

MER Shift Reports

STS-107

Day 4 Shift 3

MER FLIGHT CREW EQUIPMENT- GFE/CFE
STS-107 SHIFT REPORT

TO: MER MANAGER

SUBJECT: FD05; 1st SHIFT REPORT

GMT: 020:09:00

EVENTS:

Cleaning up HUMSEP water leak. Deciding where to stow wet towels on return; either in the HAB stowage area, empty food lockers, and/or sleep stations. Ground wanted the crew to try and dry the towels by hanging them in the HAB and/or the middeck, as long as the towels weren't dripping wet.

MEIDX OPS.

FORWARD ACTIONS:

Monitor water issue with the HUMSEP. Looking for info on the ergometer for MMACS.

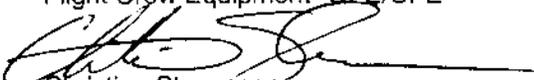
CHITS (Monitoring / Working / Waiting for Closure):

There are currently 5 CHITs in the system, 4 CLOSED, 1 OPEN (info only). NONE belong to Flight Crew Equipment

HARDWARE STATUS:

There have been no FCE anomalies recorded this reporting period. It is assumed all FCE is performing nominally. FCE is monitoring IFM/MMACS loops in assist for water containment

Flight Crew Equipment- GFE/CFE


Christian Steverson

1/24/03

MER Shuttle Safety Console
STS-107 FD 4 Shift 3
GMT 020:09:00

The MER Safety Console is not working any safety of flight issues.

Denise Londrigan

ORBITER ECLSS

STS-107 ECLSS SHIFT REPORT

FLIGHT DAY 5

SHIFT 3

All ECLSS systems performing nominally.

Consumables:	Supply water	400.7 lb.
	Waste water	19.7 lb.
	Orbiter Nitrogen	232.4 lb.

Group Leader
GMT 020/09:01

STS-107 ESD SYSTEMS SHIFT REPORT
DAY 4 SHIFT 3
GMT 020/09:00

Energy Division Subsystems (MPS, RCS, OMS, FC/PRSD, APU, and Hydraulics) continue to function satisfactorily.

John Norris
ESD Team Lead



Thermal 3rd Shift Report

STS-107, January 20, 2003
3 AM, MET 03/17:21 (20/09:00 GMT)

All temperatures are within acceptable limits and all thermal systems are operating nominally.

Shannon Belknap / Dave Norman

MER FLIGHT CREW EQUIPMENT- GFE/CFE
STS-107 SHIFT REPORT

TO: MER MANAGER

SUBJECT: FD04; 3rd SHIFT REPORT

GMT: 020:06:24

EVENTS:

LSP1 waved (from Previous shift notes). RED TEAM AWAKE until GMT 020:02:39:00.

Continued experimentation using MEIDEX, PHAB4, SOLSE,

Anomaly Report MMACS 001-A (Status: CLOSED) authored by Lionell Russell/DF54, regarding the 70mm Hasselblad Intermittent Motor Drive.

- o **DESCRIPTION:** Crew reported that 70mm Hasselblad camera (S/N 1036) motor drive binds/jams up after approximately three photo shots. The crew swapped out camera body batteries, motor drive batteries, and the film magazine. However, after approximately three more photo shots, the motor drive jammed again. The film magazine was attached to a different 70mm Hasselblad camera assembly and worked fine. Manual advance of the film worked nominally.
- o **IMPACT:** 70mm Hasselblad camera (S/N 1036) motor drive not available due to intermittent jam.
- o **RESOLUTION:** Troubleshooting failed to clear the intermittent jam condition (camera began jamming after every shot following troubleshooting). Camera manual film advance is nominal. Crew can use the remaining 70mm Hasselblad camera/motor drive, or use the affected camera in manual mode.

BLUE TEAM currently on shift

No other issues reported.

* UPDATE ***

GMT 020:03:18

(9:18pm)HUMSEP inspect was performed by PLT.

GMT 020:03:27

PLT reported large globule of water present. Approximately 2 quarts of water build-up was observed in the Rotated Separator Assy, and small drops in the vicinity. Cleanup will begin after some photos are taken. Ground concurred with cleanup ops.

GMT 020:03:33

RSA is observed totally flooded underneath the cover. Water on APDU is everywhere, which will get mopped up. Initial assessment of water build-up was low. Water Separator Assy. is completely flooded, and coming out of four ports, backside of cover.

GMT 020:03:34

Acoustic pads soaked like sponge. APDU water level needs to be reassessed. 1/3 of pads wet, but not soaked through, from further inspect.

GMT 020:03:57

Informed MMACS/IFM that vacuum bags should hold 24 oz only. Testing was done earlier on bags. Bags contain paper that turn to gel when in contact with water, Per Lorree Fleming (x34457), it is best when gel is closer to solid than liquid. This was concurred by IFM on loops.

GMT 020:04:14

Dale Gentry, USA Mission Mgr-STS107 called. Inquired on towel qty. 4 lintless towels, 10 washcloth in MA4D. 39 towels, 32 washcloth in MA82H. 10 bags in WMC to contain.

GMT 020:04:16

Crew calldown (PLT) 5 holes in aft side of cover – verified that inside is not flooded anymore. Rerouted to CST. Vacuum is being considered. Water volume has gone down.

GMT 020:04:34

Contacted Steve Stenzel, inquired on towel qty; 80 in airlock, 36 in WMC – approx 116.

GMT 020:05:01

Informed MMACS/IFM on qty. update. SPACEHAB/POCC Ops said that at most, possibly one towel available. MMACS will assume none in SPACEHAB.

GMT 020:05:11

MMACS asked how much does a wet towel weigh? After quick test, with help of Lorree Fleming, towel weighs approx. 5-6 pounds wet. Informed MMACS of this data.

GMT 020:05:23

Question from MMACS: how do you rid water from towel? Suggested to MMACS: Crew called down that towels were inside the ziploc bags. what if the ziploc bags were opened enough to allow vacuum in bag, turn vacuum on and suck/dry. MMACS will consider.

GMT 020:05:31

IFM/MMACS -> 15# of water approx. estimated. equates to approx 3 towels.

GMT 020:05:34

Contacted by MMACS console. will receive email of pictures link (https://issimagery.jsc.nasa.gov/collections/Photos/STS_Missions/STS-107/).

GMT 020:05:46

MMACS/IFM/FCE on loops - how to dry. Clothesline cord in IFM Drawer 1 - PN 528-40953-3, 18ft long; See CCCD: SED32103900

**MER FLIGHT CREW EQUIPMENT- GFE/CFE
STS-107 SHIFT REPORT**

GMT 020:06:00 MMACS informed FD that if towels were dripping/soaked, do not remove from bags.

GMT 020:06:21 Beginning handover to Chris Stevenson. Per MMACS/Mel Friant, more pictures may be made available tomorrow using same link.

FORWARD ACTIONS:

Monitor water issue.

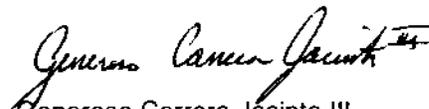
CHITS (Monitoring / Working / Waiting for Closure):

There are currently 5 CHITs in the system, 4 CLOSED, 1 OPEN (info only). NONE belong to Flight Crew Equipment.

HARDWARE STATUS:

There have been no FCE anomalies recorded this reporting period. It is assumed all FCE is performing nominally. FCE is monitoring IFM/MMACS loops in assist for water containment.

10 towels were called down as sopping wet, and stored in four bags. – MMACS/IFM loop
FIDO wants to know temp./final stowage for towels. No more than 20 pounds anticipated.
Fwd. Spacehab is considered.


Generoso Carrera Jacinto III
Flight Crew Equipment- GFE/CFE



DPS PASS FSW, MEDS & H/W MER Shift Report

STS-107

Date: 1/20/2003

GMT: 020/09:00:00

Shift: 3rd

SYSTEM STATUS / ISSUES BEING WORKED

- All DPS systems performing nominally.

DPS Team Lead: Christian Garcia

Signature: *Christian Garcia*

MER Shift Reports

STS-107

Day 4 Shift 2

STS-107 ESD SYSTEMS SHIFT REPORT
DAY 4 SHIFT 2
GMT 020/00:00

Energy Division Subsystems (MPS, RCS, OMS, FC/PRSD, APU, and Hydraulics) continue to function satisfactorily with the following notes or exceptions:

OMS/RCS

1. The left OMS crossfeed zone 1 A heater thermostat continues to dither.
2. Crossfeed Line Repress using the LOMS B crossfeed valves, occurred at 019/20:34 GMT.
3. Left OMS GN2 Accumulator was repressurized (V43P4549C) at 019/20:33 GMT because the accumulator pressure had dropped to 301 psia (C&W limit is 300 psia). The final accumulator pressure was nominal at 319 psia. The pressure trace, which resulted in the repress, followed the temperature as reflected in the left engine ox valve, left OMS fuel injector temperatures, and the left engine cover heater cycling (V43T4641A, V43T4643A, and V43T4720A respectively).
4. OMS and RCS system data has been reviewed up through 020/00:00 GMT. System performance continues as expected with no anomalies noted.
5. All vernier jet firing through 019/19:38:58.135 GMT have been reviewed. There have been no anomalous pulses.
6. 23 of 38 primary thrusters have been fired. No new primary thrusters have been fired since the previous report:

Hydraulics – The HYD/WSB Systems are operating nominally and all parameters are within their expected ranges.

Total Circ Pump Runs

Thermal	Accumulator Recharges
Sys 1: 1 for elevon park	0
Sys 2: 0 runs	0
Sys 3: 0 runs	0

Tom Davies
ESD Team Lead

STS-107

OMS/RCS Day 4 Shift 2 Report

INITIATOR: Arrieta
 DATE: January 19, 2003

MET: 03/08:30
 GMT: 020/00:09
 CENTRAL TIME: 06:09 PM CST

	Left		Right		Forward	
	Oxidizer	Fuel	Oxidizer	Fuel	Oxidizer	Fuel
PFS %	82.0	81.8	81.0	80.6	71.2	68.0
Interconnect Usage	0.000		0.000			

ORBIT

1. The left OMS crossfeed zone 1 A heater thermostat continues to dither.
2. Crossfeed Line Repress using the LOMS B crossfeed valves, occurred at 019/20:34 GMT.
3. Left OMS GN2 Accumulator was repressurized (V43P4549C) at 019/20:33 GMT because the accumulator pressure had dropped to 301 psia (C&W limit is 300 psia). The final accumulator pressure was nominal at 319 psia. The pressure trace, which resulted in the repress, followed the temperature as reflected in the left engine ox valve, left OMS fuel injector temperatures, and the left engine cover heater cycling (V43T4641A, V43T4643A, and V43T4720A respectively).

Data Review

1. OMS and RCS system data has been reviewed up through 020/00:00 GMT. System performance continues as expected with no anomalies noted.
2. All vernier jet firing through 019/19:38:58.135 GMT have been reviewed. There have been no anomalous pulses.

RCS PRESSURIZATION LEG FRCS: A LRCS: A RRCS: A

23 of 38 primary thrusters have been fired. No new primary thrusters have been fired since the previous report:

F1F		L1A	X	R1A	X
F2F		L3A	X	R3A	X
F3F		L1L		R1R	
F1L		L2L		R2R	
F3L	X	L3L	X	R3R	X
F2R		L4L		R4R	
F4R	X	L1U	X	R1U	X
F1D	X	L2U		R2U	
F2D	X	L4U		R4U	
F3D	X	L2D	X	R2D	X
F4D	X	L3D	X	R3D	X
F1U	X	L4D	X	R4D	X
F2U	X				
F3U	X				

FD04 Mechanical Shift Report

Mechanical systems are performing nominally. The port radiator was stowed at GMT 19/23:31:03. There was a data drop out during radiator stow because a TDRS handover was performed. The motor run currents and run times appeared nominal.

Approximately 5 seconds after the radiator was latched in place there was a 0.2 second current draw on AC2 and AC3. Neither the limit switch or op stats transferred but they are only 1 HZ data so such a short event could have been missed. Even if the current draw was part of the radiator drive or latch system, the limit switches appear to be functioning nominally so no action is needed or recommended.

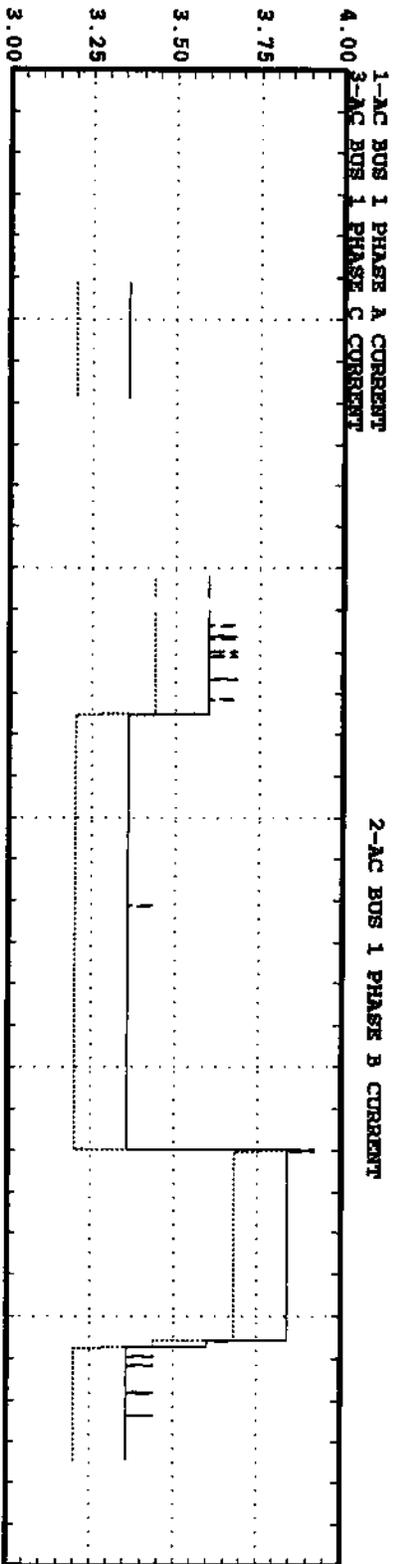


Chip Heind
GMT 020/00:07

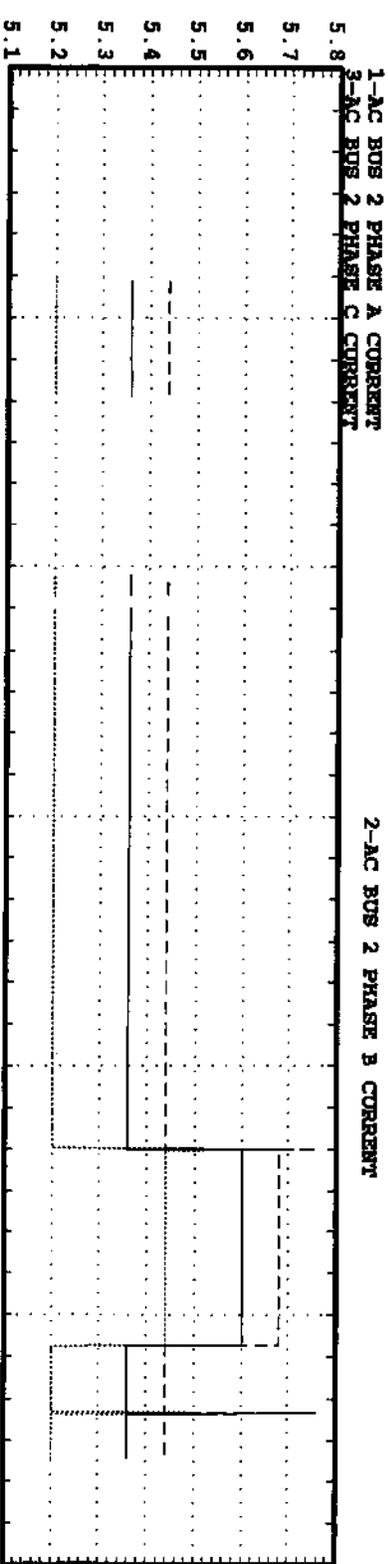
AC BUS CURRENT TRACE

M E W S SAMPLE RATE: 0 (sec/sample) Subsystem: mech
 FORMAT: ACBUS123 DATA: PORTRADSTOW Flight: STS-107

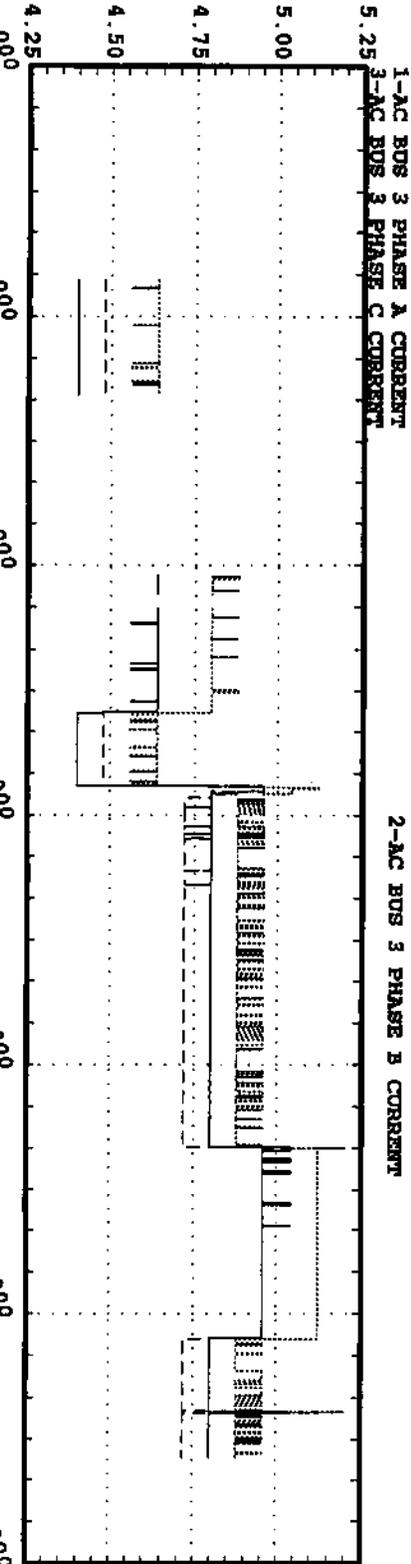
V76C1540A
AMP
V76C1541A
AMP
V76C1542A
AMP



V76C1640A
AMP
V76C1641A
AMP
V76C1642A
AMP



V76C1740A
AMP
V76C1741A
AMP
V76C1742A
AMP

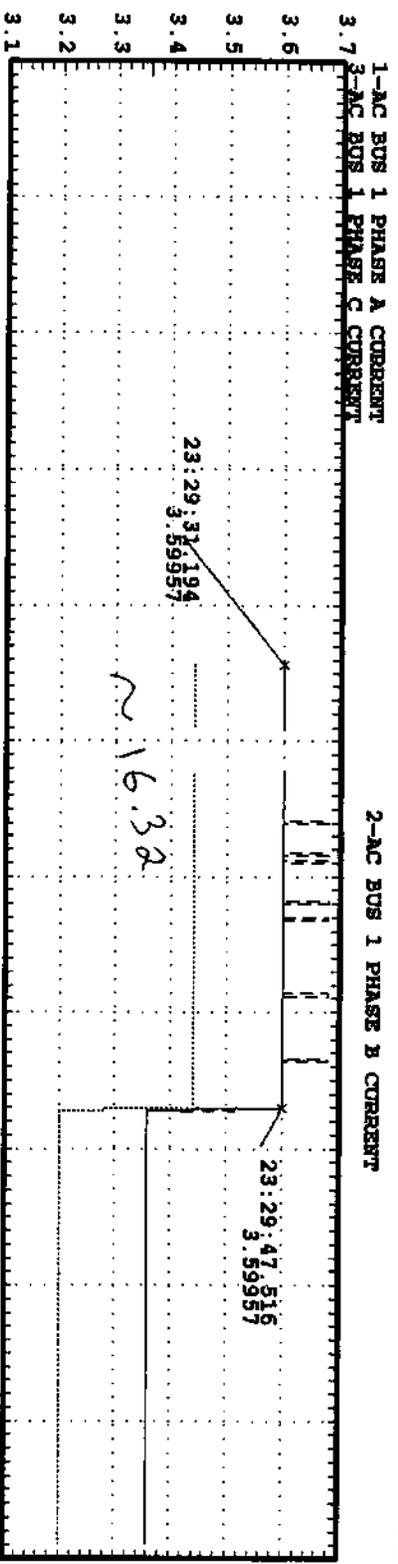


GMT
 2003-019:23:28:30.000
 2003-019:23:29:00.000
 2003-019:23:29:30.000
 2003-019:23:30:00.000
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 2003-019:23:31:00.000
 2003-019:23:31:30.000

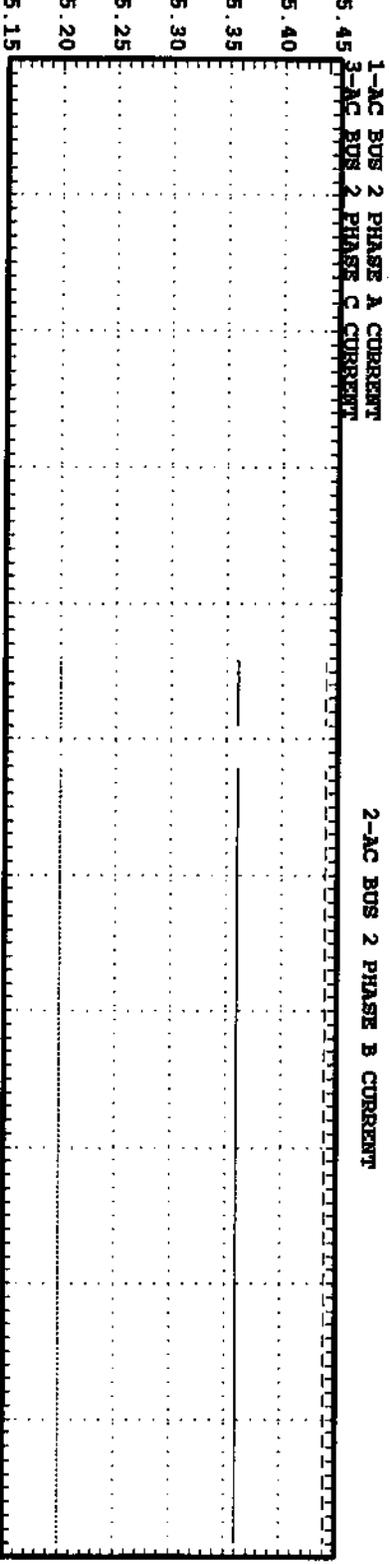
AC BUS CURRENT TRACE

M E W S SAMPLE RATE: 0 (sec/sample) Subsystem: mech
 FORMAT: ACBUS123 DATA: PORTRADSTOM Flight: STS-107

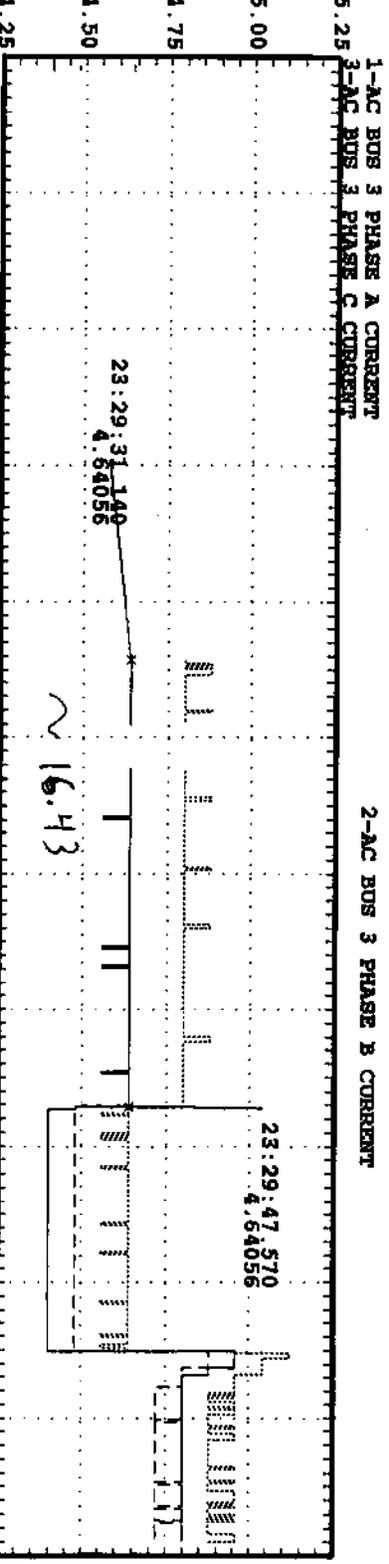
V76C1540A	AMP
V76C1541A	AMP
V76C1542A	AMP



V76C1640A	AMP
V76C1641A	AMP
V76C1642A	AMP



V76C1740A	AMP
V76C1741A	AMP
V76C1742A	AMP

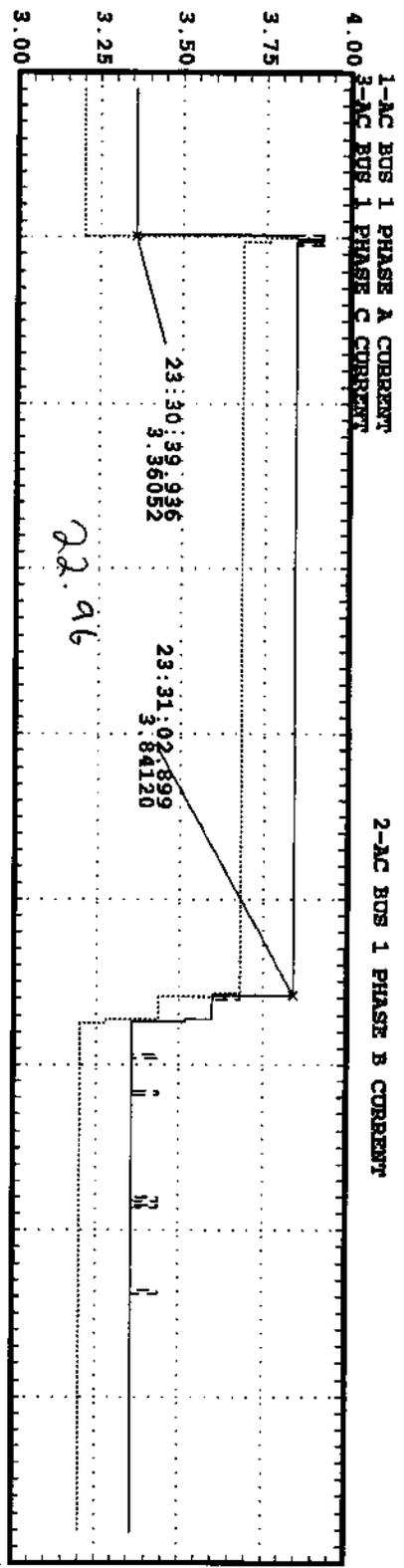


GMT
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 2003_019:23:29:14:00
 2003_019:23:29:19:00
 2003_019:23:29:24:00
 2003_019:23:29:29:00
 2003_019:23:29:34:00
 2003_019:23:29:39:00
 2003_019:23:29:44:00
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 2003_019:23:29:59:00
 2003_019:23:30:04:00

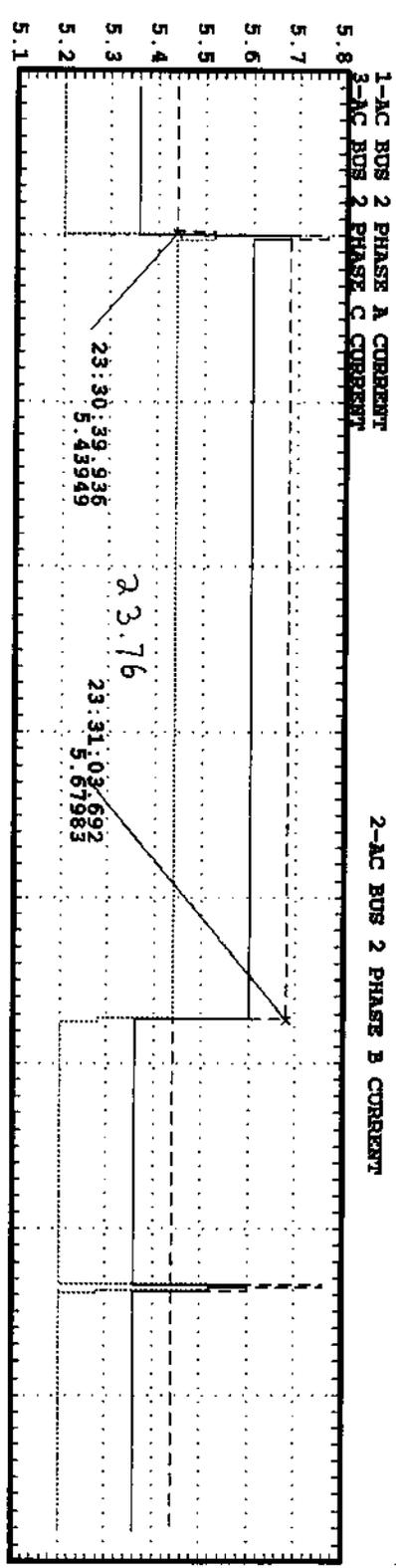
AC BUS CURRENT TRACE

M E W S SAMPLE RATE: 0 (sec/sample) Subsystem: mech
 FORMAT: ACBUS123 DATA: FORRADSTOM Flght: STS-107

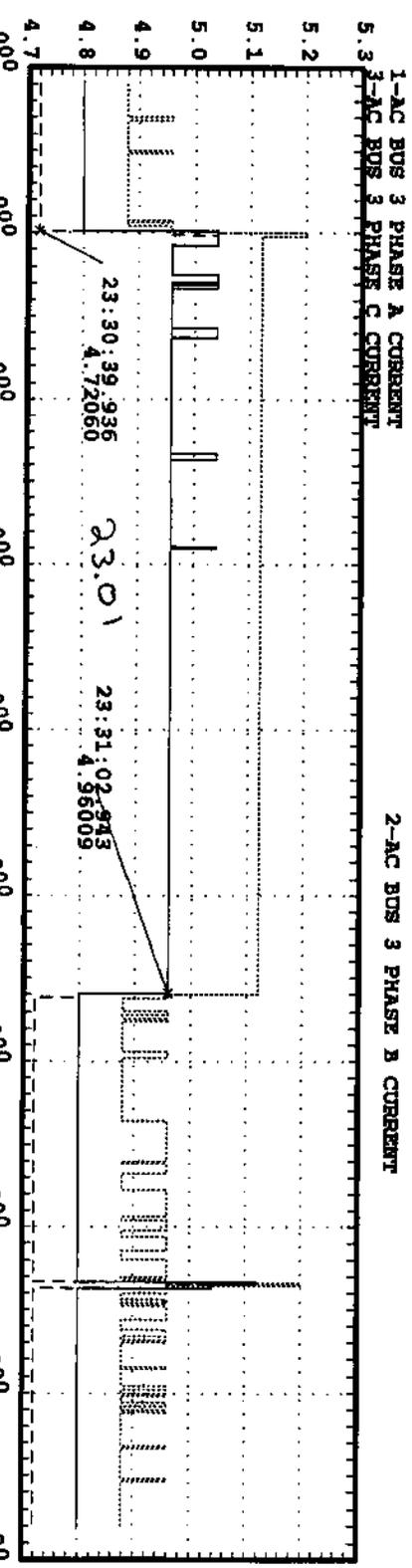
V76C1540A	AMP
V76C1541A	AMP
V76C1542A	AMP



V76C1640A	AMP
V76C1641A	AMP
V76C1642A	AMP



V76C1740A	AMP
V76C1741A	AMP
V76C1742A	AMP

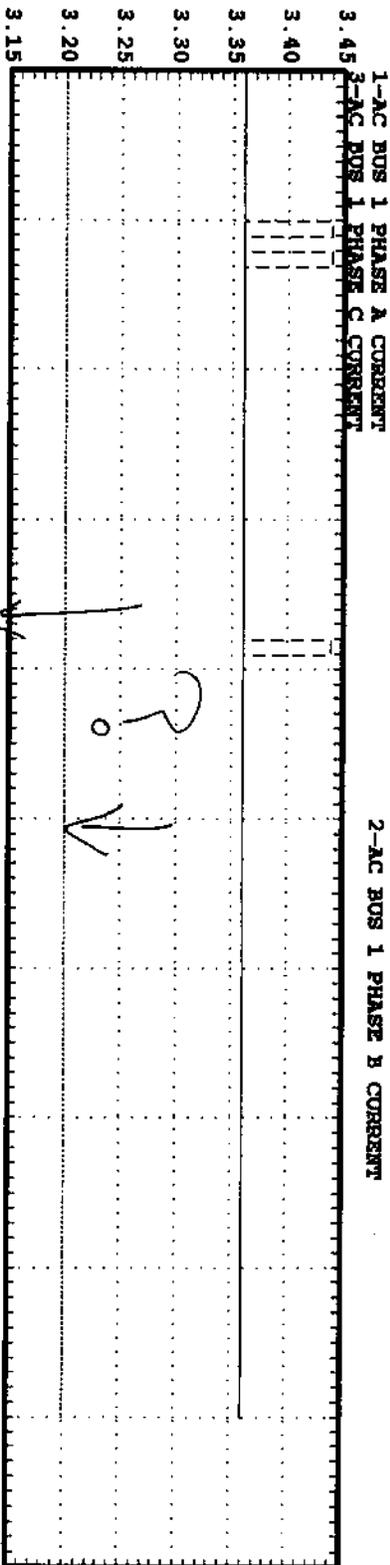


GMT
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 2003_019:23:30:40.000
 2003_019:23:30:45.000
 2003_019:23:30:50.000
 2003_019:23:30:55.000
 2003_019:23:31:00.000
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 2003_019:23:31:10.000
 2003_019:23:31:15.000
 2003_019:23:31:20.000

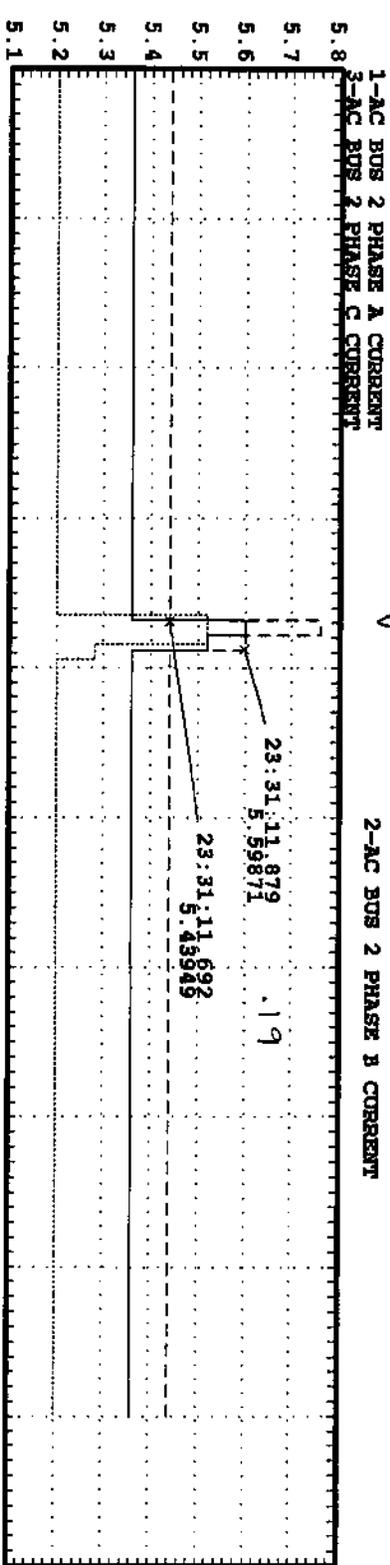
AC BUS CURRENT TRACE

M E W S SAMPLE RATE: 0 (sec/sample) Subsystem: mech
 FORMAT: ACBUS123 DATA: PORTRADSTOW Flight: STS-107

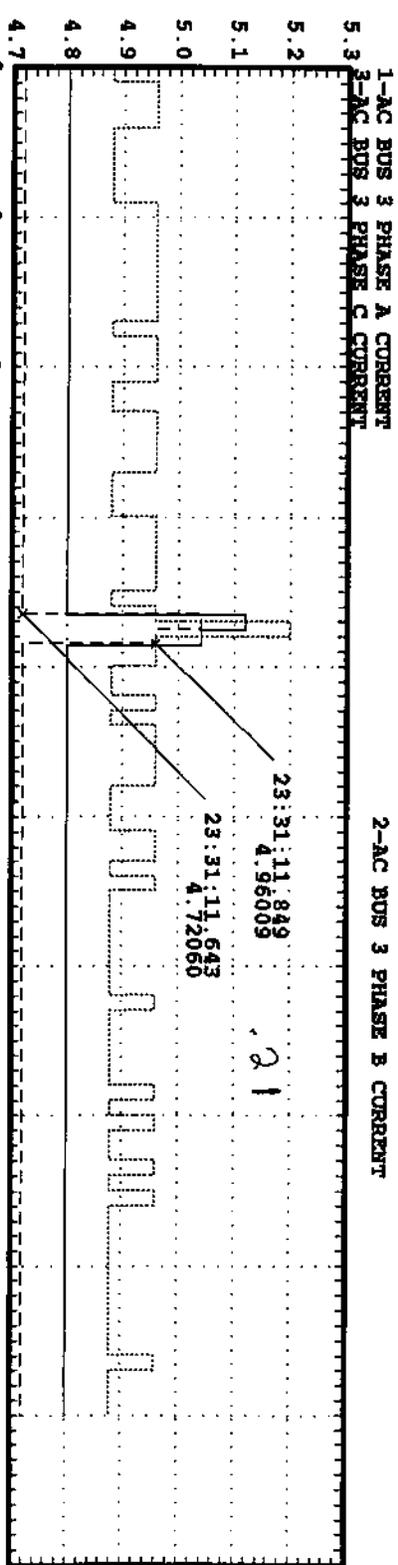
V76C1540A	AMP
V76C1541A	AMP
V76C1542A	AMP



V76C1640A	AMP
V76C1641A	AMP
V76C1642A	AMP



V76C1740A	AMP
V76C1741A	AMP
V76C1742A	AMP



GMT
 2003-019:23:31:08.000
 2003-019:23:31:09.000
 2003-019:23:31:10.000
 2003-019:23:31:11.000
 2003-019:23:31:12.000
 2003-019:23:31:13.000
 2003-019:23:31:14.000
 2003-019:23:31:15.000
 2003-019:23:31:16.000
 2003-019:23:31:17.000
 2003-019:23:31:18.000

Thermal

STS-107 MER Thermal 2nd Shift Report

020/01:00 GMT, 19:00 CST 01/19/2003

All thermal systems are performing nominally and all temperatures are within acceptable limits.

Steve Tidwell/Dave Russell

ORBITER ECLSS

STS-107 ECLSS SHIFT REPORT

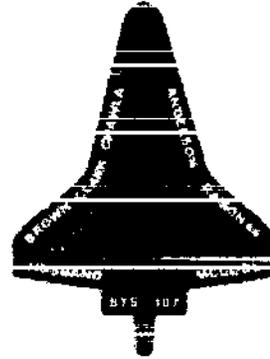
FLIGHT DAY 5

SHIFT 2

All ECLSS systems performing nominally.
Supply and waste water dumps performed.
Port radiator panel stowed at GMT 19/23:34.

Consumables:	Supply water	334 lb.
	Waste water	14.3 lb.
	Orbiter Nitrogen	230 lb.

Karen Thacker
GMT 020/00:52



DPS PASS FSW, MEDS & H/W MER Shift Report

STS-107

Date: 1/19/2003

GMT: 020/01:00:00

Shift: 2nd

SYSTEM STATUS / ISSUES BEING WORKED

- All DPS systems performing nominally.

DPS Team Lead: Christopher Marchant

Signature: *C. Marchant*

MER Shuttle Safety Console
STS-107 FD 4 Shift 2
GMT 020:01:00

The MER Safety Console is not working any safety of flight issues.

Ross Engle

**MER FLIGHT CREW EQUIPMENT- GFE/CFE
STS-107 SHIFT REPORT**

TO: MER MANAGER

SUBJECT: FD04: 3rd SHIFT REPORT

GMT: 020:01:00

EVENTS:

LSP1 waved (from Previous shift notes). RED TEAM AWAKE until GMT 020:02:39:00.

Continued experimentation using MEIDEX, PHAB4, SOLSE,

Anomaly Report MMACS 001-A (Status: CLOSED) authored by Lionell Russell/DF54, regarding the 70mm Hasselblad Intermittent Motor Drive.

- **DESCRIPTION:** Crew reported that 70mm Hasselblad camera (S/N 1036) motor drive binds/jams up after approximately three photo shots. The crew swapped out camera body batteries, motor drive batteries, and the film magazine. However, after approximately three more photo shots, the motor drive jammed again. The film magazine was attached to a different 70mm Hasselblad camera assembly and worked fine. Manual advance of the film worked nominally.
- **IMPACT:** 70mm Hasselblad camera (S/N 1036) motor drive not available due to intermitten jam.
- **RESOLUTION:** Troubleshooting failed to clear the intermittent jam condition (camera began jamming after every shot following troubleshooting). Camera manual film advance is nominal. Crew can use the remaining 70mm Hasselblad camera/motor drive, or use the affected camera in manual mode.

BLUE TEAM currently on shift

No other issues reported.

FORWARD ACTIONS:

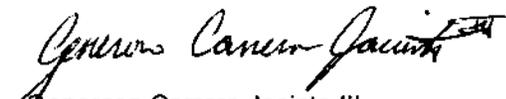
None at this time.

CHITS (Monitoring / Working / Waiting for Closure):

There are currently 5 CHITs in the system, 4 CLOSED, 1 OPEN (info only). NONE belong to Flight Crew Equipment.

HARDWARE STATUS:

There have been no FCE anomalies recorded this reporting period. It is assumed all FCE is performing nominally.


Generoso Carrera Jacinto III
Flight Crew Equipment- GFE/CFE

MER Shift Reports

STS-107

Day 4 Shift 1

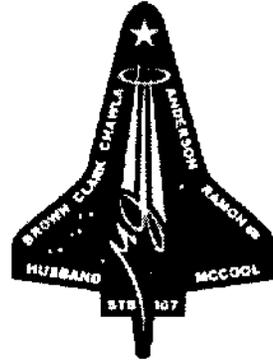
STS-107
MER Comm and Track Shift Report
GMT 19:17:30
Shift 1

All comm and track systems are operating nominally.

INCO had the crew and ground configure for OCA operations, and both the forward and return links operated properly. The Spacehab command link (128 kbps) via the Ku-Band was fine after the ground reset the onboard EDSMU. The Payload operators believe the Ku-Band channel 2 data problem is in the EDSMU, and they are trying to reconfigure the ground equipment to work around the problem.

Marty O'Hare

MER Comm & Track



DPS PASS FSW, MEDS & H/W MER Shift Report

STS-107

Date: 1/19/2003

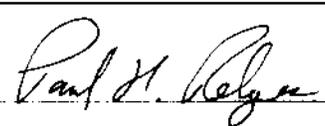
GMT: 019/17:00:00

Shift: 1st

SYSTEM STATUS / ISSUES BEING WORKED

- All DPS systems performing nominally.

DPS Team Lead: Paul Relyea

Signature: 

MER FLIGHT CREW EQUIPMENT- GFE/CFE
STS-107 SHIFT REPORT

TO: MER MANAGER

SUBJECT: FD04; 2nd SHIFT REPORT

GMT: 019:17:00

EVENTS:

LSP1 waved. Move to red team FD04.

Hasselblad Camera motor drive is still not functioning. The motor jams after EVERY picture now, but the camera functions in manual mode without issue. There seems to be an alignment issue with the shutter motor drive.

Crew will continue to use the camera in manual mode.

FORWARD ACTIONS:

CHITS (Monitoring / Working / Waiting for Closure):

There are currently 5 CHITs in the system, 4 CLOSED, 1 OPEN (info only). NONE belong to Flight Crew Equipment.

HARDWARE STATUS:

There have been no FCE anomalies recorded this reporting period. It is assumed all FCE is performing nominally.



Keith Illg
Flight Crew Equipment- GFE/CFE

STS-107 (OV-102 FLT 28)
1/19/03
11:00 AM
On-Orbit Shift Report

The HYD/WSB Systems are operating nominally and all parameters within their expected ranges. There have been no additional circulation pump runs for thermal conditioning or bootstrap re-pressurization. The HYD/WSB group is not working any issues at this time.

Total Circ Pump Runs

Thermal	Accumulator Recharges
Sys 1: 1 for elevon Park	0
Sys 2: 0 runs	0
Sys 3: 0 runs	0

Charles Ritrivi

HYD/WSB SSE

ORBITER ECLSS

STS-107 ECLSS SHIFT REPORT

FLIGHT DAY 5

SHIFT 1

All ECLSS systems are performing nominally.

Consumables:	Supply water	365.3 lb.
	Waste water	85.3 lb.
	Orbiter Nitrogen	235.8 lb.

Group Leader
GMT 019/16:59

STS-107 ESD SYSTEMS SHIFT REPORT
DAY 4 SHIFT 1
GMT 019/17:00

Energy Division Subsystems (MPS, RCS, OMS, FC/PRSD, APU, and Hydraulics) continue to function satisfactorily with the following notes or exceptions:

APU - All APU heaters are functioning nominally on the 'A' string. All APU on-orbit parameters are nominal.

FC/PRSD - Subsystem performance is nominal.

The second on-orbit fuel cell purge was an auto purge performed at 019:12:19 GMT (02/20:41 MET).

The first on-orbit FCMS data take was successfully initiated at 18/14:54 GMT. The crew initially had trouble getting data to flow. Rebooting the PGSC didn't work. They tried again using the back up FCMS cable and were able to perform a successful data take. This is documented in Anomaly Report EGIL 002. The plan will be to use the back up cable for any subsequent FCMS data takes. At this point we're not sure if the problem was with the cable, the connections, or the PGSC. The FCMS data was downlinked, analyzed, and data appears nominal.

The EGIL's were looking at the difference between FC3 CPM 1 telemetry measurement and the mathematical reproduction of this measurement based on FCMS data. There is an inherent difference in the mathematical reproduction. The reproduction is based on summations of 32 separate individual cell measurements. The difference between the FCMS reproduction and the actual CPM reading is within family. At this point, the CPM is trending nominally and has responded well to load changes.

Fuel Cell 3 Alternate Product Water line temperature indicates there may be some very slight seepage or water down the alternate path. This has been seen on previous missions.

Richard Phillips
ESD Team Lead

AVIONICS
FLIGHT CONTROL / GNC DAILY REPORT

01/19/03

STS-107
Daily Report
Flight Day 3

Flight controls and GNC systems are performing nominally.

Chuck Beatty
Jan. 19, 2003

MER Shuttle Safety Console
STS-107 FD 4 Shift 1
GMT 19:16:40

The MER Safety Console has been monitoring onboard activities and is not working any safety of flight issues at this time.

For reference, we did research what hazard reports are associated with ascent debris. We came up with four we thought were appropriate for this flight: ET T.02, "Loss of TPS"; INTG 037, "Degraded Functioning of Orbiter TPS or Damage to the Windows Caused by SRB/ET Ablatives or Debonded ET or SRB TPS"; INTG 081, "Impact of Exterior Detached/Uncontained Debris (other than ice) on the Shuttle Vehicle"; Orbi 249, "Structural Overheating Caused by TPS Damage/Failure". Electronic and/or paper copies of these hazards are available at the console.

Andy Foster



**Thermal 1st Shift Landing Report
STS-107
January 19, 2003 11AM (019/17:00 GMT)**

The performance of orbiter thermal systems is nominal and all subsystem temperatures are operating within acceptable limits.

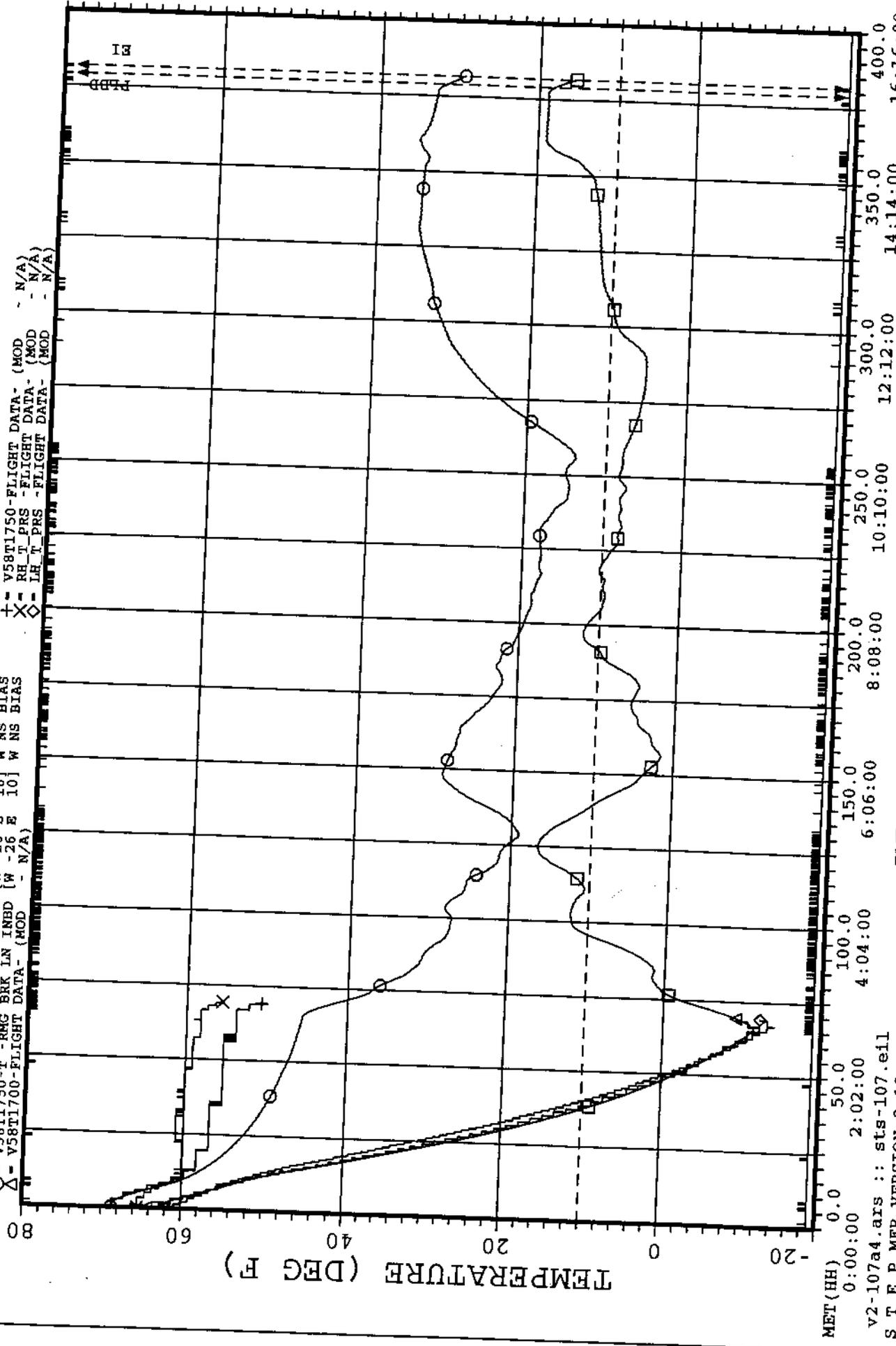
On the attitude timeline, MOD pointing has replanned the state vectors to MET 5 days. Main landing gear tire temperatures are tracking the predictions well. The TCS attitude change recommendations for main landing gear tire thermal conditioning have not been incorporated into the ATL. MOD Pointing had projected that he would have the state vector replan thru the end of mission available at ~ 8 days MET (mid-mission).

Diana Coronado

STS-107 Rev A4 ATL (OV-102)

FLIGHT DATA FILE : /STS-107/data/thermal/cod/press_tire.out

□ - V58T1700-T - LMG BRK LN INBD [W -26 E 10] W NS BIAS
 ○ - V58T1750-T - RMG BRK LN INBD [W -26 E 10] W NS BIAS
 △ - V58T1700-FLIGHT DATA - (MOD - N/A)
 X - V58T1750-FLIGHT DATA - (MOD - N/A)
 + - RH_T_PRS - FLIGHT DATA - (MOD - N/A)
 ◇ - LH_T_PRS - FLIGHT DATA - (MOD - N/A)



MET (HH) 0:00:00 2:02:00 4:04:00 6:06:00 8:08:00 10:10:00 12:12:00 14:14:00 16:16:00
 v2-107a4.ars :: sts-107.eil
 S T E P MER VERSION 2.10

TIME MET (DDD:HH:MM)

PLOT FORMAT # 1
 1/19/2003 08:37:58