```
Mauna Loa Solar Observatory Observer's Log
 ______
       Sat Jul 20 16:15:06 GMT 2013
Year: 13 Doy: 201
Observer: waters
WEATHER COMMENT: Sat Jul 20 16:15:24 GMT 2013
Temp 40F, windspeed 4mph from the South-Southwest. Some cirrus towards the East and there is vog in the air above 14,000 f
t. The haze is hovering right over Mauna Kea.
 end
Sat Jul 20 16:19:47 GMT 2013
       MkIV
              Mauna Loa Solar Observatory Observer's Log
______
       Sat Jul 20 16:21:10 GMT 2013
Year: 13 Doy: 201
Observer: waters
NOTE BY LISA: Sat Jul 20 16:21:25 GMT 2013
Nahenahe crashed as soon as i was done with the weather log. Seems to be okay now.
 end
Sat Jul 20 16:37:19 GMT 2013
                             CHIP
                                      Start Patrol
NOTE BY LISA: Sat Jul 20 16:35:47 GMT 2013
Guider was on this morning. And when aligning the Spar, there was a noise, as if a motor was trying to kick on and then wo
uld stop abrutly. Happened about three times. The sound seemed to be located right behind the top of MK4.
end
Sat Jul 20 16:50:26 GMT 2013: PSPT Start Patrol
NOTE BY LISA: Sat Jul 20 17:19:46 GMT 2013
Sun has risen above cirrus, however there is still a haze appearing when centering the occulter on Comp. Waiting to start
up rest of the instruments.
end
Sat Jul 20 17:35:20 GMT 2013
                             MKIV
                                     Start Patrol
Sat Jul 20 17:37:31 GMT 2013 COMP Start Patrol
NOTE BY LISA: Sat Jul 20 17:37:28 GMT 2013
Haze has passed, starting instruments.
 end
**MKIV PROBLEM COMMENT BY LISA**: Sat Jul 20 17:38:46 GMT 2013
U12 was acting up on start up. Sometimes it clears up the data when its working other times, it looks a little junky still
 ___end___
Sat Jul 20 18:01:43 GMT 2013
                                      LSD
                             CHIP
Sat Jul 20 18:03:28 GMT 2013
                             CHIP
                                      End LSD
Sat Jul 20 18:03:37 GMT 2013
                             CHIP
                                      BiasLSD
Sat Jul 20 18:04:28 GMT 2013
                             CHIP
                                      End BiasLSD
Sat Jul 20 18:04:37 GMT 2013
                             CHIP
                                      Bias
Sat Jul 20 18:05:24 GMT 2013
                             CHIP
                                      End Bias
```

Sat Jul 20 18:05:32 GMT 2013

CHIP

ReStart Patrol

```
Sat Jul 20 19:45:57 GMT 2013
                                CHIP
                                         End Patrol
Sat Jul 20 19:44:53 GMT 2013 COMP End Patrol
Sat Jul 20 19:45:08 GMT 2013
                                MKIV
                                        End Patrol
Sat Jul 20 19:50:57 GMT 2013 COMP Start Patrol
Sat Jul 20 19:52:33 GMT 2013
                                CHIP
                                         Start Patrol
Sat Jul 20 19:51:33 GMT 2013
                                MKIV
                                        Start Patrol
NOTE BY LISA: Sat Jul 20 19:51:41 GMT 2013
Dome reconfigured.
  end
Sat Jul 20 20:07:25 GMT 2013 COMP End Patrol
NOTE BY LISA: Sat Jul 20 20:08:20 GMT 2013
Cirrus degarding images. Mk4, Comp and Shabar idled.
  end
Sat Jul 20 20:09:34 GMT 2013
                                MKIV
                                        End Patrol
Sat Jul 20 20:44:34 GMT 2013: PSPT Start Patrol
Sat Jul 20 20:57:21 GMT 2013
                                CHIP
                                         End Patrol
Sat Jul 20 21:02:46 GMT 2013
                                CHIP
                                         Start Patrol
Sat Jul 20 21:06:17 GMT 2013: PSPT Abort Patrol
Sat Jul 20 21:07:51 GMT 2013
                                CHIP
                                         End Patrol
NOTE BY LISA: Sat Jul 20 21:06:44 GMT 2013
Orographic clouds rolling in. All instruments idled.
  end
****EVENT COMMENT BY LISA****: Sun Jul 21 00:58:18 GMT 2013
Some activity can be seen between PA 85-107. It seems to have started befor start up. Can be seen in Gong and a bit in Chi
p.
end
Sun Jul 21 01:33:32 GMT 2013
        MkIV
17_35.rawmk4 18_04.rawmk4 18_34.rawmk4 19_03.rawmk4 19_32.rawmk4
17 38.rawmk4 18 07.rawmk4 18 37.rawmk4 19 06.rawmk4 19 35.rawmk4
17_41.rawmk4 18_10.rawmk4 18_40.rawmk4 19_09.rawmk4 19_38.rawmk4
17_44.rawmk4 18_13.rawmk4 18_42.rawmk4 19_12.rawmk4 19_41.rawmk4
17 47.rawmk4 18 16.rawmk4 18 45.rawmk4 19 15.rawmk4 19 51.rawmk4
17_50.rawmk4 18_19.rawmk4 18_48.rawmk4 19_18.rawmk4 19_54.rawmk4
17 52.rawmk4 18 22.rawmk4 18 51.rawmk4 19 21.rawmk4 19 57.rawmk4
```

17\_55.rawmk4 18\_25.rawmk4 18\_54.rawmk4 19\_24.rawmk4 20\_00.rawmk4 17\_58.rawmk4 18\_28.rawmk4 18\_57.rawmk4 19\_27.rawmk4 20\_03.rawmk4 18\_01.rawmk4 18\_31.rawmk4 19\_00.rawmk4 19\_30.rawmk4 20\_06.rawmk4