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TSM 2022 MkIII

Hull-Mounted Multi-frequency Wide Band Mine Hunting Sonar

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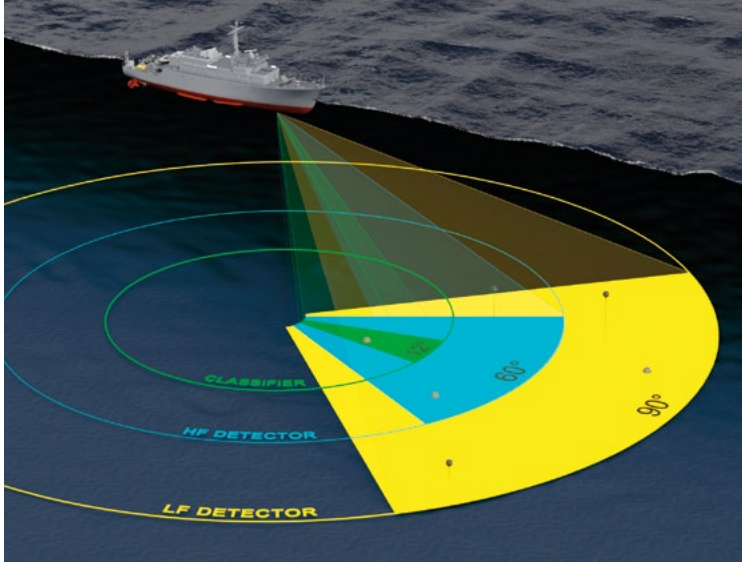

Presentation

The TSM 2022 MkIII has proven its mine hunting effectiveness in several operational theatres during recent years, including against modern stealthy mines. Its unrivalled mine hunting success rate is due to its outstanding shadow recognition and classification capability.

The LF mode provides long range detection enabling enough notice to significantly reduce crew exposure to danger. Classification is achieved using the LF and VHF modes, especially for shadow classification.

The TSM 2022 MkIII is lightweight and compact, enabling easy installation on any type of platform.

Sophisticated and highly reliable mechanical stabilization of the sonar antennas performs automatic compensation of the ship's roll, pitch and yaw movements, to assure optimum sonar picture quality.

Main functions

- Long range LF detection
- High resolution HF detection
- HF moored mine classification
- LF Mine Disposal Vehicle (MDV) tracking
- LF mine avoidance
- VHF shadow classification (+ Synthetic Aperture Sonar (SAS) magnifying view)
- HF and VHF route survey
- Data recording and replay
- Sonar operator's aids
- Embedded simulation mode

MAIN FEATURES

LF detection

- 90° horizontal coverage.
- Operator-selectable 3°/6°/12° vertical beam width to better address water depth, environment and mine type.

HF detection

- 60° horizontal coverage and high resolution (0.36°; 1.6 cm), providing superior detection performance against stealthy bottom and moored mines.

LF Mine Disposal Vehicle (MDV) tracking

- Over 120° in LF horizontal field of view at long range.
- Operational speed up to 10 knots.

LF mine avoidance

- Array set in vertical position permits self-protection of the ship during high speed transits (up to 10 knots).
- Integrated Ultra-Short Baseline (USBL) tracking option.

HF moored mine classification

- Providing accurate mine depth measurement (1m at 300m target range) with array set in vertical position.

VHF shadow classification (SAS processing)

- 12° horizontal sector, very high resolution to assess target shape and dimensions, using the Computer Aided Classification (SAS processing = 7.5 cm x 3.5 cm resolution).

HF and VHF route survey

- Using the sonar in side-looking mode.

Installation

- Easy installation: no dome, reduced trunk diameter (0.8 m).

Pedigree

A total of 48 TSM 2022 MkIII Hull-Mounted Sonars have been delivered to date:

Asian Navy / Belgian Navy / Royal Netherlands Navy / French Navy / Indian Navy / Royal Malaysian Navy / Royal Norwegian Navy / Polish Navy / Royal Thai Navy.

A large serviced customer base provides access to global operational and training experience.

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