

NEWS & ANNOUNCEMENTS

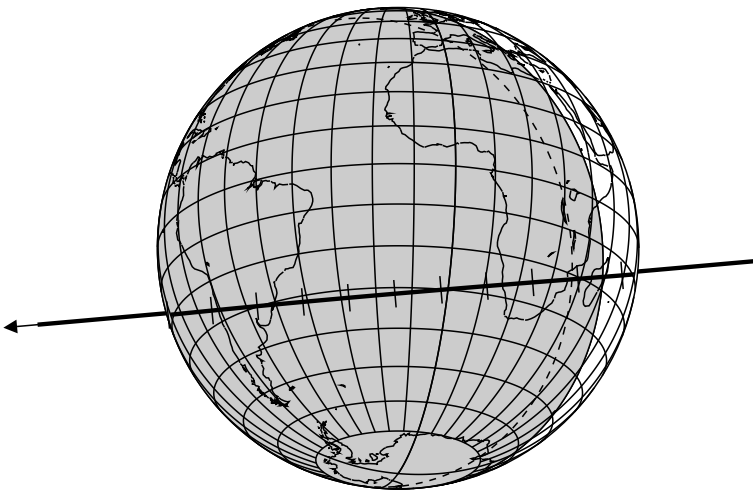
Occultation Observation Support for New Horizons KBO Encounter

Having completed its successful flyby of the Pluto system, the New Horizons spacecraft is on a trajectory for a January 2019 encounter with the 2014 MU69, an approximately 40 km diameter member of the cold classical Kuiper Belt. Earth-based observers have an opportunity to probe the Hill sphere of MU69 and potentially constrain its position and diameter through upcoming stellar occultation events. Three events are forecast in 2017: June 3, July 10, and July 17. Each event is depicted in detail below. These figures are the best available solution as of 2016 December 11 and are provided by Eliot Young with credit to Marc Buie, Larry Wasserman, and Simon Porter. Ongoing updates will be available at www.boulder.swri.edu/nh-support-obs

For ground-based observers, particular focus is being directed toward the 2017 June 3 event, for two reasons:

- It crosses two continents (Africa and South America) at locations that have reasonable prospects in terms of setting up a picket fence of observers.
- A detection by ground-based observers on 2017 June 3 will greatly refine the position, thereby greatly improving the chances of SOFIA getting in the shadow path on for the 2017 July 10 and July 17 events.

Interested observers willing to conduct and coordinate their measurements should contact azangari@boulder.swri.edu



NH -08194514G by 14MU69 Gaia *, MWB-H-PM
2017/06/03 03:11:50

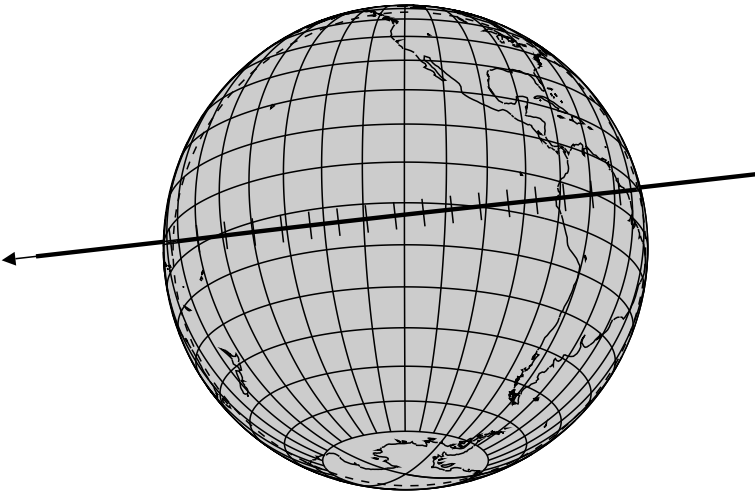
RA: 19 03 34.493 DEC: -20 34 39.34

Diam: 75.0 = 0.002as Max Duration: 3.7s Q: 82.1 Solar elongation: 147.6

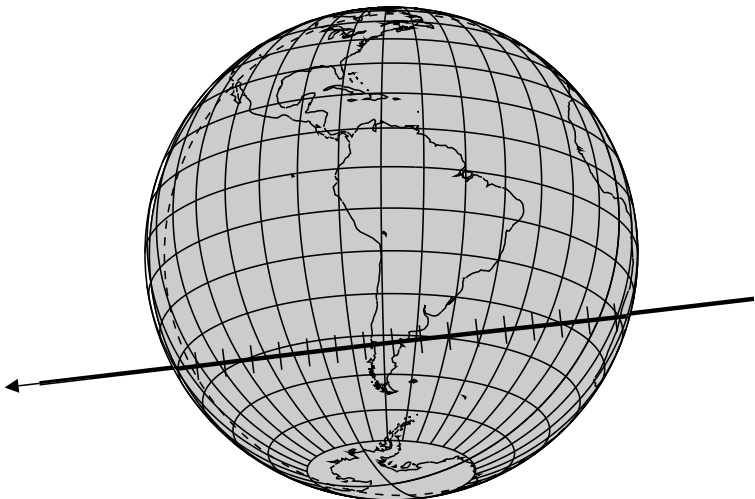
Lunar elongation: 103.3 Illuminated: 66.3%

Sun altitude at -12.0 shown dotted

Ticks from: 03:07:00 to 03:17:00 every 1 min



NH -07659414G by 14MU69 Gaia * MWB-H-PM
2017/07/10 07:45:52
RA: 19 00 41.620 DEC: -20 38 44.53
Diam: 75.0 = 0.002as Max Duration: 3.1s Q: 81.8 Solar elongation: 175.7
Lunar elongation: 16.7 Illuminated: 98.7% Sun altitude at -12.0 shown dotted
Ticks from: 07:42:00 to 07:50:00 every 30 sec



NH -07544526G by 14MU69 Gaia * MWB-H-PM
2017/07/17 03:49:50
RA: 19 00 08.292 DEC: -20 39 37.97
Diam: 75.0 = 0.002as Max Duration: 3.1s Q: 81.8 Solar elongation: 169.3
Lunar elongation: 105.1 Illuminated: 46.2%
Sun altitude at -12.0 shown dotted
Ticks from: 03:46:00 to 03:53:30 every 30 sec

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