

Şebnem ASİL: Sitep Italia displayed MASS CS-424 during IDEF 2015 and the system received great interest from the participants. Can you once more summarize the main functions and properties of the system?

Giovanni MORELLI: In certain cases, the operational requirements of armed forces and security forces may require them to ensure the safety of facilities and ships without inflicting permanent harm or damage upon sources of threat. For example, it may be necessary to change the course of a civilian boat approaching a military ship without destroying it, or, if the boat does not respond to warnings, to neutralize the persons on-board without harming them. Sitep Italia developed MASS CS-424 to meet this specific security requirement. The MASS CS-424 is a defence system that does not harm or adversely affect human health. The system can identify potential threats via its integrated camera, and send audio warnings over long distances. If the target continues to pose a threat, the system can cause temporary deafness by emitting high noises; dazzle and disorient the target with its high-power searchlight; or cause temporary blindness with its laser. The stabilization feature of the system allows it to be used not only on fixed facilities, oil wells or pipelines, but also on ships and land vehicles. The system causes no prolonged health-related problems, and that consequently its use does not raise any legal issues.

The system's technical specifications can be summarized as:

- Audio system range: 3,000 m
- Sound pressure: 156 db (at 1 m)
- Three-axes auto-stabilization, automatic target tracking
- Searchlight with 3,500 m range and 12 Mcd beam

Innovative Answer to Security Needs: Sitep Italia MASS CS-424

One of the main differences between military and security forces is security forces' need to apply soft-power in a series of operation scenarios. Soft-power systems that are both effective and reliable are among the key enablers of security forces. Sitep Italia has developed a unique solution for such a need: MASS CS-424 Multirole Acoustic Stabilized System. We talked with Giovanni Morelli, the Executive Vice President Business Development of Sitep Italia, about capabilities of MASS CS-424.

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Şebnem ASİL: What were the requirements that led to development of the MASS CS-424 Multirole Acoustic Stabilized System?

Giovanni MORELLI: The MASS CS-424 is the result of an internal research project which is motivated by two major operational scenarios:

- 1) Search and rescue (SAR) operations, where there is the need to communicate with vessels in distress, where no radio is available, or to hail people aboard, as in the case in the current flow of immigrants boats in the Mediterranean.

The multisensor configuration of the MASS -searchlight, acoustic device and cameras- allows day and night operations in any weather conditions;

- 2) Antipiracy operations, where the complete sensor suite can be used to identify, track, record, warn and deter approaching hostile vessels.

So we have successfully designed, developed, produced and qualified MASS CS-424. It is a unique, one-of-a kind system and it is ready for operation. We believe that MASS CS-424 will provide indispensable capabilities to its users.





Şebnem ASİL: In maritime applications, MASS CS-424 does not harm people but deter them approaching to the ship or platform. Can you provide information about the measures taken so that the system does not harm people?

Giovanni MORELLI: All sensors embedded in MASS CS-424 have been chosen in order to provide an optimal combination of efficient communication in SAR operations as well as effective results when deterring aggressors without permanent harming them. An additional automatic safety system has also been included to avoid unintentional use of excessive power at close range of engagement. A laser range finder continuously checks whether there is something at close range.

Şebnem ASİL: Can you give us some operational usage scenario examples for MASS CS-424?

Giovanni MORELLI: In simulated SAR operations, effective communications have been proven at approximately 3,000 m. In a typical scenario, the rescuing ship can effectively advise a vessel in distress with a non-working radio how to manoeuvre. The searchlight and IR camera allows conducting such operations at night.

In any piracy scenario, a suspect boat can be identified at long range with the optical sensors. At effective acoustic range -approximately 3,000 m- the approaching boat can be advised to steer away or stop using operator's voice or pre-recorded messages in different languages. If the approaching vessel ignores instructions given through the acoustic device and is assessed to be a threat, acoustic and op-

tical -searchlight and laser dazzler- sensors can be used as deterrent while images and voice messages will be recorded for post operations assessment and for legal purposes.

Şebnem ASİL: What are the installation requirements of MASS CS-424 on a ship or platform? As far as we understand, MASS CS-424 does not have any underdeck equipment; the pedestal is the only hardware installed. Does the system require installation of an operator console?

Giovanni MORELLI: This is correct: the MASS is very easily installable on deck and therefore very suitable for quick upgrade of existing vessels. No below deck equipment is required. As far as the operator console is concerned, it is the user's choice to have a local control console or one installed in the bridge or elsewhere in the ship. The system can also be controlled by the combat management system of the ship.

Şebnem ASİL: Which countries and services are the users of MASS CS-424?

Giovanni MORELLI: Currently the MASS CS-424 is in operation with the Italian Navy on board of Horizon class destroyers and it will likely be installed on all the new ships about to be built. Great interest has been expressed by many operators of different countries for both maritime and land operations.

Şebnem ASİL: Is there a roadmap for further development of MASS CS-424?

Giovanni MORELLI: Plans for the development of a smaller and lighter version of the system are ongoing, in order to respond to the requirements for installation



MASS CS-424 can be easily utilized on decks.

on smaller and highly dynamic vessels, like very fast patrol boats and unmanned surface vessels, and land vehicle applications.

Şebnem ASİL: Sitep Italia offers MASS CS-424 to Turkey. What are your target platforms for the installation?

Giovanni MORELLI: Concerning naval applications, we think that MASS CS-424 can be used on almost every type of ships; from frigates to fast patrol boats. Like Italy, Turkey also has to deal with illegal immigration, so MASS CS-424 can serve both Turkish Navy and Coast Guard. For the on land applications, all critical buildings, energy stations or areas can be guarded with MASS CS-424.

Şebnem ASİL: Do you have a local partner in Turkey?

Giovanni MORELLI: We are leveraging our proven and effective relationship with Berkin Engineering that led already to successful business in Turkey. With the help of Berkin Engineering, we are in a position to best answer the needs of our Turkish customers.

On behalf of our readers, we would like to thank Giovanni Morelli, the Executive Vice President Business Development of Sitep Italia, for taking the time to answer our questions, and for providing us with such valuable information.