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Mauna Loa Solar Observatory Observer's Log  
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Tue Mar 1 17:14:45 GMT 2022

Year: 22 Doy: 060

Observer: mcotter

GENERAL COMMENT BY mcotter: Tue Mar 01 17:23:04 GMT 2022

Opened windows upstairs

\_\_\_\_end\_\_\_\_

GENERAL COMMENT BY mcotter: Tue Mar 01 17:23:13 GMT 2022

PM Blew off UCoMP 01

\_\_\_\_end\_\_\_\_

GENERAL COMMENT BY mcotter: Tue Mar 01 17:23:18 GMT 2022

PM Blew off Kcor 01

\_\_\_\_end\_\_\_\_

WEATHER COMMENT: mcotter: Tue Mar 01 17:24:58 GMT 2022

Temp: 43.3f, Humidity: 10%, Pressure: 28.707in, Wind: 13mph from 207degs, Skies: Clear but hazy skies in all directions. Pinkish gray inversion layer visible high on the horizon well above Haleakala. Moderate winds out of the southwest.

Beautiful morning!

\_\_\_\_end\_\_\_\_

Tue Mar 01 17:27:04 GMT 2022 Running UCOMP Cookbook all\_wavelength\_coronal\_flat.cbk line 0

UCOMP COMMENT BY mcotter: Tue Mar 01 17:28:16 GMT 2022

Ucomp instrument up and running.

\_\_\_\_end\_\_\_\_

Tue Mar 01 17:42:40 GMT 2022 Running UCOMP Cookbook all\_wavelength\_coronal.cbk line 0

Tue Mar 01 17:43:55 GMT 2022 Kcor Focus/alignment program exited

Tue Mar 01 18:07:14 GMT 2022 Running UCOMP Cookbook all\_wavelength\_coronal.cbk line 15

Tue Mar 01 18:12:29 GMT 2022 Running UCOMP Cookbook all\_wavelength\_coronal.cbk line 0

Tue Mar 01 18:40:07 GMT 2022 Running UCOMP Cookbook all\_wavelength\_coronal.cbk line 0

Tue Mar 01 19:07:47 GMT 2022 Running UCOMP Cookbook all\_wavelength\_coronal\_flat.cbk line 0

Tue Mar 01 19:23:05 GMT 2022 Running UCOMP Cookbook waves\_1074\_1hour.cbk line 0

Tue Mar 01 19:29:55 GMT 2022 Running UCOMP Cookbook waves\_1074\_1hour.cbk line 11

Tue Mar 01 20:09:32 GMT 2022 KCOR Start Calibration script: c:\kcor\mlso-calibration22deg-20171025.ini

Tue Mar 01 20:09:30 GMT 2022 Running UCOMP Cookbook waves\_1074\_1hour.cbk line 79

Tue Mar 01 20:24:46 GMT 2022 KCOR End Calibration Script

\*\*\*\*EVENT COMMENT BY mcotter\*\*\*\* : Tue Mar 01 20:30:55 GMT 2022

Fast jet seen launching in the kcor diff images near PA100 at 18:20ut

\_\_\_\_end\_\_\_\_

Tue Mar 01 20:35:51 GMT 2022 Running UCOMP Cookbook all\_wavelength\_coronal.cbk line 0

Tue Mar 01 21:03:39 GMT 2022 Running UCOMP Cookbook all\_wavelength\_coronal\_flat.cbk line 0

Tue Mar 01 21:18:57 GMT 2022 Running UCOMP Cookbook all\_wavelength\_coronal.cbk line 0

GENERAL COMMENT BY mcotter: Tue Mar 01 21:25:47 GMT 2022

Facility support arrived onsite a short time ago and Ben completed a walk through of the observatory identifying various areas of the facility. The facility personal have begun working on the various areas of upgrade.

\_\_\_\_end\_\_\_\_

WEATHER COMMENT: mcotter: Tue Mar 01 21:34:35 GMT 2022

Temp: 53.1f, Humidity: 24%, Pressure: 28.74in, Wind: 11mph from 334degs, Skies: So far the skies remain clear in all directions. Winds have dropped off a bit and are now blowing from the north-northwest.

\_\_\_\_end\_\_\_\_

Tue Mar 01 21:42:39 GMT 2022 Running UCOMP Cookbook all\_wavelength\_coronal.cbk line 15

Tue Mar 01 21:47:55 GMT 2022 Running UCOMP Cookbook all\_wavelength\_coronal.cbk line 0

Tue Mar 01 22:17:20 GMT 2022 Running UCOMP Cookbook all\_wavelength\_coronal.cbk line 18

Tue Mar 01 22:17:21 GMT 2022 Running UCOMP Cookbook all\_wavelength\_coronal.cbk line 0

Tue Mar 01 22:42:00 GMT 2022 UCoMP Paused for clouds

Tue Mar 01 22:43:28 GMT 2022 UCoMP Restarted from pause

Tue Mar 01 22:46:32 GMT 2022 Running UCOMP Cookbook all\_wavelength\_coronal\_flat.cbk line 0

KCOR COMMENT BY mcotter: Tue Mar 01 22:56:50 GMT 2022

Since adopting the SGS Automatic Guider Zero-Point Offset program I have been closely observing and attempting to determine how well the occulter centering actually is and how

w well it stays centered over the course of the day. My last few days working I have observed, at times, the light being more pronounced and brighter on one side of the occulter than the other. When speaking with Ben about this phenomenon Ben said that by adjusting the "Threshold" level for the SPAR the concentricity of the corona light around the occulter may be improved. This is because the actual light intensity increases during the course of the day. When I started out this morning the SGS threshold level was set to 10000. At mid morning, approximately 10:00 am HST I increased the threshold to 15000. At approximately 11:30 am HST I again increased the threshold level to 20000. Again Ben went through the process with me on how the values are calculated and how the "Offsets", "Threshold" levels and "Saturation" levels are applied. Ben also pulled up an image of the Ucomp-Threshold level coronal images showing the brightest pixels levels displayed. Using this image we discussed the optimum intensity levels and how they vary. So far with the Threshold level set at 20000 the pixels saturation levels and concentricity appears to be aligned and stable.

\*NOTE\*: The Threshold level and the Saturation level should be set to the same value.  
Max Saturation value: 100000.

\_\_\_\_end\_\_\_\_

Tue Mar 01 23:02:01 GMT 2022 Running UCOMP Cookbook all\_wavelength\_coronal.cbk line 0

Tue Mar 01 23:15:00 GMT 2022 UCOMP Paused for clouds

WEATHER COMMENT: mcotter: Tue Mar 01 23:18:01 GMT 2022

Aerosols are increasing greatly and some small wisps of Cirrus clouds are beginning to form and pass through the viewing area.

Both instruments are currently paused due to sky conditions.

\_\_\_\_end\_\_\_\_

Tue Mar 01 23:21:42 GMT 2022 UCOMP Restarted from pause

WEATHER COMMENT: mcotter: Tue Mar 01 23:25:16 GMT 2022

Aerosols are high but I have restarted the Kcor instrument and so far the images look acceptable.

Kcor and Ucomp again up and running.

\_\_\_\_end\_\_\_\_

Tue Mar 01 23:32:06 GMT 2022 UCOMP Paused for clouds

WEATHER COMMENT: mcotter: Tue Mar 01 23:35:20 GMT 2022

Aerosols are increasing greatly and the images are beginning to look washed out. Additionally, Cirrus clouds are beginning to become more prevalent and are now scattered over the observatory and viewing area.

\_\_\_\_end\_\_\_\_

KCOR COMMENT BY mcotter: Tue Mar 01 23:35:49 GMT 2022

Kcor has been stopped due to sky conditions.

\_\_\_\_end\_\_\_\_

UCOMP COMMENT BY mcotter: Tue Mar 01 23:36:13 GMT 2022

Ucomp has been paused due to sky conditions.

\_\_\_\_end\_\_\_\_

Wed Mar 02 00:38:39 GMT 2022 UCOMP Restarted from pause

Wed Mar 02 00:46:57 GMT 2022 UCOMP Paused for clouds

GENERAL COMMENT BY mcotter: Wed Mar 02 02:17:14 GMT 2022

PM Blew off Kcor O1.

Looking at the nrgf images there is a new large bullet hole in the NE that appears to move NW over time. O1 inspection showed a poorly attached piece of maybe be cotton fibers about 2" from the west edge of the O1. It is unclear if this is the source of the large bullet hole; and if it was the source if it had moved since we were pointing at the sun imagine the big bullet hole.

\_\_\_\_end\_\_\_\_

ONSITE STAFF: berkey, mcotter, ucar facilities: rebecca,mark,gordon