
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
Dsvid 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
Camer 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

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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
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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
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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
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