

Observations in Turkmenistan on the Basis of a Digital Station PS44

System of seismological observations in Turkmenistan was established in 1947 when the first seismic station “Ashgabat” was built. The devastating earthquake with magnitude 7.3 which demolished Ashgabat in 1948 gave rise to further development of seismological research and deployment of seismic stations on the territory of Turkmenistan. By 1993 the seismic network of Turkmenistan included more than 25 seismic stations. All stations were equipped with analog equipment with galvanometric registration and recorded on photographic paper. Since certification time in 2010 IMS seismic station PS44, Alibeck, GEYT, has been acquiring seismic information and transmitting it in real-time via satellite intrasite communication to the National Data Centre of the Institute of Seismology of Academy of Science in Turkmenistan and over the basic GCI topology satellite link to the International Data Centre in Vienna. Seismic array “Alibeck” is 10 element array equipped with Guralp 1C and 3C sensors deployed in the boreholes helps to locate the epicenters of the seismic events as well as to improve the regional velocity models of the Earth crust and upper mantle. Seismic array “Alibeck” significantly improved the seismological monitoring in Turkmenistan, which is very important for seismic activities areas.

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