Storm

**«SaS» Safety and Security Simulator**

**(Ver. 1.0  Advanced firefighting )**

**Purpose**

**«SaS» Safety and Security Simulator, version 1.0** is intended for training officers in advanced firefighting in accordance with Section A-VI/3 of STCW Code requirements in the part concerning control of firefighting operations aboard ships and organization of fire parties.

List of basic knowledge and skills, worked out with the use of the simulator:

- Organization and control of fire-fighting operations;
- Strategies and tactics for control of fires in various parts of the ship;
- Communication and coordination in the process of fire-fighting operations;
- Control of ventilation, fuel and electrical systems;
- The use of fire detection and extinguishing systems and equipment.
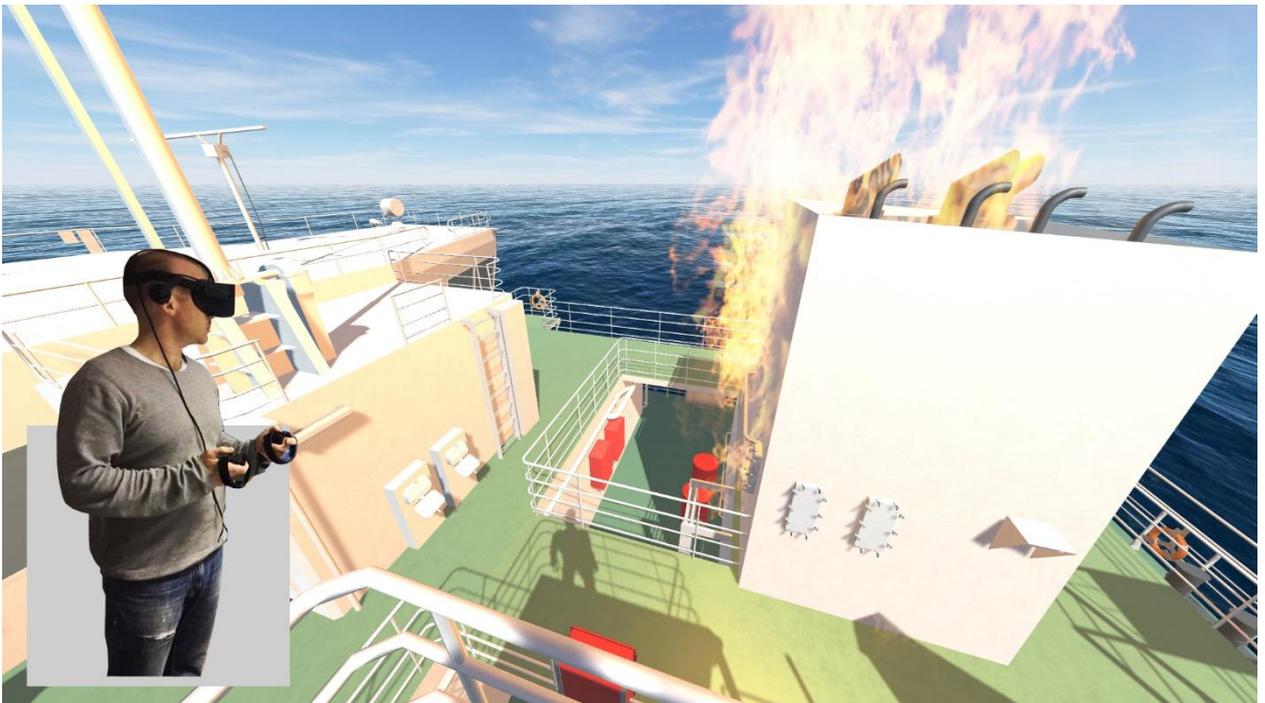


**Users**

Sea-going and inland vessels crewmembers.

**3D Virtual Environment**

The detailed model of crude oil tanker is the base of 3D virtual environment that includes external outlines and ship compartments in which the following imitators are realized:

- fire detection and extinguishing systems and equipment
- fire alarm systems
- ship communication equipment
- active elements (water tight doors, illuminators, fire and smoke dampers, etc)

Models of all fire classes are realized in the simulator.

Students have access to the ship documentation such as fire plan, contingency plan, etc.

**Operational Scheme**

Practical skills training is performed in 3D virtual environment. The Instructor enters contingencies and hazards, connected with fire progress on the ship, into 3D virtual environment according to a previously prepared scenario of emergency.
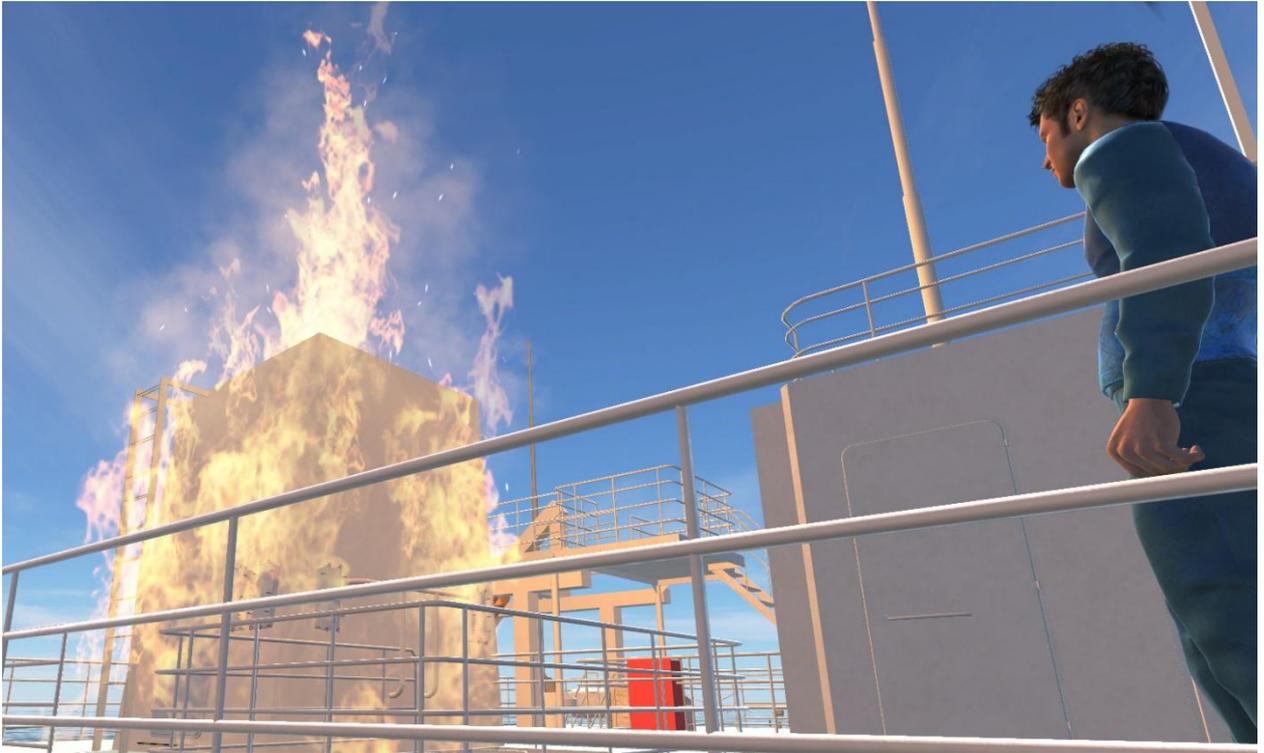
Students, in a team (emergency party), carry out their responsibilities for firefighting depending on duties designated by the Instructor and in accordance with the Emergency Muster List and firefighting plans. scenario of progress of an emergency situation depends on how correct students actions are.

Within the training, students have an opportunity to move around the virtual ship, to apply imitated systems and equipment, to communicate by internal and ship to shore communication system.

The Instructor controls and monitors each student's training, in the process of exercises performing audio- and video recording is carried out for the effective debriefing of trainees.

## VR technologies

Virtual reality glasses and controllers to perform actions using hands can be used in the simulator.

The simulator provides ship equipment and hazards sounds with a volume that is dependent on the distance from the source and Student location.

The use of VR technology ensures compliance with the general performance standards for simulators used in training listed in Section A-I/12 STCW Code:

«Simulator shall have sufficient behavioral realism to allow to acquire the skills appropriate for the training objectives;

provide a controlled operating environment, capable of producing a variety of conditions, which may include emergency, hazardous or unusual situations».

**Minimal Configuration**

The simulator is recommended to be used in configuration of 1 Instructor Workplace, 5 Student Workplaces, including:

- Wheelhouse
- MSB room
- Commander of the fire party
- Members of the fire party

At the request of the Customer, the number of workplaces of students can be increased.