

-----  
Mauna Loa Solar Observatory Observer's Log  
-----

Sat Oct 9 17:00:13 GMT 2021

Year: 21 Doy: 282

Observer: mlso

WEATHER COMMENT: mcotter: Sat Oct 09 17:11:59 GMT 2021

Temp: 44.5f, Humidity: 31%, Pressure: 28.63in, Wind: 18mph from 113degs, Skies: Fog and rain on the Saddle Road with fog, rain and mist upto the 10,500' level. Heavy Cumulus and Stratus clouds above the level of the observatory but the clouds are still to the east of the observatory. Clear skies overhead for now. Steady cold wind blowing from the southeast.

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

GENERAL COMMENT BY mcotter: Sat Oct 09 17:12:06 GMT 2021

Opened windows upstairs

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

GENERAL COMMENT BY mcotter: Sat Oct 09 17:12:24 GMT 2021

PM Blew off UCOMP O1

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

GENERAL COMMENT BY mcotter: Sat Oct 09 17:12:31 GMT 2021

PM Blew off Kcor O1

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

GENERAL COMMENT BY mcotter: Sat Oct 09 17:13:46 GMT 2021

It is a bit windy and clouds are on the eastern horizon but I have opened the dome anyways as we may be able to get some time in observing.

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

Sat Oct 09 17:19:31 GMT 2021 Kcor Focus/alignment program exited

Sat Oct 09 17:23:25 GMT 2021 Running UCOMP Cookbook dark\_80ms\_2beam\_16sums\_BOTH.cbk line 0

Sat Oct 09 17:24:51 GMT 2021 Running UCOMP Cookbook 637\_Scan.cbk line 0

Sat Oct 09 17:27:21 GMT 2021 Running UCOMP Cookbook 656\_Scan.cbk line 0

KCOR COMMENT BY mcotter: Sat Oct 09 17:28:34 GMT 2021

I started the Kcor instrument, though the sky is a little bright. I ran the focus routine three times and each time the parabola came out smooth but in the opposite direction. The focal length came out at 133.52, so I continued with the Kcor St and Alone Image Acquisition routine and the images, though slightly bright, look good.

Kcor now running.

SGS offsets: X(RA): -130, Y(Dec): 85.

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

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

UCOMP COMMENT BY mcotter: Sat Oct 09 17:29:09 GMT 2021

Ucomp now running.

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

Sat Oct 09 17:29:29 GMT 2021 Running UCOMP Cookbook 789\_Scan.cbk line 0

Sat Oct 09 17:31:37 GMT 2021 Running UCOMP Cookbook 1074\_Scan.cbk line 0

Sat Oct 09 17:33:46 GMT 2021 Running UCOMP Cookbook 1079\_Scan.cbk line 0

Sat Oct 09 17:35:52 GMT 2021 Running UCOMP Cookbook 1083\_Scan.cbk line 0

Sat Oct 09 17:37:58 GMT 2021 Running UCOMP Cookbook all\_wavelength\_coronal\_flat.cbk line 0

GENERAL COMMENT BY mcotter: Sat Oct 09 17:57:24 GMT 2021

PM Blew off Kcor Field Lens.

There are some artifacts in the Kcor NRGF image. They have a well defined shape and in focus, so I blew off the Kcor Field Lens in an attempt to remove them from the image. Though I can see that some artifacts at the bottom of the image have in

deed been effected from blowing off the Field Lens, the artifact that I was trying to affect have not moved. They almost appear to be bad pixels, as they are well defined pinpoint locations located at approximately 45 deg PA, 255 deg PA, 265 deg PA and 315 deg PA.

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

Sat Oct 09 18:04:04 GMT 2021 Running UCOMP Cookbook all\_wavelength\_coronal.cbk line 0  
Sat Oct 09 19:06:06 GMT 2021 UCOMP Paused for clouds  
Sat Oct 09 19:12:30 GMT 2021 UCOMP Restarted from pause  
Sat Oct 09 19:20:13 GMT 2021 Running UCOMP Cookbook dark\_80ms\_2beam\_16sums\_BOTH.cbk line 0  
Sat Oct 09 19:21:38 GMT 2021 Running UCOMP Cookbook 637\_Pol\_Calibrate.cbk line 0  
Sat Oct 09 19:26:22 GMT 2021 Running UCOMP Cookbook 656\_Pol\_Calibrate.cbk line 0  
Sat Oct 09 19:30:42 GMT 2021 Running UCOMP Cookbook 789\_Pol\_Calibrate.cbk line 0  
Sat Oct 09 19:35:03 GMT 2021 Running UCOMP Cookbook 1074\_Pol\_Calibrate.cbk line 0  
Sat Oct 09 19:39:25 GMT 2021 Running UCOMP Cookbook 1079\_Pol\_Calibrate.cbk line 0  
Sat Oct 09 19:43:44 GMT 2021 Running UCOMP Cookbook 1083\_Pol\_Calibrate.cbk line 0  
Sat Oct 09 19:48:05 GMT 2021 Running UCOMP Cookbook waves\_1074\_1hour.cbk line 0

GENERAL COMMENT BY mcotter: Sat Oct 09 19:49:33 GMT 2021

The spar started oscillating, as can be observed in the SGS X(RA) & Y(Dec) traces. I stopped Kcor and paused Ucomp and went to the dome to investigate. While in the dome I could see the spar oscillating up and down in the X(RA) direction. I put the spar in Standby to stop the movement. It is windy up here today with occasional gusts. I closed the lower dome shutter door to see if it could offer any benefit against the wind. Additionally I closed the two windows that face east and partially closed the west facing window. I restarted the spar and restarted Kcor and Ucomp. Almost immediately the spar began to oscillate again. I took the cover off the RA Mechanism and inspected the unit. There was some contamination present in the form of dust from the clutch and brass components. I cleaned the interior surfaces as best that I could and then tightened the clutch pad to see if it would affect the SGS traces and spar oscillation. The SGS traces still have an oscillation in them, mostly in the X(RA) trace. I believe that the wind may be the ultimate cause as there continues to be steady wind with sometimes gust out of the east-southeast. The Kcor and Ucomp images look good so I am going to continue to leave the instruments running.

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

KCOR COMMENT BY mcotter: Sat Oct 09 19:52:35 GMT 2021

The particles that I saw in the Kcor NRGF image and reported on seeing this morning have disappeared in the NRGF at 19:14:03 UT.

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

Sat Oct 09 20:29:07 GMT 2021 Running UCOMP Cookbook waves\_1074\_1hour.cbk line 80  
Sat Oct 09 20:47:21 GMT 2021 KCOR Start Calibration script: c:\kcor\mlso-calibration22deg-20171025.ini  
Sat Oct 09 20:53:29 GMT 2021 Running UCOMP Cookbook dark\_200\_1sums\_80ms.cbk line 0  
Sat Oct 09 20:58:35 GMT 2021 Running UCOMP Cookbook all\_wavelength\_coronal\_flat.cbk line 0  
Sat Oct 09 21:02:38 GMT 2021 KCOR End Calibration Script

GENERAL COMMENT BY mcotter: Sat Oct 09 21:08:23 GMT 2021

The sky is quite hazy at lower elevations along the leeward side of the Big Island, blocking out the view of the Waikoloa Coast and Kohala Mountains.

The erupting Kilauea Volcano continues to emit thousands of tons of noxious gasses into atmosphere around the Hawaiian Islands.

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

\*\*\*\*Possible CME in Progress mcotter\*\*\*\* : Sat Oct 09 21:13:25 GMT 2021

Possible CME seen launching near PA: 285 deg at time 20:38:00 UT.

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

Sat Oct 09 21:24:55 GMT 2021 Running UCOMP Cookbook all\_wavelength\_coronal.cbk line 0

\*\*\*\*Possible CME in Progress mcotter\*\*\*\* : Sat Oct 09 22:32:27 GMT 2021

Possible CME seen launching near PA:295 deg at time 22:00:10 UT.

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

Sat Oct 09 22:34:36 GMT 2021 Running UCOMP Cookbook all\_wavelength\_coronal.cbk line 0  
Sat Oct 09 23:43:57 GMT 2021 Running UCOMP Cookbook dark\_80ms\_2beam\_16sums\_BOTH.cbk line 0  
Sat Oct 09 23:45:22 GMT 2021 Running UCOMP Cookbook 1074\_Pol\_Calibrate.cbk line 0  
Sat Oct 09 23:50:01 GMT 2021 Running UCOMP Cookbook all\_wavelength\_coronal\_flat.cbk line 0  
Sun Oct 10 00:16:13 GMT 2021 Running UCOMP Cookbook all\_wavelength\_coronal.cbk line 0  
Sun Oct 10 01:25:52 GMT 2021 Running UCOMP Cookbook all\_wavelength\_coronal.cbk line 0  
GENERAL COMMENT BY mcotter: Sun Oct 10 01:53:45 GMT 2021

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

Sun Oct 10 02:12:27 GMT 2021 Running UCOMP Cookbook all\_wavelength\_coronal.cbk line 20  
Sun Oct 10 02:49:25 GMT 2021 Running UCOMP Cookbook all\_wavelength\_coronal\_flat.cbk line 0  
GENERAL COMMENT BY mcotter: Sun Oct 10 03:08:18 GMT 2021

Swept control room floor. Emptied trash receptacles in the control room.

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

GENERAL COMMENT BY mcotter: Sun Oct 10 03:09:10 GMT 2021

Good day for collecting data. The day was a bit windy but the skies were clear all day!

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

Sun Oct 10 03:15:56 GMT 2021 Running UCOMP Cookbook all\_wavelength\_coronal.cbk line 0  
ONSITE STAFF: mcotter