
Mauna Loa Solar Observatory Observer's Log

Mon Feb 14 17:41:14 GMT 2022

Year: 22 Doy: 045

Observer: mlso

WEATHER COMMENT: mcotter: Mon Feb 14 17:43:19 GMT 2022

Temp: 32.1f, Humidity: 20%, Pressure: 28.65in, Wind: 14mph from 257deg, Skies: Clear but slightly hazy skies in all directions. Cold wind blowing from the south-southwest. Inversion layer visible on the horizon above Haleakala.

____end____

Mon Feb 14 17:53:13 GMT 2022 Running UCOMP Cookbook dark_80ms_2beam_16sums_BOTH.cbk line 0

Mon Feb 14 17:53:42 GMT 2022 Kcor Focus/alignment program exited

Mon Feb 14 17:54:30 GMT 2022 Running UCOMP Cookbook 530_Scan.cbk line 0

UCOMP COMMENT BY mcotter: Mon Feb 14 17:55:34 GMT 2022

Ucomp instrument started.

____end____

Mon Feb 14 17:56:50 GMT 2022 Running UCOMP Cookbook 637_Scan.cbk line 0

Mon Feb 14 17:58:40 GMT 2022 Running UCOMP Cookbook 691_Scan.cbk line 0

Mon Feb 14 18:00:29 GMT 2022 Running UCOMP Cookbook 706_Scan.cbk line 0

Mon Feb 14 18:02:19 GMT 2022 Running UCOMP Cookbook 789_Scan.cbk line 0

Mon Feb 14 18:04:08 GMT 2022 Running UCOMP Cookbook 1074_Scan.cbk line 0

Mon Feb 14 18:05:58 GMT 2022 Running UCOMP Cookbook 1079_Scan.cbk line 0

Mon Feb 14 18:07:47 GMT 2022 Running UCOMP Cookbook all_wavelength_coronal_flat.cbk line 0

KCOR COMMENT BY mcotter: Mon Feb 14 18:15:56 GMT 2022

Kcor instrument now started.

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

____end____

UCOMP COMMENT BY mlso: Mon Feb 14 18:45:02 GMT 2022

Updated 530/706 recipes to look at 5 waves (vs 13)

____end____

Mon Feb 14 19:00:35 GMT 2022 Running UCOMP Cookbook all_wavelength_coronal.cbk line 0

KCOR COMMENT BY mcotter: Mon Feb 14 19:04:43 GMT 2022

Ben has automated the X & Y SGS offsets input values using data received from the FITS files averaged out over time against a known threshold level of intensity of the sky. In the morning, and during various parts of the day, the threshold level of the light intensity changes as the Sun rises in the sky and with the amount of aerosols that are present. If the threshold level is too high, or too low, it will affect the automated SGS offset values causing the occulter to bias one side over the other making the corona ring non symmetrical in the images. Lowering the threshold level to "10000" in the morning and then increasing it over the course of the day will correct for this non-linearity in the automated SGS offset values.

____end____

****Possible CME in Progress mcotter**** : Mon Feb 14 19:36:35 GMT 2022

Observers report with low to medium confidence a CME seeing launching near PA 265 deg, with a minimum width of 10 deg, at UT time 18:50:54. The event is much more pronounced in the Kcor Differential Image.

____end____

Mon Feb 14 20:10:38 GMT 2022 KCOR Start Calibration script: c:\kcor\mlso-calibration22deg-20171025.ini

Mon Feb 14 20:25:51 GMT 2022 KCOR End Calibration Script

KCOR COMMENT BY mcotter: Mon Feb 14 21:09:54 GMT 2022

Increased the threshold from "10000" to "15000" for the SGS automated guider offset baseline intensity level, as per my earlier log post and overall settings discussion with Ben this morning.

This increase in the threshold level was accomplished at approximately 11:00am HST.

____end____

Mon Feb 14 22:08:31 GMT 2022 Running UCOMP Cookbook all_wavelength_coronal.cbk line 40

Mon Feb 14 22:08:32 GMT 2022 Running UCOMP Cookbook dark_80ms_2beam_16sums_BOTH.cbk line 0

Mon Feb 14 22:09:49 GMT 2022 Running UCOMP Cookbook 530_Pol_Calibrate.cbk line 0

GENERAL COMMENT BY mcotter: Mon Feb 14 22:10:28 GMT 2022

Pulled the Kcor O1 for cleaning.

____end____

Mon Feb 14 22:14:14 GMT 2022 Running UCOMP Cookbook 637_Pol_Calibrate.cbk line 0

Mon Feb 14 22:18:18 GMT 2022 Running UCOMP Cookbook 691_Pol_Calibrate.cbk line 0
Mon Feb 14 22:22:22 GMT 2022 Running UCOMP Cookbook 706_Pol_Calibrate.cbk line 0
Mon Feb 14 22:26:26 GMT 2022 Running UCOMP Cookbook 789_Pol_Calibrate.cbk line 0
Mon Feb 14 22:30:29 GMT 2022 Running UCOMP Cookbook 1074_Pol_Calibrate.cbk line 0
Mon Feb 14 22:34:33 GMT 2022 Running UCOMP Cookbook 1079_Pol_Calibrate.cbk line 0
Mon Feb 14 22:38:37 GMT 2022 Running UCOMP Cookbook waves_1074_1hour.cbk line 0
Mon Feb 14 22:58:12 GMT 2022 Running UCOMP Cookbook waves_1074_1hour.cbk line 36
Mon Feb 14 23:14:55 GMT 2022 UCOMP Paused for clouds

KCOR COMMENT BY mcotter: Tue Feb 15 02:00:13 GMT 2022

PM Washed Kcor 01.

For the first time, under Ben's supervision, I removed, cleaned and reinstalled the Kcor 01 lens independently. The Kcor NRGF Image had well defined "Bullet Holes" present at approximately the 210 deg location, near the outer edge of the NRGF image. Unfortunately the Kcor 01 lens has pitting in some areas, so we are unsure if the Bullet Holes that we are seeing are from permanent blemishes on the lens or foreign material stuck to the lens, because we have cleaned the 01 lens before and the Bullet Holes persist. This time after we cleaned the Kcor 01 lens we rotated the lens approximately -45 deg (counter clockwise) to see if we could locate the Bullet Holes (if they are still present) more toward the south pole of the Sun (as observed in the Kcor NRGF image) and away from the equatorial area where most of the activity takes place. It is cloudy now so sky conditions do not permit us to see if we have been able to accomplish what we intended. If conditions are good tomorrow morning we should be able to tell immediately if we were successful.

____end____

GENERAL COMMENT BY mcotter: Tue Feb 15 02:05:43 GMT 2022

The morning was clear, though slightly hazy. We were able to run Kcor and Ucomp until approximately 11:30am HST, when at this time we removed the Kcor 01 lens for cleaning. We installed the spare Kcor 01 lens into the instrument so that the balance could be maintained and we were able to run the Ucomp instrument while the Kcor 01 was being cleaned. Clouds began to move into the observatory area by mid afternoon, followed by a light rain, mist, fog and then finally small hail.

Overall a very good and productive day.

____end____

GENERAL COMMENT BY mcotter: Tue Feb 15 02:07:32 GMT 2022

Happy St. Valentines Day!! XXOO

____end____

ONSITE STAFF: berkey, mcotter