



## Ongoing and future climate data rescue activities at the Meteorological Service of Catalonia

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Since the restoration of the Meteorological Service of Catalonia (SMC) in 2003, data rescue, quality control and homogeneity analysis of climate series have been activities that have received special attention from the Area of Climatology.

Continuous series, with a wide temporal coverage and good spatial density are essential for a proper characterization of climate change and variability. To reach this objective a constant identification, cataloguing, data rescue and conservation (digitization) of documents containing such information is needed. This work describes the projects carried out and held at the SMC in these fields.

- **Historical Press:** in recent years many state, provincial and local archives have made an effort of digitizing (imaging) historical newspapers. Since this type of publication has often been a source for meteorological information, SMC has created a database (PREHISMET) that has identified by now more than 175 periodicals containing meteorological observations and metadata information for Catalonia.
- **Cataloguing and identification of documentary sources in private archives:** in recent years have identified several private archives, mainly religious (Jesuits and Piarists) and corporative (such as hydroelectric power companies) that have documentation related to meteorological observations. These funds have been catalogued and soon will be analysed in detail.
- **Preservation of historical documentation:** the SMC does not have the resources and room to house bibliographical or documentary collections. For this reason, it has signed a collaboration agreement with the National Archive of Catalonia that catalogues, cleans and preserves meteorological documents, and offers them to open access.
- **ARTYDOC project:** for many years SMC has carried out several internal projects imaging meteorological documentation. So far, preservation and consultation of this funds is controversial both as represents a huge volume of data (more than 12 Tera bytes) and there is no a unique storage support to save it (externa disks, DVD, CD...). To solve it, ARTYDOC project will permit storage all the material in one place, properly catalogued and creating an easy searchable digital tool, and with the possibility of open it to everyone.
- **Improving coverage and quality of recent data:** often data rescue activities focuses on recovering ancient observations, forgetting that there are many problems in the continuity of the newest records. To solve this problem, SMC is doing collaboration with observers to fill gaps and in exchange returning the digitized material, scanned and quality controlled.

As a result of this effort SMC aims to obtain shortly 26 daily maximum and minimum temperature series and 60 daily precipitation series, with nearly 100 years of temporal coverage that will improve our capability for monitoring variability and climate change in Catalonia.