

TENTH WORKSHOP
ON
METEOROLOGICAL OPERATIONAL SYSTEMS

ECMWF, Shinfield Park, Reading, Berks., United Kingdom

14 - 18 November 2005

INTRODUCTION

The planned biennial *Workshop on Meteorological Operational Systems*, to be held at ECMWF 14-18 November 2005, will be the tenth in the series.

The workshop will review the state of the art of meteorological operational systems and address future trends in the use of medium-range forecast products, data management and meteorological visualisations on workstations.

1. USE AND INTERPRETATION OF MEDIUM AND EXTENDED RANGE FORECAST GUIDANCE

The ECMWF forecasting system provides the users with operational forecast guidance twice daily out to day ten, once a week out to 31 days and once a month out to six months. Both the monthly and seasonal forecasts are based on a coupled ocean-atmosphere forecasting system. The Centre plans to implement major upgrades to the forecasting system before the end of 2005. The deterministic model will move to the finer resolution of T799 (linear grid, 25 km reduced Gaussian) with 91 levels in the vertical, while the EPS will be run at T399 (linear grid, 50 km reduced Gaussian). There are also plans to upgrade the monthly forecasting system and integrate it into a unified medium to monthly range forecasting system. A multi-model seasonal forecast system has been implemented and products are under development. These changes to the forecasting system will be discussed at the workshop and first experiences will be reported. It is expected that users of the ECMWF forecasts will report on the use and application of the products and on their approach to medium and extended range weather forecasting. Contributions addressing the prediction and verification of severe weather events will be welcome.

With the planned extension of the medium-range forecasts to 15 days and the introduction of a unified forecasting system out to a month it is planned to address the user requirement for products from such a unified system in a working group.

2. OPERATIONAL DATA MANAGEMENT SYSTEMS

Users of meteorological data often find that data sets of interest are scattered around and that data access is cumbersome. Web services and Grid technologies are to an increasing extent finding their way into meteorological information systems, as well as other environmental disciplines, facilitating the access to distributed data sets through user-friendly application portals.

Developing technologies and applications will be presented together with user experience. Future requirements will be discussed in a working group, focussing on issues of interoperability (between centres and between disciplines), data catalogues, discovery mechanisms and metadata standards. A working group will also address the services that could be offered and ways to convert or abstract various data formats.

3. METEOROLOGICAL VISUALISATION APPLICATIONS

As the number of graphics file formats continues to increase, more choices are becoming available regarding functionality but also more issues arise concerning software and hardware compatibility. Developments in this area for interactive and batch production of meteorological plots will be presented and demonstrated at the exhibition. New meteorological visualisation applications and updates to existing applications will also be presented.

A working group will discuss the issues surrounding the different file formats as they relate to meteorological plots, including static and animated formats for on-screen display such as GIF and JPEG, formats for printing such as PostScript and PDF, and interactive formats such as SVG and Flash. File formats suitable for interfacing with GIS systems will also be examined.