```
Mauna Loa Solar Observatory Observer's Log
     ______
       Sun Dec 10 17:17:28 GMT 2006
Year: 06 Doy: 344
Observer: koon
Sun Dec 10 17:20:56 GMT 2006
                                      Start Patrol
                              MKIV
WEATHER COMMENT: Sun Dec 10 17:17:31 GMT 2006
Thin cirrostratus overcast, wind=10 mph from the SE, temp=46F.
end
Sun Dec 10 17:21:49 GMT 2006
                              PICS
                                       Start Patrol
Sun Dec 10 17:24:49 GMT 2006
                              CHIP
                                       Start Patrol
Sun Dec 10 17:26:29 GMT 2006
                              PICS
                                       End Patrol
**PICS PROBLEM**: Sun Dec 10 17:27:12 GMT 2006
Pausing obs, no disk images, apparently the problem started yesterday but
wasn't fixed. It's probably the filter stage again. I'll wait until the
dome warms up a little and some data are gathered by the instruments that are
running, then I'll pause every instrument and lock the spar and work on the
problem.
end
SBM COMMENT: Sun Dec 10 17:32:32 GMT 2006
Obs.
end
PSPT COMMENT: Sun Dec 10 17:32:39 GMT 2006
Obs.
  end
SBM COMMENT: Sun Dec 10 17:34:45 GMT 2006
Adjusted the occulting.
end
A NEW TAPE HAS BEEN PUT INTO KAIEE DLT DRIVE, Sun Dec 10 17:56:57 GMT 2006
MLSO WEB PAGE IS UP, Sun Dec 10 17:57:00 GMT 2006
Sun Dec 10 18:00:44 GMT 2006
                              CHIP
                                       LSD
Sun Dec 10 18:02:27 GMT 2006
                              CHIP
                                       End LSD
Sun Dec 10 18:02:42 GMT 2006
                              CHIP
                                       BiasLSD
Sun Dec 10 18:03:38 GMT 2006
                              CHIP
                                       End BiasLSD
Sun Dec 10 18:03:47 GMT 2006
                              CHIP
                                       Bias
Sun Dec 10 18:04:40 GMT 2006
                                       End Bias
                              CHIP
Sun Dec 10 18:04:47 GMT 2006
                              CHIP
                                       ReStart Patrol
WEATHER COMMENT: Sun Dec 10 18:13:03 GMT 2006
Cirrostratus is getting thicker, pausing mk4.
end
Sun Dec 10 18:14:17 GMT 2006
                              MKIV
                                      End Patrol
SBM COMMENT: Sun Dec 10 18:19:36 GMT 2006
Paused due to clouds.
 end
Sun Dec 10 18:50:46 GMT 2006
                              MKTV
                                      Start Cal
WEATHER COMMENT: Sun Dec 10 18:53:05 GMT 2006
```

Clouds thinned, restarted mk4 and sbm.

```
end
Sun Dec 10 19:09:32 GMT 2006
                                MKIV
                                        End Cal
Sun Dec 10 19:09:41 GMT 2006
                                MKIV
                                        Start Patrol
PICS COMMENT: Sun Dec 10 21:38:57 GMT 2006
I got some good data, now I'm going to try to work on the Halle filter
problem without stopping the other instruments, I may bump the spar around
until I'm done.
end
COMMENT: Mon Dec 11 01:18:54 GMT 2006
Bouncing spar around too much, pausing instruments.
**PICS PROBLEM**: Mon Dec 11 01:19:23 GMT 2006
Still working on problems.
end
Mon Dec 11 01:21:56 GMT 2006
                                MKIV
                                        End Patrol
Mon Dec 11 01:24:16 GMT 2006
                                CHIP
                                         End Patrol
**PICS PROBLEM**: Mon Dec 11 01:24:27 GMT 2006
I'm going to stop and cleanup for the day, I made good progress with the
Halle filter problem. The underlying problem is that the filter weighs a lot
and transfers its weight to a small bearing that is held in by friction and a
tiny clip on the other end of the leadscrew that drives the filter in and out.
I found and fixed a new problem related to the stage, the linear bearing
at the O1 end of the stage had worked past the screw-type bearing stop and
jammed the action of the stage; so I removed the bearing and cleaned and
lubed it then replaced it and used washers to help orient the stops so they
work again, the bearings and stops at the lower end were good but I lubed them
too. I'm working on a way to hold the leadscrew bearing in better now, I will
need to finish that on Tuesday so the PICS is down till then. The tiny
setscrew for the leadscrew sprocket was stripped and I couldn't get it out
so I drilled and tapped a new hole on the opposite side of the flange, then
I installed a beefy capscrew that will be easier to tighten more and yet will
be easier to remove too. The leadscrew was out of position and the cable-chain
was off, familiar symptoms we've seen and temporarily fixed in the past, I
hope to install a much longer lasting fix to that problem on Tuesday.
end
NICE MK4
              IMAGE: 1906
              IMAGE: 1844
NICE CHIP
NICE PICSLIMB IMAGE: 1725
Mon Dec 11 02:06:39 GMT 2006
        MkIV
00 01.rawmk4
              17 32.rawmk4
                              19 47.rawmk4
                                             21 16.rawmk4
                                                            22 47.rawmk4
              17 35.rawmk4
00 04.rawmk4
                              19 50.rawmk4
                                             21 19.rawmk4
                                                            22 50.rawmk4
00 07.rawmk4
              17_38.rawmk4
                             19 53.rawmk4
                                             21 21.rawmk4
                                                            22 53.rawmk4
00 10.rawmk4
              17 41.rawmk4
                              19 56.rawmk4
                                             21 24.rawmk4
                                                            22_56.rawmk4
00 13.rawmk4
              17 44.rawmk4
                              19 59.rawmk4
                                             21 27.rawmk4
                                                            22 59.rawmk4
00 16.rawmk4
              17 47.rawmk4
                              20 02.rawmk4
                                             21 30.rawmk4
                                                            23 02.rawmk4
              17_50.rawmk4
00 18.rawmk4
                              20 05.rawmk4
                                             21 33.rawmk4
                                                            23 05.rawmk4
```

00_21.rawmk4	17_53.rawmk4	20_08.rawmk4	21_36.rawmk4	23_08.rawmk4
00_24.rawmk4	17_56.rawmk4	20_11.rawmk4	21_39.rawmk4	23_11.rawmk4
00_30.rawmk4	17_59.rawmk4	20_14.rawmk4	21_42.rawmk4	23_14.rawmk4
00_34.rawmk4	18_02.rawmk4	20_17.rawmk4	21_45.rawmk4	23_17.rawmk4
00_37.rawmk4	18_05.rawmk4	20_20.rawmk4	21_48.rawmk4	23_20.rawmk4
00_40.rawmk4	18_08.rawmk4	20_23.rawmk4	21_51.rawmk4	23_23.rawmk4
00_43.rawmk4	18_11.rawmk4	20_26.rawmk4	21_54.rawmk4	23_26.rawmk4
00_46.rawmk4	18_53.rawmk4	20_29.rawmk4	21_57.rawmk4	23_29.rawmk4
00_49.rawmk4	18_59.rawmk4	20_32.rawmk4	22_00.rawmk4	23_31.rawmk4
00_52.rawmk4	19_06.rawmk4	20_34.rawmk4	22_03.rawmk4	23_34.rawmk4
00_55.rawmk4	19_09.rawmk4	20_37.rawmk4	22_08.rawmk4	23_37.rawmk4
00_57.rawmk4	19_12.rawmk4	20_40.rawmk4	22_12.rawmk4	23_40.rawmk4
01_00.rawmk4	19_15.rawmk4	20_43.rawmk4	22_15.rawmk4	23_43.rawmk4
01_03.rawmk4	19_18.rawmk4	20_46.rawmk4	22_18.rawmk4	23_46.rawmk4
01_06.rawmk4	19_21.rawmk4	20_49.rawmk4	22_21.rawmk4	23_49.rawmk4
01_09.rawmk4	19_24.rawmk4	20_52.rawmk4	22_24.rawmk4	23_52.rawmk4
01_12.rawmk4	19_27.rawmk4	20_55.rawmk4	22_27.rawmk4	23_55.rawmk4
01_15.rawmk4	19_30.rawmk4	20_58.rawmk4	22_30.rawmk4	23_58.rawmk4
01_18.rawmk4	19_33.rawmk4	21_01.rawmk4	22_33.rawmk4	c18_50.rawmk4
17_20.rawmk4	19_36.rawmk4	21_04.rawmk4	22_36.rawmk4	c18_56.rawmk4
17_23.rawmk4	19_39.rawmk4	21_07.rawmk4	22_39.rawmk4	c19_03.rawmk4
17_26.rawmk4	19_42.rawmk4	21_10.rawmk4	22_42.rawmk4	
17_29.rawmk4	19_44.rawmk4	21_13.rawmk4	22_45.rawmk4	