STS-127 / 2JA

FD 02 Execute Package

MSG	Page(s)	Title
003A	1 - 14	FD02 Flight Plan Revision **(pdf)**
004	15 - 16	FD02 Mission Summary **(pdf)**
005A	17 - 19	FD02 EVA Checklist Deltas **(pdf)**
006	20 - 24	STS-127 Middeck Stowage Updates **(pdf)**
007	25	ORB OPS CNTL ACC Changes **(pdf)**

Approved by FAO: *F. Reynolds*

Last Updated: Jul 16 2009 11:15AM GMT
JEDI *(**J**oint **E**xecute package **D**evelopment and **I**ntegration), v2.04.0003*

MSG INDEX

MSG NO.	TITLE
MSG003A	FD02 Flight Plan Revision
MSG004	FD02 Mission Summary
MSG005A	FD02 EVA Checklist Deltas
MSG006	STS-127 Middeck Stowage Updates
MSG007	ORB OPS CNTL ACC Changes

1. POST SLEEP CRYO CONFIG

For today's cryo config, tanks 1 and 5 will be active for both O2 and H2.

R1 O2,H2 MANF VLV TK1 (two) - OP (tb-OP)
TK3 HTRS A,B (four) – OFF

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

2. UMBILICAL WELL IMAGES

We were unable to find the ET Umbilical Well images on the WLES, KFX or RPOP2 PGSCs. Please let us know to which laptop and folder you downloaded the images.

3. PDRS ABE ANNUNCIATION

During RMS Checkout yesterday, the transient failure that occurred during the Direct Drive test has been seen three times before during ground testing. The error is annunciated in Direct mode when the SINGLE/DIRECT DRIVE switch is released and is a result of the timing between the release of the drive command and when the MDA Demand Voltage BITE test is executed. This error is considered statistical in nature and occurs about 1 in 1200 Direct Drive switch cycles. Since Direct Drive operations are complete, this problem should not occur again.

4. HIGH DEF VIDEO

After yesterday's High Def video downlink it was unclear if the VTR was powered back on. In preparation for the FD2 surveys, INCO would like to verify that the VTR is powered on and that its clock is set to GMT time. If required the reference for VTR Clock Set is in P/TV page 12-15, steps 1 and 2.

5. ORB OPS CNTL ACC CHANGES

Due to Russian vehicle config, Message 007 contains several Pen & Inks for ORB OPS and the DAP CC.

6. STS-127 STOWAGE UPDATE

   Please replace the following pages in the Reference Data STS-127 Flight Supplement book with the pages contained in message 006:

   FS 1-6, FS 1-9, FS 1-11, FS 1-12 and FS 1-13

7. REPLACE PAGES 2-4 THROUGH 2-5 AND 3-8 THROUGH 3-17.

07/16/09 05:42:13 **REPLANNED**

FD02

GMT 07/16/09 (197)

MET Day 000

12 11 12 13 14 15 16 17 18 19 20 21 22 23 001/00

STS-127

Crew	Activities
CDR POLANSKY	SLEEP; POST SLEEP; ICNCT^; NC2^ OMS BURN; MNVR-ZLV; RCS*; IMU; CWC-I S/U; MVR-S; STBD WING SURVEY; MVR-N; NOSE CAP SURVEY; MEAL; MVR-P; PORT WING SURVEY
PLT HURLEY	SLEEP; POST SLEEP; MCIU*; OMS BURN; POST SLEEP; OBSS UNBERTH; STBD WING SURVEY; NOSE CAP SURVEY; MEAL; PORT WING SURVEY
MS1 CASSIDY	SLEEP; DRY SLV; LOG; POST SLEEP; DRY SLV; POST SLEEP; PGSC SETUP (PART II); EMU C/O PREP; EMU C/O; DRY SLV; EXERCISE; CRYO O2 SNSR CK; WSB; MEAL; FILTER CLEAN; DRY SLV
MS2 PAYETTE	SLEEP; POST SLEEP; FRED SETUP; OBSS UNBERTH; STBD WING SURVEY; NOSE CAP SURVEY; MEAL; PORT WING SURVEY
MS3 MARSHBURN	SLEEP; DRY SLV; LOG; POST SLEEP; DRY SLV; POST SLEEP; O2-I; ERG SETUP; O2-T; P/TV01 VIDEO SETUP; C/L^; EXERCISE; DRY SLV; EVA PRP XFER TO ISS; MEAL; MIDDECK XFER PREP
MS4 WOLF	SLEEP; DRY SLV; POST SLEEP; DRY SLV; POST SLEEP; OMS POD SRVY; POST SLEEP; ERG SETUP; EMU C/O PREP; C/L^; EMU C/O; DRY SLV; EVA PRP XFER TO ISS; MEAL; MIDDECK XFER PREP
MS5 KOPRA	SLEEP; POST SLEEP; EMU C/O PREP; EMU C/O; EVA PRP XFER TO ISS; MEAL; EXER

DAY/NIGHT

ORBIT: 9 10 11 12 13 14 15 16 17

TDRS: W E Z

ORB ATT: -ZLV -XVV; INRTL; -ZLV -XVV; NC2; -ZLV -XVV; STBD SURVEY; NOSE SURVEY; PORT SURVEY

NOTES

*FILTER CK *HEATER RCNFG ^CAMR S/U PT 1

^R OMS to RCS

3

07/16/09 05:42:13 **REPLANNED**

FD02

GMT 07/16/09 (197)

MET Day 001

		001/00	23 01	07/17 02	01 03	02 04	03 05	04 06	05 07	06 08	07 09	08 10	09 11	10 12
STS-127	CDR POLANSKY	PORT WING SURVEY	M-NVR ZLV	ICNCT* MUS	EXERCISE	PRE SLP	NC3^ +X RCS BURN	M-NVR ZLV	FUTMVR ICNT#	PRE SLEEP	PMC A/G	PRE SLEEP	SLEEP	
	PLT HURLEY	PORT WING SURVEY	OBSS BERTH	FCMS C/O	APCU@	+X RCS BURN	MUS	PRE SLEEP					SLEEP	
	MS1 CASSIDY	FC PRG*		WLES^	RNDZ TOOLS C/O	OCA*	PRE SLEEP					DRY SLV	SLEEP	
	MS2 PAYETTE	PORT WING SURVEY	OBSS BERTH	MUS	PRE SLEEP	RNDZ TOOLS C/O	PRE SLEEP						SLEEP	
	MS3 MARSHBURN	♣	DRY SLV	S/U C/L CAM	ODS RING EXT	MUS	PRE SLEEP					DRY SLV	SLEEP	
	MS4 WOLF	⊕	EXERCISE	DRY SLV	S/U C/L CAM	ODS RING EXT	PRE SLEEP					DRY SLV	SLEEP	
	MS5 KOPRA	EXER		LDRI DOWNLINK		PRE SLEEP							SLEEP	

DAY/NIGHT

ORBIT: 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25

TDRS W E Z

ORB ATT: -ZLV -XVV | NC3 | -ZLV -XVV

NOTES

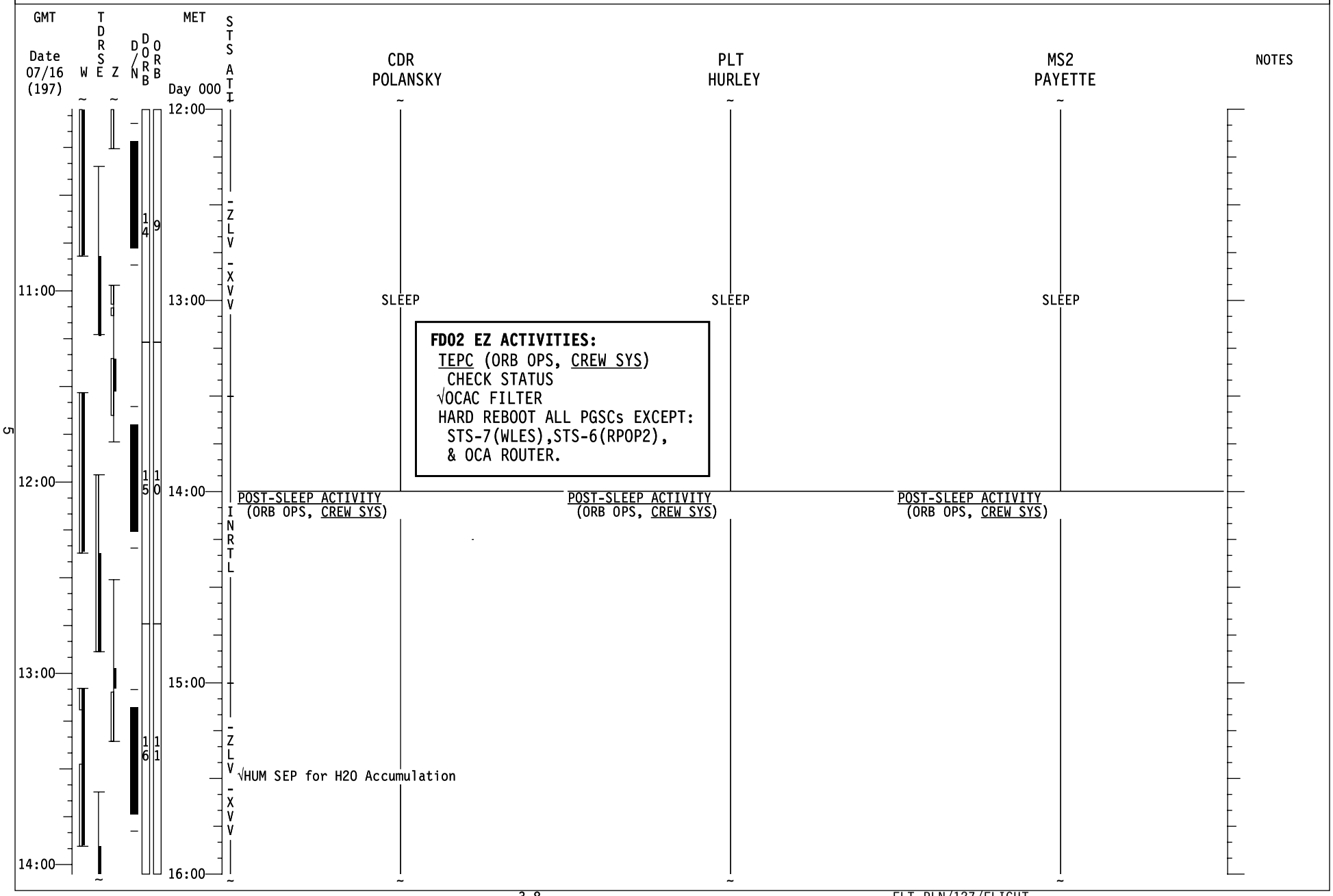
♣MIDDECK XFER PREP @ACT #RETURN

⊕MIDDECK XFER PREP ^PREP-RNDZ C/O

*MANUAL *TK SWITCH: R to L OMS FEED *RATE RCNFG

4

STS-127 FD (02)



FD02 EZ ACTIVITIES:
TEPC (ORB OPS, CREW SYS)
CHECK STATUS
√OCAC FILTER
HARD REBOOT ALL PGSCs EXCEPT:
STS-7(WLES),STS-6(RPOP2),
& OCA ROUTER.

STS-127 FD (02)

GMT Date 07/16 (197) | W | TDRSE | Z | D/N | DORB | ORB | MET Day 000 | STS ATT | MS1 CASSIDY | MS3 MARSHBURN | MS4 WOLF | MS5 KOPRA | NOTES

12:00 – 13:00 – 14:00 – 15:00 – 16:00

11:00 – 12:00 – 13:00 – 14:00

14 9 15 10 16 11

-ZLV -XVV INRTL -ZLV -XVV

MS1 CASSIDY	MS3 MARSHBURN	MS4 WOLF	MS5 KOPRA
SLEEP	SLEEP	SLEEP	SLEEP
DRY SALIVA CLCT (ORB OPS, SDBI)	DRY SALIVA CLCT (ORB OPS, SDBI)	DRY SALIVA CLCT (ORB OPS, SDBI)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)
SLEEP LOGBOOK (ORB OPS, SDBI)	SLEEP LOGBOOK (ORB OPS, SDBI)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)		
DRY SALIVA CLCT (ORB OPS, SDBI)	DRY SALIVA CLCT (ORB OPS, SDBI)	DRY SALIVA CLCT (ORB OPS, SDBI)	
POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
		P/TV08 EXTERNAL SURVEY (S/U) (P/TV, SCENES) Step 1	
		P/TV08 EXTERNAL SURVEY (OPS) (P/TV, SCENES) Item 1	
		Best Lighting Avail (15:51-16:24)	

STS-127 FD (02)

GMT Date 07/16 (197) | W | TDRSE | Z | D/N | DORB | ORB | MET Day 000 | STS ATT | CDR POLANSKY | PLT HURLEY | MS2 PAYETTE | NOTES

16:00

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

I'CNCT: R OMS TO RCS (OPCL, RCS)

L17 Check MCIU filter screen

ON-ORBIT OMS BURN
(ORB OPS, OMS)

ON-ORBIT OMS BURN
(ORB OPS, OMS)

NC2

<NC2 TIG (16:51)

FRED SETUP
(ORB OPS, FRED)

15:00

17:00

MNVR (TRK) -ZLV -XVV
TG=2 BV=3 OM=0
A1/AUTO/VERN Init TRK

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

RCS/OMS HEATER RECONFIG [B]

IMU STAR OF OPPTY ALIGN (ORB OPS, GNC)

CWC-I FILL (ORB OPS, CWC-I FILL)
Parts A-C
Setup, Purge, and Teardown

OBSS UNBERTH [A]
(PDRS, OBSS OPERATIONS)

OBSS UNBERTH [A]
(PDRS, OBSS OPERATIONS)

-ZLV -XVV

[A] APCU POWER DISABLE
Prior to Step 3:
A15 APCU 1,2 CONV(two) - OFF

16:00

18:00

[B] A14 RCS/OMS HTR L POD A - OFF
B - AUTO
R POD A - OFF
B - AUTO

MNVR (TRK) BIAS +YSI (Stbd Survey)
TG=4 BV=5 P=0 Y=40 OM=300
A14/AUTO/VERN, OBSS UNBERTH cmplt, Init TRK

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

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

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

17:00

19:00

STBD SURVEY

18:00

20:00

STS-127 FD (02)

GMT Date 07/16 (197) | W | TDRSE | Z | D/N | DORB | ORB | MET Day 000 | STS ATT

MS1 CASSIDY	MS3 MARSHBURN	MS4 WOLF	MS5 KOPRA	NOTES
POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	P/TV08 EXTERNAL SURVEY (S/U) (P/TV, SCENES) Step 1 P/TV08 EXTERNAL SURVEY (OPS) (P/TV, SCENES) Item 1 Best Lighting Avail (15:51-16:24) POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
PGSC SETUP (PART II) Setup the remaining PGSCs PGSC NETWORK (ORB OPS, PGSC) LOCKER STOWAGE UPDATE Update remaining PGSCs Locker Stow with disk carried onboard	O2 REPRESS INIT OCAC PWR - OFF C5 DIRECT O2 vlv - OP CYCLE ERGOMETER OPS (ORB OPS, CREW SYS) ERGOMETER SETUP ON MCC GO: O2 REPRESS TERM C5 DIRECT O2 vlv - CL OCAC PWR - ON P/TV01 VIDEO SETUP (PHOTO/TV, SCENES) SETUP	CYCLE ERGOMETER OPS (ORB OPS, CREW SYS) ERGOMETER SETUP		
EMU CHECKOUT PREP (EVA, AIRLOCK CONFIG)		EMU CHECKOUT PREP (EVA, AIRLOCK CONFIG)	EMU CHECKOUT PREP (EVA, AIRLOCK CONFIG)	
EMU CHECKOUT (EVA, CHECKOUTS) Perform for 2 EMUs; Stow LCVGs in ECOKS when cmplt MCC will TMBU S/W limits, Steps 1 & 100	C/L CAMR INSTL(PHOTO/TV,C/L CAMR) Work ML60B,ODS,CL Camr steps only EXERCISE	C/L CAMR INSTL(PHOTO/TV,C/L CAMR) Work ML60B,ODS,CL Camr steps only EMU CHECKOUT (EVA, CHECKOUTS) Perform for 2 EMUs; Stow LCVGs in ECOKS when cmplt MCC will TMBU S/W limits, Steps 1 & 100	EMU CHECKOUT (EVA, CHECKOUTS) Perform for 2 EMUs; Stow LCVGs in ECOKS when cmplt MCC will TMBU S/W limits, Steps 1 & 100	

Time scale: 15:00, 16:00, 17:00, 18:00; Day 000: 16:00, 17:00, 18:00, 19:00, 20:00

STS ATT: NC2 - ZLV - XVV - STBD SURVEY

8

STS-127 FD (02)

GMT Date 07/16 (197) | W | TDRSE | Z | D/N | DORB | ORB | MET Day 000 | STS ATT

CDR POLANSKY	PLT HURLEY	MS2 PAYETTE	NOTES
OBSS LDRI/IDC RCC SURVEY - STBD (PDRS, OBSS OPERATIONS)	OBSS LDRI/IDC RCC SURVEY - STBD (PDRS, OBSS OPERATIONS)	OBSS LDRI/IDC RCC SURVEY - STBD (PDRS, OBSS OPERATIONS)	
MNVR (TRK) BIAS +XSI (Nose Cap) TG=4 BV=5 P=330 Y=0 OM=140 A14/AUTO/VERN, RCC SURVEY-STBD cmplt, Init TRK			
OBSS LDRI/IDC RCC SURVEY - NOSE CAP (PDRS, OBSS OPERATIONS)	OBSS LDRI/IDC RCC SURVEY - NOSE CAP (PDRS, OBSS OPERATIONS)	OBSS LDRI/IDC RCC SURVEY - NOSE CAP (PDRS, OBSS OPERATIONS)	
MEAL	MEAL	MEAL	
MNVR TRK BIAS -YSI (Port Survey) TG=4 BV=5 P=0 Y=323 OM=330 A14/AUTO/VERN, RCC SURVEY-PORT Step 3 cmplt, Init TRK	OBSS LDRI/IDC RCC SURVEY - PORT (PDRS, OBSS OPERATIONS)	OBSS LDRI/IDC RCC SURVEY - PORT (PDRS, OBSS OPERATIONS)	
OBSS LDRI/IDC RCC SURVEY - PORT (PDRS, OBSS OPERATIONS)			

Time scale: 19:00, 20:00, 21:00, 22:00; Day 000: 20:00, 21:00, 22:00, 23:00, 00:00

NOSE SURVEY

PORT SURVEY

STS-127 FD (02)

GMT Date 07/16 (197) | W | TDRS E | Z | D/N | DORB 3 4 5 6 | ORB 14 15 16 17 | MET Day 000 | STS ATT | NOSE SURVEY | PORT SURVEY

MS1 CASSIDY

- 20:00 — EMU CHECKOUT (EVA, CHECKOUTS)
  Perform for 2 EMUs;
  Stow LCVGs in ECOKS when cmplt
  MCC will TMBU S/W limits,
  Steps 1 & 100
- DRY SALIVA CLCT (ORB OPS, SDBI)
- EXERCISE
- CRYO O2 TK HTR SNSR CK
  (ORB OPS, EPS)
- R2 BLR CNTLR/HTR (three) - B
- MEAL
- FILTER CLEANING
  (IFM, SCHEDULED MAINTENANCE)
  Do not perform MCIU filter clean
- DRY SALIVA CLCT (ORB OPS, SDBI)

MS3 MARSHBURN

- DRY SALIVA CLCT (ORB OPS, SDBI)
- EVA PREP FOR TRANSFER TO ISS
  (EVA, AIRLOCK CONFIG)
- MEAL
- MIDDECK XFER PREP
  Ref. Transfer List,
  Resupply item 30.1

MS4 WOLF

- EMU CHECKOUT (EVA, CHECKOUTS)
  Perform for 2 EMUs;
  Stow LCVGs in ECOKS when cmplt
  MCC will TMBU S/W limits,
  Steps 1 & 100
- DRY SALIVA CLCT (ORB OPS, SDBI)
- EVA PREP FOR TRANSFER TO ISS
  (EVA, AIRLOCK CONFIG)
- MEAL
- MIDDECK XFER PREP
  Ref. Transfer List,
  Resupply item 30.1

MS5 KOPRA

- EMU CHECKOUT (EVA, CHECKOUTS)
  Perform for 2 EMUs;
  Stow LCVGs in ECOKS when cmplt
  MCC will TMBU S/W limits,
  Steps 1 & 100
- EVA PREP FOR TRANSFER TO ISS
  (EVA, AIRLOCK CONFIG)
- MEAL
- EXERCISE

NOTES

STS-127 FD (02)

GMT Date 07/16 (197) | W | TDRS E | Z | D/N | DORB | ORB | MET Day 001 | STS ATT

CDR POLANSKY

- 00:00 OBSS LDRI/IDC RCC SURVEY - PORT (PDRS, OBSS OPERATIONS)
- MNVR (TRK) -ZLV -XVV
  TG=2 BV=3 OM=0
  A14/AUTO/VERN,
  RCC SURVEY-PORT Step 11 cmplt, Init TRK
- I'CNCT TK SWITCH: From R to L OMS FEED(OPCL,RCS)
- LOW BACK PAIN QUEST (ASSY OPS, PAYLOADS)
- -ZLV -XVV
- EXERCISE
- PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)
- 02:00 ON-ORBIT +X RCS BURN (ORB OPS, RCS)
- NC3
- < NC3 TIG (02:28)
- MNVR (TRK) -ZLV -XVV
  TG=2 BV=3 OM=0
  A1/AUTO/VERN Init TRK
- FUTURE LOADED MNVR (TRK) -ZLV +YVV (SIMO DUMP)
  TG=2 BV=3 OM=270
  A1/AUTO/VERN (13:05) Init TRK
- 03:00 I'CNCT RETURN (OPS 2,3) (OPCL,RCS)
- PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)
- -ZLV -XVV
- 04:00

PLT HURLEY

- OBSS LDRI/IDC RCC SURVEY - PORT (PDRS, OBSS OPERATIONS)
- OBSS BERTH (PDRS, OBSS OPERATIONS) Record Camera D
- FCMS OPS (ORB OPS, EPS)
- A15 APCU 1,2 CONV(two) - ON
- ON-ORBIT +X RCS BURN (ORB OPS, RCS)
- LOW BACK PAIN QUEST (ASSY OPS, PAYLOADS)
- PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)

MS2 PAYETTE

- OBSS LDRI/IDC RCC SURVEY - PORT (PDRS, OBSS OPERATIONS)
- OBSS BERTH (PDRS, OBSS OPERATIONS) Record Camera D
- LOW BACK PAIN QUEST (ASSY OPS, PAYLOADS)
- PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)
- RNDZ TOOLS CHECKOUT (RNDZ, RNDZ TOOLS)
- PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)

NOTES

- TFL 192
- TFL 188

STS-127 FD (02)

GMT Date 07/16 (197) | W | TDRSE | Z | D/N | DORB | ORB | MET Day 001 | STS ATT

MS1 CASSIDY	MS3 MARSHBURN	MS4 WOLF	MS5 KOPRA	NOTES
FUEL CELL PURGE - MANUAL (ORB OPS, EPS)	MIDDECK XFER PREP Ref. Transfer List, Resupply item 30.1	MIDDECK XFER PREP Ref. Transfer List, Resupply item 30.1	EXERCISE	
	DRY SALIVA CLCT (ORB OPS, SDBI)	EXERCISE		
	C/L CAMR INSTALL (PHOTO/TV, C/L CAMR) Skip ML60B, ODS, & CL Camr steps	DRY SALIVA CLCT (ORB OPS, SDBI)	PLAYBACK (DIGITAL) (PHOTO/TV, CUE CARD) LDRI SURVEYS KU TDRE (00:57-01:51)	
WLES RNDZ TOOLS C/O PREP (ORB OPS,WLES)	DOCKING MECH INITIALIZATION	C/L CAMR INSTALL (PHOTO/TV, C/L CAMR) Skip ML60B, ODS, & CL Camr steps		
RNDZ TOOLS CHECKOUT (RNDZ, RNDZ TOOLS)	DOCKING MECH POWERUP	DOCKING MECH INITIALIZATION		
	DOCKING RING EXTENSION	DOCKING MECH POWERUP		
	DOCKING MECH POWERDOWN (RNDZ, APDS)	DOCKING RING EXTENSION		
		DOCKING MECH POWERDOWN (RNDZ, APDS)		
	LOW BACK PAIN QUEST (ASSY OPS,P/L)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)			
RECONFIG OCA DWNLK RATE C				
PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)				

C After Crew Choice D/L cmplt:
L10 MUX/VTR/CC PWR - ON (LED ON)
RECONFIGURE OCA D/L RATE (PL Max)
(ORB OPS, PGSC) Part C, omit Step 4
L10 MUX/VTR/CC PWR - OFF (LED OFF)

Time scale: 23:00, 00:00, 01:00, 02:00 (GMT); 00:00, 01:00, 02:00, 03:00, 04:00 (MET)

STS ATT: -ZLV -XVV; NC3; -ZLV -XVV

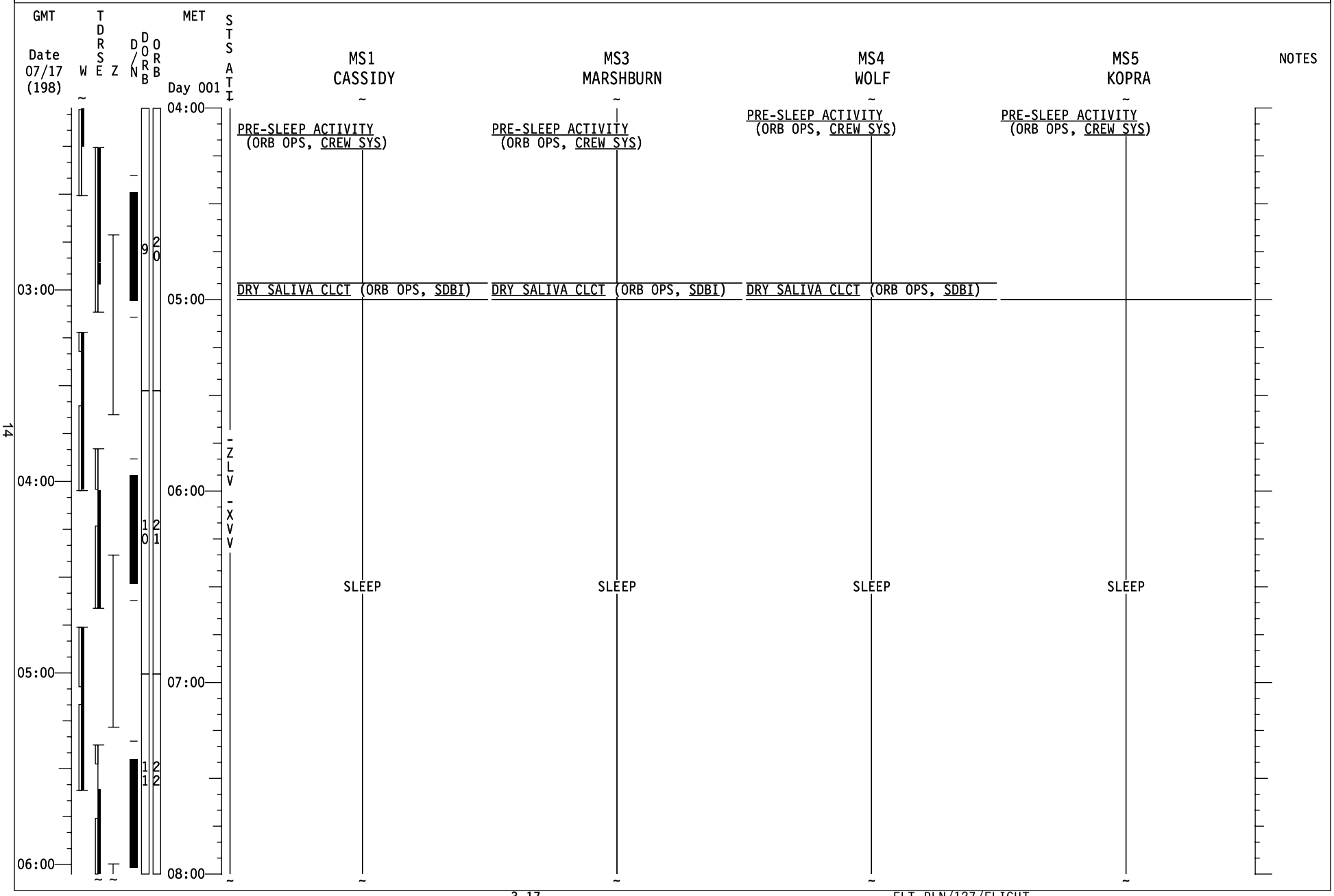
DORB: 6, 7, 8; ORB: 17, 18, 19

STS-127 FD (02)

GMT Date 07/17 (198)	W	TDRSE	Z	D/N	DORB	ORB	MET Day 001	STS ATT	CDR POLANSKY	PLT HURLEY	MS2 PAYETTE	NOTES
							04:00		PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
									PRIVATE MEDICAL CONFERENCE Perform via A/G 2			
									PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)			
					9	20						
03:00							05:00					
								-ZLV				
04:00							06:00	-XVV				
					10	21			SLEEP	SLEEP	SLEEP	
05:00							07:00					
					11	22						
06:00							08:00					

REPLANNED

STS-127 FD (02)



Good Morning Endeavour!!!

It is SO good to see all of you on orbit!!!

Have a great day!

Have a great flight!!!

YOUR CURRENT ORBIT IS: 128 X 99 NM

NOTAMS:

NOTAMS - NO CHANGE

EDW - EDW IN USE. EDT ELS DAY / VFR ONLY.
EDW - LAKEBED RWY 15/33 - GREEN. RWY 18L - UNUSABLE.
NOR - LAKEBED RUNWAYS GREEN.
GUA - RWY 24R END LIGHTS OTS.
GUA - RWY 06R/24L CLOSED.
INN - CLOSED.
IKF - NOT USABLE. NO AGREEMENT.
BEN - NOT RECOMMENDED/NOT SUPPORTED.

NEXT 2 PLS OPPORTUNITIES:

NOR17 ORB 17 – 1/00:34 FEW050 SCT120 BKN200 7 120/06P08
NOR17 ORB 33 – 2/00:20 SCT250 7 170/06P08

OMS TANK FAIL CAPABILITY:

POST NC-4 / PRE Ti:	STEEP	SHALLOW
L OMS FAILS:	NO	YES
R OMS FAILS:	YES	YES

LEAKING OMS PRPLT BURN:

PRE Ti:
L OMS LEAK: ALWAYS BURN OUT OF PLANE ASAP
R OMS LEAK: ALWAYS BURN OUT OF PLANE ASAP

POST Ti:
L OMS LEAK: ALWAYS BURN RETRO ASAP
R OMS LEAK: ALWAYS BURN RETRO ASAP

OMS QUANTITIES(%)

Subtract interconnect counter for current OMS quantities.

POST NC2:
L OMS OX = 64.1 R OMS OX = 61.7
FU = 63.7 FU = 61.3

POST NH / PRE NC-4:
L OMS OX = 49.7 R OMS OX = 47.6
FU = 49.2 FU = 47.2

AT DOCK :
L OMS OX = 38.8 R OMS OX = 38.4
FU = 38.4 FU = 38.1

DELTA V AVAILABLE:

	POST NC2	POST NH / PRE NC-4	AT DOCK
OMS	617 FPS	471 FPS	369 FPS
ARCS (TOTAL ABOVE QTY1)	56 FPS	56 FPS	31 FPS
TOTAL IN THE AFT	673 FPS	527 FPS	400 FPS
ARCS (TOTAL ABOVE QTY2)	84 FPS	84 FPS	60 FPS
FRCS (ABOVE QTY 1)	52 FPS	51 FPS	40 FPS
AFT QTY 1	92 %	92 %	87 %
AFT QTY 2	55 %	54 %	49 %

SYSTEM	FAILURE	IMPACT	WORK AROUND
PDRS1	Transient MDA Demand Voltage BITE for WR	Autobrakes are set.	RMS SEL – OFF then PORT to clear transient BITE

END OF PAGE 2 OF 2, MSG 004

TASK PROCEDURE UPDATES

All EVAs

Tool Config: Due to limited number of 6” sockets there is no 6” socket on the socket caddy in the IV bag.

Please make the following pen and inks.

Battery Cue Card 2

(Page FS CC 7-183 (FQ) in EVA FS Checklist)

IEA Bolt Data

Was:

IEA Bolt Data								
Slot			H1		H2		W	APFR
			Torque	Turns	Torque	Turns		
EVA 3	1	Remove 1					30	12, QQ,F,12
		Install A						
	4	Remove 2					30	12, QQ, C, 6
		Install D						
	3	Remove 3					26	12, QQ, F, 12
		Install C						
	2	Remove 4					26	12, RR, J, 12
		Install B						
EVA 4	5	Remove 5					18	12, QQ, F, 12
		Install E						
	6	Remove 6					22	12, QQ, C, 1
		Install F						

Is: (updating Slot 4 and 2 callouts)

IEA Bolt Data								
Slot			H1		H2		W	APFR
			Torque	Turns	Torque	Turns		
EVA 3	1	Remove 1					30	12, QQ,F,12
		Install A						
	4	Remove **4**					30	12, QQ, C, 6
		Install **B**						
	3	Remove 3					26	12, QQ, F, 12
		Install C						
	2	Remove **2**					26	12, RR, J, 12
		Install **D**						
EVA 4	5	Remove 5					18	12, QQ, F, 12
		Install E						
	6	Remove 6					22	12, QQ, C, 1
		Install F						

Block A

Step 8

Was: release H1 5-6 turn

Is: release H1 10 turns, expect release by 6 turns

Step 10

Was: release H2 16-17 turn

Is: release H2 20 turns, expect release by 17 turns

Block C

Step 3
Was: release H1 5-6 turn
Is: release H1 10 turns, expect release by 6 turns

Step 5
Was: release H2 16-17 turn
Is: release H2 20 turns, expect release by 17 turns

<u>EVA 4</u>

Page 7-127, EV2

Step 11
Was: Release H1 5-6 turns
Is: Release H1 10 turns, expect release by 6 turns

Step 13
Was: Release H2 16-17 turns
Is: Release H2 20 turns, expect release by 17 turns

Page 7-128, EV1

Step 19
Was: release H1 5-6 turns
Is: release H1 10 turns, expect release by 6 turns

Step 21
Was: Release H2 16-17 turns
Is: Release H2 20 turns, expect release by 17 turns

Page 7-128, EV2

Step 26
Was: release H1 5-6 turns
Is: release H1 10 turns, expect release by 6 turns

Step 28
Was: release H2 16-17 turns
Is: release H2 20 turns, expect release by 17 turns

Page 7-129, EV1

Step 38
Was: release H1 5-6 turns
Is: release H1 10 turns, expect release by 6 turns

Step 40
Was: release H2 16-17 turns
Is: release H2 20 turns, expect release by 17 turns

<u>EVA 5</u>

Page 7-152 Add the following:

Crewlock Zenith Handrail (if too crowded; report where stowed)

□ □ RET Lg-sm

□ □ DRT

□ □ RET Lg-sm

□ □ DRT

Page 7-161 Add the following:

EV1

3a. Transfer WETA/J bag to EV2

EV2

7a. Receive WETA/J bag; temp stow at A/L

Page 7-164 Add the following:

EV1

2a. Xlate to A/L

2b. Retrieve WETA/J bag

6. Temp stow WETA/J bag

Page 7-170 Delete the following:

EV2

WETA Retrieval steps 1-8

STS-127 MIDDECK STOWAGE (Cont)

FORWARD LOCKERS (Cont)

MF57H

Bags
- Helmet (2)
- Inflight Stowage Restraint (9)
- Jettison Stowage (7)

Bungee, Adjustable (10)
Canister, WCS (Coffee Can)
Covers
- HUD (2)
- Parachute (7)

Hoses
- Personal Hygiene
- WCS Canister

Kit, Comm
- Cable, Comm 4 ft
- Cable, Comm 14 ft
- Microphone, Handheld
- VLHS (2)

Kit, SEE
Mirror, Personal Hygiene (2)
PIP Pin
- O2 Bleed Orifice
- PIP Pin (12)
- PIP Pin, Egress Pole (Spare)

Switch Guard
Tape
- Gray, 1 in
- Gray, 2 in

MF57H

(Cont)
Wipes, Disinfectant (1 pkg)
Ziplock Bag, 12x12 (8)
Ziplock Bag, 8x8 (20)

MF57K

Plug Attach Bolt (4)
Plug Attach Bolt, Bottom Body Halve (4)
Plug Attach Bolt, Top Body Halve (4)
Plug Tethers (3)
RCC Plug Cover Plate (18)
T Barrel Nuts (4)
T-Bar (4)
Universal Repair Plug

MF57M

Clothing, MS5 UP
Clothing, MS5 DN

MF57O

ISS Food | ISS Food

MF71C

ISS Food | ISS Food

MF71E

Clothing, MS2
Clothing, MS2

MF71G

Crew Support

MF71H

Clothing, PLT
Clothing, PLT

MF71K

Bungee, Adjustable (5)
Dry Wipes, Multipurpose (15pkg)
Liner, Dry Trash Bag (20)
Printer
Trash Bag, Dry
Trash Bag, Menu Food (20)

MF71M

ISS Food | Clothing, MS4

Microbial Check Valve (MCV)

STS-127 MIDDECK STOWAGE (Cont)

AFT LOCKERS (Cont)

MA9N

Kit, Personal Hygiene (PHK) (7)
Bracket Clamp (2)
Bracket, Multiuse (3)
Chem lights
- Green (27)
- Red (28)

Desk, PGSC (3)
Kit, Contaminant Cleanup
Fiberscope Light Source
Fiberscope, Video
Kit, Fluid Loading (2)
Restraints
- Foot Loop (Spare) (6)
- Seat (Spare) (2)

Trash Bag, WMC (Spare)

MA16D

Bag, Chemical Resistant (2)
Bottle, Air Sample (2)
Breaker Bar (Pallet Removal)
Breakout Box
Cartridge Nozzle
Duxseal
Extension, 4 in
Filter, Waste Water Dump

MA16D

(Cont)
IFM Fastener Retainer Cushion
Kits
- Foam Applicator (2)
- RMS D&C IFM

Lubricant
Turnbuckle (3)

MA16F

Bag, CHeCS

MA16G

Audio Dosimeter
Batts
- AA (30)
- Li-ION (10)

Bends Treatment Adapter (BTA)
Camera, D2XS w/Card
COAS
- Bracket Adapter (2)
- Filter, NI-CR

Light Shade (2)
Worklight (2)

MA16J

ISS Food | ISS Food

MA16L

ISS Food | ISS Food

MA16N

BAL/UNBAL Transformer
Batt Cap/Fuse (LIDAR)
Batts
- AA
- BPSMU (2)
- LIDAR (2)

BPSMU (2)
Cables
- BNC to BNC
- BPSMU to CCU Adapter (2)
- LIDAR I/F (2)
- PCS-PDIP 1553 Orbiter
- PGSC Pwr, 6 ft
- SSV to PDIP/CIP (2)
- Kits
  - Medical Accessory
  - SSV Fuse

LIDAR w/Nightscope
SSV Compression Encoder

STS-127 MIDDECK STOWAGE (Cont)

LiOH VOL (MD52M)

Canisters
- ATCO
- LiOH (29)

Gloves, Nitrile (40)
G-Suit (6)
Mask, Surgical Filter (30)

EXTERNAL AIRLOCK

PORT
- EMU – EV2 (see EVA C/L)

STBD
- EMU – EV1 (see EVA C/L)

AIRLOCK FLOOR BAG

Crew Care Pkg (4)
Crew Preference
Hygiene, Kopra
ISS Food, Half CTB (7)

VOL H (MD23R)

INBOARD
- See EVA C/L

OUTBOARD
- See EVA C/L

MA12B (WINDOW SHADE BAG)

Bag, Window Shade
- Bag, IFM Cont Hose and Cable Kit
  - Adapter, Red/Yellow
  - Cables
    - AC Pwr Cont Transfer, 15 ft
    - AVIU Adapter, 1 ft
    - DC Harness, 24 ft (2)
    - DC Pigtail Connector (2)
    - MCIU Data, 10 ft
    - MCIU to PNL L15, 6 ft
    - Minicam Extension, 13 ft
    - Minicam Orbit, 10 ft
    - OCA Spare
    - PPOV Teac Wye
  - Clamp, Various Sizes (14)
  - Connector , Spring (3)
  - Connector, Spring/flange (3)
  - Gloves, Clean Room
  - Hoses
    - 1/4 in (6 ft)
    - 3/8 in (6 ft)
    - Cont Blue/Blue
    - Cont Red/Red
    - Cont Yellow/Yellow (Sterile), 8ft w/3/8 in Male/Male “-002” Adapter (2)
    - CWC Contingency, 20 ft (2)
    - O2 Contingency
- Kit, Parachute Repack (2)
- Protective Cover Wireway (3)

MA12B (WINDOW SHADE BAG)

(Cont)
Bag, Window Shade (Cont)
- Shade, CCTV Monitor (2)
- Screw, Socket Head Cap (3)
- Spring (3)
- VPMP Panel Cover (2)
- Water Equipment
  - Filter, Wand Extender
  - Galley Needle (Spare)
  - Separator, Water/Gas (2)
  - Supply Water Dump Line Purge Device
  - Water Dispenser, Contingency
- Window Shade, Ovhd (2)
- Window Shade, Aft (2)
- Window Shield, Ovhd (2)
- Ziplocks for CWC, 36x36 (10)

STS-127 MIDDECK STOWAGE (Cont)

MIDDECK CEILING

BAG E (Port 1)
- ACES (MS5 DN)
  - Bag, Suit Stowage
  - Boots
  - CCA
  - Gloves
  - G-Suit
  - Harness
  - LCG
- Chair, NADA
- Clothing, CDR
- Clothing, MS4
- Clothing, MS5
- PHK, Community
- RSK Rail 6
  - Bushing
  - Headrest, RSK
  - ICU Bracket (2)
  - ICU Strap
- Towels, Lintless (24)
- Washcloths (100)

BAG F (Port 2)
- Card, PCMCIA (5)
- IELK
  - Shoes, Athletic
  - Shoes, Cycling

MIDDECK CEILING

(Cont)

BAG G (Stbd 1)
- Bag, Jettison Stowage
  - Discrete Jumper Cables 1 & 2
  - Kits
    - Blood Collection
    - Urine Collection (UCK)
    - Water
  - Wire Harness
- Batt, EMU (3)
- Charger, Batt
- Cables
  - BDS Pwr
  - EFBM Contingency Sensor Cable
  - JEM BEP Jumper
- Camera, D2XS
- CCC (6)
- CWC-I (8)
- FRED
- Glacier Fan/Screws
- Glacier Blower
- SAFER Hand Control Mount
- Wire Ties, 32in (20)

MIDDECK CEILING

(Cont)

BAG H (Stbd 2)
- ARED Dash Pot
- CAP ISS2, LTAB
- CCA (EMU)
- Cover, Arm Wrist Leg Protective (8)
- DOSIS
- ECOK
- EVA Receptacle Cover (2)
- Gloves, Phase VI (2 pr)
- Hex Drive, ¼ in w/6 in extension
- ISS Food
- LCVG w/Biomed
- LWR Arm (2)
- MUT EE

STS-127 MIDDECK STOWAGE (Cont)

MIDDECK FLOOR

BAG A (Port 1)
- Contingency UCD (6)
- Cover, Arm Wrist (8)
- DIDB (16)
- ECOK (2)
- Entry Garments
- Equipment Tether, Adjustable w/Slide Lock (6)
- Equipment Tether, Retractable w/Slide Lock (11)
- ERADK
- Eyeglasses
- Fecal Collection (2)
- Gloves, Phase VI (4 pr)
- Kit, Contact Lens
- LCVG w/Biomed
- MMWS Tool Stowage Caddy
- Modular Mini Workstation (MWS) Key Strap
- MWS (2)
- PEEL (4)
- Safety Tether, 85 ft (2)
- Tether, Body Restraint
- Tether, Waist w/Slide Lock (2)
- Trash Bag, Large EVA
- Wolf A/L Clothing

MIDDECK FLOOR

(Cont)

BAG B (Port 2)
- CTB, Water Transfer
- CWC-I (7)
- OGA FSE

BAG C (Stbd 1)
- Air Sample Bottles
- Clothing, Kopra
- Crew Preference, ISS
- Flag, ESA
- ISS Food (4)
- LIDAR w/Night Scope
- Manifold, Product Tee
- RFTA Contingency Hose

BAG D (Stbd 2)
- CWC-I (5)
- ISS Food (2)
- Recycle Filter Tank

Due to the launch slips, the Russian vehicle configuration during docked operations is different than documented in the ORB OPS FS. As a result, the following pen and ink changes need to be made prior to docking. Changes are <u>underlined</u>.

Note: SPEC 20 updates are not required. Onboard I-Loads are correct for current vehicle configuration.

On pages FS3-5, FS3-7, and DAP Config. CC:

DAPs A11, A12, A13, B12, B13 CNTL ACC:

Was: **4**(**5**)[2]

Is: <u>2</u>(<u>3</u>)[2] (Note: These are the I-load values.)

At the bottom of the DAP Table, two changes per line:

Was:

[2] CA4 - MT/SSRMS/ICC not at Worksite 8, RS vehicle SM AFT
CA5 - MT/SSRMS/ICC at Worksite 8, RS vehicle SM AFT

Is:

[2] <u>CA2</u> - MT/SSRMS/ICC not at Worksite 8, <u>No</u> RS vehicle SM AFT
<u>CA3</u> - MT/SSRMS/ICC at Worksite 8, <u>No</u> RS vehicle SM AFT

On page FS4-4:

Was: Configuration 1 is ALT PRCS only (Pitch, X=17°)

Is: Configuration 1 is ALT PRCS only (Pitch, X=<u>19</u>°)