



Earthquake catalogue for Germany and adjacent areas for the years 800 to 2008

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The presented earthquake catalogue for Germany and adjacent areas (47°N - 56°N and 5°E - 16°E) for the years 800 to 2008 contains ca 12000 events with $\text{ML} \geq 2.0$. The earthquake catalogue in a digital format was published for the first time by the author in the year 1986. It contained ca 2000 earthquakes covering the time period from 1000 to 1981. Since then the spatial area and the time period of the catalogue were extended, the catalogue was annually updated and according to the actual historical earthquake research corrected and supplemented. The immense growth of the number of events since 1986 must be seen parallel to the increase of seismic stations in the local and regional networks. The data for the annual update are taken from the Data Catalogues of the German Regional Seismic Network - compiled and edited by the Federal Institute for Geosciences and Natural Resources (BGR), Hannover - and, with priority, from the later results of the hypocenter computations by the operators of the local networks. Added to the earthquake data are the macroseismic observations as epicentral intensity and isoseismal radii. Each earthquake is linked to its seismo-geographical region. The digital earthquake catalogue actual at any one time was presented for download under www.bgr.de/quakecat.

Over the past years an alignment was carried out with the catalogues of the adjacent countries, in particular with the new catalogue of Switzerland. By co-operation with colleagues the data of the Vogtland swarm quakes of the 20th century could be corrected and harmonized with respect to epicenter, magnitude and epicentral intensity. A re-evaluation of the seismic activity of the Upper Rhine Graben was accomplished using the data from the long lasting monitoring with local seismic networks. Furthermore, the moment magnitude was newly added to the list of the earthquake parameters.

The appendices to the earthquake catalogue contain detailed references to each earthquake, lists of the cancelled earthquakes, and of the earthquakes with fundamentally and/or significantly changed parameters. In order to make the cancellations and the modifications comprehensible, they are annotated always with the date and with the reason of the change.

The earthquake catalogue is submitted for publication to the "Geologisches Jahrbuch", Hannover. Enclosed will be a CD with the complete digital earthquake catalogue, with format description, the list of references as well as the cancellation and change list. A computer program is provided to facilitate the handling of the earthquake catalogue for the computation of catalogue extracts with regard to varied criteria.