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## Mauna Loa Solar Observatory Observer's Log

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Wed Jan 7 17:22:55 GMT 2004

Year: 04 Doy: 007 Observer: yasukawa

WEATHER COMMENT: Wed Jan 7 17:23:13 GMT 2004

Cool, in extensive thin-to-moderate cirrostratus overcast, west wind.

PSPT COMMENT: Wed Jan 7 17:29:17 GMT 2004

Start-up.

Wed Jan 7 17:30:03 GMT 2004 CHIP Start Patrol Wed Jan 7 17:30:18 GMT 2004 PICS Start Patrol

ECHO COMMENT: Wed Jan 7 17:31:20 GMT 2004

Time OK.

PSPT COMMENT: Wed Jan 7 17:38:57 GMT 2004

Observing.

 Wed Jan
 7 18:00:46 GMT 2004
 CHIP
 LSD

 Wed Jan
 7 18:02:29 GMT 2004
 CHIP
 End LSD

 Wed Jan
 7 18:02:35 GMT 2004
 CHIP
 BiasLSD

 Wed Jan
 7 18:03:12 GMT 2004
 PICS
 Flat

Wed Jan 7 18:03:27 GMT 2004 CHIP End BiasLSD

Wed Jan 7 18:03:33 GMT 2004 CHIP Bias
Wed Jan 7 18:04:23 GMT 2004 CHIP End Bias
Wed Jan 7 18:05:34 GMT 2004 PICS End Flat

\*\*ECHO PROBLEM\*\*: Wed Jan 7 18:08:39 GMT 2004

Heliostat looks like it is pointing around 20-30 degrees higher than where sun is located when sighting over the top of the guider head.

\*\*ECHO PROBLEM\*\*: Wed Jan 7 18:22:18 GMT 2004

Alice thinks guider may have slipped on the set screw overnight and is looking at the data.

\*\*MKIV PROBLEM\*\*: Wed Jan 7 19:28:03 GMT 2004

Looked down the tube between the O1 and the occulter and did not see anything hanging down in the beam this morning. Inspected area around the occulter and did not find any "rubbish" flopping around inside. I changed the position of the corks and covered the leak in one of them with black tape. This being the only change, we can see if there is any change in the polarization signal in the data.

WEATHER COMMENT: Wed Jan 7 22:03:27 GMT 2004

Cirrostratus is thinning, centering O1 and starting MK4.

Wed Jan 7 22:04:13 GMT 2004 MKIV Start Patrol Wed Jan 7 22:40:51 GMT 2004 MKIV End Patrol Wed Jan 7 23:01:14 GMT 2004 MKIV End Cal MKIV COMMENT: Wed Jan 7 23:02:26 GMT 2004

MKIV COMMENT: Wed Dail / 23:02:20 GMI 2004

Was tending to ECHO when Cal ended. Centering O1 before restarting.

Wed Jan 7 23:03:04 GMT 2004 MKIV Start Patrol

\*\*ECHO PROBLEM\*\*: Wed Jan 7 23:13:41 GMT 2004

Tried changing HA and DEC error values but could not pull solar image into display. Checking the turret, it appeared to be around 20 degrees

higher than where it should be. Halted observations and cycled the instrument power (performed partial shutdown protocol). Once echosys was up and running, I moved the turret to zenith using the "Set HA position to zero (use caution)" command. Confirmed that the PC thinks HA is at zero using the "Get hour angle position" command. Went outside and found the turret looking slightly west of zenith. Measured the angle using the protractor level and found it at 10 degrees.

Alice recommended we stow the turret as the additional 10 degrees offset is too much for the west limit switch.

Used the "Move hour angle to an encoder step position" to stow. Alice indicated -800000 was -90 degrees so I went -900000 to compensate for the additional 10 degrees. Turnet ran smoothely most of the way but jerked a couple of times near end of travel. Turnet was looking about 12-degrees above horizontal at the "stow" position.

WEATHER COMMENT: Wed Jan 7 23:46:00 GMT 2004

In scattered cirrostratus patches.

\*\*ECHO PROBLEM\*\*: Thu Jan 8 01:39:43 GMT 2004

Used wrong commands earlier. Pointing error was not 10 degrees. Further testing revealed that there is jerky motion on return to stow position. There is a metallic, tapping sound or two each time the light feed hesitates. Slip? Pointing error appears to be related to the offset at which the feed is stowed. Emailed information to Boulder for them to ponder before tomorrow morning. Stowed light feed and exited echosys for the night.

Thu Jan 8 02:30:14 GMT 2004 CHIP End Patrol
Thu Jan 8 02:31:47 GMT 2004 PICS End Patrol
Thu Jan 8 02:34:08 GMT 2004 MKIV End Patrol
Thu Jan 8 02:38:55 GMT 2004

MkIV

00_02.rawmk4	00_52.rawmk4	01_42.rawmk4	22_10.rawmk4	23_20.rawmk4
00_05.rawmk4	00_55.rawmk4	01_45.rawmk4	22_13.rawmk4	23_23.rawmk4
00_08.rawmk4	00_58.rawmk4	01_48.rawmk4	22_19.rawmk4	23_26.rawmk4
00_10.rawmk4	01_01.rawmk4	01_51.rawmk4	22_22.rawmk4	23_29.rawmk4
00_13.rawmk4	01_04.rawmk4	01_54.rawmk4	22_25.rawmk4	23_32.rawmk4
00_16.rawmk4	01_07.rawmk4	01_56.rawmk4	22_28.rawmk4	23_35.rawmk4
00_19.rawmk4	01_10.rawmk4	01_59.rawmk4	22_31.rawmk4	23_38.rawmk4
00_22.rawmk4	01_12.rawmk4	02_05.rawmk4	22_34.rawmk4	23_41.rawmk4
00_25.rawmk4	01_16.rawmk4	02_09.rawmk4	22_37.rawmk4	23_44.rawmk4
00_28.rawmk4	01_17.rawmk4	02_15.rawmk4	22_45.rawmk4	23_47.rawmk4
00_31.rawmk4	01_21.rawmk4	02_19.rawmk4	22_51.rawmk4	23_50.rawmk4
00_34.rawmk4	01_24.rawmk4	02_22.rawmk4	23_03.rawmk4	23_53.rawmk4
00_37.rawmk4	01_27.rawmk4	02_25.rawmk4	23_06.rawmk4	23_56.rawmk4
00_40.rawmk4	01_30.rawmk4	02_27.rawmk4	23_09.rawmk4	23_59.rawmk4
00_43.rawmk4	01_33.rawmk4	02_30.rawmk4	23_11.rawmk4	c22_41.rawmk4
00_46.rawmk4	01_36.rawmk4	22_04.rawmk4	23_14.rawmk4	c22_48.rawmk4
00_49.rawmk4	01_39.rawmk4	22_07.rawmk4	23_17.rawmk4	c22_54.rawmk4