
Mauna Loa Solar Observatory Observer's Log

Tue Jun 16 16:53:54 GMT 2026

Year:26 Doy:167

Observer: mcotter

Weather COMMENT BY mcotter: Tue Jun 16 16:57:14 GMT 2026

MLSO Current Weather

Timestamp (UTC): 2026-06-16 16:50:00

Temperature : 50.68 deg F

Dew Point : 12.13 deg F

Pressure : 679.46 mbar

Wind Speed : 0.67 mph

Wind Direction : 244.0 deg

Skies: The skies overhead are relatively clear in all directions, but hazy. A very heavy gray blue inversion layer is visible on the horizon well above Haleakala, just below Maunakea. Kilauea has been active in the last 72 hours and it is contributing to the heavy inversion layer.

____end____

GENERAL COMMENT BY mcotter: Tue Jun 16 16:57:28 GMT 2026

Opened windows upstairs

____end____

GENERAL COMMENT BY mcotter: Tue Jun 16 16:57:36 GMT 2026

Dome open

____end____

** KCOR PM mcotter ** : Tue Jun 16 16:57:46 GMT 2026

Blew off Kcor O1

____end____

Tue Jun 16 17:01:18 GMT 2026 Kcor Focus/alignment program exited

** KCOR PROBLEM REPORTED BY mcotter ** : Tue Jun 16 17:10:27 GMT 2026

Kcor circular acquisition error.

I tried just restarting Labview but the error came up again. I shut everything down and am restarting the Kcor computer.

____end____

Tue Jun 16 17:28:38 GMT 2026 Kcor Focus/alignment program exited

Tue Jun 16 17:51:30 GMT 2026 Kcor Focus/alignment program exited

** KCOR PROBLEM REPORTED BY mcotter ** : Tue Jun 16 18:08:20 GMT 2026

Kcor:

An "Error 56" occurred when first starting Kcor. I tried restarting the Kcor observing program and checked all the cables in the back of the racks. Also, I tried restarting the spar program and checked all the cable connections upstairs. I found a disconnected cable in the back of the White Box network firewall box and reconnected it to the box.

The Kcor instrument is now observing.

____end____

Tue Jun 16 18:16:59 GMT 2026 Kcor Focus/alignment program exited

Tue Jun 16 18:18:29 GMT 2026 Kcor Focus/alignment program exited

** KCOR PROBLEM REPORTED BY mcotter ** : Tue Jun 16 18:26:15 GMT 2026

The NRGF image looked like there was a shift in the occulter and the synoptic images showed a bit of light leaking around the bottom of the occulter. I stopped the observing code and re-ran the Focus routine. I manually adjusted the occulter position to where the image looked good, then manually set the focus for 134.52 after running the auto focus routine. I restarted the observing code and the synoptic images now look good.

I am not sure why this happened but aerosols are very high today and can be seen in the images continuously.

____end____

Weather COMMENT BY mcotter: Tue Jun 16 20:03:03 GMT 2026

MLSO Current Weather

Timestamp (UTC): 2026-06-16 19:53:00

Temperature : 55.35 deg F

Dew Point : 18.34 deg F

Pressure : 680.34 mbar

Wind Speed : 6.04 mph

Wind Direction : 2.0 deg

Skies: The sky overhead appears clear but there a lots of aerosols in the images.

When looking out the air is extremely hazy and the inversion layer, which appears a dark gray blue in color, is located below the peak of Maunakea. The air is very hazy and it is difficult to see the Saddle Valley floor. The Kohala Coast is totally obscured by the haze in the air and only the very top of Hualalai is visible. Even the lower elevations of Maunakea are not visible due to the hazy conditions.

____end____

Tue Jun 16 20:36:36 GMT 2026 KCOR Start Calibration script: c:\kcor\mlso-calibration22deg-20171025.ini

Tue Jun 16 20:51:50 GMT 2026 KCOR End Calibration Script

** KCOR PROBLEM REPORTED BY mcotter ** : Tue Jun 16 21:11:00 GMT 2026

The Kcor synoptic images again are showing the occulter a bit off with just a little bit of brightness at the bottom of the synoptic image.

I checked in the dome to see if anything could have come in contact with the spar there was nothing touching.

I manually adjusted the X & Y Guider Zero-Point Offsets until I was again able to center the occulter.

The current X value is approximately -41.

The current Y value is approximately 34.

____end____

Tue Jun 16 21:36:44 GMT 2026 Kcor Focus/alignment program exited

** KCOR PROBLEM REPORTED BY mcotter ** : Tue Jun 16 21:47:22 GMT 2026

Kcor:

Because the Kcor synoptic image continued to show the light brighter on one side of the occulter than the other I stopped the observing program. I went to the dome and put the SGS in standby and homed the dec sensor. After it re-homed I re-aligned the spar on the Sun and restarted the SGS by putting it in closed loop. additionally I blew off the Guider front optic.

I cannot seem to correct for this anomaly. Maybe it is all the dust and soot and ash in the air from the Kilauea volcano.

____end____

Guider/spar COMMENT BY mcotter: Tue Jun 16 21:51:54 GMT 2026

Spar/Guider:

The traces on SGS GUI are bouncing around a lot. There is a lot of soot and ash and dust in the air from the Kilauea volcano that I believe is causing anomalies with the guider. Additionally, Orographic clouds are forming and starting to move in from all directions.

____end____

Weather COMMENT BY mcotter: Tue Jun 16 21:56:52 GMT 2026

MLSO Current Weather

Timestamp (UTC): 2026-06-16 21:47:00

Temperature : 54.37 deg F

Dew Point : 40.13 deg F

Pressure : 680.48 mbar

Wind Speed : 11.86 mph

Wind Direction : 7.3 deg

Skies: The inversion layer has moved up in elevation and it has brought up all the dust and ash and debris from the lower elevations that the Kilauea volcano has been spewing out lately. The sky has gotten very bright and aerosols are very heavy. There now appears to be a slightly bright ring around the Sun. Orthographic clouds are moving up from the Saddle Valley and from the west, with additional clouds forming to the east and south.

____end____

KCOR COMMENT BY mcotter: Tue Jun 16 21:59:38 GMT 2026

Kcor:

The images are showing very heavy aerosols in air and the SGS traces are being effected by the air quality.

I am going to stop the observations due to sky conditions.

____end____

BY mcotter: Tue Jun 16 22:55:34 GMT 2026

End Of Day:

The air was very hazy today and the inversion layer was very high. The very poor air quality made the observation images a bit grainy. Then in the late morning the air got so bad it started effecting the guider trace outputs. The Kilauea volcano has certainly pumped a lot a soot into the air.

____end____

Logger COMMENT BY mcotter: Tue Jun 16 22:55:36 GMT 2026

Log closed

ONSITE STAFF: mcotter

____end____