
Mauna Loa Solar Observatory Observer's Log

Sun Apr 26 16:45:56 GMT 2026

Year:26 Doy:116

Observer: mcotter

GENERAL COMMENT BY mcotter: Sun Apr 26 16:46:04 GMT 2026

Start of day.

Arrived onsite at approximately 0630 HST.

The ECO FLO Power Unit was at 56% with zero input.

The YETI was at 70% with zero input.

The Kcor ILX was on and reading 32.8 C.

I started the logger (obviously) but I am leaving the Kcor and SGS computers off for now until we can get more power in the ECO FLO battery bank.

____end____

Weather COMMENT BY mcotter: Sun Apr 26 16:49:39 GMT 2026

MLO Current Weather

Timestamp (UTC): 2026-04-26 16:44:00

Temperature : 41.43 deg F

Dew Point : -5.49 deg F

Pressure : 678.08 mbar

Wind Speed : 10.74 mph

Wind Direction : 209.7 deg

Skies: Skies are extremely bright and very hazy with a thick blue gray inversion layer positioned above 10,000': cannot see Maui or Haleakala.

____end____

GENERAL COMMENT BY mcotter: Sun Apr 26 16:51:27 GMT 2026

Due to the low power available in the ECO FLO battery bank and the excessively bright sky conditions I am holding off on starting observations at this time.

____end____

KCOR COMMENT BY KCOR: Sun Apr 26 17:28:45 GMT 2026

KCOR file transfer report

KCor created 0 .bin files

0 .fts files

Remote site is complete ? no rsync required.

____end____

KCOR COMMENT BY mcotter: Sun Apr 26 17:33:39 GMT 2026

Kcor Started

The Eco Flo now has positive power coming into the unit so I have started Kcor and the SGS computers.

____end____

GENERAL COMMENT BY mcotter: Sun Apr 26 17:34:13 GMT 2026

dome open

____end____

GENERAL COMMENT BY mcotter: Sun Apr 26 17:34:45 GMT 2026

Opened windows upstairs

____end____

Sun Apr 26 17:38:38 GMT 2026 Kcor Focus/alignment program exited

KCOR COMMENT BY mcotter: Sun Apr 26 17:41:13 GMT 2026

Kcor Focus/alignment

While running the Kcor Focus Routine I adjusted the SGS values to the following in order to properly occult the Sun;

X(RA): -50

Y(Dec): 45

____end____

KCOR COMMENT BY mcotter: Sun Apr 26 17:46:06 GMT 2026

Kcor polarization checked good.

____end____

KCOR COMMENT BY mcotter: Sun Apr 26 17:49:11 GMT 2026

Kcor Synoptic Acquisition Mode now running and the images are a bit bright.

____end____

Sun Apr 26 17:57:16 GMT 2026 Kcor Focus/alignment program exited

Sun Apr 26 17:59:47 GMT 2026 Kcor Focus/alignment program exited

KCOR COMMENT BY mcotter: Sun Apr 26 18:03:19 GMT 2026
Kcor Focus Issue

The Kcor NRGF images looked a bit out of focus so I re-ran the Focus Routine.
____end____

Weather COMMENT BY mcotter: Sun Apr 26 18:04:11 GMT 2026

MLO Current Weather

Timestamp (UTC): 2026-04-26 17:59:00

Temperature : 49.91 deg F

Dew Point : -19.3 deg F

Pressure : 678.66 mbar

Wind Speed : 2.91 mph

Wind Direction : 299.1 deg

Skies: The Skies are very, very bright.

____end____

KCOR COMMENT BY mcotter: Sun Apr 26 18:14:49 GMT 2026

Kcor Focus/alignment

After running the Kcor Focus Routine the second time the focus range settled on 133.34, which is very close to where our 2026 average has been and the NRGF images appear more in focus and better defined.

The skies remain very bright at this time and the Kcor Synoptic Images are bright and a pale gray in color.

____end____

GENERAL COMMENT BY mcotter: Sun Apr 26 18:24:03 GMT 2026

Power readings.

ECO FLO power supply readings:

Input: 600 W

Battery: 36%

Output: 875 W

YETI power supply readings:

Input: 170 W

Battery: 70%

Output: 50 W

____end____

KCOR COMMENT BY mcotter: Sun Apr 26 18:26:09 GMT 2026

Kcor ILX Display: 33.7 C

____end____

** KCOR PM mcotter ** : Sun Apr 26 19:18:21 GMT 2026

Blew off Kcor Field Lens

I can see a couple of artifacts in the NRGF Image at the approximate PA 310 deg, approximately 2 radii out from the occulter. They may be hot pixels, but I blew off the field lens just to make sure it was not a foreign particle on the Field Lens.

____end____

** KCOR PM mcotter ** : Sun Apr 26 19:19:14 GMT 2026

Blew off Kcor O1

This morning I blew off the Kcor O1 but I forgot to note it in the log.

____end____

** GENERAL PM mcotter ** : Sun Apr 26 19:26:38 GMT 2026

A couple of days ago Lisa mentioned in the log that she had a problem with the lower Dome Shutter Door not opening smoothly. I watched for it and also noticed that it was sticking and acting in a sporadic manner.

I adjusted and increased the tension on the spring that provides force against the Lower Dome Shutter Door when opening. Additionally I lubricated the guide roller track and the Tension Spring Control Arm that provides added force to the opening of the Lower Shutter Door.

____end____

** KCOR PM mcotter ** : Sun Apr 26 19:29:20 GMT 2026

Kcor

I re-installed the Kcor Instrument Alignment Target on the Kcor Instrument. It is used

to align the instrument on the Sun, but was removed for some reason while working on the instrument previously.

____end____

Weather COMMENT BY mcotter: Sun Apr 26 19:33:32 GMT 2026

MLO Current Weather

Timestamp (UTC): 2026-04-26 19:29:00

Temperature : 51.85 deg F

Dew Point : 9.41 deg F

Pressure : 679.26 mbar

Wind Speed : 5.14 mph

Wind Direction : 298.7 deg

Skies: Though the sky remains clear of any approaching clouds the sky remains exceptionally bright.

____end____

Sun Apr 26 20:05:18 GMT 2026 KCOR Start Calibration script: c:\kcor\mlso-calibration22deg-20171025.ini

Sun Apr 26 20:20:33 GMT 2026 KCOR End Calibration Script

Weather COMMENT BY mcotter: Sun Apr 26 20:40:26 GMT 2026

MLO Current Weather

Timestamp (UTC): 2026-04-26 20:35:00

Temperature : 52.05 deg F

Dew Point : 27.22 deg F

Pressure : 679.39 mbar

Wind Speed : 7.16 mph

Wind Direction : 305.9 deg

Skies: Skies are clear but continue to remain very bright.

____end____

Weather COMMENT BY mcotter: Sun Apr 26 20:52:12 GMT 2026

MLO Current Weather

Skies are very bright and aerosols are getting heavy.

____end____

Weather COMMENT BY mcotter: Sun Apr 26 21:30:44 GMT 2026

MLO Current Weather

Timestamp (UTC): 2026-04-26 21:26:00

Temperature : 52.41 deg F

Dew Point : 37.07 deg F

Pressure : 679.4 mbar

Wind Speed : 8.05 mph

Wind Direction : 331.1 deg

Skies: Orographic clouds are starting to make their way up the North-Northwest slope of Maunaloa. Additionally, aerosols are getting very heavy and are becoming quite visible in the NRGF images.

____end____

Weather COMMENT BY mcotter: Sun Apr 26 21:44:21 GMT 2026

MLO Current Weather

Skies: Clouds are now encroaching into the viewing area and aerosols are extremely high .

____end____

KCOR COMMENT BY mcotter: Sun Apr 26 21:46:28 GMT 2026

Kcor Stopped.

Due to clouds in the viewing area and excessively high aerosols the Kcor instrument has been stopped.

____end____

KCOR COMMENT BY KCOR: Sun Apr 26 21:47:06 GMT 2026

KCOR file transfer report

KCor created 930 .bin files

927 .fts files

NOTICE ? 3 .bin file(s) with no matching .fts:

20260426_174113_kcor.bin

20260426_175304_kcor.bin

20260426_214250_kcor.bin

Remote site is complete ? no rsync required.

____end____

Weather COMMENT BY mcotter: Sun Apr 26 22:08:56 GMT 2026

MLO Current Weather

Timestamp (UTC): 2026-04-26 22:05:00

Temperature : 49.19 deg F

Dew Point : 39.21 deg F

Pressure : 679.3 mbar

Wind Speed : 8.05 mph

Wind Direction : 25.6 deg

Skies: The sky is now completely overcast.

____end____

KCOR COMMENT BY mcotter: Sun Apr 26 22:10:45 GMT 2026

Kcor Instrument is now completely off and the computer has been powered off.

The Kcor ILX remains on.

____end____

GENERAL COMMENT BY mcotter: Sun Apr 26 22:11:48 GMT 2026

Dome closed.

The Dome and windows are now closed due to poor weather conditions.

____end____

GENERAL COMMENT BY mcotter: Sun Apr 26 22:14:19 GMT 2026

Power Supply Levels are as follows:

ECO FLO Battery: 43%

YETI Battery: 98%

____end____

GENERAL COMMENT BY mcotter: Sun Apr 26 22:21:33 GMT 2026

End Of Day.

Though the sky was quite bright and aerosols were heavy it was a good day of observing. Toward the latter morning the NRGF Images show very high aerosol levels with bright background skies.

The input power to the YETI and ECO FLO are both higher than the load output. The network should be fine overnight and I will leave the Kcor ILX on overnight, as I believe it should make it through the night with power enough in the battery. Additionally, tomorrow morning weather outlook looks promising for observing, but of course time will tell.

____end____

Logger COMMENT BY mcotter: Sun Apr 26 22:21:57 GMT 2026

Log closed

ONSITE STAFF: mcotter

____end____