

## **ECSN Annual Report 2002**

Prepared by the ECSN Manager, January 2003

### **General remarks**

At the Meeting of the WMO Regional Association VI in Geneva, 3 May 2002, the ECSN activity was presented as one of the successful EUMETNET programme. On this occasion the Final Report "Climate of Europe: Assessment of observed daily temperature and precipitation extremes" was presented.

The 7th ECSN Advisory Committee (EAC) Meeting has taken place at Hohenpeissenberg, Germany, 3-5 June 2002. It was a very efficient meeting and well organized by the Deutscher Wetterdienst.

After the successful termination of the two projects "European Climate Assessment" (ECA) and "ECSN Climate Dataset" (ECD), a follow-up project was prepared in order to continue the ECSN activities in these fields. The project proposal "European Climate Assessment & Dataset" (ECA & D), promoted by KNMI and the ECSN Advisory Committee, was approved by the EUMETNET Council in its September meeting. On behalf of ECSN the Manager expressed his thanks to the EUMETNET Council and to KNMI for their substantial support.

MeteoSwiss has generated a new ECSN web-site. The web-site is placed on the EUMETNET Internet server. Besides the administrative information the new ECSN web-site will be the platform to access all official documents and projects.

The second workshop of the project "Generate Cli-

mate Monitoring Products" (GCMP), hosted by DWD, has taken place in Hamburg, 25-27 September 2002. This GCMP workshop was an important milestone in the project development and well organized by the Deutscher Wetterdienst.

The Fourth European Conference on Applied Climatology, ECAC-2002, has taken place in Brussels, 12-15 November 2002, with the focus on "Climate-related Risk Analysis and Sustainable Development in the 21st Century". The ECSN Manager thanked the Royal Meteorological Institute of Belgium for organizing and hosting this successful ECAC-2002.

At the EUMETNET Council Meeting, 4 December 2002, it was decided that in the future the European Meteorological Society (EMS), in partnership with EUMETNET-ECSN, will organize the European Conference on Applied Climatology (ECAC). So, the next ECAC will be a combined conference "ECAC-2004 / EMS Annual Meeting 2004" in Nice in September 2004.

UNIDART (Uniform Data Request Interface) is a project to develop an infrastructure for a border-crossing exchange of climate data. ECSN is collaborating very closely with UNIDART and has prepared a list of requirements for the realisation of the pilot phase and further steps of UNIDART.

### **European Climate Assessment (KNMI)**

In the "European Climate Assessment" (ECA) project the temperature and the precipitation climate is analysed for WMO Region VI, putting

particular emphasis on changes in daily extremes. So far, 34 countries participate in the ECA project and the ECA dataset contains data from over 200 stations. The ECA project focusses on the twentieth century from 1901 to 2000. Respecting the data policies of the participating countries, a selection of the daily series in the ECA dataset is made available to the public on a CD-ROM and through the Internet (<http://www.knmi.nl/samenw/eca>).

With the Final Report "Climate of Europe: Assessment of observed daily temperature and precipitation extremes" the ECA project was terminated. Over 1500 copies of the report were distributed among participants, interested persons and institutions. The scientific parts will be published sequentially in international scientific journals. The ECA project has reached the objectives thanks to the strong support of KNMI.

After the publication of the Final Report in May the following months have been used to prepare a follow-up proposal for both activities, namely for "European Climate Assessment" (ECA) and for "ECSN Climate Dataset" (ECD). The new project is entitled: "European Climate Assessment & Dataset" (ECA & D). The objective of the new proposal is a project that runs for 4 years and continues to combine data gathering, quality control, analysis and dissemination. The integration of these activities proved to be essential for the success of the previous assessment and dataset project (ECA/ECD). This follow-up project "ECA & D" was approved by the EUMETNET Council in its September meeting.

#### **Generate Climate Monitoring Products (DWD)**

The work on the development of the web-site "Generate Climate Monitoring Products" (GCMP) continued. In order to further improve the Inter-

net platform, external software experts elaborated concept proposals.

An important milestone in the project development was the GCMP workshop, 25 - 27 September 2002, hosted by DWD in Hamburg.

In short presentations by the participants numerous further climate monitoring products appropriate for GCMP were offered, cooperation with WMO/WCDMP discussed and proposals of the software experts concerning the GCMP site presented.

- A core group (France, Germany, Netherlands and Switzerland) was established to support the project management and to steer and accomplish the project.
- Project partners shall ensure the timely and continuous provision of monthly seasonal and annual national monitoring information in English language on dedicated areas of their Web servers, primarily maps, graphs, text on temperature and precipitation.
- In order to tackle the problems of extreme events on the subregional and national levels an ad hoc working group was established (Germany, Portugal and Spain).
- It was decided to develop the area of European climate monitoring products in contact with major European climate centres.

Although cooperation within the project has intensified, especially due to the GCMP workshop in September, it is nevertheless indispensable to increase the number of actively participating European NMHSs to achieve sufficient regional coverage, especially concerning the national climate monitoring products.

Implementation of the workshop results will con-

tinue. The GCMP Website will be adapted accordingly. GCMP Web manager and project partners will coordinate the filenaming and directory structure as well as information on the links of the contributions on the respective servers.

### **Climate Atlas of Europe (Meteo-France)**

The Atlas will contain monthly normals for precipitation, temperature, wind and sunshine duration and additional statistical information for these parameters and for the occurrence of phenomena such as fog, thunderstorm, hail and snow. The computation period will be 1971-2000, and the target spatial density will be about one station per 5000 square kilometres. In a first step the contents of the Atlas project will be made available without maps.

Metadata from all the participating countries (24) representing about 685 stations have been received, checked, harmonized and put into a single file. Among the non ECSN countries contributions have been made by Albania, Bulgaria, Czech Republic, Slovakia and Slovenia.

In a further step the climatological data have been received from all the participating countries.

Quality tests applied to the whole dataset have been engaged, revealing the detection of a large number of errors.

Considering the large size of the dataset, graphical tools are necessary to assess the quality of some parameters. These tools are under development, but this may lead the project some months behind schedule. However, this is considered as a necessary step and they may also be used to map the considered parameters, once the file has been cleaned out from wrong data.

### **Drought investigations (Meteo HU, PT)**

The objectives are the following ones:

- Evaluation and use of different drought indices;
- Analysis of long drought index series;
- Study of thresholds of drought indices;
- Calculate the spatial distribution of drought indices on different time scales;
- Recommendation of drought indices.

The project could not be cared permanently by a scientist. Therefore great time delays resulted. Nevertheless the project will be completed with a Final Report, supported by Portugal. A draft version of the report was presented at the last meeting of the ECSN Advisory Committee.

### **ECSN climate Dataset (KNMI and DNMI)**

The "ECSN Climate Dataset" (ECD) project is closely related to the project "European Climate Assessment" (ECA). The main objective of the ECD project was the preparation and the distribution of climate datasets on daily amount of precipitation and daily temperature (minimum, mean, maximum) for the period 1901-2000 via CD-ROM and Internet.

The project was formally finished with the Final Report prepared on Internet. The server is operational in the network environment of KNMI since November 2002. The ECD project has reached the objectives in an efficient and straight forward manner. With the approval of the "ECA&D" project proposal, the results of the successful ECD project will be the platform for further activities in this field.

Dr. Walter Kirchhofer  
MeteoSwiss