Mauna Loa Solar Observatory Observer's Log

Sun Feb 20 17:38:18 GMT 1994 Year: 94 Doy: 051 Observer: elmore Sun Feb 20 17:38:28 GMT 1994 Elmore and Streander trying to get this day going. Beautiful, coronal sky, 34 degrees. Sun Feb 20 17:43:07 GMT 1994 Started MkIII at 1741 Working on dPMon nd filter and focus. Plan is to have it up in an hour or so. Howard will be working on th eMkIII today. We will lose data on account but we will try to get some good scans first. Sun Feb 20 17:44:55 GMT 1994 MkIII tape is H00701 dPMon tape if we get there is P00001 Sun Feb 20 17:45:38 GMT 1994 Check out the first few data points for today. I followed a non-standard startup procedure (as might be expected for a novice), but I think the drive was ready before the first scan so that the first few points may not be lost. Sun Feb 20 19:04:09 GMT 1994 Calibration of MkIII started at 1903 Sun Feb 20 19:18:12 GMT 1994 Messed up calibration the first time, did not send it to tape. 1918 started another. Sun Feb 20 20:25:00 GMT 1994 Patrol Start Sun Feb 20 20:25:07 GMT 1994 Attempting a run with dPMon. Many problems this morning. Halle has been running away. Objective wheel has run away. Occulting wheel ran to limit. Right Now image is dark as if something has failed like the Halle. Sun Feb 20 20:48:48 GMT 1994 Starting about 2040 things started getting better. The objective wheel quit rotating and the Halle started following commands. It looks like sky reference will not work as the solar image is out of focus when tuned off band. Sun Feb 20 20:51:56 GMT 1994 Lost control of the MkIII from the terminal after the first CORONA plot following the calibration. It looks like it is taking data from the looks of the tape drive, scan positions, and scope diagnostics. Bugs are really dust. There was a big puff about an hour ago and less now. Sun Feb 20 20:54:07 GMT 1994 Objective wheel suddenly took off by itself. No commands were issued to start it! Sun Feb 20 20:58:35 GMT 1994

Objective wheel toggled into place by cycling power on J-box. Objective whell cable then disconnected and j-box powered back up. Now back to observing. Occulting is quite tight. I think a larger disc is called for. Also, the P angle of the occulting stem was not set today. The orientation of the frame should be EW heliocentric. The accuracy I guess is to about a degree. Sun Feb 20 21:02:01 GMT 1994 Filemark-Calibration Sun Feb 20 21:03:22 GMT 1994 Since the objective wheel is disconnected, there will be no diffuser images during the calibration. It looked to me like there was a gross overexposure instead. Darks are good! Today I have been running 1 summation per image. I will try changing to four and let us see if the images get fuzzier or whether the signal to noise gets better. Sun Feb 20 21:21:36 GMT 1994 Lost about 10 minutes of data due to the dome shutter occulting the dPMon. Had to close the shutter, unlatch the bottom section, and open it again. Needless to say, the MMkIII too lost data in the gap though it was not maxed out on the shutter. It looks like the Halle has run away again, will attempt to fix it. Sun Feb 20 21:35:25 GMT 1994 Made changes to try to eliminate the reference exposures. Shortened the disk exposure as the level had reached 7/8 saturation in some places. The limb exposure at about 2135 shows what happens when the dome rotation is neglected and it just inpinges upon the dPMon field of view. Sun Feb 20 21:42:47 GMT 1994 Attempt to fix Halle by turning off J-box lasted so short a time we got no exposures....will do it again. This time it stuck long enough for me to get downstarirs. The dPMon and MkIII are so close to the sides of the shutter at this time that the dPMon is very likely to get obstructed. It shows up looking like bad occulting and a band of light about as wide as the sun extending out on both sides. Sun Feb 20 21:55:55 GMT 1994 hit the dome slot. Sun Feb 20 22:00:01 GMT 1994 Filemark-Calibration Sun Feb 20 22:27:44 GMT 1994 Noticed disc exposures were saturating again. Took off a few more hundredths of a second. Have re-gained control of the MkIII. Scans look good, but with quite a few events due to dust. Sun Feb 20 22:28:48 GMT 1994 We will be playing with the dPMon for the next period of time trying to improve focus. Also, I noticed that the Halle has run away again. Yuk.

Sun Feb 20 22:33:01 GMT 1994 Patrol End Sun Feb 20 23:03:33 GMT 1994 Patrol Start Sun Feb 20 23:09:02 GMT 1994 Focus change in an attempt to improve the Sun, not the occulting disk. How did we do? Sun Feb 20 23:15:23 GMT 1994 MkIII chunking along. Sky looks very nopisy. Sun Feb 20 23:21:05 GMT 1994 Patrol End Sun Feb 20 23:43:11 GMT 1994 Patrol Start Sun Feb 20 23:45:53 GMT 1994 Check the contrast of the disc h-alpha images in comparison to before this patrol. We shifted the knob by 1/4 turn to get minimum intensity. Mon Feb 21 00:01:56 GMT 1994 Filemark-Calibration Mon Feb 21 00:05:11 GMT 1994 Filemark-Calibration Mon Feb 21 00:07:53 GMT 1994 Filemark-Calibration Mon Feb 21 00:11:02 GMT 1994 Filemark-Calibration Mon Feb 21 00:13:00 GMT 1994 One cal after another. Must be a software problem on change of day. Mon Feb 21 00:24:42 GMT 1994 Patrol Start Mon Feb 21 00:26:20 GMT 1994 Found out that csh does not think that 0 = 00! Fixed it up in Program. MkIII was looking cleaner, but now it is noisy again. Mon Feb 21 00:38:00 GMT 1994 Lost guider. MkIII would be a mess ehile that happened. Mon Feb 21 01:00:56 GMT 1994 Filemark-Calibration Mon Feb 21 01:05:39 GMT 1994 PUt waveplate in beam. Are try8ing to focus with it there. Mon Feb 21 01:55:27 GMT 1994 dPMon hit bottom of dome slot. Shutting it down MkIII still clear but we will stop it too. Sky doesn't look too bad right now. Mon Feb 21 01:57:03 GMT 1994 Patrol End Mon Feb 21 01:58:46 GMT 1994 Filemark \* NOTE by Alice Lecinski, Duc Chu, David Elmore 3/10/94 

## SCAN-LOG

SCAN-LOG ??:??: 2/20/94 DOY 51

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2:43:36	2:46:50	2:50:06	2:53:21	2:56:36
2:59:51	3:03:06	3:06:21	3:09:36	3:12:50
3:16:05	3:19:19	3:22:34	3:25:48	3:29:03
3:32:17	3:35:32	3:38:46	3:42:01	3:45:15
3:48:29	3:51:43	3:54:58	3:58:12	4:01:27
4:04:41	4:07:56	4:11:10	4:14:25	4:17:39
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