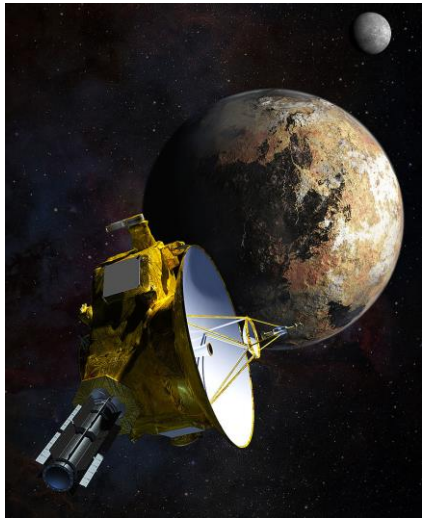
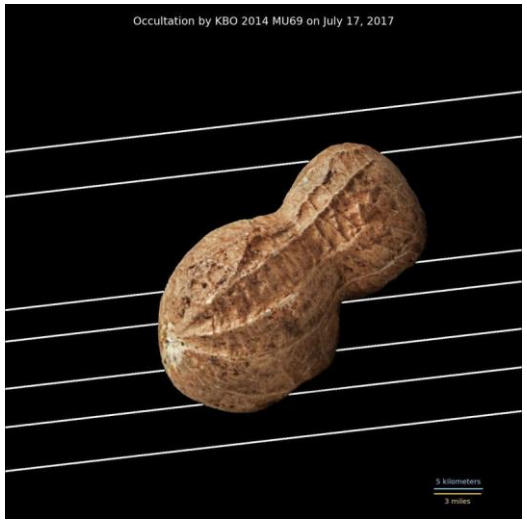
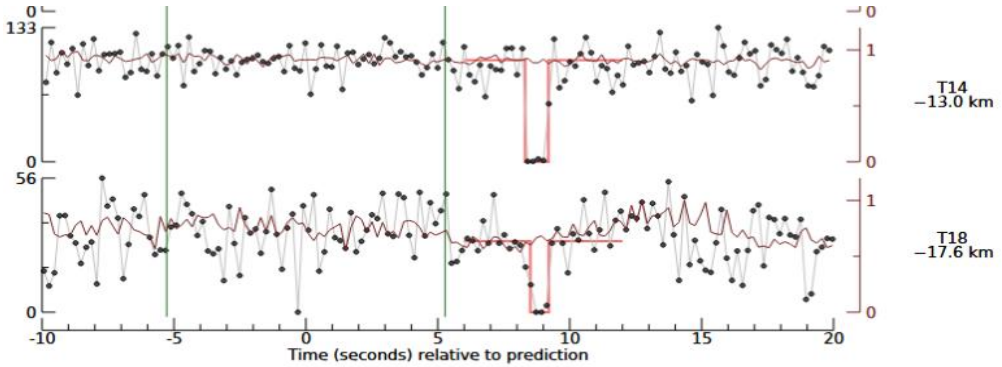
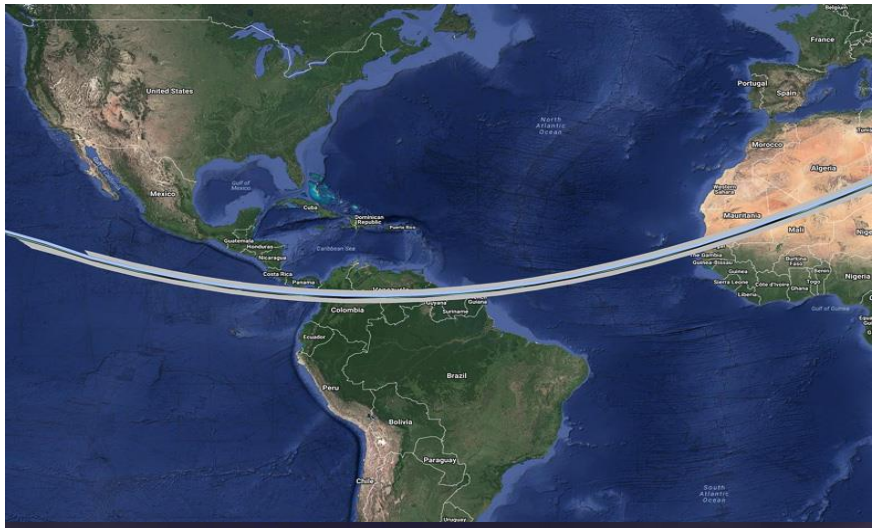
Occultation of 2014MU69 in Senegal

François Colas *(IMCCE, Obs de Paris, Lucky star)*
And all the Ultima Thule occultation teams
(Senegal, Colombia and Algéria)



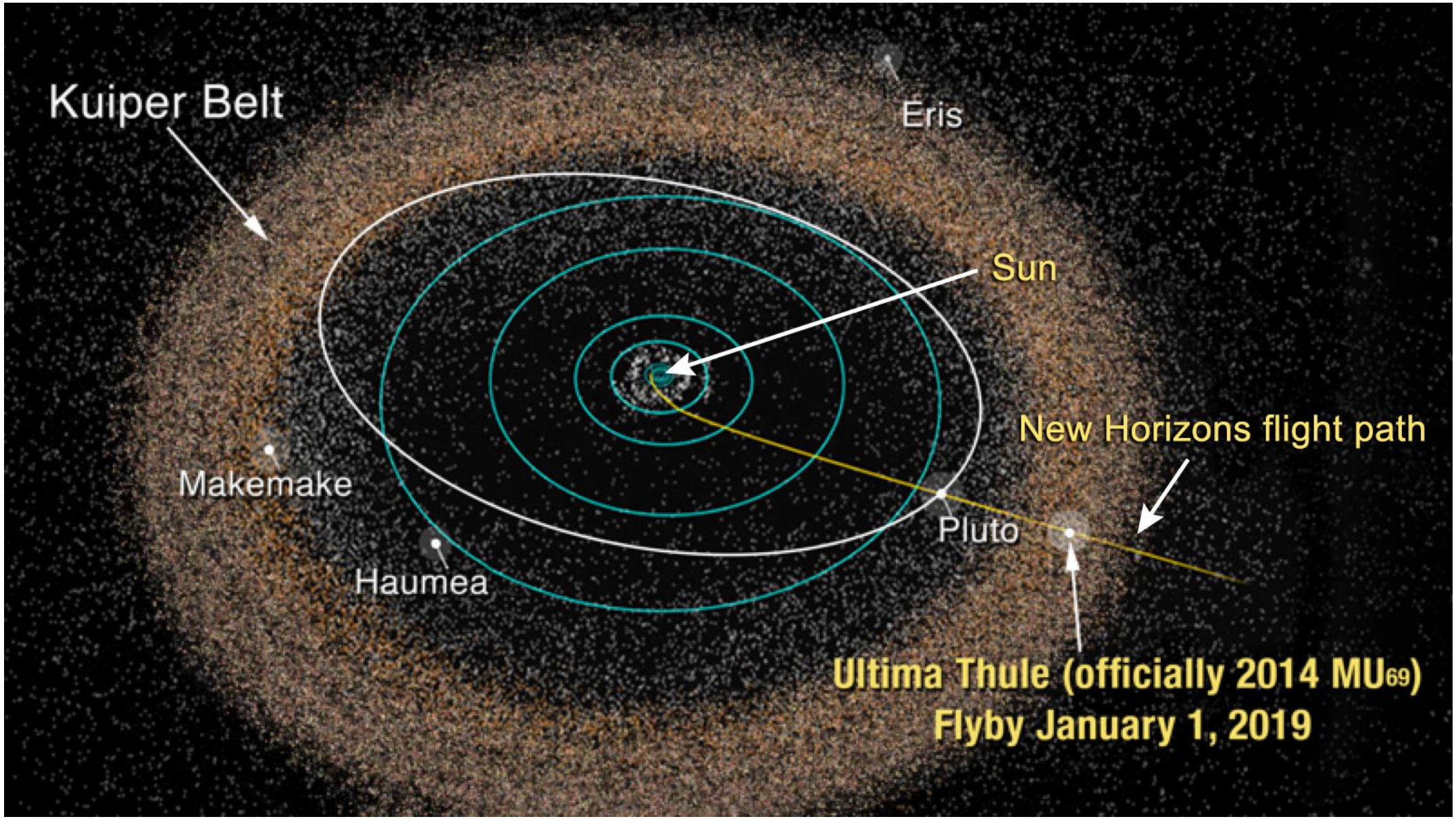






ESOP XXXVIII, Paris, 2019

New Horizon Extended Mission to (486958) 2014 MU69



Goals of the occultation before New Horizon fly-by

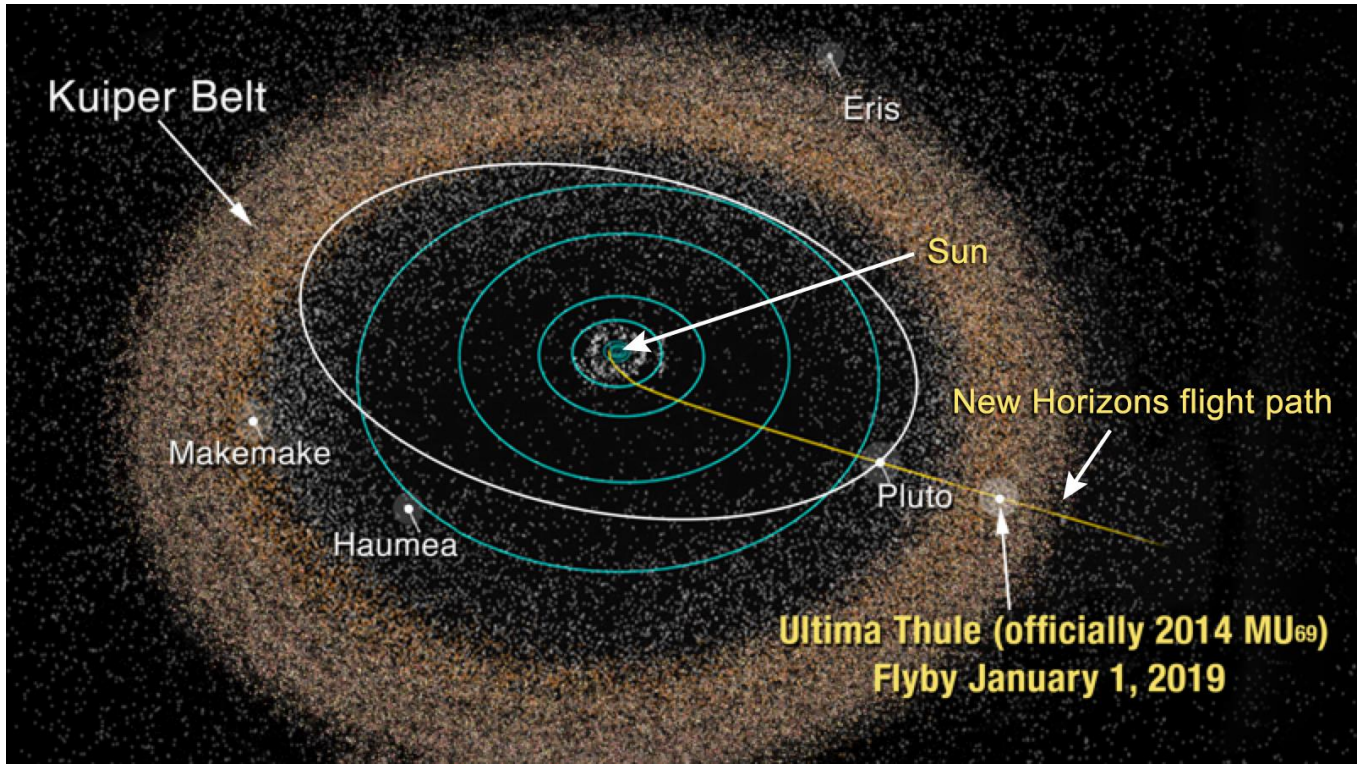
1) Size and albedo

The object magnitude (27 !) was barely known but is important for the space scraft schedule

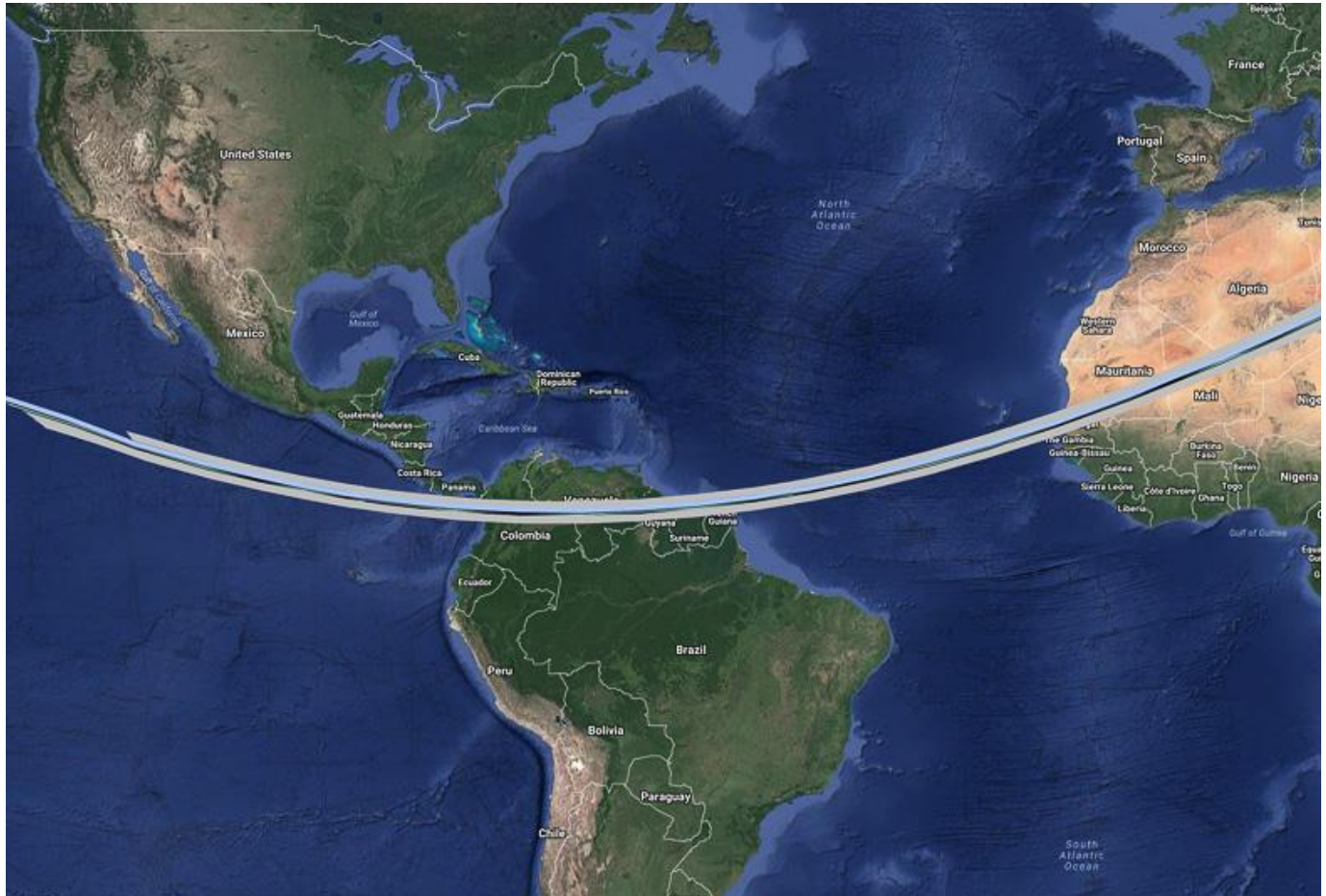
- **Exposure time**
- **Orientation of the cameras**
- **Field of view**

2) Orbit estimation

As the asteroid was descovered late it's Orbit was poorly known, especially it's heliocentric Distance.



Occultation path over Colombia, Sénégal and Algeria



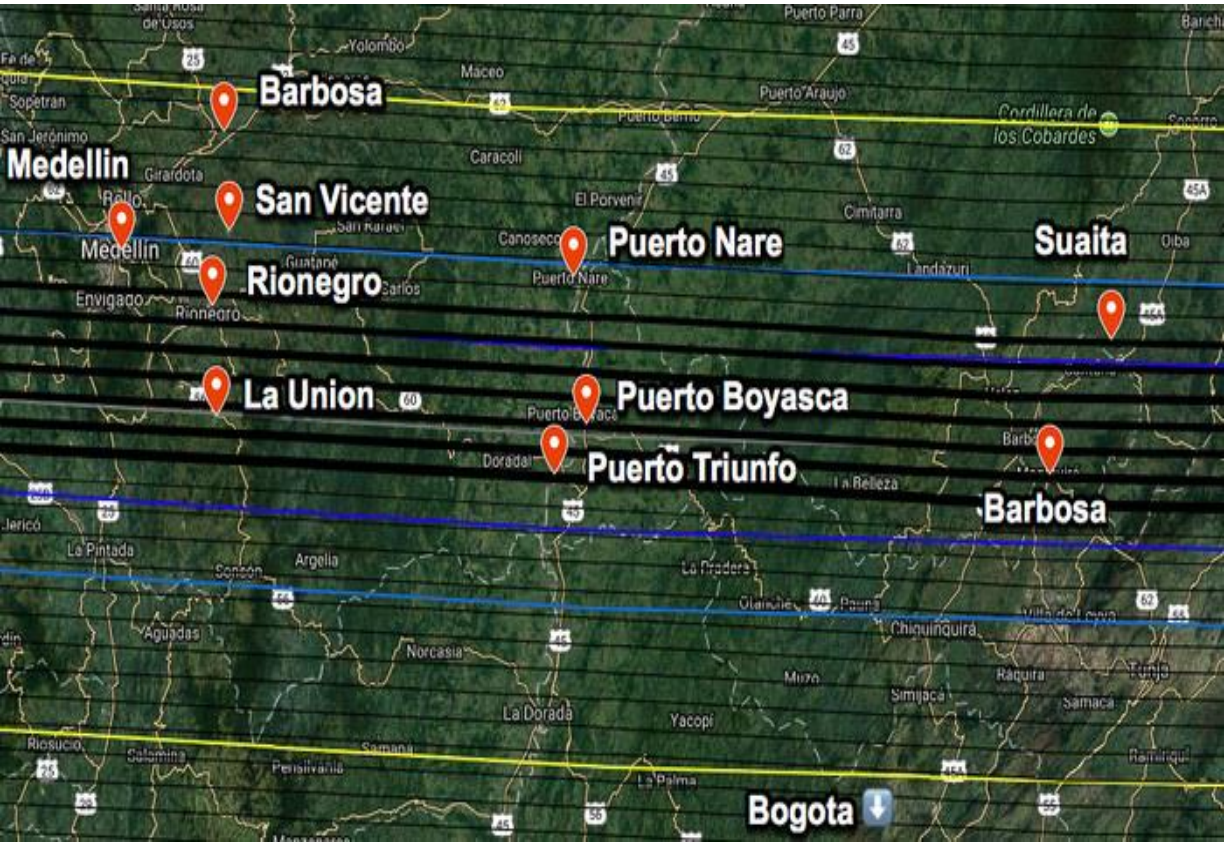
New Horizon Extended Mission to (486958) 2014 MU69
Needed an armada of 25 telescope along the occultation path !!!

Colombian Team

Rodrigo Leiva and the Colombian team

Diana Rojas (Asociacion de Astronomia de Colombia) with Pablo Escobar telescope !!!

Colombian Team



The Colombian plan

Training

Colombian Team

More images on
http://www.eaubergine.com/images/MU69_Colombia_Aug18/

Algerian Team

BABA AISSA Djounai (Algiers Observatory)

The observation Team

Algerian Team

Observation location near Tamanrasset 23 ° 26'38 ‘’N 05 ° 05'33 ‘’E
Celestron 11 CGEM telescope with the Watec 910HX-RC CCIR

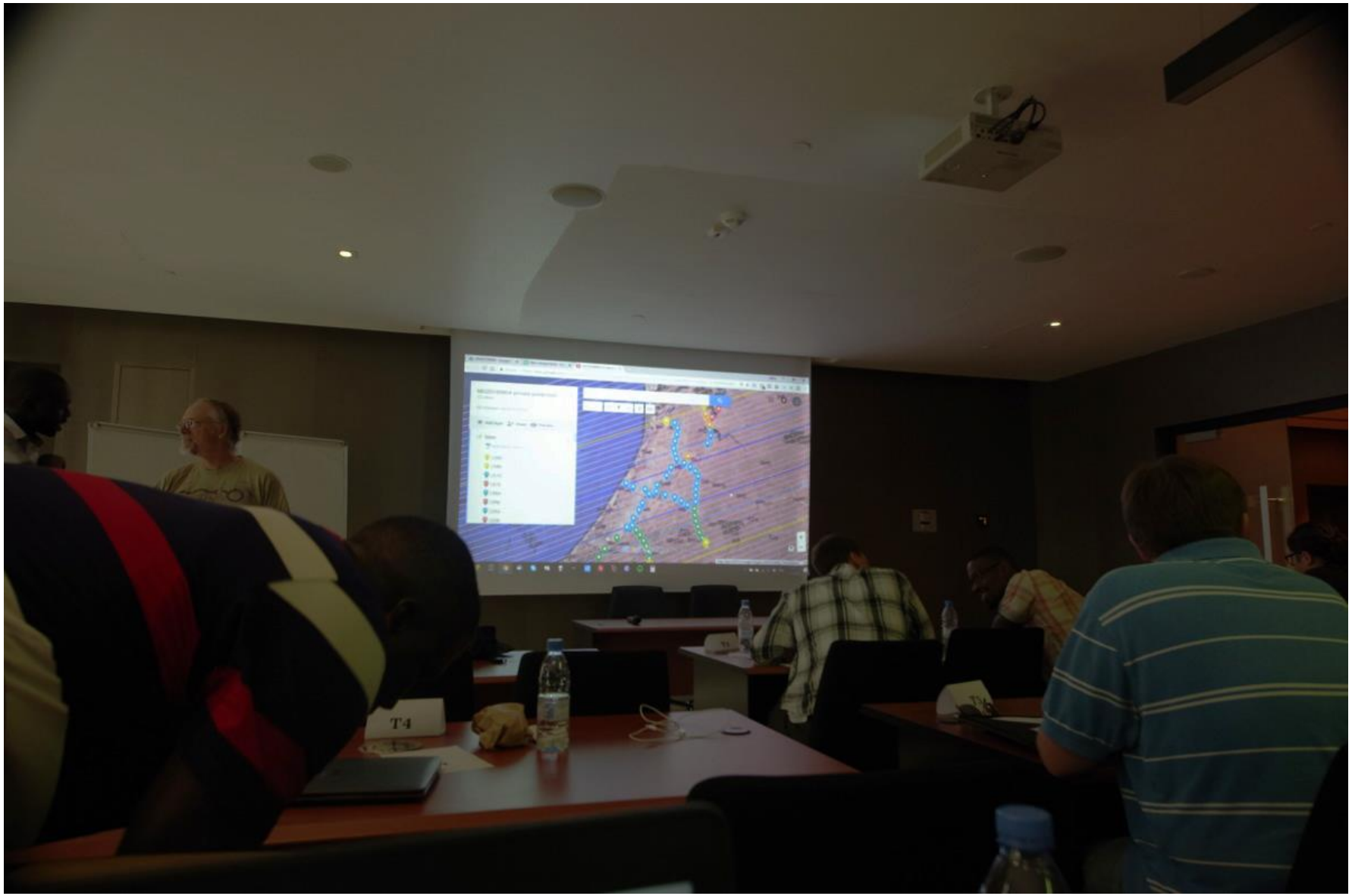
Senegal Team

Senegal Team

Visit of science minister of Senegal

Senegal Team !!!

Senegal Team

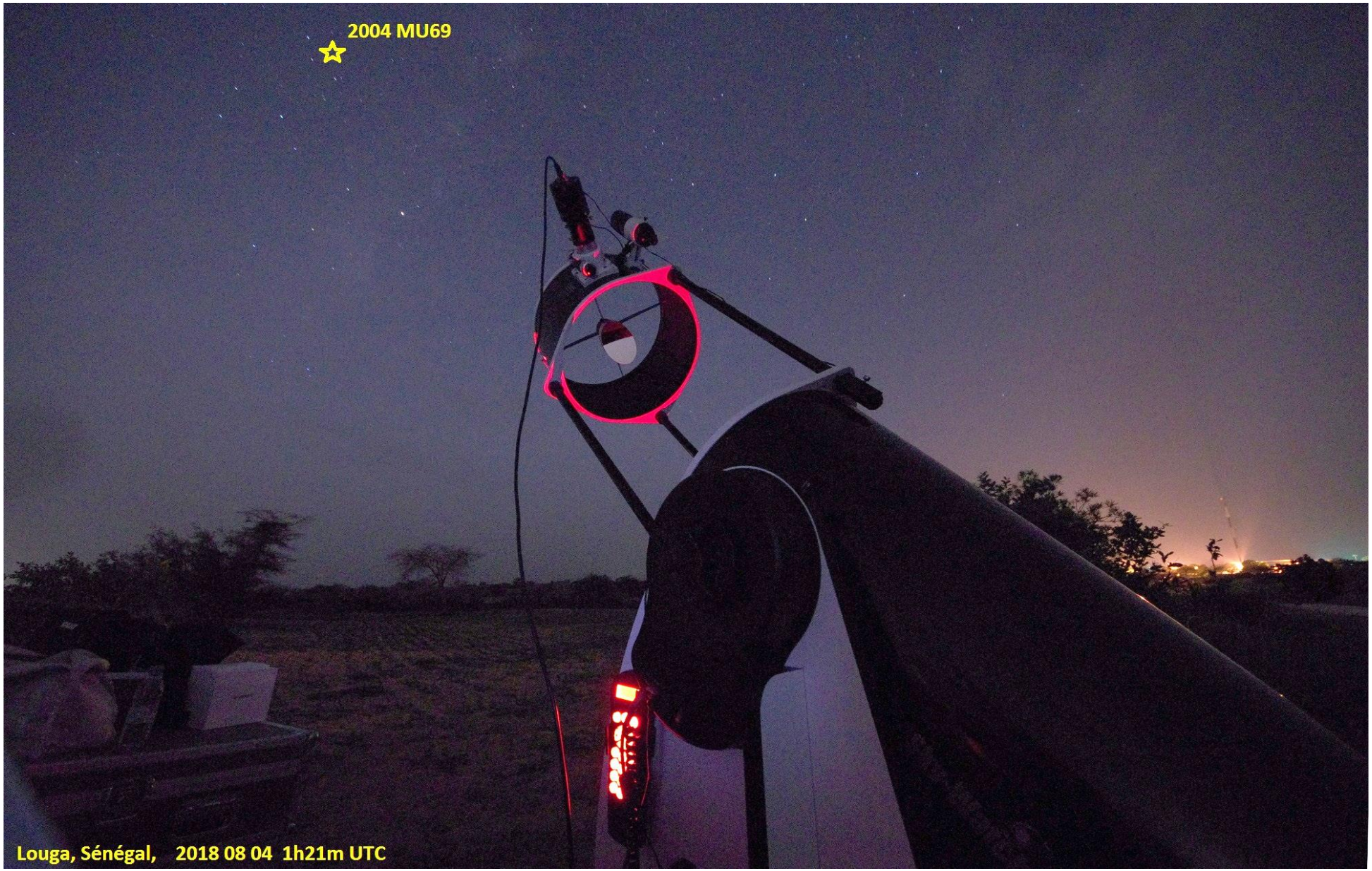


The plan

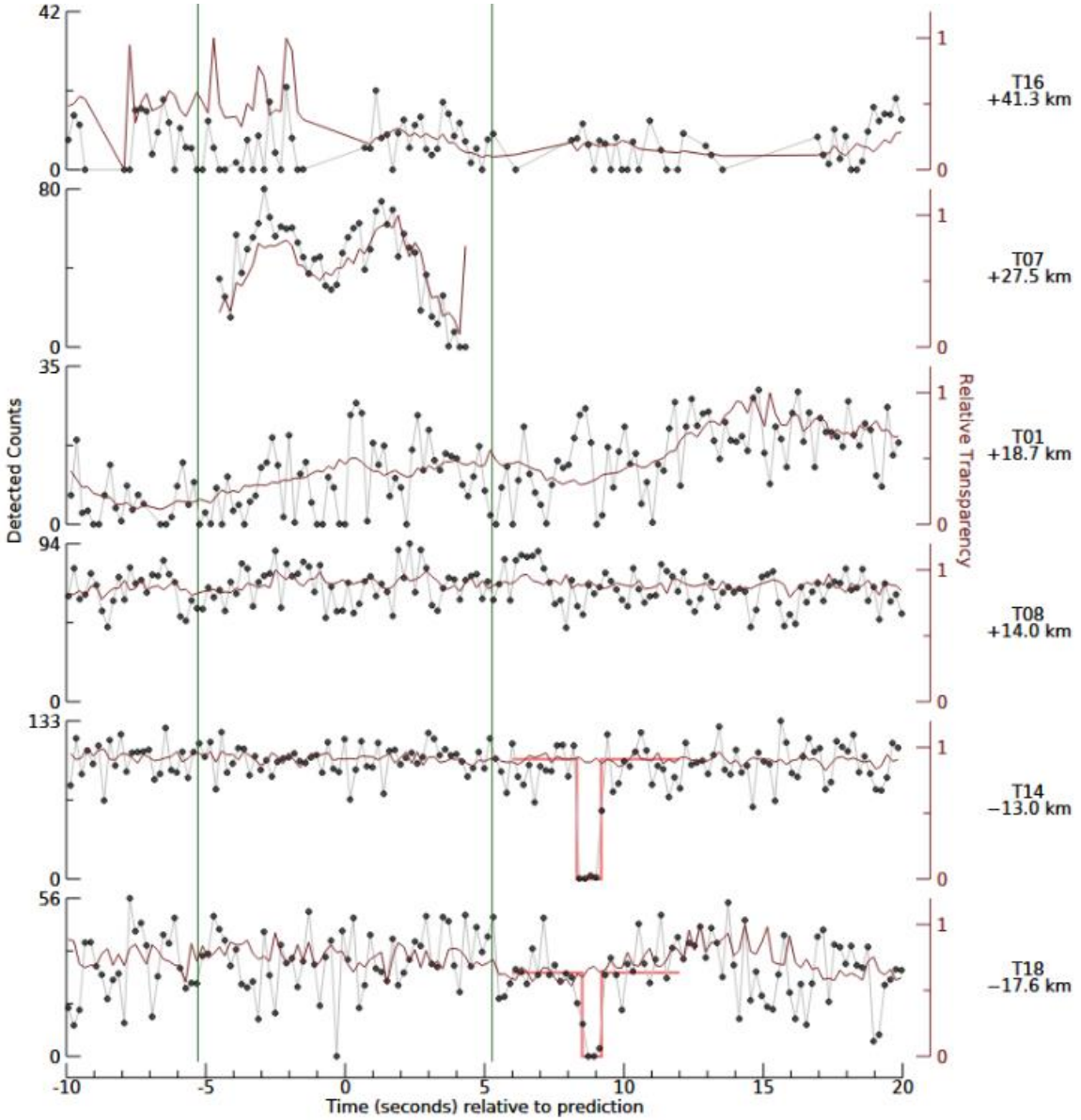
Senegal Team

Louga station

Senegal Team

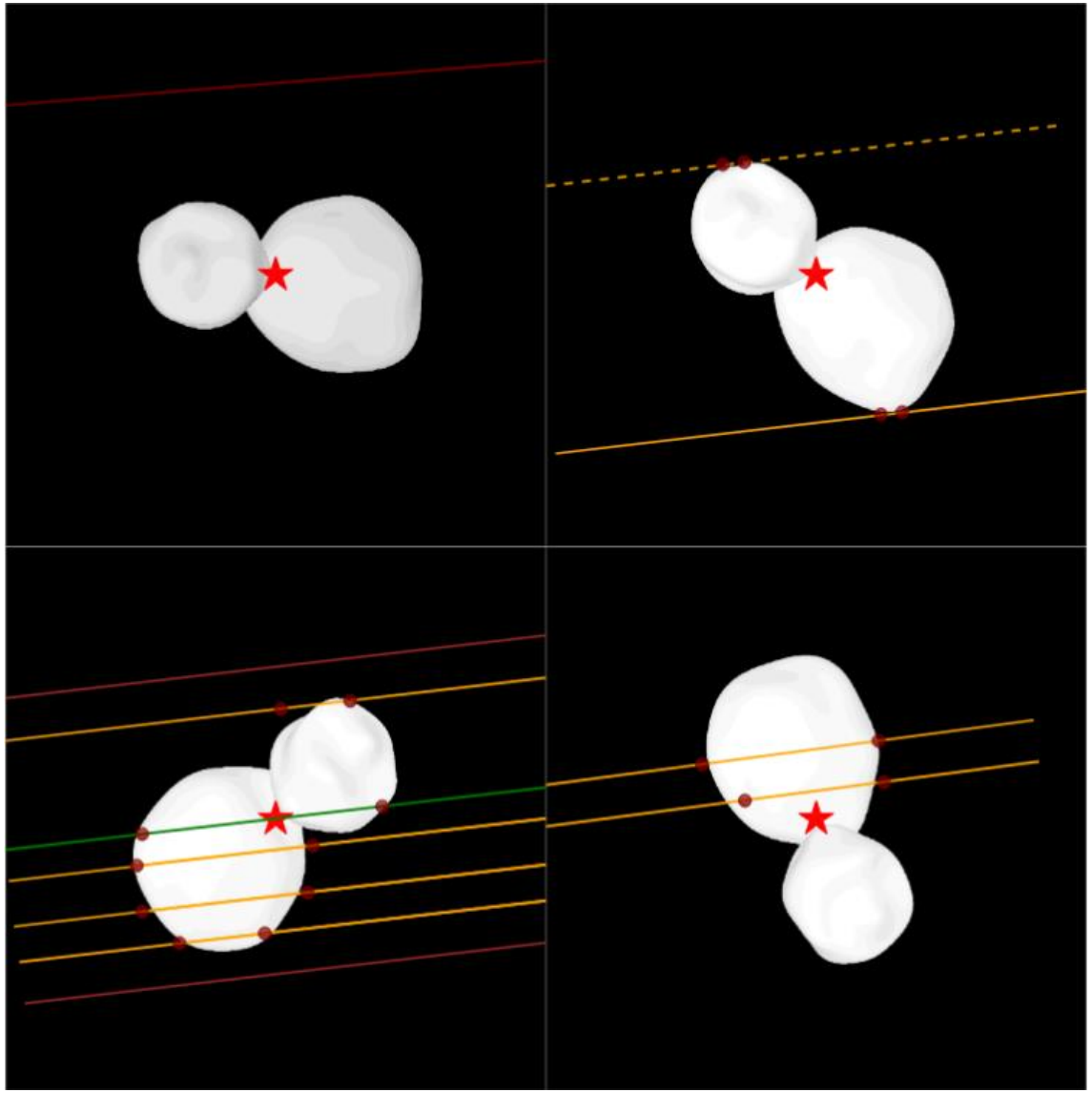


First results



Buie et al

Four combined occultations



Buie et al

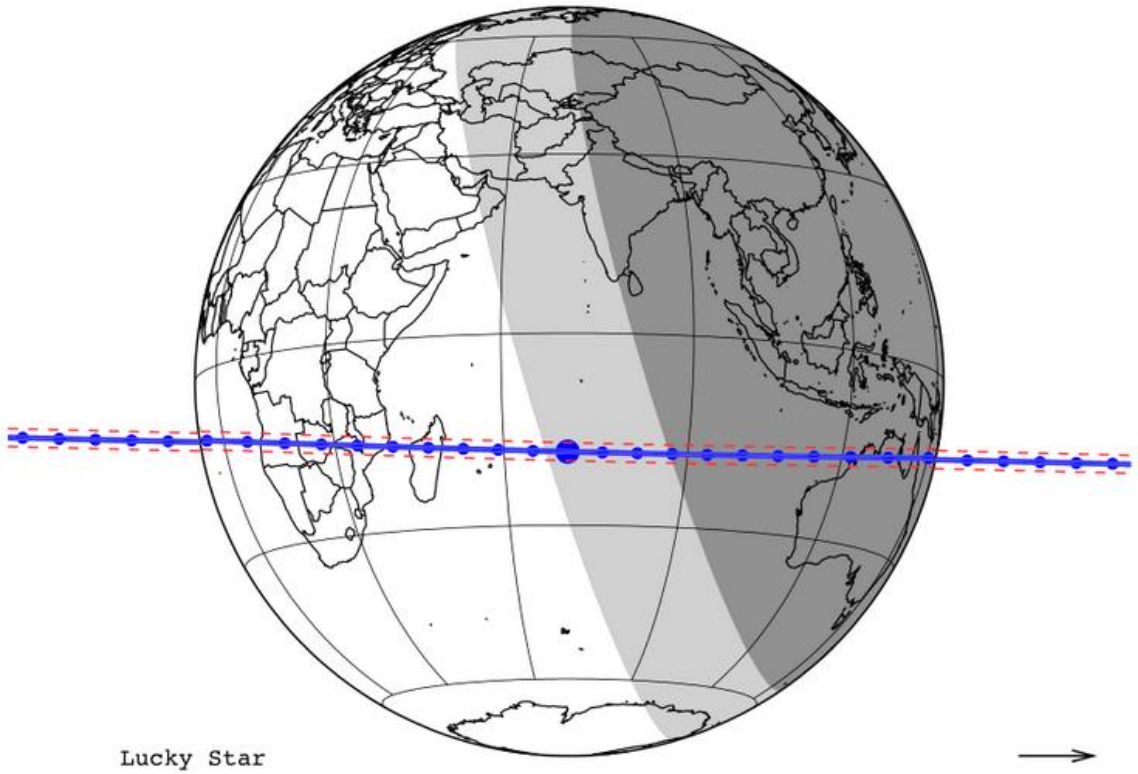
Next US Armada target : Orus (LUCY target)

Occultation by Orus (2019-11-04)

Map | Circumstances | Star & Object | Sky Map | Interactive Map

Occultation map

Orus, GAIADR2+pmGAIADR2, NIMAv1 Offset: 0.0mas 0.0mas



yyyy mm dd hh:mm:ss.s	RA_star_J2000	DE_star_J2000	C/A	P/A	vel	Delta	G*	RP*	H*
2019-11-04 13:35:56.4	21 11 11.5727	-07 31 59.417	0.327	181.36	10.32	4.9757	12.4	11.7	10.1