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Mauna Loa Solar Observatory Observer's Log  
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Sun Jun 6 16:33:01 GMT 2004

Year: 04 Doy: 158

Observer: koon

Sun Jun 6 16:40:31 GMT 2004 CHIP Start Patrol

Sun Jun 6 16:40:44 GMT 2004 PICS Start Patrol

Sun Jun 6 16:41:47 GMT 2004 MKIV Start Patrol

WEATHER COMMENT: Sun Jun 6 16:33:02 GMT 2004

Clear sky, no wind, temp=50F.

ECHO COMMENT: Sun Jun 6 16:46:00 GMT 2004

Time OK.

A NEW TAPE HAS BEEN PUT INTO KAIEE DLT DRIVE, Sun Jun 6 16:59:35 GMT 2004

PSPT COMMENT: Sun Jun 6 16:59:52 GMT 2004

Observing.

Sun Jun 6 18:01:52 GMT 2004 CHIP LSD

Sun Jun 6 18:03:39 GMT 2004 CHIP End LSD

Sun Jun 6 18:03:52 GMT 2004 CHIP BiasLSD

Sun Jun 6 18:04:04 GMT 2004 PICS Flat

Sun Jun 6 18:04:51 GMT 2004 CHIP End BiasLSD

Sun Jun 6 18:05:01 GMT 2004 CHIP Bias

Sun Jun 6 18:05:54 GMT 2004 CHIP End Bias

Sun Jun 6 18:06:31 GMT 2004 PICS End Flat

MKIV COMMENT: Sun Jun 6 18:42:29 GMT 2004

Centered occulting.

Sun Jun 6 18:57:17 GMT 2004 MKIV End Patrol

Sun Jun 6 18:57:22 GMT 2004 MKIV Start Cal

Sun Jun 6 19:16:08 GMT 2004 MKIV End Cal

Sun Jun 6 19:16:18 GMT 2004 MKIV Start Patrol

COMMENT: Sun Jun 6 19:34:44 GMT 2004

Extended the dome slot.

CHIP COMMENT: Sun Jun 6 20:27:15 GMT 2004

Image was centered low, manually corrected it.

MKIV COMMENT: Sun Jun 6 21:16:32 GMT 2004

Centered occulting.

\*\*PICS PROBLEM\*\*: Sun Jun 6 22:21:10 GMT 2004

A few minutes ago I heard a couple of quiet pops and looked at the LED status boards above the MCC in time to see a little smoke come out from the center

region. I shut off the MCC switch and went outside to avoid breathing the smoke. Now the stink is bearable so I'll track down what happened.

Sun Jun 6 23:05:55 GMT 2004 CHIP Start Patrol

Sun Jun 6 23:08:33 GMT 2004 PICS Start Patrol

\*\*PICS PROBLEM\*\*: Sun Jun 6 23:03:18 GMT 2004

I found a burnt power component on the PICS Halle Filter Drive board, I removed and set aside the board, then replaced it with the unused PICS Dust Cover Drive board and relabeled it. There is an empty slot in the MCC Drive boards rack for a new spare board to be replaced. Upon powerup

and restarting the Patrol I saw the drive LEDs go on then off indicating the filter was driven out, but later there was more quiet pops and smoke, maybe as it tried to drive the filter back in. I turned off the MCC power switch and will pull out this 2nd board. Then I'll check the instrument upstairs.

Sun Jun 6 23:53:32 GMT 2004 MKIV End Patrol

**\*\*PICS PROBLEM\*\***: Sun Jun 6 23:52:04 GMT 2004

I'm going to pause the spar instruments so I can work on the PICS problem more safely upstairs. I found that a pin had worked its way loose and fell out of the L-shaped limit switch actuator arm for the IN position of the Halle filter, and the adjustable actuator knob that rides on the Halle stage has been damaged on one side - I think I can reverse that to use it, and I think I can reuse the pin if I rough-up the end so it stays in place better. So the Drive board kept trying to drive the stage though it was at a physical limit jammed against the limit switch L-shaped arm. I'll check the limit switch function too.

**\*\*PICS PROBLEM\*\***: Mon Jun 7 00:24:55 GMT 2004

The knob actuator that rides with the stage is normal, it is different than the OUT side on purpose apparently, so I don't need to repair that. But the limit switch is crushed so I need to replace that.

**\*\*PICS PROBLEM\*\***: Mon Jun 7 01:21:44 GMT 2004

I slightly flattened the end of the shaft pin that fell out of the L-shaped actuator arm, I pressed it back into place, it won't fall out again. The pin for the Out switch side isn't loose but I'll put a little dimple next to it and the other pin that will tighten the end of the holes they are set in, to be doubly sure they stay in place.

**\*\*PICS PROBLEM\*\***: Mon Jun 7 02:30:12 GMT 2004

Finally finished soldering in a new limit switch, it was tight and slow.

**\*\*PICS PROBLEM\*\***: Mon Jun 7 02:44:27 GMT 2004

I had to remove and replace the entire Halle filter stage assembly to fix things, it is back in and ready to go. I need to find another spare driver board. I put the 2 bad driver boards on the tool chest in the PSPT dome since they stink too much to keep in the main area.

**\*\*PICS PROBLEM\*\***: Mon Jun 7 03:21:38 GMT 2004

Success! The Halle filter can go in and out again, the limit switches are working.

I adjusted the L-shaped arm setscrew to actuate the switch well, there is no need to adjust that. I tested via VCP but not with Patrol, it is getting late and I'm worn out for now. It should work well via Patrol tomorrow.

I used the PICS O2 stage drive board for the Halle filter, we'll need to repair the other 2 boards, they burnt out trying to drive the stage in after it was all the way in - due to the limit switch not telling it to stop.

Mon Jun 7 03:50:19 GMT 2004

MkIV

16_41.rawmk4	18_07.rawmk4	19_42.rawmk4	21_07.rawmk4	22_36.rawmk4
16_44.rawmk4	18_10.rawmk4	19_45.rawmk4	21_10.rawmk4	22_39.rawmk4
16_47.rawmk4	18_13.rawmk4	19_48.rawmk4	21_13.rawmk4	22_42.rawmk4
16_50.rawmk4	18_15.rawmk4	19_51.rawmk4	21_16.rawmk4	22_45.rawmk4

16_53.rawmk4	18_18.rawmk4	19_54.rawmk4	21_19.rawmk4	22_48.rawmk4
16_56.rawmk4	18_21.rawmk4	19_57.rawmk4	21_22.rawmk4	22_51.rawmk4
16_59.rawmk4	18_24.rawmk4	20_00.rawmk4	21_25.rawmk4	22_54.rawmk4
17_02.rawmk4	18_27.rawmk4	20_03.rawmk4	21_28.rawmk4	22_57.rawmk4
17_05.rawmk4	18_30.rawmk4	20_06.rawmk4	21_31.rawmk4	23_00.rawmk4
17_08.rawmk4	18_33.rawmk4	20_09.rawmk4	21_34.rawmk4	23_03.rawmk4
17_11.rawmk4	18_36.rawmk4	20_12.rawmk4	21_37.rawmk4	23_06.rawmk4
17_14.rawmk4	18_39.rawmk4	20_15.rawmk4	21_40.rawmk4	23_09.rawmk4
17_17.rawmk4	18_42.rawmk4	20_17.rawmk4	21_43.rawmk4	23_12.rawmk4
17_20.rawmk4	18_45.rawmk4	20_20.rawmk4	21_46.rawmk4	23_15.rawmk4
17_23.rawmk4	18_48.rawmk4	20_23.rawmk4	21_48.rawmk4	23_17.rawmk4
17_25.rawmk4	18_51.rawmk4	20_26.rawmk4	21_51.rawmk4	23_20.rawmk4
17_28.rawmk4	18_54.rawmk4	20_29.rawmk4	21_54.rawmk4	23_23.rawmk4
17_31.rawmk4	19_00.rawmk4	20_32.rawmk4	21_57.rawmk4	23_26.rawmk4
17_34.rawmk4	19_06.rawmk4	20_35.rawmk4	22_00.rawmk4	23_29.rawmk4
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17_40.rawmk4	19_16.rawmk4	20_41.rawmk4	22_06.rawmk4	23_35.rawmk4
17_43.rawmk4	19_19.rawmk4	20_44.rawmk4	22_09.rawmk4	23_38.rawmk4
17_46.rawmk4	19_22.rawmk4	20_47.rawmk4	22_15.rawmk4	23_41.rawmk4
17_49.rawmk4	19_25.rawmk4	20_50.rawmk4	22_19.rawmk4	23_44.rawmk4
17_52.rawmk4	19_28.rawmk4	20_53.rawmk4	22_22.rawmk4	23_47.rawmk4
17_55.rawmk4	19_30.rawmk4	20_56.rawmk4	22_24.rawmk4	23_50.rawmk4
17_58.rawmk4	19_33.rawmk4	20_59.rawmk4	22_27.rawmk4	c18_57.rawmk4
18_01.rawmk4	19_36.rawmk4	21_01.rawmk4	22_30.rawmk4	c19_03.rawmk4
18_04.rawmk4	19_39.rawmk4	21_04.rawmk4	22_33.rawmk4	c19_09.rawmk4