



KONGSBERG



GMDSS SIMULATOR FOR TRAINING AND ASSESSMENT  
OF SHIP SPECIALISTS TO OBTAIN GOC AND ROC

# K-Sim® GMDSS Simulator

Effective communication is crucial to prevent accidents from happening and quickly alert the rescue authorities and vessels nearby in case of an emergency. Our K-Sim GMDSS simulator is tailored to efficiently build, improve and assess trainees' competence in operating Global Maritime Distress and Safety System (GMDSS) in various scenarios and situations.

## Ideal for GOC, ROC and SAR training

The K-Sim GMDSS is equipped with all radio communication systems and devices necessary to comply with industry standards and regulations for GMDSS. It provides realistic training and is a perfect training tool for the General Operator Certificate (GOC) and Restricted Operator Certificate (ROC), including Search and Rescue (SAR) operations.

## Compliant with industry standards

The K-Sim GMDSS simulator complies with the following standards and regulations:

- The International Convention on Standards of Training, Certification and Watchkeeping for Seafarers STCW 2010
- IMO Model Courses 1.24, 1.25, 1.31 and 3.15
- DNV-ST-0033 Maritime Simulator Systems
- IMCA Guidance on the Use of Simulator Systems; C 014 Rev.2

K-Sim GMDSS is often delivered as a classroom training solution (DNV Class C), with an instructor station and several student stations. For more advanced training scenarios, such as SAR, we integrate GMDSS equipment with our K-Sim Navigation simulator (DNV Class A or B) for enhanced realism in the training scenario.

### Learning Objectives

With K-Sim GMDSS the trainee can practice and build competence, or improve and refresh skills in effective communication and coordination with crewmembers, other vessels. Vessel Traffic Service (VTS) and pilot boarding stations.

The simulator supports training in transmitting and receiving information using GMDSS equipment and subsystems, along with providing radio services during emergency situations. Training in a simulator will enhance the trainee's situational awareness and build confidence and professionalism in how to manage emergencies.

Depending on the sea area of operation, there are different GMDSS equipment required, all of which are fully included in our K-Sim GMDSS simulator. The trainee have

the possibility to proficiently operate GMDSS equipment required in sea areas A1 (covering coastal waters) A2 (which extends to 400 nautical miles from the coast), A3 and A4 (covering the rest of the world), and learn how to take the responsibility for radio communication during distress, urgency, safety, and routine incidents.

Given the significant issues arising from false distress alerts in GMDSS, the simulator also facilitates training on techniques to avoid unintentional transmission of such alerts.

*“K-Sim GMDSS provides realistic simulation of GMDSS equipment. To optimize the training experience, we have included a 3D-view of the various instruments enabling students to virtually handle and inspect the devices - and even switch batteries if needed.”*

Martin Reiten  
Product Director

# Equipment and Deliverables

### Equipment Included

The K-Sim GMDSS Simulator is equipped with all necessary devices to conduct advanced exercises covering all aspects of GMDSS, including Search and Rescue (SAR). In addition, we have included a range of effects like fire and explosions on board traffic ships, traffic ship sinking scenarios, and debris in the water for the ultimate realism in training scenarios. We also offer an optional RDF instrument tailored for SAR exercises.

Kongsberg Digital AS utilizes generic Human-Machine Interface (HMI) with functions similar to actual instruments found on vessels. This means that the simulator realistically emulates various commonly used radio equipment, with mimics behavioral characteristics, accuracy, reaction time, and limitations you'll find in corresponding real equipment.

### Delivery Specifications

The K-Sim GMDSS Simulator is delivered with the following radio communication equipment as required for the different sailing areas:

#### A1 - coastal waters

- Connected and working reserve source of rechargeable battery for the radio installation
- Navtex receiver, included all 21 NAVAREA
- EPIRB, replicated JOTRON with built in GPS sending to COSPAR[1]SARSAT, homing signal on 123.5 MHz and AIS
- Radar SART, JOTRON
- VHF with DSC, Sailor equipment
- Portable VHF, Sailor equipment
- Portable VHF Air JOTRON

#### A2 - up to 400 nautical miles from the coast

- MF/HF with DSC Sailor equipment
- Fleetbroadband, Sailor 250 system

#### A3 and A4 - covering the rest of the world

- Inmarsat C Sailor 6118
- Iridium, Lars Thrane LT-3100S GMDSS



## K-Sim GMDSS Instructor Station includes:

- 2 × 24" monitor
- Computer
- Sound bar for 24" monitor
- Headset with microphone, Closed type
- Footswitch for PPT
- Firewall router
- Network switch

The Instructor System empowers the instructor to create exercises with parameters encompassing geographical position, ship heading and speed, identification names and numbers, sea area, and types of equipment simulated onboard.



## K-Sim GMDSS Student Station includes:

- GMDSS Computer
- 24" Monitor1 (Touch)
- 24" Monitor2 (Touch)
- Windows License
- Headset with mic
- PC suspension bracket
- Mouse pad

Student stations can communicate with the instructor or among themselves, representing ships, aircraft, or shore stations. Specific exercises aligning with training objectives for these areas can be designed. The instructor can configure available instruments for each exercise and simulate equipment loss as needed.

## We empower the future of maritime training

Please contact us if you would like more information about our K-Sim Engine Simulator Solutions. **We are here to support you.**

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