

ECSN Quarterly Report July-September 2005

Prepared by the ECSN Manager and the Project Leaders

General remarks

The 26th EUMETNET Council meeting has taken place in Helsinki, Finland, 11-12 October 2005.

The ECSN/HRT-GAR project was approved at the 24th Council meeting as a two-year project dedicated to the preparation of a High Resolution Temperature Climatology in Complex Terrain over a 30-year period. ZAMG was accepted as the Responsible Member and the project will start on 1st January 2006. At the 26th Council meeting the Programme Decisions have been validated and financial support will be given by the countries Austria, France, Germany, Hungary, Italy, Luxembourg, Norway, Switzerland and United Kingdom.

With the purpose to organize a new ECSN project with the aim to improve understanding of critical issues related to a realisation of a EUROGRID concept, and to study the interest and feasibility of a follow-on EUROGRID programme, a preliminary project for a Showcase has been worked out. The proposal for a EUROGRID Showcase was prepared by SMHI in close co-operation with the ECSN Members to create and to promote a rational and quality assured climatological production of high resolution gridded data, based on information from the European National Meteorological and Hydrological Services (NMHSs).

The EUROGRID Showcase has been presented by Bengt Dahlström, SMHI, and discussed by the Delegates at the Council meeting. The importance of the content of the project was undis-

puted and warmly supported. But it was stated that the costs are too high for such a prototype phase, and the link with other similar activities, such as the developments connected with EEA and ECMWF regarding the INSPIRE directives, and the link with other ECSN activities, such as ECA&D and ENSEMBLES, have to be improved and integrated in the proposal.

The ECSN Manager thanked the Delegates for their positive view concerning the climatological content and the importance of such a EUROGRID approach. He proposed to revise the Showcase proposal, taking into consideration the results of the discussion, connected with possible reductions and simplifications in order to reduce the costs.

The combined Conference of EMS with the European Conference on Applied Meteorology, EMS/ECAM, has taken place in Utrecht, 12-16 September 2005. This EMS/ECAM Conference contained also a substantial part Climatology. About 500 abstracts have been submitted, 40 for ECAM, 100 for Climatology and 360 for EMS as such. Thanks to the efficient work done by the Organizers, the Programme Committees and the Conveners, the Conference was a real success.

The 5th ECSN Data Management Workshop will take place in De Bilt, Netherlands, 7-9 December 2005. The following main topics will be presented and discussed: Data Rescue (DARES), Databases, Gridding and UNIDART.

(see: <http://dataworkshop.knmi.nl>)

The next combined Conference of EMS together with the European Conference on Applied Climatology, EMS/ECAC-2006, will take place in Ljubljana, 3-7 September 2006.

The International Conference on Living with Climate Variability and Change: Understanding the Uncertainties and Managing the Risks, will take place in Espoo, Finland, 17-21 July 2006.
(see: <http://www.livingwithclimate.fi>)

European Climate Assessment & Dataset (KNMI)

In March 2005 each ECA&D participant, and the director of the NMHS's, received a letter from the ECA&D project leader, where it is asked for updates of the already available data series in ECA&D. Also, the participants are asked to supply new elements (humidity, sunshine duration, cloud cover and snow depth) to be added in ECA&D to enable (new) climatological analyses for these new elements as well as new input to the oncoming Assessment Report.

This request and cooperation from the participants, together with data from other projects (STARDEX, GHCN, GCOS, EMULATE, MAP), resulted into a vast growing amount of new and updated series. Currently, the amount of data series has grown from nearly 1000 (March 2005) to 5200 (October 2005). Furthermore, the amount of stations increased in this period from 300 to 1700.

One of the effects of a much larger density of data in ECA&D, is that the currently created maps will be quite unclear (too many individual analyses results on the same map, plotted too close to each other). To overcome the creation of such unusable maps, GIS-functionality will be introduced in the near future (already available at an inter-

nal development system). With this functionality it becomes possible to zoom into a map, retrieving detailed information at a regional level or even at the level of an individual station (like showing meta data).

As quality and reliability of the data is of eminent importance, the new data is not yet available on the website <http://eca.knmi.nl>. Once the data is thoroughly cross-checked and quality controlled, it will be made available (together with the GIS-functionality).

ENSEMBLES (KNMI, MeteoSwiss)

Up to now, a network of about 1500 stations has been collected for the development of the daily high-resolution gridded datasets for Europe. The stations were retrieved from the ECA&D participants, the EU FP5 projects EMULATE and STARDEX, the GCOS Surface Network, the MAP project and GHCND.

The station density is still sparse in southern Italy, Eastern Europe (Poland, Slovakia, Hungary, the Balkan countries and Turkey) and North Africa. Most of the stations hold precipitation series, while approximately 50% contain temperature series. Not all stations contain series that are up to date or cover 45-year periods. Besides, only 207 air pressure series and 97 snow depth series have been collected up to now. To achieve a station density of 1 station per 2500 km², needed for the high-resolution gridding, the current station network needs to be tripled. For these reasons, we still welcome new daily station series from all countries mentioned above. Also at the Ensembles Second General Assembly in Athens and the ECAM/EMS Conference in Utrecht in September, appeals for additional station series have been made.

At the moment, the absolute homogeneity test of Wijngaard et al. (2003) is used to detect inhomogeneities in the series. In addition, the relative quality control procedure VERAQC (Steinacker et al. (2000), Häberli et al. (2004)) is being adapted and tested for finding the inhomogeneous climate series. Oxford University and CRU have just started to find the best interpolation method for gridding the data.

Generate Climate Monitoring Products (DWD)

After completion of the project early in 2004 the communication platform is maintained on a quasi operational basis. Since then the GCMP home page is continued and developed further in terms of climate monitoring products as well as concerning the number of European National Meteorological and Hydrological Services contributing to it. It is accessible under:

<http://www.gcmp.dwd.de>

Among the products prepared for inclusion in the GCMP web site during the third quarter of 2005 are satellite based lightning and cloud cover analyses, available from the year 2000 onwards.

As mentioned in previous reports it is recognized as a logical further step to arrange for the transition of the current mechanism into a fully operational system for the coordination, collection and dissemination of standardized climate monitoring products for the European region. In this context, based on the results of GCMP, a detailed concept has been elaborated by DWD for the development of a high sophisticated operational system, EuroCLIS.

Meanwhile further efforts aiming at enhancing the participation and cooperation of European

NMHSs in the project as well as improving the coverage of the European region with useful climate monitoring products and information are continued.

Alpine Tmap (ZAMG)

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