
Mauna Loa Solar Observatory Observer's Log

Mon Mar 28 17:13:03 GMT 2022

Year: 22 Doy: 087

Observer: mcotter

WEATHER COMMENT: mcotter: Mon Mar 28 17:15:33 GMT 2022

Temp: 40.9f, Humidity: 28%, Pressure: 28.668in, Wind: 4mph from 123 degs, Skies: Relatively clear skies but slightly hazy with a thick gray inversion very noticeable on the horizon just above Haleakala. Bits of high altitude Cirrus clouds scattered in different areas of the sky.

____end____

GENERAL COMMENT BY mcotter: Mon Mar 28 17:15:38 GMT 2022

Opened windows upstairs

____end____

GENERAL COMMENT BY mcotter: Mon Mar 28 17:15:44 GMT 2022

PM Blew off UCOMP 01

____end____

GENERAL COMMENT BY mcotter: Mon Mar 28 17:15:49 GMT 2022

PM Blew off Kcor 01

____end____

Mon Mar 28 17:17:37 GMT 2022 Running UCOMP Cookbook all_wavelength_coronal_flat.cbk line 0

Mon Mar 28 17:21:22 GMT 2022 Kcor Focus/alignment program exited

UCOMP COMMENT BY mcotter: Mon Mar 28 17:24:14 GMT 2022

Ucomp instrument now running.

____end____

KCOR COMMENT BY mcotter: Mon Mar 28 17:25:43 GMT 2022

Kcor instrument now running, though the sky is quite bright.

Polarization checked good: Mid, Bright, Dark, Mid.

____end____

Mon Mar 28 17:33:11 GMT 2022 UCOMP Paused for clouds

Mon Mar 28 19:16:26 GMT 2022 UCOMP Restarted from pause

Mon Mar 28 19:16:28 GMT 2022 Running UCOMP Cookbook all_wavelength_coronal.cbk line 0

Mon Mar 28 19:36:45 GMT 2022 UCOMP Paused for clouds

Mon Mar 28 19:50:39 GMT 2022 UCOMP Restarted from pause

Mon Mar 28 19:53:37 GMT 2022 UCOMP Paused for clouds

Mon Mar 28 20:02:04 GMT 2022 UCOMP Restarted from pause

Mon Mar 28 20:06:44 GMT 2022 Running UCOMP Cookbook all_wavelength_coronal.cbk line 0

Mon Mar 28 20:09:59 GMT 2022 UCOMP Paused for clouds

WEATHER COMMENT: mcotter: Mon Mar 28 21:13:15 GMT 2022

All morning bands of high altitude Cirrus clouds have been blowing from west to east making their way through the viewing area of the instruments. In order to maximize data being taken I have been starting and stopping the instruments during small breaks of blue (clear) sky conditions. While this is a bit time consuming, the data taken by the instruments is adding up. There appears on the satellite images a large pattern of Cirrus still coming our way, so at some point it may get too thick to observe.

____end____

WEATHER COMMENT: mcotter: Mon Mar 28 21:21:09 GMT 2022

Along with the bands of high altitude Cirrus making its way in from the west, Orthographic clouds are beginning to come into the viewing area from the north-northeast. Additionally, clouds are starting to form then disperse directly above the observatory and aerosol levels have increased dramatically, making the sky very bright at this time.

____end____

GENERAL COMMENT BY mcotter: Mon Mar 28 21:31:20 GMT 2022

The dome shutter doors and windows have been closed at this time due to adverse sky conditions.

____end____

GENERAL COMMENT BY mcotter: Tue Mar 29 02:32:27 GMT 2022

It has been overcast since late morning, so Ben and I took some time to discuss improvements to the spar performance as it relates to flexure, weights & moments and issues relating to instrument mounting. While doing this we wanted to determine the amount of flexure that was taking place on the base plate of the Kcor instrument where the detectors are mounted relative to the plane surface of the spar. We had previously mounted a 12' long x 3" wide x 1" thick length of extruded aluminum (80x20) along the north face corner of the spar that is tangent with the south spar plane to give us additional areas to mount equipment. The extruded aluminum extends approximately 2' lower than the bottom

m of the spar. We were able to attach a 90 deg bracket to the bottom section of the extruded aluminum that sits perpendicular to the bottom face of the Kcor detector back plate near its bottom edge. Keeping the spar pointing at zenith we mounted a bolt through the bracket and tightened it into position with the head of the bolt just making contact with the Kcor back plate. When we pointed the spar at east horizon we were able to measure a gap between the Kcor back plate and the bolt head of approximately .015". We believe the flexure to be approximately this value. At this orientation we repositioned the head of the bolt to the just touch the Kcor back plate. When we returned the spar to zenith there was no gap between the bolt head and plate, but a slight bit of positive engagement between the two surfaces. It is cloudy this afternoon so we were unable to confirm if this improved the flexure that we see in the Kcor image data, but we are interested to see the plots for this anomaly the next time we collect data to confirm if this has made a positive change in the flexure.

____end____

GENERAL COMMENT BY mcotter: Tue Mar 29 02:33:24 GMT 2022

Skies are quite overcast with a mist blowing through the area.

____end____

GENERAL COMMENT BY mcotter: Tue Mar 29 02:34:57 GMT 2022

The day started off hazy with high altitude Cirrus prevalent across much of the sky. By late morning clouds blew up from the Saddle Valley and the sky became completely overcast.

____end____

Tue Mar 29 02:38:22 GMT 2022 UCoMP Restarted from pause

ONSITE STAFF: