



An Assessment of Early-Est by KOERI-RETMC

Fatih Turhan, Mehmet Yılmaz, Öcal Necmioğlu, and Ayşegül Köseoğlu

Boğaziçi University, Kandilli Observatory and Earthquake Research Institute, Regional Earthquake and Tsunami Monitoring Center

Kandilli Observatory and Earthquake Research Institute-Regional Earthquake and Tsunami Monitoring Center (KOERI-RETMC) is a ICG/NEAMTWS accredited 24/7 operational Tsunami Service Provider monitoring Eastern Mediterranean, Aegean and Black Seas. The main purpose of this study was to evaluate the usability of Early-Est (Lomax and Michelini, 2013) by KOERI-RETMC for operational purposes. Early-Est allows rapid and robust assessment of the tsunami potential of an earthquake for early warning and emergency response based on both moment magnitude and rupture duration of an earthquake. Waveform data from 1098 earthquakes with $M \geq 6.5$ available from all over the world has been processed and results are compared based on both earthquake parameters and tsunami potential with respect to NOAA database. Tests for the events with a tsunami run up ≥ 2 m reported in NOAA database show a success rate of 70%. As a result of this, Early-Est has been promoted to operations by the KOERI-RETMC.