



KONGSBERG



## ADVANCED VESSEL TRAFFIC SERVICE (VTS) SIMULATOR

# K-Sim® VTS

### VTS Operator training for safer maritime operations

With increasing amounts of coastline, territorial waters, and Exclusive Economic Zone (EEZ) to be monitored and managed, VTS-Operators need to be properly trained to ensure security, environmental protection, and safety of the vessel traffic.

K-Sim VTS - Vessel Traffic Service Simulator is specially designed to provide training in best practices, and to test and build the level of competence required to carry out even the most critical vessel traffic operations. The simulator solution includes a K-Sim Navigation Simulator integrated with Kongsberg Norcontrol's Maritime Domain Awareness Solution.

### Training scenarios

K-Sim VTS provides training for a broad range of operations, including:

- Procedures according to IALA model courses: V-103/1 and V-103-2
- Management, cooperation and communication between ship and shore to conduct safe operations of vessel in a VTS and high-risk areas
- Situational awareness and navigational decision making
- Coordination for Search and Rescue (SAR) operations

### IALA Guidelines and Recommendations

The K-Sim VTS simulator exceeds the relevant recommendations as stated in IALA Guideline 1027 Simulation in VTS Training, and can be used to conduct simulation training for the IALA V-103 model courses.

# Deliverables and Benefits

## VTS operator station

The K-Sim VTS operator station uses Kongsberg Norcontrol's maritime domain awareness solution, the same application used in major ports and coast guard stations throughout the world. Our modular design allows any communication system to be integrated, making adaptation to special training requirements easy.

## Ship's bridge stations

In addition to the VTS Operator Station, several smaller K-Sim Navigation (ship's bridge simulators) can be integrated, to create even more realistic communication and traffic patterns in the exercise for the VTS operators and navigators.

## Instructor station

K-Sim Instructor System is designed with the user experience firmly in focus. The instructor system provides the instructor with a powerful and efficient tool for designing, controlling and assessing customized exercises for individuals and teams. Review and debriefing can include a replay of the entire exercise or a selected segment from any point in the exercise to focus on a specific learning objective. The instructor system also features an advanced assessment system for ensuring optimal training and feedback standards.

## Exercise areas

K-Sim VTS offers a comprehensive library of exercise areas with radar, AIS data, Aids to Navigation, depth, buoy, chart and visual presentations. In addition, it can be equipped with simulated closed-circuit television (CCTV). The Electronic Navigation Chart (ENC) can be used to create customized exercise areas for specific requirements.

## AIS

In addition to AIS for Vessel traffic and ATONS radar, the instructor may enable tracks with an AIS transponder. When enabled, the AIS tracks will appear on top of the track's radar echo, and trainees will be able to access the simulated AIS data for that track, which includes the vessel's identity (name, callsign, MMSI, IMO number), as well as other static, dynamic and voyage related data.

- VTS operator stations to be used in the same exercise
- Radar and ENC Display
- Integrated communication suite (VHF and Telephone)
- Integrated AIS tracks
- Radio Direction Finder (RDF)
- Optional closed-circuit television (CCTV)
- Exceeds relevant recommendations stated in IALA Guideline 1027



Kongsberg Norcontrol's Maritime Domain Awareness Solution is used to provide both Vessel Traffic Services (VTS) as well as security Surveillance



K-Sim Instructor System provides an efficient and user-friendly tool for basic and advanced training



With a multitude of vessels, navigation aids, objects, avatars, and geographical areas with all possible weather conditions, K-Sim VTS enables a vast amount of training options.

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## Customer benefits