Long-range Ultra-high-resolution Sidescan Sonar for Mine-like Objects

EdgeTech, USA, has introduced the 2205 AUV-based sonar system. The Teledyne Gavia AUVs delivered recently to the Polish Ministry of Defence for mine countermeasures (MCMs) were equipped with EdgeTech 600/1600kHz simultaneous dual-frequency sidescan sonar payloads. The very-high-frequency EdgeTech systems were selected for their long-range detection and ultra-high-resolution classification capability for MLOs (mine-like objects).

The EdgeTech 2205 classification frequency of 1600kHz is capable of producing near-photographic-quality images of targets making MLO target classification very easy as shown on the MLO sonar image with this article. Other 2205 attributes that contributed to the selection of the EdgeTech systems were low power, small electronics' volume and compact transducers making integration on the small AUVs possible and easy.

Manufacturers and operators of smaller-sized AUV systems have embraced the sonar which were traditionally only available in larger-sized AUV systems. One area that continues to see an adoption of the smaller-size vehicles is the military community. High-performance compact sonar systems have helped that growth curve.

EdgeTech sonar systems have now been installed on a number of manned portable autonomous underwater vehicles used in Navy operations and commercial surveys. System configurations include a range of sidescan sonar frequency offerings such as 400/900kHz frequency pairs or 600/1600kHz frequencies. Additionally the system can be configured to provide bathymetry on top of the dual-frequency sidescan sonar solution.

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