



**MSRC
PILOT TRAINING PROGRAMS
AND GENERAL INFORMATION**




www.sim-pilot.com

WELCOME ABOARD

Founded in 2005, the **Maritime Simulation and Resource Centre** [MSRC] is a leader in pilot training and development and has a unique expertise in navigational safety throughout North America. It is one of the few facilities in the world offering a full range of simulation options, including fully interactive, manned tug and large vessel simulations.

The MSRC offers a wide variety of development courses tailored to the operational context of the various groups of professional navigators who wish to learn new techniques or upgrade their skills. The synergy derived from combining state-of-the-art technology with pilot experience generates an exceptional added value and enables the MSRC to offer unique expertise for advanced training. The MSRC also features an in-house database compilation capability, which enables it to build, modify or customize geographic areas and ship models to meet client-specific requirements.

We look forward to helping you meet your specific training needs.


Paul Racicot
Director



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MSRC'S TRAINING PROGRAMS

COURSES	OBJECTIVES	DURATION	REMARKS
Bridge Resource Management for Marine Pilots (BRM-P) Renewal	Enhance the skills pilots require to work efficiently and effectively with the bridge team during an assignment. .	2 days	Approved by the American Pilots' Association.
Emergency Ship Handling Procedures for Pilots	Develop the necessary skills to react to emergency situations that may occur and manage the consequences.	2½ to 3 days	
Azimuthing Propulsion Systems for Pilots	Enable navigators to become acquainted with this mode of propulsion and acquire a good knowledge of both the limitations and correcting radar faulty settings.	2 or 2½ days	
Escort Operations for Pilots	Give pilots an overview of escort tug operation principles in narrow channels.	2 days	
Error Detection and Use of Advanced Radar Techniques in Restricted Waters	Prepare the pilot to quickly detect radar errors, assess radar limitations and correct radar faulty settings.	2½ days	MSRC's course manual is published by Witherbys Seamanship International Ltd. (March 18, 2014), 120 p., ISBN 10: 185609619X.
Post-Panamax Vessels, New Challenges for Pilots	Analyze the challenges of Post Panamax vessels on pilotage: transit in confined waterways, traffic management, ship handling, tug requirements, infrastructures and seaways limitations.	2 days	
Deep-draught Ship Manoeuvres for Pilots	Manoeuvre deep-draught vessels in restricted waters: anchoring, avoidance, berthing and unberthing, with and without tugs.	2 days	
Ship to Ship (STS) Manoeuvres	Provide state of the art guidance in STS operations and develop the necessary skills in manoeuvring vessels in a ship to ship operation.	3 days	
Advanced Ship Handling for Pilots	Training adapted to a specific pilotage district.	Variable	
ECDIS Navigation for pilots	Understand the navigational functions of ECDIS in order to direct the selection of and assess, relevant information, including understanding the potential errors of displayed data and the common errors of interpretation.	2 days	Compliant with the American Pilot Association navigation technology committee's guidelines and recommendations
SEAIq Pilot Application for PPUs	Present and demonstrate the SEAIq Pilot application. The participants will go through the various functions of SEAIq, from basic to more advanced level, to learn its proper use.	2 days	MSRC is recommended by SEAIq for its SEAIq Pilot Application.
Restricted Visibility Navigation for Pilots	Review and practice the setup and use of the pilot's portable piloting unit (PPU) in conjunction with the setup and use of the ship's radar.	1 days	
Electronic Chart Display & Information System (ECDIS)	Designed to follow all aspects of Transport Canada content on ECDIS (TP 4958), train the mariner in the safe operation of ECDIS in accordance with STCW 95 Code Section A-II/1.	5 days	Approved by Transport Canada.
Bridge Resource Management (BRM)	Enhance experience in handling ships under various conditions and be able to make a more effective contribution to the bridge team during ship manoeuvring in normal and emergency conditions.	5 days	Approved by Transport Canada.
Customized Training Program	Deal with the various human, technical and operational factors which affect the work of pilots, using clients' local geographic database and/or specific ship models developed by the MSRC.	Variable	
Operational Feasibility Studies	Starting from a geographical area with existing waterways or from a new database design, the MSRC team can virtually reproduce the project so as to carry out complete and realistic ship manoeuvring simulations studies.	Variable	



OUR MISSION

The Maritime Simulation and Resource Centre's mission is to provide training and development for CLSLP pilots and share its simulation expertise with other pilots and professionals in the maritime industry.

HUMAN RESOURCES

The MSRC's instructors are highly skilled and knowledgeable simulator operators and, combined with professional and dedicated administrative staff, offer a high-level training experience.

The MSRC's team is supported by members of the Corporation of Lower St. Lawrence Pilots, who all hold command certificates and a wealth of navigation experience as ship-handling experts and specialized instructors.

Several CLSLP pilots collaborate with the MSRC as

- ⚓ Specialized instructors
- ⚓ Experts for Operational feasibility studies
- ⚓ Ship model developers
- ⚓ Lecturers
- ⚓ Training program developers



Bédard Jessy



Blanchette Benoît



Boudreault Mathieu



Cayer Bernard



Delisle Sébastien



Dubé David



Gouin Nicolas



Laliberté Michel



Lanouette Vincent



Nayet Benoît



Ouimet Daniel



Pelletier Yves



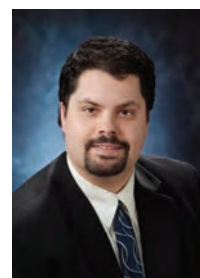
Pouliot François



Pouliot Jean



Rhéaume Pascal



Roy Jean-François



Sarrazin Carl



St-Arnaud Nicolas



St-Aubin Ghislaine



CENTRE DE SIMULATION ET D'EXPERTISE MARITIME
MARITIME SIMULATION AND RESOURCE CENTRE



Captain Alain Victor, MFG

Captain Alain Victor has acted as senior instructor at the MSRC since it first began operations. With a Master Foreign-Going Certificate, Mr. Victor has been working as a simulation instructor for over 30 years. Throughout his career, he has developed several electronic navigation training programs. He has also been a member of many committees and given a few seminars on electronic navigation under the auspices of Transports Canada. Captain Victor is also the author of "Parallel Index Techniques in Restricted Waters", published by Witherby.



Captain Louis Rhéaume, MFG

Captain Louis Rhéaume is a graduate of the Institut maritime du Québec and holder of a Master Foreign Going Certificate. He was a pilot on the St. Lawrence River in the Quebec-Escoumins sector from 1984 to 2018, President of the Lower St. Lawrence Pilots Corporation from 1999 to 2001 and member of the Board of Directors of the Laurentian Pilotage Authority from 2006 to 2018. Mr. Rhéaume holds a major in marine transportation from the Université du Québec à Rimouski (2002) and a certificate in intermodal transportation from the Canadian Institute of Traffic and Transportation (CITT). A yachtsman in his spare time, Louis Rhéaume has, throughout his career, worked on numerous committees and working groups and enjoys an impressive reputation within the maritime community in Quebec and Canada.



Captain Marc-André Fortin (Captain Home Trade)

After completing his studies in navigation at the Institut maritime du Québec in 1971, Mr. Fortin worked as an officer and shipmaster until 1977 on both coastal and ocean-going vessels. He has been a pilot and a member of the CPBSL since 1980, and has extensive experience amounting to more than 26 000 hours as a ship pilot. Mr. Fortin has been an adviser pilot for ice navigation in the Gulf of St. Lawrence since 1977 and a branch pilot at the Port-Alfred facilities since 1988. He acted as an expert branch pilot for the study of the Rabaska port infrastructure in June 2005.



Captain Jacquelin Hardy

After completing his studies at the Institut Maritime de Québec, Captain Hardy began his career as an officer and sailed mainly in the Maritimes and on the East Coast of the United States while continuing his studies to obtain his superior navigational certificates. From 1981 to 1984, Captain Hardy taught astronomical navigation at the IMQ during the winter season. In 1984, Captain Hardy became a marine pilot for the Corporation de pilotes du Saint-Laurent Central (CPSLC). During his career as a pilot, he served as a director on the CPSLC Board of Directors and was elected president in 1998 for a two-year term. Captain Hardy has also served on the LPA examination board. Throughout his career, Captain Hardy has always shown a keen interest in electronic navigation. He even developed his own navigation software for pilots and collaborated in the development of SEAIq Pilot as a beta tester. Although he retired in 2017, he remains involved in his sector of activity by carrying out various mandates in collaboration with the MSRC.



Capt(N) Étienne Landry, DC

Captain Étienne Landry has been an instructor with the MSRC since January 2008. Holder of a command certificate with the Canadian Navy, Mr. Landry has been working in the military for 30 years. During the course of his career, he has developed expertise in precise navigation, sonar scanning of seabeds, teaching Canadian Navy pilots and intergovernmental operations with the Canadian Forces. As a naval shipmaster, he has taken part in many deployments in the Arctic, along both North American seaboard, the Great Lakes, the Caribbean and Europe in collaboration with the MSRC.



Captain Francis Bigué-Morel

Captain Francis Bigué-Morel has been an instructor with the MSRC since June 2017. Holding a Master 3000 gross tonnage and Chief mate unlimited (STCW), Mr. Bigué-Morel has been in the merchant marine for 15 years. He sailed as an officer on various types of vessels and worked as a tug master on every type of tugs for 8.5 years. During that period, he participated in the training of captains on ASD tugs and took part in different salvages. He also worked as ice advisor in the Gulf of Saint Lawrence. From 2015 to 2018, he was a member on the Board of the Canadian Merchant Service Guild. Prior to joining the MSRC, he was tug master for Ocean Group in Quebec City.



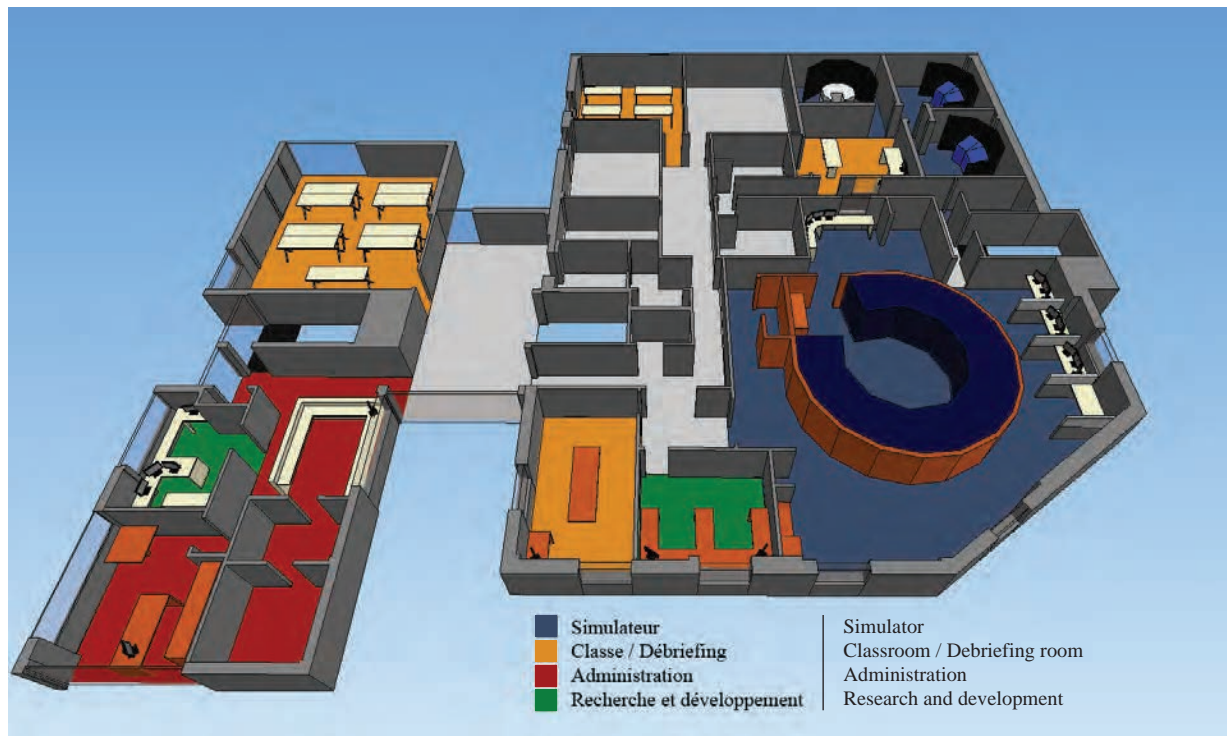
Captain Emanuel Huard

Emanuel Huard graduated from the Institut Maritime du Québec in the early 2000s and has been an instructor with the MSRC since 2019. Before joining the MSRC, Emanuel was Chief Officer onboard passenger vessels and private yachts, the most recent being The World, a private, luxury residential vessel. Mr. Huard has a vast experience in various navigational areas, including vessels with conventional and azimuthal propulsion systems, ice navigation in the Arctic and Antarctic, and expeditions outside regular shipping routes.



Garland Hardy

Garland Hardy is a consultant, program manager and team leader in the implementation, design and conduct of simulation training and simulation applied research, and ship manoeuvring solutions. He has extensive experience in curriculum design, and training systems development for the instruction and certification of ship's Officers and bridge teams, in both naval and civilian applications. Hardy also served as navigation specialist Officer in the Royal Canadian Navy.



The MSRC is one of the few facilities in the world to offer a full range of simulation options spanning from single ship simulations to fully interactive, multiple tugs and large vessel simulations.

- ⚙ 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;
 - ⚓ 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 files, 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 and geographical databases.

For each of the ship models used during a simulation, the MSRC's state-of-the-art simulation system allows for the simultaneous recording of up to 40 parameters and, where applicable, changes in any of these values can be graphed over time.

Groups of pilots who trained at the MSRC

- Corporation des pilotes du Bas Saint-Laurent, Canada
- Corporation des pilotes du Saint-Laurent Central, Canada
- Corporation des Pilotes du Fleuve et de la Voie Maritime du Saint-Laurent, Canada
- Corporation of Upper St. Lawrence Pilots, Canada
- Lake Ontario and Harbours Pilots, Canada
- Corporation of Professional Great Lakes Pilots, Canada
- Halifax Pilots, Canada
- Saint John Pilots, Canada
- Cape Breton Island Pilots, Canada
- Newfoundland and Labrador Pilots, Canada
- Houston Pilots, United States
- Amazon River Basin Pilots, Brazil
- Galveston Texas City Pilots, United States
- Aransas-Corpus Christi Pilots, United States
- The British Columbia Coast Pilots Ltd., Canada
- Puget Sound Pilots, United States
- Fraser River Pilots, Canada
- Tampa Bay Pilots Association, United States
- St. Johns Bar Pilot Association, United States
- Biscayne Bay Pilots, United States
- Trinidad and Tobago Pilots' Association
- Associated Branch Pilots Ltd., United States
- Crescent River Port Pilots' Association, United States
- Tan Cang Pilot - Port of Saigon, Vietnam
- SNPP Tuxpan, Mexico
- SNPP Cayo Arcas, Mexico

Pilotage Administrations

- Laurentian Pilotage Authority, Canada
- Great Lakes Pilotage Authority, Canada
- Atlantic Pilotage Authority, Canada
- Pacific Pilotage Authority, Canada

Pilot Associations

- Canadian Marine Pilots' Association
- American Pilots' Association Inc.
- Fédération Française des Pilotes Maritimes
- International Maritime Pilots' Association
- CONAPRA - Brazilian Maritime Pilots' Association
- Sindicato Nacional de Pilotos de Puerto, Mexico



Confidentiality

Confidentiality is a fundamental value at the MSRC. Both its personnel and its partners must commit to protecting the confidentiality, security and accuracy of the exclusive information gathered and used, as well as the results that are obtained.

Preferred Teaching Strategies

Presentations, case studies, demonstrations on the multidisciplinary navigation simulator. Each participant is provided with comprehensive course documentation.

Skill Enhancement Activities

Theoretical and hands-on experience using the navigation simulator. Discussions among participants are encouraged during manoeuvres.

Certification

Upon successful completion of a course, an MSRC certificate will be issued, certifying that the holder has successfully completed the training.

Geographical Databases

The MSRC offers in-house database compilation capability for building, modifying or customizing simulated geographic areas to meet client-specific requirements.

Ship Models

Mathematical ship models can be edited using a model editing tool. This program allows MSRC to adjust the mathematical ship model and thus create individual pilot grade models for specific needs.

Registration

A minimum of three pilots is required for the course of your choice on your preferred dates.

Visit our website at www.sim-pilot.com

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Join our [LinkedIn](#) community





Port of Saigon, Vietnam



MY EXPERIENCE AT MSRC WAS THE MOST PRODUCTIVE ONE SO FAR!

In my years as a mariner and as a Pilot since 2001 I have attended many simulation centres for training, risk assessment and project development. My experience at the MSRC was the most productive experience so far, due to how flawlessly the simulator operated and the professionalism of the team. It was easy for me to understand why the Pilot Training and Education Committee for the BC Coast Pilots chose MSRC as the simulation facility that we use to train our apprentice pilots.

Captain Kevin Vail
President BC Coast Pilot



Houston Pilots & APA



APA-Halifax



British Columbia Coast Pilots

A TEAM WITH EXCEPTIONAL KNOWLEDGE OF SHIPHANDLING AND ADVANCED NAVIGATIONAL SKILLS

We especially appreciate that the staff is not only largely made up of senior pilots and a few naval officers, all of whom have exceptional knowledge of ship-handling and advanced navigational skills, but they are also extremely well versed in the operation of the simulator itself.

Captain Gregory Brooks
President, Towing Solutions Inc.



APGL/GLPA



Mobile Alabama



Dos Bocas, Mexico

IT IS A MUST FOR ALL PILOTS!

I was very surprised when I discovered that the instructors are very experienced pilots and that the techniques demonstrated were developed for precise navigation in confined waters. We benefited from technical views not available in books and enjoyed direct pilot-to-pilot talk. We were "on the same page," discussing our experience with the various types of equipment in the light of solid knowledge of the principles behind their operation.

And best of all we had a top full mission simulator to practise everything on. Precision navigation in low visibility can be improved a lot using the concepts explained in this course. It is a MUST for all pilots! These comments reflect my real impression of the course

Captain Ricardo Augusto Leite Falcão
President of the Brazilian Pilots' Association

OUTSTANDING CANADIAN EXPERTISE

Experience Quebec City, Canada and its Unique Attractions

Courtesy of the Port of Quebec

A visit to the Maritime Simulation and Resource Centre is a unique experience, but while you are here, why not take advantage of the opportunity to discover the beauty and rich history of one of the oldest port cities in North America... majestic Quebec City!

You are sure to be delighted by its heritage sites, its picturesque neighbourhoods, its artistic and cultural activities, and its gastronomic treats!



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A division of the
CORPORATION OF LOWER ST. LAWRENCE PILOTS (CLSLP)

Guardians of a great continental waterway since 1860