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Mauna Loa Solar Observatory Observer's Log  
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Sat Dec 26 17:24:24 GMT 2020

Year: 20 Doy: 361

Observer: mlso

WEATHER COMMENT: mcotter: Sat Dec 26 17:27:22 GMT 2020

Temp: 40.8f, Humidity: 30%, Pressure: 28.777in, Wind: 9mph from 204degs, Skies: Mostly clear skies with some clouds on the horizons. Noticeable blue gray inversion layer on the horizon at the level of Haleakala, or just above.

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

GENERAL COMMENT BY mcotter: Sat Dec 26 17:52:20 GMT 2020

Opened windows upstairs

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

GENERAL COMMENT BY mcotter: Sat Dec 26 17:52:27 GMT 2020

PM Blew off Kcor O1

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

Sat Dec 26 18:04:13 GMT 2020 Kcor Focus/alignment program exited

GENERAL COMMENT BY mcotter: Sat Dec 26 18:07:37 GMT 2020

Kcor up and running.

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

Sat Dec 26 20:13:04 GMT 2020 Kcor Focus/alignment program exited

GPS COMMENT by MLSO: Sat Dec 26 21:45:11 GMT 2020

Successfully logged in to system

Good disk mount

GPS software running

Last 5 GPS data files are:

/mnt/usb/dataoutiq\_2020\_356\_2338.bin 2147483647

/mnt/usb/dataoutiq\_2020\_357\_2338.bin 2147483647

/mnt/usb/dataoutiq\_2020\_358\_2338.bin 2147483647

/mnt/usb/dataoutiq\_2020\_359\_2338.bin 2147483647

/mnt/usb/dataoutiq\_2020\_360\_2338.bin 2147483647

Disk usage: /dev/sdal 916.9G 303.1G 567.2G 35% /mnt/usb

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

Sat Dec 26 22:14:43 GMT 2020 Kcor Focus/alignment program exited

Sun Dec 27 00:15:38 GMT 2020 Kcor Focus/alignment program exited

Sun Dec 27 00:39:10 GMT 2020 Kcor Focus/alignment program exited

GENERAL COMMENT BY mcotter: Sun Dec 27 02:37:20 GMT 2020

At approximately 10:30 the spar started showing signs that it was acting erratically when tracking in the RA. I checked all the connections and they looked fine. I checked the NEMA box components and they seemed to be acting correctly, but I thought it could be the RA amplifier. I called Ben to see if we had any spare amplifiers so that I might try and see if that was the problem. I told him that the RA mechanism was oscillating. Ben suggested that I tighten the RA clutch mechanism and see if that corrected the problem. The initial problem of the RA motor oscillating did seem to go away, but the RA still was not tracking properly. While speaking with Ben I told him the status of the spar voltages, and he said they were low. He advised me to check the guider telescope to make sure it was mechanically tight, and it was. Ben then asked me to try and mount the spare guider telescope in place and see if the voltages were correct with the spare, and they were. Ben said that he suspected that the guider telescope was malfunctioning, and suggested we swap the existing guider with the spare. I replaced the guider telescope with the spare and aligned the guider telescope to the Kcor focus image while tracking with the spar. After a long time of going back and forth with the SGS GUI showing the voltage amplitudes and the Kcor focu

s GUI showing the image of the occulter I believe I got the guider telescope fairly well aligned. Clouds and fog came in as I was finishing up, so I have no final image to confirm, but while it was still sunny the RA tracking seemed to be working properly with voltages around 6.6 volts. The X and Y Guider Zero Set Offsets have changed, so when aligning the occulter during the focus routine we should expect the numbers to be different.

end

ONSITE STAFF: mcotter