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21 September 1961

THE CLIMAX - AUGUST 1961

August skies continued in the pattern set by July - that is, clear for a few hours after sunrise and then cloudy the rest of the day. Clear sky amounted to roughly 10% of total time available, and was mostly class III and IV.

The recoating of the coronagraph mirrors was finished during the month, and the instrument went back into operation on 11 August. Joe Rush finished his alignment of the coronagraph optics while the mirrors were out, although Joe feels that more attention is needed to accomplish this alignment to the fine degree that he has in mind. The instrument seems to be a little faster since the advent of the new mirrors, but the scattered light level is still the same.

Coronagraph observations for the month were rather sketchy for the reasons listed above:

Green Survey: seven good and two partial.

Red Survey; 7 good and 2 partial, and 1 good for ALR only.

Iron Series: 1 good.

Image Tube: A lot of preliminary work and time was spent on this project. Focus and exposure tests were run, and finally the two coronal lines (10747 & 10798) were observed at 7 minute exposures on Plus*X film. A new magnet on order holds promise of shorter exposures in the future.

The flare patrol operated without serious mishap for the month. There were a number of small problems connected with the operation, but no major breakdowns or trouble. Some relatively minor modifications are planned for the future, but the main source of trouble at the present seems to be the lack of some way to judge a correct exposure time. We are using 5E film developed 20 minutes in D-L9, and this seems to make the film very sensitive to changes in sky transparency throughout the day. Many of our pictures are therefore either over- or underexposed. A meter of some kind to measure the brightness of the sun's disk seems to be the first step, with an automatic exposure control device the ultimate solution.

A determined effort is being made by the shop people to get the K-Coronameter back into operation in time for the good observing period that usually comes in the fall. Bob Lee, Charlie, and Lee

The Climax - August 1961 - 2

are giving the spar and instrument a thorough going-over electrically and mechanically. When this is done, Chris hopes to come up and get the instrument properly working and do some of the operating of it, himself.

The first step has been taken toward actual installation of the large new coronagraph. The objective lens mount has been placed on the spar.

While the mirrors were out of the coronagraph the lenses were removed and taken to Boulder for calibration on the Carey spectrophotometer. All except the first objective lens were tested. The results were not too surprising except that one lens (the F1) cut off a little earlier in the blue than the others. We later decided that this may have been due to the fact that we used a portion of the lens out near the edge because of the hole in this lens for mounting the occulting disk. Most of the lenses began cutting off somewhere below 4000 angstroms.

One addition to the July report: During the month we experimented with coronal observations taken through the triplet objective lens. This is a program that we have had in mind for some time, and Hal, particularly, was interested in it. Some green coronal line observations were made as well as some active region spectra. The results seem to suggest that this lens does not yield an appreciatively higher background than the singlet, and therefore the lens may hold great promise for in-focus spectra of a large spectral region. The lens is now in the process of being re-cemented by Bud Pierson - it had developed some air bubbles.

Bob Eddy paid a visit to Sac Peak early in the month to familiarize himself with the set-up down there. This is in connection with an effort on the part of the Climax staff to visit the Peak more frequently and keep up on what is going on down there.

The tree-topping around the small dome was finished during the month, and we finally accomplished our move to the big dome with the office and darkroom. Work is under way on the intercom system, but the wire that was ordered from the surplus property lists has not arrived as yet.

On the fifth of August the annual softball game between Boulder and Climax took place. Climax won handily, for the third straight year, in spite of the fact that the game was played in Boulder this year, and Climax had only two of its team members there. Climax did receive some valuable aid from such standouts as Home-Run Zirin, Galloping Grant, Dead Finger Hansen, and Old Pro Weinberg.

Kuth

*For Sept;
Electronics room
Visitors
K-Coronameter*