

Web Based Version of Threshold Monitoring for Near Real Time Estimation of International Monitoring System Detection Capability

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The primary seismic network of the International Monitoring System (IMS) forms the backbone of the CTBT verification regime. Consequently, the performance of the network needs to be documented. A key parameter in this respect is the event detection threshold which can vary significantly with time during situations such as high station noise levels, large earthquakes or outages of key stations. NORSAR has in cooperation with International Data Centre (IDC) staff developed a web based tool for enhanced analysis and presentation of detectability maps based on the threshold monitoring methodology. Key elements of the application are: display of absolute and relative thresholds maps for time intervals selected by the user; options for setting of colour scales, contour levels and magnitude scales and analyses of detection thresholds for any user selected geographical area. The primary users of the web tool are National Data Centres, the CTBTO Preparatory Commission and other authorized users having access to IMS data and IDC products. We will demonstrate the functionality of the system and show examples of absolute and relative detection thresholds at global, regional and local scales.

Promotional text

Upon entry into force of the CTBT, it is a requirement that the performance of the IMS is continuously monitored. We demonstrate a web based system for event detection capability assessment of the primary seismic network for any time interval and geographical region.

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Oral preference format

in-person

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