

Call for observations - (269) Justitia on 20260411, midwestern and southeastern United States + central Canada

Hello,

The University of Virginia group will be sending out ~10 telescopes to observe a long-duration, low mag-drop event by (269) Justitia on Apr. 11th, 2026, at approximately 07:30-08:00 UTC. This asteroid is the ultimate target of the EMA spacecraft, which will orbit and eventually deploy a lander onto the surface of Justitia. The results from these occultation observations will be contributed to the 3D modeling of the asteroid to best understand its gravity field, so that the EMA can enter into the safest orbit around it. Previous observations have shown significant topographical deviations from a spheroid. The shadow for this occultation will be passing over the southeastern + midwestern United States, from Florida to Minnesota and up through Manitoba. Further south, the shadow passes over the Caribbean and splits South America down the middle.

The event is long (~16 s at maximum) but is only a 0.21 mag drop. We will be conducting tests in the next few nights to determine the best exposure rate for these observations but the combined magnitude of Justitia and the star will be 11.90, so this event should be accessible to smaller telescopes. We are optimistic that despite the low mag-drop, neighboring chords will constrain the interpretation of D and R times and that larger uncertainties are tolerable in this instance.

If you would like to contribute a mobile chord to this occultation, please reach out to me at this address or rxr4nd@virginia.edu, so that we may organize chords to obtain the most even coverage of the body.

OWC link:

<https://cloud.occultwatcher.net/event/1926-269-224503-647263-U063130>

Best,

-Teddy