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Mauna Loa Solar Observatory Observer's Log  
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Sun Oct 25 16:38:31 GMT 1998

Year: 98 Doy: 298

Observer: elmore

WEATHER COMMENT: Sun Oct 25 16:54:16 GMT 1998

Cirrus. Light wind about 10mph from sse. Temp about 47f. Some hope cirrus is moving to SE bringing in clear sky from the North

Sun Oct 25 16:57:48 GMT 1998	CHIP	Startup--Initializing new tape
Sun Oct 25 16:58:54 GMT 1998	CHIP	CHIP Start Patrol
Sun Oct 25 16:58:54 GMT 1998	CHIP	CHIP Start Patrol
Sun Oct 25 17:00:17 GMT 1998	PICS	Flat
Sun Oct 25 17:01:33 GMT 1998	PICS	End Flat
Sun Oct 25 17:03:02 GMT 1998	CHIP	Bias
Sun Oct 25 17:03:57 GMT 1998	CHIP	End Bias
Sun Oct 25 17:04:05 GMT 1998	CHIP	Water
Sun Oct 25 17:04:45 GMT 1998	CHIP	End Water
Sun Oct 25 17:05:01 GMT 1998	MKIII	Start Patrol
Sun Oct 25 17:17:48 GMT 1998	MKIII	Start Patrol
Sun Oct 25 17:28:19 GMT 1998	MKIII	Start Patrol

WEATHER COMMENT: Sun Oct 25 17:30:54 GMT 1998

Clouds have cleared.

MKIII COMMENT: Sun Oct 25 17:43:26 GMT 1998

Trying our hardest to get a coronal scan. Portions of some k-corona scans are OK. Perhaps with combining pieces of some one could build a coronal image?

MkIV is running at the same time as MkIII. Have not looked at any of it.

**\*\*PSPT PROBLEM\*\***: Sun Oct 25 17:45:31 GMT 1998

Having trouble getting the instrument to startup, this is common when we have some cirrus. After the fourth try the program seemed to proceed the furthest but then the pointing was off, the telescope is pointing about one hour ahead of where the sun currently is. I checked the time used by the program and it is correct. This is a problem that occasionally pops up during the year, its as if the ephemeris and/or the mount model is way off.

Sun Oct 25 18:00:39 GMT 1998	PICS	Flat
Sun Oct 25 18:01:50 GMT 1998	CHIP	Bias
Sun Oct 25 18:02:10 GMT 1998	PICS	End Flat
Sun Oct 25 18:02:45 GMT 1998	CHIP	End Bias
Sun Oct 25 18:02:55 GMT 1998	CHIP	Water

**\*\*PSPT PROBLEM\*\***: Sun Oct 25 18:03:21 GMT 1998

On the 5th try (at using the command Run) the telescope stayed in one place and timeout messages kept appearing on the screen as it tried to take the test images. On the 6th try the telescope pointed to far ahead of the sun, again, and the "check sky conditions message kept

coming up on the screen because the telescope didn't see the sun. On the 7th try it stalled while taking test images, on the 8th try it pointed too far ahead. This cycle may go on all day, I'm not sure how much more time I can devote to this since we are installing the MKIV instrument and the GONG instrument also needs repair. Sometimes I've seen the PSPT instrument come out of this cycle of failures but I'm not sure why. This is a recurring problem that needs to be addressed by the instrument designers so that we can keep getting continuous observations. The sky has been perfectly clear for the last 4 or 5 tries. Another problem which plagues the efficiency of the instrument is that whenever we use the Run command the telescope assumes the lens cap is closed and moves the cap to the other extreme position, which it assumes is open. But if the telescope fails with the lens cap open, as it usually does, then the next time we try "Run" the lens cap gets closed so we waste time and have to try "Run" again to get the lens cap to open. This has been mentioned many times before, but I guess no one has the time available to address this problem from the design standpoint also.

Sun Oct 25 18:31:24 GMT 1998 MKIII End Patrol

Sun Oct 25 18:32:01 GMT 1998 MKIII Start Cal

\*\*PSPT PROBLEM\*\* Sun Oct 25 18:38:30 GMT 1998

After 12 tries it still won't point to the sun, maybe I'll try again later.

It's a shame, the sky is very nice right now.

MKIII COMMENT: Sun Oct 25 18:43:58 GMT 1998

It looks like there is a real need for a ch0 calibration.

Did one. Sky appeared quite steady during cal.

COMMENT: Sun Oct 25 18:48:16 GMT 1998

Stopping observations with the spar so we can remove the MKIII "Top Hat" to reposition the slits.

Sun Oct 25 18:49:32 GMT 1998 CHIP CHIP End Patrol

Sun Oct 25 18:51:21 GMT 1998 MKIII End Cal

MKIII COMMENT: Sun Oct 25 19:04:58 GMT 1998

The MkIV intensity display shows spill around the occulting disk very well. During the scans preceding the cal we were seeing spill in the SE. The MkIII ch0 showed an extra bright signal in the SE.

The objective guider meter in X was at -5. In Y is was at +10 and pegged.

We used the cranks on the O1 steppers and tried to center the meters. When we started scanning, the Y reading pegged at -10. We saw rings in the ch0 scan in the North.

This is a problem to address.

\*\*PSPT PROBLEM\*\* Sun Oct 25 20:04:32 GMT 1998

Tried Run again after cycling power to everything we usually turn off each day, still points ahead of the sun.

Sun Oct 25 21:59:05 GMT 1998 CHIP ending tape

Sun Oct 25 23:38:13 GMT 1998 MKIII Start Cal

MKIII COMMENT: Sun Oct 25 23:39:41 GMT 1998

Centered the O1 guiding about 20 minutes ago, amy have to redo this in the middle of the day.

COMMENT: Sun Oct 25 23:40:20 GMT 1998

TAPES:

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PICS: P01325

CHIP: C00711

LOWL: L00551 in drive #0