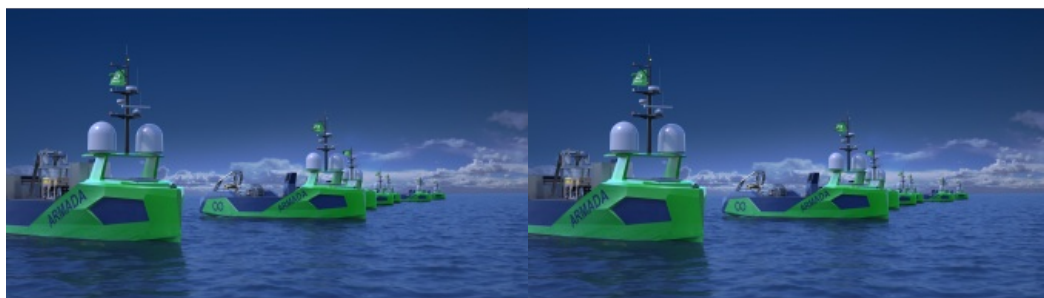


Ocean Infinity Selects Sonardyne for Pioneering Armada Fleet



Sonardyne technology has been selected to support the world's largest and most environmentally sustainable fleet of ocean-going, multi-role robotic vessels, which is being launched by marine robotics company Ocean Infinity.

Sonardyne systems will provide part of Ocean Infinity's new Armada fleet with key sensor technologies for underwater platform navigation, tracking, control and

communications, as well as ensuring uninterrupted surface navigation, even when global navigation satellite system (GNSS) services are degraded or denied.

The Armada fleet will mark a major technological advance, providing sustainable services to all corners of industry from offshore energy, to logistics and transport. The innovative, low-emission robotic fleet that can be launched from any shoreline on the globe was unveiled in February this year (2020), and will initially see 17 bespoke designed state-of-the-art uncrewed vessels added to Ocean Infinity's existing robotics fleet.

Surface and Subsea Navigation Sensors

The vessels, initially measuring 21 metres and 36 metres long, will be able to perform offshore data acquisition and intervention in both shallow and deepwater operating regions. The vessels will use a range of underwater platforms, including remotely deploying autonomous underwater vehicles (AUVs) and remotely operated vehicles (ROVs).

Sonardyne's acoustic communication and inertial navigation technologies were chosen to support Armada because of their performance and flexibility across a wide range of water depths and environments, supporting operations across all sectors in even the remotest locations.

The package includes surface and subsea navigation sensors to remotely support deployment, operations and recovery of underwater robotic systems from an uncrewed vessel, from anywhere in the world. That includes being able to accurately track and control multiple robotics systems simultaneously and provide water current profile information, as well as support vessel dynamic positioning during critical phases of an operation.

Uniquely, the systems also provide navigation redundancy in the event of GNSS outages, which could occur while operating in multipath or shadowed environments, such as fjords or near large structures or where signals are deliberately interfered with.

Delivery of [Sonardyne](#) equipment for the first wave of Armada fleet vessels will be made by the end of this year. Further deliveries will be made throughout 2021.

Robotics at Scale

Alan MacDonald, sales manager at Sonardyne, said: "Over recent years, we've focused at Sonardyne on developing the flexible technologies that are required to support the revolution that is taking place in both surface and subsea marine robotics. Consequently, we're very pleased to be part of Armada's pioneering vision to deploy robotics at scale. These systems will help a wide variety of industries to reduce how many people they need to send to sea as well as dramatically reduce CO₂ emissions, by deploying these smaller, more efficient vessels."

Dan Hook, managing director at [Ocean Infinity](#), said: "Our expert team of robotics specialists selected Sonardyne as the clear choice for our robotics ships, to provide underwater navigation, tracking, control and communications and that additional layer of positioning security in areas where GNSS signals might be obscured. We look forward to a long-term working relationship with Sonardyne as we grow our fleet."

The Armada fleet: an environmentally sustainable fleet of ocean-going, multi-role robotic vessels.

Initially, all of the first tranche of Ocean Infinity's Armada vessels will be fitted with Sonardyne's Ranger 2 Ultra-Short BaseLine (USBL) system augmented by the company's Marine Robotics Pack. This combination provides remote all-in-one tracking, communications and control capability for underwater deployed robotics so that even more operations can now be done from shore.

These robotic vessels will also be fitted with Sonardyne's industry-leading SPRINT-Nav hybrid navigation instrument, to provide continuous, uninterrupted navigational aiding to underpin safe remote operations, even if GNSS service is impaired due to the remote location or nearby infrastructure. In addition, the system produces profiled water column data, which is particularly important during the deployment and recovery of subsea robots.

Wideband Sub Mini 6+ tracking transponders and SPRINT-Navs will also be fitted to the ROVs being deployed and operated by the Armada fleet.

Ocean Infinity expects the first Armada vessel to be delivered in 2021 which, along with the remainder of the fleet, will be controlled and operated by experienced mariners via satellite communication from onshore control facilities in Austin, Texas and Southampton, England.

<https://www.hydro-international.com/content/news/ocean-infinity-selects-sonardyne-for-pioneering-armada-fleet>
