

## **Modernized Large-Aperture Broadband Array NOA, Norway**

The large-aperture seismic array NOA had a major instrumental upgrade in 1994 and has been operational with the very same configuration until recently. Over time the instruments became obsolete and spare parts were not longer available. NOA consists of 42 sites grouped into seven subarrays covering a total aperture of about 60 km. It had been equipped with 7 broadband 3C-sensors (one in each subarray) and 42 short-period instruments. In 2008 NORSAR initiated the modernization of NOA. In order to utilize an instrument with the same response for all sites and to optimize the broadband monitoring capabilities of the array, NORSAR specified a hybrid instrument response for the seismometers, which were engineered by Guralp. The upgrade of the NOA array was completed in July 2012 and in the present configuration NOA has seven 3C sensors (360s - 50Hz) and 32 vertical borehole sensors (120s - 50Hz), with identical amplitude responses in the overlapping frequency band. We will report on the characteristics and the capabilities of the new all-broadband array NOA.

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