

# GAC Training & Service Solutions

Powered by the **National Maritime College of Ireland**

## Simulation (Bridge, engine room and liquid cargo)



wherever you go





# Hands-on training at the world's largest simulator park

Nestling in Ireland's rolling green hills is the \$100 million National Maritime College of Ireland (NMCI) - the world's most advanced maritime academic facility and home to the largest suite of marine simulators. Just a 45-minute hop from London Heathrow Airport, it is perfectly located to meet the global shipping community's growing training needs.

## Combining outstanding facilities with GAC expertise

GAC Training & Service Solutions (GTSS) combines the NMCI's state-of-the-art facilities with GAC's global reach and fifty years of experience to provide cost saving, innovative and customised training solutions for seafarers and shipping and commodity operations personnel.

## State-of-the-art facilities

GTSS partnership of GAC and the NMCI offers outstanding equipment including two full mission simulators, jetty, firefighting and survival training facilities, library, IT and other laboratories. GTSS provides a broad range of educational services for the maritime industry, catering for both the merchant navy and the non-military training needs of the Navy service.

The NMCI campus is equipped with the world's largest suite of simulators, designed to train navigation and engineering personnel who work on board all types of vessels. The simulators feature instructor stations where exercises can be controlled and monitored. Individual performances may also be recorded for later analysis.

Interaction between tugs and mooring lines can be deployed with simulator operations. Besides this, faults can be introduced into the scenarios to increase reaction.

The facility also simulates environmental conditions (wind, visibility, weather, tide, current, wind and swell waves) which

can be infinitely varied to provide realistic conditions for the study of vessel berthing.

## Full-mission bridge simulators

Various ship models can be used in different geographic locations and underwater topography with varying environmental conditions in order to create different and challenging scenarios in panoramic 360° and 270° bridges. Engine models can be connected to ships bridge simulators to simulate realistic on-board operating conditions.

## Navigation/Bridge simulators

- 360° full-mission bridge simulator
- 270° full-mission bridge simulator
- 3 x auxiliary 150° bridge simulators
- 2 x GMDSS simulator rooms
- Vessel Traffic System simulator at 3 control positions

For a full view of the 360° full-mission bridge simulator follow this link to our website:

<http://www.nmci.ie/index.cfm/page/marinenavigatifacilities>

## Engineering simulators

The marine engineering facilities at NMCI include a full-sized working ship's engine room, a fully instrumented ship's control room, a welding workshop, an electrical workshop and a mechanical engineering workshop.

- Full mission engine room simulator with low and high speed diesel engine models
- 20 student workstations for Engine Room systems simulations

## Engine room

- A full sized working ship's engine room
- 1140 kW MaK 6M20 medium speed diesel engine
- 2 Caterpillar alternators
- (i) 3406 in line
- (ii) 3408V-type
- A fully instrumented ship's engine control room

## Other

- Ancillary plant
- Refrigeration plant
- HVAC trainer
- Reverse osmosis water treatment plant
- Oily water separator
- Sewage treatment plant
- Garbage disposal
- Fresh water generator
- Fuel oil purifier
- Lube oil purifier

## Liquid cargo handling simulator

The liquid cargo handling simulator models are based on real ships. The CHS meets the requirements of STCW section A-II/1, A-II/2, A-II/3, A-III/1, A-III/2 and A-V/1 which states the requirements for planning and ensuring safe loading, care during the voyage and unloading of cargoes as well as maintaining seaworthiness of the ship regarding trim, stability and stress. The liquid cargo handling and damage control simulators are available for 10 students per workstation.

The instructor station includes facilities to build scenarios, debrief, evaluate and replay exercises. Debriefing equipment includes large screen projectors.

The simulator is designed to meet the demands for basic training of cadets as well as advanced training of deck officers in the understanding and handling of the ship loading and discharging equipment.

The following different types of cargo handling simulators are available at NMCI.

- Chemical carrier
- Product carrier
- VLCC double hull
- LNG
- LPG



# Specialist in shipping, logistics, marine and related services

## About the GAC Group

GAC is a global provider of shipping, logistics and marine services. These services are constantly being refined and integrated to serve our customers' increasing need for competitive solutions. Emphasising trust, reliability and a strong human touch, GAC has been building its reputation in its chosen markets since 1956.

## About GAC Solutions

GAC Training & Service Solutions powered by the National Maritime College of Ireland is one of a group of businesses collectively called GAC Solutions.

GAC Solutions is a special business unit within the GAC Group, set up to provide a range of value-added products to the shipping and marine industries. It combines GAC's knowledge and long standing relationships with its shipping and marine customers with the products of world-leading suppliers. GAC Solutions' constantly growing product portfolio includes weather solutions, anti-piracy & protective solutions, maritime training, workwear design & manufacturing, ... and the list is growing.

## What makes GAC Training & Service Solutions special?

- \$100 million state-of-the-art facilities
- 45-minute flight from London Heathrow
- Online, onsite, offsite or blended learning to suit clients' needs
- Hands-on, simulation-based academic training
- LNG/LPG, chemical and bulk specialisations
- Health, safety and environmental compliance

## GAC Training & Service Solutions Ltd

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