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ROA's Real time GNSS network and its viability in Alertes-RIM system

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San Fernando Naval Observatory deployed a Geodetic Continuous GNSS network from the mid nineties. The most of the sites are located in the South of the Iberian Peninsula. Nowadays time series of several years for the most of these sites are available. This is the most risky region in the peninsula due to the confrontation of two tectonic plates, i.e. Euro-Asiatic and African Plates. The former confrontation generated several faults, origin of important earthquakes (e.g. the big earthquake of Lisbon in 1775, whose epicenter was located in the Azores-Gibraltar fault, where Euro-Asiatic and African plates collide). In order to prevent higher aftermaths, the San Fernando Naval Observatory with the University of Cádiz and the University Complutense of Madrid, started to develop an early warning system, based on the study of the P waves, with the result of a prototype known as Alertes system. In early 2014 an improvement of the Alertes-RIM system began, introducing the study of viability of using high frequency geodetic GNSS signals in real time and others, looking for an improvement in the time of response in the previous instants of an earthquake. This project is still on process of development.