_____ Mauna Loa Solar Observatory Observer's Log _____ Mon Dec 16 17:52:19 GMT 2019 Year: 19 Doy: 350 Observer: berkey WEATHER COMMENT: berkey: Mon Dec 16 17:52:32 GMT 2019 Temp: 41.1f, Humidity: 7%, Pressure: 28.714in, Wind: 6mph from 138degs, Skies: clear end GENERAL COMMENT BY berkey: Mon Dec 16 17:52:47 GMT 2019 PM Blew off Kcor O1 and opened windows upstairs. end Mon Dec 16 17:55:07 GMT 2019 SGS Alignment complete Mon Dec 16 17:55:26 GMT 2019 Kcor Focus/alignment program exited Mon Dec 16 17:58:19 GMT 2019 KCOR Start Synoptic Patrol Mon Dec 16 18:43:31 GMT 2019 KCOR End Patrol Mon Dec 16 18:43:32 GMT 2019 KCOR Start Calibration script: c:\kcor\mlso-calibration22deg-20171025.ini Mon Dec 16 18:58:47 GMT 2019 KCOR End Calibration Script Mon Dec 16 18:59:03 GMT 2019 KCOR Start Synoptic Patrol Mon Dec 16 18:59:03 GMT 2019 KCOR Start Synoptic Patrol KCOR COMMENT BY berkey: Mon Dec 16 20:22:44 GMT 2019 Swapping out kcor cmaeras for new cameras Images 19:30:11-19:30:56 were a quick distortion grid test with the old cmaera. Focus was not optimized for this test so this may not be the best data. end GENERAL COMMENT BY berkey: Mon Dec 16 21:40:29 GMT 2019 New Cameras installed: TCam is now sn 40256 RCam is now sn 40257 Cameras stages were aligned in X-Y and focus. It was decided that the Tip/tilt was within our alignment tollarence so thi s was not touched. Distortion grid was taken at distortion focus: images 21:06:42-21:08:13 The occulter was then installed the stages were focus on the occulter and the distortion grid was reinstalled with another set of distortion grid data at the occulter foucs 21:27:34-21:28:35. end Mon Dec 16 21:44:15 GMT 2019 SGS Alignment complete Mon Dec 16 21:44:33 GMT 2019 Kcor Focus/alignment program exited Mon Dec 16 21:47:52 GMT 2019 KCOR Start Synoptic Patrol Mon Dec 16 22:02:21 GMT 2019 KCOR End Patrol Mon Dec 16 22:02:22 GMT 2019 KCOR Start Calibration script: c:\kcor\mlso-calibration22deg-20171025.ini Mon Dec 16 22:17:37 GMT 2019 KCOR End Calibration Script Mon Dec 16 22:17:53 GMT 2019 KCOR Start Synoptic Patrol Mon Dec 16 22:17:53 GMT 2019 KCOR Start Synoptic Patrol Mon Dec 16 22:40:35 GMT 2019 KCOR End Patrol Mon Dec 16 22:40:35 GMT 2019 KCOR End Patrol

Mon Dec 16 22:43:33 GMT 2019 Kcor Focus/alignment program exited Mon Dec 16 22:43:38 GMT 2019 Kcor Focus/alignment program exited Mon Dec 16 22:54:35 GMT 2019 SGS Alignment complete Mon Dec 16 22:54:41 GMT 2019 Kcor Focus/alignment program exited GENERAL COMMENT BY berkey: Mon Dec 16 23:59:07 GMT 2019 Seems to be a mix up in polarizaer states. Feels like the modulator is starting up in the wrong mode; but since we swapped cameras it isn't super obvious why it would be modulator related. end GENERAL COMMENT BY berkey: Tue Dec 17 00:56:24 GMT 2019 Looks of troubleshooting. Double checked cameralink cables on Rcam based no a lingering worry that it didnt seat will based on the difficultty I had installing it. Looked ok. Rebooted everything. Traced all the cables to make srue that I didnt swap the camera positions. Eventually I found in pfremote the new cameras were set with 0ms trigger delays and we didnt have interleave trigger/read s selected. Applying a 2ms delay allowing interleaved triggers appears to have got the system running nonimally as of 00:14UT. I think it is possible to get/set these values in the observing code so at some point we should programaticly set these va lues at startup and read back the values to capture in the fits header or somewhere else. end GENERAL COMMENT BY berkey: Tue Dec 17 02:14:24 GMT 2019 Nice morning ok afternoon. Camera swaps in the middle. end ONSITE STAFF: berkey