

## ECSN Quarterly Report

### April - June 2001

Prepared by the ECSN Manager and the Project Leaders

#### General remarks

The attention of ECSN should be drawn to the necessity of focussing on a limited number of priority actions to permit allocation of enough financial and human resources to the projects. The ECSN Manager invited the project leaders to make proposals to the recommended actions.

At the last ECSN Meeting EAC discussed the Mesoscale Alpine Climate (MAC) Design Proposal. Since the demand for climatological data, increasingly at high spatial resolution, is steadily growing, the establishment of a European Climate Data Exchange Platform is proposed.

In the meantime a pilot phase for the project UNIDART (Uniform Data Request Interface) has been approved by the EUMETNET Council. To coordinate these actions the ECSN Manager discussed these matters with the EAC Members of DWD and KNMI, and also with the project leader of UNIDART. We propose that ECSN should collaborate very closely with UNIDART. For that reason a workshop is planned to make proposals for solutions which should be considered for integration into UNIDART.

#### Climate Databases (DNMI)

This project is among the projects that the ECSN Council Review recommended should be continued. A continued and closer collaboration among

the member NMSs on developing and running climate databases will have many advantages for the European climate services both individually and as a group.

The project arranged one workshop in 1999 and had planned a new one this year. But the planned workshop cannot be held. The project has also tried to establish a Web-based contact system for the project members, but very little progress was made on that for technical and other reasons.

The reason for the reduced activity is that the project leader Margareth Moe got a new job at the institute this spring, and she cannot continue as project leader in her new position. During her last couple of months in the Climate Division she had to concentrate on a Nordklim project and an internal DNMI project on quality control of data. Both projects can give positive inputs to the ECSN project later.

The project should now be redefined and a new project leader should be found because DNMI can not continue as leader for the Climate Databases project. The new project should get a more specific mandate at the start especially for some basic or minimum activity. Topics could for example be quality control, metadata and standardization.

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

In Europe a variety of monitoring activities is in existence, but still it is difficult to get a comprehensive and coherent view of the climatic development in the region, including special events. In this context it is important to note, that for instance the methods of product generation and the scales which are being applied differ from country to country. Therefore co-operation as well as the exchange mechanisms in the area of climate monitoring still need further extension on the European level.

With this in mind and in order to contribute to the required climate information the ECSN Project "Generate Climate Monitoring Products" was started, aiming at developing, generating and distributing standardized climate monitoring products for the European region.

At the outset of the pilot phase, the contents will mainly be made up of existing products. Experience gained in this phase will facilitate decisions on the extension of the contents as well as investigations and development of new methods to generate appropriate climate monitoring products.

According to the working plan this project was re-analysed by its project leader. On the basis of this analysis we shall prepare a new proposal and put it to the next EUMETNET Council.

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

The following 14 countries have already signed the contract: Austria, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Luxemburg, Norway, Portugal, Sweden, Switzerland, UK.

Answers to the questionnaire produced following the EAC Tenerife meeting, concerning national practices for climate information have been received from the following 16 countries: Austria, Belgium, Denmark, Finland, France, Greece, Germany, Hungary, Italy, Luxemburg, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom, Iceland, Ireland, and The Netherlands are kindly requested to answer asap.

The operations for producing 1971-2000 normals for France have been engaged. A careful review of the data formats has been conducted with the subcontractor, resulting in minor modifications of the formats already sent to participants. Accordingly, the project leader will provide participants with an updated document, with indications of modifications.

The participants will be asked to supply as soon as possible the list of stations for which they will provide data (with their latitude-longitude), in order to speed up the first phase of the work with the subcontractor, i.e. the extension to the whole western Europe of the map allowing the selection of stations.

## **GIS in Climatological Applications (ZAMG)**

National Meteorological Services (NMSs) are facing in their work many problems which can be solved easier with the application of GIS tools. It is planned to establish an information network on GIS use between the NMSs.

Substantial advances in deriving information of various kinds from different sources has been achieved until now. But it is mandatory to establish Digital Data Bases (DDB) at suitable levels

in combination with Geographical Information Systems (GIS) to achieve the best possible representation of climate data.

It should be mentioned here that a new action in the framework of COST was started (COST719: The Use of GIS in Support of Climate Monitoring, Climate Data Quality Control and Climate Information). The aim of this action is to combine modern GIS technologies with the fundamentals of spatial interpolation schemes to end up with an instrument which can be used for climate research purposes as well as in operational applications.

Naturally there are some similarities between the two projects, actually the COST project emanates from the ECSN project. Because of these existing similarities it is planned to integrate the ECSN activities into the COST719 project.

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

The ECSN Climate Data Set project really started at the end of April when a meeting was organized at KNMI. The Dutch and Norwegian partners met to discuss the draft Memorandum of Understanding and to prepare a working plan for the coming year. The ECD project has a clear goal - to disseminate part of the ECA data set by the Internet and via CD-ROM - to be achieved in only 1 year. This means that a strict assignment of tasks is essential. The KNMI is responsible for the production of standardized data sets that are submitted to experts of DNMI for climatological quality control. These data are returned to KNMI and put into the ECD database that is accessed via the Internet through a Java-based application developed by DNMI.

Currently, the following activities have been carried out or are under development:

- the ECA project team has delivered 6 data sets to the ECD team which were processed immediately after the workshop as a way to gain knowledge about the data;
- initial flags were defined to mark suspicious data values or other remarkable characteristics - largely determining the membership of data to ECA;
- a data model has been worked out, anticipating the structure of the eventual relational database;
- work on XML definitions is on its way as the above mentioned model will be translated into an XML structure that enables data transfer from database tables (Internet) as well as files (CD-ROM) ;
- the Java-based application is ready but needs to be adapted according to the specifications that follow from the above activities;
- the partners that have submitted data to ECA are about to be informed on the intentions of ECD and asked for additional, updated data sets;
- recently, KNMI arranged the contract with MeteoSwiss.

Right now there are no problems. As soon as possible an Advisory Board should be proposed by the ECD staff.

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