

## **Global Astronomy Survey : Turkey**

First Submission : Prof. M. Ali Alpar (SPoC) [see human resources section] 7 August 2009

SPoC Approval : Yes

### **1. Professional (Research) Astronomy:**

1. Number of universities offering Astronomy (and their names)

5, Ankara University (Ankara), Istanbul University (Istanbul), Ege University (Izmir), Erciyes University (Kayseri), Çanakkale Onsekiz Mart University (Çanakkale)

1. Number of universities offering Physics (and their names)

Practically all of the universities have Physics programs. Of these universities have

Undergraduate astronomy-astrophysics options and give graduate education in astrophysics leading to MSc-PhD programmes:

9, Anadolu University (Eskişehir), Atatürk University (Erzurum), Boğaziçi University (İstanbul), Çukurova University (Adana), Kültür University (İstanbul), Middle East Technical University (Ankara), Sabancı University (İstanbul), Akdeniz University (Antalya), 19 Mayıs University (Samsun)

1. Number of academics who have been trained in Astronomy (ideally with their names and levels of qualification)

Total number of PhD Astronomers and Astrophysicists is 112.

1. Number of astronomical facilities (observatories, telescopes, etc) and as much detail about each as possible (websites/contact details)

TUG (Tübitak Ulusal Gözlemevi, TUBITAK National Observatory) : Scientific Observatory, 1.5 m telescope, 1 m telescope, 60 cm Telescope, ROTSE instrument.

<http://www.tug.tubitak.gov.tr>

Çanakkale 18 Mart Observatory: Scientific + Education + popular organizations, 1.22 m (to be installed soon) + smaller (60 cm, 40 cm) telescopes

<http://physics.comu.edu.tr/caam/>

Ege University Observatory : Scientific + Education + popular organizations

Ankara University Ahlatlıbel Observatory : Scientific + Education + popular organizations

<http://rasathane.ankara.edu.tr/en/index.php>

Erciyes University Radio Observatory : (Education )

[http://radiobservatory.erciyes.edu.tr/?bil=bil\\_icerik&icerik\\_id=1&kat\\_id=6](http://radiobservatory.erciyes.edu.tr/?bil=bil_icerik&icerik_id=1&kat_id=6)

İstanbul University Observatory: Education only

Boğaziçi Üniversitesi Kandilli Observatory: Solar observations, scientific

Ondokuz Mayıs University Observatory : Education + popular organizations (40 cm telescope)

<http://gozlemevi.omu.edu.tr/gozlemevi.html>

1. Self evaluation (according to the different phases above, how would you rate your country in terms of Professional Astronomy? Please include any other relevant information to motivate your choice.)

I would rate Turkey as Phase 2. Professional astronomy facilities are fairly well developed but still in the development process. There is little astronomy teaching or outreach; especially government support for Astronomy education and outreach is still lacking and needs to be developed.

## **2. Public Understanding of Astronomy:**

1. What governmental astronomy/science outreach programmes for the public take place (co-ordinated either by government departments or national facilities)

TÜBİTAK National Observatory (TUG) runs annual Sky Festivals for public outreach.

1. What non-governmental astronomy/science outreach programmes for the public take place (NGO activities or international programmes that your country is involved in)

Most university astronomy departments, student astronomy clubs and amateur astronomy organizations run outreach activities, especially encouraged and supported by the Turkish Astronomical Society for IYA 2009.

1. Comment on the presence of astronomy in the media (TV, radio, newspapers). Is it very prominent? Are there specific programmes on astronomy? Is the media generally willing to publish news on astronomy?

Media is very interested, astronomy events are covered by the media. But the media is also not very well informed. There are as yet no specific programmes on astronomy. There is a lot of interest in astrology, UFOs etc fostered by the media. The Turkish Astronomical Society is establishing contacts and astronomers are taking part in topical news programmes having to do with astronomy.

1. Comment on the presence of astronomy/science in the general culture of the people. Are there any specific challenges or setbacks? Is astronomy a welcome subject of conversation?

Astronomy draws a lot of interest. There has been an overwhelming response from the public to IYA 2009 activities. There is also a lot of misinformation.

1. Self evaluation (according to the different phases above, how would you rate your country in terms of Public Understanding of Astronomy? Please include any other relevant information to motivate your choice.)

Phase 2: there is enthusiasm; and we are trying to establish regular outreach channels through the Turkish astronomical Society and collaborating NGOs, educators, universities and media.

### **3. Astronomy in Schools:**

1. What governmental astronomy/science education and outreach programmes for schools take place (co-ordinated either by government departments or national facilities)

None.

1. What non-governmental astronomy/science education and outreach programmes for schools take place (NGO activities or international programmes that your country is involved in)

Turkish Astronomical Society and cooperating NGOs TEGV and ILKYAR take astronomy and science activities (public talks, telescopes and observing festivals, mobile education units, teams of volunteers) to schools. We (the Turkish Astronomical Society) are involved actively in IYA 2009 Cornerstone Programmes

Galileo Teacher Training network, UNAWE, She is an Astronomer..

TAS lead and networked for "100 Hours of Astronomy" which was successfully held at 18 centers across the country. We are now preparing for "Galilean Nights"

1. Comment on the presence of astronomy in the school curriculum. Is it part of the school curriculum? Is it very prominent? What age groups?

Astronomy courses used to be but are no longer mandatory in highschools. They have been reintroduced as elective courses but are currently offered in only a few schools. In primary schools, ages 9-12, basics of the solar system, the Earth's rotation and orbit, seasons etc are taught.

1. Comment on the status of astronomy/science in schools. Are there any specific challenges or setbacks? Sufficient number of students studying maths and science? General interest in maths/science/astronomy in schools?

Science and math courses are mandatory, but not very well taught. The university Entrance system imposes drills and multiple choice exams ; deficiencies in teacher training and other factors has reduced science teaching to mostly non-scientific rote learning.

1. Self evaluation (according to the different phases above, how would you rate your country in terms of Astronomy in Schools? Please include any other relevant information to motivate your choice.)

Definitely Phase 3. No astronomy and not much “good” science in the official system. A lot of effort and programs from NGOs and interest from the public for improving education.

Any other general comments or information that you feel would be useful for this survey?

This has been useful for our brief self evaluation. In Turkey an extra problem is the very uneven distribution of resources for education both geographically and across the different classes of society.