

A Catalogue of Source Parameters of Moderate and Strong Earthquakes for Turkey and its Surrounding Area (1938-2015)

Details

Meeting	2015 Fall Meeting
Section	Seismology
Session	Seismology Contributions: Earthquakes I Posters
Identifier	S11A-2736
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Abstract

Turkey and Surrounding area, especially North Anatolian Fault Zone (NAFZ), East Anatolian Fault Zone (EAFZ), Western Turkey, cost of the Aegean Sea and Mediterranean Sea regions are seismically very active and undergoing rapid deformation. Earthquakes with $M > 6.0$ do occur every couple of years regularly in this region, Moderate-magnitude seismicity ($4.0 < M < 5.0$) is widespread and often in Turkey and Surrounding Area. An improved knowledge of moderate-magnitude earthquakes can contribute significantly to a better understanding of different active tectonics in the region. Focal mechanisms contribute in many ways to the study of active tectonics. Also, focal mechanism solutions describe the geometry and mechanism of the faulting during an earthquake. In this study, it is aimed to collect and distribute of the earthquakes with magnitudes larger than $M 4.0$ which were calculated of the fault-source parameters for Turkey and its surrounding area between 1938-2015. The fault source parameters of total over the 1200 earthquakes were calculated. The fault-source parameters of about 56.0 % of the all events were calculated with this study and 44.0 % of the rest were obtained from the other sources. The parameters of the old and incomplete events also were calculated in order to prepare the homogeneous and extended fault- source parameters set in the study. **ACKNOWLEDGMENTS** This study was supported by the Department of Science Fellowship and Grant programs of TUBITAK (The Scientific and Technological Research Council of Turkey).

Cite as: Author(s) (2015), Title, Abstract S11A-2736 presented at 2015 Fall Meeting, AGU, San Francisco, Calif., 14-18 Dec.