# **Vessel Traffic Foresight**



# KONGSBERG's solution for Vessel Traffic management

# Safety, security and efficiency

Vessel Traffic Foresight is our leading solution for Vessel Traffic Services and Local Port Services. It serves ports, coastal areas, and inland waterways worldwide, promoting safety, efficiency, and environmental protection in the maritime domain.

The solution is highly customizable, flexible, scalable, and user-friendly. It integrates seamlessly into existing maritime infrastructure and includes high-technology sensors, in-house developed software, third-party systems and expert managed services, all tailored to meet each customer's specific needs.

We ensure continuous operations through 24/7 customer support and a comprehensive cybersecurity. Our focus is always on our customers, striving to exceed expectations and deliver on time, every time.

We are pushing forward in realizing the maritime domain awareness solutions of tomorrow. We lead and participate in a range of R&D projects within autonomous shipping, digitalization, e-navigation, and Al-driven decision support to ensure our systems remain at the forefront of technological development.

# The Foresight system

Kongsberg Norcontrol develops our own in-house maritime domain awareness software, named Foresight. This intelligent, automated, and adaptive tool enhances understanding of the maritime picture. It merges real-time situational awareness with historical data and predictive analytics for proactive, optimized decision-making in time critical situations.

The Foresight system helps streamline processes, reducing operator stress and allowing for better use of resources. It has continuously evolved, consistently informed by our understanding of our customers' current and future needs.

Making the operator's life easier, the Foresight system is intuitive and easy to use. It learns what the operator does most, utilizing adaptive functions with a human-centered design. It is flexible, scalable, and configurable to meet specific needs with the minimum number of clicks necessary. We continuously update and develop our systems in-house at our offices in Norway, ensuring everything is maintained to the highest technological standards in a safe and secure way. With truly open architecture and full interoperability, we can integrate with any existing third-party systems. The information can also be displayed on multiple platforms, including tablets, websites, and desktops.



# KONGSBERG's Foresight solution provides services to:

- Manage marine traffic, improving flow and efficiency
- Reduce marine risk
- Optimize utilization of resources
- Improve security
- Ensure environmental protection
- Provide optimized decision support using AI
- Maritime Digial Services such as Just-In-Time Arrival
- Comply with IALA VTS
  Recommendations



Vessel Traffic Foresight is a complete solution for optimized maritime domain awareness that combines advanced sensor technology with the latest development software systems, extensive maritime expertise, and expert customer support.

#### Right Information at the Right Time with Advanced Decision Support

Foresight is an intelligent, automated, and highly adaptive tool that provides real-time situational awareness combined with historical data and predictive analysis. This integration enables proactive, optimized decision-making in time-critical situations. The system streamlines processes, reducing costs while increasing efficiency and accuracy.

#### **Minimize Accidents and Threats**

Using advanced analytics, Foresight detects potential safety incidents before they become accidents. It analyzes normal ship behavior alongside real-time observations, identifying and flagging abnormal behavior that may indicate potential future accidents, such as grounding or collision, or illegal activities such as smuggling or illegal fishing. Operators are proactively notified, allowing them to decide on the most appropriate response.

#### **Advanced Sensors**

Our solution integrates a range of high-technology sensors, both land-based and subsea, such as radar, AIS, cameras, and world-class satellite capabilities to provide as complete a maritime picture as possible. Having multiple sensor sources communicating with each other ensures global coverage and the detection of faulty or deceitful behavior. We are sensor-agnostic and capable of integrating with virtually any sensor or third-party system.

#### **Cyber Security**

Cyber security is paramount to everything we do at Kongsberg Norcontrol. We maintain the highest level of security in our systems by adhering to international standards and keeping up with new developments in the market. Information security and safe data handling are guaranteed through the development of our own in-house software.

### KONGSBERG

KONGSBERG has more than 40 years' experience of providing over 300 maritime surveillance solutions to governments and organisations around the world, ranging from port operations to critical infrastructure to coastal and sea surveillance.

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The Norwegian Coastal Administration uses Foresight for Vessel Traffic Services in Norway