DRONE DETECTION FOR NAVAL SURVEILLANCE RADAR

PROVIDED BY SCANTER 6002
Naval Surveillance Radar  
– Now with Drone Detection & Classification

Operational Objectives

The development within drone technology has leaped significantly over the past years, making advanced easy-to-fly drones accessible to almost everybody around the world. The drones are typically equipped with high resolution cameras, long-range wireless communication and capability to fly autonomous also outside line of sight.

Drones poses an increased risk to even the most capable naval ships, where they can spy or even attack by improvised explosive devices carried from shore.

Managing the threats from drones

Combining the already excellent detection capabilities, with added advanced artificial intelligence classification, the SCANTER 6002 radar is now able to detect, track and classify small autonomous or remote-controlled drones. This will enable navies to detect and protect assets against spying and hostile attempts by small drones.

Extending the SCANTER 6002 capabilities

The SCANTER 6002 radar is the preferred radar for naval vessels globally for surface and air surveillance of own and hostile assets. With the newly added developments the SCANTER 6002 radar now provides even more value and situational awareness, still providing all the well-known capabilities including IMO navigation, helicopter control, SAR operations, surface and lower airspace surveillance. The new solution is suitable for all types of naval, coast guards and high value commercial vessels.

SCANTER Solution Drone Detection

The superior technical performance of the SCANTER 6002 radar with its unique frequency diversity, high sensitivity and small cell size, provides the capability to detect even very small targets in harsh weather conditions. This makes it the perfect choice to detect small drones.

The optimized ET2 tracker tracks all target types including drones, simultaneous with other air and surface targets, leaving no targets to be undiscovered. To separate the drones and other targets of interest, the radar has been updated with advanced artificial intelligence classification. The AI classifier is able to classify even the smallest drones at impressive distances, hereby assisting the operators to focus on the targets of interest, including drones.

With the SCANTER 6002 radar’s low peak power the operation and detection is optimal in open water and coastal areas. On top of this, the radar has been updated with 350W GaN solid state amplifier and new processing capability.

Drone product characteristics

The drone detection and target classification capabilities are designed as an add on feature for the well-known and proven SCANTER 6002.

Detection performance

The SCANTER 6002 drone detection is capable of detection small drones as specified in graph 1.
Multiple Operational Possibilities

All the well-known SCANTER 6002 operational capabilities are still available, such as:

**IMO Navigation**
The SCANTER 6002 is IMO certified. Hence, the system configuration meets the latest performance standards of the International Maritime Organization and International Electrotechnical Commission (IMO).

**Surface Surveillance**
The SCANTER 6002 provide superior surface patrolling capabilities by detecting and tracking small targets from the vessel side and all the way to the radar horizon – delivering uninterrupted, all-weather Surface Surveillance.

**Monitoring Near Airspace**
The SCANTER 6002 naval surveillance radar provides situational awareness in the lower airspace around own vessel. Aircrafts, including hovering helicopters, are typically detected and tracked to distances well beyond 15 nmi.

**Helicopter Control**
The SCANTER 6002 enables the vessel to control a helicopter in its short-range operations, allowing for landing control on own ship or at remote locations, significantly increasing the operational capabilities of the vessel.
Operating in the aerospace, defense, and security sector, Terma supports customers and partners all over the world. With more than 1,600 committed employees globally, we develop and manufacture mission-critical products and solutions that meet rigorous customer requirements.

At Terma, we believe in the premise that creating customer value is not just about strong engineering and manufacturing skills. It is also about being able to apply these skills in the context of our customers’ specific needs. Only through close collaboration and dialog can we deliver a level of partnership and integration unmatched in the industry.

Our business activities, products, and systems include: command and control systems; radar systems; self-protection systems for ships and aircraft; space technology; and advanced aerostructures for the aircraft industry.

Terma has decades of hands-on know-how in supporting and maintaining mission-critical systems in some of the world’s most hostile areas. Terma Support & Services offers through-life support of all our products to maximize operational availability, enhance platform lifetime, and ensure the best possible cost of ownership.

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