
Mauna Loa Solar Observatory Observer's Log

Mon Jun 13 16:26:14 GMT 2022

Year: 22 Doy: 164

Observer: mlso

WEATHER COMMENT: mcotter: Mon Jun 13 16:30:06 GMT 2022

Temp: 41.8f, Humidity: 32%, Pressure: 28.777in, Wind: 14mph from 131degs, Skies: Mostly clear but slightly hazy skies. Cold gusty winds from the southeast. The inversion layer is visible on the horizon well below Haleakala, but noticeable above the inversion layer is a layer of a brownish orange haze about the level of Haleakala; possibly VOG.

____end____

GENERAL COMMENT BY mcotter: Mon Jun 13 16:44:27 GMT 2022

PM Blew off UCOMP 01

____end____

GENERAL COMMENT BY mcotter: Mon Jun 13 16:44:34 GMT 2022

PM Blew off Kcor 01

____end____

GENERAL COMMENT BY mcotter: Mon Jun 13 16:46:46 GMT 2022

I left the windows closed because of the gusting winds, also the winds are more from the south than southeast so I was able to position the dome slit opening more toward the east to inhibit wind shake.

____end____

GENERAL COMMENT BY mcotter: Mon Jun 13 16:52:05 GMT 2022

Mouse stopped working.

I needed to restart the KVM computer.

____end____

Mon Jun 13 16:52:46 GMT 2022 Kcor Focus/alignment program exited

Mon Jun 13 17:39:26 GMT 2022 Running UCOMP Cookbook all_wavelength_coronal_flat.cbk line 0

Mon Jun 13 17:41:50 GMT 2022 Running UCOMP Cookbook all_wavelength_coronal_flat.cbk line 2

*UCOMP PROBLEM COMMENT BY mcotter** : Mon Jun 13 17:55:04 GMT 2022

Ucomp came up apparently normally but it did not know the status of the occulter position. I tried moving the occulter in and out of the beam but nothing happened and the LED's remained out. I went to the Mech-Controller Home/Manual move menu and tried to find the position but the field read "0" and I could not get it to move or tell me where it was located. I tried restarting the Ucomp controller program but when I restarted the program it came up with the same problem. I manually pulled the power for the Standa HUB located at the back of the rack waited 15 seconds and then plugged it back in again, but this did not effect the issue (I did not think it would but I thought it was worth the time to try). I checked the USB cable at the back of the computer that controls this function to ensure that it was seated properly and it appeared to be fine. I manually restarted the Ucomp computer by holding the power button on the front of the panel, waiting 30 seconds then powering back up via the front panel power button. The computer came back up as normal. I restarted the Ucomp-Controller program and it apparently came up normally and now the Mech-Controller knows where it is at and the Occulter in LED is illuminated, but now the Camera LED has not come up and it appears the Ucomp-Controller has lost contact with the Camera. I manually pulled the power connection for the camera as via the power plug at the back of the rack, waited 15 seconds and plugged it back in. This has had no effect on the camera LED. I restarted the Ucomp computer via the "Windows" button located on the desktop and the computer appears to have come up normally; the Camera LED is illuminated meaning the Ucomp-Controller knows its status, but I got a couple of error messages this time telling me that the Standa stage for the Occulter Y is missing and the Ucomp-Controller does not know its status. I tried looking at the engineering tab to see if I could determine where the Occulter Y position was located but it said "0". I tried manually moving the Occulter Y position and then seeing if it moved or I could tell where it was at but it remained unresponsive. This time I closed down the Ucomp-Controller program and exited the Labview program, then restarted the labview program. This time everything came up normal...HOORAY!!!

I am uncertain why this carousel of problems popped up this morning but I am glad that it is resolved. One point I would like to reiterate is the need to reassess the cabling for the instruments. It is not unheard of or uncommon to have "Signal Reflection" when using multiple connections and daisy chaining cables together for the hookup up of instrumentation. Earlier this morning I had an issue with the KVM computer which required me to restart the computer, but it should be noted that this happens to me multiple times

s on some days and my normal fix for this situation is to unplug the cables that are daisy chained together at the back of the monitors and plug them back again; this resolves the issue over half the time. If we had a Time Domain Reflectometer (TDR) we could take a due diligence look into what is happening in our cables, but even without this metric we should do an evaluation of our cables.

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Mon Jun 13 17:56:08 GMT 2022 Running UCOMP Cookbook all_wavelength_coronal.cbk line 0
KCOR COMMENT BY mcotter: Mon Jun 13 18:02:51 GMT 2022

This morning when I opened the dome I left the dome slit further east than normal to help with the gusting winds. In doing this the dome slit did not auto advance properly and I noticed the Kcor Synoptic images had some vignetting in them. I have corrected this by repositioning the dome slit a little further south and better centering the spar to dome slit configuration.

I will continue to monitor the dome slit for correct auto advancing.
The Kcor Synoptic images are now fine and look good.

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GENERAL COMMENT BY mcotter: Mon Jun 13 18:18:33 GMT 2022

Everything appears to be running well and observation images look good for both Kcor and Ucomp.

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Mon Jun 13 18:20:23 GMT 2022 Running UCOMP Cookbook all_wavelength_coronal.cbk line 15
Mon Jun 13 18:25:39 GMT 2022 Running UCOMP Cookbook all_wavelength_coronal.cbk line 0
****Possible CME in Progress mcotter**** : Mon Jun 13 18:48:03 GMT 2022

Observer reports with MEDIUM confidence a CME observed launching near PA 120 deg, with a minimum width of 10 deg, at UT time 18:28:04.

This event is faint and occurs rather quickly, but observation of the Kcor NRGF images definitely shows some activity going on in this location.

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Mon Jun 13 18:53:18 GMT 2022 Running UCOMP Cookbook all_wavelength_coronal.cbk line 0
Mon Jun 13 19:20:54 GMT 2022 Running UCOMP Cookbook all_wavelength_coronal_flat.cbk line 0

Mon Jun 13 19:36:05 GMT 2022 Running UCOMP Cookbook waves_1074_1hour.cbk line 0

WEATHER COMMENT: mcotter: Mon Jun 13 19:46:58 GMT 2022

Temp: 51.1f, Humidity: 21%, Pressure: 28.736in, Wind: 17mph from 161degs, Skies: The skies remain clear and the wind continues to be cold and gusty, blowing strongly from the southeast. Observing the amplifier readouts on the spar controls shows slight buffeting at times of the spar.

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Mon Jun 13 20:13:17 GMT 2022 KCOR Start Calibration script: c:\kcor\mlso-calibration22deg-20171025.ini

WEATHER COMMENT: mcotter: Mon Jun 13 20:25:30 GMT 2022

A large dust storm can be observed in the western Saddle Valley with dust very noticeable blowing up from the valley floor. The dust appears to be going up into the atmosphere to approximately 10,000' elevation and so far seems to be confined to the western Saddle Valley to the Kohala Coast (leeward side of the Big Island).

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Mon Jun 13 20:28:31 GMT 2022 KCOR End Calibration Script

Mon Jun 13 20:45:55 GMT 2022 Running UCOMP Cookbook all_wavelength_coronal.cbk line 0

Mon Jun 13 21:14:21 GMT 2022 Running UCOMP Cookbook all_wavelength_coronal_flat.cbk line 0

Mon Jun 13 21:29:36 GMT 2022 Running UCOMP Cookbook all_wavelength_coronal.cbk line 0

Mon Jun 13 21:57:35 GMT 2022 Running UCOMP Cookbook all_wavelength_coronal.cbk line 0

Mon Jun 13 22:25:06 GMT 2022 Running UCOMP Cookbook all_wavelength_coronal.cbk line 0

Mon Jun 13 22:52:37 GMT 2022 Running UCOMP Cookbook all_wavelength_coronal_flat.cbk line 0

GONG COMMENT BY mcotter: Mon Jun 13 23:03:30 GMT 2022

GONG replacement fan arrived.

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Mon Jun 13 23:07:50 GMT 2022 Running UCOMP Cookbook all_wavelength_coronal.cbk line 0

Mon Jun 13 23:35:51 GMT 2022 Running UCOMP Cookbook all_wavelength_coronal.cbk line 0

Tue Jun 14 00:03:39 GMT 2022 Running UCOMP Cookbook all_wavelength_coronal.cbk line 0

Tue Jun 14 00:31:28 GMT 2022 Running UCOMP Cookbook all_wavelength_coronal_flat.cbk line 0

Tue Jun 14 00:46:39 GMT 2022 Running UCOMP Cookbook all_wavelength_coronal.cbk line 0

WEATHER COMMENT: mcotter: Tue Jun 14 01:02:16 GMT 2022

Aerosols have increased significantly as can be observed in the Kcor NRGF and Kcor Quicklook images.

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Tue Jun 14 01:14:26 GMT 2022 Running UCOMP Cookbook all_wavelength_coronal.cbk line 0
Tue Jun 14 01:35:54 GMT 2022 Running UCOMP Cookbook all_wavelength_coronal.cbk line 14
Tue Jun 14 01:43:41 GMT 2022 Running UCOMP Cookbook all_wavelength_coronal.cbk line 0
Tue Jun 14 02:11:12 GMT 2022 Running UCOMP Cookbook all_wavelength_coronal_flat.cbk line 0

GENERAL COMMENT BY mcotter: Tue Jun 14 02:21:01 GMT 2022

Aerosols are continuing to rise and the images quality is getting poorer.

I am stopping the instruments at this point.

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WEATHER COMMENT: mcotter: Tue Jun 14 02:25:22 GMT 2022

The dust storm that I referred to earlier has really kicked a lot of debris into the air, so much so that the shoreline is completely obscured by the dust. Additionally, it appears to have gotten very high into the atmosphere and seems like it is higher than the level of the observatory.

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GENERAL COMMENT BY mcotter: Tue Jun 14 03:26:52 GMT 2022

Earlier today I had to restart the KVM computer because the mouse stopped working. When the system came up it appeared to be running fine. After I got the instrument running and observing I went back to the SGS screen because the GUI looked a little blurry. I went to the display properties and tried changing the aspect ratio a few times which did help some but was not quite correct. I finally selected one of the aspect ratio inputs from the pull down menu and when it switched over the screen just appeared black with a GUI stating that "The current input timing is not supported by the monitor display. Please change your input timing to another aspect ration". It appeared that the spar was tracking normally so I did not want to start trouble shooting the problem then because I would have had to stop the spar tracking. I left the instrument running for the rest of the day with no problem other than the SGS screen being black. Once I shut down the instruments I started trouble shooting the problem. I was able to get the computer to start up in a "Safe Mode", then went onto try and start the system in a low resolution display mode. I was able to manually change the aspect ration in this mode but when I restarted the computer it went back to the black screen. I did not feel comfortable trying other items such as "System Repair" because I did not want to cause any more problems. Ben and I will be working together tomorrow morning and I suspect Ben will know immediately how to get the aspect ratio for the video back to operation.

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GENERAL COMMENT BY mcotter: Tue Jun 14 03:27:12 GMT 2022

Good day except for some computer issues.

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ONSITE STAFF: mcotter