



Purpose

FFLBS Freefall lifeboat simulator is intended for training of personnel working on ships equipped by freefall lifeboat in accordance with STCW Code:

- Section B-I/14, 1.1 'Guidance regarding the responsibilities of companies and recommended responsibilities of masters and crew members',
- Section A-VI/1 'Specification of the minimum standard of competence in survival craft and rescue boats other than fast rescue boats',
- Section A-VI/1, Table A-VI/1-1 'Specification of minimum standard of competence in personal survival techniques'.

The simulator can be used to train the coxswains of free fall lifeboats operated on mobile offshore units in accordance with OPITO standard "Offshore Lifeboat Coxswain Training"

Implementing of simulator into the training process will provide training center conformity with new 2024 **revision** of IMO Model Course 1.23 on Proficiency in survival craft and rescue boats other than fast rescue boats.

New revision emphasizes practical training sessions, that require access to a navigable river, lake or the sea, preferably in harbour or estuarial waters. The practical drills and evaluation could be carried out aboard a ship, making use of its equipment and facilities.

At the same time, the training elements of the practical drills and exercises related to the **launch, recovery, operation** and **maneuvering** of lifeboats and rescue boats, including night drills, drills into **rough seas**, and drills in **ice covered waters** may be conducted using simulation.

Training elements related to equipment familiarization and survival craft seamanship should still be delivered using an **actual** survival craft conforming to the LSA Code.

Knowledge and skills

The simulator allows to drill the following skills:

- boarding lifeboat,
- freefall launching,
- clear the ship's side,
- **handling** and **maneuvering** of lifeboats in different weather conditions, including **rough seas**, and **at night**.

Target group

Deck - Management
Deck - Operational
Deck - Support

Engine – Management
Engine – Operational

Ship types

All types





Structure

The simulator includes the following equipment and software:

- embarkation station,
- free fall lifeboat model, which is part of a real fire-retardant lifeboat, conforming with LSA Code.
- 6 DoF dynamic platform,
- computer and video equipment,
- software that ensures the operation of the simulator.

Operational scheme

Students, while on the embarkation station, board the lifeboat, fixed on a 6 DoF dynamic platform. A coxswain takes place at the steering wheel.

After boarding and preparation the coxswain initiates freefall launching.

An important feature is that during start of the exercise, the lifeboat moves together with the vessel on which it is installed, depending on the waving state. It may have the same list and additional trim. The entry into the water is not perfect, but subject to the above conditions.

Then the coxswain clears the ship's side and carries out handling the lifeboat in different weather conditions including rough sea.

All students can feel some stress during launching, emergence and being in the lifeboat, but in safe manner.

Lifeboat

The used lifeboat is a part of a real freefall lifeboat with the bow cut off. The bow section is closed by an end bulkhead made of the lifeboat hull material.

The lifeboat is equipped in accordance with LSA Code.

At the request of the customer, the hull of the lifeboat can be marked with the special name of the ship or name of the organization and port of registry as well as logotype.

Dynamic platform

The dynamic platform ensures the movement of the lifeboat along the trajectories and at the speed set in the software, including freefall launching and float free, as well as the behavior of the lifeboat on the water surface in rough sea.



Computer and video equipment

CCTV is installed in the cabin and outside with the output of information to the instructor's workplace, and with the possibility of recording and archiving exercises. Monitors are installed in place of the portholes to display the visualization of the surface situation.

Software

The software consists of:

- Instructor WorkPlace (IWP),
- Student WorkPlace (SWP),
- Dynamic platform control module,
- Module for processing commands from the lifeboat controls.

IWP functions:

- choice of the navigation area;
- adjusting:
 - wave height,
 - precipitation intensity,
 - visibility restrictions,
 - time of day,
 - drift speed and direction;
- video and audio monitoring of what is happening inside the cabin, the ability to provide a loudspeaker connection for operational messages;
- video recording for debriefing;

- emergency stop of the exercise, return of the simulator to its initial state.

Navigation areas:

- Open sea.
- A part of the sea near coastline, for drilling skills of intentional grounding a lifeboat.

SWP functions:

- freefall launching;
- starting and operating an engine;
- handling lifeboat in rough weather;
- Intentional grounding a lifeboat;
- display of the surface situation.



Dynamic platform control module

The module controls the dynamic platform in order to ensure its movement along the trajectories corresponding to the freefall launching and emergence, as well as the behavior of the lifeboat on the water surface in rough weather.

Module for processing commands from the lifeboat controls

The module ensures processing commands from the following controls:

- engine control panel buttons,
- throttle,
- steering wheel,
- release devices,
- top light button,
- search light button.

Methodical guidelines for using the simulator

The simulator is supplied complete with guidelines for the use of the simulator, developed in accordance with the Technical description and operating instructions for a freefall fire-proof lifeboat.

Operating conditions of the simulator

Requirements for the premises for the delivery, installation, storage and use of the simulator:

- heated, dry, enclosed, well-lit, with dimensions: for the layout of the lifeboat, platform and ladder with landing pad - at least (L x W x H, m) - 9 x 9 x 5; for the instructor's workplace - at least (L x W, m) - 2 x 2;
- a separate, well-ventilated or forcibly cooled room for a hydraulic oil station with dimensions of at least (L x W, m) - 2 x 2.

Operating conditions:

- three-phase electric power supply with a capacity of at least 10 kW.
- floor load of at least 2 t/sq.m.
- temperature not less than 10°C.
- humidity not more than 70%.
- supply and exhaust ventilation.



Additional options

The simulator can be supplied with e-learning modules for theoretical education, multimedia training software for practice, and Knowledge assessment software for testing.

Configurations

FFLBS can be delivered in the following configurations:

- FFLBS-A1 - full mission, on the dynamic platform, class A,
- FFLBS-A2 - full mission, without dynamic platform, class A,
- FFLBS-B - with simplified cabin and real control organs, class B,
- FFLBS-C - computer version with pseudo-real control organs, class C.

Legislation

- Regulation VI/2 STCW Convention, Section A-VI/2 STCW Code, Table A-VI/2-1 "Specification of the minimum standard of competence in survival craft and rescue boats other than fast rescue boats",
- IMO Model Course 1.23 "Proficiency in Survival Craft and Rescue Boats (other than Fast Rescue Boats)" (2024 Edition),
- Section B-I/14 STCW Code "Guidance regarding the responsibilities of companies and recommended responsibilities of masters and crew members",
- Regulation VI/1 STCW Convention, Section A-VI/1 STCW Code, Table A-VI/1-1 "Specification of minimum standard of competence in personal survival techniques",
- OPITO Offshore Lifeboat Coxswain Training Standard.



Simulator

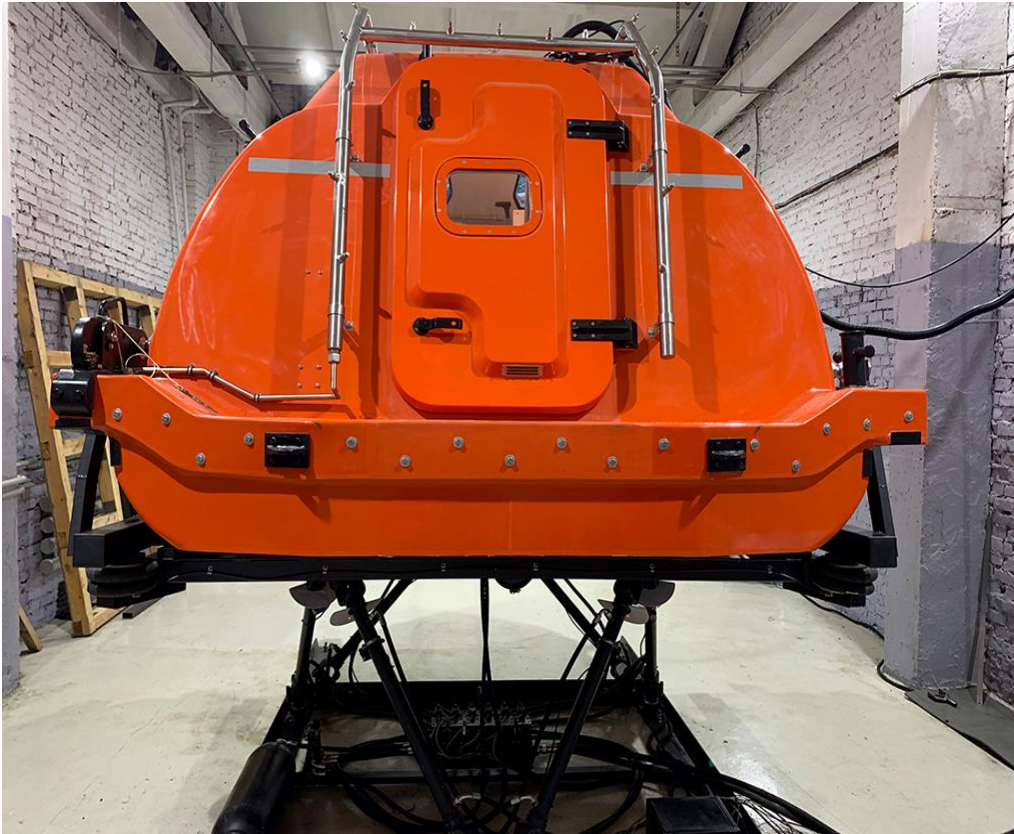
FFLBS FREE FALL LIFEBOAT SIMULATOR





Simulator

FFLBS FREE FALL LIFEBOAT SIMULATOR





Simulator

FFLBS FREE FALL LIFEBOAT SIMULATOR





Simulator

FFLBS FREE FALL LIFEBOAT SIMULATOR





Simulator

FFLBS FREE FALL LIFEBOAT SIMULATOR





Simulator

FFLBS FREE FALL LIFEBOAT SIMULATOR





Simulator

FFLBS FREE FALL LIFEBOAT SIMULATOR

