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

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**QUICK OVERVIEW**

Since the restoration of the Meteorological Service of Catalonia (SMC) in 2003, data rescue, quality control and homogeneity analysis of climate series have received especial attention, for a proper and reliable characterization of climate change and variability over Catalonia. To reach this objective constant data rescue activities are being carried out. Here we describe five ongoing and future projects promoted at the SMC in this field.

**Data rescue from historical press**

A database of Catalan digitized historical newspapers containing climate data has been created PREHISMET. The source of data are public local, county and provincial archives with open access through the net. By now (August 2016) 176 publications have been identified, encompassing the period 1808-2001, and information has been extracted from 55 of them.

**Data identification from private archives**

Several private archives, mainly religious (Jesuits and Piarists) and corportative (such as hydroelectric power companies) have been catalogued in recent years by SMC. As a result, the main Spanish electric company (ENDESA) has transferred completely its meteorological documentary archive in Catalonia to SMC; more than 20,000 sheets of data (1920-1983), especially from sites located in the Pyrenees and with new data from snow and ice depth, among others.

**Preservation of historical documentation**

The SMC does not have resources and room to properly house bibliographic or documentary climate collections. For this reason, an agreement with the School of Conservation and Restoration of Cultural Property in Catalonia and the National Archive of Catalonia has been recently signed. The first institution cleans and restore the documents received, while the second one preserves and catalogue them. By now three complete documentary collections from three meteorological stations have been preserved.

**The ARTYDOC project**

For many years SMC has carried out several internal projects of imaging meteorological documentation. So far, preservation and consultation of this funds is controversial both as represents a huge volume of data (more than 12 Thera bytes) and there is no a unique storage support to save it (external disks, DVDs and CD). ARTYDOC is a digital tool being implemented that will permit storage, catalogue, and easily searching of the images for a better consultation, with the possibility of opening access to the climate community.

**Improving data coverage and quality of recent data**

Data rescue activities focuses often on recovering ancient observations, forgetting that there are many problems in the continuity of the more recent records. To solve this problem, SMC is doing collaboration with observers to fill gaps and in exchange returning the material digitized, scanned and quality controlled.

**DATA RESCUE TREE AT SMC**

An example of a visit to a meteorological observer in Serra d’Almos (Tarragona) made by the SMC’s technicians. Thanks to the visit, daily temperature and rainfall data from 28 months were recovered. Now the series is continuous (1977-2015) as seen in the mean annual temperature graph for the site.