The first steps towards HISTALP were taken in 1997 and in 2002 the name HISTALP was established. A lot of time was invested in stations selection, data quality control and homogenisation. This lead to a widely recognised instrumental dataset used in a wide variety of climate studies. Since the creation of the HISTALP-dataset more than 10 years have passed. The data was regularly updated, thanks to all the data providers. But in the mean time the homogenisation routines improved, leading to more objective results and due to the time span additional breaks might have occurred. Therefore a new homogenisation of the dataset was decided in 2013. Temperature and precipitation have been homogenised and are under quality control at the moment.

**Scientific Developments**

For homogenisation of the monthly temperature and precipitation data HOMER was used. High correlated reference stations of the HISTALP-Dataset were used. While small networks have been used for homogenisation of temperature data, 4 big networks have been applied for precipitation. Each of these networks covered one of the low level HISTALP-climate zones (Fig. 1) including some nearby stations of the neighbouring climate zone, for spatial consistency.

For temperature a correction factor for bias caused by a change of observation time will be applied for Austrian stations. Instead of using the geographical situation of the stations to define the correction factor, a cluster method was applied. 3 Clusters were chosen and uncertainties were calculated by leaving out each station of the cluster once. (Fig.2)

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**Future Developments**

- Homogenisation of sunshine duration and air pressure
- Recalculation of spatial analyses
- Including of daily data (Austria), but additional homogenised daily data from other HISTALP-areas highly welcome
- Including relative humidity and wind information

**Developments of Webpage**

- Comparison between global climate evolution and Austrian temperature series were included.
- Improved data download area
- Enhanced user friendliness by FAQ-Area
- Reference period for anomalies in newsletter changed to 1961-1990

**Annual temperature anomalies (20-year Gaussian filter)**

Different EOF-methods are tested for reconstruction of missing measurements at the beginning of the precipitation time series to create a temporal consistent dataset of monthly precipitation analyses for the whole GAR in order to create a set of monthly spatial analyses with a consistent station dataset.

**Fig.1**

For temperature a correction factor for bias caused by a change of observation time will be applied for Austrian stations. Instead of using the geographical situation of the stations to define the correction factor, a cluster method was applied. 3 Clusters were chosen and uncertainties were calculated by leaving out each station of the cluster once. (Fig.2)

**Fig.2**

Monthly correction of observation time bias and uncertainties

**Fig.3**

Daily differences caused by changes in observation time and mean calculation algorithm. Red: original differences, green using the adjustments given in Fig. 2, blue: using adjustments of 4 clusters

**Fig.4**

Annual temperature anomalies (20-year Gaussian filter)