

EARTHQUAKE CATALOGUE FOR SW-GERMANY – A STATUS REPORT

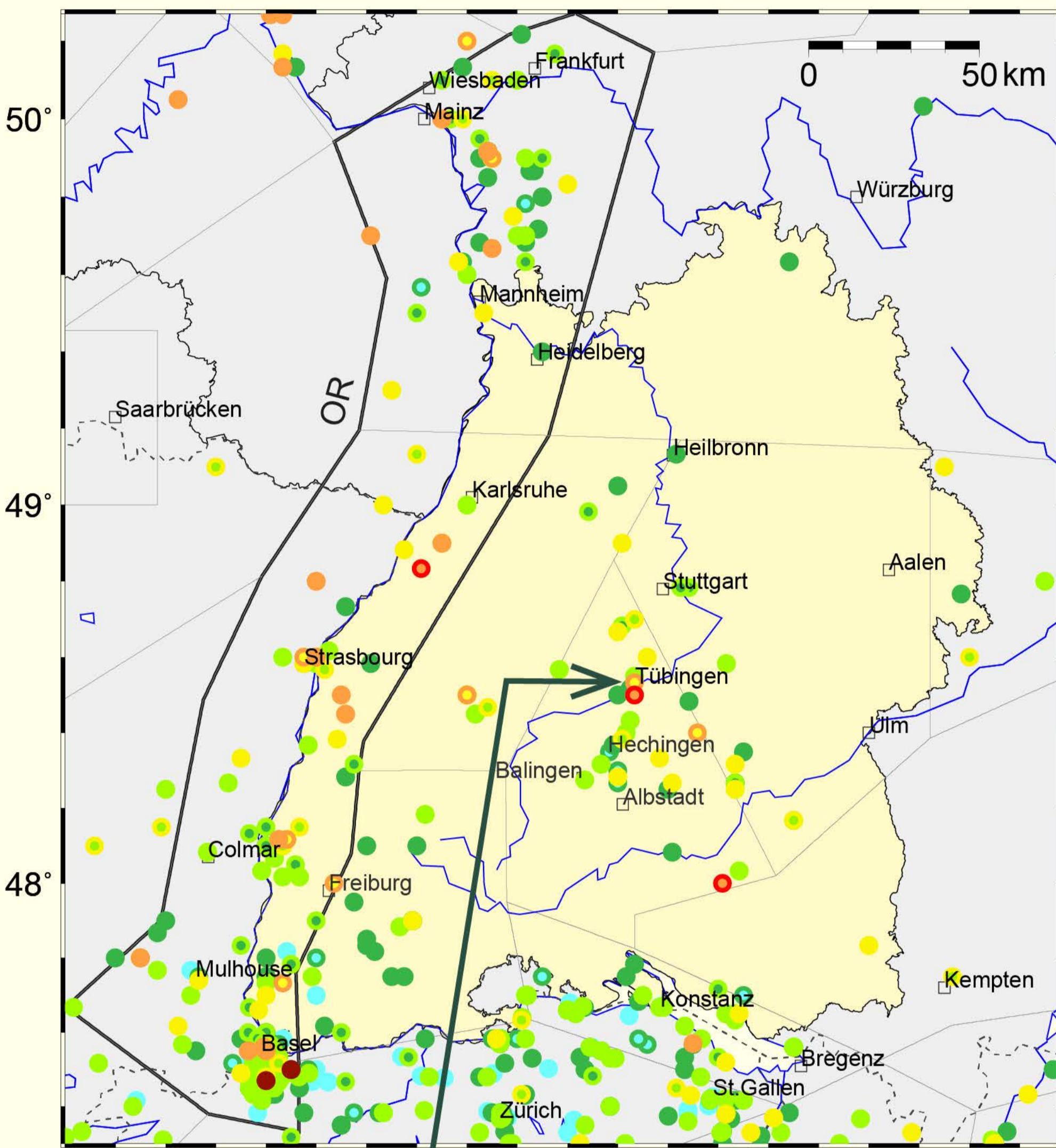
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We currently complete the earthquake catalogue for Baden-Württemberg/Southwestern Germany for the last millennium. A data base hosts the entire catalogue, including macroseismic data and information about corresponding documents. Existing regional catalogue subsets as well as relevant parts of national catalogues have been implemented as well. We have obtained digital intensity data points (IDP) from all kinds of historical documents, for the 20th century in particular also from macroseismic questionnaires. For the first time, a systematic search for information about historical earthquakes in Baden-Württemberg is carried out tracing back historical earthquake information to the primary sources whenever possible. Project work is in progress until the end of 2017.

Event catalogue

Before 1900

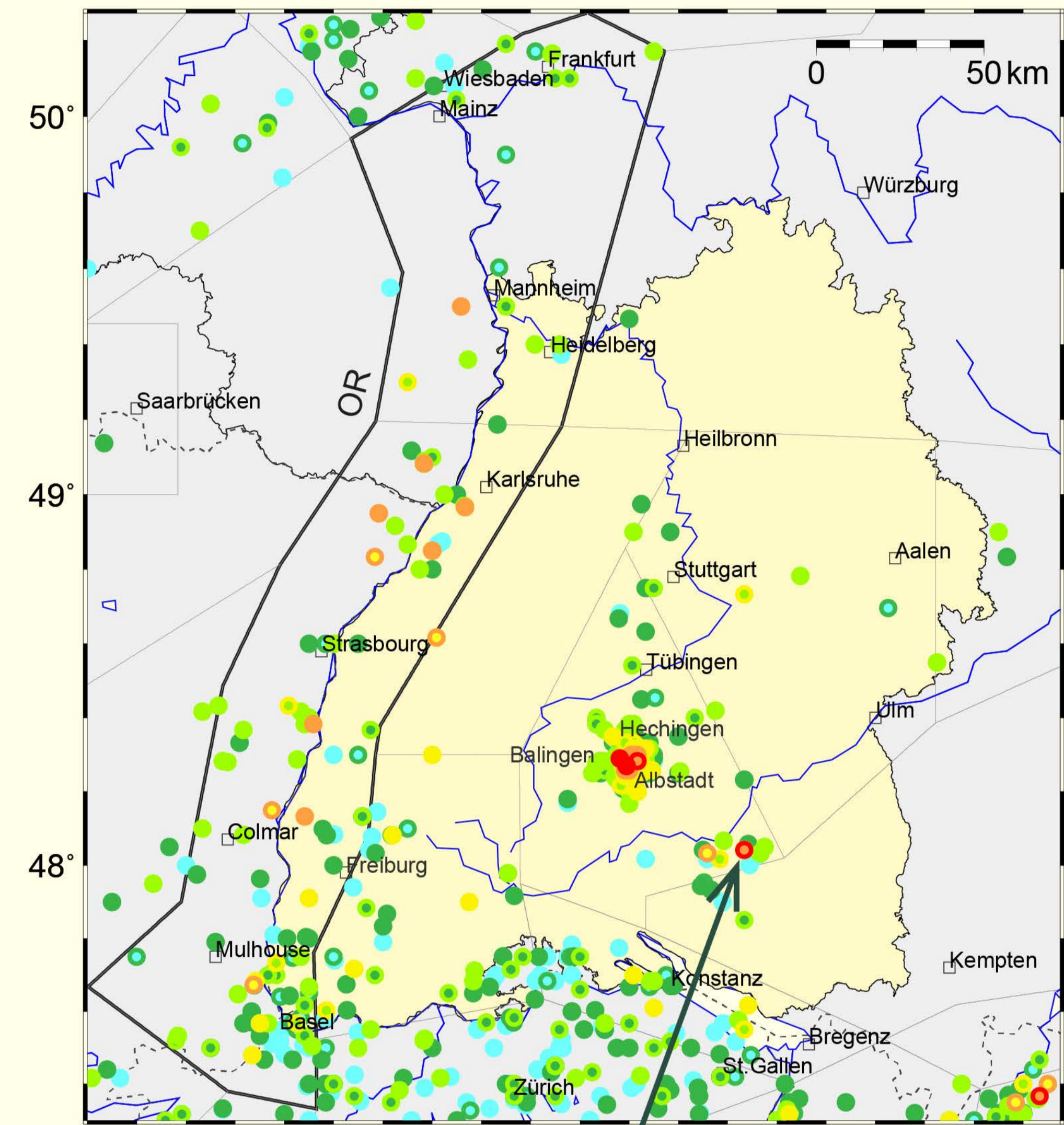


AHEAD intensity set:

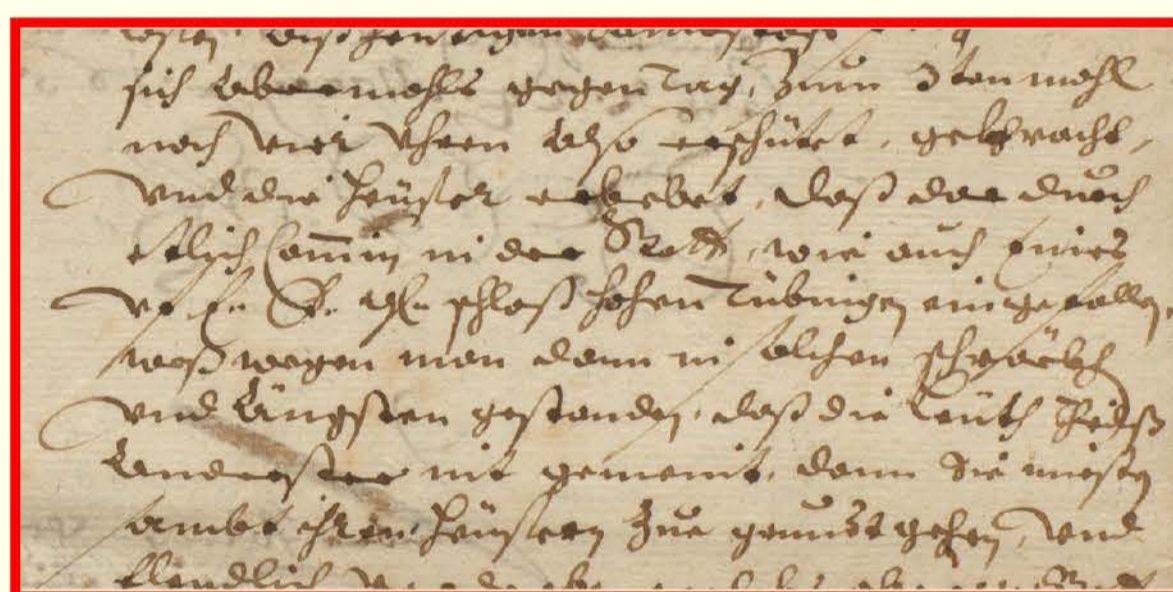
- 9
- 8-9
- 8
- 7-8
- 7
- 6-7
- 6
- 5-6
- 5
- 4-5
- 4
- 3-4
- 3

Adjacent figures to the left and right show subsets of the earthquake catalogue for SW-Germany (data are preliminary as of August 2016). The area of Baden-Württemberg is colored light yellow. Symbols denote epicentres of earthquakes before the year 1900 AD (left) and after (right). Symbol colors show epicentral intensities (or maximum intensities, if higher) according to the AHEAD intensity color set (legend to the left). Intensity 2 data are omitted. Besides own sources, data are obtained from the Swiss ECOS, French SISFRANCE, German BGR catalogue and others and refer to EMS, MSK, MCS or MS intensity scales, respectively. Usage of data from other agencies is gratefully acknowledged. Magnitude data are not shown in the plots.

After 1900

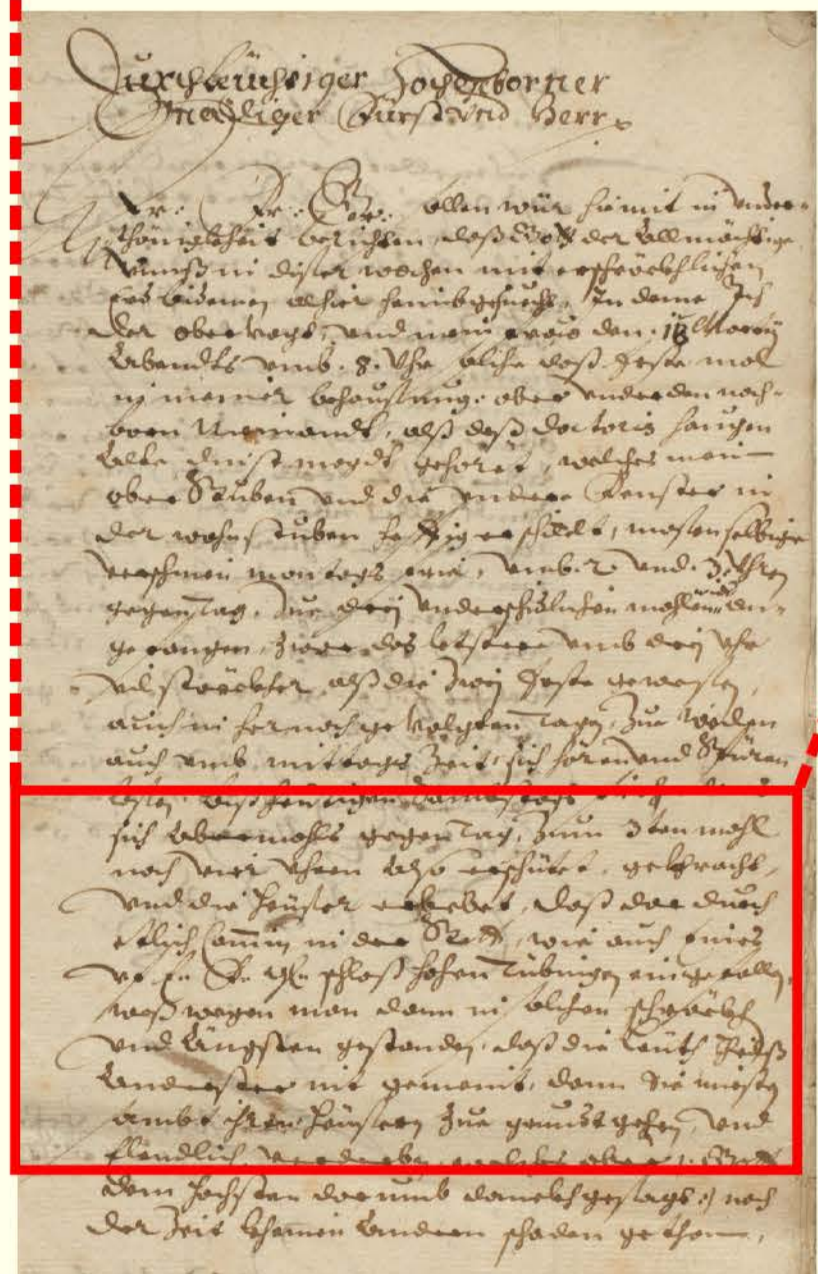


1655 Tübingen IDP assessment - Two examples 1935 Saulgau



Report of the reeves of Tübingen to the duke of Württemberg about earthquakes on March 24, 1655 (Julian calendar [i. e. April 3 Gregorian calendar]):

Source: HSTA Stuttgart A 202 Büschel 2822, reproduction with kind permission of Hauptstaatsarchiv Stuttgart



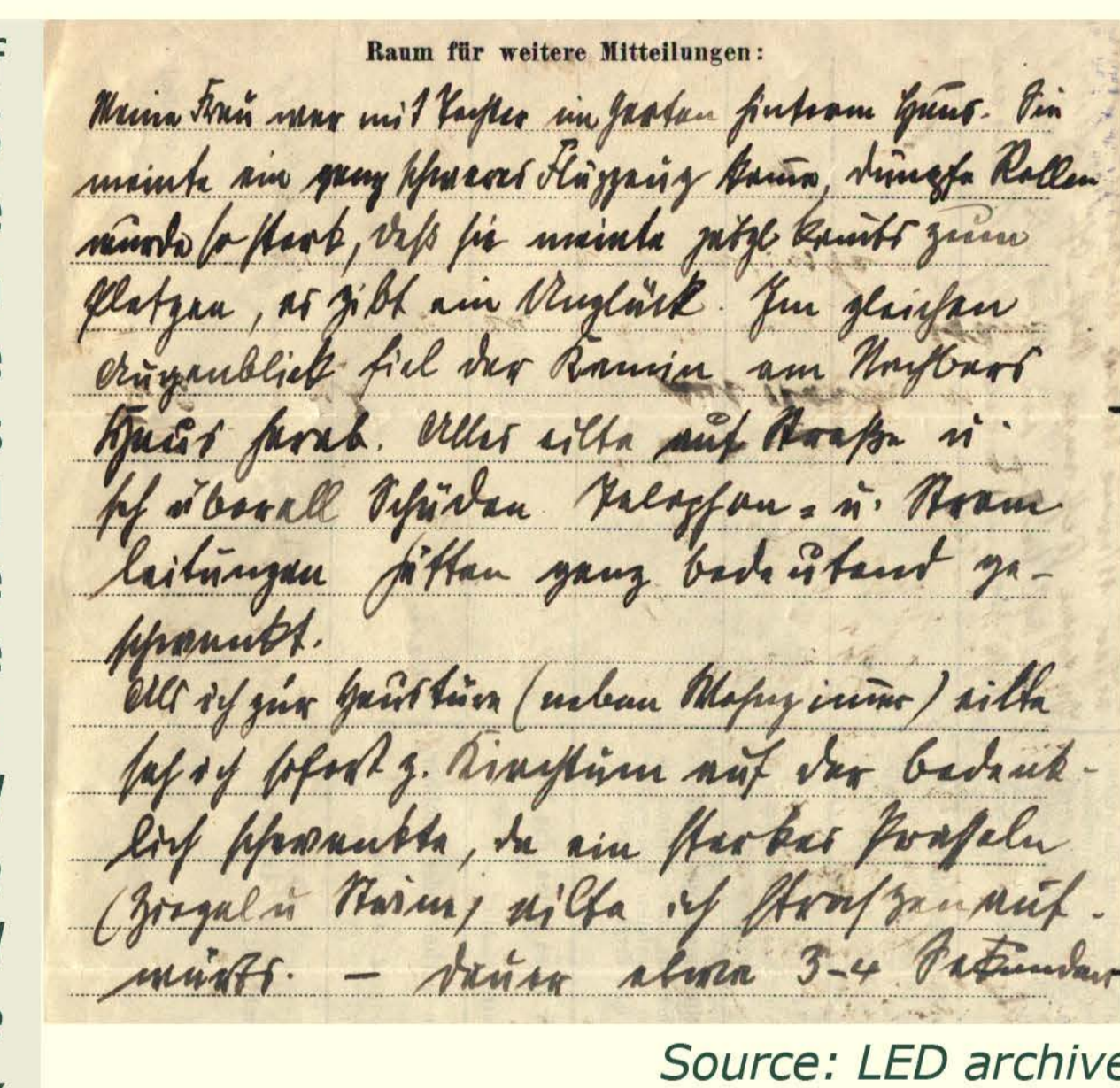
... a third [earthquake] occurred after four o'clock in the morning; the houses cracked and were shaken heavily, that several chimneys in the town [Tübingen] and one chimney in the castle Hohentübingen [at Tübingen] fell down. People were nearly frightened to death and believed they would die because their houses seemed to collapse ...

Summary of damage to buildings at Hohentengen near the epicentre of the Saulgau June 27, 1935 earthquake (figure below). Data have been filled into the form by the municipal administration of Hohentengen and were collected by the Earthquake Service of the Württemberg Statistical Office in Stuttgart, Germany: ... Out of a total number of 119 houses at Hohentengen, 80 houses were damaged, in particular: roof tiles detached without damage to chimneys on 70 houses, chimney tops twisted on 15 and fallen down from 45 houses, chimneys collapsed on 25, smoke chambers collapsed on 5 houses, wide open cracks on exterior walls of 55 houses, gable walls or gable stones dropped from 30 houses, inner walls and ceilings damaged in 80 houses, ...

Gebäudebeschäden	
Musik	Quantität in Ort 279 Häuser
	Darvon beschädigt insgesamt 80 "
	und zwar durch
1)	Abgleiten von Dachziegeln ohne Kaminbeschäden 70 "
2)	Verdrehen von Kaminziegeln 15 "
3)	Absinken 95 "
4)	Einsturz von Kaminen 25 "
5)	" " Rauchkammern 25 "
6)	Klaffende Spalten im Außenmauerwerk 55 "
7)	Herabfallen von Giebeln oder Giebelsteinen 30 "
8)	Anderes (sonst.) "Gangmünder, u. Decken 60 "
Türme (welche?)	
9)	Abfallen oder Verbiegen von Giebeln, Blitzab- 1
	leitern und dgl. 1 "
10)	Dachschäden (welcher?) - Platten -
11)	Mauerziegel (wo?) - Kirche -
12)	Anderes (sonst.) wo? 1 "
Kirche (Kapelle) "Rathaus" "Schloß" oder dgl.?)	
13)	Dachschäden (welcher?) wo? 1 "
14)	Mauerwerke (sonst.) wackelnd/abstehend wo? 1 "
15)	Dachschäden (welcher?) wo? 1 "
16)	Anderes (sonst.) wo? 1 "
Photographien, Ansichtskarten mit Einzelzeichnungen, Skizzen oder dgl. zur Veranschaulichung der Schäden sind dringend erwünscht.	
PERSONEN VERLETZT? nein WODURCH?	
GESAMTSCHADEN 10 - 12 000 RM. - -	

Source: LED archive

Eyewitness report of the June 27, 1935 Saulgau earthquake at Hohentengen written by the schoolmaster as part of an official questionnaire of the Earthquake Service (figure on the right):



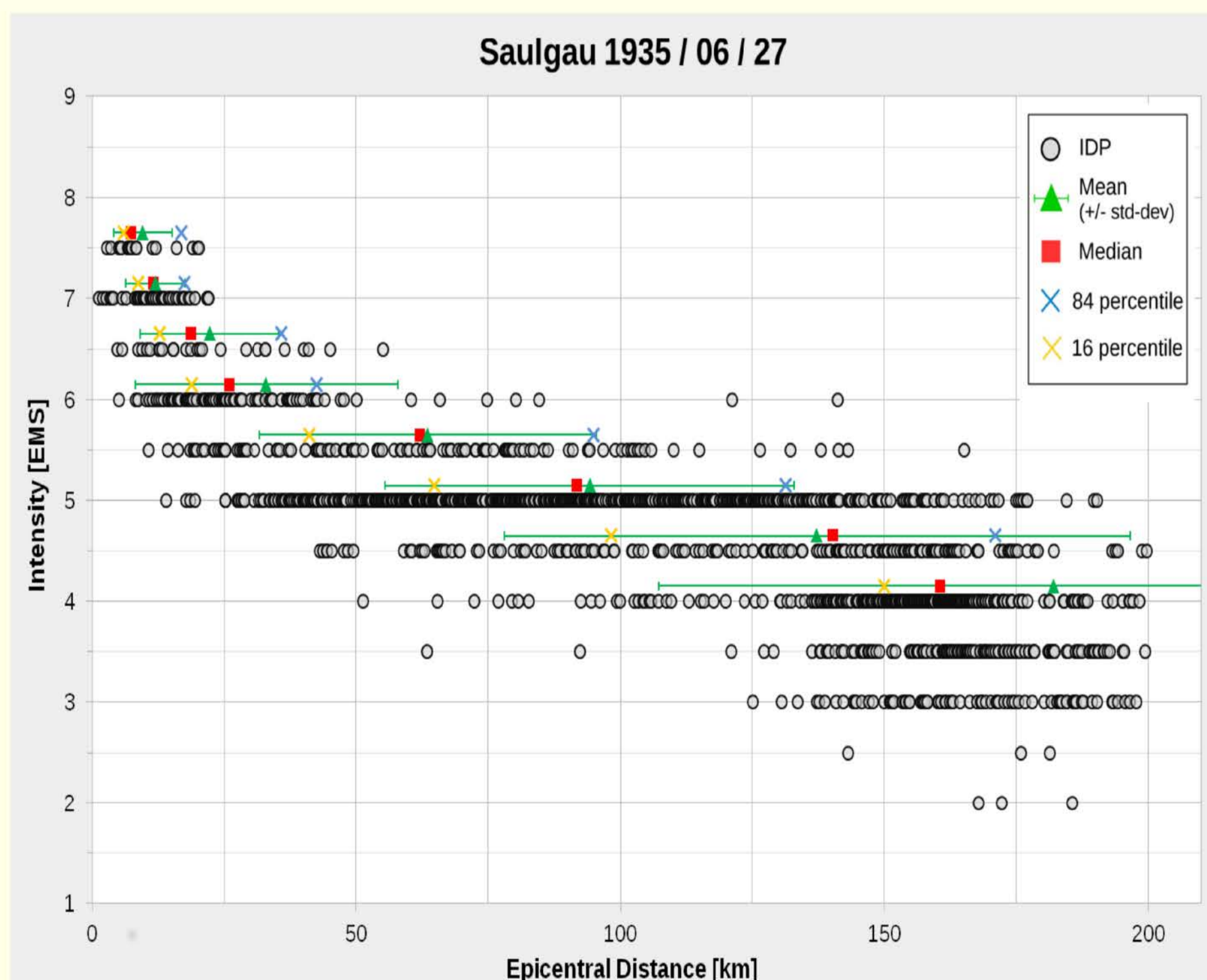
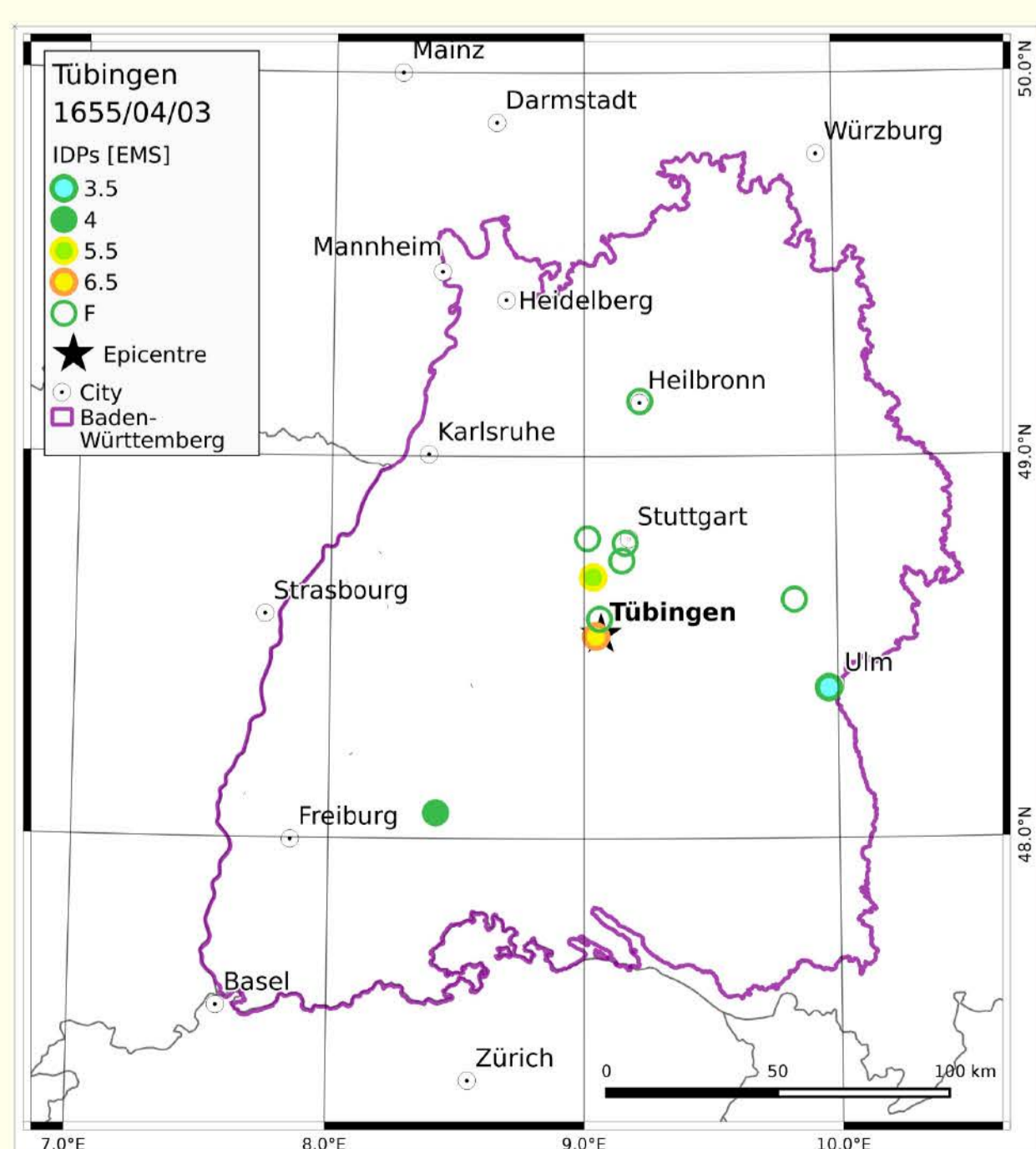
... My wife and daughter were in the garden behind the house. She thought a very heavy airplane was coming our way, dull rolling got so strong, that she thought it was right about to burst, it'll be a disaster. In the same moment the chimney fell off the neighbouring house. Everyone ran outdoors and saw damage all around. Telephone and power cords were said to have been swaying quite noticeably. As I rushed to the front door [...] I at once looked up to the church tower that was swaying critically, and because of the strong patter of [falling] roof tiles and stones I ran up the street - duration about 3 to 4 seconds"

Source: LED archive

Earthquake on 03/04/1655 with epicentre near Tübingen, SW-Germany:

Document example of IDP Tübingen above

IDP map of the earthquake on the right



Earthquake on 27/06/1935 with epicentre near Saulgau, SW-Germany:

Document examples of IDP Hohentengen near Saulgau above

IDP map of the earthquake on the right (in total about 2000 IDP's, French IDP's are not according to EMS) and IDP intensity versus distance plot on the left

