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Safety: relation with communication and use of weather information and forecast.

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Dictionaries define Safety as the condition of being safe; freedom from danger, risk, or injury. Weather elements pose a threat to life, property and the environment when they are severely intense or persist for abnormal periods of time. Hazardous and extreme weather exist on widely varying temporal and spatial scales.

Therefore the application of our knowledge about weather and climate and the ability to forecast extreme phenomena and provide appropriate warnings are safety-production factors and such is one of the main interests of meteorology and weather and climate services. Even though studies on predictability, validation, probabilistic information, decision schemes etc. are increasingly available, some aspects dealing with the utility of weather information for increasing safety have not been sufficiently addressed. This paper focuses on meta-aspects of the communication and use of weather information such as interpretation, integration with emergency responses, and balance between predictability, information accuracy and decision-taking from a scientific point of view.

As an example of those safety issues they are applied to the current situation in Spain, a European country subject to quite diverse threats connected with weather phenomena. Comparison is made between the information provided by AEMET (the National Meteorological Service) to a highly professional user such as aviation with that on mountain weather provided to a majority of non-professional users mainly practicing recreation activities. The content of the information and transmission codes in each case are addressed for discussion of the aspects mentioned above. Other examples are mentioned and the conclusions suggest a number of possible measures for increasing safety through improvements in production, communication and use of weather information.