



News Release

POLAR CHALLENGE: CREATING AN AUTONOMOUS UNDERWATER VEHICLE FOR UNDER SEA-ICE EXPLORATION

WOC Partners with World Climate Research Programme and Prince Albert II of Monaco Foundation to Promote Industry Involvement in Polar Research Innovation

23 March 2016

The World Ocean Council (WOC) is working to foster private sector participation in the Polar Challenge – a competition to develop an Autonomous Underwater Vehicle (AUV) capable of a 2,000 km mission under the sea-ice in the Arctic or Antarctic, with a prize of 500,000 Swiss francs to the winner.

The World Climate Research Programme (WCRP) and Prince Albert II of Monaco Foundation hope the competition will stimulate innovation towards a cost-effective, autonomous and scalable observing network for ice-covered ocean regions.

“With the Polar Challenge, we hope to open new horizons in under-ice navigation, endurance and environmental monitoring that is vital to understanding polar oceans,” said WCRP Director David Carlson.

“The reliability of long-term climate change outlooks in polar regions is severely limited by the scarcity and cost of observations of the sea-ice and below,” emphasized WCRP Senior Scientist Michel Rixen. “New generation AUVs such as underwater gliders provide a potential cost-effective option for scaling up observing networks for the Polar regions,” added Mr Rixen.

WOC CEO, Paul Holthus, noted that, “The use of AUVs and other intensive data collection technology can be cost-effectively augmented by harnessing the use of commercial vessels for data collection as they operate in polar waters, and we are working to advance this through the WOC ‘Smart Ocean-Smart Industries’ program.”

Currently AUVs are primarily used in ice-free zones, where they can surface to get a GPS fix and transmit data, e.g. temperature, salinity, chlorophyll and acidity. But under the sea-ice, the operating range, positioning and data transmission are a major challenge. Progress on power systems, navigation and communication create the potential to expand the scope of AUVs to under sea-ice operations. The Polar Challenge advances WCRP research priorities in polar oceans and will contribute to the World Meteorological Organization (WMO) polar initiatives that benefit the wider community (weather, ocean, environment, safety, transport, energy, tourism, etc).

The WCRP invites contributions from all relevant stakeholders and provides more details, including competition rules and registration, at: <http://www.wcrp-climate.org/polarchallenge>.

The Polar Challenge was announced last week at the Arctic Observing Summit (AOS), in Fairbanks, Alaska. WOC co-organized the private sector theme sessions of the Arctic Observing Summit, which addressed industry experience in, and needs for, Arctic observations and data, and culminated in a workshop on fostering data collection and sharing by industry.

The AOS brought together 450 delegates from 30 countries - representing industry, science, indigenous peoples, government agencies, and NGOs. The AOS 2016 Conference Statement outlines seven major recommendations for developing a pathway towards an internationally supported, pan-Arctic observing system. [Click here](#) for the AOS Statement.

[Upcoming WOC Outreach and Engagement](#)

22-24 March

ARUBA: **Private Sector Partnerships for Small Islands** - Plenary Speaker

28-30 March

NEW YORK: **U.N. Law of the Sea, Preparatory Committee Meeting** (28 March-8 April) - Industry Representative

“Development of an international legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction” (BBNJ)

31 March-1 April

THE HAGUE: **Global Governance Reform Initiative – Oceans Governance** - Hague Institute for Global Justice - Expert Group Participant

4-5 April

ROTTERDAM: Meetings to advance *Sustainable Ocean Summit* 2016 planning

6-8 April

BARCELONA: **Offshore Mariculture** - Hague Institute for Global Justice - Plenary Speaker on “Ocean Smart Mariculture”

About the World Ocean Council (WOC)

The WOC is the only international, cross-sectoral alliance for private sector leadership and collaboration in “Corporate Ocean Responsibility”. Companies and associations worldwide are distinguishing themselves as leaders in ocean sustainability, stewardship and science by joining the WOC. Members to date include 85+ leadership organizations from a wide range of ocean industries: oil and gas, shipping, cruise tourism, seafood, fisheries, aquaculture, mining, marine mining, renewable energy, ocean technology, maritime law, marine environmental services and other areas. For the current list of WOC Members, [click here](#). The WOC News Release is received by 35,000+ ocean industry stakeholders around the world. The WOC is a registered not-for-profit organization in the US and the UK/Europe.

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