



Q&A Webinar UXO Risk assessment HKW

October 8, 2020

Questions: from the audience

Answers given by: Bart Moonen (REASeuro)

In the answers we refer to the report UXO Risk Assessment. The report is published on

<https://offshorewind.rvo.nl/obstructions>

Question: How dangerous are WWI mines today and what threat do they pose to OWF activities?

Answer: WWI contact mines are rarely encountered but still pose a threat. It depends on what type of fuze they use which cannot always be determined. However it is sure that especially piling operations can detonate a WW1 contact mine.

Question: Is there a (online) reference you can share on this?

Answer: Not in at this very moment but the explosives contained in these contact mines have deteriorated over time. Studies have been conducted to cover the sensitivity of the explosives. Piling delivers enough force to set off these explosives without even striking the fuze. The fuzes themselves can be even more sensitive than the explosive itself. If you want to know more about this, please send me your question on b.moonen@reaseuro.com I will consult with our senior UXO experts which studies are most comprehensive and if they are available online.

Question: The calculation on the 250lbs bomb posing a threat is that also something that can be shared, because with the water depth on HKW, the 250 lbs bomb seem a bit small?

Answer: Yes REASeuro has this data on file. It might seem small but the 250 lbs bomb creates a shock wave and a bubble that is enough to damage vessels on the surface. By comparison, a regular artillery shell has about 3-5 kg of explosives. A 250 lbs bomb carries around 30-40 kg, depending on make and model.

Question: Is it common practice that, after the removal of UXO by contractors (phase 4), the results are being fed back to RVO to validate their UXO mitigation strategy? And with results i mean: type of UXO found, and at what x,y,z location (can be on the seafloor or buried several meters)? And maybe even state or photos?

Answer: If UXO are encountered and removed during the project, information regarding the type, caliber, state and location will be noted by the EOD and Dutch Coast Guard. This information is stored in a database, which can be consulted by RVO or REASeuro and can be used to adjust the mitigation strategy during or after a project.