
Mauna Loa Solar Observatory Observer's Log

Mon Mar 1 17:16:33 GMT 2021

Year: 21 Doy: 060

Observer: mlso

WEATHER COMMENT: mcotter: Mon Mar 01 17:24:30 GMT 2021

Temp: 32.5f, Humidity: 82%, Pressure: 28.878in, Wind: 7mph from 115degs, Skies: Scattered clouds of Cirrocumulus, Altopcumulus and Altostratus accross the sky. Very Heavy rains from Hilo to Maunaloa turnoff. Fog, rain and drizzle of access road to approximately 8000' level. Very icy road conditions from approximately 10,000' level to observatory. Gate would not work, though the keypad appears to be operational; I thought perhaps the actuator relay was not working. I pulled the pin on the actuator and opened the gate manually and when I got to the sensor on the other side the actuator operated. I closed the gate and put the pin back in the actuator. I had a difficult time getting up the slope of the road because of the icy road conditions but finally maneuvered my way into the parking lot.

____end____

GENERAL COMMENT BY mcotter: Mon Mar 01 17:41:12 GMT 2021

Opened windows upstairs

____end____

GENERAL COMMENT BY mcotter: Mon Mar 01 17:41:18 GMT 2021

PM Blew off Kcor 01

____end____

GENERAL COMMENT BY mcotter: Mon Mar 01 17:52:41 GMT 2021

The monitor selection switch was not working this morning when I logged on. I traced the cabling and found that the cable had slipped out of the HDMI cable to cable coupling at the back of the monitors. I plugged it back in but the selection switch still would not work. I checked all other cable connections and they seemed fine. I power cycled the serial port switch by pulling the power supply input cable and then re-inserting. the monitor selection switch seems to be working correctly now, but the monitor2 screen (main screen) is requesting a user name and password in order for me to make my selections. I entered the info and the system is now working.

____end____

GENERAL COMMENT BY mcotter: Mon Mar 01 20:25:43 GMT 2021

Ben and I removed the Ucomp forward lens cover, filter assembly, Ucomp 01 lens, lens housing, spar extension plate and tube off of the spar assembly. Ben has left the observatory and is on his way to the machining facility in Kailua-Kona with the spar extension plate and the tube to have them modified in order to increase the physical focus range of the Ucomp 01 lens. The tube is to be shortened by approximately 10mm in length and the spar extension plate is to have the mounting holes for the 01 lens elongated into slots to provide approximately 10mm of physical travel to the mounting area. We encountered some difficulty with removing the fastener hardware for some of the components, so Ben is going to pick up new fasteners at Fastenal while he is out. I am in the process of repairing some of the mounting components that have become worn and damaged while we were removing fasteners.

____end____

UCoMP COMMENT BY mcotter: Tue Mar 02 03:33:35 GMT 2021

UCoMP, dome ADR, and spar extender are now reassembled and re-cabled but no testing has taken place on the mechanism.

Machine shop was able to cut a 1/2" slot to connect the existing thru bolt hole and mounting slots. We now have ~3" of total O1 Z travel (not that we will ever need to far instrument side of the range. O1 is position to about 10mm -Z of the old O1 position which matches our best guess for the new O1 position.

The machine shop also cut down the spar tube by 10mm. So we should be able to accommodate ~6mm more -Z travel of the O1 assembly before there is a collision issue with the tube.

O1 assembly and spar extender hardware were replace with new.

During spar extender re-assembly we found we were able to get a great alignment of the spar extender to the UCoMP face, but the Chromag face has a slight issue due to the end of the extender bending toward the center of the spar due to some warping during either bending or welding during construction. W.R.T to the Chromag face the end of the spar extender is about 1/8" low (toward the center of the spar) compared to the spar of -Z edge of the spar extender.

____end____

GENERAL COMMENT BY mcotter: Tue Mar 02 03:34:21 GMT 2021

Cleaned up dome. Put tools away and emptied the trash from the control room.

____end____

ONSITE STAFF: berkey, mcotter