# OMC wins major Canadian contract to install DUKC® navigation technology in St Lawrence River

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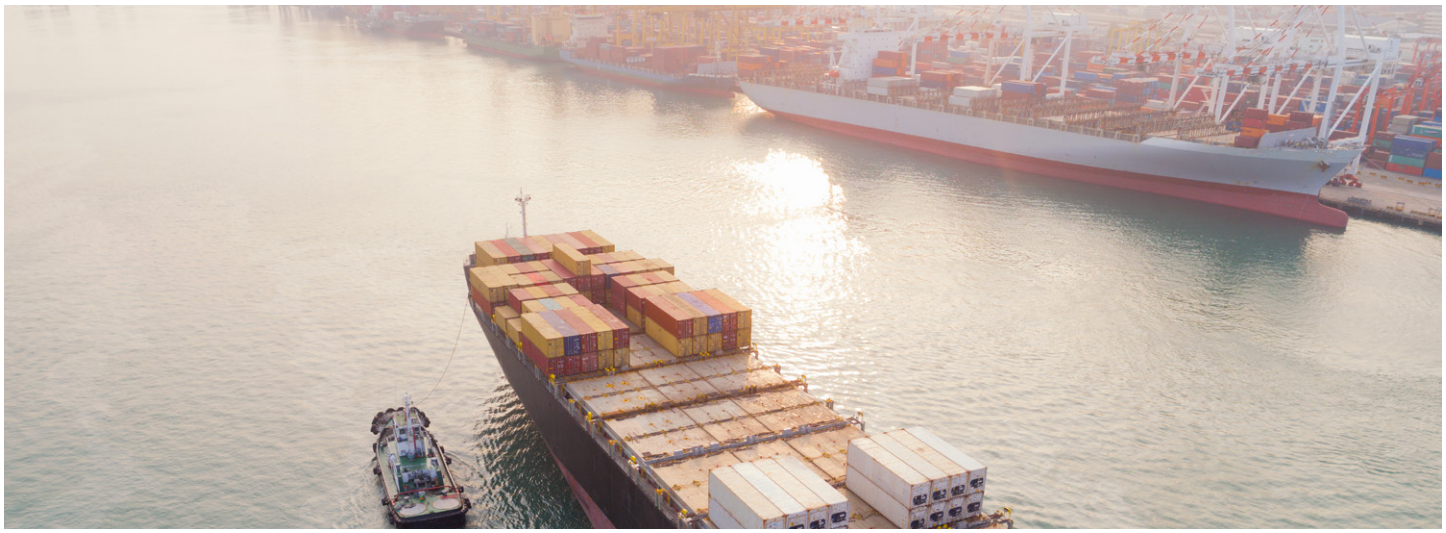

**Australian maritime engineering firm OMC International (OMC) has won a major Canadian contract for its DUKC® electronic navigation system to operate in the St Lawrence River, further cementing OMC's reputation as the leading expert in Under Keel Clearance (UKC) management, Executive Director Dr Terry O'Brien OAM announced today.**

Dr O'Brien said a customised web-based DUKC® Series 5 system for the draught-restricted section of the St Lawrence River from Montreal to Quebec City is expected to be operational next year as part of Montreal Port Authority's (MPA) and the Canadian Coast Guard's (CCG) integrated e-Navigation solution for the St Lawrence River, which is one of the world's largest inland waterways.

An operational DUKC® system offers the possibility of loading more cargo safely in depth-restricted waterways. Dr O'Brien said that about 400 ships a year sailing to and from Montreal are expected to sail under DUKC® advice to achieve maximum draughts. Montreal is the world's largest inland port and Canada's largest container port.

The St Lawrence River DUKC® system will be operated by three main parties, the MPA, the CCG and the Corporation of Mid St Lawrence Pilots (CPSLC). The bilingual web-based system will be hosted in the CCG's Operational Network (OpNet) in Quebec City where it will be integrated with other live environmental and vessel traffic systems. Users will access the web-based system from locations such as the port control and VTS centres in Montreal and Quebec City, as well as on board ships transiting on the river.

OMC will team with two Canadian sub-contractors in this project, NavSim, the PPU suppliers to the pilots, and XST, the Vessel Traffic Management and Information System (VTMIS) suppliers to the Canadian Coast Guard. The Canadian Hydrographic Services will also participate in the project by providing environmental and bathymetric data for the St Lawrence DUKC® system.

OMC's award-winning DUKC® technology scientifically predicts how much UKC ships will have as they transit depth restricted channels and waterways, and tracks the UKC of ships in real-time during their passage. It has the capacity to accurately determine the critical vertical component of navigation and use this information to both optimise ship loading and passage plan scheduling, as well as safely track vessel traffic on the river.

"OMC won this major Canadian contract because in our field we bring a reputation and level of experience which is unparalleled by any organisation worldwide. There is a DUKC® assisted ship movement on average every one and a half hours and more than 100,000 UKC critical ships have sailed using our DUKC® advice without a single incident in the past 20 years, which is an impeccable track record," Dr O'Brien said. "Our UKC team is also uniquely experienced in working with regulators, pilots, port authorities and shippers to determine their UKC needs."

OMC gained valuable experience on the St Lawrence River during a 2011 UKC benefits study conducted for the Société de Développement Économique du Saint Laurent (SODES). Mr Laurence Benn, Project Manager, said that this earlier work confirmed there is considerable potential to increase draught and tidal sailing windows safely. "The DUKC® system has already been shown to successfully manage the local complexities, such as the use of local UKC rules and unique environmental and bathymetric conditions on the St Lawrence River," he said.

"Also, many of the challenges faced in developing a suitable system for this major river have already been successfully resolved by OMC at other locations where DUKC® is installed in extended sections of protected waterways." The Weser River in Germany (DUKC® installed 2009) is a long river system of more than 100km, with four separate ports along its length, including the major ports of Bremerhaven and Bremen.

OMC continues to have a strong research focus and its first North American contract, announced in February 2011 for

a DUKC® desktop study for the Columbia River Bar (CRB), prompted the development of the award-winning OMC iHeave® , a lightweight ship motion measurement instrument the size of a shoebox. OMC iHeave® was designed specifically for use by pilots to allow them to gather hard data on ship motions under extreme conditions such as the treacherous entrance to the CRB, which is known as the 'Graveyard of the Pacific'. This entrance, which flows into the Pacific Ocean, has claimed about 2000 ships and 700 lives since 1792. OMC iHeave® won the prestigious International Bulk Journal (IBJ) Awards 'Innovative Technology' (Marine) category, announced in Hamburg in 2012.

A DUKC® trial began in the CRB in November 2012 following the completion of the desktop study, which aimed to investigate the commercial and safety benefits of installing a DUKC® at the CRB. Over the 2012/2013 winter, the Columbia River Bar Pilots (CRBP) performed further OMC iHeave® vessel motion measurements at the CRB and evaluation of this system and measurements is ongoing.

All OMC products include the core DUKC® calculation engine invented by Dr O'Brien, a Melbourne engineer, during a distinguished 22-year academic career which he left in 1987 to set up OMC to commercialise a working system (DUKC® ) for the maritime industry. Over the past 20 years, in response to client and user feedback, Dr O'Brien and his team of nearly 30 engineers have developed various system upgrades leading to the latest web-based Series 5. The Australian Maritime Safety Authority (AMSA) was the first client to implement DUKC® Series 5 as its real-time UKC management system for the international waters of Torres Strait, a vital shipping route for the Asia-Pacific region. This customised system was declared operational in December 2011. A year later, DUKC® Series 5 was awarded 1st Runner-Up in the internationally acclaimed 2012 IHS Safety at Sea Award for Engineering Excellence, announced in London.

Dr O'Brien said winning the St Lawrence River contract this year is a particularly pleasing milestone because his Melbourne-based company OMC is also celebrating the 20th anniversary of the first DUKC® system which was installed at Queensland's Hay Point coal terminal in 1993. It is also a significant achievement because the DUKC® system for the St Lawrence River will be integrated with local Canadian expertise to maximise the safe throughput of this major waterway and hence its productivity.

*** In June 2010**, in the Queen's Birthday Honours List, Dr Terry O'Brien was awarded a Medal of the Order of Australia (OAM) for services to the maritime transport industry.