

HISTALP – 250 years of instrumental climate from the alpine realm – status and first results

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In the last years, ZAMG's climate variability group concentrated on creating a dense (several hundred single series), multiple (several climate elements), long (earliest series starting in 1760), quality enhanced (hundreds of inhomogeneties, thousands of outliers removed, 5% of missing data inserted) monthly climate dataset. Data were friendly provided by more than 20 organisations from 10 Alpine countries. A considerable amount of newly recovered data, preferably from the early period was digitised – thus likely to have produced the greatest spatial density of early instrumental climate data existing anywhere.

Although HISTALP is a dataset in continuous development, it has achieved a well usable and systematic status which is presented here. The data are kept in station mode (single station series, original and homogenised), in two different grid-modes (anomaly grids in 1 deg lat-lon resolution and absolute grids in higher resolution) and in CRSM-mode (Course resolution subregional mean anomalies for 5 objectively regionalised main subregions). So far station mode series and CRSM-series cover 7 climate elements, grid-1 modes have been generated for the three main elements temperature, pressure and precipitation and one high resolution (10' spatial resolution) grid-2 is available for precipitation back to 1800.

A HISTALP reference publication is to be published soon in IJC and is presented here.