
Mauna Loa Solar Observatory Observer's Log

Mon Aug 30 16:27:58 GMT 1999

Year: 99 Doy: 242

Observer: yasukawa

WEATHER COMMENT: Mon Aug 30 16:28:47 GMT 1999

Cool, clear, light south breeze.

Startup--Initializing new tape

Mon Aug 30 16:37:55 GMT 1999	MKIV	Start Patrol
Mon Aug 30 16:38:04 GMT 1999	PICS	Start Patrol
Mon Aug 30 16:38:04 GMT 1999	PICS	Start Patrol
Mon Aug 30 17:02:49 GMT 1999	CHIP	Bias
Mon Aug 30 17:03:49 GMT 1999	CHIP	End Bias
Mon Aug 30 17:03:59 GMT 1999	CHIP	Water
Mon Aug 30 17:04:37 GMT 1999	CHIP	End Water

GONG COMMENT: Mon Aug 30 17:43:16 GMT 1999

Dsvld requested more PICS focus procedures and tests so I will go down to GONG to do the weekly PM before I start on PICS.

Mon Aug 30 18:01:04 GMT 1999	PICS	Flat
Mon Aug 30 18:01:49 GMT 1999	CHIP	Bias
Mon Aug 30 18:02:46 GMT 1999	CHIP	End Bias
Mon Aug 30 18:03:02 GMT 1999	CHIP	Water
Mon Aug 30 18:03:41 GMT 1999	PICS	End Flat
Mon Aug 30 18:03:41 GMT 1999	PICS	End Flat

GONG COMMENT: Mon Aug 30 18:06:30 GMT 1999

Back from GONG

Mon Aug 30 18:15:18 GMT 1999	MKIV	Start Cal
Mon Aug 30 18:36:55 GMT 1999	MKIV	Start Patrol

PICS COMMENT: Mon Aug 30 18:42:26 GMT 1999

Stopping to set-up for further focus tests. Installing Hartman mask. Will attempt to determine which way to move the collimator in order to refocus it at 2300 microns closer to the occulter, then, I will run focus steps with the camera in 100 micron increments to find the best focus. moving the collimator will theoretically focus the disk and limb images at the same place. The focus at different camera positions now.

Mon Aug 30 19:00:58 GMT 1999	CHIP	Bias
Mon Aug 30 19:01:59 GMT 1999	CHIP	End Bias
Mon Aug 30 19:02:13 GMT 1999	CHIP	Water
Mon Aug 30 19:02:54 GMT 1999	CHIP	End Water

PICS COMMENT: Mon Aug 30 19:06:03 GMT 1999

Start position for camera is 15371. Swapped cables, collimator position indicated as 15370. Moved collimator to 17672 (+2302). Swapped cables, Camera position now read-out as 17672, although it is secured and did not move. Loosened camera hold-down screws and will begin focus test to see if moving camera to higher micrometer values improve the focus. I will do this in approximately 100 micron increments, the

micrometer values will be written to disk along with the images.

Using focus routine in cmdtool developed on Friday.

Mon Aug 30 19:12:22 GMT 1999 PICS Start Focus

PICS COMMENT: Mon Aug 30 19:28:15 GMT 1999

Ran camera from 17672 to 18276 in approximately 100 micron increments.

Could not really see improvement in focus, although focus did not get worse until the last couple of steps. I will return camera to original position, 17672, and the start test over after moving collimator in other direction.

PICS COMMENT: Mon Aug 30 19:33:42 GMT 1999

Moved camera micrometer back to 17683, pushed camera "up" against micrometer shaft. Swapped cables, collimator position read at 17682 on micrometer controller. Moving it back to original position (-2300 microns) then in opposite direction (-2300 microns) to approximately 13082.

PICS COMMENT: Mon Aug 30 19:41:37 GMT 1999

Collimator position at 13070 on micrometer controller. Swapping cables. Repeating focus test, increasing Camera position in 100 micron increments.

PICS COMMENT: Mon Aug 30 19:43:22 GMT 1999

Camera focus test start position now changed to 13070 on micrometer controller.

Mon Aug 30 20:00:48 GMT 1999 CHIP Gain

PICS COMMENT: Mon Aug 30 20:03:47 GMT 1999

It was very difficult to tell which direction was better. My gut feeling was the second set of tests -- decreasing the collimator micrometer values -- made the focus worse, but the changes were subtle at this end and with no animation or flicker tool, comparison was difficult. I will email David to take a look at the images and agree or disagree with my assessment and also to determine if further focus tests are needed beyond the tests I did at each collimator position is needed.

Setting collimator and camera back to original positions.

COMMENT: Mon Aug 30 20:23:59 GMT 1999

CHIP looking at dome, stopping to reconfigure dome shutter.

Mon Aug 30 20:25:18 GMT 1999 CHIP CHIP End Patrol

Mon Aug 30 20:32:47 GMT 1999 MKIV Start Patrol

Mon Aug 30 20:33:09 GMT 1999 CHIP CHIP Start Patrol

PICS COMMENT: Mon Aug 30 20:35:37 GMT 1999

Set things back and then moved camera to David's "good disk focus" position. Ran one more Focus loop but micrometer value did not get entered correctly. Only "671" may have gotten into header.

Repeating with the correct micrometer entry of 15671.

PICS COMMENT: Mon Aug 30 20:40:47 GMT 1999

OK, test done for now. I will not secure covers for now but I will remove Hartman mask and resume Patrol after getting out of Focus.

Mon Aug 30 20:45:26 GMT 1999 PICS Start Patrol

PICS COMMENT: Mon Aug 30 20:58:49 GMT 1999

Stopping PICS after the 2100 UT series and will set up for follow-up tests. After some analysis, David determined that we should

move the collimator -6900 microns from the original position and move the camera +600 microns from the original position. I will run thru a range of camera positions around that value before securing the camera for the day.

Mon Aug 30 21:01:49 GMT 1999 CHIP End Bias
Mon Aug 30 21:02:03 GMT 1999 CHIP Water
Mon Aug 30 21:02:48 GMT 1999 CHIP End Water
Mon Aug 30 21:07:49 GMT 1999 PICS End Patrol

PICS COMMENT: Mon Aug 30 21:15:57 GMT 1999
Installed Hartman mask. Moved collimator from 15671 to 8767 microns, approximately -6900 microns. Unsecured camera. Camera start position = 8767.

PICS COMMENT: Mon Aug 30 21:21:32 GMT 1999
David thought the range for the test would be +/- 1000 microns around new theoretical good position of +600 from original so I moved the camera -400, 1000 microns away from new "good" position and will run thru a range to +1000 to the other side (toward rear).

Mon Aug 30 21:24:41 GMT 1999 PICS Start Focus
PICS COMMENT: Mon Aug 30 21:37:21 GMT 1999
Steps in approximately 100 microns increments will be uneven because I cannot back up without going upstairs and pushing on the camera due to the weak spring.

PICS COMMENT: Mon Aug 30 22:00:51 GMT 1999
Images got bad after passing the +600 setting (9367) in the positive direction (further back), but went thru the test anyway. Double images on disk very obvious at +900 (10230) from best guesstimate of +600.

PICS COMMENT: Mon Aug 30 22:05:09 GMT 1999
Test pau. Setting camera forward to 9325.4 which is David's best guesstimate. Collimator left at new setting.

Mon Aug 30 22:11:21 GMT 1999 CHIP CHIP End Patrol
PICS COMMENT: Mon Aug 30 22:13:14 GMT 1999

Secured camera forward against the micrometer shaft.

Mon Aug 30 22:14:01 GMT 1999 CHIP ending tape
Mon Aug 30 22:14:20 GMT 1999 PICS Start Focus

PICS COMMENT: Mon Aug 30 22:14:43 GMT 1999
Running a Focus ta last secured position. Collimator is 8767 (-6900 from original position). Camera is at 9325 (+600 from original position.)

Mon Aug 30 22:17:09 GMT 1999 MKIV End Patrol

PICS COMMENT: Mon Aug 30 22:21:02 GMT 1999
Shutting down for the day, I will leave the PICS as is, with covers off for a quick start on any changes David and Tony might specify after looking at the test results. We will resume tomorrow morning.

COMMENT: Mon Aug 30 22:23:47 GMT 1999

TAPES:

MKIV: 99-242

PICS; p01534

CHIP: C00910
LOWL: L00622 in drive 0
Mon Aug 30 22:25:03 GMT 1999
MkIII

16_38.rawmk3	17_40.rawmk3	18_54.rawmk3	19_57.rawmk3	21_24.rawmk3
16_41.rawmk3	17_44.rawmk3	18_57.rawmk3	20_00.rawmk3	21_28.rawmk3
16_44.rawmk3	17_47.rawmk3	19_01.rawmk3	20_04.rawmk3	21_31.rawmk3
16_48.rawmk3	17_50.rawmk3	19_05.rawmk3	20_32.rawmk3	21_35.rawmk3
16_51.rawmk3	17_54.rawmk3	19_08.rawmk3	20_36.rawmk3	21_38.rawmk3
16_55.rawmk3	17_57.rawmk3	19_11.rawmk3	20_39.rawmk3	21_42.rawmk3
16_58.rawmk3	18_01.rawmk3	19_15.rawmk3	20_43.rawmk3	21_45.rawmk3
17_02.rawmk3	18_04.rawmk3	19_18.rawmk3	20_46.rawmk3	21_49.rawmk3
17_05.rawmk3	18_08.rawmk3	19_22.rawmk3	20_50.rawmk3	21_52.rawmk3
17_09.rawmk3	18_11.rawmk3	19_25.rawmk3	20_53.rawmk3	21_56.rawmk3
17_12.rawmk3	18_19.rawmk3	19_29.rawmk3	20_57.rawmk3	21_59.rawmk3
17_16.rawmk3	18_26.rawmk3	19_32.rawmk3	21_00.rawmk3	22_03.rawmk3
17_19.rawmk3	18_33.rawmk3	19_36.rawmk3	21_04.rawmk3	22_06.rawmk3
17_23.rawmk3	18_37.rawmk3	19_39.rawmk3	21_07.rawmk3	22_10.rawmk3
17_26.rawmk3	18_40.rawmk3	19_43.rawmk3	21_11.rawmk3	22_13.rawmk3
17_29.rawmk3	18_43.rawmk3	19_46.rawmk3	21_14.rawmk3	c18_15.rawmk3
17_33.rawmk3	18_47.rawmk3	19_50.rawmk3	21_17.rawmk3	c18_22.rawmk3
17_37.rawmk3	18_50.rawmk3	19_53.rawmk3	21_21.rawmk3	c18_29.rawmk3