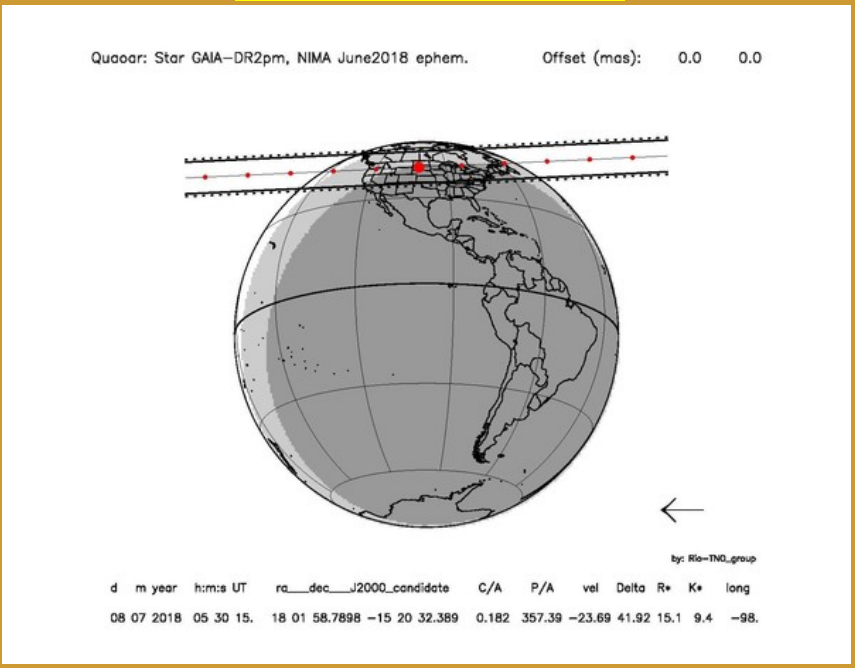
Quaoar 08/07/2018

Prediction based on Gaia DR2



Observation tips:

- Shadow moves from **East to West;**
- The nominal occultation time on the map, corresponds to the big red dot, the closest approach.
- Each red dot is separated by one minute;
- Dark gray is night and light gray is astronomical twilight (Sun at less than 18 deg below the horizon);
- *Absolute time accuracy is essential (see important note below);**

- Observations are requested from 05:25 to 05:35 Universal Time.

- Quaoar satellite (Weywot) position is not well known, so, to have a chance to detect it, we recommend to observations from 5:15 to 5:45.

After the observation, please fill the form available on this link (form), and send it to ribas(at)on.br.

Useful information:

Star J2000 coordinates:
RA 18 01 58.790 DEC -15 20 32.39
Day coordinates of the object:
RA 19 00 38.781 DEC -15 22 16.067

Star V mag	13.880
Star R mag	14.360
Star G mag	14.562

Star K mag	12.290
Magnitude drop in R	6.6
Maximum duration	47 sec
Moon | 30% illum.	@ 115 deg

Important note:

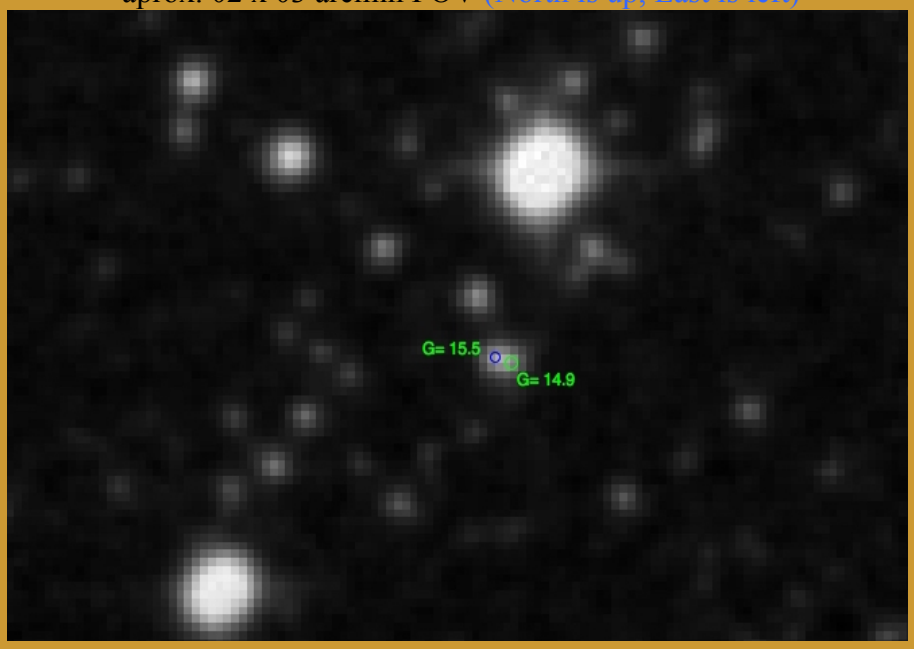
Absolute time accuracy is essential*

to connect all the observations together after the fact. Check the time of your computer with many sources (phone talked hour, different internet sites, ideally with a GPS). Its advised to check the registered time right after and right before the integrations, so if there is a drift, we can correct it by having the difference.

Beware of the dead time between the images: if you manage an exposure time of 1 sec (for example), but have your camera takes 2 sec to read the image, then there is a 67% chance that you miss the dis(re)-appearance of the star. So it's better to have, for example, a 4 sec integration, so you have 67% chance to get the occultation in one of your exposures.

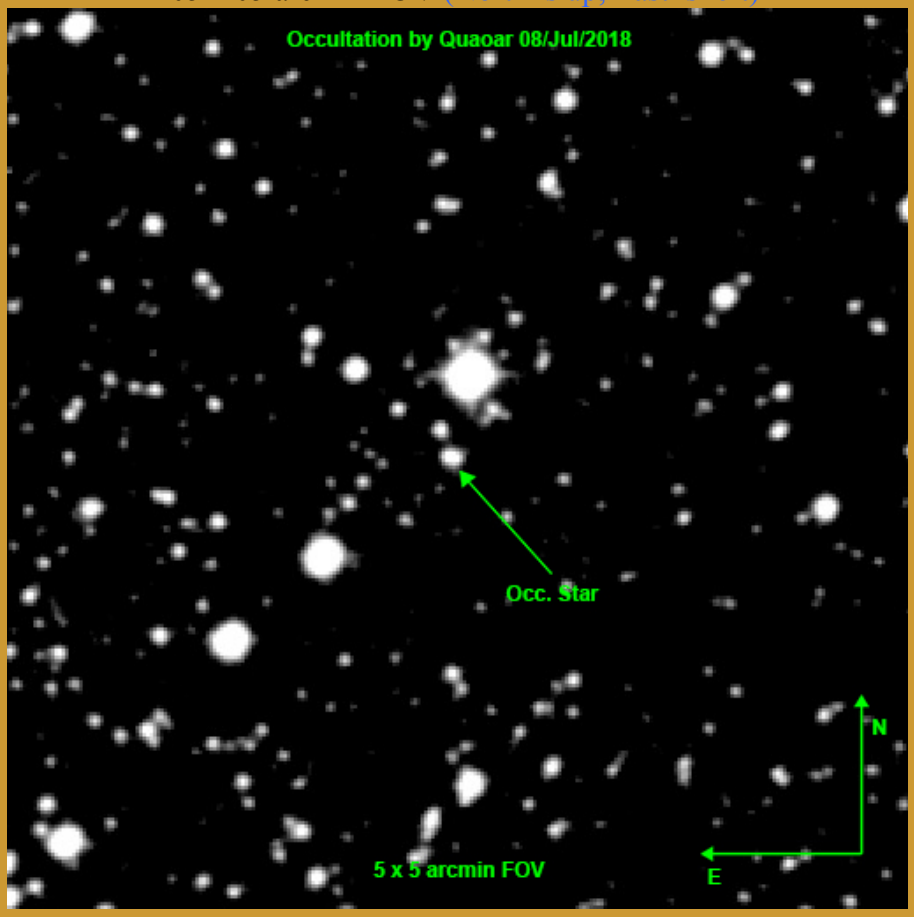
Finding charts from DSS:

aprox. 02 x 03 arcmin FOV (North is up, East is left)

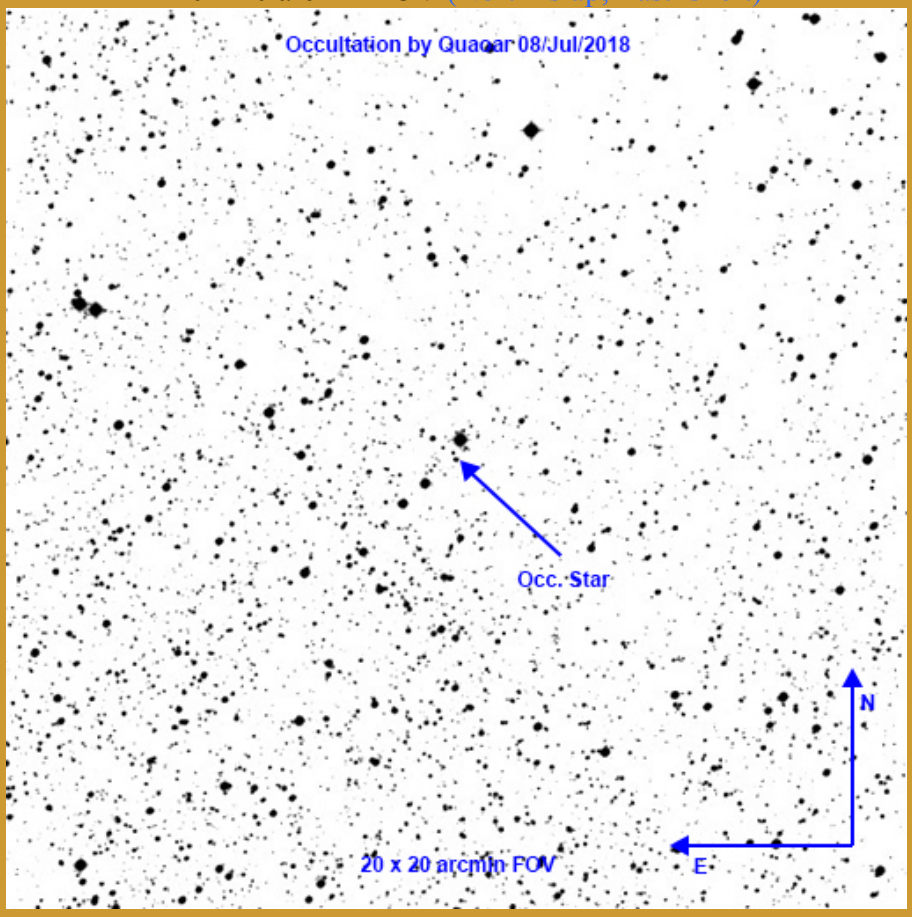


****-Those telescopes that were not able to resolve the stars, should consider that the SW (G=14.9) star was occulted, and that the expected magnitude drop is of about 1 mag.--***

05 x 05 arcmin FOV (North is up, East is left)

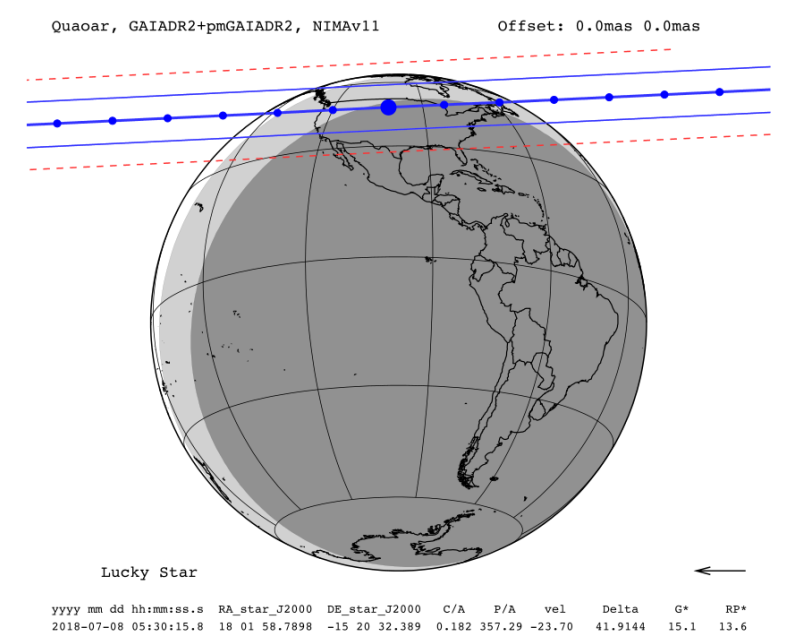


20 x 20 arcmin FOV (North is up, East is left)



Prediction

Prediction from Lucky Star web page (i).



(i) http://lesia.obspm.fr/lucky-star/predictions/single.php?p=8731

Please, see the observation tips at the top!