STS-116 / 12A.1

FD 05 Execute Package

MSG	Page(s)	Title
036B	1 - 13	FD05 Flight Plan Revision **(pdf)**
037	14 - 15	FD05 Mission Summary **(pdf)**
033C	16 - 17	FD05 Mnvr to 4B SAW Retract Viewing Position **(pdf)**
039	18 - 20	FD05 Transfer Message **(pdf)**
040	21	FD05 Water Summary Message **(pdf)**
042	22 - 23	Z1 Tray QD U-Jumper Nutplate Caps Imagery **(pdf)**
038	---	FD04 MMT Summary **(pdf - Electronic Only)**
041A	---	FD05 PAO Event Summary Message **(pdf - Electronic Only)**

Approved by FAO: *Terry Clancy*

Last Updated: Dec 13 2006 2:03PM GMT
JEDI *(**J**oint **E**xecute package **D**evelopment and **I**ntegration), v2.04.0003*

MSG INDEX

MSG NO.	TITLE
033	FD05 Mnvr to 4B SAW Retract Viewing Position
036	FD05 Flight Plan Revision
037	FD05 Mission Summary (14-0556)
038	FD04 MMT Summary (14-0557)
039	FD05 Transfer Message (14-0558)
040	FD05 Water Summary Message
041	FD05 PAO Event Summary Message
042	Z1 Tray QD U-Jumper Nutplate Caps Imagery (14-0561)

1. HAZMAT WORDS

   The MCC has uplinked the corrected Shuttle HazMat data file to all networked PGSCs onboard.

2. SPACEHAB VIEWPORT VIOLATIONS

   There are no viewport violations for FD05.

3. RADIATION WORDS

   The radiation environment remains elevated but has declined by more than a factor of two over the past several hours. We are continuing to monitor the environment in the case that further enhancements present any impact to the remainder of the mission. Note that no further activity is projected, this is purely an excercise in caution and conservatism. With elevated activity please note that periodic TEPC calldowns may be requested both to track and verify any exposure progression and to provide measurement validation of model calculations for planning and projection.

4. STAR TRACKER DOOR CLOSURE

   Due to the possibility of debris coming off the P6 SAW during retraction, the star tracker doors will be closed after the IMU Star of Opportunity align. The plan is to wait at least 2 hours after the retraction is complete (step 17 of EPS 4.118) before reopening the Star TRKR doors. These steps have been added to the flight plan. In the event that the completion of the solar array retraction slips, the steps for reopening the star tracker doors will also slip accordingly.

5. REPLACE PAGES 2-14, 2-16 and 3-44 THROUGH 3-53.

REPLANNED

No TVIS Exercise | No Exercise | No Exercise | No Exercise

12/13/06 07:31:46

GMT 12/13/06 (347) 14 15 16 17 18 19 20 21 22 23 12/14 01

MET Day 003 12 13 14 15 16 17 18 19 20 21 22 23 004/00

STS-116	FD05 CDR/R2 POLANSKY	SLEEP; POST SLEEP; MCIU*; IMU; OIU ACT; P/TV 10 S/U; 3 BAY RTRCT SRVEY; TO 1 BAY; SABB UNLCH; MEAL; FULL RTRCT; O2*; O2 XFER RCNFG; N2 XFER INIT; EXER CISE	
STS-116	PLT/IV OEFELEIN	SLEEP; SDBI; POST SLEEP; S-TRK; LIOH RPLC; EMU BATT INIT; ETVCG DISASSMBL; TRANSFER; EXERCISE; MEAL; TRANSFER; PAO EVENT; XFER	
STS-116	MS1/R1 PATRICK	SLEEP; SDBI; POST SLEEP; RMS; MNVR; P/TV 10 S/U; TRANSFER; EXERCISE; MEAL; TRANSFER; PAO EVENT; CINCIT #2; XFER	
STS-116	MS2/EV1 CURBEAM	SLEEP; ASPRN; POST SLEEP; CWCI #1; POST SLEEP; CTERM #1; ETVCG DISASSMBL; TRANSFER; E/L PREP; MEAL; STBD QD BAG PACK; PORT QD BAG PACK; VTE /PM PCK; EXERCISE; PAO EVENT; XFER	
STS-116	MS3/EV2 FUGLESANG	SLEEP; ASPRN; POST SLEEP; 3 BAY RTRCT SRVEY; TO 1 BAY; EXERCISE; XFER; E/L PREP; MEAL; STBD QD BAG PACK; PORT QD BAG PACK; VTE /PM PCK; BSA*; XFER; PAO P/TV S/U; PAO EVENT; XFER	
STS-116	MS4 HIGGINBOTHAM	SLEEP; POST SLEEP - SHAB; XFR; UPDAT; 3 BAY RTRCT SRVEY; TO 1 BAY; TRANSFER; EXERCISE; MEAL; TRANSFER	
DN	FE-2 REITER	SLEEP (8.5); POST SLEEP; SKN; MO-7; MO-8; POST SLEEP; PREP WORK; DPC; PW; TRANSFER; EXERCISE RED; TRANSFER; SKN QUISCNT; SKN CLS; MIDDAY-MEAL; ♣; O2*; O2 XFER RCNFG; N2 XFER INIT; TVIS	
EXP 14	ISS CDR LOPEZ-ALEGRIA	SLEEP (8.5); PS; MO-7; MO-8; POST SLEEP; DPC; PREP WORK; HANDOVER; SAFER C/O; EXERCISE CEVIS; MIDDAY-MEAL; HANDOVER; EXERCISE RED	
EXP 14	FE-1 TYURIN	SLEEP (8.5); PS; ⊕; MO-7; MO-8; POST SLEEP; ♦; RS PAO; DPC; PREP WORK; XFER; ЕДВ PRIM; COЖ MNT; EXERCISE VELO+RED; MIDDAY-MEAL; TRANSFER	
UP	FE-2/EV3 WILLIAMS	SLEEP (8.5); POST SLEEP; PREP WORK; RS PAO; DPC; 3 BAY RTRCT SRVEY; TO 1 BAY; HANDOVER; SABB UNLCH; ADAPTATION; MIDDAY-MEAL; FULL RTRCT; HANDOVER; EXER; H/O; ADAPT	

DAY/NIGHT

ORBIT 56 57 58 59 60 61 62 63 64

TDRS W -171 E -46 Z -275

ORB ATT BIAS -XLV -ZVV

NOTES

⊕MO8 INSTL

♦MO8 STOW
*FILTER CK

♣ALC-C/O *TERM
*TERM

No Exercise

12/13/06 07:31:46

REPLANNED

GMT 12/14/06 (348) 02 03 04 05 06 07 08 09 10 11 12 13

MET Day 004 004/00 01 02 03 04 05 06 07 08 09 10 11 12

STS-116	**FD05** CDR/R2 POLANSKY	EXER CISE	SABB LATCH	S-TRK	EVA PROCEDURE REVIEW		PRE SLEEP		PMC OCA	PRE SLEEP											SLEEP			
	PLT/IV OEFELEIN	XFER			EVA PROCEDURE REVIEW		PRE SLEEP			MASK PB/ TOOL CONFG	PRE SLEEP										SLEEP			
	MS1/R1 PATRICK	XFER		CWC #2	TERM	CWC XFER (2)	OIU*	MONTR	PRE SLEEP												SLEEP			
									ISS A/L Campout @ 10.2 psi															
	MS2/EV1 CURBEAM	XFER		PRE	SLEEP	EVA PROCEDURE REVIEW			PRE SLEEP		MASK PB/ TOOL CONFG	PB/ 10.2 DPRS	TOOL	CONFG	PRE	SLEEP					SLEEP			
	MS3/EV2 FUGLESANG	XFER		PRE	SLEEP	EVA PROCEDURE REVIEW			PRE SLEEP		MASK PB/ TOOL CONFG	PB/ 10.2 DPRS	TOOL	CONFG	PRE	SLEEP					SLEEP			
	MS4 HIGGINBOTHAM	TRANSFER			EVA PROCEDURE REVIEW		XFER	TAGUP	XFER	BREF	PRE SLEEP - SHAB										SLEEP			
DN	FE-2 REITER	TVIS		IMS EDIT		EVA PROCEDURE REVIEW		DPC	XFER	TAGUP	PREP WORK		PRE SLEEP								SLEEP (8.5)			
EXP 14	ISS CDR LOPEZ-ALEGRIA	♣	PBA XFER	PCS	A/L	RCNFG	PCS⊕	EVA PROCEDURE REVIEW		DPC	PREP WORK		OPS LAN RCNFG	PRE SLEEP							SLEEP (8.5)			
	FE-1 TYURIN	TRANSFER				TVIS		EXDL	DPC	PREP WORK			PRE SLEEP								SLEEP (8.5)			
UP	FE-2/EV3 WILLIAMS	ADAPT		IMS EDIT		EVA PROCEDURE REVIEW		DPC	PMC	PREP WORK			PRE SLEEP								SLEEP (8.5)			

DAY/NIGHT

ORBIT 64 65 66 67 68 69 70 71 72

TDRS W -171 E -46 Z -275

ORB ATT BIAS -XLV -ZVV

NOTES

♣EXERCISE RED⊕HMS-DEFIB PDIM-OFF

*DEACT

STS-116 FD05

REPLANNED

GMT Date 12/13 (347) | T D R S W E Z | O R B | MET Day 003 | STS ATI

CDR Polansky | PLT Offal-lean | MS1 Patrick | Notes

14:00 15:00 16:00 17:00

12:00 13:00 14:00 15:00 16:00

ORB: 56 57 58

SLEEP (CDR)

SLEEP (PLT)

SLEEP (MS1)

FD05 EZ ACTIVITES
Check TEPC Status
OCAC Filter Inspect
Hard Reboot PGSCs (Except WVS)

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

SALIVA COLL & SLEEP LOG (ORB OPS, SDBI)
POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

SALIVA COLL & SLEEP LOG (ORB OPS, SDBI)
POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

BIAS-XLV-ZVV

L17 Check MCIU filter screen

IMU STAR OF OPPTY ALIGN (ORB OPS, GNC)

STS-116 FD05

REPLANNED

GMT Date 12/13 (347) | T D R S W E Z | O R B | MET Day 003 | STS ATI

MS2 Curbeam | MS3 Fuglesang | MS4 Higginbotham | Notes

12:00
13:00
14:00
15:00
16:00

14:00
15:00
16:00
17:00

56
57
58

SLEEP

SLEEP

SLEEP

BIAS-XLV-ZVV

EVA CREW:TAKE 1 ASPIRIN (325mg)
POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

EVA CREW:TAKE 1 ASPIRIN (325mg)
POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

SH POST-SLEEP CONFIG
(SH OPS, ON-ORBIT)

SHUTTLE/ISS H2O CNTR FILL (INIT)
(ORB OPS,ECLS) REF MSG 040
REF MDDK Xfer List: Item 415.2; SH Xfer List: Item 163

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

STS-116 FD05

REPLANNED

GMT Date 12/13 (347) | TDRS W E Z | ORB 59 60 61 | MET Day 003 | STS ATI BIAS-XLV-ZVV

CDR Polansky

16:00
SSP1 OIU PWR - OIU 1 ON, √tb-UP
SSV PWR - OFF

P/TV10 SAW RETRACTION
(PHOTO/TV, SCENES)
Perform SETUP

EPS:4.118 P6 SAW XX RTRCT(P6 ON Z1 TRUSS)
Step 12 (Crew performs 12.3,12.6, & 12.8)
ROBO: 3.101 P6 4B SAW RTRCT CAM MTRX Stp 1
ROBO: 3.101 P6 4B SAW RETRCT CAM MATRIX
Step 2

17:00
EPS: 4.118 P6 SAW XX RTRCT (P6 ON Z1 TRUSS) Steps 13.3, 13.6, & 13.8
ROBO:3.101 P6 4B SAW RTR CAM MTRX Stp 3

A 06 STAR TRKR DR CNTL SYS(two) - CL (start timer)
√POS tb (two) - bp
When both tb - CL (~8-24 sec), or either tb -bp for >24 sec,
STAR TRKR DR CNTL SYS (two) - OFF
* If tb-bp > 8 sec, notify MCC*

18:00
EPS: 4.118 P6 SAW XX RETRACT (P6 ON Z1 TRUSS)
Steps 14-15
ROBO: 3.101 P6 4B SAW RETRACT CAM MATRX
Step 4

19:00
20:00

PLT Offal-lean

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

Star Tracker Door Close A
REF MSG 036, Item 4

EVA SYS: 1.515 METOX/LIOH/BTTRY REPLCMNT
Perform Steps 1-10, 15-17
Stow used LIOH in EMU SYS Xfr Bag #1
REF: LOGISTICS CC

EMU BATTERY RECHARGE
(EVA, EMU MAINT/RECHRG)
Perform INITIATE
REF: LOGISTICS CC

EXTERNAL TV CAM GROUP DISASSMBLY
(ASSY OPS, S&M)
Retrieve 2.0 CTB/foam (from new ETVCG light) from NODE temp stow for packing returning ETVCG light.
REF SH TL: Items 758, 758.1, 772, 779

TRANSFER
REF Transfer List

EXERCISE

MS1 Patrick

4B SAW RETRACT VIEWING
REF MSG 033

P/TV10 SAW RETRACTION
(PHOTO/TV, SCENES)
Perform SETUP

TRANSFER
REF Transfer List

Notes

TFL 199

NO EXERCISE DURING SOLAR ARRAY RETRACT

NO EXERCISE DURING SOLAR ARRAY RETRACT

STS-116 FD05

REPLANNED

GMT Date 12/13 (347) | TDRS W E Z | ORB | MET Day 003 | STS ATI

MS2 Curbeam

16:00 POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

SHUTTLE/ISS H2O CNTR FILL (ORB OPS, ECLS) Perform FILL TERMINATION

17:00 EXTERNAL TV CAM GROUP DISASSMBLY (ASSY OPS, S&M) Retrieve 2.0 CTB/foam (from new ETVCG light) from NODE temp stow for packing returning ETVCG light. REF SH TL: Items 758, 758.1, 772, 779

BIAS-XLV-ZVV

18:00 TRANSFER REF Transfer List

19:00 EVA SYS: 1.305 EQPMNT LOCK PREP REF: LOGISTICS CC

20:00 MEAL

MS3 Fuglesang

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

EPS:4.118 P6 SAW XX RTRCT(P6 ON Z1 TRUSS) Step 12 (Crew performs 12.3,12.6, & 12.8) ROBO: 3.101 P6 4B SAW RTRCT CAM MTRX Stp 1 ROBO: 3.101 P6 4B SAW RETRCT CAM MATRIX Step 2

EPS: 4.118 P6 SAW XX RTRCT (P6 ON Z1 TRUSS) Steps 13.3, 13.6, & 13.8 ROBO:3.101 P6 4B SAW RTR CAM MTRX Stp 3

EXERCISE

TRANSFER REF Transfer List

EVA SYS: 1.305 EQPMNT LOCK PREP REF: LOGISTICS CC

MEAL

MS4 Higginbotham

POST-SLEEP ACTIVITY

DAILY TRANSFER LIST UPDATE REF MSG 039

EPS:4.118 P6 SAW XX RTRCT(P6 ON Z1 TRUSS) Step 12 (Crew performs 12.3,12.6, & 12.8) ROBO: 3.101 P6 4B SAW RTRCT CAM MTRX Stp 1 ROBO: 3.101 P6 4B SAW RETRCT CAM MATRIX Step 2

EPS: 4.118 P6 SAW XX RTRCT (P6 ON Z1 TRUSS) Steps 13.3, 13.6, & 13.8 ROBO:3.101 P6 4B SAW RTR CAM MTRX Stp 3

TRANSFER REF MDDK Xfer List: Items 12,12.1 REF SH Xfer List: Items 111,112, 116,117,117.1,117.2,117.3,117.4, 123,152,404,616,626,750,750.1, 751, & 757

EXERCISE

Notes

NO EXERCISE DURING SOLAR ARRAY RETRACT

NO EXERCISE DURING SOLAR ARRAY RETRACT

STS-116 FD05

REPLANNED

GMT Date 12/13 (347) | TDRS W E Z | ORB 61 62 63 64

MET Day 003 | STS ATI

MET	CDR Polansky	PLT Offal-lean	MS1 Patrick	Notes
20:00	MEAL	MEAL	EXERCISE	
21:00			MEAL	NO EXERCISE DURING SOLAR ARRAY RETRACT
22:00	EPS: 4.118 P6 SAW XX RETRACT (P6 ON Z1 TRUSS) Step 17 ROBO: 3.101 P6 4B SAW RTRCT CAM MTRX Step 6 JNT OPS: 3.117 LOW PRESSURE TANK O2 XFER Step 3.2; Inform MCC-H when complete. JNT OPS: 3.121 PREBRTH USING SHUTTLE O2 SETUP (POST O2 TRANSFER)	TRANSFER REF Transfer List		
23:00	JNT OPS: 3.102 NITROGEN TRANSFER INIT Steps 1-5.1		TRANSFER REF Transfer List	
00:00	EXERCISE	PUBLIC AFFAIRS EVENT KU TDRW (23:08-23:40) REF MSG 041 TRANSFER REF Transfer List	PUBLIC AFFAIRS EVENT KU TDRW (23:08-23:40) REF MSG 041 SHUTTLE/ISS H2O CNTR FILL (INIT) (ORB OPS,ECLS) REF MSG 040 REF SH Xfer List: Item 165 TRANSFER REF Transfer List	

BIAS_XLV_ZVV

STS-116 FD05

REPLANNED

GMT Date 12/13 (347) | TDRS W E Z | ORB 61 62 63 64 | MET Day 003 | STS ATI BIAS-XLV-ZVV

MS2 Curbeam

20:00 MEAL

21:00 STBD QD BAG PACK (EVA, TOOLS & STOWAGE)

22:00 PORT QD BAG PACK (EVA, TOOLS & STOWAGE)

VTE BAG AND PUMP MODULE JUMPER BAG PACK (EVA, TOOLS & STOWAGE)

EXERCISE

23:00 PUBLIC AFFAIRS EVENT KU TDRW (23:08-23:40) REF MSG 041

TRANSFER REF Transfer List

00:00

MS3 Fuglesang

MEAL

STBD QD BAG PACK (EVA, TOOLS & STOWAGE)

PORT QD BAG PACK (EVA, TOOLS & STOWAGE)

VTE BAG AND PUMP MODULE JUMPER BAG PACK (EVA, TOOLS & STOWAGE)

EVA SYS: 1.605 BSA BATTERY RECHARGE Perform TERM. Stow HL & PGT batts in EVA3 Mesh Bag. REF: LOGISTICS CC

TRANSFER REF Transfer List

ANALOG PAO CC (PHOTO/TV, SONY PD100)

PUBLIC AFFAIRS EVENT KU TDRW (23:08-23:40) REF MSG 041

TRANSFER REF Transfer List

MS4 Higginbotham

EXERCISE

MEAL

TRANSFER REF Transfer List

Notes

NO EXERCISE DURING SOLAR ARRAY RETRACT

STS-116 FD05

REPLANNED

GMT Date 12/14 (348) | TDRS W E Z | ORB | MET Day 004 | STS ATI

CDR Polansky

EXERCISE

EPS: 4.118 P6 SAW XX RTRCT (P6 ON Z1 TRUSS)
Steps 18-19
ROBO: 3.101 P6 4B SAW RTRCT CAM MATRIX
Step 8

Star Tracker Door Open [A]
REF MSG 036, Item 4

EVA PROCEDURE REVIEW
REF: EVA 2 BRIEFING CARD
(EVA, TIMELINES)

BIAS-XLV-ZVV

[A] 06 S TRK PWR -Z - ON

06 STAR TRKR DR CNTL SYS (two) - OP (start timer)
√ POS tb (two) - bp
When both tb - OP (~8-24 sec), or either tb - bp for >24 sec,
STAR TRKR DR CNTL SYS (two) - OFF
If tb-bp>8 sec, notfiy MCC

06 S TRK PWR -Z - OFF

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

PMC:NETMEETING VID CNFRNC (ORB OPS,PGSC)
Omit VLHS item in Step 1, Omit Step 3
Use A/G 2 for audio & KFX PGSC
KU TDRZ (03:24-04:08)
PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

PLT Offal-lean

TRANSFER
REF Transfer List

EVA PROCEDURE REVIEW
REF: EVA 2 BRIEFING CARD
(EVA, TIMELINES)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

EVA SYS: 2.305 10.2 PSIA
CAMPOUT MASK PREBRTH Steps 1-16
REF: EVA 2 TOOL CONFIG
(EVA, TIMELINES)

MS1 Patrick

TRANSFER
REF Transfer List

SHUTTLE/ISS H2O CNTR FILL
(ORB OPS, ECLS)
Perform FILL TERMINATION

CWC TRANSFER (2 BAGS)
Transfer 2 CWC bags to ISS
REF MDDK Xfer List: Item 415.2
REF SH Xfer List: Items 163,165

On MCC Go:
SSP1 OIU PWR - OIU 1 OFF, √tb-bp
SSV PWR - ON, √OUTRATE - 3

A7 VID OUT MON 2 pb - PUSH
IN RMS pb - PUSH
A3 √MON 2 pwrd on overnight
R12 √VPU pwrd on overnight

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

Notes

NO EXERCISE DURING SOLAR ARRAY RETRACT

TFL 184

STS-116 FD05

REPLANNED

GMT Date 12/14 (348) | TDRS W E Z | ORB | MET Day 004 | STS ATI | BIAS -XLV -ZVV

MS2 Curbeam | MS3 Fuglesang | MS4 Higginbotham | Notes

00:00

TRANSFER
REF Transfer List

TRANSFER
REF Transfer List

TRANSFER
REF Transfer List

NO EXERCISE DURING SOLAR ARRAY RETRACT

01:00

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

EVA PROCEDURE REVIEW
REF: EVA 2 BRIEFING CARD
(EVA, TIMELINES)

EVA PROCEDURE REVIEW
REF: EVA 2 BRIEFING CARD
(EVA, TIMELINES)

EVA PROCEDURE REVIEW
REF: EVA 2 BRIEFING CARD
(EVA, TIMELINES)

02:00

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

DAILY STS/ISS CREW TRANSFER TAGUP

DAILY TRANSFER BRIEFING

03:00

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

SH PRE-SLEEP CONFIG
(SH OPS, ON-ORBIT)

EVA SYS: 2.305 10.2 PSIA
CAMPOUT MASK PREBRTH Steps 1-16
REF: EVA 2 TOOL CONFIG
(EVA, TIMELINES)

EVA SYS: 2.305 10.2 PSIA
CAMPOUT MASK PREBRTH Steps 1-16
REF: EVA 2 TOOL CONFIG
(EVA, TIMELINES)

04:00

STS-116 FD05

REPLANNED

GMT Date 12/14 (348) | T D R S W E Z | O R B | MET Day 004 | STS ATI

CDR Polansky | PLT Offal-lean | MS1 Patrick | Notes

04:00 — PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)

EVA SYS: 2.305 10.2 PSIA
CAMPOUT MASK PREBRTH Steps 1-16
REF: EVA 2 TOOL CONFIG
(EVA, TIMELINES)

PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)

PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)

06:00 — 07:00 — 08:00 — 09:00

ORB: 67, 68, 69

05:00 — 06:00 — 07:00 — 08:00

BIAS-XLV-ZVV

SLEEP | SLEEP | SLEEP

STS-116 FD05

REPLANNED

GMT Date 12/14 (348) | T D R S W E Z | O R B | MET Day 004 | STS ATI

MS2 Curbeam | MS3 Fuglesang | MS4 Higginbotham | Notes

04:00

EVA SYS: 2.305 10.2 PSIA
CAMPOUT MASK PREBRTH Steps 1-16
REF: EVA 2 TOOL CONFIG
(EVA, TIMELINES)

EVA SYS: 2.305 10.2 PSIA
CAMPOUT MASK PREBRTH Steps 1-16
REF: EVA 2 TOOL CONFIG
(EVA, TIMELINES)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

SH PRE-SLEEP CONFIG
(SH OPS, ON-ORBIT)

06:00

EVA SYS: 2.305 10.2 PSIA
CAMPOUT MASK PREBREATHE
Perform Steps 17-26

EVA SYS: 2.305 10.2 PSIA
CAMPOUT MASK PREBREATHE
Perform Steps 17-26

67

05:00

EVA 2 TOOL CONFIG
(EVA, TIMELINES)

EVA 2 TOOL CONFIG
(EVA, TIMELINES)

07:00

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

BIAS-XLV-ZVV

06:00

08:00

68

SLEEP

SLEEP

SLEEP

07:00

09:00

69

08:00

Good Morning Discovery!!

Thank you for the great day yesterday! Everyone is so pleased with how it all went. The EVA was just an outstanding performance by the entire crew! We certainly hope you enjoyed the execution of it as much as we did. You really set the bar high for the 118 S5 install! Oh, and by the way, everyone is so pleased that “Pinky” has been replaced! No one is missing having “rose-hued” downlinked images!

YOUR CURRENT ORBIT IS: 193 X 178 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
MORON (MRN) – TACAN CH (100X) OUT OF SERVICE
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 64 – 4/00:22 (FEW100 FEW200, 240/10P15)
EDW22 ORB 79 – 4/23:09 (FEW100 FEW200, 250/10P15)

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	359 FPS
ARCS (TOTAL ABOVE QTY1)	40 FPS
TOTAL IN THE AFT	399 FPS
ARCS (TOTAL ABOVE QTY2)	70 FPS
FRCS (ABOVE QTY 1)	40 FPS
AFT QTY 1	86 %
AFT QTY 2	49 %

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

4B SAW RETRACT VIEWING

1. SETUP

A7U CCTV – config for 4B SAW RETRACT viewing

MON 1	DNLK
A	Elbow (EE)
MON 2	DTV
B	P1 LOOB

SM 94 PDRS CONTROL

√PL ID, ITEM 3: 0

√INIT ID, ITEM 24: 0

NOTE

During SAW Retraction, no arm motion is allowed while the SAW Motor is driving

2. MNVR TO 4B SAW RETRACT VIEWING POSN

RATE – as required (VERN within 10 ft)

BRAKES – OFF (tb-OFF)

MODE – SINGLE, ENTER

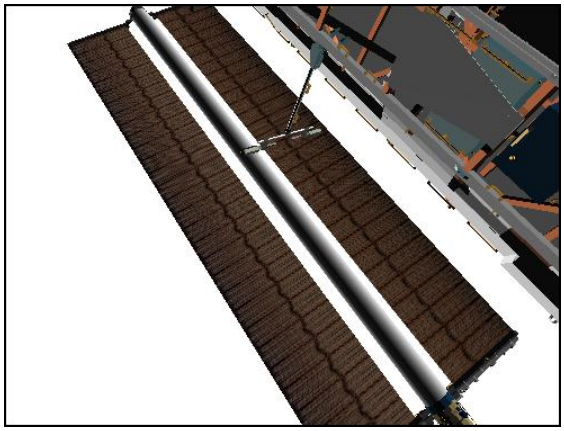
	SY	SP	EP	WP	WY	WR	
Port Panel 19 Viewing	+42.8	+4.0	-26.1	+38.8	-40.0	0.0	
1: SY +	+136.0						
2: SP +		+35.0					
3: EP –			-47.0				
4: WP +				+86.6			
5: WY +					+62.6		
6: WR –						-23.2	
4B SAW	+136.0	+35.0	-47.0	+86.6	+62.6	-23.2	
	X	Y	Z	PITCH	YAW	ROLL	PL ID
	-290	-441	-464	139	338	173	0

BRAKES – ON (tb-ON)

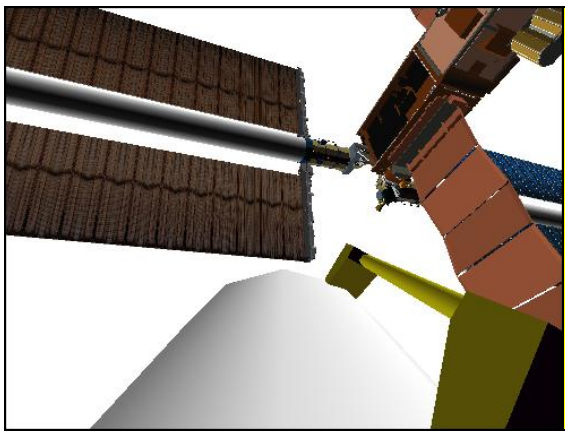
√MODE – not DIRECT

PARAM – PORT TEMP

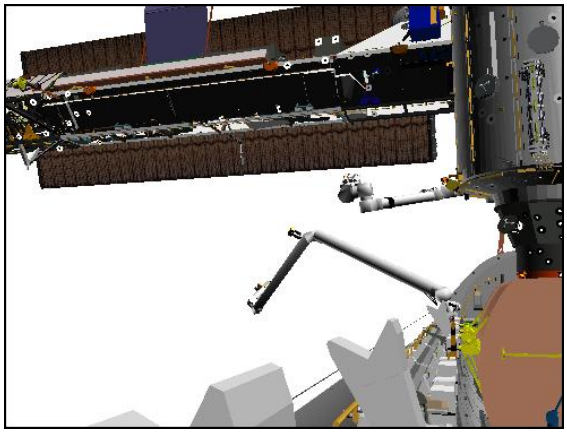
JOINT – CRIT TEMP



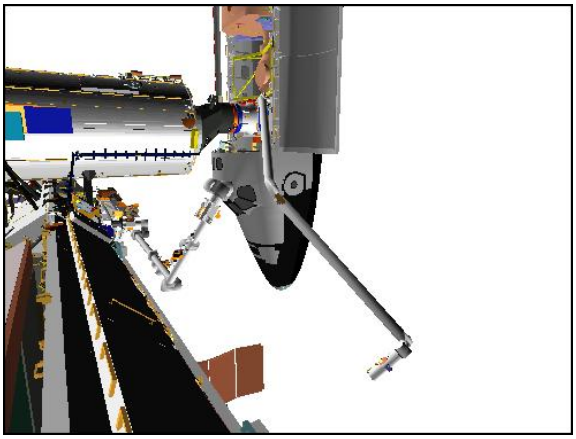
SRMS ELBOW (58,14)
(P6 4B rotated at 163°)



SRMS EE
(P6 4B rotated at 163°)



CCTV B (-18,8)
(P6 4B rotated at 163°)



P1 LOWER OUTBOARD (122,-11)

NOTE

Pan and Tilt Elbow camera as required to view Blanket De-tension/ Mast Deflection during 4B SAW Retraction. To view the leading edges of the P6 4B array at 56° or 236° once 4B is retracted and has 1 bay remaining, the recommended Elbow camera pan and tilt values are (74,-12).

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

Great job yesterday! It was nice to talk with you during last night's calldown. We really appreciate your efforts to get ahead of the curve. You never know, one of these days you may find a reward for the hard work!

Today is your first of two big transfer days. You'll transfer two full CWCs from the Middeck to ISS and transfer the SAFER in support of SAFER C/O. In addition, you'll transfer the TVIS Gyro to ISS to support tomorrow's Gyro R&R (because you have no transfer time scheduled prior to that activity tomorrow).

You should also start to configure the Spacehab module for return by transferring hardware to/from the SH 5 MLE bags.

The Transfer List Excel file, FD05_Transfer_List_STS116.xls, is located on the KFX machine in **C:\OCA-up\transfer.**

For ISS, the Transfer List Excel file, FD05_Transfer_List_STS116.xls, is located in **K:\OCA-up\transfer.**

<u>Questions for crew</u>

- We copied Thomas' call about stowing item 109 (SPHERES CTB) in LAB1O3_D1; however, we expected Return item 633 to be called complete since it's coming out of LAB1O3_D1. Has item 633 been transferred to SH?

- During yesterday's transfer brief you called item 110 and 110.2 thru 110.5 complete. We were expecting item 110.1 (meteoroid debris cover) to transfer to ISS in the 5 MLE bag as well. Has item 110.1 been transferred to ISS?

<u>Transfer Notes</u>

- FYI…we are expecting changes to the Spacehab CWC return plan. We will provide you with details in tomorrow's transfer plan; however, due to these imminent changes, hold off on transferring items 416, 754, and 755 today.

- We uplinked the AP01 and AP04 5 MLE bag return drawings. These should help you out when configuring bag contents (return h/w and foam). Remember all 5 MLE bags should be strapped down with the lid facing the Spacehab Port wall. In addition, the KURS within these bags should also have their "oval eyes" facing the port wall. The other two 5 MLE bag drawings (AS01 and AS03) will be uplinked on subsequent days.

- You'll notice there are more Spacehab return location changes. We plan to uplink new layouts by FD09.

FD05 Choreography

- **Items 772 and 779**: Transfer old TVCIC and PTU/CTVC.
- **Items 758 and 758.1**: Transfer old ETVCG Light CTB.
- **Item 113, 113.1, and 113.2**: Transfer new SAFER for C/O
- **Item 777, 777.1 thru 777.3**: Transfer old SAFER.
- **Item 123**: Transfer EVA/EPS 1.0 CTB for FD6 IVA Power Cable ops.
- **Items 117 and 117.1 thru 117.4**: Transfer OGS hardware.
- **Items 12 and 12.1**: Transfer MDDK CDRA .
- **Items 12 and 117**: Swap empty AS03 5 MLE bag with empty MDDK CDRA 5 MLE bag (Bag "A").
- **Item 116**: Transfer OGS hardware.
- **Items 111 and 112**: Transfer SH CDRA and empty 3.0 CTB.
- **Item 751**: Transfer 13S KURS.
- **Item 750 and 750.1**: Transfer EVA 5 MLE bag from ISS to SH and pack 23P KURS in it for return.
- **Item 152**: Transfer TVIS Gyro for FD06 R&R activity.
- **Item 415.2**: Transfer Silver Biocide Kit from ISS to MDDK for CWC fills.
- **Items 163 and 165**: Transfer 2 filled CWCs from MDDK to ISS.
- **Items 118, 118.1, 118.1.1, and 118.1.2**: Transfer 3.0 CTB with new PBAs for L-A's PBA transfer activity.
- **Items 419, 419.1, and 419.2**: Pack old PBAs and transfer to SH for return (because it'll be hard to get to this location in the future).
- **Items 404, 616, 626:** Pack these bags in SH for return (because it'll be hard to get to these locations in the future).

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

No updates to Resupply today!!

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

In the Spacehab Transfer List **RETURN** tab
Replace the following pages:
Page Return 11
Page Return 12
Page Return 14
Page Return 15

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

In the Spacehab Transfer List **REFERENCES** tab
Add the following pages:
REF-4
REF-5

Changes to the Transfer List are detailed below:

MIDDECK RETURN
Item 408 – deleted return location (location pending)
Item 413.2 – new item
Item 415.3 – new item
Item 427 – updated return location
Item 427.1 – updated return location
Item 429 – updated return location
Item 429.1 – updated initial and return locations

SPACEHAB RETURN
Item 410.1 – updated quantity
Item 427 – item moved
Item 427.1 – item moved
Item 428 – updated constraint
Item 429 – item moved
Item 429.1 – item moved
Item 616 – updated return location
Item 626 – updated return location
Item 803 – new item
Item 804 – new item

Have a great transfer day!

- The Transfer Team

Today there will be two CWC fills. For these fills, use any two of the CWCs that have already been retrieved from SHAB and are temp stowed in the Middeck at the foot of the ladder. (These CWCs should have S/Ns from among the following: 1021, 1039, 1051, and 1079.) Also, for these fills, use Silver Biocide Syringe Kit (S/N 1001) pregathered on ISS in a mesh bag at NOD1O1 [Transfer List item 415.2] and the Sample/Purge Kit (S/N 1002) located on the Middeck at MF43H.

FD05 Shuttle/ISS H2O Container Fill Details

For CWC Fills #1 and #2, use the following details:

SHUTTLE/ISS H2O CONTAINER FILL
(ORB OPS, ECLS)
Ag Biocide is req'd
Sample is req'd
Fill Duration: ~52 minutes
Report Serial Number and Barcode to MCC

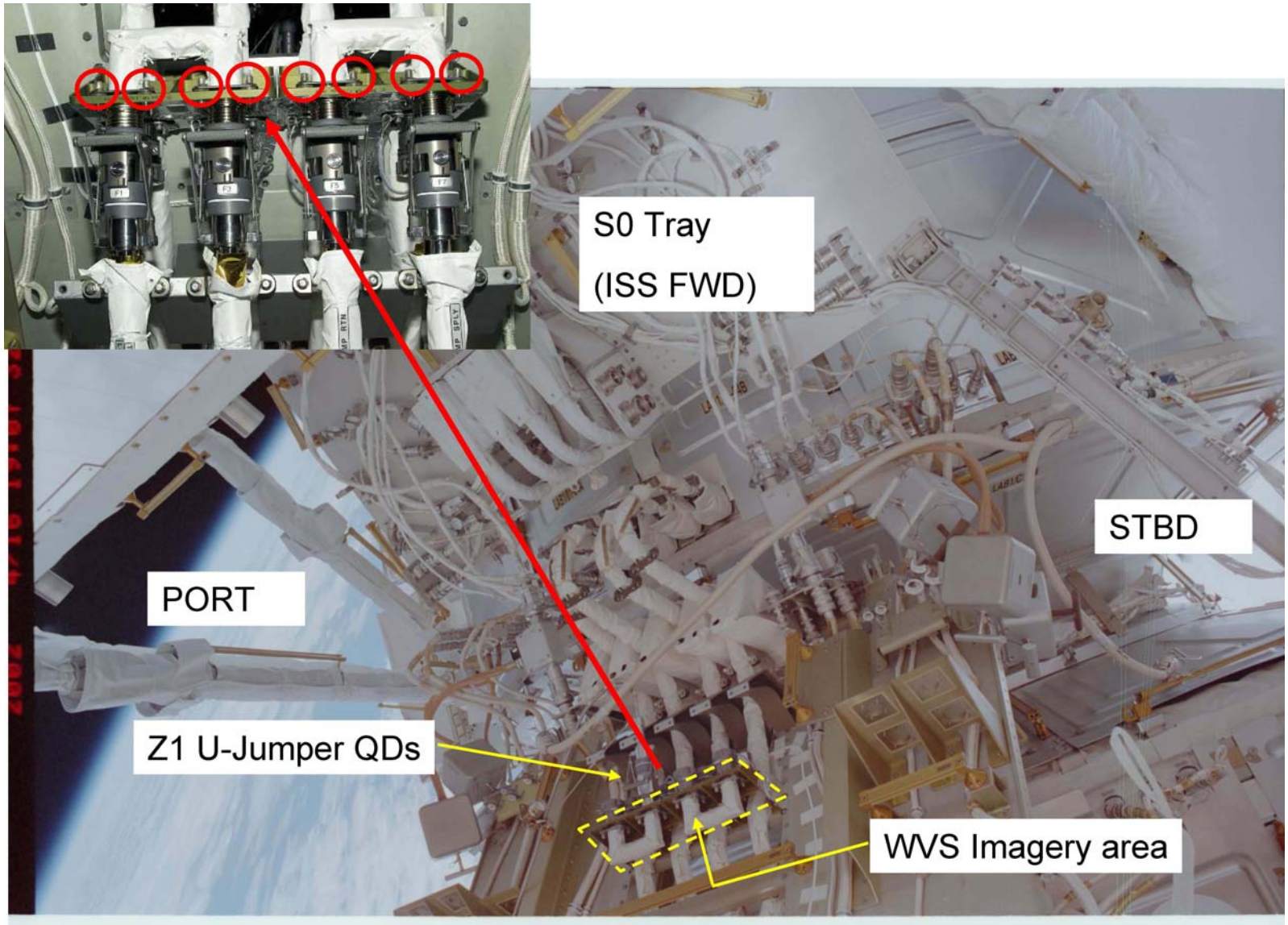
After the fills are complete, insert a green label into the CWC window, apply decals to CWC ends, and mark CWC serial number on the end decals. Temp stow the Silver Biocide Syringe Kit in the Middeck and report the stowage location to MCC. Transfer the two filled CWCs to NOD1P2. If there is insufficient room for the bags at this ISS location, stow CWCs at NOD1P1 and report to MCC.

An issue has arisen concerning possible exposed threads protruding from the Z1 U-jumper nutplates. These are located on the back side of the four U-Jumper male QD mounting brackets on the Z1 Tray. There should be caps on the threads; if exposed these threads pose a sharp edge concern.

We are requesting a visual and WVS verification that the caps are still installed. If the caps are missing please provide a description of the nutplate and the exposed threads.

The WVS imagery can be provided during EVA 2 immediately after EV2 completes Channel 2/3 Reconfig in the Rat's Nest.

Add the following steps to CHANNEL 2/3 POWER RECONFIGURATION (EVA C/L, TIMELINES), page FS 7-45, EV2's column:

19. Translate to Z1 tray U-jumper worksite
20. Perform visual inspection of nut plate caps (on back side of male QDs). Report on whether or not the caps are still attached
21. Perform WVS closeout of nut plate caps/threads

Z1 Tray QD U-Jumper Nutplate Imagery Worksite