SeaRobotics and autonomous hydrographic survey vehicles

SeaRobotics Corporation (SeaRobotics) reported on 31 July that it had delivered two complete autonomous 2.5 metre unmanned surface vehicles (USVs) to a government hydrographic service. These USVs, built by SeaRobotics, are complete hydrographic systems providing multibeam echo sounders (MBES), support sensors, a cast winch, deployment carts, and road trailers.

This contract reinforces the commitment government and commercial entities are making to take unmanned surface vehicles out of the laboratory and research environment and integrate them into the world of professional surveyors.

Efficiency and cost effectiveness of each application will be reviewed, and a profile of high-productivity, cost-reducing activities will be developed. Both traditional survey tasks and previously denied areas that remain unsurveyed will be evaluated, it is understood.

This system takes advantage of SeaRobotics' extensive expertise and history delivering USVs for high-precision bathymetric surveys, water quality analysis, hydrographic surveys, and many other applications.

The USV of the type referred to here was delivered with a fully integrated R2Sonic multi-beam echo sounder, integrated motion reference unit and dual antenna RTK GPS, surface sound velocity probe, and a cast winch—all tightly integrated with HYPACK software.

'*The 2.5-m USV* (illustrated) *is one of the smallest systems capable of practical, general purpose MBES deployment*,' stated Don Darling, president of SeaRobotics Corporation. Geoff Douglass, USV development manager at SeaRobotics added: '*The USV will be used extensively for waterways, estuaries, and coastal bathymetric surveys*'.

SeaRobotics Corporation, headquartered in Stuart, Florida, specializes in small, smart vessels that are remotely or autonomously operated. Its clients include major military and commercial organizations, both US and foreign.

The company's marine survey software interfaces with most data acquisition hardware, software, and sensing systems to produce multi-spectral, DGPS-stamped data for survey, research, or surveillance efforts. Applications for SeaRobotics vessels range from bathymetric and hydrographic surveys to coastal, harbour, and riverine surveillance.

Many SeaRobotics vessels are small, modular, and man-portable, allowing rapid deployment in remote areas or deployment by larger vessels, and its command and control systems are compact, allowing backpack mobilization.

For more information readers are invited to visit: www.searobotics.com