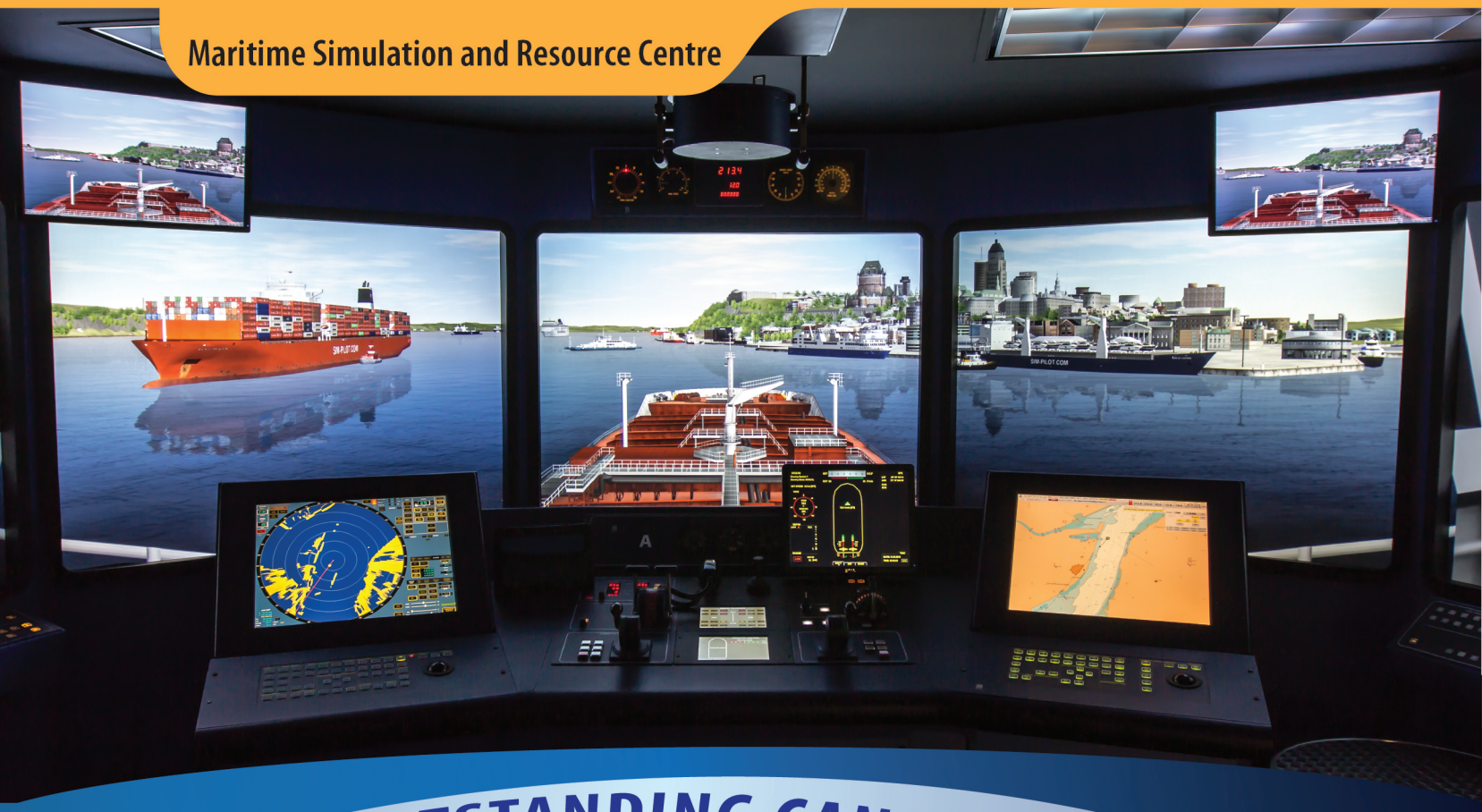
PORT DEVELOPMENT AND MARITIME SIMULATION



www.sim-pilot.com



OUTSTANDING CANADIAN EXPERTISE

PORT DEVELOPMENT AND MARITIME SIMULATION

The Maritime Simulation and Resource Centre (MSRC) is a division of the Corporation of Lower St. Lawrence Pilots (CLSLP) and operates as a turnkey port procedural development centre offering you a full range of maritime simulation options.

When your project requires ship manoeuvre knowledge, the MSRC draws on the experience of local pilots or, if required, the CLSLP. The synergy derived from combining new technology with pilot experience generates exceptional added value and offers a unique expertise for your projects.

MATERIAL RESOURCES

4 independent or interactive, state-of-the-art, fully-instrumented bridges, which can be configured to standard or azimuthal propulsion, including:

- 1 full mission, Class "A" DNV bridge with 330° visuals exceeding STCW regulations;
- 2 ship bridges with 220° visuals, which can also serve as a tug bridge;
- 1 purpose-built tug wheelhouse, which can also serve as a ship bridge.

In-house geographical database compilation capability customized to your specific area of intervention.

Introduction of new structures such as quays into existing databases to validate the safety of new navigation conditions for approaching and berthing.

Capacity to manage 3D tide and sea currents database, created specifically for your project.

Ability to develop pilot-grade ship models to meet your specifications.

An existing extensive and diversified library of realistic ship models.

HUMAN RESOURCES

- Highly skilled and knowledgeable simulator operators;
- Seasoned pilot-instructors with vast navigational experience;
- Versatile and detail-oriented geomatic developer and 3D modeler;
- Professional and dedicated administrative staff offers personalized support to ensure the success of your project.





CLSLP pilots confirm the MSRC's capacity to develop realistic mathematical ship models which react in simulation as ships do in real life.



MSRC's unique combination of human and material resources offers you a flexible and comprehensive solution throughout your port development project.

FROM PROOF OF CONCEPT TO PROCEDURAL TRAINING

Using MRSC's navigation simulator to determine the feasibility of your port project provides you with a strategic advantage insofar as it allows you to create all the actual conditions and components to be built or modified and manoeuvre ships within these components.

The MSRC is one of the rare simulation centres that offers both fast-time and real-time simulations all under one roof. This translates to saving you time and money since all assets developed for fast-time simulation can be used for real-time simulation.

FAST-TIME SIMULATION

An important part of port development work during the preliminary phase can often be conducted using desktop simulation software and own ship vessel models. These models are fully interactive, and their performance is influenced by external forces such as large ship speed, wind, and sea conditions.

REAL-TIME SIMULATION

The MSRC's fully interactive tug and large vessel simulation capabilities gives you access to a comprehensive port procedural development centre. Simulations consider real world tug manoeuvring or control circumstances, such as physical space constraints or the big ship's design, overhangs, and limited push/pull attach points.

The phases in a typical fully-integrated port simulation design may include:

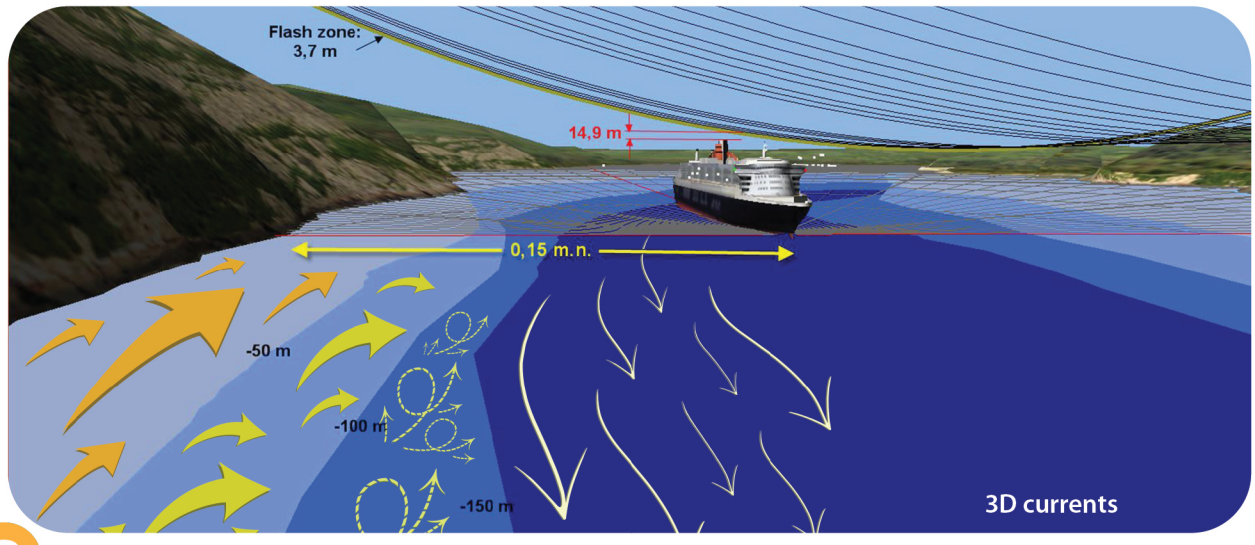
Appraisal and Conceptual Design

Conceptual Validation and Procedural Design

Manoeuvring Procedures Training for New Facilities

Data Capture and Reporting Capabilities





EXPERTISE

- Determining basic navigational feasibility for manoeuvring specific vessel types (such as Post-Panamax, LNG)
- Validate the design of new dock areas
- Determine number of tugs and basic bollard pull requirements
- Assess the need for escort tugs
- Develop risk assessment matrix
- Determine environmental condition operating limits
- Assess potential operational failures Determine suitable emergency preparedness / response plan
- Demonstrate the advantages of the procedures developed through training
- Provide pertinent follow-up training programs for pilots, captains and tug masters



Post-Panamax Vessels


Transit Procedural Analysis


Narrow Channel Manoeuvrability



LNG Terminal Feasibility


Berthing Operations

WHAT'S IN IT FOR YOU?

- One of the most comprehensive combination of equipment, technology and pilotage expertise available in the world;
- Practical risk and manoeuvring analysis conducted at the preliminary and intermediate levels of port design;
- Clients are presented with a workable solution, which can be fully demonstrated and validated to government agencies, port authorities and pilotage associations.



WORLD CLASS

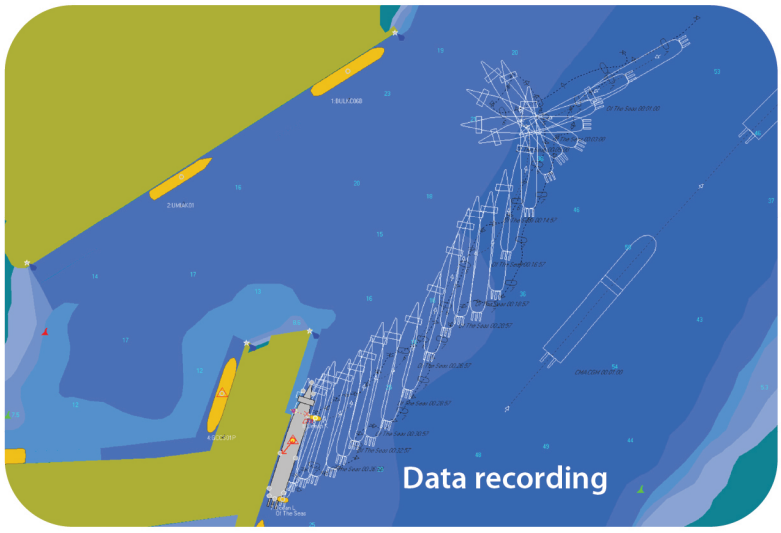
With a combination of world class equipment and a world class team of maritime experts, MSRC stands apart from the rest.

Captain Mike Armstrong
President, CMSG-Western Branch Chairman, Fraser River Pilots

THE VERY BEST OF SHIP SIMULATOR CENTERS

... I can't remember having completed so much quality work in such a relatively short time at any other simulator.

Capt. L.J. (John) Swann MMFG, SNAME
Marine Consultant, Ausenco





ONE OF THE MOST AMAZING, RELIABLE AND COMPREHENSIVE MARINE TESTS I HAVE EVER BEEN PROFESSIONALLY INVOLVED IN…

MSRC used four full-mission bridges, one as the main bridge and the other three for real-time tug assistance simulation, using Z-Drive tug models. This resulted in one of the most amazing, reliable and comprehensive marine tests I have ever been professionally involved in.
Ignacio Sanchidrian Vidal, MsC C.Eng. EMBA

Ignacio Sanchidrian Vidal, MsC C.Eng. EMBA
General Manager, Maritime Infrastructures Division, Proes

A WORLD-CLASS FACILITY

The very accurate models developed by the Maritime Simulation and Resource Centre, combined with the professionalism of the Centre's team and the flawless simulator operation, was symbolic of a world-class facility.

Captain Ian Swan
District Chairman, Halifax Pilots

LNG TANKER MANOEUVRES

… I witnessed firsthand the quality of the Centre's facilities, the competence of its technical personnel, the realism of its simulations and the professionalism of its pilots. We were able to evaluate all possible situations, including ones requiring unusual or emergency manoeuvres.

Captain Philippe Bor
Maritime Expert