Magnetometers Help Police And Utilities

Today, there is a pressing need to accurately map the location of these lines to ensure they are not damaged by dredging, dropped anchors, and marine construction operations. With a large number of these pipelines decades old, there is also an urgent need to examine their condition and perform a thorough inspection. A magnetometer, a super sensitive metal detector that can locate iron and steel objects at ranges in the hundreds of feet, could be solving the problem.

Oil and utility companies have been laying pipelines under the ocean for many years. Before the introduction of GPS, marking their position was a difficult and tedious task. Over time the position and burial depth of a pipeline was often changed due to storms and other environmental forces.

When Bay County Utility Services in Panama City, Florida needed to locate an old water line that runs under Grand Lagoon, it turned to commercial diving company HT Marine Services for assistance. Equipped with a JW Fisher Diver Mag 1 hand-held magnetometer, HT's divers entered the area where they suspected the pipeline was buried under several feet of mud and silt. They began working a grid pattern and soon the mag began to indicate the presence of a significant steel mass. Divers were alerted to presence of a target by strong readings on the instrument's visual and audio alarms.

With the help of the magnetometer the team was able to quickly locate and track the pipeline over several hundred feet. Once the exact position of the pipeline was known, the burial depth could easily be determined.

Another company successfully using the magnetometer to find pipelines is Algosaibi Diving in Saudi Arabia. The company is regularly contracted to locate and track oil pipelines in the Persian Gulf. Operations supervisor Ray Genese reports the Diver Mag is invaluable in these operations.

In addition to their use in the commercial diving industry, mags have also become popular with law enforcement agencies and military units. The Underwater Crime Scene Investigation team at Florida State University has developed a unique training opportunity for public safety dive teams. Their program provides advanced training in crime scene investigation for aquatic environments. The focus is on operational techniques and protocols available to the underwater investigator. According to training director Banyon Pelham, students learn how to use a variety of high tech tools including Fishers Diver Mag and the Pulse 8X metal detectors to locate weapons and explosive devices. The US Navy has also discovered the benefits of using these detectors in their search operations. At the Facilities Engineering Service Center in California, navy divers are using the Diver Mag and Pulse 8X to track pipelines, locate moorings and anchor chains, and find lost tools.