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--------------------------------------------------------------------------------
                Mauna Loa Solar Observatory Observer's Log
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            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
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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 smoothely 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 commend 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
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18_19.rawmk4   21_21.rawmk4   22_17.rawmk4   23_17.rawmk4
18_25.rawmk4   21_24.rawmk4   22_20.rawmk4   23_20.rawmk4