



Instrumental meteorological record for Styrian village from 1819 to 1821

Bruno P. Besser, Hannah Rüdiger, Elke Grinschgl, Hans U. Eichelberger, and Manfred Stachel
Austrian Academy of Sciences, Space Research Institute, Graz, Austria (bruno.besser@oeaw.ac.at)

Meteorological chronicles for two years (June 1819 to Mai 1821) have been found in a handwritten manuscript at the Styrian Provincial Archive in Graz. The data were recorded at a castle located at the east-southern foothill of the Austrian alps, in Bärnegg in der Elsenau, about half way between Graz and Vienna. Data were taken three times a day (8am, 12am, and 3pm) and continuous records of pressure, temperature, wind direction, wind condition (classes), and weather conditions are available. Supplementary information for phenological characterisation of the respective climate conditions are available too. Unfortunately no detailed information on the instruments used could be found.

In this study we compare the weather data with time series of the meteorological stations of Vienna and Graz, where the Graz meteorological data were re-discovered during the work on this project, because up to now only two continuous measurement series, Vienna and Kremsmünster, were known for the above mentioned period. Our study closes with a comparison of our instrumental data with (extreme) weather conditions recorded in nearby areas, e.g. Vienna, Bratislava (Preßburg), Sopron (Ödenburg) and the Mürz valley in Upper Styria, published in newspapers.