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OBS FOMAR POOL: Gibraltar and ALERTES-RIM experiments.

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The Eurasian-African plate boundary crosses the called "Ibero-Maghrebian" region from the San Vicente Cape (SW Portugal) to Tunisia including the south Iberia, Alboran Sea, and northern of Morocco and Algeria. The low convergence rate at this plate boundary produces a continuous moderate seismic activity of low magnitude and shallow depth, where the occurrence of large earthquakes is separated by long time intervals, even with associated tsunamis, like the 1755 Lisbon earthquake. In this region, there are also intermediate and very deep earthquakes.

Due to the fact that part of the seismic activity is located at marine areas, and also because of the poor geographic azimuthal coverage at some zones provided by the land stations (specially in the SW of the San Vicente Cape area), Royal Spanish Navy Observatory (ROA) acquired three “LOSTERN” broad band (CMG-40T sensors) OBS, manufactured by KUM (Kiel, Germany), and, more recently (2014), the Complutense University of Madrid (UCM) acquired another three with Trillium 120 sensors. All of them conform the OBS FOMAR pool.

Since January to November 2014, the FOMAR pool has been deployed along the Gibraltar strait (Gibraltar experiment), in collaboration with SECEGSA (Spanish society to study the fix communication through the Gibraltar Strait), to study the local microseismicity in the Gibraltar strait area.

Also, since September 2015, the FOMAR pool has been deployed for 8 months in SW of the San Vicente Cape with an hexagonal array configuration as a part of ALERTES-RIM project.

In this work the some preliminary results of the Gibraltar strait and ALERTES-RIM OBS experiment are shown.