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Mauna Loa Solar Observatory Observer's Log  
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Sat Nov 12 17:18:37 GMT 2022

Year: 22 Doy: 316

Observer: embern

Sat Nov 12 18:35:21	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 18:40:03	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 18:50:37	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 18:51:55	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 18:53:05	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 18:56:56	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 18:57:57	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 18:58:49	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 18:59:42	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 19:00:37	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 19:01:28	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 19:02:19	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 19:03:11	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 19:04:03	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 19:05:44	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 19:06:37	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 19:07:32	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 19:08:25	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 19:10:33	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 19:13:31	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 19:14:09	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 19:14:56	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 19:15:33	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 19:16:12	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 19:16:50	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 19:20:59	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 19:22:56	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 19:26:16	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 19:26:56	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 19:27:31	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 19:40:41	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 19:42:50	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 19:49:15	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 19:54:44	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 20:45:46	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 20:58:09	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 21:02:11	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 21:03:58	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 21:05:43	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 21:10:02	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 21:14:40	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 21:22:03	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 21:24:39	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 21:29:50	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0
Sat Nov 12 21:36:24	GMT 2022	Running	UCOMP	Cookbook	spectragraph_validation.cbk	line 0

\*\*UCOMP PROBLEM COMMENT BY embern\*\* : Sun Nov 13 01:53:32 GMT 2022

UCOMP servicing continued today.

Using data captured yesterday/last night; were we fed the TCAM output of the instrument with only the filterwheel, lyot filter and beam splitter in the instrument we fed light via a fiber into a spectragraph.

With the grading tilted to put the first order reflection for the light from each per-filter region (grading was titled between change in wavelength); we took 5\*40\*50 random tuning of the lyot filter voltage; to look at how the light off the grading changed with tuning. Steve then fit use the magic code to find a fit for the proper tuning phase files at each wavelength.

This morning we after building the turning files we took recipes in each of the pre-filters (old and new), with 13 tunings across the wave-region. In each of these wave regions we saw the light move across the spectra graph/camera in a predictable way with onl

y a single bright wavelength. Which I think confirms the wavelength tuning files are correct!!!

Happy noises.

Time to switch to solving the stray light problem!

We then about 11:40HST we broke down the spectra-graph and pulled the related optics out of the instrument box (lamp, lamp power supply, focusing lens, and fiber feed. We then carefully removed the lyot filter and PBS assembly.

A small laser was installed in a 1" thorlabs tip/tilt assembly mounted into the UCOMP alignment targets at the very back of the instrument plate. This was projected forward to a set of iris toward the front of the alignment plate to ensure a bore-sight laser on the instrument plate. We then projected the laser light up to the O1 and on the retro-reflections from the front and back surface we found a miss-alignment in both tip/and tilt as well as centration. Reflection off the back surface of the lens was about 1" North and West of the center of the iris (~8' behind the O1).

We were able to improve on this position by shifting and rotating the O1 on the surface of the spar as well as shimming the front and back surfaces up and down. At this point the alignment has not converged but the crew is starting to make small mistakes so we will pick it up again tomorrow.

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

ONSITE STAFF: berkey, embern, Maurice, Steve