



## The new Euskalmet coastal maritime warning system.

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National Meteorological Services (NMS) weather warning systems began like a simple system based on several meteorological fixed thresholds based on scientific-technical aspects with focus favorable for forecasters and not necessarily near end-users. Later on, in the Euskalmet case, as in others NMS migrates towards a more sophisticated system based on traffic-lights color concept, this impact-based approach, in some sense, has more flexible criteria and focus on civil protection and users needs.

In Euskalmet case, the coastal-maritime warnings migrate from pure significant wave height (Hs) threshold, to traffic-light color thresholds considering always significant wave high at coast (0-2 miles). Today, three different aspects are included in the coastal-maritime risk warning system for Basque Country, focusing on main potential severe events that effect Basque Country coastal area activities.

- “Galerna” risk, a sudden wind reversal that can affect littoral activities, especially for beach and near-coast navigation and recreational activities.
- “Navigation“ risk, related with severe sea conditions for 0-2 miles, affecting different navigation activities.
- “coastal impact” risk, related with adverse wave characteristics and spring tides that promote waves over flooding and different impact in littoral areas.

In this work we present the main characteristics of the Euskalmet maritime-coastal risk warning system, focusing on the last update of the system, where a clear differentiation on warnings are done on one hand oriented to sea conditions mainly for navigation in first two miles, and on the other hand oriented to coastal impact. We also present the content of warning bulletin for maritime-coastal risk situation and other communication products and strategies used in coastal-maritime severe episodes.