
Mauna Loa Solar Observatory Observer's Log

Sat Jan 24 17:15:50 GMT 1998 Year: 98 Doy: 024 Observer: koon WEATHER COMMENT: Sat Jan 24 17:15:53 GMT 1998 Clear sky, wind=10 mph from the SW, temp=42 F. Sat Jan 24 17:16:17 GMT 1998 CHIP Startup--Initializing new tape Sat Jan 24 17:25:43 GMT 1998 PTCS Start Patrol Sat Jan 24 17:25:45 GMT 1998 CHIP CHIP Start Patrol Sat Jan 24 17:30:03 GMT 1998 MKIII Start Patrol Sat Jan 24 18:00:17 GMT 1998 PICS Flat Sat Jan 24 18:01:47 GMT 1998 End Flat PICS Sat Jan 24 18:02:16 GMT 1998 CHIP Bias Sat Jan 24 18:03:18 GMT 1998 CHIP End Bias Sat Jan 24 18:03:32 GMT 1998 CHIP Water Sat Jan 24 18:04:16 GMT 1998 CHIP End Water MKIII COMMENT: Sat Jan 24 18:06:17 GMT 1998 Occulting was bad due to Spar Guider being out of adjustment, even though this was adjusted yesterday. I found that the spring-back mechanism of the E-W adjustment for the Spar guider wasn't working well, so the guider telescope would flop back and forth rather than stay in contact with the adjusting screw, I lubed things to fix the problem. But before I could check and tune the quiding, the O1 quider stopped working as it sometimes does for no obvious reason. Anyway the occulting looks good and I can adjust the quider later if needed, when the Ol quider is working again. COMMENT: Sat Jan 24 18:10:43 GMT 1998 Spar was moved around for a while, maybe over the past 30 minutes or so while I worked on the guiders. PSPT COMMENT: Sat Jan 24 18:19:36 GMT 1998 Sky looks good, starting observations with this. MKIII COMMENT: Sat Jan 24 18:28:37 GMT 1998 Will try several different calibration/Patrol startup sequences both early (i.e., right now) and later today to see what types of light leaks I get in the dark scans. Just now I queued the Calibration while Patrol was running, then soon after the Calibration began I queued up Patrol. Sat Jan 24 18:47:27 GMT 1998 MKIII Start Patrol MKIII COMMENT: Sat Jan 24 18:49:01 GMT 1998 OK, that cal finished, I have queued up another to run right after the first normal Patrol scans that are running now. In this next squence I will wait for the cal to finish completely so that all is Idle before I start up Patrol. Sat Jan 24 19:00:19 GMT 1998 PICS Flat Sat Jan 24 19:01:49 GMT 1998 End Flat PICS Sat Jan 24 19:02:07 GMT 1998 Bias CHIP Sat Jan 24 19:03:19 GMT 1998 CHIP End Bias Sat Jan 24 19:03:33 GMT 1998 CHIP Water Sat Jan 24 19:04:22 GMT 1998 CHIP End Water

Sat Jan 24 19:14:10 GMT 1998 MKIII Start Patrol MKIII COMMENT: Sat Jan 24 19:14:13 GMT 1998 OK, that second cal finished and all is idle so I started up the Patrol. I think I could see excess brightness in the dark scan from the first cal around 1841 ut down in the SSE. The dark scan for the second cal (1905 ut ?) looks very bad with lots of concentric rings of brightness, it looks like something electronic rather than a light leak and it gets worse as the scan progresses CCW so that it is quite bad when it ends in the SSW compared to the noise at the same position when the scan started. There is something regarding the dark shutter than can definitely be improved. Before the actual dark scan, which is the only scan of the six calibration scans in which the dark shutter needs to be moved, every time the opal is commanded to move in or out there is a corresponding command sent to the dark shutter to move out, thats four times per calibration that the dark shutter clutch gets slipped for no reason and for the entire 12 seconds (?) of the Out command. Sat Jan 24 20:00:16 GMT 1998 PICS Flat Sat Jan 24 20:01:45 GMT 1998 PICS End Flat Sat Jan 24 20:02:02 GMT 1998 CHIP Gain Sat Jan 24 20:08:05 GMT 1998 End Gain CHIP Sat Jan 24 20:08:15 GMT 1998 CHIP Bias Sat Jan 24 20:09:10 GMT 1998 CHIP End Bias Sat Jan 24 20:09:20 GMT 1998 CHIP Water Sat Jan 24 20:09:59 GMT 1998 CHIP End Water MKIII COMMENT: Sat Jan 24 20:35:49 GMT 1998 OK, starting a repeat of the earlier cal test sequence. This cal I started (queued up) while Patrol was running, then I queued up Patrol soon after the cal started. MKIII COMMENT: Sat Jan 24 20:53:55 GMT 1998 OK, this cal is finishing up. I can see concentric rings of brightness in the Xanim window image but not on the KCP scan monitor image, this also happened (or was noticed anyway) on the second of the earlier sequence of cals today. Sat Jan 24 21:00:15 GMT 1998 PICS Flat Sat Jan 24 21:01:42 GMT 1998 PICS End Flat Sat Jan 24 21:02:04 GMT 1998 Bias CHIP Sat Jan 24 21:03:21 GMT 1998 End Bias CHIP Sat Jan 24 21:03:31 GMT 1998 CHIP Water Sat Jan 24 21:04:15 GMT 1998 CHIP End Water Sat Jan 24 21:19:20 GMT 1998 MKIII End Cal MKIII COMMENT: Sat Jan 24 21:22:43 GMT 1998 OK, this last cal is finished and all is Idle so I just started the Patrol again. During this cal I went up in the dome and watched the dark shutter motor and gears, the only time they turned was before and after the dark scan. Thats good, it means the clutch isn't being made to slip. But why do the Drive and Request "Out" LEDs light up those four other times during the calibration? I also checked the shutter during the last dark scan (2113 ut) and it appeared to be shut, but just barely, in fact

it could have been open 1/64" or so, its difficult to see in there. The Xanim image for the 2113 dark scan has concentric circles like before, more on this scan than on the one in the previous cal. Also, some of the other scans may be weird on this last cal because after the first scan I was up in the dome and I opened a hatch on the telescope to watch the Opal. WEATHER COMMENT: Sat Jan 24 21:29:42 GMT 1998 Cirrus starting to pass over. MKIII COMMENT: Sat Jan 24 21:30:20 GMT 1998 Some cirrus may have passed over during the last 2 cals also, I didn't notice. Sat Jan 24 22:00:22 GMT 1998 Flat PICS Sat Jan 24 22:01:54 GMT 1998 PICS End Flat Sat Jan 24 22:02:05 GMT 1998 Bias CHIP Sat Jan 24 22:03:08 GMT 1998 End Bias CHIP Sat Jan 24 22:03:18 GMT 1998 CHIP Water Sat Jan 24 22:04:03 GMT 1998 End Water CHIP Sat Jan 24 22:22:17 GMT 1998 PICS End Patrol Sat Jan 24 22:22:41 GMT 1998 CHIP CHIP End Patrol Sat Jan 24 22:24:25 GMT 1998 ending tape CHIP COMMENT: Sat Jan 24 22:31:29 GMT 1998 TAPES: * * * * * * MKIII: H01725 PICS: P01093 CHIP: C00481 LOWL: L00493 in drive #0 Sat Jan 24 22:33:51 GMT 1998 MkIII 17_30.rawmk3 18_31.rawmk3 19 49.rawmk3 20 57.rawmk3 22_09.rawmk3 17 33.rawmk3 18 38.rawmk3 19 52.rawmk3 21 03.rawmk3 22 12.rawmk3 18 44.rawmk3 19 55.rawmk3 21 10.rawmk3 22 15.rawmk3 17 36.rawmk3 17 39.rawmk3 18 47.rawmk3 19 58.rawmk3 21 16.rawmk3 22 18.rawmk3 18 50.rawmk3 20 01.rawmk3 21 22.rawmk3 c18 28.rawmk3 17 42.rawmk3 17_44.rawmk3 18_56.rawmk3 20_03.rawmk3 21_25.rawmk3 c18_35.rawmk3 17 47.rawmk3 19 02.rawmk3 20 06.rawmk3 21 28.rawmk3 c18 41.rawmk3 17 50.rawmk3 19 08.rawmk3 20 09.rawmk3 21 31.rawmk3 c18 53.rawmk3 17_53.rawmk3 19_14.rawmk3 20_12.rawmk3 21_34.rawmk3 c18_59.rawmk3 17 56.rawmk3 19 17.rawmk3 20 15.rawmk3 21 37.rawmk3 c19 05.rawmk3 17 59.rawmk3 19 20.rawmk3 20 18.rawmk3 21 40.rawmk3 c20 36.rawmk3 18_02.rawmk3 19_23.rawmk3 20_21.rawmk3 21 43.rawmk3 c20_42.rawmk3 18 05.rawmk3 19 25.rawmk3 20 24.rawmk3 21 46.rawmk3 c20 48.rawmk3 21 49.rawmk3 18 08.rawmk3 19 28.rawmk3 20 27.rawmk3 c21 00.rawmk3 18 11.rawmk3 19 31.rawmk3 20 30.rawmk3 21 52.rawmk3 c21 06.rawmk3 18 14.rawmk3 19 34.rawmk3 20 33.rawmk3 21 55.rawmk3 c21 13.rawmk3

18_17.rawmk3	19_37.rawmk3	20_39.rawmk3	21_57.rawmk3
18_20.rawmk3	19_40.rawmk3	20_45.rawmk3	22_00.rawmk3
18_22.rawmk3	19_43.rawmk3	20_51.rawmk3	22_03.rawmk3
18_25.rawmk3	19_46.rawmk3	20_54.rawmk3	22_06.rawmk3