
Mauna Loa Solar Observatory Observer's Log

Sun Jul 4 16:56:29 GMT 2010
Year: 10 Doy: 185
Observer: koon
WEATHER COMMENT: Sun Jul 4 16:56:30 GMT 2010
Clear sky, no wind. temp=48F.
___end___
Sun Jul 4 17:02:30 GMT 2010   CHIP   Start Patrol
PSPT COMMENT BY DARRYL: Sun Jul 4 17:16:30 GMT 2010
Observing.
___end___
Sun Jul 4 18:02:40 GMT 2010   CHIP   LSD
Sun Jul 4 18:04:11 GMT 2010   CHIP   End LSD
Sun Jul 4 18:04:18 GMT 2010   CHIP   BiasLSD
Sun Jul 4 18:05:06 GMT 2010   CHIP   End BiasLSD
Sun Jul 4 18:05:12 GMT 2010   CHIP   Bias
Sun Jul 4 18:05:51 GMT 2010   CHIP   End Bias
Sun Jul 4 18:05:56 GMT 2010   CHIP   ReStart Patrol
Sun Jul 4 19:32:51 GMT 2010   MKIV   Start Patrol
MKIV PROBLEM COMMENT BY DARRYL: Sun Jul 4 19:34:16 GMT 2010
I'm working on the camera alignment, I aligned it better than it was
back when I started this on Tuesday judging by the analog o-scope signals,
and those signals show a dip in the middle of the right "hump" that was
noticed recently before I started trying to increase the "gain" by aligning
the camera. That dip may be due to the CCD. Most interesting
is how great the real-time scans look, I haven't seen the corona so bright
and the background blue so noise-free in a long time - if ever. The psueudo-
calibrated scans in the animations look terrible with lots of radial streaks.
I also changed the line-driver chip at U12 on the transformation board to try
to improve the dip in the right hump of the analog displays but that didn't
help, I left the new chip in place and saved the old chip since we have many
of those. Another improvement I see is that the analog signals stay very
steady throughout the scan azimuth range whereas this was changing before
alignment, I think this is due to a folding mirror angle change and
corresponding realignment of the SK lens and the camera assembly as explained
next. The SK lens was always so low to the rail-like mounting surface
inside the mk4 camera chamber that it would touch the prefilter edge on the
camera assembly and there wasn't much movement available at the SK mount
in X and Y directions normal to the lightpath, and it seems that the folding
mirror was angled too much in order to get the light through the low lens
and that angle seemed to cause azimuth-related sensor signal, so I mounted
1/16" shims under the SK mount to correct things, that seemed to straighten
the lightpath and allowed me to change the angle of the folding mirror, I
removed a 1/16" shim from under the camera mount. I then aligned the camera
assembly as good as I could get it (it is Very Difficult to do) and tightened
things for a test. I've been running scans with the new alignment.

Looking in at the folding mirror mount there are 2 adjusting screws to
the left and right at the top and closest to the inner chamber rail,
I turned the left screw 1 turn CW, at the camera side of that mount
there is a single adjusting screw at a position farther from the
chamber rail surface - I turned that screw 2 turns CW.
___end___
Sun Jul 4 20:08:25 GMT 2010   MKIV   End Patrol
Sun Jul 4 20:29:35 GMT 2010   MKIV   Start Patrol
Sun Jul 4 21:00:06 GMT 2010   MKIV   Start Cal
Sun Jul 4 21:15:31 GMT 2010   MKIV   End Cal
Sun Jul 4 21:15:37 GMT 2010   MKIV   Start Patrol
Sun Jul 4 21:29:43 GMT 2010   CHIP   End Patrol
Sun Jul 4 21:33:32 GMT 2010   MKIV   End Patrol
Sun Jul 4 21:44:43 GMT 2010
        MkIV

19_32.rawmk4	19_53.rawmk4	20_35.rawmk4	20_56.rawmk4	21_24.rawmk4
19_35.rawmk4	19_56.rawmk4	20_38.rawmk4	21_03.rawmk4	21_27.rawmk4
19_38.rawmk4	19_59.rawmk4	20_41.rawmk4	21_04.rawmk4	21_30.rawmk4
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19_44.rawmk4	20_05.rawmk4	20_47.rawmk4	21_15.rawmk4	c21_09.rawmk4
19_47.rawmk4	20_29.rawmk4	20_50.rawmk4	21_18.rawmk4	
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