Geophysical Research Abstracts,
Vol. 10, EGU2008-A-07256, 2008
SRef-ID: 1607-7962/gra/EGU2008-A-07256
EGU General Assembly 2008

A Catalogue of Sources Parameters of Moderate and Strong Earthquakes for Turkey and its Surrounding Area

D. Kalafat (1), K. Kekovali (1), and A. Pinar (2)

(1) Bogazici University, Kandilli Observatory and Earthquake Research Institute, Cengelkoy, Istanbul, Turkey (email: kalafato@boun.edu.tr), (2) Istanbul University, Department of Geophysics, Avcilar, Istanbul, Turkey

The main task of this study is to compile and archive the source parameters of the significant earthquakes occurred during the period 1939-2007 in Turkey and its surroundings in a CMT catalogue and make the catalogue available through a web based search facility. Particularly, following the 1939 Erzincan earthquake the detailed source information of the large events is retrieved from digital waveforms using source inversion techniques. The CMT catalogue of the destructive earthquakes of Turkey that were strongly felt includes macroseismic information, as well. Fortunately, recent developments in seismic instrumentation and the digital technology gave rise to more reliable and rapid estimation of the source parameters. Thus, the faulting and source parameters of the earthquakes with magnitudes MąÝ 4.5 occurred in Turkey during 1939-2007 are compiled in a CMT catalogue databank. The source parameters of the recent moderate sized earthquakes are determined reliably using the waveforms at three components broadband stations the number of which increases steadily since 2000. The compiled data should be a valuable source of information that would support research studies related with various aspects of seismology.