

**TurbuSynoptic and Mesoscale Analysis of Satellite Images**  
DWD, KNMI, ZAMG, DHMZ

***Dates:***

*Distance phase: 01 October – 11 November 2018 (9 sessions, 2 + 24 hours)*

*Classroom phase: 19 November – 23 November 2018 (4.5 days, 40 hours)*

Classroom session in DWD Training and Conference Centre, Langen, Germany

***Duration:***

6 weeks distance 5 days in person with independent exercises.

Total equivalent 67 hours of training.

***Application deadline:***

10 August 2018 (sharp)

***Target Audience:***

Forecasters at meteorological and hydrological services

***Students:***

Students are divided in into two different levels:

- FULL student (attends BOTH distance and classroom phase)

- ONLINE student (attends the distance phase ONLY)

Please consider the following rule: 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. Exceptions might be given for students outside Europe.

Minimum amount of *full* students required: 12

Maximum amount of *full* students allowed: 20

Maximum amount of *online* students allowed: 30

Priority will be given to participants from Eumetcal member organizations.

***Tuition fee:***

500 EUR - for each *full* student

No fee required for *online* student

***Financial support:***

The availability of financial support has still to be clarified.

**Objectives:**

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

***The course content is in accordance to the WMO-requirements “No 1083, BIP-M”***

**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.

**Prerequisites:**

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

**Teachers (planned):**

- Frans Debie (KNMI)
- Wilfried Jacobs and Peter Schmitt (DWD)
- Ab Maas (KNMI, retired)
- David Schultz (UK – University of Manchester)
- Andreas Wirth (ZAMG)
- Veronika Zwatz-Meise (ZAMG, retired)

**Structure of online phase:**

- 1.1. Introduction Conceptual Models and Satmanu
- 1.2. Frontal and sub-frontal structures
- 1.3. Turbulences (gravity waves, lee waves, etc.)
- 1.4. Cyclogenesis and occlusion cloud bands
- 1.5. Mesoscale precipitation bands within cyclones
- 1.6. Mesoscale phenomena in cold air
- 1.7. Convective cloud features in typical synoptic situations
- 1.8. Shallow phenomena and related weather phenomena

**Principles of classroom phase:**

- Questions and answers from the distance learning phase
- Tools and techniques for case studies
- Exchange of experiences by students' presentation and discussion
- Case studies, group work, projects, presentations and discussion