



METEKSAN
SAVUNMA

Meteksan's D/C Trainer

22-24 OCT 2024

METEKSAN.COM



/meteksansavunma

TÜRKİYE'NİN
TEKNOLOJİ GELİŞTİRME MERKEZİ

TURKEY'S
TECHNOLOGY DEVELOPMENT CENTER



About Meteksan

- Established in 2006 to produce high technology products for Armed Forces globally.
- Largest private Turkish defence electronics company.
- Completed various projects in Türkiye, Asia, Middle East, Africa and Europe.
- Part of Bilkent Holding which is listed among the top 50 holdings in Türkiye.
- Owned by Bilkent University, the first private, nonprofit university of Türkiye.
- All the revenues generated are transferred to Bilkent University to enable more students to receive scholarships for a contemporary and equal opportunity education.



Main Features

Damage Control capability is a critical effect for preserving the integrity, stability and maneuverability of vessels.

To keep the ship floating, moving and fulfilling her mission the key to enable these is **a realistic training environment** for the ship's crew to develop and conduct damage control exercises.

- Live simulations for various damage conditions
- Versatile scenario creation
- High level of automation
- Easy to operate and maintain
- High reliability
- Comprehensive performance evaluation
- Generic design
- Customized and changeable damage types and locations
- Roll capability up to 20 degrees
- Water level control in wet compartments
- Day/Night and emergency lighting, sound effects
- Ventilation and air conditioning
- Emergency stop system
- Mock-ups resembling navy fixtures



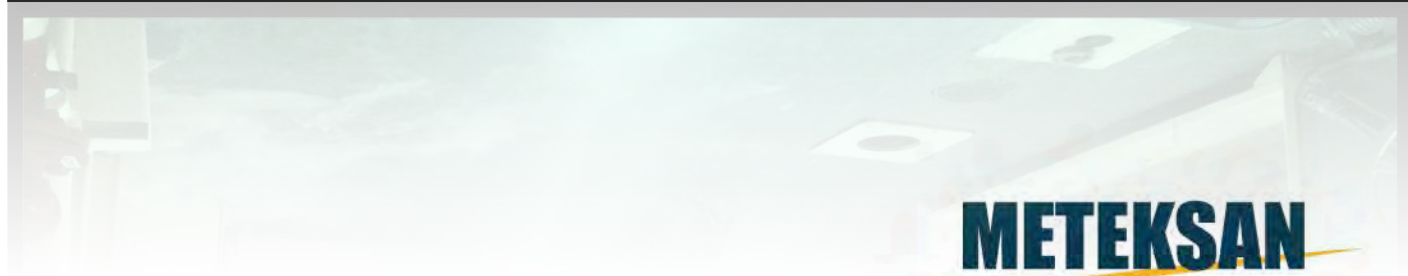
METESAN
SAVUNMA

Training Capabilities

- Various LP&HP damages and intervention measures (e.g.: Initial Leak, Shoring, Patching, Large Hole, Hull Crack, Pipe Leak)
- Damage control organization and plotting trainings
- After simulated flooding in lower deck unclosed damaged hatch sealing trainings

Additional trainings

- Emergency power cable laying trainings
- Smoke exhaust techniques trainings
- “Repair Party” communication and standard reporting trainings
- Dewatering trainings with;
 - Eductor, Ejector, Diesel Pump (P100/P250)
 - Submersible pump



METEKSAN
SAVUNMA

Training Capabilities

- Adjustable water level for each wet compartment
- Roll capability up to 20 degrees
- Smart algorithm for level control
- Allows longer training times
- Adaptive set point for dewatering techniques training
- Emergency drain within 60 seconds
- Mechanical overflow for maximum water levels
- Fail-safe valves
 - 2nd Deck Water Level 0.40 m
 - 1st Deck Water Level 1.40 m



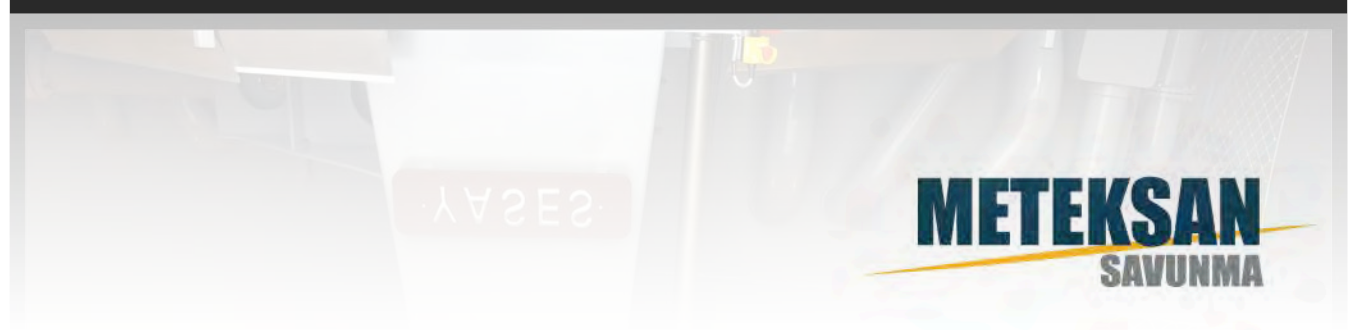
Functions & Parameters

Functions

- Angle of roll and speed can be changed
- Can be stopped in desired angle and position
- Can be moved to zero rest position slowly
- In case of power failure or e-stop system moves to rest position automatically

Parameters

- Angle of roll
- Frequency of roll
- Positions of the cylinders
- Working times
- Messages and alarms



Control System

- Scenario Creation & Execution
- Status Monitoring
- Events & Alarms (real-time & historical)
- Password Protection/Authorization
- Built In Test (BITE) Capability
- Power Monitoring
- Communication Status
- Functional Check (valves & motors)
- Work Hour based Maintenance Warning
- Planning
- Historical Evaluation

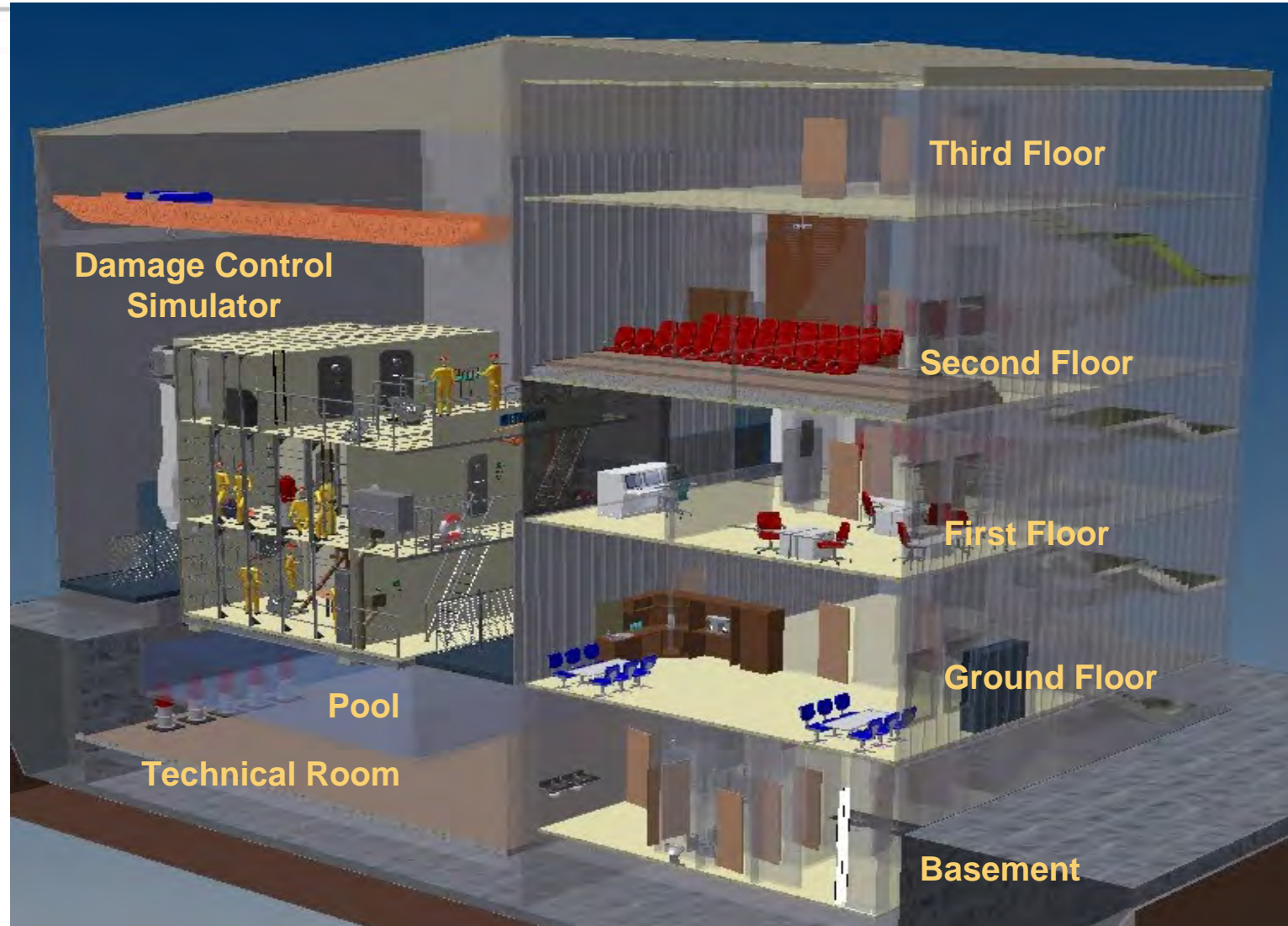


General Layout inc. Building

The Damage Control Building including,

- the Command Control Centre for D/C Training Simulator,
- offices, classrooms, briefing room(s),
- changing rooms including bathrooms & WCs,
- depots and technical areas

has the footprint of 27,00x18,50 m.



Improvements

Hydraulic System;

- Energy Efficiency Optimized: Enhanced for superior energy conservation while maintaining precise control.
- Computer Control: Offering accuracy and control.

Control System;

- Enhanced Remote Connectivity: Facilitating rapid response and intervention through integrated remote systems. Facilitating quick responses and tailored solutions with a focus on customer needs.

Containerized Simulator;

- New and Compact Designs: Innovative, space-efficient solutions for new requirements.
- Effortless Transportation and Installation: Streamlined processes for maximum convenience and efficiency.
- Immersive and Safe Training: Providing a training environment that is both realistic and secure.
- Fully Computer-Controlled: Ensuring precise management and operation.
- Customizable Damage and Scenarios: Tailored training experiences to meet specific needs with configurable settings.

Modular Solutions



SHIP REPLICA BASED DAMAGE CONTROL TRAINING FACILITY



MODULAR DAMAGE CONTROL TRAINING SIMULATOR (M-DCSIM)



References



DCSIM – Turkish Navy



DCSIM – Republic of Korea Navy



DCSIM – Qatar Emiri Navy



DCSIM - Royal Navy of Oman



DCSIM - Indonesian Navy



Fire Fighting Training Simulator

There are no technological means of eliminating all the hazards of sea, nor can human error be entirely eliminated.

- No technology can eliminate all sea hazards or human error.
- A well-trained crew makes the difference between survival and tragedy.
- Firefighting training is critical for vessel integrity and stability.



Fire Fighting Training Simulator

Applications

- Basic Level Firefighting Training,
- Advanced Level Firefighting Training,
- Submarine Firefighting Training,
- Breathing Apparatus Training,
- Labyrinth and Rubble Training,
- Helicopter Fire Training.



Fire Fighting Training Simulator Solutions – Building Based



Main Engine



Galley Fire with Flashover



Storage Room

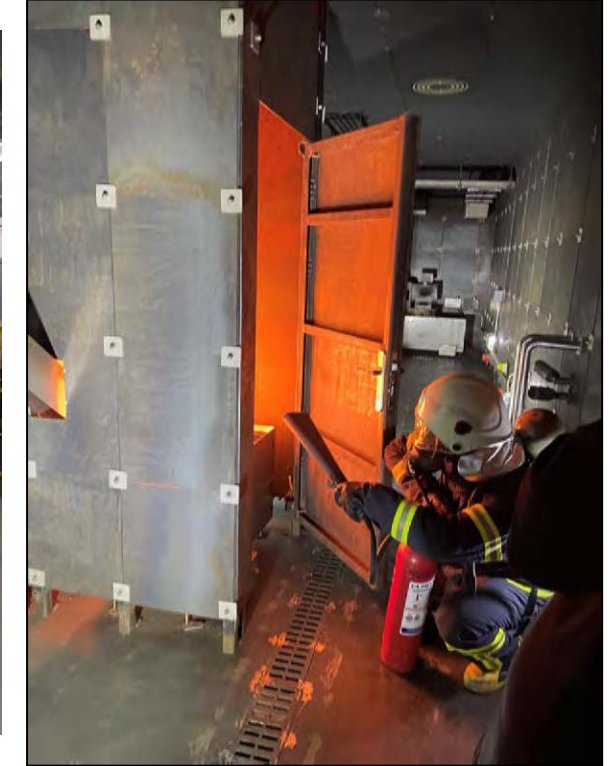
Fire Fighting Training Simulator Solutions – Container Based



Electric Motor Fire
Cable Tray Fire



Mobile FTSIM – General View



Electric Panel Fire



METEKSAN

SAVUNMA

Thank You...

METEKSAN.COM



/meteksansavunma

TÜRKİYE'NİN
TEKNOLOJİ GELİŞTİRME MERKEZİ

TURKEY'S
TECHNOLOGY DEVELOPMENT CENTER

