
Mauna Loa Solar Observatory Observer's Log

Sun Mar 2 17:20:48 GMT 2003

Year: 03 Doy: 061

Observer: koon

Sun Mar 2 17:25:07 GMT 2003 MKIV Start Patrol

Sun Mar 2 17:25:05 GMT 2003 CHIP Start Patrol

Sun Mar 2 17:25:18 GMT 2003 PICS Start Patrol

WEATHER COMMENT: Sun Mar 2 17:20:51 GMT 2003

Clear sky, wind=5 mph from the SE, temp=36 F.

MKIV COMMENT: Sun Mar 2 17:26:28 GMT 2003

I rebooted Nahenahe to see if this helps the problems that Allen had with the barrel travel yesterday.

PSPT COMMENT: Sun Mar 2 17:56:49 GMT 2003

Observing.

Sun Mar 2 18:01:48 GMT 2003 CHIP LSD

Sun Mar 2 18:03:33 GMT 2003 CHIP End LSD

Sun Mar 2 18:03:47 GMT 2003 CHIP BiasLSD

Sun Mar 2 18:04:40 GMT 2003 CHIP End BiasLSD

Sun Mar 2 18:04:56 GMT 2003 CHIP Bias

Sun Mar 2 18:05:55 GMT 2003 CHIP End Bias

MKIV PROBLEM: Sun Mar 2 17:57:44 GMT 2003

Still have barrel angle stalls, at 195.47 on CW scan and 41.14 on CCW scan for initial scans, then the scans continue after about 10 seconds and it looks like data transfers are happening there instead of at the 180 barrel angle position, then the scans continue in the same direction but no data are shown past the stall points on the realtime display.

Just before the beginning of the 2nd CW scan the barrel stalled at the normal start point of 184 degrees, I had to push the barrel a little to get it going again, and that happened again a couple of scans later at 1806 UT. The camera heater cable wrapup isn't binding at any of the stall points. Still investigating.

MKIV PROBLEM: Sun Mar 2 18:16:09 GMT 2003

Now the CW scans stall at 325.84, this must be what Allen saw yesterday.

CHIP PROBLEM: Sun Mar 2 18:19:02 GMT 2003

Images low, pointed to center in Y-direction.

MKIV PROBLEM: Sun Mar 2 18:23:29 GMT 2003

The barrel is where the display says it is at any time during the scans, encoder system seems to work right. It seems to me like something is flipped 180 degrees with the handling of data, the messages in the Console window scroll by after the stalls in each direction which are now centered on 0 degrees instead of the normal 180 degrees. When the stalls occur the Drive and Request status LEDs also go out - they aren't lit, as if they are being told to stop there. The CCW scan always stops at 41.12 to 41.14 range but the CW scans have stopped at 195.47, 325.84, 318.78 that I've noticed so far, they seem to be staying around 318.78 repeatedly now. This seems like some kind of control logic problem with electronics or software, the cables aren't binding, the barrel is losing Drive signal whenever it stalls and the reboot of Nahenahe this morning didn't help.

\005Sun Mar 2 18:46:37 GMT 2003 MKIV End Patrol

PICS PROBLEM: Sun Mar 2 18:45:25 GMT 2003

Never started I think, stalled with Program:H-alpha.disc, did a Kill/Run cycle to fix it.

MKIV PROBLEM: Sun Mar 2 18:47:08 GMT 2003

It is interesting to note that when I clicked on Idle to stop the scanning it eventually stopped at 318.78 in the CW scan direction and then stayed there as if it thought it was the normal 176 degree stopping point - again it verifies that this stall points are thought by the instrument to be the normal stop and turnaround points. That's probably also why no data appear for the rest of the scans beyond these stopping points in each direction. But it is interesting that as soon as the scans reverse directions at their normal stopping points then data appear on the realtime scan plots. So I see data plotted in CCW direction from 176 to 41.14 degrees and plotted in the CW direction from 184 to 318.78 degrees, these data are updated with each scan too. The rest of the plot areas are white.

Sun Mar 2 18:58:23 GMT 2003 PICS Start Patrol

****PICS PROBLEM****: Sun Mar 2 19:10:07 GMT 2003
Stalled again at startup with same symptoms as before. Things were changed recently with this instrument, reading email to catch up with that before trying anything else.

Sun Mar 2 19:25:15 GMT 2003 PICS Start Patrol
A NEW TAPE HAS BEEN PUT INTO KAIEE DLT DRIVE, Sun Mar 2 19:27:46 GMT 2003

****PICS PROBLEM****: Sun Mar 2 19:29:01 GMT 2003
Email and logs show that there was a problem that Eric found on Friday that appears to be a bad motor for the filter wheel assembly, it can only turn well in the CCW direction. David changed software to allow only CCW turning as a temporary fix. That seems to have worked for part of yesterday but Allen noted that PICS wouldn't startup late in the day - probably the same problem I see now. I tried pointing the filter wheel "manually" using the VCP GUI, it appeared to point to all positions in both CW and CCW directions, according to the VCP and the status LEDs on the drive board.

Sun Mar 2 19:50:34 GMT 2003 MKIV Start Patrol
****MKIV PROBLEM****: Sun Mar 2 19:50:43 GMT 2003
Tried manually pointing the barrel using the GUI to the CW and CCW limits, it pointed smoothly and stopped at the limits with the green drive LEDs lighting correctly for each limit.

Sun Mar 2 20:01:14 GMT 2003 PICS Start Patrol
COMMENT: Sun Mar 2 20:44:21 GMT 2003
Extended the dome slot.
MKIV COMMENT: Sun Mar 2 20:46:53 GMT 2003
Centered occulting.

Sun Mar 2 20:56:47 GMT 2003 MKIV End Patrol
Sun Mar 2 20:56:58 GMT 2003 MKIV Start Cal
****MKIV PROBLEM****: Sun Mar 2 20:47:02 GMT 2003
OK, I fixed this problem. I turned off the power strip on the pier in the dome to stop the barrel, then I opened the wrapup and looked around - it looked good, then I closed it back up and turned the power back on so the barrel started turning again. That fixed it, now we are getting regular scans. Maybe the power reset up there while everything was on down here was needed to clear some strange electronic logic state.

Sun Mar 2 21:00:43 GMT 2003 PICS Start Patrol
****PICS PROBLEM****: Sun Mar 2 21:01:32 GMT 2003
I moved the filter wheel manually to 656.3 then restarted Patrol and watched which direction the filter wheel gets turned, it still gets a command to turn CW according to the drive status LEDs. It still stalls as first described everytime I try to restart Patrol. I did get Video to run and could turn the filterwheel both directions while it was running.

Sun Mar 2 21:15:44 GMT 2003 MKIV End Cal
Sun Mar 2 21:15:55 GMT 2003 MKIV Start Patrol
****PICS PROBLEM****: Sun Mar 2 21:30:02 GMT 2003
Running Monitor instead of Patrol also stalls, I think I may have one image from the startup before the stall.
MKIV COMMENT: Sun Mar 2 21:51:32 GMT 2003
Centered occulting.

Sun Mar 2 22:06:23 GMT 2003 PICS Start Patrol
****PICS PROBLEM****: Sun Mar 2 22:27:47 GMT 2003
Rebooting Nene didn't help, still have same stall at startup of Patrol.

Sun Mar 2 22:33:49 GMT 2003 CHIP End Patrol
Sun Mar 2 22:38:27 GMT 2003 CHIP Start Patrol
****CHIP PROBLEM****: Sun Mar 2 22:38:21 GMT 2003
Paused while I reset MCC to try to help PICS problem.

Sun Mar 2 22:44:45 GMT 2003 PICS Start Patrol
MKIV COMMENT: Sun Mar 2 22:50:09 GMT 2003
Centered occulting.
****PICS PROBLEM****: Sun Mar 2 22:56:58 GMT 2003
Reset MCC, that didn't help. I could get the Patrol to move on by killing 2 "WaitRepl" processes in a row. The Patrol appears to be working, this problem is fixed - for now anyway.

****PICS PROBLEM****: Sun Mar 2 23:13:58 GMT 2003
It again stalled when the cycle was through and it was back to H-alpha.disc again. I again killed "WaitRepl" processes twice and Patrol continued. The filter wheel turned CCW to go from clear to 656.3 positions. Then the program stayed there with "Program: sync...16.62" which implies it wants to stay

in the limb mode without taking data until the next hour starts. It was a good opportunity to center the occulting anyway. What is the program waiting for with "WaitRepl", if it were mechanisms wouldn't it "timeout" and move on?

MKIV COMMENT: Sun Mar 2 23:20:24 GMT 2003

Centered occulting.

Sun Mar 2 23:42:50 GMT 2003 PICS End Patrol

Sun Mar 2 23:44:43 GMT 2003 PICS Start Patrol

PICS PROBLEM: Sun Mar 2 23:47:30 GMT 2003

I could end Patrol normally. I restarted and killed the "WaitRepl" processes twice after the first stall. Then it would run the filter wheel CCW to 656.3 then eventually it runs it CW back to clear, but a funny thing happens when it does that. The first fraction of a second the status LEDs show the Request and Drive LEDs lit as CCW then they change to being lit as CW, as if David's change is trying to turn the wheel CCW but gets changed again to CW. Anyway, it looks like it is turning and stopping to the correct positions.

WEATHER COMMENT: Mon Mar 3 00:12:30 GMT 2003

Orographic clouds are starting to move in.

Mon Mar 3 00:16:20 GMT 2003 PICS End Patrol

Mon Mar 3 00:22:09 GMT 2003 CHIP End Patrol

COMMENT: Mon Mar 3 00:22:23 GMT 2003

Pausing instruments due to clouds.

Mon Mar 3 00:25:20 GMT 2003 MKIV End Patrol

PICS PROBLEM: Mon Mar 3 00:51:09 GMT 2003

I'm out of ideas on this problem right now, but we can get data sets as I described earlier. I'm going to move onto the PSPT problems now, so this PICS problem still exists.

PSPT COMMENT: Mon Mar 3 02:17:03 GMT 2003

I checked into determining if there is a focus problem with Red (and other?) images as requested by Eric. Also relayed my knowledge of the heater used in the SOP near the filter wheel. Sent info to Kim and Alice too. Will need more information to understand the "blurred" Red image problem but have ideas that I'll try at a later date. The manual for the Omega heater controller is on top of the electronics rack about a foot away from the actual controller.

Mon Mar 3 02:32:13 GMT 2003

MkIV

00_01.rawmk4	18_30.rawmk4	21_27.rawmk4	22_23.rawmk4	23_23.rawmk4
00_04.rawmk4	18_35.rawmk4	21_30.rawmk4	22_26.rawmk4	23_26.rawmk4
00_07.rawmk4	18_41.rawmk4	21_33.rawmk4	22_29.rawmk4	23_29.rawmk4
00_10.rawmk4	19_50.rawmk4	21_36.rawmk4	22_32.rawmk4	23_32.rawmk4
00_13.rawmk4	20_00.rawmk4	21_39.rawmk4	22_35.rawmk4	23_35.rawmk4
00_16.rawmk4	20_05.rawmk4	21_42.rawmk4	22_38.rawmk4	23_38.rawmk4
00_19.rawmk4	20_16.rawmk4	21_45.rawmk4	22_41.rawmk4	23_41.rawmk4
00_22.rawmk4	20_21.rawmk4	21_48.rawmk4	22_44.rawmk4	23_43.rawmk4
17_25.rawmk4	20_43.rawmk4	21_51.rawmk4	22_47.rawmk4	23_46.rawmk4
17_28.rawmk4	20_47.rawmk4	21_54.rawmk4	22_50.rawmk4	23_49.rawmk4
17_34.rawmk4	20_50.rawmk4	21_57.rawmk4	22_53.rawmk4	23_52.rawmk4
17_38.rawmk4	20_53.rawmk4	22_00.rawmk4	22_56.rawmk4	23_55.rawmk4
17_48.rawmk4	21_00.rawmk4	22_02.rawmk4	22_58.rawmk4	23_58.rawmk4
17_53.rawmk4	21_06.rawmk4	22_05.rawmk4	23_01.rawmk4	c20_56.rawmk4
17_58.rawmk4	21_12.rawmk4	22_08.rawmk4	23_07.rawmk4	c21_03.rawmk4
18_04.rawmk4	21_15.rawmk4	22_11.rawmk4	23_11.rawmk4	c21_09.rawmk4
18_14.rawmk4	21_18.rawmk4	22_14.rawmk4	23_14.rawmk4	
18_19.rawmk4	21_21.rawmk4	22_17.rawmk4	23_17.rawmk4	
18_25.rawmk4	21_24.rawmk4	22_20.rawmk4	23_20.rawmk4	