

Registration opportunities of the temporary seismological network of IDG RAS on EEC

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Abstract In 2017, as a part of the study of the deep structure of the central part of the East European craton (EEC), three temporary seismic observation points were installed. They were equipped with broadband three-component sensors. The position of the stations is due to the need to build a seismic section in the sub-latitudinal direction in order to study the collision zone of the triple junction of mega blocks in the central part of the EEC. Together with the small-aperture seismic array “Mikhnevo” (MHVAR), temporary seismic stations form an area observation system with distances between stations of the order of 100 km. In 2018, the stations of the temporary network of the IDG RAS had registered 765 events of various nature: 222 industrial explosions and 543 earthquakes. During the year, the “Mikhnevo” array records about 5000 events, of which about 1000 are earthquakes at teleseismic and regional distances, and about 900 are identified like industrial explosions. Mutual processing of observed data on the temporary network and on the “Mikhnevo” in some cases (17%) made it possible to specify the results of the location of industrial explosions obtained previously at the “Mikhnevo” over 10 km.

Keywords Central part EEP, network, seismicity, catalog, industrial explosions, earthquakes.

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