STS-119 / 15A

FD 12 Execute Package

MSG	Page(s)	Title
126A	1 - 14	FD12 Flight Plan Revision **(pdf)**
127	15 - 16	FD12 Mission Summary **(pdf)**
128	17	EFGF Target Paint **(pdf)**

Approved by FAO: *M. Blanton*

Last Updated: Mar 26 2009 7:53AM GMT
JEDI *(**J**oint **E**xecute package **D**evelopment and **I**ntegration), v2.04.0003*

MSG INDEX

MSG NO.	TITLE
MSG126	FD12 Flight Plan Revision
MSG127	FD12 Mission Summary
MSG128	EFGF Target Paint

1. Cryo Config

For today's cryo config, O2 and H2 Tanks 2 and 5 will be active. O2 and H2 Tank 5 are expected to be depleted later in the day.

R1 O2,H2 MANF VLV TK2 (two) - OP (tb-OP)

A11 CRYO TK4 HTRS O2 A – OFF
H2 A,B (two) - OFF

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

2. FD11 MMT Summary

The FD11 MMT met for 7 minutes and passes on its appreciation for your tremendous work during the joint mission.

3. Pre-Landing Comm Checks

Pre-landing comm checks at White Sands (WSSH) and Dryden (DFR) will occur today (one day early) due to timeline constraints. During the WSSH comm check, MCC will call you on UHF only and your response will be triple simo. During the DFR comm checks, CAPCOM will make individual calls on A/G1 then A/G2 then UHF and lastly triple simo; your responses to all these calls should be triple simo.

The MILA comm check will happen on FD13 at the nominal L-1 time frame.

MCC will route a payload bay camera to satisfy the video component of the DFR check. Video is not required at WSSH.

4. REPLACE PAGES 2-40, 2-42, 2-43 AND 3-126 THROUGH 3-135

REPLANNED

GMT 03/25/09 (084) 03/26 01 02 03 04 05 06 07 08 09 10 11

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

FD11

STS-119					
CDR ARCHAMBAULT	EXERCISE	PMC A/G	PRE SLEEP	SLEEP	POST SLEEP
PLT ANTONELLI	PRE SLEEP			SLEEP	LOG POST SLEEP
MS1 ACABA	PRE SLEEP			SLEEP	POST SLEEP
MS2 SWANSON	PRE SLEEP			SLEEP	POST SLEEP
MS3 ARNOLD	CREW@	PRE SLEEP		SLEEP	POST SLEEP
MS4 PHILLIPS	PRE SLEEP			SLEEP	LOG POST SLEEP
FE-2 DN MAGNUS	PRE SLEEP			SLEEP	POST SLEEP

DAY/NIGHT

ORBIT 159 160 161 162 163 164 165 166

TDRS W E Z

ORB ATT -ZLV -XVV

GND -WSS -DFR -DFR -WSS -DFR -MLA -WSS -DFR -MLA -WSS -DFR -DFR

NOTES @CHOICE D/L

REPLANNED

GMT 03/26/09 (085) — 12 13 14 15 16 17 18 19 20 21 22 23

MET Day 010 — 12 13 14 15 16 17 18 19 20 21 22 23 011/00

STS-119

FD12

CDR ARCHAMBAULT	POST SLEEP	FES-I	POST SLEEP	EXERCISE	FESIT	MNVR	STBD	MNVR	NOSE	NOSE CAP SURVEY	MEAL	MNVR	PORT	PORT WING SURVEY	FES-I	+ZLV	-XVV	-ZLV	-XVV	IMU	POD*	PRE SLEEP	FESIT	PMC A/G	♣				
PLT ANTONELLI	POST SLEEP	MCIU@	OBSS UNBERTH	STBD WING SURVEY		MEAL	PORT WING SURVEY	OBSS BERTH	RMS	PWRDN	EXERCISE	PRE SLEEP																	
MS1 ACABA	POST SLEEP	OBSS UNBERTH	STBD WING SURVEY		NOSE CAP SURVEY	MEAL	EXERCISE	OBSS BERTH	RMS	PWRDN	L-1 COMM CHK	CREW#	MUS	PRE SLEEP	L-1 COMM CHK	PRE SLEEP												
MS2 SWANSON	POST SLEEP	EMU INSTL	EVA UNPACK & STOW	PST ISS EVA ENT PREP	EXERCISE	MEAL	PORT WING SURVEY	COMM1	PRE SLEEP																				
MS3 ARNOLD	POST SLEEP	EMU INSTL	EVA UNPACK & STOW	PST ISS EVA ENT PREP	EXERCISE	MEAL	LDRI D/L	OCA%	PRE SLEEP																				
MS4 PHILLIPS	POST SLEEP	MDK*	STBD WING SURVEY		NOSE CAP SURVEY	MEAL	EXERCISE	MUDS	MDK*	PRE SLEEP																			
FE-2 DN MAGNUS	POST SLEEP	EXERCISE	MEAL	EXERCISE	PRE SLEEP																								

DAY/NIGHT

ORBIT: 166 167 168 169 170 171 172 173 174

TDRS: W E Z

ORB ATT: -ZLV -XVV | BIAS +YSI | BIAS +XSI | BIAS -YSI | +ZLV | -ZLV -XVV

GND: MLA; WSS DFR; WSS DFR

NOTES:
@FILTER CK
*STATUS CK
18S LAUNCH
*A POD HTR RECONFIG
♣PRE SLEEP
#CHOICE D/L
%RATE RECONFIG
*STATUS CK

REPLANNED

GMT 03/26/09 (085) 03/27 01 02 03 04 05 06 07 08 09 10 11

MET Day 011 011/00 01 02 03 04 05 06 07 08 09 10 11 12

STS-119

FD12

CDR ARCHAMBAULT	PRE SLEEP	SLEEP		POST SLEEP
PLT ANTONELLI	PRE SLEEP	SLEEP	LOG	POST SLEEP
MS1 ACABA	PRE SLEEP	SLEEP		POST SLEEP / EXERCISE
MS2 SWANSON	PRE SLEEP	SLEEP	SLVA, DRYSLV, POST SLEEP, DRYSLV	POST SLEEP
MS3 ARNOLD	PRE SLEEP	SLEEP	SLVA, DRYSLV, POST SLEEP, DRYSLV	POST SLEEP
MS4 PHILLIPS	PRE SLEEP	SLEEP	LOG, SLVA, DRYSLV, POST SLEEP, DRYSLV	POST SLEEP
FE-2 DN MAGNUS	PRE SLEEP	SLEEP	SLVA, DRYSLV, POST SLEEP, DRYSLV	POST SLEEP

DAY/NIGHT

ORBIT 174 175 176 177 178 179 180 181 182

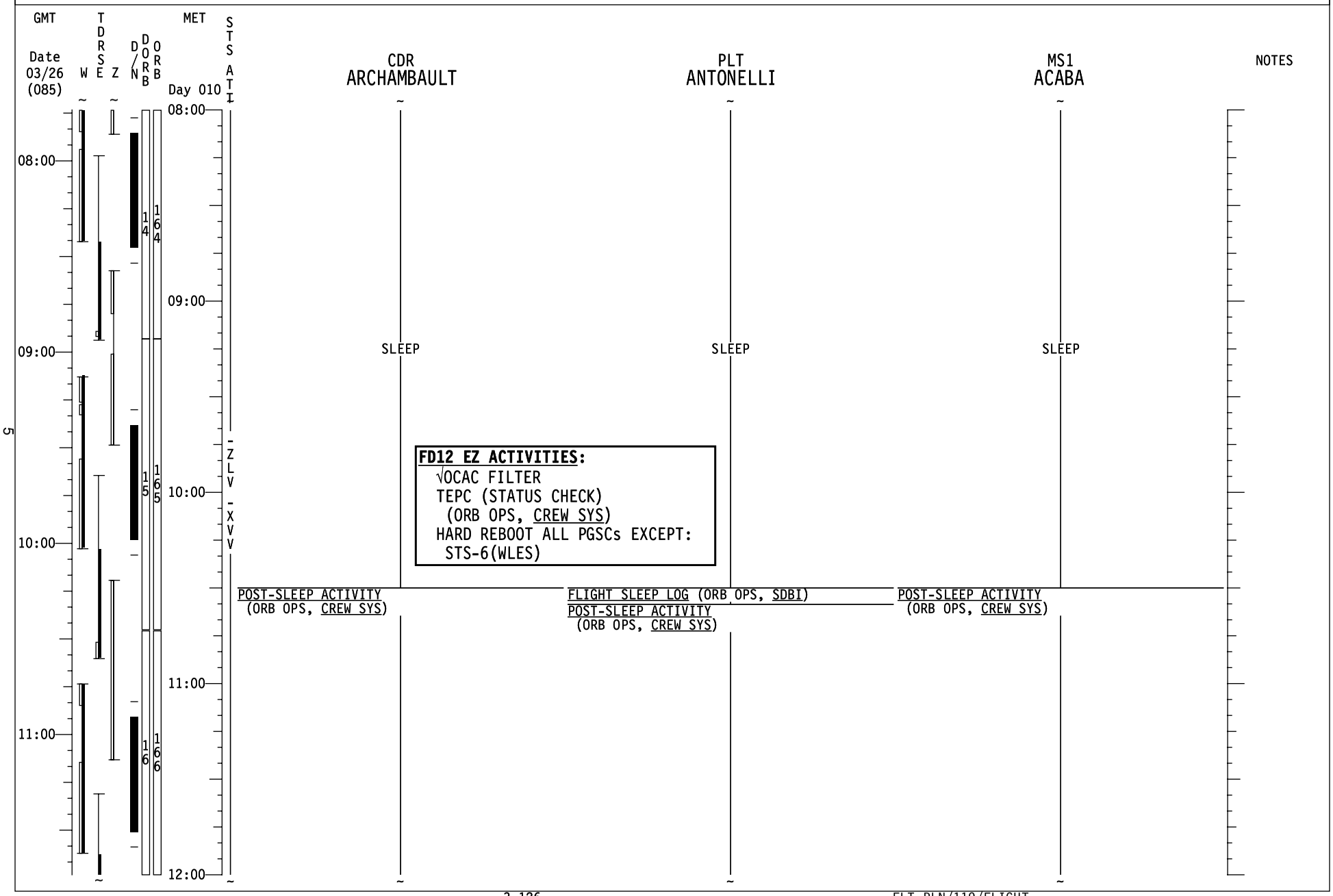
TDRS W E Z

ORB ATT -ZLV -XVV

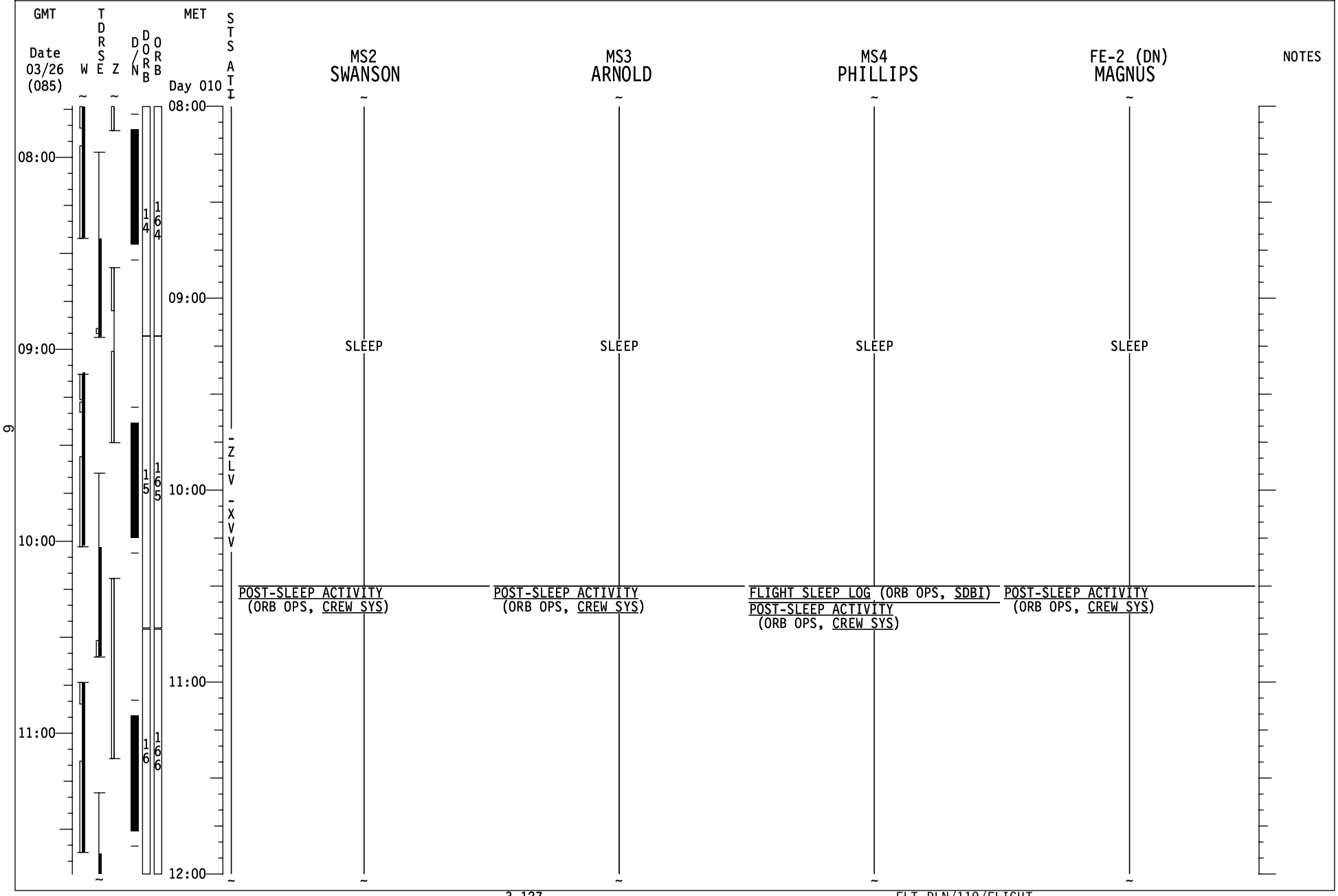
GND
- DFR
- DFR, MLA
- WSS, DFR, MLA
- WSS, DFR, MLA
- DFR

NOTES

STS-119 FD (12)


GMT
Date 03/26 (085)
W
TDRSE
Z
D/N
DORB
ORB
MET
Day 010
STS ATT
CDR ARCHAMBAULT
PLT ANTONELLI
MS1 ACABA
NOTES
08:00
09:00
10:00
11:00
12:00
14
164
15
165
16
166
-ZLV-XVV
SLEEP
SLEEP
SLEEP
FD12 EZ ACTIVITIES:
√OCAC FILTER
TEPC (STATUS CHECK)
(ORB OPS, CREW SYS)
HARD REBOOT ALL PGSCs EXCEPT:
STS-6(WLES)
POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)
FLIGHT SLEEP LOG (ORB OPS, SDBI)
POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)
POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

STS-119 FD (12)


GMT
Date 03/26 (085)
W
TDRSE
Z
D/N
DORB
ORB
MET
Day 010
STS ATT
MS2 SWANSON
MS3 ARNOLD
MS4 PHILLIPS
FE-2 (DN) MAGNUS
NOTES
08:00
09:00
10:00
11:00
12:00
14
15
16
164
165
166
-ZLV-XVV
SLEEP
POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)
FLIGHT SLEEP LOG (ORB OPS, SDBI)
POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

STS-119 FD (12)

GMT Date 03/26 (085) | W | TDRSE | Z | D/N | DORB | ORB | MET Day 010 | STS ATT

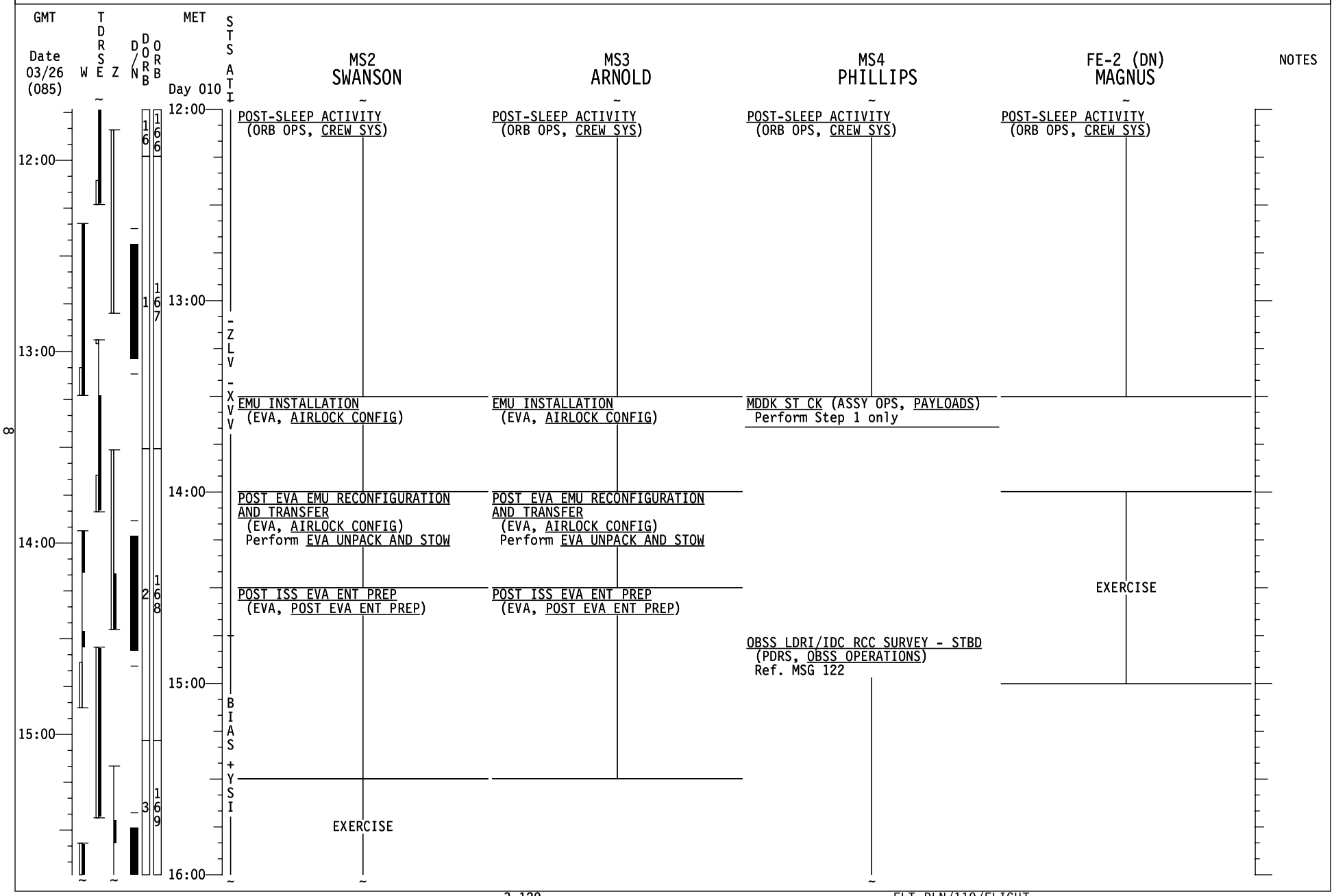
CDR ARCHAMBAULT	PLT ANTONELLI	MS1 ACABA	NOTES
POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
SUPPLY H2O DUMP USING FES (ORB OPS, ECLS) Step 1, using FES Pri A			
POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)			
	L17 Check MCIU filter screen		
	OBSS UNBERTH (PDRS, OBSS OPERATIONS) Ref. MSG 128	OBSS UNBERTH (PDRS, OBSS OPERATIONS) Ref. MSG 128	
EXERCISE			
SUPPLY H2O DUMP USING FES (ORB OPS, ECLS) Step 2, FES Pri A required			
MNVR (TRK) BIAS +YSI (Stbd Survey) TG=4 BV=5 P=0 Y=40 OM=280 A14/AUTO/VERN, OBSS UNBERTH Complete, Init TRK	OBSS LDRI/IDC RCC SURVEY - STBD (PDRS, OBSS OPERATIONS) Ref. MSG 122	OBSS LDRI/IDC RCC SURVEY - STBD (PDRS, OBSS OPERATIONS) Ref. MSG 122	

Time scale: 12:00, 13:00, 14:00, 15:00, 16:00

STS ATT: -ZLV -XVV BIAS +YSI

DORB: 16, 1, 2, 3; ORB: 166, 167, 168, 169

STS-119 FD (12)


GMT
Date 03/26 (085)
W
TDRSE
Z
D/N
DORB
ORB
MET
Day 010
STS ATT
MS2 SWANSON
MS3 ARNOLD
MS4 PHILLIPS
FE-2 (DN) MAGNUS
NOTES
12:00
13:00
14:00
15:00
16:00
1 6
1 6 6
1 6 7
2 1 6 8
3 1 6 9
-ZLV
-XVV
BIAS +YSI
POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)
EMU INSTALLATION (EVA, AIRLOCK CONFIG)
POST EVA EMU RECONFIGURATION AND TRANSFER (EVA, AIRLOCK CONFIG) Perform EVA UNPACK AND STOW
POST ISS EVA ENT PREP (EVA, POST EVA ENT PREP)
EXERCISE
MDDK ST CK (ASSY OPS, PAYLOADS) Perform Step 1 only
OBSS LDRI/IDC RCC SURVEY - STBD (PDRS, OBSS OPERATIONS) Ref. MSG 122
EXERCISE

STS-119 FD (12)

GMT Date 03/26 (085) | W | TDRSE | Z | D/N | DORB | ORB | MET Day 010 | STS ATT

CDR ARCHAMBAULT	PLT ANTONELLI	MS1 ACABA	NOTES
	OBSS LDRI/IDC RCC SURVEY - STBD (PDRS, OBSS OPERATIONS) Ref. MSG 122	OBSS LDRI/IDC RCC SURVEY - STBD (PDRS, OBSS OPERATIONS) Ref. MSG 122	
MNVR (TRK) BIAS +XSI (Nose Cap Survey) TG=4 BV=5 P=330 Y=0 OM=300 A14/AUTO/VERN, SURVEY STBD Cmplt, Init TRK			
OBSS LDRI-IDC RCC SURVEY-NOSE CAP (PDRS, OBSS OPERATIONS) Ref. MSG 122		OBSS LDRI-IDC RCC SURVEY-NOSE CAP (PDRS, OBSS OPERATIONS) Ref. MSG 122	
MEAL	MEAL	MEAL	
MNVR (TRK) BIAS -YSI (Port Survey) TG=4 BV=5 P=0 Y=323 OM=335 A14/AUTO/VERN, RCC SURVEY-PORT Step 3, Init TRK	OBSS LDRI/IDC RCC SURVEY-PORT (PDRS, OBSS OPERATIONS) Ref. MSG 122		
OBSS LDRI/IDC RCC SURVEY-PORT (PDRS, OBSS OPERATIONS) Ref. MSG 122			
		EXERCISE	

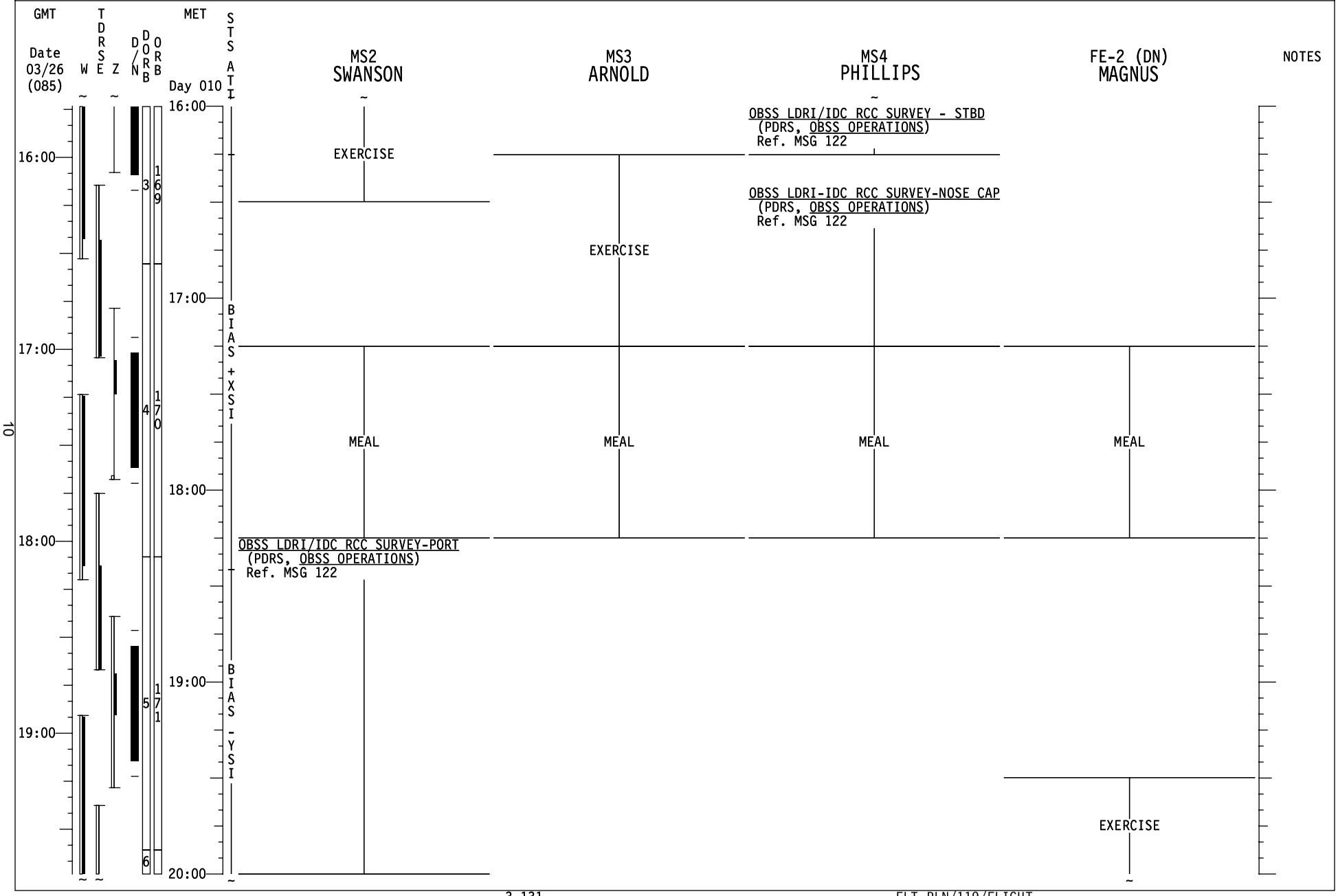
Time scale: 16:00, 17:00, 18:00, 19:00, 20:00

Stations: 3, 4, 5, 6; 169, 170, 171

BIAS +XSI

BIAS -YSI

STS-119 FD (12)


GMT
Date 03/26 (085)
W
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DORB
ORB
MET
Day 010
STS ATI
16:00
17:00
18:00
19:00
20:00
3
4
5
6
169
170
171
BIAS+XSI
BIAS-YSI
MS2 SWANSON
EXERCISE
MEAL
OBSS LDRI/IDC RCC SURVEY-PORT
(PDRS, OBSS OPERATIONS)
Ref. MSG 122
MS3 ARNOLD
EXERCISE
MEAL
MS4 PHILLIPS
OBSS LDRI/IDC RCC SURVEY - STBD
(PDRS, OBSS OPERATIONS)
Ref. MSG 122
OBSS LDRI-IDC RCC SURVEY-NOSE CAP
(PDRS, OBSS OPERATIONS)
Ref. MSG 122
MEAL
FE-2 (DN) MAGNUS
MEAL
EXERCISE
NOTES

STS-119 FD (12)

GMT Date 03/26 (085) | W | TDRS E | Z | D/N | DORB 6 7 8 | ORB 172 173 174 | MET Day 010 | STS ATT

CDR ARCHAMBAULT | PLT ANTONELLI | MS1 ACABA | NOTES

20:00

SUPPLY WATER DUMP USING FES
(ORB OPS, ECLS) Step 1, using FES Pri A

OBSS BERTH
(PDRS, OBSS OPERATIONS)

OBSS BERTH
(PDRS, OBSS OPERATIONS)

BIAS -YSI

21:00

RMS PWRDN
(PDRS, RMS PWRDN)
PORT RMS HTR A -OFF, B -AUTO

RMS PWRDN
(PDRS, RMS PWRDN)
PORT RMS HTR A -OFF, B -AUTO

MNVR (TRK) +ZLV -XVV (WSS L-1)
TG=2 BV=5 P=270 Y=0 OM=180
A1/AUTO/VERN, (21:10), Init TRK

+ZLV

LANDING-1 COMM C/O
(ORB OPS, COMM/INST)
WSSH AOS 21:31 - LOS 21:39
WSSH UHF C/O -Steps 1 & 3 only

EXERCISE

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

PLAYBACK OPERATIONS (CREW CHOICE)
(P/TV, CC) KU TDRE (21:37-21:56)

22:00

IMU STAR OF OPPTY ALIGN (ORB OPS, GNC)

MUS (ASSY OPS, PAYLOADS)

RCS/OMS POD HTR RECONFIG [A]

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

-ZLV -XVV

23:00

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

LANDING-1 COMM C/O
(ORB OPS, COMM/INST)
DFRS AOS 23:05 - LOS 23:13
Steps 1 & 3 only

SUPPLY H2O DUMP USING FES (ORB OPS, ECLS)
Step 2, FES Pri A req'd

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

PRIVATE MEDICAL CONFERENCE

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

00:00

STS-119 FD (12)

GMT Date 03/26 (085) | W | TDRSE | Z | D/N | DORB | ORB | MET Day 010 | STS ATT

20:00 21:00 22:00 23:00 00:00

6 | 172 | 7 | 173 | 8 | 174

BIAS -YSI | +ZLV | -ZLV -XVV

MS2 SWANSON

COMM STRING 1 C/O (PART A)
(ORB OPS, COMM/INST)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

MS3 ARNOLD

PLAYBACK (DIGITAL)
(PHOTO/TV, CUE CARD)
LDRI SURVEYS
KU TDRE (20:04-20:38)
KU TDRW (20:49-21:18)

B After Crew Choice D/L Complete:
L10(MUX) √MUX/VTR/CC PWR-ON (LED ON)
RECONFIGURE OCA DOWNLINK RATE
(ORB OPS, PGSC)
Perform Part C, Omit Step 4
On MCC GO:
L10(MUX) √MUX/VTR/CC PWR-OFF(LED OFF)

OCA RATE RECONFIG B
PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

MS4 PHILLIPS

EXERCISE

MUS (ASSY OPS, PAYLOADS)
MDDK ST CK (ASSY OPS, PAYLOADS)
Perform Step 1 only
PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

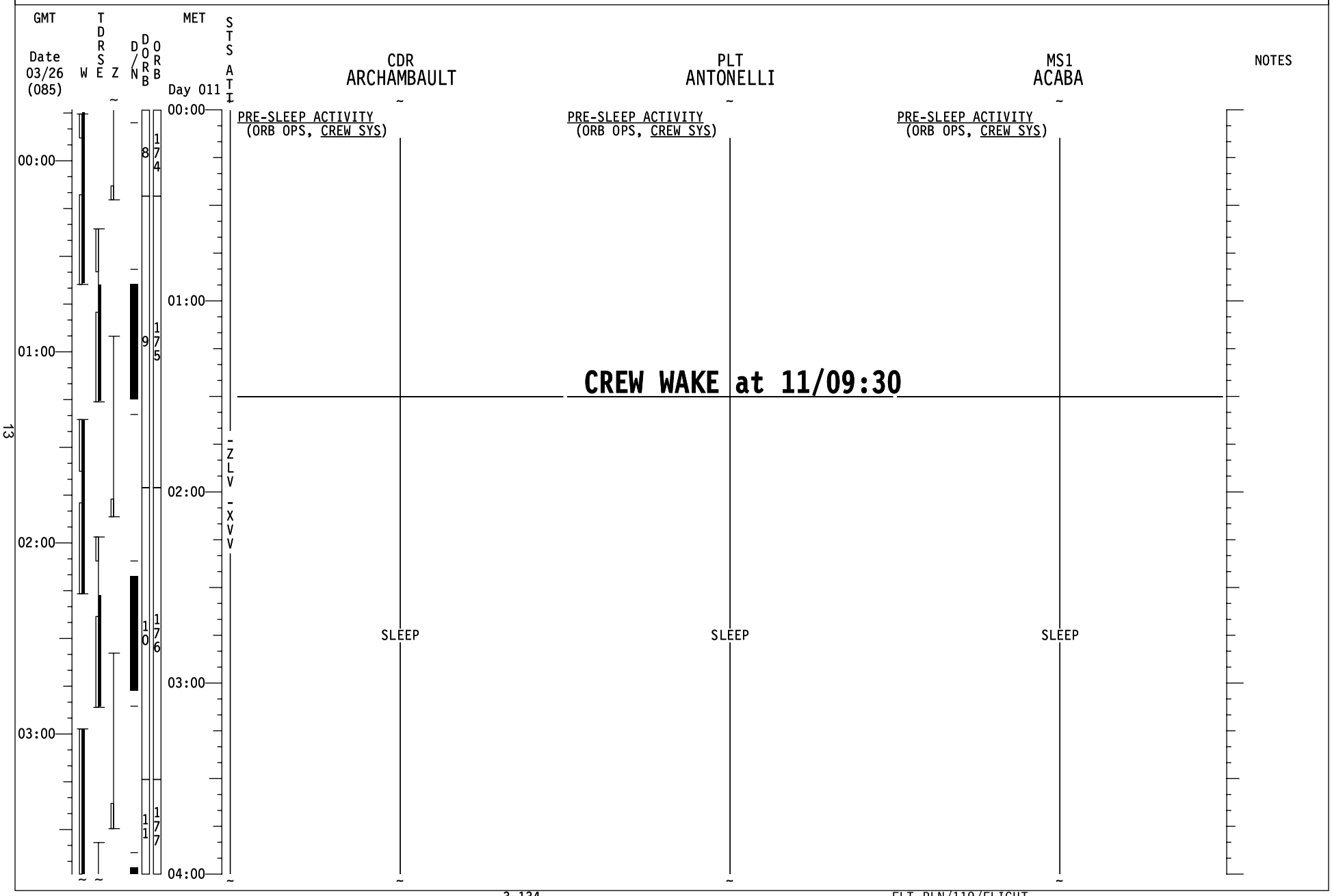
FE-2 (DN) MAGNUS

EXERCISE

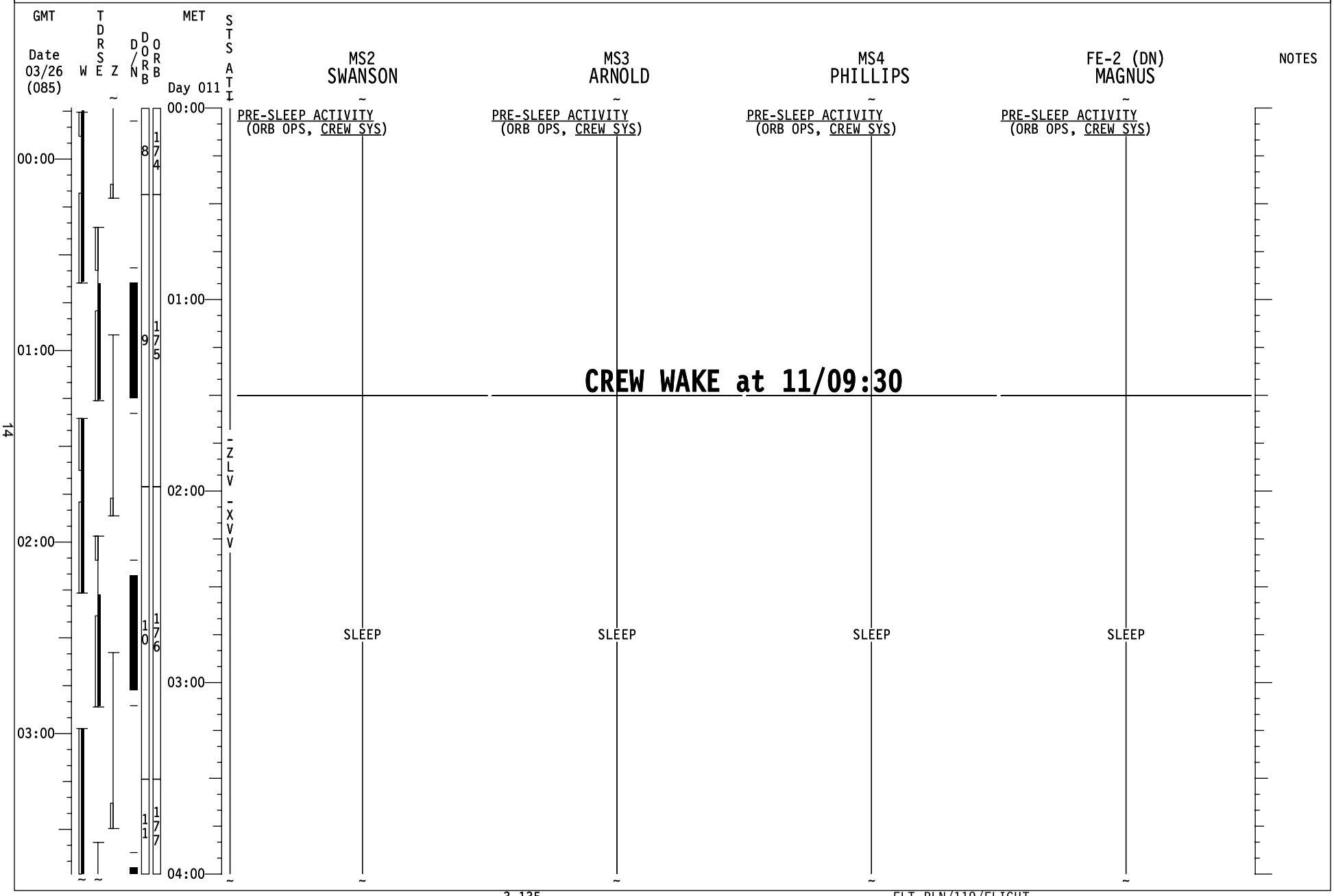
PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

NOTES

STS-119 FD (12)


GMT
Date 03/26 (085)
W
T D R S E
Z
D/N
D O R B
O R B
MET
Day 011
S T S A T I
00:00
01:00
02:00
03:00
04:00
8
9
10
11
174
175
176
177
-ZLV-XVV
CDR
ARCHAMBAULT
PLT
ANTONELLI
MS1
ACABA
NOTES
PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)
CREW WAKE at 11/09:30
SLEEP

STS-119 FD (12)


GMT
Date 03/26 (085)
W
TDRSE
Z
D/N
DORB
ORB
MET
Day 011
STS ATT
MS2 SWANSON
MS3 ARNOLD
MS4 PHILLIPS
FE-2 (DN) MAGNUS
NOTES
00:00
01:00
02:00
03:00
04:00
8
9
10
11
174
175
176
177
PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)
CREW WAKE at 11/09:30
-ZLV-XVV
SLEEP

MSG 127 - FD12 MISSION SUMMARY

Good Morning Discovery!

Great job yesterday on the flyaround! And for Sandy, welcome back to the shuttle.

YOUR CURRENT ORBIT IS: 196 X 185 NM

NOTAMS:

NOTAMS – NO CHANGES

EDW -	EDW IN USE. EDT ELS DAY / VFR ONLY.
EDW -	LAKEBED RWY 15/33 - GREEN. RWY 18L - UNUSABLE.
NOR -	LAKEBED RUNWAYS GREEN.
ILM -	DME DIW107 OTS
FMH -	TACAN PVD103 DME ONLY.
DOV -	RWY 14/32 CLOSED.
YQX -	TACAN YQX74 OTS.
MRN -	TACAN AOG23 OTS.
WAK -	TACAN AWK82 OTS.
HAW -	TACAN ASI59 DME OTS.
KKI -	TACAN RIY92 OTS.
IKF -	NOT USABLE. NO AGREEMENT.
BEN -	NOT RECOMMENDED/NOT SUPPORTED.

NEXT 2 PLS OPPORTUNITIES:

KSC15 ORB 170 – 10/17:37 SCT050 BKN200 7 160/14P23
EDW04 ORB 188 – 11/21:10 SKC 7 060/13P20

OMS TANK FAIL CAPABILITY:

L OMS FAILS: NO
R OMS FAILS: NO

LEAKING OMS PRPLT BURN:

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

OMS QUANTITIES(%)

L OMS OX = 36.1 R OMS OX = 35.8
FU = 35.6 FU = 35.8
Subtract interconnect counter for current OMS quantities.

END OF PAGE 1 OF 2, MSG 127

MSG 127 - FD12 MISSION SUMMARY

DELTA V AVAILABLE:

OMS	372 FPS
ARCS (TOTAL ABOVE QTY1)	35 FPS
TOTAL IN THE AFT	407 FPS
ARCS (TOTAL ABOVE QTY2)	69 FPS
FRCS (ABOVE QTY 1)	11 FPS
AFT QTY 1	75 %
AFT QTY 2	37 %

SYSTEM	FAILURE	IMPACT	WORK AROUND
GNC	-Z Star Tracker received a Pressure Fail BITE when powered-up prior to Undock.	None. Pressure loss does not affect star tracker performance. BITE displayed for -Z S TRK on SPEC 22	None. Nominal star tracker ops for the remainder of the mission.

END OF PAGE 2 OF 2, MSG 127

MSG 128 - EFGF TARGET PAINT

During a review of mission imagery, the RMS MER noticed some paint on the EFGF target of the OBSS is peeling. The affected locations are along the “wings” of the target. See images below. This peeled paint should not be an issue for OBSS operations.

END OF PAGE 1 OF 1, MSG 128