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## Mauna Loa Solar Observatory Observer's Log

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Thu Dec 11 17:13:11 GMT 1997

Year: 97 Doy: 345 Observer: koon

WEATHER COMMENT: Thu Dec 11 17:13:15 GMT 1997

Medium cirrostratus overcast, wind=25+ mph from the SW, temp=36 F.

Thu Dec 11 17:13:52 GMT 1997 CHIP Startup--Initializing new tape

Thu Dec 11 17:19:10 GMT 1997 CHIP CHIP Start Patrol
Thu Dec 11 17:19:10 GMT 1997 CHIP CHIP Start Patrol

Thu Dec 11 17:38:35 GMT 1997 MKIII Start Patrol

MKIII COMMENT: Thu Dec 11 17:39:07 GMT 1997

I am testing for light leaks, it is too cloudy for data.

Thu Dec 11 17:48:24 GMT 1997 MKIII Start Patrol

MKIII COMMENT: Thu Dec 11 17:50:04 GMT 1997

With the shutter closed and looking at I (instead of usual Q) while running Patrol and watching the scans on the monitor I don't see any evidence of any light leaks.

Thu Dec 11 18:02:07 GMT 1997 Bias CHIP Thu Dec 11 18:03:08 GMT 1997 CHIP End Bias Thu Dec 11 18:03:08 GMT 1997 CHIP End Bias Thu Dec 11 18:03:25 GMT 1997 CHIP Water Thu Dec 11 18:04:13 GMT 1997 CHIP End Water Thu Dec 11 18:04:36 GMT 1997 PICS End Flat

MKIII COMMENT: Thu Dec 11 18:18:12 GMT 1997

The shutter is blocking the beam correctly whenever I try moving it in and looking down the telescope to check. I haven't found any light leaks on the telescope either. I guess we'll have to keep an eye out for unusual dark scans until this problem repeats itself, our best warning will be Donna's messages when she notices a problem. Maybe the shutter gets sticky sometimes?

Thu Dec 11 18:27:35 GMT 1997 MKIII Start Patrol

Thu Dec 11 19:01:09 GMT 1997 PICS Flat
Thu Dec 11 19:02:08 GMT 1997 CHIP Bias
Thu Dec 11 19:02:34 GMT 1997 PICS End Flat
Thu Dec 11 19:03:19 GMT 1997 CHIP End Bias

Thu Dec 11 19:03:33 GMT 1997 CHIP Water

Thu Dec 11 19:04:26 GMT 1997 CHIP End Water

COMMENT: Thu Dec 11 19:50:33 GMT 1997

I spent some time working on the Spar, for the last 30 minutes or so it wasn't pointed at the sun as I tested balance and tied some cables and hoses out of the way so that the Spar can track better without as much cable resistance and hopefully without damaging the cables. I tried adjusting the gains for the guider telescope axes and the Sky Transmission telescope in hopes of reducing the guiding oscillations that tend to ruin the PICS occulting. Using the adjustments provided on each telescope did little or nothing to reduce the guiding bounce. The most dramatic result came when I covered

the Sky Transmission telescope, then the guiding bounce increased quite a lot because the gains to the guiders are automatically increased as the light to the Sky Transmission telescope decreases. I doubt we need that automatic gain refinement since it just makes the Spar bounce more as we get thicker cirrostratus cover. Part of the bounce problem is due to balance, the Spar still isn't balanced perfectly but the last time I improved the balance that also reduced the guiding bounce. So I'll try to perfect the balance as time permits and also read up on the guiding system to see what might be improved there.

```
11
11 20:02:04 GMT 1997
                        PICS
                                  Flat
Thu Dec 11 20:03:30 GMT 1997
                                 PICS
                                          End Flat
Thu Dec 11 20:08:01 GMT 1997
                                 CHIP
                                          End Gain
Thu Dec 11 20:08:09 GMT 1997
                                          Bias
                                 CHIP
Thu Dec 11 20:09:00 GMT 1997
                                 CHIP
                                          End Bias
Thu Dec 11 20:09:08 GMT 1997
                                 CHIP
                                          Water
Thu Dec 11 20:09:46 GMT 1997
                                 CHIP
                                          End Water
Thu Dec 11 21:00:09 GMT 1997
                                 PICS
                                          Flat
Thu Dec 11 21:01:06 GMT 1997
                                 CHIP
                                          Bias
Thu Dec 11 21:01:32 GMT 1997
                                 PICS
                                          End Flat
Thu Dec 11 21:02:10 GMT 1997
                                          End Bias
                                 CHIP
Thu Dec 11 21:02:17 GMT 1997
                                 CHIP
                                          Water
Thu Dec 11 21:03:01 GMT 1997
                                 CHIP
                                          End Water
Thu Dec 11 22:01:04 GMT 1997
                                 CHIP
                                          Bias
Thu Dec 11 22:02:08 GMT 1997
                                          Flat
                                 PICS
Thu Dec 11 22:02:21 GMT 1997
                                          End Bias
                                 CHIP
Thu Dec 11 22:02:28 GMT 1997
                                          Water
                                 CHIP
Thu Dec 11 22:03:14 GMT 1997
                                 CHIP
                                          End Water
Thu Dec 11 22:03:30 GMT 1997
                                 PICS
                                          End Flat
PSPT COMMENT: Thu Dec 11 22:17:26 GMT 1997
Testing the new log entry for PSPT.
Thu Dec 11 23:00:10 GMT 1997
                                 PICS
                                          Flat
Thu Dec 11 23:01:03 GMT 1997
                                 CHIP
                                          Bias
Thu Dec 11 23:01:33 GMT 1997
                                 PICS
                                          End Flat
Thu Dec 11 23:02:02 GMT 1997
                                 CHIP
                                          End Bias
Thu Dec 11 23:02:09 GMT 1997
                                 CHIP
                                          Water
Thu Dec 11 23:02:55 GMT 1997
                                 CHIP
                                          End Water
Thu Dec 11 23:06:53 GMT 1997
                                 PICS
                                          End Patrol
MKIII COMMENT: Thu Dec 11 23:10:11 GMT 1997
No data due to cirrostratus, recycling tape, any data files on Nahenahe
are probably Dark scans (shutter closed while running Patrol).
COMMENT: Thu Dec 11 23:12:40 GMT 1997
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## TAPES: \*\*\*\*

PICS: P01058 CHIP: C00444

LOWL: L00487 in drive #0