

# Progress of European Data Rescue Activities – developments during the last two years

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## Introduction

Long-term datasets are of great importance for climate research. They allow describing past climate variability highly resolved in space and time, are important for re-analyses and model evaluation. Especially early instrumental series are the connecting link to the paleoclimatic community. In 2011 the EUMETNET data rescue portal has been launched presenting European data rescue activities. So far 23 EUMETNET members plus the Catalanian and the Georgian meteorological Services take part in this activity. The poster wants to summarize the progress achieved during the last two years.

## Progress

Sweden, Switzerland, Spain, Finland, Hungary, Croatia, Germany and Czech Republic reported about their progress during the last two years. For details please have a look at <https://www.zamg.ac.at/dare/activities/data-inventory>



### Sweden

SMHI has a digitizing project running for many years. Most Swedish observations are in digital form since 1960 and can also be found in the Meteorological database called MORA, including most variables and for every three hours. Quite a lot of stations are available as monthly values for temperature and precipitation since the start of observations 1859/1860.

A substantial amount of digitized data prior to 1960 is not yet available in MORA, but a project has started to put these data into MORA.



### Finland

Some slow progress has been going on, basically concerning digitizing of historical precipitation forms. It is planned to start a more controlled and organized process concerning historical data. The idea is to have organized documentation about the types of data to be digitized. The rescue of the data will be prioritized based mainly on the customer needs and big picture of the importance (defined by experts opinions).



### Hungary

The progress of the digitization depends on the availability of resources. Records of several climate stations were digitized in the project "Complex risk management system for agriculture" at the Hungarian Meteorological Service in 2014. The observers contributed also to this activity beyond their operational tasks. Hungarian Meteorological Service will continue data rescue step by step on regular basis.

### Austria

Due to staff shortage data rescue is progressing rather slowly. Five stations (Wien Schönbrunn, Krippenstein, Reichenau/Rax, Fuchsenbigl and Traisen) could be extended back in time. ZAMG will continue the digitization of data step by step.

### Germany

DWD has communicated its progress in data rescue on a file which could be included into the respective part of the web-site (excerpt below).

name	temporal resolution	temperature		precipitation		snow		air pressure		rel. humidity		spec. humidity	
		start	end	start	end	start	end	start	end	start	end	start	end
Aachen	subdaily	X 01.01.1891	31.03.2011										
Aachen	monthly	X 1851	2011	X 01.01.1891	31.03.2011	X 01.01.1891	31.03.2011	X 01.01.1931	31.03.2011	X 01.01.1891	31.03.2011	X 01.01.1891	31.03.2011
Aachen-Orsbach	subdaily	X 01.04.2011	active	X 01.01.1891	31.03.2011					X 01.04.1891	31.03.2011	X 01.01.1891	31.03.2011
Aachen-Orsbach	monthly	X 01.04.2011	active	X 01.04.2011	active			X 01.04.2011	active	X 01.04.2011	active	X 01.04.2011	active
Achberg-Doberatsweiler	daily			X 01.11.1892	active			X 01.01.1936	active			X 01.04.2011	active
Achberg-Doberatsweiler	monthly			X 01.11.1892	active							X 01.04.2011	active
Achim	daily			X 01.05.1891	28.02.2015			X 01.01.1979	28.02.2015				

### Switzerland



Based on an internal requirement analysis with respect to completeness of available digitized data and homogenization purposes MeteoSwiss defined a set of stations/variables to be digitized next. An internal project was started where two people digitize the values beside their operational work.

The speed of digitalization varies considerably depending on the time the people can use for this work. This makes it difficult to plan the progress of the work. MeteoSwiss will continue to digitize station data step by step.



### Czech Republic

Almost all data (with several exceptions) have been digitized, and quality control has started. Hundreds of photos of archived historical reports (books) have been made, in Brozany archive many books and reports were found that have not been digitized yet. All regional offices had some money for digitization this year, but grant is finished now. This will cause problems in the future.

### Spain



The Spanish Meteorological Agency (AEMET) has digitized data of thousands of stations with daily precipitation and extreme temperatures, plus around 100 with wind, humidity, pressure, etc.

Files of an imaging project of old documents performed in the nineties have been incorporated to the national climatological data bank. Digitization of old daily data, focusing on the longest series. Old phenological data, old radiosonde printed outputs from Palma de Mallorca. Paper strips pluviograph records of old observatories have been digitized in cooperation with the Madrid Polytechnic University.

Additional meteorological data have been digitized at Meteorological Service of the Autonomous Region of Catalonia

### Croatia



Croatia has started collaboration with the Croatian State Archives which should give support in data rescue. The scanning process should start by the beginning of 2016. Croatia digitized precipitation data: 36 stations, most of them beginning around 1950 (the oldest from 1921), altogether 1028 years of data.