ARRAY

Universal Acoustic Range and Processor Demonstrates Capabilities

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Toronto, Ontario - Array Systems Computing Inc. successfully completed at-sea testing for its UARP littoral towed array and sonar displays under the Build in Canada Innovation Program (BCIP). The testing, conducted by Defense Research and Development Canada (DRDC), confirmed the detection capabilities of the UARP system by deploying the system behind a tow vessel and having the system detect noise sources at various frequencies representative of a submarine.

The Universal Acoustic Range and Processor (UARP) is a complete man-portable towed array sonar and acoustic processor that can be deployed from very small vessels such as RHIBs. The UARP was developed to address the need for a reliable low-cost method to provide harbor surveillance of surface and subsurface vessels in shallow waters. This compact system employs an ultra-thin line array that is towed behind the vessel and an onboard passive sonar processor for the detection and tracking of surface ships and underwater vehicles

The UARP allows Navies and government agencies to deploy a complete towed array and acoustic processor in areas that were previously inaccessible using traditional towed array technology. The system can operate in 30m of water and streams to 90m behind the vessel, whereas traditional 'blue ocean' larger arrays require 100m of water

depth and stream for thousands of meters behind the vessel. The UARP is also portable; two people can pack up and deploy the system from one vessel to another.

The signal processing is based on the next generation of Array's sonar processor architecture, which is currently in operational use by the German and Swedish Royal Navies. The real-time sonar analysis provides broadband and narrowband analysis. If a wireless connection exists the system, in real time, makes available both the raw, and processed data for further analysis.

"Array has been working in underwater acoustics since the mid-90s, and has developed multiple sonar training and processing systems currently in use by navies around the world. The UARP is a game changer for littoral ASW operations. It allows Navies and government agencies to deploy a complete towed array and acoustic processor in areas that were previously inaccessible using traditional towed array technology. "

- Kris Huber, Chief Technology Officer of Array

The BCIP program selects potential high impact innovations and matches them with a government department for testing in their operational environment. The UARP system was tested in the littoral environment Halifax harbor where it was streamed behind a tow vessel. Noise sources, designed to simulate underwater targets such as submarines, were emitted, and the UARP was able to detect them on both the broadband and narrowband displays.

Array Systems Computing Inc. provides professional software engineering services to display, analyze, and interpret complex data. We develop data driven solutions that provide actionable analytic capabilities to our military and government customers. Array is an ISO 9001:2008 and NATO SECRET company and registered with the Canadian Government Controlled Goods Directorate. For more on Array visit www.array.ca.

The Build in Canada Innovation Program (BCIP) helps companies bridge the pre-commercialization gap by buying and testing late-stage research and development innovative goods and services within the federal government before taking them to market. For more on the BCIP, visit www.buyandsell.gc.ca/innovation.