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Mauna Loa Solar Observatory Observer's Log  
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Wed May 6 17:07:19 GMT 1998

Year: 98 Doy: 126

Observer: koon

WEATHER COMMENT: Wed May 6 17:08:10 GMT 1998

Clear sky, wind=5 mph from the West, temp=49 F.

Wed May 6 17:14:21 GMT 1998 MKIII Start Patrol

Wed May 6 17:14:32 GMT 1998 PICS Start Patrol

Wed May 6 17:14:32 GMT 1998 PICS Start Patrol

MKIII COMMENT: Wed May 6 17:55:09 GMT 1998

\*\*\*\*\*RECYCLED H01818\*\*\*\*\*

Wed May 6 18:01:23 GMT 1998 PICS Flat

Wed May 6 18:02:54 GMT 1998 PICS End Flat

Wed May 6 18:03:05 GMT 1998 CHIP Bias

Wed May 6 18:04:03 GMT 1998 CHIP End Bias

Wed May 6 18:04:18 GMT 1998 CHIP Water

Wed May 6 18:05:14 GMT 1998 CHIP End Water

Wed May 6 18:08:35 GMT 1998 MKIII Start Cal

PICS COMMENT: Wed May 6 18:24:25 GMT 1998

At 1815 the O2A doesn't vignette the light for the disk image, the edge of the beam is about 1/8" in from the pillar side of the lens. It is more difficult to tell with the occulted images due to low light, it looks like there may be a little light spilling off the pillar side of the lens, but that might just be scattered light I'm seeing. So no obvious vignetting yet.

PSPT COMMENT: Wed May 6 18:28:44 GMT 1998

The program stalled at "homing guider" earlier, so I exited and reset the PC. About 10 minutes ago I tried Run again and so far it looks like it is working. Also, Haosheng called earlier and wants me to help him remove, adjust, and reinstall a filter, once I get other things under control here.

PSPT COMMENT: Wed May 6 18:42:08 GMT 1998

Stalled with the typical message about sky conditions being bad (it isn't), or the guider not being locked (it looks like it is), or the telescope not being pointed correctly (it looks OK), and asking me to type "q" to quit.

PSPT COMMENT: Wed May 6 18:45:44 GMT 1998

I guess the guider actually isn't locked, the mirror servo light is off. I saw that the needles in the gauges were centered and thought the guider was locked.

Wed May 6 19:02:18 GMT 1998 PICS Flat

Wed May 6 19:03:11 GMT 1998 CHIP Bias

Wed May 6 19:03:53 GMT 1998 PICS End Flat

Wed May 6 19:04:28 GMT 1998 CHIP End Bias

Wed May 6 19:04:38 GMT 1998 CHIP Water  
Wed May 6 19:05:21 GMT 1998 CHIP End Water

PICS COMMENT: Wed May 6 19:11:29 GMT 1998

It is difficult to tell if the light beam has moved on the O2A, it may have moved a little towards the pillar.

PSPT COMMENT: Wed May 6 19:54:20 GMT 1998

I removed the blue filter and changed the tilt a little according to request from Haosheng and Roy, hopefully this will improve the Flat images.

Wed May 6 20:00:16 GMT 1998 PICS Flat  
Wed May 6 20:01:43 GMT 1998 PICS End Flat  
Wed May 6 20:03:01 GMT 1998 CHIP Gain  
Wed May 6 20:09:02 GMT 1998 CHIP End Gain  
Wed May 6 20:09:12 GMT 1998 CHIP Bias  
Wed May 6 20:10:07 GMT 1998 CHIP End Bias  
Wed May 6 20:10:20 GMT 1998 CHIP Water  
Wed May 6 20:11:02 GMT 1998 CHIP End Water

COMMENT: Wed May 6 20:13:38 GMT 1998

Extended the dome slot.

PICS COMMENT: Wed May 6 20:13:48 GMT 1998

The strange light (possibly caused by a reflection somewhere in the optical train and possibly related to the vignetting I've seen) is now very visible in the double image K-corona images to the WSW and just off the limb and extending out across the FOV. The light isn't noticeable in the regular limb images but you can see the light "contours" aren't concentric if you point the mouse pointer off the image in the Camera window, that is the window where you see the K-corona double images, nothing looks strange in the Display window. I checked the optics and it looks as though the beam touches the lens holder when doing the disk images and definitely is spilling about 1/4" onto the pillar side of the mirror holder for the mirror just after the O2A.

PICS COMMENT: Wed May 6 20:32:12 GMT 1998

Since the K-corona occulter isn't perfectly aligned with the regular limb occulter there is a difference in occulting such that when the regular images are correctly occulted then the K-corona images show a little of the limb peeking over in the WSW which is where I see that extra unwanted light out away from the limb. So I changed the occulting so that the K-corona images would have the sun peeking over a little on the opposite (ENE) side of the occulter. That greatly reduced the amount of extra light to the WSW but there is still some there, so bad occulting isn't the cause of the light. I checked the light on the optics with this change in occulting and it looks the same, no change in where the light is falling as far as I can tell yet the extra light in the K-corona has been reduced.

PICS COMMENT: Wed May 6 20:46:52 GMT 1998

I am changing the occulting back to normal again.

PSPT COMMENT: Wed May 6 20:48:21 GMT 1998

The program again stalled like it did this morning, while "homing guider".

I exited, reset the PC again, and did Run again. Now I am getting the

"type q to quit message", again, just like this morning. I mentioned this problem to Haosheng earlier today and he said to try again and see what happens. I'll send a message to him.

Wed May 6 21:00:28 GMT 1998 PICS Flat  
Wed May 6 21:01:56 GMT 1998 PICS End Flat  
Wed May 6 21:03:02 GMT 1998 CHIP Bias  
Wed May 6 21:04:08 GMT 1998 CHIP End Bias  
Wed May 6 21:04:18 GMT 1998 CHIP Water  
Wed May 6 21:05:01 GMT 1998 CHIP End Water

PICS COMMENT: Wed May 6 21:14:13 GMT 1998

I can't tell if the beam has moved. It is possible that the beam hasn't moved at all throughout today and that I thought it was moving because the beam was getting brighter and it became obvious where the edges were, this would be because of the brightening of the sun as it rises towards noon.

Anyway, it is obvious that the beam is being vignetted at the first mirror after the O2A. The extra light in the K-corona images seems to be reduced from an hour ago. So it appears that the vignetting may not be changing but the intensity of some unwanted extra light in the K-corona images changes throughout the day although the position of that light is always in the WSW, and the light is only visible in the K-corona images but there may be hints of it in the disk and limb images.

PSPT COMMENT: Wed May 6 21:25:31 GMT 1998

I exited from the program and Haosheng will investigate the problem from his side.

Wed May 6 22:01:25 GMT 1998 PICS Flat  
Wed May 6 22:02:55 GMT 1998 PICS End Flat  
Wed May 6 22:03:05 GMT 1998 CHIP Bias  
Wed May 6 22:04:11 GMT 1998 CHIP End Bias  
Wed May 6 22:04:25 GMT 1998 CHIP Water  
Wed May 6 22:05:10 GMT 1998 CHIP End Water

PSPT COMMENT: Wed May 6 22:18:26 GMT 1998

Haosheng called up, we found out that the telescope was hitting the declination limit before pointing to the sun, in Hawaii the sun will go north of straight up at this time of year since we are within the tropics. I repositioned the limit switch activator to allow a greater declination and Haosheng is recalibrating the ephemeris for this new position. We'll probably have to do this again once he checks the ephemeris to see how far north the telescope needs to point in declination.

Wed May 6 22:23:24 GMT 1998 PICS End Patrol  
Wed May 6 22:23:40 GMT 1998 CHIP ending tape

PSPT COMMENT: Wed May 6 22:58:10 GMT 1998

Still helping Haosheng with the calibration.

PICS COMMENT: Wed May 6 22:58:33 GMT 1998

I checked the light beam around 2230 ut and it still looks like is in the same position as earlier, so if there is a drift it is very small.

COMMENT: Wed May 6 23:03:13 GMT 1998

TAPES:

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MKIII: H01819

PICS: P01185

CHIP: C00575

LOWL: L00513 in temp drive #1

Wed May 6 23:04:15 GMT 1998

MkIII

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| 17_17.rawmk3 | 18_30.rawmk3 | 19_31.rawmk3 | 20_32.rawmk3 | 21_34.rawmk3  |
| 17_20.rawmk3 | 18_33.rawmk3 | 19_34.rawmk3 | 20_35.rawmk3 | 21_37.rawmk3  |
| 17_23.rawmk3 | 18_35.rawmk3 | 19_37.rawmk3 | 20_38.rawmk3 | 21_40.rawmk3  |
| 17_26.rawmk3 | 18_38.rawmk3 | 19_40.rawmk3 | 20_41.rawmk3 | 21_43.rawmk3  |
| 17_29.rawmk3 | 18_41.rawmk3 | 19_43.rawmk3 | 20_44.rawmk3 | 21_45.rawmk3  |
| 17_32.rawmk3 | 18_44.rawmk3 | 19_46.rawmk3 | 20_47.rawmk3 | 21_48.rawmk3  |
| 17_35.rawmk3 | 18_47.rawmk3 | 19_49.rawmk3 | 20_50.rawmk3 | 21_51.rawmk3  |
| 17_38.rawmk3 | 18_50.rawmk3 | 19_51.rawmk3 | 20_53.rawmk3 | 21_54.rawmk3  |
| 17_40.rawmk3 | 18_53.rawmk3 | 19_54.rawmk3 | 20_56.rawmk3 | 21_57.rawmk3  |
| 17_43.rawmk3 | 18_56.rawmk3 | 19_57.rawmk3 | 20_59.rawmk3 | 22_00.rawmk3  |
| 17_46.rawmk3 | 18_59.rawmk3 | 20_00.rawmk3 | 21_02.rawmk3 | 22_03.rawmk3  |
| 17_49.rawmk3 | 19_02.rawmk3 | 20_03.rawmk3 | 21_05.rawmk3 | 22_06.rawmk3  |
| 17_52.rawmk3 | 19_05.rawmk3 | 20_06.rawmk3 | 21_07.rawmk3 | 22_09.rawmk3  |
| 17_55.rawmk3 | 19_08.rawmk3 | 20_09.rawmk3 | 21_10.rawmk3 | 22_12.rawmk3  |
| 17_58.rawmk3 | 19_11.rawmk3 | 20_12.rawmk3 | 21_13.rawmk3 | 22_15.rawmk3  |
| 18_01.rawmk3 | 19_13.rawmk3 | 20_15.rawmk3 | 21_16.rawmk3 | 22_18.rawmk3  |
| 18_04.rawmk3 | 19_16.rawmk3 | 20_18.rawmk3 | 21_19.rawmk3 | c18_08.rawmk3 |
| 18_11.rawmk3 | 19_19.rawmk3 | 20_21.rawmk3 | 21_22.rawmk3 | c18_14.rawmk3 |
| 18_17.rawmk3 | 19_22.rawmk3 | 20_24.rawmk3 | 21_25.rawmk3 | c18_20.rawmk3 |
| 18_24.rawmk3 | 19_25.rawmk3 | 20_27.rawmk3 | 21_28.rawmk3 |               |