Mauna Loa Solar Observatory Observer's Log \_\_\_\_\_ Fri Apr 26 16:45:59 GMT 2019 Year: 19 Doy: 116 Observer: berkey WEATHER COMMENT: berkey: Fri Apr 26 16:50:19 GMT 2019 Temp: 42.5f, Humidity: 17%, Pressure: 28.654in, Wind: 4mph from 187degs, Skies: clear end GENERAL COMMENT BY berkey: Fri Apr 26 16:50:33 GMT 2019 PM Blew off Kcor O1 and opned windows upstairs. end Fri Apr 26 17:04:38 GMT 2019 SGS Alignment complete Fri Apr 26 17:04:38 GMT 2019 Kcor Focus/alignment program exited Fri Apr 26 17:10:20 GMT 2019 KCOR Start Synoptic Patrol Fri Apr 26 18:14:20 GMT 2019 KCOR End Patrol Fri Apr 26 18:14:21 GMT 2019 KCOR Start Calibration script: c:\kcor\mlso-calibration22deg-20171025.ini Fri Apr 26 18:29:44 GMT 2019 KCOR End Calibration Script Fri Apr 26 18:30:01 GMT 2019 KCOR Start Synoptic Patrol Fri Apr 26 18:30:02 GMT 2019 KCOR Start Synoptic Patrol Fri Apr 26 19:29:39 GMT 2019 KCOR End Patrol GENERAL COMMENT BY berkey: Fri Apr 26 19:29:51 GMT 2019 Getting into some thin cirrus. end Fri Apr 26 20:06:58 GMT 2019 SGS Alignment complete Fri Apr 26 20:08:01 GMT 2019 Kcor Focus/alignment program exited KCOR COMMENT BY berkey: Sat Apr 27 02:24:07 GMT 2019 Based on some issues we discovered in the Ucomp camera trigger code. I spend this afternoon testing some ideas on how to better handle trigger and modulator siganls to improve the kcor startup consistancy.

Test setup invovled directing a flashlight beam down the kcor tube with the polarizer in the beam.

Initally I attemped multpile clean startup/shutdown cycles. In which the instrument was operated in the proper way. And found consistant startup modes.

I then attemped to mix in a few unclean shutdown cycles in which labview or socketcam were killed to simulated crashing. H ere I still found the same consistant startup modes.

Finally I tried startup/shutdown cycles at various exposure times. Here I mostly found consistant startup modes; but a co uple times .9 and 1ms exposure times lead to other startup modes. The 1ms seemed to heavly favor starting in another modo ulation, while the .9ms mostly started up in the nonimal mode.

More testing is needed by things seem promising.

Changes made for testing have been reverted to the nonimal observing code for weekend science operations. Hopefully in th e coming weeks we can test this will sunlight.

\_\_\_\_end\_\_\_\_ ONSITE STAFF: berkey