Advanced geophysical classification for deeply buried ordnance in urban environments.

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Abstract

World World II Allied bombing raids have left Germany with an ongoing UXO problem. Geophysical survey for UXO is routinely conducted to ensure public safety and to allow development projects to proceed with reduced risk. Excavation and remediation activities can cost millions of euros in some instances and can cause extensive disruption to the public. Advanced Geophysical Classification (AGC) is a powerful tool that can reduce unnecessary excavation of scrap metal by positively identifying whether buried metal is potentially a UXO and needs to be excavated.

In this presentation we discuss the geophysical technology and deployment of a time-domain electromagnetics borehole system used for AGC. We briefly discuss the survey design and data analysis considerations for the application of this system. We then discuss recent work using borehole AGC to identify and recover two deeply buried and hazardous ordnance items at a challenging project site in Oranienburg, Germany.