

HMI Weekly Report Summaries: April 2011

Week of Monday, April 4, 2011 through Sunday, April 10, 2011

HMI successfully performed their weekly calibrations on Monday, April 4th (flatfield observation mode-1) and on Tuesday, April 5th (flatfield calibration/observation mode-2, reduced focus sweep) using timed scripts. On Tuesday, April 5th, the spacecraft adjusted its battery down to its pre-eclipse season charge of 60%; HMI adjusted its heaters in order to keep temperatures constant. HMI performed nominally throughout the HMI Roll Maneuver on Wednesday, April 6th. Results have not yet been analyzed. HMI saw one corrupt image this week for an on-orbit total of 33. LMSAL SDO personnel assisted in planning a coordinated observing program with the JAXA Hinode mission during the week of April 4. HMI is performing nominally.

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

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.

Week of Monday, April 18, 2011 through Sunday, April 24, 2011

HMI successfully performed its weekly calibrations on Monday, April 18th (leg adjust, flatfield observation mode-1) and on Tuesday, April 19th (flatfield calibration/observation mode-2, full focus sweep) using timed scripts. On April 19th, some preparations were made for the upcoming lunar transit on May 3rd. On April 20th the spacecraft performed an EVE Field Of View maneuver between 13:15 UT and 15:57 UT, and an AIA/HMI Off-point maneuver between 16:30 UT and 19:15 UT. HMI did not perform any special operations during these maneuvers. Weekly calibrations were performed one day earlier than usual in order to avoid interfering with the AIA/HMI Off-point maneuver. HMI is performing nominally.

Week of Monday, April 25, 2011 through Sunday, May 1, 2011

HMI successfully performed its weekly calibrations on Tuesday, April 26th (flatfield observation mode-1) and on Wednesday, April 27th (detune, flatfield calibration/observation mode-2, reduced focus sweep) using timed scripts. On Thursday, April 28th, at 15:00 UT, AIA performed a GT/PZT Calibration, which went as planned. HMI did not perform any special operations. Also on Thursday, the high speeds of RWs 1 and 4 reached about 850 RPM and caused small amounts of noise in the HMI PZT voltages and AIA ISS errors, but did not reach the limit of 900 RPM when it could begin to affect the science data. A meeting was held with the FOT and it was decided to proceed with the previously scheduled Momentum Management Maneuver on May 4th rather than performing the maneuver early to reduce the wheel speeds. HMI is performing nominally.