

SwRI/IOTA campaign for valuable occultation by Patroclus/Menoetius, s. cen. USA, Aug. 11

The Southwest Research Institute plans a large campaign for the Aug. 11<sup>th</sup> occultation by the large Trojan binary system, (617) Patroclus and its almost as large satellite Menoetius; see the attached Occult header information for the event and the SwRI map of it, which is a screen view of their interactive Google map at <https://lucy.swri.edu/occ/predictions/20240811Patroclus/>. The title of the SwRI page is misleading, giving the star's  $G^*$  mag. as 8.4, but the star's actual Gaia mag. is 13.9, and the APASS V mag. is 14.0, so at least 8-in. scopes with integrating cameras will be needed for this.  $G^*$  mag. is a mag. modified to take into account the asteroid's motion (unusually slow for this event) and size, as a gauge for astrometry from the event, but that's not the main goal for this event, which is to determine good profiles for both bodies. The event will show up on OW cloud in a few days, but ignore it and IOTA's prediction for the event, including on my map of 2024 N. American Trojan events at <https://occultations.org/publications/rasc/2024/nam24Trojanoccs.pdf> [that document will be updated in a few days] since only SwRI has the precise astrometric points from several past occultations that they have used to update their orbit for both objects, so use the link for their Google map given above, for the paths. As you can see from them, New Mexico will be most important for Patroclus and Texas for Menoetius, but weather could force consideration of States north of those.

The SwRI campaign won't be as large as the last three for Polymele, but they will support travel for several observers to cover the event. It looks like they hope to have 30 stations, but could use a few more, especially by those close to the path who might need little or no travel support. Last week, Marc Buie wrote (to all on [lucyoccs.slack.com](https://lucyoccs.slack.com)):

“A reminder to all. There will soon be a google form posted to register your interest in participating. That is the one and only way to get on the prospective observer list. If you are, or if you know of anyone that is, interested in participating in this campaign, send a request to [@Brian Keeney](#) (on Slack; his direct email address is [bkeeney@gmail.com](mailto:bkeeney@gmail.com)) to be (or have them) added to Slack. Our process this time will require being added to slack *before* registering interest on the form.”

The link to the google form will be announced very soon on the event's [lucyoccs.slack.com](https://lucyoccs.slack.com) channel (# pa20240811), probably later today, June 11, so send a message soon to Brian Keeney, if you are NOT currently set up with that Slack channel and are interested in this event. Everyone interested in the event also needs to read the attached message from Marc about the strategy for this event, and the equipment and procedures needed to observe it, posted recently on the event's Slack channel. He stresses that those planning to use their own equipment will need to generate their own occultation light curve (.csv) files. Many of us are already doing this for our own IOTA observations, and if any troubles are encountered with your observations, Tony George, Bob Anderson, and others will be able to help for this important event. But Tony will be travelling (not for this event) during August, so

he probably won't be able to respond quickly to any requests for help. Some more about the event will be posted in a few days on IOTA's Trojan occultations page noted above.

David