

**Sand and Dust – Warning & Information System,**  
a joint project of AEMET with BSC, Barcelona  
( and WMO coordinated activity)

- Institutional background
- Use of Sand and Dust data and forecasts by public meteorological services
- International Cooperation



**AEMET, the National Meteorological Service of Spain, a brief summary**



Celebrating 125 years since  
Royal Decree 18 August 1887



Primitive headquarters from 1888 in Retiro Park, Madrid (still today an AEMET's property)



## **AEMET's mission (New Statute as State Agency, Royal Decree of 2008)**

**“Development, implementation and provision of meteorological services for which the responsibility belongs to the State as well as support to other public policies and private activities, contributing to safety of individuals and property and to the welfare and sustainable development of the Spanish society.”**

The 2008 Statute grants AEMET partial autonomy on its management and internal administration but it is still dependent on governmental authority through:

**Parent Administration:** The Ministry of Agriculture, Food and Environment

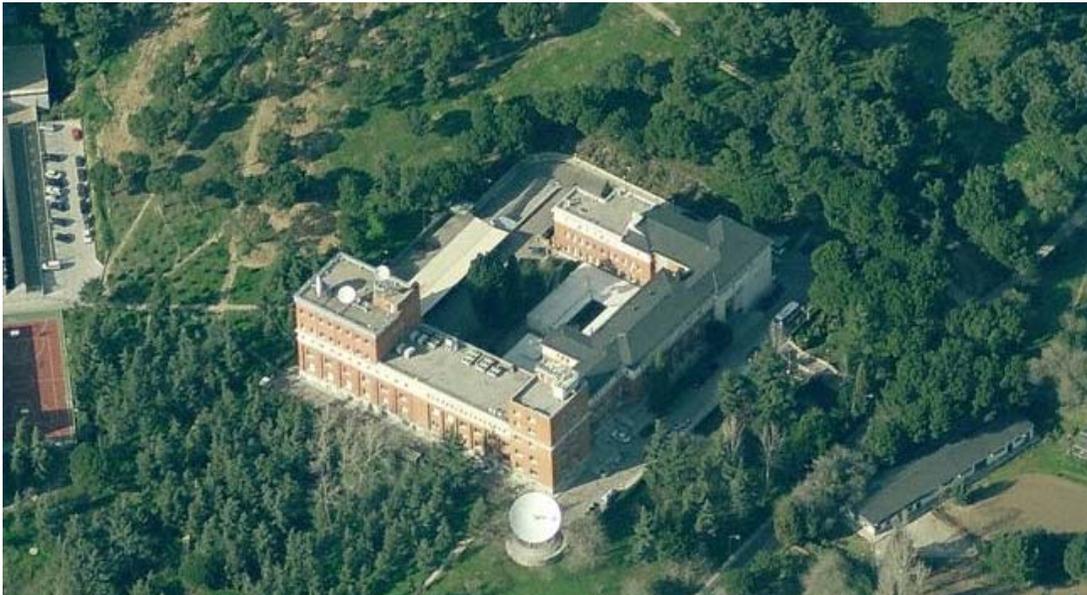
**Steering Council:** most of its members representing governmental departments

**Management contract:** To be signed with the Government every 4 years



## AEMET big numbers

- Staff ~1,400
- Budget of ca. 87 M€ in 2012, 25 M€ out of which for international subscriptions



Headquarters building  
in Madrid

# Weather services



Responsibility area for public weather information

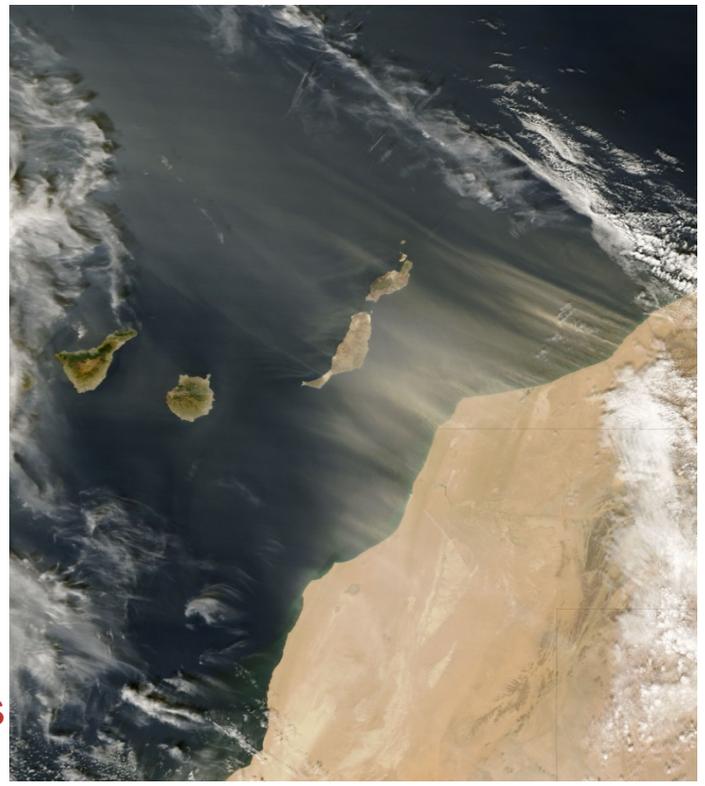
Canary Islands

# A country with a varied range of weather extremes





Tornadoes in Barcelona airport

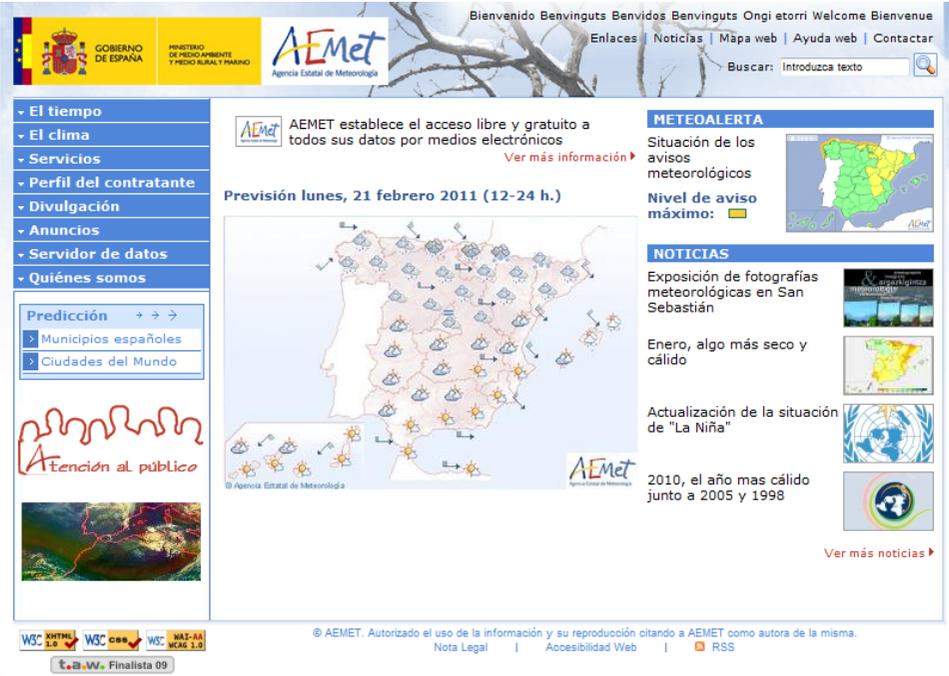


Saharan dust outbreak over the Canary Islands

# External communication

## AEMET webpage

- First webpage of the Spanish Government by number of visits
- Mean number of pages visited = 3.6 million/day



# External communication, furthermore

## Careful and permanent attention to the media

INTERNET | Es la web institucional más visitada

### El acceso a los datos de la Aemet, libre y gratuito en Internet

Servimedia | Madrid  
 Actualizado martes 30/11/2010 15:38 horas

La Agencia Estatal de Meteorología (**Aemet**) facilita el **acceso libre, gratuito y en tiempo real a todos sus datos de observación del tiempo** mediante vía electrónica.

De esta manera, la comunidad investigadora, las empresas, los ciudadanos y sectores profesionales como el de la ganadería y la agricultura disponen ya de datos en tiempo real sobre **temperatura, viento, precipitación, radiación y ozono**.

### elPeriódico.com

ACTUALIDAD | OPINIÓN | GRAN BARCELONA | TECNOLOGÍA | DEPORTES | OCIO Y CULTURA  
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#### EL CAMBIO CLIMÁTICO

### La temperatura aumentará entre 3 y 6 grados en la península Ibérica a finales de siglo

El Gobierno y la Aemet urgen a reducir las emisiones para evitar este trágico escenario  
 Martes, 27 de julio del 2010 - 14:56h  
 PATRICIA MARTÍN / MADRID

La Agencia Estatal de Meteorología (AEMET) prevé un nefasto aumento de las temperaturas en la península Ibérica a finales de este siglo. La agencia acaba de actualizar sus predicciones, con los

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**Alerta por viento y lluvias en Huelva, Cádiz, Málaga, Granada y Jaén**  
 El viento causa destrozos en Jerez  
 EL PAÍS - Sevilla - 16/02/2011  
 Vota ☆☆☆☆☆ | Resultado ★★★★★ 3 votos  
 La Agencia Estatal de Meteorología (Aemet) mantiene activa la alerta amarilla por vientos costeros y fuertes lluvias en las provincias andaluzas de Huelva, Cádiz, Málaga, Granada y Jaén.

#### INFORME DE LA AEMET

### Julio fue dos grados más caluroso de lo normal

EUROPA PRESS. MADRID | 8 Comentarios | 05/08/2010 a las 15:01  
 Aragón se encuentra entre las zonas de España donde se produjeron las mayores anomalías y se registraron las mayores temperaturas, por encima de los 40 grados en el Valle del Ebro.



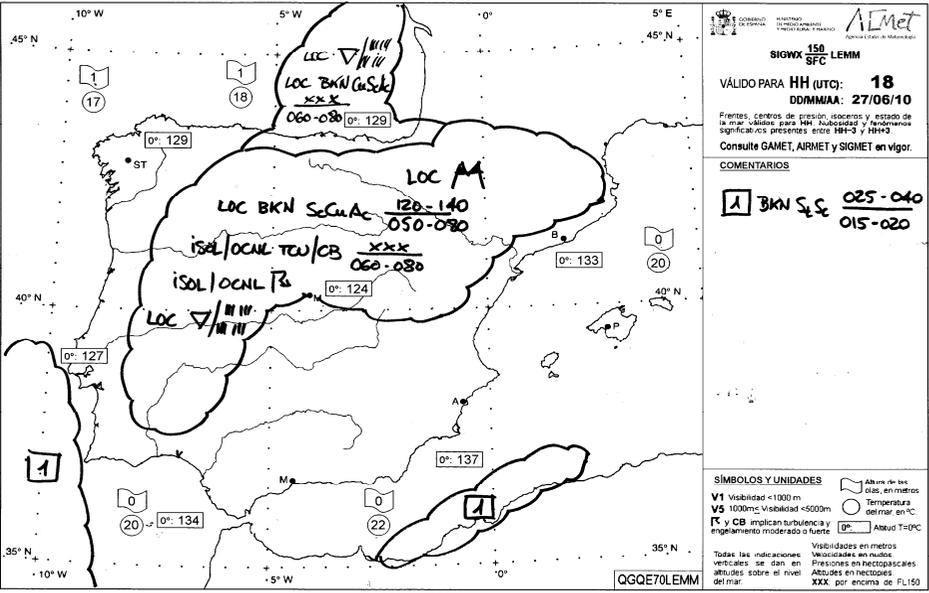


## External communication, furthermore

- Free service of information for radio (in-house)
- 600 to 700 daily broadcasts at a national, regional and council levels.
- Close relationship with the most important TV channels



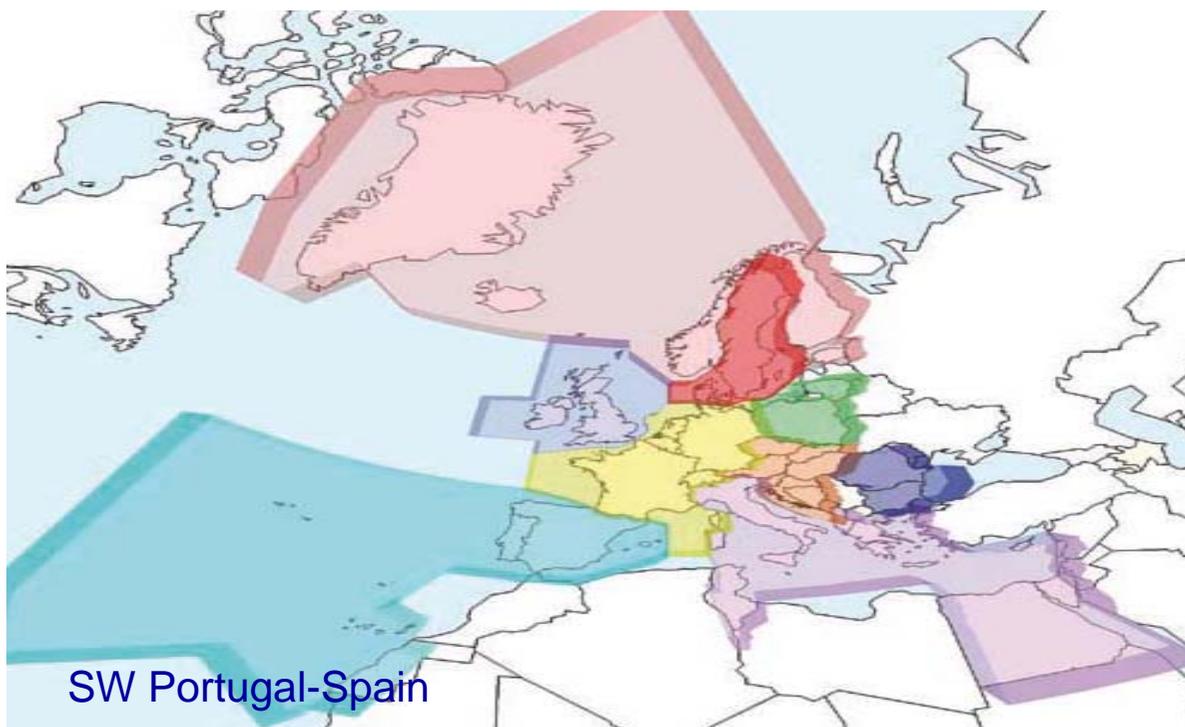
# Services to aviation users



Monitoring and forecasting for the areas of responsibility include information and SIGMET warning on phenomena such as Volcanic ashes or sand and dust storms



## Single european Sky: Flight Area Blocks



AEMET is assuming responsibility in weather support to aviation within the SW Flight area Block, jointly with the Meteorological service of Portugal



# Strengthening R+D+i

## Priority lines:

- Weather and climate modelling
- Analysis of climate evolution and elaboration of climate projections
- Study and characterization of significant weather phenomena and development of techniques and applications in weather forecasting based on numerical models and remote sensing data
- Study, characterization and modelling of atmosphere's chemical composition
- Development of applications for the marine physical environment, hydrology, solar radiation, forest fires, etc





# International Cooperation related to the Sand and Dust activities

# International Cooperation



**South and Central America**



**GEO, GMES, IPCC, etc**

**SMNs  
France,  
Portugal  
Morocco  
.....**



**North and West Africa**

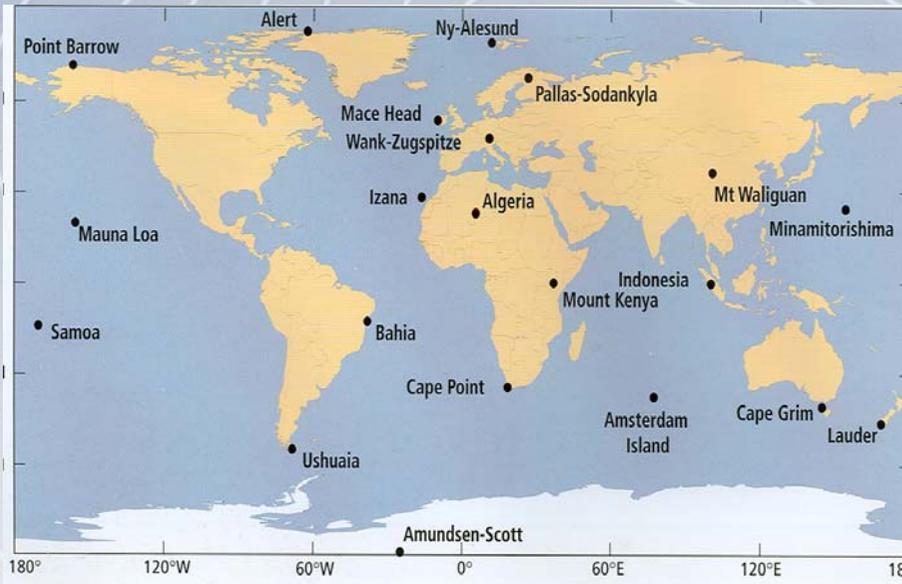


and





and

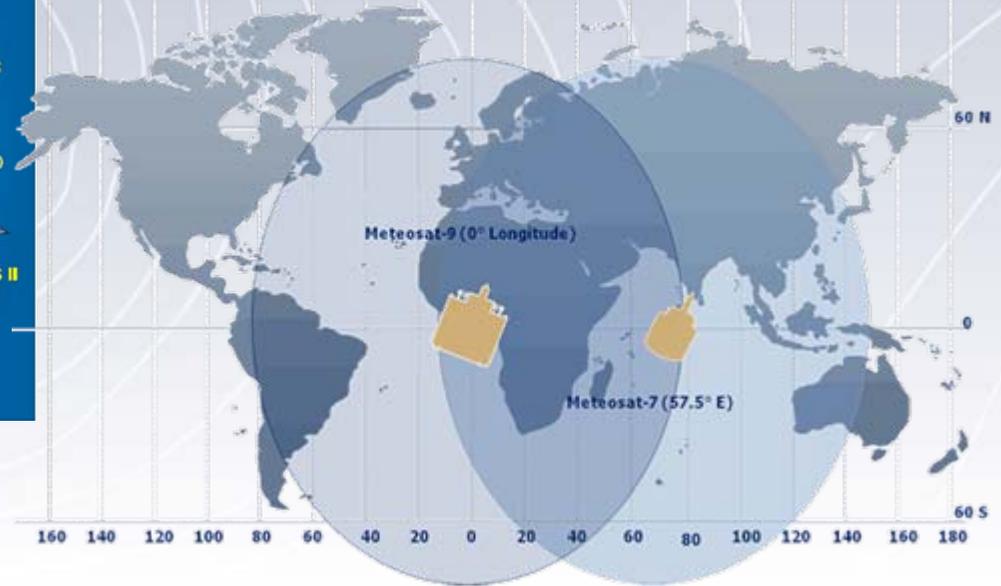


Project GAW Sahara

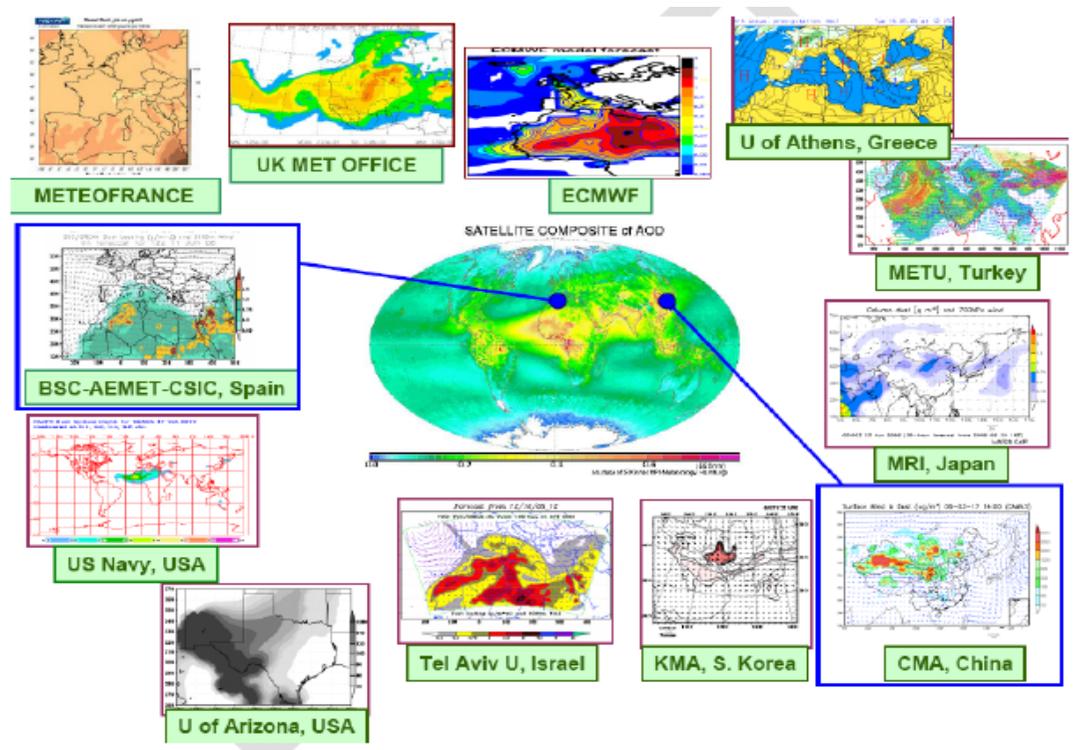
Network of the Global Atmospheric Watch programme (GAW)



and

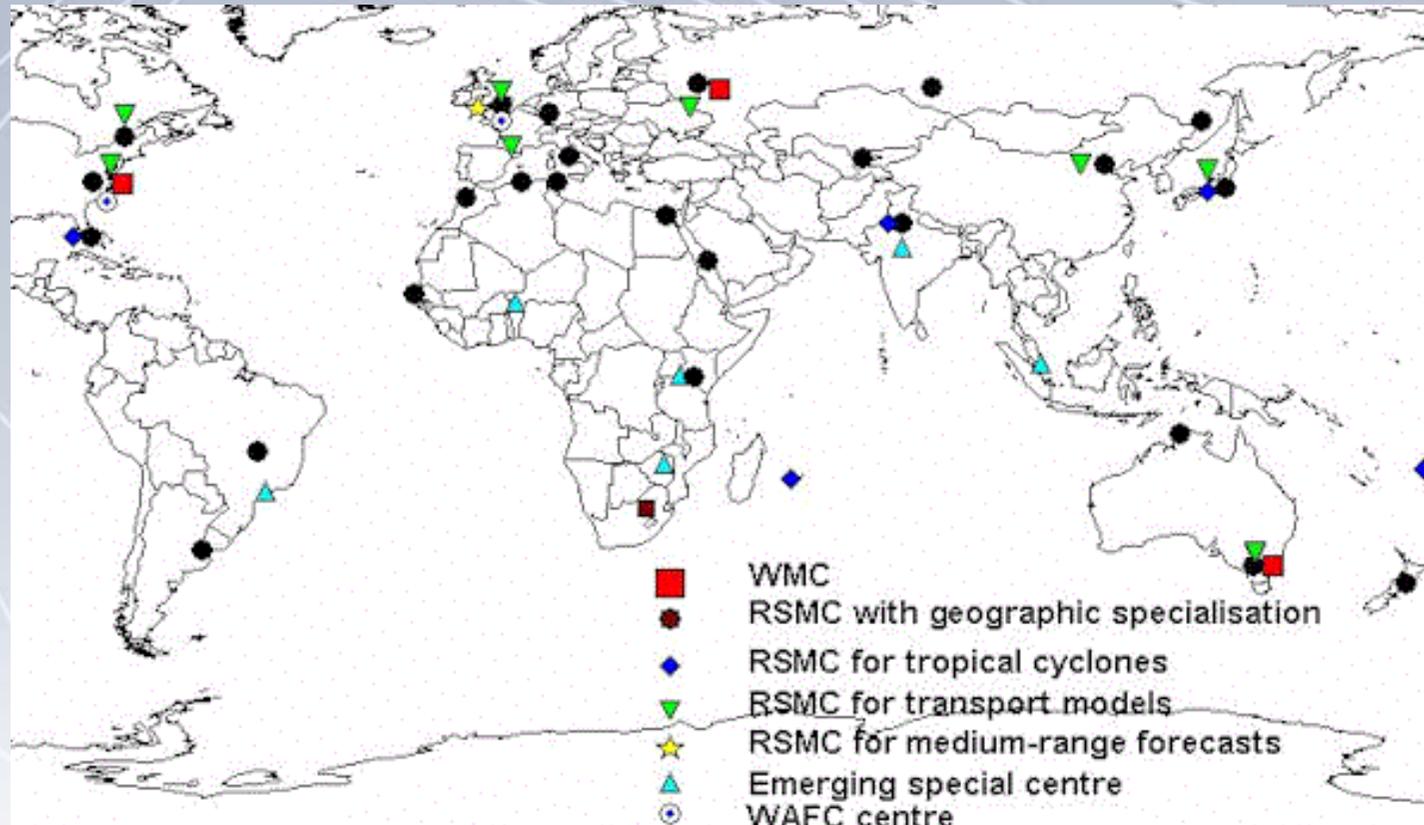


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# World and Regional Meteorological Centres



Regional Specialized Meteorological Centres are centres supported by one or more countries with specific missions related to weather phenomena



## **Barcelona Centre as a Regional Specialized Meteorological Centre**

At the LX meeting of WMO's Executive Council, in 2008, the Barcelona SDS-WAS Centre was recognized as the centre supporting the SDS-WAS node for Northern Africa, Middle East and Europe.

At the 14th session of the Commission for Basic System (CBS), March 2009, the Commission requested to review the draft SDS-WAS Implementation Plan “

At its 15th session in September 2012 the CBS defined the mandatory function of the RSMCs with activity specialization in Atmospheric Sand and Dust storm Forecasts (RSMC-ASDF) include creating, developing and maintaining a web portal to display forecast products as well as additional information, including a system to collect users' feedback. The goal is to provide guidance on the risk of sand and dust storm occurrence within an identified geographical domain of responsibility, and help the NMHSs concerned to improve their warning services to the national authorities.

**The 15th CBS also recommended the designation of the Barcelona Centre as a RSMC for the provision of Sand and Dust storm forecasts**

**Thank you !!!**