

## Barcelona Dust Forecast Center

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**SIDE EVENT 8 JUNE 2015 17:45 – 18:45**

## **Sand and Dust Storm: Forecast Services**

### **Location:**

*Centre International de Conférences,  
Geneva, Salle 4*

**Description:** Presentation of the Sand and Dust Storm Forecast Services provided by the **Barcelona Dust Forecast Center** (<http://dust.aemet.es>). The Center distributes daily dust predictions for Northern Africa, Middle East and Europe through internet and WMO Global Telecommunication System (GTS)

The Barcelona Dust Forecast Center is jointly managed by the State Meteorology Agency of Spain and the Barcelona Supercomputing Center



- **Alexander Baklanov** (WMO): Transition from R&D to operational dust forecasts
- **Abdoulaye Harou** (WMO): Dust forecasts for health, air quality and aviation
- **Enric Terradellas** (AEMET): Barcelona Dust Forecast Center: Operational services
- **Sara Basart** (BSC): Dust modelling
- Presentation of survey on dust-related products. Q&A

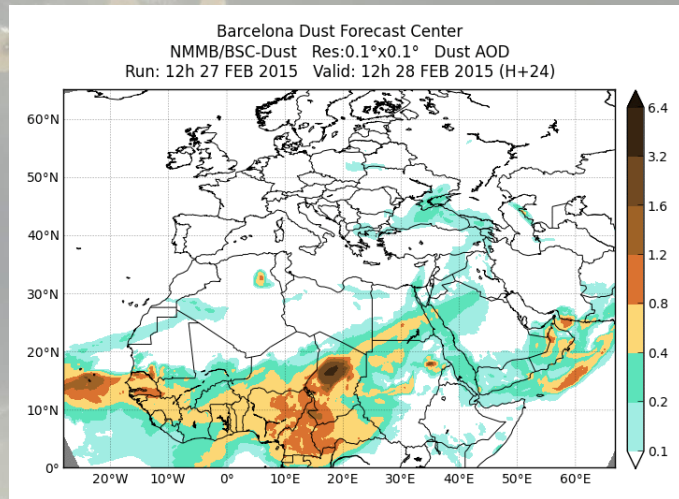


# Barcelona Dust Forecast Center

**Barcelona Dust Forecast Center (BDFC) has been designated by WMO to generate and disseminate daily operational dust forecasts for Northern Africa (north of equator), Middle East and Europe. The centre is jointly managed by the State Meteorological Agency of Spain (AEMET) and the Barcelona Supercomputing Center (BSC)**

## Dust Forecasts

BDFC prepares regional dust forecasts using the NMMB/BSC-Dust model continuously throughout the year on a daily basis. The model consists of a numerical weather prediction model incorporating online parameterizations of all the major phases of the atmospheric dust cycle.



BDFC generates forecasts of columnar dust load, dust concentration at the Earth's surface, dust optical depth at 550 nm, 3-hour accumulated dry and wet deposition and dust extinction at the surface. These cover a period of up to 72 hours from the starting forecast time (12:00 UTC).

The geographical scope is Northern Africa (north of equator), Middle East and most of Europe with a horizontal resolution of 10x10 km.

## Forecast evaluation

An important step in dust forecasting is the evaluation of the results generated. This process consists of comparing the results produced by the model to actual observations, with the aim of enhancing understanding of the model's capabilities, limitations, and appropriateness for the purpose for which it was designed.

A near-real-time evaluation to assess how the forecast behaves relative to observations is performed on a monthly basis. It provides the modelling group and the end users with a quick overview of the forecast quality. Subsequently, a quantitative forecast evaluation is undertaken, resulting in monthly, seasonal and annual scores.

## Archive and dissemination

The forecasts are stored in both netCDF and in GRIB2 formats and disseminated in pictorial form via the internet and the WMO Global Telecommunications System (GTS).

## Capacity building

BDFC provides support for annual training courses aimed at strengthening the capacity of different countries to use these services.

