Mauna Loa Solar Observatory Observer's Log ______ Sun Apr 3 17:22:07 GMT 1994 Year: 94 Dov: 093 Observer: koon COMMENT: Sun Apr 3 17:22:21 GMT 1994 Clear sky, light wind from the south, temp=51 F. Sun Apr 3 17:23:54 GMT 1994: Patrol Start Sun Apr 3 17:35:03 GMT 1994: Patrol End Sun Apr 3 17:35:43 GMT 1994: Patrol Start Sun Apr 3 18:00:46 GMT 1994: Filemark-Calibration DPMON COMMENT: Sun Apr 3 18:11:47 GMT 1994 First the filter kept going in and out and the display field would show the change between 657.1 and out so I reset the plessey. Then the diffuser was going in and out but the display always showed Clear, so I reset the plessey again. Sun Apr 3 18:14:20 GMT 1994: Patrol Start Sun Apr 3 18:18:39 GMT 1994: Patrol End Sun Apr 3 18:18:53 GMT 1994: Patrol Start Sun Apr 3 18:28:45 GMT 1994: Patrol End Sun Apr 3 18:33:24 GMT 1994: Patrol Start Sun Apr 3 18:35:35 GMT 1994: Patrol End Sun Apr 3 18:37:18 GMT 1994: Patrol Start Sun Apr 3 18:39:25 GMT 1994: Patrol End Sun Apr 3 18:49:57 GMT 1994: Filemark Mauna Loa Solar Observatory Observer's Log Sun Apr 3 18:53:36 GMT 1994 Year: 94 Doy: 093 Observer: koon Sun Apr 3 18:55:54 GMT 1994: Patrol Start Sun Apr 3 19:00:27 GMT 1994: Filemark-Calibration Sun Apr 3 19:05:02 GMT 1994: Patrol End Sun Apr 3 19:11:24 GMT 1994: Patrol End Sun Apr 3 19:14:08 GMT 1994: Patrol Start Sun Apr 3 19:24:47 GMT 1994: Patrol Start DPMON COMMENT: Sun Apr 3 19:28:10 GMT 1994 Had lots of trouble with the difusser system. Good data for today starts now. The diffuser wheel kept rotating so I set it manually but every time I started Patrol it would be running away again. So I shut down the dome

power and the plessey and exited the program annd logged out, then logged back in and restarted everything. The diffuser wheel would still run away as soon as I would click on the Patrol button (wouldn't even have to click

on the subsequent Run button. Tried to replicate the problem using the manual mode. To stop the diffuser wheel and let it find itself it is necessary to cycle the plessey power then click on the manual diffuser command (the field status always shows Clear when the diffuser is running away after starting Patrol) this will drive the diffuser into place, if you click on the Clear manual command (and the status field shows Clear from a previous runaway) then the wheel will runaway again and you must cycle the plessey power again. After you get the wheel to the diffuser position you can click on the Clear manual command and the wheel will drive to the clear position. To get the Patrol program running you exit the manual mode and turn off the plessey then click on the Patrol button, then turn the plessey back on, then click on the Run button (for Patrol). If you don't turn off the plessey before you click on the Patrol button then the diffuser wheel will runaway again and you have to start all over again, that is, manual mode/plessey off/set diffuser wheel/etc.

I was able to get the diffuser wheel to runaway in the manual mode a few other ways:

- 1) After setting the diffuser to clear I tried taking some exposures then when I tried to set the wheel to diffuser it ran away.
- 2) One time I set the wheel to Clear then moved the filter wheel to the last setting on the menu (in red, 657.1?) and that caused the wheel to runaway, but I wasn't able to get it to runaway again doing the same procedure a second time.

We need to find out what happens to the plessey and various controllers when we click on the Patrol button and before we click on the Run button. It seems like some kind of electrical noise is driving the diffuser wheel control system crazy in that time period.

Sun Apr 3 20:01:19 GMT 1994: Filemark-Calibration

DPMON COMMENT: Sun Apr 3 20:04:22 GMT 1994 Well, it looks like the program was able to do a calibration without any residual diffuser wheel runaway.

Sun Apr 3 21:01:21 GMT 1994: Filemark-Calibration

COMMENT: Sun Apr 3 21:23:44 GMT 1994

I moved the modem to above the vcr, it may have been getting too hot on the Kodak Camera Control Unit.

COMMENT: Sun Apr 3 21:43:57 GMT 1994

Activity report:

QP: 83; 120; 222; 260; 272-310.

No coronal activity.

TAPES:

MKIII: H00731

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DPMON: P00031
LOW-L: L00018
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5:05 GMT 1994: Patrol End

```
Sun Apr 3 21:45:36 GMT 1994: Filemark
SCAN-LOG
SCAN-LOG 17:19:05. 4/3/94 DOY 93
    17:25:01
                  17:28:15
                                17:31:28
                                              17:34:41
                                                             17:37:52
   17:41:05
                  17:44:17
                                17:47:31
                                              17:50:43
                                                             17:53:57
   17:57:09
                  18:00:23
                                18:03:34
                                              18:06:47
                                                             18:09:58
   18:13:11
                  18:16:22
                                18:19:39
                                              18:22:51
                                                             18:26:03
    18:29:15
                  18:32:27
                                18:35:39
                                              18:38:52
                                                             1848 0 CL
   18:54:50
                  1901 15CL
                                19:26:03
                                              19:29:16
                                                             19:32:35
   19:35:46
                  19:38:58
                                19:42:09
                                              19:45:21
                                                             19:48:31
   19:51:43
                  19:54:55
                                19:58:13
                                              20:01:24
                                                             20:04:36
    20:07:47
                  20:10:58
                                20:14:09
                                              20:17:21
                                                             20:20:32
    20:23:45
                  20:26:56
                                20:30:08
                                              20:33:18
                                                             20:36:30
    20:39:43
                  20:42:59
                                20:46:10
                                              20:49:21
                                                             20:52:31
    20:55:43
                  20:58:53
                                21:02:05
                                              21:05:16
                                                             21:08:27
    21:11:37
                  21:14:52
                                21:18:01
                                              21:21:12
                                                             21:24:21
    21:27:36
                  21:30:47
                                21:33:57
 0 ERRORS
```

OK