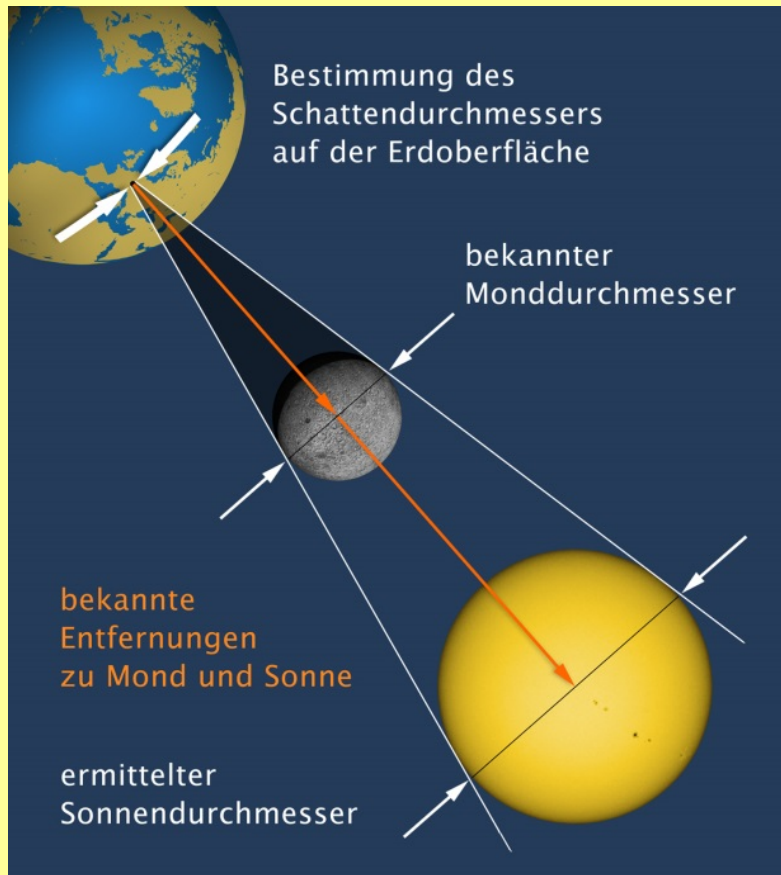


Baily's Bead Observations during the Total Solar Eclipse 2019 July 2

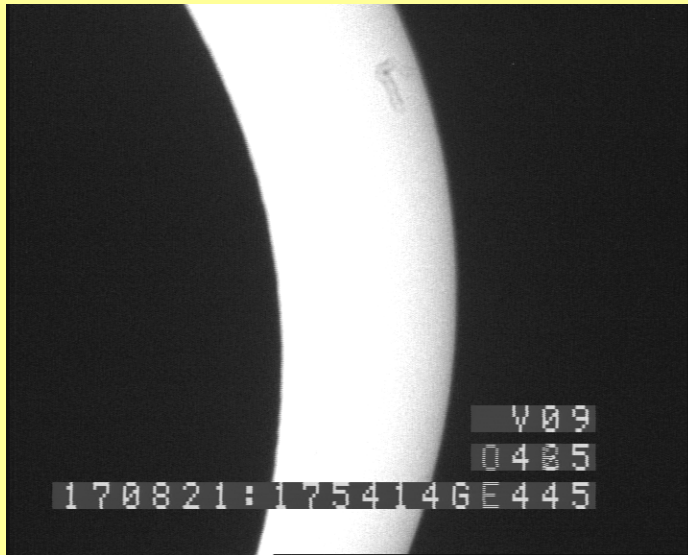
K. Guhl/IOTA-ES

Remember, prinzip and history:

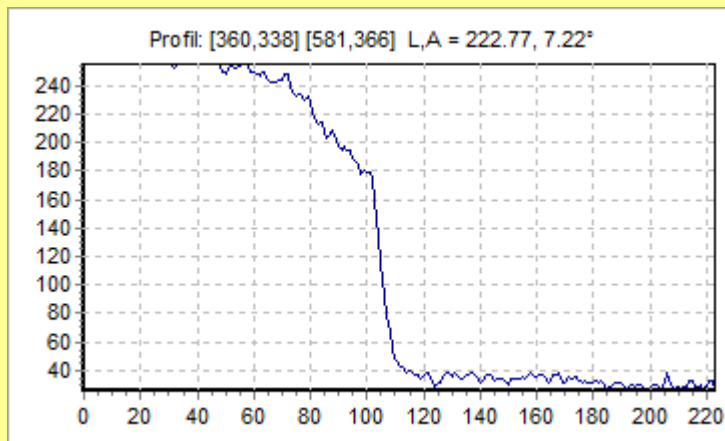


- IOTA and IOTA/ES activity since many years
- Most accurate ground based methode
- 2012 (ESOP XXXI): Will „die“ in the next years due to spacecraft PICARD
- But, PICARD mission not so perfect like expected

In the past we did video observation with the WATEC camera, brightness of limb – controlled by gain of WATEC:

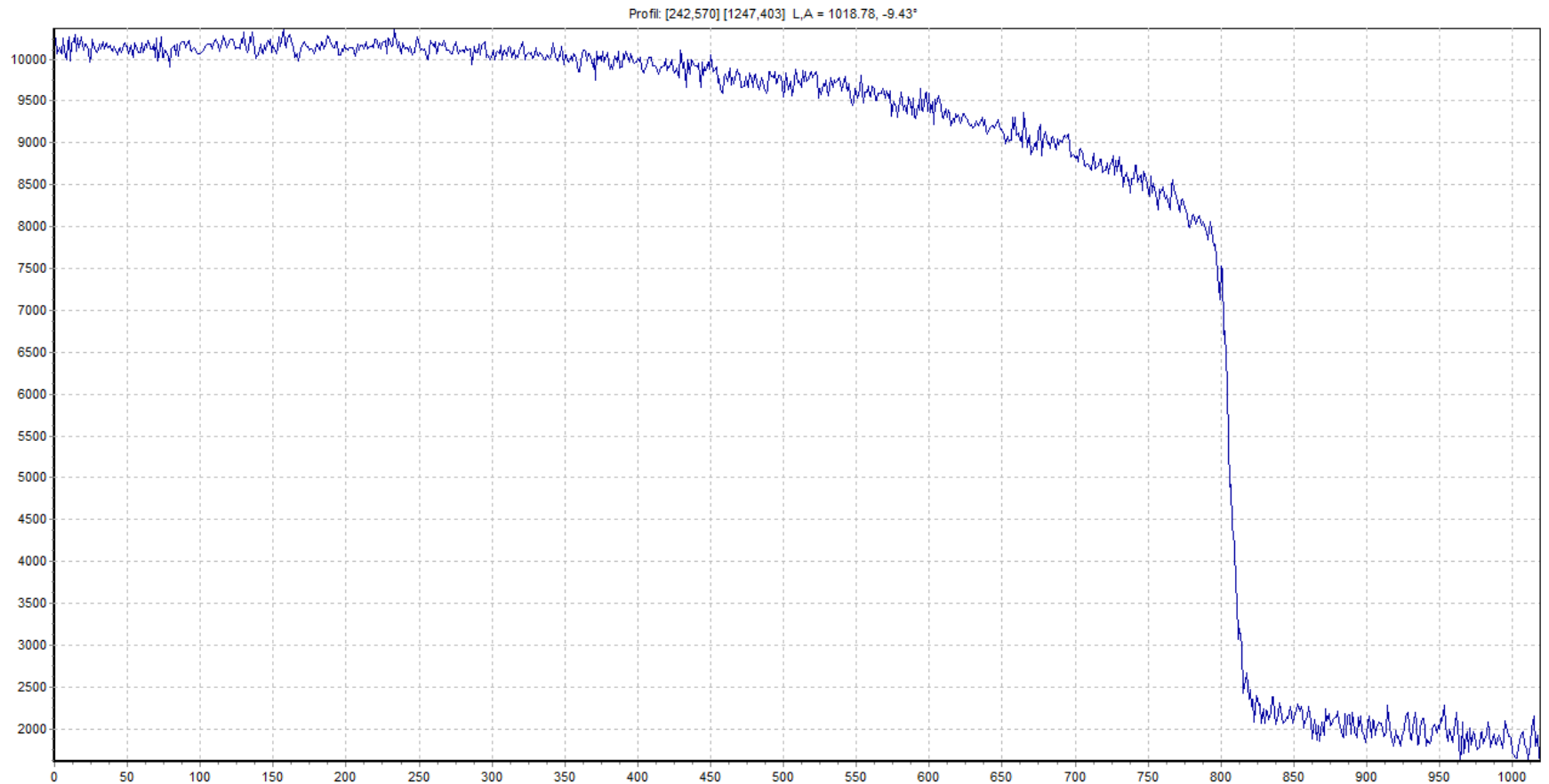


Picture during partial phase for exposition adjustment



Brightness vs. radius

Now 12 bit:



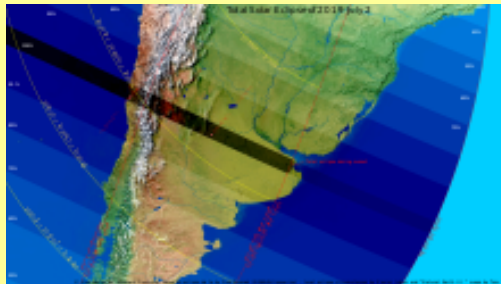
2019 July 2, 100/1000 + IOTA/ES + 535nm filter
PTGrey Chameleon 5ms

ESOP 2019

Advantage

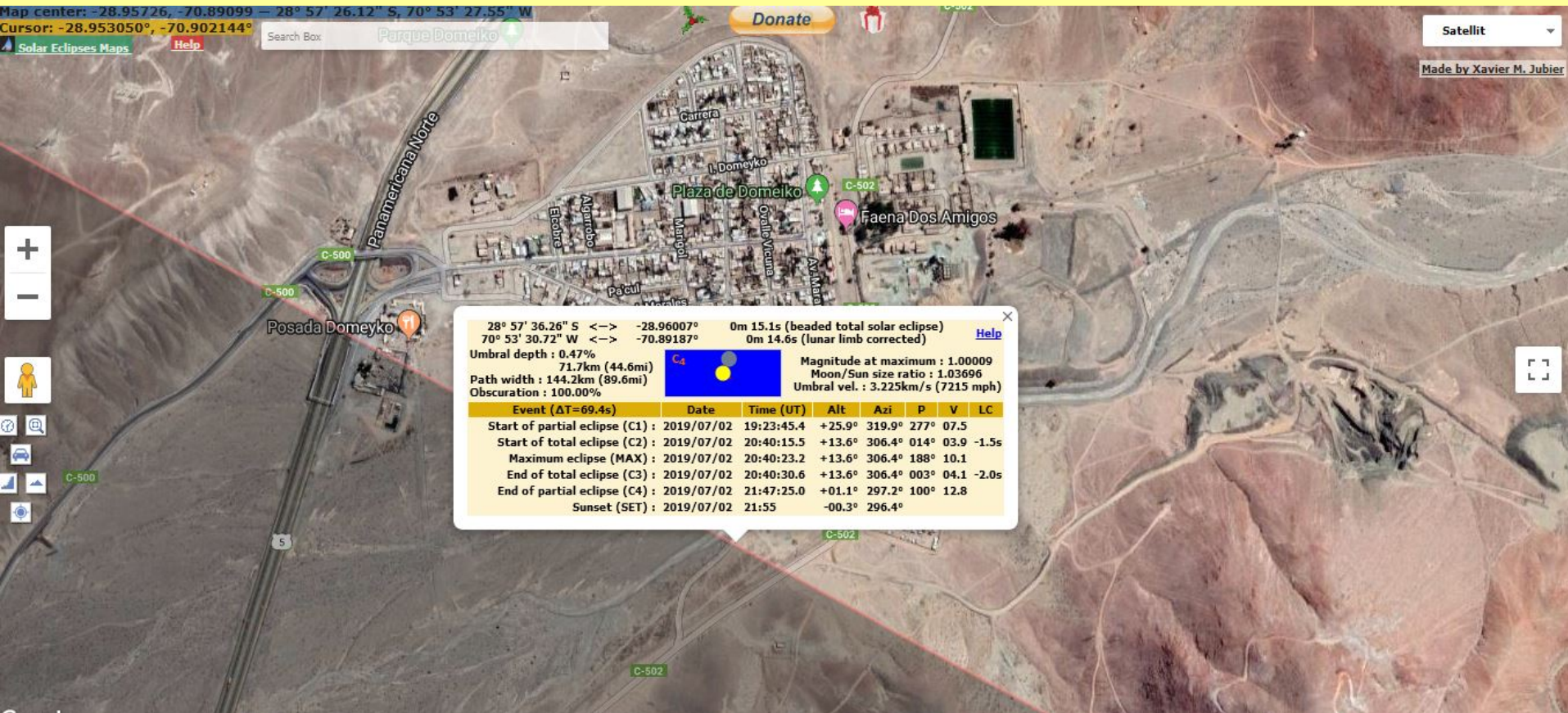
- 12 bit camera give higher dynamic
- Exposition values are clear defined by using a „full“ digital camera
- Shorter exposition time give less noise
- Single picture as FIT for using different software, dark frame subtraction etc.

TSE2019 July 2



ESOP 2019

IOTA/ES station



Thanks to Xavier Jubier!

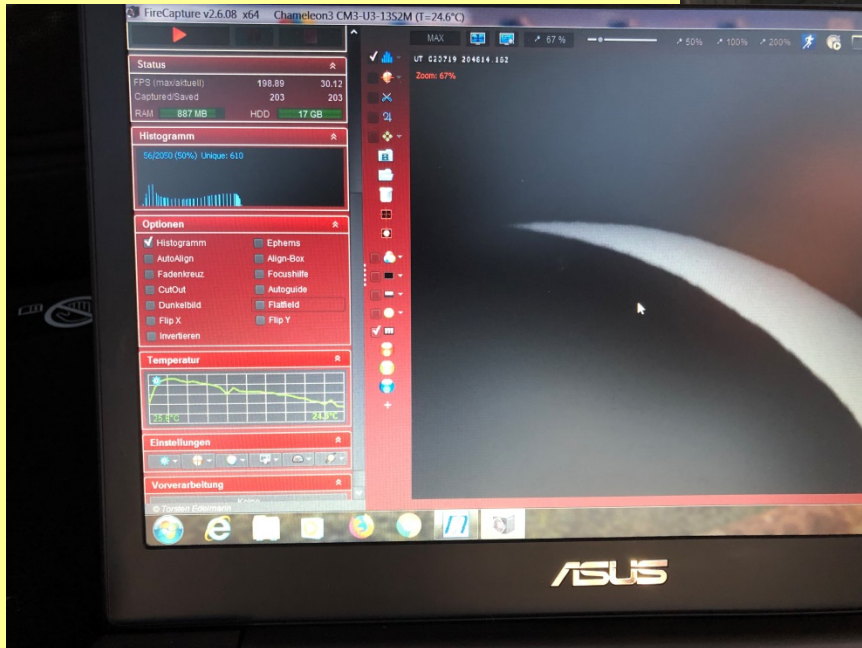
http://xjubier.free.fr/en/site_pages/SolarEclipsesGoogleMaps.html

ESOP 2019

Public observation DOMEYKO



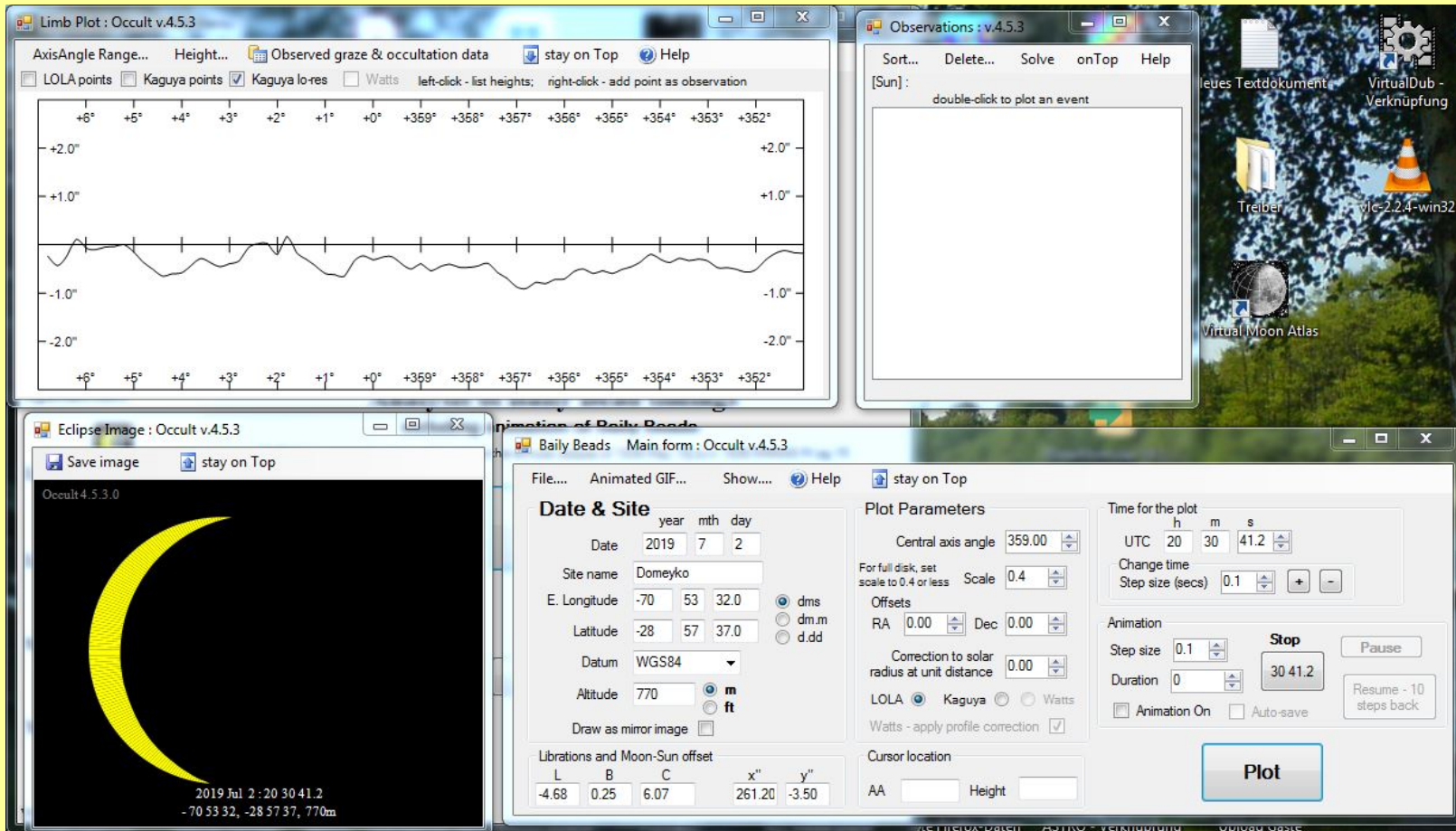
observation DOMEYKO



ESOP 2019

Analyses file is started,

- Identify bead
- Measure D and R, also forming bead
- Simulate with Occult, find O-C



UT 020719 204039.166

Occult 4.5.3.0

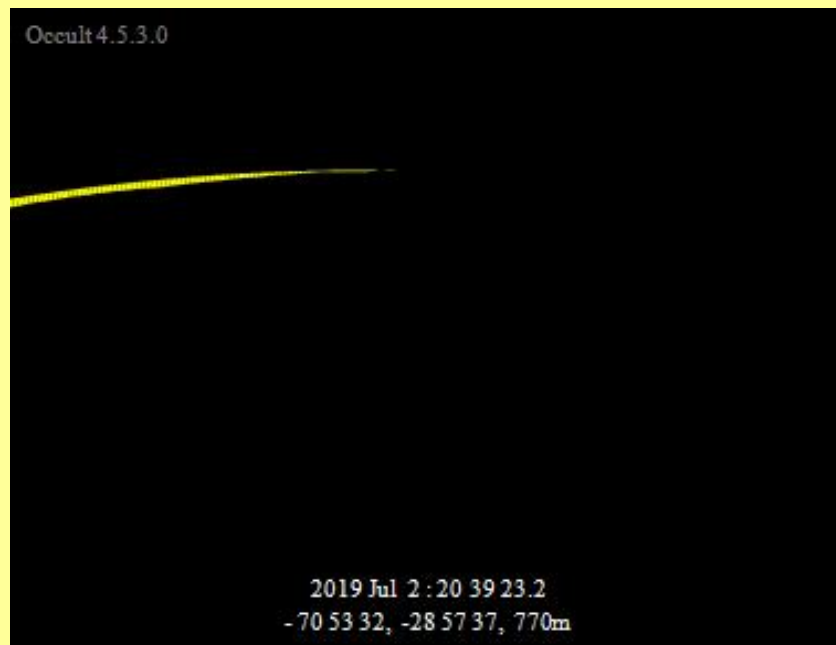
2019 Jul 2 : 20 40 39.2
-70 53 32, -28 57 37, 770m

ESOP 2019



„bead forming“

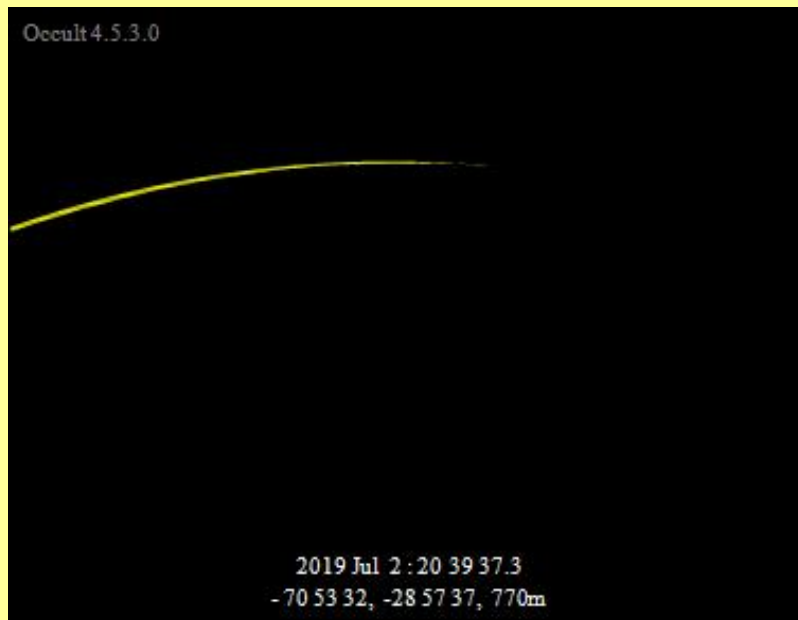
20h39m28.1s



ESOP 2019



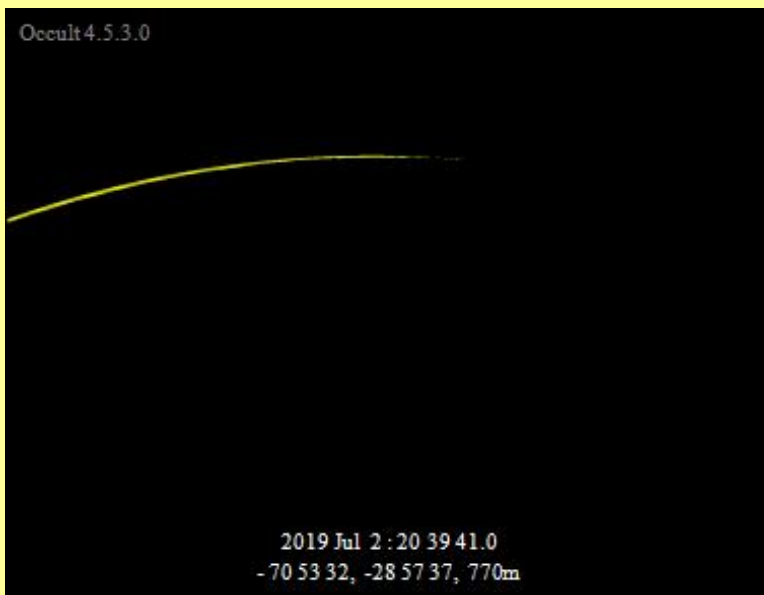
20h39m37.3s



ESOP 2019



20h39m41.0



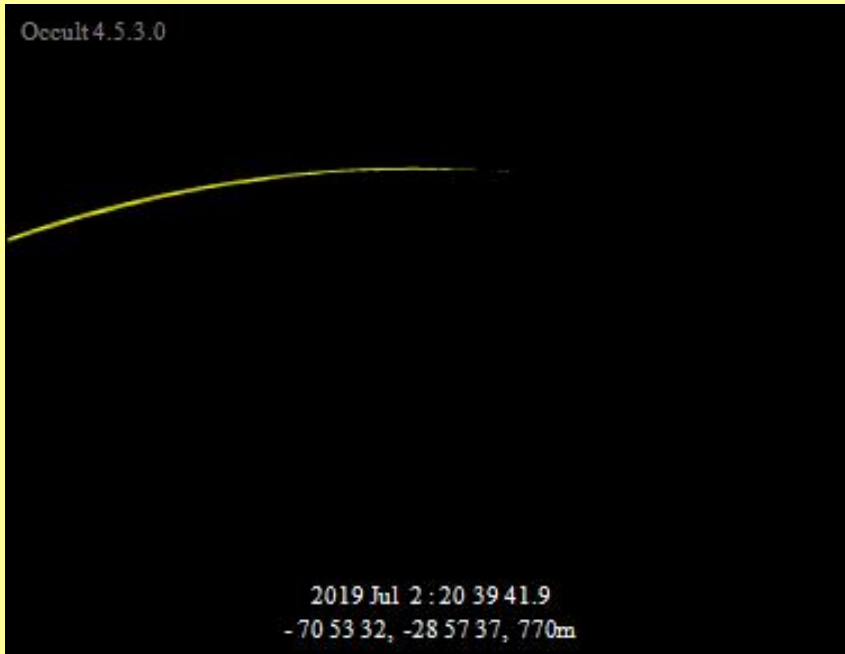
ESOP 2019

UT 020719 203941.904



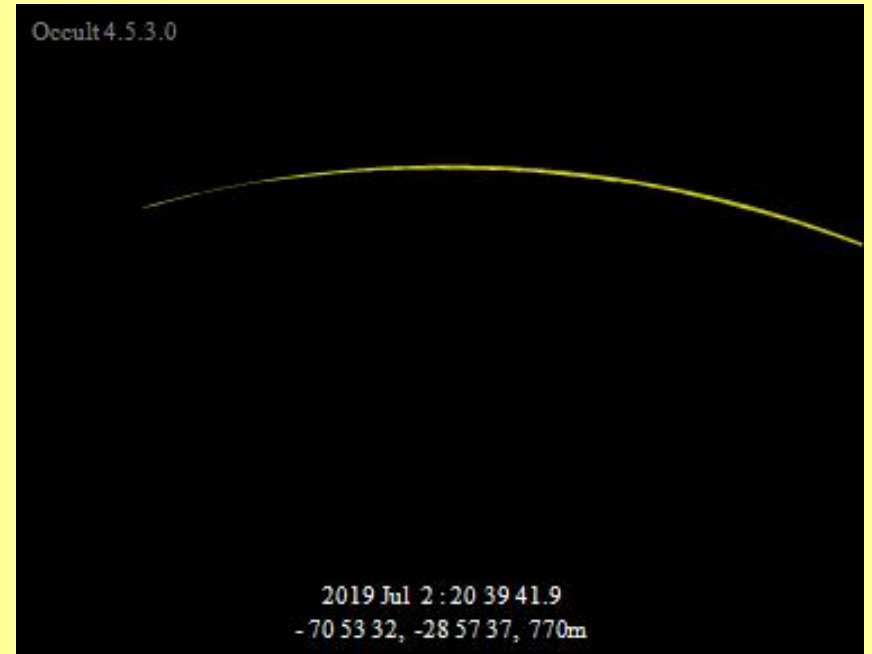
20h39m41.9

Occult 4.5.3.0



2019 Jul 2 : 20 39 41.9
-70 53 32, -28 57 37, 770m

Occult 4.5.3.0



2019 Jul 2 : 20 39 41.9
-70 53 32, -28 57 37, 770m

ESOP 2019

Reduction shall be finished for JOA 1/2020

Reduction shall be finished for JOA 1/2020

...thank you for attention!