\_\_\_\_\_\_

## Mauna Loa Solar Observatory Observer's Log

\_\_\_\_\_\_

Sat Nov 9 16:59:05 GMT 2002

Year: 02 Doy: 313 Observer: stueben

WEATHER COMMENT: Sat Nov 9 16:59:41 GMT 2002

scatered cirrostatus, heavier near east horizon, light south wind, temp 44F

Sat Nov 9 17:04:00 GMT 2002 CHIP Start Patrol Sat Nov 9 17:04:18 GMT 2002 PICS Start Patrol

PSPT COMMENT: Sat Nov 9 17:23:55 GMT 2002

Stalled on starup "Taking 3 dark frames..." .Killed and restarted. Observing. A NEW TAPE HAS BEEN PUT INTO KAIEE DLT DRIVE, Sat Nov 9 17:47:13 GMT 2002

Sat Nov 9 18:01:41 GMT 2002 CHIP LSD Sat Nov 9 18:03:18 GMT 2002 CHIP End LSD Sat Nov 9 18:03:24 GMT 2002 CHIP BiasLSD Sat Nov 9 18:04:06 GMT 2002 CHIP End BiasLSD Sat Nov 9 18:04:12 GMT 2002 CHIP Bias Sat Nov 9 18:04:35 GMT 2002 PICS Flat Sat Nov 9 18:04:51 GMT 2002 CHIP End Bias Sat Nov 9 18:06:56 GMT 2002 PICS End Flat

COMMENT: Sat Nov 9 21:29:19 GMT 2002

We're bumping the spar around a bit as we check out the mk4 problem.

\*\*MKIV PROBLEM\*\*: Sat Nov 9 21:29:47 GMT 2002

Tracing the problem back from the Transceiver board to the Tiltout limit switch it looks like the limit switch is shorting, there is continuity between all 3 terminals when the switch isn't activated. The switch was changed last week when the problem first appeared. Still checking the wiring near the switch now. I had to remove the small section of the telescope that the terminal strip before the limit switch is connected to, to get to the terminal strip and switch more easily. I'm not sure if I did this years ago too but it seems kind of familiar.

\*\*MKIV PROBLEM\*\*: Sat Nov 9 21:41:17 GMT 2002

When removing that small section of telescope tube I noticed that is was burnt in places from the solar image because it is near the focus, probably happened during telescope offpointing. Allen just came down to let me know that he found a burnt area on the existing small cable that runs from the terminal strip to the limit switch, maybe the solar image burnt that enough to cause the insulation to melt in the cable and shorted the wires together. The solder joints all look good so a shorted cable makes sense. The wires in the cable are very small gauge so I found some bigger replacement cable and Allen will install a longer section of that. In the future it'll be easier to solder to that wire gauge and there will be a longer cable run so nothing will stick out into the edge of the light path like the old cable did (slightly).

Sat Nov 9 22:26:02 GMT 2002 PICS End Patrol Sat Nov 9 22:28:59 GMT 2002 CHIP End Patrol Sat Nov 9 22:49:30 GMT 2002

MkIV