



## **The French Tsunami warning center for the Mediterranean and North-East Atlantic (CENTre d'ALerte aux Tsunamis, CENALT)**

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The CENALT (CENTre d'Alerte aux Tsunamis) is responsible for the French NTWC (National Tsunami Warning Center). This center was established through a project that was requested by the French Ministry of Interior and the Ministry of Sustainable Development. It is implemented by the Commissariat   l' nergie atomique et aux  nergies alternatives (CEA), the French Hydrographic and Oceanographic Service (SHOM) and the Centre National de la Recherche Scientifique (CNRS), and is based in Bruy res-le-Ch tel (30 km from Paris).

This center is based on three main components: seismic network data, sea level network data, dissemination system and processing and analyzing softwares and is operating on a 24/7 basis.

The CENALT has established scientific cooperation with 8 institutions and implemented and funded private leased lines to exchange data with institutions from 5 different European countries (Germany, Italy, Portugal, Spain, Tunisia). The seismic data are processed with the Seiscomp 3 software.

SHOM is working on making all French tide-gauge stations operated and available in real-time in 2012, and they installed 5 new tide gage stations. The tide gage data will be processed with a customized version of the Guitar (Gempa) software allowing the detection of tsunami signals, complemented by other softwares developed by the CEA.

Historical tsunami databases (sources and observations) and earthquake databases, mostly based on available international databases, have been synthesized by CEA to produce information maps in real time, used to guide operators of permanence. Precomputed tsunami scenarios are implemented to build in real time maps of the highest tsunami impact expected in deep water. Along with an optimized tsunami modeling tool, these softwares help to define the areas where the tsunami may be observed and cause damage.

The CENALT has been operating since early January 2012 as a pre-operational service and will be fully operational in July 2012. It is also ready to act as Candidate Watch Provider covering Western Mediterranean by July 2012.