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Mauna Loa Solar Observatory Observer's Log  
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Wed Apr 30 16:36:53 GMT 2003

Year: 03 Doy: 120

Observer: yasukawa

WEATHER COMMENT: Wed Apr 30 16:37:12 GMT 2003

Cool, clear, light south wind.

Wed Apr 30 16:43:28 GMT 2003 CHIP Start Patrol

Wed Apr 30 16:43:41 GMT 2003 PICS Start Patrol

Wed Apr 30 16:58:26 GMT 2003 MKIV Start Patrol

MKIV COMMENT: Wed Apr 30 16:58:49 GMT 2003

O1 guider steppers preset.

\*\*MKIV PROBLEM\*\*: Wed Apr 30 16:59:07 GMT 2003

Checked O1 guiders out upstairs and found connectors to steppers loosely connected. Secured both connectors but that did not fix problem. All other connections look secure. Swapped power supplies and confirmed Darryl's finding that guiders do not work with either supply. Swapped supplies back to their documented functions.

WEATHER COMMENT: Wed Apr 30 17:03:11 GMT 2003

Sky is bright.

\*\*PSPT PROBLEM\*\*: Wed Apr 30 17:05:56 GMT 2003

Startup program stalled at "Taking 3 dark frames" in initialization process. There is a screenful of 1 frame messages on PC.

\*\*PSPT PROBLEM\*\*: Wed Apr 30 17:13:46 GMT 2003

Did not turn camera on at open-up. Turning it on solved stall.

\*\*PSPT PROBLEM\*\*: Wed Apr 30 17:32:01 GMT 2003

Guider did not point to sun and dome startup ended in wrong position. Manually moved both and did a dome cal and runing an gdr ephmcal.

Wed Apr 30 18:01:55 GMT 2003 CHIP LSD

Wed Apr 30 18:03:45 GMT 2003 CHIP End LSD

Wed Apr 30 18:03:59 GMT 2003 CHIP BiasLSD

Wed Apr 30 18:04:05 GMT 2003 PICS Flat

Wed Apr 30 18:05:04 GMT 2003 CHIP End BiasLSD

Wed Apr 30 18:05:19 GMT 2003 CHIP Bias

Wed Apr 30 18:06:17 GMT 2003 CHIP End Bias

Wed Apr 30 18:06:39 GMT 2003 PICS End Flat

\*\*PSPT PROBLEM\*\*: Wed Apr 30 18:15:42 GMT 2003

Performed several iterations of dome and guider cals and ephems and restarted each time. Finally got the dome to behave but could not get the guider to point to the sun correctly. Pointed spar manually and started observations. Alerting Alice to startup problems. Problems may be due to her program modifications and tests.

\*\*PSPT PROBLEM\*\*: Wed Apr 30 18:34:30 GMT 2003

Started observations after manually pointing spar, but guider moved to erroneous ephemeris again and there are no images. Aborted.

Wed Apr 30 18:56:35 GMT 2003 MKIV End Patrol

Wed Apr 30 18:56:47 GMT 2003 MKIV Start Cal

Wed Apr 30 19:15:32 GMT 2003 MKIV End Cal  
Wed Apr 30 19:15:41 GMT 2003 MKIV Start Patrol  
Wed Apr 30 19:52:01 GMT 2003 CHIP End Patrol  
Wed Apr 30 19:55:28 GMT 2003 PICS End Patrol  
Wed Apr 30 19:57:04 GMT 2003 MKIV End Patrol  
COMMENT: Wed Apr 30 20:06:28 GMT 2003  
Reconfigured dome shutter.  
Wed Apr 30 20:07:00 GMT 2003 MKIV Start Patrol  
Wed Apr 30 20:07:17 GMT 2003 CHIP Start Patrol  
Wed Apr 30 20:07:29 GMT 2003 PICS Start Patrol  
\*\*PSPT PROBLEM\*\*: Wed Apr 30 20:15:23 GMT 2003  
Alice instructed that we reload 030327 version of pspt.ini file and edit  
AZsparErr\_deg to -0.574 and ELsparErr\_deg to -0.10 and then restart pspt.exe  
on PC and restart Sparc from power down. Fix worked.  
Pspt observing.  
MKIV COMMENT: Wed Apr 30 20:30:39 GMT 2003  
Centered O1.  
\*\*MKIV PROBLEM\*\*: Wed Apr 30 20:31:00 GMT 2003  
Fixed problem with O1 guiders. Checked power supplies common to O1-X and O1-Y.  
They were all OK. Checked cables. Found that connectors at the steppers  
were not secure but securing them did not fix problem. In tracing signal paths  
back from the steppers to the guider chassis, I discovered that a cable I  
removed while troubleshooting the barrel still carried the O1-X and O1-Y  
pulses upstairs to the junction box (20A1) on the pier. All of the other  
pulses on that cable were transferred to the Transformation Board so I  
unplugged the cable at both end to remove confusion. When I finally  
figured out where that cable went to and from and plugged it back in, the  
O1 guiders resumed working. Cable was a round/flat cable between  
A3J11(139) at the OCP to 20A1J5(183) at the pier junction box. Cable ends  
were not labeled. Labeled them and updating documentation.  
WEATHER COMMENT: Wed Apr 30 21:41:42 GMT 2003  
In scattered orographic clouds.  
\*\*MKIV PROBLEM\*\*: Wed Apr 30 21:41:56 GMT 2003  
I did not get to center O1 after the initial effort, sorry. I have been  
scurrying around dealing with a bunch of stuff that has been preoccupying  
my cluttered brain today.  
MKIV COMMENT: Wed Apr 30 22:57:36 GMT 2003  
Centered O1 in hole between orographic clouds.  
COMMENT: Wed Apr 30 23:07:22 GMT 2003  
ADR lost its place during the clouds. Manually rotated the dome to get  
PICS and CHIP back out of the shade.  
Wed Apr 30 23:50:23 GMT 2003 CHIP End Patrol  
WEATHER COMMENT: Wed Apr 30 23:50:31 GMT 2003  
Heavy orographic clouds, closing domes to avoid sudden precipitation.  
COMMENT: Wed Apr 30 23:53:32 GMT 2003  
Stopped all instruments for now.  
Wed Apr 30 23:53:35 GMT 2003 PICS End Patrol  
Wed Apr 30 23:56:37 GMT 2003 MKIV End Patrol

**\*\*PSPT PROBLEM\*\***: Wed Apr 30 23:57:09 GMT 2003  
PSPT crashed at 2340 in HiRes Data taking RED dark image. Killed and paused.

Thu May 1 00:38:44 GMT 2003 MKIV Start Patrol  
Thu May 1 00:38:59 GMT 2003 CHIP Start Patrol  
Thu May 1 00:39:11 GMT 2003 PICS Start Patrol

WEATHER COMMENT: Thu May 1 00:39:14 GMT 2003  
Clouds breaking up. Opening domes and resuming observations.

WEATHER COMMENT: Thu May 1 01:08:28 GMT 2003

Clouding up again.

Thu May 1 01:14:26 GMT 2003 MKIV End Patrol  
Thu May 1 01:14:49 GMT 2003 MKIV Start Patrol

WEATHER COMMENT: Thu May 1 01:30:30 GMT 2003

Heavy clouds rolling upslope. Closing domes.

Thu May 1 01:30:55 GMT 2003 CHIP End Patrol  
Thu May 1 01:32:45 GMT 2003 MKIV End Patrol  
Thu May 1 01:32:53 GMT 2003 PICS End Patrol

MKIV COMMENT: Thu May 1 01:41:08 GMT 2003

O1 guider steppers worked normally after fix. Returned steppers to startup preset positions.

**\*\*PSPT PROBLEM\*\***: Thu May 1 01:48:53 GMT 2003

Just discovered that the dome shutter rollers have been falling apart.

I found some ball bearings on the dome floor, on the dome rim, and on the pspt roof area. Looks like the two lower rollers on the left side of the shutter have popped their retaining shield and have been chucking ball bearings over time. Looks like spares are available.

**\*\*PSPT PROBLEM\*\***: Thu May 1 02:21:28 GMT 2003

Replaced the two failed rollers with new spares. We now have two more new spares and a cruddy looking old (maybe used) spare in our inventory.

Thu May 1 02:32:39 GMT 2003

MkIV

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| 00_38.rawmk4 | 17_39.rawmk4 | 19_24.rawmk4 | 21_08.rawmk4 | 22_42.rawmk4 |
| 00_41.rawmk4 | 17_42.rawmk4 | 19_27.rawmk4 | 21_11.rawmk4 | 22_45.rawmk4 |
| 00_44.rawmk4 | 17_45.rawmk4 | 19_30.rawmk4 | 21_14.rawmk4 | 22_48.rawmk4 |
| 00_47.rawmk4 | 17_48.rawmk4 | 19_33.rawmk4 | 21_17.rawmk4 | 22_51.rawmk4 |
| 00_50.rawmk4 | 17_51.rawmk4 | 19_36.rawmk4 | 21_20.rawmk4 | 22_54.rawmk4 |
| 00_53.rawmk4 | 17_54.rawmk4 | 19_39.rawmk4 | 21_23.rawmk4 | 22_57.rawmk4 |
| 00_56.rawmk4 | 17_57.rawmk4 | 19_42.rawmk4 | 21_26.rawmk4 | 23_00.rawmk4 |
| 00_59.rawmk4 | 18_00.rawmk4 | 19_45.rawmk4 | 21_29.rawmk4 | 23_03.rawmk4 |
| 01_02.rawmk4 | 18_03.rawmk4 | 19_47.rawmk4 | 21_32.rawmk4 | 23_06.rawmk4 |
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| 01_08.rawmk4 | 18_09.rawmk4 | 19_53.rawmk4 | 21_38.rawmk4 | 23_12.rawmk4 |
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| 01_14.rawmk4 | 18_15.rawmk4 | 20_09.rawmk4 | 21_44.rawmk4 | 23_18.rawmk4 |
| 01_17.rawmk4 | 18_18.rawmk4 | 20_12.rawmk4 | 21_47.rawmk4 | 23_20.rawmk4 |
| 01_20.rawmk4 | 18_21.rawmk4 | 20_15.rawmk4 | 21_50.rawmk4 | 23_23.rawmk4 |
| 01_23.rawmk4 | 18_23.rawmk4 | 20_18.rawmk4 | 21_52.rawmk4 | 23_26.rawmk4 |
| 01_26.rawmk4 | 18_26.rawmk4 | 20_21.rawmk4 | 21_55.rawmk4 | 23_29.rawmk4 |

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| 17_01.rawmk4 | 18_35.rawmk4 | 20_30.rawmk4 | 22_04.rawmk4 | 23_38.rawmk4  |
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| 17_07.rawmk4 | 18_41.rawmk4 | 20_36.rawmk4 | 22_10.rawmk4 | 23_44.rawmk4  |
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| 17_16.rawmk4 | 18_50.rawmk4 | 20_45.rawmk4 | 22_19.rawmk4 | 23_53.rawmk4  |
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| 17_33.rawmk4 | 19_18.rawmk4 | 21_02.rawmk4 | 22_36.rawmk4 |               |
| 17_36.rawmk4 | 19_21.rawmk4 | 21_05.rawmk4 | 22_39.rawmk4 |               |