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## MEDIA RELEASE

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### NQBP DUKC®

This year marks the 30<sup>th</sup> anniversary of DUKC®. That first installation at Hay Point was truly innovative, creating a paradigm shift in the industry's approach to optimising UKC. Through DUKC®, Hay Point was able to increase sailing drafts and windows whilst reducing navigational risk. Minimising the amount of shipping required through the environmentally sensitive Great Barrier Reef Marine Park, preventing groundings, and reducing the dredging required were key benefits realised immediately.

The technology was considered revolutionary for its time, immediately enabling ships to safely increase their sailing drafts. DUKC® has continuously evolved as the supporting technologies such as the Cloud and IoT, and computational power have advanced. With the latest vessel motion modelling and the application of leading-edge AI technology, it is now possible to assimilate measured vessel measurements in real-time to ensure the highest level of accuracy and system validation. Client driven innovations have extended the functionality beyond UKC towards port optimisation, allowing Ports to harness the data captured within DUKC® to enhance evidence based decisions. On-going investment in R&D has ensured that the DUKC® remains the most technically sophisticated UKCM system worldwide with unparalleled validation of its accuracy.

It is rare for a technology to simultaneously deliver efficiency and safety benefits. However, DUKC® has been independently proven to achieve just this. DUKC® provides certainty for vessels to sail at the maximum safe draft based on the unique characteristics of the vessel, transit, and port, as well as the prevailing environmental conditions. Where maximum draft is not the primary concern, for example liner trades, and bulk and liquid imports, DUKC® increases the available sailing window. This increases channel capacity, minimizes vessels delays, and ultimately reduces dredging requirements. For adverse weather conditions, DUKC® has provided advice to prevent sailings that would otherwise have potentially resulted in vessels grounding had the existing static UKC rules been followed.

Since 1993, DUKC® has been used to optimise sailing drafts and windows for more than 200,000 transits whilst maintaining a perfect safety record. In addition to Hay Point, OMC's technology has been deployed to NQBP's operations at Weipa, Amrun, Mackay, and most recently Abbot Point, where it is estimated that DUKC® can reduce the per tonne-km CO<sub>2</sub> emissions by up to 5.5%.

DUKC® is the most comprehensive, and extensively validated UKC system globally. With a perfect safety record spanning 30 years and more than 200,000 transits, it is an invaluable tool to manage risk, ensure safety, reduce dredging and shipping related CO<sub>2</sub> emissions, and facilitate evidence based, data driven decisions.