## NEWS RELEASE FOR IMMEDIATE RELEASE MARCH 2019



## INTERNATIONAL SUBMARINE ENGINEERING LTD. THE FIRST COMPANY TO SUCCESSFULLY COMPLETE UNDER ICE MISSIONS IN BOTH POLAR REGIONS

**PORT COQUITLAM, British Columbia** – International Submarine Engineering (ISE), a Canadian owned and operated engineering company, breaks new ground after their Autonomous Underwater Vehicle (AUV) recently completed an under ice mission in Antarctica. Although not the first to complete a mission in the Antarctic, ISE is the first company to successfully complete missions in both Polar Regions, making them a pioneer in under ice explorations. This recent mission in Antarctica was led by the University of Tasmania (UTAS) and the Antarctic Gateway Partnership (AMC) to study the environmental effects on the Sørsdal Glacier near Davis Station, a permanent research station managed by the Australian Antarctic Division of the Australian Government. The team at UTAS used ISE's Explorer AUV, which is engineered to survey the ocean properties and sea floor below the glacier's ice shelf.

ISE was selected for this exploration because of the company's successful

history completing sub-ice missions in the Arctic. Thick ice presents challenges for AUVs and surveying below the Sørsdal Glacier presented numerous risks including the AUV being trapped below the glacier. ISE's Senior Technical Advisor, Jean-Marc



Laframboise, accompanied the UTAS research team and provided technical assistance. The area below the ice shelf was previously unexplored. Laframboise reported "It's the first time the ground beneath the Sørsdal ice shelf has ever been measured. I was confident in the AUV to complete the mission and retrieve the data that the researchers were looking for." Laframboise also participated in the 1995 / 1996 missions in the Arctic where ISE's larger AUV, Theseus, proved reliable to lay cables below the Arctic ice. Both vehicles were developed by ISE, making them the first to complete missions in both the Arctic and Antarctic.

Below the ice, the AUV was completely autonomous and was programed to avoid obstacles and return to the ship if there were any major issues. This allowed the vehicle to explore and collect data of the surrounding area. Aptly named nupiri muka, 'Eye of the Sea', by the Tasmanian Aboriginal Centre, the AUV was equipped with a conductivity temperature depth sensor, sub bottom profiler and side scan sonar to measure the bathymetry and report on temperature, sound velocity and salt water density of the water below the ice glacier.

Data from this mission will help researchers understand what's happening to the Sørsdal Glacier. Although this was the first mission for UTAS, the success of this exploration proved they have the capacity to survey areas in the Antarctic that were previously inaccessible by researchers.

- 30 -

## Media Inquiries:

Lara Smith, Chief Executive Officer Linda McAuley, Chief Operating Officer Is\_Im\_ exec@ise.bc.ca

## About International Submarine Engineering Ltd. (ISE)

ISE, based just outside Vancouver, BC, Canada, with an Atlantic office located in Halifax, NS, 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 and over 400 robotic manipulators to more than 20 countries, along with assisting in a multitude of additional projects for customers worldwide. ISE is uniquely positioned to assist our customers with polar operations, having supported clients through seven field seasons in the Arctic. This extends beyond vehicle development and includes preparation and planning, risk analysis, as well as operations and on-site support. As one example: ISE personnel played key roles on the operations team for the successful Project Spinnaker. The Spinnaker Project was a joint Canadian and United States of America project that saw 150 kms of fibre optic cable laid on the seafloor under Arctic ice by Theseus, an ISE AUV.

ISE's family of vehicles include AUVs, ROVs, manned submersibles, semisubmersibles and mine countermeasure systems. ISE's expertise, knowledge, and many years of innovation, along with an experienced engineering team, allows us to excel at providing solutions to customer's unique specifications for the science & environmental, defence, and offshore Oil & Gas markets.

For more information on ISE products and services, please contact us at ls\_lm\_exec@ise.bc.ca and visit our website at www.ise.bc.ca.