Meteorological data rescue in Latvia

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The first meteorological observations date back to the XIX century, with 11 stations that measured 2 parameters, precipitation and air temperature. The network of the stations had been steadily growing to number 150 stations and measure 23 parameters in the 1950th - 1960th.

1997 saw an automation of the meteorological network, including the installation of automated MILOS 500 stations. Currently, meteorological observations are being performed at 22 automated stations and 38 the so-called precipitation stations.

Over the whole period of the observations, data for more than 400 parameters have been collected and archived in paper media. Since the very beginning of the observations, measurement data have been retrieved at each station. The station notes that are normally kept at each station contain metadata and information (technical data) of the operated instruments, audits and calibration certificates.

The year 1992 may be considered a start of the targeted and systematic built up of the electronic national meteorological data base. Since then, software has been changed: PERSONA MIS MI for meteorological data processing, CLICOM for climatic data processing, CLIDATA, a system for climatic database management.

The historical data retrieval and digitalization that has been carried out over the recent years is a planned work, giving priority to definite stations and parameters.

The main problems encountered in the data rescue are i) the absence of software for checking homogeneity of climatic data series and for modeling missing data and ii) compatibility of different observation terms and their periodicities.

Participation of the Latvian Environment, Geology and Meteorology Agency in the Climate Assessment Project was part of the meteorological data rescue undertakings. Under the project, data from 6 RBSN stations, Aluksne, Daugavpils, Kolka, Liepaja, Riga and Saldus, that were digitalized for the whole period of the observations, covered air temperature, precipitation amount, total cloud