



KONGSBERG

Complete solutions for maritime security

Maritime domain awareness | surveillance solutions | C4ISR



Protecting people and planet

KONGSBERG is a global leader in Maritime Security, leveraging over 200 years of experience to combat ocean crime, protect critical maritime infrastructure, and ensure safe and efficient operations at sea.

As experts in maritime domain awareness, we provide advanced surveillance solutions that enable governments, maritime authorities, private companies and maritime organizations to detect, assess, and respond to threats in real time.

Being a system integrator for maritime security, we deliver comprehensive solutions that ensure authorities and operators have the necessary tools to maintain maritime control. By shaping the future of maritime domain awareness, we provide cutting-edge technology that enhances decision-making and operational effectiveness.

Our technology is made and maintained in Norway by security-vetted personnel, ensuring the highest standards of quality and reliability.

In an era of global geopolitical unrest and evolving security challenges, we take responsibility by working closely with our customers in true partnership, delivering tailored solutions that enhance safety, security, and efficiency at sea.

With a global reach, KONGSBERG operates in 40 countries and employs over 14,000 people worldwide, providing world-class technology and services that strengthen situational awareness and resilience in an increasingly complex maritime environment.

Guided by our core values – **Determined, Innovative, Collaborative, and Reliable** – we remain committed to protecting maritime domains across the world.

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Protecting our waters and critical infrastructure

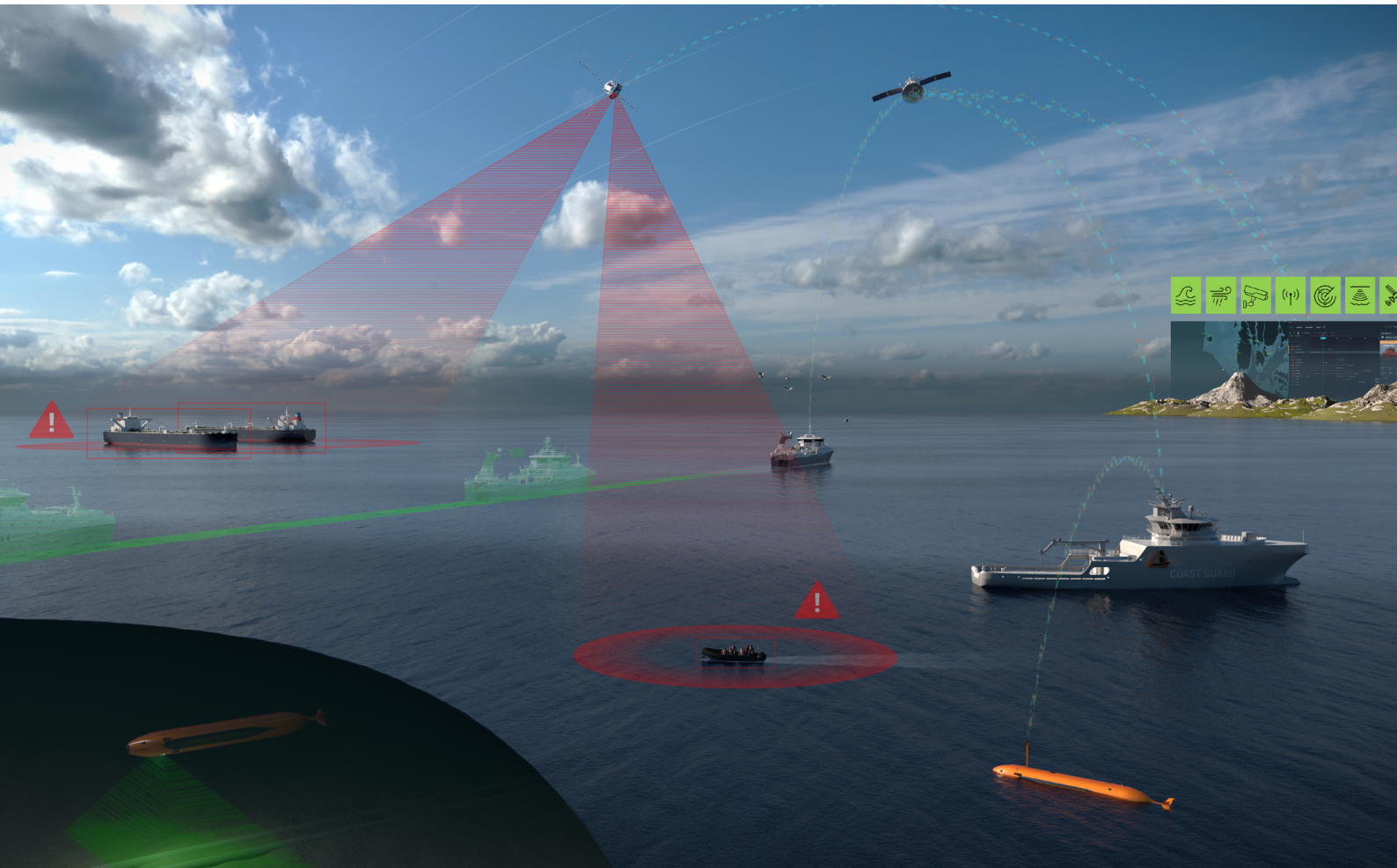
Maritime security

ocean crime

Maritime security is essential for safeguarding coastal and offshore areas, as well as critical infrastructure such as ports, energy installations, subsea cables, and offshore platforms. Threats like piracy, smuggling, illegal fishing, cyberattacks, and sabotage require advanced surveillance systems and real-time situational awareness.

The world’s oceans are vast, and essential to global trade and security. However, they are also a battleground for criminal actors that threaten economies, ecosystems, and human lives. Ocean crime encompasses a range of illicit activities that exploit maritime vulnerabilities, from smuggling and piracy to environmental destruction and cyber warfare.

Why addressing ocean crime matters:
Unchecked ocean crime threatens international trade, global security, and the health of marine ecosystems. Combating these challenges requires coordinated international efforts, cutting-edge technology, and stringent maritime law enforcement. Understanding the scope of these threats is the first step toward securing the world’s oceans for future generations. Safeguarding our seas is not just an option—it’s a necessity.



Key challenges of ocean crime



Smuggling
Criminal networks use the seas to transport illicit goods, including weapons, counterfeit products, and illicit substances. The size of the ocean makes detection difficult, allowing smugglers to evade authorities and fuel black markets.



Piracy
Despite global efforts to combat it, piracy remains a persistent threat, particularly in strategic maritime chokepoints. Armed groups hijack vessels, demand ransoms, and disrupt vital shipping lanes, causing economic and security concerns.



Trafficking
The ocean serves as a major route for human trafficking and drug smuggling. Criminal syndicates exploit weak maritime governance to transport vulnerable individuals and narcotics, fueling human rights abuses and organized crime.



Environmental crime
Illegal dumping, oil spills, and marine pollution devastate ecosystems, harming biodiversity and coastal communities. Unscrupulous actors exploit weak enforcement to profit from environmental destruction.



Illegal, Unreported, and Unregulated (IUU) Fishing
Overfishing and unregulated fishing operations deplete fish stocks, threaten food security, and undermine legal fisheries. Many IUU vessels operate under false flags, evading authorities while exploiting marine resources.



Shadow fleet
Nations and corporations use hidden networks of vessels—often with false registrations—to bypass sanctions and conduct illicit trade, including the transportation of embargoed oil and restricted goods.



Hybrid warfare
State and non-state actors exploit maritime spaces for asymmetric warfare, combining conventional military tactics with cyber attacks, disinformation campaigns, and economic sabotage to destabilize rival nations.



Cyber crime
Modern vessels and port infrastructures rely heavily on digital systems. Cybercriminals and hostile entities target these vulnerabilities, launching cyberattacks that disrupt global trade, compromise security, and hold critical maritime operations hostage.

Enhancing security and resilience

Critical maritime infrastructure

Oil and gas pipelines, power transmission cables, and fiber optic cables are key examples critical maritime infrastructure, essential to modern society.

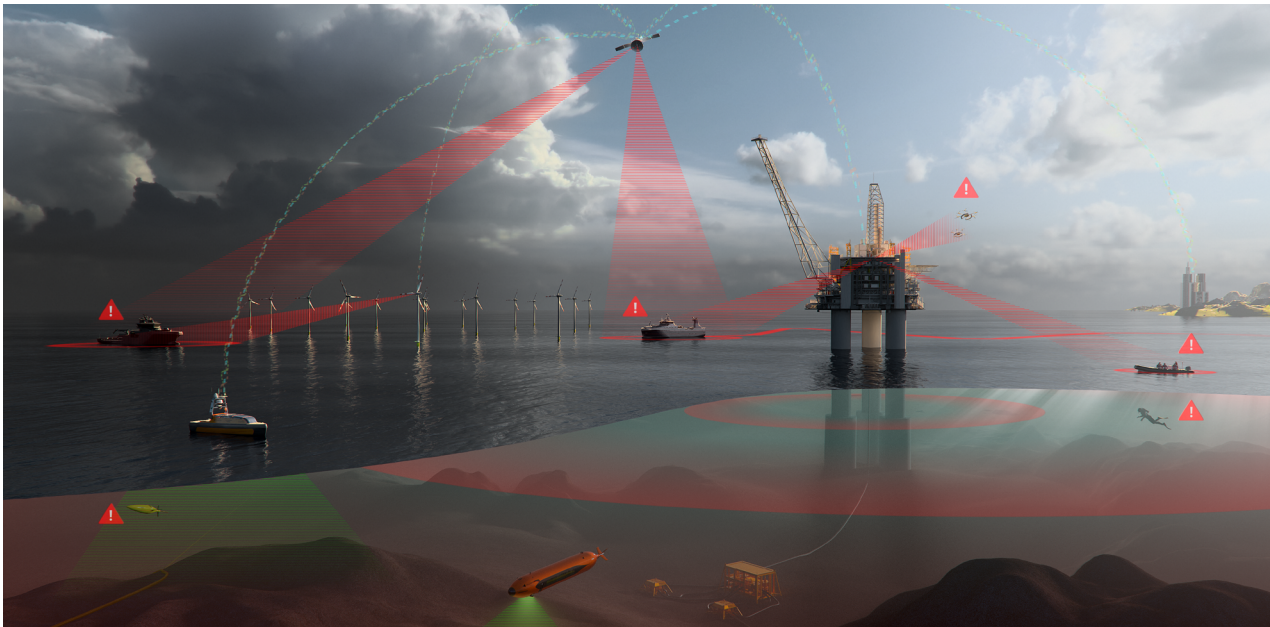
At KONGSBERG, we leverage decades of expertise in maritime domain awareness to deliver advanced, secure solutions that enhance situational awareness and protect these vital installations.

Our capabilities include dark ship detection, behavioral analysis, and real-time actionable data for informed decision-making. By integrating sensor data from the seabed to outer space, our solution offers an unparalleled level of security and insight.

Sufficient surveillance of critical maritime infrastructure needs to be cross border, cross-sector and coordinated over defined maritime domain areas.

Key features

- **Data input to operation rooms and C2:**
Sensors in all domains (subsea, surface, air and space) are feeding the system to provide real time situational awareness.
- **Scalable system:**
Used for surveillance in smaller ports and single offshore installations to larger complex systems covering coastal and ocean areas.
- **Data sharing:**
The system architecture support secure data sharing between various stakeholders.
- **Analytics:**
Tailor-made reports featuring advanced analytics are generated using historical data and AI over defined periods.





The KONGSBERG solution

Maritime Security Foresight

Maritime Security Foresight is our complete solution for Maritime Security surveillance. Designed to be flexible, scalable, and seamlessly integrated, our solution is fully customizable to fit the specific requirements of each customer.

It consists of a combination of advanced sensors, software, third-party systems, and expert project management, ensuring a comprehensive and future-proof approach to maritime security surveillance.

KONGSBERG provides ultimate situational awareness for both tactical operations and strategic planning. Our solution can be tailored for military organizations and adapted to meet the needs of port authorities, coastal administrations, inland waterways authorities, and offshore operators.

Key features

- Mission planning and control
- Efficient communication and exchange of mission plans
- Quick and efficient capture of ship information
- Dynamic marine risk assessment
- Quick and reliable operator decision support
- User-oriented architecture, interchangeable between different operators
- Tailored portrayal designs for individual operators and missions
- Monitoring of speed related to CO₂ emissions and general pollution (including satellite imagery)
- Coordination and tracking of Search and Rescue (SAR) operations
- Detection of "dark ships" using satellite data
- Detection of vessels in restricted or monitored zones
- Early warning system for incoming suspicious vessels
- Detection of underwater activity, including change detection
- Drone detection
- Incident record and replay
- Integration of satellite and terrestrial sensors in a single system
- Detection of abnormal vessel behavior
- Optimized advanced decision support

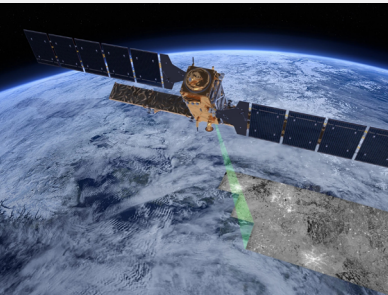


Integrating all domains

Our solutions are sensor and technology agnostic, meaning we can seamlessly integrate sensors from all domains—space, terrestrial, and subsea. Whether it’s radar, AIS, EO/IR cameras, sonar, satellite imagery, or underwater sensors, our systems fuse data from multiple sources to provide a complete and accurate situational picture.

Subsea surveillance

Monitoring of underwater infrastructure can be performed using marine robots that minimise the need for human surveillance, thereby improving safety, saving time and reducing cost. KONGSBERG is a global leader in advanced robotics and sensor technology to map, monitor and survey the ocean environment, using advanced hydroacoustic and chemical sensors connected to sophisticated data networks and visualisation tools. KONGSBERG has developed world-class autonomous and uncrewed solutions for defence, commercial and scientific missions over more than 25 years of technological innovation. These include free-swimming Hugin Autonomous Underwater Vehicles (AUVs) with optimised hydrodynamics, great manoeuvrability and high accuracy of stabilisation. We also provide Uncrewed Surface Vehicles (USVs).



Advanced sensors (from seabed to outer space)

Our solution can integrate a range of land-based high technology sensors such as radar, AIS and camera along with world-class satellite capabilities providing a near complete maritime picture. Having several sensor sources communicating with each other ensures global coverage and discovery of faulty or deceitful behavior. We are sensor agnostic and able to integrate with pretty much any sensor or third-party system.



A complete KONGSBERG solution

The KONGSBERG group develop and produce a vast array of advanced sensors and technologies, allowing us to create a complete KONGSBERG solution that spans from the deep sea to outer space. This includes subsea sensors such as UAVs and Hugin AUVs, as well as the entire satellite value chain—from satellite production and ground-based stations to advanced data analysis and display systems.



By delivering a fully integrated solution, KONGSBERG ensures complete control over the supply chain, maintaining the highest levels of safety, security, and reliability. This full-spectrum approach allows us to offer the most technologically advanced and future-proof solutions available in the market, tailored to meet the complex needs of the maritime domain.



Third party systems are seamlessly integrated

Our solutions can be integrated into existing system structures, including software systems and sensors. Depending on the condition of the current system and the necessary upgrades, we implement solutions that complement the existing setup, ensuring that customer needs are met without unnecessary costs or upgrades. We work closely with customers to evaluate the benefits of any system enhancements.



Advanced technology

Behavior analysis – predicting future threats

KONGSBERG's advanced behavior analysis technology combines historical data with real-time information to identify patterns and trends in maritime activity. This enables the early detection of anomalies and potential threats while also allowing authorities to predict future behavior. By leveraging AI-driven analytics, operators can proactively anticipate risks before they materialize, ensuring faster and more effective responses to maritime security challenges.

A critical aspect of our solution is the ability to detect anomalies before they escalate into serious threats. By integrating data from multiple sensors and sources—such as radar, AIS, EO/IR cameras, sonar, and satellite imagery—our system can identify deviations from expected behavior. Whether it's an unidentified

vessel in a restricted area, sudden course changes, or unusual loitering patterns, early detection is essential for securing the maritime domain and protecting vital infrastructure.

To enhance situational awareness, our system continuously monitors maritime traffic, allowing operators to establish a baseline of normal movement patterns and behaviors—a concept known as Pattern of Life Knowledge. By understanding what is normal, operators can quickly and accurately detect abnormal activities, enabling swift and precise intervention when needed. This capability strengthens maritime security by ensuring potential threats are identified and addressed before they pose a risk.



Clandestine operations

Illicit activities often involve covert operations, such as dark shipping (vessels turning off AIS), false flagging, or unregistered transshipments. These threats can directly target critical maritime infrastructure, posing severe risks to national security and economic stability. Advanced analytics and correlation techniques help uncover these hidden threats, ensuring proactive security measures.



Dark ship detection using satellite imagery

Dark ships are vessels that have turned off their AIS (Automatic Identification System), which can indicate illegal activity or pose security risks. To detect them, satellite imagery—especially Synthetic Aperture Radar (SAR)—is used to spot ships at sea, even in poor weather or darkness. If a vessel is visible in satellite data but not sending AIS signals, it is flagged for further investigation.



Illegal fishing

We are applying anomaly detection through analytics and satellite sensor data to identify potential illegal fishing activity. By comparing vessel movements captured by satellite with reported fishing logs, we can detect discrepancies—such as ships entering restricted zones or misreporting their locations. This method enables authorities to flag suspicious behavior and respond more effectively.

Hybrid threats

The maritime security landscape is evolving, with a growing mix of conventional threats (e.g., unauthorized intrusions, smuggling) and asymmetric threats (e.g., cyberattacks on navigation systems, GPS spoofing, and underwater sabotage).

KONGSBERG provides advanced solutions to counter both physical and digital threats, ensuring a resilient maritime security framework.

Cyber security

KONGSBERG prioritizes cyber security to ensure safe and reliable maritime operations. Our proprietary software is developed with strict adherence to industry standards, including NIS2 and ITIL frameworks, providing advanced protection against cyber threats. As a NATO-certified provider, we deliver solutions trusted by the most demanding security environments. These measures ensure the integrity, confidentiality, and availability of critical systems, enabling stakeholders to operate with confidence in an increasingly digital maritime domain.

Hybrid threats

Addressing modern security challenges



Managed Services

Managed services

Kongsberg Norcontrol offers a comprehensive range of Managed Services to ensure our customers maritime domain awareness solution remains up to date and performs at its best. By entrusting us with specific processes and functions, designed to enhance operations and reduce costs, you mitigate risk while gaining predictability in cost, safety, and efficiency. Our subscription-based model means that the customer retains ownership or oversight of the system, while we deliver Managed Services through a service-level agreement. Together with the customer, we create a tailored package of services to meet unique needs—whether it's a basic support contract or a complete solution where we manage the entire system operation. Contact us today to explore how this package can be customized for your requirements. Key benefits include improved efficiency, predictable costs, guaranteed system availability, swift implementation, regular updates, and expert support, allowing you to focus on your core business while we manage the rest.

Key benefits

- Annual software upgrades
 - Predictable long term support packages
 - Dedicated in house support team
 - Partnership
- Adherence to ITIL 4 framework
- Improve efficiency with a consistent, high performing system
- We assume and manage most of the risk
- Gain control of your costs by only having to worry about a fixed, predictable sum which can be easily budgeted with each year
- Guaranteed system availability, avoid system downtime which can be detrimental and cause huge losses
- Swift implementation
- Always have the latest technology with regular system updates
- Fast, efficient and professional support
- Focus on your core business and let us do the



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Advancing maritime security

KONGSBERG is a global leader in maritime security and domain awareness, delivering cutting-edge solutions to combat ocean crime, protect critical infrastructure and ensure safe maritime operations.

Our complete solution for maritime domain awareness integrates advanced sensors and AI-driven analytics to detect threats, proactively manage risk and enhance real-time decision-making.

Built for scalability and seamless integration, Maritime Security Foresight sets new standards in maritime safety—helping authorities and operators navigate today's security challenges with confidence.



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