AGU 100 ADVANCING EARTH AND SPACE SCIENCE FALL MEETING Washington, D.C. | 10–14 Dec 2018

OS33D-1921: GEBCO-NF Alumni Team technology development - Round 2 of the Shell Ocean Discovery XPRIZE

Wednesday, 12 December 2018
13:40 - 18:00
Walter E Washington Convention Center - Hall A-C (Poster Hall)

The GEBCO-NF Alumni Team is one of the nine teams that progressed through to the final Round 2 of the Shell Ocean Discovery XPRIZE challenge. The GEBCO-NF Alumni Team is an international team working on their solution for autonomous Ocean Mapping operations. The aim of the GEBCO-NF Alumni Team has been to leverage existing technology, wherever possible, and to integrate them to achieve the competition requirements

The Team is characterized by its diversity with a global distribution from academic institutions, offshore survey and technology industries, academia as well as national hydrographic offices. The Team was led by alumni of the Nippon Foundation / GEBCO training program at the Center for Coastal and Ocean Mapping, University of New Hampshire. The strategic approach was to develop strong partnerships and to work closely with technology partners (Ocean Floor Geophysics Inc., Hushcraft Ltd., Teledyne CARIS and Earth Analytic) as well as equipment supplier (Kongsberg Maritime AS) to develop and continuously advance the Team's concept created for the Shell Ocean Discovery XPRIZE.

The GEBCO-NF Alumni Team conceived a two-system, Autonomous Underwater Vehicle (AUV) and Remote-controlled or Unmanned (Uncrewed) Surface Vehicle (USV), concept to autonomously map the seafloor in a wide variety of ocean environments. Autonomous seafloor surveys, with remote AUV launch and recovery (human-in-the-loop) and with the USV autonomously tracking the AUV, while being monitored from a remote shore station, were demonstrated to be a viable option for future offshore operations during Round 1. The technology, data processing and information production procedures that are continuously being developed as part of their Round 2 solution, are a step towards large-scale implementation. This innovative technology can potentially increase the efficiency of seafloor mapping and is the Team's contribution towards helping meet the ambitious goals of the Nippon Foundation-GEBCO Seabed 2030 Project.

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