
Mauna Loa Solar Observatory Observer's Log

Wed Nov 3 17:31:10 GMT 2021
Year: 21 Doy: 307
Observer: mlso
GENERAL COMMENT BY mcotter: Wed Nov 03 17:32:02 GMT 2021
Opened windows upstairs
___end___
GENERAL COMMENT BY mcotter: Wed Nov 03 17:32:21 GMT 2021
PM Blew off UCoMP O1
___end___
GENERAL COMMENT BY mcotter: Wed Nov 03 17:32:48 GMT 2021
PM Blew off Kcor O1
___end___
Wed Nov 03 17:33:48 GMT 2021 Kcor Focus/alignment program exited
Wed Nov 03 17:34:23 GMT 2021 Running UCOMP Cookbook dark_80ms_2beam_16sums_BOTH.cbk lin
e 0
Wed Nov 03 17:35:40 GMT 2021 Running UCOMP Cookbook 637_Scan.cbk line 0
Wed Nov 03 17:37:48 GMT 2021 Running UCOMP Cookbook 656_Scan.cbk line 0
Wed Nov 03 17:39:38 GMT 2021 Running UCOMP Cookbook 789_Scan.cbk line 0
Wed Nov 03 17:41:27 GMT 2021 Running UCOMP Cookbook 1074_Scan.cbk line 0
Wed Nov 03 17:43:17 GMT 2021 Running UCOMP Cookbook 1079_Scan.cbk line 0
Wed Nov 03 17:45:06 GMT 2021 Running UCOMP Cookbook all_wavelenght_coronal_flat.cbk lin
e 0
Wed Nov 03 18:03:13 GMT 2021 Running UCOMP Cookbook all_wavelenght_coronal.cbk line 0
KCOR PROBLEM COMMENT BY mcotter : Wed Nov 03 18:25:10 GMT 2021
PM Blew off Kcor O1
When the Kcor NRGF image came up an anomaly in the image was quite prevalent. When look
ing at the image there appeared what looked like an"Infinity" symbol, or an elongated n
umber "8" shaped darkish blue, stretching from north to south. It almost had the appear
ance of a polarization problem, but generally that type of problem will look to be in a
"X" shape. Ben and I put the polarization filter in the path and it did not correct fo
r the anomaly. Ben suspected something was on the Kcor 01 Lens, or possibly the Kcor Fi
eld Lens. We went to the dome and inspected the Kcor 01 Lens by looking down into the
front of the telescope with the Sun behind us. We were able to see several dust particl
es, but nothing large like a hair or fiber which could have accounted for the large ano
maly visible in the Kcor NRGF image. We blew off the Kcor 01 Lens multiple times to ens
ure that anything that could possibly be blown off was indeed removed. There are still
several particles of dust still present, but we were able to correct for the anomaly th
at was observed in the Kcor NRGF image.
___end___
GENERAL COMMENT BY mcotter: Wed Nov 03 18:40:32 GMT 2021
PM Blew off Kcor Field Lens.
As mentioned earlier in the log, we observed an anomaly in the Kcor NRGF image that had
the appearance of an "Infinity" symbol or an elongated number "8", stretching from nor
th to south and being a darkish blue in appearance. We were able to resolve the Kcor NR
GF image anomaly by blowing off the Kcor 01 Lens several times, but for good measure we
inspected the Kcor Field Lens at the same time. Dust was visible on the Kcor Field Len
s, as well as there being some dust particle observed by Ben floating around in the len
s chamber. Ben also noticed that a SHCS that normally is in place in the Tube was missi
ng, possibly allowing unwanted air and dust to enter the Tube chamber. A new SHCS was i
nserted into the hole and covered with foil tape to ensure it stays in place. Ben blew
out the Kcor Field Lens chamber several times and removed as much of the dust that was
prevalent in the chamber as was possible. Ben also noted that the free floating dust th
at was in the Kcor Field Lens chamber was continuously drawn out of the chamber by the
HEPA vacuum return. The Kcor NRGF image now appears normal.
___end___
KCOR COMMENT BY mcotter: Wed Nov 03 18:43:00 GMT 2021
Kcor instrument is now running and the images look good.
SGS Offsets: X(RA): -5, Y(Dec): 5.
Polarization checked good: Mid, Bright, Dark, Mid.
___end___
UCoMP COMMENT BY mcotter: Wed Nov 03 18:43:36 GMT 2021
Ucomp instrument now running and the image looks good.
___end___
GENERAL OBSERVATORY COMMENT BY berkey: Wed Nov 3 18:59:17 GMT 2021

Accelometer data logger tempoarly installed on the south face of the spar.
___end___
Wed Nov 03 19:14:33 GMT 2021 Running UCOMP Cookbook dark_80ms_2beam_16sums_BOTH.cbk lin
e 0
Wed Nov 03 19:15:50 GMT 2021 Running UCOMP Cookbook 637_Pol_Calibrate.cbk line 0
Wed Nov 03 19:20:12 GMT 2021 Running UCOMP Cookbook 656_Pol_Calibrate.cbk line 0
Wed Nov 03 19:24:17 GMT 2021 Running UCOMP Cookbook 789_Pol_Calibrate.cbk line 0
Wed Nov 03 19:28:20 GMT 2021 Running UCOMP Cookbook 1074_Pol_Calibrate.cbk line 0
Wed Nov 03 19:32:24 GMT 2021 Running UCOMP Cookbook 1079_Pol_Calibrate.cbk line 0
Wed Nov 03 19:36:28 GMT 2021 Running UCOMP Cookbook waves_1074_1hour.cbk line 0
Wed Nov 03 20:14:17 GMT 2021 KCOR Start Calibration script: c:\kcor\mlso-calibration22d
eg-20171025.ini
Wed Nov 03 20:29:34 GMT 2021 KCOR End Calibration Script
Wed Nov 03 20:46:04 GMT 2021 Running UCOMP Cookbook dark_200_1sums_80ms.cbk line 0
Wed Nov 03 20:51:04 GMT 2021 Running UCOMP Cookbook all_wavelenght_coronal_flat.cbk lin
e 0
Wed Nov 03 21:09:29 GMT 2021 Running UCOMP Cookbook all_wavelenght_coronal.cbk line 0
****Possible CME in Progress mcotter**** : Wed Nov 03 21:34:53 GMT 2021
Possible CME seen launching near PA:240 at time 21:06:02 UT.
___end___
****Possible CME in Progress mcotter**** : Wed Nov 03 22:13:32 GMT 2021
Possible CME seen launching near PA:130 deg at time 21:58:07 UT.
___end___
Wed Nov 03 22:20:48 GMT 2021 Running UCOMP Cookbook all_wavelenght_coronal.cbk line 0
Wed Nov 03 23:31:40 GMT 2021 Running UCOMP Cookbook dark_80ms_2beam_16sums_BOTH.cbk lin
e 0
Wed Nov 03 23:32:57 GMT 2021 Running UCOMP Cookbook 1074_Pol_Calibrate.cbk line 0
Wed Nov 03 23:37:19 GMT 2021 Running UCOMP Cookbook all_wavelenght_coronal_flat.cbk lin
e 0
Wed Nov 03 23:55:25 GMT 2021 Running UCOMP Cookbook all_wavelenght_coronal.cbk line 0
Thu Nov 04 00:40:17 GMT 2021 Running UCOMP Cookbook all_wavelenght_coronal.cbk line 23
GENERAL COMMENT BY mcotter: Thu Nov 04 01:03:48 GMT 2021
Dome shutter obscured kcor for a few frames. Back to proper tracking.
___end___
Thu Nov 04 01:07:29 GMT 2021 Running UCOMP Cookbook all_wavelenght_coronal.cbk line 0
Thu Nov 04 01:56:46 GMT 2021 Running UCOMP Cookbook all_wavelenght_coronal.cbk line 25
Thu Nov 04 02:20:00 GMT 2021 Running UCOMP Cookbook all_wavelenght_coronal_flat.cbk lin
e 0
Thu Nov 04 02:37:22 GMT 2021 UCoMP Paused for clouds
Thu Nov 04 02:47:22 GMT 2021 UCoMP Restarted from pause
Thu Nov 04 02:48:20 GMT 2021 Running UCOMP Cookbook all_wavelenght_coronal.cbk line 0
GENERAL COMMENT BY mcotter: Thu Nov 04 03:12:50 GMT 2021
Spar Harmonic troubleshooting.
Ben inserted his phone into the RA Mechanism chamber while in "Record Audio" mode and m
ade recordings of the spar movement. We paused both Kcor and Ucomp and then recorded sp
ar movements while in "Open Loop" and "Closed Loop" spar states. Additionally, we put
the proportional gain of the amplifier output to the Dec at zero and then recorded spar
 movements with RA movement only.
___end___
GONG COMMENT BY mcotter: Thu Nov 04 03:26:11 GMT 2021
The GONG trailer had gotten a little warm today so I opened the door to the trailer. Wh
ile doing a walk through of the GONG trailer I noticed that the duct vent that attaches
 to the fresh air intake had separated from the wall and was slightly skewed, essential
ly causing the air intake to be of the ambient air in the trailer and not fresh air fro
m outside. I reattached the duct vent to the fresh air intake opening. Additionally, I
noticed that the emergency light was slightly illuminated. This light should only illum
inated if it is separated from it’s charging source or if there is a loss of electricit
y. I located the small plugged in transformer that supplies power to the emergency ligh
t and it was extremely hot; too hot to touch and maintain contact with the unit. I unpl
ugged the transformer and left it unplugged next to the desk. I will send an email to t
he GONG folks and advise them of this condition. I took a photo of the transformer so t
hat they can order a new one if they should decide to.
___end___
GENERAL COMMENT BY mcotter: Thu Nov 04 03:36:40 GMT 2021
Installed new tack mat in the dome vestibule.
___end___
GENERAL COMMENT BY mcotter: Thu Nov 04 03:40:46 GMT 2021

Very good day of observing and taking data. The sky was clear all day with only a gradu
al increase in aerosols in the late afternoon. The sky eventually became a little too b
right to observe. Kcor instrument picked up two CME's; one rather large in the southwes
tern area of the Sun and a smaller but well defined one in the southeastern area.
Good Day!
___end___
ONSITE STAFF: berkey, mcotter