```
Mauna Loa Solar Observatory Observer's Log
    ______
       Fri Apr 3 16:48:14 GMT 1998
Year: 98 Doy: 093
Observer: yasukawa
WEATHER COMMENT: Fri Apr 3 16:49:04 GMT 1998
Cold, clear, brisk southeast wind.
Fri Apr 3 16:52:16 GMT 1998
                              CHIP
                                       Startup--Initializing new tape
Fri Apr 3 16:52:58 GMT 1998
                              MKTTT
                                       Start Patrol
Fri Apr 3 16:54:12 GMT 1998
                              CHIP
                                       CHIP Start Patrol
Fri Apr 3 16:54:24 GMT 1998
                              PICS
                                       Start Patrol
Fri Apr 3 17:01:04 GMT 1998
                              CHIP
                                       Bias
Fri Apr 3 17:02:00 GMT 1998
                                       End Bias
                              CHIP
Fri Apr 3 17:02:15 GMT 1998
                              CHIP
                                       Water
Fri Apr 3 17:02:15 GMT 1998
                              CHIP
                                       Water
Fri Apr 3 17:03:10 GMT 1998
                              CHIP
                                       End Water
Fri Apr 3 17:03:48 GMT 1998
                              PICS
                                       End Flat
PSPT COMMENT: Fri Apr 3 17:08:44 GMT 1998
Haosheng assessed the tape write problem and determined that the
problem lies with tape compatibility. The black cartridges work
with the drive we sent back to Boulder but DON'T WORK with the new
drive. USE THE WHITE CARTRIDGES. We are testing this now.
PSPT COMMENT: Fri Apr 3 17:13:44 GMT 1998
As for the dome problem, We think that the drive motor is jumping the
track in the home position sector and the encoder works with the
motor (doesn't care where the dome is), counting from when home is
sensed. I found the sector--topical grease is scraped off by the
drive gear teeth, and coaxed it up a bit with a crowbar.
PSPT COMMENT: Fri Apr 3 17:21:06 GMT 1998
THe dome rotated from Stow to Home OK, then rotated to where
sun should be OK without jumping track.
MKIII COMMENT: Fri Apr 3 17:25:54 GMT 1998
*** recycling H01787 ***
PSPT COMMENT: Fri Apr 3 17:35:10 GMT 1998
PSPT crashed. Last messages indicated intensity was too low, but crash
```

messages were as follows:

% Variable is undefined: % Execution halted at: DATA

45 data.pro

PSPT STARTUP 27 pspt startup.pro 52 pspt control.pro 응 PSPT CONTROL

\$MAIN\$

TDT₁>

Exited and re Run. Had to type 'exp' on PC to get the 3 initial

```
test exposures to go. Dome worked OK.
PSPT COMMENT: Fri Apr 3 17:42:49 GMT 1998
PSPT crashed again, same error message.
PSPT COMMENT: Fri Apr 3 17:50:51 GMT 1998
Exited IDL and restarting with 'Obs' instead of 'Run' since it is close
to the hour.
Fri Apr 3 18:01:03 GMT 1998
                               CHIP
                                         Bias
PSPT COMMENT: Fri Apr 3 18:01:45 GMT 1998
Same crash. Have sent message to Haosheng. I'll wait for a reply
before attempting to startup again.
nd Bias
Fri Apr 3 18:02:31 GMT 1998
                               CHIP
                                        Water
Fri Apr 3 18:03:17 GMT 1998
                               CHIP
                                        End Water
Fri Apr 3 18:03:41 GMT 1998
                               PICS
                                        End Flat
PSPT COMMENT: Fri Apr 3 18:17:19 GMT 1998
Haosheng called back, there was a change he made yesterday to
test the drive. A filename was changed and he forgot to restore
the system completely. He fixed the problem over the net so
I will restart PSPT.
MT 1998
          MKIII
                   Start Cal
PSPT COMMENT: Fri Apr 3 18:20:35 GMT 1998
Started with 'Run'. Still had to type 'exp' on PC because the
first 3 test exposures did not go. Dome initialized OK.
I can see that the data is writing to the white data cartridge.
PSPT COMMENT: Fri Apr 3 18:26:36 GMT 1998
Guider looks lost. It is trying to home, Axis 0 is trying to go to
-500, but the encoder is running the wrong direction.
PSPT COMMENT: Fri Apr 3 18:29:26 GMT 1998
Hit Enter on PC and that routine stopped and started next routine.
I take it spar was Home but didn't know it.
After a couple of iterations, it concluded it was home and then
proceded to point to sun. At this point, the spar began to move.
Spar pointed at sun and program proceded OK.
PSPT COMMENT: Fri Apr 3 18:38:46 GMT 1998
PSPT quider wasn't pointed at sun. Ouit and restarting. Had to type
'exp' on PC again.
PSPT COMMENT: Fri Apr 3 18:44:54 GMT 1998
Phew! finally looks like the PSPT is running correctly (except for
having to type 'exp' to start the 3 test exposures).
Fri Apr 3 19:01:08 GMT 1998
                               CHIP
                                         Bias
Fri Apr 3 19:02:19 GMT 1998
                               PICS
                                        Flat
Fri Apr 3 19:02:19 GMT 1998
                               PICS
                                        Flat
Fri Apr 3 19:02:34 GMT 1998
                               CHIP
                                        Water
Fri Apr 3 19:03:20 GMT 1998
                               CHIP
                                        End Water
Fri Apr 3 19:03:52 GMT 1998
                               PICS
                                        End Flat
Fri Apr 3 19:16:05 GMT 1998
                               PICS
                                        End Patrol
Fri Apr 3 19:18:34 GMT 1998
                               CHIP
                                        CHIP End Patrol
COMMENT: Fri Apr 3 19:18:47 GMT 1998
```

```
Stopping to reconfigure dome shutter.
Fri Apr 3 19:24:15 GMT 1998
                                MKIII
                                         Start Patrol
Fri Apr 3 19:24:39 GMT 1998
                                PICS
                                         Start Patrol
Fri Apr 3 19:24:39 GMT 1998
                                PICS
                                         Start Patrol
PSPT COMMENT: Fri Apr 3 19:54:48 GMT 1998
Data tape started by Haaosheng over net pau. Unloading and loading
next tape for overnight write.
Fri Apr 3 20:01:04 GMT 1998
                                         Gain
                                CHIP
Fri Apr 3 20:02:02 GMT 1998
                                         Flat
                                PICS
MKIII COMMENT: Fri Apr 3 20:03:32 GMT 1998
1956 UT scan had a blank sector, not sure why.
Ugh! I think microprocessor crashed again, barrel is behaving badly.
Unloading H01788, loading H01789. Resetting KCC and micro.
:22 GMT 1998
                CHIP
                         Bias
Fri Apr 3 20:08:14 GMT 1998
                                CHIP
                                         End Bias
Fri Apr 3 20:08:22 GMT 1998
                                CHIP
                                         Water
Fri Apr 3 20:09:00 GMT 1998
                                CHIP
                                         End Water
Fri Apr 3 20:16:35 GMT 1998
                                MKIII
                                         Start Patrol
Fri Apr 3 21:01:04 GMT 1998
                                CHIP
                                         Bias
Fri Apr 3 21:02:06 GMT 1998
                                         End Bias
                                CHIP
Fri Apr 3 21:02:16 GMT 1998
                                PICS
                                         Flat
Fri Apr 3 21:02:16 GMT 1998
                                PICS
                                         Flat
Fri Apr 3 21:03:10 GMT 1998
                                CHIP
                                         End Water
Fri Apr 3 21:03:47 GMT 1998
                                         End Flat
                                PICS
Fri Apr 3 22:01:03 GMT 1998
                                         Bias
                                CHIP
Fri Apr 3 22:02:03 GMT 1998
                                         End Bias
                                CHIP
Fri Apr 3 22:02:12 GMT 1998
                                         Flat
                                PICS
Fri Apr 3 22:02:20 GMT 1998
                                CHIP
                                         Water
Fri Apr 3 22:03:13 GMT 1998
                                         End Water
                                CHIP
Fri Apr 3 22:03:48 GMT 1998
                                         End Flat
                                PICS
Fri Apr 3 22:08:45 GMT 1998
                                PICS
                                         End Patrol
Fri Apr 3 22:09:36 GMT 1998
                                CHIP
                                         CHIP End Patrol
Fri Apr 3 22:10:42 GMT 1998
                                CHIP
                                         ending tape
COMMENT: Fri Apr 3 22:11:26 GMT 1998
Tapes:
MKIII: H01788 & H01789
PICS: P01158
CHIP: C00547
LOWL: L00505
Fri Apr 3 22:12:37 GMT 1998
        MkIII
16 53.rawmk3
                              19 03.rawmk3
                                             20 25.rawmk3
                                                            21 24.rawmk3
              17 51.rawmk3
16 56.rawmk3
              17 54.rawmk3
                              19 06.rawmk3
                                             20 28.rawmk3
                                                            21 27.rawmk3
16 59.rawmk3
              17 57.rawmk3
                              19 09.rawmk3
                                             20 31.rawmk3
                                                            21 29.rawmk3
                                                            21_32.rawmk3
17 02.rawmk3
              18 00.rawmk3
                              19 12.rawmk3
                                             20 34.rawmk3
```

17_04.rawmk3	18_03.rawmk3	19_15.rawmk3	20_37.rawmk3	21_35.rawmk3
17_07.rawmk3	18_06.rawmk3	19_24.rawmk3	20_40.rawmk3	21_38.rawmk3
17_10.rawmk3	18_09.rawmk3	19_27.rawmk3	20_43.rawmk3	21_41.rawmk3
17_13.rawmk3	18_12.rawmk3	19_30.rawmk3	20_46.rawmk3	21_44.rawmk3
17_16.rawmk3	18_21.rawmk3	19_33.rawmk3	20_49.rawmk3	21_47.rawmk3
17_19.rawmk3	18_27.rawmk3	19_36.rawmk3	20_51.rawmk3	21_50.rawmk3
17_22.rawmk3	18_34.rawmk3	19_38.rawmk3	20_54.rawmk3	21_53.rawmk3
17_25.rawmk3	18_37.rawmk3	19_41.rawmk3	20_57.rawmk3	21_56.rawmk3
17_28.rawmk3	18_40.rawmk3	19_44.rawmk3	21_00.rawmk3	21_59.rawmk3
17_31.rawmk3	18_43.rawmk3	19_47.rawmk3	21_03.rawmk3	22_02.rawmk3
17_34.rawmk3	18_46.rawmk3	19_50.rawmk3	21_06.rawmk3	22_05.rawmk3
17_37.rawmk3	18_49.rawmk3	19_53.rawmk3	21_09.rawmk3	c18_18.rawmk3
17_40.rawmk3	18_51.rawmk3	19_56.rawmk3	21_12.rawmk3	c18_24.rawmk3
17_42.rawmk3	18_54.rawmk3	20_16.rawmk3	21_15.rawmk3	c18_31.rawmk3
17_45.rawmk3	18_57.rawmk3	20_19.rawmk3	21_18.rawmk3	
17_48.rawmk3	19_00.rawmk3	20_22.rawmk3	21_21.rawmk3	