

SDO HMI Internal Weekly On-Orbit Report

Week of Monday, February 28, 2011 through Sunday, March 6, 2011

Summary

HMI successfully performed their weekly calibrations on Tuesday, March 1st (flatfield observation mode-1) and on Wednesday, March 2nd (flatfield calibration/observation mode-2, reduced focus sweep, detune) using timed scripts. There were a few script loads in preparation for the lunar transit on March 4, during which HMI adjusted its deadband duty cycles but performed no other special operations. HMI continues to perform nominally.

A reaction wheel crossing with RW1 caused significant noise in the AIA ISS Y error signals and HMI PZT voltage signals between about 12:00 and 21:00 UT on 28-Feb-2011. Both signals have now returned to nominal ranges.

Calibrations

Calibration	Date/Time	Ran by	FSN	Notes
Flat field (observation mode-1)	1-Mar-11 19:27:11	Timed Script	18641646	
Detune	2-Mar-11 18:48:56	Timed Script	18686502	
Flat field (calibration mode)	2-Mar-11 19:11:28	Timed Script	18687224	
Reduced Focus Sweep	2-Mar-11 19:18:12	Timed Script	18687439	
Flat field (observation mode - 2)	2-Mar-11 19:27:12	Timed Script	18687727	

Loads

1. Lunar Transit Loads

02-Mar-2011

Summary:

Loaded scripts for the lunar transit on 04-Mar-2011.

Details:

02-Mar-2011 at 19:04:00 UTC

Author: Emma & Zoe

Operations performed today:

- Loaded H_INC_FDC, with updated 3058 (wait 1 minute then close loops)

instead of 9058.

- Configured script 3058 to the science mode INC (HCM058)

- Loaded H_TRANSIT, containing scripts 2064 and 2065, which set the cold duty cycles to 100 during the lunar transit and then back to nominal. (We also erased H_ECLIPSE, because it contained older versions of 2064 and 2065. A new version of H_ECLIPSE will be loaded once it is updated with new eclipse scripts.)

- Configured script 2064 to the eclipse entrance INC (HCM064)

- Configured script 2065 to the eclipse exit INC (HCM065)

HMI should now be all set for the lunar transit on Friday.

P.S. The hmi_script_configure STOL is also updated to reflect the new loads, so all the above operations were done via STOL.

Thermal Adjustments

None

S/C Calibrations/Maneuvers

None

Additional Operations

None

Instrument Anomalies

None

Limit violations

None

Clock Adjustments

None

Date/Time (UT)	HMI WRT ground (ms)	Adjustment

Sequencer Changes

None

Date/Time of Change	New Sequence	Notes

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

Occurrences this week: None

Occurrences to date: 27

2. Corrupt Image FSN 9175180 (0x008C008C)

Occurrences this week: None

Occurrences to date: 2

Other**1. Rotation Wheel Crossing**

28-Feb-2011

A reaction wheel crossing with RW1 caused noise in the PZT voltage signals between about 12:00 and 21:00 UT.

2. Lunar Transit

04-Mar-2011

A lunar transit occurred from 4:28 am to 7:33 am PST. HMI raised their cold duty cycles to 100% during the transit. All operations were done by INC-linked scripts.