



EUMETNET
EUROPEAN METEOROLOGICAL SERVICES NETWORK



ZAMG
Zentralanstalt für
Meteorologie und
Geodynamik

Data Rescue Activity in EUMETNET

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1. Motivation

Long-term data sets are essential for climate research. They do not only allow for profound analyses of the past climate, its variability and evolution but they are also a necessity for reanalyses and model evaluation as well. Europe is one of the few places on Earth with the possibility to provide high quality climatological data for over 200 years.

Nevertheless, a lot of man power is needed to make this data available for research and the public.

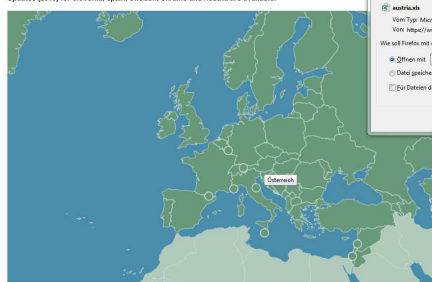
EUMETNET encourages its members to undertake the task of digitising, quality controlling, homogenising their data archives and exchanging data. A Data Rescue Expert Team was appointed discussing their progress in data rescue as well as technical aspects of these tasks.



2. Activities

To get an overview on the current data rescue activities in the different countries a questionnaire has been developed and distributed to all National Weather Services within RA VI. Annual updates on the progress and the current state of digitised data can be found on the EUMETNET-DARE-webpage (www.zamg.ac.at/dare)

Updates (2018) for Slovenia, Spain, Sweden, Ukraine and Austria are available.



Screen-shot of the data inventory

In a second step the „lost and found“- activity was launched. This webpage enables members to provide information on historical data found in their archive from stations located in another country. As well as it offers the possibility to inform the partners on data missing in the own archives. This started e.g. a fruitful exchange between Slovenia, Slovakia and Austria.

Found:

Countries for which data has been found in some archives are colored in green. Click on those countries to get more information on the data.

The information is based on the feedback from Austria, Greece, Ukraine, the Catalan meteorological service, ISAC-CHR and Republic Hydrometeorological Service of Serbia.



For data not easily attributed or data from countries outside the main focus area have a look here.

Screen-shot of the lost and found page (above) and example of found data for Bosnia and Herzegovina (right)

3. Results

Due to different priorities and availability of needed resources the current status of the data rescue activities varies between different countries.

While some countries are still working on getting an overview over the data in their archives (e.g. Serbia), others have already finished their data rescue activities (e.g. Netherlands). There is also a difference in the availability of the digitised data sets. While some countries provide all their data and even metadata on the stations via their website (e.g. Germany and Netherlands) most countries provide only some selected stations.

The countries are also using different methods and data sources for the digitalisation process. Ireland for example has a close cooperation with the university, including data rescue into the curriculum of students. Slovenia on the other side doesn't investigate the own archives alone but uses archives of journals as well.

Notwithstanding all difficulties, knowing of the necessity and value of data rescue, this task is carried out in most countries. Additional countries, that have not been active in data rescue before will start so in the future (Poland).

In the following the status of some of the participating countries is given:

Austria:

Currently, the digitalisation of sunshine duration is executed in daily and hourly resolution. For Sonnblick time series start in 1886

Croatia:

Scanning of paper meteo data logs started. Additionally meta data on about 19 stations from Bosnia and Hercegovina was found from 1935-1940.

Great Britain:

More than 40 of the time series have a length of over 100. The data is partly made available online via the Met Office webpage. For some of the stations no daily data is available in the earliest beginning of the stations but information on a coarser temporal resolution exists.

Hungary:

During the last years more than 1 million of daily records have been rescued and digitised. All available parameters for the digitised stations have been considered. The data is mainly entered to the database by the observers beside their operational tasks.

Romania:

Data rescue is an ongoing progress. Within the last reporting period additional data of about 14 station has been digitised.

Serbia:

The Library of the Met Service is partly investigated and many yearbooks from other countries have been found covering the period from 1870/1890 to 1920/1930.

Progress in scanning paper logs of hourly data from Yugoslavian airports from 1975-1991 has been achieved. Paper logs and strip charts of Serbian data have been sorted and stored, but a catalogue is still missing. Exchange on available data with ZAMG is ongoing.

Slovenia:

Digitalisation of 14 stations have been finished. Additionally search for additional meteorological information at the Austrian Federal Ministry of Sustainability and Tourism and the ISPRA-Istituto Superiore per la Protezione e la Ricerca Ambientale in Venice has started. A cooperation with ZAMG on data exchange is ongoing.

Spain:

Progress on data rescue is slow due to missing human resources. Nevertheless images of old documents have been included in the National Climate Data Base.

Sweden:

Data of more than 20 additional stations have been digitised within half a year. Monthly values are nearly complete in the data base from 1931 and daily values from 1961 onwards.

Ukraine:

Data rescue and homogenisation is undertaken by the Ukrainian Hydrometeorological Institute. After the preparation of monthly temperature they currently finished the rescue of monthly minimum and maximum temperature and are finishing the homogenisation of the data. Besides the information on the available stations metadata on relocations and possible breaks are made available.

