Implementation of ISON network at Nuevo Leon, Mexico

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Tuapsé, Russia, Autumn-2017

Operation site

Academic background: who we are?

UANL

. . .

FCFM

FACULTAD DE CIENCIAS FÍSICO MATEMÁTICAS

. . .

Posgraduate studies

- Applied physics to industry
- Mathematics
- Computation studies
- Planetary Astrophysics

общие ресурсы

2 x 35.5cm telescopes

1 x 30.4cm telescope

1 x 25.4cm telescope

1 x Callisto antenna & detector system

2 x Sky QualityMeter

2 x Davis Meteorological stations

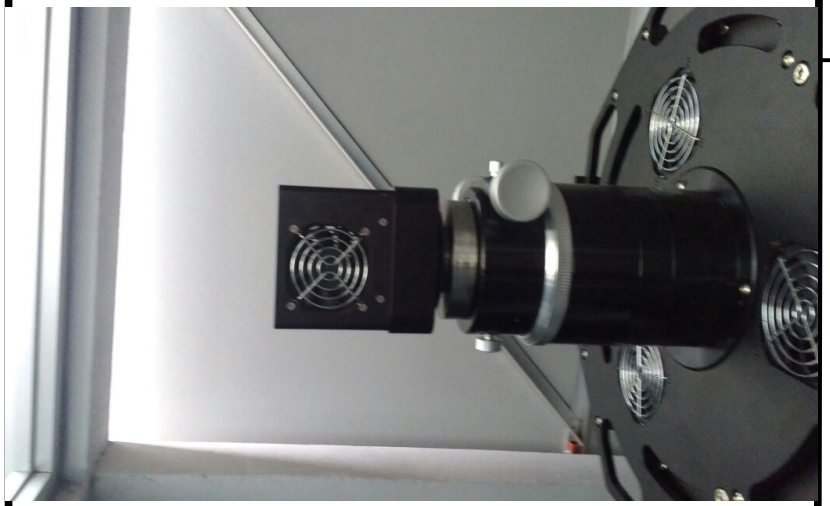
ORI 25 + F L I camera

Telescope

> 25 cm diameter

> 62.5 cm focal length

> FOV 3°x 3°



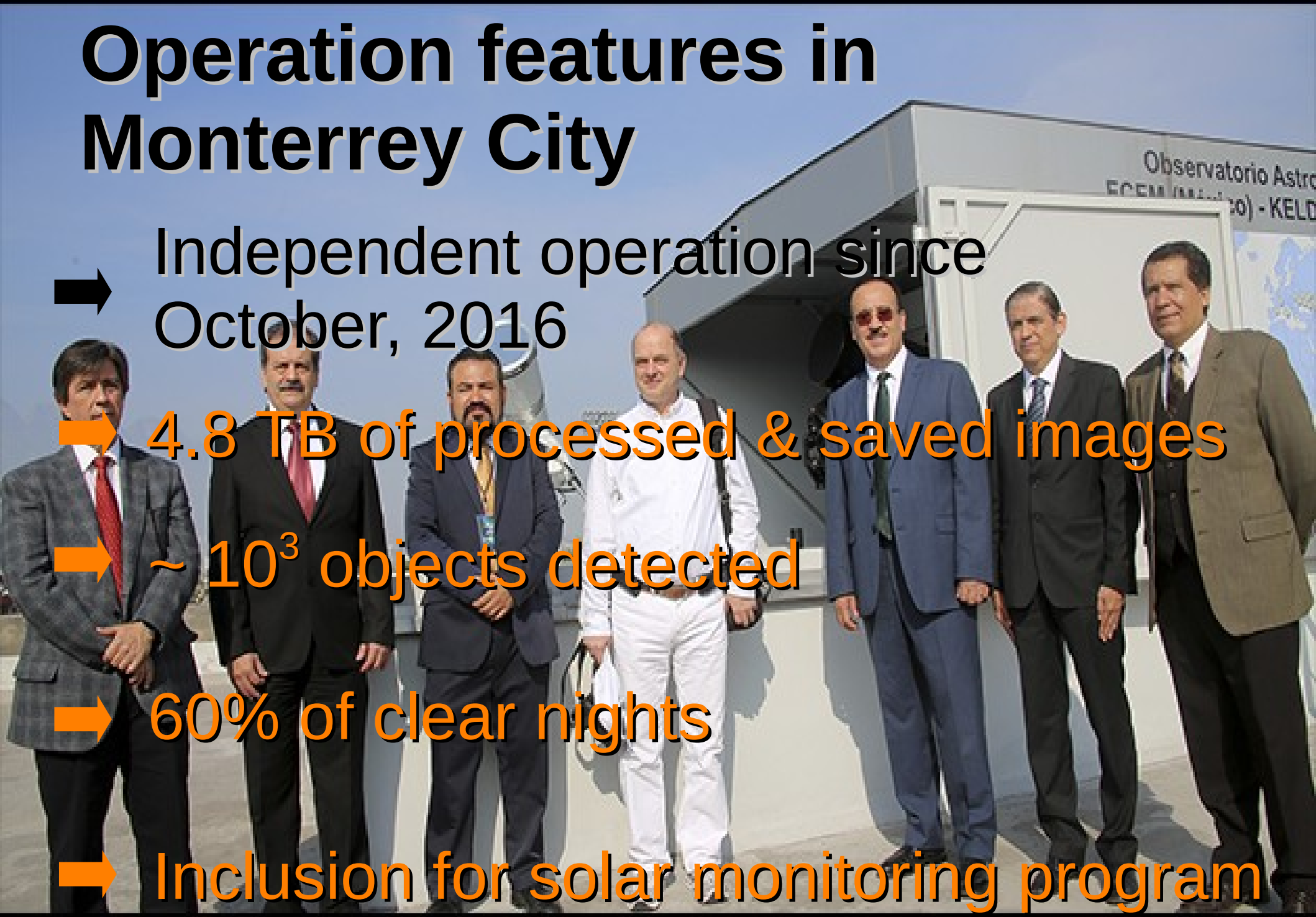
Camera

> 3056 x 3056 pixels

> 12 x 12 μm

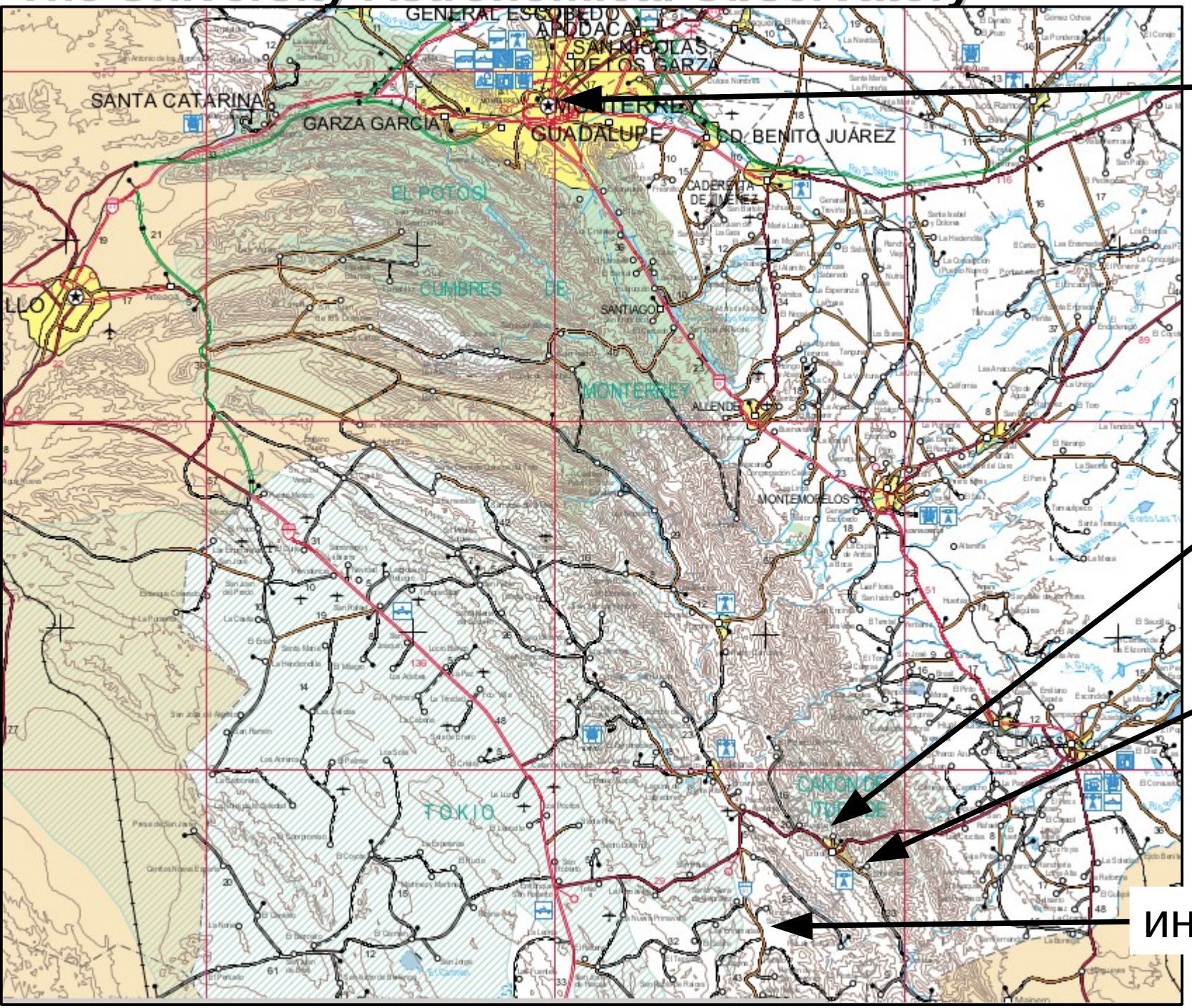
(Agapov & Molotov, 2011)

Operation features in Monterrey City



- Independent operation since October, 2016
- 4.8 TB of processed & saved images
- ~ 10^3 objects detected
- 60% of clear nights
- Inclusion for solar monitoring program

The University Astronomical Observatory



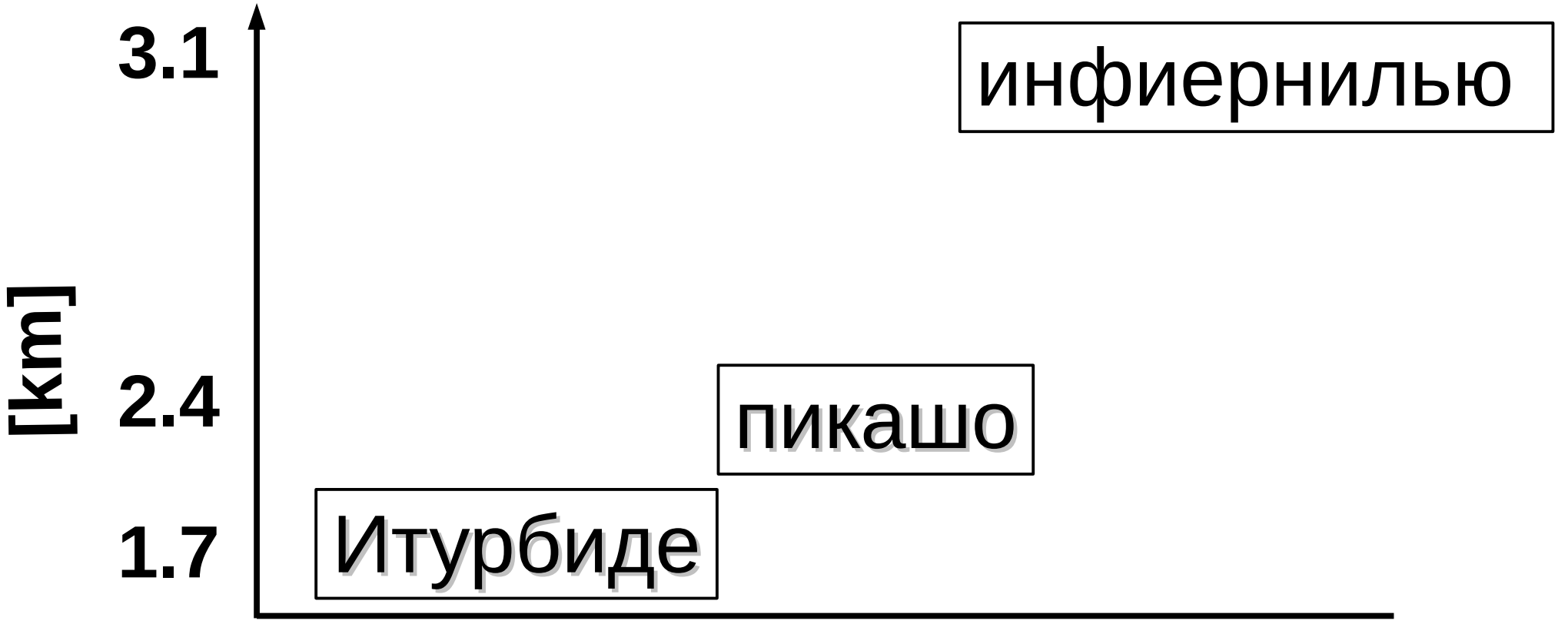
Монтеррей

пикашо

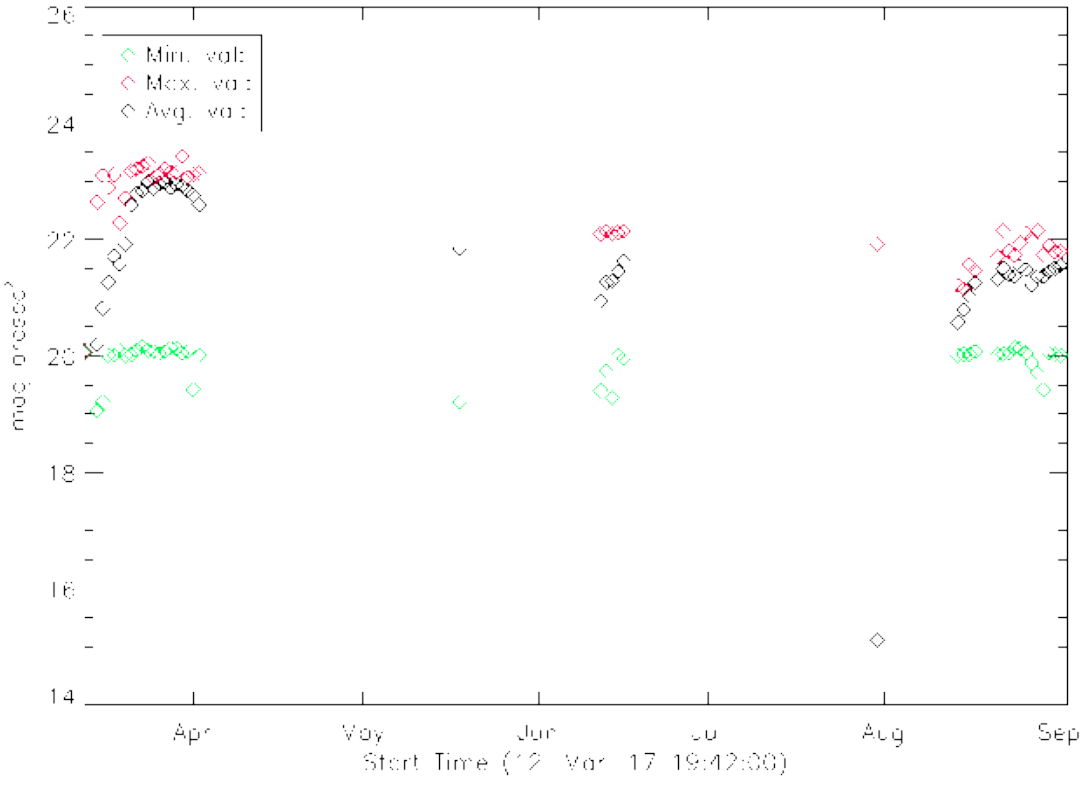
Итурбиде

инфиернилью

The University Astronomical Observatory



Итурбиде



пикашо

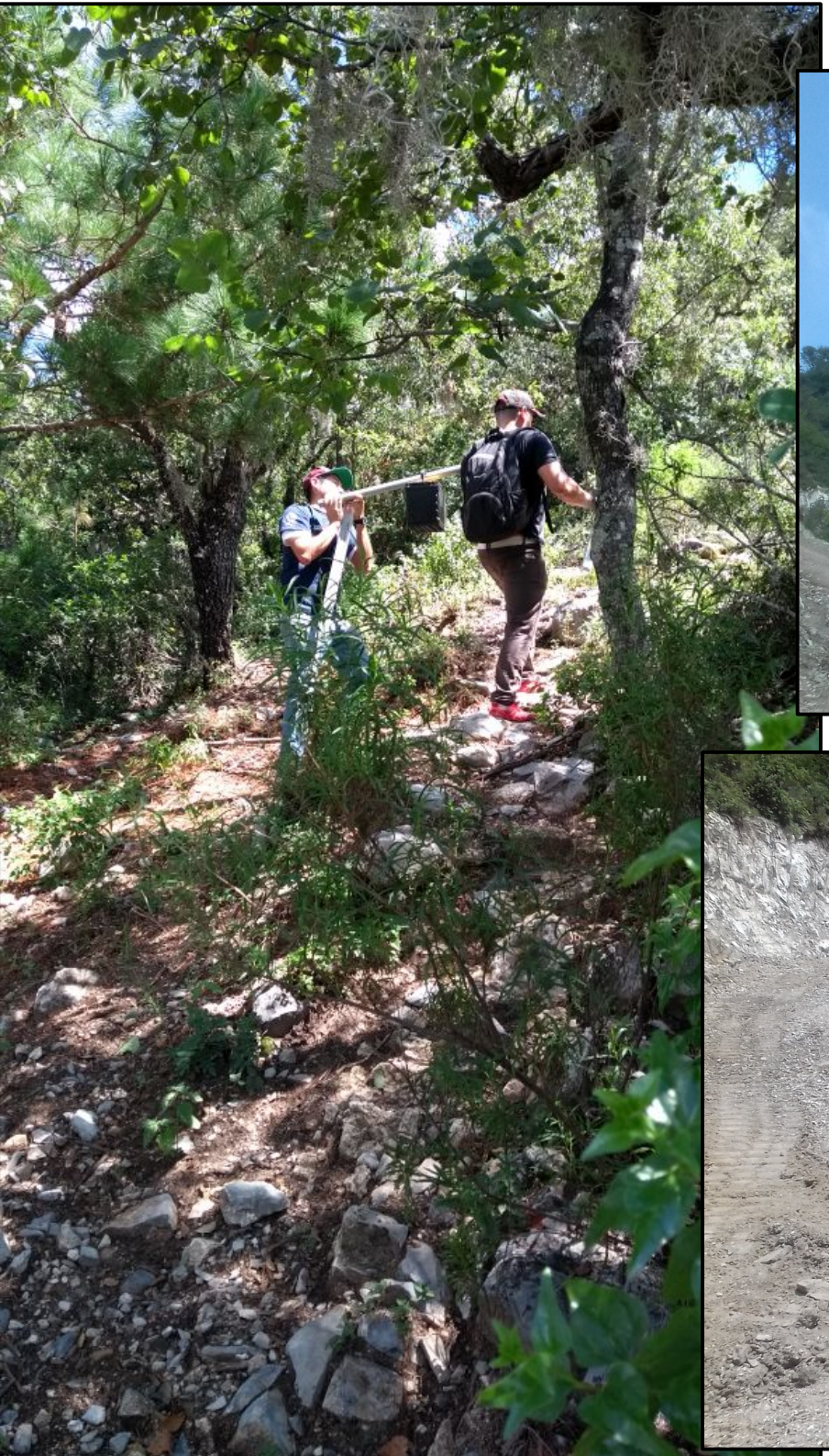
-45 % clear nights*

-50 mm pluvial precipitation per year

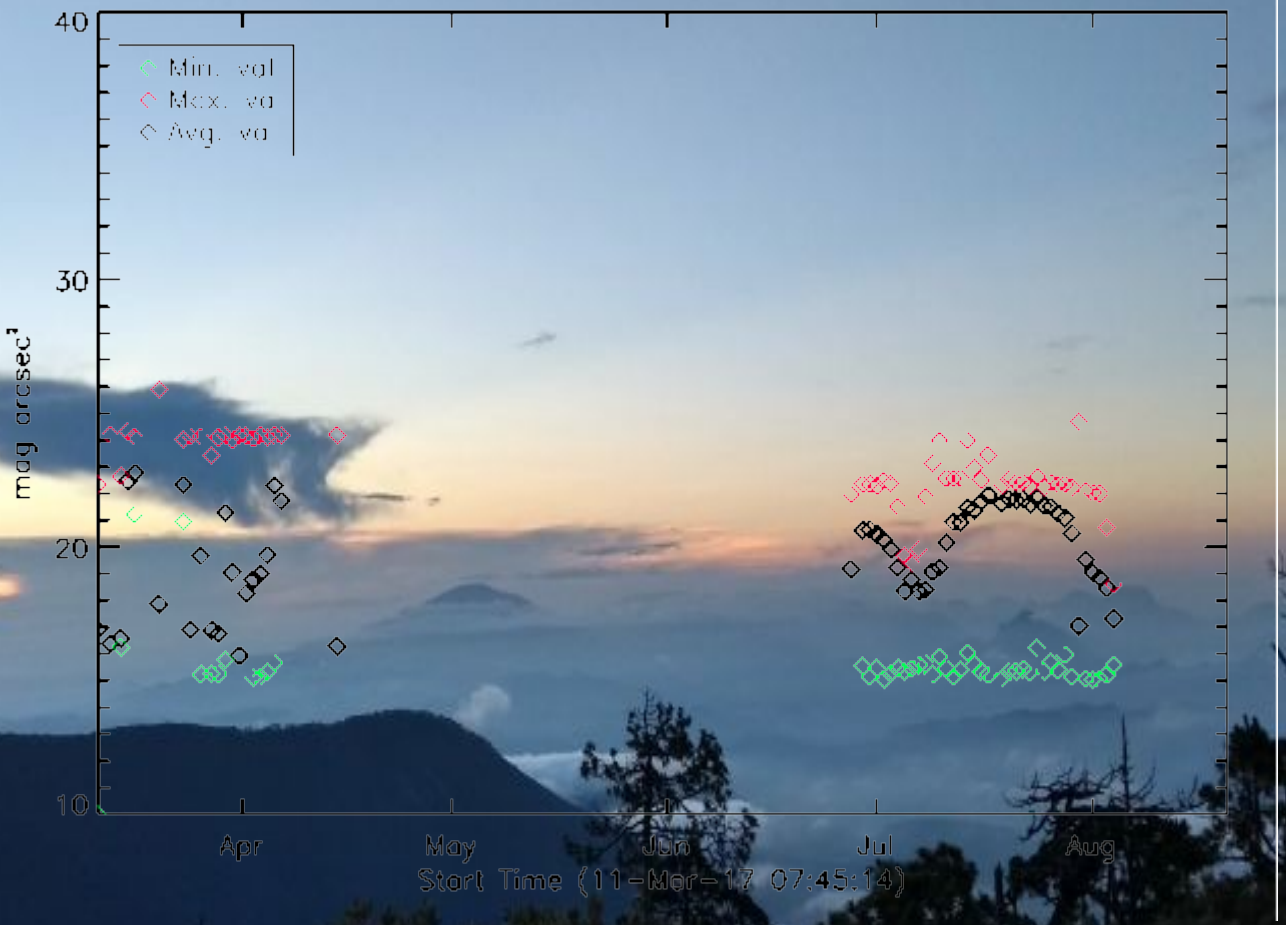
-Wide field of view

* with a ~20% additional clear nights after midnight

пикашо



инфиернилью



Related article (in process)

Manuscript for *Revista Mexicana de Astronomía y Astrofísica* (2007)

THE EMERGING PLANETARY ASTROPHYSICS AND RELATED TECHNOLOGIES IN NORTHEASTERN MEXICO

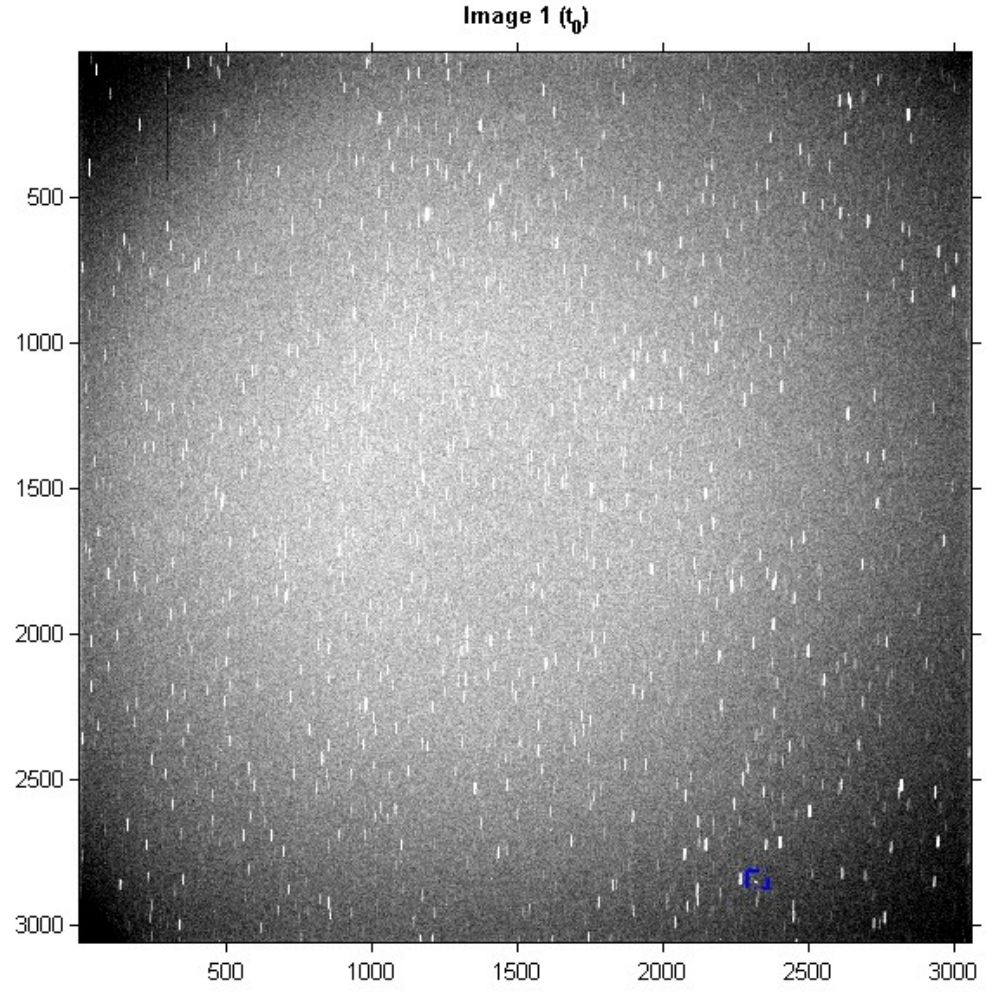
Angel Colin,[1] P. Valdés-Sada,[2] E. J. Pérez,[1] S. Ayala,[1] A. Aviés,[3] Carlos E. Chavez,[3] and E. Pérez-Tijerina,[1]

Draft version: August 29, 2017

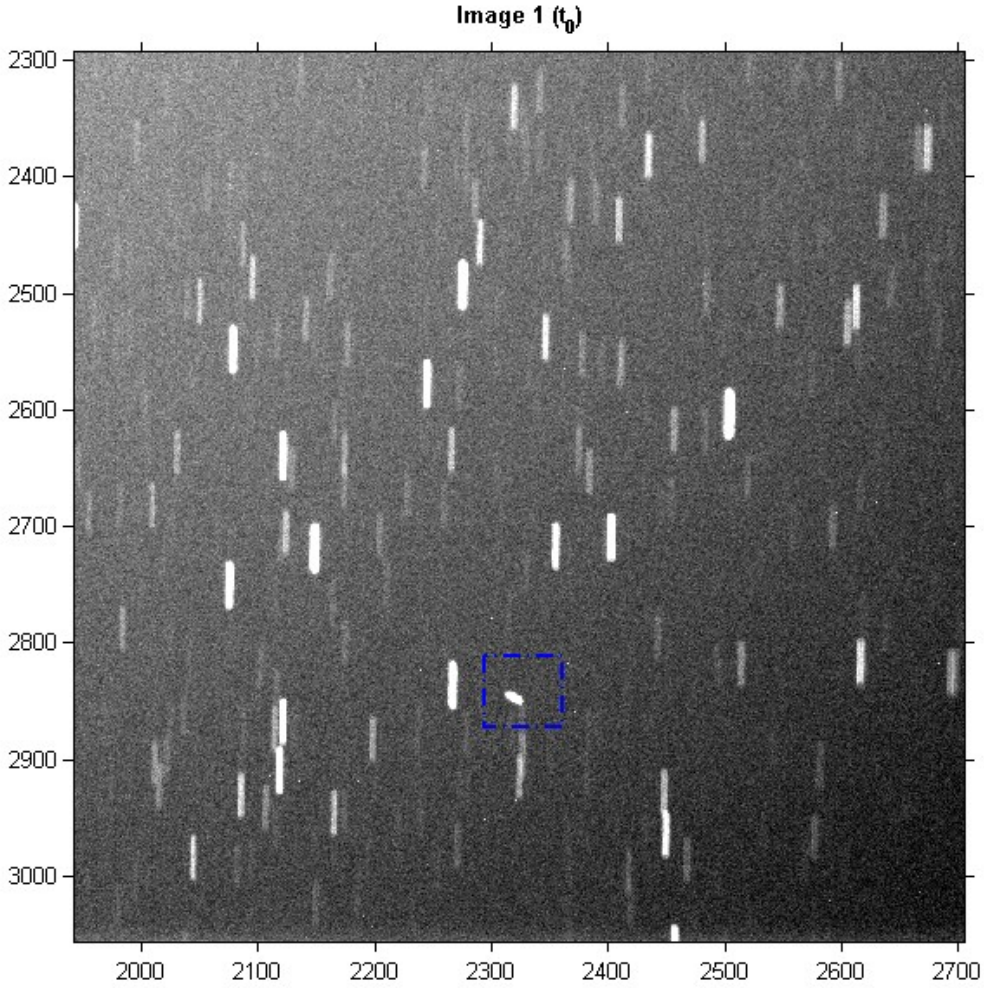
RESUMEN

En este artículo describimos la aportación científica y tecnológica que se ha estado realizando durante los últimos cinco años en el noreste de México, particularmente en el área de astrofísica planetaria. Describimos el estado actual

Image registration

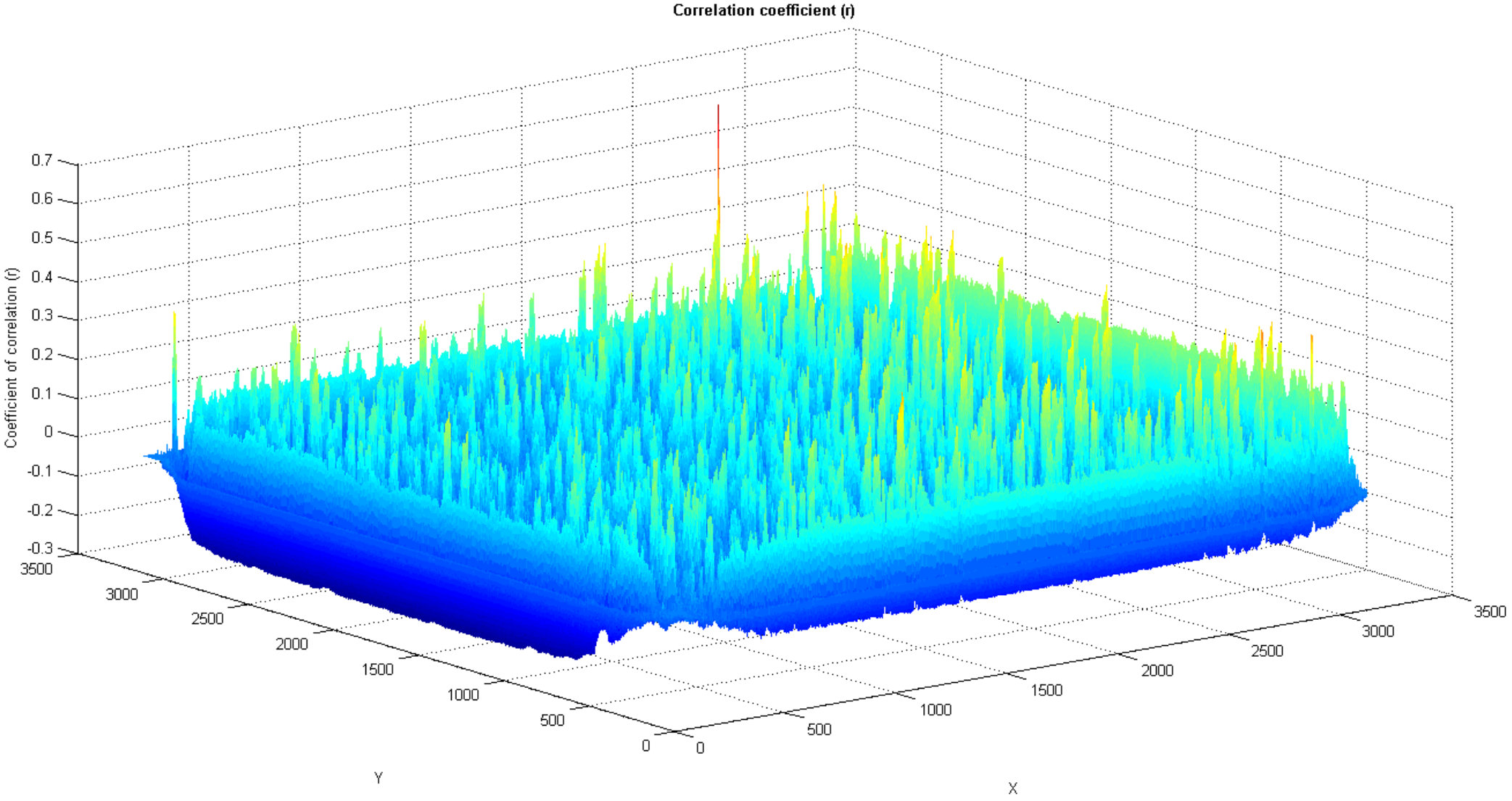


(A)



(B)

Correlation matrix



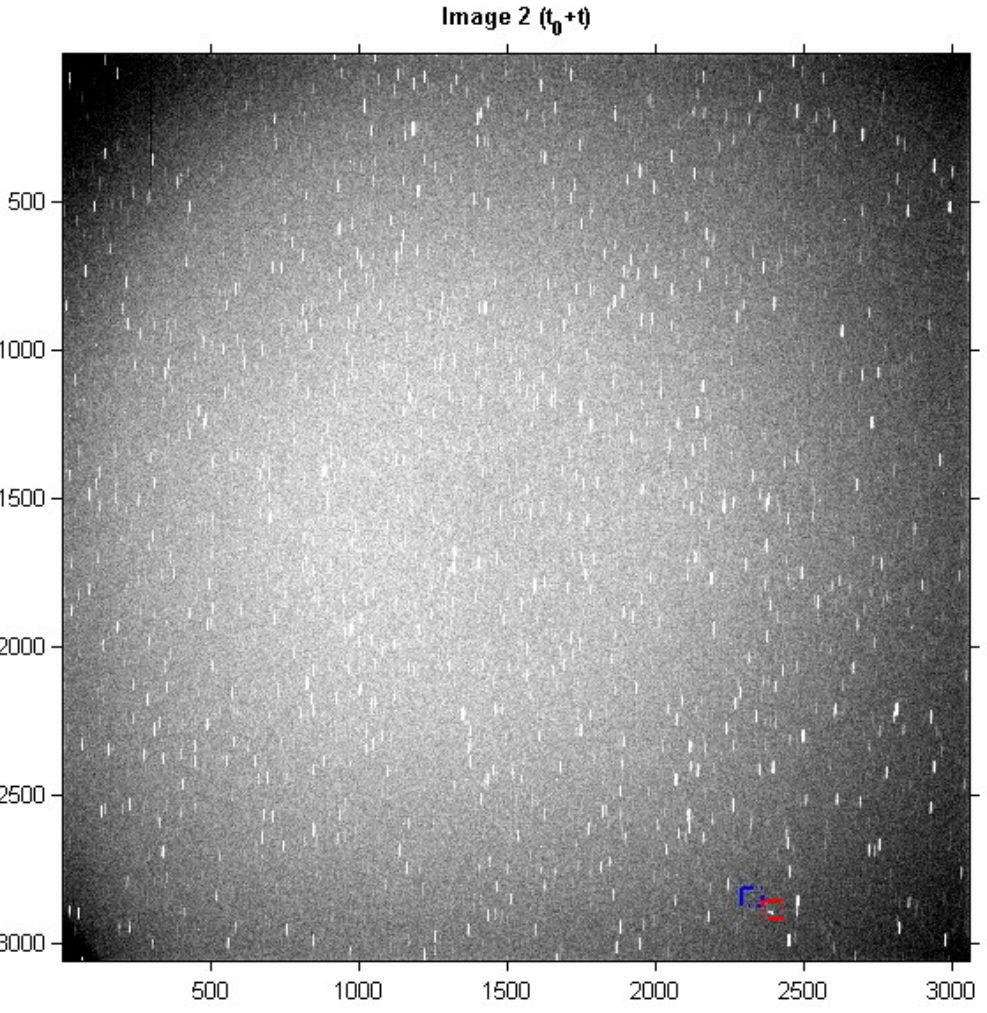


Image 2 (t_0+t)
500
1000
1500
2000
2500
3000

(A)

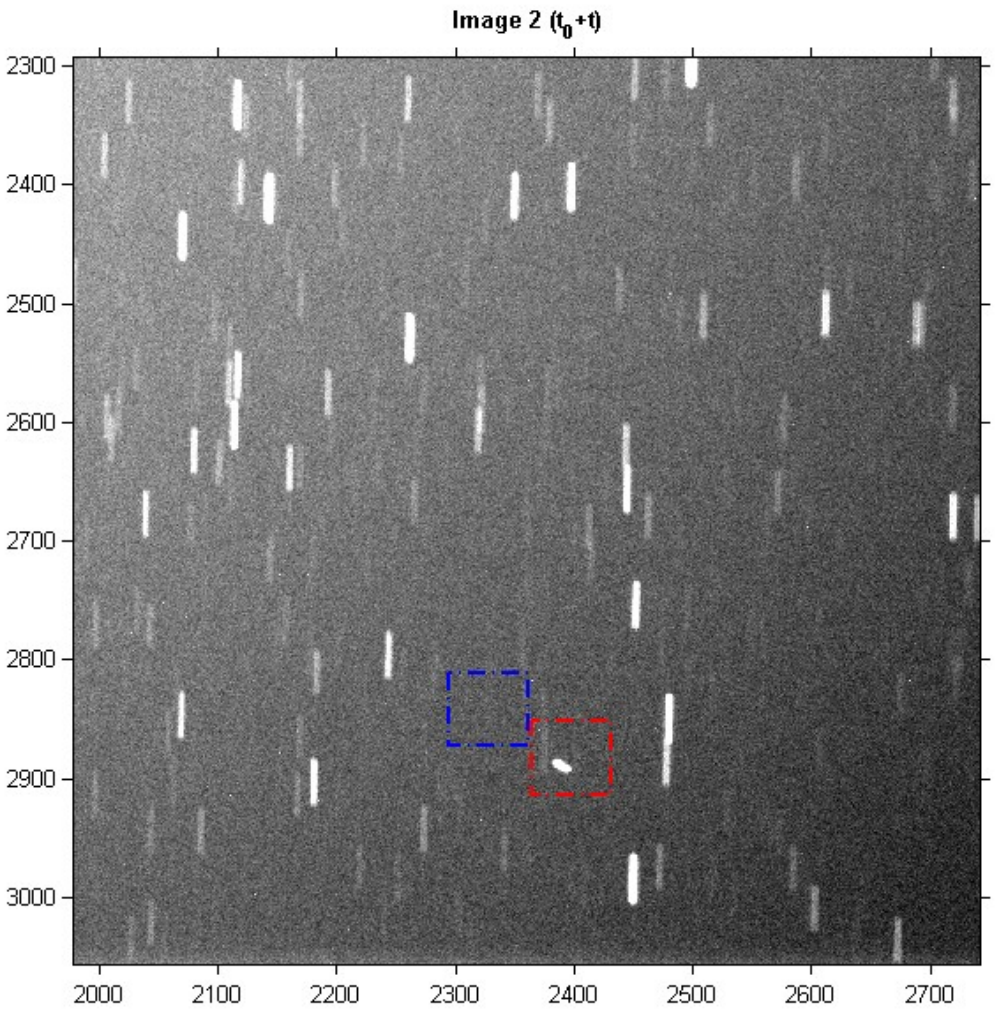
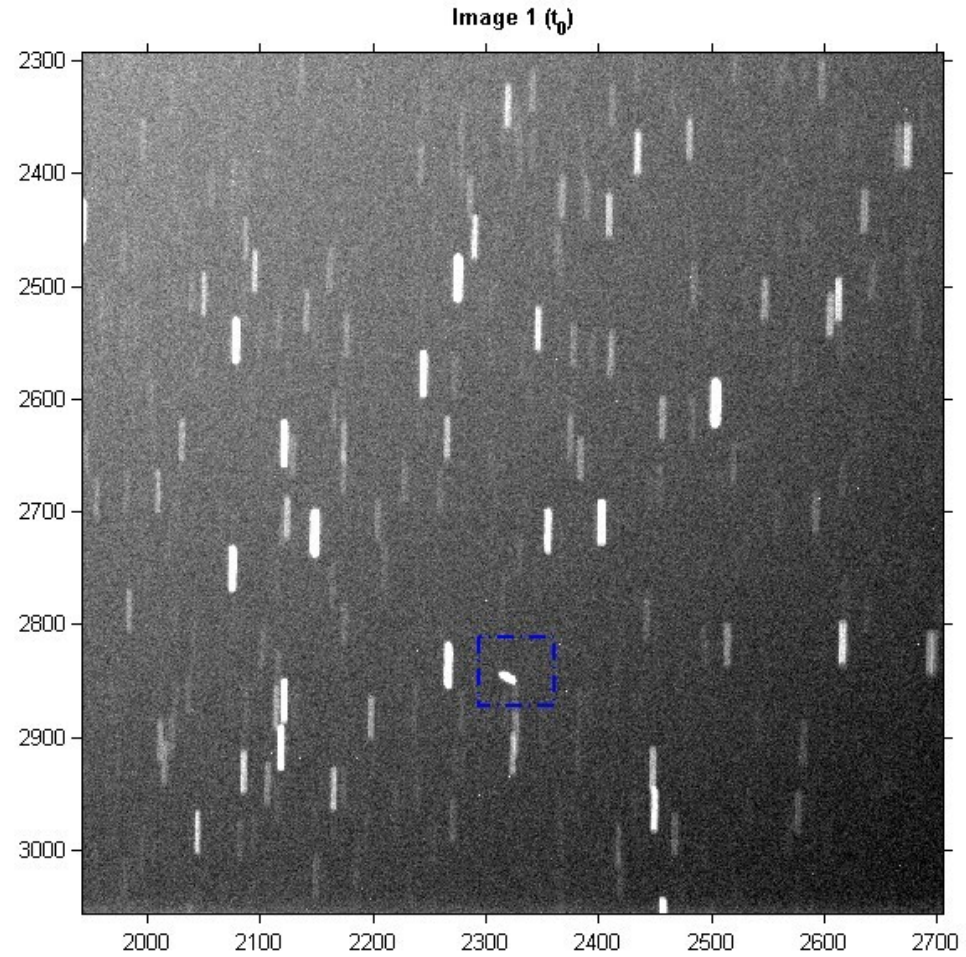
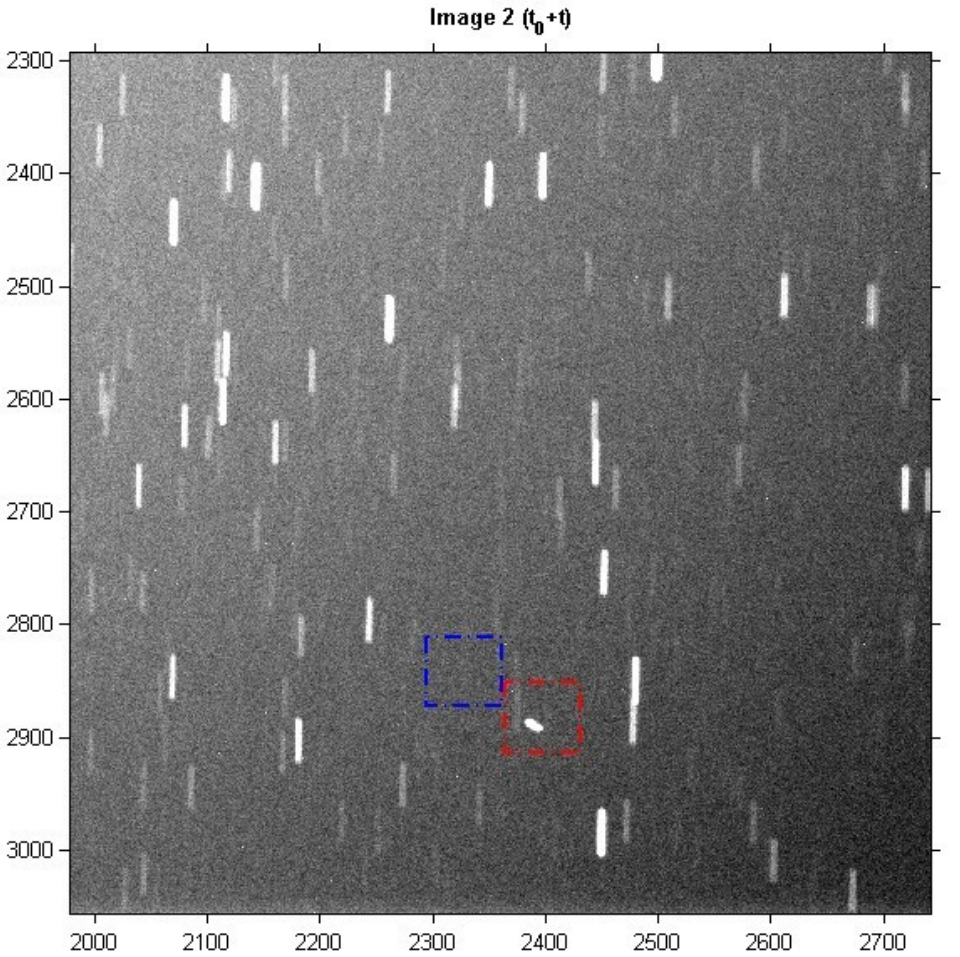


Image 2 (t_0+t)
2300
2400
2500
2600
2700
2800
2900
3000
2000
2100
2200
2300
2400
2500
2600
2700

(B)





1 pixel = 4.440239 arcsec

xdist = 70 pixel --> 310.82 arc sec

ydist = 42 pixel --> 186.49 arc sec

Спасибо

за

внимание