
Mauna Loa Solar Observatory Observer's Log

Wed Jan 5 17:20:17 GMT 2000

Year: 00 Doy: 005

Observer: koon

WEATHER COMMENT: Wed Jan 5 17:20:23 GMT 2000

Clear sky, wind=5 mph from the SE, temp=39 F.

Wed Jan 5 17:21:00 GMT 2000 CHIP Startup--Initializing new tape

Wed Jan 5 17:29:13 GMT 2000 MKIV Start Patrol

Wed Jan 5 17:29:23 GMT 2000 CHIP CHIP Start Patrol

MKIV PROBLEM: Wed Jan 5 17:34:00 GMT 2000

I haven't seen any messages in the akamai window so far this morning, but it looks like everything else is working OK.

Wed Jan 5 17:36:52 GMT 2000 PICS Start Patrol

LOW-L PROBLEM: Wed Jan 5 17:41:00 GMT 2000

L00656 was popped out of drive #0, data going to L00657 in drive #1, reason unknown. Installed L00658 in drive #0.

Wed Jan 5 18:03:12 GMT 2000 CHIP Bias

Wed Jan 5 18:04:33 GMT 2000 CHIP End Bias

Wed Jan 5 18:04:33 GMT 2000 CHIP End Bias

Wed Jan 5 18:04:53 GMT 2000 CHIP Water

Wed Jan 5 18:05:40 GMT 2000 CHIP End Water

Wed Jan 5 18:07:33 GMT 2000 PICS End Flat

GONG PROBLEM: Wed Jan 5 18:10:23 GMT 2000

There was a network related crash message on the console this morning I exited and cycled power to the console but it won't come back far enough for me to login.

MLSO PROBLEM: Wed Jan 5 18:12:44 GMT 2000

Network connection is still very slow, maybe this is related to the GONG console problem.

PICS PROBLEM: Wed Jan 5 18:26:20 GMT 2000

Disk images not being taken because the occulting wheel isn't going to clear position. The LEDs show the wheel moving but the Bit #2 LED flashes very quickly without the Home LED flashing, then it doesn't flash again while the other LEDs do, then it has a Timeout. Will try stopping then restarting the Patrol to see if this clears the problem.

Wed Jan 5 18:29:39 GMT 2000 PICS Start Patrol

Wed Jan 5 18:34:13 GMT 2000 PICS End Patrol

PICS PROBLEM: Wed Jan 5 18:39:47 GMT 2000

Restarting Patrol didn't clear the problem. I have the same problem when I use the mouse/GUI to move the occulting wheel. Will leave this paused until I get back from the GONG shelter and have time to work on this problem.

GONG PROBLEM: Wed Jan 5 18:41:23 GMT 2000

Going down to the GONG shelter soon to see if data are being taken after the turret fix, and to see what I can do about the network connection between the shelter and the outside world, I can't get through on the two IP addresses I know of, and I'm wondering if this is due to something that is causing our network connections to be sluggish.

Wed Jan 5 19:03:07 GMT 2000 CHIP Bias

Wed Jan 5 19:04:18 GMT 2000 CHIP End Bias

Wed Jan 5 19:04:36 GMT 2000 CHIP Water

Wed Jan 5 19:05:24 GMT 2000 CHIP End Water

GONG PROBLEM: Wed Jan 5 19:30:58 GMT 2000

The system is working well in the shelter, data look good. Can ping outer IP addresses in Hawaii and mainland from the shelter console. So something is wrong with the MLSO GONG monitoring console or its address. Priority on this has dropped, on to other problems for a while.

Wed Jan 5 20:03:00 GMT 2000 CHIP Gain

GONG PROBLEM: Wed Jan 5 20:04:36 GMT 2000

The IP addresses for GONG are being listed on the MLSO console as 128.171.231.081 (instead of .81) and 128.171.231.082 (instead of .82), I'd guess that this was the problem, maybe someone from GONG made a change to the software and got the IP addresses wrong. I'll try calling them.

Wed Jan 5 20:08:53 GMT 2000 CHIP End Gain
Wed Jan 5 20:09:09 GMT 2000 CHIP Bias
Wed Jan 5 20:10:14 GMT 2000 CHIP End Bias
Wed Jan 5 20:10:33 GMT 2000 CHIP Water
Wed Jan 5 20:11:14 GMT 2000 CHIP End Water

COMMENT: Wed Jan 5 20:55:46 GMT 2000

Spar wasn't tracking, I bumped it while working on PICS.

Wed Jan 5 21:03:00 GMT 2000 CHIP Bias
Wed Jan 5 21:04:02 GMT 2000 CHIP End Bias
Wed Jan 5 21:04:13 GMT 2000 CHIP Water
Wed Jan 5 21:04:55 GMT 2000 CHIP End Water

****GONG PROBLEM****: Wed Jan 5 21:59:25 GMT 2000

It looks like the GONG folks must have found the problem I told them about, the xterm console is doing new things, still not up all the way though.

Wed Jan 5 22:03:01 GMT 2000 CHIP Bias
Wed Jan 5 22:03:58 GMT 2000 CHIP End Bias
Wed Jan 5 22:04:13 GMT 2000 CHIP Water
Wed Jan 5 22:04:59 GMT 2000 CHIP End Water

****PICS PROBLEM****: Wed Jan 5 22:05:48 GMT 2000

I swapped the PICS Objective wheel board back to its proper place, that should fix the Timeout problems. I used a spare Mk3 driver board in place of the toasted PICS occulting wheel board. Now we are set correctly with boards but there is still an indexing problem. Bit #1 alone isn't being seen to signal that the wheel is in the Clear position, so the wheel spins until it times out. I'm trying various tests on the encoder wheel positions now.

****PICS PROBLEM****: Wed Jan 5 22:28:37 GMT 2000

There are 2 HEI and disk type encoder wheels at the base of the occulting wheel, used for position sensing. The innermost wheel is used for Bit #0 and Bit #1 sensing. In the Clear position only Bit #1 should be sensed but there is no indication with the LED that this is happening. So I moved the wheel to the PICS position which causes Bits #0 and #1 to be sensed, then I blocked the light going through the HEI in various ways to see how the LEDs would be lit. Starting with both LEDs lit I blocked both holes in the encoder disk and both LEDs were then dark, then I blocked just the upper hole and the Bit #0 LED was lit as it should be, then I blocked the lower hole both LEDs were dark but the Bit #1 LED should have been lit. This is the same situation as if the wheel were in the Clear position which only has one hole for the Bit #1. So it appears that Bit #1 is only sensed if Bit #0 is sensed at the same time.

****PICS PROBLEM****: Wed Jan 5 22:54:22 GMT 2000

With the wheel in the PICS position (both Bits #0 and #1 sensed) if I cover the Bit #1 hole then both LEDs remain lit, but if I cover both holes then uncover the Bit #0 hole then the Bit #0 LED is the only one lit.

0 CHIP End Bias

Wed Jan 5 23:04:22 GMT 2000 CHIP Water
Wed Jan 5 23:05:11 GMT 2000 CHIP End Water

****PICS PROBLEM****: Wed Jan 5 23:16:36 GMT 2000

Earlier I tried using the PICS Objective wheel STATUS board in place of the occulting wheel STATUS board, and I thought the problem of finding the Clear position was still there, but now I've swapped the board again and so far have no trouble getting into the Clear position. Maybe I was seeing another problem related to misalignment of the Home switch back when I was adjusting that. Now that the Clear position can be reached I can see that the Home switch is being activated almost simultaneously with the Bit #1 sensor, this is too early for comfort, perhaps it was activating before the Bit #1 sensor for the Clear position and that was the whole problem. The Home activation is a little early for the PICS position too but good for all the other positions. Anyway, it will have to be adjusted, I'll do that next.

****PICS PROBLEM****: Wed Jan 5 23:37:38 GMT 2000

After moving the gear on the Home shaft by one cog the timing of the Home and Bit #1 LEDs still seem simultaneous. I moved this shaft this morning from a position that seemed to be too far in the other direction but I think it was only 1 cog away from where I am now. Will try rotating the Home actuator on the shaft to see what happens.

Thu Jan 6 00:03:01 GMT 2000 CHIP Bias
Thu Jan 6 00:04:06 GMT 2000 CHIP End Bias
Thu Jan 6 00:04:20 GMT 2000 CHIP Water
Thu Jan 6 00:05:08 GMT 2000 CHIP End Water

PICS PROBLEM: Thu Jan 6 00:23:40 GMT 2000

OK, everything is back together and working properly, I 'll wait until tomorrow to try Patrol. Once I got reliable LED readings and was able to point to all positions I could see what was happening. It turns out that the fiducial marks on the Home position shaft and cam are in a bad place, they will work if you do a lot of fine tuning with the limit switch and Geneva drive but that isn't necessary. geneva drives have a huge amount of rotation that can be used for a home indication but this home position was right at the beginning of that huge sweet spot, making things very difficult. So I realigned the cam and adjusted the limit switch, now there shouldn't be any problem and things will be MUCH easier to adjust if this happens again.

2000 CHIP CHIP End Patrol

PICS COMMENT: Thu Jan 6 00:32:42 GMT 2000

I couldn't wait, I started Patrol to get at least a little data for today. Everything looked fine, back in business again.

Thu Jan 6 00:37:38 GMT 2000 PICS End Patrol

COMMENT: Thu Jan 6 00:49:20 GMT 2000

I got the NOAA camera program to startup, by going with default login and clicking OK at the error message, it looks normal anyway.

COMMENT: Thu Jan 6 00:54:25 GMT 2000

TAPES:

MKIV: 00005

CHIP: C01004

PICS: P01628

LOWL: L00657 in drive #1

Thu Jan 6 00:55:26 GMT 2000

MkIV

00_02.rawmk4	18_26.rawmk4	20_02.rawmk4	21_28.rawmk4	22_54.rawmk4
00_05.rawmk4	18_29.rawmk4	20_05.rawmk4	21_31.rawmk4	22_57.rawmk4
00_08.rawmk4	18_32.rawmk4	20_08.rawmk4	21_34.rawmk4	23_00.rawmk4
00_11.rawmk4	18_35.rawmk4	20_11.rawmk4	21_37.rawmk4	23_03.rawmk4
00_14.rawmk4	18_38.rawmk4	20_14.rawmk4	21_40.rawmk4	23_06.rawmk4
00_17.rawmk4	18_41.rawmk4	20_17.rawmk4	21_43.rawmk4	23_09.rawmk4
00_20.rawmk4	18_44.rawmk4	20_20.rawmk4	21_46.rawmk4	23_12.rawmk4
00_23.rawmk4	18_50.rawmk4	20_23.rawmk4	21_49.rawmk4	23_14.rawmk4
00_26.rawmk4	18_56.rawmk4	20_26.rawmk4	21_51.rawmk4	23_17.rawmk4
00_29.rawmk4	19_02.rawmk4	20_29.rawmk4	21_54.rawmk4	23_20.rawmk4
17_29.rawmk4	19_06.rawmk4	20_32.rawmk4	21_57.rawmk4	23_23.rawmk4
17_32.rawmk4	19_09.rawmk4	20_34.rawmk4	22_00.rawmk4	23_26.rawmk4
17_35.rawmk4	19_12.rawmk4	20_37.rawmk4	22_03.rawmk4	23_29.rawmk4
17_38.rawmk4	19_14.rawmk4	20_40.rawmk4	22_06.rawmk4	23_32.rawmk4
17_41.rawmk4	19_17.rawmk4	20_43.rawmk4	22_09.rawmk4	23_35.rawmk4
17_44.rawmk4	19_20.rawmk4	20_46.rawmk4	22_12.rawmk4	23_38.rawmk4
17_47.rawmk4	19_23.rawmk4	20_49.rawmk4	22_15.rawmk4	23_41.rawmk4
17_50.rawmk4	19_26.rawmk4	20_52.rawmk4	22_18.rawmk4	23_44.rawmk4
17_53.rawmk4	19_29.rawmk4	20_55.rawmk4	22_21.rawmk4	23_47.rawmk4
17_56.rawmk4	19_32.rawmk4	20_58.rawmk4	22_24.rawmk4	23_50.rawmk4
17_59.rawmk4	19_35.rawmk4	21_01.rawmk4	22_27.rawmk4	23_53.rawmk4
18_02.rawmk4	19_38.rawmk4	21_04.rawmk4	22_30.rawmk4	23_56.rawmk4
18_05.rawmk4	19_41.rawmk4	21_07.rawmk4	22_33.rawmk4	23_59.rawmk4
18_08.rawmk4	19_44.rawmk4	21_10.rawmk4	22_36.rawmk4	c18_47.rawmk4
18_11.rawmk4	19_47.rawmk4	21_13.rawmk4	22_39.rawmk4	c18_53.rawmk4
18_14.rawmk4	19_50.rawmk4	21_16.rawmk4	22_42.rawmk4	c18_59.rawmk4
18_17.rawmk4	19_53.rawmk4	21_19.rawmk4	22_45.rawmk4	
18_20.rawmk4	19_56.rawmk4	21_22.rawmk4	22_48.rawmk4	
18_23.rawmk4	19_59.rawmk4	21_25.rawmk4	22_51.rawmk4	