

Analog Surface Ship Sonar Improvement



Description

The **AS3I** solution improves analog sonar performances and usability without having to replace the Hull Mounted and/or Variable Depth Sonar transducers.

AS3I upgrades analog sonar systems to a high performance numerical sonar system using parts of existing hardware.

The digital upgrade of the reception using state-of-the-art signal processing provides high-performance detection.

The image processing is significantly improved thanks to a modern operator console equipped with high resolution screens.

AS3I enables to replay and to analyze the missions.

For the training of the operators, **AS3I** is equipped with a simulator.

AS3I subject to export control authorization.



Applications

- Analog sonar retrofit
- Active, passive and torpedo surveillance
- ASW analysis in replay mode

Advantages

- Gain of detection
- Improvement of classification tools
- Cost-effective
- No dry dock required

Features

- No replacement of HMS and VDS transducers
- State-of-the-art signal processing
- Intuitive Man-Machine Interface
- New training capabilities
- Adaptive beamforming in passive mode
- Automatic alert torpedo
- Passive and active automatic tracking

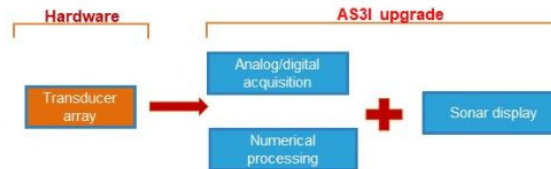
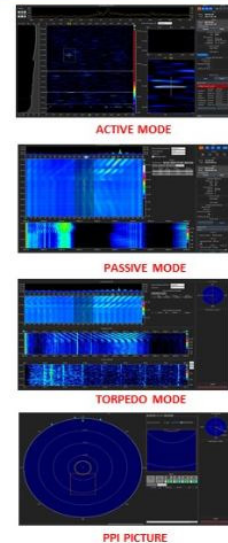
Characteristics

- Sampling rate: Up to 156 KS/s
- Various active transmission modes: CW, HFM, Combo
- Beamforming: up to 72 channels

OLD HMI & DISPLAY



NEW HMI & DISPLAY



No replacement of HMS and VDS transducers

This high-level electronic acquisition is suited to any type of hardware. This full upgrade enhances global sonar performance at lower cost and with quicker intervention. Only receivers, processors, computers, monitors and operating consoles are replaced.

State-of-the-art sonar processing

Thanks to this high performance digitization, the user can implement standard signal processing such as beamforming and matched filters as well as a new adaptive range of signal processing techniques.

The calculation system is powerful and flexible enough to perform customized signal processing and to be easily upgraded with light engineering work.

Intuitive Man-Machine Interface

The **AS3I** interface is based on a multiple HD colored monitor that simplifies the operation and provides precise control of the reception panel.

Thanks to its modular design, the HMI display's characteristics can be adapted to the user's preferences.

New training capabilities

AS3I logs data from previous missions and can be set to replay mode for training purposes. Furthermore, thanks to the mission simulator, the user can generate acoustic training simulations to meet its requirements such as the detection of submarines in passive or active mode or torpedoes.

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