

# OMC wins AMSA's Torres Strait contract

*It was reported early in June that the Australian Maritime Safety Authority (AMSA) had signed-off for OMC International's under keel clearance management (UKCM) system to be installed in the Torres Strait to enhance shipping safety. This signing also marks the launch of OMC's web-based product, the company announced on 7th June.*

It is understood that the release of the Next Generation Dynamic Under Keel Clearance (DUKC®) product suite, DUKC® Series 5, will give authorised users easier access to this system and AMSA is reported to be the first client.

OMC Founder and Executive Director Dr Terry O'Brien said this was an exciting development for his Melbourne-based family-owned specialist maritime engineering firm. *"Our technology is already in ports and river systems around the world, including most major Australian ports, but this is the first time that a UKCM system will be introduced in a complex coastal environment in Australia. The management of shipping through the Torres Strait involves a very significant challenge for UKCM. There is hard rock and sand waves in some places, as well as complex tides and associated tidal streams with waves and swell in the monsoon season (from January to March) from cyclones." He added, "AMSA's decision reflects its safety first philosophy in these pristine environmentally sensitive waters which are so critical for the Australian and international maritime industry. The selection of DUKC® technology reflects OMC's status and proven record as the world leader in providing real-time UKC solutions for large vessels and in delivering on safety and efficiency."*

OMC's DUKC® system has undergone many releases over the past 17 years in response to constructive industry feedback and adaptation to new software technologies. Dr O'Brien said OMC clients had become increasingly interested in installing DUKC® systems for safety and risk management purposes.

Authorised users worldwide can now execute under keel clearance related tasks via the web as well as the traditional desktop-based user interface. The new module format also enables users to access only the self-contained modules relevant to their specific needs, whether it be long-

term voyage planning, real-time onboard pilotage applications, or monitoring of numerous vessels in real-time within a vessel traffic service (VTS) environment. This software technology provides port and waterway authorities with a consistent scientific and integrated method of determining safe vessel draughts to reduce the risk of ship groundings. It also saves billions of dollars for the shipping industry around the world by maximising the cargo-carrying capacity of large vessels while ensuring safe navigation through shallow waterways.

Dr O'Brien said that AMSA's objectives for introducing UKCM in the Torres Strait are to deliver enhanced safety and efficiency of navigation by:

- Validating the existing safety margin for deep draught vessels transiting the region by using the latest UKCM technology available; and
- Evaluating the appropriateness of the current draught regime.

This will further benefit the Australian community and industry and help protect the sensitive marine environment of the Torres Strait. It is understood that OMC won the contract for a UKCM system in the Torres Strait after an open public tender. Following this signing of a long term contract, DUKC® is planned to be commissioned in stages. The first is concerned with verifying the safety of the existing operation by incorporating the new hydrographic and other data that is now available. Dr O'Brien said this first stage should be completed by March 2011. He commented, *"DUKC® will then provide significant safety benefits as an aid to navigation for transiting vessels."*

OMC's technology has already been in Torres Strait's "backyard" since 2008 when the company signed a contract with North Queensland Bulk Ports Corporation (formerly Ports Corporation Queensland) to supply its DUKC® system at the Rio Tinto Alcan bulk export port of Weipa in North

Queensland. The purpose of the Weipa system is to enhance the safety and improve the efficiency of Rio Tinto's large export ships transporting bauxite from the Weipa deposits through the Torres Strait to the alumina refineries at the port of Gladstone and to the People's Republic of China, Japan and the Republic of Korea via other routes that are not constrained by the 12.2 metres Torres Strait draught limit.

## Honours

On 14th June OMC International reported that Dr Terry O'Brien, had been awarded the Medal of the Order of Australia (OAM) in that day's Queen's Birthday Honours List. Dr O'Brien, a former Melbourne University academic and Harkness Fellow who founded maritime engineering firm OMC International in 1987, was honoured for services to the maritime transport industry. Commenting on the Award Dr O'Brien said, *"This is a great personal honour but I accept it also on behalf of the entire OMC team whose expertise and dedication ensures that our innovative technology is taken up by industry and continues to be the world's best in this specialised field."*

This dynamic under keel clearance technology is already on its way to becoming a standard safety implementation at Australian ports and is also in Europe and New Zealand. Almost all of the iron ore and most of the coal exported from Australia is shipped out under DUKC® advice. From the early stages of his research, Dr O'Brien has been intrigued by waves, currents, ship motions and the challenges of creating a numerical method of modelling them.

Realising there was a niche business market, he left academia after a distinguished 22-year career (which included sabbaticals at overseas institutions such as MIT) to establish OMC International (OMC) in 1987 to solve practical problems in the maritime industry.

More research led to his innovative DUKC® system, which was first installed in Queensland's Hay Point coal terminal in 1993. This Australian technology continues to be further developed entirely in-house by a team of more than 30, led by Dr O'Brien and his son Peter, a maritime engineer and OMC's Chief Executive Officer. This team develops and installs new systems, as well as supporting existing systems round the clock, throughout the year, from its Melbourne head office. OMC also has offices in Perth, the UK and South America. Dr O'Brien said OMC clients had become increasingly interested in installing DUKC® systems for safety reasons. For example, the Port of Melbourne Corporation (PoMC) chose to install a DUKC® system last year to help ensure the safety of large vessels entering Port Phillip Heads, one of the most challenging waters for ship navigation to be found anywhere on earth. Recently attracting huge media attention, the Chinese vessel *Xin Yan Tai* (the biggest container ship to berth in Australia) safely entered Port Phillip Bay under DUKC® advice to dock in Melbourne to load and unload some 3000 containers. ■

### OMC remporte le contrat AMSA pour le détroit de Torres

On a appris au début de juin que l'Australian Maritime Safety Authority (AMSA) a adopté le système de gestion de la profondeur d'eau sous la quille (Under keel clearance management - UKCM) d'OMC International pour installation dans le détroit de Torres afin d'y accroître la sécurité de la navigation. Cette signature marque également le lancement des produits OMC sur Internet, a annoncé la société le 7 juin. Il est entendu que le lancement de la gamme de produits Next Generation Dynamic Under Keel Clearance (DUKC®), DUKC® Série 5, donnera aux utilisateurs autorisés un accès plus facile à ce système dont AMSA est le premier client. La décision de l'AMSA reflète sa philosophie « sécurité d'abord » dans ces eaux cristallines écologiquement sensibles mais essentielles pour l'industrie maritime australienne et internationale. L'article poursuit en signalant que le Dr Terry O'Brien a reçu la médaille de l'Ordre de l'Australie (OAM) en juin de cette année et décrit sa carrière dans le milieu universitaire et l'industrie. ◆

### OMC gana el contrato del Estrecho de Torres de AMSA

A principios de junio se informó que la Autoridad de Seguridad Marítima Australiana (AMSA) había aprobado la instalación del sistema de gestión del espacio bajo la quilla (UKCM) de OMC International en el Estrecho de Torres para mejorar la seguridad de la navegación. Esta aprobación también marca el lanzamiento del producto de OMC con base en la web, anunció la compañía el 7 de junio. Se entiende que la puesta en venta de la serie de productos Espacio Bajo la Quilla Dinámico de la Próxima Generación (DUKC®), DUKC® Serie 5, le dará a los usuarios autorizados un acceso más fácil a este sistema y se dice que AMSA es el primer cliente. La decisión de AMSA refleja su filosofía de la seguridad primero en estas prístinas aguas sensibles desde el punto de vista medioambiental que son tan vitales para la industria marítima australiana e internacional. El artículo informa además que el Dr. Terry O'Brien recibió la Medalla de la Orden de Australia (OAM) en junio de este año y resume su carrera académica e industrial. ◆

## IALA BULLETIN

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*In order that the Bulletin can appear on time it is essential that material is with the Editor no later than 15th December, 1st April, 1st July and 1st October respectively.*

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