STS-132 / ULF4

FD 04 Execute Package

MSG	Page(s)	Title
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023	17 - 18	FD04 Mission Summary
024A	19	FD04 Transfer Message
025	20	FD03 MMT Summary

Approved by FAO:
G. Whitney

Last Updated: May 17 2010 6:00 AM GMT
JEDI *(**J**oint **E**xecute package **D**evelopment and **I**ntegration), v3.0*

World's funniest comedy (as printed on-board)

MSG INDEX

MSG NO.	TITLE
022	FD04 Flight Plan Revision (23-0612)
023	FD04 Mission Summary
024	FD04 Transfer Message (23-0613)
025	FD03 MMT Summary

1. Post-Sleep Cryo Config

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

R1 O2,H2 MANF VLV TK2 (two) - OP (tb-OP)

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 and H2 tanks 1 and 5 active.

A15 CRYO TK5 HTRS O2,H2 A,B (four) - AUTO

A11 CRYO TK4 HTRS O2,H2 A,B (four) - OFF

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

2. Crew Choice Downlink

TDRS	AOS	LOS	Delta (min)	Notes
W	03/02:50	03/03:12	22	

3. NLP GAP

The leaking GAP B can be terminated per the plan today. Do not remove the GAP from the ziplock. Prior to opening the ziplock, check for any leakage outside of the canister. If there is any leakage external to the canister, place and seal into a second ziplock bag, stow GAP B and continue with other GAPs. If no external leakage is observed, open the ziplock, terminate per the procedure, reseal the ziplock, and stow.

Additionally, during the GAP Termination activity, please align the bottom of the pressure plate with the bottom of the termination line to ensure full termination of the experiment.

4. <u>FD4 WHC Usage</u>
   Today, at MET 2/19:00, the ISS crew will be performing maintenance on the WHC. Because there are a limited number of uses remaining on the WHC (~12), we recommend ISS crew and EV crew have priority on the WHC. Remaining Shuttle crew should use the WCS until the completion of the maintenance procedure. There is enough margin in the Waste Water Tank to support this additional use of the WCS. Once the maintenance is complete, Shuttle crew usage of the WHC can resume per the preflight plan.

5. <u>L3D Heater</u>
   It was noted on FD2 that the Ox and Fu injector temperatures on L3D were trending lower than normal. As of Flight Night 3, MCC does not believe that there have been any heater cycles on that thruster. L3D is in second priority and was used for several translation burns during rendezvous. Prior to rendezvous the injector temperatures decreased to a value of 57 deg. The nominal set point for thruster heaters is 78 deg. Post-docking, the injector temperatures began cooling off once again, but the rate has shallowed as the injector temperatures have approached equilibrium with the OMS pod environment.

   At this time it is not expected that the jet will reach the Leak RM limits (30 deg Ox & 20 deg Fu) nor is further action expected by the crew.

6. <u>FD4 CWC-I Fills</u>
   Today you have 5 CWC-I fills scheduled in the timeline. A minimum of 4 CWC-I fills are required for supply water management. A maximum of 6 CWC-I fills can be supported over the course of the crew day. You will need to get a Go from MCC prior to any deviation from the timelined fill plan to ensure adequate water is available in supply water tank A.

7. REPLACE PAGES 2-10 THROUGH 2-13 AND 3-32 THROUGH 3-41.

NO UNISOLATED EXERCISE
[SGANT & EOTP INSTALL]

REPLANNED

FD04
GMT 05/17/10 (137)

MET Day 002 — 12 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 003/00

STS-132 3

CDR Ham	SLEEP	POST SLEEP	PMC A/G	POST SLEEP	HYG BRK/ HATCH CLS	EVA PREP	RMS%	EMU	PURGE	EMU PREBREATHE	C_LK DPRS	PDPS	EXERCISE	CWC-I S/U & FILL #1	CFWCL-I #2	CFWCL-I #3	MDDK XFER	MEAL	CFWCL-I #4	CFWCL-I #5	CWC-I XFER (5)	MRM1*	MDDK XFR		
PLT Antonelli	SLEEP	LOG	POST SLEEP				INHIB	PADIMU	PTV6S/U	RMS%	XFER	UPDATE	EXERCISE	P/TV 07 S/U	EVA 1 IVA SUPPORT							MRM1*	EVA 1 IVA SUPPORT		
															EVA 1 - 6:30										
MS1 Reisman	SLEEP	POST SLEEP	HYG BRK/ PREBREATHE 14.7 RPRS		10.2 DPRS	EVA PREP		EMU	PURGE	EMU PREBREATHE	C_LK DPRS	PDPS	EGRS	SETUP	PALLET PREP	REDUNDANT SGANT INST			EOTP INSTALL				SSRMS CLEANUP	♣	
MS2 Good	SLEEP	POST SLEEP			HYG BRK/ HATCH CLS	EVA PREP		EMU	PURGE	EMU PREBREATHE	C_LK DPRS	PDPS	P/TV 07 EVA SUPT					MEAL	P/TV 07 EVA SUPT						
MS3 Bowen	SLEEP	POST SLEEP	HYG BRK/ PREBREATHE			EVA PREP		EMU	PURGE	EMU PREBREATHE	C_LK DPRS	PDPS	EGRS	SETUP	PALLET PREP	REDUNDANT SGANT INST					EOTP INSTALL	BATTERY	PRETP	⊕	
MS4 Sellers	SLEEP	LOG	POST SLEEP				MCDU*	MDK#	NLP TERM		POLYBK	OPS	SSRMS EVA 1 SUPPORT												

DAY/NIGHT

ORBIT: 41 42 43 44 45 46 47 48

TDRS W E Z

ISS TDRS AVAIL

ORB ATT: BIAS -XLV -ZVV

SSRMS POS: MBS PDGF3 @ WS6

NOTES
%MNVR-SGANT/EOTP VIEW
*FILTER CK
#STATUS CHECK
♣CLNUP & I
⊕CLNUP & I
*PRE-GRAPPLE

NO UNISOLATED EXERCISE
[SGANT & EOTP INSTALL]

REPLANNED

FD04

GMT 05/17/10 (137)

MET Day 002

12 07 13 08 14 09 15 10 16 11 17 12 18 13 19 14 20 15 21 16 22 17 23 18 003/00

ISS TDRS AVAIL

ISS	ISS CDR Kotov	SLEEP; POST SLEEP; DPC; PW; DPART PREP; ПФП ОДНТ PR CDR; ♣; ЭЛКТ БЖ ЗИП MNT; TVIS; MIDDAY MEAL; CBO 3B SMPL; P/VID HDD DWNLD; CMO-INV; ⊕
	FE-1 Skvortsov	SLEEP; POST SLEEP; TBUCK; DPC; PW; TEX15; МБИ-21-FE1-EXE; TVIS; СИЗ ИПК 1М R&R; MIDDAY MEAL; СИЗ ИПК 1М R&R; БТХ-26 INSTL; VELO
	FE-2 Caldwell-Dyson	SLEEP; POST SLEEP; DPC; PW; T2; ARED; SSRMS EVA 1 SUPPORT
	FE-3 Kornienko	SLEEP; ЭЛКТ БЖ; POST SLEEP; DPC; PW; СОЖ; МБИ FOTO; ПФП ОДНТ PR CDR; ИП-1 MNT; VELO; СИЗ ИПК 1М R&R; MIDDAY MEAL; СИЗ ИПК 1М R&R; IMS; ЭЛКТ БЖ; TVIS
	FE-5 Noguchi	SLEEP; POST SLEEP; DPC; PW; HAM; TEST; ARED; CUPOLA*; P/TV-A; MDDK XFER; RFTA ACS; WRS-RFTA; QD-CNFG; RFTA CLS; HYDRO; MIDDAY MEAL; MDDK XFER; CEVIS; MNT; GLOVE; T2; ♦
	FE-6 Creamer	SLEEP; PS; HYG BRK/ HATCH CLS; EVA PREP; EMU; PURGE; EMU PREBREATHE; C_LK DPRS; PDS; PBA RLC; SODF; DPLY; T2; MIDDAY MEAL; CEVIS; PW

DAY/NIGHT

ORBIT: 41 42 43 44 45 46 47 48

SSRMS POS: MBS PDGF3 @ WS6

ALL VHF

NOTES: ♣СУБА-БРИ-RSS1-D/L; *RSTRNT INSTL; ⊕P/VID HDD; ♦MDDK XFER

REPLANNED

FD04

GMT 05/17/10 (137)

MET Day 003

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

STS-132

| | | |

FD04 **REPLANNED**

GMT 05/17/10 (137)

MET Day 003

ISS	TDRS AVAIL	003/00	19	20	21	22	23	05/18	01	02	03	04	05	06	07	08	09	10	11	12

ISS	ISS CDR Kotov	♣		PW		DPC	PW	PRE SLEEP-ISS							SLEEP					
	FE-1 Skvortsov	VELO			PW	DPC	PW	PRE SLEEP-ISS							SLEEP					
	FE-2 Caldwell-Dyson	SSRMS	EVA 1	SUPPORT	PW	DPC	PS	BSA-I	IMAGE	PRE SLEEP-ISS					SLEEP					
	FE-3 Kornienko	TVIS				DPC	PRE SLEEP-ISS				KПT-I				SLEEP					
	FE-5 Noguchi	MDDK XFER			PW	CUPOLA*	DPC	P/TV-D	VDSCAP	MPC	PRE SLEEP-ISS			MPC	SLEEP					
	FE-6 Creamer	PW	P-RPS	RPRS	POST EVA W/H2O					PRE SLEEP-ISS					SLEEP					

DAY/NIGHT									
ORBIT	49	50	51	52	53	54	55	56	
SSRMS POS		W/O		LAB PDGF @ WS6					
ALL VHF				—		—		—	

NOTES

♣P/VID HDD DWNLD

*RSTRNT RMV

STS-132 FD (04)

REPLANNED

GMT Date 05/17 (137) | W | TDRS E | Z | D/N | DORB 14 | DORB 15 | DORB 13 | ORB 41 | ORB 42 | ORB 43 | MET Day 002 | STS ATT

FD04 EZ ACTIVITIES:
- √OCAC FILTER
- √MDDK DUCT SCREEN
- TEPC (STATUS CHECK) (ORB OPS, CREW SYS)
- HARD REBOOT ALL PGSCs EXCEPT: STS-1(OCA ROUTER), STS-6(WLES) & STS-5(RPOP2)

MET	CDR HAM	PLT ANTONELLI	MS1 REISMAN	NOTES
12:00	SLEEP	SLEEP	SLEEP	
13:00	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	SLEEP LOGBOOK (SDBI 1634) POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
14:00	PRIVATE MEDICAL CONFERENCE L9 PAYLOAD STATION AUDIO A/G (two)-OFF Perform via A/G2 POST-SLEEP ACTIVITY (ORB OPS, CREW SYS) EVA SYSTEMS: 1.211 HYGIENE BREAK Steps 21-25 MCC-H performs Step 23		EVA SYSTEMS: 1.211 HYGIENE BREAK MCC-H performs Steps 1-4, 16-20 & 23 Start NET 8:40 hrs from the end of: 1.206 10.2 PSIA CAMPOUT MASK PREBREATHE	
15:00	EVA SYSTEMS: 1.216 EVA PREP		EVA SYSTEMS: 1.216 EVA PREP	
16:00		EVA 1 INHIBIT PAD (EVA, TIMELINES) IMU STAR OF OPPTY ALIGN (ORB OPS, GNC) P/TV06 ROBOTICS OPERATIONS (PHOTO/TV, SCENES) SETUP		

BIAS - XLV - ZVV

STS-132 FD (04)

REPLANNED

GMT Date 05/17 (137) | W | TDRS E | Z | D/N | DORB 1 4 5 1 | DORB 4 1 4 2 4 3 | MET Day 002 | STS ATT

BIAS -XLV -ZVV

MS2 GOOD	MS3 BOWEN	MS4 SELLERS	NOTES
SLEEP	SLEEP	SLEEP	
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)	
	EVA SYSTEMS: 1.211 HYGIENE BREAK MCC-H performs Steps 1-4, 16-20 & 23 Start NET 8:40 hrs from the end of: 1.206 10.2 PSIA CAMPOUT MASK PREBREATHE		
EVA SYSTEMS: 1.211 HYGIENE BREAK Steps 21-25 MCC-H performs Step 23			
EVA SYSTEMS: 1.216 EVA PREP	EVA SYSTEMS: 1.216 EVA PREP		

STS-132 FD (04)

REPLANNED

GMT Date 05/17 (137) | W E Z | D/N | DORB 1 2 3 4 | ORB 43 44 45 46 | MET Day 002 | STS ATT BIAS -XLV -ZVV

MET	CDR HAM	PLT ANTONELLI	MS1 REISMAN	NOTES
16:00	EVA SYSTEMS: 1.216 EVA PREP	P/TV06 ROBOTICS OPERATIONS (PHOTO/TV, SCENES) SETUP	EVA SYSTEMS: 1.216 EVA PREP	
	SGANT & EOTP VIEWING (PDRS, VIEWING SUPPORT)	SGANT & EOTP VIEWING (PDRS, VIEWING SUPPORT)		
	EVA SYSTEMS: 1.220 EMU PURGE	DAILY TRANSFER LIST UPDATE Ref. Transfer List & MSG 024	EVA SYSTEMS: 1.220 EMU PURGE	
11:00	EVA SYSTEMS: 1.225 EMU PREBREATHE		EVA SYSTEMS: 1.225 EMU PREBREATHE	
17:00		EXERCISE		
	EVA SYSTEMS: CREWLOCK DEPRESS/REPRESS CUE CARD		EVA SYSTEMS: CREWLOCK DEPRESS/REPRESS CUE CARD	UPLINK β21 + MASK BOX 21,24,31
12:00		P/TV07 EVA (PHOTO/TV, SCENES) SETUP		
18:00	EVA SYSTEMS: CREWLOCK POST DEPRESS (CC)		EVA SYSTEMS: CREWLOCK POST DEPRESS (CC)	
			EGRESS	
			SETUP	
	EXERCISE			
13:00			PALLET PREP	
		IVA SUPPORT EVA 1		
19:00	CWC-I FILL (ORB OPS, ECLS) Fill CWC-I #1, Perform Parts A-E Ref. MSG 016			
	CWC-I FILL (ORB OPS, ECLS) Fill CWC-I #2, Perform Parts D & E Ref. MSG 016		REDUNDANT SGANT INSTALL	**NO UNISOLATED EXERCISE** [SGANT & EOTP INSTALL]
14:00				
20:00	CWC-I FILL (ORB OPS, ECLS) Fill CWC-I #3, Perform Parts D & E Ref. MSG 016			

STS-132 FD (04)

REPLANNED

GMT Date 05/17 (137) | W | TDRS E | Z | D/N | DORB | ORB | MET Day 002 | STS ATT

MS2 GOOD | MS3 BOWEN | MS4 SELLERS | NOTES

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

16:00 | 17:00 | 18:00 | 19:00 | 20:00

D/N: 1, 2, 3, 4

ORB: 43, 44, 45, 46

STS ATT: BIAS-XLV-ZVV

MS2 GOOD

- EVA SYSTEMS: 1.216 EVA PREP
- EVA SYSTEMS: 1.220 EMU PURGE
- EVA SYSTEMS: 1.225 EMU PREBREATHE
- EVA SYSTEMS: CREWLOCK DEPRESS/REPRESS CUE CARD
- EVA SYSTEMS: CREWLOCK POST DEPRESS (CC)
- P/TV07 EVA (PHOTO/TV, SCENES) OPS

MS3 BOWEN

- EVA SYSTEMS: 1.216 EVA PREP
- EVA SYSTEMS: 1.220 EMU PURGE
- EVA SYSTEMS: 1.225 EMU PREBREATHE
- EVA SYSTEMS: CREWLOCK DEPRESS/REPRESS CUE CARD
- EVA SYSTEMS: CREWLOCK POST DEPRESS (CC)
- EGRESS
- SETUP
- PALLET PREP
- REDUNDANT SGANT INSTALL

MS4 SELLERS

- L17 Check MCIU filter screen
- CGBA STATUS CHECK (Cue Card)
- GAP TERMINATION (ASSY OPS, PAYLOADS)
  - Terminate VACCINE GAPS A-F
  - Ref. MSG 022, Item 3
- DIGITAL VIA VTR
  - (CUE CARD, DIGITAL PLAYBACK)
  - Docking
  - KU TDRW (16:49-17:23)
- ROBO: 3.101 EVA 1 SUPPORT
  - Steps 7-32

NOTES

NO UNISOLATED EXERCISE [SGANT & EOTP INSTALL]

10

STS-132 FD (04)

REPLANNED

GMT Date 05/17 (137) | W | TDRS E | Z | D/N | DORB | ORB | MET Day 002 | STS ATT

CDR HAM

20:00
- CWC-I FILL (ORB OPS, ECLS)
  Fill CWC-I #3, Perform Parts D & E
  Ref. MSG 016
- TRANSFER OPS
  Ref. Middeck Transfer List & MSG 024

21:00
- MEAL

22:00
- CWC-I FILL (ORB OPS, ECLS)
  Fill CWC-I #4,
  Perform Parts D & E
  Ref. MSG 016
- CWC-I FILL (ORB OPS, ECLS)
  Fill CWC-I #5,
  Perform Parts D,E & F
  Ref. MSG 016
- CWC-I TRANSFER
  Transfer 5 CWC-I to ISS

23:00
- MRM1 PRE-GRAPPLE
  (PDRS, MRM1 NOMINAL)
- TRANSFER OPS
  Ref. Middeck Transfer List & MSG 024

00:00

PLT ANTONELLI

- MRM1 PRE-GRAPPLE
  (PDRS, MRM1 NOMINAL)
- IVA SUPPORT EVA 1
- IVA SUPPORT EVA 1

MS1 REISMAN

- REDUNDANT SGANT INSTALL
- EOTP INSTALL
- SSRMS CLEANUP
- EVA 1 CLEANUP AND INGRESS

NOTES

NO UNISOLATED EXERCISE
[SGANT & EOTP INSTALL]

STS-132 FD (04)

REPLANNED

GMT Date 05/17 (137) | W | TDRSE | Z | D/N | DORB | ORB | MET Day 002 | STS ATI | MS2 GOOD | MS3 BOWEN | MS4 SELLERS | NOTES

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

20:00
21:00
22:00
23:00
00:00

D/N: 4, 5, 6, 7
DORB: 4 6, 4 7, 4 8

STS ATI: BIAS -XLV -ZVV

MS2 GOOD:
- P/TV07 EVA (PHOTO/TV, SCENES) OPS
- MEAL
- P/TV07 EVA (PHOTO/TV, SCENES) OPS

MS3 BOWEN:
- REDUNDANT SGANT INSTALL
- EOTP INSTALL
- BATTERY PREP
- EVA 1 CLEANUP AND INGRESS

MS4 SELLERS:
- ROBO: 3.101 EVA 1 SUPPORT Steps 7-32

NOTES:
- **NO UNISOLATED EXERCISE** [SGANT & EOTP INSTALL]

STS-132 FD (04)

REPLANNED

GMT Date 05/17 (137) | W | TDRSE | Z | D/N | DORB 7 8 9 | DORB 49 50 51 | MET Day 003 | STS ATT

CDR HAM

- 00:00 — TRANSFER OPS
  Ref. Middeck Transfer List & MSG 024
- EVA SYSTEMS: PRE REPRESS (CC)
- EVA SYSTEMS: CREWLOCK REPRESS (CC)
- EVA SYSTEMS: 1.240 POST EVA (With H2O)
  Steps 37,39 & 68 not req'd
  MCC will perform Steps 43 & 67
  Ref: STS-132 CONSUMABLES CC
  In Step 60, temp stow HL Batts for BSA Init
- 01:00
- 02:00 — EVA TAGUP
  L9 PAYLOAD STATION AUDIO A/G (two)-OFF
  Private Conference via A/G2
- PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)
  Air Quality Report
- 03:00
- PRIVATE MEDICAL CONFERENCE
  L9 PAYLOAD STATION AUDIO A/G (two)-OFF
  Perform via A/G2
- PRE-SLEEP ACTIVITY
  (ORB OPS, CREW SYS)
- 04:00

PLT ANTONELLI

IVA SUPPORT EVA 1

- P/TV06 ROBOTICS OPERATIONS [A]
- TRANSFER OPS
  Ref. Middeck Transfer List & MSG 024
- [A] KEEL 2 PWR(ICC) - OFF
  √2 ILL PWR(ICC) - ON
- TRANSFER TAGUP
  Coordinate with transfer counterpart
- PRE-SLEEP ACTIVITY
  (ORB OPS, CREW SYS)
- EVA TAGUP
  L9 PAYLOAD STATION AUDIO A/G (two)-OFF
  Private Conference via A/G2
- TRANSFER BRIEF
  Call down status to MCC
- PRE-SLEEP ACTIVITY
  (ORB OPS, CREW SYS)

MS1 REISMAN

EVA 1 CLEANUP AND INGRESS

- EVA SYSTEMS: PRE REPRESS (CC)
- EVA SYSTEMS: CREWLOCK REPRESS (CC)
- EVA SYSTEMS: 1.240 POST EVA (With H2O)
  Steps 37,39 & 68 not req'd
  MCC will perform Steps 43 & 67
  Ref: STS-132 CONSUMABLES CC
  In Step 60, temp stow HL Batts for BSA Init
- EVA TAGUP
  L9 PAYLOAD STATION AUDIO A/G (two)-OFF
  Private Conference via A/G2
- PRE-SLEEP ACTIVITY
  (ORB OPS, CREW SYS)

NOTES

STS-132 FD (04)

REPLANNED

GMT Date 05/17 (137) | W | TDRS E | Z | D/N | DORB 7 8 9 | DORB 49 50 51 | MET Day 003 | STS ATT

MS2 GOOD | MS3 BOWEN | MS4 SELLERS | NOTES

00:00

P/TV07 EVA
(PHOTO/TV, SCENES) OPS

EVA 1 CLEANUP AND INGRESS

ROBO: 3.101 EVA 1 SUPPORT
Steps 7-32

EVA SYSTEMS: PRE REPRESS (CC)

EVA SYSTEMS: CREWLOCK REPRESS (CC)

TRANSFER OPS
Ref. Middeck Transfer List & MSG 024

19:00

EVA SYSTEMS: 1.240 POST EVA (With H2O)
Steps 37,39 & 68 not req'd
MCC will perform Steps 43 & 67

Ref: STS-132 CONSUMABLES CC

In Step 60, temp stow HL Batts
for BSA Init

01:00

20:00

BIAS-XLV-ZVV

02:00

EVA TAGUP
L9 PAYLOAD STATION AUDIO A/G (two)-OFF
Private Conference via A/G2

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

CGBA STATUS CHECK (Cue Card)

21:00

03:00

22:00

04:00

STS-132 FD (04)

REPLANNED

GMT Date 05/17 (137) | W | TDRS E | Z | D/N | DORB 9 | DORB 10 | DORB 11 | DORB 12 | ORB 51 | ORB 52 | ORB 53 | ORB 54 | MET Day 003 | STS ATT

23:00 | 00:00 | 01:00 | 02:00

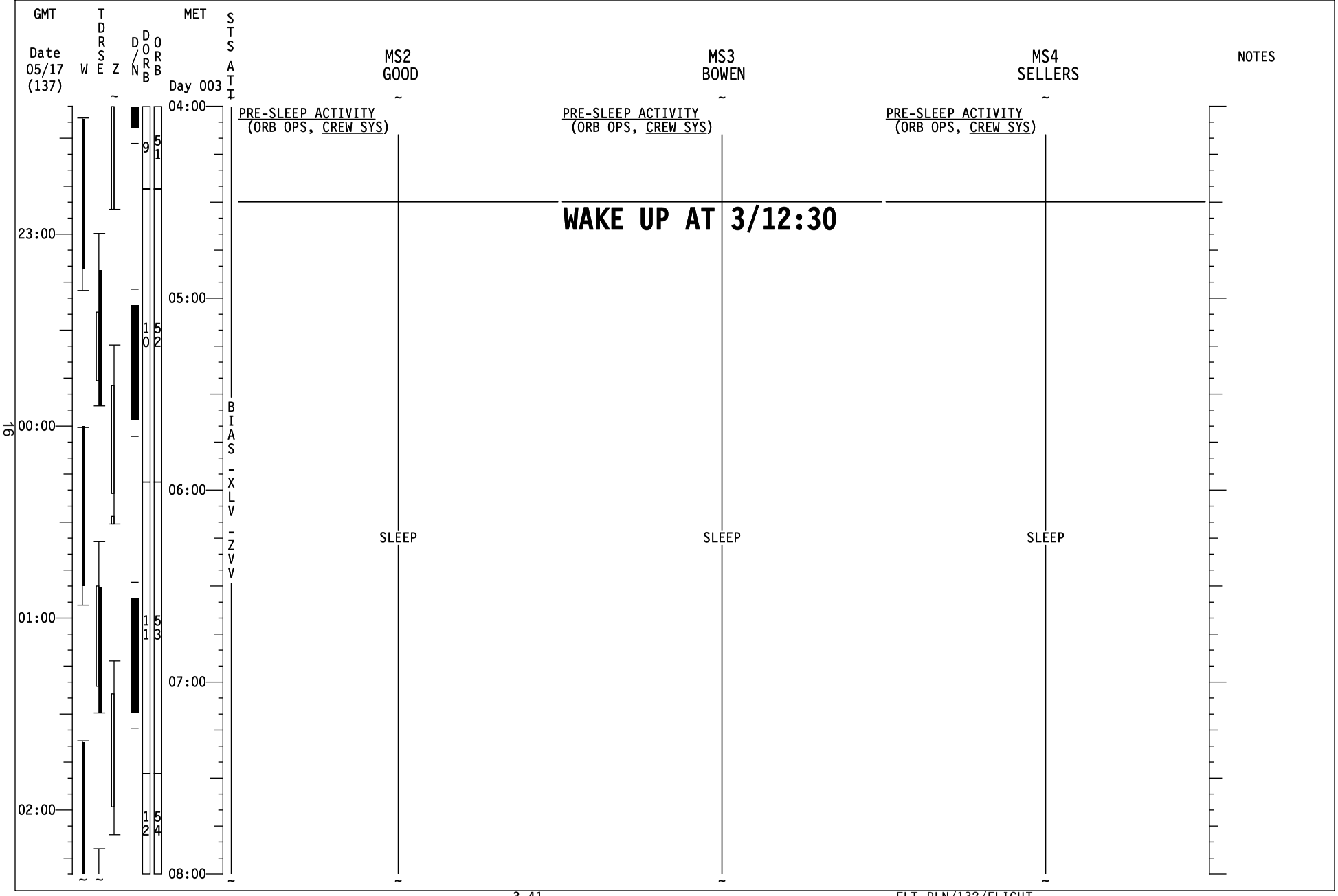
04:00 | 05:00 | 06:00 | 07:00 | 08:00

STS ATT: BIAS -XLV -ZVV

CDR HAM	PLT ANTONELLI	MS1 REISMAN	NOTES
PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
WAKE UP AT 3/12:30			
SLEEP	SLEEP	SLEEP	UPLINK β21 + MASK BOX 21,24

STS-132 FD (04)

REPLANNED



MSG 023 - FD04 MISSION SUMMARY

Good Morning Atlantis!!!!

It is so good to see Atlantis docked once again to station! So, thanks so much for the great rendezvous and docking yesterday!!

Have a great EVA day!!!

YOUR CURRENT ORBIT IS: 191 X 184 NM

NOTAMS - (FOUR CHANGES: UPDATED EDW 18L, ADDED AMB/PTN/GUA)

EDW -	EDW 22L/04R IN USE. EDT 22R/04L CLOSED FOR CONSTRUCTION.
EDW -	LAKEBED RWYS 15/33 GREEN. 18L RED.
NOR -	LAKEBED RWYS GREEN.
NTU -	RWY 05R/23L CLSD.
FOK -	CLOSED.
FMH -	RWY 23 APCH LTS OTS.
YYT -	TACAN UYT23 AZIMUTH OTS.
AMB -	RWY 15/33 REQUIRES 30MIN PN TO CLEAR WIP.
PTN -	CLSD.
GUA -	TACAN UNZ CH105 OTS.
IKF -	NOT USABLE. NO AGREEMENT.
BEN -	NOT RECOMMENDED/NOT SUPPORTED.

<u>NEXT 2 PLS OPPORTUNITIES:</u>

EDW22	ORB 49 – 3/00:45	SCT080 BKN150 BKN250	7	240/18P26
EDW22	ORB 64 – 3/23:34	FEW250	7	240/14P20

<u>OMS TANK FAIL CAPABILITY:</u>

L OMS FAILS: NO
R OMS FAILS: NO

<u>LEAKING OMS PRPLT BURN:</u>

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

<u>OMS QUANTITIES(%)</u>

L OMS OX = 36.77 R OMS OX = 37.23
FU = 36.79 FU = 36.89

FOR CURRENT QTYS, SUBTRACT INCN’T COUNTER

END OF PAGE 1 OF 2, MSG 023

DELTA V AVAILABLE:

OMS	359 FPS
ARCS (TOTAL ABOVE QTY1)	35 FPS
TOTAL IN THE AFT	394 FPS
ARCS (TOTAL ABOVE QTY2)	65 FPS
FRCS (ABOVE QTY 1)	34 FPS
AFT QTY 1	84 %
AFT QTY 2	46 %

SYSTEM	FAILURE	IMPACT	WORK AROUND
EPS	Fuel Cell (FC) 3 O2 flowmeter started behaving erratically during Rendezvous. (SPEC 69 FUEL CELLS, FC3 FLOW O2)	Reduced insight into FC health.	None. MCC will monitor Fuel Cell health using other parameters. Onboard FDA has been inhibited via TMBU.
OMS	A higher than expected Tk P increase was seen when using Left OMS He Press A, possibly resulting from a regulator overshoot or a failed open primary regulator.	The Left OMS He Press A is still a usable pressure path, even if the primary regulator is failed open.	Use He Press B Reg for future LOMS burns, as this path has performed nominally. Potential troubleshooting to determine a regulator overshoot vs. a primary regulator failed open.
RCS	L3D jet heater	The jet is currently usable. If the FU injector temperature cools to 20 deg F or the OX injector temperature cools to 30 deg F, RCS RM will annunciate the jet as FAIL LEAK and it will be auto-deselected.	No action will be performed while docked to ISS. Any actions for the post-undocking period will be coordinated by MCC.

END OF PAGE 2 OF 2, MSG 023

Good morning Ken and Tony,

Thank you for an impressive first day of transfer ops!

Today, we have uplinked all of the return pages. Due to your diligent work yesterday, there are no choreographed items to work on today. You can use your generic time to work on any unconstrained items.

This evening the Transfer Tag-Up and Brief are timelined on Tony so that Ken can participate in the EVA Tag-Up. Tony, please note that the Transfer Brief was reduced to 10 minutes due to limited comm. availability. Since today is a very straight-forward Transfer day, 10 minutes should be plenty of time, but if we run out of time, we'll just finish at the following-day's tag up.

The Transfer List Excel file, FD04_Transfer_List_STS132.xls, is located on the KFX machine in **C:\OCA-up\transfer.**

For ISS, the Transfer List Excel file, FD04_Transfer_List_STS132.xls, is located in **K:\OCA-up\transfer.**

FD04 Transfer Choreography:

- MDDK XFER:
    - Work on unconstrained items

Change Pages:
Please incorporate changes as follows:

In the Transfer List **RESUPPLY** tab
Replace the following page:
Resupply – 6

In the Transfer List **RETURN** tab
Add the following pages:
Return – 1-9

FD05 Transfer Choreography:

- Soichi: Transfer return samples after completing the ITCS sampling activities (items 902)
- Soichi: Transfer return GSC after GSC OPS activity (Items 721 and 722)
- Tracy: Transfer return passive detector pouch after DOS-PASS HW-DEINST (Item 904)
- T.J.: Transfer return ABRS items after ABRS SHUTDOWN activity (Items 706, 707)
- MDDK XFER:
    - Swap EVA torque wrenches (Items 13.7 and 733)
    - Complete Bag B and D unpack if not complete
    - Begin return transfers to open lockers and 5 MLE

Let us know if you have any questions!
- The ULF4 Transfer Team

The MMT met today to review orbiter systems and mission progress following this morning's rendezvous and docking. Atlantis systems continue to perform well and details regarding the RCS L3D heater failure and L-OMS Helium A Primary regulator anomaly are included in the Execute Package.

A quick-look summary of the integrated ascent systems/performance was provided by Systems Engineering & Integration (SE&I). Day of Launch ascent loads, aero thermal, and integrated propulsion were nominal. Atlantis had a single stage throttle bucket and all the respective GN&C data was very close to predicts. SSME, ET, and SRB also look to be nominal.

Cryo margin for the flight above 12+0+2 is 29 hours.

The DAT team continues to assess the Wing Leading Edge survey data as well as the RPM photos. The Ops team is working on the requirements for the Port Wing RCC imagery that was not obtained during the FD2 inspections as well as the request for RMS end effector views of both the Port and Starboard Chine areas. This imagery will occur no earlier than flight day 5 and the team will provide the MMT with a status/plan tomorrow.

The Ops team is also working on an EVA option to secure the anomalous cable on the OBSS ITVC that resulted in the inability to fully tilt the camera. EVA personnel have obtained access to KSC flight hardware and spent most of the day determining the best method to secure the cable to allow a full range of camera motion. The EVA option would occur no earlier than EVA 2.