

SD1/P17/ID117 - IMPROVEMENT OF THE REAL-TIME CATALAN SEISMIC NETWORK (NE SPAIN)

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Since 1999 the objectives of the Seismic Network of the *Institut Geològic de Catalunya* (IGC) are, on the one hand, providing rapid information for Civil Defence Services and society in general and, on the other hand, to obtain systematically high quality data for the scientific community. In 2010, 16 stations are operative: 15 broad-band on land and one broad band OBS. All the network stations are based on VSAT platforms that are transmitting continuously almost real time seismic data via satellite to the IGC hub. Once at seismic data reception centre data are continuously archived. A real time automatic processing system has been implemented using Earthworm and specific developed tools. When an event is detected and located, an alert system sends a warning message to a distribution list. This information is disseminated in different ways (via web, e-mail, and fax). For events with magnitude greater than 4.5 a seismic risk scenario based on vulnerability assessment methodologies using GIS techniques is also included. The flexibility and modularity of the Catalan Seismic Network allow data exchange between different institutions (ORFEUS, *Instituto Geográfico Nacional* (IGN), *Bureau de Recherches Géologiques et Minières* (BRGM), etc.) and guarantee the interoperability between the different networks.

Three accelerometric stations from the BRGM situated in the South of France were incorporated to the VSAT network in 2007 and in 2008 a real time exchange of data was initiated with the IGN. In the frame of SISPYR Project (described in session OS3) the exchange of real time stations is increasing.

In consequence the number of stations used in the automatic and manual routines of seismic location at the IGC is increased with 5 stations from IGN, 3 stations from BRGM and 2 stations from the *Observatoire Midi Pyrénées* (OMP).