

## The Great Lakes - St. Lawrence Seaway System Le réseau Grands Lacs - Voie maritime du Saint-Laurent

2008 - NOTICE TO SHIPPING #7

NIAGARA REGION WELLAND CANAL

## TESTING OF "HANDS FREE MOORING EQUIPMENT" & "SELF SPOTTING" IN LOCK 7

## **HANDS FREE MOORING:**

During the 2007 navigation season The St. Lawrence Seaway Management Corporation tested and evaluated a new prototype piece of technology, "the MoorMaster 200LS hands-free vacuum pad mooring system" at Lock 8. Valuable information was gathered with promising results thanks to the excellent cooperation and feed back obtained from all those that participated in the many tests that were conducted. Based on the above, The St. Lawrence Seaway Management Corporation will continue testing the effectiveness of this new technology at Lock 7 (a deep lock) during the 2008 navigation season. Two of these units will be installed on the east wall and be located 30 metres on either side of the center line of the lock. Several modifications, as a result of the feedback received during the initial testing at Lock 8, have been made to these new units.

The "MoorMaster 200LS mooring system" is designed to attach to the side of a vessel, by means of a vacuum pad, once it has stopped and is alongside the wall at its mooring position. The vacuum pads hold the vessel securely during the lock operation without the need for mooring wires. Testing and assessing the effectiveness of these two new units will commence in May and will continue throughout the 2008 navigation season. If successful, this equipment will allow us to provide a safer and more efficient mooring process for most vessels.

Vessels will be requested to participate in testing a number of different scenarios utilizing this new equipment and information with respect to the tests will be given by the Operations Control Centre and Lock 7 personnel at the time of the test. It is important for the accuracy of the testing that vessels do not use their engines at any time during the test, i.e. when the mooring system is attached, unless requested. Vessel's that were determined not to be compatible for Hands Free Mooring through the testing at Lock 8 during 2007 may not be asked to be tested at Lock 7.

From the start of the navigation season and in Lock 7 only, some vessels may be asked to stop at a different location in the lock than normal. This is necessary to prevent the vessel's mooring wires from making contact with the hands-free units. Instructions to this effect will be given to the vessel prior to entering the lock.

**SELF SPOTTING:** A vessel self spotting system has also been installed at Lock 7 and consists of a laser ranging device, (similar to equipment tested in Maisonneuve at Cote-Sainte-Catherine lock and in Niagara at Lock 8), located at both ends of the lock. This equipment uses eye safe laser ranging technology to recognize the vessel's hull and estimate its position in the lock. The vessel's foremost portion of the hull will be interpreted and the vessel's position will be updated dynamically and will be displayed on an LED panel located on the tie up side of the lock as the vessel progresses to its final mooring position. In addition, an automated audible spotting will also be available to the Master / Pilot on Channel 17 for up-

The St. Lawrence Seaway Management Corporation Corporation de Gestion de la Voie Maritime du Saint-Laurent

**Région Maisonneuv**e 151, rue de l'Écluse St-Lambert, Québec J4R 2V6 Tél: (450) 672-4115 Fax: (450) 672-8493

Tel: (905) 641-1932 Fax: (905) 641-5721



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bound transit and 66A for down-bound transit. The accuracy and visibility of this system will be tested commencing in approximately late May and for the duration of the 2008 navigation season.

NOTE: Procedures have been developed to test the "Self Spotting Equipment" in conjunction with the "Hands Free Mooring Equipment" with plans to do extensive testing during the 2008 navigation season using both these technologies independently and / or simultaneously. Details will be provided at the time of the testing.

A combined "Hands Free Mooring" / "Self Spotting" evaluation questionnaire will be provided to all vessels participating in the test when in Lock 7. We request that Masters / Pilots complete the evaluation questionnaire and drop it off at Lock 8 up-bound and at any lock from 6 to 1 down bound.

The Masters'/Pilots' assistance is greatly appreciated and is very important as it will allow for a better evaluation and optimization of the performance of the systems. If for any reason a vessel does not want to participate in the test, the Operations Control Centre should be notified.

John W. Chalmers Senior Coordinator, Regional Operational Services

St. Catharines, Ontario

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Tel: (905) 641-1932 Fax: (905) 641-5721