STS-129 / ULF3

Entry Execute Package

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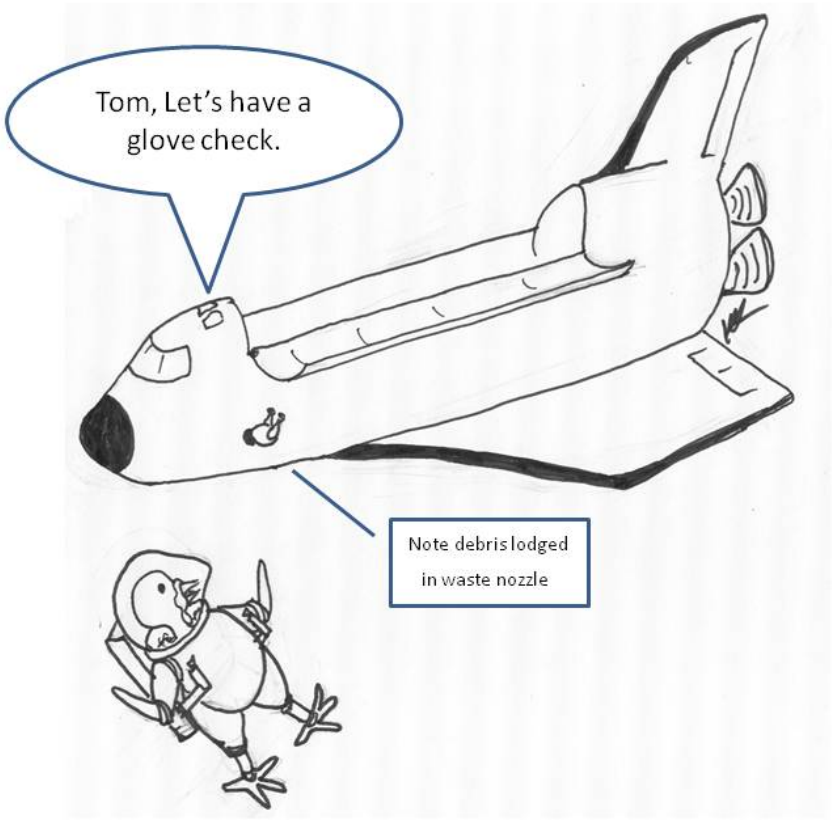
114	---	Entry Summary Blank *(Not Distributed)*
115	22	Deorbit Prep Checklist Updates

Approved by FAO:
Tobin Melroy

Last Updated: Nov 26 2009 12:30 PM GMT
JEDI *(**J**oint **E**xecute package **D**evelopment and **I**ntegration), v3.0*



The Top 10 Reasons Why Scorch is the Most Interesting Man Alive:

10. When Scorch is CDR, there is no possible way to BINGO out of Rndz.

9. Scorch only uses FDF to make everyone else feel better.

8. Scorch doesn't need the HHL, his eyes have distance measurement built in.

7. Scorch doesn't always drink beer, but when he does he prefers it rehydrated.

6. When Scorch does a HUD CAL he can calibrate to within 10^{-10} degrees.

5. Scorch doesn't need gimbal checks, the gimbals know they'd better work.

4. Scorch doesn't need a Shuttle to get to space, he just likes interacting with the systems.

3. Scorch doesn't need preflight quarantine, the germs are quarantined from him.

2. Scorch can do Transfer OPS without being docked to ISS.

1. Even if the ISS is on the other side of the earth from the Shuttle, with 8000 miles of rock between them, Scorch can still see ISS with his naked eye.

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REPLANNED

FD11

GMT 11/26/09 (330) 20 21 22 23 11/27 01 02 03 04 05 06 07

MET Day 010 010/00 01 02 03 04 05 06 07 08 09 10 11 12

FD12

STS 129

CDR HOBAUGH	PRE SLEEP	PMC A/G	PRE SLEEP		SLEEP	LOG	POST SLEEP
PLT WILMORE	PRE SLEEP				SLEEP	LOG	POST SLEEP
MS1 MELVIN	KU STOW	PGSC STOW PART I	PRE SLEEP		SLEEP	LOG	POST SLEEP
MS2 BRESNIK	KU STOW		PRE SLEEP	DSLVA	SLEEP	LOG	POST SLEEP
MS3 FOREMAN	PRE SLEEP				SLEEP		POST SLEEP
MS4 SATCHER	PRE SLEEP			DSLVA	SLEEP	LOG	POST SLEEP
MS5 STOTT	PRE SLEEP			DSLVA	SLEEP	LOG	POST SLEEP

DAY/NIGHT

ORBIT: 159 | 160 | 161 | 162 | 163 | 164 | 165 | 166 | 167

TDRS W E Z

GND: DFR WSS | DFR MLA WSS | DFR MLA WSS | DFR MLA WSS | DFR WSS

ATTITUDE: -ZLV -XVV

NOTES

REPLANNED

FD12 EOM
GMT 11/27/09 (331)

MET Day 010

12	08	13	09	14	10	15	11	16	12	17	13	18	14	19	15	20	16	21	17	22	18	23	19	011/00	

STS 129

CDR HOBAUGH	POST SLEEP	PMC A/G	POST SLEEP	WATCH	GRPPB	PWRUP	IMU ALIGN & VERIF	TRK	-XSI	DEORBIT PREP															
PLT WILMORE	POST SLEEP			COND	T/D	GRPPB	PWRUP	POST SLEEP	MADSTEN	AWDATCH	DEORBIT PREP														
MS1 MELVIN	POST SLEEP					MDDKCK	PGSC STOW PART II		WATCH	DEORBIT PREP															
MS2 BRESNIK	POST SLEEP						OCAC	STOW	WATCH	DEORBIT PREP															
MS3 FOREMAN	POST SLEEP							DTO 696 AIR SMP		DEORBIT PREP															
MS4 SATCHER	POST SLEEP				TEPC	PWRDN	GIRA	STOW	STOW*	WATCH	DEORBIT PREP														
MS5 STOTT	POST SLEEP							MDSCK		DEORBIT PREP															

ORBIT	TIG
KSC 171	10/18:08
KSC 172	10/19:44

DEORBIT* **LANDING***

DAY/NIGHT

ORBIT: 167 | 168 | 169 | 170 | 171 | 172 | 173 | 174 | 175

TDRS W E Z

GND: MLA | MLA WSS | DFR WSS | DFR WSS

ATTITUDE: -ZLV -XVV | IMU | -XSI | COMM | DO | ENTRY | -ZLV -XVV | OMS | -ZLV -YVV

NOTES: *SALIVA KIT **DEORBIT TIG 10/18:08*** ***KSC LANDING 10/19:16**

STS-129/ULF3 FD12

REPLANNED

GMT Date 11/27 (331) | W | TDRS E | Z | D/N | ORB | MET Day 010 | ATT

CDR HOBAUGH | PLT WILMORE | MS1 MELVIN | NOTES

08:00 — 09:00 — 10:00 — 11:00 — 12:00

04:00 — 05:00 — 06:00 — 07:00

ORB: 164, 165, 166, 167

ATT: -ZLV, -XVV

SLEEP (CDR HOBAUGH)

SLEEP (PLT WILMORE)

SLEEP (MS1 MELVIN)

FD12 EZ ACTIVITIES BEFORE LEAVING FLIGHT PLAN:
√OCAC FILTER
Stow CSA-CP

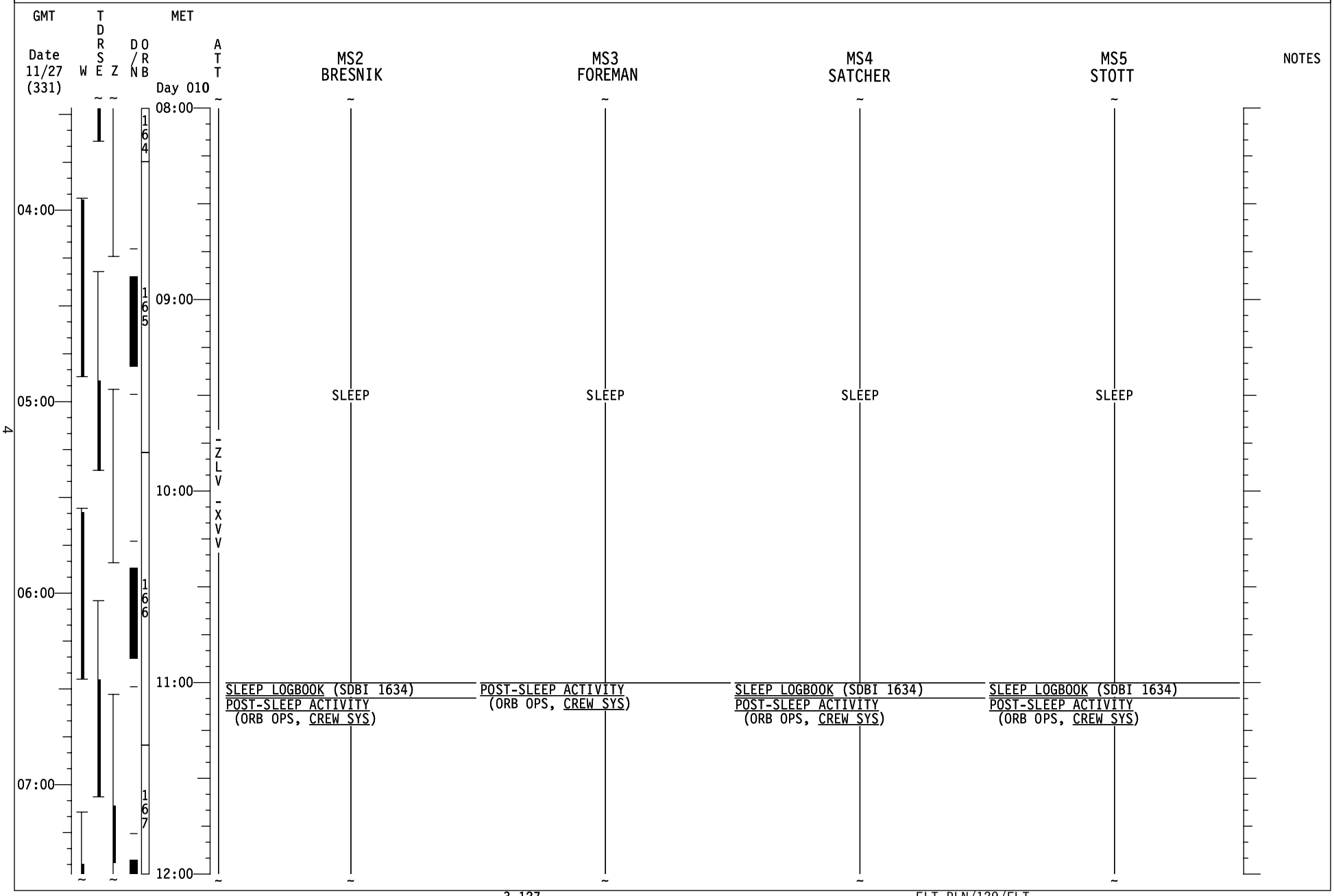
SLEEP LOGBOOK (SDBI 1634)
POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

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

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

STS-129/ULF3 FD12

REPLANNED



STS-129/ULF3 FD12

REPLANNED

GMT Date 11/27 (331) | W | TDRS E | Z | DO/N | ORB | MET Day 010 | ATT

CDR HOBAUGH

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

08:00
O6 √UHF MODE - OFF
L9 PAYLOAD STATION A/G (two) - OFF
PRIVATE MEDICAL CONFERENCE VIA A/G 2
POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

13:00
DOFFING ACTIWATCH (ORB OPS, SDBI)
PRIORITY PWRUP GRP B
(ORB PKT, PRIOR PWRDN)
Steps 12,10,9,7,6(Dual G2),5,2

09:00
MNVR IMU STAR ALIGN ATT A (pg 3-130)
A1/AUTO/VERN Init MNVR (10/13:40)
IMU ALIGN - S TRK (ORB OPS, GNC)
MNVR IMU VERIF ATT B (pg 3-130)
A1/AUTO/VERN Init MNVR
IMU ALIGN - S TRK (ORB OPS, GNC)

14:00
MNVR (TRK) -XSI ATT
TG=4 BV=5 P=184 Y=0 OM=90
A1/AUTO/VERN (10/14:10) Init TRK

PLT WILMORE

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

SHUTTLE CONDENSATE COLLECTION
(ORB OPS, ECLS)
Perform TEARDOWN

PRIORITY PWRUP GRP B
(ORB PKT, PRIOR PWRDN)
Steps 12,10,9,7,6(Dual G2),5,2

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

A6L MADS STRAIN GAGE - PCM ENA

DOFFING ACTIWATCH (ORB OPS, SDBI)

MS1 MELVIN

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

CGBA and ABRS STATUS CK(CUE CARD) CGBA only
GLACIER STATUS CHECK (CUE CARD)
PGSC NETWORK (B. TEARDOWN)
(ORB OPS, PGSC)
Stow remaining PGSCs

DOFFING ACTIWATCH (ORB OPS, SDBI)

NOTES

GO TO DEORBIT PREP @ 10/14:08

STS-129/ULF3 FD12

REPLANNED

GMT Date 11/27 (331) | W | T D R S E Z | D O / R N B | MET Day 010 | A T T

MS2 BRESNIK | MS3 FOREMAN | MS4 SATCHER | MS5 STOTT | NOTES

12:00 — 13:00 — 14:00 — 15:00 — 16:00

08:00 — 09:00 — 10:00 — 11:00

167 — 168 — 169

-ZLV -XVV -XSI

IMU

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)

C Reminder: For DTO 696, take two air samples using the new cylindrical GSC's and one air sample using the old spherical GSC located in MF280 and MF430.

D MDS handrails are not certified for entry when installed on MDS. Stow MDS handrails in MF280 when complete.

TISSUE EQUIVALENT PROPORTIONAL COUNTER (TEPC) (ORB OPS, CREW SYS) Powerdown

GIRA STOWAGE (ORB OPS, ECLS)

OCAC STOWAGE (ORB OPS, CREW SYS)

DTO 696 - GRAB SAMPLE CONTAINER (GSC) REDESIGN FOR SHUTTLE C

SALIVA STOW (ORB OPS, SDBI)

MDS STATUS CHECK (ASSY OPS, PAYLOADS) D

DOFFING ACTIWATCH (ORB OPS, SDBI)

DOFFING ACTIWATCH (ORB OPS, SDBI)

GO TO DEORBIT PREP @ 10/14:08

A IMU STAR ALIGN PAD

ID: -Y: 63, NAOS
MET (10/13:40 TO 10/14:28)

-Z: 84, ALPHA ARAE
MET (10/13:30 TO 10/14:32)

ANG DIFF: 84.1

DUAL S TRKR ALIGNMENT		2nd ATTITUDE (SINGLE S TRKR) -Z: 63 -Y: 84		
R	223	R	140	311
P	190	P	204	171
Y	352	Y	355	328

REQD ID:

-Y: _____, -Z: _____, ANG ERR____,____ ____

ANG:	1	2	3
ΔX	( )___,___ ___	( )___,___ ___	( )___,___ ___
ΔY	( )___,___ ___	( )___,___ ___	( )___,___ ___
ΔZ	( )___,___ ___	( )___,___ ___	( )___,___ ___

EXECUTION TIME: ____/___:___:___MET

B IMU VERIFICATION STAR ALIGN PAD

ID: -Y: 81, PHACT
MET (10/13:32 TO 10/14:20)

-Z: 47, GIENAH
MET (10/13:58 TO 10/14:42)

ANG DIFF: 87.4

DUAL S TRKR ALIGNMENT		2nd ATTITUDE (SINGLE S TRKR) -Z: 81 -Y: 47		
R	189	R	91	280
P	246	P	263	238
Y	44	Y	37	31

REQD ID:

-Y: _____, -Z: _____, ANG ERR____,____ ____

ANG:	1	2	3
ΔX	( )___,___ ___	( )___,___ ___	( )___,___ ___
ΔY	( )___,___ ___	( )___,___ ___	( )___,___ ___
ΔZ	( )___,___ ___	( )___,___ ___	( )___,___ ___

If any ΔX, ΔY, OR ΔZ > 0.1 Check MCC

EXECUTION TIME: ____/___:___:___MET

REPLANNED

FD12 EOM
GMT 11/27/09 (331)

MET Day 010 — 12 13 14 15 16 17 18 19 20 21 22 23 011/00 (08 09 10 11 12 13 14 15 16 17 18 19)

STS 129

CDR HOBAUGH	POST SLEEP; PMC A/G; POST SLEEP; WATCH; GRPPB; PWRUP; IMU ALIGN & VERIF; TRK; -XSI; DEORBIT PREP; DEORBIT PREP BACKOUT; ^MNVR +ZLV -XVV; WATCH; OA^ OMS BURN*; MNVR; DUMP; WASTE DUMP INIT IFM; PRE; SLEEP	
PLT WILMORE	POST SLEEP; COND; T/D; GRPPB; PWRUP; POST SLEEP; MAWDAST-EN; DEORBIT PREP; DEORBIT PREP BACKOUT; WATCH; WSS L-1 COMM CHK; OMS BURN; WASTE DUMP INIT IFM; PRE; SLEEP	
MS1 MELVIN	POST SLEEP; MDDKCK; PGSC STOW PART II; WATCH; DEORBIT PREP; DEORBIT PREP BACKOUT; WATCH; MDDKCK; MCIU; MDDKCK	
MS2 BRESNIK	POST SLEEP; OCAC; STOW; WATCH; DEORBIT PREP; DEORBIT PREP BACKOUT; WATCH; OCAC; SETUP	
MS3 FOREMAN	POST SLEEP; DTO 696 AIR SMP; DEORBIT PREP; DEORBIT PREP BACKOUT	
MS4 SATCHER	POST SLEEP; TEPC; PWRDN; GIRA; STOW; STOW*; WATCH; DEORBIT PREP; DEORBIT PREP BACKOUT; WATCH; TEPCON; GIRA INSTALL	
MS5 STOTT	POST SLEEP; MDSCK; DEORBIT PREP; DEORBIT PREP BACKOUT	

ORBIT	TIG
KSC 171	10/18:08
KSC 172	10/19:44

DEORBIT* — **LANDING***

DAY/NIGHT

ORBIT: 167 168 169 170 171 172 173 174 175

TDRS W E Z

GND: MLA; MLA WSS; DFR WSS; DFR WSS

ATTITUDE: -ZLV -XVV; IMU; -XSI; COMM; DO; ENTRY; +ZLV -XVV; OMS; DUMP

NOTES: *SALIVA KIT; **DEORBIT TIG 10/18:08***; ***KSC LANDING 10/19:16**; *TIG = 10/22:51:41

REPLANNED

FD12 **EOM**

GMT 11/27/09 (331) 11/28/09 (332)

MET Day 011

011/00	20	01	21	02	22	03	23	04	11/28	05	01	06	02	07	03	08	04	09	05	10	06	11	07	12

FD13 EOM+1

STS 129

CDR	PRE SLEEP	WSTE DUMP TERM IFM	M N V R	- Z L V	PMC A/G	PRE SLEEP	SLEEP	LOG	POST SLEEP
PLT	PRE SLEEP	WSTE DUMP TERM IFM	PRE SLEEP	SLEEP	LOG	POST SLEEP
MS1	PRE SLEEP	SLEEP	LOG	POST SLEEP
MS2	PRE SLEEP	SLEEP	LOG	POST SLEEP
MS3	PRE SLEEP	SLEEP	POST SLEEP
MS4	PRE SLEEP	SLEEP	LOG	POST SLEEP
MS5	PRE SLEEP	SLEEP	LOG	POST SLEEP

DAY/NIGHT

ORBIT: 175 | 176 | 177 | 178 | 179 | 180 | 181 | 182 | 183

TDRS: W E Z

GND: -DFR; -DFR —MLA -WSS; —DFR —MLA —WSS; —DFR —WSS; -DFR

ATTITUDE: DUMP — -ZLV -XVV

NOTES

REPLANNED

FD13 EOM+1
GMT 11/28/09 (332)

MET Day 011 — 08 09 10 11 12 13 14 15 16 17 18 19 — 12 13 14 15 16 17 18 19 20 21 22 23 012/00

STS 129

CDR	POST SLEEP	PMC A/G	WATCH	GRPB	PWRUP	IMU ALIGN & VERIF	TRK	-XSI	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP BACKOUT	WATCH	FILTER CLEANING	PRE SLEEP
PLT	POST SLEEP	GRPB	PWRUP	POST SLEEP	MDS-EN	WATCH	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP BACKOUT	WATCH	MCIU	PRE SLEEP
MS1	POST SLEEP	MDKCK	WATCH	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP BACKOUT	WATCH	BLSEOUP	BLOOD COLL OPR	STOW	MDKCK	PRE SLEEP
MS2	POST SLEEP	OCAC	STOW	WATCH	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP BACKOUT	WATCH	OSCACUP	BLOOD	CSOUBLJ	PRE SLEEP
MS3	POST SLEEP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP BACKOUT	GIRA INSTALL	PRE SLEEP
MS4	POST SLEEP	TEPCC	PWRDN	GIRA	STOW	WATCH	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP BACKOUT	WATCH	TEPCON	BLOOD	CSOUBLJ	PRE SLEEP
MS5	POST SLEEP	MDSCK	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP BACKOUT	BLOOD	CSOUBLJ	PRE SLEEP

DEORBIT* **LANDING***

ORBIT	TIG
KSC 187	11/18:22
KSC 188	11/19:59

DAY/NIGHT

ORBIT: 183 184 185 186 187 188 189 190 191

TDRS: W E Z

GND: MLA; DFR MLA WSS; DFR WSS; DFR

ATTITUDE: -ZLV -XVV; IMU; -XSI; COMM; DO; ENTRY; -ZLV -XVV

NOTES: **DEORBIT TIG 11/18:22*** ***KSC LANDING 11/19:29**

REPLANNED

FD13 EOM+1
GMT 11/28/09 (332)

MET Day 012

012/00 20 21 22 23 11/29 01 02 03 04 05 06 07 08 09 10 11 12

FD14 EOM+2

STS 129

CDR	PMC A/G	PRE SLEEP	SLEEP							POST SLEEP	PMC A/G	MATCH
PLT	PRE SLEEP	PTC START*	PRE SLEEP	SLEEP					LOG	POST SLEEP	PTC*	MNVR-ZLV	PST SLP
MS1	PRE SLEEP			SLEEP					LOG	POST SLEEP			
MS2	PRE SLEEP			SLEEP					LOG	POST SLEEP			
MS3	PRE SLEEP			SLEEP						POST SLEEP			
MS4	PRE SLEEP			SLEEP					LOG	POST SLEEP			
MS5	PRE SLEEP			SLEEP					LOG	POST SLEEP			

DAY/NIGHT

ORBIT: 191 192 193 194 195 196 197 198

TDRS: W E Z

GND: DFR; -DFR -MLA; -DFR —MLA -WSS; —DFR -MLA —WSS; —DFR -WSS

ATTITUDE: VRCS PTC

NOTES: *VRCS PTC (ORB OPS, RCS) Steps 1-2

VRCS PTC (ORB OPS, RCS)* Step 3 to Term PTC

REPLANNED

FD14 EOM+2
GMT 11/29/09 (333)

MET Day 012 — 12 08 13 09 14 10 15 11 16 12 17 13 18 14 19 15 20 16 21 17 22 18 23 19 013/00

STS 129

CDR	GRPB	PWRUP	IMU ALIGN & VERIF	TRK	-XSI	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	^MNVR -ZLV +YVV	DEORBIT PREP BACKOUT	WATCH	WASTE DUMP INIT IFM	PRE SLEEP	WSTE DUMP TERM IFM	MNVR	-ZLV	PRESLP
PLT	GRPB	PWRUP	POST SLEEP	MDS-EN	AWATCH	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP BACKOUT	WATCH	WASTE DUMP INIT IFM	PRE SLEEP	WSTE DUMP TERM IFM	PRE	SLEEP	
MS1	POST SLEEP			MDDKCK	WATCH	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP BACKOUT	WATCH		MDDKCK	PRE SLEEP			
MS2	POST SLEEP		OCAC	STOW	WATCH	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP BACKOUT	WATCH	OCAC	SETUP	PRE SLEEP			
MS3	POST SLEEP					DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP BACKOUT				PRE SLEEP			
MS4	POST SLEEP	TEPCON	PWRDN	GIRA	STOW	WATCH	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP BACKOUT	WATCH	TEPCON	GIRA INSTALL			PRE SLEEP	
MS5	POST SLEEP			MDSCK		DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP	DEORBIT PREP BACKOUT				PRE SLEEP			

DEORBIT * LANDING *

ORBIT	TIG
KSC 202	12/17:01
KSC 203	12/18:37
EDW 204	12/20:06
EDW 205	12/21:42

DAY/NIGHT

ORBIT: 199 | 200 | 201 | 202 | 203 | 204 | 205 | 206

TDRS W E Z

GND: —MLA; —MLA -WSS; —DFR —WSS; —DFR -WSS

ATTITUDE: IMU — -XSI — COMM — DO — ENTRY — -ZLV +YVV — DUMP

NOTES: **DEORBIT TIG 12/17:01*** ***KSC LANDING 12/18:05**

12

REPLANNED

FD14 EOM+2
GMT 11/29/09 (333)

MET Day 013

		013/00	01	02	03	04	05	06	07	08	09	10	11	12
		20	21	22	23	11/30	01	02	03	04	05	06	07	

FD15 EOM+3

STS 129	
CDR	PMC A/G; PRE SLEEP; SLEEP; LOG; POST SLEEP; PMC A/G
PLT	PRE SLEEP; PTC START*; PRE SLEEP; SLEEP; LOG; POST SLEEP; PTC*; MNVR-ZLV; PST SLP
MS1	PRE SLEEP; SLEEP; LOG; POST SLEEP
MS2	PRE SLEEP; SLEEP; LOG; POST SLEEP
MS3	PRE SLEEP; SLEEP; POST SLEEP
MS4	PRE SLEEP; SLEEP; LOG; POST SLEEP
MS5	PRE SLEEP; SLEEP; LOG; POST SLEEP

DAY/NIGHT	
ORBIT	207; 208; 209; 210; 211; 212; 213; 214
TDRS W E Z	
GND	-DFR; -DFR -MLA -WSS; -DFR -MLA -WSS; -DFR -WSS; -DFR
ATTITUDE	VRCS PTC
NOTES	*VRCS PTC (ORB OPS, RCS) Steps 1-2; VRCS PTC (ORB OPS, RCS)* Step 3 to Term PTC

REPLANNED

FD15 EOM+3

GMT 11/30/09 (334)

MET Day 013

12 08 13 09 14 10 15 11 16 12 17 13 18 14 19 15 20 16 21 17 22 18 23 19 014/00

STS 129

CDR	WATCH; GRPB; PWRUP; IMU ALIGN & VERIF; TRK; -XSI	DEORBIT PREP
PLT	PSTSLP; GRPB; PWRUP; POST SLEEP; MDS-EN; WATCH	DEORBIT PREP
MS1	POST SLEEP; MDKCK; WATCH	DEORBIT PREP
MS2	POST SLEEP; OCAC; STOW; WATCH	DEORBIT PREP
MS3	POST SLEEP	DEORBIT PREP
MS4	POST SLEEP; TEPC; PWRDN; GIRA; STOW; WATCH	DEORBIT PREP
MS5	POST SLEEP; MDSCK	DEORBIT PREP

DEORBIT* **LANDING***

ORBIT	TIG
KSC 218	13/17:12
NOR 219	13/18:43
KSC 219	13/18:48
EDW 220	13/20:16
NOR 220	13/20:19
EDW 221	13/21:53

DAY/NIGHT

ORBIT: 215 | 216 | 217 | 218 | 219 | 220 | 221 | 222

TDRS W E Z

GND: —MLA; -DFR -MLA —WSS; —DFR —WSS; —DFR -WSS

ATTITUDE: IMU; -XSI; COMM; ENTRY

NOTES: **DEORBIT TIG 13/17:12*** ***KSC LANDING 13/18:15**

MSG 110 - ENTRY FIW SUMMARY

SYSTEM	FAILURE	IMPACT	WORK AROUND
EPS	FC3 O2 Flow Sensor is behaving erratically.	Inaccurate FC3 Flow O2 instrumentation on Spec page: SM 69 FUEL CELLS Associated FDA has been inhibited.	None. MCC will monitor FC3 health.
EPS	Mid Starboard Payload Bay Floodlight has failed.	The Mid Starboard Payload Bay Floodlight (A7U) will be left OFF resulting in reduced illumination in the Payload Bay.	Other Payload Bay Floodlights are still available for use.
RCS	Left RCS Fuel Tank Temperature* (V42T2300C*) suspected to have biased low for several minutes during ascent.	Left and Right BFS PVT OX and FU quantities biased high to 110% and 107% respectively.	V42T2300C* has indicated expected values since post-ascent. This should be no issue for entry.

END OF PAGE 1 OF 1, MSG 110

MSG 111 - PAYLOAD DETAILS FOR WEATHER WAVEOFF DAYS

Leland: For weather waveoff days, we'd like to provide you with some more details for the payload activities that appear on your summary timeline.

FD12:

For the MDDK CHK at ~10/21:55
Perform:
GLACIER STATUS CHECK (CUE CARD)
CGBA ADJUST SET TEMP(ASSY OPS, PL)
Change temp from 6 to 37 deg C

Approximately 1hr after changing CGBA temp
Perform:
CGBA & ABRS STATUS CK(CUE CARD) CGBA only

FD13:

For the MDDK CHK at ~11/14:20
Perform:
GLACIER STATUS CHECK (CUE CARD)
CGBA & ABRS STATUS CK(CUE CARD) CGBA only
CGBA ADJUST SET TEMP(ASSY OPS, PL)
Change temp from 37 to 6 deg C

For the MDDK CHK at ~11/23:35
Perform:
GLACIER STATUS CHECK (CUE CARD)
CGBA & ABRS STATUS CK(CUE CARD) CGBA only
CGBA ADJUST SET TEMP(ASSY OPS, PL)
Change temp from 6 to 37 deg C

FD14:

For the MDDK CHK at ~12/12:55
Perform:
GLACIER STATUS CHECK (CUE CARD)
CGBA & ABRS STATUS CK(CUE CARD) CGBA only
CGBA ADJUST SET TEMP(ASSY OPS, PL)
Change temp from 37 to 6 deg C

For the MDDK CHK at ~12/22:55
Perform:
GLACIER STATUS CHECK (CUE CARD)
CGBA & ABRS STATUS CK(CUE CARD) CGBA only
CGBA ADJUST SET TEMP(ASSY OPS, PL)
Change temp from 6 to 37 deg C

END OF PAGE 1 OF 2, MSG 111

FD15:

For the MDDK CHECK at ~13/13:10
Perform:
GLACIER STATUS CHECK (CUE CARD)
CGBA & ABRS STATUS CK(CUE CARD) CGBA only
CGBA ADJUST SET TEMP(ASSY OPS, PL)
Change temp from 37 to 6 deg C

ENTRY CHECKLIST DELTAS

PAGE	PROCEDURE	ACTION
5-8	NH3 ACT (ENT, POST LDG)	Use the following NH3 Controller: L1 NH3 CNTLR B – PRI/GPC
5-22	NH3 RECONFIG (ENT, ASP EXT PWR UP)	Use the following NH3 Controller: L1 NH3 CNTLR A – PRI/GPC

THIS TABLE MAY BE CUT AND PASTED OVER THE OLD OMS He PRESS/ΔV/BURN TIME TABLE, ENT PG FS 2-6.

OMS He PRESS/ΔV/BURN TIME

OMS% GAGE	OMS He Press	OMS ΔV	RCS ΔV	RCS BURN MIN:SEC
31.3	2610	167	137	4:19
30	2560	159	130	4:07
28	2480	147	120	3:48
26	2400	135	110	3:29
24	2320	123	100	3:09
22	2240	110	90	2:50
20	2160	98	80	2:31
18	2080	86	70	2:12
16	2000	73	60	1:53
14	1920	61	50	1:34
12	1840	49	40	1:15
10	1760	36	30	0:56
8	1680	24	19	0:37
6	1600	11	9	0:17

NOTE: Uses vehicle weight of **214,922 lbs**

END OF PAGE 2 OF 2, MSG 112

MSG 113A - ENTRY SUMMARY

ORBIT IS 191 X 178 NM
DEORBIT DELTA V WILL BE APPROXIMATELY 310 FPS IN-PLANE.

AT THE DEORBIT BURN, YOU WILL HAVE (%):
L OX = 31.8 R OX = 31.8
L FU = 31.8 R FU = 31.3

THE PREDICTED POST DEORBIT BURN OMS QUANTITIES ARE AS FOLLOWS (%):
L OX = 6.8 R OX = 6.8
L FU = 7.0 R FU = 6.4

FORWARD RCS DUMP: Fuel TO 0 %

CG AT EI: X = 1083.7
CG AT M2.5: X = 1082.6
Y = 0.5

ATMOS ITEM: 22
ELEV. SCHED: AUTO
BODY BENDING FILTER: ALT

SITE: **KSC** REV: **171**	SITE: **KSC** REV: **172**
CROSS RANGE WILL BE 342 NM A/L	CROSS RANGE WILL BE 534 NM A/R
ROLL REVERSAL HISTORY:	ROLL REVERSAL HISTORY:
V= 17400 FPS	V= 14200 FPS
V= 9300 FPS	V= 7000 FPS
V= 3900 FPS	V= 3600 FPS
DEORBIT TIG: 10 /18:08	DEORBIT TIG: 10/19:44
LANDING APPROX: 10/19:16	LANDING APPROX: 10/20:51
WX FCST:FEW020 FEW200 VIS 7	WX FCST: FEW020 FEW200 VIS 7
WIND FCST:	WIND FCST:
50K 270/85	50K 270/85
38K 260/100	38K 260/100
28K 270/80	28K 270/80
20K 300/45	20K 300/45
12K 320/40	12K 320/40
7K 320/25	7K 320/25
3K 340/25	3K 340/25
1K 330/15	1K 330/15
SFC 320/14P21	SFC 320/14P21
ALTIMETER: 30.10	ALTIMETER: 30.10
DENSITY ALTITUDE: -138 FT	DENSITY ALTITUDE: -138 FT

END OF PAGE 1 OF 2, MSG 113A

MSG 113A - ENTRY SUMMARY

```
HAC PROCEDURES:                          | HAC PROCEDURES:
  R OVHD TO KSC33                        |   R OVHD TO KSC33
  TURN ANGLE 300 DEG                     |   TURN ANGLE 270 DEG
  AIM POINT: CI                          |   AIM POINT: CI
  SPEEDBRAKE: NOM                        |   SPEEDBRAKE: NOM
  TD 2700 FT AT 195 KTS                  |   TD 2700 FT AT 195 KTS
  3K SPEEDBRAKE: 15%                     |   3K SPEEDBRAKE: 15%
  NAV AIDS STATUS: GREEN                 |   NAV AIDS STATUS: GREEN
-----------------------------------------------------------------------
CONUS NOTAMS:
        EDWARDS (EDW) – LAKEBED RWY 15/33 GREEN - ELS ONLY. RWY 18L -
        UNUSABLE
        WHITE SANDS (NOR) – LAKEBED RUNWAYS GREEN.

24 HOUR DELAYED DEORBIT: SITE KSC ORBIT 187 TIG 11/18:22 MET
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END OF PAGE 2 OF 2, MSG 113A

MSG 115 - DEORBIT PREP CHECKLIST UPDATES

ASSEMBLY OPS DELTAS: No Updates

ORBIT OPS DELTAS: No Updates

DEORBIT CHECKLIST UPDATES:

NOMINAL DEORBIT PREP CHECKLIST DELTAS

PAGE	TIG	CHANGE
1-33	-02:54	In Block 7: WAS: A7U PL BAY FLOOD MID STBD – ON IS: A7U PL BAY FLOOD MID STBD – OFF

ENTRY SWITCH LIST VERIFICATION DELTAS: No Updates

DEORBIT PREP BACKOUT DELTAS

PAGE	ET	CHANGE
2-15	00:02	In Block 1: WAS: A7U PL BAY FLOOD MID STBD – ON IS: A7U PL BAY FLOOD MID STBD – OFF

END OF PAGE 1 OF 1, MSG 115