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New OBS's deployments in South Spain: FOMAR network and ALBO Observatory.

Antonio Pazos (1), Jose Martín Davila (1), Elisa Buforn (2), Winfried Hanka (3), Agustin Udias (2), Mourad Benzzeghoud (4), and Mimoun Harnafi (5)

(1) Royal Naval Observatory, Geophysical Department, San Fernando, Cadiz, Spain (pazos@roa.es, 0034-956-599366), (2) Dpto. Física de la Tierra, Universidad Complutense de Madrid (UCM), 28040 Madrid, Spain. ebufornp@fis.ucm.es., (3) GeoforschungsZentrum (GFZ), Potsdam, Germany., (4) Physics Department, Universidade de Evora (UEVORA), Portugal., (5) Institut Scientifique (ISRABAT), Université Mohammed V-Agdal, Rabat, Morocco

The plate boundary between Eurasia and Africa plates crosses the called "Ibero-Maghrebian" region from the San Vicente Cape (SW Portugal) to Tunisia including the South of Iberia, Alboran Sea, and northern Morocco and Algeria. In this area, the convergence, with a low rate, is accommodated over a wide and diffuse deformation zone, characterized by a significant and widespread moderate seismic activity [Buforn et al., 1995], and the occurrence of large earthquakes is separated by long time intervals.

Since more than a hundred years ago, the San Fernando Naval Observatory (ROA), in collaboration with other Institutes, has deployed different geophysical and geodetic equipment in the Southern Spain – North-western Africa area in order to study this broad deformation zone. Currently a Broad Band seismic net (Western Mediterranean, WM net) is deployed in collaboration with other institutions (UCM, GFZ, UEVO, ISRABAT) around the Gulf of Cádiz and the Alboran sea, with stations in the South of Iberia and in North Africa (both at Spanish places and Morocco).

To complement the available data, ROA has developed recently two initiatives to improved the WM network in the Gulf of Cadiz and the Alboran Sea. A temporary long term OBS net is being deployed in both areas (FOMAR net) for three years with six /twelve months maintenances. On other hand, a new submarine and on-land geophysical observatory in the Alboran island (ALBO Observatory, in mid Alboran Sea) was deployed in October 2009, where a permanent GPS, a meteorological station have been installed on land and a permanent submarine observatory in 50 meters depth was also deployed (with a broad band seismic sensor, a 3 C accelerometer and a DPG).

This work shows the present status and the future plans of these networks.