



## EARTHQUAKE CATALOGUE FOR SOUTHWESTERN GERMANY

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Seismic activity in Germany is predominantly concentrated in and alongside the Rhine region. Thus the Federal State of Baden-Württemberg in southwestern Germany is particularly affected by earthquakes. The Upper Rhine Graben – bordering Germany, France and Switzerland – has a record of damaging earthquakes. Most well known is that of Basel/Switzerland 1356 (intensity IX) at the southern end of the Graben. Furthermore, since the occurrence of the 1911 Swabian Jura earthquake (intensity VIII) the Albstadt region in the centre of Baden-Württemberg became one of the seismically most active regions north of the Alps. The 1911 event came as a surprise. It was followed by earthquakes of similar size in the years 1943 and 1978 and by many smaller shocks. Together they define the “Albstadt shear zone”.

Seismic recording has started in southwestern Germany at the beginning of the 20<sup>th</sup> century. Baden-Württemberg’s earthquake service, the “Landeserdbebendienst” (LED), is in charge of data collection and catalogue work. The service is based at Freiburg i. Br., where it is part of the State Geological Survey since 1993.

A relational data-base system has been developed that hosts all catalogue and recording data of the LED, including intensity-data points and information about corresponding documentary sources. Existing regional catalogue subsets of the 20<sup>th</sup> century have been reviewed and implemented into the data base. Macroseismic maps from the LED archive will be published in the near future.

In 2013 a five-years project has been launched to elaborate and complete the earthquake catalogue of Baden-Württemberg for the last millennium. Up to now just a few case studies based on primary historical sources exist. A systematic search for information about historical earthquakes will be undertaken, trying to trace back information to the primary sources. We use a historical-critical method for the interpretation of earthquake records in terms of macroseismic intensity and aim at a catalogue completeness for damaging events back in time as far as possible. Comparisons will be made with existing catalogues for Germany, Switzerland and France.

We present the seismicity for the area of Baden-Württemberg and vicinity. Based on currently available catalogue data, a “lack of seismicity” for the time before the 19<sup>th</sup> century can be seen. Whether this is due to still unknown historical earthquakes or to other reasons remains to be discovered by searching for information in archives and libraries in Germany and adjacent countries.

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