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**New contract puts OMC International in the spotlight – again!**

OMC International has won a contract to install its Dynamic Under Keel Clearance (DUKC<sup>®</sup>) management system in Rio Tinto's Western Australian Cape Lambert port, OMC announced today, following the naming of its Founder and Executive Director Dr Terry O'Brien in the Australian Honours List.

This new contract also includes an extension of the existing DUKC<sup>®</sup> contract for Rio Tinto shipping operations at the port of Dampier.

Cape Lambert is the 21<sup>st</sup> DUKC<sup>®</sup> installation for this family-owned maritime engineering firm founded in 1987 by Dr O'Brien, who was awarded a Medal of the Order of Australia (OAM) on Monday for services to the maritime transport industry.

This announcement also follows last week's news that the Federal Government's Australian Maritime Safety Authority (AMSA) has signed off for a DUKC<sup>®</sup> system to be commissioned for Torres Strait to ensure shipping safety in these environmentally sensitive waters.

Dr O'Brien said the latest Rio Tinto contract was significant.

DUKC<sup>®</sup> is already in five other WA ports, including channels from Parker Point and East Intercourse Island at the Port of Dampier where it has operated since 1995.

Dr O'Brien, a Melbourne engineer and former academic, is the innovator of his company's DUKC<sup>®</sup> technology which was first installed in Queensland's Hay Point coal terminal in 1993. Over 18 years the DUKC<sup>®</sup> system has provided more than US\$10 billion in economic benefits to ports and port users worldwide and helped prevent groundings and environmental disasters.

The economic benefits to the exporter can be enormous, given that every extra centimetre of draught (the depth below the waterline) that a large ship can be loaded to means an extra 130 tonnes of cargo. Just do the sums for Dampier port, for example, where DUKC<sup>®</sup> has allowed an average extra 30cm of draught for each ship, and about 800 ships a year visit the port. That's a lot of extra tonnage! And there is also the significant savings which accrue from the earlier vessel sailing times possible under DUKC<sup>®</sup>.

There have since been updated product releases developed in-house by OMC's staff of more than 30 specialists at the Melbourne head office. This team is still led by Dr O'Brien and his maritime engineer son Peter O'Brien, who also manages the company's day to day operations as its Chief Executive Officer.

OMC's Perth office has an increasing workload in WA which is in the midst of a resources boom. This includes winning dredging optimisation studies for Anketell Point, Cape Lambert, Oakajee and Port Hedland.



The company is also working with Port Hedland Port Authority (PHPA) to replicate the Port's June 2009 record of five bulk carriers sailing on the one tide. PHPA believes the iron content within this combined shipment of iron ore would be sufficient to build 10 Sydney Harbour bridges!

“On average, two to three ships sail on the one tide but as export volumes grow, it would be desirable for this to increase to four to five ships per tide,” Dr O’Brien said.

To this end, PHPA has commissioned OMC to develop and install a DUKC<sup>®</sup> Optimiser program which will look at maximising throughput over a tide cycle, considering the number of vessels. Stage one is expected to be released in September.

Dr O’Brien has also been working in WA on various mooring projects. Mooring analysis and design was the predecessor to DUKC<sup>®</sup>. In the 1960s the British Phosphate Commissioners contacted Dr O’Brien to work on solutions for mooring the large phosphate ships in Nauru (in the Pacific Ocean north of the Solomon Islands) and also for Christmas Island (2600km north-west of Perth). His numerical ship motion model (SPMS) is the “engine” of DUKC<sup>®</sup>, developed from his involvement with these deep-sea moorings, which he has since relaid many times. Last December, he returned to Christmas Island to monitor the laying of a new single-point mooring system he designed for cruise ships.

Dr O’Brien’s work on the modelling of moored ship systems continues and he has since upgraded the technology by adding the capacity to model the behaviour of the MoorMaster<sup>™</sup> MM20 units manufactured by Cavotec. These systems, based on automated vacuum technology, allow vessels to be moored in seconds. This new system uses vacuum pads to provide the mooring attachment instead of conventional mooring lines which can break under extreme loading conditions.

OMC is currently engaged in studies involving MoorMaster<sup>™</sup> units at two Western Australian ports, including Port Hedland.

DUKC<sup>®</sup> technology is 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 are shipped out under DUKC<sup>®</sup> advice.

The company also has an office in the UK to support its European installations, which include Lisbon and four ports along the Weser River waterway in Germany, and it opened a South American office in March this year.

**Media inquiries: Louise Maher +61 3 9412 6500**

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