HISTALP – 250 years of instrumental climate in 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 already, which is presented in the poster. 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 has recently been published in IJC:

Auer I, Böhm R, Jurkovic Å, Lipa W, Orlik A, Potzmann R, Schöner W, Ungersböck M, Matulla C, Brunetti M, Nanni T, Maugeri M, Mercalli L, Briffa K, Jones P, Efthymiadis D, Mestre O, Moisselin Jm, Begert M, Müller-Westermeier G, Kveton V, Bochnicek O, Stastny P, Lapin M, Nieplova E, Cegnar T, Dolinar M, Gajic-Capka M, Zaninovic K, Majstorovic Z, Szalai S, Szentimrey T, 2007: HISTALP - Historical Instrumental Climatological Surface Time Series of the Greater Alpine Region 1760-2003. International Journal Of Climatology 27: 17-46 /www.interscience.wiley.com) DOI: 10.1002/Joc.1377

Several glaciological have been done already, we present the dataset here at the AGM to further promote its application in the field of glacier research in the Alps. The data are of course free of charge for scientific use.

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