



Reconstruction of historical coastal storms in the Spanish coasts of the Gulf of Cadiz, 1929-2005

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A reconstruction of a 76 years long climatological series of historical winter coastal storms in the Spanish side of the Gulf of Cadiz has been produced from information extracted from regional and local Spanish newspapers. This series includes all the storms reaching the coast from the Atlantic sector that have been described during the winter season, from October to March, between 1929 and 2005. The validation of the historical storm series has been done by comparing it with storms series identified from quasi-observational data, using different wave heights as thresholds to decide what is to be considered as a coastal storm. A mean value of 2.6 news per year about coastal storms were published in the press. This value corresponds to waves 3.6 m high or higher and to the prevailing winds from a direction ranging between SSW and WNW. A long term positive trend has been detected for the complete storm series but no significant trend is detected when the analysis is performed only for the instrumental period. It is suggested that this difference might be associated with the impact of the North Atlantic Oscillation over the occurrence of storms in this area.