
Mauna Loa Solar Observatory Observer's Log

Mon May 10 16:51:27 GMT 2021

Year: 21 Doy: 130

Observer: berkey

WEATHER COMMENT: berkey: Mon May 10 16:51:38 GMT 2021

Temp: 47.7f, Humidity: 7%, Pressure: 28.615in, Wind: 16mph from 146degs, Skies: clear

____end____

GENERAL COMMENT BY berkey: Mon May 10 19:29:22 GMT 2021

PM Blew off Kcor O1

____end____

GENERAL COMMENT BY berkey: Mon May 10 19:29:26 GMT 2021

Opened windows upstairs

____end____

Mon May 10 19:33:01 GMT 2021 Kcor Focus/alignment program exited

Mon May 10 21:09:30 GMT 2021 Kcor Focus/alignment program exited

UCoMP COMMENT BY berkey: Tue May 11 03:15:41 GMT 2021

Tried working thru the UCoMP O1 and baseplate alignments this morning.

Started the morning trying to move the O1 position to align the solar image on the field lens target. I think I did the best I could with the polychromatic image spot.

Looking at the image quality on the T-cam, driving the back of the baseplate up I was able to get the image to become round instead of spread out in the Y direction. But when the plate was in this position running the O1 from front to back, we saw >30 pixels of motion of the image on T-cam. There didn't seem to be a good position for the baseplate that gave nice round images as well as <5pixels of motion with O1 motion.

During this work I ended up doing something to break the ball of the back jacking screw. Maybe I was the jacking screw in too tight; not sure.

After replacing the jacking screw with a spare, the baseplate as aligned as best as possible on the filed lens target. It was also well aligned vertically to the iris on the modulator. But there is ~1mm of a misalignment in X (O1 motion). This was just about solar noon, so too late to easily align the O1.

Checking the image position on the t-cam, I saw 5 X, 4Y pixels of image motion of the solar disk when running the O1 across its whole range.

From 22:10:56->22:14:14UT It tried taking some 1083 distortion grid images. I think the 22:14:14 might be the best set of this distortion data.

After this we re-ran the focus vs wavelength test to make sure the O1 didnt move in Z during the last months alignments.

This focus sequence has been run multiple times due to clouds moving thru the area during just about every cookbook run.

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ONSITE STAFF: berkey