
Mauna Loa Solar Observatory Observer's Log

Tue Feb 2 17:18:31 GMT 2021

Year: 21 Doy: 033

Observer: berkey

WEATHER COMMENT: berkey: Tue Feb 02 17:18:47 GMT 2021

Temp: 28.7f, Humidity: 40%, Pressure: 28.766in, Wind: 10mph from 171degs, Skies: clear. Boardwalks icy.

____end____

GENERAL COMMENT BY berkey: Tue Feb 02 17:29:07 GMT 2021

Opened windows upstairs

____end____

GENERAL COMMENT BY berkey: Tue Feb 02 17:29:11 GMT 2021

PM Blew off Kcor O1

____end____

UCoMP COMMENT BY berkey: Tue Feb 02 17:29:54 GMT 2021

Switched the badder nd in front of ucomp to the more tranmissive photographic material instead of the eye safe nd.

____end____

Tue Feb 02 18:02:49 GMT 2021 Kcor Focus/alignment program exited

GENERAL COMMENT BY berkey: Tue Feb 02 18:06:38 GMT 2021

Kcor running. Verified Polarization: Mid, Bright, Dark, Mid.

____end____

Tue Feb 02 20:18:47 GMT 2021 KCOR Start Calibration script: c:\kcor\mlso-calibration22deg-20171025.ini

Tue Feb 02 20:34:02 GMT 2021 KCOR End Calibration Script

Tue Feb 02 21:14:55 GMT 2021 Kcor Focus/alignment program exited

WEATHER COMMENT: berkey: Wed Feb 03 00:09:06 GMT 2021

Kcor is stopped. Closed the dome shutter doors and windows.

Dark gray Stratus clouds moved into view for the east. Orographic clouds moved in from the west northwest and the entire sky became overcast. Dense fog with sporadic snow has completely covered the summit.

____end____

UCoMP PROBLEM COMMENT BY berkey : Wed Feb 03 02:36:34 GMT 2021

UCoMP O1 motor appears to have stopped working.

A visual inspection of the O1 showed it in the wrong part of its range. O1 reported as in position 0 (Front of travel) but it was actually mid-travel. Using the low level mDrive commands it was found that the O1 could be moved in the + direction but not in the - direction beyond where ever it last was.

Eventually it seemed like a good idea to reset the drive software and re-download a copy we had in subversion. During this process the SEM Terminal software lost contact with the mdrive and no further interventions were able to recover the serial interface. The computer and the mdrive were both rebooted multiple times connector connections where check.

We have a support request with the manufacture but based on reading of the online manuals there is no obvious way to recover from this.

____end____

GONG COMMENT BY berkey: Wed Feb 03 02:36:49 GMT 2021

Gong Turret stowed and covered.

____end____

UCoMP COMMENT BY berkey: Wed Feb 03 02:46:20 GMT 2021

UCoMP Badder filter removed from the front of the telescope.

More O1 range of travel engineering today. We have have gotten a workable O1 focus position data set for all filters other than the 530.3. But in light of the O1 miss-reporting this afternoon we should probably not trust the reported focus positions. But it was good to see that enough signal to find the peak focus for the non-530.3 wavelengths.

The manual occulter alignment code was tested while the nd filter was in the beam. It had a couple bugs that didn't actually allow for saving the new occulter position, these have now cleared up and we can align the occulter move it out of the beam then back in again keeping the good alignment. Currently a "best" alignment is read from the instrument_config.ini file at startup and until the occulter is manually aligned the in beam position will be the one from the ini file; but we do not have a automatic means for storing the new version back in the ini file. So this means we revert to the saved values every time we restart the mechanism code. If this is a problem operationally there is a scheme to record these back in the ini file (or somewhere else) after every occulter alignment.

Cleaned up the front panel of the mechanism. Engineering buttons and leds are now laid up as seen on the telescope from Diffuser->calibration stage. The logic of the cover was also cleaned up as it was reporting open when closed and closed when open.

____end____

ONSITE STAFF: berkey, mcotter