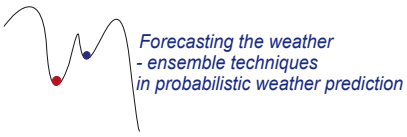
EMS Annual Meeting Abstracts
Vol. 8, EMS2011-872, 2011
11th EMS / 10th ECAM



The role of forecasters at the UK Met office in handling ensemble products

D. Suri

Met Office, FitzRoy Road, Exeter, Devon, EX1 3PB, United Kingdom (dan.suri@metoffice.gov.uk)

Since 2005 the Met Office has been running an ensemble prediction system, MOGREPS (Met Office Global and Regional Ensemble Prediction System)at a variety of time scales. The models range from a 70 level, 24 member short-range ensemble operating at 18KM horizontal resolution to T+54 to a 15 day, 24 member global medium-range ensemble operating at an approximately 60KM horizontal resolution at mid-latitudes.

Following the introduction of MOGREPS a variety of means of displaying the ever-increasing volume of information derived from this ensemble suite has been developed. Techniques in use include more traditional products such as postage stamps, probability maps and meteograms as well as increasingly sophisticated methods such as objective synoptic regime analysis (James 2008) and objective identification, typing and tracking of cyclones (Hewson and Titley 2010). Examples of a number of these methods, and their applications to wide-range of business sectors, ranging from marine construction to military aviation to government business and the provision of internal guidance, are presented.

Whilst recognising that there are some imperfections in capturing the full spectrum of solutions in an ensemble prediction system, these examples serve to demonstrate the value of ensemble output in quantifying the level of uncertainty in a forecast. In turn, this allows the forecaster to provide more comprehensive guidance on the full range of possible outcomes, thereby helping to manage risk for the end customer. A key example would be providing statistically reliable guidance regarding whether a high impact-low probability event will occur.