NAVI-TRAINER 5000 PROFESSIONAL

Fishing trainer

WÄRTSILÄ

TOWARDS A SMART MARINE ECOSYSTEM USING SIMULATION

We are leading the industry's transformation towards a Smart Marine Ecosystem, whereby **real-time communication** and the **digitalisation** of all aspects of shipping and port operations, including the entire logistics chain, are utilised to **create long-term value** for our customers and partners.

We believe SIMULATION can be used to optimize the maritime operations on different levels through training, task rehearsals and post-voyage analysis, port and fairway design studies, ship design and as a test bed for automation and control systems.

And remember- the devil's in the details!

FISHING TRAINER- Development drivers

FISHING TRAINER

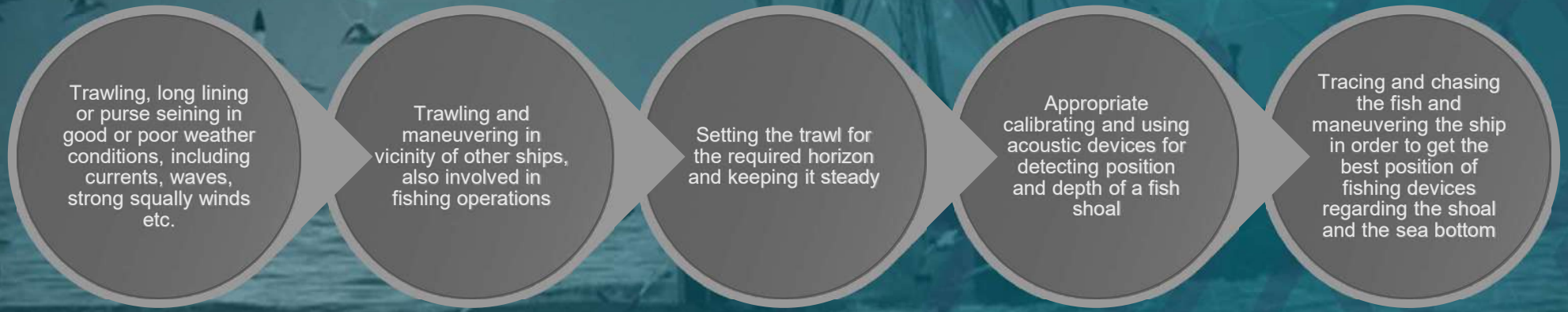
TRAINING APPLICATIONS

- Standard STCW training
- Training on fishing procedures, including vessel maneuvering, handling acoustic devices and fishing gear
- Assess knowledge of deck officers, trawl masters and deck crews for obtaining appropriate licenses
- Refresher training

FISHING TRAINER

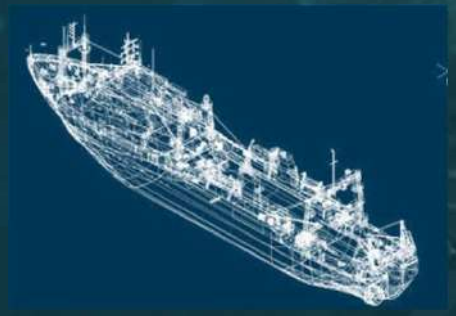
WÄRTSILÄ

MAIN SCENARIOS



FISHING TRAINER

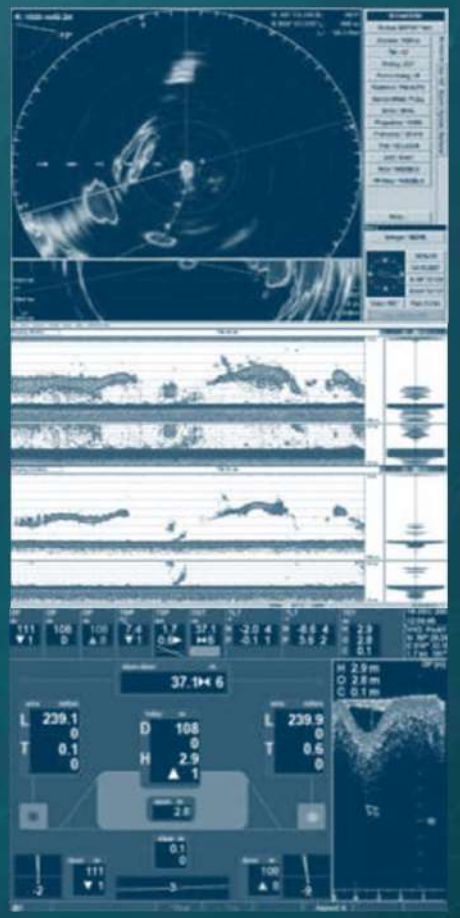
DEDICATED FISHING COMPONENTS



Accurate trawl models, vessels and areas

Acoustic fish-finding and trawl controlling devices simulation

Model of fish behavior



TRAWL MODEL

- Realistic model of bottom and pelagic trawl
- Correct behavior of the trawl under the environmental influence, such as currents, waves etc.
- Trainee can monitor trawl position and load which affects more than 100 elements of the trawl system
- Trawl can be calibrated by the trainee depending on the point of an exercise and type of the fish to be caught. Setting parameters for the otter doors, trawl wires and trawl itself

FISH BEHAVIOR

INSTRUCTOR ABILITIES:

- Set fish shoal type and shape
- Set fish shoal behavior according to the training goals
- Set shoals density and size
- Set fear reaction of a shoal and it's response to such irritants as moving vessel, trawl etc.
- Set shoal route and control motion parameters of this shoal: speed (both cruising and maximum speed), boundaries of horizon change speed
- Split a shoal into several groups that respond to external stimulus in different ways
- Add birds above water surface to facilitate task of detecting a fish shoal

TRAWL CONTROLLING DEVICE

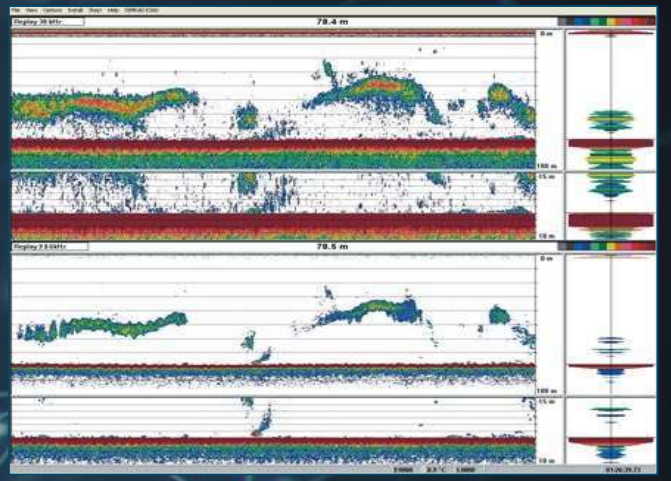
Monitoring key trawl parameters to respond immediately to the slightest changes of trawl behavior

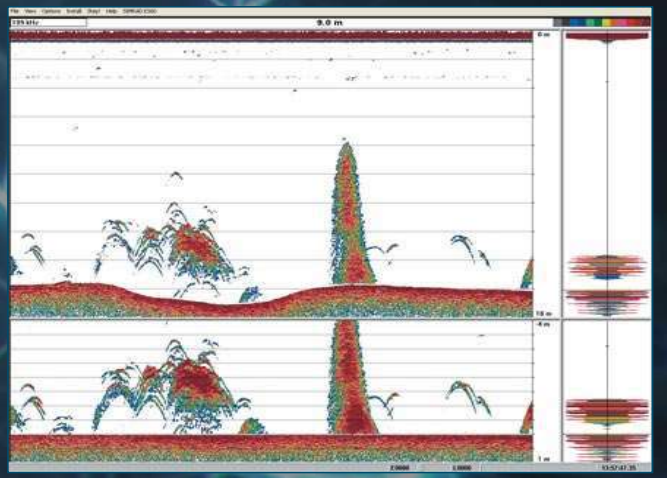
Trainee can monitor the following parameters:

- Vertical and horizontal trawl opening
- Wire length and its tightening force
- Trawl position relative to the bottom
- Trawl motion horizon and it's change tendency
- Trawl boards position

SOUNDER

- Wide range of frequency of operation – from 12 to 200 kHz
- Range of depth scale from 5 to 2000 meters
- Constant operation mode and mode of sending signals by operator request
- It is possible to choose up to 4 operating frequencies without causing device overload
- Adjusting appearance and echogram parameters
- Instructor can introduce faults and restrictions





SONAR

Simulator comprises omni-directional two-beam sonar which is based on the up-to-date devices from leading manufacturers

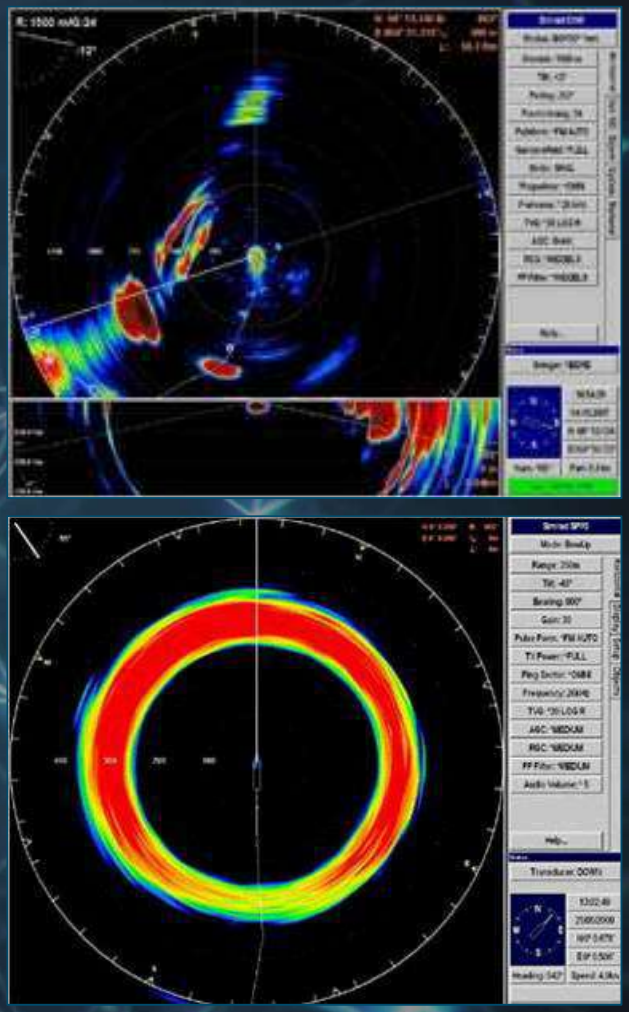
It is possible to select frequency (20-30 kHz) and signal length (1-85 ms)

Automated roll stabilizing (up to 20 degrees)

Wide operation range (1500 – 8000 meters)

Two beams can simultaneously work in different modes

Instructor can introduce faults and restrictions



CONFIGURATIONS

Computer based training

Individual in-house or distance learning, Equipment familiarization, knowledge updates, self-examination and competence assessment

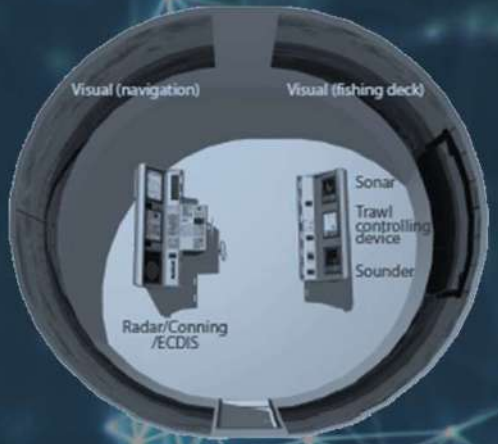
Networked Classes

Interactive group exercises under instructor supervision

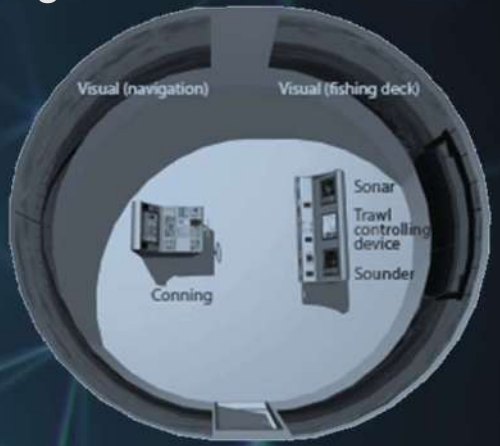
Full Mission Simulator

Final training and assessment

Full Mission Configurations



Training of both fishing deck and navigational personnel. Up to five trainees can study simultaneously.



Responding to fishing devices is in focus, but mastering of common navigational skills is restricted. Two trainees can study simultaneously.

The most convinient option for familarisation tasks and individual training. Both acoustic devices and ship handling console are at hand.

THANK YOU!


WÄRTSILÄ