

WASS ATAS

ACTIVE TOWED ARRAY SONAR



ATAS (Active Towed Array Sonar) system is a Low and Medium Frequency Active and Passive Variable Depth Sonar. The system provides simultaneously: panoramic surveillance in active mode and passive mode, automatic classification of threats and torpedo alarm. ATAS is the best trade-off between size, weight and performance. In comparison with others Variable Depth Sonars, it is very small and light, and, despite that, it has a detection range, on modern submarines, beyond the first oceanic convergence zone.

ATAS consists of the following modules:

- Power Electronics
- Processing Electronics
- Local Console
- Launch and Recovery Sistem
- Fired Cable
- Towed Body
- Array Towing Cable
- Towed Array
- Tail

The system performs the following functions:

- Active and Passive Detection and Tracking
- Classification of target noise (*)
- Interception of the sonar pulse emissions (including torpedo acoustic head pulses)
- Torpedo Alarm
- Selection of the best setting for the sonar operating parameters
- Reverberation and Noise measurements
- Performance Prediction
- Operator Training

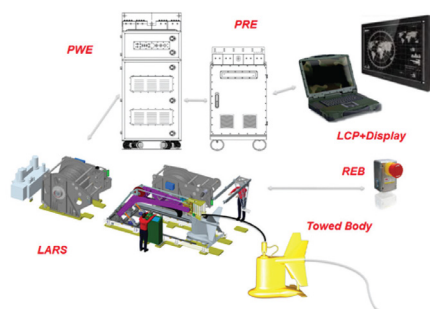
(*) The system automatically extracts the acoustic features of the targets using the following analysis tools:

- LOFAR
- DEMON
- MULTIPLE LINE COHERENCE

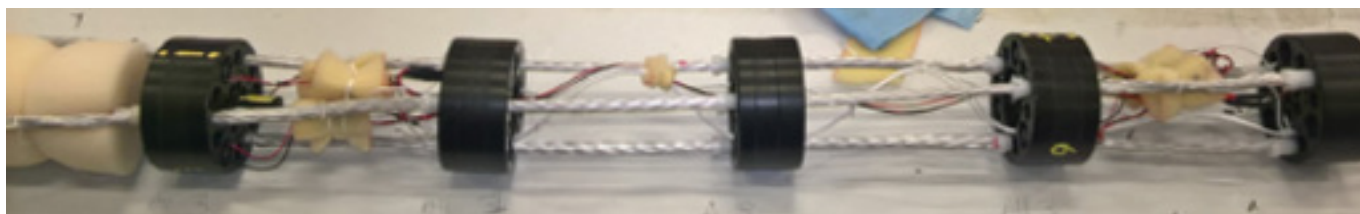
and compares these features with a CDF (Classification Data File) that the Customer has loaded with its own classified data. The system allows also a manual Classification based on the displayed extracted features and on the listening of the audio beam.

The System consists of only two Indoor Cabinets (only one Processing and one Power Unit) and its HCI can be fully integrated with Multifunctional Modern Console of CMS. Every single module of the LARS (Launch and Recovery System) is designed to weigh less than 3t to be easily installed/removed from board.

The wet part of the system reaches 300m towing depth, at typical ASW patrolling speed, even with its limited weight and its depth regulation is automatic.



Towed Array Mechanical stress tests



Towed Array internal view

For more information:
 infomarketing@leonardo.com
Electronics Division
 Via di Levante, 48
 57124 Livorno-Italy
 Tel. +39 0586 840111
 Fax: +39 0586 854060

This publication is issued to provide outline information only and is supplied without liability for errors or omissions. No part of it may be reproduced or used unless authorised in writing. We reserve the right to modify or revise all or part of this document without notice.

2022 © Leonardo S.p.A.



leonardo.com

