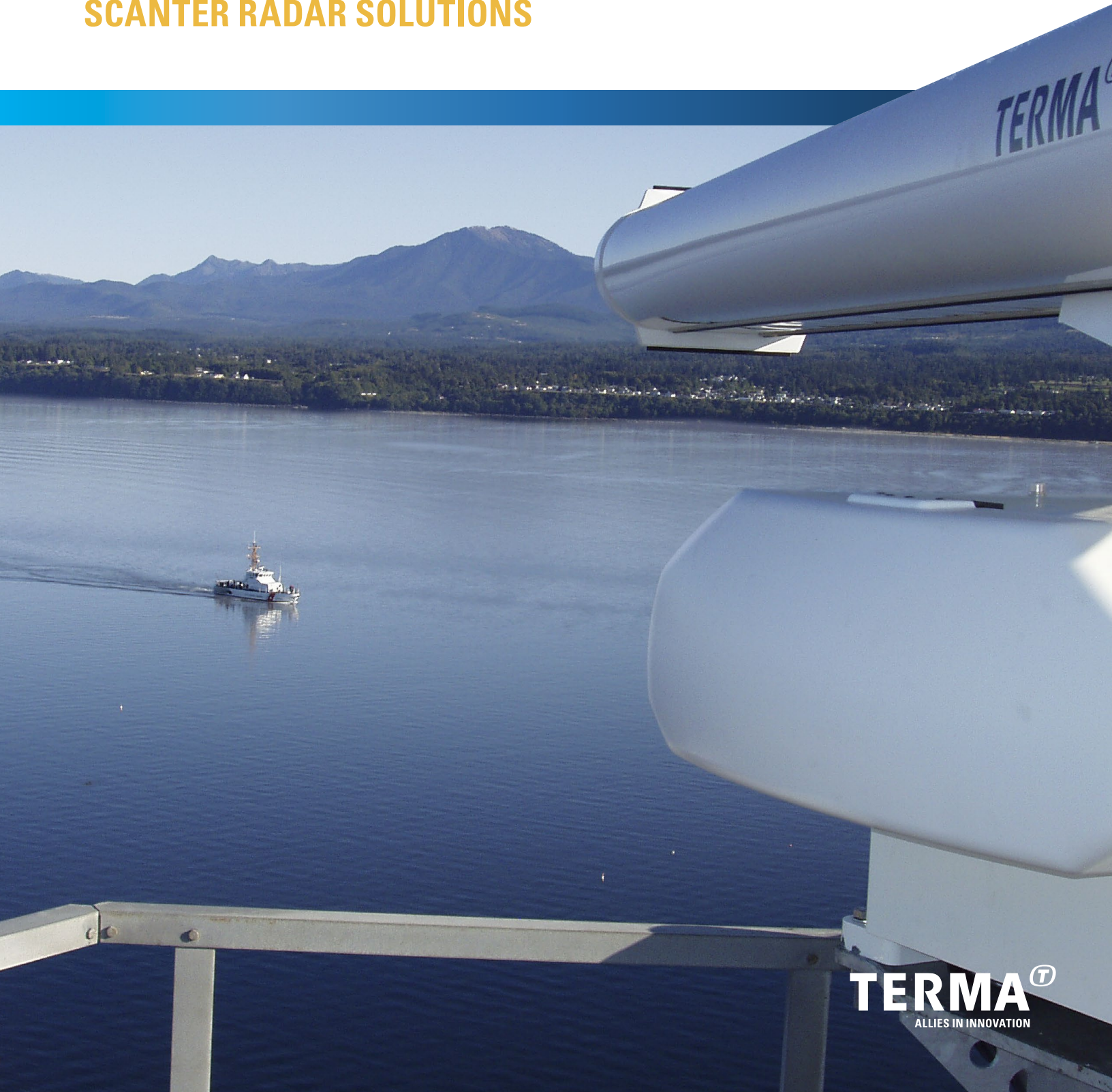




# COASTAL SURVEILLANCE

SCANTER RADAR SOLUTIONS



**TERMA<sup>®</sup>**  
ALLIES IN INNOVATION

# Protecting Your Coastlines and Maritime Domain



**We provide radar coverage of the coastline to detect and track all types of surface vessels and air targets.**

It can be difficult to keep track of all vessels along a coastline. Most are ordinary merchant ships, fishermen, or recreational sailors, but there is also the risk of smugglers, e.g. in small fast speed boats, or jet skis hiding next to large ships. To protect the nation's sovereignty, you need to look out for hostile vessels or even swimming intruders that regular radars will not detect. Moreover, the seemingly ordinary vessels can become a problem if they pollute your national waters or if a sailor overboard triggers a Search and Rescue (SAR) mission.

Terma's Coastal Surveillance solution is based on our world-renowned SCANTER radars. We detect targets at a range exceeding IALA advanced requirements, and our radars can separate multiple (non-cooperative) surface and air targets in close proximity, in all weather conditions (sea states). Our systems can track and share target positions which is important for SAR missions in low visibility, but also to protect your natural resources from illegal fishing, track and control foreign vessels, and fight criminals wanting to get access to your territorial waters, or the main land from the sea. In case of illegal activities, a recording of the radar track can be used for evidence in a court of law.

Terma's Coastal Surveillance solutions are built on years of experience in protecting the maritime domain, borders, airports, harbors, and critical infrastructure. SCANTER radars can provide fully automatic volume surveillance and early detection and tracking of multiple simultaneous air- and surface targets. With an extended horizontal detection range of up to 96 nmi, one SCANTER radar can provide up to 98.000 km<sup>2</sup> of situational awareness. This includes a confident situational awareness picture of what is going on in your waters, from merchant vessels, small boats, jet skis, aircraft, helicopters, gliders, ultralights, and other small non-cooperative targets.





## Detecting Coastal Targets

### Maritime Monitoring

The maritime domain is vast and remote and can easily be breached by illegal immigrants, smugglers, and terrorists. Our SCANTER radars provide early warning and tracking of non-cooperative targets (e.g. small go-fast boats, monoplanes, and even semisubmersibles) to intercept potential threats before they can cause harm.

### Territorial Waters

Do you have a confident situational picture of what is going on in your territorial waters? With a SCANTER radar, you keep a constant eye on foreign vessels to provide:

- Environmental protection: track potential polluters
- Protection of off-shore assets, e.g. oil rigs
- Recording of radar track for evidence
- Track and control foreign vessels in national waters.

### Search & Rescue

The combination of simultaneous detection of small surface targets and helicopter control makes our SCANTER radars a valuable asset in supporting SAR operations. The clear radar picture provides an outstanding situational picture of the vessels and helicopters participating in the SAR operation and the ability to guide the participating parties to the vessel or person in distress.

### Real-Time Recording Capability

For tasks related to policing, boarding, inspection, or fishery control, the recorded radar video feed can be a powerful tool in any legal dispute.

Recorded radar tracks are also very important in tracking down environmental violations at sea. By having access to recorded radar video, you also get the opportunity to find patterns in illegal activities, from where it originates, and other implicated vessels.

### Off-Shore Installations

Oil/Gas rigs and off-shore windfarms are critical infrastructure and need to be protected accordingly. Our Coastal Surveillance solution can have special security zones for e.g. Oil/Gas rigs and provide automatic alerts if vessels or aircraft are entering. To increase the reach of your Coastal Surveillance solution, our SCANTER radars can be placed on off-shore installations and are approved for installation on Oil/Gas rigs.

# 3000+

**TERMA RADARS ARE IN  
OPERATION AROUND THE GLOBE**



### **Protecting Natural Resources**

Looking out for protected areas and national marine parks is important for generations to come. Our Coastal Surveillance solution provides a great capability to track and record the illegal activity, find the mothership, and use the recorded radar image in a court of law.

### **Service and Support**

Uninterrupted protection of the maritime domain is crucial for national security. Terma provides the expertise and logistics support for keeping your product fully operational. We offer dedicated services such as preventive and corrective maintenance, spare part handling, repair and overhaul services, training, documentation, and platform modernization; all with the purpose of obtaining the highest level of operational availability for critical solutions.

### **World Leader in Detection Technologies**

Terma has been a world leader within radar detection technologies for more than 60 years. Our 3,000+ Terma radar systems are protecting borders, harbors, airports, coastlines, and wind farms worldwide. More than 85% of all major airports around the world and 65% of all coastal surveillance radar systems rely on Terma's sensor technology.





# Product Characteristics

## Automatic Environmental Adaptation

To provide a confident domain awareness, regardless of weather conditions, SCANTER radars come with adaptive suppression of sea and land clutter reducing the load on the operator. The result is a clear, high-resolution situational awareness picture.

## Operational Profiles

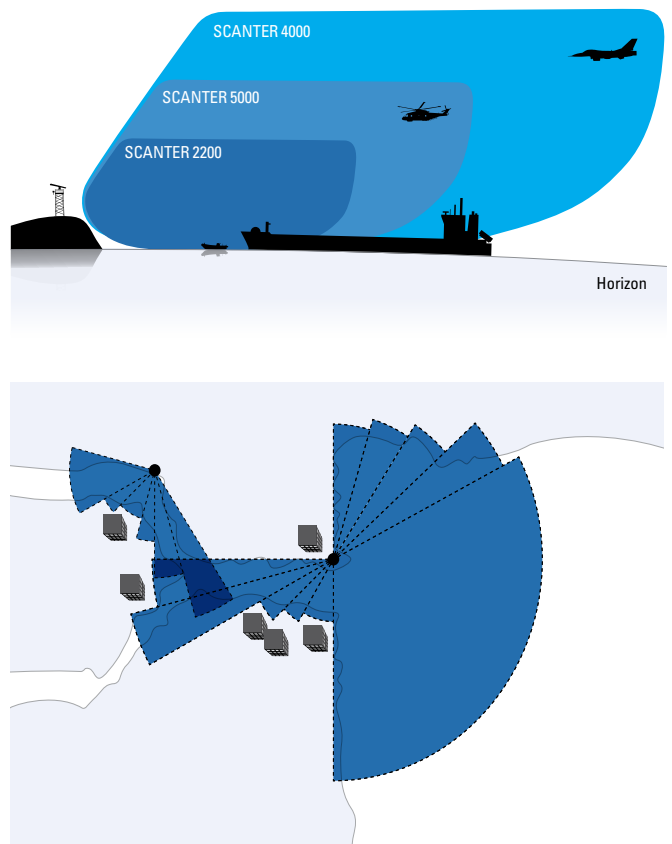
Our SCANTER radars support pre-defined profiles customized to support for example policing, inspection, or SAR, and ensures a clear and confident high-resolution situational awareness picture

## Power Sector Transmission

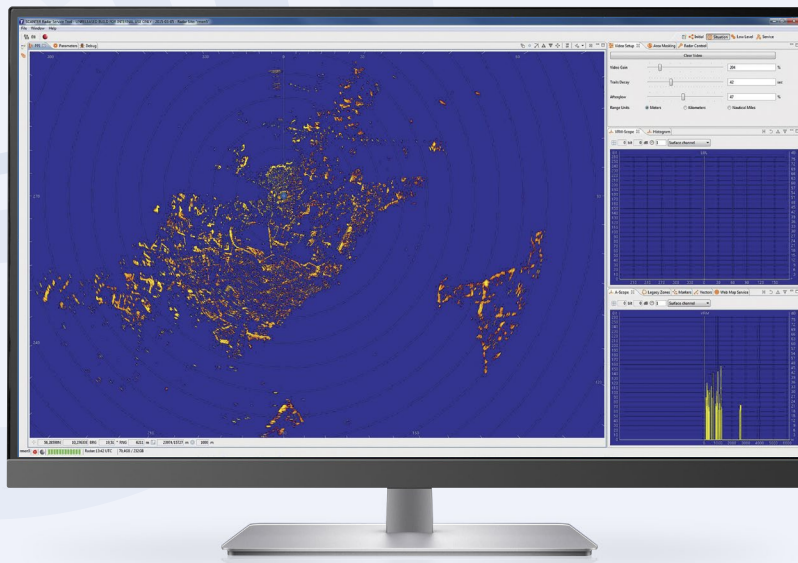
Large stationary targets like buildings and mountains cause strong echoes. To mitigate interference from strong echoes, we offer a power sector mode. This feature allows for controlling the transmitted power in up to 16 individual user defined sectors.

## Scalability

Our Coastal Surveillance solution provides 360° coverage (24/7) of up to 98,000 km<sup>2</sup> of coastal surveillance. SCANTER radars for Coastal Surveillance can be placed on land and off-shore to provide as much flexibility as possible, and additional SCANTER radars can be added as demands change to increase coverage.



Power Sector Transmission



With the SCANTER Series you get a confident situational picture of what is going on in your territorial waters

## The SCANTER Range

	<b>SCANTER 2200 Series</b>	<b>SCANTER 5000 Series</b>	<b>SCANTER 4000 Series</b>
Radar type	2D, coherent, pulse compression, frequency diversity software defined - fully digital	2D, coherent, pulse compression, frequency diversity software defined - fully digital	2D, coherent, pulse compression, frequency diversity software defined - fully digital
Frequency band	X-band	X-band	X-band
Transmitter type	Solid state power amplifier	Solid state power amplifier	High power solid state power amplifier
RF peak	80 W	50 W and 350 W	3 kW / 6 kW optional
Max. instrumented range	48 nmi	96 nmi	96 nmi
Air coverage	N/A	Low level air coverage (Subject to antenna type)	Full air coverage (Subject to antenna type)
Range resolution	Dependent on instrumented range selected	High throughout detection range	High throughout detection range
Installation	Can be installed up-mast and outdoors	Air-conditioned shelter	Air-conditioned shelter
External video interfaces	IP network radar video	Analog, digital and IP network radar video	Analog, digital, and IP network radar video
Operational compliance	Compliant to and exceeds IALA guidelines. Exceeds requirements for situational awareness (standard level)	Compliant to and exceeds IALA guidelines. Exceeds requirements for situational awareness (advanced level)	Compliant to and exceeds IALA guidelines. Exceeds requirements for situational awareness (advanced level)



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.

Headquartered in Aarhus, Denmark, Terma has subsidiaries and operations across Europe, in the Middle East, in Asia Pacific as well as a wholly-owned U.S. subsidiary, Terma Inc., with offices in Washington D.C., Georgia and Texas.

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