOR PORT ~~1~~ 2 (Bag F)	15.00	
X				431	Return Item 431 [SODF]	0.5 CTB	LAB1D2		MF71G	25.00	**Before stowing this CTB in mddk, remove qty 4 Plug Attach Bolts P/N TD103856-02 (wrapped in clothing) and stow in item 710.**
			See Swap Tab -CD XFR	605	Return Item 605 [12A CD Transfer Case]	1		See Swap Tab	MA16J	3.00	
X				606	Return Item 606 [VOA Supplies]	0.5 CTB	LAB1D2		MD FLOOR PORT ~~2~~ 1 (5 MLE from SH)	20.00	
X				614	Return Item 614 [ISS Photo TV Resupply Kit]	0.5 CTB	LAB1D3		MD FLOOR PORT ~~2~~ 1 (5 MLE from SH)	21.00	
X				614.1	PD-100 Camcorders [s/n 1014, 1019]	2	ISS deployed		MD FLOOR PORT ~~2~~ 1 (in 0.5 CTB)	5.00	**Pack old camcorders after ops complete (crew pref). **New camcorders are in resupply item 132.

STS-116/12A.1 Return Transfer List

Chg Flag	☑	FD	Crew Initials	Item #	Item Name	Qty	Initial Stowage	Temp Stowage	Stowage at Undock	Wt (lbs)	PROCEDURES/**Constraints**/ **Comments
				Non-Prepacked Bags/Items							
			See Swap Tab - ALSP	700	ALSP [old] [s/n 1001]	1		See Swap Tab	MD FLOOR STBD 1 (Bag C)	37.00	
				701	DOUBLE COLDBAG [s/n 1010]	1	AC05 (inside locker)	ISS	MF57O	50.00	**Do not stow near a heat source.** **Filled with icepacs and samples per FD09 timelined PODF procedure 12A.1 SAMPLE TRANSFER TO DOUBLE COLDBAG. **This coldbag launched in SH (ref item 102). Will remain in SH until required for sample gathering to protect against kickloads.
				702	EMU [s/n 3015]	1	ISS A/L		EXT A/L	280	**Configured for return per FD07 timelined procedures PRE EVA3 EMU RESIZE and FD09 POST EVA TRANSFER AND RECONFIG.
X			See Swap Tab - EMU H2O	703	EMU WATER PROCESSING KIT [with returning contents]	1.0 CTB		See Swap Tab	MD FLOOR STBD 2 (Bag D)	0.50	
			See Swap Tab - EMU H2O	420	Return Item 420 [ISS EMU Water Processing Kit contents]	1 Mesh Bag		See Swap Tab	MD FLOOR STBD 2 (in 1.0 CTB)	24.00	

STS-116/12A.1 Return Transfer List

Chg Flag	☑	FD	Crew Initials	Item #	Item Name	Qty	Initial Stowage	Temp Stowage	Stowage at Undock	Wt (lbs)	PROCEDURES/**Constraints**/ **Comments
			See Swap Tab - IELK	704	IELK [T. Reiter]	1		See Swap Tab	MD CEILING PORT 2 (Bag B)	64.00	
X			See Swap Tab - IELK	704.1	KENTAVR	1		See Swap Tab	~~MDDK~~ Crew Worn	3.00	
				705	LEG SIZING RINGS, 1.5" [white nomex pouch]	1		MA9G	EXT A/L FLOOR BAG	0.25	**Pouch launched in MDDK and was temp-stowed on FD02 per item 4. **Stow item 705.1 in this pouch.
				705.1	Leg Sizing Rings [s/n 141 and 142]	1 ziplock	A/L1O1 (staged on outside of M-02 Bag s/n 1010)		EXT A/L FLOOR BAG (inside pouch)	6.00	**Stow leg sizing rings in pouch (ref item 705).
			See Swap Tab - Multimeter	706	Multimeter [old] [Henrietta, b/c 4SS00242J]	1		See Swap Tab	MF43G	1.40	
X				707	POEMS foam cushion [s/n 008]	1	LAB1O2_J2		MD FLOOR PORT ~~1~~ 2 (Bag F)	0.30	**Do not stow near a heat source.** **Remove POEMS sample (s/n 013) from MELFI on FD09 per timelined procedure PODF POEMS SAMPLE CANISTER REMOVAL FROM MELFI.

STS-116/12A.1 Return Transfer List

Chg Flag	☑	FD	Crew Initials	Item #	Item Name	Qty	Initial Stowage	Temp Stowage	Stowage at Undock	Wt (lbs)	PROCEDURES/**Constraints**/ **Comments
X				708	RE-ENTRY GARMENTS [empty]	0.5 CTB		MDDK	MD FLOOR PORT ~~1~~ 2 (Bag F)	13.00	**Do not stow bag until re-entry garments removed.** **Launched in SH (ref item 172), returns empty in MDDK.
X				~~709~~	Item Deleted ~~Silver Biocide Syringe Kit~~ ~~[s/n 1001]~~	~~1~~	~~NOD1O1 (in mesh bag)~~	~~MDDK~~	~~MD FLOOR PORT 1 (Bag F)~~	~~1.00~~	~~**Needed FD05 on Shuttle for CWC fills.**~~ ~~**Retrieve pregathered kit. Ask ISS crew for location.~~
			See Swap Tab - RCC	710	FEMALE BOLT HOUSING - 1 MALE BOLT HOUSING - 1 ~~DRIVE BOLT - 4~~	1 ziplock		NODE	MD FLOOR STBD 2 (Bag D)	2.00	
			See Swap Tab - RCC	710.1	FEMALE BOLT HOUSING P/N TD103859-02 s/n unknown	1 ziplock		See Swap Tab	MD FLOOR STBD 2 (Bag D)	(in above item)	
			See Swap Tab - RCC	710.2	MALE BOLT HOUSING P/N TD103899-01 s/n unknown	1 ziplock		See Swap Tab	MD FLOOR STBD 2 (Bag D)	(in above item)	
X			See Swap Tab - RCC	710.3	Plug Attach Bolts P/N TD103856-02	4		See Swap Tab	MD FLOOR STBD 2 (Bag D)	(in above item)	

STS-116/12A.1 Return Transfer List

Chg Flag	☑	FD	Crew Initials	Item #	Item Name	Qty	Initial Stowage	Temp Stowage	Stowage at Undock	Wt (lbs)	PROCEDURES/**Constraints**/ **Comments
			SpaceHab Return								
				Prepacked Bags/Items							
				400	Return Item 400 [RPCMs]	0.5 CTB	LAB1D2		SF06A	29.00	
				401	Return Item 401 [Foam Box /CCAA Water Separator]	1	NOD1P4_D		PF13	28.00	
				403	Return Item 403 [EMU GLOVES]	0.5 CTB	LAB1D2		SF03B	20.00	
				404	Return Item 404 [Empty CWCs]	1.0 CTB	LAB1D2		FS08	32.00	
X				405	Return Item 405 [EVA HARDWARE]	3.0 CTB	~~A/L1D~~ NOD1D1/P1		PF21	56.00	
				405.1	P1 DDCU Thermal Cover [p/n 1F82593-1]	1		ISS A/L	PF21 (in 3.0 CTB)	6.00	**Removed from "Return to Shuttle 2" jett stow bag per item 773.2.
				405.2	S1 DDCU Thermal Cover [p/n 1F82593-1]	1		ISS A/L	PF21 (in 3.0 CTB)	6.00	**Removed from "Return to Shuttle 3" jett stow bag per item 773.3.
				405.3	S0 Port Wedge Face DDCU Thermal Cover [p/n 1F77657]	1		ISS A/L	PF21 (in 3.0 CTB)	6.00	**Removed from "Return to Shuttle 3" jett stow bag per item 773.3.

STS-116/12A.1 Return Transfer List

Chg Flag	☑	FD	Crew Initials	Item #	Item Name	Qty	Initial Stowage	Temp Stowage	Stowage at Undock	Wt (lbs)	PROCEDURES/**Constraints**/ **Comments
X				406	Return Item 406 [EVA BOOTS]	0.5 CTB	LAB1D2		~~FC11~~ FS10	12.00	
X				407	Return Item 407 [TREADMILL HARNESS, SAMPLE LOGS, URINE SYRINGE ADAPTER ASSYS]	0.5 CTB	LAB1D2		~~FC12~~ FS05	10.00	
				410	Return Item 410 [UCKs]	1.0 CTB	LAB1D2		PF16	20.00	
X				410.1	PMDIS CD	1 jewel case	FS01 (in 1.0 CTB item 137)	ISS	PF16 (in 1.0 CTB)	1	**CD burned/used during Suni's PMDIS operations FD04. **Stow in item 410 for return.
X				411	Return Item 411 [EPS/BCSS]	1.0 CTB	LAB1D2		~~FS07~~ FC02	14.00	
				416	Return Item 416 [21 Progress KURS]	3.0 CTB	FGB FLOOR		AP07	161.00	**Before strapping to Aft Bulkhead, open CTB and ensure the KURS oval "eyes" are facing the port wall.
				417	Return Item 417 [22 Progress KURS]	3.0 CTB	FGB FLOOR		AC04	161.00	**Before strapping to Aft Bulkhead, open CTB and ensure the KURS oval "eyes" are facing the port wall.
X				419	Return Item 419 [ECLSS/SEM]	1.0 CTB	LAB1D2		~~FP10~~ FP07	16.00	**Do not stow until item 419.1 and 419.2 have been added to this CTB.**
X				419.1	PBA Oxygen Reducer/Cylinder Assembly [old] [s/n 1009]	1	NOD1S2-14 (PEP Locker)		~~FP10~~ FP07 (in 1.0 CTB)	3.42	**Transfer on FD05 per timelined activity FDS-PBA-XFER. Remove Mask (s/n 1002) from old PBA [s/n 1009]. Attach mask to new PBA [s/n 1008]. Call MCC-H to confirm mask attached to new PBA.** **New PBAs launch as item 118.1.1 and 118.1.2.
X				419.2	PBA Oxygen Reducer/Cylinder Assembly [old] [s/n 1012]	1	LAB1P0 (PEP Locker)		~~FP10~~ FP07 (in 1.0 CTB)	3.42	**Transfer on FD05 per timelined activity FDS-PBA-XFER. Remove Mask (s/n 1016) from old PBA [s/n 1012]. Attach mask to new PBA [s/n 1013]. Call MCC-H to confirm mask attached to new PBA.** **New PBAs launch as item 118.1.1 and 118.1.2.

STS-116/12A.1 Return Transfer List

Chg Flag	☑	FD	Crew Initials	Item #	Item Name	Qty	Initial Stowage	Temp Stowage	Stowage at Undock	Wt (lbs)	PROCEDURES/**Constraints**/ **Comments
				422	Return Item 422 [HRF RENAL STONE]	1.0 CTB	LAB1D2		SF05A	40.00	
				424	Return Item 424 [Computer Hardware]	0.5 CTB	LAB1D2		FS03	13.00	
				425	Return Item 425 [12S KURS]	3.0 CTB	FGB FLOOR		AS08	161.00	**Before strapping to Aft Bulkhead, open CTB and ensure the KURS oval "eyes" are facing the port wall.
X				427	Return Item 427 [Russian Hardware]	1.0 CTB	LAB1D2		~~FC02~~ FP03	12.00	
X				427.1	SKIN RETURN CONTAINER [p/n LDM-SKN-14]	1	FGB 424		FP03 (in 1.0 CTB)	(in above)	**this item was originally designated as 427g on PPL.
				428	Return Item 428 [Russian Hardware]	0.5 CTB	LAB1D2		SF10A	28.00	
X				429	Return Item 429 [Russian Hardware]	0.5 CTB	LAB1D2		~~FS10~~ FC13	15.00	
X				429.1	PLATON MEMORY CARD KIT [p/n NOA-1304-0000-DA] [b/c 00038978R]	1	DC Upper Hemisphere (in Platon Resupply Bag, b/c 00038989R)		FC13 (in 0.5 CTB)	(in above)	**this item was originally designated as 426a on PPL.
				430	Return Item 430 [Lower Arm]	1.0 CTB	LAB1D2		PF27	14.00	
				433	Return Item 433 [CWCs]	3.0 CTB	LAB1D2		SF22		**Pack item 630 in this CTB for return.
				630	Return Item 630 [half full CWC] [S/N 1026]	1	NOD1P2	ISS A/L	SF22 (inside 3.0 CTB)	30.00	**Place CWC in two KBO-M bags (p/n 11Ф615.8715-0A15-01) from NOD1O4_B2 before packing in 5 MLE bag.** **Pack after EVA 3 in item 433.

STS-116/12A.1 Return Transfer List

Chg Flag	☑	FD	Crew Initials	Item #	Item Name	Qty	Initial Stowage	Temp Stowage	Stowage at Undock	Wt (lbs)	PROCEDURES/**Constraints**/ **Comments
				600	Return Item 600 [EMU GLOVES]	0.5 CTB	LAB1D2		SF03A	28.00	
				601	Return Item 601 [Jeff William's Crew Preference]	0.5 CTB	NOD1S4_C2		SF03C	11.00	
				602	Return Item 602 [Vindogradov Crew Preference]	0.5 CTB	NOD1S4_C2		SF05C	11.00	
				603	Return Item 603 [InSPACE, HRF Laptop]	0.5 CTB	LAB1P2_G1		FS12	17.00	
				603.1	USED EMCS VTR TAPE [Tropi tapes - qty 8] [s/n FM008 thru FM015]	1 ziplock	LAB1O1_D2 (in jett stow bag)		FS12 (in 0.5 CTB)		**Remove one VTR tape (s/n FM007) from ziplock and stow in other ziplock of VTR tapes in same location prior to packing ziplock of 8 used tapes in item 603 for return.**
~~x~~				~~603.2~~	Item Deleted ~~PMDIS CD~~	~~1 jewel case~~	~~FS01 (in 1.0 CTB item 137)~~	~~ISS~~	~~FS12 (in 0.5 CTB)~~	~~1~~	~~**CD burned/used during Suni's PMDIS operations FD04.~~
				604	Return Item 604 [PFMI THERMAL CHAMBER]	1.0 CTB	LAB1O5_D1		SF21	55.00	

STS-116/12A.1 Return Transfer List

Chg Flag	☑	FD	Crew Initials	Item #	Item Name	Qty	Initial Stowage	Temp Stowage	Stowage at Undock	Wt (lbs)	PROCEDURES/**Constraints**/ **Comments
				607	Return Item 607 [Food Rations Containers - 6]	1 bundle	NOD1S4_D1		SF10B	9.00	
				608	Return Item 608 [Food Rations Containers - 6]	1 bundle	NOD1S4_D1		SF04C	9.00	
				609	Return Item 609 [US Collapsible Food Containers - 6]	1 bundle	NOD1S4_D1		SF08C	9.00	
				610	Return Item 610 [Food Rations Containers - 6]	1 bundle	NOD1S4_D1		SF06B	9.00	
				611	Return Item 611 [US Collapsible Food Containers - 6]	1 bundle	NOD1S4_D1		SF06C	9.00	
				612	Return Item 612 [Food Rations Containers - 6]	1 bundle	NOD1S4_D1		SF04B	9.00	
				613	Return Item 613 [Food Rations Containers - 6]	1 bundle	NOD1S4_D1		SF10C	9.00	
X				616	Return Item 616 [Acoustic Countermeasures Kit]	0.5 CTB	LAB1D2		~~FS05~~ FP10	10.00	
X				617	Return Item 617 [KURS AMPS/ANTENNA]	1 White Bag	LAB1D2		~~FP04~~ FS01	15.00	
X				618	Return Item 618 [KURS AMPS/ANTENNA]	1 White Bag	LAB1D2		~~FP08~~ FC07	20.00	

[ ] - notes included by transfer team, - not on actual label

STS-116/12A.1 Return Transfer List

Chg Flag	☑	FD	Crew Initials	Item #	Item Name	Qty	Initial Stowage	Temp Stowage	Stowage at Undock	Wt (lbs)	PROCEDURES/**Constraints**/ **Comments
				619	Return Item 619 [Reiter Crew Preference]	0.5 CTB	Reiter's Sleep Station		SF09C	11.00	
				620	Return Item 620 [Reiter Crew Preference]	1.0 CTB	Reiter's Sleep Station		PF25	31.00	
				622	Return Item 622 [EMCS ECs]	0.5 CTB	LAB1D2		SF07A	30.00	
				623	Return Item 623 [EMCS ECs]	0.5 CTB	LAB1D2		SF04A	30.00	
X				626	Return Item 626 [Acoustic Countermeasures Kit]	0.5 CTB	LAB1P2_G1		FP12	10.00	
				627	Return Item 627 [BBA/LHAs]	1 bundle	LAB1O5_G		AS03 (in 5 MLE Bag)	16.00	**Returns in 5 MLE bag that launched as Bag A at MDDK Floor Port 1.
				628	Return Item 628 [EMCS Air Mix Supply Module] [s/n FM012]	1	LAB1O1_D2		AS03 (in 5 MLE Bag)	16.00	**PENETRATOR** **Returns in 5 MLE bag that launched as Bag A at MDDK Floor Port 1.
				629	Return Item 629 [EMCS Air Mix Supply Module] [s/n FM013]	1	LAB1O1_D2		AS03 (in 5 MLE Bag)	16.00	**PENETRATOR** **Returns in 5 MLE bag that launched as Bag A at MDDK Floor Port 1.
X				638	Return Item 638 [DAFT]	1.0 CTB	LAB1P2_G2		FS07 ~~AC01~~	15.00	

[ ] - notes included by transfer team, - not on actual label

STS-116/12A.1 Return Transfer List

Chg Flag	☑	FD	Crew Initials	Item #	Item Name	Qty	Initial Stowage	Temp Stowage	Stowage at Undock	Wt (lbs)	PROCEDURES/**Constraints**/ **Comments
X			See Swap Tab - PGT	769	PGT [old]	1.0 CTB		See Swap Tab	~~FC01~~ FP08	16.00	
X			See Swap Tab - PGT	769.1	PGT [old] [s/n 1003]	1		See Swap Tab	~~FC01~~ FP08 (in 1.0 CTB)	(in above item)	
			See Swap Tab - PGT	770	PGT [old]	1.0 CTB		See Swap Tab	SF08A	29.00	
			See Swap Tab - PGT	770.1	PGT [old] [s/n 1006, 1007]	2		See Swap Tab	SF08A (in 1.0 CTB)	(in above item)	
				772	PTU/CTVC [ETVCG] [old]	1	ISS External	Middeck	PF01	57.00	**Disassembled from items 758.1 and 779 on FD05 per timelined procedure EXTERNAL TELEVISION CAMERA GROUP DISASSEMBLY.
				773	Return item 773	2.0 CTB		NOD1	AC13	99.00	**This 2.0 CTB launched empty in SH (ref item 144.1).
				773.1	Return to Shuttle 1	1 jett stow bag		ISS A/L	AC13 (in 2.0 CTB)	(in above item)	**Place jett stow bag and all contents in CTB (ref item 773).
				773.2	Return to Shuttle 2	1 jett stow bag		ISS A/L	AC13 (in 2.0 CTB)	(in above item)	**Remove P1 DDCU Thermal Cover (p/n 1F82593-1) and stow per item 405.1.** **Place jett stow bag and all REMAINING contents in CTB (ref item 773).
X				773.3	Return to Shuttle 3	1 jett stow bag		ISS A/L	AC13 (in 2.0 CTB)	(in above item)	**Remove S1 DDCU Thermal Cover (p/n 1F82593-1), ~~and~~ S0 Port Wedge Face DDCU Thermal Cover (p/n 1F77657)<u>, and CH 2/3 H-Jumper (p/n R082151-1)</u> and stow per items 405.2, ~~and~~ 405.3<u>, and 802 respectively</u>.** **Place jett stow bag and all REMAINING contents in CTB (ref item 773).

STS-116/12A.1 Return Transfer List

Chg Flag	☑	FD	Crew Initials	Item #	Item Name	Qty	Initial Stowage	Temp Stowage	Stowage at Undock	Wt (lbs)	PROCEDURES/**Constraints**/ **Comments
X				774	Return item 774	0.5 CTB	ISS		~~FC13~~ FP02	2.00	**Retrieve empty 0.5 CTB from ISS. Ask ISS crew for location. **Label CTB as Return Item 774. **Pack items 774.1 and 774.2 in CTB.
X				774.1	Potassium Citrate Placebo Kit [p/n SJG46118187-301] [s/n 1039] [b/c HRF06200J]	1	SM_245		~~FC13~~ FP02 (in 0.5 CTB)	3.00	
X				774.2	Treadmill Harness [p/n SEG46120250-301] [s/n 1008] [b/c 00052203J]	1	ISS Crew Pref		~~FC13~~ FP02 (in 0.5 CTB)	5.00	**Stow after Reiter's last TVIS Exercise.
X				775	Return item 775	1.0 CTB	ISS		~~FC07~~ AC01	4.00	**Retrieve empty 1.0 CTB from ISS. Ask ISS crew for location. **Label CTB as Return Item 775. **Pack items 775.1 and 775.2 in CTB.
X				775.1	P5 Launch Locks	8	ISS EXT		~~FC07~~ AC01 (in 1.0 CTB)	8.00	**Brought inside after EVA 1.
X				775.2	RJMC Cover [p/n 1F82068-1]	1	NOD1D4_K2 (in 1.0 CTB: Broken/Expired Items, s/n 1080)		~~FC07~~ AC01 (in 1.0 CTB)	6.00	
X				775.3	RJMC Cover [p/n 1F82068-501]	1	NOD1D4_K2 (in 1.0 CTB: Broken/Expired Items, s/n 1080)		~~FC07~~ AC01 (in 1.0 CTB)	6.00	

[ ] - notes included by transfer team, - not on actual label

STS-116/12A.1 Return Transfer List

Chg Flag	☑	FD	Crew Initials	Item #	Item Name	Qty	Initial Stowage	Temp Stowage	Stowage at Undock	Wt (lbs)	PROCEDURES/**Constraints**/ **Comments
			SpaceHab Return Realtime Additions								
X				802	CH 2/3 H-Jumper [Channel 1/4 H-Jumper Cable] P/N R082151-1	1.0 CTB	ISS External		FC03		**Retrieve empty 1.0 CTB from ISS for packing CH 2/3 H-Jumper. **Removed from "Return to Shuttle 3" jettison stowage bag per item 773.3.

[ ] - notes included by transfer team, - not on actual label

STS-116/12A.1 Swap List

Chg Flag	☑	FD	Crew Initials	Item #	Item Name	Qty	Initial Stowage	Temp Stowage	Stowage at Undock	Wt (lbs)	PROCEDURES/**Constraints**/ **Comments
			IELK								
				13	IELK [S. Williams]	1	MD FLOOR PORT 2 (Bag B)		Soyuz	80.00	**Transfer on FD03 for timelined activity.** **Use launch bag and foam to stow returning IELK (ref Item 704).
				704	IELK [T. Reiter]	1	Soyuz installed		MD CEILING PORT 2 (Bag B)	64.00	**Removed from Soyuz on FD03 per timelined activity. **Return IELK in same bag with foam that contained new IELK for launch (ref item 13). Relocate Bag B to Ceiling. **Remove KENTAVR and take to Middeck for return per item 704.1.
X				704.1	KENTAVR	1	Soyuz (in IELK)		~~MDDK~~ Crew Worn	3.00	**This was removed from Reiter's IELK (ref item 704). **Report middeck stowage location if Reiter is not going to wear this for return.

STS-116/12A.1 Swap List

Chg Flag	☑	FD	Crew Initials	Item #	Item Name	Qty	Initial Stowage	Temp Stowage	Stowage at Undock	Wt (lbs)	PROCEDURES/**Constraints**/ **Comments
			RCC								
				21	FEMALE BOLT HOUSING - 1 MALE BOLT HOUSING - 1 DRIVE BOLT - 4	1 ziplock	MD FLOOR STBD 2 (Bag D)	NODE		2.00	**Remove foam block from ziplock. Remove each item from the block and put into block of foam in CTB on ISS which contains the returning bolt housings (ref items 710.1 and 710.2) **Foam block will return in mddk with returning bolt housings (ref item 710)
				21.1	FEMALE BOLT HOUSING P/N TD103859-02 s/n 0004	1 ziplock	MD FLOOR STBD 2 (Bag D) (in foam in ziplock)		NOD1P4_C1 (in 1.0 CTB s/n 1239) in foam block	(in above item)	**RCC Plug Hdwe - VERY FRAGILE **Remove from ascent foam block and place in cutout in foam block in CTB on ISS.
				21.2	MALE BOLT HOUSING P/N TD103899-01 s/n 0003	1 ziplock	MD FLOOR STBD 2 (Bag D) (in foam in ziplock)		NOD1P4_C1 (in 1.0 CTB s/n 1239) in foam block	(in above item)	**RCC Plug Hdwe - VERY FRAGILE **Remove from ascent foam block and place in cutout in foam block in CTB on ISS.
				21.3	DRIVE BOLTS P/N TD103856-02 s/n 0000030 thru 0000033	4 ziplocks	MD FLOOR STBD 2 (Bag D) (in foam in ziplock)		NOD1P4_C1 (in 1.0 CTB s/n 1239) in foam block	(in above item)	**RCC Plug Hdwe - VERY FRAGILE **Remove from ascent foam block and place in cutout in foam block in CTB on ISS.
				710	FEMALE BOLT HOUSING - 1 MALE BOLT HOUSING - 1 ~~DRIVE BOLT - 4~~	1 ziplock		NODE	MD FLOOR STBD 2 (Bag D)	2.00	**Foam block launched in the mddk with new drive bolts and bolt housings (ref items 21) **Place foam block with returning housings in cutout in 5MLE bag.
				710.1	FEMALE BOLT HOUSING P/N TD103859-02 s/n unknown	1 ziplock	NOD1P4_C1 (in 1.0 CTB s/n 1239)		MD FLOOR STBD 2 (Bag D) (in foam in ziplock)	(in above item)	**RCC Plug Hdwe - VERY FRAGILE **Remove ziplock from foam cutout. Place in cutout in foam block where new female bolt housing launched (ref item 21.1).
				710.2	MALE BOLT HOUSING P/N TD103899-01 s/n unknown	1 ziplock	NOD1P4_C1 (in 1.0 CTB s/n 1239)		MD FLOOR STBD 2 (Bag D) (in foam in ziplock)	(in above item)	**RCC Plug Hdwe - VERY FRAGILE **Remove ziplock from foam cutout. Place in cutout in foam block where new male bolt housing launched (ref item 21.2).
X				710.3	Plug Attach Bolts P/N TD103856-02	4			MD FLOOR STBD 2 (Bag D)	(in above item)	**Remove qty 4 Plug Attach Bolts (wrapped in clothing) from item 431 and stow in cutouts in foam block where new bolts launched (ref item 21.3)

STS-116/12A.1 Swap List

Chg Flag	☑	FD	Crew Initials	Item #	Item Name	Qty	Initial Stowage	Temp Stowage	Stowage at Undock	Wt (lbs)	PROCEDURES/**Constraints**/ **Comments
			PGT								
				120	OGS PWR - 1 PGT - 1 EWIS Cable - 1	1.0 CTB	FC02	ISS A/L		28.00	**Use this CTB and foam for return of old PGT (ref item 769 and 769.1). **Behind the CTB yellow label is a green label. Write 'PGT (old)' on green label and stow in front of yellow label.
				120.1	PGT	1	FC02 (in 1.0 CTB)	ISS A/L	A/L1O10 (in 1.0 CTB: PGT Hardware; s/n 1161).	10.00	**Leave in CTB until reqd for FD09 timelined procedure PGT TOOL CHECKOUT.** **Call item complete after stowing PGT following successful PGT Checkout.
				120.2	EWIS INTERNAL ANT CABLE	1 ziplock	FC02 (in 1.0 CTB)		LAB1P1 (inside stowage locker)	5.00	
				120.3	OGS PWR [s/n 2002]	1	FC02 (in 1.0 CTB)	MDDK	A/L1D1_B2	3.00	**Temp stow on MDDK for FD04 timelined procedure PWR Fill.** **After PWR fill is complete, transfer PWR to ISS.
X				769	PGT [old]	1.0 CTB		ISS A/L	~~PF16~~ FP08	16.00	**This CTB launched with resupply PGT (ref item 120). **Pack item 769.1 in this CTB with foam for return.
X				769.1	PGT [old] [s/n 1003]	1		ISS A/L	~~PF16~~ FP08 (in 1.0 CTB)	10.00	**Verify no battery in PGT; if one is installed, remove it from PGT and stow in M-02 bag (s/n 1038) at A/L1O1.**

Today you will perform a Supply Water Dump using the FES and you will fill two PWRs.

FES Dump Details

The FES Dump duration will be approximately 3 hours. Due to constraints with ISS momentum management, it is important that the dump initiation and termination occur at the prescribed times. Check MCC prior to initiating and terminating the FES Dump. The following details are required for the dump:

> At MET 2/15:15, initiate SUPPLY WATER DUMP USING FES (ORB OPS, ECLS), p. 5-9, Step 1 DUMP INITIATION, using FES PRI A.
>
> At MET 2/18:15, terminate the FES dump on MCC call using Step 2, DUMP TERMINATION; FES PRI A is req'd.

PWR Fill Details

Gather two PWRs from the SHAB. The first is S/N 1025, and the second is S/N 2002 (Transfer List items 148.1 and 120.3).

Starting at MET 2/20:30, first fill PWR S/N 1025, then PWR S/N 2002, using PWR FILL (ORB OPS, ECLS), p. 5-43, WATER FILL Steps 4-19. For Steps 18-19, both PWRs are to be transferred to ISS A/L1D1_B2.