STS-131/19A

FD 04 Execute Package

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016A	15 - 16	FD04 Mission Summary
017A	17 - 19	FD04 Transfer Message
019	20 - 21	FD4 PAO Event Summary
020	22	Predicted Waste Water Generation Rate
021	23 - 24	FD02/FD03 MMT Summary

Approved by FAO:
L. Rush

Last Updated: Apr 7 2010 11:13 PM GMT
JEDI *(**J**oint **E**xecute package **D**evelopment and **I**ntegration), v3.0*

On Ginger's first flight as a certified Shuttle Flight Director, she has tried very hard to emulate her mentors from Orbit 1 & 2.

MSG INDEX

MSG NO.	TITLE
MSG-015	FD04 Flight Plan Revision
MSG-016	FD04 Mission Summary
MSG-017	FD04 Transfer Message
MSG-019	FD4 PAO Event Summary
MSG-020	Predicted Waste Water Generation Rate

1. Post-Sleep Cryo Config

For today's post-sleep cryo config, O2 tanks 2, 3, and 4, and H2 tanks 2 and 4 will be active.

R1 O2,H2 MANF VLV TK2 (two) - OP (tb-OP)
O2 TK3 HTRS A,B (two) − AUTO

A11 CRYO TK4 HTRS O2 A,B (two) − AUTO

A15 CRYO TK5 HTRS O2 A,B (two) − OFF

Pre-Sleep Cryo Config

√MCC for deltas prior to configuring for pre-sleep.

For tonight's pre-sleep cryo config, manifold 1 will be closed with O2 tanks 1 and 5 and H2 tanks 1 and 4 active.

R1 O2,H2 TK1 HTRS A,B (four) - AUTO
TK2 HTRS A,B (four) − OFF
O2 TK3 HTRS A,B (two) − OFF
O2,H2 MANF VLV TK1 (two) - CL (tb-CL)

A15 CRYO TK5 HTRS O2 A,B (two) - AUTO

A11 CRYO TK4 HTRS O2 A,B (two) - OFF

2. ISS ARED
Discovery CDR & PLT are "GO" for ISS ARED exercise. The Upper Rack can now be used.

3. HazMat Update
The MCC has remotely uplinked the latest HazMat data file to all PGSCs onboard.

4. Waste Water Plot
As a reminder, 4 Shuttle crew equivalent should use the WHC while hatches are open. The plot in MSG 020 represents the predicted waste water generation rate during the docked timeframe assuming 4 Shuttle crew using the WHC. It protects a 14+0 day mission and assumes a dump on FD13 post-undocking. No waste tank offload is expected.

5. Prebreathe Configuration
Rick: Just a reminder that during JOINT OPS 3.120 Prebreathe Using Shuttle O2 Setup, you'll be using Teflon bags and Kapton tape to cover the oxygen QDs and caps in steps 4.7 & 4.8. TJ will have locations for both the bags and tape in the stowage note for this activity.

6. MERLIN Sample Transfer
Stephanie: For today's MERLIN Sample Transfer activity, TJ will provide you with the white gloves required for the sample transfer. You'll handoff the Neurorad samples from MERLIN to TJ for CBEF processing. Please note that these samples are time critical, and science could be affected or lost if left at room temperature too long.

7. ET/Centerline Video
All: When we get Station MPC capability back, please prioritize the handheld ET video for HD downlink for ground analysis. As a reminder, please give the ground a heads up before starting the playback to ensure the proper team members are ready to receive the video. We will also take the centerline camera video as a playback via Standard Def.

8. REPLACE PAGES 2-10, 2-12 AND 3-32 THROUGH 3-41.

REPLANNED

FD03

GMT 04/07/10 (097)
β = −23
MET Day 002

06 17 18 19 20 21 22 23 04/08 01 02 03 04
07 08 09 10 11 12 13 14 15 16 17 18

FD04

STS-131

CDR	POINDEXTER	SLEEP; POST SLEEP; APCU*; POST SLEEP; APCU@; POST SLEEP; MDK; XFER; UPDAT; CWCI-I; FILL #4; CWCI-I; FILL #5
PLT	DUTTON	SLEEP; POST SLEEP; P/TV06 ROBOTICS
MS1	MASTRACCHIO	SLEEP; POST SLEEP; WLES; TOOL CONFIG
MS2	METCALF-LINDENBURGER	SLEEP; POST SLEEP; MCIU; POST SLEEP; PRLA; MDDK XFER
MS3	WILSON	SLEEP; POST SLEEP; SSRMS GRAPL; MPLM UNBERTH INSTALL; MPLM^
MS4	YAMAZAKI	SLEEP; POST SLEEP; SSRMS GRAPL; MPLM UNBERTH INSTALL; MPLM^
MS5	ANDERSON	SLEEP; LOG; POST SLEEP; DOUG; S/U; POST SLEEP; TOOL CONFIG

TDRS W E Z

DAY/NIGHT

ORBIT 36 37 38 39 40 41 42 43 44

ORB ATT BIAS -XLV -ZVV

TDRS AVAIL

NOTES

*ACT @DEACT INSTALL^

NO T2 EXER
(MPLM MNVR FROM BERTH TO PRE-INST)

3

REPLANNED

FD04

GMT 04/08/10 (098)
β = −21
MET Day 002

18 19 20 21 22 23 003/00 01 02 03 04 05 06
05 06 07 08 09 10 11 12 13 14 15 16

STS-131

CDR POINDEXTER	CWC-I	FILL #6	CWC-I XFER (3)	IMU	MDDK XFER	PRIVATE	CONF	MEAL	MDDK XFER	EXERCISE ARED	MDDK XFER	PAO	EVENT	EVA 1 PROC RVW	PRE SLEEP	PMC A/G	PRE SLEEP	XFER	TAG UP	PRE SLEEP				
PLT DUTTON	P/TV06 ROBOTICS					PTV06	MEAL	MDDK XFER			P/TV 09 S/U	MRLN	PHOTO	EXERCISE ARED	GLAC	PHOTO	EVA 1 PROC RVW	PRE SLEEP						
MS1 MASTRACCHIO	TOOL CONFIG		E_LK PREP	MDDK XFER		MEAL	STS 02 P/B CONFIG	MDDK XFER	EXERCISE	MDDK XFER		PAO	EVENT	EVA 1 PROC RVW	PRE SLEEP					10.2 DPRS MASK P/B TOOL CONFIG				
MS2 METCALF-LINDENBURGER	MDDK XFER	TOOL CONFIG	MDDK XFER			MEAL	MDDK XFER				EXERCISE	EVA 1 PROC RVW	RGA GATHER	MPAC/ SEED GATHER	PRE SLEEP									
MS3 WILSON	MPLM^		LIMP		BRAKE	MPLM UNGRP	MEAL	MDDK XFER	EXERCISE		SMP XFR RVW	MERLIN UNPACK	NLP TERM	STL&	AEM*	GLCR MLF XFER	DOOR	PAO	EVENT	EVA 1 PROC RVW	PRE SLEEP			
MS4 YAMAZAKI	MPLM^		LIMP		BRAKE	MPLM UNGRP		MPLM VEST PRESS	MEAL	MDDK XFER	EXERCISE	MDDK	AEM#	PSTV OU5P	POPS PTV05		MRLN	AEM VIDEO	PRE SLEEP	XFER	TAG UP	XFER	BREIEF	PRE SLEEP
MS5 ANDERSON	TOOL CONFIG		E_LK PREP	MDDK XFER	EXERCISE		MEAL	MPLM VEST INGRS CNFG		MPLM ACT PART 1		VEST	MPLM ACT II	MPLM	INGR		EVA 1 PROC RVW	PRE SLEEP					10.2 DPRS MASK P/B	

TDRS W E Z

DAY/NIGHT

ORBIT 44 45 46 47 48 49 50 51 52

ORB ATT BIAS -XLV -ZVV BIAS -XLV -ZVV

TDRS AVAIL

NOTES

^INSTALL

NO EXERCISE
(MPLM INSTL/ BOLT LOAD)

&PHOTO
*PHOTO
#STATUS CHECK

CREW SLEEP @ 06:30*

STS-131/19A FD04

REPLANNED

GMT Date 04/07 (097) | W | TDRSE | Z | D/N | ORB | MET Day 002 | STS ATI | CDR POINDEXTER | PLT DUTTON | MS2 METCALF-LINDENBURGER | NOTES

12:00 – 13:00 – 14:00 – 15:00 – 16:00

23:00 – 00:00 – 01:00 – 02:00

40 – 41 – 42 – 43

BIAS - XLV - ZVV

CDR: SLEEP

PLT: SLEEP

MS2: SLEEP

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)
√HUM SEP for H2O accumulation

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

FD04 EZ ACTIVITIES:
TEPC (ORB OPS, CREW SYSTEMS)
Check Status
OCAC Filter Inspection
Check MDDK Duct Screen
Powerdown and Stow STS1 (OCA Router)
Hard reboot all PGSCs not shut down overnight, except: STS5 (RPOP2) and STS6 (WLES)

On MCC GO: A15 APCU 1 OUTPUT - ON
POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

TFL 199

MPLM PRESS CHECK

5

STS-131/19A FD04

REPLANNED

GMT Date 04/07 (097) | W | T D R S E | Z | D / N | O R B | MET Day 002 | STS ATI | MS1 MASTRACCHIO | MS3 WILSON | MS4 YAMAZAKI | MS5 ANDERSON | NOTES

12:00 — 13:00 — 14:00 — 15:00 — 16:00

23:00 — 00:00 — 01:00 — 02:00

40 — 41 — 42 — 43

BIAS-XLV-ZVV

MS1: SLEEP

MS3: SLEEP

MS4: SLEEP

MS5: SLEEP

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

SLEEP LOGBOOK (SDBI 1634)

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

POC: 2.7.501 DOUG STARTUP PROCEDURE Step 1

STS-131/19A FD04

REPLANNED

GMT Date 04/08 (098) | W | TDRS E | Z | DON/ORB | MET Day 002 | STS ATI

CDR POINDEXTER | **PLT** DUTTON | **MS2** METCALF-LINDENBURGER | NOTES

16:00
- On MCC GO: A15 APCU 1 OUTPUT - OFF
- POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)
- BIAS-XLV-ZVV
- MERLIN STATUS CK (Cue Card)
- GLACIER STATUS CK (Cue Card)
- STL STATUS CK (Cue Card)

17:00
- DAILY TRANSFER LIST UPDATE Ref. Transfer Lists & MSG 017
- CWC-I FILL #4 (ORB OPS, ECLS) Perform Parts D & E Ref. MSG 012
- CWC-I FILL #5 (ORB OPS, ECLS) Perform Parts D & E Ref. MSG 012

18:00
- On MCC GO: BIAS-XLV-ZVV CWC-I FILL #6 (ORB OPS, ECLS) Perform Parts D,E,&F Ref. MSG 012
- CWC-I TRANSFER Transfer 3 CWC-Is to ISS

19:00
- IMU STAR OF OPPTY ALIGN (ORB OPS, GNC)
- TRANSFER OPS Ref. Middeck & MPLM Transfer Lists & MSG 017

20:00

03:00 — 04:00 — 05:00 — 06:00

DON/ORB: 43, 44, 45

PLT: P/TV06 ROBOTICS OPERATIONS (P/TV, SCENES) OPS, Items 1-2 for MPLM Unberth and Install

MS2:
- POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)
- L17 Check MCIU filter screen
- POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)
- ROBO: 1.200 MPLM UNBERTH AND INSTALL Steps 7-11
- TRANSFER OPS Ref. Middeck & MPLM Transfer Lists & MSG 017
- EVA 1 TOOL CONFIG (EVA, TIMELINES) Ref. EVA CHECKLIST STS-131 FS Ref. MSG 008
- TRANSFER OPS Ref. Middeck & MPLM Transfer Lists & MSG 017

NOTES: TFL 184; NO EXERCISE (MPLM INST/BOLT LOADING)

STS-131/19A FD04

REPLANNED

GMT Date 04/08 (098) | W | TDRSE | Z | D/N | ORB | MET Day 002 | STS ATT

MS1 MASTRACCHIO	MS3 WILSON	MS4 YAMAZAKI	MS5 ANDERSON	NOTES
POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	ROBO: 1.200 MPLM UNBERTH AND INSTALL Steps 1-3	ROBO: 1.200 MPLM UNBERTH AND INSTALL Steps 1-3	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
	ROBO: 1.200 MPLM UNBERTH AND INSTALL Steps 4-18	ROBO: 1.200 MPLM UNBERTH AND INSTALL Steps 4-18		
CONFIGURE WLES DATA FILE BACKUP PATH (ORB OPS, WLE SENSORS) Configure new backup path on STS6 (WLES)				
EVA 1 TOOL CONFIG (EVA, TIMELINES) Ref. EVA CHECKLIST STS-131 FS Ref. MSG 008			EVA 1 TOOL CONFIG (EVA, TIMELINES) Ref. EVA CHECKLIST STS-131 FS Ref. MSG 008	
	ROBO: 1.200 MPLM UNBERTH AND INSTALL Steps 19-20	ROBO: 1.200 MPLM UNBERTH AND INSTALL Steps 19-20		
	ROBO: 1.200 MPLM UNBERTH AND INSTALL Step 21	ROBO: 1.200 MPLM UNBERTH AND INSTALL Step 21		
EVA SYSTEMS: 1.305 EQUIPMENT LOCK PREP Omit DRINK BAG FILL			EVA SYSTEMS: 1.305 EQUIPMENT LOCK PREP Omit DRINK BAG FILL	NO EXERCISE (MPLM INST/ BOLT LOADING)
TRANSFER OPS Ref. Middeck & MPLM Transfer Lists & MSG 017			TRANSFER OPS Ref. Middeck & MPLM Transfer Lists & MSG 017	
	ROBO: 1.200 MPLM UNBERTH AND INSTALL Steps 22-23	ROBO: 1.200 MPLM UNBERTH AND INSTALL Steps 22-23		
	ROBO: 1.200 MPLM UNBERTH AND INSTALL Steps 24-28	ROBO: 1.200 MPLM UNBERTH AND INSTALL Steps 24-28	EXERCISE	

Time scale: 03:00, 04:00, 05:00, 06:00; 16:00, 17:00, 18:00, 19:00, 20:00

STS ATT: BIAS-XLV-ZVV; BIAS-XLV-ZVV

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STS-131/19A FD04

REPLANNED

GMT Date 04/08 (098) | W | TDRSE | Z | D/N | ORB | MET Day 002 | STS ATI | CDR POINDEXTER | PLT DUTTON | MS2 METCALF-LINDENBURGER | NOTES

GMT	MET	CDR POINDEXTER	PLT DUTTON	MS2 METCALF-LINDENBURGER
07:00	20:00	TRANSFER OPS Ref. Middeck & MPLM Transfer Lists & MSG 017	P/TV06 ROBOTICS OPERATIONS (P/TV, SCENES) OPS, Items 1-2 for MPLM Unberth and Install	TRANSFER OPS Ref. Middeck & MPLM Transfer Lists & MSG 017
		L9 PAYLOAD STATION A/G (two) - OFF PRIVATE CONFERENCE VIA A/G 2	P/TV06 ROBOTICS OPERATIONS (DEACTIVATION) (P/TV, SCENES)	
	21:00	MEAL	MEAL	MEAL
08:00				
	22:00	TRANSFER OPS Ref. Middeck & MPLM Transfer Lists & MSG 017	TRANSFER OPS Ref. Middeck & MPLM Transfer Lists & MSG 017	TRANSFER OPS Ref. Middeck & MPLM Transfer Lists & MSG 017
09:00				
	23:00	EXERCISE ARED AVAILABLE	P/TV09 MIDDECK PAYLOADS (P/TV, SCENES) SETUP	
10:00				
	00:00		P/TV09 MIDDECK PAYLOADS (P/TV, SCENES) OPS, Item 2 for MERLIN Stills	

STS ATI: BIAS - XLV - ZVV

45 46 47 48

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STS-131/19A FD04

REPLANNED

GMT Date 04/08 (098) | W | TDRSE | Z | D/N | ORB | MET Day 002 | STS ATT

MS1 MASTRACCHIO	MS3 WILSON	MS4 YAMAZAKI	MS5 ANDERSON	NOTES
TRANSFER OPS Ref. Middeck & MPLM Transfer Lists & MSG 017	ROBO: 1.200 MPLM UNBERTH AND INSTALL Steps 24-28	ROBO: 1.200 MPLM UNBERTH AND INSTALL Steps 24-28	EXERCISE	
MEAL	MEAL	MPLM: 1.113 N2 TO MPLM VESTIBULE PRESSURIZATION AND LEAK CHECK Verify CBM bolt load complete prior to Step 5. Leave ISA/VAJ connected in Step 9.	MEAL	
JOINT OPS: 3.120 PREBREATHE USING SHUTTLE O2 SETUP Steps 2-6; Ground will perform steps 2.4 and 6.14 Ref. MSG 015 item 5	TRANSFER OPS Ref. Middeck & MPLM Transfer Lists & MSG 017	MEAL	S&M: 1.108 MPLM VESTIBULE - CONFIGURE FOR INGRESS Steps 1-5 Note - Center Disk Cover is missing one Turnbuckle plunge. Press without it. S&M: A.14 MPLM VESTIBULE AND ACTIVATION PROCEDURES CC	
TRANSFER OPS Ref. Middeck & MPLM Transfer Lists & MSG 017	EXERCISE	TRANSFER OPS Ref. Middeck & MPLM Transfer Lists & MSG 017	MPLM: 1.103 MPLM ACTIVATION (PART 1) Perform Steps 1,4-7,8	
EXERCISE	SAMPLE TRANSFER REVIEW REVIEW ONLY: 19A ASCENT SAMPLE TRANSFER FROM GLACIER TO MELFI and MERLIN 19A UNPACK (ASSY OPS, PAYLOADS) Ref. MSG 015 item 6 MERLIN UNPACK OPS Ref. pg 3-39	EXERCISE		

Time scale: 07:00, 08:00, 09:00, 10:00; 20:00, 21:00, 22:00, 23:00, 00:00

45, 46, 47, 48

BIAS - XLV - ZVV

STS-131/19A FD04

REPLANNED

GMT Date 04/08 (098) | W | TDRSE | Z | D/N | ORB | MET Day 003 | STS ATT | CDR POINDEXTER | PLT DUTTON | MS2 METCALF-LINDENBURGER | NOTES

11:00 | 12:00 | 13:00 | 14:00

00:00 | 01:00 | 02:00 | 03:00 | 04:00

48 | 49 | 50 | 51

BIAS - XLV - ZVV

CDR
POINDEXTER

TRANSFER OPS
Ref. Middeck & MPLM
Transfer Lists & MSG 017

PUBLIC AFFAIRS EVENT
ISS KU AVAIL (01:51-02:27)
Ref. MSG 019

EVA 1 BRIEFING CARD
(EVA, TIMELINES)
EVA 1 Procedure Review
Ref. EVA CHECKLIST STS-131 FS
Ref. MSG 006-008, & 013

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)
Air Quality Report

L9 PAYLOAD STATION A/G (two) - OFF
PRIVATE MEDICAL CONFERENCE VIA A/G 2

PLT
DUTTON

P/TV09 MIDDECK PAYLOADS
(P/TV, SCENES) OPS, Item 2 for MERLIN Stills

EXERCISE
ARED AVAILABLE

P/T09 MIDDECK PAYLOADS
(P/TV, SCENES)
OPS, Item 1 for GLACIER

EVA 1 BRIEFING CARD
(EVA, TIMELINES)
EVA 1 Procedure Review
Ref. EVA CHECKLIST STS-131 FS
Ref. MSG 006-008, & 013

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

MS2
METCALF-LINDENBURGER

TRANSFER OPS
Ref. Middeck & MPLM
Transfer Lists & MSG 017

EXERCISE

EVA 1 BRIEFING CARD
(EVA, TIMELINES)
EVA 1 Procedure Review
Ref. EVA CHECKLIST STS-131 FS
Ref. MSG 006-008, & 013

TRANSFER OPS
Retrieve SO RGA
Ref. MPLM Resupply
Transfer List: Item 111

TRANSFER OPS
Retrieve MPAC/SEED
Ref. MPLM Resupply
Transfer List: Item 191

11

3-38

FLT PLN/131/FLT

STS-131/19A FD04

REPLANNED

GMT Date 04/08 (098) | W | TDRSE | Z | D/N | ORB | MET Day 003 | STS ATT

MS1 MASTRACCHIO	MS3 WILSON	MS4 YAMAZAKI	MS5 ANDERSON	NOTES
EXERCISE	MERLIN 19A UNPACK (ASSY OPS, PAYLOADS) Ref. Middeck Resupply Transfer List: Items 45 & 46	EXERCISE	MPLM: 1.103 MPLM ACTIVATION (PART 1) Perform Steps 1,4-7,8	
TRANSFER OPS Ref. Middeck & MPLM Transfer Lists & MSG 017	NLP GAP TERMINATION (ASSY OPS, PAYLOADS) Terminate GAPs A-P (MF710) Termination window 03/00:27 - 03/06:27			
	P/TV09 MIDDECK PAYLOADS (P/TV, SCENES) OPS, Item 4 for STL P/TV09 MIDDECK PAYLOADS (PHOTO T/V, SCENES) OPS, Item 3 for AEM Photos 19A ASCENT SAMPLE TRANSFER FROM GLACIER TO MELFI (ASSY OPS, PAYLOADS) Ref. Middeck Resupply Transfer List: Item 39	MERLIN STATUS CK (Cue Card) GLACIER STATUS CK (Cue Card) STL STATUS CK (Cue Card) AEM UNIT#1 CK (Cue Card) AEM UNIT#2 CK (Cue Card) P/TV05 ISS INTERNAL OPS (HC) (P/TV, SCENES) SETUP	S&M: 1.108 MPLM VESTIBULE - CONFIGURE FOR INGRESS Steps 7-8 MPLM: 1.103 MPLM ACTIVATION (PART 2) Step 9	
	LOCKING GLACIER DOOR (ASSY OPS, PAYLOADS)	P/TV05 ISS INTERNAL OPS (HC) (PHOTO/TV, SCENES) OPS, Item 2 for MPLM Hatch Open	MPLM: 1.104 MPLM INGRESS Steps 1-6. Ref. MPLM Resupply Transfer List: Items 100 & 101 Ref. Middeck Return Transfer List: Item 436.1	
PUBLIC AFFAIRS EVENT ISS KU AVAIL (01:51-02:27) Ref. MSG 019	PUBLIC AFFAIRS EVENT ISS KU AVAIL (01:51-02:27) Ref. MSG 019			
EVA 1 BRIEFING CARD (EVA, TIMELINES) EVA 1 Procedure Review Ref. EVA CHECKLIST STS-131 FS Ref. MSG 006-008, & 013	EVA 1 BRIEFING CARD (EVA, TIMELINES) EVA 1 Procedure Review Ref. EVA CHECKLIST STS-131 FS Ref. MSG 006-008, & 013	MERLIN STATUS CK (Cue Card) P/TV09 MIDDECK PAYLOADS (P/TV, SCENES) SETUP OPS, Item 3 for both AEMs DEACTIVATION	EVA 1 BRIEFING CARD (EVA, TIMELINES) EVA 1 Procedure Review Ref. EVA CHECKLIST STS-131 FS Ref. MSG 006-008, & 013	
		PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)		
PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)		PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	

Time scale: 11:00, 12:00, 13:00, 14:00; 00:00, 01:00, 02:00, 03:00, 04:00

48, 49, 50, 51

BIAS - XLV - ZVV

12

STS-131/19A FD04

REPLANNED

GMT Date 04/08 (098) | W | TDRS E | Z | D/N | ORB | MET Day 003 | STS ATI

CDR POINDEXTER | PLT DUTTON | MS2 METCALF-LINDENBURGER | NOTES

BIAS-XLV-ZVV

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

TRANSFER TAGUP
Coordinate with transfer counterparts

PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)

PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)

MPAC/SEED TRANSFER OPS Ref. pg 3-38

PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)

15:00 — 16:00 — 17:00 — 18:00

05:00 — 06:00 — 07:00 — 08:00

ORB: 51, 52, 53

CREW WAKEUP AT 03/14:30

SLEEP — SLEEP — SLEEP

STS-131/19A FD04

REPLANNED

GMT Date 04/08 (098) | W | TDRSE | Z | D/N | ORB | MET Day 003 | STS ATT

MS1 MASTRACCHIO	MS3 WILSON	MS4 YAMAZAKI	MS5 ANDERSON	NOTES
PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
		TRANSFER TAGUP Coordinate with transfer counterparts		
		TRANSFER BRIEF Call down status to MCC		
		PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)		
EVA SYSTEMS: 1.206 10.2 PSIA CAMPOUT MASK PREBREATHE Ref. Consumables Tracking CC Ref. EVA 1 TOOL CONFIG (EVA, TIMELINES) For MPAC SEED Cover			EVA SYSTEMS: 1.206 10.2 PSIA CAMPOUT MASK PREBREATHE Ref. Consumables Tracking CC Ref. EVA 1 TOOL CONFIG (EVA, TIMELINES) For MPAC SEED Cover	
PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)			PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
SLEEP	SLEEP	SLEEP	SLEEP	

BIAS-XLV-ZVV

BIAS-XLV-ZVV

CREW WAKEUP AT 03/14:30

04:00 05:00 06:00 07:00 08:00

15:00 16:00 17:00 18:00

51 52 53

14

MSG 016A - FD04 MISSION SUMMARY

Discovery,

We are sure you are glad to be reading the Execute Package today instead of hearing it!
Great job with the rendezvous yesterday, enjoy your stay aboard ISS.

YOUR CURRENT ORBIT IS: 191 X 182 NM

NOTAMS:

EDW -	EDT 22R/04L IN USE. EDW 22/04 CLOSED FOR CONSTRUCTION.
EDW -	LAKEBED RWYS RED.
NOR -	LAKEBED RWYS GREEN.
FOK -	RWY 06/24 CLOSED.
DOV -	RWY 32 REIL OTS.
FMH -	RWY 23 ALS OTS.
YYT -	TACAN UYT23 AZIMUTH OTS.
YQX -	TACAN YQX74 AZIMUTH OTS.
JTY -	RWY 18 ALS OTS.
MYR -	RWY 18/36 CLOSED FROM 0340 - 0930 GMT.
IKF -	NOT USABLE. NO AGREEMENT.
BEN -	NOT RECOMMENDED/NOT SUPPORTED.

NEXT 2 PLS OPPORTUNITIES:

EDT22R	ORB 48 – 3/00:02	SKC	7	VRB03
EDT22R	ORB 64 – 4/00:27	SKC	7	230/3P5

OMS TANK FAIL CAPABILITY:

L OMS FAILS: NO
R OMS FAILS: NO

LEAKING OMS PRPLT BURN:

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

OMS QUANTITIES(%)

L OMS	OX = 34.08	R OMS	OX = 35.28
	FU = 33.60		FU = 35.21

END OF PAGE 1 OF 2, MSG 016A

DELTA V AVAILABLE:

OMS	366 FPS
ARCS (TOTAL ABOVE QTY1)	31 FPS
TOTAL IN THE AFT	397 FPS
ARCS (TOTAL ABOVE QTY2)	64 FPS
FRCS (ABOVE QTY 1)	30 FPS
AFT QTY 1	81 %
AFT QTY 2	43 %

SYSTEM #	FAILURE	IMPACT	WORK AROUND
TriDAR	RJ-45 cable did not snap into the KFX RJ-45 port. TriDAR had an intermittent connection to the KFX PGSC and off-nominal status indication on TriDAR software.	Unknown until downlink & analysis of data files.	None at this time.

END OF PAGE 2 OF 2, MSG 016A

Good Morning Dex, Naoko and Stephanie,

Thank you for the great start yesterday! Although we promised to uplink the MPLM, M-bag, and foam return layouts today, we have decided to delay due to multiple MPLM return configuration changes currently in work. We hope to provide you with an updated return plan and layouts in the next couple days.

First thing today, the ISS crew will need the ESA Thermal Container and Area 51 CTB for a couple of their timelined activities. You'll also be transferring payload cold samples between middeck and ISS. Following a full day of middeck transfer, Dottie will be gathering the Rate Gyro and MPAC/SEED hardware from the MPLM to support EVA 1 preparation today. At the same time, she will also be gathering the Shuttle Contingency EMU LiOH and transferring them to the middeck.

The Transfer List Excel file, FD04_Transfer_List_STS131.xls, locations are:

- Shuttle: **C:\OCA-up\transfer** (KFX machine)
- Station: **K:\OCA-up\transfer**

Transfer Notes

- **Broken Worklight:** Naoko, we would like you to leave the broken worklight (s/n 1002) in MA16G for return. In addition, we now plan to return only one ISS worklight (s/n 1020) instead of the two previously planned for return. Middeck Resupply Item 6 and Middeck Return Item 719 have been updated to reflect this plan.

- **Transfer Get-aheads:** As discussed pre-flight, we have included a list of transfer get-aheads for you today. These activities are nominally scheduled for tomorrow; therefore, there is no problem if you cannot complete them today.

FD04 Choreography (in timeline order)

- **Item 44:** Transfer ESA Thermal Container (ECCO) for ECCO Unpack.
- **Items 37 & 436.2:** Transfer Area 51 CTB from Bag D to ISS for EHS GSC SAMPLE activity.
- **Item 7:** Transfer ABRS/JAXA PAYLOADS CTB from MA9F to ISS prior to NEURO activities.
- **Items 45 & 46:** Transfer cold samples from MERLIN to CBEF per MERLIN UNPACK.
- **Item 39:** Transfer cold samples from Glacier to MELFI per GLACIER MELFI XFER.
- **MPLM INGRESS:**
  - **Items 100 and 101:** Deploy PBA and PFE in MPLM.
  - **Item 213:** Retrieve Naoko and Steph's MPLM Kit from MPL1S1_D2
  - **Item 436.1:** Pack GSC (s/n 1092) for return following MPLM Ingress
  - Remove tape from RSRs.
- **Item 111:** Transfer RGA from MPL1A2_C1 to ISS for EVA 1.
- **Item 191:** Transfer MPAC SEED Return Bag from MPL1P4_G2 to ISS for EVA 1.
- **Item 192 and 228:** Transfer Shuttle Contingency EMU LiOH from MPL1P4_G2 & S1_K1 to Middeck.

FD04 Transfer Get-aheads

☑	Get-ahead Activity	Nominally scheduled
	Transfer shuttle contingency EMU LiOH from MPL1P4_G2 and MPL1S1_K1 to middeck.	N/A
	Transfer ZSR from MPL1S2 to JLP1A1.	FD05
	Transfer pre-packed bags/items from LAB1P4 to MPLM endcone to support early transfer of MPL1S4 ZSR if possible.	FD05

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

In the Middeck Transfer List **RESUPPLY** tab
Replace the following page:
Resupply 1

In the Middeck Transfer List **RETURN** tab
Replace the following pages:
Return 1
Return 7

In the MPLM Resupply Transfer List **F2 RSP** tab
Pen & Ink on the following page:
Resupply 21 - Item 150: add "foam box" to Quantity since it will be required for returning the old Cat Reactor

In the MPLM Return Transfer List **RETURN** tab
Pen & Ink on the following pages:
Return 14 - Item 445.16: in Stowage at Undock column strike through "TBD" and add "MPL1D_P3"

<u>FD05 Choreography</u> (in timeline order)

- **Item 121:** Transfer BMRRM from MPL1A3 to PMA 3 prior to rack transfers.
- Remove NOD2P5 Crew Quarters bumpout to allow Crew Quarters install at NOD2O5.
- **Item 236:** Transfer ZSR from MPL1S2 rack front to JLP1A1.
- Temp stow ziplock of RSR/ZSR launch brackets and pip pins for return - will add brackets and pip pins from MPL1S4 ZSR on FD06.
- **Item 128:** Transfer KBARS/PIVOT PINS from MPL1A4_A1 prior to rack transfers.
- **Items 106 and 107:** Remove and transfer handrails (qty 2) from MELFI rack-front prior to transferring rack.
- **Item 108:** Transfer MELFI 3 rack from MPL1A1 to JPM1A1.
- **Item 8:** Transfer APEX-CAMBIUM/JAXA CTB prior to TAGES REPLANT activity.
- Remove M-bag from F1_A1 and temp stow in endcone.
- Fold F1_A1 RSP fence to provide clearance for Crew Quarters rack removal.
- **Item 170:** Transfer Crew Quarters rack from MPL1P1 to NOD2O5.
- Re-install NOD2P5 Crew Quarters bumpout once new Crew Quarters is installed at NOD2O5.
- **Item 116:** Retrieve and transfer ARIS HARDWARE 1 bag from MPL1A2_H1 prior to deploying bungee jail.
    - ARIS Mod Temp TCS Supply and ARIS Mod Temp TCS Return umbilicals required prior to EXPRESS Rack 7 transfer on FD06.
- Deploy inter-rack bungee jail across A1 empty bay for M-bag temp stow.
- Relocate F1_A1 M-bag from endcone to A1 bungee jail.
- Remove M-bags from F3_C1 and A3_A1 RSP locations and temp stow in A1 bungee jail.
- Retrieve foam pieces for TeSS return from F4_A1 M-03 bag for use while folding A3 fences.
- Fold fences on F3_C1, A3_A1, and A3_C1 locations to clear translation path for rack transfers.
    - While folding A3 front-side fences, install foam pieces per TeSS Transfer from ISS to MPLM.
- Remove MARES stowage bags from rack and temp stow in MPLM before transferring rack.
- **Items 260 and 261:** Remove and transfer handrails (qty 2) from MARES rack-front prior to transferring rack.
- **Item 262 and 263:** Transfer MARES rack and Knee Braces from MPL1S3 to COL1F3.
- Transfer MARES stowage bags to MARES rack at COL1F3.
- **Item 754:** Transfer MPAC SEED hardware and temp stow in MPLM endcone after MPAC SEED STOW activity.
- Transfer pre-packed bags/items from LAB1P2 and P4 to MPLM endcone in preparation for FD06 rack transfers.

Have a great day and let us know if you have any questions!

- The STS-131 Transfer Team

PAO Event Summary / Sequence of Voice Calls
Tom Joyner Syndicated Radio Show, Dallas, TX / WVIT-TV, Hartford, CT / Fox News Radio

Date: FD 4, Thursday, April 8, 2010

Start Event: 03/01:55 MET / 7:16am CDT / 8:16am EDT / 12:16 GMT
Orbit 49 / ISS Ku

Duration: 20 minutes (approx. 6 ½ minutes per client)

Location: Harmony Node or crew choice

Participants: *Flight Crew:* STS-131 Commander Alan Poindexter, Mission Specialists Rick Mastracchio and Stephanie Wilson

Media Clients: Tom Joyner Syndicated Radio Show's Tom Joyner, Sybil Wilkes, J. Anthony Brown; WVIT-TV's Yvonne Nava; and Fox News Radio's Mitch Davis

Anticipated Topics:
1. Mission objectives and events to date
2. Mastracchio's hometown ties to Connecticut and his mission duties, including three upcoming spacewalks
3. Remaining shuttle missions
4. NASA's plans for the future

Notes:
1. Event on U.S. ISS HD MPC video & audio down / S/G-2 up to the crew.
2. Please use the Shure microphone on the MPC; **turn on the mic switch to answer, and turn off the mic switch when you are finished with each answer.**
3. The radio clients will be going live-to-air with their broadcasts.
4. Check Discovery / ISS location over Earth before event.

ISS Capcom: Discovery / ISS, this is Houston. Are you ready for the event?

Discovery/ ISS: Houston, this is Discovery / ISS. We are ready.

ISS Capcom: Tom Joyner Syndicated Radio Show, this is Mission Control Houston. Please call Discovery / ISS for a voice check.

Tom Joyner: Discovery / ISS, this is the Tom Joyner Syndicated Radio Show. How do you hear me?

Discovery / ISS: (reports voice quality. If acceptable…)
We are ready for questions.

Tom Joyner: (conducts Q&A with crew, then…)

Houston ACR: Discovery / ISS, this is Houston ACR. That concludes the Tom Joyner Syndicated Radio Show portion of the event. Please stand by for a voice check from WVIT-TV.

WVIT-TV Discovery / ISS, this is WVIT-TV. How do you hear me?

Discovery / ISS: (reports voice quality. If acceptable…)
We are ready for questions.

WVIT-TV: (conducts Q&A with crew, then…)

Houston ACR: Discovery/ ISS, this is Houston ACR. That concludes the WVIT-TV portion of the event. Please stand by for a voice check from Fox News Radio.

Fox News Radio: Discovery / ISS, this is Fox News Radio. How do you hear me?

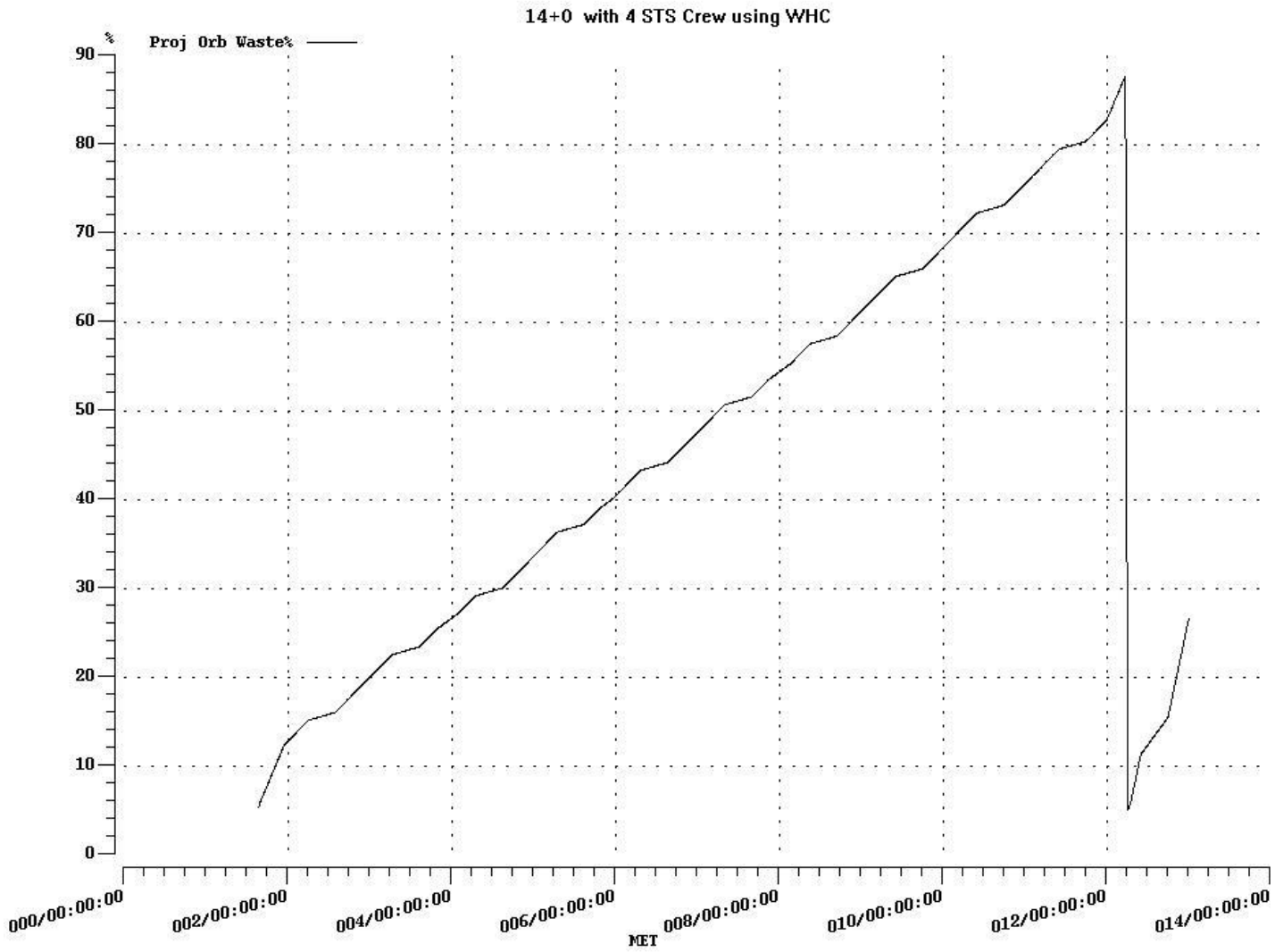
Discovery / ISS: (reports voice quality. If acceptable…)
We are ready for questions.

Fox News Radio: (conducts Q&A with crew, then…)

Houston ACR: Discovery / ISS, this is Houston ACR. That concludes the event.

ISS Capcom: Thank you, Tom Joyner Syndicated Radio Show, KVIT-TV and Fox News Radio. Discovery / ISS, we are now resuming operational audio communications.

MSG 020 - PREDICTED WASTE WATER GENERATION RATE



END OF PAGE 1 OF 1, MSG 020

The MMT met today to review orbiter systems and mission progress.

Congratulations on an excellent rendezvous and docking. You made Radar Fail look like a piece of cake.

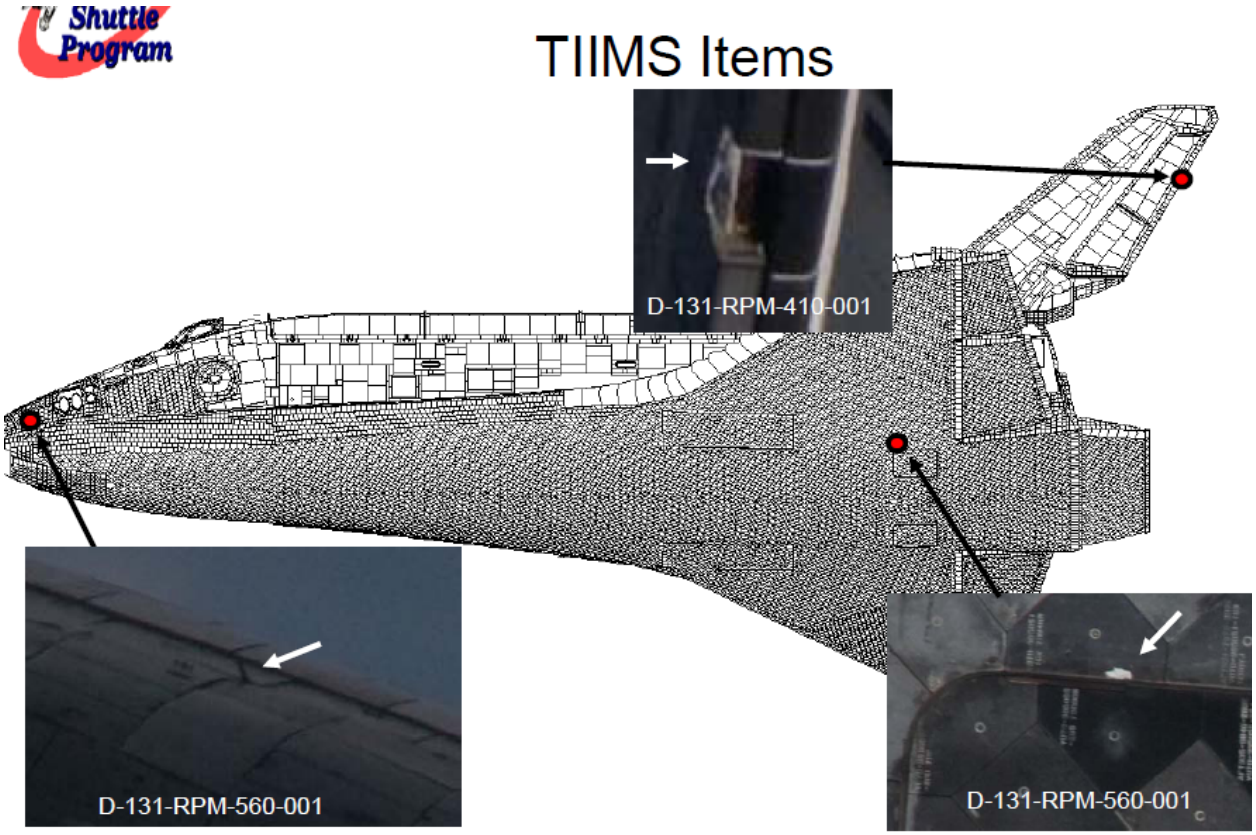
Discovery performed flawlessly during Monday's launch, and except for the Ku, continues to do so. The MMT received a quick-look summary of the integrated ascent systems performance and all parameters were as expected.

The entire ground team appreciated your hard work and flexibility of transferring the LDRI data to the .avi format as well as real time inspection adjustment waiting for lighting to optimize parallel IDC imagery to provide the best resolution data for the DAT imagery review.

The initial assessment of available downlinked imagery data (IDC, RPM, LDRI received to date) showed no concerns or requirements for Focused Inspection in the STBD Wing areas where further access is blocked by installing MPLM. With that, the plan is to press on with nominal MPLM install on FD4. If any areas of concern are identified overnight with the remaining downlink and review of the STBD WLE data, the MCC will get that to you as soon as they know. The team continues to bring down and assess the FD2 inspection data via ISS assets.

The DAT review process continues for the remainder of the vehicle. Three areas of interest have been identified so far and the folks are working the standard processes to determine if they are of any concern. The areas of interest include 1) RSB Trailing Edge Tile, 2) FWD Gap Filler, 3) Port ET Door Tile Chip. Preliminary assessment and flight experience indicate that there are likely no concerns with these areas but the final assessment is required to clear these areas.

The ISS team is very happy you have arrived and are looking forward to a very successful mission.


TIIMS Items
D-131-RPM-410-001
D-131-RPM-560-001
D-131-RPM-560-001