SDO HMI Internal Weekly On-Orbit Report

Week of Monday, April 11, 2011 through Sunday, April 17, 2011

Summary

HMI successfully performed its weekly calibrations on Monday, April 11th (flatfield observation mode-1) and on Tuesday, April 12th (detune, flatfield calibration/observation mode-2, reduced focus sweep) using timed scripts. The spacecraft performed an EVE Cruciform maneuver between 18:15 UT on April 13th and 03:05 UT on April 14th. HMI did not perform any special operations. On April 15th HMI lowered the front telescope deadbands to accommodate dropping temperatures due to orbital position. The spacecraft had a reaction wheel crossing on April 15th beginning at 08:00 UT, causing HMI to see increased jitter at 08:00 UT and again at 14:00 UT. HMI is performing nominally.

Weekly Calibrations

Calibration	Date/Time	Script	Ran by	Notes
Flat field (observation mode-1)	11-Apr-11 18:08 UT	2701	Timed Script	Cals were run one day earlier than usual in order to avoid interfering with the EVE Cruciform maneuver.
Detune	12-Apr-11 17:45 UT	2703	Timed Script	
Flat field (observation mode-1)	12-Apr-11 17:53 UT	2701	Timed Script	
Flat field (calibration mode)	12-Apr-11 18:01 UT	2702	Timed Script	
Reduced focus sweep	12-Apr-11 18:09 UT	2704	Timed Script	

Loads

None

Thermal Adjustments

1. **Front Heater Deadband Adjustments.**
   15-Apr-2011 at 16:18:25 UTC
   Author: Emma Lehman

   Lowered zones 1, 2, & 3 targets and deadbands to match dropping temperatures. The actual temperatures are about .5 degrees above what was commanded; it will be really nice to get the OH_CONTROL STOL fixed.
   New Values:

Zone	high deadband (C)	Target (C)	low deadband (C)
1	32	30	28
2	32	30	28
3	29	27	25

S/C Calibrations/Maneuvers

1. EVE Cruciform
The spacecraft performed an EVE Cruciform maneuver between 18:15 UT on April 13th and 03:05 UT on April 14th. HMI did not perform any special operations.

Additional Operations
None

Instrument Anomalies
None

Limit violations
None

Clock Adjustments

Date/Time (UT)	HMI WRT ground (ms)	Adjustment
04/11/11 @ 18:56	-8.5	HMI from 0x800271 to 0x800272

Long term Trends

1. Corrupt Image FSN 469769216 (0x1C001C000)
Occurrences this week: None
Occurrences to date: 31

2. Corrupt Image FSN 9175180 (0x008C008C)
Occurrences this week: None
Occurrences to date: 2

Other
1. Reaction Wheel Crossing

The spacecraft had a reaction wheel crossing on April 15th beginning at 08:00 UT. HMI saw increased jitter at 08:00 UT and again at 14:00 UT.