

SDO HMI Internal Weekly On-Orbit Report

Week of Monday, February 21, 2011 through Sunday, February 27, 2011

Summary

HMI successfully performed their weekly calibrations on Tuesday, February 22nd (flatfield observation mode-1) and on Wednesday, February 23rd (flatfield calibration/observation mode-2, reduced focus sweep) using timed scripts. On Monday, heater zone 3 was switched from monitoring on TS05 to monitor on TS06. A bug in the heater control STOL caused the heater to cycle twice when we reset the deadbands to center on the TS06 temperature. The bug has since been fixed, and heater zone 3 is behaving nominally. HMI saw 2 corrupt images of the type FSN469769216 this week (on-orbit total of 27). HMI continues to perform nominally.

Calibrations

Calibration	Date/Time	Ran by	FSN	Notes
Flat field (observation mode-1)	22-Feb-11 17:03:14	Timed Script	18314480	Cals were run a day earlier in order to avoid interfering with the EVE rocket launch (which was postponed anyway).
Flat field (observation mode - 2)	23-Feb-11 17:03:11	Timed Script	18360559	
Flat field (calibration mode)	23-Feb-11 17:12:11	Timed Script	18360847	
Reduced Focus Sweep	23-Feb-11 17:16:43	Timed Script	18360992	

Loads

None

Thermal Adjustments

1. Heater Zone 3 Monitor Change

Summary:

On February 21, 2011 we switched Heater Zone 3 from monitoring on TS05 to monitoring on TS06. A bug in the heater control STOL caused the heater to cycle twice when we reset the deadbands to center on the TS06 temperature. The bug has since been fixed, and heater zone 3 is behaving normally.

Details:

21-Feb-2011 at 21:01:41 UTC

Author: Emma & Zoe

We Switched Heater Zone 3 from monitoring on TS05_TELE_FWD1 to

TS06 TELE AFT. Before making the switch we widened the deadbands on zone 3 to [26, 31.5].

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23-Feb-2011 at 18:34:40 UTC

Author: Emma Lehman

Lowered target and set deadbands on zone 3 following the switch to monitoring on TS06. New settings are:

Zone 3

Deadband low: 26.5 C (446 DN)

Deadband high: 30.5 C (381 DN)

Target: 28.5 C (412 DN)

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23-Feb-2011 at 22:59:50 UTC

Author: Emma Lehman

There has been some heater cycling in heater zones 1-3. This is because when I reset the deadbands, the sdo_oh_control STOL surreptitiously set the monitor for heater zone 3 back to TS05. Apparently this was hardcoded into the STOL, even though you can't change it in sdo_oh_control_menu.

I have set the monitor back to TS06 and updated and retagged the STOL so that it does not append the monitor on to the command.

S/C Calibrations/Maneuvers

None

Additional Operations

None

Instrument Anomalies

None

Limit violations

None

Clock Adjustments

Date/Time (UT)	HMI WRT ground (ms)	Adjustment
1/23/11 @ 18:32	+15.5	HMI from 0x800274 to 0x800273

Sequencer Changes

None

Date/Time of Change	New Sequence	Notes

Long term Trends**1. Corrupt Image FSN 469769216 (0x1C001C000)**

Occurrences this week:

1. 2011-02-17 @ 15:09:19
2. 2011-02-25 @ 20:12:43

Occurrences to date: 27

2. Corrupt Image FSN 9175180 (0x008C008C)

Occurrences this week: None

Occurrences to date: 2

Other

None