

AECOM ARUP



BGA Evening Meeting

Wednesday 20th September 2017 at 18:00

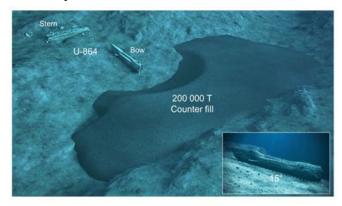
THOMAS TELFORD THEATRE, INSTITUTION OF CIVIL ENGINEERS, ONE GREAT GEORGE STREET, WESTMINSTER, LONDON SW1P 3AA

Mercury Filled U-Boat wreck stabilisation

Per Magnus Sparrevik

Norwegian Geotechnical Institute (NGI)

Summary:



1st counter fill securing the slope where the U-864 bow is resting (illustration: Norwegian

Coastal Administration)

Per Sparrevik will present the historical background, environmental and geotechnical conditions faced by the Norwegian Coastal Administration undertaking challenging remediation work to protect the marine environment from the toxic legacy of U-864, a German submarine sunk by the British Navy outside the west coast of Norway near the end of the Second World War.

As the sloping seabed at the wreck site was unstable, the first step was to install a large counter fill to prevent sliding of the heavily contaminated sediments. The large counter fill was successfully installed in June 2016 at the foot of the unstable slope where the wreck is resting. A rigorous monitoring program of both

environmental and geotechnical parameters indicated that no further spreading of contaminated sediments occurred during the construction of the counter fill.

Initial piezometer readings show that the build-up of excess pore pressures beneath the counter fill during construction matched the predictions very well. The ongoing autonomous recordings of pore pressure and settlement data are vital to verify the rate of consolidation and determine when the slope is sufficiently stable to allow for further counter filling and final capping of the wreck and contaminated sediments.

Biography:

Per Sparrevik, Technical Adviser at NGI (MSc. 1985) has more than 28 years' experience from various offshore and subsea projects. His expert skills are especially related to monitoring solutions for real-time operational control and long term monitoring of offshore structures and foundations. He has a broad professional background combined with extensive field experience that covers both geotechnical and monitoring applications as well as practical aspects related to marine and subsea operations.



Please join us afterwards in the ICE Café Bar for drinks sponsored by AECOM and Arup

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