

From Glenn Schneider:

For ToM 2019, I had the pleasure of observing the from the Big Bear Solar Observatory, for a “return” visit after ToM2016:

http://nicmosis.as.arizona.edu:8000/ECLIPSE_WEB/TOM2016/TOM2016.html<http://nicmosis.as.arizona.edu:8000/ECLIPSE_WEB/TOM2016/TOM2016.html>

There, joining with Jay Pasachoff, Evan Zucker, and several others, post-sunrise portion of Monday’s event was seen under clear skies. (The transit was well in progress at sunrise.)

While the 1.6-meter Goode Adaptive Optics solar telescope (see above web page) acquired high-resolution spectral and imaging data once the Sun was high enough in the sky to obtain AO lock (~ 23 deg, roughly an hour and a half before the end of the transit), in a small dome just a few tens of meters away I set up a 3.5-inch Questar “piggyback” for contemporaneous “white light” imaging on the mounting spar of a 4-inch H-alpha telescope. Here seen with Jay [right] and myself [left], with judicious use of duct tape that no telescope should be without ;-)- photo courtesy of Evan.

http://nicmosis.as.arizona.edu:8000/ECLIPSE_WEB/TOM2019/DSC00480.jpeg<http://nicmosis.as.arizona.edu:8000/ECLIPSE_WEB/TOM2019/DSC00480.jpeg> {prior email missing link}

While the latter half of the transit was followed in these smaller telescopes from soon after sunrise, my principal interest was in imaging from near- and limb-crossing egress from several minutes before C3 through C4 (background:

see http://nicmosis.as.arizona.edu:8000/PUBLICATIONS/ICARUS_TRANSIT.pdf<http://nicmosis.as.arizona.edu:8000/PUBLICATIONS/ICARUS_TRANSIT.pdf>).

Eventually (as time permits), I’ll put together a summary page on my web server. But for now, here is a full-disk image at C3 minus 30 seconds (at 1/4 original image scale):

http://nicmosis.as.arizona.edu:8000/ECLIPSE_WEB/TOM2019/5078_25P.jpg<http://nicmosis.as.arizona.edu:8000/ECLIPSE_WEB/TOM2019/5078_25P.jpg>

with Mercury playing “Where’s Waldo” just interior to the solar limb.

For a progression through limb-crossing egress see a 10-image sequence (2x5 mosaic, chronologically top-left to bottom-right) “close-up” extracted on the region around Mercury, starting with the above image, and following every 15 seconds.

http://nicmosis.as.arizona.edu:8000/ECLIPSE_WEB/TOM2019/5x2_EGRESS.jpg<http://nicmosis.as.arizona.edu:8000/ECLIPSE_WEB/TOM2019/5x2_EGRESS.jpg>

The third image was taken within a few seconds prior to geometrical third contact - with no significant evidence in that of a “black drop” effect. During this time-resolved sequence, the winds had become quite strong blowing from the East, and the natural seeing rather variable, with consequences for some dispersion in image quality during this egress sequence.

And then, it was packing up for the drive back to Tucson, and waiting for Nov. 13, 2032...

Cheers,
Glenn Schneider__,_