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Mauna Loa Solar Observatory Observer's Log

Tue Dec 11 17:01:28 GMT 2001 Year: 01 Doy: 345 Observer: yasukawa WEATHER COMMENT: Tue Dec 11 17:01:35 GMT 2001 Cool, clear, south wind. COMMENT: Tue Dec 11 17:08:51 GMT 2001 Waiting for sky tx to clear the dome wall. Tue Dec 11 17:15:59 GMT 2001 Start Patrol MKIV Tue Dec 11 17:16:01 GMT 2001 CHIP Start Patrol Tue Dec 11 17:16:11 GMT 2001 PICS Start Patrol PSPT COMMENT: Tue Dec 11 17:19:22 GMT 2001 Observations started. \*\*PSPT PROBLEM\*\*: Tue Dec 11 17:21:12 GMT 2001 Dome did not point correctly. I will need to redo the dome ephmeris calibration. \*\*PSPT PROBLEM\*\*: Tue Dec 11 17:24:00 GMT 2001 Spar did not point correctly either, redoing gdr ephmcal too. \*\*PSPT PROBLEM\*\*: Tue Dec 11 17:32:43 GMT 2001 Spar ended up pointing low after gdr ephmcal--almost as if it was calibrated for an hour earlier. Shut-down to determine if the spar and dome returns to correct stow positions. They did. Re-Start-up. PSPT COMMENT: Tue Dec 11 17:40:31 GMT 2001 Startup pointed dome a OK, but somewhat behind center (spar is right of center). Spar pointed close enough for guider to acquire image. Observation restarted. \*\*PSPT PROBLEM\*\*: Tue Dec 11 17:48:00 GMT 2001 Daily Obs did not pull image to center during initial loop. PSPT COMMENT: Tue Dec 11 17:51:22 GMT 2001 Image pulled to center at end of initial loop during centering routine before the wait for next loop. Tue Dec 11 18:02:55 GMT 2001 CHIP LSD Tue Dec 11 18:04:13 GMT 2001 PICS Flat Tue Dec 11 18:05:13 GMT 2001 CHIP End LSD Tue Dec 11 18:05:27 GMT 2001 CHIP BiasLSD Tue Dec 11 18:06:25 GMT 2001 CHIP End BiasLSD Tue Dec 11 18:06:33 GMT 2001 CHIP Bias Tue Dec 11 18:07:21 GMT 2001 PICS End Flat Tue Dec 11 18:07:26 GMT 2001 CHIP End Bias Tue Dec 11 18:10:17 GMT 2001 MKIV End Patrol Tue Dec 11 18:10:27 GMT 2001 Start Cal MKIV GONG COMMENT: Tue Dec 11 18:19:52 GMT 2001 Going down to GONG to do weekly PM. Tue Dec 11 18:29:10 GMT 2001 MKIV End Cal Tue Dec 11 18:29:20 GMT 2001 MKTV Start Patrol GONG COMMENT: Tue Dec 11 18:50:02 GMT 2001 Back from GONG.

PSPT COMMENT: Tue Dec 11 19:00:02 GMT 2001 Stopped observation to install test software. Tue Dec 11 19:03:06 GMT 2001 CHIP LSD \*\*PSPT PROBLEM\*\*: Tue Dec 11 19:00:27 GMT 2001 Some of the images in the last loop looked either badly out of focus or contained image motion. Multiple-soft images of active regions point to image motion more than a focus problem like we had before where two of three wavelengths were in focus and one was not due to slippage of the focus mechanism. This time all three wavelengths were smeared. This problem appears intermittent. Last image at abort was sharp. We will need to look into this at a later time. Tue Dec 11 19:05:25 GMT 2001 CHIP End LSD Tue Dec 11 19:05:40 GMT 2001 BiasLSD CHIP Tue Dec 11 19:06:39 GMT 2001 End BiasLSD CHIP Tue Dec 11 19:06:52 GMT 2001 Bias CHIP Tue Dec 11 19:07:50 GMT 2001 CHIP End Bias \*\*PSPT PROBLEM\*\*: Tue Dec 11 19:32:55 GMT 2001 After installing Alice's test software, I tried starting by centering image. Program stalled at first step. I killed runPspt.pro and restarted with Pspt and then Center Image again. Dome ran to wrong position. Tue Dec 11 20:00:58 GMT 2001 CHIP LSD Tue Dec 11 20:03:17 GMT 2001 End LSD CHIP Tue Dec 11 20:03:28 GMT 2001 CHIP BiasLSD \*\*PSPT PROBLEM\*\*: Tue Dec 11 19:54:14 GMT 2001 Apparently when one exits pspt.pro on the PC, the current RA and DEC values must be lost. Unless one starts up with the "home-then-position" guider and dome routine contained in "Start-up" command, the ephemeris doesn't know where the dome and spar are when trying to point the guider or dome. Since the dome will want to go to its erroneous position when reconnecting the computer interface cable after moving it anywhere manually (with cable unplugged), I left it where it wanted to stay but I repositioned the spar to its stow position and then restarted Pspt by first killing runPspt.pro, restarting Pspt on sparc, then selecting Start-up on the qui. This time spar and dome pointed (relatively) correctly. Daily Obs started up correctly, quickly centering the image and running thru its program. Tue Dec 11 20:04:22 GMT 2001 CHIP End BiasLSD Tue Dec 11 20:04:45 GMT 2001 CHTP Bias PSPT COMMENT: Tue Dec 11 20:04:08 GMT 2001 PSPT started up running Alice's modified pspt.exe nicely, beginning with the flat-field routine (started at 19:50 UT). Tue Dec 11 20:05:48 GMT 2001 CHIP End Bias \*\*PSPT PROBLEM\*\*: Tue Dec 11 20:08:16 GMT 2001 Images have been in-focus and stable. \*\*PSPT PROBLEM\*\*: Tue Dec 11 20:25:56 GMT 2001 After CaK flat field routine, program tried to center image. Program ran thru two 10-try attempts but could not lock on even though spar looked well pointed. Blue(?) image looked out of focus or unstable. After the end of the second attempt, guider locked on and program continued on with Red(?) flat

field routine. Images looked sharp. \*\*PSPT PROBLEM\*\*: Tue Dec 11 20:45:43 GMT 2001 After flat field routine finished, progam waited for 2037 UT and started up by trying to center image. It ran thru a 10-try failed attempt, again spar looked like it was pointed correctly, displayed an unstable image, and ran thru another failed 10-try attempt. Guider and mirror servos were turned off by program and program attempted to start observing without the guider and mirror. Program stalled and did not continue. Clock on qui is still running--it stops for the usual crashes. PC is still responsive--I can enter and delete characters. \*\*PSPT PROBLEM\*\*: Tue Dec 11 20:52:38 GMT 2001 Program resumed by itself at 2050 UT. Images were stable byt not centered (gdr and mir are off?). Tue Dec 11 21:01:01 GMT 2001 CHIP LSD \*\*PSPT PROBLEM\*\*: Tue Dec 11 21:01:27 GMT 2001 After 2050 routine, program waited for 2100. At 2057 it started a centering routine which ran smoothely and then it went back to wait mode for 2100. At 2100, it started up a data routine which is running smoothely, images are stable and sharp. Tue Dec 11 21:03:18 GMT 2001 End LSD CHIP Tue Dec 11 21:03:32 GMT 2001 CHIP BiasLSD Tue Dec 11 21:04:19 GMT 2001 CHIP End BiasLSD Tue Dec 11 21:04:34 GMT 2001 CHIP Bias Tue Dec 11 21:05:20 GMT 2001 End Bias CHIP PSPT COMMENT: Tue Dec 11 21:12:20 GMT 2001 2100 routine and 2110 routine ran smmothely, images were sharp and stable. Stopped observing to reinstall original pspt.exe. Shutting down PSPT so that I can restart from stowed position. PSPT COMMENT: Tue Dec 11 21:22:54 GMT 2001 Copied c:\pspt\save\pspt.exe (working version) back into c:\pspt (overwriting Alice's test version) an restarting with Start-up. \*\*PSPT PROBLEM\*\*: Tue Dec 11 21:26:59 GMT 2001 Start-up crashed (clock stopped) after Homing XY Stage step. Killed runPspt.pro, Restarting with Startup again. PSPT COMMENT: Tue Dec 11 21:39:57 GMT 2001 Second Startup attempt ran smoothely. Dome pointed slightly behind where it should, spar ended up looking into the right edge of the slot slightly, and the spar pointed so that the image was slightly off the top of the display area. Dome could use another ephemeris calibration tomorrow morning to touch up the position. The guider locked onto sun as soon as Daily obs began running. Images look sharp and stable. PSPT COMMENT: Tue Dec 11 21:52:46 GMT 2001 Observations stopped for the day. Shutdown went well. Dome and spar stowed in the usual locations. \*\*PSPT PROBLEM\*\*: Tue Dec 11 21:57:53 GMT 2001 Alice figured out that some of the problems we experienced today is because the old version of pspt.exe remains memory resident even though the program is overwritten. Clue was PC is never turned off at night and pspt.exe

comes up automatically at boot up. Rebooted PC as requested by Alice. Tue Dec 11 22:03:25 GMT 2001 CHIP End LSD Tue Dec 11 22:03:34 GMT 2001 CHIP BiasLSD \*\*PICS PROBLEM\*\*: Tue Dec 11 22:02:07 GMT 2001 Ah rats! PICS filter wheel may be slipping again, No vignetting, but qui is showing timeout when going to clear station. May be encoder not engaging due to slippage. Tue Dec 11 22:04:14 GMT 2001 End Patrol PICS Tue Dec 11 22:04:17 GMT 2001 End BiasLSD CHIP Tue Dec 11 22:04:35 GMT 2001 CHIP Bias Tue Dec 11 22:05:21 GMT 2001 CHIP End Bias End Patrol Tue Dec 11 22:07:24 GMT 2001 MKIV Tue Dec 11 22:07:40 GMT 2001 CHIP End Patrol Tue Dec 11 22:11:22 GMT 2001 MkIV 17 16.rawmk4 18 29.rawmk4 19 28.rawmk4 20 27.rawmk4 21 25.rawmk4 17 19.rawmk4 18 32.rawmk4 19 31.rawmk4 20 30.rawmk4 21 28.rawmk4 17 21.rawmk4 18 35.rawmk4 19 34.rawmk4 20 32.rawmk4 21 31.rawmk4 17\_24.rawmk4 18\_38.rawmk4 19\_37.rawmk4 20\_35.rawmk4 21\_34.rawmk4 17\_27.rawmk4 18\_41.rawmk4 19\_39.rawmk4 20\_38.rawmk4 21\_37.rawmk4 17 30.rawmk4 18 44.rawmk4 19 42.rawmk4 20 41.rawmk4 21 40.rawmk4 17\_36.rawmk4 18\_47.rawmk4 19\_45.rawmk4 20\_44.rawmk4 21\_43.rawmk4 17 40.rawmk4 18 49.rawmk4 19 48.rawmk4 20 47.rawmk4 21 46.rawmk4 21 49.rawmk4 17 43.rawmk4 18 52.rawmk4 19 51.rawmk4 20 50.rawmk4 17\_46.rawmk4 18 55.rawmk4 19 54.rawmk4 20 53.rawmk4 21 52.rawmk4 17 49.rawmk4 18 58.rawmk4 19 57.rawmk4 20 56.rawmk4 21 55.rawmk4 17 52.rawmk4 19\_01.rawmk4 20 00.rawmk4 20 59.rawmk4 21 58.rawmk4 17\_55.rawmk4 19\_04.rawmk4 20\_03.rawmk4 21\_02.rawmk4 22\_01.rawmk4 17\_58.rawmk4 19\_07.rawmk4 20\_06.rawmk4 21\_05.rawmk4 22\_04.rawmk4 18 01.rawmk4 19 10.rawmk4 20 09.rawmk4 21\_08.rawmk4 c18 10.rawmk4 19\_13.rawmk4 18\_03.rawmk4 20\_12.rawmk4 21\_11.rawmk4 c18 16.rawmk4 18\_06.rawmk4 19\_16.rawmk4 20\_15.rawmk4 21\_14.rawmk4 c18\_22.rawmk4 19 19.rawmk4 18 13.rawmk4 20 18.rawmk4 21 17.rawmk4 18 19.rawmk4 19 22.rawmk4 20 21.rawmk4 21 20.rawmk4 18\_25.rawmk4 19\_25.rawmk4 20\_24.rawmk4 21\_22.rawmk4