

# TT on Climate Watch System

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# Outline

- Introduction. What is a CWS? Components.
- Relevant documents, methods, ...
- Side event on implementation of CWS RA-VI (ECAM 2012)
- Study of implemented cases of CWS in RA VI
- Tasks (tbd)
- Activities/deliverables (tbd)
- Proposed team (tbc))

- "... to enable the delivery to end-users, through the NMHSs, increasingly **accurate and reliable warnings and monitoring products of extreme events related to climate and the related environment** throughout the world, and ensure that they would reach their target audience in a timely and useful manner."

[CCI, 13th Session, Geneva, Nov. 21-30, 2001, WMO TD-No. 938.]

# What is a CWS?

- A Climate Watch System (CWS) is an **operational** cooperative system for climate early warning based on **existing** meteorological facilities and infrastructure at regional and national level.
- It involves **user** in its design, operation and evaluation. A CWS **builds on existing weather early warning systems** by adding advisories on climate extreme events such as **heat waves, cold waves, extended heavy precipitations leading to flooding, rainfall / soil moisture deficiency leading to drought conditions, severe wind storms extending beyond weather scales, extended snowfall, etc .**
- A CWS purpose is to support sector Early Warning System particularly water resources, agriculture and health sectors by providing timely climate monitoring and long range forecasting information.

# CWS components

- Data and observations (RCC KNMI)
- Monitoring and analysis (RCC DWD)
- LRFs (RCC MF)
- Outputs

# Relevant documents

- Guidelines on Climate Watches (WCDMP-No. 58; WMO/TD-No. 1269)
- Roadmap adopted by WMO RA VI Workshop on Climate Monitoring including the Implementation of CWSs (organized by WMO, held in Offenbach, Germany, 25–28 October 2010) - WCDMP-No. 75
- Report on side event on the implementation of CWS in WMO-RA-VI (ECAM, 10-14 Sept. 2012, Lodz, Poland).

# Seminal paper:

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Review Article  
The potential for skill across the range of the  
seamless weather-climate prediction problem:  
a stimulus for our science\*

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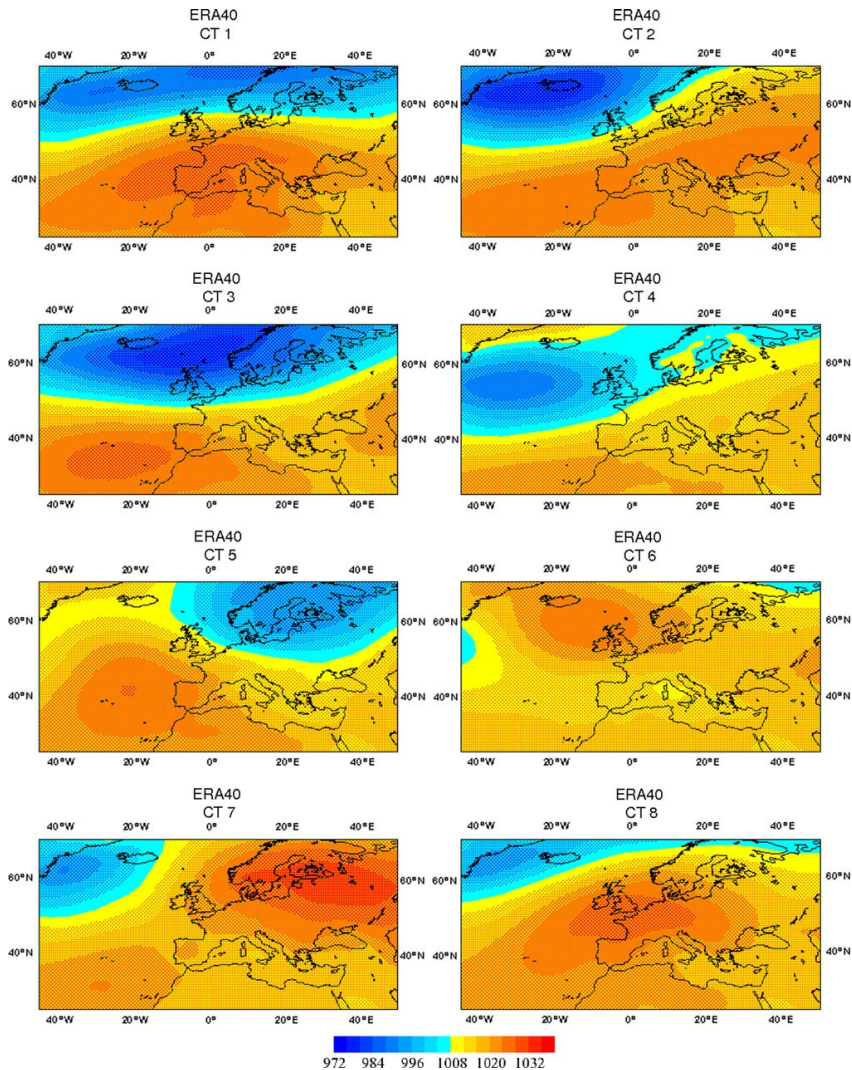
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\*This article is based on the 2011 IMO Lecture given under the title 'Predictability beyond the deterministic limit'.

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- The weather-climate problem
- Prediction on a range of time-scales:
  - One week to one month
  - One month to seasons

# One week to one month: type of circulation



- The analysis of intensity and frequency of extreme cold and warm waves are related with changes of frequency and persistence of circulation types.

Pastor & Casado (Clim. Dyn. 2012)



# Study of implemented cases of CWS in RA VI

- Implementation of CWS as a voluntary pilot phase to develop initial best practices (countries volunteering: **Turkey, Serbia, Finland**) (from Roadmap CWS in RA VI)

# Side event on implementation of CWS RA-VI (ECAM 2012)

## Recommendations:

- Establishment of **CWS national focal points** at NMHSs. The focal points network will be useful in liaising between RCC-CM on one hand and the NMHSs and its national users on the other hand for the provision of climate watches and collecting user requirements and feedbacks.
- The RA-VI WG on Climate and Hydrology with the help of RCC-CM should develop a **brief guidance (two-three pages maximum) to assist NMHS** in implementing national CWS. This can be built on the Experience of RCC-CM and the lessons learned from the national demonstration projects.

# Tasks (tbd)

- Compilation and discussion of relevant documents (6 m)
- Study of pilot cases of CWS in RA VI (6 m)
- Discussion on examples of format and content of climate watch advisory (6 m)
- Index for the CWS guidelines document (6 m)
- Drafting of guidelines document (1 y)

# Activity/deliverable (tbd)

- Develop guidance for Climate Watch implementation at national level, considering inclusion of hydrological and agrometeorological aspects

# Proposed team (tbc)

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(\*) Their names appear in the list of nominated experts to serve to the RA VI WG CH

(+) Pending approval by corresponding PR