

Truth and Detection Threshold from WWII Naval Clean-Up in Denmark

The sea bed below the Danish territorial waters is still littered with unexploded mines from World War II. As the mines still pose a potential threat to fishery and other marine activities, the Danish Navy searches for the mines and destroy them by detonation, where they are found. The largest mines destroyed in 2012 are equivalent to 800 kg TNT each. The Geological Survey receives notifications from the navy regarding the large detonations. This includes information about position, detonation time and the estimated amount of explosives. Some of the blasts are clearly registered not only on the Danish seismographs, but also on the large seismograph arrays in Norway, Sweden, and Finland. The ground truth information enables us to assess the quality of our earthquake catalogue in all parts of the country. A systematic study of the explosions also results in a more detailed understanding of the detection threshold. Furthermore the study will shed light on the sensitivity of the network to various seismograph outages.

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