

Examples of new maritime services

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First BreTel Workshop

May 31 - June 1st 2012

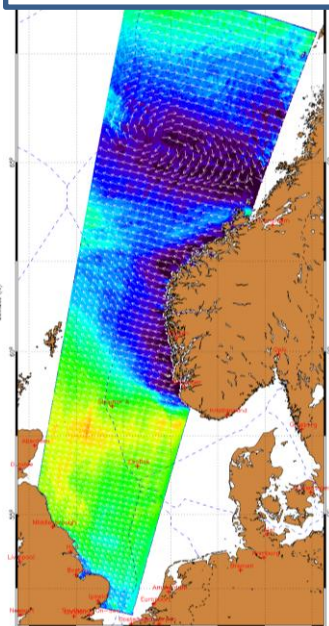
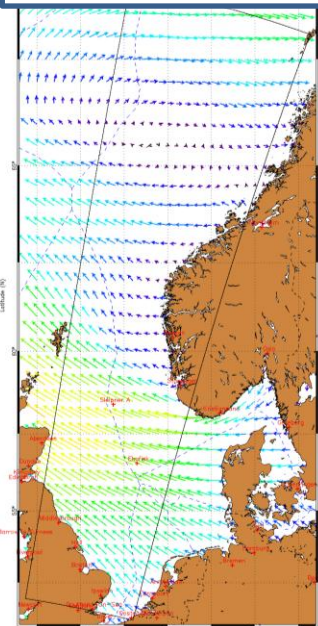
Palais du Grand Large, Saint-Malo, FRANCE

only instruments can provide synoptic view of sea surface wind fields at such high spatial resolution

seasonal and regional statistics on the wind speed and direction can be derived at any point on the surface to support wind resource assessment

NWP model

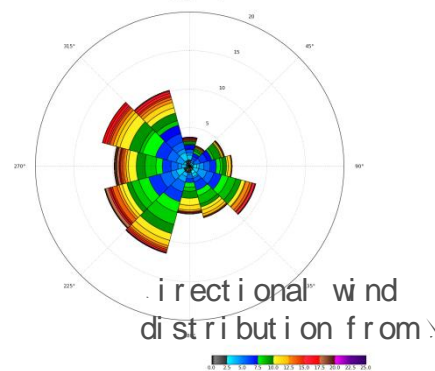
SAR wind



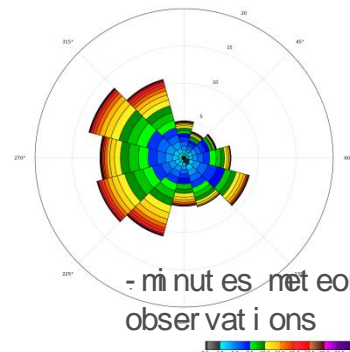
ECMWF 1/2 deg. Wind speed (m/s) 2010-01-12 12:00:00

Wind Speed (m/s)

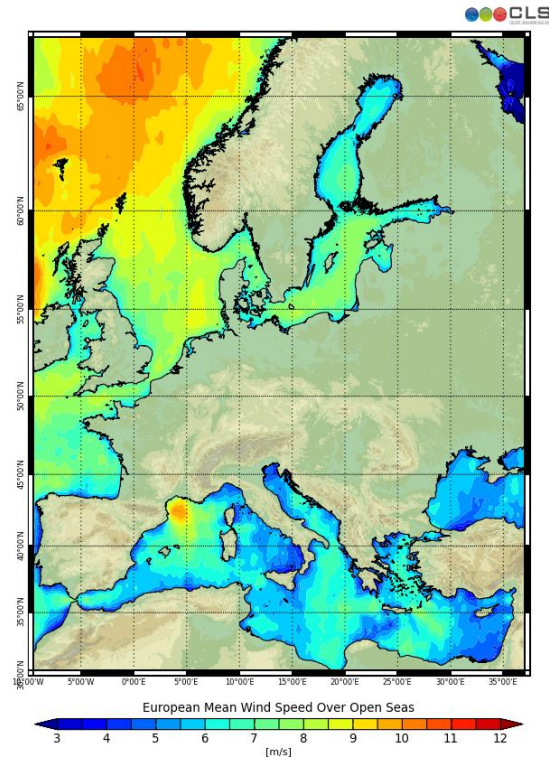
directional wind distribution from



directional wind distribution from



numerical meteorological observations



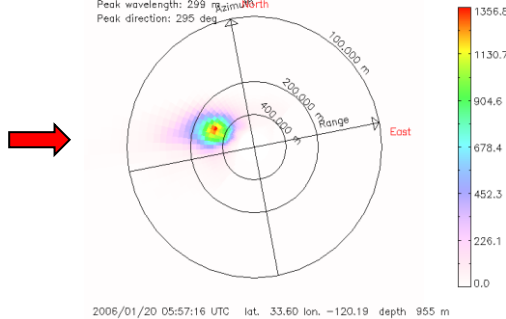
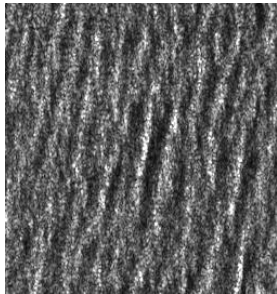
European Mean Wind Speed Over Open Seas

3 4 5 6 7 8 9 10 11 12 [m/s]

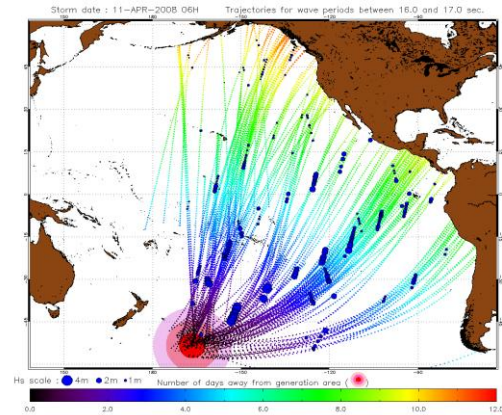
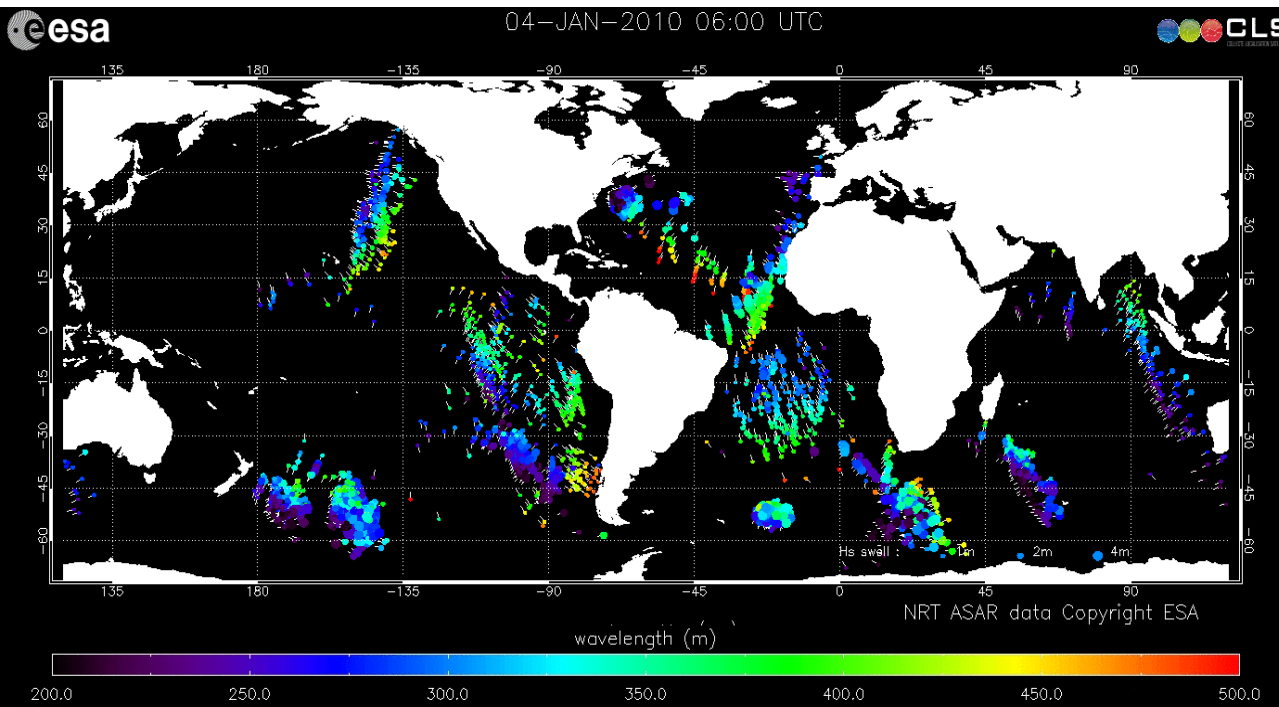
European mean open sea surface wind speed . km resolution

Fireworks – A Global picture of dangerous swells

The SAR mode provides a unique global picture of sea state measurements:



- to support assimilation in prediction models
- allowing to derive well climatology
 - for **swell energy resources**,
 - for the identification of **cross seas areas**



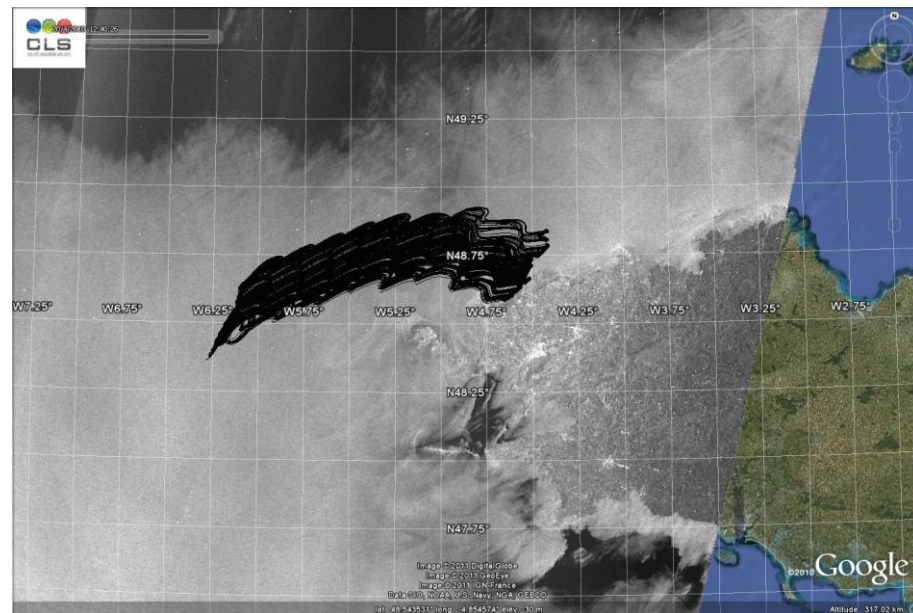
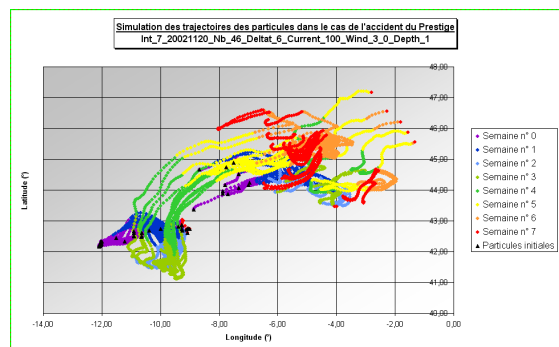
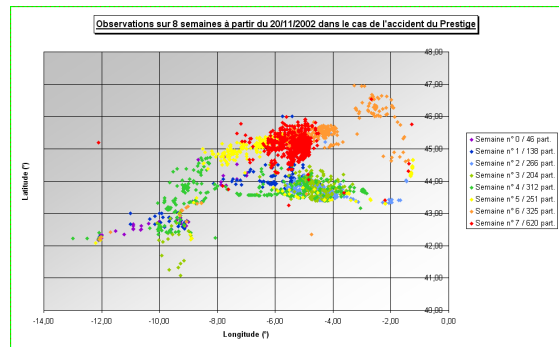
Most energetic swell systems generated by storms can be tracked and predicted to raise early warning in dangerous situations

Early Warning System for Oil Spill Threats to Wildlife



evolution of the operational service
 is now developing an innovative demonstration prototype for coastal risk assessment and natural reserve conservation

In the event of oil spill drifting in the direction of a natural reserve, an alert should be raised and sent to the appropriate end-users.



validation of the oil drift model: the Prestige case, comparison with in situ data (ottom) model

forecast of oil spill drift from a satellite-based oil detection

Chronicle / Kurt Rogers