Mauna Loa Solar Observatory Observer's Log

_____ Fri Oct 2 16:33:28 GMT 1998 Year: 98 Doy: 275 Observer: yasukawa Fri Oct 2 16:34:21 GMT 1998 CHIP Startup--Initializing new tape WEATHER COMMENT: Fri Oct 2 16:34:38 GMT 1998 Cool, clear, light south wind. **CHIP PROBLEM**: Fri Oct 2 16:34:52 GMT 1998 CHIP filter temp OK this morning at startup, 34.488. Fri Oct 2 16:42:41 GMT 1998 CHIP CHIP Start Patrol **CHIP PROBLEM**: Fri Oct 2 16:42:56 GMT 1998 Once sun warmed filter, temp went into red , presently 34.691. Fri Oct 2 16:43:53 GMT 1998 MKIII Start Patrol **CHIP PROBLEM**: Fri Oct 2 16:56:52 GMT 1998 Filter temp. now 35.607 Fri Oct 2 17:00:49 GMT 1998 CHIP Bias Fri Oct 2 17:01:44 GMT 1998 CHIP End Bias Fri Oct 2 17:01:57 GMT 1998 CHIP Water Fri Oct 2 17:02:42 GMT 1998 PICS Flat Fri Oct 2 17:02:40 GMT 1998 CHIP End Water Fri Oct 2 17:04:09 GMT 1998 PICS End Flat **PSPT PROBLEM**: Fri Oct 2 17:18:27 GMT 1998 PSPT started up OK, brushed front surface of entrance filter. Active mirror stable. Jeff Kuhn is supposed to arrive shortly to investigate active mirror problem. MKIII COMMENT: Fri Oct 2 17:20:07 GMT 1998 CORRECT started up inadvertently. I must have brushed the mouse while cursor was sitting on button at some point. **CHIP PROBLEM**: Fri Oct 2 17:22:33 GMT 1998 temp 37.103 Fri Oct 2 17:24:59 GMT 1998 MKIII Start Patrol MKIII COMMENT: Fri Oct 2 17:25:44 GMT 1998 CORRECT was done a bit early but we were supposed to do one this month. It is a good day, weather-wise, to do it. **CHIP PROBLEM**: Fri Oct 2 17:32:09 GMT 1998 temp 37.598 **CHIP PROBLEM**: Fri Oct 2 17:46:21 GMT 1998 38.255 Fri Oct 2 18:02:48 GMT 1998 PICS Flat Fri Oct 2 18:02:49 GMT 1998 CHIP Bias Fri Oct 2 18:03:46 GMT 1998 CHIP End Bias **PSPT PROBLEM**: Fri Oct 2 18:03:59 GMT 1998 1800 UT wake-up OK, active mirror stable. ri Oct 2 18:03:59 GMT 1998 CHIP Water **CHIP PROBLEM**: Fri Oct 2 18:04:29 GMT 1998 38,979

Fri Oct 2 18:04:54 GMT 1998 CHIP End Water **PSPT PROBLEM**: Fri Oct 2 18:20:55 GMT 1998 1800 UT run went OK, active mirror was stable. **CHIP PROBLEM**: Fri Oct 2 18:21:44 GMT 1998 39.594 **CHIP PROBLEM**: Fri Oct 2 18:35:33 GMT 1998 40.063 Fri Oct 2 19:02:46 GMT 1998 Flat PICS Fri Oct 2 19:02:56 GMT 1998 Bias CHIP Fri Oct 2 19:04:01 GMT 1998 CHIP End Bias Fri Oct 2 19:04:01 GMT 1998 CHIP End Bias Fri Oct 2 19:04:15 GMT 1998 CHIP Water **PSPT PROBLEM**: Fri Oct 2 19:04:44 GMT 1998 1900 UT Run is oscillating. Jeff Kuhn arrived a few minutes before and is now investigating the problem. **CHIP PROBLEM**: Fri Oct 2 19:05:43 GMT 1998 40.907 COMMENT: Fri Oct 2 19:11:03 GMT 1998 Stopping to reconfigure dome shutter. Fri Oct 2 19:11:37 GMT 1998 PICS End Patrol Fri Oct 2 19:11:31 GMT 1998 CHIP CHIP End Patrol Fri Oct 2 19:17:02 GMT 1998 MKIII Start Patrol Fri Oct 2 19:19:30 GMT 1998 PICS Start Patrol Fri Oct 2 19:19:30 GMT 1998 PICS Start Patrol COMMENT: Fri Oct 2 19:27:41 GMT 1998 Network is down. **CHIP PROBLEM**: Fri Oct 2 19:28:16 GMT 1998 41,414 WEATHER COMMENT: Fri Oct 2 19:28:45 GMT 1998 Sky is very bright near sun, noisy. COMMENT: Fri Oct 2 19:50:45 GMT 1998 Net back up. Fri Oct 2 20:01:56 GMT 1998 CHIP Gain Fri Oct 2 20:02:42 GMT 1998 PICS Flat CHIP COMMENT: Fri Oct 2 20:03:07 GMT 1998 42.056 Fri Oct 2 20:04:08 GMT 1998 End Flat PICS Fri Oct 2 20:06:37 GMT 1998 End Gain CHIP Fri Oct 2 20:06:51 GMT 1998 Bias CHIP Fri Oct 2 20:07:44 GMT 1998 CHIP End Bias Fri Oct 2 20:07:54 GMT 1998 CHIP Water Fri Oct 2 20:08:33 GMT 1998 CHIP End Water **CHIP PROBLEM**: Fri Oct 2 20:15:48 GMT 1998 42.260 setpoint remains at .642V sensor voltage is slowly oscillating between .699V-.733V **PSPT PROBLEM**: Fri Oct 2 20:17:12 GMT 1998 Jeff suspected something flaky on the Mirror Drive board,

board we first suspected. There may be a bad connection somewhere as we can get the mirror servo meters to oscillate by jogging the cardd while it is out on extenders. Jeff is resoldering all of the connections on the board. **CHIP PROBLEM**: Fri Oct 2 20:27:41 GMT 1998 42.419 and still rising. setpoint at .642V sensor oscillating between .701V and .747V Turned temp. controller off, getting concerned that the temp is getting too high. **CHIP PROBLEM**: Fri Oct 2 20:32:58 GMT 1998 Stopping CHIP. Fri Oct 2 20:35:19 GMT 1998 CHIP CHIP End Patrol **CHIP PROBLEM**: Fri Oct 2 20:57:34 GMT 1998 temp coming down, 37.999 and dropping slowly. Controller off. Fri Oct 2 21:02:40 GMT 1998 PICS Flat Fri Oct 2 21:04:10 GMT 1998 PICS End Flat **CHIP PROBLEM**: Fri Oct 2 21:05:32 GMT 1998 Turned controller back on. 37.504 when I did that, Temp is still dropping, now at 37104. **CHIP PROBLEM**: Fri Oct 2 21:14:53 GMT 1998 Temp is going back up. Turning controller back off to protect filter. WEATHER COMMENT: Fri Oct 2 21:42:23 GMT 1998 In stratocumulus clouds. **PSPT PROBLEM**: Fri Oct 2 21:44:15 GMT 1998 Jeff and I agree that the mirror drive board is flaky. Resoldering did not fix problem. I think there is a hairline flaw in the power or ground circuit as this is the only circuit common to both X and Y drive circuits. Temperature and vibration cause the drive circuits to peg between limits. The reason I got off that track the last time when I was cooling the board with the fan was the air pressure was causing the board to waver to and fro in the breeze. This mechanical vibration was also causing the board to get flaky. Thermal expansion probably caused flakyness when the board was securely mounted in the HOT chassis. We currently have the board out on extenders and tied down with a wire. PSPT is running OK. Jeff Kuhn has left satisfied that we resolved the problem. Haosheng will send out a spare mirror drive board to replace the flaky one. Fri Oct 2 21:52:03 GMT 1998 CHTP ending tape PSPT COMMENT: Fri Oct 2 21:53:42 GMT 1998 Optics around active mirror and beam-splitter dusted off. Fri Oct 2 22:02:45 GMT 1998 PICS Flat Fri Oct 2 22:04:13 GMT 1998 End Flat PICS COMMENT: Fri Oct 2 22:07:05 GMT 1998

Tapes: PICS: P01310 CHIP: C00707 LOWL: L00545 Fri Oct 2 22:08:34 GMT 1998 PICS End Patrol Fri Oct 2 22:14:28 GMT 1998 MkIII

16_43.rawmk3	17_54.rawmk3	19_08.rawmk3	20_18.rawmk3	21_22.rawmk3
16_47.rawmk3	17_57.rawmk3	19_17.rawmk3	20_21.rawmk3	21_25.rawmk3
16_49.rawmk3	18_03.rawmk3	19_20.rawmk3	20_24.rawmk3	21_28.rawmk3
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