Database of visual daily weather records and its potential for climate reconstructions in the Czech Republic

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Visual daily weather records belong to the most important sources of direct data about weather and climate. The oldest known records in the Czech Lands were kept by Moravian nobleman Jan of Kunovice between 1533 and 1545. Later on, further visual daily records were performed, continuing up to the instrumental period where they can overlap with instrumental measurements. It is important for their cross-checking as well as calibration of mainly qualitative visual observations. The motivation of authors for their keeping was very different – records were done often by physicians, parsons, teachers or officers. Observations mentioned have usually a relatively short duration (usually a few years) being strongly limited by life of corresponding observers. To use visual daily weather observations for climate reconstruction in the pre-instrumental period a database of such data is created. Methodological problems related to this type of data are discussed (e.g. terminology, quantification). Examples of spatial and temporal representation of data with GIS are shown. The potential of visual daily weather records mainly for monthly temperature and precipitation reconstructions is shown.