



## Strong event analysis measured by "ALIZE" bouys in Cotonou area

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### Abstract

Benin, like most African countries, is exposed to disasters due to climate risks. This includes strong winds, late and intense rains, floods and episodic ocean events including extreme swells. The latter accentuate the phenomenon of erosion and result in material damage along the coast. In order to limit damage and destruction caused by climatic variations and extreme events, the Climate Information Strengthening Project and the Early Warning System in Africa (SAP Benin) were set up in 2013. It is in the framework of this project that in December 2015, the IRHOB (Institute of Fisheries and Oceanic Research of Benin) received an oceanographic buoy (buoy Alizée) and installed it about 6km offshore of the port of Cotonou. The data of the buoy are sent by radio waves to the premises of the IRHOB and are analyzed in order to characterize the temporal variability of the wave, wind and current parameters. The analysis of the wave parameters allowed us to give a statistical assessment of the state of the sea in the region and to identify the strong events during the period from December 2015 to October 2016. These combined with the high tides have led to marine flooding.

**Keywords:** wave, tidal current, statistics, early warning system.



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