**MSRC-TRAINING SUMMARY** 



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### **CORE BUSINESS**

- ♣ The MSRC's core business is pilot training and operational feasibility studies.
- **4** All Canadian pilotage authorities do business with the MSRC for training their pilots or apprentice pilots.
- ♣ Pilots from the United States, Mexico and South America also come to the MSRC for their training.
- **†** The MSRC is approved by the Royal Canadian Navy for the training of their reservists.

### **APPROVALS**

- **♣** Some of the MSRC's programs have been approved by the following organizations:
  - Transport Canada (TC)
  - American Pilots' Association (APA)
  - Royal Canadian Navy
  - SEAiq Pilot
- **†** The MSRC is also registered with PWGSC under the Defence Production Act and the Controlled Goods Regulations.

## COMPLETE TURNKEY SERVICES FOR OPERATIONAL FEASIBILITY STUDIES

- **†** The MSRC is the only simulation centre in North America regrouping all the following services under one roof:
  - Four interactive fully equipped navigation bridges, continually being upgraded
  - In-house capability for building geographic databases from anywhere in the world
  - In-house capability for developing realistic mathematical ship models (pilot grade)
  - Close collaboration of 75 CLSLP seasoned pilots with various experiences.
  - The MSRC has designed own ship models and carried out Beta testing on new simulation software for Kongsberg Maritime.

### **NETWORK OF EXPERTS**

**‡** The MSRC has developed a network of experts which enables it to offer a range of specialized services

# **PARTNERS AND CLIENTS**

The MSRC collaborates with partners such as shipowners, port authorities, engineering firms, pilot groups, authorities, and associations, various departments and organizations, as well as other stakeholders in the maritime industry.

For a comprehensive list of MSRC partners and clients, visit our website at https://sim-pilot.com/en/useful-links/

# MSRC'S TRAINING PROGRAMS

COURSE	OBJECTIVES	DURATION	COMMENTS
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 Maneuvres 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 asto carry out complete and realistic ship manoeuvring simulations studies.	Variable	

## MARITIME SIMULATION AND RESOURCE CENTRE

### **COMPANY PROFILE**

Founded in 2005, the Maritime Simulation and Resource Centre (MSRC) is a World-Class facility created, designed, owned and operated by working marine pilots. The Centre fulfills the training needs of the four Canadian Pilotage Authorities regrouping 100% of the Canadian pilots as well as pilots from the United States, Mexico and South America.

With its four fully instrumented navigation bridges, MSRC has the capability to provide interactive scenarios with manned tug and large vessel simulations, including Post-Panamax ships, which allow pilots to practice their manoeuvring techniques and enhance their skills. In-house capabilities for building pilot-grade ship models (over 100 ship models) and customized geographic databases, enable pilots and port development stakeholders to take an active part in determining risk mitigation and validation of new and existing infrastructure upgrades.

### **MISSION**

The MSRC's mission is to ensure training and development for pilots belonging to the CLSLP and to share its expertise in simulation with other pilots and professionals in the maritime domain.





## **Maritime Simulation and Resource Centre**

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