



**ESOP XLIV
Poznań**

23-24 August 2025



Contribution of Amateur Astronomers from Bejaia to the Observation of Stellar Occultation by Asteroids in Algeria

Presented by:

ALLIK Mohamed Lamine

League of Scientific and Technical
Activities for the Youth of
BEJAIA

Summary

This presentation will focus on:

- who is the scientific league of Bejaia.
- the essential activities of our astronomy club.
- Results and observation of participation in the national occultation 2016- 2025.
- perspectives ...

League of Scientific and Technical Activities for the Youth of Bejaia

Is an association founded in 1991. Its main goal is to promote scientific culture among young people.



Some areas of activity :

- Ecology and environment.
- Robotics and computer science
- Organization of scientific competitions
- **Astronomie** and **astrophotography**



Astronomy Club of BEJAIA



Popularization of astronomy among children



Astronomy Club of BEJAIA



Mobile planetarium



Astronomy Club of BEJAIA



Planetarium session



Astronomy Club of BEJAIA

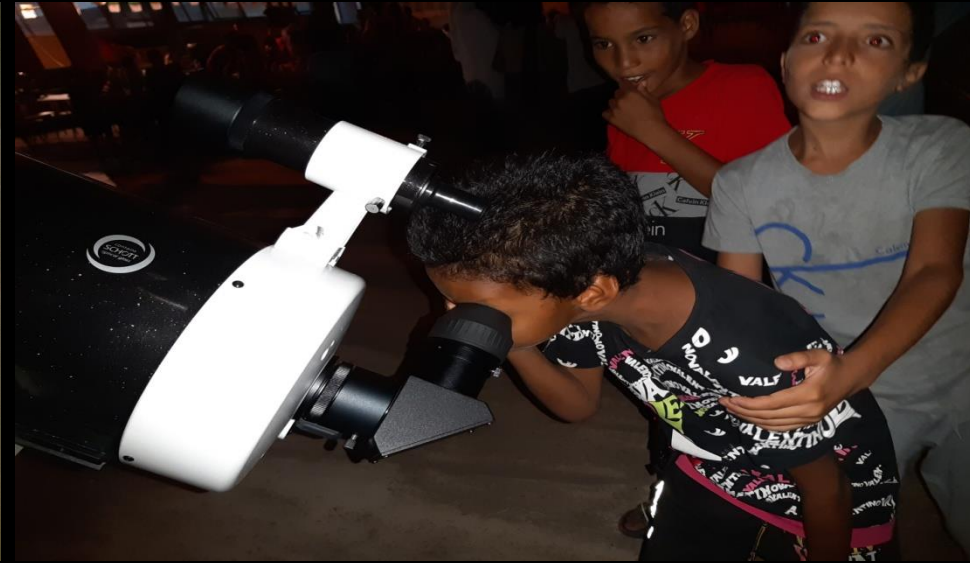


workshop for children (making a sky Map)



Astronomy Club of BEJAIA

stargazing organization for the general public



Astronomy Club of BEJAIA



collaboration with other organizations (SCOUT of Kherrata)



Astronomy Club of BEJAIA



Participation in national astro events



BISKRA



TIZI OUZOU



CONSTANTINE



ALGER



KHERRATA

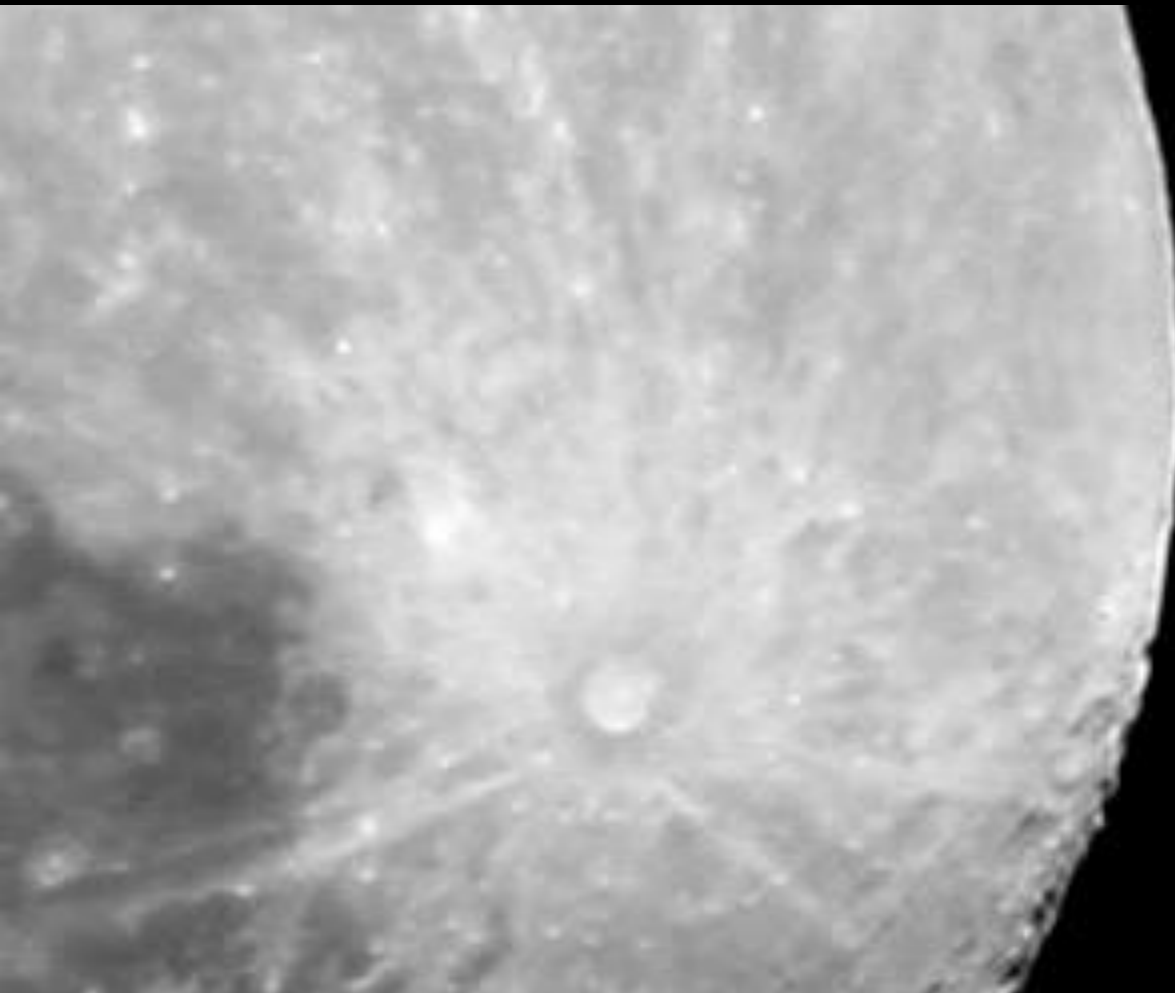


TELEMSANE

Astronomy Club of BEJAIA

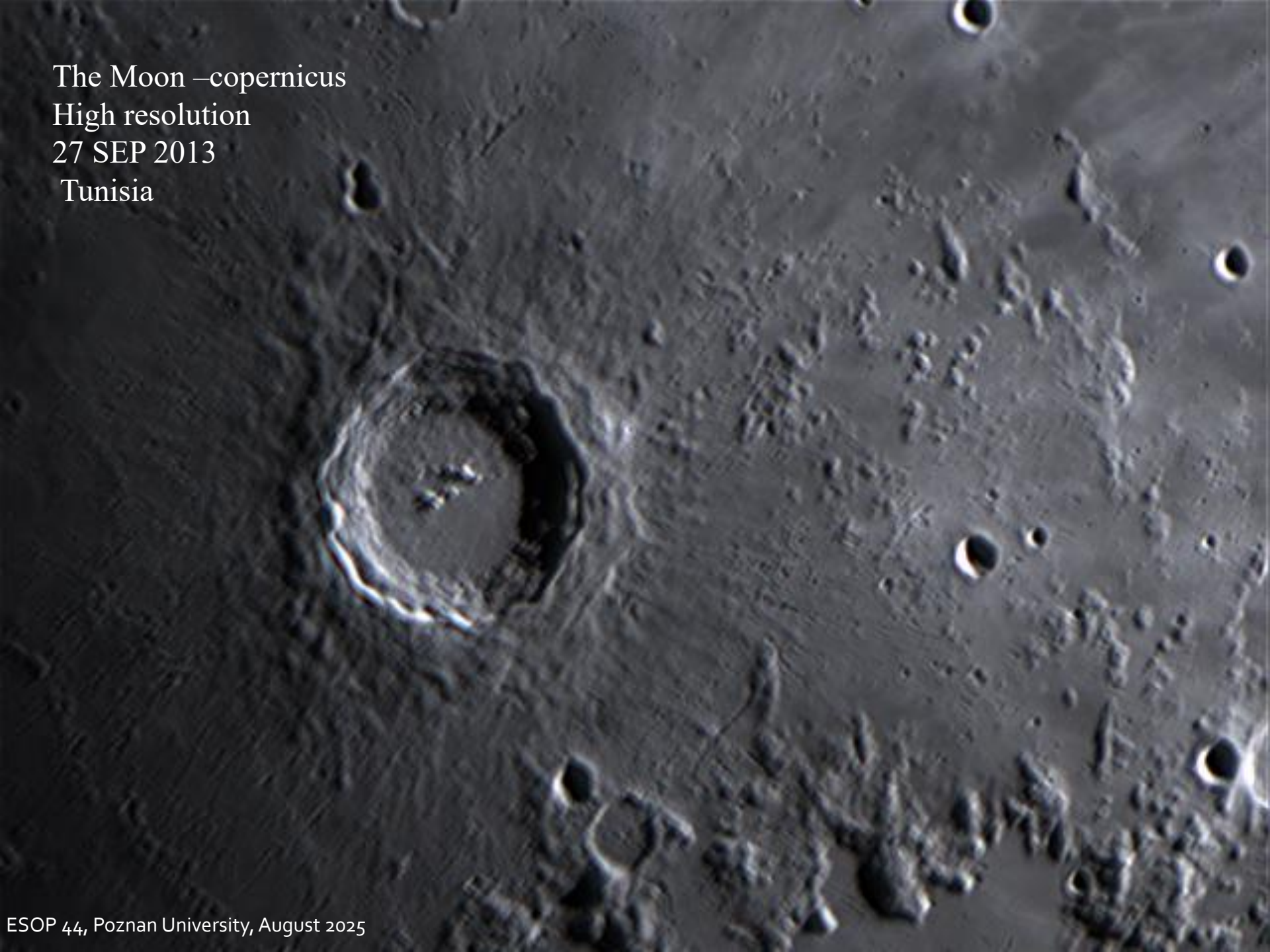


Astrophotography



The Moon And ISS
amine nitro

The Moon –copernicus
High resolution
27 SEP 2013
Tunisia



JUPITER
27 SEP 2013



Partial lunar eclipse
28 SEP 2015
Kherrata



Total Lunar eclipse
17 JUL 2019
Kherrata



Total Solar eclipse
08 JUL 2024
Texas USA



ALLIK MOHAMED LAMINE
08/04/2024 TEXAS USA

The Comet



C/2020 F3 Neowise
21 JUL 2020
Kherrata

The Comet



ALLIK MOHAMED LAMINE
20/10/2024 KHERRATA BEJAIA ALGERIA

The Comet



ALLIK MOHAMED LAMINE
LA COMÈTE TSUCHINSHAN-ATLAS A3 C/2023

PATNA, 16/10/2024

The Sun



ALLIK MOHAMED LAMINE

Our greatest achievement
Before May 10,2024
No one imagined that this could exist in Algeria.

The discovery and documentation of the Northern Lights
(Aurora Borealis)
in **Algeria**

A historic photo at **36°** north latitude

10/05/2024 à 23:40:11 UTC+1



Canon EOS 77D

F4,0 15" 18,00mm ISO 1600

Balance des blancs Auto Aucun flash

Spaceweather.com

REALTIME IMAGE GALLERY

Aurora

Taken by **Allik mohamed lamine** on May 10, 2024 @ bejaia,algeria



[previous](#) | [next](#)

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your
images



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100% PRIVATE

Participation in the National Meeting Ocultation in Algeria 2016- 2025.

Observation of Stellar Occultation by Asteroids in Algeria 2016

We participate from December 8 to 10, 2016 at
**the first national
training in asteroidal occultation**
In soudania Algiers

It was our first experience



وزارة الشباب والرياضة
Ministère de la Jeunesse et des Sports
Ministry of Youth and Sports

الجمعية الجزائرية للشباب هواة علم الفلك
Association Algérienne des Jeunes Astronomes Amateurs
Algerian Association of Youth Amateur Astronomers

بالتعاون مع
en collaboration avec
in collaboration with

مركز البحث في علم الفلك و الفيزياء الفلكية و الجيوفيزياء
Centre de Recherche en Astronomie, Astrophysique et Géophysique
Center for Research in Astronomy, Astrophysics and Geophysics

التدريب الوطني الأول في رصد الإحتجابات الكويكبية
First national training course in asteroidal occultations
Premier stage national sur les occultations astéroïdes

10-8 ديسمبر 2016 - مركز تجمع وتحضير المواهب والنخب الرياضية بالسويدانية ، الجزائر
8-10 Décembre 2016, CRPTES - Souidania, Alger
8-10 December 2016, CRPTES - Souidania, Algiers

متعاملنا : وزارة الشباب والرياضة
Notre Partenaire : le Ministère de la Jeunesse et des Sports



Observation of Stellar Occultation by Asteroids in Algeria 2017

On August 06 th, 2017
we participated and organized the
regional meeting on stellar occultation by asteroids
in tichy BEJAIA

For the first time in Algeria, 12 telescopes and 9
association were brought together for observation.



Centre de Recherche en Astronomie, Astrophysique et Géophysique
مركز البحث في علم الفلك والفيزياء الفلكية وفيزياء الأرض

Observation régionale de l'occultation stellaire
de l'étoile HIP 104172 par l'astéroïde 5247 Krylov
à Tichy (Béjaïa) le Dimanche 06 Août 2017 à 22h05mn



الرصد الجهوي للاختجاب النجمي HIP104172
من طرف الكويكب 5247 كريلوف بتيشي (ولاية بجاية)
يوم الأحد 06 أوت 2017 على الساعة 22:05

Organismes amateurs participants

Association Sirius d'Astronomie de Béjaïa
Association Aster des astronomes amateurs de Khemisset - Béjaïa
Association Scientifique M'chadhah - Bouira
Club Horizons Élargies d'Astronomie - Tizi-Ouzou
Club Al-Bitani d'Astronomie - Alger
Ligue des activités scientifiques et techniques de jeunes de Sétif
Club d'Astronomie Tandra - Sétif
Centre des loisirs scientifiques de Borj Bou Amrédj
Association Al-Battani d'Astronomie - Oran

الجمعيات والهيئات الهواة المشاركة

جمعية سيروس لدم الفلك - بجاية
جمعية اشتر اشباب هواة علم الفلك بخميسات - بجاية
الجمعية العلمية بشندة - البويرة
نادي افق حرجرة لدم الفلك - تيزي وزو
نادي الباتاني لدم الفلك - الجزائر
رابطة الشغف العلمية والتقنية بتندج - سطيف
نادي الفلكية بتندج - سطيف
مركز الشغف العلمية - برج بوعريريج
جمعية الباتاني لدم الفلك - وهران

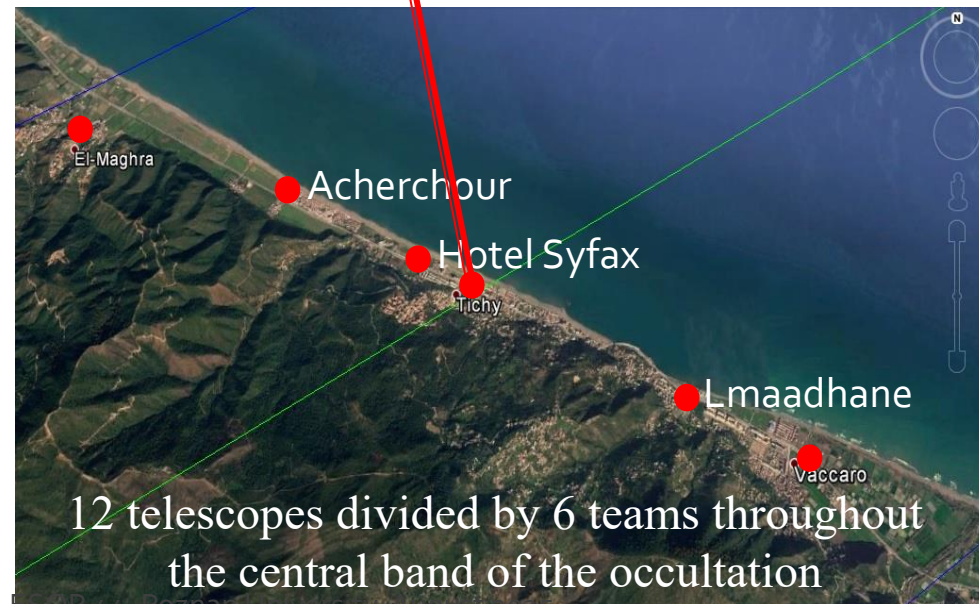
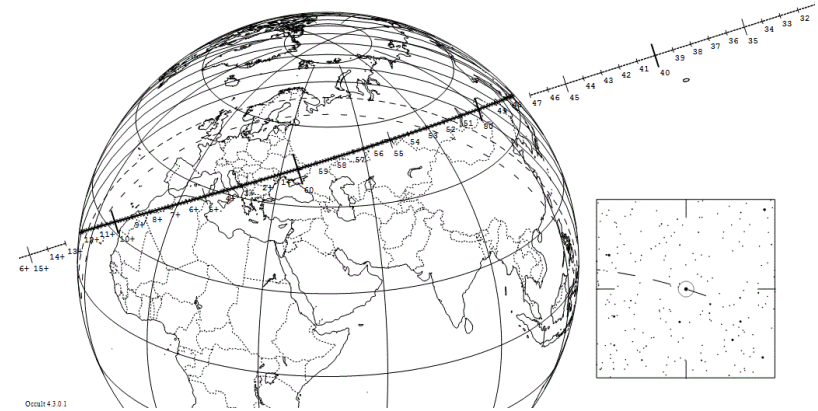


Observation of Stellar Occultation by Asteroids in Algeria 2017

Team 4 tichy : we use Bresser Messier
AR-152L/1200 refractor with equatorial
equ 3 mount
the sky was overcast

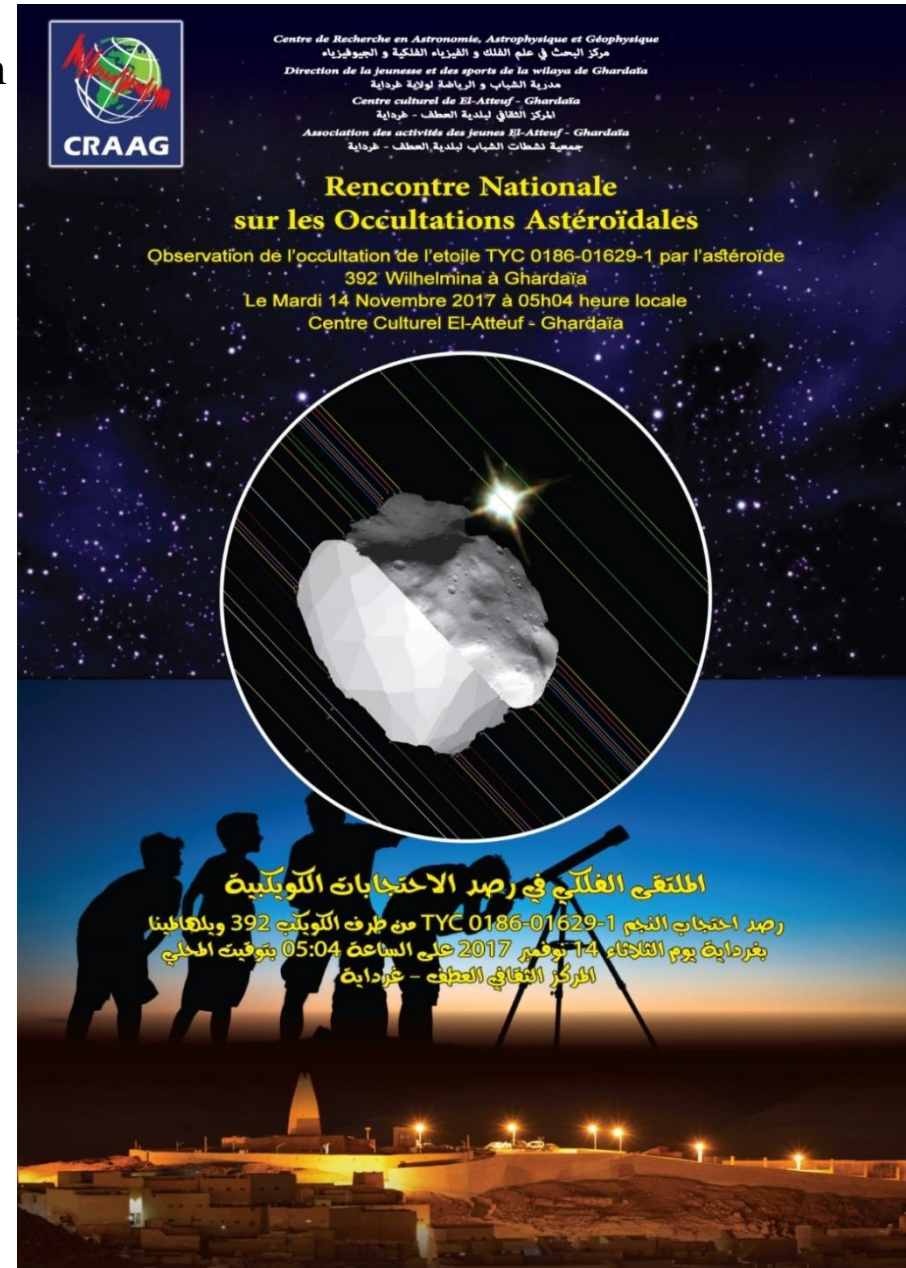
5247 Krylov occults HIP 104172 on 2017 Aug 6 from 20h 48m to 21h 12m UT
Star: $M_V = 6.1$ Max Duration = 0.9 secs
RA = 21 6 23.8376 (J2000) Sun : Dist = 137 deg
Dec = 26 55 27.964 Moon: Dist = 43 deg
[of Date: 21 7 11, 26 59 53] Illum = 99 %
Prediction of 2017 Jun 28.0 E 0.084" 0.038" in RA 79

Asteroid: $Mag = 15.3$
Dia = 8km, 0.005"
Parallax = 6.94"
Hourly dRA = -2.220s
dDec = -9.43"

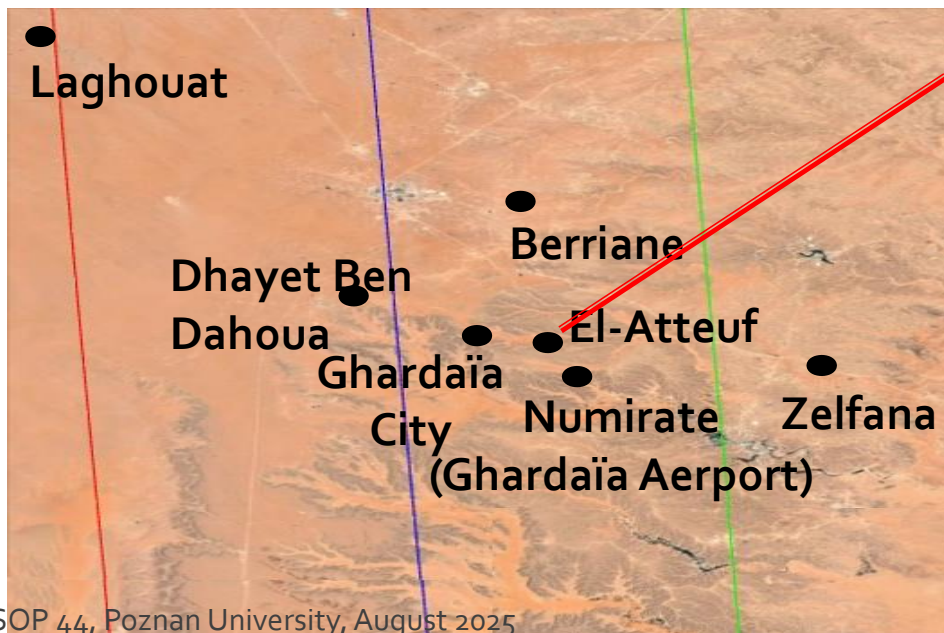
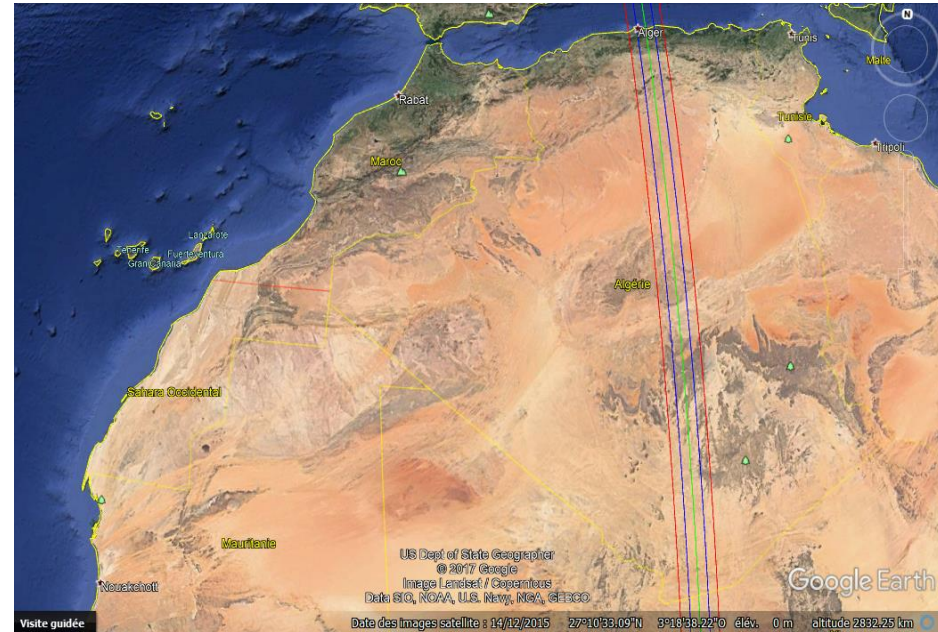


Observation of Stellar Occultation by Asteroids in Algeria 2017

The second national meeting on stellar occultation
by asteroids
on November 14, 2017
we traveled more than 650 Km in Ghardaia to
observe the occultation of the star TYC 0186-
01629-1 of Canis Major constellation by asteroid
392 Wilhelmina.



Observation of Stellar Occultation by Asteroids in Algeria 2017

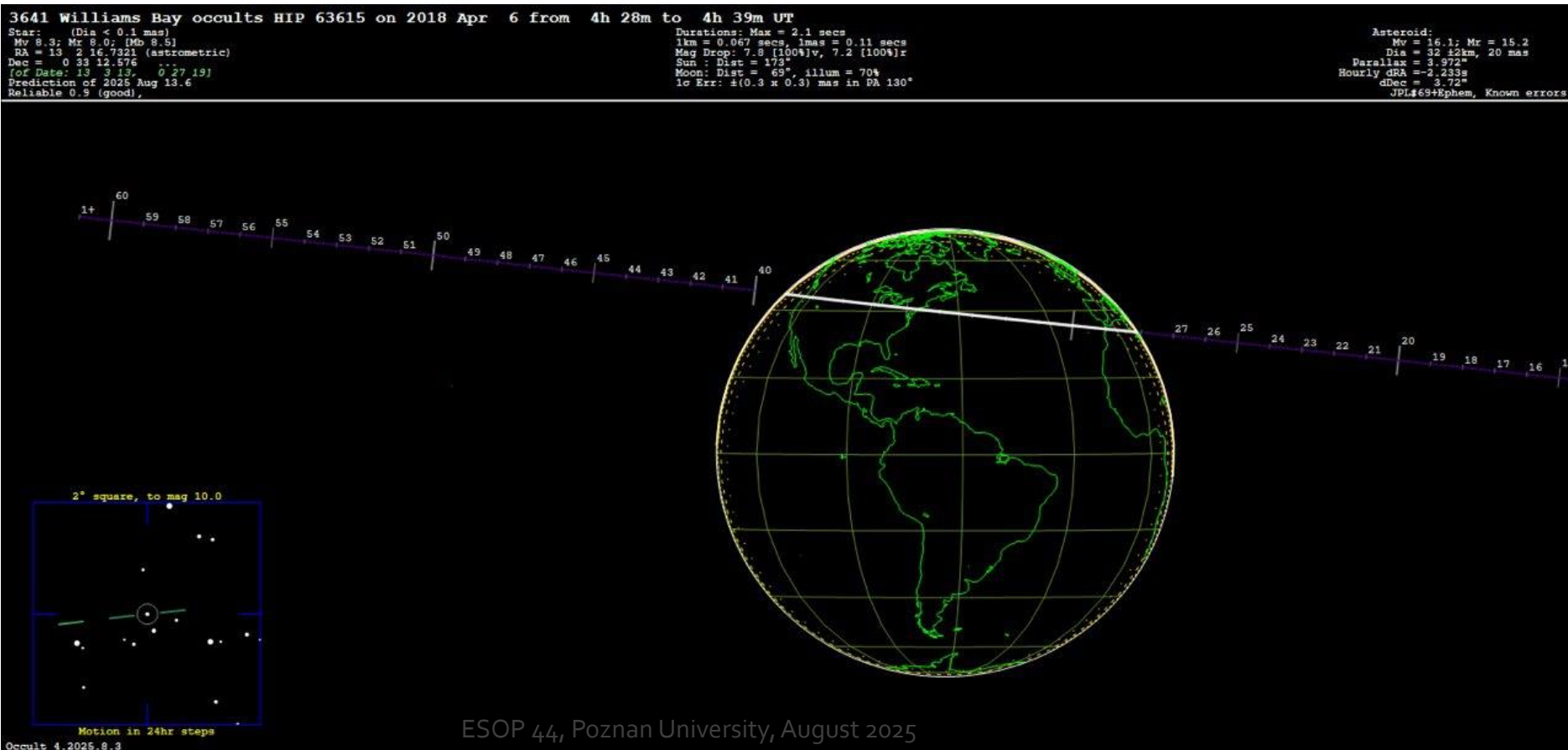


Point EL ATTEUF :
we use Bresser newtonian telescope
130/650 mm
whith equatorial mount equ 2
observation with the naked eye

First positive observation

Observation of Stellar Occultation by Asteroids in Algeria 2018

On April 6, 2018, we traveled more than 600 km to Relizane to
try to observe the occultation of
3641 Williams Bay by HIP 63615.
the weather conditions were not favorable.
Negatif observation



Observation of Stellar Occultation by Asteroids in Algeria 2019

We participate in
The 8 th National Meeting to observe stellar
occultation by 332 Siri,
in October 26 th 2019
we traveled more than 460 km in Laghouat

تحت الرعاية السامية لوالي ولاية الأغواط
Sous l'égide du Wali de Laghouat

مركز البحث في علم الفلك والفيزياء الفلكية والجيوفيزياء
Centre de recherche en Astronomie, Astrophysique et Géophysique

بمساهمة من : Avec la collaboration de :

مديرية الشباب والرياضة ولاية الأغواط
ديوان مؤسسات الشباب ولاية الأغواط
رابطة الأنشطة العلمية والثقافية لولاية الأغواط
جمعية سهيل لعلم الفلك - ولاية الأغواط

Direction de la jeunesse de la wilaya de Laghouat
Office Des Etablissements de Jeunes de la Wilaya de Laghouat
Ligue des activités scientifiques et culturelles de la wilaya de Laghouat
Association Souhail d'Astronomie de Laghouat

الملتقى الوطني الثامن
لرصد الإحتجابات الكويكبية
من 26 إلى 27 أكتوبر 2019
رصد إحتجاب النجم - 1-1657-1816 TYC
من طرف الكويكب 332 سيرى
بولاية الأغواط ليلة السبت 26 إلى الأحد 27 أكتوبر 2019
على الساعة 03:25 بالتوقيت المحلي

Huitième rencontre nationale
sur les occultations astéroïdales
du 26 au 27 Octobre 2019
Observation de l'occultation de l'étoile
TYC 1816-01657-1 par l'astéroïde 332 Siri
à la wilaya de Laghouat la nuit
du Samedi 26 au Dimanche 27 Octobre 2019
à 03h25mn heure locale

بمشاركة : Avec la participation de :



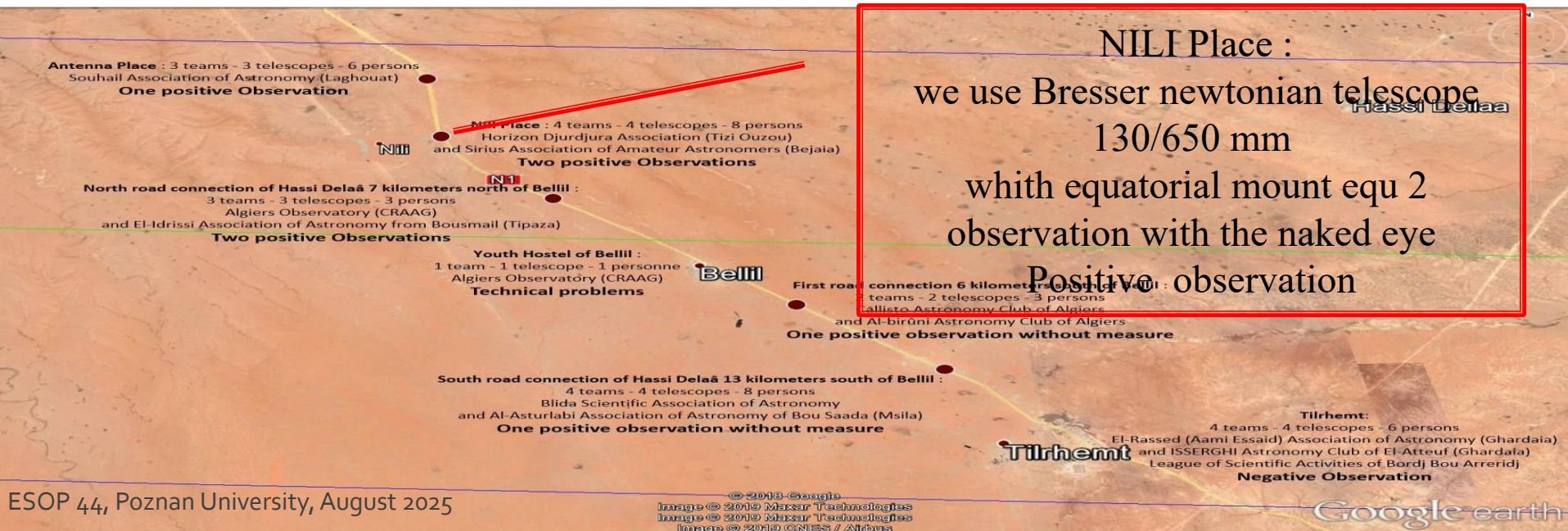
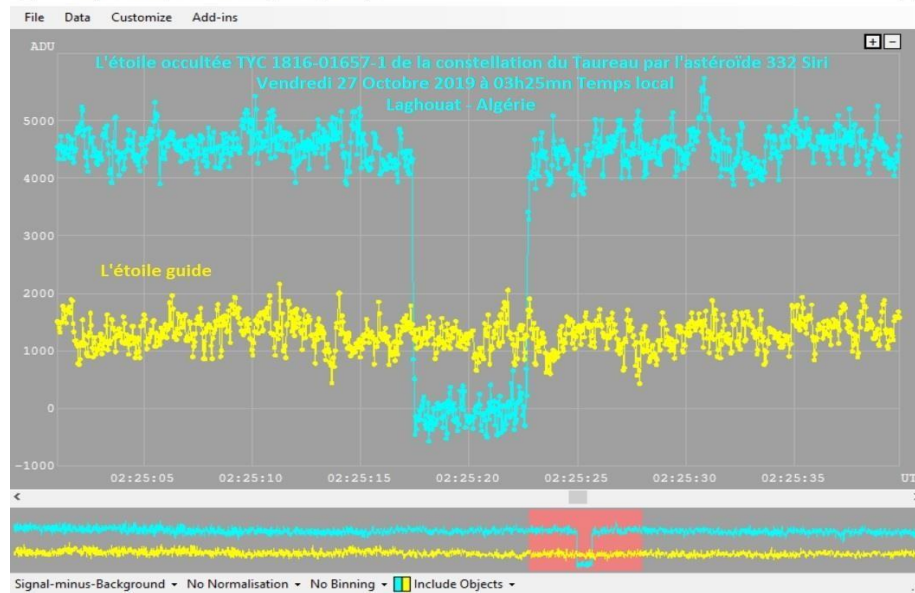
Observation of Stellar Occultation by Asteroids in Algeria 2019

332 Siri occults TYC 1816-01657-1 on 2019 Oct 27 from 2h 13m to 2h 41m UT
 Star:
 RA = 4 27 11.8720 (BCRS)
 Dec = 23 30 46.639
 [of Date: 4 28 23, 23 33 20]
 Prediction of 2019 Jul 21.0

Asteroid:
 Max Duration = 6.5 secs
 Mag Drop = 5.2 (10.0x)
 Sun: Dist = 148°
 Moon: Dist = 129°
 Illum = 2 %
 E 0.026"x 0.013" in PA 79
 Asteroid:
 Mag = 14.0
 Dia = 41km, 0.030"
 Parallax = 4.635"
 Hourly dRA = -1.435s
 dDec = 0.14"



332 siri iaghouti.c - Aperture Photometry, Average Background



Observation of Stellar Occultation by Asteroids in Algeria 2020

A year later We participate in
The 9th National Meeting to observe stellar
occultation by 1171 **Rusthawelia**,
in October 24th 2020
we traveled more than 460 km in the south of
algeria (Laghouat)

Sous l'égide du Wali de Laghouat
Centre de Recherche en Astronomie, Astrophysique et Géophysique
Direction de la jeunesse et des sports de la wilaya de Laghouat
Association Souhail d'Astronomie de la wilaya de Laghouat
organisent :

9^{ème} Rencontre Nationale
sur les occultations astéroïdales
du 22 au 25 Octobre 2020
Observation de l'occultation de l'étoile HIP 5315
par l'astéroïde 1171 Rusthawelia
à la wilaya de Laghouat la nuit
du Samedi 24 Octobre 2020 à 21h32mn heure locale

en collaboration avec :

Office des Etablissements des Jeunes de la Wilaya de Laghouat
Institut National pour la Formation des Fonctionnaires du Secteur
de l'Education de la wilaya de Laghouat
Ligue scientifique et technique des jeunes de la wilaya de Laghouat
Centre d'Excellence Tamiz pour la Formation, les langues
et les services de consultation de la wilaya de Laghouat

Office des Etablissements des Jeunes de la wilaya de Bordj / Office des Etablissements des Jeunes de la wilaya de Mila
Ligue des activités scientifiques et techniques des jeunes de la Wilaya de Tizi Ouzou / Ligue des jeunes scientifiques amateurs d'Alger
Ligue des activités scientifiques et techniques des jeunes de la Wilaya de Sétif / Ligue des activités scientifiques et techniques des jeunes de la Wilaya de Médéa
Ligue des activités scientifiques et techniques des jeunes de la Wilaya de Ghardaia / Ligue des activités scientifiques et techniques des jeunes de la Wilaya de Tindouf

Association Sirius des astronomes amateurs de Bejaia / Association Scientifique et Astronomique de Blida
Association scientifique et culturelle Imssi Nihkitane de Taménassert / Association Scientifique Horizon Djurdjura de Tizi Ouzou
Association Jeunesse Innovatrice de la wilaya d'Alger / Association d'Astronomie Sirius de Constantine
Association Scientifique et Astronomique El-Bouzdiani de Médéa / Association Scientifique et Astronomique Ennahd El-Hachbi de Mostaganem
Association ASTROLABE des astronomes amateurs Bou Saïda - Mella / Association d'Astronomie El-Batani d'Oran
Association culturelle et scientifique El-Manar - Meliana - Ain Defla / Association culturelle ANGHAM EL-HAYAT - El-Guerrara - Ghardaia
Association culturelle ESSALAM - Bounoura - Ghardaia / Association d'astronomie et des techniques spatiales El-Qutb - Berriane - Ghardaia
Association Culturelle Ibn El-Haithem avec le parc culturel Ahaggar de la wilaya déléguée de In Salah

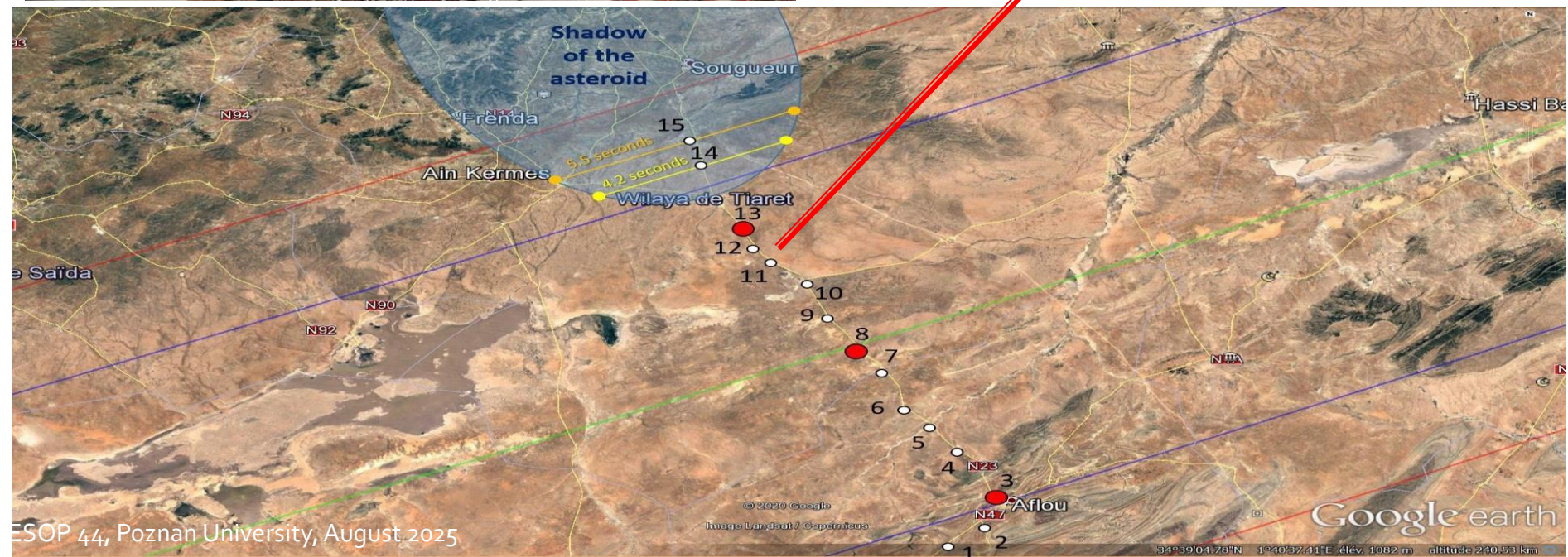
Club d'Astronomie et les sciences amusantes NASSA HAGGAR - Taménassert / Club d'Astronomie Al-Birûni de la maison des Jeunes d'El-Mouradia - Alger
Club d'Astronomie Celliste du centre culturel El-Marsa - Alger / Club d'Astronomie Al-Shirazi du Centre des Loisirs Scientifiques de la wilaya de Mila
Club d'Astronomie Isserghi du centre culturel El-Alter - Ghardaia / Club d'Astronomie Annir - Béné Isguen - Ghardaia
Club d'Astronomie Ammi Said - Ghardaia



Observation of Stellar Occultation by Asteroids in Algeria 2020



I was at the point 11:
we use Bresser newtonien telescope
130/650 mm
equatorial EQ 2 mount
Negative observation



Observation of Stellar Occultation by Asteroids in Algeria 2022

We participate in
The 11th National Meeting to observe stellar
occultation by 423 **Diotima**,
February 26th 2022
we traveled more than 650 Km in Ghardaia

تحت الرعاية السامية لوزير الشباب والرياضة ووالي ولاية غرداية والمنية
Sous l'égide du ministre de la jeunesse et des sports
et des Walis de Ghardaia et El-Menia
مركز البحث في علم الفلك والفيزياء الفلكية والجيوفيزياء
Centre de recherche en Astronomie, Astrophysique et Géophysique
CRAAG

Avec la collaboration de : بالتعاون مع :
مديرية الشباب والرياضة لولاية غرداية والمنية
رابطة الأنشطة العلمية والثقافية للشباب لولاية غرداية
Direction de la jeunesse de la wilaya de Ghardaia et El-Menia
Ligue des activités scientifiques et culturelles des jeunes de la wilaya
de Ghardaia

**الملتقى الوطني الحادي عشر
لرصد الإحتجابات الكويكبية**
من 23 إلى 27 فيفري 2022
رصد احتجاب النجم HIP 53615
من طرف الكويكب 423 ديوتيميا
بولاية غرداية والمنية ليلة الجمعة 25 للسبت 26 فيفري 2022
على الساعة 02:30 بالتوقيت المحلي

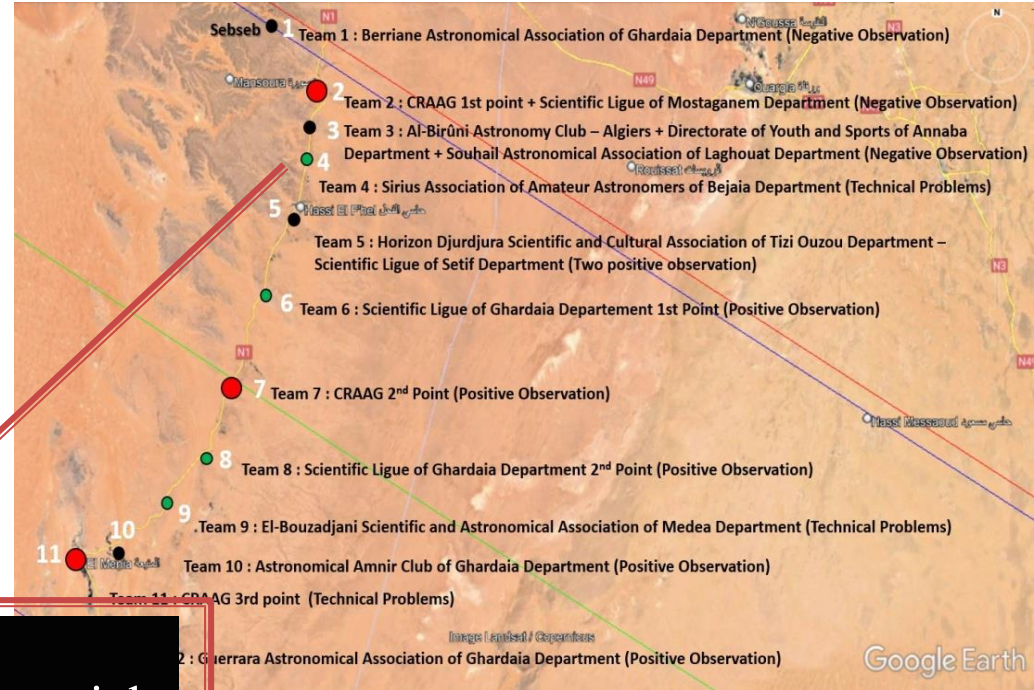
**Onzième rencontre nationale
sur les occultations astéroïdales**
du 23 au 27 Février 2022
Observation de l'occultation de l'étoile
HIP 53615 par l'astéroïde 423 Diotima
à la wilaya de Ghardaia et El-Menia la nuit
du Vendredi 25 au Samedi 26 Février 2022
à 02h30mn heure locale

بمشاركة : Avec la participation de :



Observation of Stellar Occultation by Asteroids in Algeria 2022

423 Diotima occults HIP 53615 on 2022 Feb 26 from 1h 24m to 1h 40m UT
 Year: 2022 (DIA < 0.1 mas) Max Duration = 11.1 sec
 RA = 79 59 9.016 (astrometric) Sun Mag Drop = 6.5 (10.0x)
 Dec = 24 22 31.251 Moon: Diam = 119" Parallax = 4.101"
 Inf Date: 10 19 21, 24 16 221 Hourly dRA = -0.026
 Prediction of 2021 Jun 12.0 dDec = 12.78"
 Reliable not available Error 18.0x4.0 mas in RA 113"
 JPLH102020May03, Known errors



Team 4:

I use skywatcher MAC 180 with equatorial motorized neq 6pro mount observation with naked eye (Negative observation)

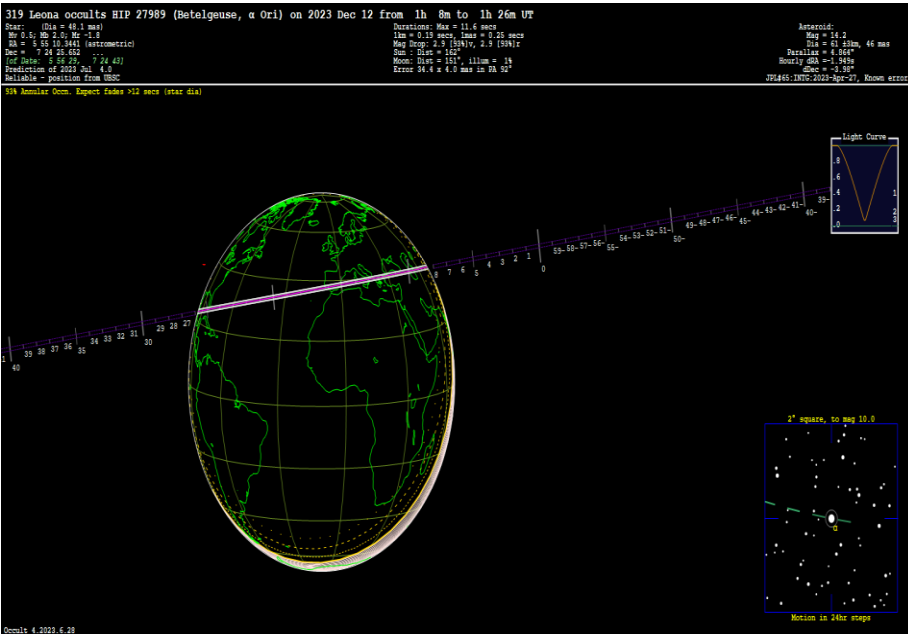


Observation of Stellar Occultation by Asteroids in Algeria 2023

On December 12th, 2023
we traveled more than **1300Km** to the southern of
Spain (Alicante) to observe the
Great occultation of Betelgeuse by (319) **Leona**



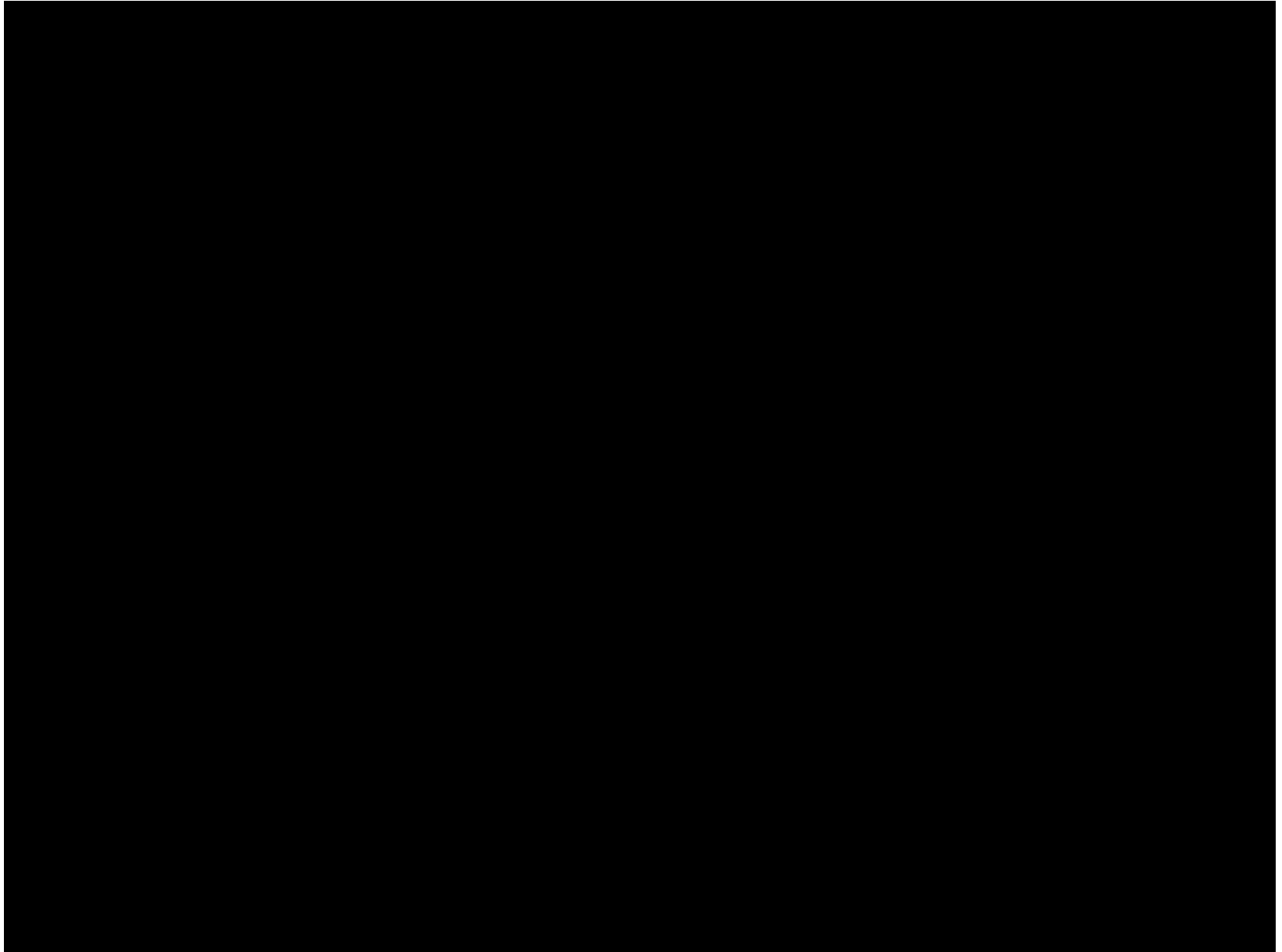
Observation of Stellar Occultation by Asteroids in Algeria 2023



Adjustments, explanations and tests before the occultation with the team



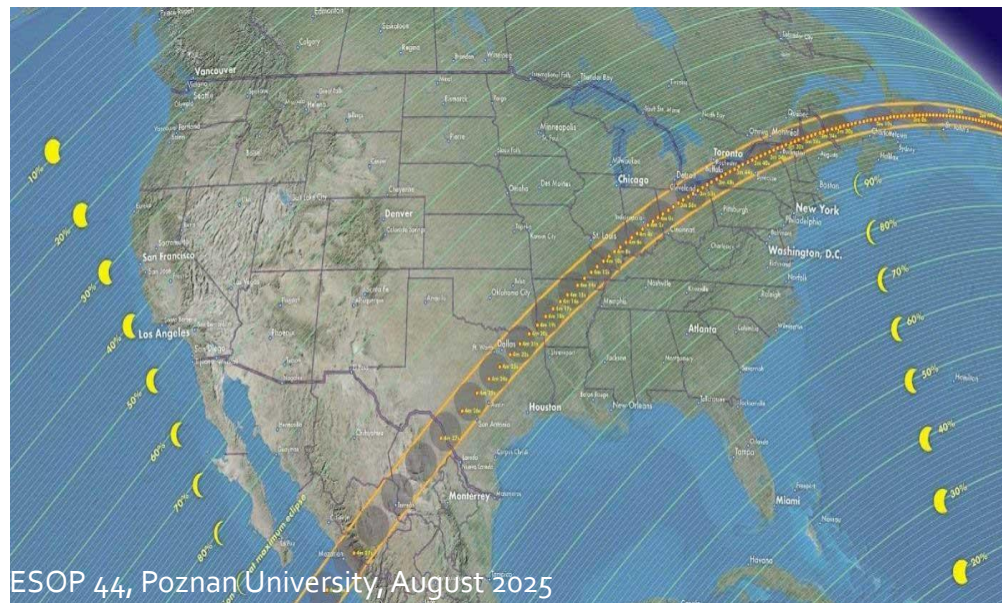
Observation of Stellar Occultation by Asteroids in Algeria **2023**



Observation of Stellar Occultation by Asteroids in Algeria 2024

On April 8, 2024, we traveled to the USA,
specifically in Dallas (Texas), to observe
the great American total eclipse.

we traveled more than 10,000km

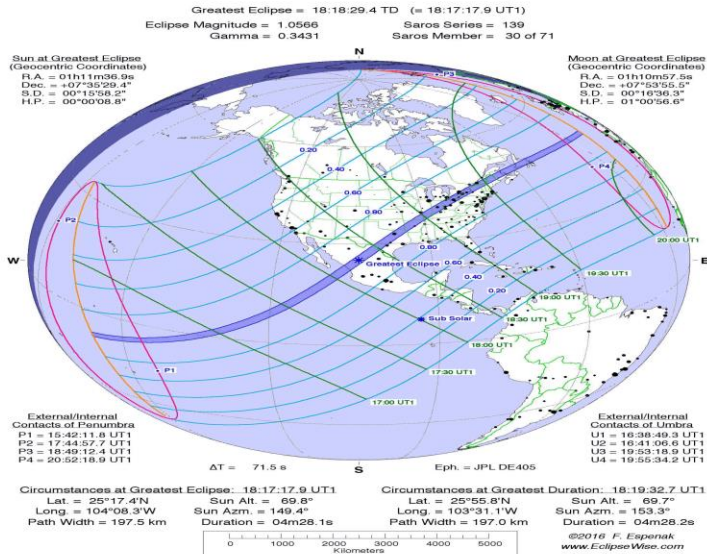


That day the weather conditions were very
unfavorable

but fortunately we observed the eclipse

Observation of Stellar Occultation by Asteroids in Algeria 2024

Total Solar Eclipse of 2024 Apr 08



I use my CANON EOS 77D
Lens SAMYANG 500 mm f 6.3 DX
Filtre AstroSolar de Baader OD 3.8

The Algerian team in TEXAS USA



ESOP 44, Poznan University, August 2025

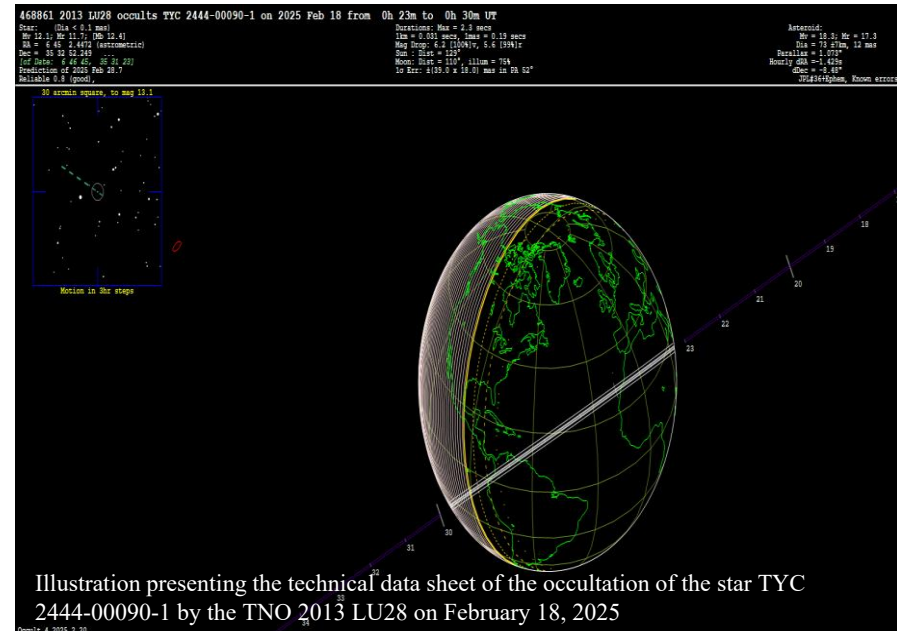
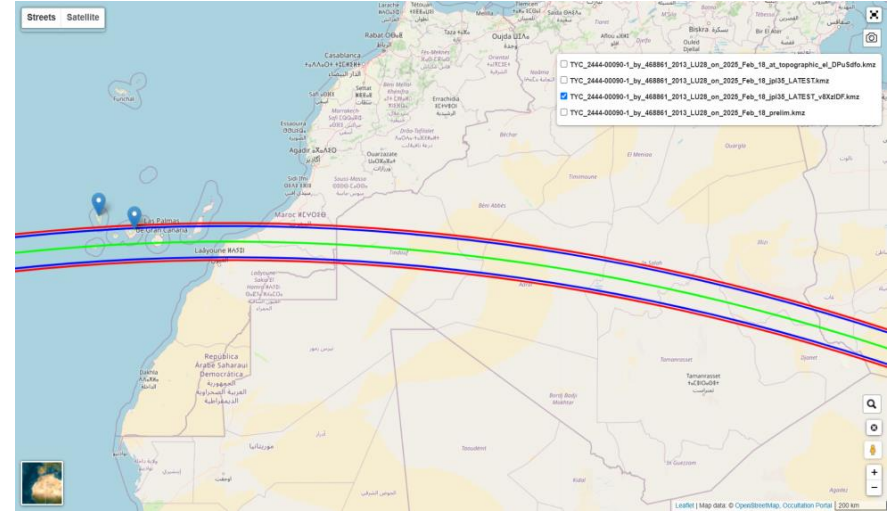


Total Solar eclipse
08 JUL 2024
Texas USA



**And finally I was part of the expedition On
February 18, 2025
we traveled more than 1600 KM**

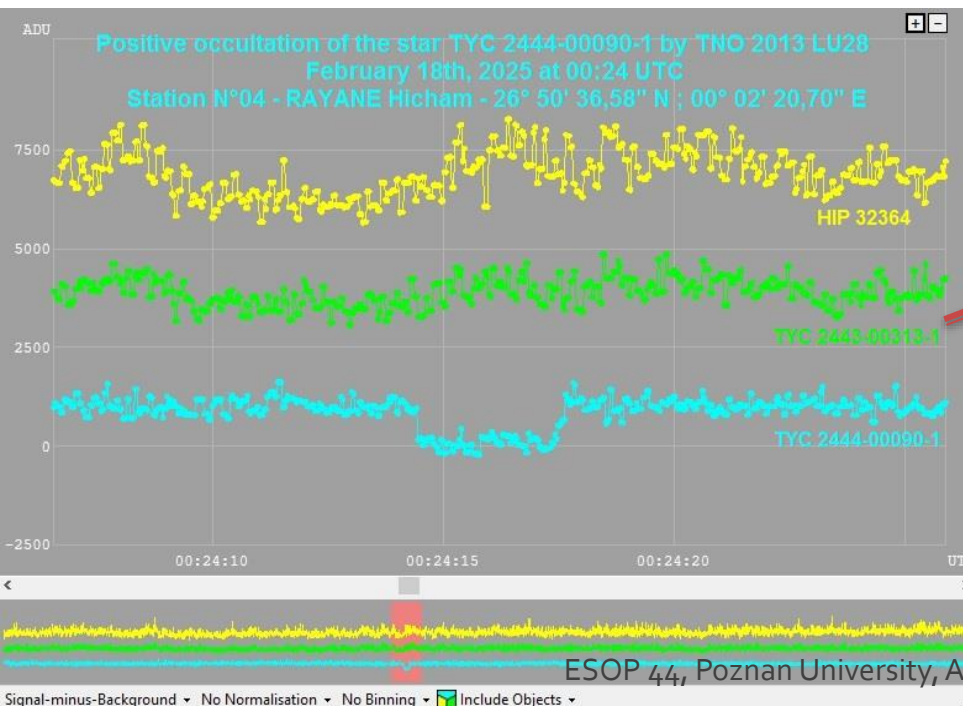
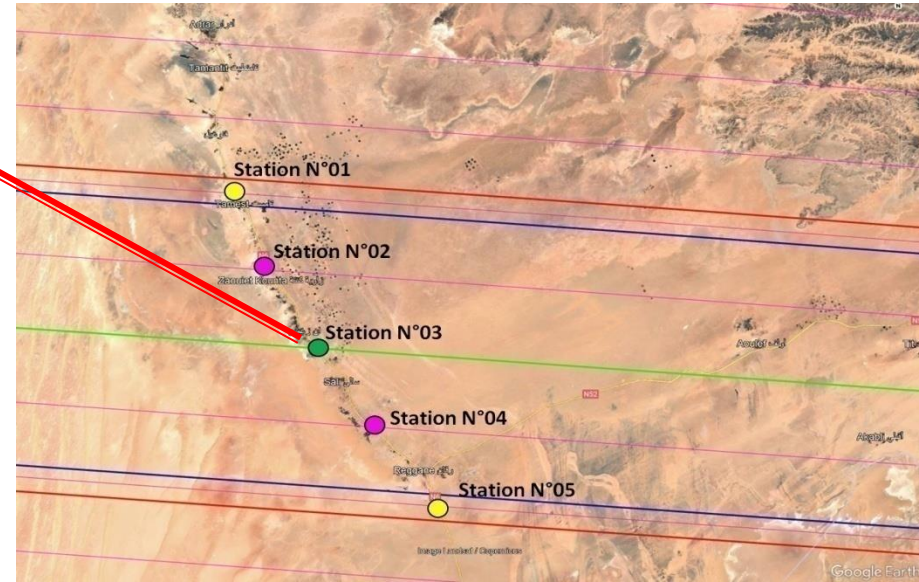
Observation of the Stellar Occultation by the TNO 2013 LU28' in the far Southern of Algeria Adrar



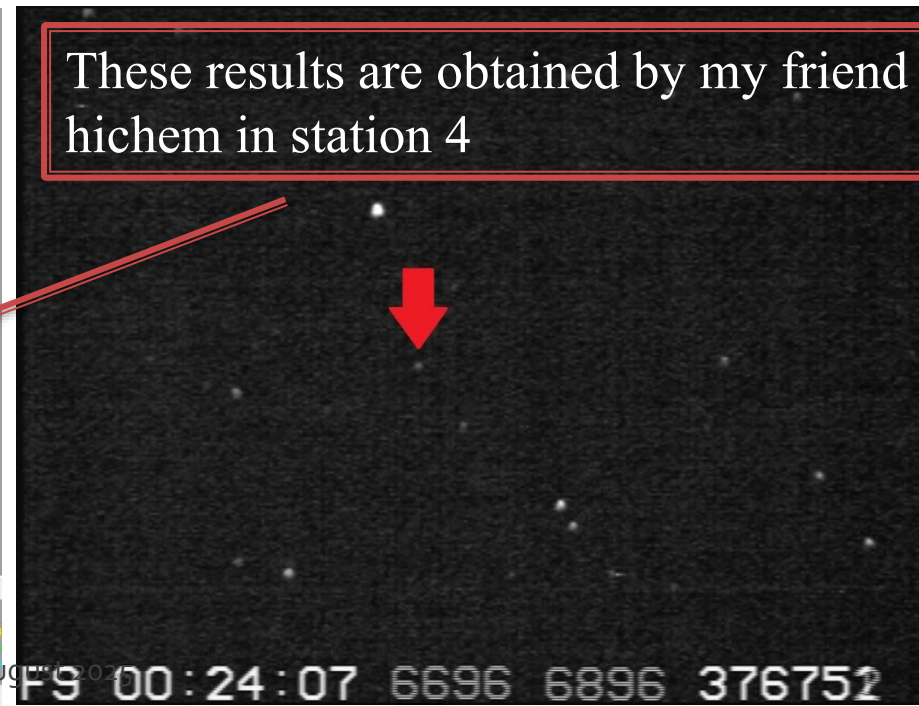
Observation of Stellar Occultation by Asteroids in Algeria 2025

I was at STATION 3 :
I use telescop celestron 9.25
whith equatorial monture
skywatcher eq6 pro
camera WATEC 910
IOTA VTI inserter V3

Unfortunately
I had a technical failure



These results are obtained by my friend
hichem in station 4



All these experiences and results, positive or negative, would not be possible without

Mr. BABA AISSA DJOUNAI

who trains; encourage and helps us to develop participative astronomy in Algeria in the case of observations of the stellar occultation by asteroids.



Perspectives

We are aiming to get occultation equipments as soon as possible (200 mm or more telescopes with motorized mounts and cameras) because we don't have telescopes until now in our club in Bejaia.

Being able to Assist and record data recording based on scientific researchs.

Grow the network of astronomy and occultation outreach in Algeria.

Thank you for your attention

