

T4.1-P26. The all three-component broadband seismic array ARCES/PS28

The ARCES seismic array is currently in a major recapitalization/modernization phase. In a first stage in September 2014 NORSAR replaced all essential acquisition and recording equipment. Each of the 25 sites is now instrumented with a three-component broadband seismometer (Guralp CMG-3T hybrid) and a Guralp EAM digitizer. The central site has a very-broadband instrument (360s -50Hz), whereas the other sites have sensors with a bandwidth from 120s - 50Hz. In the central recording facility we replaced the central timing system, the fibre optic modems for intra-array communication and the acquisition computers. We also established two new communication solutions (broadband over satellite and GSM) additional to the existing VSAT communication in order to accommodate higher data transmission volumes. During the upgrade we have been operating the old and new system as far as possible in parallel and accomplished a smooth transmission without any downtime of the array. It took a total of 3 days (18.9. - 20.9.2014) from the installation of the first new instrument to the shutdown of the last old instrument. The ARCES array is now the first fully 3C IMS seismic array, and we have implemented the processing of the horizontal traces into our automatic routines.

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