```
------------------------------------------------------------------------------
                  Mauna Loa Solar Observatory Observer's Log
------------------------------------------------------------------------------
          Tue Sep 29 16:37:49 GMT 1998
Year: 98  Doy: 272
Observer: yasukawa
WEATHER COMMENT: Tue Sep 29 16:38:16 GMT 1998
Cool, clear, light southwest breeze.
Tue Sep 29 16:38:38 GMT 1998    CHIP      Startup--Initializing new tape
Tue Sep 29 16:42:36 GMT 1998    MKIII     Start Patrol
Tue Sep 29 16:42:29 GMT 1998    CHIP      CHIP Start Patrol
Tue Sep 29 16:42:56 GMT 1998    PICS      Start Patrol
Tue Sep 29 17:00:51 GMT 1998    CHIP      Bias
Tue Sep 29 17:01:51 GMT 1998    CHIP      End Bias
Tue Sep 29 17:02:01 GMT 1998    CHIP      Water
Tue Sep 29 17:02:44 GMT 1998    PICS      Flat
Tue Sep 29 17:02:42 GMT 1998    CHIP      End Water
Tue Sep 29 17:04:11 GMT 1998    PICS      End Flat
**PSPT PROBLEM**: Tue Sep 29 17:29:27 GMT 1998
Running PSPT with side-plate open.  Active mirror came up OK on first
Run.  Image on monitor is centered.  Light beam not centered on camera
lens in front of quad cells.  Beam is not spilling off lens, beam is
not spilling off of iris in lens.
**PSPT PROBLEM**: Tue Sep 29 17:37:35 GMT 1998
Image is centered on monitor.  Beam is slightly off center, but falling
on the camera lens.  Beam is NOT centered on the tube leading into the
ccd housing.  Beam is spilling off the tube almost 50% toward the
objective tube.
Tue Sep 29 18:02:39 GMT 1998    PICS      Flat
Tue Sep 29 18:02:49 GMT 1998    CHIP      Bias
Tue Sep 29 18:03:46 GMT 1998    CHIP      End Bias
Tue Sep 29 18:04:05 GMT 1998    PICS      End Flat
Tue Sep 29 18:03:58 GMT 1998    CHIP      Water
Tue Sep 29 18:04:44 GMT 1998    CHIP      End Water
Tue Sep 29 19:02:37 GMT 1998    PICS      Flat
Tue Sep 29 19:03:00 GMT 1998    CHIP      Bias
Tue Sep 29 19:04:02 GMT 1998    PICS      End Flat
Tue Sep 29 19:04:01 GMT 1998    CHIP      End Bias
**PSPT PROBLEM**: Tue Sep 29 19:04:21 GMT 1998
1900 wake-up started OK, no problem with Tue Sep 29 19:05:05 GMT 1998   same as first Run.
**PSPT PROBLEM**: Tue Sep 29 19:08:01 GMT 1998
Further into the 1900 UT Run, image on monitor got soft.  I can feel the
active mirror vibrating, I can see the beam moving around on the
camera lens, but not spilling off of the glass, and I can see the
beam that goes up the CCD tube moving around, still spilled around 50%
out of the tube, and the meters on the servo module, of course, are
swinging back and forth.
**PSPT PROBLEM**: Tue Sep 29 19:17:47 GMT 1998
```

Mirror is now oscillating and PSPT is apparently not able to lock on
to sun. Stopping PSPT. Haosheng has decided that the alignment
of the quad cells and the secondary optics package are off enough
that he is considering sending Jeff Kuhn over (he's at IFA now)
maybe this weekend to align the optics.
COMMENT: Tue Sep 29 19:25:43 GMT 1998
Stopping to reconfigure dome shutter.
Tue Sep 29 19:26:38 GMT 1998   PICS   End Patrol
Tue Sep 29 19:26:31 GMT 1998   CHIP   CHIP End Patrol
Tue Sep 29 19:32:24 GMT 1998   MKIII   Start Patrol
Tue Sep 29 19:32:58 GMT 1998   PICS   Start Patrol
Tue Sep 29 19:32:58 GMT 1998   PICS   Start Patrol
Tue Sep 29 20:00:52 GMT 1998   CHIP   Gain
Tue Sep 29 20:01:40 GMT 1998   PICS   Flat
Tue Sep 29 20:03:08 GMT 1998   PICS   End Flat
Tue Sep 29 20:05:25 GMT 1998   CHIP   End Gain
Tue Sep 29 20:05:35 GMT 1998   CHIP   Bias
Tue Sep 29 20:06:24 GMT 1998   CHIP   End Bias
Tue Sep 29 20:06:34 GMT 1998   CHIP   Water
Tue Sep 29 20:07:09 GMT 1998   CHIP   End Water
Tue Sep 29 21:01:38 GMT 1998   PICS   Flat
Tue Sep 29 21:01:47 GMT 1998   CHIP   Bias
Tue Sep 29 21:02:41 GMT 1998   CHIP   End Bias
Tue Sep 29 21:02:51 GMT 1998   CHIP   Water
Tue Sep 29 21:02:51 GMT 1998   CHIP   Water
Tue Sep 29 21:03:40 GMT 1998   CHIP   End Water
Tue Sep 29 22:00:52 GMT 1998   CHIP   Bias
Tue Sep 29 22:01:44 GMT 1998   PICS   Flat
Tue Sep 29 22:01:46 GMT 1998   CHIP   End Bias
Tue Sep 29 22:02:00 GMT 1998   CHIP   Water
Tue Sep 29 22:02:46 GMT 1998   CHIP   End Water
Tue Sep 29 22:03:15 GMT 1998   PICS   End Flat
Tue Sep 29 22:06:38 GMT 1998   CHIP   CHIP End Patrol
Tue Sep 29 22:07:35 GMT 1998   PICS   End Patrol
Tue Sep 29 22:07:35 GMT 1998   PICS   End Patrol
COMMENT: Tue Sep 29 22:11:05 GMT 1998

Tapes:

PICS: P01307
CHIP: C00704
LOWL: L00545
Tue Sep 29 22:12:15 GMT 1998
        MkIII

16_42.rawmk3   17_47.rawmk3   19_01.rawmk3   20_10.rawmk3   21_14.rawmk3
16_45.rawmk3   17_49.rawmk3   19_03.rawmk3   20_13.rawmk3   21_17.rawmk3
16_48.rawmk3   17_52.rawmk3   19_06.rawmk3   20_16.rawmk3   21_20.rawmk3

```
16_51.rawmk3    17_55.rawmk3    19_09.rawmk3    20_19.rawmk3    21_23.rawmk3
16_54.rawmk3    17_58.rawmk3    19_12.rawmk3    20_22.rawmk3    21_26.rawmk3
16_57.rawmk3    18_01.rawmk3    19_15.rawmk3    20_25.rawmk3    21_29.rawmk3
17_00.rawmk3    18_04.rawmk3    19_18.rawmk3    20_27.rawmk3    21_32.rawmk3
17_03.rawmk3    18_07.rawmk3    19_21.rawmk3    20_30.rawmk3    21_35.rawmk3
17_06.rawmk3    18_10.rawmk3    19_24.rawmk3    20_33.rawmk3    21_38.rawmk3
17_09.rawmk3    18_13.rawmk3    19_32.rawmk3    20_36.rawmk3    21_41.rawmk3
17_12.rawmk3    18_19.rawmk3    19_35.rawmk3    20_39.rawmk3    21_43.rawmk3
17_14.rawmk3    18_25.rawmk3    19_38.rawmk3    20_42.rawmk3    21_46.rawmk3
17_17.rawmk3    18_31.rawmk3    19_41.rawmk3    20_45.rawmk3    21_49.rawmk3
17_20.rawmk3    18_34.rawmk3    19_44.rawmk3    20_48.rawmk3    21_52.rawmk3
17_23.rawmk3    18_37.rawmk3    19_47.rawmk3    20_51.rawmk3    21_55.rawmk3
17_26.rawmk3    18_40.rawmk3    19_50.rawmk3    20_54.rawmk3    21_58.rawmk3
17_29.rawmk3    18_43.rawmk3    19_52.rawmk3    20_57.rawmk3    22_01.rawmk3
17_32.rawmk3    18_46.rawmk3    19_55.rawmk3    21_00.rawmk3    22_04.rawmk3
17_35.rawmk3    18_49.rawmk3    19_58.rawmk3    21_03.rawmk3    22_07.rawmk3
17_38.rawmk3    18_52.rawmk3    20_01.rawmk3    21_05.rawmk3    c18_16.rawmk3
17_41.rawmk3    18_55.rawmk3    20_04.rawmk3    21_08.rawmk3    c18_22.rawmk3
17_44.rawmk3    18_58.rawmk3    20_07.rawmk3    21_11.rawmk3    c18_28.rawmk3
```