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Mauna Loa Solar Observatory Observer's Log

Thu Jan 21 18:26:29 GMT 1999 Year: 99 Doy: 021 Observer: koon WEATHER COMMENT: Thu Jan 21 18:26:40 GMT 1999 Clear sky, wind=5 mph from the South, temp=45 F. COMMENT: Thu Jan 21 18:26:58 GMT 1999 Read the HELCO meters this morning. Thu Jan 21 18:28:48 GMT 1999 CHIP Startup--Initializing new tape Thu Jan 21 18:32:02 GMT 1999 MKIII Start Patrol Thu Jan 21 18:32:13 GMT 1999 PICS Start Patrol Thu Jan 21 18:32:13 GMT 1999 PICS Start Patrol COMMENT: Thu Jan 21 18:55:01 GMT 1999 Guiding seems off in declination, repointed and reset the declination quider to fix it. It's looking good now. \*\*LOW-L PROBLEM\*\*: Thu Jan 21 18:57:04 GMT 1999 Time is 11 seconds slow again. Thu Jan 21 19:01:35 GMT 1999 PICS Flat Thu Jan 21 19:02:57 GMT 1999 Bias CHIP Thu Jan 21 19:03:15 GMT 1999 PICS End Flat Thu Jan 21 19:03:52 GMT 1999 CHIP End Bias Thu Jan 21 19:04:02 GMT 1999 CHIP Water Thu Jan 21 19:04:58 GMT 1999 CHIP End Water Thu Jan 21 20:01:33 GMT 1999 PICS Flat Thu Jan 21 20:02:27 GMT 1999 Start Cal MKIII Thu Jan 21 20:02:52 GMT 1999 CHIP Gain Thu Jan 21 20:03:04 GMT 1999 End Flat PICS Thu Jan 21 20:07:26 GMT 1999 End Gain CHIP Thu Jan 21 20:07:36 GMT 1999 CHIP Bias Thu Jan 21 20:08:25 GMT 1999 CHIP End Bias Thu Jan 21 20:08:35 GMT 1999 CHIP Water Thu Jan 21 20:09:10 GMT 1999 CHIP End Water Thu Jan 21 20:22:38 GMT 1999 MKIII Start Patrol Thu Jan 21 21:00:53 GMT 1999 CHIP Bias Thu Jan 21 21:01:38 GMT 1999 Flat PICS Thu Jan 21 21:01:52 GMT 1999 End Bias CHIP Thu Jan 21 21:02:09 GMT 1999 CHIP Water Thu Jan 21 21:02:46 GMT 1999 CHIP End Water PICS Thu Jan 21 21:03:17 GMT 1999 End Flat PSPT COMMENT: Thu Jan 21 21:04:33 GMT 1999 So far all the images I've seen today look good, I haven't seen any darkened images like some from yesterday. \*\*LOW-L PROBLEM\*\*: Thu Jan 21 21:10:28 GMT 1999 I'm working on the clock problem. It was still 11 seconds slow today. I stopped the program using "g" during the sync cycle. Then did a CTRL-C to stop the startup batch file. The DOS clock was showing the same time as

the readout on the observing screen. Then I checked the cts10 board time and it also showed the incorrect time. \*\*LOW-L PROBLEM\*\*: Thu Jan 21 21:33:22 GMT 1999 I checked the autoexec.bat file to see if there were any cts10 related commands, I didn't see any, and when I tried to run autoexec with the incorrect DOS time it started the observing program with the same incorrect time. I'm trying to find out why rebooting the computer causes the observing program to start up with the correct time. It doesn't look like it is caused by autoexec.bat. I did see a cts10 command line in the config.sys file. The weird thing about the autoexec file was that the "lowl" command to start the observing program was already commented out, the next line had the command "splat" and when I commented that out then the observing program wouldn't be started by autoexec. \*\*LOW-L PROBLEM\*\*: Thu Jan 21 21:57:04 GMT 1999 When I try running "splat" it does everything like typing in "lowl" except it is harder to exit from at the "sync" cycle because it keeps trying to restart the lowl program. So this solves the old mystery of why I can easily stop observing and eject the tapes sometimes while other times the program would try to restart and sometimes cause problems. It worked better if we were exiting from the observing program that was brought up with the lowl command rather than the splat command, everytime we cycled the power or rebooted that would cause autoexec to use splat to start observing. 99 CHIP End Bias Thu Jan 21 22:03:56 GMT 1999 CHIP Water Thu Jan 21 22:04:35 GMT 1999 CHIP End Water WEATHER COMMENT: Thu Jan 21 22:08:55 GMT 1999 A few small orographic clouds are passing by. MKIII COMMENT: Thu Jan 21 22:10:28 GMT 1999 I'm not going to be able to do the Height Mask Test today due to lowl problems. \*\*LOW-L PROBLEM\*\*: Thu Jan 21 22:44:23 GMT 1999 The DEVICE = cts10.sys command line in config.sys apparently loads and starts the cts10 driver, and that corrects the cts10 time. I checked the cts10 timelog and saw huge periods in which there is no WWVH signal sync with the cts10 board, it is only in sync about one hour each day. When it is out of sync its own on board clock drifts and that erroneous time is being used to set the DOS clock. So, if nothing else, we could improve the lowl clock by restarting the cts10 driver more often, by software if possible. Thu Jan 21 23:01:43 GMT 1999 Flat PICS Thu Jan 21 23:02:07 GMT 1999 Bias CHIP Thu Jan 21 23:03:01 GMT 1999 End Bias CHIP Thu Jan 21 23:03:12 GMT 1999 Water CHIP Thu Jan 21 23:03:19 GMT 1999 PICS End Flat Thu Jan 21 23:03:52 GMT 1999 CHIP End Water Thu Jan 21 23:11:51 GMT 1999 PICS End Patrol

Thu Jan 21 23:16:56 GMT 1999 MKIII End Patrol \*\*LOW-L PROBLEM\*\*: Thu Jan 21 23:20:59 GMT 1999 It was beginning to look very puzzling that the correct time was being held somewhere on the cts10 board and could be accessed with a warm reboot but couldn't be accessed by the fixtime.c program, but then David just sent over a revised fixtime.c program. The old program wasn't getting the cts10 time correctly and this one was changed to fix that, so hopefully this will fix the latest clock problem. I'm going to install the new version and start it up. \*\*LOW-L PROBLEM\*\*: Thu Jan 21 23:52:27 GMT 1999 OK, the program is back up and observing again. I removed L00574 from drive #0 and moved L00575 from #1 to #0 and installed L00576 in drive #1. CHIP COMMENT: Fri Jan 22 00:01:30 GMT 1999 I accidentally left this running when I stopped the other instruments, so there is no data on the end of this tape due to no Spar tracking. Fri Jan 22 00:02:51 GMT 1999 ending tape CHIP COMMENT: Fri Jan 22 00:09:05 GMT 1999

## TAPES:

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MKIV: 99021 CHIP: C00766 PICS: P01379 LOWL: L00574 and L00575 in drive #0

Fri Jan 22 00:10:17 GMT 1999

MkIII

18_32.rawmk3	19_30.rawmk3	20_38.rawmk3	21_37.rawmk3	22_35.rawmk3
18_35.rawmk3	19_33.rawmk3	20_42.rawmk3	21_40.rawmk3	22_38.rawmk3
18_38.rawmk3	19_36.rawmk3	20_45.rawmk3	21_43.rawmk3	22_41.rawmk3
18_41.rawmk3	19_39.rawmk3	20_48.rawmk3	21_46.rawmk3	22_44.rawmk3
18_45.rawmk3	19_43.rawmk3	20_51.rawmk3	21_49.rawmk3	22_48.rawmk3
18_48.rawmk3	19_46.rawmk3	20_55.rawmk3	21_53.rawmk3	22_51.rawmk3
18_51.rawmk3	19_49.rawmk3	20_58.rawmk3	21_56.rawmk3	22_54.rawmk3
18_54.rawmk3	19_52.rawmk3	21_01.rawmk3	21_59.rawmk3	22_57.rawmk3
18_58.rawmk3	19_56.rawmk3	21_04.rawmk3	22_02.rawmk3	23_00.rawmk3
19_01.rawmk3	19_59.rawmk3	21_07.rawmk3	22_06.rawmk3	23_04.rawmk3
19_04.rawmk3	20_05.rawmk3	21_11.rawmk3	22_09.rawmk3	23_07.rawmk3
19_07.rawmk3	20_12.rawmk3	21_14.rawmk3	22_12.rawmk3	23_10.rawmk3
19_10.rawmk3	20_19.rawmk3	21_17.rawmk3	22_15.rawmk3	23_13.rawmk3
19_14.rawmk3	20_22.rawmk3	21_20.rawmk3	22_18.rawmk3	c20_02.rawmk3
19_17.rawmk3	20_25.rawmk3	21_24.rawmk3	22_22.rawmk3	c20_09.rawmk3
19_20.rawmk3	20_29.rawmk3	21_27.rawmk3	22_25.rawmk3	c20_15.rawmk3
19_23.rawmk3	20_32.rawmk3	21_30.rawmk3	22_28.rawmk3	
19 27.rawmk3	20 35.rawmk3	21 33.rawmk3	22 31.rawmk3	