

# Expert Meeting on Unified VarEPS- Monthly Forecasting System (8-9 May 2007, ECMWF)

**Report from meeting**

**David Richardson**

**ECMWF**

# Unified VarEPS and monthly system

## ➤ **Current configuration**

- **Medium-range EPS twice per day to 15 days**
- **Separate monthly forecast once per week (Thurs 00); same atmospheric model version (T159), coupled**

## ➤ **Plan for 2007/08**

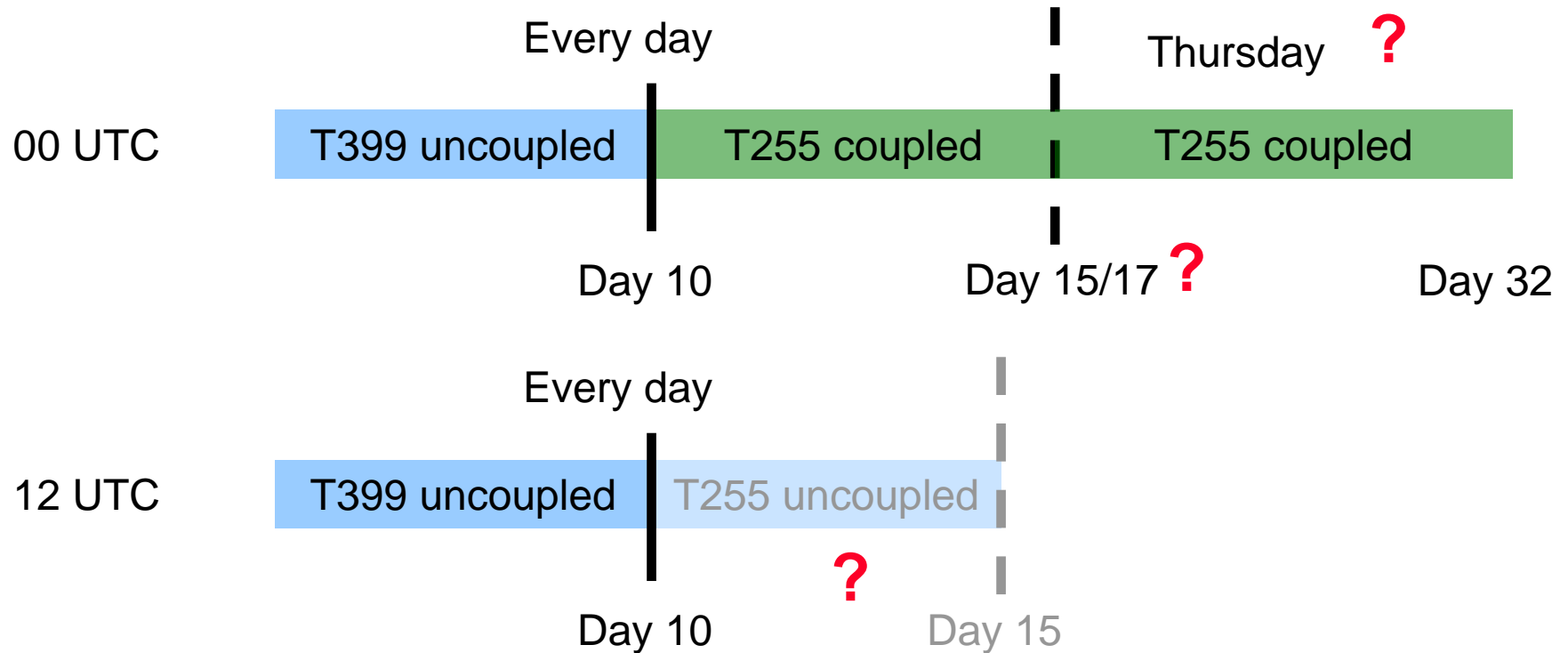
- **Combine VarEPS and monthly into single system**
- **Thurs 00 VarEPS extended to 32 days (T255 coupled from D10)**
- **Implementation late 2007 or early 2008**

# Unified VarEPS/monthly system

## ➤ Benefits

- **Higher resolution monthly forecast**
  - Improves skill (results from 52 cases); better extremes (2003 heatwave)
- **Coupled model for EPS day 10-15**
  - Benefits for MJO and Z500 in some regions (N Pacific, E Asia)
- **Daily update for calendar week 1, and week 2 if run to day 17**
- **Same reforecast datasets for monthly and medium-range products**
  - Will allow calibration of medium-range EPS – demonstrated benefits in improving probability scores

# Possible VarEPS/monthly configurations



# Expert Meeting feedback on requirements

- **Requirement for 15 day EPS from 12 UTC as well as 00 UTC (UK, France, Sweden)**
- **Requirement to keep monthly forecast run on Thursday (UK, France)**
  - **Interest in monthly forecast run on Sunday instead (Sweden)**
- **Early delivery of days 1-10 required, but delay of ~30 minutes for day 11-15 is acceptable**
- **Interest in daily 00 UTC run to 17 days to allow daily update of calendar week forecast (Monday-Sunday) in extended range**
- **No current requirement for twice-weekly update to monthly forecast**

# Proposed configuration of unified system

- **VarEPS run to day 15 twice per day**
  - **00 UTC run: coupled from D10 (persisted SST anomalies to D10)**
  - **12 UTC run: persisted SST anomalies throughout**
- **VarEPS extended to 32 days for 00 UTC Thursday**
- **Coupling from day 10 will delay dissemination of day 11-15 products (30-45 minutes)**
- **Re-forecasts for calibration**
  - **18 years, 5 members, once per week**
  - **Run 2 weeks in advance and archived in MARS (allows 5 weeks to be used in calibration e.g. for EFI)**
  - **Same reforecast datasets for monthly and medium-range products (will replace current EFI climatology)**

# Reforecasts

- **Reforecasts will be archived in MARS and available to users**
  - Parameters, timesteps largely limited to those available in perturbed ensemble members
- **Strong interest in using reforecasts for calibration in Member States**
- **Configuration of reforecasts (years v members v frequency)**
  - All are important, but general agreement that proposed configuration is best compromise (18 years x 5 members x 1/week)
    - Concern was expressed over limited number of ensemble members
  - Users can use subsets of reforecasts if required
- **Request for some post-processing of reforecast data by ECMWF, e.g. quantiles of model climate distribution (for dissemination or archived in MARS)**

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NOTE: For each meeting on this calendar, access to the proceedings of the previous meeting of a similar nature (whether workshop, seminar..) is available by clicking the calendar entry on this page.

See also: [Calendar 2005](#)

and: [Calendar 2006](#)

 ECMWF Official Calendar

 Hosted events

<b>January 29 - February 2</b>	<a href="#">Third International Workshop on Verification Methods</a>
<b>February 8 - March 9</b>	<b>Training Course:</b> <a href="#">Use of Computing Facilities</a>
February 8-9	COM SMS Introduction to SMS/XCDP
February 19-23	COM INTRO Introduction for new users/MARS
February 26-27	COM MAG MAGICS
February 28 - March 2	COM MV METVIEW
March 5-9	COM HPCF Use of supercomputing resources
<b>March 12-16</b>	<b>Training Course:</b> <a href="#">Use &amp; interpretation of ECMWF Products</a> (see also: June 4-8)
<b>March 19 - May 18</b>	<b>Training Course:</b> <a href="#">Numerical Weather Prediction</a>
March 19-28	Numerical methods, adiabatic formulation of models
April 16-24	Predictability, diagnostics & seasonal forecasting
April 25 - May 4	Data assimilation & use of satellite data
May 8-18	Parametrization of diabatic processes
<b>April 23-24</b>	<a href="#">Finance Committee</a> 78th session
<b>May 2-3</b>	<a href="#">Advisory Committee for Data Policy</a> 8th session
<b>May 8-9</b>	<a href="#">Expert Meeting on VAREPS/Monthly forecasting system</a>



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### Background

ECMWF will host the Expert Meeting on VAREPS/Monthly forecasting system on 8-9 May 2007.

The meeting will address, in particular, user requirements for product definition for the unified VarEPS/Monthly forecasting system which is planned for implementation later in 2007. Member States requirements for scheduling the forecast runs and product dissemination will also be discussed.

[Programme](#) (updated 3 May 2007)

Copies of the presentations can be found here:

- Roberto Buizza, Frederic Vitart and Martin Leutbecher [15 day VAREPS and monthly forecasting](#)
- Renate Hagedorn [Reforecast data sets](#)
- David Richardson [Unified monthly-VarEPs prediction system products and configuration](#)
- Alfred Hofstadler [Operational aspects](#)

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