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Rescue and digitization of daily and sub-daily cloudiness observations in Barcelona (1780-2012): preliminary results

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Climate data rescue activities usually have focused only on basic climatic variables such as temperature, precipitation or atmospheric pressure. However, there is a growing interest in other variables during the last years. Specifically, the knowledge on clouds variation can contribute to improve our comprehension of the contemporary climate change, for example due to their influence on diurnal temperature range variations, in the context of the causes of the dimming/brightening phenomenon, or studies of (asymmetric) long-term trends in minimum and maximum temperatures.

Here we present a new daily and sub-daily series of cloudiness observations for the city of Barcelona (Catalonia, Spain), encompassing the period 1780-2012. We describe how the series was recovered (both data and metadata), how was composed from different locations/observers, and the main features of the series: times of observation (e.g. three times daily observations in most of the period), classification (e.g. at least nine categories) and conversion from qualitative data to oktas (e.g. sky state conditions recorded during the early instrumental period).