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Mauna Loa Solar Observatory Observer's Log  
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Thu Mar 24 17:09:59 GMT 2022

Year: 22 Doy: 083

Observer: berkey

WEATHER COMMENT: berkey: Thu Mar 24 17:10:09 GMT 2022

Temp: 40.6f, Humidity: 33%, Pressure: 28.791in, Wind: 8mph from 135degs, Skies: clear  
\_\_\_\_end\_\_\_\_

GENERAL COMMENT BY berkey: Thu Mar 24 17:22:27 GMT 2022

PM Blew off Kcor 01

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

GENERAL COMMENT BY berkey: Thu Mar 24 17:22:31 GMT 2022

PM Blew off UCoMP 01

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

Thu Mar 24 17:22:36 GMT 2022 Running UCOMP Cookbook all\_wavelength\_coronal\_flat.cbk line 0

Thu Mar 24 17:25:44 GMT 2022 Kcor Focus/alignment program exited

Thu Mar 24 17:28:49 GMT 2022 KCOR Start Synoptic Patrol

Thu Mar 24 17:37:56 GMT 2022 Running UCOMP Cookbook all\_wavelength\_coronal.cbk line 0

Thu Mar 24 17:46:00 GMT 2022 Running UCOMP Cookbook all\_wavelength\_coronal.cbk line 6

UCoMP COMMENT BY berkey: Thu Mar 24 17:48:49 GMT 2022

Updated ucomp recipes for 706 to use BLUE continuum

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

Thu Mar 24 18:07:22 GMT 2022 Running UCOMP Cookbook all\_wavelength\_coronal.cbk line 0

Thu Mar 24 18:19:14 GMT 2022 Running UCOMP Cookbook all\_wavelength\_coronal\_flat.cbk line 0

Thu Mar 24 18:34:33 GMT 2022 Running UCOMP Cookbook all\_wavelength\_coronal.cbk line 0

Thu Mar 24 18:59:16 GMT 2022 KCOR End Patrol

Thu Mar 24 18:59:17 GMT 2022 KCOR Start Calibration script: c:\kcor\mlso-calibration22deg-20171025.ini

Thu Mar 24 19:03:51 GMT 2022 Running UCOMP Cookbook waves\_1074\_1hour.cbk line 0

Thu Mar 24 19:14:29 GMT 2022 KCOR End Calibration Script

Thu Mar 24 19:14:45 GMT 2022 KCOR Start Synoptic Patrol

Thu Mar 24 19:14:46 GMT 2022 KCOR Start Synoptic Patrol

Thu Mar 24 20:13:52 GMT 2022 Running UCOMP Cookbook no-occulter-flat.cbk line 0

Thu Mar 24 20:20:20 GMT 2022 Running UCOMP Cookbook all\_wavelength\_coronal.cbk line 0

Thu Mar 24 20:48:12 GMT 2022 Running UCOMP Cookbook all\_wavelength\_coronal\_flat.cbk line 0

Thu Mar 24 21:03:31 GMT 2022 Running UCOMP Cookbook all\_wavelength\_coronal.cbk line 0

Thu Mar 24 21:31:34 GMT 2022 Running UCOMP Cookbook all\_wavelength\_coronal.cbk line 0

Thu Mar 24 21:57:56 GMT 2022 Running UCOMP Cookbook all\_wavelength\_coronal.cbk line 17

Thu Mar 24 22:00:30 GMT 2022 Running UCOMP Cookbook all\_wavelength\_coronal.cbk line 0

Thu Mar 24 22:28:15 GMT 2022 Running UCOMP Cookbook all\_wavelength\_coronal\_flat.cbk line 0

Thu Mar 24 22:43:33 GMT 2022 Running UCOMP Cookbook all\_wavelength\_coronal.cbk line 0

Thu Mar 24 23:05:13 GMT 2022 UCoMP Paused for clouds

Thu Mar 24 23:05:23 GMT 2022 KCOR End Patrol

Thu Mar 24 23:11:50 GMT 2022 UCoMP Restarted from pause

Thu Mar 24 23:13:45 GMT 2022 UCoMP Paused for clouds

Thu Mar 24 23:21:11 GMT 2022 UCoMP Restarted from pause

Thu Mar 24 23:23:57 GMT 2022 Running UCOMP Cookbook all\_wavelength\_coronal.cbk line 17

Thu Mar 24 23:26:30 GMT 2022 Running UCOMP Cookbook all\_wavelength\_coronal.cbk line 0

Thu Mar 24 23:38:31 GMT 2022 UCoMP Paused for clouds

Thu Mar 24 23:42:10 GMT 2022 UCoMP Restarted from pause

Thu Mar 24 23:42:43 GMT 2022 UCoMP Paused for clouds

KCOR COMMENT BY berkey: Fri Mar 25 00:22:56 GMT 2022

Made some updates to the kcor occulter alignment algorithm.

The new version finds the center of the occulter by taking a sub-window in the image of the middle 500x500 pixels. And we would then find the barycenter of the 99,000 darkest pixels in this window. We then use the X-Y position of the center of the occulter on the camera as the target for the final position of where we want to align the bright ring of pixels around the occulter.

Also added some checks to not calculate and SGS targets when the kcor images are either to bright or to dim. Both of these conditions tend to occur when we have passing clouds. First we get some saturation when the clouds cross the FOV; then if we keep taking a little data with the ND-cover in the beam we get in the dim conditions. When images are bright we may be aligning on the wrong thing sending invalid targets. When images are to dim the guider may be tracking poorly; this can make the tracking extra wanky.

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

Fri Mar 25 01:39:46 GMT 2022 UCoMP Restarted from pause

Fri Mar 25 01:54:45 GMT 2022 Running UCOMP Cookbook all\_wavelength\_coronal.cbk line 0

GENERAL COMMENT BY berkey: Fri Mar 25 01:56:25 GMT 2022

Passing thru some thin cirrus.

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

KCOR COMMENT BY berkey: Fri Mar 25 02:00:13 GMT 2022

Changed the number of pixels to used in the kcor bright ring centroid calculation was 3000 now 5000. This seems to be give a much better alignment. However since we were using 3000 all morning there is a jump on the position of the corona in the L2 images, this afternoon.

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

Fri Mar 25 02:15:37 GMT 2022 UCoMP Paused for clouds

GENERAL COMMENT BY berkey: Fri Mar 25 02:19:23 GMT 2022

Amazing anvil cloud over Mauna Kea and some satellite suggests a similar cloud on the SW flank of Mauna Loa.

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

Fri Mar 25 02:31:38 GMT 2022 UCoMP Restarted from pause

UCoMP COMMENT BY berkey: Fri Mar 25 02:38:42 GMT 2022

Fixed a bug in the ucomp observing code that talks to the filterwheel. There was a race condition where it tried to retry slow moves before the old one finished; and sometimes wouldn't recover.

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

ONSITE STAFF: berkey