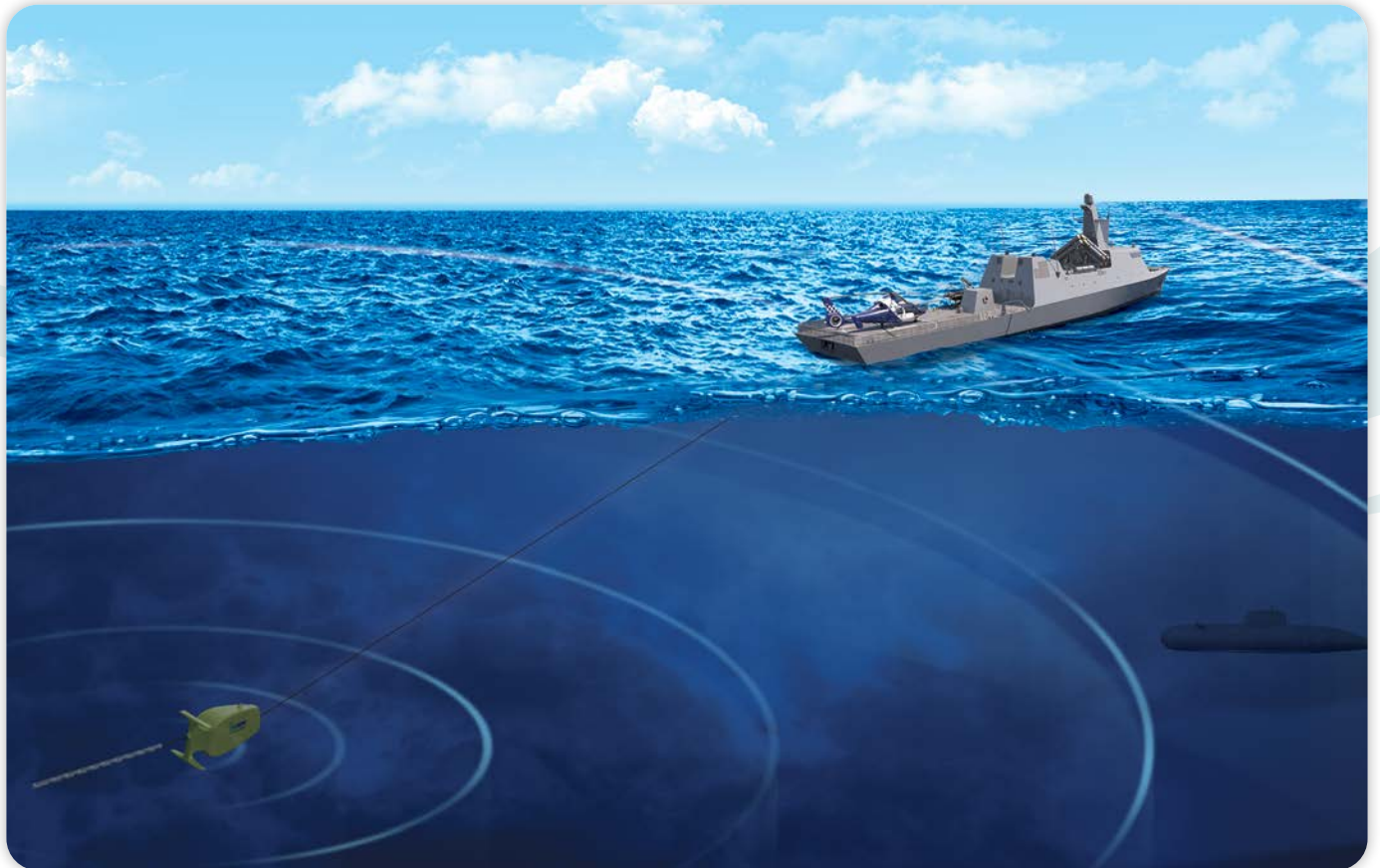




SwordFish™ - A Towed Array Sonar

The cutting-edge SwordFish™ Towed Array Sonar (TAS) system designed for use on vessels of various sizes engaged in a variety of mission types detects, tracks and classifies submarines at a range of sea depths in both littoral and deep waters.



Extending ASW Missions with the Latest Technologies

Designed for operation in the medium frequency of both Hull-Mounted Sonar (HMS) and Bow-Mounted Sonar (BMS), the low-frequency SwordFish TAS system delivers long-range underwater target search, detection, tracking and classification as well as over-the-horizon surveillance of submarines, torpedoes, UUVs, as well as high-speed patrol boats. The system, which is adaptable to any CMS, operates simultaneously in passive, active and parallel modes, providing high-resolution detection at various depths and in a variety of acoustic environments to suit a wide range of ASW missions and tactical scenarios. Implementing the most advanced electronics and acoustic technologies, the SWORDFISH system includes machine learning techniques for automation algorithms and state-of-the-art signal processing, which together create critical situational awareness. Run by a single operator, it significantly reduces workload as well as training requirements, due to its high level of automation and its user-friendly HMI.



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The system of towed hydrophones is connected to the vessel's stern via a light winch - with the cable length (which can be kilometers long) determined by specific mission requirements. Lightweight, with an exceptionally low deck signature, and able to be containerized, the versatile SWORDFISH is suitable for a wide range of vessels, including frigates, corvettes, OPVs of various sizes, and even small vessels such as Fast Patrol Craft (FPCs). As a standalone solution or combined with other DSIT sonar systems, it can be operated via an onshore control station. Combining DSIT's BLACKFISH HMS with SWORDFISH TAS - which provides superior range and resolution, and covers the HMS blind spot - extends capabilities to meet a wider range of missions.

System Components

Main components include JB, TXU/RXU, OCU, Hoist, Remote Control, Hydraulic System, Cable Tow, Cable Tether, Array TX & Body Towed, Array RX

Benefits

- Suitable for vessels of various sizes
- Designed for a wide range of ASW missions at various depths
- Run by single operator; reduced workload and training requirements
- Multiple display modes
- User-friendly HMI and GUI
- Lightweight; low-deck signature; containerizable
- Adaptable to any combat management system
- Creates situational awareness
- Provides ship self-defense

Swordfish™ TAS Block Diagram



Main Capabilities

- Passive broadband and narrowband automatic detection, tracking & classification of underwater targets
- Detects submarines, torpedoes and UUVs
- Operates in active, passive and parallel modes
- Utilizes advanced electronics and acoustic technologies, machine learning, automation, signal processing
- Embedded Range Prediction System (RPS)
- Works with DSIT's BLACKFISH Hull Mounted Sonar