
Mauna Loa Solar Observatory Observer's Log

Wed May 11 16:14:15 GMT 2016

Year: 16 Doy: 132

Observer: waters

WEATHER COMMENT: waters: Wed May 11 16:14:20 GMT 2016

Temp 37F with windspeed at about 6mph from the West-Southwest. It seems a little bright at the moment but otherwise, clear sky.

____end____

KCOR COMMENT BY berkey: Wed May 11 17:02:51 GMT 2016

Its summer in Kcor land. Small 991.6" occulter installed this morning (a few weeks late).

____end____

Wed May 11 17:38:56 GMT 2016 COMP Start Patrol on cookbook: synoptic-00002.cbk

GENERAL COMMENT BY waters: Wed May 11 18:04:55 GMT 2016

Refocused the aftend and the occulter station using the normal Comp observinging procedures. We then installed that Baader AstroSolar filter $t=2.6e-4$ on the front end of Comp telescope. The occulter station was removed from the beam train where we used the center occulter sub vi aand ol relative move engineer GUI to move the Ol across its focus range. Peaking the value of image sharpness, we found no descenable change in sharpness or image quality below half mm steps. We ultimately found the best focus at 32mm. After the focus was done, we removed the Baader filter and the occulter station was reinstalled.

____end____

CoMP COMMENT BY waters: Wed May 11 18:34:32 GMT 2016

Reviewing the headers for data collected so far this morning, the ND seems to be updating just fine but when it first initializes it to zero which is not a filter wheel position.

____end____

Wed May 11 18:34:49 GMT 2016 KCOR Start Synoptic Patrol

Wed May 11 18:35:28 GMT 2016 SGS Alignment complete

Wed May 11 18:58:48 GMT 2016 KCOR End Patrol

Wed May 11 18:59:36 GMT 2016 KCOR Start Synoptic Patrol

Wed May 11 19:17:09 GMT 2016 KCOR End Patrol

Wed May 11 19:17:18 GMT 2016 KCOR Start Synoptic Patrol

Wed May 11 19:18:05 GMT 2016 KCOR End Patrol

Wed May 11 19:19:03 GMT 2016 KCOR Start Synoptic Patrol

Wed May 11 19:21:35 GMT 2016 KCOR End Patrol

Wed May 11 19:23:09 GMT 2016 KCOR Start Synoptic Patrol

GENERAL COMMENT BY waters: Wed May 11 19:24:53 GMT 2016

The sky is alternating between bright and dark at the moment.

____end____

Wed May 11 19:26:08 GMT 2016 KCOR End Patrol

Wed May 11 19:28:39 GMT 2016 CoMP Paused for clouds

Wed May 11 19:38:34 GMT 2016 CoMP Restarted from pause

Wed May 11 19:38:44 GMT 2016 KCOR Start Synoptic Patrol

Wed May 11 19:39:31 GMT 2016 KCOR End Patrol

Wed May 11 19:40:14 GMT 2016 CoMP Paused for clouds

GENERAL COMMENT BY waters: Wed May 11 19:40:29 GMT 2016

Sucker hole; Comp and Kcor idled.

____end____

Wed May 11 20:14:49 GMT 2016 CoMP Restarted from pause

Wed May 11 20:14:49 GMT 2016 COMP End Patrol

Wed May 11 20:16:44 GMT 2016 COMP Start Patrol on cookbook: synoptic-00002.cbk

Wed May 11 20:17:41 GMT 2016 COMP End Patrol

CoMP COMMENT BY berkey: Wed May 11 20:20:26 GMT 2016

Changed observing code to initialize the ND filter position. Looks like this change is getting captured in the headers.

NOTES from Ben's email: We ran a check to make sure the headers knew the proper nd filter which was actually wrong in the header (value=0 when it should be 8) after starting up the comp VI since we didn't initialize the value properly. The code to update the header after it moves (for 1083) was correct and updated things. The effect of this is the ndfilter was bad for the first couple flats and 1079/1074 observations at the start of the day. But this has now been fixed so now the ndfilter keyword should be correct all the time.

____end____

Wed May 11 20:35:01 GMT 2016 COMP Start Patrol on cookbook: synoptic-00002.cbk

Wed May 11 20:36:15 GMT 2016 COMP End Patrol

GENERAL COMMENT BY berkey: Wed May 11 20:38:12 GMT 2016

We have stopped observing and closed the dome for the moment.

____end____

Wed May 11 20:39:10 GMT 2016 COMP Start Patrol on cookbook: synoptic-00002.cbk

Wed May 11 20:40:14 GMT 2016 COMP End Patrol

Wed May 11 20:46:47 GMT 2016 COMP Start Patrol on cookbook: synoptic-00002.cbk

Wed May 11 20:47:48 GMT 2016 COMP End Patrol

Wed May 11 20:54:41 GMT 2016 COMP Start Patrol on cookbook: synoptic-00002.cbk

Wed May 11 20:55:29 GMT 2016 COMP End Patrol

Wed May 11 21:00:32 GMT 2016 COMP Start Patrol on cookbook: synoptic-00002.cbk

Wed May 11 21:03:02 GMT 2016 COMP End Patrol

CoMP COMMENT BY berkey: Wed May 11 21:11:07 GMT 2016

Added the O1 focus position of the primary CoMP header as O1FOCS position is in mm. We expect this position to remain constant for the duration of the CoMP experiment but since it is possible that it could move we will poll it.

____end____

Wed May 11 21:42:40 GMT 2016 COMP Start Patrol on cookbook: distortion.cbk

Wed May 11 21:48:13 GMT 2016 COMP End Patrol

CoMP COMMENT BY berkey: Wed May 11 22:13:27 GMT 2016

Rotated the CoMP camera and translated reimaging lens to give the best fitting of the 2 images to the CoMP array.

____end____

CoMP COMMENT BY berkey: Wed May 11 22:15:31 GMT 2016

A set of distortion grid data + one dark was taken with the opal in, and occulting disk removed. Data should be between 21:42-21:48. Rain approached the observatory so the last few images in the last recipe may be cut short due to closing of the dome and moving of the spar.

Distortion grid was then removed and occulting disk restored to its nominal location.

____end____

CoMP COMMENT BY berkey: Wed May 11 23:34:15 GMT 2016

Note the Distortion grid data has flags set for polarizer and retarder in. The calpol/retarder recipes were used for kludge ways to keep the instrument safe while pulling the occulting stage in and out.

____end____

Thu May 12 00:02:26 GMT 2016 COMP Start Patrol on cookbook: occulter-out.cbk

Thu May 12 00:02:45 GMT 2016 COMP End Patrol

Thu May 12 00:02:45 GMT 2016 COMP Start Patrol on cookbook: cal_clear.cbk

Thu May 12 00:03:41 GMT 2016 COMP End Patrol

Thu May 12 00:05:30 GMT 2016 COMP Start Patrol on cookbook: occulter-out.cbk

Thu May 12 00:05:52 GMT 2016 COMP End Patrol

Thu May 12 00:05:52 GMT 2016 COMP Start Patrol on cookbook: occulter-out.cbk

Thu May 12 00:06:14 GMT 2016 COMP End Patrol

Thu May 12 00:06:15 GMT 2016 COMP Start Patrol on cookbook: cal_clear.cbk

Thu May 12 00:09:48 GMT 2016 COMP End Patrol

Thu May 12 00:10:19 GMT 2016 COMP Start Patrol on cookbook: occulter-out.cbk

Thu May 12 00:16:55 GMT 2016 COMP Start Patrol on cookbook: synoptic-00002.cbk

Thu May 12 00:17:21 GMT 2016 COMP End Patrol

Thu May 12 00:17:39 GMT 2016 COMP Start Patrol on cookbook: occulter-out.cbk

Thu May 12 00:18:48 GMT 2016 COMP End Patrol

Thu May 12 00:23:39 GMT 2016 COMP Start Patrol on cookbook: occulter-out.cbk

Thu May 12 00:24:40 GMT 2016 COMP End Patrol

Thu May 12 00:27:14 GMT 2016 COMP Start Patrol on cookbook: synoptic-00002.cbk

Thu May 12 00:27:42 GMT 2016 COMP End Patrol

Thu May 12 00:29:15 GMT 2016 COMP Start Patrol on cookbook: occulter-out.cbk

Thu May 12 00:29:37 GMT 2016 COMP End Patrol

Thu May 12 00:29:37 GMT 2016 COMP Start Patrol on cookbook: occulter-out.cbk

Thu May 12 00:29:59 GMT 2016 COMP End Patrol

Thu May 12 00:30:00 GMT 2016 COMP Start Patrol on cookbook: cal_clear.cbk

Thu May 12 00:38:12 GMT 2016 COMP Start Patrol on cookbook: occulter-out.cbk

Thu May 12 00:38:41 GMT 2016 COMP End Patrol

Thu May 12 00:38:41 GMT 2016 COMP Start Patrol on cookbook: occulter-out.cbk

Thu May 12 00:40:37 GMT 2016 COMP End Patrol

Thu May 12 00:44:07 GMT 2016 COMP Start Patrol on cookbook: occulter-out.cbk

Thu May 12 00:44:32 GMT 2016 COMP End Patrol

Thu May 12 00:44:32 GMT 2016 COMP Start Patrol on cookbook: occulter-out.cbk

Thu May 12 00:44:45 GMT 2016 COMP End Patrol

CoMP COMMENT BY berkey: Thu May 12 00:55:14 GMT 2016

Added a recipe/cookbook to safely allow the occulter stage to be added and removed from the telescope via prompts to the observer. This should let us do better calibrations without risking the optics. To ask the observer change the occulter make the datatype=1 0, and wavelength 0 for occulter out 1 for in.

Took a little bit to get it working. Under current architecture the CoMP code doesn't use a common data type for the recipe type in the various sub-vi. I was seeing an annoying issue that the adjust filterwheel sub-vi didn't know about the occulter so it assumed the ENUM only went up to 9 not 10 and told the recipe processor we were trying to move the NDFilter not prompt for the occulter. All is good no lesson relearned.

____end____

Thu May 12 00:55:55 GMT 2016 COMP Start Patrol on cookbook: synoptic-00002.cbk

Thu May 12 01:02:34 GMT 2016 COMP End Patrol

CoMP COMMENT BY berkey: Thu May 12 01:05:44 GMT 2016

Cropico may be acting up again. Computer is not reading values and the unit is not scanning though the probes. Yesterday when we had this problem we changed the COM5 to have hardware flow control in max. Looks like we just got lucky the last couple times and it happened to startup in the right mode.

We will try again tomorrow. Running before the rain gets heavier.

____end____

CoMP COMMENT BY berkey: Thu May 12 01:08:02 GMT 2016

CoMP camera was warm this morning and warmed up again this afternoon. Hopefully it just didn't get filled yesterday otherwise we will have to get the pump back out and pump the dewar down.

____end____