
Mauna Loa Solar Observatory Observer's Log

Wed May 13 16:27:25 GMT 2015

Year: 15 Doy: 133

Observer: berkey

WEATHER COMMENT: berkey: Wed May 13 16:33:11 GMT 2015

Temp: 33.5f, Humidity: 24%, Pressure: 28.764in, Wind: 5mph from SW, Skies: thick cirrus in the east extending about 15degrees above the sun skies clear above and to the west.

____end____

KCOR PROBLEM BY berkey: Wed May 13 16:33:38 GMT 2015

Kcor UPS got a fault and turned off at some point after end of day on Monday.

____end____

CoMP COMMENT BY berkey: Wed May 13 16:34:03 GMT 2015

CoMP camera warmed up.

____end____

Wed May 13 17:50:01 GMT 2015 CoMP Start Patrol

KCOR COMMENT BY berkey: Wed May 13 17:54:12 GMT 2015

The Kcor O1 focus motor does not seem to be moving. The move command give feed back that the O1 is at a reasonable position the Generic Mechanism Controller.vi looks like it is properly talking to the MC4u gui; but we see no apparent change in the image or feedback change after moves.

____end____

KCOR COMMENT BY berkey: Wed May 13 18:11:09 GMT 2015

I was able to get the O1 moving again by stopping all the running the vi's, pulling up the Generic move controller and doing an absolute move (O1 was reported at 133.2 moved to 135). After that the O1 seemed to in relative and absolute moves.

____end____

Wed May 13 18:13:51 GMT 2015 KCOR Start Synoptic Patrol

GENERAL COMMENT BY berkey: Wed May 13 18:18:33 GMT 2015

I am trying out a new day log facility that is manipulated via a web gui instead of a csh. It looks like the code has some bugs (first log I wrote this morning got a email for Alice about entry formats), but so are I am happy writing logs in this way. The entries are easier to edit and the best part is the browser checks my spelling and isn't happy about the way

I spelled manipulated in the first sentence. As I work a few more kinds out of the interface I will share it with the other observers for comment.

____end____

Wed May 13 18:19:36 GMT 2015 KCOR End Patrol

Wed May 13 18:20:03 GMT 2015 CoMP Paused for clouds

GENERAL COMMENT BY berkey: Wed May 13 18:22:40 GMT 2015

Weak inversion in the valley is letting come clouds come up from the NE. We may have to close the dome if the bigger cloud bank blows in. Pausing Kcor and CoMP for now.

____end____

Wed May 13 18:26:35 GMT 2015 CoMP Restarted from pause

Wed May 13 18:27:26 GMT 2015 KCOR Start Synoptic Patrol

Wed May 13 18:27:40 GMT 2015 KCOR End Patrol

Wed May 13 18:28:17 GMT 2015 CoMP Paused for clouds

Wed May 13 18:40:55 GMT 2015 CoMP Restarted from pause

Wed May 13 18:41:33 GMT 2015 KCOR Start Synoptic Patrol

Wed May 13 18:43:01 GMT 2015 KCOR End Patrol

Wed May 13 18:43:18 GMT 2015 CoMP Paused for clouds

Wed May 13 18:45:40 GMT 2015 CoMP Restarted from pause
Wed May 13 18:46:08 GMT 2015 KCOR Start Synoptic Patrol
Wed May 13 18:47:01 GMT 2015 KCOR End Patrol
Wed May 13 18:47:22 GMT 2015 CoMP Paused for clouds
PSPT COMMENT BY berkey: Wed May 13 18:51:19 GMT 2015

When issuing a
dome home command at the DOS box console I get:
homeing dome, please wait...

NO_EVENT...OK

STOP_EVENT...HOME SWITCH ON

ERROR:axis event prevents dome home.

____end____

Wed May 13 19:26:02 GMT 2015 CoMP Restarted from pause

Wed May 13 19:26:02 GMT 2015 COMP End Patrol

GENERAL COMMENT BY berkey: Wed May 13 20:24:50 GMT 2015

Fog around the observatory both domes have been closed for the last hour or so.

____end____

PSPT COMMENT BY berkey: Wed May 13 20:31:29 GMT 2015

I think PSPT is back up and running properly now. Replacing the wires on Monday fixed the hardware issues. But the bad behavior I was getting no dome moves very fast slews during mount homes; was due to forgetting to run "init sys", when the DOS PC was booted. Typically this is done via the IDL start-up script. But I shut down the PC/rack every time I unplugged a cable for inspection. I assumed the dos program started up in semi-initialized state; so I didn't bother re-running IDL script and homing every stage just to inspect the mount motion. This was a mistake as apparently the init sys routine sets motor speeds and enables limit switches. Which meant the software didn't know how to move the dome and moved the mount at a high speed.

____end____

KCOR COMMENT BY berkey: Wed May 13 22:55:14 GMT 2015

Doing a test for dark linearity. Dark's will be taken with the normal observing mode of 512 co-added images. At the following exposures: .1, .2, .3, .4, .5, .6, .7, .8, .9, 1.0 msec And 2, 3, 4, 5, 6, 7, 8, 9, 10 msec. With one more visit to .1 msec to see if things changed during the exposure changes. Is the sum of all the pixels in the image that labview does on each exposure. I tried to choose an average value for the 4 cameras over the 8-10ish exposures. Interesting thing to see the sum of the pixels for the dark images goes down as we increase exposure then somewhere around 1msec seem to hit a minimum value before creeping back up again. Perhaps on the short exposures we are seeing a non-thermal noise source that starts to dominate again above the 1msec mark.

| | | |
|---------|-------------------|------------------------------|
| .1 msec | 21:38:13-21:40:01 | (img sum: 3.05e9 and 3.09e9) |
| .2 msec | 21:40:56-21:42:44 | (img sum: 3.02e9 and 3.02e9) |
| .3 msec | 21:43:42-21:45:30 | (img sum: 2.96e9 and 2.94e9) |
| .4 msec | 21:46:28-21:48:31 | (img sum: 2.91e9 and 2.85e9) |
| .5 msec | 21:49:29-21:51:31 | (img sum: 2.78e9 and 2.70e9) |
| .6 msec | 21:52:24-21:54:27 | (img sum: 2.62e9 and 2.58e9) |
| .7 msec | 21:55:10-21:57:28 | (img sum: 2.38e9 and 2.42e9) |
| .8 msec | 21:58:11-22:00:14 | (img sum: 2.15e9 and 2.34e9) |
| .9 msec | 22:00:57-22:03:15 | (img sum: 2.17e9 and 2.35e9) |
| 1 msec | 22:04:23-22:06:26 | (img sum: 2.18e9 and 2.37e9) |
| 2 msec | 22:07:12-22:09:30 | (img sum: 2.21e9 and 2.42e9) |
| 3 msec | 22:10:11-22:12:30 | (img sum: 2.24e9 and 2.48e9) |
| 4 msec | 22:13:16-22:17:36 | (img sum: 2.28e9 and 2.53e9) |

5 msec 22:18:19-22:20:53 (img sum: 2.31e9 and 2.57e9)
6 msec 22:21:51-22:24:24 (img sum: 2.24e9 and 2.45e9)
7 msec 22:25:32-22:27:50 (img sum: 1.93e9 and 1.95e9)
8 msec 22:28:33-22:32:07 (img sum: 2.83e9 and 2.79e9)
9 msec 22:35:42-22:39:16 (img sum: 2.31e9 and 2.56e9)
10 msec 22:41:08-22:45:15 (img sum: 2.49e9 and 2.59e9)
.1 msec 22:47:49-22:50:07 (img sum: 3.11e9 and 3.14e9)

Socketcam crashed when receiving an avg gent (command to stop averaging gracefully) when taking the 8, 9 and 10 msec exposures.

____end____

KCOR COMMENT BY berkey: Wed May 13 23:19:13 GMT 2015

We are shipping the 1018.9 occulter to Dennis for potential modification to deal with some stray light issues.

____end____

PSPT COMMENT BY berkey: Thu May 14 00:53:33 GMT 2015

PSPT wont stopped running its start up script. It gets stuck on the "Take 3 dark frames..." step. In the past when this was an issue we could help the process along by manually asking for more exposures form the PC. But that trick seems to have stopped working. Rebooting both the PC and Sun machine did not help. I have also gotten a couple serial communication errors between the two computers; in the past when we have seen these problems were cleared up by restarting the do s box and restaring the idl code.

____end____

KCOR COMMENT BY berkey: Thu May 14 02:00:23 GMT 2015

For most of the morning the ePDU indicators were red on the MC4u GUI. Indicating either a communication problem with the ePDU on a non-standard grouping of ports outlets were on. Turns out it was the second thing, after power restore from this mornings UPS outage the ePDU's turn all their ports to be on. Not the expected downstairs 1-4 on, upstairs #1 1-7 on and upstairs #2 1-2 on. After turning off the appropriate ports via the web interface the ePDU indicators turned green on all 3 devices.

____end____

PSPT COMMENT BY berkey: Thu May 14 02:10:56 GMT 2015

Tried the spare PSPT fiber in case the camera read out problem we had was due to fiber abuse that broke the J64 connector.

No change so we reverted back to the installed fiber and the spare when back in the box.

____end____

GENERAL COMMENT BY berkey: Thu May 14 02:11:56 GMT 2015

Rain rain go away..... Its been consistently raining for the last 5 or 6 hours.

____end____