OMC
enters North American market

IALA Industrial Member OMC International (OMC) reports that it has won its first North American contract, a DUKC® * desktop study, for the Columbia River Bar, a treacherous waterway known as the Graveyard of the Pacific.

photo : Ed Kashi

Executive Director Dr Terry O'Brien OAM** said this study was a very exciting step for his Australian family-owned maritime engineering company and again confirmed OMC's reputation as a world leader in under keel clearance (UKC) management systems.

The Columbia River Bar Pilots DUKC® Desktop Study, commissioned by the Columbia River Bar Pilots with funding from the Oregon Department of Transportation, is expected to be completed by the end of August. *"Massive sea swells can make conditions at the mouth of the Columbia River similar to the challenging waters of Melbourne's Port Phillip Bay entrance where vessels have been transiting safely under DUKC® advice since mid-2009,"* Dr O'Brien advised. He added, *"This aptly nicknamed bar, at the mouth of the Columbia River which flows into the Pacific Ocean, has claimed about 2000 ships and 700 lives since 1792. It is still known as a dangerous crossing for ships of all sizes, particularly when very strong river currents collide with massive ocean waves, because the wind direction and ocean swell can sometimes change from calm to life-threatening in as little as five minutes. This can force ships to sometimes turn sideways.*

"In Melbourne, huge long swells of up to five metres significant wave height, combined with currents up to six knots on the ebb (which occurs at low water), cause, in extreme conditions, ships longer than 250 metres to plunge several

metres downward. The history of shipwrecks since settlement began at Melbourne in 1835 attests to the reality of Port Phillip Heads as one of the world's most challenging waters for ship navigation.

"Having our technology already proven in Melbourne's extreme waters, I am very confident that this desktop study will be followed by the commissioning of a customised DUKC® system for the Columbia River because our technology will ensure maximum safety for large vessels moving in and out of its waterways.

"This technology mathematically predicts how much UKC ships have as they come down shallow channels. In most cases, it allows large vessels to load more cargo and/or sail with wider tidal windows. It is so accurate that, under extreme weather conditions, a 250,000 tonne carrier could negotiate a channel within a metre's clearance to the seabed."

DUKC® is claimed to be the only proven system worldwide that has the capacity to accurately determine the critical vertical component of navigation (what you can't see under the water). This technology is already on its way to becoming a standard safety implementation at Australian ports and is also in a number of ports in Europe and New Zealand. Almost all the iron ore and most of the coal exported from Australia is shipped out under DUKC® advice. A customised DUKC® system is already installed for Germany's Weser River system to help improve German port efficiency after OMC signed a contract with Germany's Federal Waterways and Shipping Directorate in 2008. This system covers the estuary port of Bremerhaven as well as the three ports on the lower reaches of the river, Nordenham, Brake and Bremen.

Dr O'Brien said this new North American contract for the desktop study again confirms the paradigm shift that DUKC® has caused in UKC management, from static rules to dynamic analyses of UKC requirements.

"I believe that static rules are coming to the end of their usefulness because they have dramatically failed at some ports and it is getting increasingly harder for port and water authorities around the world to ignore the proven safety benefits of our DUKC® technology as a risk management tool," he said and added, *"I believe it is also increasingly unacceptable for ports without DUKC® systems in place to believe that they're foolproof because they have so far enjoyed an unblemished safety record. Just look at what happened in New Zealand. In 1993, two tankers bringing crude oil in from the Middle East grounded within three months of each other, in the Marsden Point channel, on a shoal, yet there had been no grounding in the preceding 30 years of operation. Subsequent analysis by OMC showed that if a DUKC® system had been in operation, the system would have advised that these sailings not take place on those days due to inadequate UKC and the two incidents would not have occurred."*

The port installed a DUKC® system on safety grounds in 1994. In March this year OMC celebrated the first anniversary of the opening of its South American office in Bogota, Colombia. Senior engineer and South American Manager Dr Matthew Turner has been travelling extensively within Argentina, Brazil and Colombia.

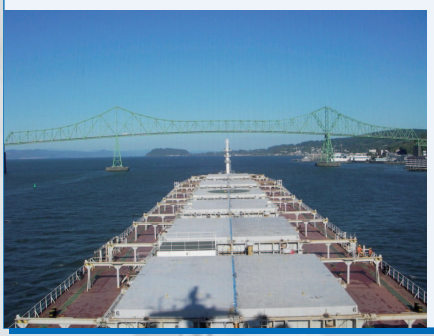
"Our decision to open an office in this region has been more than justified by the interest we are receiving from maritime authorities, ports and port operators," Dr O'Brien said. *"I believe the next few years will be very exciting for OMC in South America."*

Massive sea wells can deliver challenging conditions at the mouth of the Columbia River

*** DUKC®**
(Dynamic Under Keel Clearance)

OMC International prend pied sur le continent nord-américain

Le membre industriel de l'AISM OMC International vient de remporter son premier contrat nord-américain pour une étude de poste DUKC® (Dynamic Underkeel Clearance) destinée au Columbia River Bar, une route maritime particulièrement traître connue sous le nom de «cimetière du Pacifique». Le Dr. Terry O'Brien OAM, directeur d'OMC International, rapporte que cette étude a été très motivante pour sa société familiale australienne d'ingénierie maritime et qu'elle confirme la réputation d'OMC de leader mondial dans les systèmes UKC, qui permettent de contrôler la profondeur d'eau sous la coque. Le DUKC® développé pour les pilotes du Columbia River Bar a été financé par le département des transports de l'Oregon et devrait être achevé pour la fin du mois d'août. Le DUKC® se targue d'être le seul système au monde ayant fait la preuve de sa capacité à apprécier avec précision la dimension verticale de la navigation (ce que l'on ne peut pas voir sous l'eau). Cette technologie est maintenant bien partie pour devenir une norme de sécurité dans les ports australiens et dans certains ports européens et néo-zélandais. ◆



OMC entra al mercado norteamericano

El Miembro Industrial de IALA OMC International (OMC) informa que ha ganado su primer contrato norteamericano, un estudio preliminar de DUKC® (Espacio Dinámico Bajo la Quilla) para la Barra del Río Columbia, una vía navegable traicionera conocida como el Cementerio del Pacífico en la costa oeste de los Estados Unidos. El Director Ejecutivo Dr. Terry O'Brien OAM dijo que este estudio era un paso muy apasionante para su compañía de ingeniería marítima australiana propiedad de la familia, y que confirmaba la reputación de OMC como líder mundial en sistemas de administración del espacio bajo la quilla (UKC). Se espera que el Estudio Preliminar de DUKC® de los Prácticos de la Barra del Río Columbia, encargado por los Prácticos de la Barra del Río Columbia con financiación del Departamento de Transporte de Oregon, esté completado para fines de agosto. Se afirma que DUKC® es el único sistema probado en el mundo que tiene la capacidad de determinar con precisión la componente vertical crítica de la navegación (lo que no se puede ver bajo el agua). Esta tecnología ya está por volverse una implementación de seguridad estándar en los puertos australianos y se encuentra también en varios puertos en Europa y Nueva Zelanda. ◆

**** OMC's Founder and Executive Director Dr Terry O'Brien was awarded the Medal of the Order of Australia (OAM) in 2010 for services to the maritime industry.**