

## NEW ASTRONOMICAL STATION ON MOUNT DUSHAK-EREK DAG. I. THE STATION.

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**ABSTRACT.** A new observational station of astronomical observatory of Odessa State University was put into operations in Kopet-Dag Mountains in Turkmenistan in summer 1992. The site has coordinates  $\varphi = +37^{\circ}56' N$ ,  $\lambda = 3^{\text{h}}52^{\text{m}} E$ ; an altitude 2020 m. A meteorological characteristics and data on sky transparency are given. First observations of different objects show a good quality of data.

**Key words:** Astroclimate, observational station.

A new Central Asian station of astronomical observatory of Odessa State University was under construction on the south-western slope of the Dushak-Erekdag Mount in 1991. The site has coordinates  $\phi = +37^{\circ}56' N$ ,  $\delta = 3^{\text{h}}52^{\text{m}} E$ . An altitude of the site (2020 m) is higher than a level of a dust pollution of the air. A vast open horizon on the south permits to observe stars up to  $\delta = -40^{\circ}$ .

A Ritchey-Chretien telescope with a primary mirror 80 cm in diameter was mounted at the station. The telescope has a relative aperture 1:14.3 and a field of view  $20'$ . The telescope had produced by a group of Fashevsky N.N. and Paulin L.S., it has an original tubeless construction. A dual-channel photometer has been attached to the telescope. The photometer has been constructed at an astronomical spectroscopy department of the observatory of Odessa State University.

There are an observational station of Physico-Technical Institute and an a building observatory of research-astronomical en-

terprise "Asman", Academy of Sciences of Turkmenistan. The scientists of these institutes tested an astroclimate of the site in the seventies and the early eighties (Ovezgel'dyev et al. 1984).

Ashkhabad, the capital of Turkmenistan, is in 45 km to the east and illuminates the sky mainly. There are no other sources of the ambient light around.

In this site there are 160 clear days, 70 cloudy days and more than 2000 photometric hours per year. Due to weak winds (less than 3 m/sec) and the poor humidity of the air the atmospheric transparency is very stable in the season of summer-autumn.

These and other known astroclimatic features show that Dushak-Erekdag is comparable with Majdanak and Sanglok mountain. But recently this site has not been tested sufficiently enough and further investigations are needed.

First observations of different objects at the station:  $\alpha$  Ari and  $\delta$  Scuti stars, a cataclysmic variable star TT Ari, the asteroid Toutatis etc., show a good quality of data. We took part in some international photometric campaigns by using the photometer during summer and autumn of 1992, 1993.

### References

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