Antisubmarine Warfare Area System

Background. WELSE S.p.A., Genoa, Italy has developed an Antisubmarine Warfare Area System (ASWAS) as an underwater defense system for naval bases, coastal installations, harbors, offshore platforms, straits, and sea areas.

Description. The ASWAS was designed as a system to operate as an "underwater gate" against possible attacks from submarines and minisubmarines.

It uses a barrier of sensors deployed on the sea bottom and linked via cable to an ashore-based control station. The system is able to interdict the access to naval bases or harbors and/or control the underwater traffic through straits and sea areas of interest.

The underwater barrier is composed of sensor units providing a double sequential detection of the underwater vehicle or submarine, based on the activation of a magnetic sensor and the subsequent triggering of an acoustic device as a confirmation. The operator on watch at the control station immediately will receive a visual and audible alarm displaying the intrusion point on the console display.

The control station is based on a single manned console performing the following tasks:
- System display reset
- Topographic visualization
- Geographic reference grids
- Isobathimetric visualization
- Sensor barriers display
- Sensor self-test display
- Alarm visualization and target ranging
- Target tracking

The control station is interfaced with a surface radar for discrimination of surface traffic in the controlled area. The ASWAS system can be easily integrated with the most advanced short range anti-swimmer and defence systems for land installations. The system can be used in depths ranging from 5 to 150 meters.

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