

3.3-P15. IMPROVEMENT OF THE ARRAY PROCESSING SYSTEM AT KNDC

Since 2001, the Center for Acquisition and Processing of Special Seismic Information of RSE IGR (KNDC) in Kazakhstan applies the NORSAR array processing software together with own developed software tools. More than 10 years of on-line data processing by using this technology has shown its reliability and effectiveness for automated detecting and processing of seismic events from different regions in Kazakhstan and Central Asia. The key features of the updated processing system is that it runs on OS Linux instead of OS Solaris, and the additional possibility to use data from the large-aperture Kurchatov-Cross seismic array, originally designed to record teleseismic events. This array is an auxiliary station of the IMS system and has a non-standard configuration in comparison with other seismic arrays in Kazakhstan and the IMS. The algorithm for signal detection by this array is significantly different from the one used for seismic events recording by small-aperture arrays of standard configuration. The inclusion of this array in the daily regional monitoring task can enhance significantly the event location accuracy by automated processing software and improve the quality of the KNDC automated bulletin.

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