

Türkiye National Observatories



Türkiye's Windows to The Universe

Türkiye National Observatories is our country's largest investment in fundamental and space sciences. Within the scope of Law No. 6550, it is restructured in 2023 as a Joint Research Infrastructure through the partnership of Atatürk University and TÜBİTAK. With this transformation, they have gained the status of an Advanced Research Center, designed to establish and strengthen the space sciences ecosystem.

As the leading institution that guides space science studies in Türkiye, the National Observatories both develop and apply state-of-the-art technologies. It is home to two of the most powerful research infrastructures:

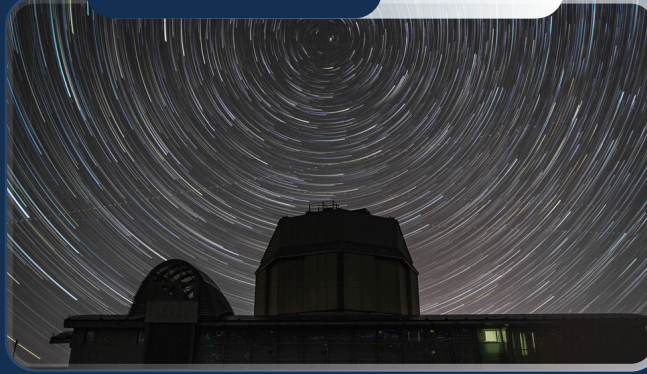
Eastern Anatolia Observatory (DAG)
TÜBİTAK National Observatory (TUG)

With the vision of becoming a globally innovative, competitive, and pioneering research infrastructure in space sciences and optical science and technologies, the National Observatories of Türkiye provides advanced astronomical observation services in both the visible (VIS) and near-infrared (NIR) ranges, at both national and international levels.

In addition, it is initiating scientific research activities in the areas of space situational awareness and space weather, while also organizing annual science and society outreach programs to raise public awareness and foster education.



DAG Site 3.170 m



TUG Site 2.550 m



Türkiye National Observatories provides research opportunities and an advanced environment in space sciences, contributing to the National Space Program and the 12th Development Plan by enabling our country to engage in globally significant scientific topics. Our research infrastructures are headquartered in Erzurum, with an office located in Antalya:

TUG Site established in 1997 on Bakırlı Hill at an altitude of 2,550 m in Saklıkent, Antalya, the TÜBİTAK National Observatory (TUG) is Türkiye's first national observatory. Today, it continues to serve with three active telescopes in the visible spectrum:

RTT150 Telescope – 1.5 m aperture, a Russian–Turkish joint telescope

TUG100 Telescope – 1.0 m aperture

TUG060 Telescope – 0.6 m aperture

DAG Site established in 2024 on Karakaya Hill at an altitude of 3,170 m in Konaklı, Erzurum, the Eastern Anatolia Observatory (DAG) is Türkiye's largest observatory and the first international observatory designed to operate in the near-infrared spectrum. Test observations began in 2025. The observatory will serve with four telescopes, providing observation capabilities in both the visible and near-infrared ranges:

DAG400 Telescope – 4.0 m aperture

ATA050 Telescope – 0.5 m aperture, in partnership with Atatürk University

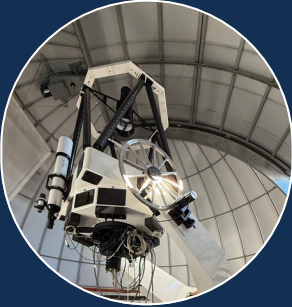
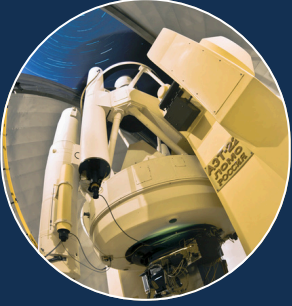
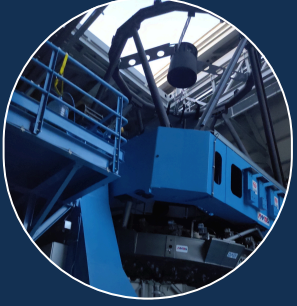
DAGTPS Telescopes – Two 0.3 m aperture telescopes dedicated to atmospheric turbulence profile monitoring

In addition to these, by 2025–2026, both observatory infrastructures will be further strengthened with the installation of 0.5 m aperture Space Situational Awareness (SSA) telescopes (UDF050 Telescopes), which will begin providing dedicated services in this critical field.

The book of the universe is written only in the language of mathematics.

Galileo Galilei

The largest and most advanced
telescopes in Türkiye



Our Telescopes

Telescopes	Mount	Mirror Size (m)	f	Focal Length (m)	Optical Design	FoV (arcmin)	Wavelength λ ****
DAG400	Alt-Az	4,0	14,2	56,0	RC + AO + aO	24,0' x 24,0' (Limited FoV) 7,0' x 7,0' (Limited Diffraction)	VIS + NIR
ATA050 *	Equ	0,5	8,0	4,0	RC	26,3' x 6,3'	VIS
DAGTPS **	Alt-Az	0,3	10,0	3,0	ACF	5,4' x 3,7'	VIS
RTT150 ***	Equ	1,5	7,7	11,6	RC	13,3' x 13,3'	VIS
TUG100	Equ	1,0	10,0	10,0	RC	21,5' x 21,5'	VIS
TUG060	Equ	0,6	10,0	60,0	RC	15,6' x 15,6'	VIS

*ATA050: Atatürk Üniv. - collaboration 0,50 m diameter telescope;

**DAGTPS: two 0,30 m diameter telescope system; TPS: Atmospheric Seeing - Turbulence Profile System (MASS-DIMM, G-DIMM; Seeing).

***RTT150: Russian - Turkish collaboration 1,50 m diameter telescope;

**** λ : Wavelength VIS: Visible - NIR: Near Infra Red
RC: Ritchey-Chrétien; ACF: Advanced Coma Free; AO: Adaptive Optic; aO: Active Optic;
Alt-Az: Altitude - Azimuth; Equ: Equatorial; arcmin: Arc minutes.



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