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Mauna Loa Solar Observatory Observer's Log  
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Wed May 25 16:21:50 GMT 2016

Year: 16 Doy: 146

Observer: berkey

WEATHER COMMENT: berkey: Wed May 25 16:22:20 GMT 2016

Temp: 39.8f, Humidity: 78%, Pressure: 28.728in, Wind: 3mph from 190degs, Skies: Cloudy dome will remain closed until conditions improve.

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

COMP COMMENT BY berkey: Wed May 25 16:29:55 GMT 2016

Going to run a few tests to look at how the comp menu state machine is working. Tests will involve running some newly created engineering cookbooks which will only move the filterwheels but take no data.

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

Wed May 25 16:30:13 GMT 2016 COMP Start Patrol on cookbook: domeclosed1.cbk

Wed May 25 16:30:32 GMT 2016 COMP End Patrol

Wed May 25 16:30:32 GMT 2016 COMP Start Patrol on cookbook: domeclosed1.cbk

Wed May 25 16:30:51 GMT 2016 COMP End Patrol

Wed May 25 16:30:51 GMT 2016 COMP Start Patrol on cookbook: domeclosed2.cbk

Wed May 25 16:31:10 GMT 2016 COMP End Patrol

Wed May 25 16:31:10 GMT 2016 COMP Start Patrol on cookbook: domeclosed1.cbk

Wed May 25 16:31:29 GMT 2016 COMP End Patrol

Wed May 25 16:31:29 GMT 2016 COMP Start Patrol on cookbook: domeclosed2.cbk

Wed May 25 16:31:48 GMT 2016 COMP End Patrol

Wed May 25 16:35:53 GMT 2016 COMP Start Patrol on cookbook: synoptic-00002.cbk

Wed May 25 16:36:50 GMT 2016 COMP End Patrol

Wed May 25 16:43:40 GMT 2016 COMP Start Patrol on cookbook: domeclosed1.cbk

Wed May 25 16:43:59 GMT 2016 COMP End Patrol

Wed May 25 16:43:59 GMT 2016 COMP Start Patrol on cookbook: domeclosed2.cbk

Wed May 25 16:44:18 GMT 2016 COMP End Patrol

Wed May 25 16:44:18 GMT 2016 COMP Start Patrol on cookbook: domeclosed1.cbk

Wed May 25 16:44:37 GMT 2016 COMP End Patrol

Wed May 25 16:44:37 GMT 2016 COMP Start Patrol on cookbook: domeclosed2.cbk

Wed May 25 16:44:56 GMT 2016 COMP End Patrol

GENERAL COMMENT BY berkey: Wed May 25 16:53:24 GMT 2016

Looks like the code that loaded the non-standard menus initialized a counter to 0 instead of 1 leading to the behavior we see at the start of the log where domeclosed1 runs twice (should run once) before it starts to do its proper switching. Since the synoptic (daily.menu) program loads in a slightly different way this bug didn't effect our normal observing on ly the engineering tests/calibrations that are done periodically.

Changing the init value to 1 has fixed the problem.

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

GENERAL COMMENT BY berkey: Wed May 25 16:53:45 GMT 2016

Clouds starting to move off.

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

COMP COMMENT BY berkey: Wed May 25 17:04:21 GMT 2016

Testing realtime copy to mlsoserver for the 1083\_QUV\_5\_250ms\_2beam.rcp, this should copy the fits file over just after the 250 1083 is taken instead of waiting until sunset.

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

GENERAL COMMENT BY berkey: Wed May 25 17:06:39 GMT 2016  
Skies have cleared enough to open the dome.

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

Wed May 25 17:09:34 GMT 2016 COMP Start Patrol on cookbook: synoptic-00002.cbk

Wed May 25 17:20:12 GMT 2016 KCOR Start Synoptic Patrol

Wed May 25 18:35:51 GMT 2016 KCOR End Patrol

Wed May 25 18:35:55 GMT 2016 CoMP Paused for clouds

GENERAL COMMENT BY berkey: Wed May 25 18:35:58 GMT 2016  
Clouds moving in. Pausing.

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

Wed May 25 18:57:17 GMT 2016 CoMP Restarted from pause

Wed May 25 18:58:15 GMT 2016 KCOR Start Synoptic Patrol

Wed May 25 19:04:28 GMT 2016 KCOR End Patrol

Wed May 25 19:05:18 GMT 2016 CoMP Paused for clouds

KCOR COMMENT BY berkey: Wed May 25 19:06:46 GMT 2016

Kcor labview got the following error:

Not enough storage is available to complete this operation.  
in K-cor Mechanims\_Digital\_Input.vi->K-Cor MC4u Controller.vi

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

GENERAL COMMENT BY berkey: Wed May 25 19:42:46 GMT 2016

Dome Closed!

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

Thu May 26 00:54:48 GMT 2016 CoMP Restarted from pause

Thu May 26 00:54:48 GMT 2016 COMP End Patrol

KCOR COMMENT BY berkey: Thu May 26 01:17:14 GMT 2016

This afternoon I did a kcor fore-optics and optical tube inspection and cleaning. The following things were found.

The closed loop hepa input into the optical tube by an incorrectly clocked inner baffle. Its input hole should have pointed east instead it pointed south. Rotating the baffle until the holes lined up gave it noticeable airflow inside the tube.

Some of the poron gasket material between the o1 focus stage and the foreoptics enclosure was pinched and ripped. Looks like this was caused by the focus stage falling to its mechanical limit pulling the gasket past the foreoptics lip. The gasket was replaced but we will likely damage it again with future power outages. I think we need to add a new hard limit to prevent the O1 for moving all the way back, this could be an aluminum block attached to the hepa input port. This needs to be paired with some soft limits in the mc4u so we dont accidentally drive the O1 back into the stop. I think we can safely get away with out adding or moving the proxy sensors since the current O1 position sensor seems super reliable over its short sensor range.

The field lens is getting a cloud of dust that may need to be washed off at some point this year. My feeling is that right now it isn't bad enough to warrant the effort of unmount the lens from its mount and washing. (Blowing it off doesn't help with the fine dust.

Alchoal and kimwipes are way better then paper towels; but they still level a lot of dust on the matted surfaces. I think we need to find some sort of cleaning tool/cloth that used a bit of static cling to help pick up some of the smaller bits of dust.

Hepas are now on MAX to hopefully move more of the dust out of the system. At some point soon we should go back to medium . Over the next week or two we should replace the HEPA filters once we picked up most of the bigger bits still in the system.

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

GENERAL COMMENT BY berkey: Thu May 26 02:11:39 GMT 2016

Its been blowing fog for a few hours now :(

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