Mauna Loa Solar Observatory Observer's Log \_\_\_\_\_ Mon Dec 28 17:34:39 GMT 2020 Year: 20 Doy: 363 Observer: mlso WEATHER COMMENT: mcotter: Mon Dec 28 17:38:34 GMT 2020 Temp: 38.2f, Humidity: 75%, Pressure: 28.822in, Wind: 18mph from 157degs, Skies: Clear skies overhead with some Cirrus clo uds on the eastern horizon. Gusty wind out of the south, southeast. Frost and icy road conditions above approximately 10,0 001. end GENERAL COMMENT BY mootter: Mon Dec 28 17:55:39 GMT 2020 Opened windows upstairs end GENERAL COMMENT BY mcotter: Mon Dec 28 17:55:54 GMT 2020 PM Blew off Kcor O1 end Mon Dec 28 18:12:21 GMT 2020 Kcor Focus/alignment program exited GENERAL COMMENT BY mcotter: Mon Dec 28 18:14:34 GMT 2020 Sky is much too bright to run focus routine at this time. Will try again shortly. end Mon Dec 28 18:27:40 GMT 2020 Kcor Focus/alignment program exited Mon Dec 28 18:34:33 GMT 2020 Kcor Focus/alignment program exited GENERAL COMMENT BY mcotter: Mon Dec 28 18:38:14 GMT 2020 Sky is still too bright to run focus routine. end Mon Dec 28 19:26:47 GMT 2020 Kcor Focus/alignment program exited GENERAL COMMENT BY mcotter: Mon Dec 28 19:39:29 GMT 2020 The sky is still too bright to run focus routine. To confirm, I started Kcor with the lens cover in place then once Kcor w as started I removed the lens cover and the Kcor image became saturated. I immediately stopped Kcor and put the lens cover back into beam. I will continue to monitor the sky and wait for conditions to improve. end Mon Dec 28 21:06:27 GMT 2020 Kcor Focus/alignment program exited Mon Dec 28 21:35:05 GMT 2020 Kcor Focus/alignment program exited Mon Dec 28 21:43:22 GMT 2020 Kcor Focus/alignment program exited GPS COMMENT by MLSO: Mon Dec 28 21:45:11 GMT 2020 Successfully logged in to system Good disk mount GPS software running Last 5 GPS data files are: /mnt/usb/dataoutig\_2020\_358\_2338.bin 2147483647 /mnt/usb/dataoutig\_2020\_359\_2338.bin 2147483647 /mnt/usb/dataoutiq\_2020\_360\_2338.bin 2147483647 /mnt/usb/dataoutig\_2020\_361\_2338.bin 2147483647 /mnt/usb/dataoutig\_2020\_362\_2338.bin 2147483647 Disk usage: /dev/sda1 916.9G 307.3G 563.0G 35% /mnt/usb end GENERAL COMMENT BY montter: Mon Dec 28 22:13:16 GMT 2020

I have attempted several times to run the focus routine but the sky is still too bright. When looking outside the sky appe ars to be clear, but when I hold my hand up to occult the Sun I can see how there is a halo around the Sun. When running t he focus routine at 12:00 pm HST the sky does appear to be a little darker than earlier this morning, but still much too b right to run Kcor. I will try again in a little while.

\_\_\_\_\_end\_\_\_\_ Mon Dec 28 22:32:37 GMT 2020 Kcor Focus/alignment program exited Mon Dec 28 22:53:11 GMT 2020 Kcor Focus/alignment program exited Tue Dec 29 01:21:58 GMT 2020 Kcor Focus/alignment program exited GENERAL COMMENT BY mcotter: Tue Dec 29 02:53:44 GMT 2020

At approximately 12:30pm HST the sky appeared to have darkened a little as I was able to run the focus routine and get an acceptable parabola. I started Kcor and put the Polarizer in beam to check that the images were in the correct order (Mid, Bright, Dark, Mid), but they were not in the correct order (they appeared Mid, Dark, Bright, Mid). I called Ben and asked him how I should proceed with this situation; Ben told me to try power cycling the different components within the NEMA b ox that controls Kcor to see if it would correct itself. I tried repeatedly to power cycle the various computers and Kcor controllers but I was only able to get it to change it's sequence once, and it was not correct (on the fifth power cycle o f the various components it came up Dark, Bright, Mid, Mid). Clouds were coming and going during the course of the afterno on, and once I had to shut the dome because fog was rolling through. I reopened the dome and tried again with the power cy cling but it did not work. At approximately 4:00pm HST I again called Ben to let him know that I was not able to correct t he Polarizing image, and explained to him what I had done. Ben said that it may simply have been too bright for the Kcor i nstrument to observe, and the polarizer image that I had initially saw was correct for the bright sky the instrument was t rying to image. Perhaps tomorrow will not be as bright and we can see if this is the case. While I had the dome closed wai ting for the sky to clear I cleaned the dome, cleaned up some of the cabling in the rear of the spar and emptied the trash

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

GENERAL COMMENT BY mcotter: Tue Dec 29 02:54:13 GMT 2020 No data today. Sky extremely bright! \_\_\_\_end\_\_\_\_ ONSITE STAFF: mcotter