



## **Five years of operation and challenges of the Tsunami warning system in the Western Mediterranean and North-eastern Atlantic**

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The French Tsunami warning center (CENALT) has been in operation five years since 2012. It is contributing as Tsunami Service Provider (TSP) to the North-eastern Atlantic and Mediterranean and connected seas (NEAM) tsunami warning and mitigation system coordinated by the Intergovernmental oceanographic commission of the United Nations Educational, Scientific and Cultural Organization (Unesco/IOC), and benefits from data exchange with several foreign institutes. This centre provides member states of the NEAM region and French civil protection authorities with relevant messages for assessing potential tsunami warning and threat when an earthquake has occurred in the NEAM region.

To achieve its objectives, CENALT has developed a series of innovative techniques based on recent research results in seismology for early tsunami warning, monitoring of sea level variations and detection capability, and effective numerical computation of ongoing tsunamis. Very recent methods based on adapted Greens law are currently being implemented to provide accurate tsunami threat assessment. CENALT is also in charge of organizing regular exercises with the civil protection authorities and contributing to the International exercises NEAMWave organized by IOC in 2012, 2014 and 2017