



MARINA
MILITARE



ITALIAN NAVY
NAVAL TRAINING CENTRE

NAVAL DAMAGE CONTROL
CONFERENCE 2024

22-24 October 2024



ITALIAN NAVY FLEET STRUCTURE



CINCNAV



1^ Naval Division



Surface TG

2^ Naval Division



Carrier Strike Group

3^ Naval Division



Amphibious Task Group

4^ Naval Division



Naval Patrol Group

**Mine Countermeasures
Force Command**



Submarine Command



Amphibious Command



Naval Aviation Command



C4S Command



Administration Directorate



Naval Training Center




**Dual Role
(CINCNAV – IT NAVY General staff)**





ITALIAN NAVY FLEET STRUCTURE



CINC OF THE FLEET (CINCNAV) ★ ★ ★



ITALIAN NAVY TRAINING CENTER ★



ENGINEERING & SAFETY DEPARTMENT





INSTITUTIONAL TASKS OF THE TRAINING CENTER



✓ MARICENTADD Institutional Tasks

✓ Organizational Chart

✓ Statistics

✓ Courses and Training
Aids

✓ Training Session

✓ Future Prospects of
Training

INDIVIDUAL TRAINING AND SPECIALIST EDUCATION

- Qualification and Specialist Courses for Ship's Officers and Engineer Officers
- **Safety Courses (firefighting, damage control, CBRN, protection and prevention) also for other Armed Forces and Foreign Navies**
- Specialist Courses on Combat Systems and Naval Unit Platforms

TEAM TRAINING

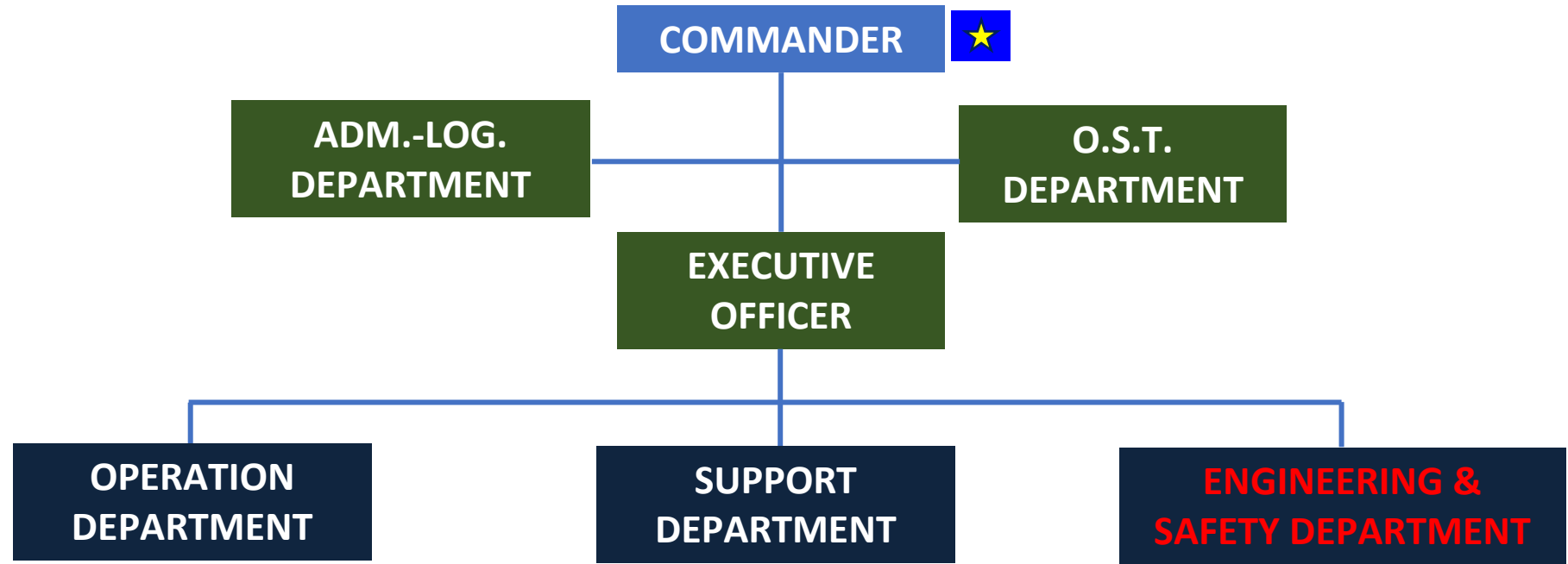
- Naval Training – TIRNAV (for National and Foreign Naval Units)
- Aircraft Training (also for the Air Force)
- Mobile Training Team – MTT
- Synthetic Fleet Training – ASF
- Radio-Target Management

SUPPORT FOR CONDUCT AND EVALUATION OF MAJOR NATIONAL EXERCISES

STUDIES, EXPERIMENTS, UPDATES, AND EVALUATIONS IN TECHNICAL/OPERATIONAL FIELDS



ORGANIZATIONAL CHART

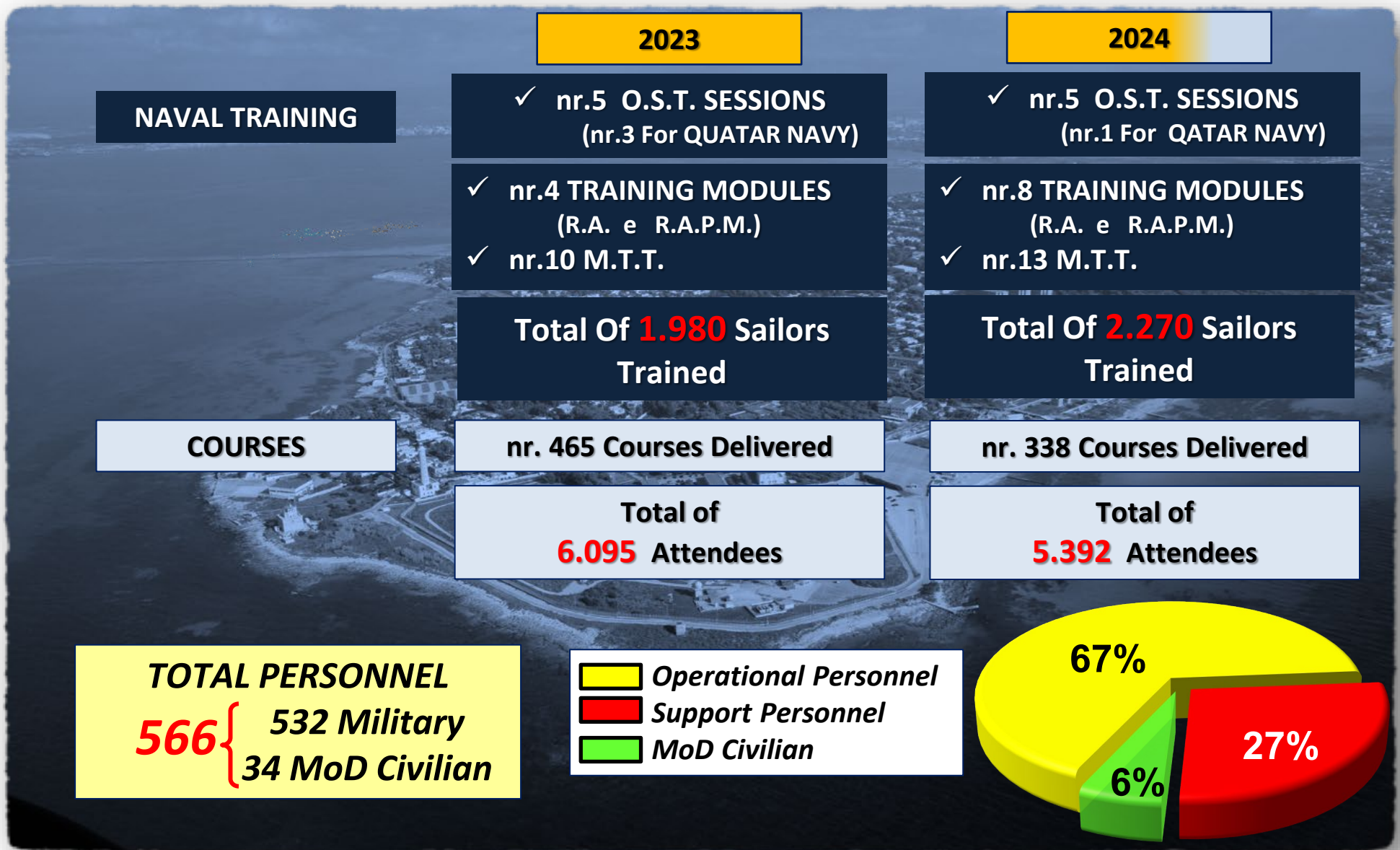


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STATISTICS

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ENGINEERING & SAFETY DEPARTMENT

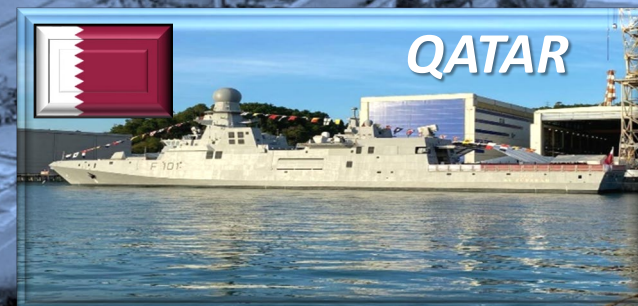
250 Safety courses available per year

6.500 potential attendees per year



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THE DAMAGE CONTROL SAFETY SERVICE

Safety for Italian Navy:

Safety is an essential concept for the Italian Government and for the numerous activities in which the Italian Navy is engaged

The Damage Control Safety Service is a cross-functional role that involves all departments on board, and indeed the theoretical training and practical exercises engage all crew-members (Officers, Petty Officers, and Sailors from the safety teams)

Main principles of D.C.:

- Prevention
- Protection
- Recovery

SAFETY FIRST

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FIRE FIGHTING COURSES

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ELEMENTARY COURSE: Duration: 3 days

To train operators of firefighting teams and crew-members in the first actions to extinguish fire, the correct techniques to don the firefighting gear and the use of fire-fighting equipment and systems

BASIC COURSE: Duration: 5 days

To train team leaders of firefighting teams and the Zone Chief on the organization of fire fighting on board and equipment

COMPUTERIZED SYSTEM SAFETY AND STABILITY

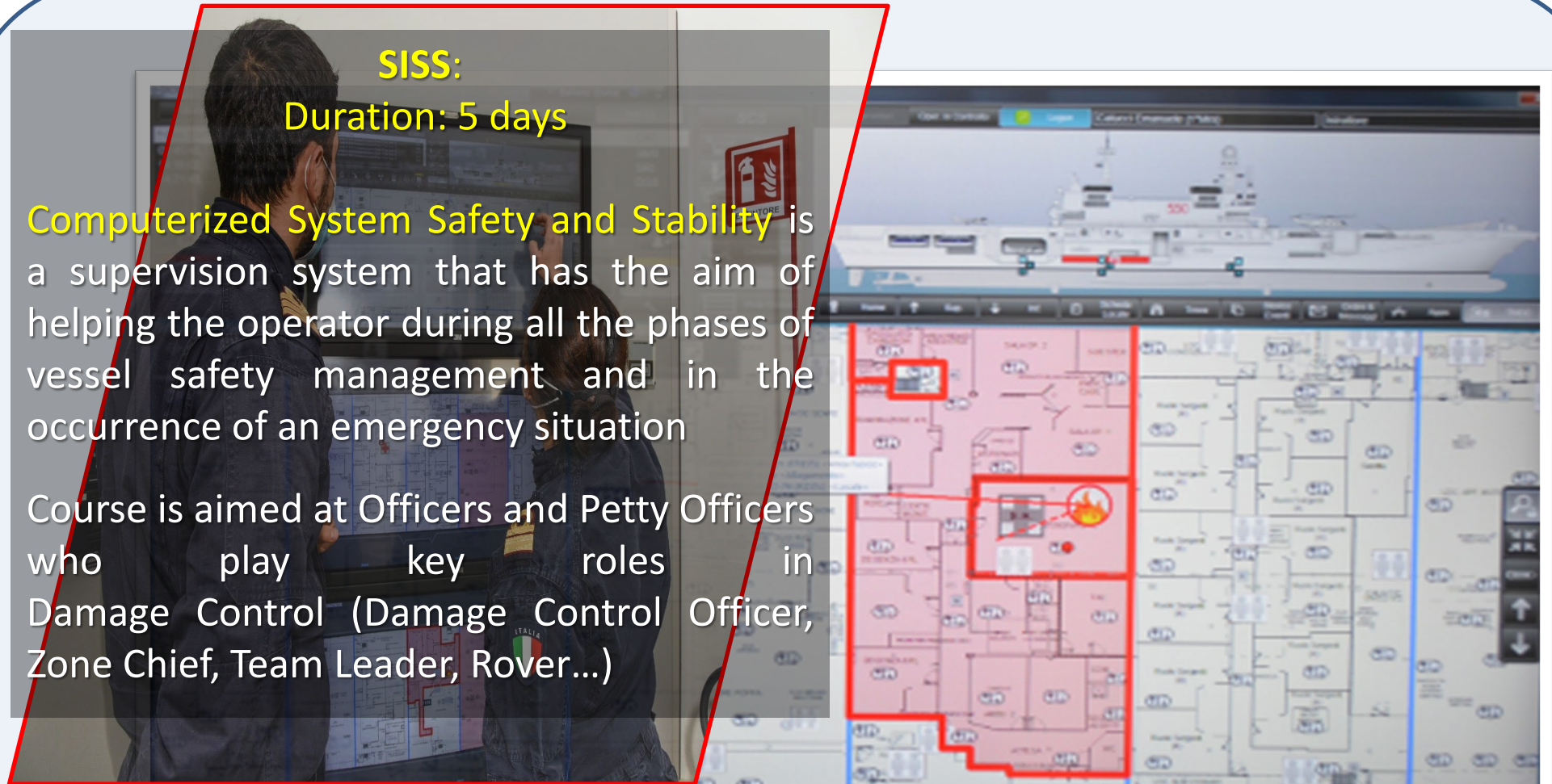
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SISS:

Duration: 5 days

Computerized System Safety and Stability is a supervision system that has the aim of helping the operator during all the phases of vessel safety management and in the occurrence of an emergency situation

Course is aimed at Officers and Petty Officers who play key roles in Damage Control (Damage Control Officer, Zone Chief, Team Leader, Rover...)



FLOOD FIGHTING COURSES

ELEMENTARY COURSE:

Duration: 2 days

To train operators of flood fighting team in the first action to avoid the damage resulting from possible flooding on board. The course provides procedures and knowledge about the effects of water flooding on ship stability and buoyancy

BASIC COURSE:

Duration: 3 days

To train the zone chief and operators about the correct management of the teams in case of flooding on board

The course includes the study of On board Stability System to manage and simulate the damage of flooding and the actions to take to retain stability

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CBRN COURSES

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CBRN - 1:
Duration: 3 days

- Basic Standards of Proficiency- Non-specialists
- Environmental Protection
- Individual protection and CBRN Defence Equipment
- Individual Decontamination

CBRN - 2:
Duration: 5 days

Provide specific training for specialists in littoral and land environment: Land Force-Mobile Units

CBRN COURSES

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CBRN - 3:
Duration: 5 days

Provide specific training for specialists in Naval Forces - Surface Vessels

CBRN W&R:
Duration: 10 days

Reporting Nuclear Detonations, Biological and Chemical Attacks, and Predicting and Warning of Associated Hazards and Hazard Areas

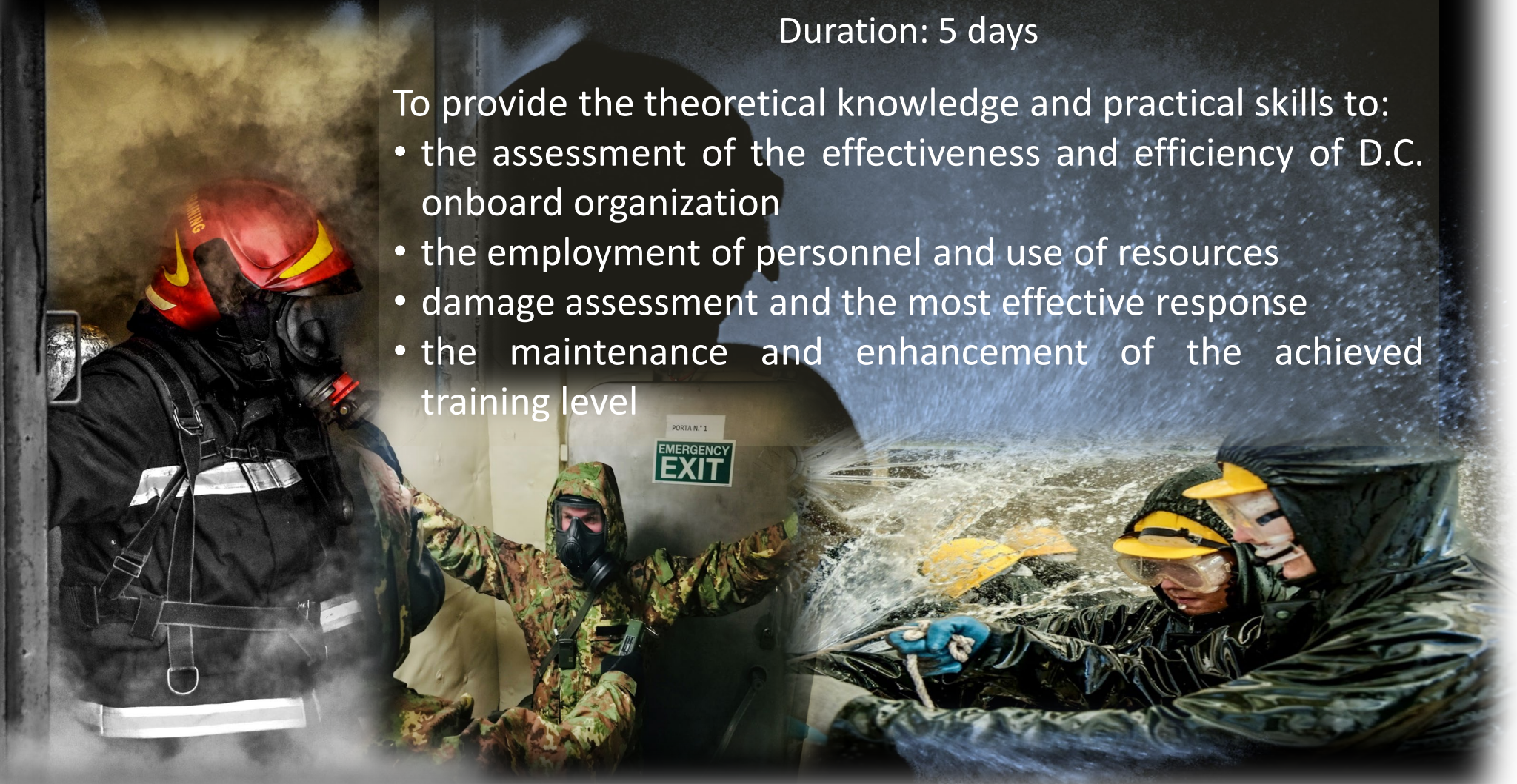
SAFETY AND PLATFORM COURSES

DAMAGE CONTROL COURSE

Duration: 5 days

To provide the theoretical knowledge and practical skills to:

- the assessment of the effectiveness and efficiency of D.C. onboard organization
- the employment of personnel and use of resources
- damage assessment and the most effective response
- the maintenance and enhancement of the achieved training level



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SAFETY AND PLATFORM COURSES

PLATFORM COURSES

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PROPULSION

- Engine propulsion (MAN, MTU, I.F., WARSTILA, GMT)
- Gas turbine (LM 2500, LM 2500 IEC, LM 2500 G4+)
- Gear box, Shaft line and Propellers
- Automation system (platform management system)

ELECTRICAL

- Distribution on board
- Diesel Generators
- Automation system SACIE

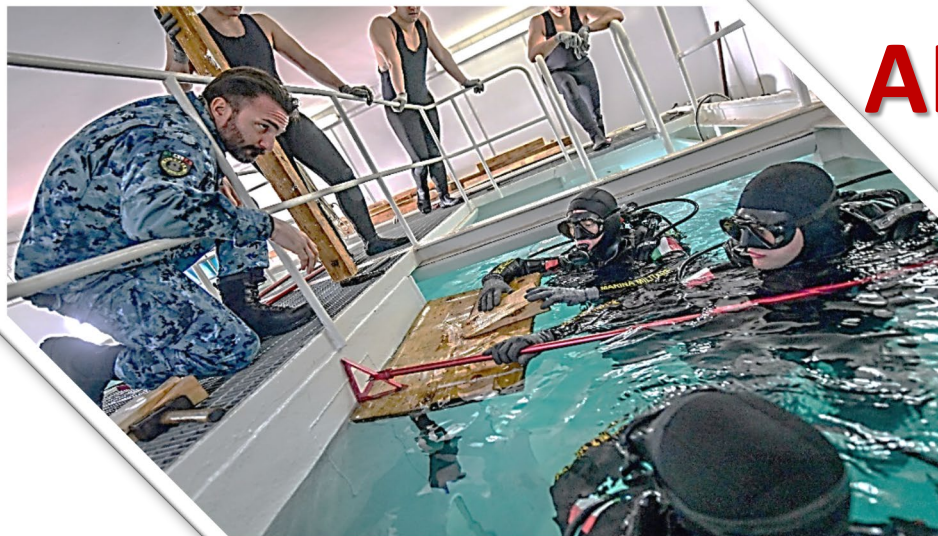
AUXILIARY SYSTEM

- Chiller unit course
- Marpol course
- JP5 advanced course
- Steering gear and rudder

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TRAINING AIDS

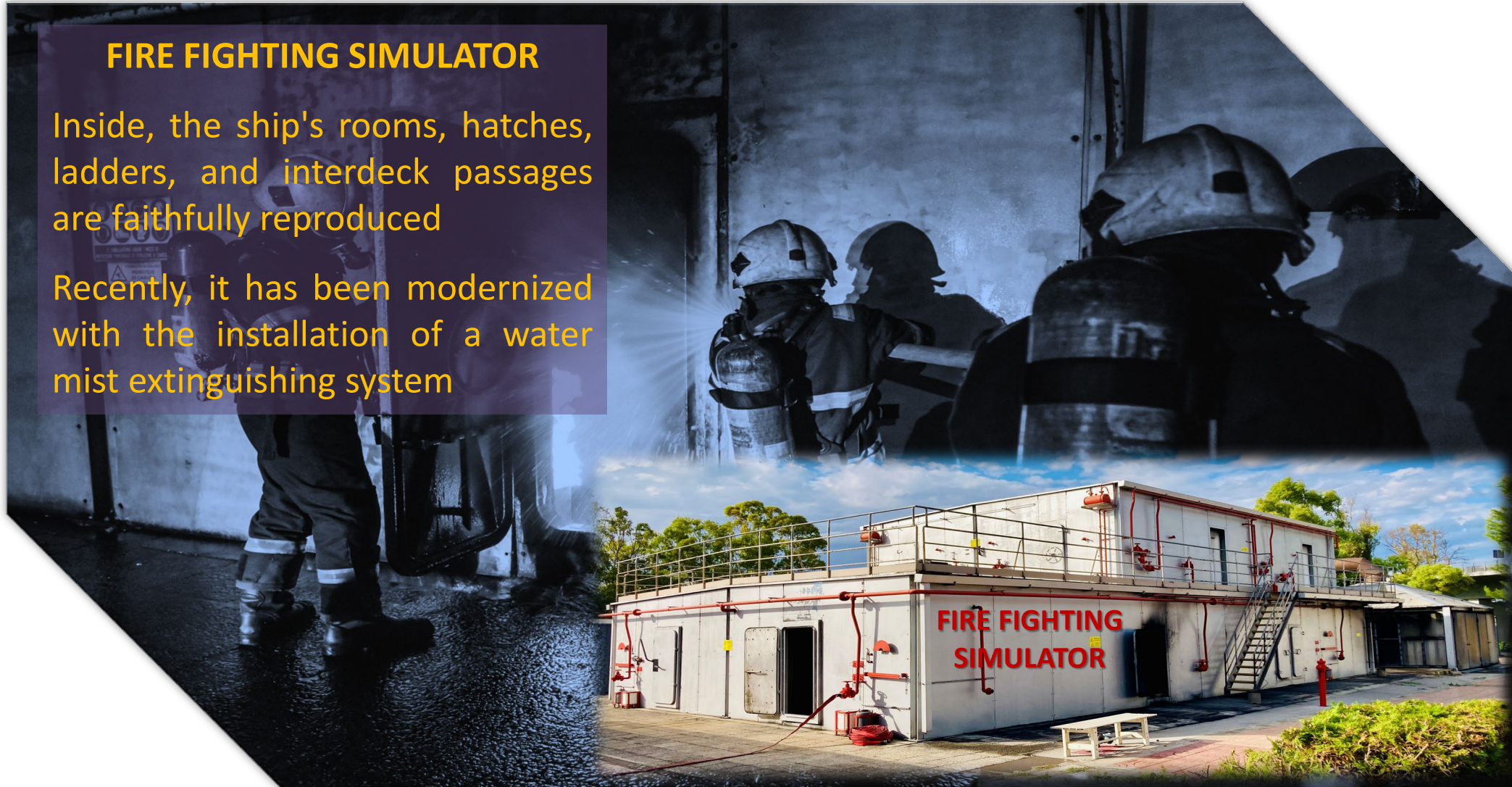


FIRE FIGHTING AIDS

FIRE FIGHTING SIMULATOR

Inside, the ship's rooms, hatches, ladders, and interdeck passages are faithfully reproduced

Recently, it has been modernized with the installation of a water mist extinguishing system



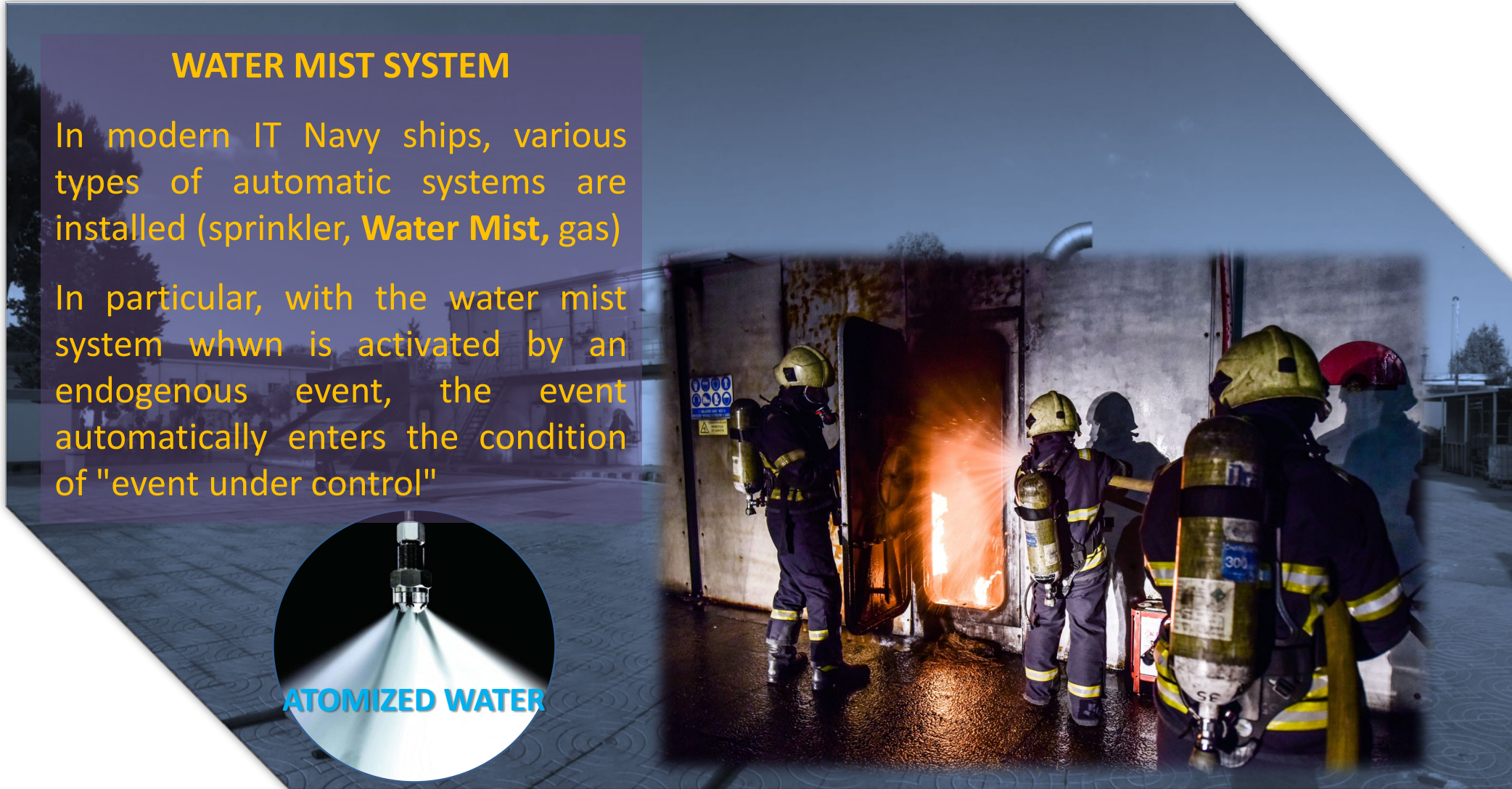
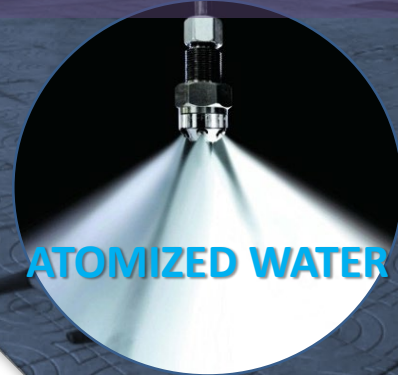
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FIRE FIGHTING AIDS

WATER MIST SYSTEM

In modern IT Navy ships, various types of automatic systems are installed (sprinkler, **Water Mist**, gas)

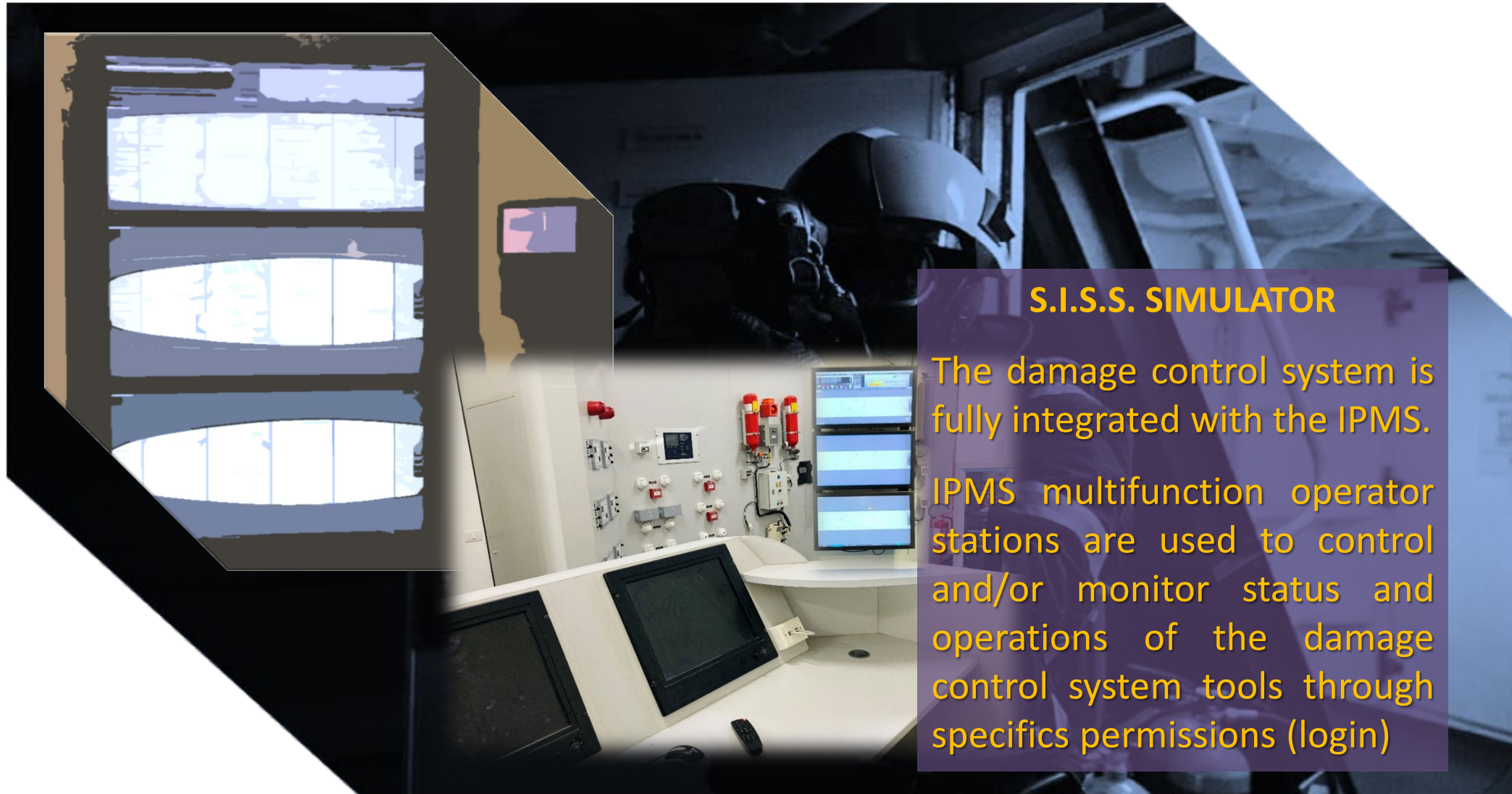
In particular, with the water mist system when is activated by an endogenous event, the event automatically enters the condition of "event under control"



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FIRE FIGHTING AIDS

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S.I.S.S. SIMULATOR

The damage control system is fully integrated with the IPMS.

IPMS multifunction operator stations are used to control and/or monitor status and operations of the damage control system tools through specific permissions (login)

FIRE FIGHTING AIDS

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FIRE TRANSITION AND FIRE TANK SIMULATOR

Provide specific training for personnel to safely exit a burning room and to correctly perform initial intervention with a portable fire extinguisher



FLOOD FIGHTING AIDS

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NAVAL DAMAGE CONTROL SIMULATOR

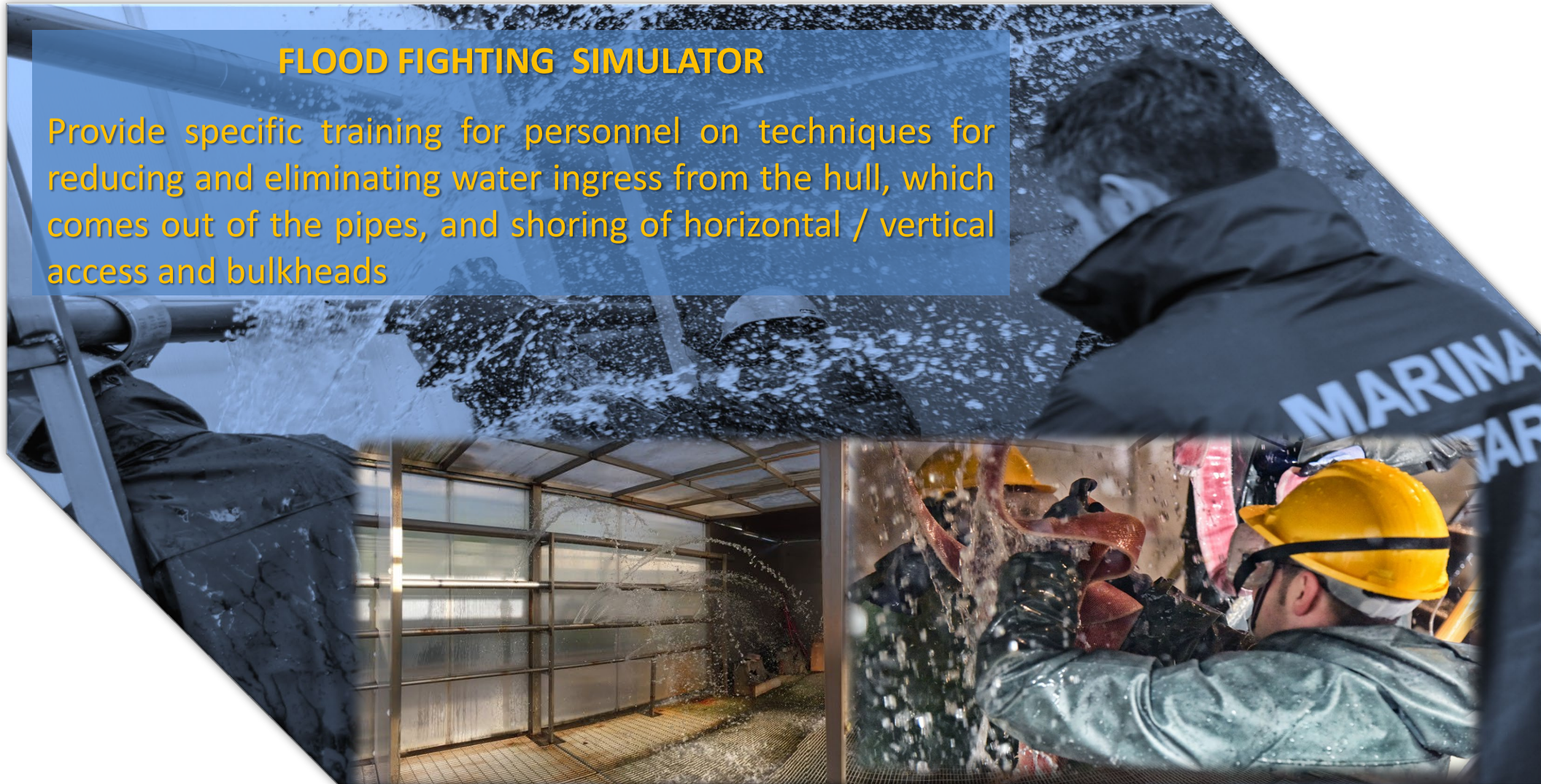
Provide specific training for personnel by recreating complex drills involving fires, flooding, or simulating CBRN contamination events.

The simulator is equipped with a control station that allows for the loading and unloading of water from the compartments, simulating the inclination of the ship for maximum realism.



FLOOD FIGHTING AIDS

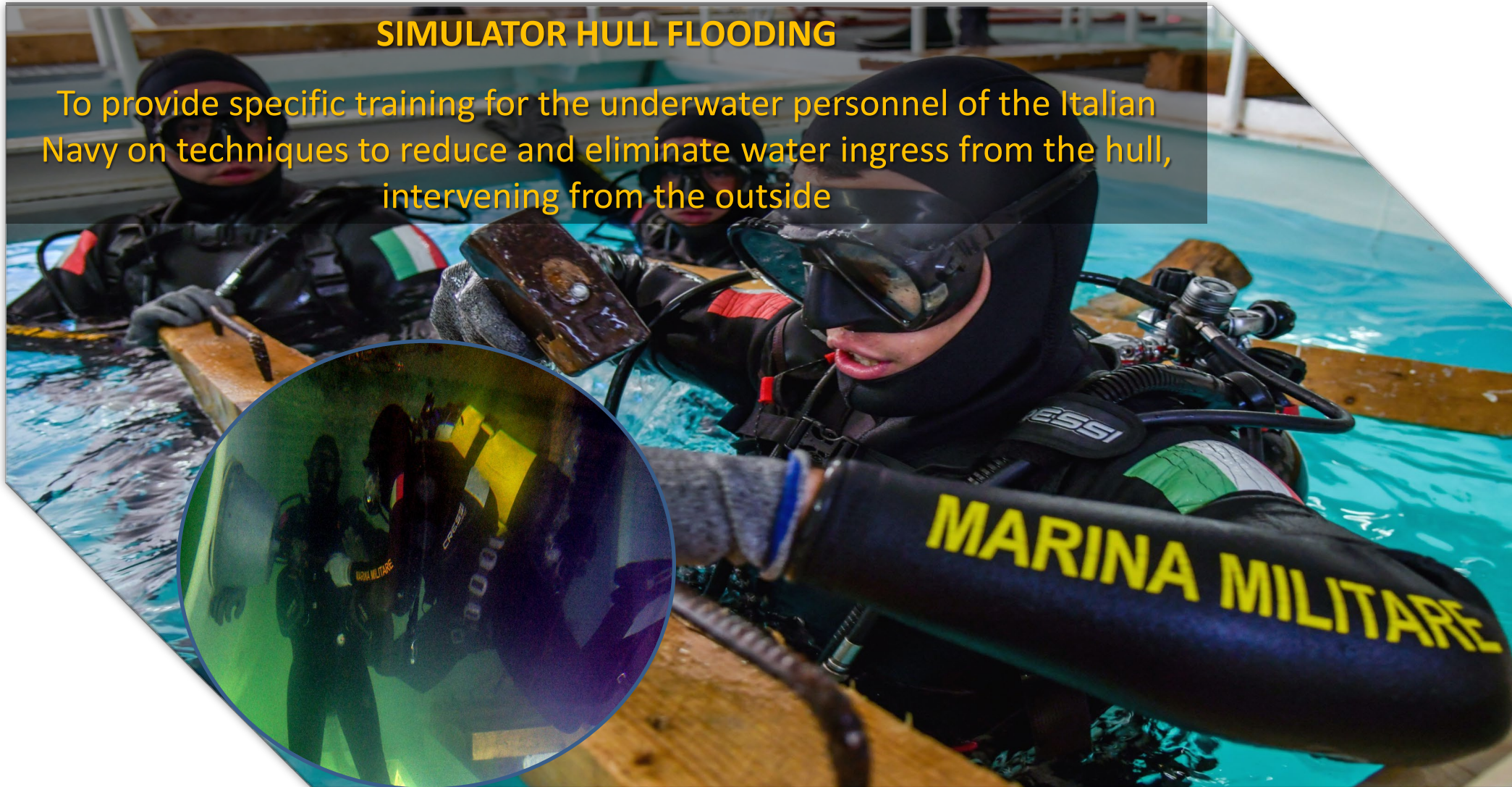
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FLOOD FIGHTING AIDS

SIMULATOR HULL FLOODING

To provide specific training for the underwater personnel of the Italian Navy on techniques to reduce and eliminate water ingress from the hull, intervening from the outside



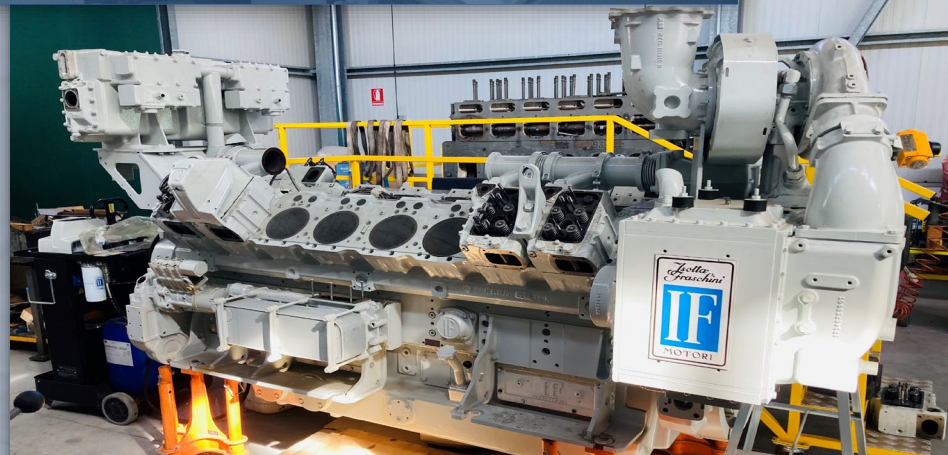
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PLATFORM AIDS

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Automation propulsion system



Diesel propulsion/generetor engine



Gas turbine

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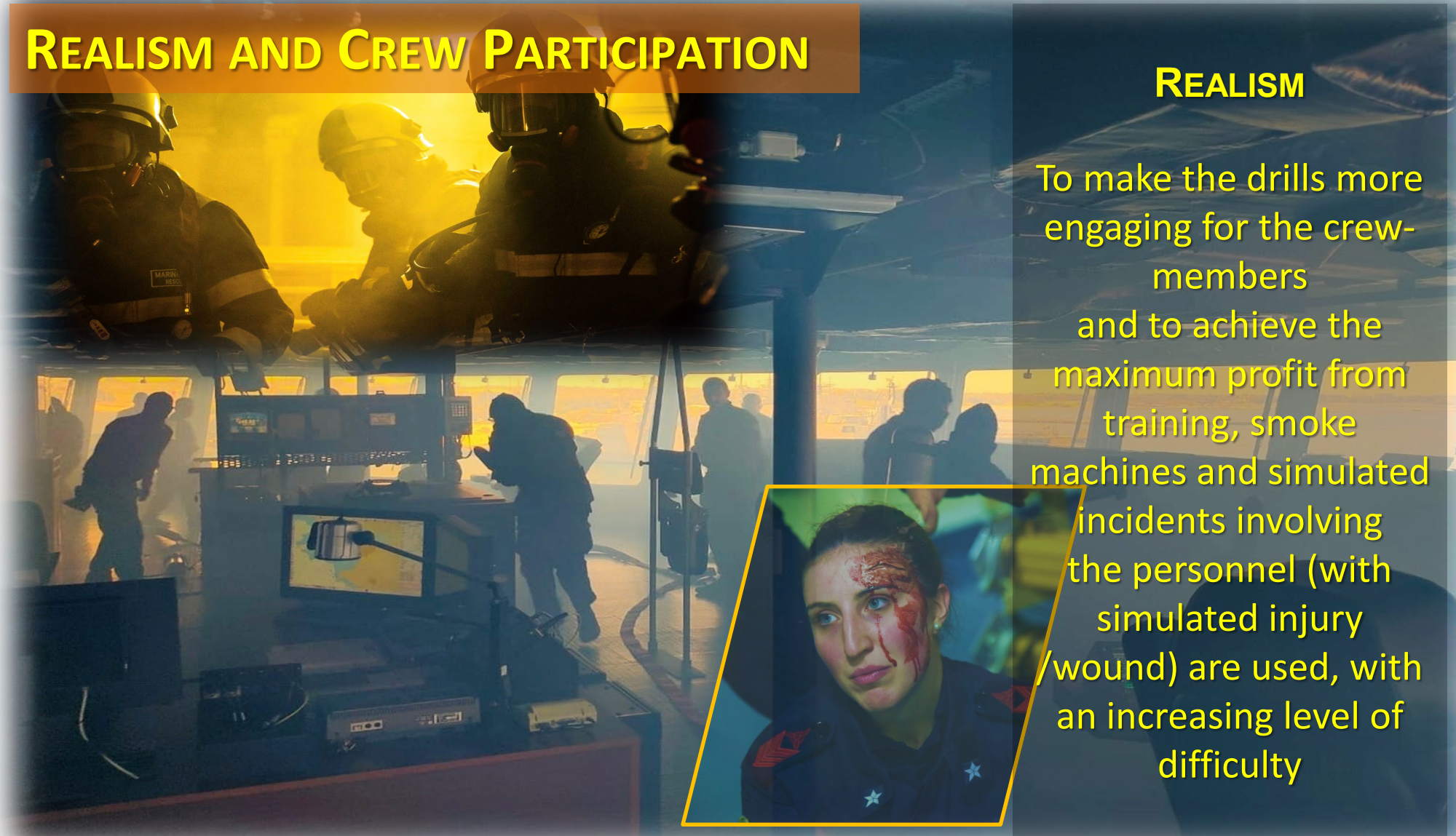
AIM



**OPERATIONAL READINESS OF
NAVAL UNITS**

REALISM AND CREW PARTICIPATION

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REALISM

To make the drills more engaging for the crew-members and to achieve the maximum profit from training, smoke machines and simulated incidents involving the personnel (with simulated injury/wound) are used, with an increasing level of difficulty



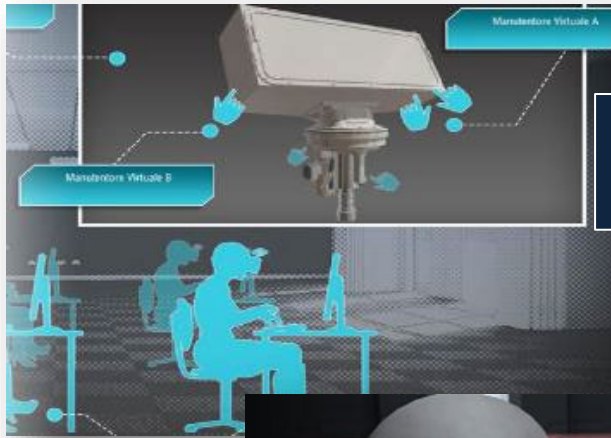
ON BOARD TRAINING SESSION



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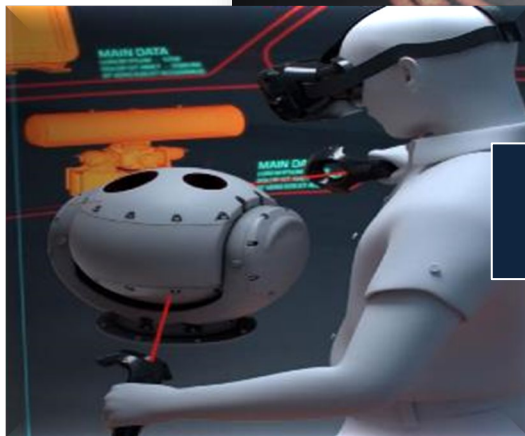
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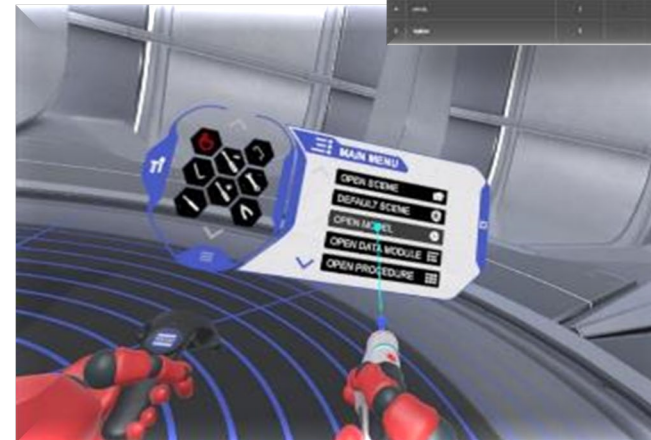
VIRTUAL ROOMS



SIMULATORS

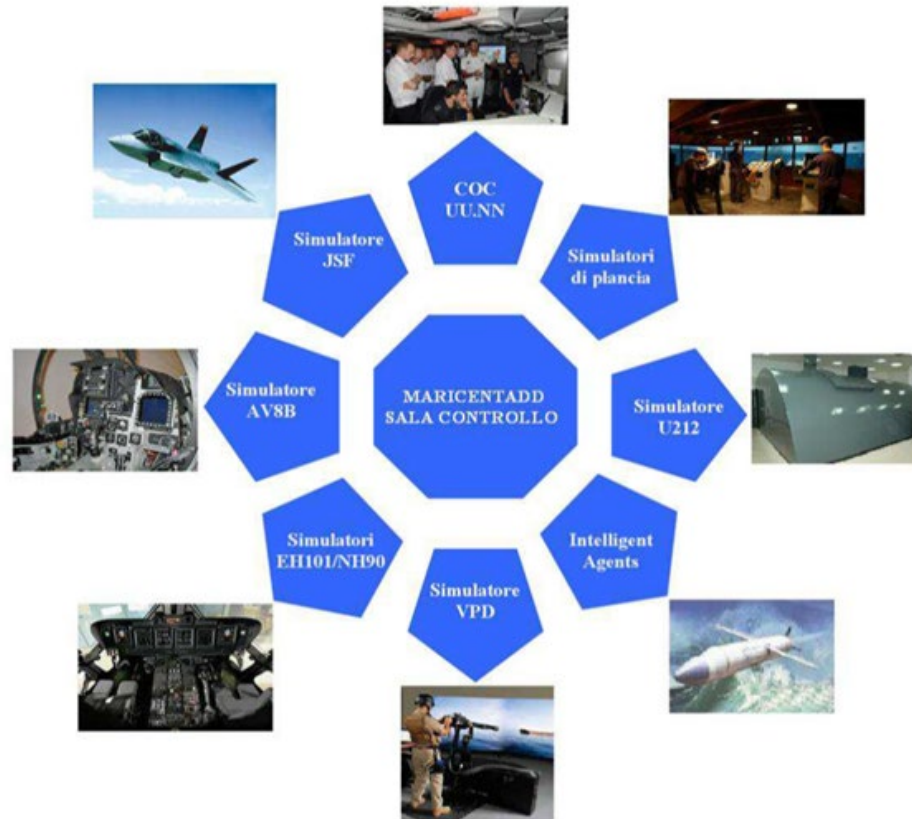


VIRTUAL REALITY



ITN DISTRIBUTED TRAINING (TDMM)

Draft of «Preliminary Operative Requirement» (R.O.P.) for the renewal and modernization of training aids of ITN Training Center



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ISOLATED PROJECTS

- MORPHEUS XR NA30-MK2 → Fire Control System Simulator for maintenance procedures



- N. 2 Combat Integrated Center (CIC) SADO 4 like



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ISOLATED PROJECTS

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- Vulcano room (Simulator classroom for gun caliber 127/64)



- Renewal of Tactical Trainer (A.T.) CIC SADO 4



ISOLATED PROJECTS

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- Naval Damage Control simulator



- Computerized System for Security and Stability (SISS)



ISOLATED PROJECTS

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- Ship Management System (SMS) FREMM and PPA class



- Medium voltage substation simulator – FREMM class



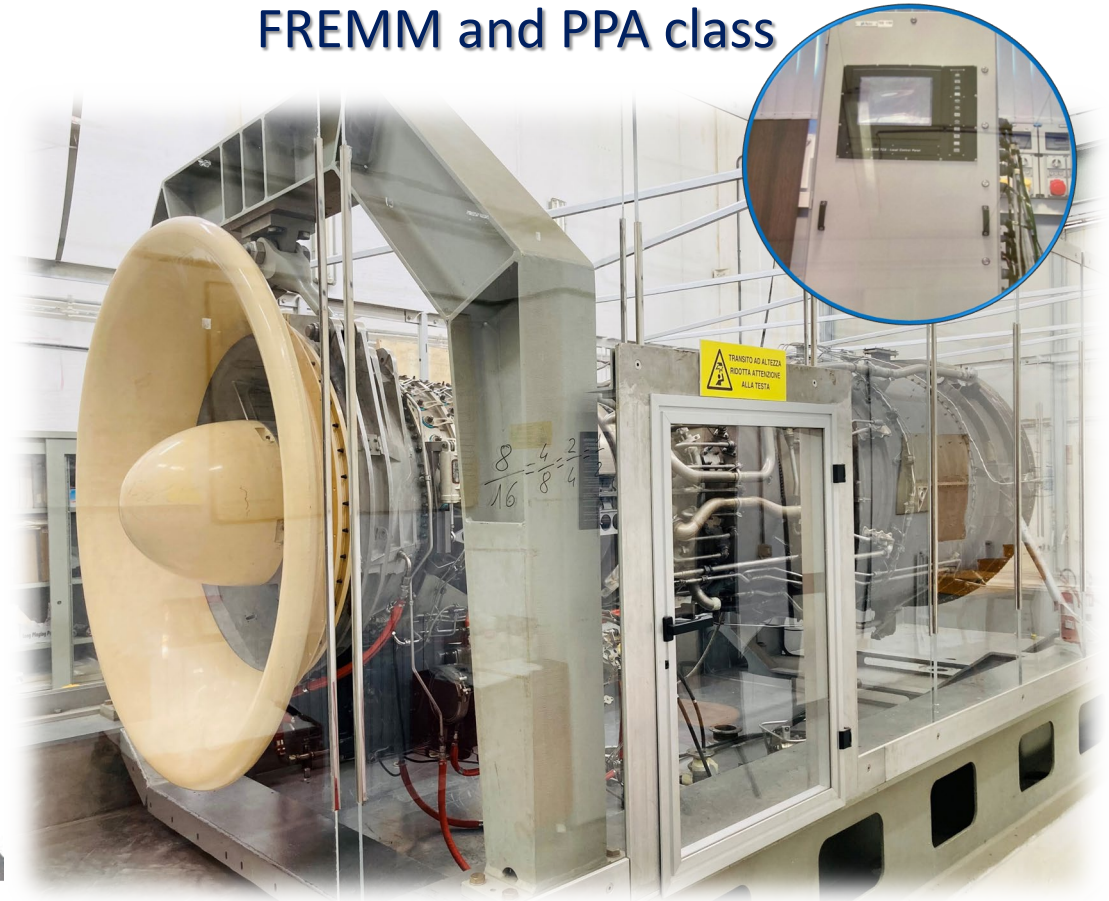
ISOLATED PROJECTS

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- Platform simulator



- Turbine Control System (T.C.S.) FREMM and PPA class





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