
Mauna Loa Solar Observatory Observer's Log

Wed Oct 1 17:03:57 GMT 2014

Year: 14 Doy: 274

Observer: berkey

WEATHER COMMENT: berkey: Wed Oct 1 17:03:59 GMT 2014

temp 39f, wind 5mph from the north, cirrus overcast will delay staring of the main dome instruments.

___end___

Wed Oct 1 17:09:15 GMT 2014: PSPT Start Patrol

GONG COMMENT BY berkey: Wed Oct 1 17:45:40 GMT 2014

Un-stowed gong

___end___

Wed Oct 1 17:47:17 GMT 2014: PSPT Start Patrol

KCOR COMMENT BY berkey: Wed Oct 1 21:50:26 GMT 2014

Tightend the set screw on the X axis of the transmitted camera.

Artificial source installed in front of the telescope tube. Going to run a test at multiple RA's to see if the set screw cleared up the large shift the X axis we saw in the Sept 12 data set. For now I am trying to repeat the test w/o the distortion mask in the beam.

___end___

Wed Oct 1 22:12:09 GMT 2014: PSPT Start Patrol

KCOR COMMENT BY berkey: Wed Oct 1 22:01:18 GMT 2014

Starting start of day data set.

22:00:26->22:04:46

moving to 45 degrees East

22:05:31->22:09:34

moving to 90 degrees

22:10:20->22:13:37

moving to 45 west

22:14:07->22:18:10

moving to end long day position.

22:18:40->22:22:43

___end___

KCOR COMMENT BY berkey: Wed Oct 1 22:24:06 GMT 2014

Quick check of the data shows, I may need the distortion grid to do the anayslis after all. Installing it now.

___end___

Wed Oct 1 22:59:35 GMT 2014: PSPT Abort Patrol

Wed Oct 1 22:59:39 GMT 2014: PSPT Abort Patrol

KCOR COMMENT BY berkey: Wed Oct 1 22:41:08 GMT 2014

repeating test now distortion grid in the beam

start of day position

22:41:55->22:44:11

moving to 45 east

22:44:57->22:47:59

moving vertical

22:48:29->22:53:48

moving 45 west

22:54:03->22:58:21

moving to end of day

22:58:51->23:02:24

____end____

KCOR COMMENT BY berkey: Wed Oct 1 23:45:03 GMT 2014

____end____

KCOR COMMENT BY berkey: Thu Oct 2 02:10:43 GMT 2014

Securing the focus stage didn't change the behavior. The focus stage locking screw was backed off such that we are back to the old observing configuration and the motor/springs will move the stage in the expected way.

(With the spar pointed vertically). I went back to check the X axis locking screw loosening it a little to ensure I really did have control of it. To my surprise the camera and its corresponding mount visible moved in a defocus, Y translation, Y tip motion. It looks like there is a bit of play in the dove tail of the Thorlabs DT25 stage so that when the setscrew was relaxed the weight of the camera/mount caused the dove tail rotate slightly in its guide. By eye this motion was repeatable in that tightening the locking screw caused the camera to move closer to the beam splitter and loosening it again caused it back off again. After noting where the motion was coming from I re-tightened the locking screw.

After this I tired pushing and pulling on the camera mount to see if I could find anything else that had some play to it.

I found that with a couple pounds of force applied to the .L bracket. that holds the Y axis dovetail the whole structure would move. I cannot tell if the problem is something flexing or if it is something like motion in a dovetail. I think the motion is related to the way the assembly cantilevers away from its base above the X axis DT25. If this is the case I think the fix will we may have to build a stiffer assembly.

____end____

KCOR COMMENT BY berkey: Thu Oct 2 02:10:49 GMT 2014

At some point during the work today it looks like the transmitted camera got moved a little and will need to be re-centered again. I did not fix this today because I would like to discuss a few things with the IG first and I ran out of time.

Other than the de-center Kcor is back in a observing configuration.

distortion mask out

occulter back in

lamp removed

covers reinstaled

X axis set screw tightend

____end____

____end____

GENERAL OBSERVATORY COMMENT BY berkey: Thu Oct 2 02:15:15 GMT 2014

Of perhaps general interest but I forgot to note it, We have been in and out of fog since around 1pm.

____end____