

MER Shift Reports

STS-107

Day 14 Shift 1

AVIONICS
FLIGHT CONTROL / GNC DAILY REPORT

01/29/03

STS-107
Daily Report
Flight Day 14

Flight controls and GNC systems are performing nominally. We are working no issues at this time.

Don McCorvey

STS-107 ESD SYSTEMS SHIFT REPORT
DAY 14 SHIFT 1
GMT 029/17:00

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

FC/PRSD – The eight on-orbit fuel cell purge was performed at 029:08:18 GMT (12/16:39 MET). During the 39-hour purge interval the approximate performance decay was 0.10 Vdc in fuel cell 1, 0.18 Vdc in fuel cell 2, and 0.15 Vdc in fuel cell 3.

Hydrogen tank 8 is nearing depletion to residual quantity.

The fuel cell 1 & 3 alternate water line temperatures continue to be erratic, indicating slight leakage of warm fuel cell water through the check valves.

EPDC – The only problem being worked by EPDC is the intermittent “sluggish” AC2 phase B current response. The plots for the last 24 hours indicate that there were multiple, intermittent occurrences of sluggish response on AC2 by phase B.

All monitored voltage and current measurements were nominal. The 24 hour plots and the strip chart recorder data was reviewed with no unusual signatures noted.

Walter Scott
ESD Team Lead

STS-107

OMS/RCS Day 14 Shift 1 Report

INITIATOR: Arrieta
DATE: January 29, 2003

MET: 13/01:21
GMT: 029/17:00
CENTRAL TIME: 11:00 AM CST

	Left		Right		Forward	
	Oxidizer	Fuel	Oxidizer	Fuel	Oxidizer	Fuel
PFS %	68.2	68.0	66.8	65.8	47.0	44.6
Interconnect Usage	4.120		3.991			

ORBIT

1. Left OMS GN2 Accumulator pressure is holding.

Data Review

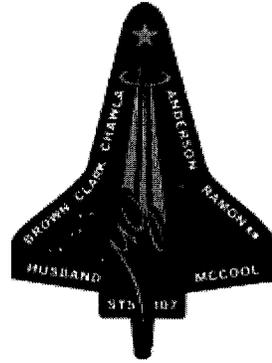
1. OMS and RCS system data has been reviewed up through 029/15:00 GMT. System performance continues as expected with no anomalies noted.
2. All vernier jet firings through 029/15:39:00.000 GMT have been reviewed. There have been no anomalous pulses.

RCS PRESSURIZATION LEG FRCS: B LRCS: B RRCS: B

AFT RCS INTERCONNECT CONFIGURATION: RCS Straight Feed.

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				



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

STS-107

Date: 1/29/2003

GMT: 029/17:00:00

Shift: 1st

SYSTEM STATUS / ISSUES BEING WORKED

- All DPS systems performing nominally.

DPS Team Lead: Tom Swartley

Signature: Tom Swartley

Thermal

STS-107 MER TCS Thermal 1st Shift Report

January 29, 2003 11:00AM, 029/17:00 GMT (13/01:21 MET)

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

Than Nguyen/David Norman

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

TO: MER MANAGER

SUBJECT: FD14; 2nd SHIFT REPORT

GMT: 029:17:00

EVENTS:

Red Team working experiments

FORWARD ACTIONS:

Monitor CHITs for activity.

CHITS (Monitoring / Working / Waiting for Closure):

STS0014 INFO ONLY – Spacehab WSA Cleanup IFM - CLOSED

Submitted FCE concurrence with vacuum cleaner steps defined in CHIT STS0014. This work may be accomplished on Flight Day 15.

HARDWARE STATUS:

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



Maurice J. Lehmann
Flight Crew Equipment- GFE/CFE

STS-107
MER Comm and Track Shift Report
GMT 029:14:00
Shift 1

All comm and track systems are operating nominally.

MOD responded to chit STS-0016 and developed a test procedure for the crew to verify the condition of ICOM B to the SHAB. The schedule calls for the crew to execute the testing at GMT 030/04:49.

Jeff Stafford

MER Comm & Track

STS-107 (OV-102, FLT 28)
1/29/03
7:00 AM
On-Orbit Shift Report

The HYD/WSB Systems are operating normally and all parameters are 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 A. Ritrivi

HYD/WSB SSE

MER Shift Reports

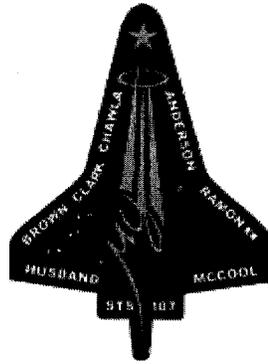
STS-107

Day 14 Shift 2

MER Shuttle Safety Console
STS-107 FD 13 Shift 2
GMT 030:00:30

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

Jim Gardner



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

STS-107

Date: 1/29/2003

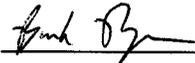
GMT: 030/01:00:00

Shift: 2nd

SYSTEM STATUS / ISSUES BEING WORKED

- All DPS systems performing nominally.

DPS Team Lead: Burk Royer

Signature:  _____

STS-107 ESD SYSTEMS SHIFT REPORT
DAY 14 SHIFT 2
GMT 030/00:00

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

OMS/RCS

1. Left OMS GN2 Accumulator pressure is holding.
2. OMS and RCS system data has been reviewed up through 029/15:00 GMT. System performance continues as expected with no anomalies noted.
3. All vernier jet firing through 029/15:39:00.000 GMT have been reviewed. There have been no anomalous pulses.
4. 23 of 38 primary thrusters have been fired. No new primary thrusters have been fired since the previous report.

EPDC - The only problem being worked by EPDC is the intermittent "sluggish" AC2 phase B current response. The plots for the last 24 hours indicate that there were several additional occurrences of sluggish response on AC2 by phase B.

All monitored voltage and current measurements were nominal. The 24 hour plots and the strip chart recorder data were reviewed with no unusual signatures noted.

Tom Davies
ESD Team Lead



STS-107 MER Thermal 2nd Shift Report

030/01:00 GMT, 19:00 CST 01/29/2003

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

A handwritten signature in cursive script that reads "Dave Russell". The signature is written in black ink and is positioned above a horizontal line.

Dave Russell /John Tran

ORBITER ECLSS

STS-107 ECLSS SHIFT REPORT

FLIGHT DAY 15

SHIFT 2

All ECLSS systems performing nominally.

Consumables:	Supply water	563.6 lb.
	Waste water	86.1 lb.
	Orbiter Nitrogen	145.7 lb.

Shift Leader
GMT 030/01:00

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

TO: MER MANAGER

SUBJECT: FD14; 3rd SHIFT REPORT

GMT: 030:01:00

EVENTS:

Blue Team getting started on another day of experiments.

FORWARD ACTIONS:

Continuing to monitor CHIT activity.

CHITS (Monitoring / Working / Waiting for Closure):

STS0014 INFO ONLY – Spacehab WSA Cleanup IFM - CLOSED

Submitted FCE concurrence with vacuum cleaner steps defined in CHIT STS0014. This work may be accomplished on Flight Day 15.

HARDWARE STATUS:

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



Kevin M Rullman
Flight Crew Equipment- GFE/CFE

MER Shift Reports

STS-107

Day 14 Shift 3



Thermal 3rd Shift Report

STS-107, January 30, 2003
3 AM, MET 013/17:21 (30/09:00 GMT)

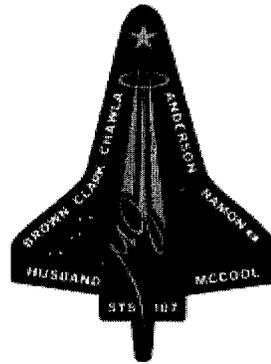
All temperatures are within acceptable limits and all thermal systems are operating nominally.

Diana Coronado

MER Shuttle Safety Console
STS-107 FD 14 Shift 3
GMT 030:09:08

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

David Melendez



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

STS-107

Date: 1/30/2003

GMT: 030/09:00:00

Shift: 3rd

SYSTEM STATUS / ISSUES BEING WORKED

- All DPS systems performing nominally.

DPS Team Lead: J. Ashley Jones

Signature: _____

A handwritten signature in black ink, appearing to read "J. Ashley Jones", is written over a horizontal line.

ORBITER ECLSS

STS-107 ECLSS SHIFT REPORT

FLIGHT DAY 15

SHIFT 3

All ECLSS systems performing nominally. SIMO dump completed.

Consumables:	Supply water	511.9 lb.
	Waste water	42.9 lb.
	Orbiter Nitrogen	148.8 lb.

Shift Leader
GMT 030/09:06

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

TO: MER MANAGER

SUBJECT: FD15; 1st SHIFT REPORT

GMT: 030:09:00

EVENTS:

Red Team has started on another day of experiments.

FORWARD ACTIONS:

Continuing to monitor CHIT activity.

CHITS (Monitoring / Working / Waiting for Closure):

STS0014 INFO ONLY – Spacehab WSA Cleanup IFM - CLOSED

Submitted FCE concurrence with vacuum cleaner steps defined in CHIT STS0014. This work may be accomplished on Flight Day 15.

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 ESD SYSTEMS SHIFT REPORT
DAY 14 SHIFT 3
GMT 030/09:00

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

Chit 16, Audio/ICOM B Troubleshooting, was performed on this shift. The crew configured the Shuttle and Spacehab audio per the Chit and communications using ICOM B between the stations worked fine. The crew reported that the earlier problem as reported in Mer Funny List, Item 2, was probably due to a configuration error. Because the comm worked per the procedure, the crew requested that they not perform the troubleshooting steps. The INCO agreed and the test was terminated. The GMT of the crew report was at 030/04:47 GMT.

Discussion on the FD loop about leaving Spacehab fans on Orbiter AC power for entry and what effects a short might have. MER EPDC personnel will look into this on first shift when they come in.

Chuck Beatty
ESD Team Lead