**UXO CLEARANCE**

**SEATERRA** utilizes different technologies for the re-location, sediment clearance and identification of suspicious objects. Our expert services of handling underwater UXO (UneXploded Ordnance) and in particular the detonation of large UXO are based on extensive experiences gained on numerous offshore projects.

SeaTerra has successfully carried out professional UXO clearance operations in a cost-effective and timely manner enabling our Clients a safe installation of foundations, cables, pipelines without any UXO related delays.

**RE-LOCALIZATION**

SeaTerra developed and deploys different methods in order to re-localize suspicious objects in a safe and accurate manner. Their use in combination with sophisticated technology results in maximum efficiency:

- 3-axis Gradiometer (TFG)
- Total Field Magnetometer (G882)
- TFEM systems (penetration depth 2.5m)*
- TSS440 (penetration depth 1.5m)
- Sub-Bottom Profiler
- Video Cameras incl. LED Lightning
- Imaging Sonar
- Ultra-Short-Base-Line Positioning (USBL)

*TFEM: Tri-axis Fluxgate Time Domain Electro-Magnetic

**CLEARANCE**

The removal of sediment coverage is necessary in order to identify a target. The following toolbox is used by SeaTerra:

- SUV Crawler
- Remotely Operated Airlift (ROAL)
- WROV, incl. Manipulator and Dredge Pump
- ROV, incl. Manipulator, Water-Jet and Airlift
- UXO Divers

**DATA RECORDING**

All sensor information is displayed and recorded in a central control unit. All data is checked by geophysicists, Explosive Ordnance Disposal (EOD) experts, divers and ROV pilots.

**IDENTIFICATION**

Sensor information, video footage and/or visual inspections by divers are the basis for a safe identification of items. The final clearance declaration of a target is done by a certified EOD Expert according to the applicable Explosive Acts and Regulations, in Germany pursuant to the Sprengstoffgesetz.

**DISPOSAL – DETONATION**

UXO safe to be transported are recovered by ROV or EOD diver for disposal on land. SeaTerra has the expertise of 65 large scale UXO detonations (bombs, mines, torpedoes), incl. the implementation of environmental protection measures (use of big bubble curtain, seal scaring buoys, whale pingers).

**CLEARANCE CERTIFICATE**

SeaTerra as an accredited UXO clearance company can issue UXO Clearance Certificates, in Germany according to the Sprengstoffgesetz and regional regulations.

www.seaterra.de

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