

SDO HMI Internal Weekly On-orbit Report

Week of Monday, November 1, 2010 through Sunday, November 7, 2010

Summary

HMI successfully performed its weekly calibrations on Wednesday, November 3rd (flatfields, focus sweep), including a leg alignment this week. There was one nominal clock adjustment made on Friday and no thermal adjustments. There were 2 corrupt images seen this week on Friday and Saturday. HMI also saw a slightly different kind of corrupt image this weekend of which we now know we've seen 2 of total on-orbit. HMI continues to perform nominally.

HMI performed nominally during the EVE Cruciform on Thursday and the Lunar Transit late Friday evening.

Weekly Calibration Results

03-Nov-2010 at 21:20:42 UTC

- 1) Leg Alignment, 20:15 UT, AL1 = 61, AL2 = 48, FSN 13216220
- 2) Obs mode flat field, 20:19 UT, FSN 13216378
- 3) Focus sweep (reduced), 20:23 UT, FSN 13216517
- 4) Cal mode flat field, 20:28 UT, FSN 13216653
- 5) Cal mode flat field (2)*, 20:33 UT, FSN 13216900 (with diagnostic data)

*This should have been an obs mode flat field and was taken by accident, but it was determined that a second obs mode was not necessary this week.)

Additional Operations

1. Testing lunar transit scripts

03-Nov-2010 at 21:20:42 UTC

Author: Zoe & Emma

Tested lunar transit script: entry set cold duty cycles of zones 1,2, and 3 to 100, 100, and 50, then started FTS 3010. Exit set cold duty cycle back to 40, 16, and 32, then we manually cleared FTS 3010.

All commanding was done from SDOioc-SPR on H3.

Instrument Anomalies

None.

Limit violations

None.

Clock Information

Date/Time (UT)	HMI wrt S/C (ms)	S/C Time Offset (ms)	HMI wrt GND	S/C or Inst. Adjustment?
11/5/10 @ 17:22 UT	+18.85	-4.3	+14.55	HMI from 0x800274 to 0x800273

Thermal Adjustments

None

Sequencer Changes

None

Date/Time of Change	New Sequence	Notes

S/C Calibrations/Maneuvers

1. Eve Cruciform Maneuver: November 4, 2010, 14:00 UT to 22:50 UT

All was nominal, maneuver completed successfully.

04-Nov-2010 at 14:36:57 UTC

Author: jake

The EVE cruciform kicked off on schedule and a variety of changes took place with both instruments (new FTS ID, new exposure times, loops open, AIA loop gain changed, images darks for AIA (4500A interesting scattered light; interesting top-half light with HMI), limb tracker diodes basically zero, etc. So, seems like all is nominal and this will go on for the rest of the day.

Pointing Adjustments

None

Long term Trends

1. Corrupt Image FSN 469769216 (0x1C001C000) occurrences this week:

1. 2010-11-05 @ 15:13:47

2. 2010-11-06 @ 16:26:23

Total occurrences (mission to date): **14**

2. Corrupt Image **FSN 9175180 (0x008C008C)** occurrences this week:

1. No new occurrences

Total occurrences (mission to date): **2**

1. 2010-10-16 @ 00:49:43

2. 2010-07-25 @ 23:09:16

Loads

None.

Other

1. **JSOC-SDP pipeline issues**

The JSOC-SDP (Stanford SDO pipeline) was down for a bit between 11/4 and 11/5. It was brought back up with no problems at around 18:00 on 11/5.

Email from: John Serafin

Sent: Thu 11/4/2010 10:23 PM

The JSOC-SDP (Stanford SDO pipeline) is effectively down. A number of Stanford people are on it, but it is the middle of the night. I have stopped my jobs (beyond 1.0, Stanford runs AIA lev 0 and 1. Can someone (in management) let AIA sciops and whoever else is appropriate know? I suspect the disks filled up and that it will be very difficult to free space. I could of course be wrong, and everything is back up before my head hits the pillow, but I thought it best to notify these lists. I will not be trying to restart my stuff before tomorrow morning.

John Serafin

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05-Nov-2010 at 04:47:48 UTC

Author: Jesper

Beware of problems with Stanford file server. Likely no current images to watch.

2. **Lunar Transit: 11/6/2010 from 04:39 UT to 05:02 UT**

Monitored by Sarah Mitchell, all went nominally.

06-Nov-2010 at 06:40:50 UTC

Author: S D Mitchell

Watching the lunar transit... Received the eclipse entry and inertial pointing INCs.

3. **Break in H&S plots at 1:00 UT on Nov-7, 2010**

Likely due to Daylight Savings Time glitch.

07-Nov-2010 (311 day of year) AIA Health and Safety Checklist

Operator: S D Mitchell

Checklist completed at: 02:03:22

Looks like there was a data drop-out for an hour at 1:00 UT? Or maybe it was just the plots stopped? Interesting because they restarted from the time they stopped on the plots -- so it was 1:00, 1:20, 1:40, 1:00 again. I double-checked the HMI site and Beta sites and confirmed they saw the same thing...