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Mauna Loa Solar Observatory Observer's Log  
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Sat Mar 14 17:31:32 GMT 2015

Year: 15 Doy: 073

Observer: stueben

WEATHER COMMENT: stueben: Sat Mar 14 17:31:39 GMT 2015

Clear, wind south 10-15 mph, temp 33F. The road is mostly clear of snow and ice and is easily passable except the last corner before the upper parking area.

\_\_\_\_end\_\_\_\_

PSPT COMMENT BY stueben: Sat Mar 14 17:57:02 GMT 2015

Pspt started.

\_\_\_\_end\_\_\_\_

KCOR COMMENT BY stueben: Sat Mar 14 20:11:53 GMT 2015

We have been running kcor for a while, most of the data is good but "Science Data" so a comment wasn't automatically put in the logs.

\_\_\_\_end\_\_\_\_

Sat Mar 14 20:16:03 GMT 2015 KCOR Start Synoptic Patrol

Sat Mar 14 20:30:26 GMT 2015 KCOR End Patrol

KCOR COMMENT BY berkey: Sat Mar 14 20:44:10 GMT 2015

K-Cor - Mechanism - Generic Mechanism Controller.vi was reverted to its pre-camera mount change version to re-enable t/r c amrea focus control. Looks like this slipped through he cracks in our troubleshooting yesterday. It now looks like the mc4u vi can talk to and get feedback from the camera stages. I assume this means they are moving.

\_\_\_\_end\_\_\_\_

Sat Mar 14 20:49:10 GMT 2015 KCOR Start Synoptic Patrol

Sat Mar 14 21:27:46 GMT 2015 KCOR End Patrol

Sat Mar 14 22:35:49 GMT 2015 KCOR Start Synoptic Patrol

Sat Mar 14 23:01:18 GMT 2015 KCOR End Patrol

Sat Mar 14 23:01:19 GMT 2015 KCOR Start Calibration script: c:\kcor\mlso-calibration22deg.ini

Sat Mar 14 23:17:22 GMT 2015 KCOR End Calibration Script

Sat Mar 14 23:17:38 GMT 2015 KCOR Start Synoptic Patrol

Sat Mar 14 23:17:39 GMT 2015 KCOR Start Synoptic Patrol

GENERAL OBSERVATORY COMMENT BY stueben: Sat Mar 14 23:05:56 GMT 2015

Guest Card entering SGS RA work performed the week of March 9th 2015.

Tuesday, 3/10:

Removed intermediate drive lever & bearing block.

Removed RA housing top cover plate.

Removed RA worm/primary drive assembly.

Removed intermediate drive wheel assembly.

Inspected all friction drive surfaces on the 6" and 12" diameter interfaces. These surfaces had light rust, scoring and ground in contaminants.

Wednesday, 3/11:

Used automotive brake cleaner & scotch-brite pad to clean the 12" final drive friction wheel. All of the rust & embedded contamination came off and the wheel polished up nicely! The 6" surfaces on

the intermediate drive assembly would not clean up. The scoring into the hard chrome surface is a really bad thing. The intermediate drive assembly from the Boulder Spar (that had been completely refurbished for ChroMag testing) was installed. The brass "centering" plates that were screwed to the sides of the MLSO assembly were transferred to the Boulder assembly.

The RA worm & drive motor assembly was installed using the same stackup of two 1/2" washers per mounting screw. The internal geometry of the RA housing is significantly different than that of the Boulder unit.

The original top plate was installed on the RA housing. The refurbished bearing block & RA intermediate drive engagement handle were installed. Bailed out early, the weather was getting much worse.

Thursday, 3/12: Snowed out.

Friday, 3/13:

Set RA worm drive clutch torque to ~28 lb-in. Checked intermediate drive engagement force. Unlocked the spar from the pier. Lisa was able to move the spar east & west with ease! The SGS was turned on and the system was able to achieve sun-centered guiding to nominally +/- 20 arcseconds at the outside of the noise envelope.

Saturday, 3/14:

Allen & Greg made some attempt to tweak the SGS Proportional Gain (Kc) and Integral Time (Ti min). Kc original value of 10. Currently set to 13. Ti was not changed from the current value of 0.05. After these were tweaked (just before local zenith @ 12:31 local) we let the SGS & K-Cor run through zenith & beyond.

\_\_\_end\_\_\_

Sun Mar 15 02:24:55 GMT 2015 KCOR End Patrol