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## Permanent small-aperture array in the Moscow region - main goals and detection properties

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Geophysical observatory at Mikhnevo (80 km east of Moscow region) is part of the Institute of geospheres dynamics RAS. In 2004 a small-aperture array was installed at Mikhnevo for monitoring and location of seismic events at teleseismic and regional distances. Mikhnevo array allows to locate earthquakes and other seismic events (such as explosions, quarry blasts etc.) in the European part of Russia at distances up to 2000 km with magnitudes more than 2.0. One of the array purposes is seismic monitoring of Moscow megapolis area. Small-aperture array at Mikhnevo consists of 9 vertical receivers SM-3KV with frequency band from 0.5 to 40 Hz and sampling rate 100 Hz. Dynamic range of the analogue recorders SM-3KV is 120 dB. Loggers are positioned on 3 symmetric concentric rings with diameters 130, 320 and 500 m. Position of the center of the group is 54.96N37.77E. All digital signals are transferred to the common registration point, where they are visualized and initial processing, including preliminary location of seismic source is performed. Waveforms are stored on CDs. The level of microseism noise at in Mikhnevo is low compared to other sites of the Moscow region. During 5 months from the beginning of operation about 100 events were located: 75 local events (quarry blasts) at distances up to 500 km and 25 teleseismic earthquakes, according to Obninsk station seismological bulletin.