



**SUEZ CANAL AUTHORITY**  
**هيئة قناة السويس**  
**أكاديمية قناة السويس للتدريب البحري و المحاكاة**  
**Suez Canal Maritime Training and Simulation Academy**

# SUEZ CANAL MARITIME TRAINING AND SIMULATION ACADEMY



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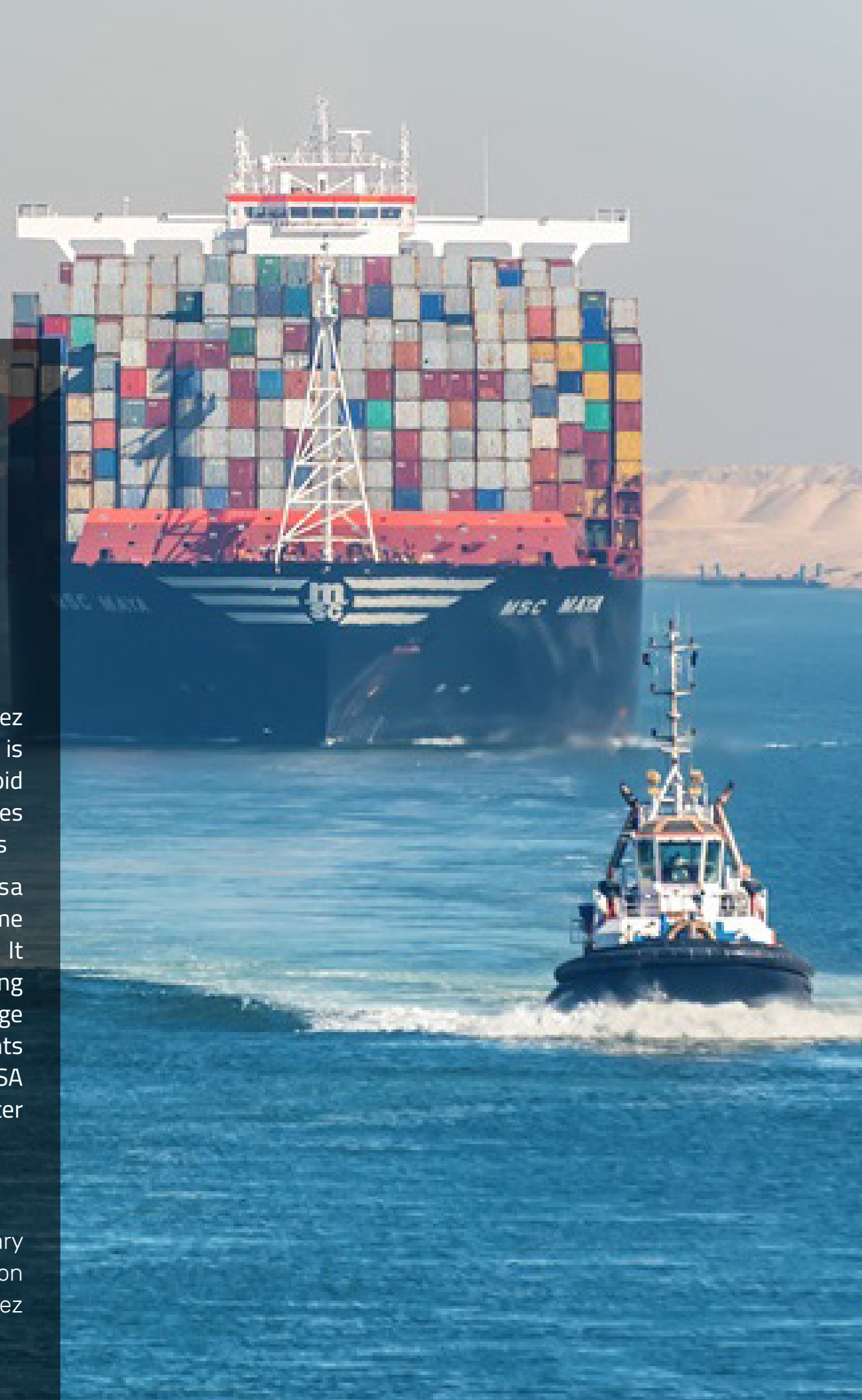
# MARITIME TRAINING IN SUEZ CANAL

Maritime training is one of the vital sectors in the Suez Canal Authority, where navigation in the Suez Canal is the first priority for the authority. Along with the rapid development of the shipping industry that requires continuous training to keep up with that fast progress

The Maritime Training and Simulation Academy (MTSA) is a world-class institution dedicated to enhancing maritime safety, efficiency, and environmental sustainability. It has quickly become a global leader in maritime training and simulation, committed to providing cutting-edge services. By embracing technological advancements and remaining in line with industry trends, the MTSA aims to solidify its position as a premier global center for maritime education and training.

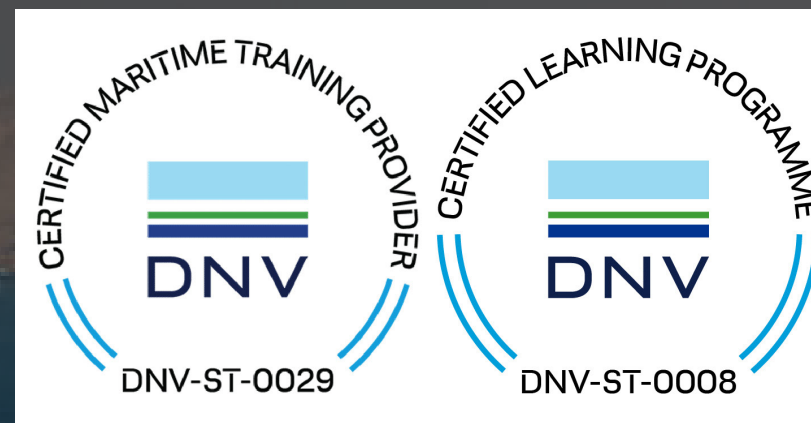
## MISSION

The Maritime Training and Simulation Academy's primary mission is to provide advanced training and simulation services to maritime professionals, particularly Suez Canal pilots, ship masters, and maritime officers.



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# CERTIFIED MARITIME TRAINING PROVIDER



In 2020, the Maritime Training and Simulation Academy has been certified according to the DNV-ST-0029 DNV standard for Maritime Training Providers certificate. The DNV-ST-0029 is a standard developed by DNV classification to certify organizations that provide academic and/or vocational training in the maritime and offshore sectors. This standard aims to ensure that training providers maintain high quality standards in the design, delivery, and evaluation of their learning programs.

In 2024, the Suez Canal Maritime Training and Simulation Academy has been certified according to the DNV-ST-0008 standard of learning programs. DNV-ST-0008 is a standard developed by DNV classification for the management, development, content, delivery, and assessment of learning programs. It provides a framework for organizations to ensure the quality and effectiveness of their training programs, particularly in the maritime industry.





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# MARITIME TRAINING & CONSULTATION SERVICES



**SHIP HANDLING  
SIMULATORS**



**TUG HANDLING  
SIMULATORS**



**GMDSS TRAINING**



**CSD DREDGING  
SIMULATOR**



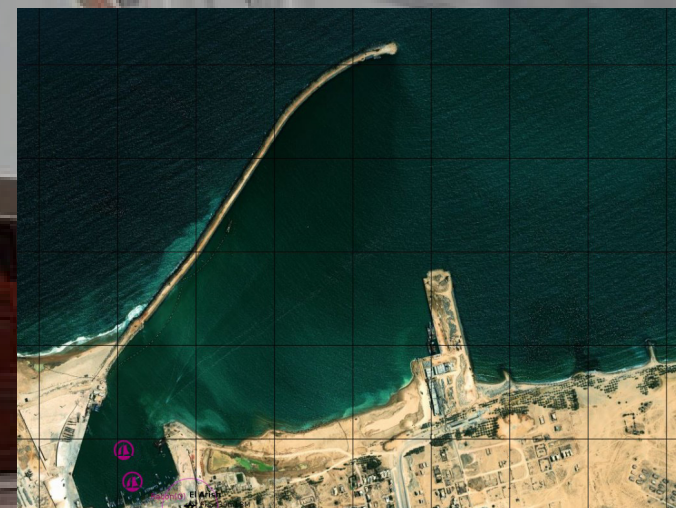
**ECDIS/ARPA  
CLASSROOM**



**OIL SPILL RESPONSE**

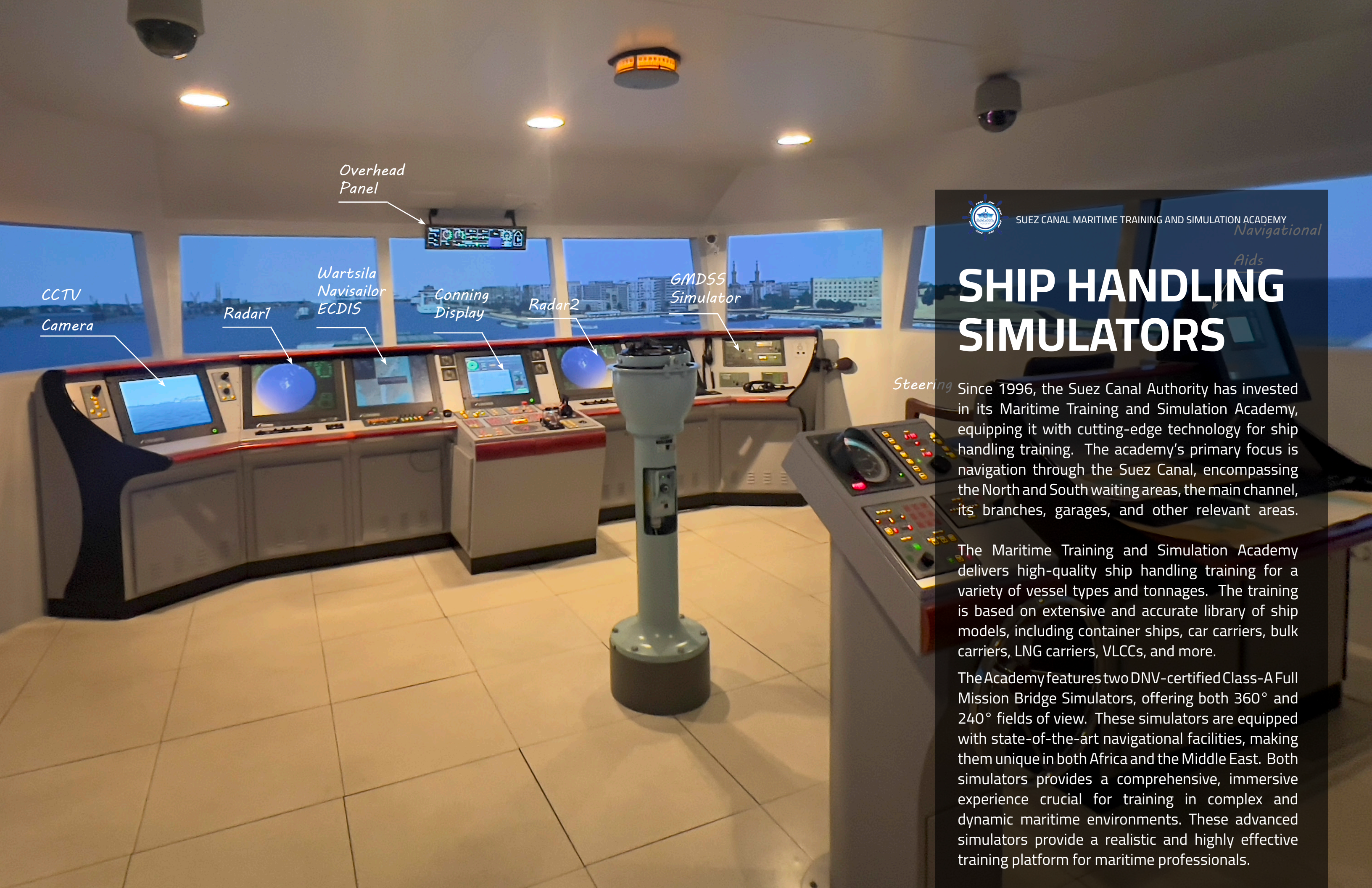


**MARITIME  
CONSULTATION**



**PORTS & NAVIGATION  
CHANNELS MODELLING**





CCTV  
Camera

Radar1

Wartsila  
Navisailor  
ECDIS

Conning  
Display

Radar2

GMDSS  
Simulator

Overhead  
Panel



SUEZ CANAL MARITIME TRAINING AND SIMULATION ACADEMY

*Navigational*

*Aids*

# SHIP HANDLING SIMULATORS

*Steering*

Since 1996, the Suez Canal Authority has invested in its Maritime Training and Simulation Academy, equipping it with cutting-edge technology for ship handling training. The academy's primary focus is navigation through the Suez Canal, encompassing the North and South waiting areas, the main channel, its branches, garages, and other relevant areas.

The Maritime Training and Simulation Academy delivers high-quality ship handling training for a variety of vessel types and tonnages. The training is based on extensive and accurate library of ship models, including container ships, car carriers, bulk carriers, LNG carriers, VLCCs, and more.

The Academy features two DNV-certified Class-A Full Mission Bridge Simulators, offering both 360° and 240° fields of view. These simulators are equipped with state-of-the-art navigational facilities, making them unique in both Africa and the Middle East. Both simulators provides a comprehensive, immersive experience crucial for training in complex and dynamic maritime environments. These advanced simulators provide a realistic and highly effective training platform for maritime professionals.





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# TUG HANDLING SIMULATORS

The MTSA simulation tools include two full mission tug bridges, accommodating VSP, ASD, and conventional twin-screw tug types, complete with realistic hardware controls mirroring actual ship systems. Each tug bridge features a simulated towing winch with integrated control, monitoring, and alarm systems. The tug controls are designed to replicate the operational systems found on actual tugs, ensuring a high degree of realism for trainees.

These advanced tug simulators enable training in various towing operations, including handling intact, damaged, and disabled vessels, as well as rigs. Trainees develop proficiency in direct and indirect escorting modes, towing procedures, and refloating grounded vessels.







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# ECDIS/ARPA CLASSROOM

Electronic navigation systems are now essential for the planning, execution, and monitoring of safe and efficient navigation. ECDIS and Radar play a crucial role in enhancing and maintaining situational awareness for the entire bridge team.

The Maritime Training and Simulation Academy has recently added an ECDIS/Radar ARPA classroom, enabling the Suez Canal Authority to offer courses that meet the knowledge, skill, and understanding requirements for ECDIS and Radar ARPA competencies as defined by the STCW 2010 Convention (latest edition) and Table A-II.







# OIL SPILL MANAGEMENT

The Maritime Training and Simulation Academy utilizes an advanced Oil Spill Response and Management system based on the PISCES II (Potential Incident Simulation, Control, and Evaluation System) software. Developed by Transas Marine, PISCES II is a sophisticated modeling and simulation tool used to predict oil spill behavior in marine environments.

This system, also employed by organizations such as the US Coast Guard, provides a valuable training platform for personnel, facilitates the testing and refinement of response plans, and enhances decision-making capabilities in the event of an actual oil spill incident.







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# CSD DREDGING SIMULATOR

Maritime Training and Simulation Academy recently added CSD Dredging Simulator to help dredging department to train technical staff on optimized dredging operations. The CSD simulator can be used to familiarize technical staffers, electricians and field managers with the operational ins and outs of jobs and the possibilities of the vessels deployed on that job, to draw in new talent and to motivate new staff and assess their potential.

The CSD Dredging Simulator simulates the newly built dredgers "Mohab Mameesh" and "Hussein Tantawy" recently joined the Suez Canal Authority dredging capacity.





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# GMDSS TRAINING

The Global Maritime Distress and Safety System (GMDSS) is a crucial system designed to ensure safety at sea. GMDSS simulators are sophisticated training tools that replicate the real-world environment of a ship's GMDSS station. These simulators provide a safe and controlled environment for maritime professionals to practice their skills in handling distress and routine communications.

By providing realistic training environments and hands-on experience, simulators help maritime professionals develop the skills and knowledge they need to respond effectively to emergencies and maintain safe communications. As technology continues to advance, GMDSS simulators will play an even greater role in maritime training and education.



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# MARITIME CONSULTATION SERVICES

Maritime Training and Simulation Academy offers expert advice and support to enhance maritime operations and strategic planning. With extensive experience in developing feasibility studies, risk management strategies, and operational efficiency and optimization plans for ports and navigation channels, the Academy has served a distinguished clientele, including the Saudi Ports Authority (Mawani), the Suez Canal Economic Zone (SCZone), and the Alexandria Port Authority.

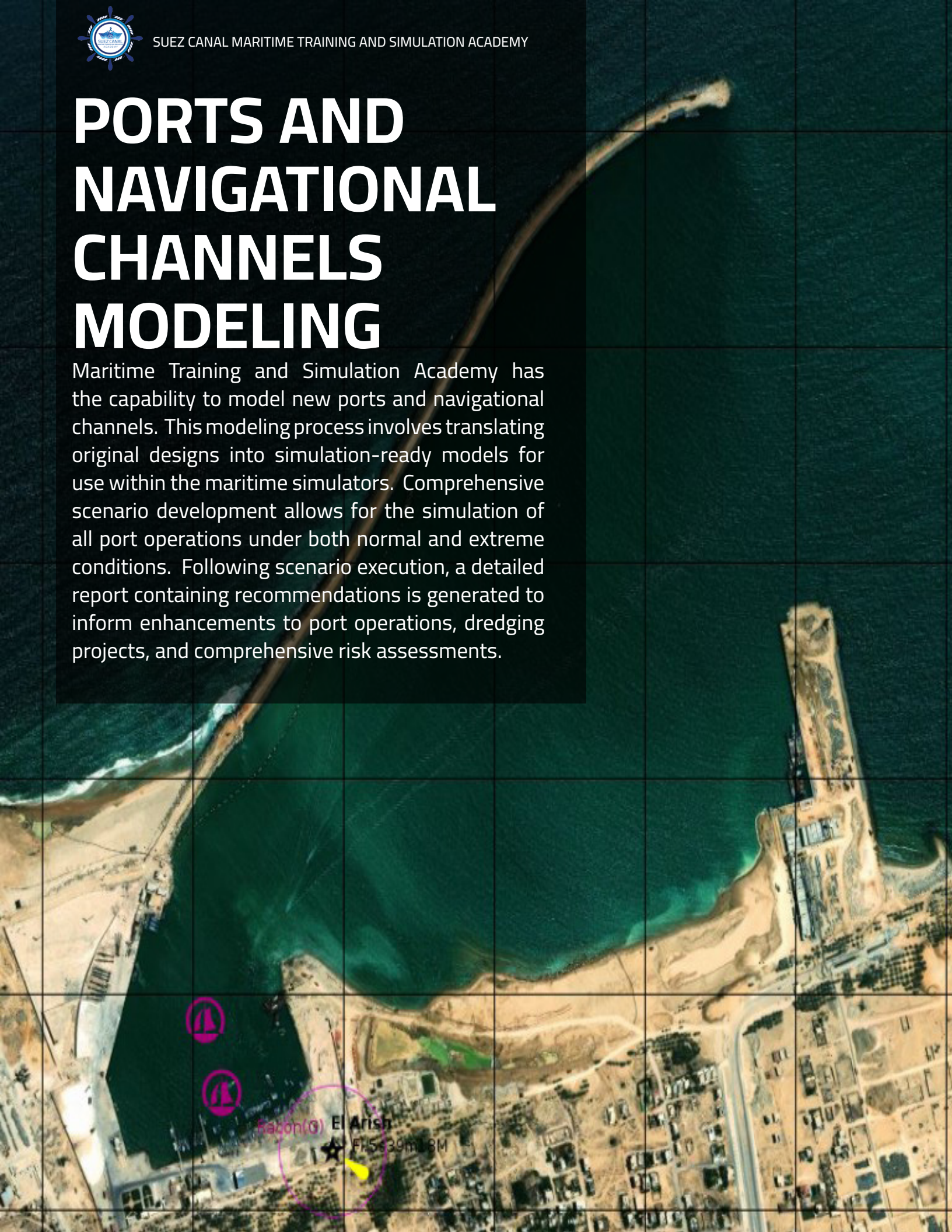






# PORTS AND NAVIGATIONAL CHANNELS MODELING

Maritime Training and Simulation Academy has the capability to model new ports and navigational channels. This modeling process involves translating original designs into simulation-ready models for use within the maritime simulators. Comprehensive scenario development allows for the simulation of all port operations under both normal and extreme conditions. Following scenario execution, a detailed report containing recommendations is generated to inform enhancements to port operations, dredging projects, and comprehensive risk assessments.



## SUEZ CANAL FIRST TRANSIT TRIALS

First-time transits of the Suez Canal, particularly for vessels and units of considerable size, require careful planning and specialized studies. The Maritime Training and Simulation Academy has extensive experience conducting such studies and trials for unique vessels navigating the Canal.





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# FEATURED COURSES

## SAFE HANDLING OF SHIPS IN SUEZ CANAL

Code: MTSC-TP-01

Duration: 5 days

Target: Shipping Lines Masters/Chief Officers

The course curriculum delivers comprehensive training across the three sectors of the Suez Canal (Port Said, Ismailia, and Suez). It combines theoretical instruction with practical, scenario-based exercises. These scenarios focus on the critical navigational challenges within each sector, including maneuvering in diverse environmental conditions (fog, sandstorms), varying times of day (daylight, nighttime), and in response to both internal (engine or steering failures) and external (disabled vessels ahead) ship malfunctions. Furthermore, the training addresses the impact of hydrodynamic effects (bank effect, squat effect) and emphasizes the importance of effective Master-Pilot Information Exchange (MPX) for ensuring safe passage. The course is customizable to accommodate the following ship types like containers, tankers, VLCCs, LNGs, etc...



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## SAFE HANDLING OF BUNKERING OPERATIONS

Code: MTSC-TP-02

Duration: 5 days

Target: Bunkering Providers Masters/Chief Officers

This intensive 5-day course in the Port Said/Gulf of Suez area provides comprehensive training on the Safe Handling of Bunkering Operations, significantly enhanced by the use of a state-of-the-art Navigation Simulator.

The Navigation Simulator will offer realistic, hands-on experience in planning and executing bunkering operations in various scenarios specific to the Port Said and Gulf of Suez environments, including accounting for vessel traffic, restricted waters, and potential environmental challenges. Through simulated exercises, trainees will develop critical skills in communication, risk assessment, and responding effectively to unforeseen circumstances like spills or equipment malfunctions, ultimately fostering a culture of safety and operational excellence in bunkering within this vital maritime region.



# OUR CUSTOMERS AND PARTNERS



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