

Weather Radar Applications in Nowcasting for Weather Forecasters
DWD, DLR, DHMZ, FMI, ABoM, MSC, ZAMG

Location

Classroom session in DWD Training and Conference Centre (BTZ), Langen, Germany

Application

Application form: <http://www.webropol.com/P.aspx?id=445173&cid=118470633>

Deadline for applications: 15 September 2010

Notification of acceptance: 1 October 2010

Students

Students are divided in into two different levels:

- FULL student (attends BOTH distance (self study, online presentation) and residence phase)
- ONLINE student (attends the distance phase ONLY)

The following rule is observed: a maximum of TWO online students from each applying organization are allowed, under the mandatory condition that at least one full student is accepted from the same organization.

Both full and online students will receive a Certificate of Attendance upon completion of the correspondent phases of the course.

Minimum amount of *full* students required: 12

Maximum amount of *full* students allowed: 20

Priority to participants from Eumetcal member organizations

Dates

Distance phase 1 : 8 - 26 November 2010 (3 weeks, 3 + 6 hours)

Distance phase 2: 6 - 17 December 2010 (2 weeks, 2 + 4 hours)

Distance phase 3: 10 - 28 January 2011 (4 weeks, 4 + 8 hours)

Classroom phase: 14 - 18 February 2011 (5 days, 40 hours)

Tuition fee

1000 EUR - for each *full* student

No fee for required for *online* student

Duration

9 weeks distance, 5 days in person with independents exercises.

Total equivalent 100 hours of training

Objectives

- Improve the ability of the forecaster to diagnose relevant weather phenomena using weather radar products
- Improve the ability of the forecaster to correctly interpret radar images
- Increase awareness on the potential of modern weather radars in the forecasting process

Target Audience

Operational weather forecasters

Prerequisites

- Some previous knowledge in operational weather forecasting, especially the use of radar products in forecasting and synoptic meteorology
- Strong motivation for personal development and/or interest in weather radar application
- Good skills in the English language

Language

The course will be given by international teachers in English. No translations will be offered and the participant is expected to be able to follow the teaching in English.

Contents of the Course

1. Diagnosis of weather phenomena in radar products (distance learning phase)
 - 1.1. Use of Doppler
 - 1.2. Non-meteorological echoes and other trouble
 - 1.3. Frontal systems
 - 1.4. Drizzle and other shallow precipitation events
 - 1.5. Deep convection
 - 1.6. Precipitation and orography
 - 1.7. Principles of diagnosis
 - 1.8. Appetizer of dual polarization radars
2. Case studies, group work and discussion in weather phenomena using radar products (classroom phase)
 - 2.1. Region specific phenomena
 - 2.2. Nowcasting

Teachers

- Wilfried Jacobs, German Meteorological Service DWD
- Elena Saltikoff, Finnish Meteorological Institute FMI
- Martin Hagen, German Aerospace Center DLR
- Andreas Schaffhauser, Austrian Central Institute for Meteorology and Geodynamics, ZAMG
- Bojan Lipovscak, Hydrometeorological institute of Croatia DHMZ
- Roger Deslandes, Australian Bureau of Meteorology
- Paul Joe, Meteorological Service of Canada
- Alessandro Chiariello, Finnish Meteorological Institute FMI

Structure of distance learning phase (online lectures + background material):

1. Introduction to tools and teachers:
2. Use of Doppler
3. Non-meteorological echoes and other trouble
4. Frontal systems
5. Drizzle and other shallow precipitation events
6. Deep convection
7. Deep convection continued
8. Precipitation and orography
9. Data fusion in nowcasting

Classroom structure

- Questions and answers from the distance learning phase
- Tools and techniques for case studies
- Student presentations and discussion on nowcasting
- Case Studies, presentations and discussion