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application of local seismic and infrasound networks as national technical mean

In this study, some local networks of Iran are presented and their activity compare with regional networks are shown emphasizing the remarkable natural difference of seismic activity detection. Seismic networks are and will be probably forever the only tool that enables study of the detailed structure and physical properties of the Earth. Local instruments could be a useful mean while going into depth in an area. Local seismic networks could effectively use checking seismic activity of any area with highest resolution and precision. Lots of small events couldn't record on global networks and the magnitude of completeness of local network catalogs are always less than regional or global ones which is a great advantage of these kind of networks as national technical mean. The detecting ability simply changes with instrumental coverage which plays an effective role for professional and applied usages in seismology. The inherent error in regional and global networks are as high that can't give accuracy to determine the exact trend and depth of seismic sources and enough evaluation for early warning networks and rapid response systems which can effectively reduce the natural hazard of earthquakes. Many local networks are operating for various goals of seismology in Iran and this definitely will increase the quality of studies and can prepare lots of informative data that directly relates to seismic hazard assessment. These networks have reduced the magnitude of completeness of seismic catalogs and increase the knowledge of crustal properties which will prepare a huge data bank to define realistic 2D, 3D earth models. Infrasound networks are one of the other local networks that we could have. We could use infrasound networks in south-east of Iran, Makran region. Makran is one of the important subduction zone. We could detect interfering oceanic waves if we have Infrasound network in this region.

Primary author: NAJAFIPOUR, Nooshin (Parsian Seismograph Company)

Presenter: NAJAFIPOUR, Nooshin (Parsian Seismograph Company)

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