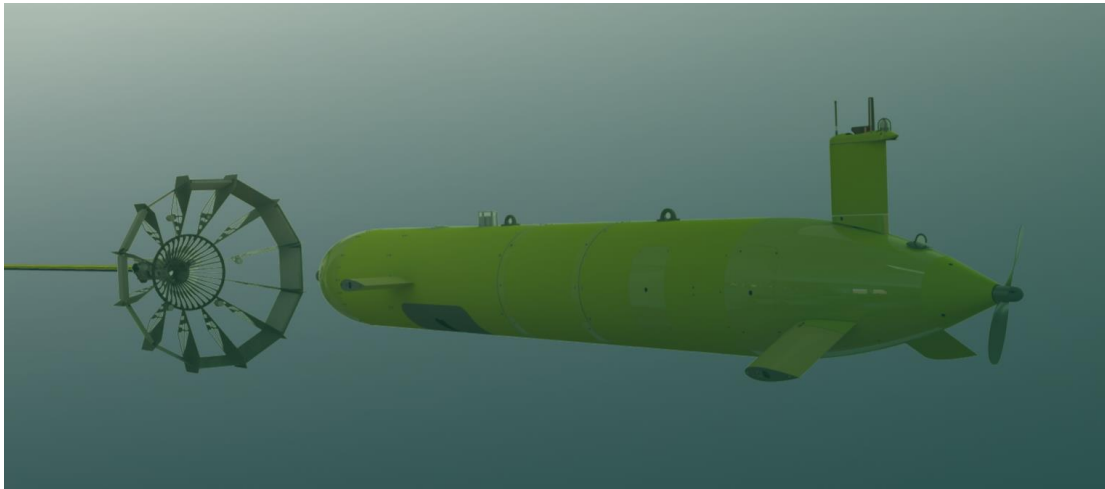


26 January 2021

INTERNATIONAL SUBMARINE ENGINEERING (ISE) COMPLETES PHASE 1B OF AUTONOMOUS AUV DOCKING TESTING



1: Rendering of the AUV and the Towed Dock

Port Coquitlam, BC, Canada - International Submarine Engineering Ltd. (ISE) has successfully completed the second stage in the autonomous dock prototype project. This project is a joint project between Dalhousie University and ISE with funding provided by Innovation for Defence Excellence and Security (IDEaS).

The dock provides a platform for an AUV to autonomously latch onto while remaining subsea. Once latched, the AUV can then charge its batteries and download the data for the operators. Then once that is complete, the AUV can unlatch and begin its next mission. This essentially eliminates the risks of launching and recovering during rough sea states as well as greatly reducing the amount of downtime between missions.

The purpose of phase 1b was to develop a prototype and prove the concept in a real-world subsea environment using the ISE Explorer AUV and the new dock prototype. At a distance up to 90 meters, the AUV uses multi-beam sonar to align itself with the dock and navigate towards the target. Once it is within a range of 10 meters, the AUV automatically switches to camera tracking and homes in on the light array on the dock. Over a period of 10 days the dock was put through extensive testing in highly turbid water and fully autonomous connections were being made between the AUV and the dock with resounding success.

There are many options for the next stage of this project though the current focus is to include an uncrewed surface vessel to tow the dock with a towed listening array on the AUV as part of the persistent maritime surveillance scope. Adapting the dock to allow for launch and recovery opens a lot of possibilities for the technology in other applications.

The success of this project thus far highlights the experience and expertise ISE has acquired in over four decades of work in the subsea marine industry. ISE will be releasing updates to this project on its website, check the following webpage: <https://ise.bc.ca/product/dock/>

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2: Photo of the Towed Dock on the surface

International Submarine Engineering Ltd.

ISE, based just outside Vancouver, Canada, was founded in 1974 and designs and manufactures advanced underwater systems and terrestrial robotics. ISE has delivered hundreds of subsea vehicles of various types, over 400 robotic manipulators to more than 20 countries, and assisted in a multitude of additional projects for customers the world over.

The ISE's family of vehicles include ROVs, AUVs, submersibles, semi-submersibles, Mine Countermeasure systems, and additional systems designed to customer specifications for the Naval, Science & Environmental, and offshore Oil & Gas Markets.

For more information on International Submarine Engineering products and services, please contact us at info@ise.bc.ca and visit our website at www.ise.bc.ca.