



Development of the regional UERRA reanalysis systems and the output validation

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UERRA (Uncertainties in Ensembles of Regional Re-Analyses) is a FP7 4-year collaborative project between 12 partners in Europe. The efforts in the project are geared towards developing and setting up pre-operational climate change services for the EU Copernicus program.

URV, UEA and NMA-Romania are involved with the Data rescue and Development and almost the target number of observations have been processed during the first year. In UERRA the emphasis is on post-1961 data and on the sub-daily scale, so that they can be used in the numerical weather prediction based reanalysis systems.

These reanalysis systems are based on and developed from operational or pre-operational systems at the Met Office, SMHI, Météo-France, DWD and University of Bonn through the Hans Ertel Centre for Weather Research using the COSMO model. The features and choices for the different systems will be discussed and some early results shown. SMHI has run 2 reanalyses with different model physics and Météo-France has run ensembles of near surface reanalyses.

The gridded data sets of climate observations have been extended and a satellite cloudiness analysis system has been set up.

UERRA will have a common data MARS reanalysis archive at ECMWF and the choices, status and plans will be covered. There will be Data Services for general users in science and society as well as for validation and for the important uncertainty estimations. The methods and status of the validation system will be discussed. Initial tests of the validation system will be done on a 2-year period of reanalyses from the previous EURO4M FP7 project.

The data services will also connect to the climate research community through the Earth System Grid Federation (ESGF) at KNMI and partner institutes and projects. Examples of climate and user (index) information derived from the UERRA will also be described.