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## Mauna Loa Solar Observatory Observer's Log

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Thu Nov 7 16:41:02 GMT 1996

Year: 96 Doy: 312 Observer: yasukawa

WEATHER COMMENT: Thu Nov 7 16:41:06 GMT 1996

Cool, in continued high clouds-varying cirrus and altocumulus,

light south breeze.

Thu Nov 7 16:42:02 GMT 1996 CHIP Startup--Initializing new tape

WEATHER COMMENT: Thu Nov 7 16:56:34 GMT 1996

Sun hasn't risen above thick altocumulus deck, no shadows, no guiding.

Thu Nov 7 17:13:49 GMT 1996 dPMon Start Patrol

Thu Nov 7 17:13:46 GMT 1996 CHIP CHIP Start Patrol

WEATHER COMMENT: Thu Nov 7 17:13:50 GMT 1996

Sun has climbed out of thick stuff, in thin stuff. Guider has acquired.

Thu Nov 7 17:38:23 GMT 1996 dPMon End Patrol
Thu Nov 7 17:52:43 GMT 1996 dPMon Start Patrol

WEATHER COMMENT: Thu Nov 7 17:53:11 GMT 1996

In brief hole. Starting MKIII.

WEATHER COMMENT: Thu Nov 7 17:56:06 GMT 1996

Hole was too brief. Stopping MKIII.

Thu Nov 7 18:02:03 GMT 1996 dPMon Flat Thu Nov 7 18:02:44 GMT 1996 CHIP Bias

Thu Nov 7 18:02:58 GMT 1996 dPMon End Flat

Thu Nov 7 18:03:52 GMT 1996 CHIP End Bias

Thu Nov 7 18:04:01 GMT 1996 CHIP Water

Thu Nov 7 18:04:34 GMT 1996 CHIP End Water

MKIII COMMENT: Thu Nov 7 18:11:33 GMT 1996

Starting MKIII again. Another hole approaching.

Thu Nov 7 19:01:56 GMT 1996 dPMon Flat

Thu Nov 7 19:02:47 GMT 1996 dPMon End Flat

Thu Nov 7 19:02:49 GMT 1996 CHIP Bias

Thu Nov 7 19:03:52 GMT 1996 CHIP End Bias

Thu Nov 7 19:04:02 GMT 1996 CHIP Water

Thu Nov 7 19:04:39 GMT 1996 CHIP End Water

MKIII COMMENT: Thu Nov 7 19:20:38 GMT 1996

Most of altostratus burned off, clear for now with cirrus threat

somewhat distant for now. Stopping to work on CHAN 1.

COMMENT: Thu Nov 7 19:58:11 GMT 1996

Dan Bass and Rob Hubbard here from GONG to do their semiannual

PM. Just gave Dan a quick tour of our site.

Back to alignment. Thin cirrus arrived, thicker stuff approaching.

Thu Nov 7 20:02:02 GMT 1996 dPMon Flat

Thu Nov 7 20:02:44 GMT 1996 CHIP Gain

Thu Nov 7 20:02:58 GMT 1996 dPMon End Flat

WEATHER COMMENT: Thu Nov 7 20:31:54 GMT 1996

Orographic clouds threatening.

WEATHER COMMENT: Thu Nov 7 21:00:52 GMT 1996 Cirrus very thick now. DPMON COMMENT: Thu Nov 7 21:13:01 GMT 1996 Stopped DPMON but it did not end gracefully, may have crashed sometime. Thu Nov 7 21:15:46 GMT 1996 dPMon End Patrol Thu Nov 7 21:19:19 GMT 1996 CHIP End Gain Thu Nov 7 21:19:35 GMT 1996 CHIP Bias CHIP COMMENT: Thu Nov 7 21:19:29 GMT 1996 CHIP crashed also. Tried to recover from crash, but it seems that tape was problem. Tried Kill/Run as last resort but couldn't get Run to work without fixing tape (removing and loading a new tape. WEATHER COMMENT: Thu Nov 7 21:32:06 GMT 1996 In heavy orographic clouds. COMMENT: Thu Nov 7 21:38:30 GMT 1996 Activity report: QP: 82; 100-116; 219; 240-250; 60; 276; No coronal activity BTY PA = 60 was an afterthought, not a typo.

Tapes: MKIII: H01432 DPMON: P00757 CHIP: C00174 LOWL: L00425

MKIII COMMENT: Thu Nov 7 21:49:39 GMT 1996

Ran a bunch of tests during clear and cirrus skies on channel 1. Ground rules of opal in and zipped correctors used for tests.

Covered inner 1/3 of slots with tape and looked at P+S and P-S signals on scope upstairs, using polarizer to attempt to isolate P and S.

I think I convinced myself that the two detectors are installed correctly, occulted ends both the same. Also, in looking at the hairlines, I am fairly certain that the focus is still good and the up/down alignment between the two detectors are good.

I removed the tape and looked at the P+S and P-S waveforms with and without the polarizer and was fairly convinced that there is something wrong with the P detector. Waveform should look like a loaf of bread, or at least a loaf that rose progressively so it is lower at the "inner pixels" end. P waveform in P-S mode starts out rising, then goes negative from about 1/4 to 1/3 of the way from the start. P waveform in P+S mode is very flat at upper 2/3.

Tried rotating P detector but within range that I was certain that

I was cocking the detector, I could not get the waveform to look anywhere near good. Set it back to fiducial.

Zipped CHAN 0 and took a look at the P+S and P-S waveforms with and without polarizer just to remind myself what a working, properly aligned channel's waveforms should look like and they are as one might think they should be.

Cirrus got very heavy and then orographic clouds came in terminating my exploration. Put everything back the way it was for normal observations. Tape out, opal out, allfresh (unzip correctors), Ol guiders secured.

I think I might try swapping the P detector with a known good spare next time.

CHIP COMMENT: Had to reboot kii to recover from the crash.

## SCAN-LOG

SCAN-LOG 16:48:31. 11/7/96 DOY 312 17:54:28 18:13:30 18:16:46 18:19:59 18:23:15 18:26:30 1830 O CL 18:33:26 1837 15CL 18:42:08 18:49:32 18:46:19 18:52:45 18:55:58 18:59:12 19:05:40 19:08:52 19:12:05 19:02:25 19:15:16 19:18:29 19:21:40 0 ERRORS

OK