STS-130 / 20A

FD 13 Execute Package

MSG	Page(s)	Title
174B	1 - 16	FD13 Flight Plan Revision (Not Printed Onboard)
175	17 - 18	FD13 Mission Summary (Not Printed Onboard)
176	19	FD13 Crew Choice Downlink (Not Printed Onboard)
177	---	IMMT Results - 2/19/10 (Electronic only. Not Printed Onboard)
178	---	Daily Summary (Electronic only. Not Printed Onboard)

Approved bv FAO:
R. Smith

Last Updated: Feb 19 2010 7:05 PM GMT
JEDI *(**J**oint **E**xecute package **D**evelopment and **I**ntegration), v3.0*

MSG INDEX

MSG NO.	TITLE
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MSG-175	FD13 Mission Summary
MSG-176	FD13 Crew Choice Downlink
MSG-177	IMMT Results - 2/19/10
MSG-178	Daily Summary

1. Post-Sleep Cryo Config

For today's Post-Sleep cryo config, O2 tanks 1 and 4 and H2 tanks 1 and 5 will be active.

R1 O2,H2 MANF VLV TK1 (two) - OP (tb-OP)

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 4 and H2 tanks 1 and 5 active.

R1 O2,H2 MANF VLV TK1 (two) - CL (tb-CL)

2. Transfer Item Relocation
Once again, excellent job on transfer ops! Upon review of yesterday's transfer information, we have one final request for you: please move all bolts (item 904) to any available food locker and report location chosen to MCC. We need to keep MF43E open for final stowage of your Orbiter FDF. With both FDF and bolts in this location, there is a weight exceedance.

3. Outlook Reminder
Some of the crew mail OST files are getting very large. Please remember to clean out your Sent Items and Work Related folders in addition to your Inbox.

4. Waste Dump/Condensate Dump Overview

Today you will be performing a waste dump followed by a condensate dump. Since there was no urine off-load and there is plenty of time in the dump window, you will not need any extra efficiencies going from one procedure to the next; i.e. you will perform the waste dump procedure in its entirety before starting the condensate dump.

The only equipment pregather required for the condensate dump is to perform Condensate Teardown and retrieve the WWD filter, both of which can be done while the waste tank is dumping.

1) Waste Water Dump

Perform a waste water dump using SUPPLY/WASTE WATER DUMP (ORB OPS, ECLS), p. 5-2. MCC will TMBU limits in steps B and K. After waste dump termination, perform step J-2.

Dump the waste tank to 5%. Nozzle open time will be approximately 40 minutes.

2) Condensate Collection T/D and Dump

During the Waste Dump, retrieve the WWD filter from MF14O and perform CONDENSATE TEARDOWN (ORB OPS, ECLS) p. 5-40. Retain the CWC and Y-Y hose for the Condensate Dump. After the Waste Dump is complete, perform CWC OVERBOARD DUMP (ORB OPS, ECLS), p. 5-36. MCC will TMBU limits in B and H. For step A-1, WASTE H2O DUMP VLV will be barberpole. For stowage in step G, place the emptied CWC and Y-Y hose in MF57M and the WWD (in Ziploc) back in MF14O.

Condensate CWC dump nozzle open time will be approximately 15 minutes.

5. REPLACE PAGES 2-46 THROUGH 2-49 and 3-138 THROUGH 3-147.

GMT 02/19/10 (050) 12 22 13 23 14 02/20 15 01 16 02 17 03 18 04 19 05 20 06 21 07 22 08 23 09 012/00

MET Day 011

| STS-130 | | |

02/19/10 12:58:23 **REPLANNED**

GMT 02/19/10 (050) 12 22 13 23 14 02/20 15 01 16 02 17 03 18 04 19 05 20 06 21 07 22 08 23 09 012/00

MET Day 011

ISS

- TDRS AVAIL
- DAY/NIGHT
- DAILY ORBIT: 16 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8
- TLM FORMAT: 112 | 132 | 122 | 112 | 122 | 122
- ATTITUDE: -XVV +ZLV TEA | +XVV +ZLV TEA
- ALL VHF

EXP 22

| | | |

FD13 02/19/10 12:58:23 **REPLANNED**

GMT 02/20/10 (051)

MET Day 012 — 012/00 10 11 12 13 14 15 16 17 18 19 20 21 01 02 03 04 05 06 07 08 09 10 11 12

STS-130	CDR	PORT WING SURVEY	-ZLV -XVV	I-CONCT*	PRE SLEEP	FD CONF	PMC A/G	PRE SLEEP	SLEEP				LOG	POST SLEEP
STS-130	PLT	PORT WING SURVEY	PRE SLEEP						SLEEP				LOG	POST SLEEP
STS-130	MS1	PRE SLEEP	LDRI D/L		PRE SLEEP				SLEEP					POST SLEEP
STS-130	MS2	PORT WING SURVEY	PRE SLEEP						SLEEP					POST SLEEP
STS-130	MS3	EXERCISE	PRE SLEEP						SLEEP				LOG	POST SLEEP
STS-130	MS4	MDK CK	PRE SLEEP						SLEEP					POST SLEEP

STS

DAY/NIGHT

ORBIT 190 191 192 193 194 195 196 197 198

TDRS W E Z

ORB ATT -ZLV -XVV

NOTES *TANK SWITCH

02/19/10 12:58:23 **REPLANNED**

GMT 02/20/10 (051) 10 11 12 13 14 15 16 17 18 19 20 21

MET Day 012 012/00 01 02 03 04 05 06 07 08 09 10 11 12

ISS	TDRS AVAIL	
	DAY/NIGHT	
	DAILY ORBIT	8 9 10 11 12 13 14 15 1
	TLM FORMAT	122 122
	ATTITUDE	+XVV +ZLV TEA
	ALL VHF	

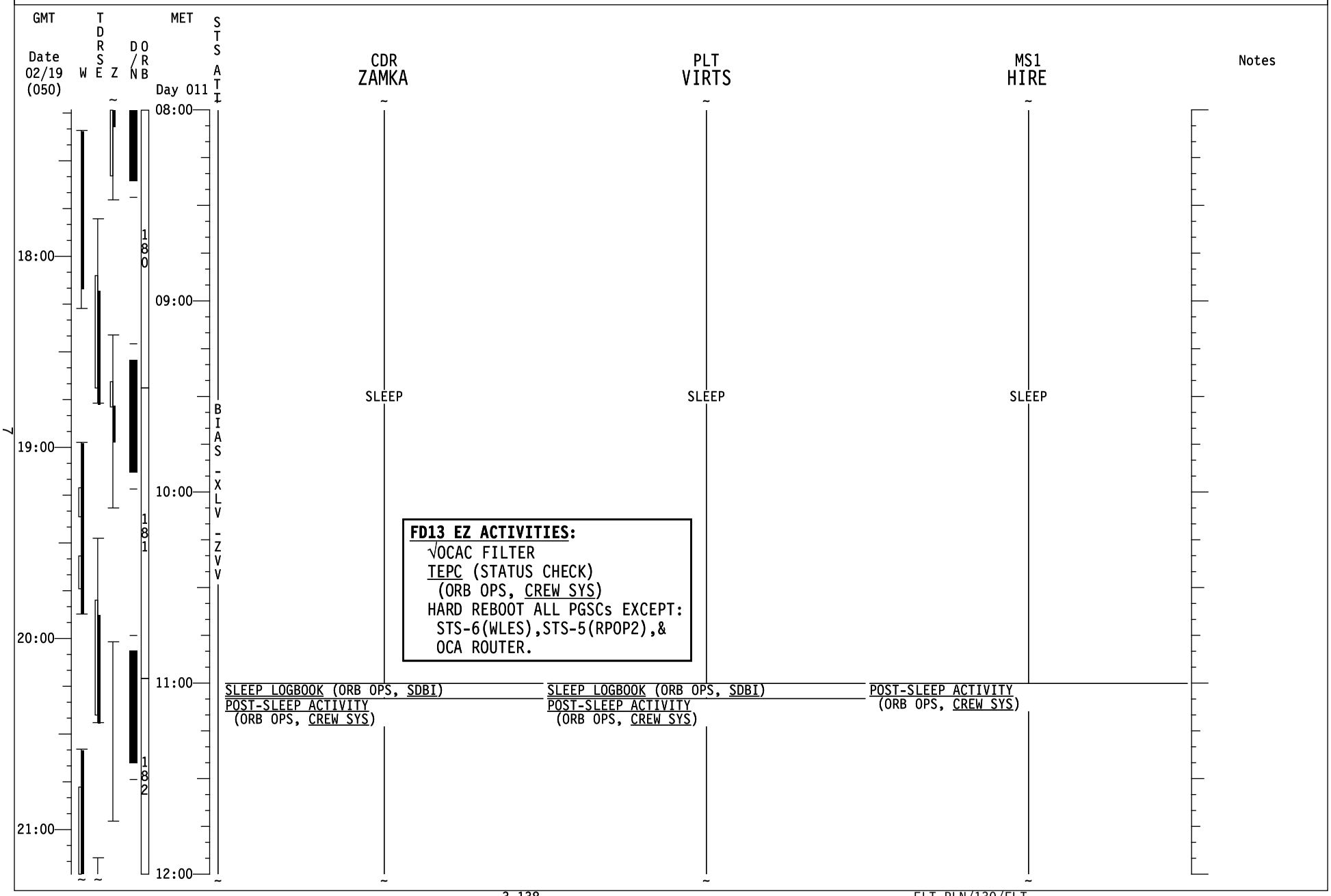
EXP 22	ARED	PRE SLEEP-ISS	SLEEP
ISS CDR			
FE-1	TVIS ♣	PRE SLEEP-ISS	SLEEP
FE-4		PRE SLEEP-ISS	SLEEP
FE-5		PRE SLEEP-ISS	SLEEP
FE-6	CEVIS	PRE SLEEP-ISS	SLEEP

TDRS	W	
	E	
	Z	
STS	ORB ATT	-ZLV -XVV

♣СОГС-ЭЛЕК-АФ-БЖ-MON

NOTES

STS-130 FD13


GMT
Date 02/19 (050)
W
T D R S E
Z
D / N
O R B
MET
Day 011
S T S A T I
CDR ZAMKA
PLT VIRTS
MS1 HIRE
Notes
08:00
09:00
10:00
11:00
12:00
18:00
19:00
20:00
21:00
180
181
182
BIAS-XLV-ZVV
SLEEP
SLEEP
SLEEP
FD13 EZ ACTIVITIES:
√OCAC FILTER
TEPC (STATUS CHECK)
(ORB OPS, CREW SYS)
HARD REBOOT ALL PGSCs EXCEPT:
STS-6(WLES),STS-5(RPOP2),&
OCA ROUTER.
SLEEP LOGBOOK (ORB OPS, SDBI)
POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)
SLEEP LOGBOOK (ORB OPS, SDBI)
POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)
POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

STS-130 FD13

GMT Date 02/19 (050) | W | TDRSE | Z | D/N | ORB | MET Day 011 | STS ATI

MS2 ROBINSON | MS3 PATRICK | MS4 BEHNKEN | Notes

08:00 — 09:00 — 10:00 — 11:00 — 12:00

18:00 — 19:00 — 20:00 — 21:00

180 — 181 — 182

BIAS-XLV-ZVV

SLEEP (MS2)

SLEEP (MS3)

SLEEP (MS4)

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS) (MS2)

SLEEP LOGBOOK (ORB OPS, SDBI) (MS3)

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS) (MS3)

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS) (MS4)

STS-130 FD13

GMT Date 02/19 (050) | W E Z | DO/NB | MET Day 011 | STS ATI

CDR ZAMKA

12:00 POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

H/O ATT CNTRL CMG TA to ORB:√MCC for DAP

MNVR UNDOCK -XLV +ZVV
TGT=2 BV=5 P=180 Y=0 OM=0
A12/AUTO/VERN, Init TRK (14:25)

15:00 UNDOCKING AND SEPARATION (RNDZ, UNDOCK/SEP T/L)

< **UNDOCKING(11/15:40)**

SEP/FLYAROUND (RNDZ, UNDOCK/SEP T/L)

16:00

PLT VIRTS

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

IMU STAR OF OPPTY ALIGN (ORB OPS, GNC)
06 S TRK PWR-Z-ON
PRIOR PWRUP GRP B(ORB PKT,PRIOR PWRDN)
Step 12(IMU 2),6(Triple G2,remain FREE DRIFT),5
L17 Check MCIU filter screen

UNDOCKING AND SEPARATION (RNDZ, UNDOCK/SEP T/L)

SEP/FLYAROUND (RNDZ, UNDOCK/SEP T/L)

MS1 HIRE

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

SSV OUTRATE - 3

UNDOCKING AND SEPARATION (RNDZ, UNDOCK/SEP T/L)

SEP/FLYAROUND (RNDZ, UNDOCK/SEP T/L)

Notes: TFL 192

BIAS -XLV -ZVV

UNDOCK/FLYAROUND/SEP

182 183 184 185

22:00 23:00 00:00 01:00

STS-130 FD13

GMT Date 02/19 (050) | W E Z | T D R S | D/N | O R B | MET Day 011 | STS ATI

MS2 ROBINSON | MS3 PATRICK | MS4 BEHNKEN | Notes

12:00 — 13:00 — 14:00 — 15:00 — 16:00 — 22:00 — 23:00 — 00:00 — 01:00

182 — 183 — 184 — 185

BIAS-XLV-ZVV

UNDOCK/FLYAROUND/SEPI

MS2 ROBINSON

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

A SSPTS OPCU DEACT
On MCC GO: A15 OPCU 1,2 CONV(two) - OFF
R1 MN BUS TIE B - OFF(tb-OFF)
C - OFF(tb-OFF)

SSPTS OPCU DEACT A
O6 S TRK PWR-Z-ON
PRIOR PWRUP GRP B(ORB PKT,PRIOR PWRDN)
Step 12(IMU 2),6(Triple G2,remain FREE DRIFT),5

UNDOCKING AND SEPARATION
(RNDZ, UNDOCK/SEP T/L)

< **UNDOCKING(11/15:40)**

SEP/FLYAROUND
(RNDZ, UNDOCK/SEP T/L)

MS3 PATRICK

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

P/TV03 UNDOCK
(PHOTO/TV, SCENES)
Perform SETUP

P/TV03 UNDOCK
(PHOTO/TV, SCENES)
Setup

MS4 BEHNKEN

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

GLACIER STATUS CHECK (ASSY OPS,CC)

UNDOCKING AND SEPARATION
(RNDZ, UNDOCK/SEP T/L)

SEP/FLYAROUND
(RNDZ, UNDOCK/SEP T/L)

Notes

UPLINK
β21 + Mask
Box 30,20,21,22

STS-130 FD13

GMT Date 02/20 (051) | W | T D R S E | Z | D/N | O R B | MET Day 011 | STS ATT

MET	CDR ZAMKA	PLT VIRTS	MS1 HIRE	Notes
16:00	SEP/FLYAROUND (RNDZ, UNDOCK/SEP T/L)	SEP/FLYAROUND (RNDZ, UNDOCK/SEP T/L)	SEP/FLYAROUND (RNDZ, UNDOCK/SEP T/L)	
17:00	**< SEP 1 (11/16:55)**			
	< SEP 2 (11/17:23)			
	MNVR BIAS -ZLV +YVV (SIMO DUMP) TGT=2 BV=3 OM=310 A1/AUTO/VERN, Init TRK	RCS REGULATOR RECONFIG (ORB OPS, RCS)	JOINT OPS: 6.106 SSOR DEACTIVATION	
		COMM STRING 1 C/O (PART A) (ORB OPS, COMM/INST)		TFL 188
	SUPPLY/WASTE WATER DUMP (Waste Init) (ORB OPS, ECLS) Ref. MSG 174, Item 4 Open nozzle NET 17:55, √MCC	PRIOR PWRDN GRP B (ORB PKT, PRIOR PWRDN) Steps 5,6(Single G2),9 & 12(IMU 2)	SSV OUTRATE - 4	UPDATE H2O WASTE DUMP QTY
			OIU DEACTIVATION SSP1 OIU PWR - OFF (tb-bp) Expect S62 BCE BYP PSP1	
18:00		NOMINAL H2O CONFIG (ORB OPS,ECLS) √MCC for FES Pri A		
		SHUTTLE CONDENSATE COLLECTION (ORB OPS, ECLS) Perform TEARDOWN Ref. MSG 174, Item 4		
	MEAL	PLAYBACK (DIGITAL) (PHOTO/TV, CUE CARD) KU TDRE: 18:21-19:05 Gimbal Flip: 18:37	MEAL	
	SUPPLY/WASTE WATER DUMP (Waste Term) CWC OVERBOARD DUMP (Init) (ORB OPS, ECLS) Ref. MSG 174, Item 4			
19:00		MEAL		
	CWC OVERBOARD DUMP (TERM) (ORB OPS, ECLS)			
	I'CNCT: R OMS to RCS (OPCL, RCS)			
20:00	MNVR (TRK) BIAS +YSI (STBD SURVEY) TGT=4 BV=5 P=0 Y=40 OM=45 A14/AUTO/VERN, Init TRK			

Sleep: 02:00–05:00 (W); Z: 03:00–05:00; DUMP: 16:00–20:00; DOR/NB: 185, 186, 187

STS-130 FD13

GMT Date 02/20 (051) | W E Z | TDRS | DO/RN B | MET Day 011 | STS ATT

MET	MS2 ROBINSON	MS3 PATRICK	MS4 BEHNKEN	Notes
16:00	SEP/FLYAROUND (RNDZ, UNDOCK/SEP T/L)	P/TV03 UNDOCK (PHOTO/TV, SCENES) Setup	SEP/FLYAROUND (RNDZ, UNDOCK/SEP T/L)	
02:00				
17:00	< SEP 1 (11/16:55)			UPLINK β21 + Mask
	< SEP 2 (11/17:23)			
	HEATER RECONFIG-CONFIG B(ORB OPS, EPS)	P/TV03 UNDOCK (DEACT) (PHOTO/TV, SCENES) Step 2	POST RNDZ PGSC CONFIG Configure PGSCs per usage chart	
	CABIN TEMP CONTROLLER RECNFG 2(1) (ORB OPS, ECLS)			
03:00	PRIOR PWRDN GRP B (ORB PKT, PRIOR PWRDN) Steps 5,6(Single G2),9 & 12(IMU 2)			
18:00			WLES DOCK/UNDK RECOVERY(ORB OPS,WLE SNSRS)	
	MEAL	MEAL	MEAL	
04:00				
19:00				
05:00				
20:00	OBSS MNVR TO FLAT FIELD (PDRS, OBSS NOMINAL)	OBSS MNVR TO FLAT FIELD (PDRS, OBSS NOMINAL)	EXERCISE	

DUMP

STS-130 FD13

GMT Date 02/20 (051) | W | TDRS E | Z | DON/B | MET Day 011 | STS ATI

CDR ZAMKA

- 20:00 – 21:00: EXERCISE
- 21:00 – 22:00: MNVR (TRK) BIAS +XSI (NOSE CAP SURVEY)
  TGT=4 BV=5 P=331 Y=0 OM=90
  A14/AUTO/VERN,
  RCC SURVEY-STBD Complt, Init TRK
  OBSS LDRI RCC SURVEY - NOSE CAP
  (PDRS, OBSS OPERATIONS)
  R3
- 22:00 – 23:00: MNVR (TRK) BIAS -YSI (PORT SURVEY)
  TGT=4 BV=5 P=0 Y=323 OM=90
  A14/AUTO/VERN,
  RCC SURVEY-PORT Step 3 Complt, Init TRK
  OBSS LDRI/IDC RCC SURVEY - PORT
  (PDRS, OBSS OPERATIONS)
  R3

PLT VIRTS

- 20:00 – 21:00: EXERCISE
- 21:00 – 22:00: OBSS LDRI RCC SURVEY - NOSE CAP
  (PDRS, OBSS OPERATIONS)
  R2
- 22:00 – 23:00: OBSS LDRI/IDC RCC SURVEY - PORT
  (PDRS, OBSS OPERATIONS)
  R1

MS1 HIRE

- 20:00 – 21:00: OBSS LDRI/IDC RCC SURVEY - STBD
  (PDRS, OBSS OPERATIONS)
  R2
- 21:00 – 22:00: OBSS LDRI RCC SURVEY - NOSE CAP
  (PDRS, OBSS OPERATIONS)
  R1
- 22:00 – 23:00: EXERCISE
- 23:00 – 00:00: PRE-SLEEP ACTIVITY
  (ORB OPS, CREW SYS)

Notes: S BAND PM FREQ-HIGH

13

STS-130 FD13

GMT Date 02/20 (051) | W | TDRS E | Z | DON/ORB | MET Day 011 | STS ATT

MS2 ROBINSON

20:00 — OBSS MNVR TO FLAT FIELD(PDRS,OBSS NOMINAL)
OBSS LDRI/IDC RCC SURVEY - STBD
(PDRS, OBSS OPERATIONS)
R3

STBD SURVEY

06:00 — 188

21:00

07:00

22:00 — EXERCISE

NOSE

189

08:00 — OBSS LDRI/IDC RCC SURVEY - PORT
(PDRS, OBSS OPERATIONS)
R2

23:00

PORT SURVEY

190

09:00

00:00

MS3 PATRICK

OBSS MNVR TO FLAT FIELD(PDRS,OBSS NOMINAL)
OBSS LDRI/IDC RCC SURVEY - STBD
(PDRS, OBSS OPERATIONS)
R1

EVA UNPACK & STOW
(EVA, AIRLOCK CONFIG)

POST ISS EVA ENTRY PREP
(EVA, POST EVA ENT PREP)
Skip steps 6-14, 18, 24-27

EXERCISE

MS4 BEHNKEN

EXERCISE

EVA UNPACK & STOW
(EVA, AIRLOCK CONFIG)

POST ISS EVA ENTRY PREP
(EVA, POST EVA ENT PREP)
Skip steps 6-14, 18, 24-27

Notes

STS-130 FD13

GMT Date 02/20 (051) | W | TDRS E | Z | DON/B | MET Day 012 | STS ATT

CDR ZAMKA

00:00 OBSS LDRI/IDC RCC SURVEY - PORT
(PDRS, OBSS OPERATIONS)

R3

MNVR (TRK) -ZLV -XVV
TGT=2 BV=3 OM=0
A14/AUTO/VERN,
RCC SURVEY-PORT Step 12 Complt, Init TRK
When in attitude, load DAP A1:
I'CNCT TANK SWITCH:FROM R to L OMS FEED(OPCL,RCS)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

FLIGHT DIRECTOR CONFERENCE
PRIVATE MEDICAL CONFERENCE
L9 PAYLOAD STATION A/G (two) - OFF
Perform via A/G2

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

SLEEP

PLT VIRTS

OBSS LDRI/IDC RCC SURVEY - PORT
(PDRS, OBSS OPERATIONS)

R1

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)
√ILLUMINATORS OFF - ALL

SLEEP

MS1 HIRE

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

DIGITAL VIA VTR
(CUE CARD, DIGITAL PLAYBACK)
LDRI SURVEYS
KU TDRW: 00:21-00:30
00:46-01:13

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

SLEEP

CREW WAKE AT 12/11:00

Notes: S BAND PM FREQ-LOW

STS-130 FD13

GMT Date 02/20 (051) | W | TDRS E | Z | DO/N | ORB | MET Day 012 | STS ATI

MS2 ROBINSON | MS3 PATRICK | MS4 BEHNKEN | Notes

00:00 — OBSS LDRI/IDC RCC SURVEY - PORT (PDRS, OBSS OPERATIONS)

R2

EXERCISE

GLACIER STATUS CHECK (ASSY OPS,CC)

PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)

PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)

PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)

10:00 — 01:00 — 11:00 — 02:00 — 12:00 — 03:00 — 13:00 — 04:00

190 191 192 193

-ZLV -XVV

CREW WAKE AT 12/11:00

SLEEP | SLEEP | SLEEP

Good Morning Endeavour!!!!

You have had an absolutely awesome mission, but now it is time to say good-by station, hello earth!

Have a great undocking/fly around day!!!!

YOUR CURRENT ORBIT IS: 191 X 180 NM

NOTAMS – THREE CHANGES (NOR RWY UPDATE, WAL DELETED, KBO ADDED)

EDW -	TEMP RWY IN USE. PERM RWY CLOSED FOR CONSTRUCTION.
EDW -	LAKEBED RWYS RED.
NOR -	**LAKEBED RWYS GREEN.**
FOK -	CLOSED.
DOV-	RWY32 RWY END LIGHTS OUT OF SERVICE.
KBO-	**RWY14L/32R CLSD.**
ZZA -	ARRESTING NET INSTALLED 40M FROM END OF RWY 30L.
ESN	RWY03R/21L CLOSED. 03L/21R USABLE
GUA -	RWY 06L/24R RWY END LIGHTS OUT OF SERVICE.
PTN -	CLOSED FOR RUNWAY CONSTRUCTION.
IKF -	NOT USABLE. NO AGREEMENT.
BEN -	NOT RECOMMENDED/NOT SUPPORTED.

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

KSC33	ORB 186 – 11/17:54	BKN150	BKN250	7	290/3P5
NOR17	ORB 203 – 12/19:48	SCT060	BKN250	7	220/8P13

<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 = 30.2	R OMS	OX = 31.4
	FU = 29.9		FU = 31.2

Subtract interconnect counter for current OMS quantities.

DELTA V AVAILABLE:

OMS	318 FPS
ARCS (TOTAL ABOVE QTY1)	41 FPS
TOTAL IN THE AFT	359 FPS
ARCS (TOTAL ABOVE QTY2)	75 FPS
FRCS (ABOVE QTY 1)	0 FPS
AFT QTY 1	66 %
AFT QTY 2	28 %

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

END OF PAGE 2 OF 2, MSG 175

MSG 176 - FD13 CREW CHOICE DOWNLINK

TDRS	AOS	LOS	Delta (min)	Notes
W-171	12/00:21	12/00:30	9	
W-171	12/00:46	12/01:13	27	
E-TDS	12/01:23	12/01:50	27	
W-171	12/01:56	12/02:10	14	
W-171	12/02:22	12/02:50	28	

Note: Please notify MCC-H 10 minutes prior to the event to allow for ground network configuration.

END OF PAGE 1 OF 1, MSG 176