This is a call for observers to help with two upcoming occultations by 65803 Didymos, a near-Earth asteroid with a moon named Dimorphos. Dimorphos is the target of a currently-flying NASA mission, so the Didymos occultations are especially important. We wish to mount as large an IOTA campaign as we can for each of these events.

The first occultation is the night of July 19th-20th, occurring in the wee hours of the morning as seen from Nova Scotia, Maine, and Quebec. The link to it on OW Cloud is https://cloud.occultwatcher.net/event/565-65803-318810-646793-U192857 . By clicking on the globe on that site you can zoom in to your location so as to see what highways the path crosses, as well as find the exact time of the event at that site. The cloud forecast for this event is for cloudy skies all along the path, but we're still 6 days away, so the cloud forecast may change. The star is mag 11.2, so a scope of 8" aperture will be ample, and 5" will likely be sufficient. We're looking for a blink of 0.2 seconds duration. Record in integrated mode if necessary for detection of the star, as timing is less critical than cross-path position for this observation.

The second occultation is the night of July 23rd-24th, also in the wee hours of the morning as seen along a path from Georgia to Alberta. The link to it on OW Cloud is https://cloud.occultwatcher.net/event/569-65803-320252-646764-T01164-1 The cloud forecast is better for this event (but you may still have to drive to a cloud-free area). The star is mag 11.7, for which I suggest 0.067 seconds exposure integration if you are using a 5" scope. The duration of the event is essentially the same -- 0.2 seconds.

We need your help. The paths are very narrow, so observers must travel to them, or else the shadow will miss you. Fortunately, the events themselves are not difficult. The paths were updated with new data on ~ July 12, and there are more astrometric observations coming but we don't know whether they will be available by event time. It's time to go ahead with the predictions we have. There will be an elevation-corrected kml file available soon, and it will be essential to use it for such a small object (800 meter mean diameter).

As these are campaigns, we wish to assign each observer a chord at a specific distance northeast or southwest of the centerline, so as to avoid duplicate chords. Therefore, to participate you will do well to let me know of your intention to do so.

Since observers will have to travel to these events, it will be practical to find more than one good site along the path, so that if an area is cloudy you can go to another choice site 50 or more miles away. I expect to choose in advance sites along several highways separated by 100 miles, and on event night I'll set up all my telescopes along

whichever highway has the best cloud forecast. I choose sites by using Google Earth's overhead views and street views. I especially like to use major US (not state or local) highways, because the shoulders are often 50 to 70 feet wide. (Drivers cannot discern an all-black telescope at night when it's set up 65 feet from the pavement.)

Unfortunately, I'll not be able to participate in the July 20th event, but I'm all in for the July 24th event, planning on at least 5 scopes of my own.

When the elevation-corrected kml file becomes available, I'll send it to observers with detailed instructions about how to use it to find your chord along the path.

-- Roger