



December 2009

Comparison of original an homogeneous climate data series

Temperature trends at 12 measurement stations of the MeteoSwiss meteorological network with long-term data series dating back to 1864

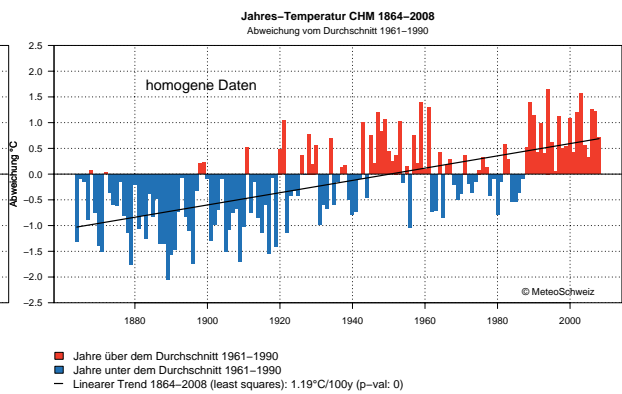
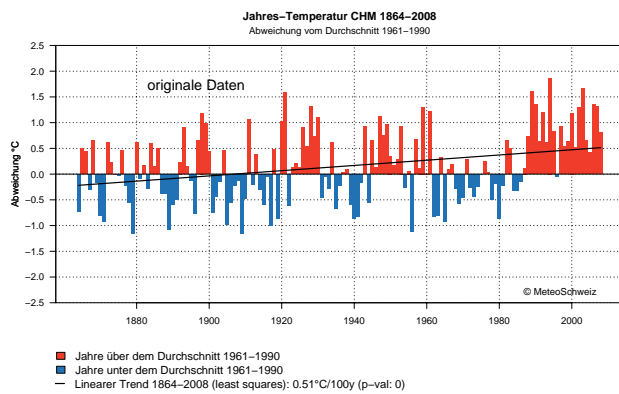
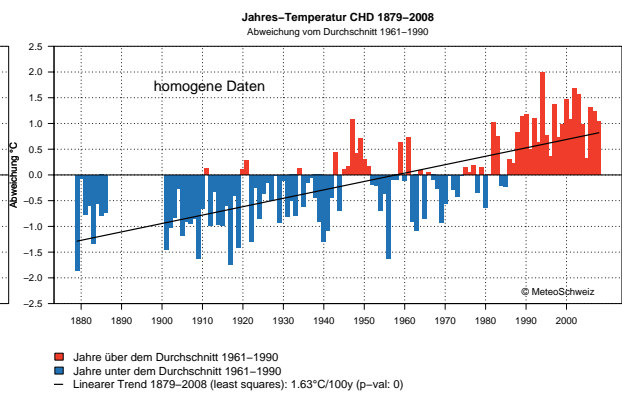
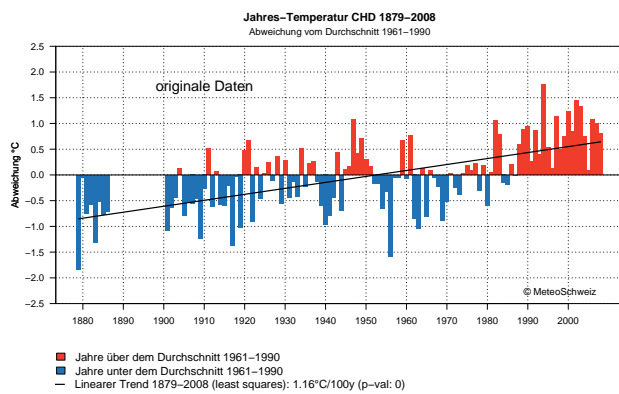
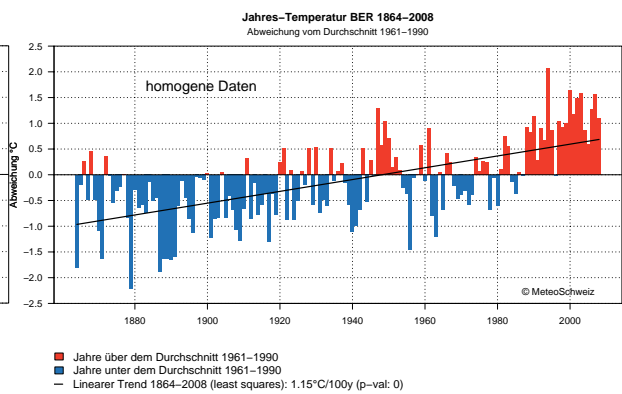
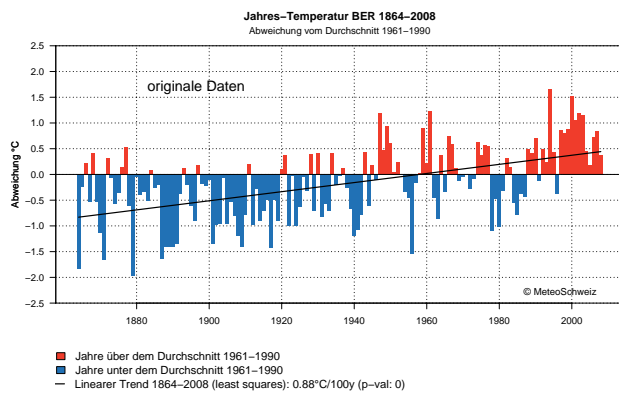
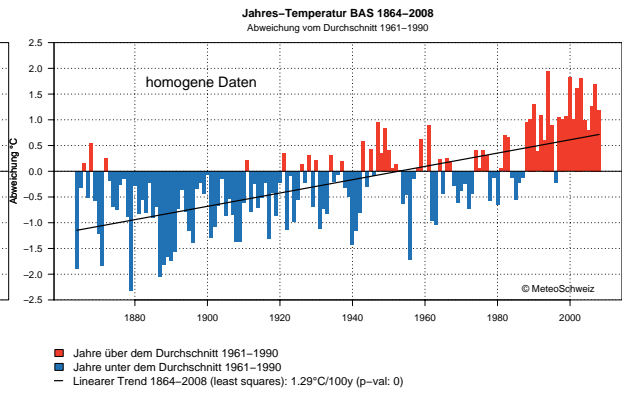
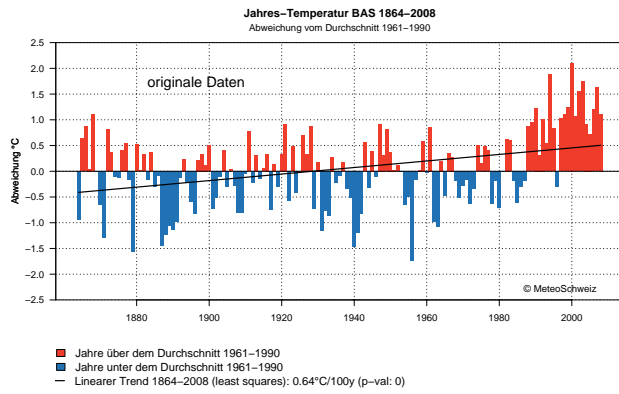
The graphs on the following pages show the mean annual temperatures of 12 measuring stations of the MeteoSwiss meteorological network between 1864 and 2008 as departures from the mean 1961 to 1990. The left column contains the graphs based on original data, the right column the graphs based on homogeneous data.

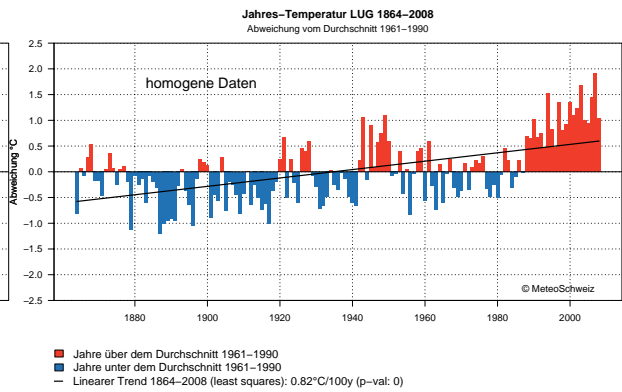
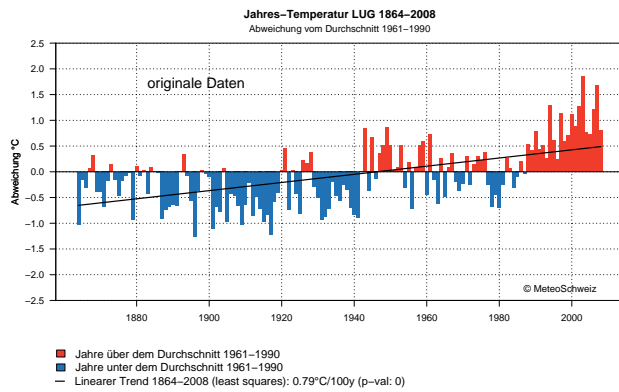
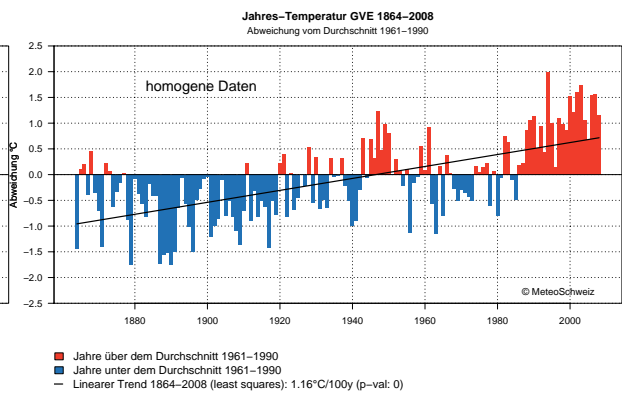
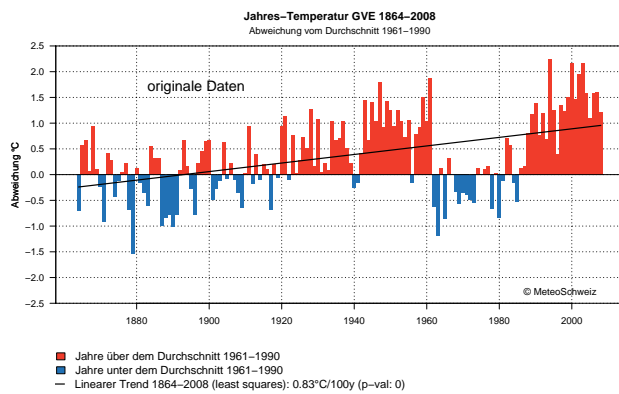
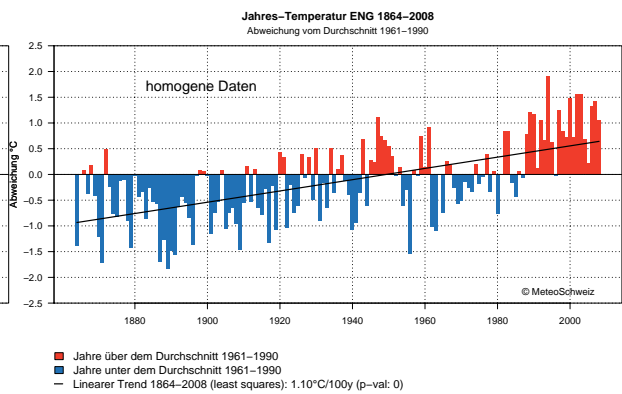
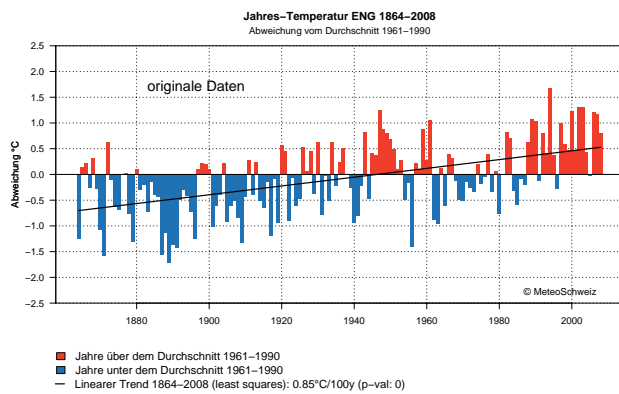
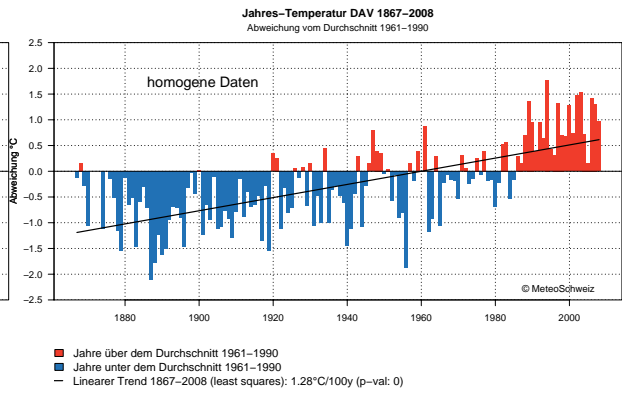
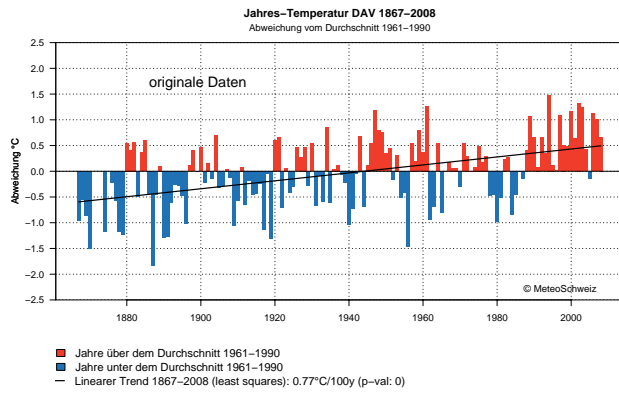
Some stations (eg. Engelberg, Segl-Maria) show small, others (eg. Genève-Cointrin, Sion, Zürich / Fluntern) show large differences between original and homogeneous time series. Stations with large differences have experienced big changes in their measurement conditions in time. As an example the measurement site of Genève was relocated from the observatory in the city to the Geneva airport in the 1960s. As a consequence lower temperature values occurred at the new site compared to the old site which can clearly be seen in the graphs.

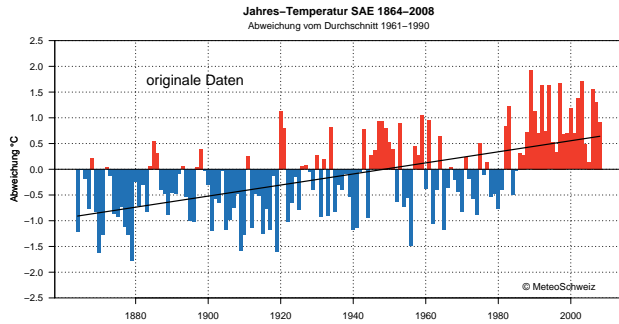
The original time series show an inconsistent and unrealistic picture of temperature trends in Switzerland. Hence, only homogeneous time series can serve as a basis for temperature trend analysis and they are crucial for scientifically reliable conclusions in respect to climate change.

Station list / Station abbreviations:

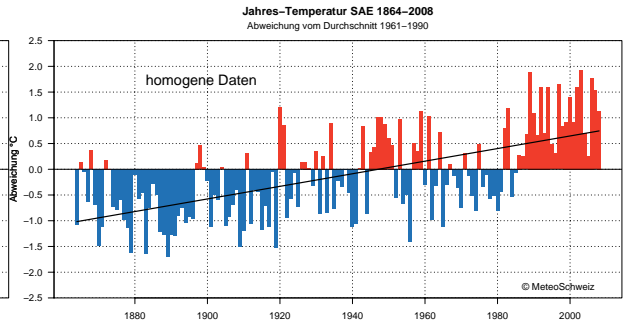
BAS	Basel / Binningen
BER	Bern / Zollikofen
CHD	Château-d'Oex
CHM	Chaumont
DAV	Davos
ENG	Engelberg
GVE	Genève-Cointrin
LUG	Lugano
SAE	Säntis
SIA	Segl-Maria
SIO	Sion
SMA	Zürich / Fluntern



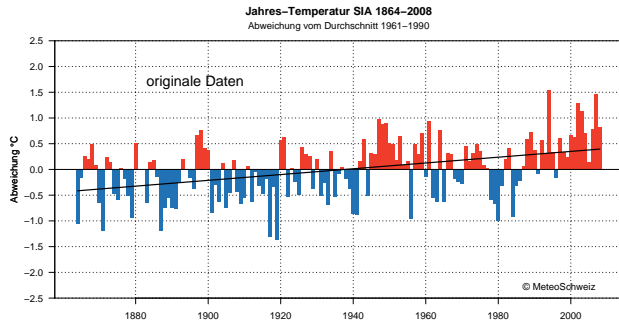




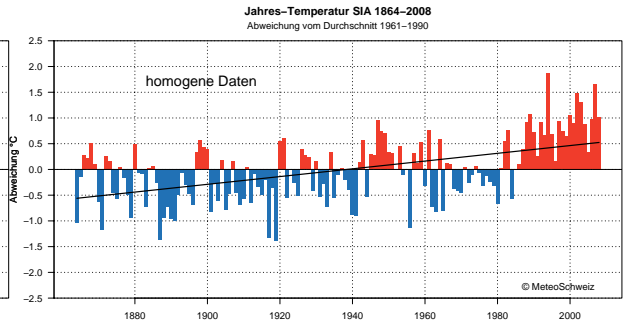
- Jahre über dem Durchschnitt 1961–1990
- Jahre unter dem Durchschnitt 1961–1990
- Linearer Trend 1864–2008 (least squares): 1.08°C/100y (p-val: 0)



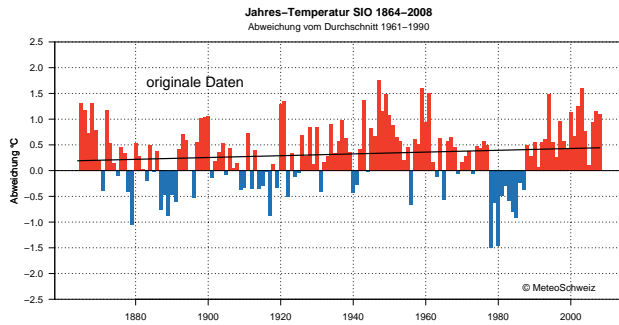
- Jahre über dem Durchschnitt 1961–1990
- Jahre unter dem Durchschnitt 1961–1990
- Linearer Trend 1864–2008 (least squares): 1.22°C/100y (p-val: 0)



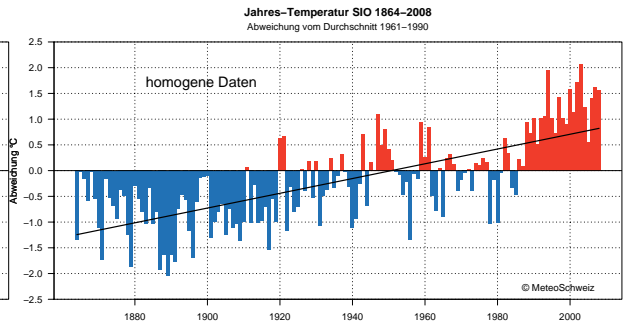
- Jahre über dem Durchschnitt 1961–1990
- Jahre unter dem Durchschnitt 1961–1990
- Linearer Trend 1864–2008 (least squares): 0.56°C/100y (p-val: 0)



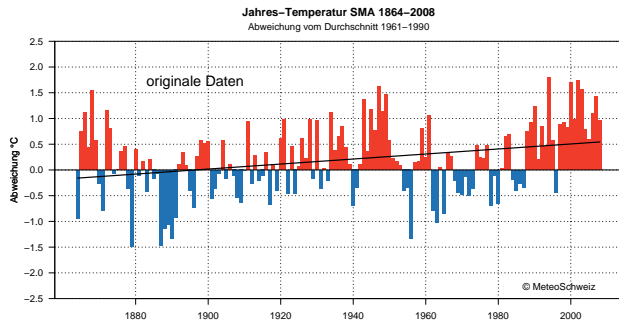
- Jahre über dem Durchschnitt 1961–1990
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- Linearer Trend 1864–2008 (least squares): 0.75°C/100y (p-val: 0)



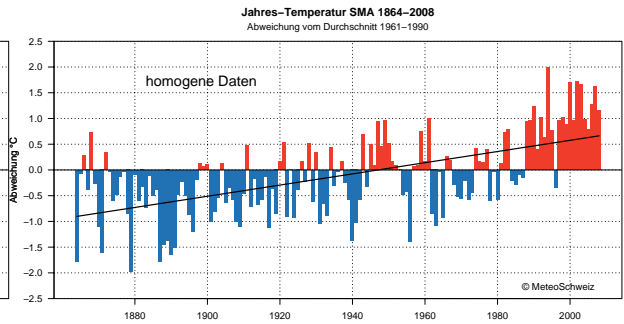
- Jahre über dem Durchschnitt 1961–1990
- Jahre unter dem Durchschnitt 1961–1990
- Linearer Trend 1864–2008 (least squares): 0.18°C/100y (p-val: 0.171)



- Jahre über dem Durchschnitt 1961–1990
- Jahre unter dem Durchschnitt 1961–1990
- Linearer Trend 1864–2008 (least squares): 1.43°C/100y (p-val: 0)



- Jahre über dem Durchschnitt 1961–1990
- Jahre unter dem Durchschnitt 1961–1990
- Linearer Trend 1864–2008 (least squares): 0.49°C/100y (p-val: 0)



- Jahre über dem Durchschnitt 1961–1990
- Jahre unter dem Durchschnitt 1961–1990
- Linearer Trend 1864–2008 (least squares): 1.09°C/100y (p-val: 0)