

# STS-135/ULF7

## FD 13 Execute Package



MSG	Page(s)	Title
101	1 - 14	FD13 Flight Plan Revision
102	15 - 16	FD13 Mission Summary
103	--	Entry Day Fluid Loading and Anti-G Suit Operations <b>(Electronic Only)</b>
104	--	Entry Weather Summary <b>(Electronic Only)</b>

**Approved by FAO:**

J. Mintz

A handwritten signature in blue ink, appearing to read 'J. Mintz', is written over a light yellow rectangular background.

*Last Updated: Jul 20 2011 12:50 AM GMT*

**JEDI** (Joint **E**xecute package **D**evelopment and **I**ntegration), v3.0

# Comedy Contest

## FIRST PLACE from STS-125 with 30 Votes...

<b>"In My Humble, But Correct, Opinion"</b>
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### Excerpts from 'The Chuck W. Shaw Cliché Reference Document'

	<i>What Chuck Say...</i>	<i>What Chuck Mean...</i>
1.	<i>IN MY HUMBLE BUT CORRECT OPINION</i>	I hear what you have to say, but now let me tell you what I think. You should listen up because it's the way we are going to do things anyway.
17.	<i>BET YOU A DOLLAR TO A DONUT</i>	I'm so sure that my opinion on this matter is correct that I am willing to wager something of value against something worth significantly less.
24.	<i>I HAD SIGNIFICANT GAS WITH THIS</i>	I don't quite like this and there is a very good chance that I am going to forbid it being done.
26.	<i>WE HAVE BUILT OURSELF A SELF EATING WATERMELLON</i>	Teleological analysis of watermelons focus on the lip smacking pleasure of their gustatory consumption, without which consummation, the entire growth, harvesting, transportation, and storage of the object is purposeless and without meaning in the order of the universe, no matter how aesthetically impressive the coloration, texture and geometry of the object. Analogously, you have created an impressive looking artifact of no utility to our purposes, and your self-evident cleverness has been pissed away on irrelevant pursuits.
34.	<i>WE ARE ALL IN VIOLENT AGREEMENT HERE</i>	I and you are arguing vehemently over this topic, but you do not seem to realize that you are all pretty much saying the same thing. Therefore, let's stop wasting time and move on.
39.	<i>THE OLD FLIGHT DIRECTOR HANDSHAKE. TRUST ME</i>	I realize you are not comfortable with this plan, but we are going to see to it that you are taken care of. Besides, you might as well stop worrying about it anyway because I am not going to change my mind.
45.	<i>WEAR OUT MY HORN HONKING AT MY OWN TAILLIGHTS</i>	Unknown. Author still researching and open to suggestions.
50.	<i>I THINK THATS A BUNCH OF HORSE HOCKEY</i>	I don't believe I agree with that. In fact, I believe that falls into the category of the completely ridiculous.
51.	<i>I DON'T KNOW WHETHER I DISAGREE WITH THAT OR IF I JUST DON'T AGREE WITH IT.</i>	I can't quite put my finger on the exact reason, but there is something about what you said that I don't like.
54.	<i>MEASURE WITH A MICROMETER, MARK IT WITH A GREASE PENCIL, AND CUT IT WITH A CHAINSAW.</i>	Far and away excessive preparatory work is going into this procedure which by its very nature cannot be performed with (nor does it need) such a high standard of precision (so stop wasting time).
65.	<i>MY ARMPITS WERE ON FIRE.</i>	I was extremely busy.
67.	<i>YOU GOT TO REMEMBER THAT I'M THICK HEADED AND SOMETIMES YOU GOTTA PLAY "HIT THE BALL AND DRAG CHUCKIE"</i>	I realize that most of you see me as the all-knowing, all-seeing Flight Director extraordinaire, but sometimes your answers to my questions are not clear to even me. Therefore, you may at times have to carefully and slowly explain something to me.
72.	<i>WE'RE BEING NIBBLED TO DEATH BY DUCKS</i>	Excessive pain is being inflicted by a plethora of tiny annoyances, not one of which would be by itself cause for a moment's distress. But the summation of all of which far exceed any reasonable threshold of pain.
79.	<i>SIM-SUP, YOU DIRTY DOG !</i>	No explanation required for anyone not associated with Training Division.
115.	<i>I DON'T SEE ANY DIFFERENCE BETWEEN A DYNAMICIST AND A THERMODYNAMICIST. BOTH OF YOU LOOK AT CHICKEN BONES AND THE MOON AND ALL THOSE THINGS</i>	All you DM guys look the same.
129.	<i>YOU'VE PUT A REAL TURD IN THE PUNCH BOWL</i>	You have brought information to light that significantly alters our approach to solving the problem. Implies that certain extraneous matter is an unpleasant addition to ones choice of beverage.
147.	<i>BEWARE THE CAMEL'S NOSE</i>	In Chuck's words: "Have you not heard of the camel and the tent? Well, a camel lives in the desert, and he doesn't like sandstorms, so he sticks his nose in your tent so that he can breathe. Soon though, it's not just his nose, then he sticks in his head, then his neck, then his front legs, then his body, and pretty soon, you get pushed out of your own tent. So...make sense?"
44.	<i>I'M GONNA GET YOU GUYS FOR THAT</i>	The FAO, Procedures, CAPCOM and Crew are in deep trouble (stuff, kimshi, guano, etc.) for writing all this stuff about me and so is anyone else who helped them. Beware!!

To learn more, go to [http://mod.jsc.nasa.gov/do4/flightplan/fao/refdocs/chuck\\_reformatted.doc](http://mod.jsc.nasa.gov/do4/flightplan/fao/refdocs/chuck_reformatted.doc)

# Comedy Contest

## SECOND PLACE from STS-126 with 17 Votes...

### Here's what the Crew is thinking during PAO Events:

Q: What on Earth can the spacewalks be compared with?

Like fixing your roof at night while wearing diapers, ski-clothes, and scuba gear over your pajamas.

Q: Tell us about what you're looking forward to on Thanksgiving Day menu?

Bowen: We'll have turkey, corn and cranberry desert and green bean casserole. Space food tastes like goldfish food, only warmed up.

Q: What do you do with your free time?

We compete to do the most aggressive acrobatics until somebody barfs or hits their head.

Q: Do you have to keep your sense of humor?

Not a problem - counting the number of times we are asked about the lost tool-bag is entertainment enough. Besides, we have both spiders and caterpillars.

Q: What's your thanksgiving day wish?

That I had real gravy. The kind you can only make in gravity.

Q: How does the Urine Processor work?

It doesn't.

Q: Does the "wake-up" song actually wake you up?

Yes - with these speakers, it sounds like the national anthem being played on an electric shaver.

Q: Do you have a message for folks here?

We don't even get hazardous duty pay up here. Can you believe that?

Q: What is it like being in space?

No fresh air, no beer, no tv, no sex, and no shoes. Try that for 2 weeks some time.

Q: What do you do in your free time?

Take 100's of pictures of the north African desert, which is the only place on the planet without clouds in late November.

Q: What will you do on Thanksgiving?

Same as every day: lose stuff, look for stuff, and take pictures of stuff. Oh, and use a lot of duct tape.



# Comedy Contest

## THIRD PLACE from STS-127 with 14 Votes...

### (CONTINUED)

NASA - JOHNSON SPACE CENTER

#### FLIGHT RULES

2JA\_B30-1      CHRIS "MOST AWESOME ASTRONAUT BIO" CASSIDY  
(CONTINUED)

C. FOR IVA CONNECTORS WITH A VOLTAGE OF LESS THAN OR EQUAL TO 100 VDC, CHRIS CASSIDY CAN HANDLE THESE CONNECTORS BARE-HANDED. FOR CONNECTORS OVER 100 VDC, CHRIS MUST USE HIS TEETH.

*Rationale: Large electrical sparks risk of setting off his guns, "lefty" and "righty."*

D. CHRIS CASSIDY'S MAXIMUM EVA TIME GIVEN VARIOUS CLOTHING CONFIGURATIONS ARE PRESENTED IN TABLE 2JA\_B30-1-I

TABLE 2JA\_B30-1-I - CHRIS CASSIDY EVA TIME CONSTRAINT

BETA ANGLE	# OF ORBITS CHRIS CASSIDY CAN BE OUTSIDE OF VEHICLE FOR GIVEN CONFIG [1]						
	SWIM TRUNKS W/O SANDALS	SWIM TRUNKS W/ SANDALS	TEXANS T-SHIRT & JEANS	ASTROS T-SHIRT & JEANS	DOCKERS AND STRIPED POLO	SPACESUIT (NO HELMET)	SPACESUIT
75	1	2	5	15	∞	∞	∞ <sup>2</sup>
62.5	1	2	5	15	∞	∞	∞ <sup>2</sup>
50	1	2	5	15	∞	∞	∞ <sup>2</sup>
37.5	1	3	6	26	∞	∞	∞ <sup>2</sup>
25	2	3	6	26	∞	∞	∞ <sup>2</sup>
12.5	2	3	7	37	∞	∞	∞ <sup>2</sup>
0	2	4	8	48	∞	∞	∞ <sup>2</sup>
-12.5	2	3	7	37	∞	∞	∞ <sup>2</sup>
-25	2	3	7	37	∞	∞	∞ <sup>2</sup>
-37.5	1	3	6	26	∞	∞	∞ <sup>2</sup>
-50	1	2	5	15	∞	∞	∞ <sup>2</sup>
-62.5	1	2	5	15	∞	∞	∞ <sup>2</sup>
-75	1	2	5	15	∞	∞	∞ <sup>2</sup>

NOTES:

[1] THE USE OF SUNGLASSES WILL RESULT IN AN ADDITIONAL 10 ORBITS OF ACCEPTABLE EVA TIME

- E. CONTINGENCY USES OF CHRIS CASSIDY ARE AS FOLLOWS:
- CONFIG 1: ALTERNATE ATTITUDE CONTROL (CASSIDY ON EXERCISE BIKE)
  - CONFIG 2: ALTERNATE ELECTRICAL POWER GENERATION (CONFIG 1 WITH SOME MAGNETS AND WIRES)
  - CONFIG 3: ALTERNATE MMOD SHIELD (CASSIDY FORCIBLY SCOWLING AT MMOD)
  - CONFIG 4: ALTERNATE OSTPV (CASSIDY WITH A WRISTWATCH, TELLING YOU WHAT YOU CAN AND CAN'T DO)

*On orbit, Chris Cassidy is basically Chuck Norris minus the restrictions of gravity.*

MSG 101 - FD13 FLIGHT PLAN REVISION

1 MSG INDEX

2

3 <u>MSG NO.</u>	4 <u>TITLE</u>
5 101	6 FD13 Flight Plan Revision
7 102	8 FD13 Mission Summary
9 103	10 Entry Day Fluid Loading and Anti-G Suit Operations
11 104	12 Entry Weather Summary

- 13
- 14 1. Mission margin increased to 15 hours (H2 limited) due to running ~600 watts under the predicted power level.

15 For today's cryo config, O2 and H2 tanks 1 & 2 will be active.

16 **R1**

- 17 **O2,H2 MANF VLV TK1 (two) - OP (tb-OP)**
- 18 **O2 TK2 HTR A - AUTO**
- 19 **TK3 HTR A - OFF**
- 20 **H2 TK2 HTRS A,B (two) - AUTO**
- 21 **TK3 HTRS A,B (two) - OFF**

- 22 2. **Rex:** WLES is in entry config and you are GO for early deactivation and teardown.

- 23 3. **Fergy:** The Picosat deploy window is from MET 11/16:17 - 11/16:54. This is to maximize lighting. Note, the timeline sets you up for deploying in the early part of the window. The RCS Hot Fire Test is scheduled right behind the deploy. There should be Ku available for the entire window except for a TDRS handover at 16:30.

- 24 4. **Sandy:** When working the Entry Video Setup after today's PAO event, we'd like to ask you to leave the HD/MPC video setup as-is and utilize a different AVIU for the Entry Video setup. This will accommodate additional HD downlinks later in the day, even after the Entry Video setup is completed.

- 25 5. Replace Pages 2-44, 2-46, 2-47 and 3-138 through 3-147.
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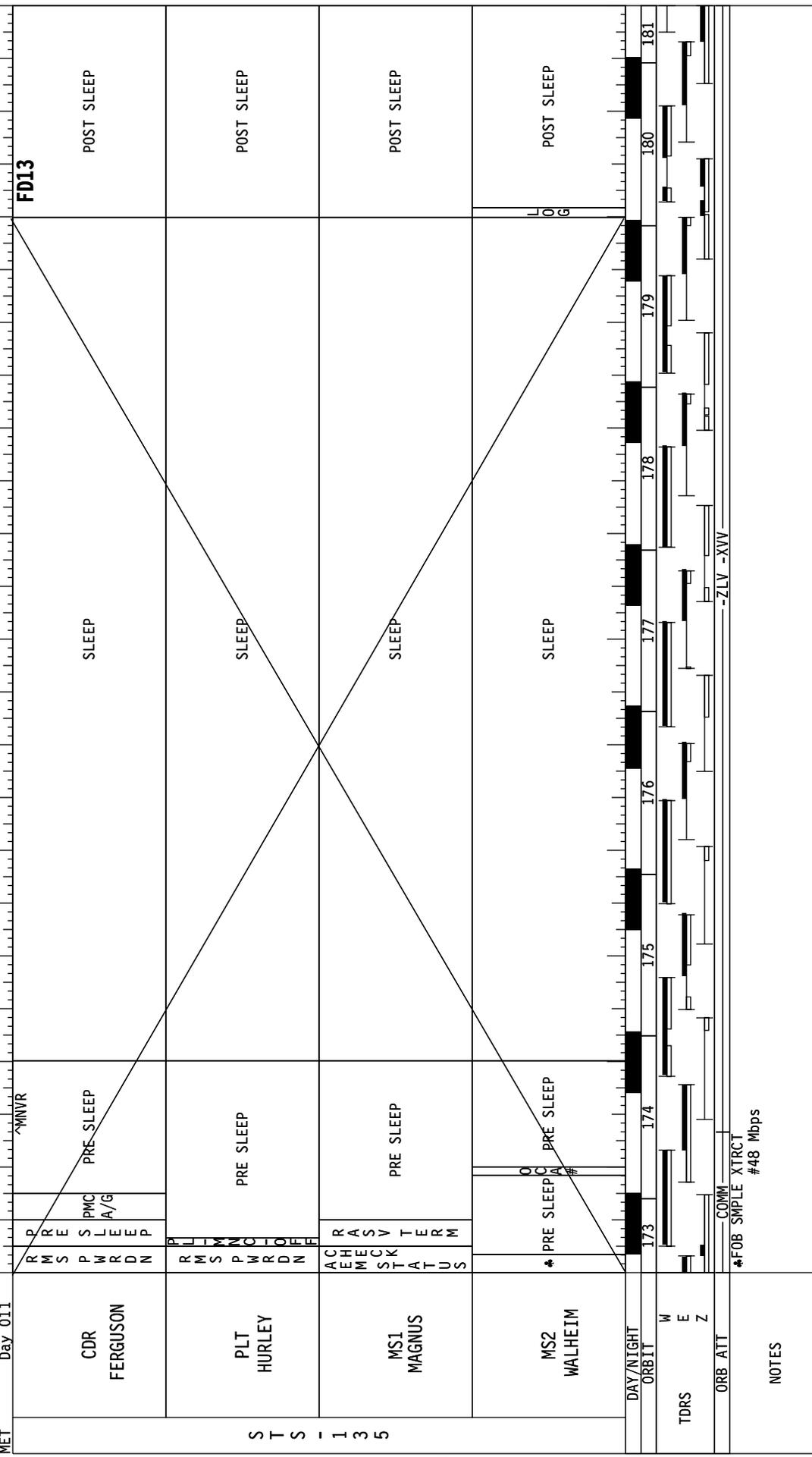
REPLANNED

FD12

GMT 07/19/11 (200)

MET Day 011

12



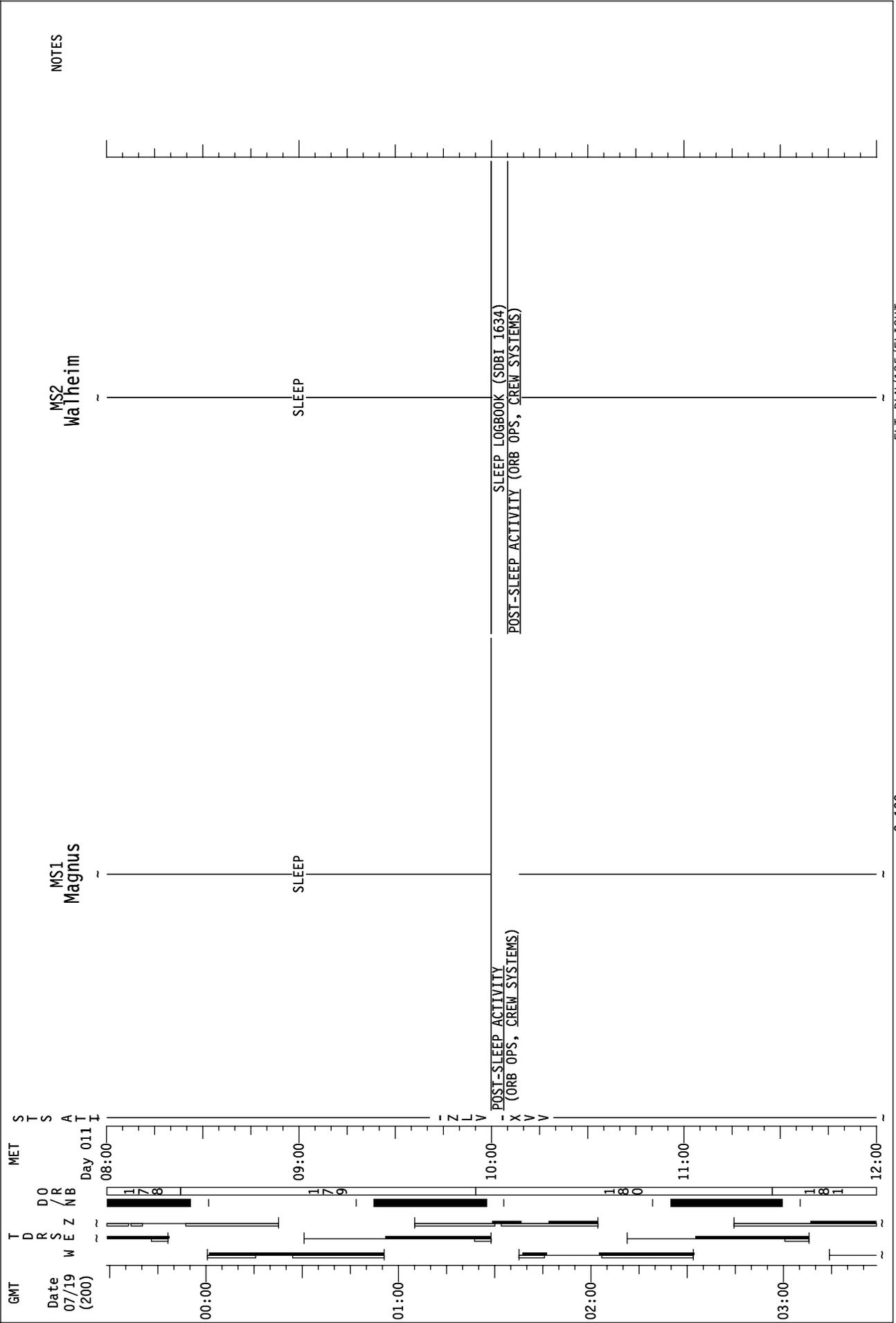
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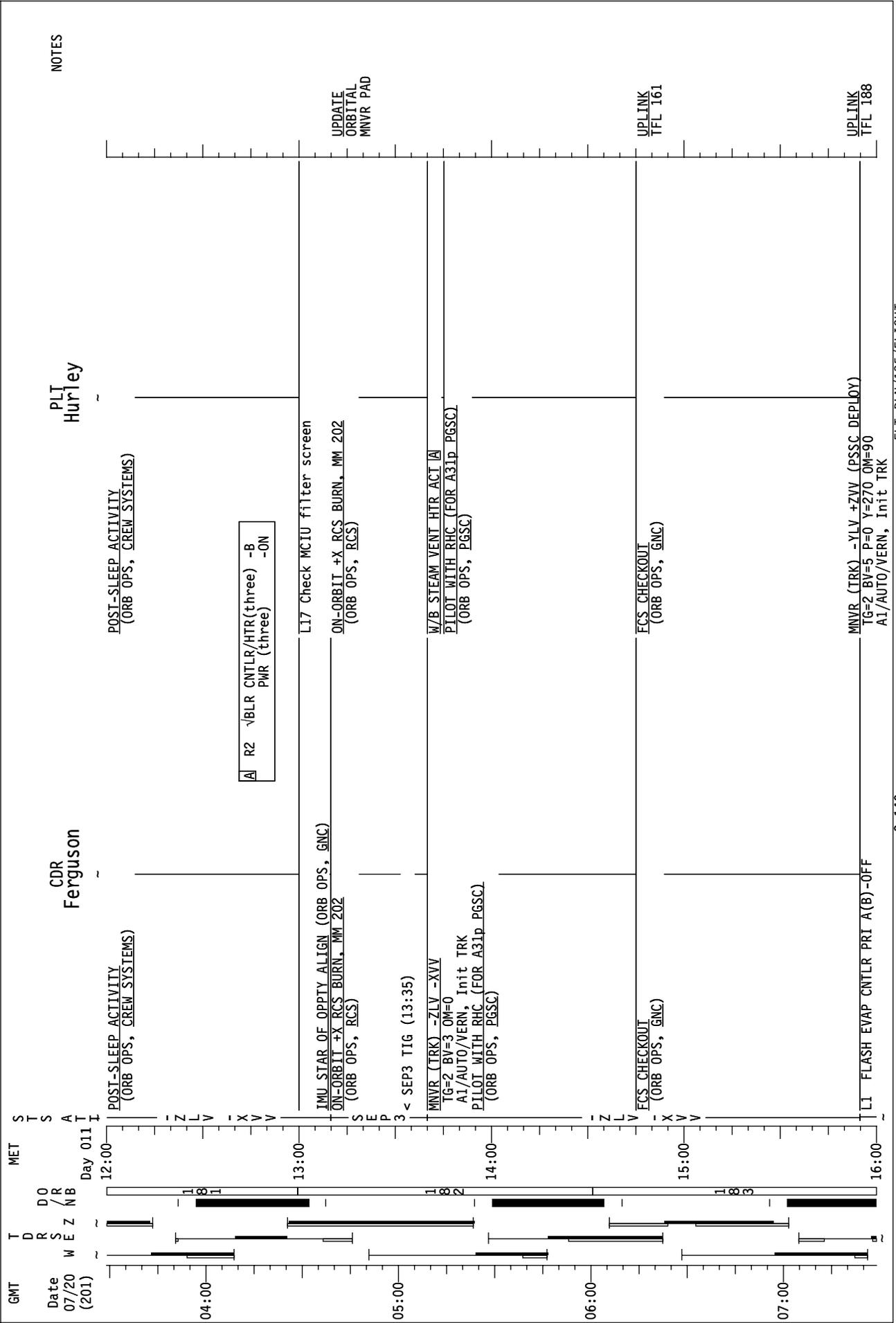




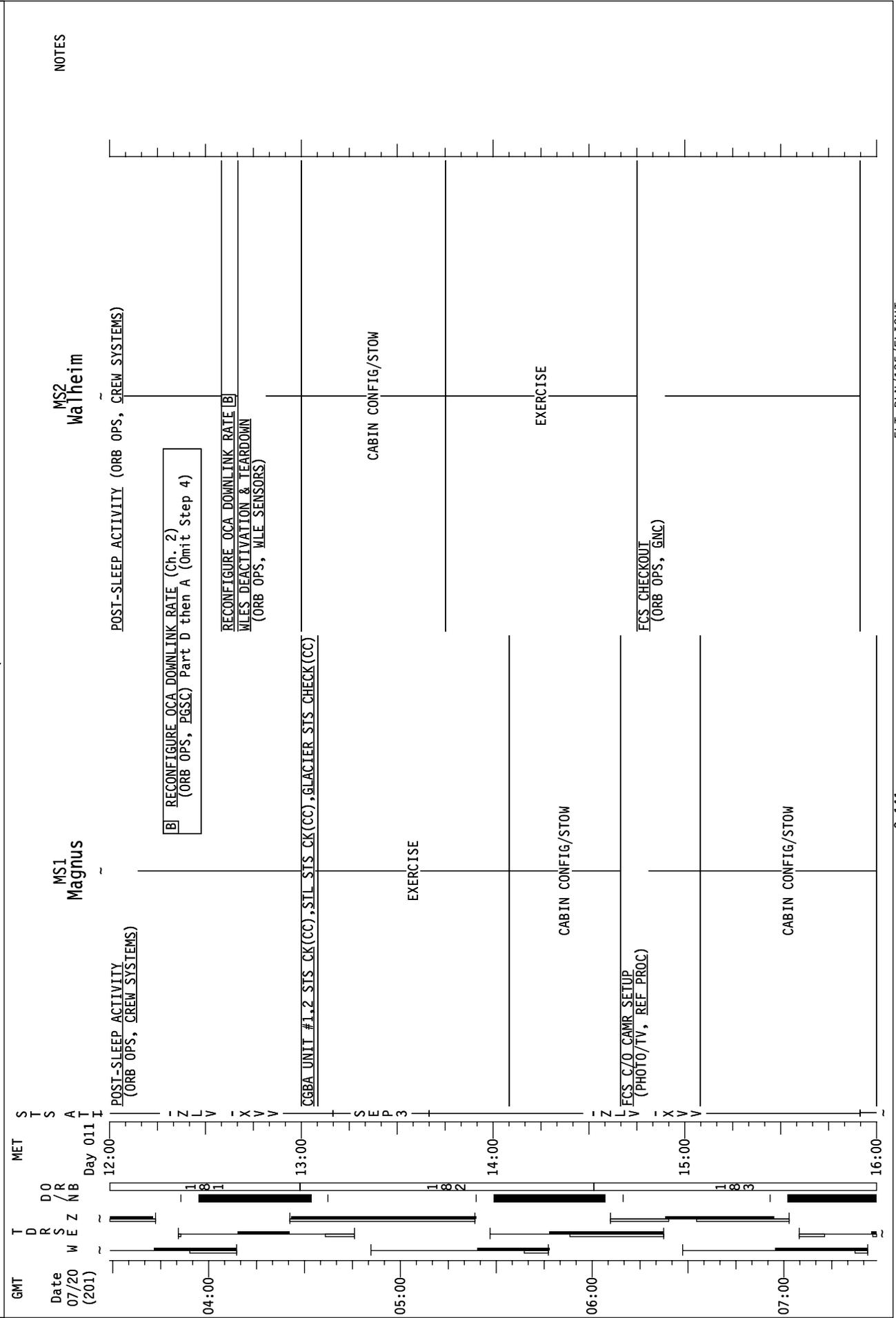
STS-135/ULF7 FD13



STS-135/ULF7 FD13



STS-135/ULF7 FD13



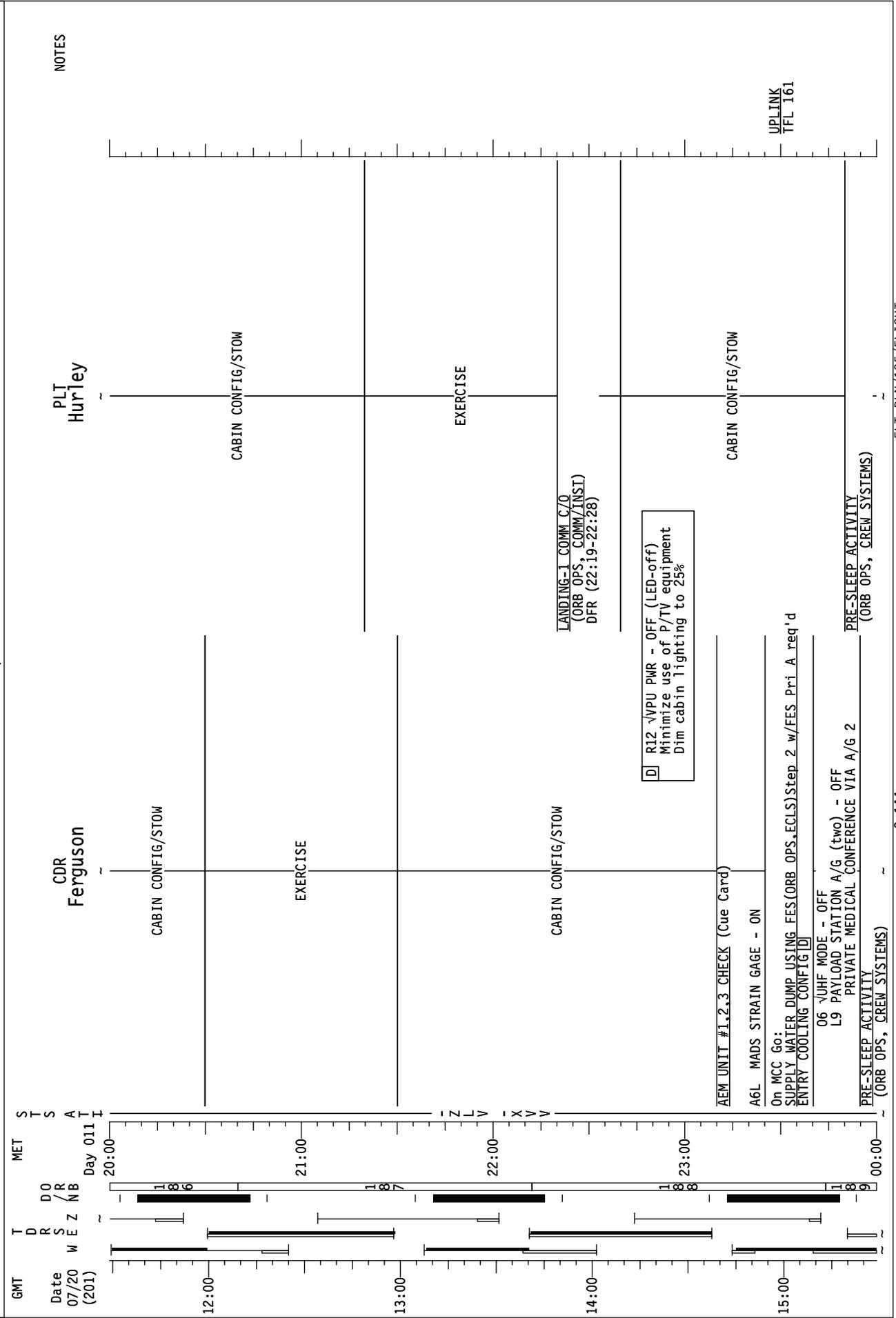
STS-135/ULF7 FD13

GMT	Date 07/20 (201)	TDRS W E Z NB	MET Day 011	STSA Y L V + Z	CDR Ferguson	PLT Hurley	NOTES
16:00							PSSC DEPLOY (ASSY OPS, PAYLOADS) Ref. MSG 101, Item 3
16:00							PSSC DEPLOY (ASSY OPS, PAYLOADS) Ref. MSG 101, Item 3
16:00							RCS HOT FIRE TEST (ORB OPS, RCS)
16:00							RCS HOT FIRE TEST (ORB OPS, RCS)
17:00							MNVR (TRK) BIAS -ZLV -XVY TG=2 BV=3 OM=315 A1/AUTO/VERN, Init TRK On MCC Go: L1 FES PRI A - ON
17:00							RMS PMRDN (PDRS, RMS PMRDN) Steps 3,5-7 COMM STRING 1 C/O (PART B) (ORB OPS, COMM/INST)
18:00							PUBLIC AFFAIRS EVENT KU AVAIL TDRE (17:14 - 18:08) Gimbal Flip @ 17:31
18:00							PUBLIC AFFAIRS EVENT KU AVAIL TDRE (17:14 - 18:08) Gimbal Flip @ 17:31
18:00							MNVR (TRK) -ZLV -XVY TG=2 BV=3 OM=0 A1/AUTO/VERN, Init TRK On MCC Go: SUPPLY H2O DUMP USING FES (ORB OPS, ECLS) Step 1 using FES Pri B
18:00							MEAL
18:00							MEAL
19:00							MEAL
19:00							MEAL
19:00							LANDING-1 COMM C/O (ORB OPS, COMM/INST) MLA (19:13-19:21)
19:00							RCS/OMS POD HTR RECONFIG [C]
19:00							RCS/OMS POD HTR RECONFIG [C]
11:00							DEORBIT PREP BRIEFING
11:00							DEORBIT PREP BRIEFING
20:00							CABIN CONFIG/STOW
20:00							CABIN CONFIG/STOW

STS-135/ULF7 FD13

GMT	Date 07/20 (201)	T D R S W E Z M B	MET Day 011	ST S A T	MS1 Magnus	MS2 Walheim	NOTES
08:00					P/TV10 PSSC_DEPLOY (PHOTO/TV, SCENES) Perform SETUP, OPS Items 1,2	PSSC_DEPLOY (ASSY OPS, PAYLOADS) Ref. MSG 101, Item 3	
					V/TV10 PSSC_DEPLOY (PHOTO/TV, SCENES) Perform OPS, Items 3-5		
						RCS_HOT_FIRE_TESTI (ORB OPS, RCS)	
09:00					CANON_G1 (PHOTO/TV, REF PROC) HD CC DMLK, PA0 Event Setup	CABIN CONFIG/STOW	
					PUBLIC AFFAIRS EVENT KU AVAIL TDRE (17:14 - 18:08) Gimbal Flip @ 17:31	PUBLIC AFFAIRS EVENT KU AVAIL TDRE (17:14 - 18:08) Gimbal Flip @ 17:31	
10:00					MINI-CAM (PHOTO/TV, REF PROC) ENTRY VIDEO SETUP Ref. MSG 101, Item 4		
						MEAL	MEAL
11:00						DEORBIT PREP BRIEFING	DEORBIT PREP BRIEFING
					BRIC_SYNCRG_ACTUATION (ASSY OPS, PAYLOADS)	BRIC_SYNCRG_ACTUATION (ASSY OPS, PAYLOADS)	

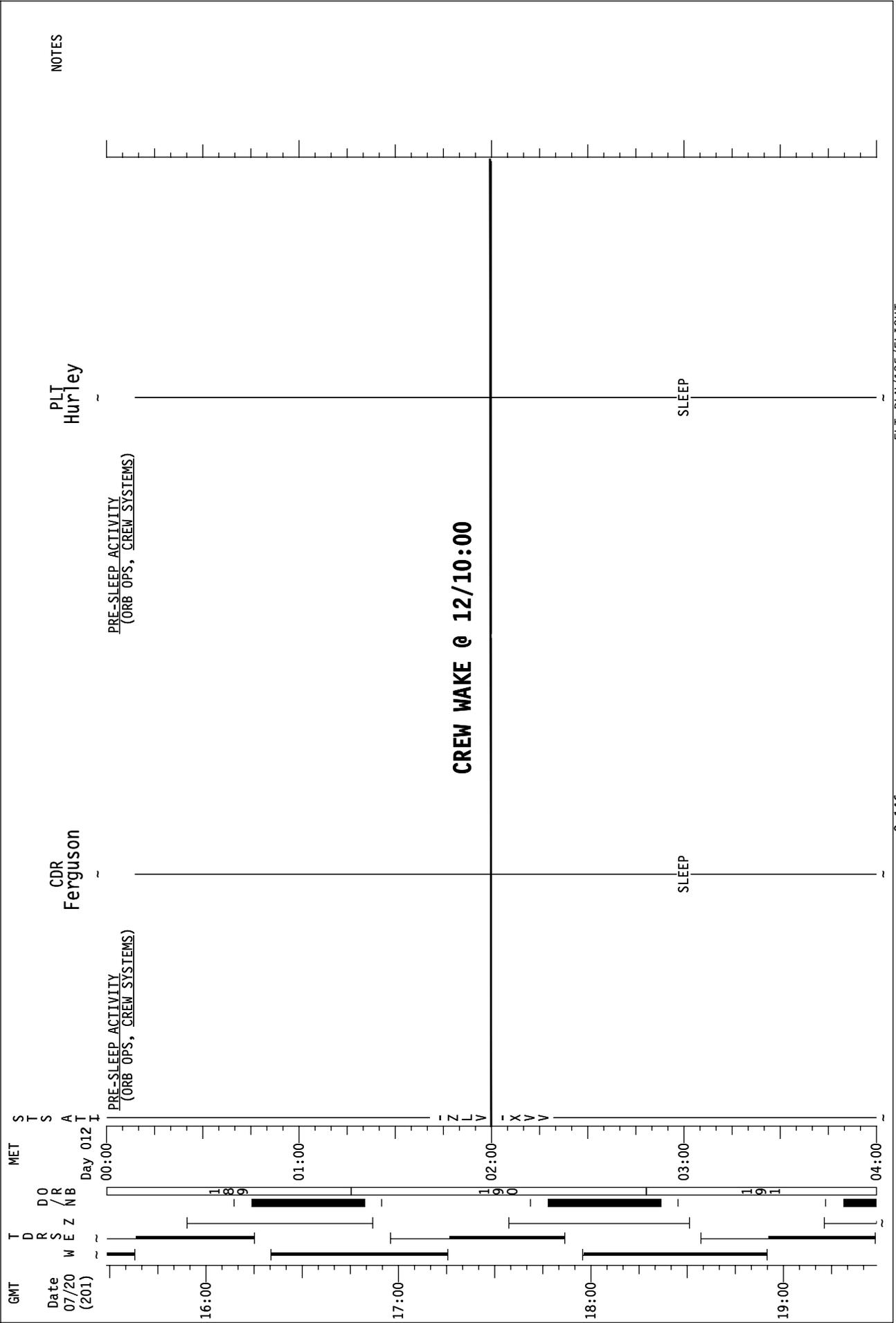
STS-135/ULF7 FD13



STS-135/ULF7 FD13

GMT	Date 07/20 (201)	T R S W E Z	D O R N B	MET Day 011	ST S A T	NOTES
12:00			186		MS1 Magnus	BRIC SYNERGE ACTUATION (ASSY OPS, PAYLOADS) P/TV09 MIDDECK PAYLOADS (PHOTO/TV, SCENES) OPS, Item 2 for BRIC Photo
13:00			187		MS2 Walheim	BRIC SYNERGE ACTUATION (ASSY OPS, PAYLOADS)
14:00			188			CABIN CONFIG/STOW
15:00			189			CABIN CONFIG/STOW
16:00			190			CABIN CONFIG/STOW
17:00			191			CABIN CONFIG/STOW
18:00			192			CABIN CONFIG/STOW
19:00			193			CABIN CONFIG/STOW
20:00			194			CABIN CONFIG/STOW
21:00			195			CABIN CONFIG/STOW
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23:00			197			CABIN CONFIG/STOW
00:00			198			CABIN CONFIG/STOW

STS-135/ULF7 FD13

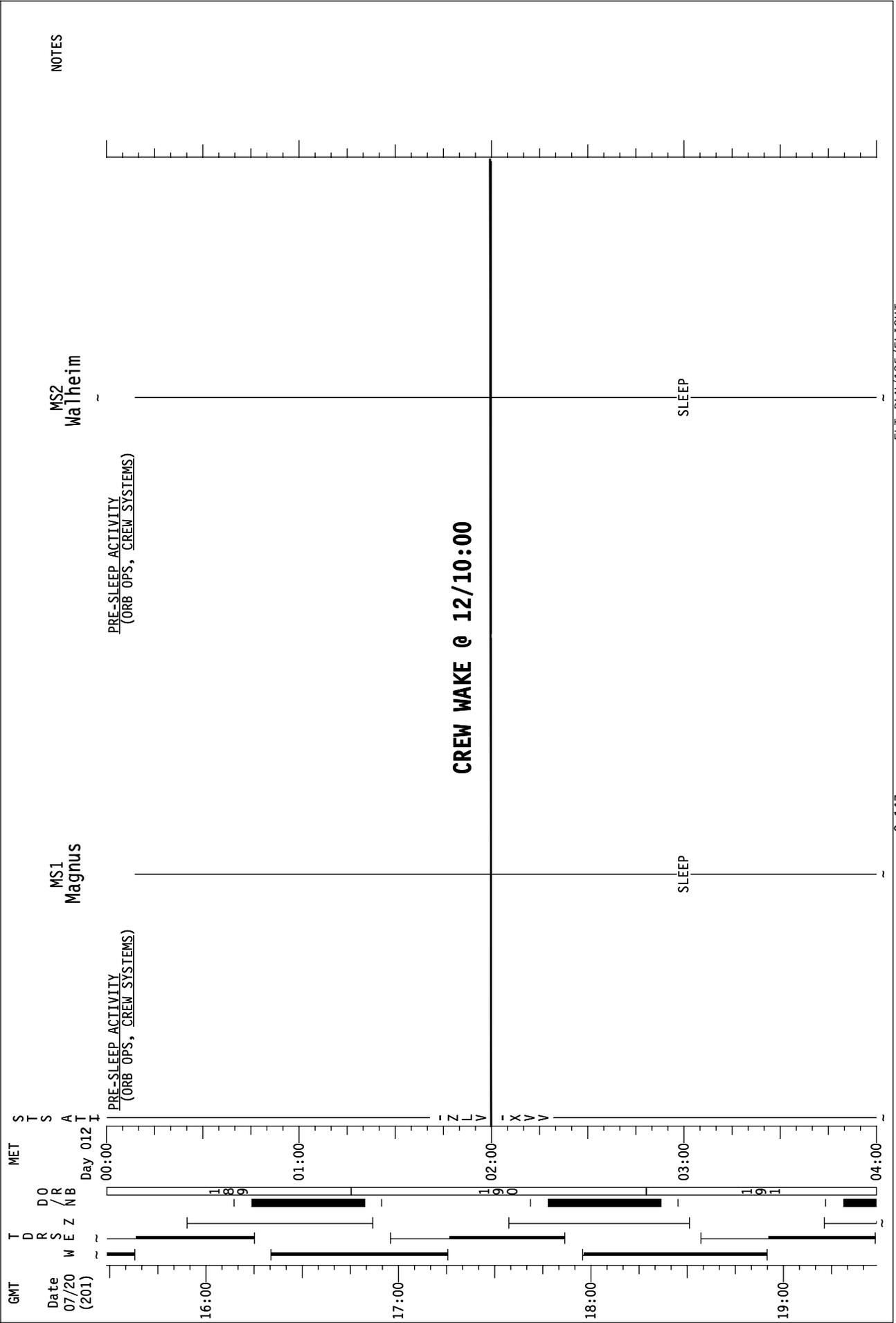


CDR Ferguson

PLT Hurley

NOTES

STS-135/ULF7 FD13



MSG 102 - FD13 MISSION SUMMARY

1 Good Morning Atlantis!

2  
3 As impressive as your mission has been, it is but a small part of the much more impressive  
4 mission that we have called the Space Shuttle Program. Your accomplishments have  
5 capped nearly a generation of flights that have shown what humans can accomplish when  
6 they set their minds and energies to the task. Those of us that have been privileged to take  
7 part in this grand adventure for so many years are as proud of you as we are of the vehicle  
8 and the greater teams that have supported it.

9  
10 And ... it has been a lot of fun!

11  
12 It has been the STS-135 Planning Team's pleasure to work with you, and we look forward to  
13 seeing you back in Houston in a few days. You have carried us all with your can-do attitude  
14 and good humor, and we have enjoyed every minute – including the chance to work page 3-  
15 9 of the OPCL.

16  
17 We will all move on to our next major adventure, whatever that will be. We may all scatter in  
18 different directions. But like seeds in the wind, we will plant what we know in many different  
19 places. The Shuttle program may be ending, but its legacy will live on in everything that  
20 humanity does. Thanks for your part in it, and for letting us enjoy the ride.

21  
22 Iron Flight

23  
24  
25 YOUR CURRENT ORBIT IS: 210 X 202 NM

26  
27 **NOTAMS (SIX CHANGES -EDW MLS REPAIRED, NTU RWY 14L/32R, KBO CLOSED,**  
28 **GUA TACAN, YHZ AIDROME LIGHTS AND YYT DME)**

29 EDW - EDW 22L/04R IN USE. EDT 22R/04L EMERGENCY DAY USE ONLY  
30 EDW - LAKEBED RWYS GREEN  
31 NOR - LAKEBED RWYS GREEN  
32 NTU - RWY 05L/23R AND **14L/32R CLSD**  
33 LAJ - RWY 15/33 CLSD.  
34 MRN - RWY 20 ALS OUT OF SERVICE  
35 FMI - TACAN NIM53 DECOMMISSIONED  
36 BEJ - CLOSED UNTIL **20 JULY**  
37 **KBO - RWY 14L/32R CLSD 20 JULY 0500 - 1500.**  
38 ESN - RWY 03R/21L CLSD  
39 ESN - TACAN BAG78 OUT OF SERVICE  
40 GUA - TACAN UNZ105 **AND UAM54** OUT OF SERVICE  
41 FFA - NOT USABLE. IN CARETAKER STATUS  
42 YHZ - TACAN UAW38 OUT OF SERVICE  
43 **YHZ - AIRDROME LTS OTS 1100 - 2300 DAILY.**  
44 YQX - TACAN YQX74 DME ONLY  
45 YYR - TACAN UYR40 DME ONLY  
46 YYT - RWY 11/29 CLOSED.  
47 YYT - TACAN UYT23 DME ONLY  
48 **YYT - DME YYT82 OUT OF SERVICE**  
49 YJT - TACAN YJT78 DME ONLY  
50 BEN - NOT USABLE. NOT SUPPORTED  
51 IKF - NOT USABLE. NO AGREEMENT

MSG 102 - FD13 MISSION SUMMARY

1 NEXT 2 PLS OPPORTUNITIES:

2  
3 EDW22 ORB 187 – 11/21:32 SKC 7 220/7P11  
4 KSC15 (EOM) ORB 200 – 12/17:20 FEW020 FEW070 SCT250 7 240/6P9  
5 EDW22 ORB 202 – 12/20:31 SKC 7 220/7P11  
6

7 OMS TANK FAIL CAPABILITY:

8  
9 NO

10  
11 LEAKING OMS PRPLT BURN:

12  
13 ALWAYS BURN RETROGRADE

14  
15 OMS QUANTITIES(%):

16  
17 L OMS OX = 37.90 R OMS OX = 37.74  
18 FU = 37.97 FU = 37.32  
19

20 DELTA V AVAILABLE:

21 OMS 371 FPS  
22 ARCS (TOTAL ABOVE QTY1) 18 FPS  
23  
24 TOTAL IN THE AFT 389 FPS  
25  
26 ARCS (TOTAL ABOVE QTY2) 48 FPS  
27 FRCS (ABOVE QTY 1) 13 FPS  
28  
29 AFT QTY 1 75 %  
30 AFT QTY 2 38 %  
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35 THERE ARE NO FAILURE/IMPACT/WORK AROUNDS FOR TODAY.  
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