Aegir Virtual Sonar Operator



KONGSBERG

Aegir SSA (Subsea Situational Awareness) is a family of commercial sonar systems designed to provide continuous underwater awareness for maritime security, safety, navigation, and infrastructure protection applications. Developed by KONGSBERG, the Aegir family combines proven acoustic sensing technology with compact form factors, simplified integration, and flexible deployment options.

Always on.

KONGSBERG and Viam bring an AI-powered virtual sonar operator to the Aegir SSA sonar family. The virtual sonar operator continuously monitors underwater activity, identifies potential threats and alerts human operators. It is available as an optional paid service with Aegir sonars.

What it does

The virtual sonar operator continuously analyses sonar data, detects, classifies and tracks objects of interest, and alerts human operators when activity warrants investigation – for example divers, uncrewed surface vessels (USVs) and other objects or activity near sensitive maritime infrastructure.

Why it matters

Protecting critical maritime infrastructure requires operators to monitor vast geographies using networks of sensors deployed across vessels, buoys and fixed installations. The virtual sonar operator addresses this challenge by automating detection and tracking of underwater objects, reducing the need for continuous human monitoring.

How it works

The virtual sonar operator combines KONGSBERG sonar products with Viam's software for deploying and managing AI in the physical world. It works alongside the Aegir sonar, analysing sonar data as it is produced and alerting the operator the moment activity warrants investigation. The solution builds on proven commercial sonar automation that KONGSBERG and Viam have already deployed, now evolved for maritime security and infrastructure protection.

Designed for autonomous operation, the virtual sonar operator works independently of network connectivity, requiring only occasional connections for update. There are three levels of integration, either just subscribe to the solution, subscribe to a dedicated tennant or alternatively for larger organizations and sensitive data a tailored on premise solution can be provided.

BENEFITS

- Continuous underwater monitoring and awareness
- Automated detection and tracking of underwater objects, reducing the need for continuous human monitoring
- Experienced operators stay focused on the situations that matter most
- Operators can oversee multiple remote installations and focus their attention on detections that require further investigation
- Use existing trained models or implement your own models for specific environments and surveillance requirements
- Extended underwater situational awareness around critical assets and infrastructure
- Always learning – the virtual sonar operator gets smarter over time

APPLICATIONS

- Uncrewed Surface Vessels (USVs)
- Vessels of all sizes
- Fixed monitoring installations
- Buoys and sensor networks
- Ports and harbours
- Offshore energy installations
- Critical maritime infrastructure and sensitive coastal environments

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