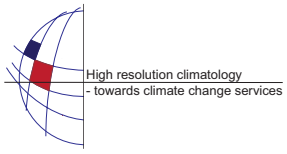
EMS Annual Meeting Abstracts
Vol. 7, EMS2010-44, 2010
10th EMS / 8th ECAC



Climatological Data Rescue from historic meteorological stations in the Czech Republic.

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EMS10/ECAC MC2 Abstract
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Climatological Data Rescue from historic meteorological stations in the Czech Republic.

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Digitization of climatological data from meteorological station had several periods in past. Last period is very close connected with database system CLIDATA. The main source of historical data is archive in Ostrava regional office of CHMI where a lot of historical monthly reports of observations with daily data are stored. Other historical data were founded from various types of historical annual reports and last but not least from border cooperation with Polish and Slovak meteorological services.

During several last years were imported daily data from new discovered stations, and some elements from historic stations such as precipitation, temperature, relative humidity, cloudiness, hourly data of sunshine, temperatures from thermographs and also meteorological phenomena from some synoptic stations. Within the frame of our project we could also digitize wind speed, wind direction and wind gust data.

During more than 150 years of regular meteorological observation, were used a big amount of various types of monthly reports for measured data records. Meteorological stations were founded by several organizations and all of them used another kind of reports that were changed during years. We recognized nearly 30 types of precipitation monthly reports and 50 types of climatologic reports.

Digitization of data especially from very historical stations brings also some problems during definition of metadata such as coordinates, elevations, measuring instruments height, a lot of observing terms or historic units of elements. Some historical annual reports mention observer's jobs, that is very interesting and we can find position of meteorological stations more exactly.

Data quality control has been proceeded since 1993. First were used special programs and algorithms outside of database system. Some new programs for wrong values detection or for missing values filling are used at present. CLIDATA database system and its extensions allows to make logical and spatial data quality control by comparison of data with surrounding stations. Data of mostly meteorological elements and stations are now controlled since 1961. For errors detection and data quality control in frontier regions is very useful data from Slovak meteorological stations.

Acknowledgements
An author would like to acknowledge the financial support of the Grant Agency of the Academy of Sciences of

the Czech Republic for project no KJB300420905.