STS-125

FD 06 Execute Package

MSG	Page(s)	Title
039A	1 - 13	FD06 Flight Plan Revision **(pdf)**
040	14 - 15	FD06 Mission Summary **(pdf)**
041A	---	FD05 MMT Summary **(pdf - Electronic Only)**
042	16 - 18	Updated EVA Consumables Cue Card **(pdf)**
043	19	Pen & Ink Changes to ACS Repair-Completion **(pdf)**
044	20	FD06 IMAX Notes **(pdf)**
045	21	FD06 Crew Choice D/L Opportunities **(pdf)**

Approved by FAO: *Jennifer Clevenger*

Last Updated: May 16 2009 8:54AM GMT
JEDI *(**J**oint **E**xecute package **D**evelopment and **I**ntegration), v2.04.0003*

Isthay Agepay Intentionallyway Eftlay Ankblay

MSG 039A - FD06 FLIGHT PLAN REVISION

MSG INDEX

MSG NO.	TITLE
039	FD06 Flight Plan Revision
040	FD06 Mission Summary
041	FD05 MMT Summary
042	Updated EVA Consumables Cue Card
043	Pen & Ink Changes to ACS Repair – Completion
044	FD06 IMAX Notes
045	FD06 Crew Choice D/L Opportunities

1. Post Sleep Cryo Config
   R1 O2,H2 MANF VLV TK1 (two) - OP (tb-OP)

2. EVA Questions
   a) We are nearly certain that you installed all 6 caps on the battery that was removed from Bay 2, but we don't have clear confirmation in the logs or video. Since an uncapped energized connector is considered an ignition hazard for landing (even under the MLI), would you please confirm that all 6 battery caps were installed?

   b) Please report/comment on any fitcheck problems you experience with hardware installed in bayonets.

   c) We would like your confirmation that there is no debris/contamination or sharp edge concern due to the scoring on the Hybrid Ext from the WFPC 2 A-latch pawls (Ref. MSG 028). If either of these are the case, please treat that extension as a spare.

3. MSG 042 contains the updated EVA Consumables CC and explanation on the revised plan.

4. MSG 043 contains Pen & Inks to the ACS Repair - Completion task needed for today's EVA.

5. John's and Drew's gloves from EVA 1 are GO for EVA3. We are aware that Drew will be going to his backup pair for EVA3. John, please confirm you will be utilizing your backup pair per the preflight plan.

6. The glove team has identified some peeling material (thread sealant) on the back of the index fingers which could cause potential FOD. MSG 037 shows an example of the material and direction for removal. Please check all EVA gloves before future use.

7. REPLACE PAGES 2-12 THROUGH 2-13 AND 3-56 THROUGH 3-65.

END OF PAGE 1 OF 13, MSG 039A

GMT 05/16/09 (136)
β = −9
MET Day 004

12 13 14 15 16 17 18 19 20 21 22 23 005/00

STS-125

CDR/R2 ALTMAN	SLEEP; LOG; POST SLEEP; PMC A/G; 10.2M; POST SLEEP; FES-I; POST SLEEP; R5R^; P/TV 06 S/U; G2 EXP; ROT*; SUNRS; SUNSET; PRTCT; SUNRST; PRTCT; SUNSET; PRTCT; SUNRS; PRTCT; SUNSET; PRTCT
PLT JOHNSON	SLEEP; POST SLEEP*; BATT#; EVA PREP; HL/PGT; REBA-T; P/TV03 ROTATE & DPRS; -V2 SURVEY; OPS/TV06; ICBC5; OPS/TV06; ICBC9; ICBC10; P/TV06 EVA 3 OPS; ICBC11; ICBC12; P/TV06 EVA 3 OPS; ICB13A; OPS/TV06; ICBC13; ICBC4A; P/TV06 EVA 3 OPS
MS1/EV4 GOOD	SLEEP; ASPRN; POST SLEEP; EVA PREP; PURGE; EMU PRE BREATHE; DPRS; PDPS; EXERCISE; IVA EVA 3 SUPPORT
MS2/R1 McARTHUR	SLEEP; LOG; POST SLEEP*; OCA+; POST SLEEP; EXERCISE; POST; ROT*; EVA SETUP; RMS COS SUPPORT; RMS ACS SUPPORT
MS3/EV1 GRUNSFELD	SLEEP; ASPRN; POST SLEEP; EVA PREP; PURGE; EMU PRE BREATHE; DPRS; PDPS; EGRESS & SETUP; COS; ACS PART I
MS4/EV3 MASSIMINO	SLEEP; ASPRN; POST SLEEP; EVA PREP; PURGE; EMU PRE BREATHE; DPRS; EVA 3 (6:30); IVA EVA 3 SUPPORT; COS/ACS; EXERCISE; IVA EVA 3 SPRT
MS5/EV2 FEUSTEL	SLEEP; ASPRN; POST SLEEP; EVA PREP; PURGE; EMU PRE BREATHE; DPRS; PDPS; EGRESS & SETUP; COS; ACS PART I

HST

HST CMD	ACS; PREHT; SSR ENGNR PLAY BACK; JES1M; COS; PREP; COS A/T; SAFE; ACS*

STS

DAY/NIGHT	
ORBIT	69; 70; 71; 72; 73; 74; 75; 76; 77
TDRS W	
TDRS E	
TDRS Z	
ORB ATT	BIAS -ZLV -XVV; SUN PROTECT
HST FWD AXIS	-V3 FWD; -V2 FWD
SA ANGLE	0 deg

HST

NOTES: *HUM SEP; #CHECK +CH 2; ^RESELECT *-V2; *PWR DN

-V2 AFT SHROUD DOOR OPEN

GMT 05/16/09 (136) β=-8 MET Day 005

005/00 19/01 20/02 21/03 22/04 23/05 05/17/06 01/07 02/08 03/09 04/10 05/11 06/12

STS-125	CDR/R2 ALTMAN	SUNRS; PRCT; -ZLV; -XVV; ROT*; G2CON; 10.2M; IMU; R5R*; EVA 4 PROCEDURE RVW; FEST; PRE SLEEP; PMC A/G; PRE SLEEP; 10.2M; SLEEP
STS-125	PLT JOHNSON	P/TV06 EVA 3 OPS; P/TV05 -V2 SURVEY; P/TV 03 FSS ROT; EXERCISE; BATT#; HLPGT/BIANTT; WCS+; FLTR CLN - INSPECT; HDTV; EVA 4 PROCEDURE RVW; ICBC; PRE SLEEP; BATT*; PRE SLEEP; SLEEP
STS-125	MS1/EV4 GOOD	IVA EVA 3 SUPPORT; PRPS; RPRS; POST EVA W/H2O; LIOHT&/BIANTTL; EMU SWAP; REBA-I; PRE; SLEEP; EVA 4 PROCEDURE RVW; PRE SLEEP; SLEEP
STS-125	MS2/R1 McARTHUR	RMS ACS SUPPORT; MFR EGRS; PARK; ROT*; EVA 4 PROCEDURE RVW; PRE SLEEP; PDIP+; PRE SLEEP; SLEEP
STS-125	MS3/EV1 GRUNSFELD	ACS PART I; CLOSEOUT & INGRESS; PRPS; RPRS; POST EVA W/H2O; LIOHT&/BIANTTL; EMU SWAP; REBA-I; D2X; EVA 4 PROCEDURE RVW; PRE SLEEP; SLEEP
STS-125	MS4/EV3 MASSIMINO	IVA EVA 3 SPRT; RPRS; POST EVA W/H2O; EVA 4 TOOL CONFIG; PRE; SLEEP; EVA 4 PROCEDURE RVW; PRE SLEEP; SLEEP
STS-125	MS5/EV2 FEUSTEL	ACS PART I; CLOSEOUT & INGRESS; PRPS; RPRS; POST EVA W/H2O; EVA 4 TOOL CONFIG; EVA 4 PROCEDURE RVW; PRE SLEEP; OCA#; PRE SLEEP; SLEEP
HST	HST CMD	ACS*; J60; EOM; COS F/T; COS F/T DUMP; SI; SSR ENGNR PLAY BACK
STS	DAY/NIGHT	
STS	ORBIT	77; 78; 79; 80; 81; 82; 83; 84
STS	TDRS W E Z	
STS	ORB ATT	-ZLV -XVV
HST	HST FWD AXIS	-V2 FWD; -V3 FWD
HST	SA ANGLE	0 deg
	NOTES	*PWR ON; *-V3; #TERM; +FILTER CK; *DESELECT; *INIT; +OFF; #PL MAX

STS-125 (FD06)

REPLANNED

GMT Date 05/16 (136) | W | T D R S E | Z | D/N | O R B | MET Day 004 | STS ATI

CDR ALTMAN | PLT JOHNSON | MS2 McARTHUR | HST CMD | NOTES

12:00 — 13:00 — 14:00 — 15:00 — 16:00

07:00 — 08:00 — 09:00 — 10:00

69 — 70 — 71 — 72

BIAS -ZLV -XVV

SLEEP (CDR)

SLEEP (PLT)

SLEEP (MS2)

SLEEP LOGBOOK (SDBI 1634)
POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

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

SLEEP LOGBOOK (SDBI 1634)
POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)
√HUM SEP for H2O accumulation

FD06 EZ ACTIVITIES:
TEPC (ORB OPS, CREW SYSTEMS)
Check Status
Hard reboot all PGSCs not shut down overnight, except: STS6 (RPOP2) and STS7 (WLES)

ACS PRE-HEAT

SSR ENGINEERING PLAYBACK

UPLINK
KU CH 2 -HST

UPLINK
KU CH 2 -RNS

STS-125 (FD06)

REPLANNED

GMT Date 05/16 (136) | W | T D R S E | Z | D / N | O R B | MET Day 004 | STS ATI

MS1 GOOD | MS3 GRUNSFELD | MS4 MASSIMINO | MS5 FEUSTEL | NOTES

07:00 08:00 09:00 10:00

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

69 70 71 72

BIAS-ZLV-XVV

SLEEP | SLEEP | SLEEP | SLEEP

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

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

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

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

STS-125 (FD06)

REPLANNED

GMT Date 05/16 (136) | W E Z | T D R S | D/N O R B | MET Day 004 | STS ATT

CDR ALTMAN

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

O6 √UHF MODE - OFF
L9 PAYLOAD STATION AUDIO A/G (two) - OFF
PRIVATE MEDICAL CONFERENCE

10.2 PSI MAINTENANCE
(EVA, 10.2 PSI CBN) Step 3 only

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

17:00
SUPPLY WATER DUMP USING FES
(ORB OPS, ECLS)
Step 1 only, using FES PRI A

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

18:00
R5R RESELECT A

P/TV06 HST EVA
(P/TV, SCENES)
SETUP

G2 SET EXPANSION (ORB OPS, DPS)
Configure Dual G2, (1212)

ROTATE HST (-V3 to -V2)
(PL OPS, IN-BAY OPERATIONS)

19:00
MNVR (TRK) BIAS +ZVV (SR Protect)
TG=2 BV=5 P=156 Y=0 OM=6
A10/AUTO/VERN (4/19:55) Init TRK

20:00

PLT JOHNSON

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

√EMU Battery charging

EVA PREP
(EVA, EVA PREP)

HELMET LIGHT/PGT BATT RCHRG (TERM)
(EVA, EMU MAINT/RECHARGE)

REBA BATTERY RECHARGE (TERM)
(EVA, EMU MAINT/RECHARGE)

P/TV03 FSS OPS (SETUP & OPS)
(P/TV, SCENES)
Rotate & Depress - Items 2 & 4

P/TV05 HST SURVEY (OPS)
(P/TV, SCENES)
-V2 Survey - Items 7 (pre-EVA) & 9
When complete, load image card into PGSC and notify MCC.

P/TV06 HST EVA (OPS)
(P/TV, SCENES)
EVA 3 - Items 1,9,10

P/TV09 ICBC3D (FILMING OPS)
(P/TV, SCENES) Scene 5 Ref. MSG 044

P/TV06 HST EVA (OPS)
(P/TV, SCENES) EVA 3 - Items 1,9,10

MS2 McARTHUR

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

L10 MUX/VTR/CC PWR - ON (LED ON)
RECONFIGURE OCA D/L RATE (Ch. 2)
(ORB OPS, PGSC)
Part D then A, omit Step 4

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

EXERCISE

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

ROTATE HST (-V3 to -V2)
(PL OPS, IN-BAY OPERATIONS)

DAILY SETUP
(PDRS, EVA SETUP)

COS
(PDRS, EVA 3)

HST CMD

A GNC 23 RCS
CRT RCS R - ITEM 3 EXEC (*)
JET DES R5R - ITEM 37 EXEC (no*)

ESM PREP FOR J11 CONNECTION
ESM PREP FOR COS INSTALLATION
COS/COSTAR CHANGEOUT
(INCLUDES PREP & CHECK-OUT)

NOTES

UPLINK
PDI FDA -ENA

UPLINK
β21 + Mask
Boxes 1,2,3,4

STS-125 (FD06)

REPLANNED

GMT Date 05/16 (136) | W E Z | D/N | ORB | MET Day 004 | STS ATI

MS1 GOOD | MS3 GRUNSFELD | MS4 MASSIMINO | MS5 FEUSTEL | NOTES

16:00 — 17:00 — 18:00 — 19:00 — 20:00

11:00 — 12:00 — 13:00 — 14:00

72 — 73 — 74

BIAS-ZLV-XVV

	MS1 GOOD	MS3 GRUNSFELD	MS4 MASSIMINO	MS5 FEUSTEL
	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)
	EVA PREP (EVA, EVA PREP)	EVA PREP (EVA, EVA PREP)	EVA PREP (EVA, EVA PREP)	EVA PREP (EVA, EVA PREP)
	EMU PURGE (EVA, EVA PREP)	EMU PURGE (EVA, EVA PREP)	EMU PURGE (EVA, EVA PREP)	EMU PURGE (EVA, EVA PREP)
	EMU PREBREATHE (EVA, EVA PREP)	EMU PREBREATHE (EVA, EVA PREP)	EMU PREBREATHE (EVA, EVA PREP)	EMU PREBREATHE (EVA, EVA PREP)
	DEPRESS (Cue Card, DEPRESS/REPRESS)	DEPRESS (Cue Card, DEPRESS/REPRESS)	DEPRESS (Cue Card, DEPRESS/REPRESS)	DEPRESS (Cue Card, DEPRESS/REPRESS)
	POST DEPRESS (CC, DPRS/RPRS)	POST DEPRESS (CC, DPRS/RPRS)		POST DEPRESS (CC, DPRS/RPRS)
	EXERCISE	EGRESS/DAILY SETUP	IVA EVA 3 SUPPORT	EGRESS/DAILY SETUP
		COS		COS

STS-125 (FD06)

REPLANNED

GMT Date 05/16 (136) | W | TDRS E | Z | D/N | ORB | MET Day 004 | STS ATT

20:00 — 15:00 — 16:00 — 17:00 — 18:00

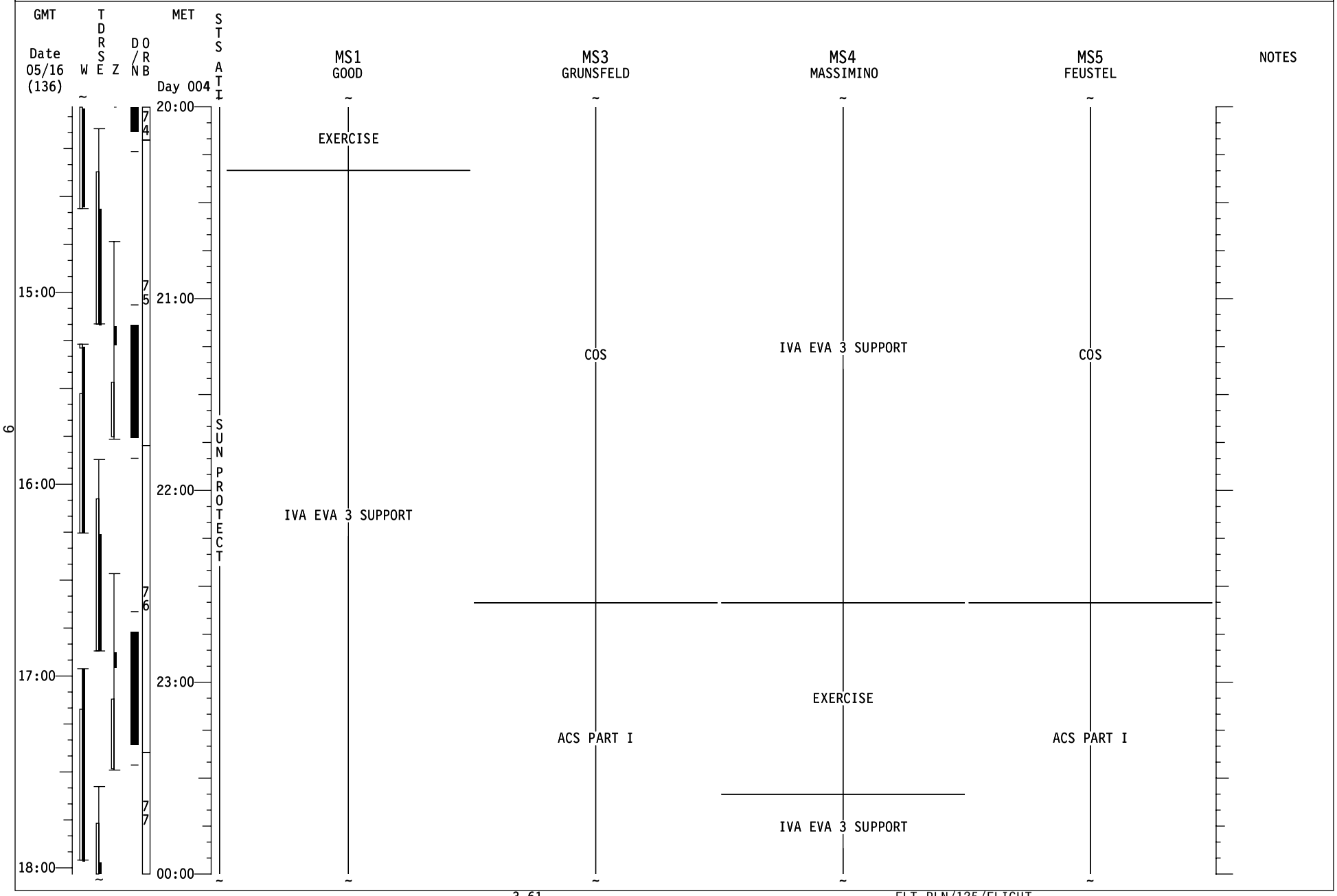
ORB: 74, 75, 76, 77

STS ATT: SUN PROTECT

CDR ALTMAN	PLT JOHNSON	MS2 McARTHUR	HST CMD	NOTES
			COS/COSTAR CHANGEOUT (INCLUDES PREP & CHECK-OUT)	
	P/TV06 HST EVA (OPS) (P/TV, SCENES) EVA 3 - Items 1,9,10	COS (PDRS, EVA 3)		
	P/TV09 ICBC3D (FILMING OPS) (P/TV, SCENES) Scene 9 Ref. MSG 044			
	P/TV09 ICBC3D (FILMING OPS) (P/TV, SCENES) Scene 10 Ref. MSG 044			
MNVR (INRTL) (SS Protect) R=282 P=332 Y=8 A10/AUTO/VERN(4/20:34)Init MNVR	P/TV06 HST EVA (OPS) (P/TV, SCENES) EVA 3 - Items 1,9,10			
	P/TV09 ICBC3D (FILMING OPS) (P/TV, SCENES) Scene 11 Ref. MSG 044			
MNVR (TRK) BIAS +ZVV (SR Prtct) TG=2 BV=5 P=156 Y=0 OM=6 A10/AUTO/VERN (4/21:10)Init TRK	P/TV09 ICBC3D (FILMING OPS) (P/TV, SCENES) Scene 12 Ref. MSG 044			
	P/TV06 HST EVA (OPS) (P/TV, SCENES) EVA 3 - Items 1,9,10			
			COS ALIVENESS TEST	
MNVR (INRTL) (SS Protect) R=282 P=332 Y=8 A10/AUTO/VERN (4/22:10) Init MNVR				
	P/TV09 ICBC3D (FILMING OPS) (P/TV, SCENES) Scene 13A Ref. MSG 044			
	P/TV06 HST EVA (OPS) (P/TV, SCENES) EVA 3 - Items 1,9,10	ACS PART 1 (PDRS, EVA 3)		
MNVR (TRK) BIAS +ZVV (SR Prtct) TG=2 BV=5 P=156 Y=0 OM=6 A10/AUTO/VERN (5/22:46)Init TRK	P/TV09 ICBC3D (FILMING OPS) (P/TV, SCENES) Scene 13 Ref. MSG 044			
	P/TV09 ICBC3D (FILMING OPS) (P/TV, SCENES) Scene 4A Ref. MSG 044			
	P/TV06 HST EVA (OPS) (P/TV, SCENES) EVA 3 - Items 1,9,10			
			SAFE ACS	
			ACS REPAIR PART 1 POWER DOWN	
MNVR (INRTL) (SS Protect) R=282 P=332 Y=8 A10/AUTO/VERN (4/23:46) Init MNVR				

STS-125 (FD06)

REPLANNED



STS-125 (FD06)

REPLANNED

GMT Date 05/16 (136) | TDRS W E Z | DO/RN ORB | MET Day 005 | STS ATT

STS ATT: SUNPROTECT, -ZLV, -XVV

CDR ALTMAN	PLT JOHNSON	MS2 McARTHUR	HST CMD	NOTES
	P/TV06 HST EVA (OPS) (P/TV, SCENES) EVA 3 - Items 1,9,10	ACS PART 1 (PDRS, EVA 3)		
MNVR (TRK) BIAS +ZVV (SR Prtct) TG=2 BV=5 P=156 Y=0 OM=6 A10/AUTO/VERN (5/00:22) Init TRK			ACS REPAIR PART I POWER ON ESM RECOVERY AND CONFIG TO J600 ENABLE ESM SURVIVAL HEATERS	
MNVR (TRK) -ZLV -XVV TG=2 BV=3 OM=0 A10/AUTO/VERN(ACS cmplt)Init TRK	P/TV05 HST SURVEY (OPS) (P/TV, SCENES) -V2 Survey - Items 7 (all) & 8 When complete, load image card into PGSC and notify MCC.	EGRESS AT AIRLOCK (PDRS, EVA CLOSEOUT)		
	P/TV03 FSS OPS (SETUP & OPS) (P/TV, SCENES) Rotate - Item 2	RMS EXTENDED PARK (PDRS, EXTENDED PARK) ROTATE HST (-V2 to -V3) (PL OPS, IN-BAY OPERATIONS)		
ROTATE HST (-V2 to -V3) (PL OPS, IN-BAY OPERATIONS) G2 SET CONTRACTION (ORB OPS, DPS) Configure Single G2, (1111) 10.2 PSI MAINTENANCE (EVA, 10.2 PSI CABIN)				UPLINK β21 + Mask Boxes 1,2
IMU STAR OF OPPTY ALIGN (ORB OPS, GNC)	EXERCISE		COS FUNCTIONAL TEST AND SAFE COS	
	MIDDECK EMU BATTERY RECHARGE (TERM) (EVA, EMU MAINT/RECHARGE) HELMET LIGHT/PGT BATTERY RECHARGE (INIT) (EVA, EMU MAINT/RECHARGE) Ref. STS-125 EVA CONSUMABLES Cue Card and MSG 042			UPLINK KU CH 2 -HST
	WCS Filter Check B FILTER CLEANING (IFM, SCHEDULED MAINTENANCE) Inspect filters and clean as necessary	B WCS Filter Check WCS CRADLE - AUTO INHIBIT Inspect hose block filter, change if req'd WCS CRADLE - AUTO	DUMP COS F/T SCIENCE DATA	
			LOAD NEW SI SMAC20	UPLINK KU CH 2 -OCA

Time axis: 19:00, 20:00, 21:00, 22:00 GMT; 00:00, 01:00, 02:00, 03:00, 04:00 MET

STS-125 (FD06)

REPLANNED

GMT Date 05/16 (136) — W E Z — T D R S — D/N — O R B — MET Day 005 — STS ATT — SUN PROTECT — ZLV — XVV

MET	MS1 GOOD	MS3 GRUNSFELD	MS4 MASSIMINO	MS5 FEUSTEL	NOTES
00:00	IVA EVA 3 SUPPORT	ACS PART I	IVA EVA 3 SUPPORT	ACS PART I	
01:00		DAILY CLOSEOUT/INGRESS		DAILY CLOSEOUT/INGRESS	
	PRE REPRESS (CC, DPRS/RPRS)	PRE REPRESS (CC, DPRS/RPRS)		PRE REPRESS (CC, DPRS/RPRS)	
	REPRESS (Cue Card, DEPRESS/REPRESS)	REPRESS (Cue Card, DEPRESS/REPRESS)	REPRESS (Cue Card, DEPRESS/REPRESS)	REPRESS (Cue Card, DEPRESS/REPRESS)	
02:00	POST EVA (EVA, POST EVA)	POST EVA (EVA, POST EVA)	POST EVA (EVA, POST EVA)	POST EVA (EVA, POST EVA)	
		C Ref. STS-125 EVA CONSUMABLES Cue Card and MSG 042			
03:00	EMU BATTERY INSTALLATION & LiOH CHANGEOUT (EVA, EMU MAINT/RECHARGE) C	EMU BATTERY INSTALLATION & LiOH CHANGEOUT (EVA, EMU MAINT/RECHARGE) C	EVA 4 TOOL CONFIG (EVA, TIMELINES) Ref. STS-125 EVA CONSUMABLES Cue Card and MSG 042	EVA 4 TOOL CONFIG (EVA, TIMELINES) Ref. STS-125 EVA CONSUMABLES Cue Card and MSG 042	
	EMU SWAP (EVA, AIRLOCK CONFIG)	EMU SWAP (EVA, AIRLOCK CONFIG)			
04:00	REBA BATTERY RECHARGE (INIT) C (EVA, EMU MAINT/RECHARGE)	REBA BATTERY RECHARGE (INIT) C (EVA, EMU MAINT/RECHARGE)			

STS-125 (FD06)

REPLANNED

GMT Date 05/16 (136) | TDRS W E Z | DO/N RB | MET Day 005 | STS ATI

CDR ALTMAN | PLT JOHNSON | MS2 McARTHUR | HST CMD | NOTES

04:00 — 05:00 — 06:00 — 07:00 — 08:00

23:00 — 00:00 — 01:00 — 02:00

79 — 80 — 81 — 82

ZLV — XVV

CDR (ALTMAN)

R5R DESELECT [D]
EVA 4 PROCEDURE REVIEW
Ref. EVA 4 BRIEF CARD
(EVA, TIMELINES)

SUPPLY WATER DUMP USING FES
(ORB OPS, ECLS)
Step 2 only, FES PRI A req'd
PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

06 √UHF MODE - OFF
L9 PAYLOAD STATION AUDIO A/G (two) - OFF
PRIVATE MEDICAL CONFERENCE
PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

10.2 PSI MAINTENANCE
(EVA, 10.2 PSI CABIN)

SLEEP

PLT (JOHNSON)

FILTER CLEANING
(IFM, SCHEDULED MAINTENANCE)
Inspect filters and clean
as necessary
HD DIGITAL VIA CC (ACTIVATION)
(Cue Card, DIGITAL PLAYBACK)
EVA 4 PROCEDURE REVIEW
Ref. EVA 4 BRIEF CARD
(EVA, TIMELINES)

ICBC3D STATUS REPORT
PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

MIDDECK EMU BATTERY RECHARGE (Init)
(EVA, EMU MAINT/RECHARGE) [C]
PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

Crew Wake: 5/15:30

SLEEP

MS2 (McARTHUR)

EVA 4 PROCEDURE REVIEW
Ref. EVA 4 BRIEF CARD
(EVA, TIMELINES)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

PDIP 1 KU BAND RATE - OFF
PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

SLEEP

HST CMD

[D] GNC 23 RCS

CRT RCS R - ITEM 3 EXEC (*)
JET DES R5R - ITEM 37 EXEC (*)

NOTE
Expect DAP RECONFIG message.
DAP will mode to FREE.

C3 DAP: AUTO

[C] Ref. STS-125 EVA CONSUMABLES
Cue Card and MSG 042

NOTES

UPLINK
KU CH 3 -DTV

UPLINK
KU CH 2 -RNS
PDI FDA -INH

STS-125 (FD06)

REPLANNED

GMT Date 05/16 (136) | W E Z | DOR/NB | MET Day 005 | STS ATT -ZLV -XVV

MS1 GOOD	MS3 GRUNSFELD	MS4 MASSIMINO	MS5 FEUSTEL	NOTES
REBA BATTERY RECHARGE (INIT) C (EVA, EMU MAINT/RECHARGE)	REBA BATTERY RECHARGE (INIT) C (EVA, EMU MAINT/RECHARGE)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)		
PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	D2Xs EVA CAMR (P/TV, REF PROC) D2Xs EVA-CAMR ONLY DISASSEMBLY Perform Between EVAs			
EVA 4 PROCEDURE REVIEW Ref. EVA 4 BRIEF CARD (EVA, TIMELINES)	EVA 4 PROCEDURE REVIEW Ref. EVA 4 BRIEF CARD (EVA, TIMELINES)	EVA 4 PROCEDURE REVIEW Ref. EVA 4 BRIEF CARD (EVA, TIMELINES)	EVA 4 PROCEDURE REVIEW Ref. EVA 4 BRIEF CARD (EVA, TIMELINES)	
	C Ref. STS-125 EVA CONSUMABLES Cue Card and MSG 042			
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)	
			RECONFIGURE OCA D/L RATE E	
			PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
			E After Crew Choice D/L complete: 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)	
SLEEP	SLEEP	SLEEP	SLEEP	

Crew Wake: 5/15:30

Good Morning Atlantis!!!

Thanks for the super EVA yesterday!

All of you are doing an awesome amount of work! Thank you.

Have a great day!!!

HST Program Words:
Once again, your extraordinary effort has strengthened the Observatory for its continuing mission. All the gyros passed aliveness and functional testing, and Hubble is once again running with a full complement. The Battery Module also passed its aliveness and functional testing.

Analysis of the WFC3 performance tests were completed, and show some excellent results. The noise on the UVIS channel is 3 e-, and the IR channel is 6 e- for the readout only. All thermoelectric coolers were tested and appropriately draw current and exhibit cooling. WFC3 is now safed awaiting SMOV operations. This one is certainly a keeper!!

RNS has also worked great during berthing of HST. We recorded 2 hours of images on all three cameras. SpaceCube was able to process the images and generate a pose solution, especially with the long range camera.

YOUR CURRENT ORBIT IS 305 X 303 NM

<u>NOTAMS:</u>

EDW	LAKEBED RUNWAY 15/33 ELS ONLY. OTHER LAKEBED RWYS RED.
NOR	LAKEBED RUNWAYS GREEN.
MRN	TACAN AOG 23X OUT OF SERVICE.
GUA	RUNWAY 06R/24L CLOSED.
GDV	RUNWAY 03R/21L CLOSED.
KIN	UNUSABLE.
GSA	UNUSABLE.
AMB	UNUSABLE.
NZC	RUNWAY 18L REIL OUT OF SERVICE
VBG	RUNWAY 30 THRESHOLD LIGHTS OUT OF SERVICE
NKT	CLOSED 15 MAY 1500Z UNTIL 18 MAY 1400Z
EIP	NOT USABLE. NO AGREEMENT.
BEN	NOT RECOMMENDED/NOT SUPPORTED.
BYD	POLITICALLY NOT RECOMMENDED. RUNWAY 32 THREHOLD DISP. 700M
AAT	POLITICALLY NOT RECOMMENDED.
LRB	POLITICALLY NOT RECOMMENDED. TACAN CH 85 OUT.

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

EDW04 ORB 76 – 04/22:44 SKC 7 060/08P14
NOR17 ORB 91 – 05/22:45 SCT050 SCT250 7 180/05P08

OMS TANK FAIL CAPABILITY:

LOMS FAILS: NO
ROMS FAILS: NO

LEAKING OMS PRPLT BURN:

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

OMS QUANTITIES(%) :

L OMS OX = 51.2 R OMS OX = 51.1
FU = 51.2 FU = 51.2

DELTA V AVAILABLE:

OMS	499 FPS
ARCS (TOTAL ABOVE QTY1)	23 FPS
TOTAL IN THE AFT	522 FPS
ARCS (TOTAL ABOVE QTY2)	52 FPS
FRCS (ABOVE QTY 1)	21 FPS
AFT QTY 1	79%
AFT QTY 2	41%

SYSTEM	FAILURE	IMPACT	WORK AROUND
ECLS	Ice formation in the Topping FES Core	Multiple shutdowns on FES Pri B	FES Core Flush performed to clear Topping Core of ice. Currently operating on FES Pri A
EPS	Forward Port Payload Bay Floodlight is failed.	The Forward Port Payload Bay Floodlight (A7U) will be left OFF resulting in reduced illumination of the Payload Bay.	Forward Bulkhead and Aft Payload Bay Floodlights are still available.

END OF PAGE 2 OF 2, MSG 040

MSG 042 - UPDATED EVA CONSUMABLES CUE CARD

The loss of the one EHIP/PGT battery charger prevents us from charging 3 PGT batteries POST EVA 3 & 4 as originally planned. We have revised the modified battery charging plan we mentioned to you yesterday in message 031 so that neither a third charger nor additional charge activities are required. Rather than recharging battery 5006 from the MPT after EVA 3 for use in the spare MPT for EVA 4, you will use 1016, which was in GF's PGT and charged POST EVA 3. Assuming the spare MPT is not used during EVA 4, this battery can be used in GF's PGT for EVA 5. The following are the pen and ink changes to the STS-125 EVA CONSUMABLES CUE CARD. We have also attached a revised copy of the cue card with the changes highlighted if you would rather print it out.

Pen and Ink changes:
In Post EVA 3 row and PGT Battery(s/n) column,
WAS: Recharge 1016, 1018 in PGT charger in MUP J23
IS: Recharge 1016, 1018 in PGT charger in MUP J13

In Post EVA 3 row and MPT Battery (s/n) column,
WAS: Recharge 5006 in PGT charger in MUP J13
IS: Do not recharge 5006, stow

In FD7: EVA 4, MS row and Spare PGT/MPT Batt (s/n) column,
WAS: 5008/5006
IS: 5008/1016

In Post EVA 4 row and PGT Battery (s/n) column,
WAS: Recharge 1019, 1020 in PGT charger in MUP J23
IS: Recharge 1019, 1020 in PGT charger in MUP J13

In Post EVA 4 row and MPT Battery (s/n) column
WAS: Recharge 5007 in PGT charger in MUP J13
IS: Do not recharge 5007, stow

In Post EVA 4 row and Spare PGT/MPT Batt (s/n) column,
WAS: (blank)
IS: Move 1016 to GF PGT

In Post EVA 5 row and PGT Battery(s/n) column,
WAS: Recharge 1016, 1018 in PGT charger in MUP J23
IS: Recharge 1016, 1018 in PGT charger in MUP J13

END OF PAGE 1 OF 3, MSG 042

STS-125 EVA CONSUMABLES CUE CARD

EV1: GF	**EV3**: MS
EV2: FT	**EV4**: G

		EMU	LiOH (s/n)	EMU Battery (s/n)	HL Battery (s/n)	REBA (s/n)	PGT Battery (s/n)	MPT Battery (s/n)	Spare PGT/MPT Batt (s/n)	SCM (HL) Batt (s/n)
FD 2: EMU C/O	**GF**	3008	2004	2081		1013				
	FT	3004	2005	2082		1014				
	MS	3015	2006	2080	1014, 1037	1007				
	G	3017	2012	2070	1016, 1018	1012				
~~FD 4: EVA 1~~	**~~GF~~**	~~3008~~	~~2004 ~ launched in suit~~	~~2081 ~ launched in suit~~	~~1014, 1037~~	~~1013~~	~~1016~~	-	~~5008~~	~~1038~~
	~~FT~~	~~3004~~	~~2005 ~ launched in suit~~	~~2082 ~ launched in suit~~	~~1016, 1018~~	~~1014~~	~~1018~~	-	-	-
~~Post EVA 1~~		-	-	-	~~Recharge 2081, 2082 after 4 hr in MUP J22~~	~~Recharge 1014, 1037, 1016, 1018 in EHIP charger in MUP J23~~	~~Recharge 1013, 1014 in suits in MO63PJ3~~	~~Recharge 1016, 1018 in PGT charger in MUP J23~~	-	-	-
~~FD 5: EVA 2~~	**~~MS~~**	~~3015~~	~~2006 ~ launched in suit~~	~~2080 ~ launched in suit~~	~~1003, 1009~~	~~1007~~	~~1019~~	-	~~5008~~	-
	~~G~~	~~3017~~	~~2012 ~ launched in suit~~	~~2070 ~ launched in suit~~	~~1012, 1013~~	~~1012~~	~~1020~~	-	-	-
~~Post EVA 2~~		-	-	-	~~Recharge 2080, 2070 after 4 hr in MUP J22~~	~~Recharge 1003, 1009, 1012, 1013 in EHIP charger in MUP J23~~	~~Recharge 1007, 1012 in suits in MO63PJ3~~	~~Recharge 1019, 1020 in PGT charger in MUP J23~~	-	-	-
FD 6: EVA 3	**GF**	3008	2020	2081	1014, 1037	1013	1016	5006	5008/5007	
	FT	3004	2003	2082	1016, 1018	1014	1018			
Post EVA 3				Recharge 2081, 2082 after 4 hr in MUP J22	Recharge 1014, 1037, 1016, 1018 in EHIP charger in MUP J23	Recharge 1013, 1014 in suits in MO63PJ3	Recharge 1016, 1018 in PGT charger in MUP J13	Do not recharge 5006, stow		

STS-125 EVA CONSUMABLES CUE CARD

EV1: GF	**EV3**: MS
EV2: FT	**EV4**: G

		EMU	LiOH (s/n)	EMU Battery (s/n)	HL Battery (s/n)	REBA (s/n)	PGT Battery (s/n)	MPT Battery (s/n)	Spare PGT/MPT Batt (s/n)	SCM (HL) Batt (s/n)
FD 7: EVA 4	**MS**	3015	2030	2080	1003, 1009	1007	1019	5007	5008/1016	
	G	3017	2025	2070	1012, 1013	1012	1020			
Post EVA 4				Recharge 2080, 2070 after 4 hr in MUP J22	Recharge 1003, 1009, 1012, 1013 in EHIP charger in MUP J23	Recharge 1007, 1012 in suits in MO63PJ3	Recharge 1019, 1020 in PGT charger in MUP J13	Do not recharge 5007, stow	Move 1016 to GF PGT	
FD 8: EVA 5	**GF**	3008	2002	2081	1014, 1037	1013	1016		5008	
	FT	3004	2016	2082	1016, 1018	1014	1018			
Post EVA 5				Recharge 2081, 2082 after 4 hr in MUP J22	Recharge 1014, 1037, 1016, 1018 in EHIP charger in MUP J23	Recharge 1013, 1014 in suits in MO63PJ3	Recharge 1016, 1018 in PGT charger in MUP J13			
FD 9: HST Deploy	**MS**	3015	2021	2080†	1003, 1009	1007	1019		5008	
	G	3017	2026	2070	1012, 1013	1012	1020			
Post EVA 6										
PEEP	**GF**	3008	2002	2081						
	FT	3004	2016	2082						
	MS	3015	2021	2080†						
	G	3017	2026	2070						
Cont EVA	**GF**	3008	2031*	2070	1003, 1009	1013	1019		5008	
	MS	3015	2023*	2075	1012, 1013	1007	1020			
Post EVA										

† Will unstow EMU Battery 2075 from MA16G and install in EMU 3015 during EMU Prebreathe if EVA 6 is to be performed

***** Will use 2021 and 2026 if HST deploys without performing EVA 6

The following is in addition to what was sent up in MSG 34 for ACS PART 1. Please make the following “pen & ink” changes to ACS REPAIR-COMPLETION:

- ACS REPAIR - COMPLETION (EVA, TIMELINES), pg FS 7-156 under the RMS EV column in the CLOSE - V2 DOORS block:
  Add note & steps:

  (Add after step 7.) NOTE: ASLR/LOCKs can be closed in any order; FF EV can close the bottom LOCK if desired

  7a. **PGT [B4, CW2, 23.5] short adj (turns)**
  7b. Engage ASLR on lower middle latch
  - reinstall PIP pin
  7c. Engage ASLR bolt, 9 turns

  Change steps:
  WAS: 8. Engage LOCKs (3)
  -Rotate LOCK arm into bathtub
  -Pull pin; engage main handle down
  -Verify green visible on main handle lock pin
  IS: 8. Engage LOCKs **(2)**
  -Rotate LOCK arm into bathtub
  -Pull pin; engage main handle down
  -Verify green visible on main handle lock pin

  Add step:
  8a. Re-torque ASLR & Handle Bolt

END OF PAGE 1 OF 1, MSG 043

MSG 044 - FD06 IMAX NOTES

ICBC
You rocked on ICBC FD05 scenes, thanks!

FD06 nominal scenes 9 through 4A are all desired if they occur in daylight with the following changes and additions:

Scene 5: -V2 Port side door (HST right door) opening past camera to widest position (EVA C/L, p. FS 7-69, RMS EV Step 10). 30mm 30 seconds. Note that you do not need to perform the scene 7 alternate listed on this page of the EVA C/L.

Scene 13A ADDITION: ACS: RMS EV ingress RMS (FF EV working in Aft shroud) (EVA C/L, p. FS 7-77, Guide Stud Installation, RMS EV Step 1). 30/40mm 30 sec.

If the nominal scenes occur during darkness, please shoot alternate scenes as follows:

Scene 5 ALTERNATE: +V2 Door open may be shot on EVA 4 (last door opportunity).

Scene 9 ALTERNATE: COSTAR Removal: Any part of the removal beyond aft shroud clearance is ok if centered in frame. 40mm 25 seconds.

Scene 10 ALTERNATE: EV Closeup Opportunity: Close up moving past camera during COSTAR temp stow may work. Keep camera door open for viewing all possibilities. No closer than 4' from camera. 40mm 25 seconds.

Scene 11 ALTERNATE: COS Install: Any part of COS maneuver and install that is centered in frame. 30mm 25 seconds.

Scene 12 ALTERNATE: COS Install: Close view of any part of COS installation that is inside the aft shroud, including A latches. 60mm 25 seconds.

Scenes 13 & 13A ALTERNATES: ACS Crew Choice: Any handovers from RMS EV to FF EV during Grid Cover/FCP install/CEB Cover Removal/Card Removal. You will have to watch for start of interaction by monitoring video display in standby mode and consulting IV for transfer cues (EVA C/L, p. FS 7-77 thru 7-81).

Please call us if you need guidance on any of the above. We have tried to cover for all possible day/night changes realtime.

ICBC Temperature - The ICBC camera heaters do not come on when the camera is in READY mode, so the camera should be taken to STANDBY mode if the door is open between shots. Do not run the camera if temperature is below 45 degF.

CANON Priorities for FD06
Suit up John and Drew if not already shot, Flight Deck RMS + IV ops, EVA 3 Ingress.

END OF PAGE 1 OF 1, MSG 044

Crew Choice TV Downlink KU Available Opportunities for FD6

TDRS	Start	End	Duration
TDW	5/02:23	02:44	21 min
	5/02:52	03:23	31 min
TDE	5/03:46	03:56	10 min
TDW	5/04:08	04:26	18 min
	5/04:36	05:06	30 min
TDE	5/05:31	05:39	8 min
TDW	5/05:53	06:04	11 min
	5/06:19	06:49	30 min
TDE	5/07:15	07:23	8 min