Occultation by the Big Comet C/2014 UN271 from the Oort Cloud predicted for Sun 19th September at 2:45am AEST Sydney time.

You would likely be aware of C/2014 UN271, a very long period object from the Oort Cloud that is due to achieve perihelion at about 10 AU from the sun around January 2031. Presently, it is 20 AU (about the orbit of Uranus) from the sun, inbound. Its orbital period is around 3 to 4 million years (subject to perturbations from the Oort Cloud).

It has been designated a comet due to "cometary activity" i.e. a halo of gas and dust visible around its centre point.

https://en.wikipedia.org/wiki/C/2014_UN271_(Bernardinelli-Bernstein)
https://www.space.com/newfound-comet-biggest-recorded-history

It turns out that Australia is uniquely placed to have a closer look at UN271 (at least for the next couple of years). There is an occultation predicted for 19th September 2021 at 2:45am AEST local Sydney time, as shown below in the prediction plot by Sam Deen (IOTA Occultations member). The eastern seaboard of Australia (and Tassie) could very well catch a glimpse of this object as it passes in front of a mag.16 star in Horologium. While this is not a bright star, it is quite a lot brighter than UN271 (which weighs in at mag.20, utterly out of the reach of any telescope in Australia except for the AAT).

The Linden 30, for example, would find this occultation of a mag.16 star to be a doddle (to quote Peter N's pleasant turn of phrase). We have done mag.18 with success.

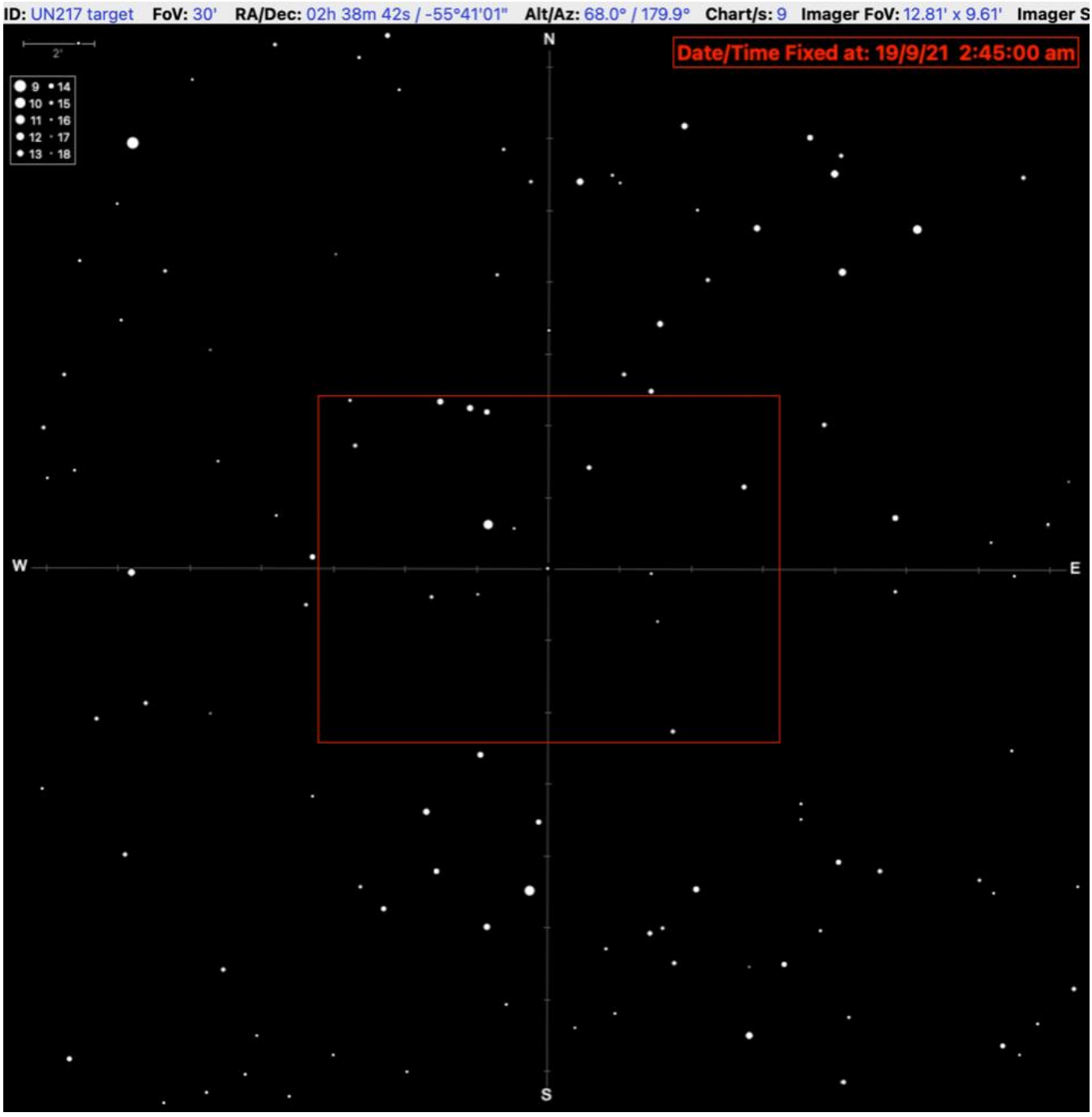
Note that this is a comet rather than an asteroid, so this prediction is based on extrapolations of an invariant orbit (i.e. no outgassing pushing the body away from the expected orbit) and no coma. Regular NASA Horizons predictions have their accuracy downgraded due to these known effects.

Sam's prediction is here:-
https://i.imgur.com/Lkq6oo5.png

Comment by Joan Dunham 28th Jun 2021:
If you check Wikipedia for the information on this comet, you find it is a very interesting object, very large, not considered tightly bound to the solar system, and not coming very close to us. It's next perihelion at 10AU is Jan 2031, and the orbit is considered well known as it has had a lot of observations, so there is a lot of time left for an occultation search. Its orbit is interesting, with an inclination of 95 deg, so it is a Solar polar orbit. And, sadly for us, it is mostly going to be a southern hemisphere object and, even more sadly, never going to be very bright. No gigantic tail spanning the skies, just, at best, a blurry dot about as bright as Pluto.

Another comment by Marshall Eubanks:
The question of whether or not it has satellites (or rings!) would be important to help with determining its past history. And, of course, it would be very good to know its true size.

Shown below is a 0.5° Finder field, with magnitudes and the FoV of the Linden 30 + ADVS:



Here is a Palomar Observatory Sky Survey of the same field:

Regards, Tony Barry
WSAAG Occ Crew