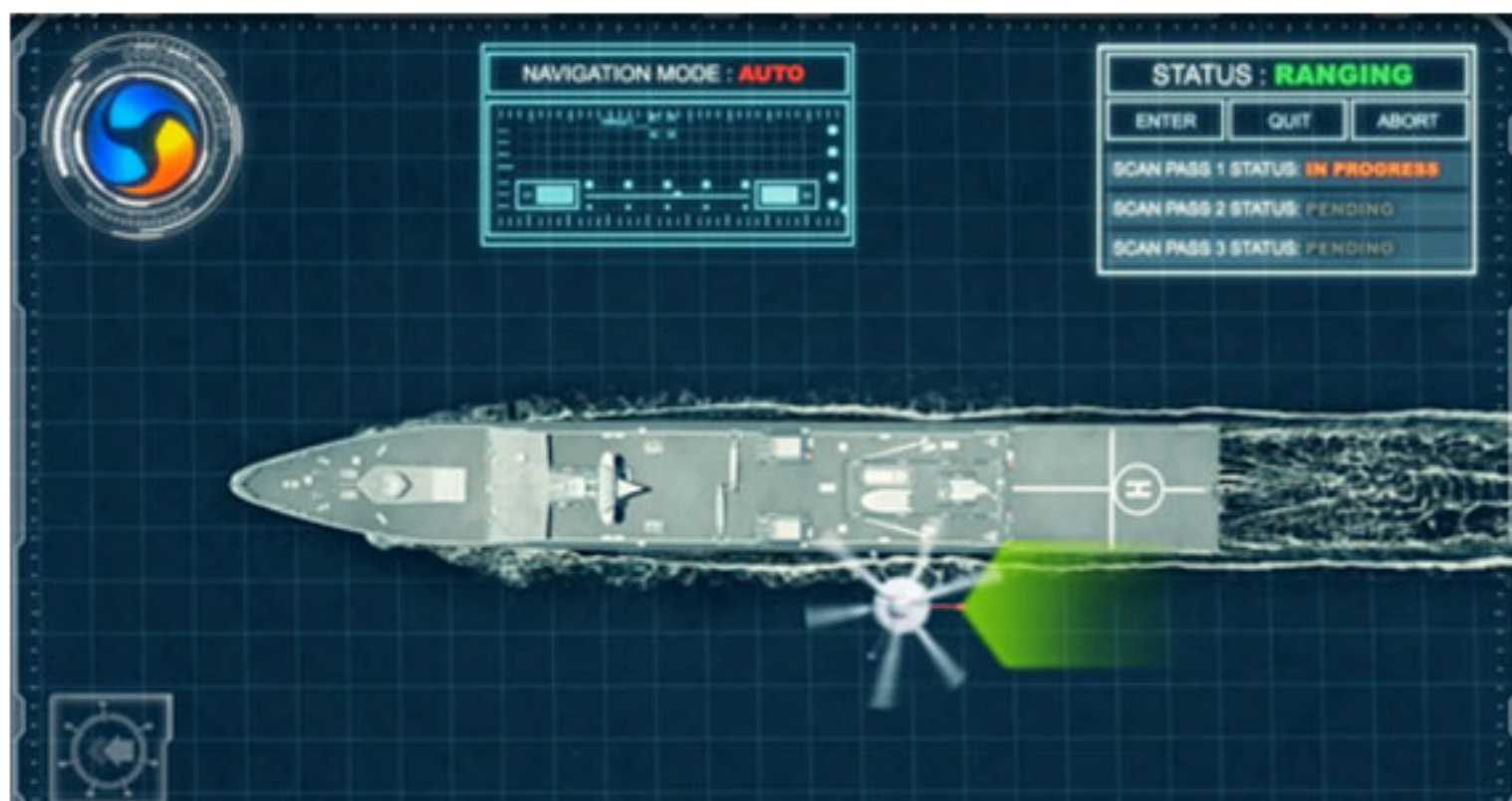


ECA Unveils Vessel Protection Magnetic Ranging System

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ECA Group unveiled a new portable magnetic ranging system for protection of vessels.

Based on this patent application, ECA Group widens its magnetic solutions portfolio with an aerial portable magnetic ranging system called Sterna and consisting of a magnetometer and its digitizer embedded in UAV IT180 airborne drone (developed by ECA Group).

To perform the mapping in a horizontal plane of the vessel, Sterna overflies the vessel. Data are transmitted onboard, detection risk is automatically estimated and degaussing parameters are computed.

Being spotted by a magnetic sensor is a permanent threat for both, surface ships and submarines. Magnetic sensors are embedded in underwater mines to detect vessels as well as onboard patrol Aircraft to detect submarines.

To counter this risk, navies have to measure the magnetic signature of their vessel, not only to assess the detection risk but also to reduce it.

As an adequate response to this need, ECA Group magnetic solutions portfolio includes deperming facility, degaussing system and underwater magnetic, fixe or portable, ranging solutions. Focusing on ranging system, key advantage is its ability to measure vessels on the operation theatre, offering highest efficiency. Operation limitation of such a system lies in its transportability and deployment.

ECA GROUP has filed a patent application regarding a new solution for portable magnetic range consisting in magnetometer embedded in unmanned carrier, such as UAV AUV, USV, ROV. One of the new features of this solution arises from algorithms which are capable to modelize the vessel using a single sensor while compensating the magnetic anomaly created by the carrier.

Based on this patent application, ECA Group widens its magnetic solutions portfolio with an aerial portable magnetic ranging system called Sterna and consisting in a magnetometer and its digitizer embedded in UAV IT180 airborne drone (developed by ECA Group). To perform the mapping in a horizontal plane of the vessel, Sterna overflies the vessel. Data are transmitted onboard, detection risk is automatically estimated and degaussing parameters are computed.

Main advantages of Sterna who is automatically piloted, are the quick deployment of the solution (within 15 minutes) and the fast measurement (within 45 minutes). Total operation is performed within one hour when conventional systems require quite a day. Furthermore, Sterna stored onboard allows the Commanding Officer to perform measurement at the closest of the operation theatre.

Sterna is dedicated to navies wishing to minimize detection risk, especially in operation theatre. As Sterna is a standalone solution, it is particularly well adapted for the protection of navy fleet vessels such as frigates, corvettes or mine hunters.